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U.S. Department of Health, Education, and Welfare

1968

ANNUAL REPORT

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THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE
WASHINGTON, D. C. 20201

January 14, 1969

Dear Mr. President:

I transmit herewith, in accordance with law, the Annual Report of the Department of Health, Education, and Welfare for the fiscal year ending June 30, 1968.

The Report describes the major programs and activities of the Department and outlines some of the major recent accomplishments. It also touches on some of the important challenges which lie ahead.

With this report I complete 34 years of close association with the Department and its predecessor agencies. I have tried to summarize my experiences and observations in the initial section of the Report. I wish to acknowledge the strong support you have given to the work of the Department and the leadership you have shown in expanding the capacity of the Department to assist in improving the health, education, social security, and welfare of the American people.

There is much we have done in the last eight years; there is much yet to be done.

I have appreciated the honor you bestowed upon me in making it possible to have the responsibility of directing the work of this great Department this last year.

Sincerely,

William J. Cohen

Secretary

The President
The White House

311234

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

As of September 1, 1968

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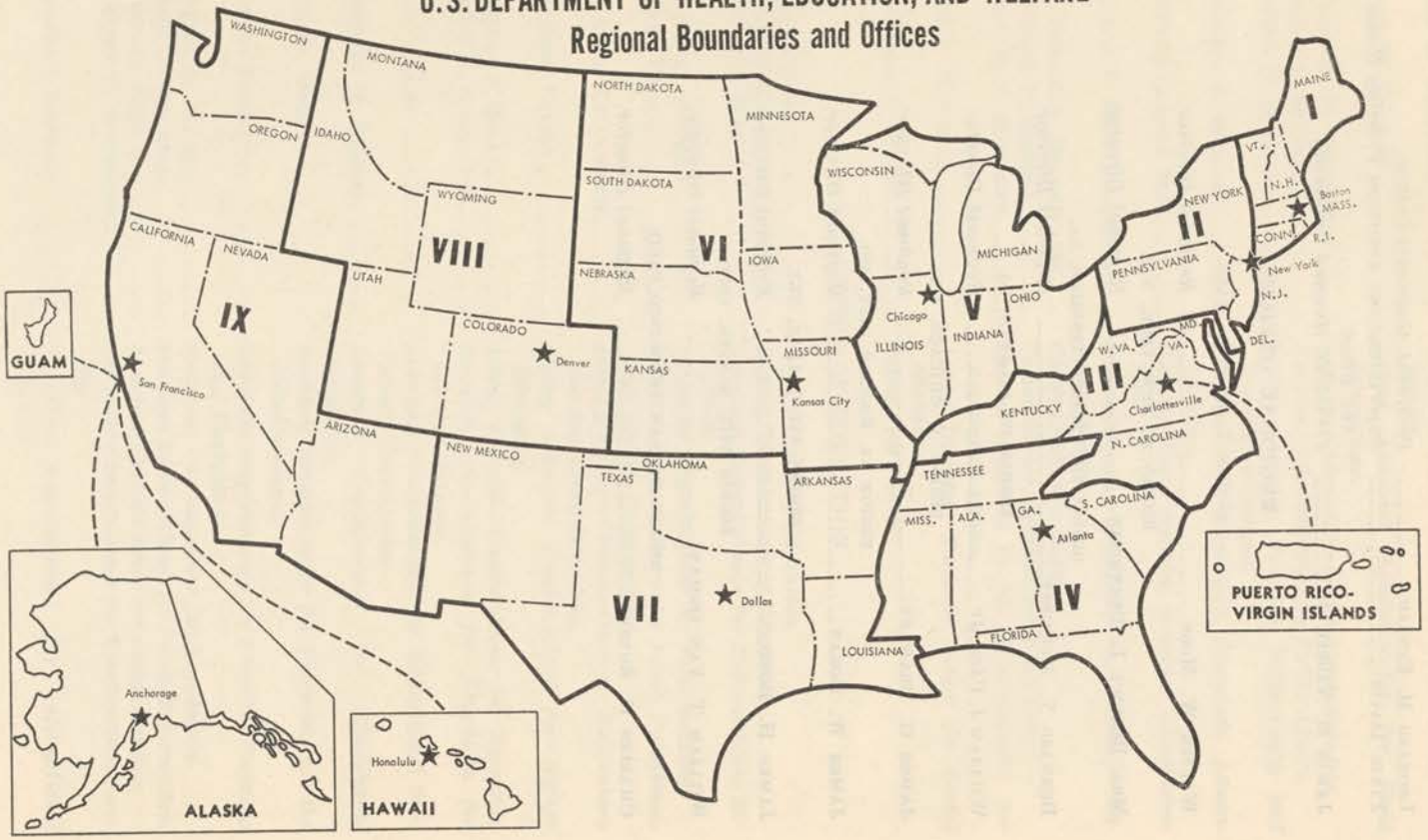
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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Regional Boundaries and Offices



Contents

Page

The Secretary's Introduction 1

Staff Offices

Assistant Secretary for Legislation 45
General Counsel 49
Assistant Secretary for Program Planning and Evaluation .. 53
Assistant Secretary, Comptroller 54
Assistant Secretary for Administration 59
Assistant Secretary for Community and Field Services 66
Assistant Secretary for Health and Scientific Affairs 73
Assistant Secretary for Education 78
Office of Public Information 88

Operating Agencies

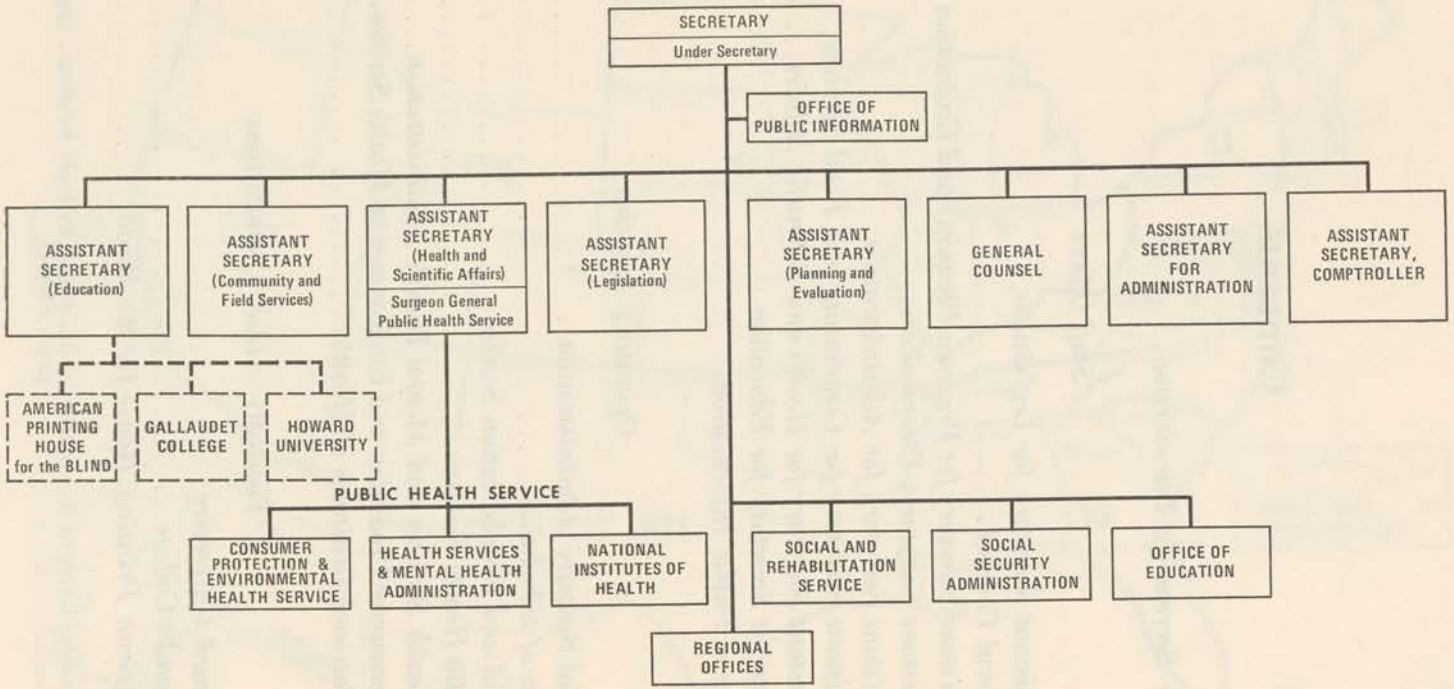
Social Security Administration 91
Office of Education 123
Social and Rehabilitation Service 179
Public Health Service 257
Health Services and Mental Health Administration 259
Consumer Protection and Environmental Health Service .. 291
National Institutes of Health 349

Federally Aided Corporations

Howard University 405
Gallaudet College 407
American Printing House for the Blind 409

A detailed listing of the contents of this report, by topic headings, appears on pages 409–418.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE



The Secretary's Introduction

Wilbur J. Cohen, the author of this Introduction, was Secretary of Health, Education, and Welfare, during the period covered by this Annual Report. He has been succeeded by Robert H. Finch. Mr. Finch was nominated by President Nixon on January 20, 1969, confirmed by the Senate on January 21, and sworn in on January 22.

The Stewardship

The Secretary of Health, Education, and Welfare holds a demanding, versatile, important, exciting and intensely human job. His is a splendidly rich and gratifying stewardship.

He is the only national official paid by all the people whose full-time job is to guard and strengthen the people's health, education, and social opportunities. His Department handles the major portion of Federal grants-in-aid funds for social programs. He administers the largest insurance program in the world. So the shape, direction and style of Department programs in many ways set the course for State, local and nongovernmental agencies.

The health, education, and welfare of the American people has become big—and urgent—business. As our Nation grows and expands, every sign points to its becoming a still bigger and more urgent business.

In 1968 about $163 billion, or roughly 20 percent of our Nation's entire gross national product, went for health, education, and social services. These were not, of course, all Federal dollars, but a mix of State, local, Federal, and private funds. The Secretary of Health, Education, and Welfare is not charged with responsibility for all these funds and for the programs they make possible. Far from it—HEW expenditures represent somewhat less than a quarter of our total national social effort in these fields. A large and growing population, and ever more complex social forces will—and should—combine to make this figure go up in the coming decade.

The Secretary is necessarily concerned with large, sensitive issues of public policy. The Constitution gives major policy responsibility to the President and to the Congress. The Congress is the Board of

Directors of the Health, Education, and Welfare Corporation; the President is Chairman of the Board; the Secretary of Health, Education, and Welfare is the Executive Officer. Congress takes action by enacting laws. New needs constantly demand new laws; old laws constantly require repeal or change; programs demand efficient, imaginative, and dynamic administration. To achieve such administration, the Secretary of Health, Education, and Welfare must review and approve budgets, allocations, priorities. He must approve and issue innumerable reports and recommendations on topics ranging from prescription drugs to smoking, from the desegregation of schools to the payments made to people in need.

What's more, the Secretary must listen, must talk, and must consult about emerging national needs—with the President and with other Cabinet members, with the Director of the Budget, Civil Service Commission Chairman and members of Congress of both political parties. He must necessarily argue for increased appropriations because no budget is ever adequate to meet all the health, education, and welfare needs of a great and growing Nation. Many men and women, many young people concerned with social problems, bring him their views. For him, they are a valuable source of fresh approaches to existing problems, and a way of identifying emerging ones. His door and his mind must never be closed to new ideas, new priorities, new approaches.

As head of the Department which accounts for the largest part of the domestic budget, the HEW Secretary is one of the Nation's chief communicators. He must tell his fellow Americans about everyday health, education, and welfare problems—how to halt danger to their health—or how to improve their children's schooling—or how to restrain rising medical costs. They don't always listen, but they must have the chance to have the facts the Government obtains through their taxes. So the Secretary must be able to read and digest innumerable reports, memos, newspapers, and magazines; testify repeatedly before Congressional committees; answer all kinds of questions in letters, testimony and press conferences; propose new solutions to problems that have been with us since Biblical times; and in general report to the American people he serves on his stewardship.

No one can fill this stewardship according to a public administration text.

The Secretary must see and react to physicians, scientists, and other men and women rendering brilliant service to mankind. He also sees and reacts to the narrow jealousies of professional groups as they vent their parochial views on large and important issues. He watches the efforts of Congress as it works hard to meet national needs. He also

watches Congressional conflicts or misunderstandings which may delay action on programs and money affecting the very lifeblood of his Department—and of all Americans.

He must be deeply concerned with the pages of statistics he receives regularly, reflecting gaps in the Nation's medical care, education, social security, and welfare. He must be just as deeply concerned with the handwritten letter on lined paper from the sick man, the student or teacher, the retired widow, and the mother with six children on welfare. They write him when they do not receive help elsewhere.

Urgent telephone calls and letters from Governors and Mayors, and business and labor leaders, give the Secretary their needs and views. At the same time he hears each day from a husband who wants to know how to pay for his wife's medical bill, from a mother whose child has been in a dispute with school authorities, and from parents and husbands or wives who, in a last effort to save their lives, want their loved ones to enter the Clinical Center at Bethesda. Sometimes these calls come to him in the middle of the night; his telephone never stops ringing.

The clock ticks fast in the United States—and at the Department of Health, Education, and Welfare. Every day almost 10,000 babies are born, over 10,000 young persons turn 21, and over 4,000 men and women cross the mysterious line labeled "aged 65." There are over 5,000 marriages and about 1,500 divorces. And each month the mail brings a social security check to over 24 million people and a welfare payment to 8,500,000 persons.

On an average day over 5,000 die, including over 200 infants. Almost 9 million persons are sick or disabled—2 million of them confined to hospitals or nursing homes. On an average weekday some 57 million boys and girls go to class in schools or colleges.

Every one of these people and every one of these events is of concern to the Secretary of Health, Education, and Welfare.

There have been seven Secretaries of Health, Education, and Welfare. I have served the shortest period—less than 1 year. But I have watched, and studied, and participated in the programs of this Department and its predecessor agencies for over 34 years. When I first reported for duty in 1934, I was paid $1,540 a year. I have worked under five Presidents—Roosevelt, Truman, Eisenhower, Kennedy, and Johnson—with different programs and different styles, or ways, of achieving these programs.

This report, then, attempts to distill and bring together some of the results of this experience, some of the conclusions reached and recommendations arrived at. It is submitted with humility, and with full respect for the complexities and demands of public office in a demo-

cratic society. It is submitted in partial repayment of the opportunity to have learned, and to have participated in the leadership of this society.

Is HEW Manageable?

In the early days of the Republic, the settlers hungered for the great freedoms—to speak, to think, to write as they pleased. This brought about a society unmatched in ability to learn, and to earn. Today, we strive to add to individual freedom by creating fuller opportunities in which it can be exercised.

The mission of this Department is the creation of these fuller opportunities for individual Americans. This mission calls for a unified approach to the problems of individuals, individual families, and individual neighborhoods. You cannot consider a child's health apart from his education, you cannot further a family's welfare apart from its health—or education. Fragmenting the Department would only fragment its capability to deal with whole human problems.

Most of the vastly expanded health, educational and welfare services that are now provided by government—Federal, State, and local—are designed to supplement and to strengthen the family. Government now provides the education services that each family once provided for itself—and government provides infinitely richer and better education. Government provides a wide variety of health services—health education, health research, the elimination of pollution, the construction of hospitals, the administration of Medicare—and thus greatly adds to what each family can buy for itself. And government provides that security of income—either through social security or public assistance—that assures the welfare of the family. The family is the basis of American society and its well-being is the central objective of government social programs.

Still, from time to time, outstanding leaders in Congress or the different professions tell us that the Department of Health, Education, and Welfare is unmanageable and should be broken up.

Broken up how? A separate, cabinet Department of Education has its ardent advocates. So does a cabinet Department of Health, a Department of Human Conservation, and a Department of Consumer Protection.

I do not share the view that the Department should be broken up.

Those who would split HEW into separate parts feel their field of interest—education or health—is so vital to the national interest that it deserves more visibility and prestige. They want to have a voice in the highest councils of government. But if cabinet offices of narrower

compass were created, each with its separate constituencies, the President would have to do work now performed by the HEW Secretary—balancing priorities, weighing alternatives, and making decisions about various programs for people. This would add burdens to an already overburdened Presidency.

If more cabinet offices were set up, the President would have more top officials reporting to him, and would have to add more staff in the White House to deal with them and coordinate their views and problems. Anonymous staff in the President's office or the Bureau of the Budget—no matter how able or how experienced—should not be, and cannot be, responsible to the Congress and the public for major policy decisions. So it might eventually become necessary to elect an Executive Vice President to work directly with Cabinet members and other high-ranking officials in the administration of domestic programs.

Those who argue for a Departmental umbrella covering more, not less, territory, stress that HEW's interests range far and wide. I think suggestions for a Department of Human Conservation—or something like it—are valid and should be carefully considered. The Department of Health, Education, and Welfare—often referred to as the Department of the People—should in any case operate in a larger orbit of total concern for human needs.

We must beware of endless quests for different, cleaner separations and neater classifications for the formidable problems of human welfare. The trouble is that such problems do not yield to easy compartmentalization. They won't go away just because you put them in a separate box on a new organization chart. Like executive departments and agencies, Congressional committees find it harder and harder to maintain jurisdictional niceties when they are considering health and welfare legislation.

Sc pe, Size, Diversity

To support the view that the Department of Health, Education, and Welfare is unmanageable, one would have to argue that the General Motors Corporation is unmanageable, or that the Governors of New York and California cannot possibly manage their States.

The operations of the Department of Health, Education, and Welfare compare favorably with those of any large enterprise, public or private. Social security is administered as efficiently as any private insurance company. The National Institutes of Health fund difficult research as efficiently as any business or university. And the Rehabilitation Services Administration has a return of $35 for every $1 it spends on a rehabilitated person.

328-184—69——2

It is not the size or number of products of an institution which makes it manageable or unmanageable. It is the lack of common purpose. It is the lack of competent staff. It is the lack of intelligent, able leadership. It is the lack of flexibility. It is the lack of a constant flow of new ideas and people willing to change, to experiment, to try new ways.

The Department of Health, Education, and Welfare has a unifying purpose, and has a cohesive concept pulling its several parts toward a common end—improving the quality of life for all Americans, increasing their options and so their freedom.

The Department has able and dedicated staff: including a Nobel Prize-winning geneticist; a half-dozen Rockefeller Public Service Award winners; and innumerable winners of other national awards. There is no doubt that as their programs grow, HEW's personnel can handle increased responsibilities. I do not believe there is any substantial merit in the argument that the scope, size, or diversity of the Department make it unmanageable. But the Secretary and his staff need additional help to lead and manage HEW effectively. I recommend:

- That the Secretary of Health, Education, and Welfare be selected by the President from among men and women who do not intend to seek other elective public office or judicial appointment. The decision-making responsibility for health, education, and welfare (including such matters as civil rights) is so important that it should not be based even in part upon possible impact on the Secretary's political future.
- That the Secretary of Health, Education, and Welfare not be a professional specialist in one of the fields of the Department's work. He should be a well-informed generalist who does not lean toward any individual specialty or group.
- That the Secretary have enough staff assistants so that he can realistically carry out his important responsibilities. The Secretary's capability was much improved with the addition of three Assistant Secretaries in 1965. But the Department's top management is still inadequate. The Department needs:
  - —Three Under Secretaries to deal with substantive program matters in health, in education and in social opportunities.
  - —A new Under Secretary for Management, skilled in managing large enterprise, who should be a permanent career official. He would give the Department continuing managerial competence through political transitions. The present position of Under Secretary should be retained to provide the Secretary with a top level assistant and to aid him in handling policy matters.

—Two more Assistant Secretaries: one for Public Affairs; another for International Programs.

- That the Congress substantially increase the salary scale for senior personnel if the Department is to attract and retain qualified and able scientists, physicians, actuaries and administrators. Since these men and women can get much higher incomes outside of government (often for jobs with much less responsibility), the Department cannot compete fairly for them in the economic marketplace. This is an urgent need.

The Need for Flexibility

The Secretary must be able to organize and run his own shop.

Every Secretary faces pressure from organized groups outside the Federal establishment. If there is a special unit in the Department which deals with its concerns, that pressure group usually wants to raise the unit up the status ladder, to report directly to the Secretary or an Assistant Secretary. Children's groups want the Children's Bureau reporting to the Secretary, and senior citizens want the same for the Administration on Aging. Mental health advocates have urged that the Secretary move the National Institute of Mental Health out of the Health Services and Mental Health Administration, to report directly to the Assistant Secretary for Health and Scientific Affairs. This internal competition is based on the notion that the more "visible" a unit, the more money it will get from Congress, and the more time and attention it will get from the Secretary.

All these proposals have merit within their individual narrow domains. But no group of professionals, or advocates of any one program—no matter how worthy—should be able to freeze HEW's structure. If he is to do his job, the Secretary must be able to organize the whole Department so it can work in coordinated, effective and balanced ways, in the entire public interest. After all, the Secretary's decisions are subject to review and revision by the President, the courts, and various committees of both Houses of Congress—legislative, investigative, and appropriations. They are also subject to scrutiny by the press.

Public policy should not be determined by a bureaucratic pecking order. Priorities should be set by the Secretary, the President, and the Congress in terms of national needs. Substituting administrative rigidity for flexibility hampers the Department's ability to deal with changing situations as they arise.

Just as the Secretary should not have his organizational hands tied by outside pressure groups, so he must not be tied lock, stock, and barrel by the legislative branch. Over 200 specific limitations and di-

rections on spending in the HEW appropriation act this year limit his discretion. Many more such directions in committee reports and legislative history of debates limit it further. Some directions specifically concern minor details, other broadly delegate policy decisions.

Congress must always have the last say. Realistically, the Executive Branch of Government must share with the Legislative Branch the broad responsibility for directing programs. But the very least that Congress could do to make this sharing process work is to give the Secretary needed flexibility to meet changed circumstances, emergencies, or new priorities.

What's more, the Secretary himself must not have his hands tied by his own bureaucracy. He must be able to continue strengthening the Department's regional offices—out where the people are. The nine regional HEW directors serve as his personal representatives in the communities where Americans live, and where their problems proliferate. Regional offices should have more authority and more responsibility for decision making, more power to earmark funds, and to make certain grants and contracts for vital projects. Our best men in Washington should take pride in accepting assignments in the field. A field command is regarded as an asset to the career of any army officer, and a post abroad is an asset to any diplomat. So work in the field should be the mark of a well-rounded HEW employee.

Therefore, I recommend:

- That the Secretary have authority to organize and reorganize the Department internally from time to time. In doing so, he would aim for efficiency, economy and efficacy. He should not be stymied by organizational entities required by existing laws—the 1912 laws relating to the Children's Bureau, for instance, or the 1965 law relating to the Administration on Aging.
- The return of the Elementary and Secondary Education program to regional decentralization, and more regional staff of all kinds so that the regional offices can work closely with city and State officials, empowered to help them strengthen grassroots government.
- Legislation which would authorize the Secretary to use up to $25 million of unexpended appropriations under existing laws to meet needs which are not specifically provided for in the Appropriations Act, and which arise from emergencies, or changing circumstances. Instead of 200 appropriation items, there should be no more than 100 groupings—leaving both the Congress its proper role in money matters and more flexibility for the Secretary.

Relations With the Office of Economic Opportunity

The Office of Economic Opportunity has pioneered with a number of bold and important antipoverty programs. Now good management and efficient administration demand that those poverty programs that have been tested and proven should be tied in more closely with ongoing programs in the Cabinet Departments. This is the only way they can enter into and affect our systems of government.

As administrator of the Nation's largest antipoverty programs, the Department of Health, Education, and Welfare will naturally fall heir to many OEO programs. Therefore, I recommend:

- That Head Start be administered along with the day care programs administered by the Children's Bureau; that the Neighborhood Health Services and family planning services be administered along with the health activities in HEW; and that OEO programs for senior citizens be put in HEW's Administration on Aging.
- That OEO remain as an overall unit watching and reporting on all programs affecting the poor, starting new programs and initiating new approaches: it should get out of the day-to-day business of running large-scale programs.

Model Cities

The Model Cities program, administered by the Department of Housing and Urban Development, has become an important and effective part of our antipoverty efforts. Under it neighborhood residents have joined with city officials in planning to improve their destinies. State, regional, and national officials have helped. In Washington, a genuine and strong Model Cities interdepartmental effort is underway. This effort should be strengthened. The Model Cities program offers great promise for progress in our inner cities.

Minor Thoughts About Major Relationships

No report of this size and nature could possibly cover all HEW's managerial problems. Just as the Department does not cause all of these problems, so they are not all within its ability to resolve.

Some of the kinks in the HEW-Congressional relationship could be ironed out by reorganization of the Congress itself—no mean task. Expansion and improvement of Congressional committee staff, for instance, could improve HEW programs.

Many shorthanded Committees allow members and staff to charge their official travel to the Department's budget. The Congress should

avoid this practice, which may result in troublesome obligations. Congressional committees should have sufficient travel funds and should observe normal accounting practices.

The Congressional practice of announcing the release of Department grants to the public usually works out reasonably well. Occasionally, a senior member, or an important Committee member with special influence, gets a jump—or "scoop"—on his colleagues. This may simply annoy his colleagues. Or in the case of politically evenly divided State delegations, or future rivals for political office, it may result in disputes which the Department cannot handle to the satisfaction of all concerned.

Members of Congress who vote Federal funds should be able to get some of the credit for those projects they make possible. Sole credit should not go to those of our fellow citizens who are always wailing about Federal expenditures and supposed Federal waste, but support strongly the Federal appropriations and expenditures which help their narrow constituency, their favorite interest group, or their special purpose program. Therefore, I recommend:

- That the announcement of every construction grant and every project financed even in part by Federal funds should show the public conspicuously that this is so; and that when the project is underway the public continue to be informed that it is operating because of Federal financing.

HEW cannot move to strengthen the hands of its masters in the Congress. But it can and must move to strengthen hands in State and local government, if it is to meet rising expectations and demands for social services.

That State and local governments throughout the country vary widely is a truism. That they are often weak is a harsh but fair generalization. City after city finds that, because it is completely dependent on the property tax as a source of revenue, it has not the funds to pay for its children's schooling, or to meet its welfare bill. State and city governments have not historically been able to attract and hold enough highly qualified people. The administration of health and welfare programs by many State departments in many States makes for fragmented service delivery.

The grants-in-aid mechanism has given the Department a tool to use in working toward solutions to national problems, while maintaining a valuable dispersion of national power. But only solid capable State and local government can assure the gains made by the HEW programs of the past years. Without city and State organizations capable of guiding social planning operations, HEW programs will fail. Therefore, I recommend:

- That new forms of financing be developed to free local communities from their reliance on the outmoded, inefficient and unproductive property tax. The property tax should be reduced and eventually eliminated as a basis for financing education and local government services.
- That HEW—working through its regional offices—give cities more help in breaking down artificial barriers to dealing with air and water pollution, or waste disposal, on a regional basis.
- That HEW build on a constructive practice already begun: helping State and local government recruit and keep highly qualified staff.
- That State agencies be reorganized to group their activities in a more rational and coordinated way, with special consideration to a single State health and welfare agency, such as those in Wisconsin, Utah, and California.
- Modernization of State and local civil service laws to provide more flexible procedures for selecting able people and to assure greater opportunities for poor and disadvantaged men and women.
- The revision and strengthening of the State merit personnel standards established by Congress in 1939 in the Social Security Act, in the light of recent experience and new needs. Further consideration should be given to the recommendations in the Report of the Secretary's Advisory Committee on Merit System Standards, which reported in January 1969, to the Secretary: employment opportunities for culturally, economically, educationally and physically disadvantaged people should be expanded in State and local programs; educational requirements should be reviewed and revised to permit State and local agencies to employ creative and innovative men and women.

The Last Health Hurdles

In the past 2 or 3 years our Nation has emerged from a necessary—a pioneering—period of concentration on medical research. Looking up, bemused, from our microscopes, we have found great numbers of eager, waiting patients.

As a Nation, we have realized that medical research is a first step only, and gone on to apply ourselves to the difficult task of delivering the results of that research to people. We have realized, too, that good medical care depends not only on scientific knowledge, but on trained men and women, up-to-date hospitals and clinics, sound planning and organization, and proper financing.

Every one of these elements has been strengthened, and we have arrived at the point where large numbers of Americans can indeed get good health care. Yet the HEW Secretary spends a great portion of his time pondering and dealing with the complexities of modern health problems, technological, social and economic: the more people there are, the longer people live, the more income they earn, and the more they know about the astounding possibilities medicine offers, the greater their demand for high quality health care. They will not be satisfied with run-of-the-mill care when society can produce the best. The woman with a kidney disease who watches someone else being treated with an artificial kidney on her television screen will not face death without recourse, nor will her family. The man who reads about heart surgery over his morning coffee will not deny it to his child because he can't afford it. He feels the best health care is not a luxury, but a right.

As demand for such "best" health care rises, so does the pressure on our understaffed hospitals and clinics, on our doctors and nurses. Trained health workers are in short supply. Medical costs spiral. The Nation invests more than $50 billion—6 percent of its gross national product—on health each year, but it doesn't get a high enough return. What's more, only an infinitesimal fraction of this investment goes toward improving the way our whole system of health care works.

It will not be easy to leap such health hurdles; we may have to climb over them slowly. Current needs point in separate, but overlapping directions. While sustaining and increasing efforts in basic medical and biological research, we must improve methods of delivering and paying for health care. And while we perfect essential programs for the elderly, we must emphasize the neglected needs of children—in health care as in other fields. We must take every possible step to hold down health care costs, including enlarging incentives for efficiency. We must remove obstacles to the efficient use of health resources.

Medicare—Medicaid

Medicare has lifted a crushing financial burden from the backs of older people and their families. No longer do our older men and women have to delay vital medical attention; no longer do families have to pauperize themselves to get it. Without interfering with the doctor-patient relationship, without burdensome administrative machinery, Medicare is working well and helping to raise the quality of all health care. For this Secretary, who argued its case so long, the proven success of Medicare has been a source of great personal satisfaction. I recommend:

- That Medicare now be extended to totally disabled people, no matter what their age. The disabled are faced with the same problems as the aged: heavy medical expenses at a time when their income and earning power are very low. Permanently and totally disabled social security beneficiaries can be included in the Medicare program on a sound basis.
- That the doctor bill part of Medicare be put on the same social insurance prepayment basis as the hospital part. This would make it unnecessary for older and disabled men and women to pay $4 a month for medical insurance out of their retirement incomes.
- That at least part of the cost of prescription drugs, which can be unusually heavy for an older or disabled person, be covered under Medicare.
- That a reasonable cost range for all drugs should be used in all federally supported programs.

The crushing burden of sickness falls most heavily on the poor, who can least afford it, and who suffer it more frequently and more severely than other groups. Poverty helps cause ill health; ill health helps cause poverty. Medicaid, which became law in 1965, has made a start at helping to break the cycle of poverty and ill health among 8 million Americans.

It has also opened our eyes to the terrible need for health care among the poor. We must not precipitately restrict the program because the costs have been more than were estimated. There have been a number of problems in the administration of the Medicaid program. To ascertain their scope and implications I arranged for public hearings to be held in nine major cities on the Medicaid program. I have transmitted the record of these hearings to the Congress. I urge that they be studied carefully before taking action. Based on my review of these hearings I recommend:

- That Medicaid be amended to increase its coverage substantially, so that all who need, but cannot afford, decent health care may have it.
- That the recommendations of the National Advisory Committee on Medical Assistance for the revision of Medicaid be followed to tighten up the program, moderate increased costs, and prevent lax operation in some States.
- That health insurance coverage be expanded to reduce the need for Medicaid.

The Cost of Illness

Most Americans carry some form of voluntary insurance, covering at least a part of hospital care. Medicare has substantially increased

this coverage, Medicaid has helped the indigent. Still, long run serious illness, with all its high—and rapidly rising—costs, can spell economic disaster for the millions of persons who are not covered, and for those who are inadequately covered.

All American families should be free from fear of such disaster. They should be financially protected against catastrophic illness, and should be able to afford revolutionary and expensive treatments. The economic risks of illness should be spread further through comprehensive insurance protection.

One way in which this could be achieved is through comprehensive health insurance legislation covering all persons who work and their families. Employers and employees would be required to contribute to such comprehensive insurance protection. If the Nation decided to take a Federal-State approach to this problem, the Federal Government could levy a national payroll tax, against which a State would receive a 90 percent offset if it had an approved State health insurance plan. The Federal Government would establish standards for such State plans. Unemployed and nonemployed men and women would be covered with Federal aid.

American families should not have to pay exorbitant prices for comprehensive protection. The Nation could save additional amounts if those for whom hospital treatment is not mandatory were treated at home, or in nursing homes, or through periodic visits to their doctors' offices. It has been estimated that if the average cost of general hospitals could be brought down by only 10 percent, savings would total almost $1 billion each year—and $3 billion by 1975.

In order to find ways to reduce unnecessary medical costs, I have appointed an Advisory Council on Health Protection and Disease Prevention. This Council will study the problem of preventing disease and disability, and make recommendations to the Secretary. This should be an important step in conserving scarce resources preventing the unnecessary utilization of medical services.

The Social Security Amendments of 1967 provide for experiments to assure the fiscal health of the hospital system and at the same time to give purchasers of services full value for their dollars. The Amendments of 1967 provide for experiments with "incentives for economy while maintaining or improving quality in the provision of health services" in connection with reimbursement under such programs as Medicare. Most hospitals and hospital groups are eligible to submit proposals for incentive reimbursement experimental plans.

Therefore, I recommend:

- That a Commission on Health Care Insurance, consisting of distinguished representatives of the consuming public, the health

professions, and insurance carriers be appointed to recommend the precise form of comprehensive protection against the economic burdens of catastrophic illness which would result in all persons being covered on an economical and efficient basis.

- That while this Commission is completing its study, most of the available private, as well as public, insurance coverage be broadened to provide coverage for a full range of preventive, ambulatory, and diagnostic care; and to cover such health problems as alcoholism or mental illness. If public and private third party payers fully covered preventive and diagnostic services (like outpatient services), patients would use less costly health resources outside of hospitals more and the long-run costs of Medicaid would be reduced.
- That hospital incentives to reward efficiency without compromising medical care be rapidly expanded. Once effective means of controlling hospital costs have been demonstrated, they could be extended in Medicare, Medicaid, and Maternal and Child Health Programs. Successful businesses must provide high quality services at the lowest reasonable costs. We should help our hospitals do the same.
- That physicians and hospitals should voluntarily restrain price increases in order to avoid restrictive controls.

Kiddicare; Family Planning

In the next 10 years, the Nation must place as much emphasis on the health needs of its children as it put in the last decade on the needs of its older people.

Thousands of women in low-income groups do not now have adequate access to comprehensive health services. Tragic results include great numbers of unwanted children—of mentally retarded children—of children with avoidable physical and emotional defects. Competent pre-natal care and competent health care during the earliest part of life can mean the prevention and control of many crippling handicaps. So the case for fuller child health opportunities does not rest alone on present comfort, or hardship, or even damage to the human spirit. It rests on possible irreparable physical damage to the brain and body. I recommend:

- That comprehensive pre-natal care be extended to all women of low-income families, so that, as far as possible, all children be born well.
- That family planning be included as a part of comprehensive health care to these women so that every child is born a wanted child. Family planning should no longer be the quiet privilege of

the well-to-do. It must be an integral part of our efforts to reduce poverty, raise educational levels and so give people great freedom of choice. Out of about 5 million medically indigent women who want family planning services, only 500,000 now receive such services. About 450,000 large families would no longer be poor if they had only three children to support.

- That medical care for all children in low-income families be provided during the first year of life, placing special emphasis on nutrition, on the prevention or early correction of crippling disabilities and on dental care. Once this program—which we call "Kiddicare"—is established, that it be stretched over a five-year period, so that the children covered would be assured of medical care until they reach the age of six.
- That the health activities of the Children's Bureau and the Medicaid program be transferred to the Public Health Service and coordinated with the Neighborhood Health Centers and Family Planning programs to assure unified delivery and financing of medical services.

Nutrition and Health

It is intolerable that there is even one hungry child in America. We have the ability to wipe out hunger and malnutrition, but we have not yet demonstrated the will.

We are only beginning to discover how widespread malnutrition is among the poor, the aged, the sick, and the young. But we know enough to say forthrightly that there is malnutrition in the United States, and that it is highly correlated with poverty. We know that food assistance programs do not reach some 14 million of the 22 million poor, and that even when communities have such programs, local administrative barriers often prevent food and funds from reaching those who need them most.

Poverty is the basic, underlying cause of hunger; the changes I have recommended in the social security and welfare systems would go far toward alleviating it. But we need to go beyond this, and even beyond the nutrition problems of the poor. We need to know a great deal more about general relationships between nutrition and health, and the broadest considerations of human development.

Responsibility for nutrition activities has been fragmented throughout the government: within the Department of Health, Education, and Welfare, within the Executive Branch of the Federal Government, and within the Congress. Within the Department, I have directed the establishment of a new intradepartmental committee tc coordinate at least HEW's nutrition programs.

In 1946, the Nation adopted a new goal: The creation of maximum possible employment. It is now time to establish the elimination of malnutrition as a national goal. To further that end, I recommend:

- That the Congress enact legislation declaring the eradication of malnutrition to be a national responsibility, and giving appropriate officials in the Executive Branch the authority and responsibility to carry out this mandate.
- The creation of a Federal Interagency Nutrition Council, headed by the Secretary of Health, Education, and Welfare, to outline national policies in all areas of nutrition and to coordinate the activities of the individual departments and agencies.
- The creation of the Human Nutrition Administration within the Department of Health, Education, and Welfare, with responsibility for research and evaluation, and expanded and revised food stamp and food distribution programs, including school feeding and other relevant medical-nutrition programs.
- That this new Human Nutrition Administration distribute food stamps on a nationwide basis, with eligibility based upon family income determined by the Social Security Administration's national poverty standards, rather than local welfare standards.

Mental Health and Mental Retardation

The record of the past years in dealing with the tragedy of mental illness is one of great achievement and great promise. Measured in terms of dollars, we are investing about $367 million this year in the field of mental health as compared to $68 million ten years ago. Measured in terms of accomplishments, we can look to a record of expansion in research, the training of skilled manpower, and the development of a new approach to treatment through community mental health centers. I recommend:

- That we accelerate our research effort to provide better understanding of mental illness, how it can be prevented and treated.
- That we redouble our efforts to provide the trained personnel needed in the fight against mental illness.
- That we seek to reach the goal of 500 community mental health centers in operation by 1972.
- That we explore methods of providing expert examination of school age children to discover those who may fall victim to mental or emotional illness, so that they can receive needed counseling and treatment at the earliest possible time.
- That HEW encourage industry to intensify its efforts to hire mentally retarded as well as other handicapped men and women;

that it encourage its fellow government agencies to adopt similar employment policies.

The Way Services Are Delivered

Comprehensive group practice—particularly group practice with prepayment—has proven to be an efficient way of delivering health care. In such plans groups of physicians, working together within the framework of our private health system, can see up to one-fifth more patients, and these patients can get individual care of high quality for 20- to 30-percent less cost. As the President's Advisory Commission on Health Manpower has pointed out, such organizations reduce the use of our overtaxed hospitals and make more efficient use of health personnel.

Other new organizations and reorganization of health services have shown that they can promote good medical care at low prices. "New Careers" programs—training men and women who haven't had enough education or other advantages, for health occupations—offer great promise. In such programs, the poor skillfully fill needed jobs, benefiting themselves and our whole society.

Neighborhood health centers offer a full range of services right in the communities where people live. Some of the hospital outpatient departments now serving as "family doctors" to our inner cities are pioneering in offering comprehensive family-centered care instead of impersonal, episodic, emergency treatment.

Whole communities, under the national Partnership for Health program, have intensified their health service planning. They are beginning to answer questions like, how many hospital and nursing home beds they need—or what steps they must take to clean their water supplies—or what rural health needs have priority, far better than Washington officials could.

Therefore, I recommend:

- That financial incentives be offered to encourage the development of prepaid group practice groups, expanded community hospital outpatient services, and other plans offering promise of greater efficiency, more comprehensive service and the like; and that the reimbursement policies of public and private insurers reflect the increased efficiencies of such providers.
- That overly restrictive State laws now impeding the use of new kinds of health manpower be substantially revised so we can properly use the talents of technicians and aides in medicine, dentistry, nursing, and pharmacy.
- That Federal help be focused on our big cities' urgent need for construction and rehabilitation of medical facilities, whether they

be built as central complexes or in the neighborhoods; and that comprehensive State planning be required as a condition for Federal aid, with priority given a full range of inpatient, outpatient and extended care services serving large numbers of people.

- That the programs to combat alcoholism be intensified and expanded.

Cigarettes and Health

Five years after the American people received their first official warning on smoking and health, cigarette consumption in the United States had dropped by over 1 billion cigarettes in 1968. Though we number 2 million more adults, we have increased evidence that more and more adults are giving up smoking and fewer teenagers are taking it up. Still, smoking, a grave problem in 1964, is graver today. To some extent it can be said that cigarette smoking has canceled many of the health gains made in recent years.

Deaths and diseases associated with cigarette smoking continue to rise. In 1964 there were nearly 46,000 deaths from lung cancer; this year there will be over 59,000. Five years ago emphysema and chronic bronchitis killed 20,000 Americans; twice that number will die this year of these respiratory diseases. Cigarette smoking contributes to coronary heart disease: in 1964 there were 545,000 deaths from this disease; in 1969 the number is expected to be 590,000. What's more, the Nation's workers who smoke cigarettes spend over a third more time away from the job because of illness than those who do not smoke.

Three main obstacles bar our way to reducing the number of persons now smoking, encouraging young people not to start, and urging those who continue the habit to use less hazardous cigarettes and less hazardous ways of smoking:

One is economic, involving public revenues, agricultural income, and industrial profits. A second is social acceptability of cigarette smoking and its near-addictive hold on many people. A third is the posture of those who insist that the health hazards of cigarette smoking have not been proved, despite the evidence.

Public education, news coverage of smoking and health developments, antismoking messages on radio and television, increased concern and activity by health professionals, and health education in schools—all these reduce cigarette smoking. But although the Public Health Service has a total annual budget of $2.8 billion, only about $2 million goes for cigarette smoking behavioral research and education.

Last July, I submitted to Congress a report on the Health Consequences of Smoking, as required by the Federal Cigarette Labeling and Advertising Act of 1965. The report confirmed or strengthened the conclusions of two previous reports published by the Department in 1964 and in 1967. With the 1968 report, I sent four recommendations to strengthen the Department's program. These are included in the following recommendations I now submit:

- That the warning statement required by the Federal Cigarette Labeling and Advertising Act be strengthened, as recommended in 1967 by the Federal Trade Commission, to become: " 'Warning' Cigarette Smoking Is Dangerous to Health and May Cause Death from Cancer and Other Diseases." This warning should be moved from the side of the package to the front and the back of the package, and the text should be clearly legible, and should be required to accompany all cigarette advertisements, including those on television, radio, and in the press.
- That levels of tar and nicotine in cigarette smoke be published on cigarette packages, on cigarette vending machines, and in all advertisements. Authorization should be given to add other harmful agents to this listing.
- That formal liaison between the government and the tobacco industry, begun by the HEW Secretary in 1968, be supported. It is essential to strengthen such cooperation to deal with the smoking and health problem.
- That increased appropriations be made to support research, both basic and behavioral. We must learn more about what elements in tobacco cause harmful effects on human health and how; we must at the same time learn more about why people smoke, how those who want help may be helped to resist the habit, and we must work toward the discovery of a nonhazardous cigarette.
- That increased appropriations be made to broaden and expand programs of public information and education. Special efforts are needed to take advantage of improved methods of teaching children about the effects of smoking. The Department should support the training of classroom teachers and the preparation of teaching materials to accomplish this.
- That Federal taxes on cigarettes be substantially increased and made uniform throughout the Nation. When the national economy suffers excess illness, disability, work loss and premature death among cigarette smokers, surely a greater use of Federal taxing authority is justified, to help finance necessary research and educational programs.

Intensified Research on Service Delivery

In every health program we undertake, we should intensify research on the delivery of services. It is useless to learn the results of cigarette smoking, or to find a new vaccine or surgical technique, if people can't learn about and use them. Research discoveries in the laboratory, until they are applied, save mice, not men.

A Nation which can invent machines to keep a man alive can invent ways of getting man and machine together—and keeping them together as long as necessary. A Nation which knows how to treat alcoholics, or narcotic addicts, can devise ways of getting that treatment to those who need it. A Nation on its way to the moon can overcome the barriers to good health care suffered by the women who must, to get a doctor, walk five to ten blocks to the nearest bus line—then change buses and pay two or three fares to get to the hospital—then sit for hours in a clinic waiting (and sometimes forego a day's pay).

Failure to deliver services resulting in isolation, the absence of hospitals and clinics—impersonal scattered services, ignorance and lack of understanding of preventive measures, of symptoms and available treatments—misuse and underuse of our resources—and above all high costs—these are the health hurdles before us now.

Schooling: the Great Steps Forward

In education, as in health, we have taken great steps forward in the last years. In education, as in health, we need to move forward faster still, emphasizing the needs of the young. They are, after all, our Nation's future.

About one of every three of us is a student, a teacher, or educational administrator. And 6 percent of our income goes to formal education.

The fact that we are now truly an educational society is reflected at HEW. The more than 75 laws enacted in the past 8 years have touched the lives of millions and changed the face of the Department. The Office of Education, which for almost a hundred years was primarily a statistics-gathering organization, is now a bustling agency administering funds that are giving millions of our children fuller opportunities: special help for poor boys and girls; books and other educational materials; grants, loans, and work-study help for young men and women who want to go beyond high school; aid for more than half our colleges and universities; and research grants that have improved the whole process of education. Most importantly, after a century of debate, the fears and bugaboos about Federal control and all the rest

328-184—69——3

have proved groundless; the issues have been clarified and the facts straightened out. The Federal role in education has been established.

We have made a good beginning. Still, we are barely keeping pace with our Nation's rapidly growing and constantly changing education needs. No one can afford to stop learning in a society where, by 1975, some three-fourths of our labor force will be producing goods and services that did not exist ten years before. Future generations need as early a start as possible. And the followthrough should be a lifetime pursuit.

The Nation must make a greater investment in education at all levels. We must close whatever gaps we suffer.

Strengthening Federal Support

Without an increase in our overall investment in education, we cannot assure each child that the goal of his education depends on ability, not geography, or his family's financial capacity.

We must narrow the range of per-student expenditures among the States, and within the States. We must share the cost of educating poor and handicapped children. We must mobilize our research and development resources so that we can improve the whole range of educational activities. And, to get the most for our dollars, we must streamline and coordinate our programs through efficient administration, effective performance and evaluation.

Therefore, I recommend:

- That the property tax—the chief source of revenue for the schools—be modified, supplemented by other sources of revenue, and eventually eliminated.
- That within the next 4 years today's Federal share of 8 percent of elementary and secondary school expenditures be sharply increased year by year, from $1.5 billion to the full authorization of $3.5 billion annually.
- That, to assure that all funds for education are well spent, we encourage and support the national assessment of the state of learning in the United States, already authorized by Congress, for a 5-year period.
- That legislation be enacted to place all income to the United States from leases and royalties from shale oil and other minerals in a trust fund, and the proceeds be used for the support of education in accordance with our Nation's education laws.

A Real Headstart

A growing body of knowledge tells us that very, very young children can be stimulated to learn far more than has been expected in the

past, and that learning really does begin at birth. One scientist believes that by beginning at the earliest possible stage in the child's development, we could perhaps stretch the IQ of future generations by as much as 30 points.

All children need attention, time, and money spent on them before they reach the age of 6. Yet the children who most need to have their minds stretched and their environments enhanced—including two-thirds of the 2 million poor children between the ages of 3 and 5—lack such opportunity. Therefore, I recommend:

- The extension of Head Start for low-income children, for all handicapped children, and ultimately for all children who could benefit, urban and rural—first for 5-year-olds, then for 4-year-olds, then for 3-year-olds.
- Effective followup for preschool programs, incentives to attract highly qualified teachers to work with disadvantaged children, and use of advanced educational equipment and of individual tutoring.
- New school construction and operating fund programs to improve the quality of education.
- Schools which serve as vital centers of community activity; school systems which strengthen community ties with the schools and encourage real parental participation.

Day-Round, Year-Round Schools

We have a tremendous investment in school plants in the United States; we should put it to better use. One of the greatest wastes we suffer is the school that opens at 8:30 a.m., closes at 3:30 p.m., and shuts for 3 months in the summer.

Today's slum school especially is often only a building where children are kept for so many hours a day. If it expanded in hours, and community service, it could become something much more: a neighborhood "capital", a source of pride and a symbol of individual and communal achievement.

Schools in both slum and suburb should be kept open afternoons, evenings, and all year long. But 12 months of the same old thing will not do: the school should become a place for young and old to go for useful education covering a wide range of programs—vocational training, work experience, advanced courses, cultural activities, community service, and remedial training of all kinds. Therefore, I recommend:

- Federal support to help school systems seeking to convert to full-time education, starting with schools for disadvantaged children.

The Many Aspects of Education

Our educational institutions—like our citizens—should develop their individualities and keep these individualities. There must be many different kinds of such institutions—each of them as good as possible, in its own way.

The student who wants to learn to work with his hands as a draftsman, for instance, should have that chance, just as the Shakespeare scholar has his. The landmark Vocational Education Amendments of 1968 give us the tools to increase opportunities for vocational education. They point the way to new bonds among government, school systems and private industry. In this new partnership, opportunity is joined to educational experience through cooperative, part-time work-study, and both lead to specific jobs.

Once a student finishes high school, he should continue to have a varied choice of learning styles. Yet, we are far from the goal of giving different sorts of educational opportunities beyond high school to all young people who deserve such opportunities and can benefit from them. We have made progress. The growth of junior colleges over the past decade has been phenomenal—with schools opening at the rate of about one a week. They have already proven their potential. But we must make sure that no economic or racial barrier stands in the way of talented students who want to go beyond high school—whatever the direction.

What's more, new sorts of jobs and new kinds of careers constantly demand that schools and colleges foster the art of learning in the broadest sense, and provide training outside the formal educational structure. More and more pupils need the kind of broadly based general education that helps them adapt to lifetime changes. Not only must they have a sound basic education, but they need opportunities for continuous learning while they are at school and college, and throughout their lives. This means their schooling must reach into the community—and into the world of culture, art, and government as well.

We have more than 8 million vocational education students in the country today. What is more, businesses and industries show increasing interest in training and retraining programs. Nearly 2 million people are now involved in vocational, technical and professional training outside the formal educational establishment. Many more are enrolled in correspondence courses. Television's educational courses reach still others. But the potential has barely been tapped. Therefore, I recommend:

- That we triple the number and dramatically improve the quality of opportunities in vocational education under the new Vocational Education legislation.
- That we develop a whole series of continuing education programs—through vocational and technical schools, junior colleges and universities—educational television, community schools—and any other possible resource.

Higher Education

The 1960's have seen an unprecedented increase in the Federal commitment to higher education—from $2.5 billion in 1963 to almost $6 billion in 1968. Clearly, America's colleges and universities owe their growth and vitality in large measure to such great laws as the Higher Education Facilities Act of 1963 and the Higher Education Act of 1965. In enacting the Higher Education Amendments of 1968 the Congress took another major step in the strengthening of higher education.

But with all this progress, inability to pay, rather than inability to learn, still prevents many talented students from entering and completing college. Students with the same achievement levels, but with different family incomes, even attend college in strikingly different ways. Moreover, many question the future financial health of higher education. They especially doubt its ability to take on large numbers of additional students and to pay for high-quality graduate education. The Nation has a valuable resource in its specialists with graduate degrees, and in the research they make possible. States and individuals cannot afford to nurture this costly resource alone.

The time has come for a bold new commitment to higher education, a commitment with two major thrusts: To promote equality of opportunity by ensuring that all able students can afford to go on to post-secondary education, and that institutions are able to accommodate them; and to strengthen graduate education and research by supporting graduate students and helping institutions develop a limited number of centers of excellence for graduate teaching and research.

Student aid should be our chief concern. Aid for students who need it most, or who would not otherwise go to college, should have our first priority.

Still, institutional aid enhances the education of each individual student, and equality of opportunity in higher education is an empty goal unless colleges and universities have the resources for high-quality education. Part of these resources must come from tuition and fees, part from State and local governments, part from private giving; but without increased Federal help, these resources will not be sufficient.

The Federal Government must also directly help the institutions meet the financial burden of serving many more students. Therefore, I recommend:

- The expansion of Federal student aid programs, such as educational opportunity grants and college work-study until the number of federally aided students reaches about 3 million by 1976—instead of the present 1¾ million—with Federal aid available to the majority of students now at college from families with incomes under $9,000 a year, and to the thousands of potential college students from such families.
- Cost-of-education allowances paid to every institution which enrolls a federally aided student (undergraduate and graduate).
- A variety of aid for graduate education and research to strengthen graduate research and increase the number of centers of excellence.
- Consolidation of Federal aid programs for higher education construction and equipment, to give colleges and universities more flexibility to use Federal funds in accordance with their own plans and priorities. New and expanding institutions, and those which must replace deteriorating plants and equipment, need help for the capital cost of institutional expansion.
- Congressional examination of all kinds of institutional grants, to learn more about the impact of formula aid on the quality of higher education, on the balance between public and private colleges, and on the maintenance and growth of support by State and local governments.

Family Life and Sex Education

Americans depend on their families for warmth, security and sustenance. The family shapes its children, directs their talents and encourages them as they define their values.

Society cannot control the family, or teach people how to raise families successfully and lead successful family lives. It can, however, try to teach what we know of successful family life and sex education.

In August 1966, at my suggestion, the Office of Education issued a policy statement supporting the inclusion of important, long-neglected family life and sex education courses in elementary and secondary school curricula. Many school districts around the country have begun to include such courses as a regular part of children's education from kindergarten through high school. Often such courses become centers of a stormy political issue.

Even highly emotional political controversies prove useful when they excite open and public discussion of a significant—and too often

taboo—subject. Expanded programs of family life and sex education will contribute to the stability of families, to the reduction of venereal disease and illegitimacy, and to the fuller appreciation of human life. Therefore, I have broadened the responsibilities of the Department's Committee on Population and Family Planning to include consideration of sex education and improved and strengthened family life.

Student Unrest

The numerous, often violent, disturbances on our college and university campuses have worried and upset the Nation. Reflecting this disenchantment with young dissidents, the 90th Congress enacted certain legislation aimed at denying students who participate in violent and disruptive demonstrations the benefits of federally financed grants, loans, and fellowships.

Surely the student activities at which such legislation is directed are destructive and self-defeating; I cannot condone them. Whatever the need for reform in our academic life, physical harassment, obstruction, and vandalism cannot be used as acceptable means of dramatizing it. Nonetheless, I am deeply concerned about the practical effect of the student unrest provisions.

In the first place, they present the colleges and universities which must enforce them with a confusing set of conflicting and overlapping regulations. For example, section 504 of the Higher Education Amendments of 1968 and section 411 of the 1969 Appropriation Act both turn on the conviction of an individual student of a crime. However, in each section, the nature of the crime, the identity of the convicting court, the procedural incidents, and the consequences of a finding against the student are defined differently.

Moreover, these provisions may have grave consequences for the education programs administered by the Department of Health, Education, and Welfare. They involve the Federal Government in the maintenance of campus discipline—usually and properly a college and university function. By imposing rigid Federal standards, they may restrict the ability of college and university administrators to deal with disruptive students on the basis of each individual, particular situation. And, by making the consequences of a student's participation in a demonstration turn ultimately on the size of his pocketbook rather than on the strict nature of his conduct, the unrest provisions discriminate on economic grounds.

All in all, then, they may do more to exacerbate campus tensions than to ease them, and do more to hamper than to help official capacity to deal with these tensions. Therefore, I recommend:

- That the public interest would be better served if Congress followed the Senate proposal, vesting in the college or university full discretion for determining how a student's misconduct should affect his eligibility for Federal assistance.
- That, in any event, Congress correct the present conflicting and overlapping nature of the laws in this area by eliminating the restriction now imposed by section 411 of the 1969 Appropriation Act.

Selective Service and National Manpower Policy

Descriptions of the American draft system range all the way from pure praise to simple acceptance to "Kafkaesque in its inscrutable arbitrariness."

Whatever the truth, the continued education and training of the graduate and professional manpower required by the national interest warrant the review and modification of the Military Selective Act of 1967 (Public Law 90–40). Men of military service age deserve more equitable treatment from their country.

A random selection system within the age groups eligible for service may be the long range solution. Any single deferment, regardless of age or educational level, should be based upon the ultimate national interest and security. Pending congressional action on Public Law 90–40, the selective service procedure should be modified so that young men and women eligible for service suffer a minimum of uncertainty.

Therefore, I recommend:

- That a prime age group (age 19) be designated as the first to be inducted into the service, and that those who are now past age 19 (but not yet 26) and who are not entitled to deferment, be treated for this purpose as if they were 19 (be placed in the 19-year-old pool).
- Since all fields of higher education are, or may be, of equally critical importance to the balanced development of the Nation, that no higher education field or discipline be considered more important or critical for selective service deferment purposes than any other.

Assuring a Decent Livelihood

Our American society firmly believes that an able-bodied man should pull himself up by his own bootstraps. It is only gradually coming to grips with the fact that he can't pull himself up by his bootstraps if he hasn't any boots.

It has been shocked to realize that the man criticized for quitting his job had to do so to take care of motherless children or that children fall asleep in class because they have been kept up all night in crowded rooms, or that they cannot achieve good marks because they are hungry and undernourished.

As a Nation, we are facing the reality first confronted in the 1930's: No child, no man can thrive on an empty stomach; the key to opportunity is a decent income earned with dignity. But we have not gone as far in assuring this income as have most of our fellow democracies.

It is an ugly paradox that this is true in our wealthy country, with its vigorous capacity for growth and for change. It is a paradox that some suffer hunger in the midst of surplus, that rat-haunted slums exist near comfortable suburbs, that there is a lack of steady, decent jobs in a period of high employment; that when most Americans enjoy an extraordinarily high standard of living, we still have some 22 million human beings living in poverty.

Social Security

For the first time since the world began, we, as a Nation, have the capacity to end poverty. The most formidable weapon in our arsenal is one most Americans have not usually thought of as an antipoverty program—Social Security. The Social Security and Unemployment Insurance Systems moderate the loss in earnings due to retirement, death, disability, and temporary unemployment. They offer American workers and their families basic, necessary protection.

For instance, social security is the main source of continuing income for retired people—many would be destitute without it. Social security benefits keep 10 million people above the poverty level. Without these benefits, they would have to depend on relatives who often could not readily afford such support, or they would have to go on relief rolls. Without these benefits, nineteen out of twenty beneficiaries would not achieve even a moderate living standard.

Over 24 million American men and women are receiving old-age, survivors, or disability insurance checks totaling $2 billion each month. Still, the social security recipient keeps body and soul together on an average of $100 a month. And the minimum benefits are now only $55 for a single person and $82.50 for a couple.

Whenever suggestions are made concerning increasing social security benefits, inevitable but proper questions arise: Can we afford it? Should the cost be borne by payroll contributions?

In considering these important questions, we should remember that the employer's net social insurance contribution rate today is lower

than it was expected to be when the social security program was enacted in 1935. I have transmitted to the Chairman of the House Committee on Ways and Means, and to the Senate Committee on Finance, a report on this matter, which in my opinion justifies additional payroll contributions for further improvements in the program.

I recommend:

- That social security benefits be raised substantially to a $100 per month minimum for an individual and $150 for a couple over the next several years. This would have a dramatic effect—lifting 4.4 million people out of poverty. The first step toward this goal would be a 10 percent general boost and a jump from $55 to $80 minimum for an individual and from $82.50 to $120 for a couple. This first step alone would move 1.2 million persons out of poverty. Taking 150,000 aged men and women off the welfare rolls and greatly reducing the number of needy crippled, disabled and blind; at an annual savings in local, State and Federal funds of $255 million. States would then be freer to concentrate their helping efforts on the families most in need of preventive and—where it is too late—rehabilitative services.
- That the maximum earnings base on which social security benefits are computed (now $7,800 a year) be completely eliminated in determining the employer's contribution.
- That the maximum earnings base for determining the employee's contributions and benefits be increased by steps to $15,000 a year so that the social security system will cover about the same proportion of wages as it did in 1939.
- Consideration be given to changing the ratio of employer-employee contribution, from a 50–50 basis to two-thirds from the employer and one-third from the employee. This step would recognize the fact that the employer can deduct his contributions as a business expense in computing his tax, while the employee must pay an income tax on his deduction.
- That the Congress consider refunding part of all of the payroll tax paid by those below the poverty level out of general Federal revenues.
- That the level of unemployment insurance be raised substantially, that Federal standards be set for it, and remaining gaps in coverage be closed; that workmen's compensation benefits be improved for those who cannot work because of disabilities suffered on the job.
- That the Congress enact legislation providing for payment of social security benefits to persons at age 60 on an actuarially reduced basis in either of two cases: if at any time unemployment

for the United States should exceed 4½ percent for any four consecutive months, or if the Council of Economic Advisers advises the President that unemployment is likely to exceed 5 percent for three consecutive months.

- That the retirement test on which there is no loss of income be increased from $1,680 a year to $1,800, and that this amount be automatically increased in the future in relation to increased earnings.

The Right to Welfare

Nobody likes our present system of public welfare. Those who get it say it demeans them. Those who administer it feel strangled by its paperwork—especially its eligibility forms. Those taxpayers who pay for it worry rightfully about its $8 billion cost. Here at the Department of Health, Education, and Welfare—the Federal agency charged with the administration of the public assistance system—we are committed to its change and improvement. This Secretary, who has worked toward this for 34 years, would also like to end the dole.

But how? Most people turn to public welfare in despair—not greed—and as a last resort. Although 22 million Americans are poor, only 9 million of them receive relief, millions less than might qualify. The great majority—or about 7 million—of our public welfare recipients are either very old (2 million) or very young (4.2 million) or blind (85,000) or permanently and totally disabled (700,000). Unskilled, hampered by a lack of education, families travel to our great cities because they dream of opportunity, not handouts. Once on relief, they usually hunger to get off and into decent self-respecting lives, the kind most Americans take for granted.

It's no wonder. The average monthly welfare check for an aged man or woman is $70.25, for a family with 3 children, $162 (or $39.50 per person). As in any category system of relief, the recipient can starve unaided if he does not qualify under specific labels of dependency. And because States match Federal welfare funds in different amounts, there are gross discrepancies in welfare payments. In Mississippi, a needy mother of 3 gets an average of $35 a month ($8.45 per person), in New York, $282.35 (or $71.75 per person).

There are also great discrepancies in rules and regulations. The number and style of investigators approving or disapproving the welfare client varies. But too many States are still entangled in a quest for the "worthy poor." If six people witness a murder, the alleged murderer can enter a court of law, raise his right hand, swear to his innocence and rate a lawyer. He is innocent until he is proven guilty. But an ill-clothed welfare mother of an undernourished 5-year-old is

often treated as guilty of some infraction of existing rules until she is proven innocent. Beset by complex problems, bewildered by intricate forms, she presents herself at the public assistance headquarters. The welfare worker almost always has to spend so many hours checking her statements about income, or property, or relationships, or residency, that there is little time left to help set the family on the road to independence by unravelling the personal and family difficulties which beset so many.

All of this has now begun to change. Long ago, the Social Security Act, by demanding a few basic ground rules, set in motion a process which over recent years has effected a quiet revolution in the rights of the poor. The legal framework required of public assistance plans has been strengthened by Congress. The doors of the courts have been opened to demands that these programs meet constitutional standards of equity and rationality, both in substance and in procedure. The emergence of the legal services programs for the poor has made possible challenges to a host of questionable practices.

Today there is a growing recognition of the legal right to the receipt of public assistance, a legal right to insist that it be fairly designed and fairly administered—and a legal right to invoke the Constitution to assure the fairness of the system. What lies ahead is the task of applying these rights, point by point, so that the poor may come to stand truly equal before the law. The Fourteenth Amendment to the Constitution applies to the poor and the disadvantaged as well as to other citizens of the United States. Constitutional decision is the responsibility of the courts, but the Secretary of HEW also has major responsibilities for the fair and proper administration of public assistance.

An End to the Dole

Most Americans are compassionate, they are pragmatic; they accept the fact that they cannot let over 4 million children starve. They do not so easily accept the fact that there are 1.4 million adults—mostly parents—taking care of these children on the relief rolls—or understand the complex social forces that put them there. All are agreed that we should take a good hard look at our public welfare system, and work toward its reform. My first recommended step in such an effort—raising the minimum social security benefit—would take 150,000 needy aged men and women off the welfare rolls.

We must also turn our attention to the world of work and work opportunities, to the problems of welfare administration, and improved services.

A major study, carried out in 1966 by Dr. Lawrence Podell of the City University of New York, shows what many of us suspected—that most welfare mothers want to work. Seven in 10 mothers interviewed preferred to work for pay rather than stay at home; two-thirds planned to work in the future (the fact that one in six never went beyond fourth grade and another one in six never graduated from high school indicates the level of job they could hope for).

We must concentrate on better training and better jobs for welfare recipients. We must also achieve such training and such jobs for the one-third of the poor who belong to families whose heads hold full-time year-round jobs. Wives and children share in any higher earnings achieved by under-employed and unemployed men. If we could lift these families above the poverty level, we could concentrate more effectively on smaller numbers of hard-core poor who are left—on and off the welfare rolls. Therefore, I recommend:

- A greatly expanded program of work incentives, and opportunities for productive and self-supporting work (jobs—job training—and the development of New Careers possibilities).
- The establishment of a national Federal welfare payment, administered according to national standards, to be available to individuals in need in all the States. The Federal courts have pointed the way to this reform in several States by declaring welfare residency laws illegal. If the Federal Government picked up the check, welfare payments and policy among the States would be equalized. And the budget burden of our great cities would be eased, leaving them freer to use their funds for constructive social services—schooling—recreation—and all the rest. Such a system would include financial incentives for men and women to seek employment, adequate day care for the children of working mothers, an effective job training program, legal protection, visiting nurse and family planning services.
- Cutting down wasted professional time by using a simplified Eligibility Application Form, instead of a detailed investigation to determine the eligibility of public assistance recipients. This has been tried with some success in New York and California, and would, of course, require scrupulous sample checking. Each of us who pays an income tax is asked to declare our income; and each of us knows that his declaration is reviewed and may be questioned. Each of us knows that if he is found guilty of fraud he will be punished; the same would be true in public welfare. The public sympathizes with the plight of the aged, the blind, and disabled. We should start our new policy with them. The funds

saved could well be used for constructive, rehabilitative social services.

Consumer Protection

A family's standard of living can be raised not only by increasing its resources, but also by assuring that it uses them wisely. The poor and the aged are susceptible targets for consumer fraud. The woman on welfare who knows how to avoid being shortchanged at the supermarket is that much ahead. So is the man who knows how to ask fair treatment from his landlord, whatever his income.

For many years consumer problems were pushed aside, and consumer protection programs relegated to a minor, insignificant place. After all, consumer interests were fragmented, and opposition to them well organized and well financed. Now the leadership of some dedicated members of Congress and the increased attention devoted to consumer problems by the national news media have changed the picture. New laws protect us against a wide variety of dangerous products and unfair practices—from infant blankets to automobiles, from unwholesome food to consumer credit.

Within the Department of Health, Education, and Welfare we have taken a number of steps to focus attention on consumer protection, and to provide more and better information to consumers. I recommend, in addition, that HEW:

- Authorize a central or agency publication to give consumers information about consumer choices developed through government-sponsored, taxpayer-paid research.
- Offer Federal financial aid to States to improve their consumer service programs.
- Provide for the coverage of certain prescription drugs under the Medicare program.
- Authorize payments for drugs under Medicare and Medicaid at reasonable prices normally paid by drug dispensing establishments—like pharmacies or hospital clinics.
- Publish and disseminate an up-to-date U.S. Drug Compendium of prescription drugs, listed by their generic name with pertinent information on each drug.
- Require that all prescription drugs in tablet or capsule form bear an identification which would reveal the manufacturer and identify the drug; the manufacturer's name and the generic or established name should also appear on the label of prescription drug containers.

Federal Credit Unions

Federal Credit Unions have come to be an important part of consumer protection as a method of saving for more than 10 million wage earners. Assets of the 12,600 credit unions now stand at about $6.6 billion. I have been a member of credit unions since 1936, and I know what they can mean to struggling young families.

Though the members of the credit unions are generally working people of modest means, who can ill afford to lose their savings (which average only $562), the Federal Credit Unions remain the only federally-chartered savings institution without deposit insurance. Therefore, I recommend that:

- Federal Deposit Insurance protection be provided to credit union members, similar to the protection of deposits in banks. The fact that liquidations have been infrequent—combined with the Credit Unions' excellent record—would keep such insurance costs to a minimum.

Income Maintenance

The goal for the years ahead is to weave a net—through employment efforts, our social insurance system, a reformed public assistance program, and intensified consumer protection—through which no American may fall. But even with the best of intentions, the most skilled craftsmen, and the strongest thread, it will take time to make a foolproof web—one without a single flaw.

The recommendations of the President's Commission on Income Maintenance, which is examining all practical alternative income maintenance systems, should be very helpful. HEW's goal should be to assure a decent minimum for every American individual and every American family. Such an income maintenance system should have built-in incentives, encouraging every able-bodied man and woman to contribute as fully as possible to our economy, as well as to share in its benefits.

To Better the Quality of American Life: Paying the HEW Bill

To reach great goals, we must make great choices. As a Nation, we must decide what kind—what quality of life—we want to accomplish for our people. And we must set priorities, so that we have the

means to move toward greater health and education and social opportunities.

This we can do. We need only the will to do it.

Our gross national product increased by more than half between 1960 and 1968. The vitality of the economy, and our capacity to harness its power for stable, steady growth, have proven formidable.

If our Nation continues its present course, total production will increase an average of $40 to $50 billion each year, and grow larger as time passes. The same is true of Federal revenues. Given no change in tax rates, they will increase by more than $15 billion a year.

Can We Afford Improved Health, Education, and Welfare?

Our gross national product for 1969 is estimated to be $920 billion and will undoubtedly exceed $1 trillion in 1971. At this rate of growth, the gross national product should reach $1,300 billion by 1976 and exceed $1,500 billion by 1980. There is absolutely no question that we have the resources to improve our health, education, and welfare if we commit ourselves to making the proper priorities in our tax system and other programs.

In 1960, our gross national product was slightly less than $500 billion and we spent, in the United States, $79 billion for all health, education, and welfare activities, public and private. This amounted to 16 percent of the gross national product.

By 1963, our gross national product had increased $80 billion to $575 billion; our health, education, and welfare expenditures to $100 billion; and the proportion of these expenditures to gross national product to 17.4 percent.

By 1968, the GNP had increased nearly another $50 billion to $822 billion; health, education, and welfare expenditures to $163 billion; and the proportion of such expenses rose to 19.8 percent.

These trends unmistakably indicate that during the next 8 years, as our gross national product rises, so the proportion of the gross national product invested in health, education, and welfare can and will rise. With a GNP of $1,300 billion in 1976, the proportion invested in health, education, and welfare could rise to 25 percent, making possible $325 billion to be invested in health, education, and welfare compared to $163 billion in 1968—a doubling in the 8-year period. This would enable us to be investing by that time about $50 billion more in health, $60 billion more in education, and $55 billion more in social security and welfare. And we could do that simply by more equitable sharing of a bigger pie.

A Nation which spends more than $8 billion for tobacco and $11 billion for alcohol, a Nation in which 12 million people own pleasure boats, can surely use its increased revenues for human beings. A Nation in which 79 percent of the households own one car, and one quarter of the households own two or more cars, can afford to improve the quality of life of its least fortunate citizens. But it has to want to pay the price.

Paying the HEW Bill

The taxes we pay are simply the price of Government services and commodities. Tax collection is the mechanism through which consumers—or the general public—pay the price.

Americans rightfully want to pay reasonable prices. No one wants to pay too much for a car, or a loaf of bread, or drugs. No one wants to find he's bought meat so tough he can't eat it, or that a house exactly like his could have been purchased for less money.

By and large, Americans have received good value for their health, education, and welfare tax dollars. Look at the substantial dramatic gains of the past years:

We have strengthened our chances for the blessing of good health—dramatically lowering infant mortality rates, for instance, and have begun a new life-giving community approach to mental health and illness. We have overcome the Federal aid to education barriers, and millions of school children have benefited—through books, new imaginative ways of learning, and help toward college education. We have improved the quality of education and enhanced equal opportunity, decreased the number of high school drop-outs, rehabilitated the handicapped and those on welfare rolls, enacted Medicare and other improvements in social security, and brought about a significant drop in the number of Americans living in poverty. This is the story of the past years.

Many people have asked each recent HEW Secretary, when we have moved forward so rapidly, why must we pay the price for more social services. The answer is two-fold.

First, the needs are still great. They are especially great for our least fortunate families. A Nation which still has 22 million poor, living in a world of bad health, housing and food, with little clothing, and a hopeless, depressing environment, cannot sit back and rest on its laurels.

Second, the better the quality of life for most of us, the more those ask who have not achieved such a life. They watch television, they read the popular magazines. They want the best for themselves and their children. HEW programs are designed to help them achieve it.

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Increased social services will have to be financed through taxation, as they have been in the past. And, as in the past, increased health, education, and welfare expenditures will add to the stability of the economy, its toughness, its strength, and its potential for growth. The more educated Americans, the more Americans in good health, the more trained and able to work, the greater our national muscle. We must invest more in the health, education, and welfare of our children. I have recommended increased education and health services for children. I also recommend:

- That the appropriations and authorization for child welfare services (foster care, adoption, care of abused children and all the rest) be increased, in order that all children and families in the Nation will have a better chance to lead lives of productivity and fulfillment.

Tools for Policymaking

So big have become our institutions, public and private, so complicated our enterprise, that meeting our health, education and welfare needs will take even more than determination and even more than willingness to pay. We must shape more effective tools for policymaking.

As organizations grow, the time needed to implement decisions gets longer. We are increasingly required to make very important and very expensive long-range decisions which, while not irreversible, are very hard to change. If we are not careful, inaction—or doing nothing—will become our chief strategic device, our policy tool.

We dare not let this happen in urgent areas of social planning. Health, education and welfare problems, and related problems in housing or transportation, demand broad and active planning.

But we do not have the necessary information to make carefully reasoned policy choices and form sensible plans. We agree, for example, that we want to eliminate poverty. But how—specifically? Many ideas compete in the theoretical marketplace: guaranteed income, negative income tax, family allowances, wage supplements.

The trouble is that we lack some of the most crucial information about such programs, and their effect on individual lives. If the American people are to decide between alternatives, they must have more facts. What effect would a children's allowance have on family size? How would wage earners react to various kinds of negative income tax proposals?

Again, we agree that we must do something about the quality of life in our major urban centers. Again, how—specifically? Again we don't

have enough information or even refined enough ways of measuring the consequences of urban living upon the very young, the elderly, or upon their health and education. Therefore, I recommend:

- That the Federal Government undertake a substantially enlarged statistical program—gathering and disseminating information necessary for sound social planning from and to States, local governments and other interested organizations. This would include information on the effectiveness of family planning and other health programs, an ongoing national assessment of educational achievement, comparative facts on the effectiveness of delivering health care, job training and preschool education.
- That the President or the Department of Health, Education, and Welfare each year issue a social report, as the Council of Economic Advisers issues an economic report, measuring the quality of our society for the President, the Congress and the public.

The Budget

As we cut a larger and larger piece of the national pie for social goods and services, we must improve our chief policymaking tool—the budget.

Budget timing and process now impose almost impossible burdens on Department and agency staffs, creating difficult problems for program administration, and impairing the quality of decisionmaking. In recent years Congress has acted on the HEW budget only after the fiscal year has begun on July 1. This means that one year's HEW budget planning must begin before the previous year's budget has been finally acted upon. Senior Department officials spend enormous amounts of time and energy working on two separate budget years at once. This has become the pattern. It is not a sensible one. Therefore, I recommend:

- That the budget be put on a calendar year basis, so there is enough time for Congress to study and act on important HEW matters. The President would present his budget proposals in January of each year and the new appropriations would be available on January of the following year. Everyone involved would have more time to do a better job; the results would be much improved.
- That Congress fund programs well in advance of the time they go into effect, especially if they involve school districts, universities, States, or municipalities (which must prepare their own budgets anywhere from 6 to 18 months before the budget year of the Federal Government.)

- That Congress take a vacation in the month of August, not only to enable its members to have a vacation, but to give key congressional and executive staff an opportunity for much-needed rest. No private industry would operate on the present timetable, which is wearing out the senior people in the executive departments and on congressional staffs. A brief pause in the legislative year would improve the Congress' ability to complete its work, and it probably also would do a great deal, in the long run, to improve the quality of legislation.

Civil Rights

Better schools, more hospitals, higher income—all such changes mean little unless they are equally available to all Americans. That is why the Civil Rights legislation of the 1960's stands as one of the most significant measures taken to improve the quality of life in the United States.

HEW now shares major responsibility for the enforcement of such laws, based on the concept that all Americans should enjoy services and benefits made possible by their Federal tax dollars, without regard to race, color or national origin. Though this proposition seems eminently fair, it is nevertheless a fairly recent concept in the administration of Federal grant programs.

Title VI of the 1964 Civil Rights Act specifically and unequivocally prohibits racial discrimination of every kind in federally assisted programs. It also requires Executive agencies to end Federal support of any program in which discrimination is practiced.

The 1964 Civil Rights Act has had a great impact on the desegregation of hospitals, nursing homes, elementary and secondary schools, colleges and universities. HEW's efforts to enforce such principles in its administration of Medicare, which have been almost 100 percent successful, is one of the great untold stories of the past years. Quietly, steadily, the country's hospitals have been desegregated, more patients are treated equally, and more doctors are admitted to staff privileges. The pattern of discrimination has been broken. Considerations of good health can now take precedence over those of race. In education the record shows steady, albeit slow, progress in desegregation. This thrust has been expanded to all educational agencies in the Nation.

The record shows the significant change that has taken place in compliance of school districts organized on a dual, racially-segregated basis. In 1963, before the enactment of the Civil Rights Act, only 1.17 percent of Negro students in the 11 deep Southern States were attending school with whites; in September 1967 this percentage had

increased to 13.9 percent. Nearly all school districts with white and Negro teachers have begun the process of faculty desegregation.

Amendments to the Elementary and Secondary Education Act enacted in 1967 spread the effects of Civil Rights measures by requiring that HEW's compliance program "be uniformly applied and enforced throughout the 50 States." Subsequently the Department began to study the distribution of minority students and faculty, Spanish-surnamed, Oriental, and Indian, as well as Negro, from northern and western school districts. More than 30 preliminary reviews and five full reviews of school systems have taken place. Preliminary review shows that civil rights problems are nationwide and concern all minority groups.

In a very real sense, the Nation is at a turning point in its efforts to bring alive the principles of equality and justice. I recommend:

- Title VI of the Civil Rights Act continue to be not a panacea, but an indispensable ingredient in the total Federal approach to equal educational opportunity.
- Legislation to provide Federal financial aid to school districts which have an approved plan of desegregation for school construction, teachers' salaries and other needed services where such school districts demonstrate a fiscal incapacity to carry out such plans.
- The civil rights program in the Department of Health, Education, and Welfare be administered by a Deputy Under Secretary with responsibility for compliance, technical assistance, and education.

Improving the Quality of the Environment

On Christmas Day, 1968, three Americans circling the moon transmitted photographs to Earth which more forcefully than any other event in history emphasized the fragile and destructible nature of our environment. We know far better now than ever before how thin and precious is the veil of atmosphere, how rare and wondrous are the oceans and rivers, how incredibly complex and delicate is the balance which permits the existence of life on Earth.

Today this Earth of ours faces a major environmental crisis. Urbanization, the increase of population, fantastic advances in technology, and the mistakes of the past have brought biological, radiological and chemical contamination of land, air, food and water; crowding; noise; destruction of natural resources; and many other threats to human health and well-being. We cannot have it all one way or the other. The human race cannot prosper unless it makes use of the

riches of the Earth. But man cannot survive if he turns these resources against himself in the form of pollution, contamination, and hazardous living conditions.

Such problems cannot be solved piecemeal. They require continuous, coordinated study and action. To this end a new organization, the Consumer Protection and Environmental Health Service, was set up last July within the Department of Health, Education, and Welfare. As the one agency in the Federal Government approaching all the complex environmental problems from the viewpoint of human health, safety and welfare, HEW should provide a central focus for the Nation's environmental efforts.

Throughout the environment, the forces of change far outnumber those aimed at understanding the significance of change. Our vast and growing capability in the fields of science and engineering has enabled us to push on, all too often without knowing where we are going and what we are doing—to our world, and to ourselves.

As a first major step toward this essential knowledge, I have directed the establishment of the National Institute of Environmental Health Sciences among the nine National Institutes of Health. This new institute is a further commitment on the part of the Department of Health, Education, and Welfare, and of the Federal Government, to the principle that human well-being and health must not suffer because of man-made environmental changes.

We must continue and expand our environmental control efforts. Therefore, I recommend:

- Expansion of our efforts to reduce air and water pollution—two of the greatest threats to man's health and economy.
- Application of all of our knowledge to reduce accidental deaths and injuries, and expansion of occupational health programs.
- Elimination of the food contamination which causes food-borne disease.
- Elimination of substandard and unsafe drinking water supplies.
- Protection of the American people from exposure to all harmful radiation.
- An increase in our efforts to control community noise.
- Expansion and improvement of solid wastes management.
- Increase in our efforts to reduce home and neighborhood environmental health problems, including a drastic reduction of the number of rats in the United States.
- Expansion of research and evaluation of the effects of environmental stresses on the individual.

Cooperation With the Private Sector

The private sector in 1968 was responsible for $52 billion of the $163 billion invested in the Nation's health, education, and welfare. The amount spent by the private sector grew from $35 billion, in 1933, and will continue to grow with the years.

There is ample room in our society for a substantial and creative role for the private sector. Business enterprise can help train young people, including the disadvantaged, for New Careers. They can help perform nutrition research, to solve the terrible problems of hunger and malnutrition. The television and communications industry can forge direct lines between patient and doctor. New learning machines can bring about great changes in curriculum and bring more knowledge for more children. A nonhazardous cigarette might emerge from industry-government cooperation. Such cooperation could also result in the development of technological ways to control air and water pollution.

Business and government are not enemies. They should and could be effective partners in a wide range of constructive activities which would mean better health, education, and welfare for all Americans.

The Need To Choose

Eight years ago, when I returned to HEW from university life, there were about 100 programs in the Department. Today we administer more than 250 programs.

Statistics, of course, are significant only as they affect human beings. Statistical changes at HEW have touched, changed, and improved the personal lives of millions. They now spell hope and opportunity in the most profound sense of those over-used words.

But we cannot afford simply to continue what we're doing. We cannot afford to stand still. When our population is increasing so dramatically and the complexity of our problems is intensifying, standing still is going backwards. We have built up the momentum; we must go forward.

To do so we must be willing to pay the bill. We must continue to improve the administration of present programs, of course. But in this world you cannot get something for nothing. We must choose what we want to do in health, in education, and in social opportunity, and find sensible, convenient and equitable ways to pay for it.

Here at HEW, we have progressed far toward the achievement of the Republic's oldest, fondest dream: making a better society on this earth than has ever been made before. We have increased the individual American's real freedom. We have done so by giving him

greater options. Social Security and Medicare give parents, grandparents and children the freedom to choose different paths. They have more choice as to what to do with their money and their talents. No longer does a family have to give up a youngster's college education to pay a grandparent's medical bills. Education programs give young and old alike the equipment to choose between careers. (After all, the illiterate man has no real freedom to choose what he wants to do.) The development of an effective measles vaccine prevents the crippling of thousands of children and lifts a burden from parental shoulders. Rehabilitation programs make work possible, life bearable; and return the investment made in them many times in earnings and taxes.

It is my hope that the United States will use its vast resources to abolish poverty, improve the health and education of all our people, and to achieve an adequate system of social security. It is my hope that those who do the Department of Health, Education, and Welfare's work will never lose sight of their goals, and will press forward to create better programs for all Americans.

Office of the Secretary

Legislation

In both the number of bills enacted and in their quality and potential implications, the legislative responsibilities of the Department of Health, Education, and Welfare significantly expanded in fiscal year 1968. All of the 15 new laws helped to enhance the quality of American life. Many helped increase and equalize opportunities for American citizens and strengthen partnerships with State and local agencies. The new laws were:

Education

ELEMENTARY AND SECONDARY EDUCATION AMENDMENTS OF 1967 (PUBLIC LAW 90–247)

Strengthened and improved programs of assistance for education by permitting funds to be used for the education of Indian children and children in overseas dependents' schools of the Department of Defense. It also amended the National Teacher Corps program, provided assistance for comprehensive educational planning, improved programs of education for the handicapped, and strengthened assistance to schools in federally impacted areas and in major disaster areas.

EDUCATION PROFESSIONS DEVELOPMENT ACT OF 1967 (PUBLIC LAW 90–35)

Was enacted to coordinate, broaden, and strengthen programs for the training and improvement of the qualifications of education professionals. Signed June 29, 1967, this act took effect in fiscal year 1968.)

PUBLIC BROADCASTING ACT OF 1967 (PUBLIC LAW 90–129)

Authorized Federal grants to assist educational radio and television broadcasting and established a nonprofit, nongovernmental corporation to channel private financial assistance to educational radio and TV.

PUBLIC BROADCASTING ACT, EXTENSION OF AUTHORIZATION (PUBLIC LAW 90–294)

Transferred first-year authorization from fiscal year 1968 to 1969. (Also see Public Law 90–129, above.)

LIBRARY SERVICES AND CONSTRUCTION ACT AMENDMENTS OF 1967 (PUBLIC LAW 90–154)

Clarified the intent of Congress with respect to interlibrary cooperation and specialized State library services. These programs are now 100-percent federally funded during the first year of operation. Also, essential flexibility was given to State and local administration of the program by permitting the acquisition of existing buildings for use as public libraries, in addition to construction.

COLLEGE WORK–STUDY AMENDMENTS (PUBLIC LAW 90–82)

Amended the college work-study program to allow students to work up to 15 hours per week on an average basis over the term of each semester, and provided for a limit of 85-percent Federal funding in the fourth year of the program and 80 percent in the fifth year.

Health

PARTNERSHIP FOR HEALTH AMENDMENTS OF 1967 (PUBLIC LAW 90–174)

Extended the program of comprehensive health planning and services assistance to the States, authorized a program of grants and contracts aimed at developing improved health services techniques, and established a Federal program of regulation of clinical laboratories. It authorized the use of funds for rat control programs, the use of PHS hospitals for local disaster preparedness planning and emergency health problems, and funds for program evaluation.

MENTAL HEALTH AMENDMENTS OF 1967 (PUBLIC LAW 90–31)

Extended the authority for grants for construction and initial staffing of community mental health centers through fiscal year 1970. It also extended the program to include funds for acquisition or renovation of existing buildings. (Signed June 24, 1967, this act took effect in fiscal year 1968.)

MENTAL RETARDATION AMENDMENTS OF 1967 (PUBLIC LAW 90–170)

Increased the construction of new facilities for research and direct services in the area of mental retardation. It extended an existing program for training teachers of the handicapped and initiated a new program for training teachers in physical education and recreation for the handicapped.

AIR QUALITY ACT OF 1967 (PUBLIC LAW 90–148)

Expanded and improved the research and development program for air pollution control, provided for planning and control programs on a regional basis, required standard-setting and enforcement by the

States, and permitted strong Federal action if States do not act. It established a Presidential Air Quality Advisory Board, required registration of fuel additives, provided for a study of national emission standards and of jet aircraft emissions, and required comprehensive cost studies.

VOCATIONAL REHABILITATION AMENDMENTS OF 1967 (PUBLIC LAW 90–99)

Set up a National Center for Deaf-Blind Youth and Adults, authorized a system of project grants to handicapped migratory workers, and continued increased allotments to the States through 1970. It also authorized a final year of Federal support of statewide planning in rehabilitation, abolished residence requirements, and designated the District of Columbia as a special jurisdiction.

OLDER AMERICANS ACT AMENDMENTS OF 1967 (PUBLIC LAW 90–42)

Extended the Older Americans Act through June 30, 1972, and authorized appropriations to operate the research, demonstration, training and formula grant programs of the Administration on Aging.

VOCATIONAL REHABILITATION AMENDMENTS OF 1968 (PUBLIC LAW 90–391)

Extended appropriations through 1971 for grants to the States for vocational rehabilitation services and for innovation projects to develop new methods of providing and expanding services to people with severe disabilities. The act also renewed the authority to continue grant support for special projects in research, demonstrations, expansion, and training of rehabilitation personnel, including regional research and training centers. Special project emphasis now will include those projects directed at the rehabilitation of the mentally retarded. (The Congress cleared ths act June 24, and the President signed it July 7, 1968.)

JUVENILE DELINQUENCY PREVENTION AND CONTROL ACT OF 1968 (PUBLIC LAW 90–448)

Was designed to assist courts, correctional systems, community agencies, and primary and secondary school systems in the prevention, treatment, and control of juvenile delinquency. Funds were authorized to support research and training efforts, and to provide assistance for the diagnosis, treatment, and rehabilitation of youths who are delinquent or in danger of becoming delinquent. (This act was ready for Senate action at the end of fiscal year 1968. The act was cleared July 18, and the President signed it July 31, 1968.)

Social Security

SOCIAL SECURITY AMENDMENTS OF 1967 (PUBLIC LAW 90–248)

Provided a 13-percent, across-the-board increase in benefits, with a minimum monthly benefit of $55, and increased the special benefits for those aged 72 and over to $40 a month. The amount of permissible outside earnings was increased for disabled widows. The act also provided for work incentives for public welfare recipients, increased authorizations for child welfare programs, demonstration projects, and support of social work manpower and training, and provided for expansion and improvement of child health programs.

MEDICARE ENROLLMENT EXTENSION (PUBLIC LAW 90–97)

The first general enrollment period for participation under part B of title XVIII (the supplementary Medicare program) was extended from December 31, 1967, to March 31, 1968.

SOCIAL SECURITY/PUBLIC WELFARE EXTENSIONS (SEC. 2 OF PUBLIC LAW 90–36)

Extended for 1 year, through June 30, 1968, the programs of assistance to repatriated Americans and children of unemployed fathers; extended authorizations under section 1115 of the Social Security Act (experimental, pilot, or demonstration projects); extended for 1 year, through June 1968, authorizations under sections 135(e), 155(b), and 202(e) of the Public Welfare Amendments of 1962. (Signed June 29, 1967, this act took effect in fiscal year 1968.)

Consumer Protection

CLINICAL LABORATORIES IMPROVEMENT ACT OF 1967 (SEC. 5 OF PARTNERSHIP FOR HEALTH AMENDMENTS OF 1967, PUBLIC LAW 90–174)

Authorized the Secretary of HEW to establish minimum performance standards for all clinical laboratories engaged in interstate commerce and permits the Secretary to bring court action against any licensed laboratory that represents an imminent danger to public health.

FEDERAL CREDIT UNION ACT AMENDMENTS OF 1968 (PUBLIC LAW 90–375)

Increased maturity of secured loans, increased limit on unsecured loans, continued Project Moneywise for residents of low-income areas, and updated procedures of Federal credit unions. (The Congress cleared this act June 24, and the President signed it July 5, 1968.)

General Counsel

The Office of the General Counsel furnishes legal advice to the Office of the Secretary and to all component bureaus and agencies of HEW. It also represents the Department in administrative proceedings and assists, and in some cases participates with, the Department of Justice in representing the Secretary and other HEW officials in actions in the courts.

The most significant legal developments during the fiscal year were in the areas of education, civil rights, consumer protection, and public welfare. Most of these areas were involved in the Secretary's responses to the Poor People's Campaign, and the Office of the General Counsel took the responsibility for delineating the extent of the Secretary's authority to meet those demands which he felt to be justified.

Education

In education the principal legal issues revolved around the provisions in the Elementary and Secondary Education Act and in the Higher Education Act requiring or permitting Federal assistance for school facilities and programs in church-related schools or for students in such schools. The constitutionality of these statutory provisions had been the subject of much public and Congressional debate but had not previously been considered by the Federal courts because of earlier decisions of the Supreme Court apparently precluding a taxpayer from raising the question by legal action. However, on June 10, 1968, the Supreme Court held in *Flast* v. *Cohen* that a Federal taxpayer had sufficient interest in the spending of tax dollars in ways alleged to violate the First Amendment, to enable him to challenge the constitutionality of the Elementary and Secondary Education Act. At the close of the year the case was still pending in the Federal district court to which it had been returned for a decision on the merits of the First Amendment issue. The decision of the Supreme Court allowing such suits has generated the filing of further cases against the Secretary which will resolve the constitutionality of the various educational aid provisions.

Civil Rights

In the civil rights area the General Counsel handled 73 hearings under title VI of the Civil Rights Act of 1964 to terminate Federal financial assistance to school districts and other local agencies that were discriminating on the basis of race. During the year orders of termi-

nation became effective as to 63 school districts, three hospitals, and one institution of higher education. A suit attacking the regulation under which the Department has been enforcing title VI was successfully defended in the case of *Gardner* v. *Alabama.* The most significant legal development came from the decisions of the Supreme Court in *Green* v. *County School Board of New Kent County*, and *Raney* v. *Board of Education*, that freedom-of-choice plans of school desegregation must actually work to break down the dual racial system in order to meet constitutional requirements, and that if other methods are available which will more speedily achieve this object, such methods must be used in lieu of free choice. This decision confirmed the view of *Brown* v. *Board of Education* which this Department had taken in enforcing title VI of the Civil Rights Act.

Consumer Protection and Environmental Health

There were a number of significant legal developments in the area of consumer protection and environmental health. In a case under the "new drug" and antibiotic drug provisions of the Federal Food, Drug, and Cosmetic Act, it was held by a Court of Appeals that a new mechanism for ligating severed blood vessels during surgery was a "new drug" within the meaning of the statute and hence subject to the requirements of advance proof of safety and effectiveness.

Another major area of legal activity to protect the consumer involved implementation of the drug efficacy study being carried out by the Food and Drug Administration to reevaluate all drugs approved between 1938 and 1962. Legal steps were taken by FDA as necessary to require labeling changes or reformulation for some drugs, and to require removal from the market of others found to be ineffective. As the year ended, our attorneys were also engaged in a very complicated and protracted administrative hearing to improve the labeling of foods for special dietary uses (mainly vitamin and mineral supplements) and to standardize some foods for special dietary use.

Social Security

The volume of social security litigation arising from the denial of claims for benefits continues at the level of approximately a thousand cases annually. The hoped-for reduction in volume resulting from the revised definition of "disability" in the 1967 amendments had thus far failed to materialize.

The 1967 amendment barring the payment of social security benefits to persons outside the United States who are not U.S. citizens in the absence of reciprocal provisions by their countries of citizenship,

has been eased considerably by the negotiation of arrangements with eight foreign countries enabling them to meet the conditions in the Social Security Act. Approximately 9,000 American citizens benefited by these arrangements.

Public Welfare

In the field of public welfare the major legal developments of 1968 can be understood only in their historical context. The year witnessed an emerging recognition that public assistance and other noncontributory benefits, gratuitous though they are, carry with them substantial legal rights. In part these rights are creatures of the statutes establishing the programs, but in part they reflect dictates of the Constitution that come into play once a program is established.

A claim that legal rights might attach to the receipt of noncontributory public benefactions would have startled most judges and most legislators when the Social Security Act was passed in 1935. Except that some State constitutions guaranteed free public schooling, there was little in either the law reports or the statute books to give color to such a claim. Courts had been chary of according to the beneficiaries of gratuities even the most basic of constitutional rights, due process and the equal protection of the laws. Congress, at the very time it was writing a few assurances of equity into its original public assistance grants, could still describe assistance as "public charity" and could still condone plans to aid only the "deserving" poor. The then-prevalent concept of public beneficence was that of a governmental function cast in the image of private philanthropy, with much the same freedom to indulge in paternalistic selectivity.

Yet the Social Security Act, by demanding a few basic ground rules, set in motion a process which has gradually undermined this concept of the public almoner. State plans were required from the outset to be Statewide, to abandon local settlement rules, to provide fair hearings to disappointed applicants, and to furnish all assistance in the form of cash. Later amendments to the Act furthered the process as they strengthened the legal framework required of State plans. Prompt payment of assistance to all eligible persons was required by Federal law, as was appropriate consideration of income and resources, while administrative actions looking to equitable treatment of beneficiaries and forbidding "unsuitable home" exclusions were accepted by Congress. Meanwhile, a gradual change took place in the climate of opinion, in the perhaps unconscious premises of popular thinking, toward the status of the disadvantaged in our society. Finally, developments in related areas of the law opened the doors of the courts to

demands that public benefit programs meet constitutional standards of equity and rationality, both in substance and in procedure.

As the poor become better organized and more articulate, as they become able to enlist skilled legal advocacy in their cause, as the courts begin to give ear to their grievances, as the Poor People's Campaign dramatized their needs, their standing to assert their rights has achieved an unprecedented measure of acceptance not only by the judiciary but by administrators and the public as well. New though recognition of these rights may be, the legal principles underlying them have been long in the making.

Unlike assistance, sometimes in explicit contrast to assistance, social insurance benefits have been described from the outset as being "payable as a matter of right." Yet assistance, equally with insurance, rests on statutes or regulations which direct that it be paid to all eligible persons, and which, equally with insurance, create a right to its benefits. Because of its contributory nature insurance carries a long-range commitment, as assistance does not, to maintain the rights to payment into the indefinite future,[1] but the right to receive assistance today is not lessened by the chance that some wholly new system will be substituted for it tomorrow.

These several forces, working in conjunction over the last generation, set the stage for the recent burst of litigation which has already defined some of the basic rights of persons claiming public assistance, and promises to define a great many other rights. The "man-in-the-house" rule, depriving children of assistance because of the misdeeds of their parents, has been outlawed by the Supreme Court, and the validity of State durational residence requirements, struck down by lower courts, has been twice argued on appeal to the Supreme Court but at the time of writing remains undecided. Federal district courts have invalidated Maryland's maximum on payments to large families and Georgia's "employable mother" rule; two courts have disagreed on the procedural requisites, under the due process clause, for the termination of assistance; attacks on work requirements and lien provisions have been rejected.

A host of other issues are before the courts or soon will be. Plainly, the poor are in process of achieving equality before the law. Already it

[1] Although not actually contractual in nature, the insurance system has been described as "vested with the aura of a contract." ("Security, Work and Relief Policies," H.R. Doc. 128, Pt. 3, 78th Cong., 1st Sess., p. 523.)

There are of course other important differences between insurance and assistance: Insurance rights have been earned by work in covered employment and have been paid for in part; indigence is not a condition of eligibility in insurance as it is in assistance; benefit amounts are determined in quite different ways. These differences contribute largely to the popularity of insurance as compared to assistance, but they are not relevant to the existence, under present law, of a legal right to the receipt of payments by persons who meet the conditions of eligibility stated in the various programs.

can be asserted, as the Secretary has put it, that there is a "legal right to the receipt of public assistance, a legal right to insist that it be fairly designed and fairly administered—and a legal right to invoke the Constitution to assure the fairness of the system."

Program Planning and Evaluation

HEW refined its system for support of planning and analysis of the Department's programs. This system groups resource allocations and program results by major purposes, activity, and beneficiary groups. Automation of the system allows information to be provided by organization, appropriation, mode of financing, legislative situation, and the nature of the recipient to whom funds are distributed. This system is being integrated into the total Department planning, evaluation, and budgeting process, and will be further expanded and refined during fiscal year 1969.

Using the inputs of an automated information system and numerous analytical studies, a planning process is being developed that will allow decisionmakers at various levels to make more informed decisions about the allocation of Department's resources. Further efforts to perfect this process are planned for fiscal year 1969. The continual process of sharpening objectives and updating and revising the agency plans is carried on under the direction of the Office of the Secretary.

The 1966–67 edition of *Health, Education, and Welfare Trends* was published in June 1968. *Trends* presents annual historical statistical series of national data on program operations and current social, demographic, and economic developments affecting future directions in health, education, and welfare. Part I of *Trends* is designed to further national understanding of the interlocking developments in health, education, and related fields. It furnishes long-term perspective on the shifting patterns of change by presenting annual data for several past decades and selected projections to the 1980's. *State Data and State Rankings in Health, Education, and Welfare*, issued as part 2 of *Trends*, shows variations from State to State by selected subjects for the latest year for which State data are available. Part 2, by disaggregating the national statistics, reveals to some degree State variations in assets and in the range of response to problems and deficiencies in health, education, and welfare fields.

The President directed the Secretary of Health, Education, and Welfare to establish the capacity to develop social statistics and indicators to supplement those already issued by the Council of Economic Advisers and the Bureau of Labor Statistics. Useful social indicators

could not be developed without first developing basic new concepts and definitions, and this task was the principal concern during fiscal year 1968.

Comptroller

The Assistant Secretary, Comptroller, is the principal adviser to the Secretary in the financial management of the Department. His office is responsible for establishing basic Department financial management policy, including budget planning and administration, fiscal policy and procedure, operations analysis, grants administration policy, Department-wide audit, payroll services, and data processing services.

Appropriations and outlays, fiscal year 1968

	Appropriations	Outlays
Health agencies	$2,927,877,000	$2,396,180,000
Office of Education	3,982,780,000	3,619,266,000
Social and Rehabilitation Service	5,968,692,000	5,969,998,000
Social Security Administration	1,384,659,000	
Payments to trust funds from general funds		(1,011,631,000)
Disbursements from trust funds		28,537,581,000
Bureau of Federal Credit Unions		134,000
Special institutions	35,540,000	30,376,000
Office of the Secretary	37,297,000	22,226,000
Total	14,336,845,000	40,575,761,000

Finance

LETTER OF CREDIT OPERATIONS

The agencies of the Department, under leadership of the Office of the Assistant Secretary, Comptroller, undertook a critical examination of HEW's letter-of-credit operations. A task force, with representation from the several agencies, developed comprehensive letter-of-credit guidelines and instructions for use by all grantees and other recipient organizations that obtain financing of HEW programs through letters of credit. The nationwide review of letter-of-credit operations, made by the HEW Audit Agency at 177 State agencies and selected local agencies, showed clearly that most State and local agencies could significantly improve their management of Federal cash and reduce cash balances. The Department's agencies, therefore, greatly increased their efforts to minimize these cash balances and improve management of the letter-of-credit system. These efforts were reflected by net reductions in cash balances of recipient organizations of about $63 million during fiscal year 1968.

OTHER FINANCING OPERATIONS

The National Institutes of Health converted from an automatic quarterly advance system for about 1,500 grantees to a monthly grantee cash request system. The quarterly advance system disbursed an estimated $53 million in excess of grantees' current needs.

NEW COMPUTER SYSTEM

The Office of the Secretary is replacing its computers with a "third generation" model which will greatly decrease problem-to-solution time. The new system will facilitate the creation of large, randomly accessible data bases. Through use of random access storage devices and programing tools new to the Office of the Secretary, users will be able to communicate directly with the new computer through a wide variety of input and output devices. The system will be expandable to accommodate a 5-year projected workload.

IMPROVED PAYROLL SYSTEM

In response both to audit reports and to our own requirements for system improvements, the Office of the Secretary is designing and implementing an improved payroll system to be installed on the new computer hardware system. The improved system will provide greater accessibility to data and will improve ability to make payroll reports and to answer payroll data questions.

ACCOUNTING SYSTEMS DEVELOPMENT AND APPROVAL

During the past year effort has been on development and formal submission of accounting systems to the Comptroller General as a three-phase operation. The first phase covered design of the "umbrella" system and writing of policies and standards. The second phase involves submission of the detailed plan and description of the subsystems. The third phase comprises the implementation of the agency subsystems.

Agency subsystem development and implementation is progressing.

- The Social and Rehabilitation Service accounting subsystem was formally submitted to the Comptroller General on June 13, 1968. This system has been designed to provide management with timely financial data which will assist in the planning, control measurement, and evaluation of SRS operations. Progressive implementation of this system will begin in July 1968, with final implementation expected by July 1969.
- The Social Security Administration accounting subsystem, now in operation, was formally submitted to the Comptroller General in July 1968. This subsystem is EAM oriented, but conversion of the EAM process to computer operation is anticipated.

- The Office of Education accounting subsystem was formally submitted to the Comptroller General in July 1968. This complex and diversified system incorporates the principles and standards of the "umbrella" system and is computerized.
- The centralized ADP payroll subsystem was submitted to the Comptroller General for approval in November 1967. This subsystem, however, is undergoing redesign and the General Accounting Office has deferred review until after the modified system goes into effect.

ACCRUAL ACCOUNTING

To comply with the Bureau of the Budget Bulletin 68–10, April 26, 1968, and to assist in the implementation of accrual accounting policies as defined in the HEW "umbrella" accounting system, the Department conducted a review of the financial processing of grants. The purpose of this review was to provide a basis for determination of accrued expenditures at June 30, 1968 and at the end of each subsequent month. It constituted the main effort in a Department-wide survey preparatory to the development of accrual accounting instructions (now available in draft form for use throughout HEW), and was made by the consulting firm of Lindsley H. Noble & Associates and Department financial staffs.

The contemplated accrual procedures substitute statistical measures for direct individual reporting by numerous grantees and contractors. The use of statistics is necessary to provide data on a timely basis and to accommodate the large number of grants and contracts. The use of accrued expenditures is expected to help in expressing actual program costs in grant areas where there is a large amount of unpaid liabilities at monthend. It also will in some cases provide more flexible fund usage and will allow performance-cost evaluation in the interest of improved management.

Grants Administration

Through its formation of the Division of Grants Administration Policy, the Department took a significant step toward strengthening grantee institutions and improving Department grant management methods. The Division published a grants manual which provides guidance for the Department's agencies in their administration of grant programs, thus reducing the unnecessary variations among programs with which grantees had earlier been faced.

The effective operation of a Public Advisory Committee, comprised primarily of representation of the grantee community, has also been established. Meeting quarterly, the Committee advises the Secretary on

significant issues of grant administration affecting the grantee community. It also provides a basis for early consideration of significant new or revised Department policies.

Another committee has also been established which regularly brings together in a common forum all major programs for continued review and evaluation of Department grant administration methods. A number of major improvements in grants administration policy have resulted: Unified reimbursement policies of student support programs, with a Public Advisory Committee established to regularly review the adequacy of the levels of stipend support; improved administration of construction grant programs through the unifying of forms and review procedures; and greatly simplified reporting of grant expenditures.

In its establishment of indirect cost rates for grants and contracts awarded by the Department, and in the development of related cost policies, this Division has during the past year brought this function to a current status and now provides a major financial advisory resource for the grantee community.

The "Grants Administration Report," a new publication of the Division, provides in-depth analyses and considerations of the issues relating to grant policies.

Audit Agency

The Audit Agency, established in 1965, audits all Department programs and activities, including those conducted by and through its various grantees and contractors. The audit workload thus represents more than 1,400 Department installations, 545 State agencies, 20,000 school districts and other local units of government, 4,000 universities and other private organizations, 150 health insurance intermediaries, and 10,000 hospitals and extended care facilities. The sheer magnitude of this workload, coupled with the need for timely audit service, requires necessary coverage with a minimum effort. Some of the techniques used by the Audit Agency to provide this service are:

Total Audit Concept

Many of the Department's programs are administered through organizations that often receive grants and/or contracts from more than one of the Department's operating agencies. Our auditors perform a concurrent audit of all such activities at the institution, thereby permitting an evaluation of total management operations as they affect Department funds. In this manner, audits are accomplished more efficiently with fewer visits and less disruption of the activities of the organization being audited.

Cross-Servicing Arrangements

Many organizations participating in the Department's programs also participate in programs administered by other Federal agencies. We coordinate with these agencies to establish a system of audit cognizance whereby the Federal agency having cognizance (usually determined by the volume of program dollars involved) extends its audits to meet the audit needs of all Federal agencies involved.

Utilization of Outside Auditors

For many organizations, participation in the Department's programs is but a part of their overall activities. Whenever possible, internal reviews of such organizations' operations by their own audit staffs or their public accounting firms are being utilized by our auditors. We are continually encouraging these organizations to have their internal reviews performed so that they will meet HEW audit requirements as well. This technique, in addition to minimizing the impact of a growing audit workload, has the added advantage of strengthening the management capabilities of the grantee organizations participating in the administration of the Department's programs. Examples:

- *Audits of Medicare program.*—We developed a plan which relies on public accounting firms for audits of intermediaries and providers. Generally, the hospital extends the engagement of its own accounting firm to conduct the Medicare audit. The intermediary, with its own staff or separate independent firm, evaluates these audits through review and test checks. The Audit Agency audits the intermediary and evaluates its conduct of this audit approach.
- *Audits of colleges and universities.*—We developed and distributed to educational institutions audit programs for the work-study and NDEA student loan programs. We are continually urging educational institutions to extend the audit engagement of their accountants to cover these two programs. To date, a total of 1,084 institutions have agreed to participate in this approach.
- *Audits of State and local agencies.*—We are continually working with States and intergovernmental organizations with a view toward increased utilization of work performed by State audit staffs. During fiscal year 1968, meetings and training sessions were held with State audit groups to explain the Department's audit needs and demonstrate Audit Agency techniques. We initiated 14 demonstration projects on Federal-State audit partnership designed to assist State audit organizations to strengthen and expand their audit capabilities.

Administration

The Department continued to give high priority to modernizing its administrative machinery, revitalizing its organizational structure, improving its operating relationships with its State and local partners, and strengthening its capacity to offer employees and potential employees maximum opportunity for growth and development.

Two major organizational changes which occurred in the spring and summer related to health and social welfare functions respectively. The health functions of the Department were completely reorganized. The Assistant Secretary for Health and Scientific Affairs was placed in charge of the new Public Health Service and the Surgeon General was made his principal deputy. Together they provide policy and professional guidance for all Department health functions, including the Medicare and Medicaid programs and the Children's Bureau health functions. A new concept for social and rehabilitation services was developed designed to join under single leadership both the income support programs for needy Americans and the social service and rehabilitation programs that many families and individuals need. This concept was implemented through the establishment of the Social and Rehabilitation Service, joining in one organization the former Welfare Administration, Vocational Rehabilitation Administration and the Administration on Aging. The new agency achieves greater unity of purpose and an integrated approach to social and rehabilitation programs.

Personnel Administration

In the field of personnel administration, fiscal year 1968 was marked by change, innovation, and the improvement and expansion of existing personnel programs in response to the rapidly growing responsibilities of the Department. A significant element of change was the reorganization of the Department's health and health-related programs, which included elevating program management to the departmental level, and abolishing the former Office of the Surgeon General, Public Health Service. Through the realignment of resources permitted by these actions, personnel administration within the Office of the Secretary and in the new health administrations was substantially strengthened at no overall increase in staff.

Finishing its second year, the Department's career development program was significantly advanced. At the close of the year, 21 career service boards, covering approximately 60 percent of the Department's total employment, had been established; and 15 of these boards had presented plans for the improvement of personnel management

in their respective occupational areas to the HEW Career Development Council.

In the area of employment of minority group members, the year's efforts were highlighted by an intensive recruiting campaign in the West and Southwest to increase the employment of Mexican-Americans. In spite of such problems as linguistic difficulties and the lack of adequate recruitment materials for such an effort, placements were made from the trainee to the professional level.

In the youth and summer employment programs the Department exceeded YOC program quotas by more than 50 percent, and the number of special administrative interns doubled over the previous year. A continuing evaluation and supervisory indoctrination program was also initiated.

Over 72,000 HEW employees received formal training during the year, as compared with 38,000 for the previous year. Most of the increase was attributed to new and expanded in-service training programs, particularly in the areas of orientation, clerical, and supervisory training.

Eight HEW employees received the highest national recognition: the President's Award (Arthur Hess, SSA); the Rockefeller Public Service Award (Secretary Wilbur J. Cohen); the Arthur S. Flemming Award (Dr. Frank J. Rauscher, NIH); the National Civil Service League Award (Dr. Alexander Langmuir, NCDC, and James F. Kelly, OS); Ten Outstanding Young Men Award (Dr. Paul Parkman, NIH); the Federal Woman's Award (Ruby Martin, OS); and the Young Federal Lawyer's Award (Paul Merilin, OGC).

There were 20 distinguished service awards compared with 16 in 1967; 201 superior service awards, compared with 96 in 1967; 1,158 employee suggestions adopted, compared with 965 in 1967; and 1,676 cash performance awards, compared with 1,250 in 1967. Two new awards, the HEW Award for Distinguished Public Service and the HEW Achievement Award, were established during the year.

The number of unions accorded exclusive recognition increased from 77 in fiscal year 1967 to 120 in fiscal year 1968. The number of collective bargaining agreements increased from 32 to 68, and formal recognition from 44 to 65. There was also a larger number of complaints and arbitration actions. At the close of the year primary attention was being directed to more effective management of this rapidly expanding program.

By way of reinforcing all aspects of personnel administration, continuing and expanded efforts were directed to employee information and communication programs. The HEW Forums, inaugurated in 1967, presented 16 lectures by Department officials. Forum papers

for the series were published and distributed to Department employees.

The HEW Employee Forum, instituted and led by the Secretary, presents issues and topics of major interest and concern to employees of the Department, and permits these employees to engage in direct dialog with key HEW officials.

The HEW Film Forum screened films for Department employees on subjects related to the mission of the Department such as the human environment, mental health, race in America, education, and poverty and health.

The Career Development News, a monthly publication, was initiated to inform employees, supervisors, and managers on career development policies, programs, and activities of significance to the fulfillment of their responsibilities and the advancement of their careers.

Underlining the need for continuous improvement of all aspects of personnel administration is the steady increase in overall employment and the need for new skills and abilities to meet changing program requirements throughout the Department. The number of paid employees increased from 105,596 in June 1967 to 117,113 in June 1968. The Social Security Administration accounted for approximately 62 percent of this increase, in response to the huge workload expansion generated by the health insurance program and statutory changes in the social security system. The second largest center of growth, 27 percent of the total increase, was in the Department's health programs.

Equal Employment Opportunity

The Secretary transferred the equal employment opportunity program, formerly a responsibility of the Special Assistant to the Secretary for Civil Rights, to the Office of the Assistant Secretary for Administration.

In HEW, this staff was charged with the responsibility to provide equal opportunity in employment for all qualified persons; to prohibit discrimination in employment because of race, color, religion, sex, or national origin; to establish and maintain a positive program of equal employment opportunity for all civilian employees and applicants for employment; to provide for the prompt, fair, and impartial consideration of all complaints of employment discrimination based on race, color, religion, sex, or national origin; and to promote the full realization of equal employment opportunity through programs affecting employability, such as employee housing opportunities, and selection and acquisition of buildings or space.

The equal employment opportunity staff also serves as a focal point for the coordination and development of programs and projects concerning minority group activities in HEW, and represents the Department on EEO matters.

Management Systems

Under the coordination of a newly established Department regulations officer, new regulations development procedures were developed to insure that concerned staff officials participate in the resolution of policy issues before formal regulations are drafted, and to get regulations review, as appropriate, by heads of State and local government.

A program was initiated to standardize commonly used data elements in Department data processing systems such as organization components of the Department, firms with which the Department does business and geographic areas.

Completion of a study of program relationships between the Food and Drug Administration and the Public Health Service provided background for the establishment of the Consumer Protection and Environmental Health Service.

Improvement in the management of our programs resulted from review of Federal grant-in-aid processing time. The President, concerned that many agencies were taking much too long to process grant-in-aid project applications filed by State and local governments, directed the Secretaries of Housing and Urban Development, Labor, and Health, Education, and Welfare, and the Director of the Office of Economic Opportunity, to join in finding ways to reduce, by at least 50 percent, the time it takes to process applications for Federal assistance in four major areas of intergovernmental cooperation: model cities, neighborhood centers, manpower development, and water and sewer facilities.

An internal HEW committee was established, under the direction of the Assistant Secretary for Administration, to review HEW grant programs which might become components of multipurpose projects and to determine where and how reductions in processing time could be made to meet the President's goals. Programs examined were those judged to be critical, based on such factors as dollar size, relation to important urban problems, and the nature of and time involved in the existing application process. Against these and related criteria, the committee identified 18 HEW grant programs in the four major areas where reductions in processing time could be achieved. New procedures were established for these HEW programs which would reduce average processing time by 51 percent. These results were included in the Interagency Report to the President, *Reducing Federal Grant-In-Aid*

Processing Time (Sept. 30, 1967). The procedures established became effective on December 31, 1967.

The Final Report of the Joint Administrative Task Force, *Reducing Federal Grant-In-Aid Processing Time* (March 1968), identified eight additional critical programs for which reduced processing times averaging better than 50 percent were established. Procedures for achieving reductions in these eight programs were effective March 31, 1968.

General Services

Among the improvements in general services successfully completed were: Consolidation of Department-wide magnetic tape procurement, the joint use of a single teletype network by all HEW operating agencies and the regional offices, the introduction of new accounting criteria for personal property, elimination of unnecessary communications equipment, and redistribution of personal property.

Surplus Property Utilization

Personal property, surplus to the needs of the Federal Government, with an original acquisition cost of $309.8 million, was allocated for distribution to health, educational, and civil defense donees in fiscal year 1968. Most of the slight increase over the previous fiscal year was attributable to the release by the military of relatively high-cost property such as computers and aircraft. The availability of the so-called common-use items could not meet the demand of eligible donees. For example, during fiscal year 1968, 29 aircraft, which originally cost $1.478 million, varying from Piper Cub to C–45 Beechcraft, were donated to institutions to carry out pilot, airframe, powerplant, and instrument training programs. Two major vessels, with a combined acquisition cost of $1.131 million, were donated for oceanographic, marine, and biology research, and other educational purposes. Seventeen computers of varying types, with an acquisition cost of approximately $4.9 million, were donated to 16 institutions of higher learning.

In October 1967, as a result of an on-site review of DOD European depots by committee staff members, the House Committee on Government Operations recommended that this Department, General Services Administration, and the Department of Defense jointly study the possibilities of bringing back to this country Federal excess personal properties located outside of the country. Acting upon this recommendation, the three agencies developed a procedure for screening, requesting, and returning to this country for Federal reutilization and for donation, reportable-type overseas DOD properties in selected

condition classifications. This procedure was put into effect on July 1, 1968, on a 1-year experimental basis with respect to property located in Germany.

For the third consecutive year the acquisition cost of surplus real property conveyed for health and educational purposes, including research, exceeded that of the previous fiscal year. Real and related personal property, with an original acquisition cost of $114 million, was transferred to eligible health and educational institutions in fiscal year 1968. This was an increase of $19.9 million over fiscal year 1967, and was the peak of the activity since the program's inception. This increase is attributed to the increased number of obsolete military installations conveyed, as well as several similar properties of the Veteran's Administration.

An example of an obsolete military installation is the former Walker Air Force Base, Roswell, N. Mex.: 234 acres and 76 buildings, which had an acquisition cost of $10 million, were transferred to Eastern New Mexico University for use as a branch campus, offering a 2-year standard academic college program. The university will also specialize in vocational technical fields suitable to the needs of the area. Another portion of the facility was conveyed to the Roswell Independent School District for elementary school use. A third conveyance of land and the former base hospital was made to the New Mexico State Department of Hospitals and Institutions for hospital purposes.

Another example of a major facility conveyance is in the State of Nevada where portions of Stead Air Force Base, totaling 424.57 acres of land, 51 buildings, and related personalty, with an acquisition cost of $11.7 million, were conveyed for health and educational purposes: 327.88 acres of land, 48 buildings, and related personalty were transferred to the University of Nevada; the sewer system, including treatment plant, mains, and 79.52 acres of land, to the city of Reno; and 17.07 acres of land to Washoe County School District. The district has now constructed an elementary school on the site.

Not all of the real property transferred has been of this magnitude. A number of old post offices are continuing to serve their communities as public libraries, and buildings from reclamation projects are serving as teachers' residences.

The following illustrates the diversified purposes for which 161 parcels of surplus real and related personal property were conveyed during the 1968 fiscal year:

College campus sites and facilities	19
College and high school agricultural, teaching, experimental, and vocational training	27
Elementary and secondary educational programs	64
Central administrative and service facilities for schools and school systems	6

Housing for school or hospital staffs	10
Hospital and clinic programs	3
Treatment, rehabilitation, and training centers for the mentally retarded and physically handicapped	3
Public libraries	10
Water and sewer production treatment and service facilities	10
Land fill refuse disposal programs	1
Research	5
Juvenile rehabilitation and training centers	3

State Merit Systems

A major emphasis of the Office of State Merit Systems during fiscal year 1968 was a combined effort with the Federal program agencies to stimulate and assist the States to provide increasing opportunities for the disadvantaged in public employment. The Office focused attention on the means whereby socially desirable objectives can be attained within the framework of merit principles.

To review the Federal-State cooperative personnel program in the light of current manpower and social policies and operating needs, the Secretary appointed an Advisory Committee on Merit System Standards. The Committee is charged with making general policy recommendations on personnel standards applicable to State and local agencies, and proposals for optional effectiveness in the program.

In line with tentative conclusions of the Committee, the Office of State Merit Systems sent forth to State personnel directors certain modifications in merit system practices which States should adopt in order to meet current program objectives. These suggested modifications stress the restructuring of jobs to provide career opportunities for disadvantaged persons, targeted recruitment, realistic education and experience requirements, and new approaches to selection including the use of nonverbal tests and structured interviews when appropriate.

The Office responded to State requests for technical assistance in various areas of personnel administration. For example, 44 of the 50 States were supplied examination materials. A report was issued on application of automatic data processing to State merit systems. In four States, assistance was given in establishing statewide civil service systems which succeed grant-in-aid merit sytems.

Defense Coordination

The Department is required to maintain continuity of organization and essential functions under conditions resulting from attack or natural disaster. This requires both headquarters and regional relocation sites and a system of coterminous regional boundaries with the

Office of Emergency Preparedness and the Office of Civil Defense. These arrangements are maintained in constant readiness.

The Department maintains an emergency medical stockpile valued at approximately $150 million and 2,500 packaged disaster hospitals pre-positioned among all 50 States and able to move quickly to any area where casualties or refugees need added medical facilities. Authority is also available to help restore educational and health facilities which may be damaged or destroyed.

The Department also conducts several types of citizen training to help families cope with sudden emergencies. Through State departments of education, 374,391 persons completed the personal and family protection 12-hour training course during the fiscal year. Through State health departments, 2,320,928 persons completed a 16-hour course in medical self-help during the same period. In addition to training programs, seven special research projects related to emergency requirements were underway as of June 30.

In 32 natural disasters during the year coordination of HEW assistance was performed by the Department's regional offices, working with counterpart State agencies and with the Office of Emergency Preparedness, which is part of the Office of the President. In a post-nuclear disaster regional directors have delegated authority to commit departmental resources and take all necessary action on behalf of the Secretary, if headquarters communication is cut off.

To monitor and coordinate emergency readiness measures for the Secretary, a small staff unit is assigned to the Assistant Secretary for Administration. Each operating agency and each regional office also provides staff support for this purpose. The overriding concern of HEW personnel in a crisis situation is to channel all possible aid and assistance to meeting emergency health and welfare needs of people.

Community and Field Services

Programs Dealing With Children and Youth

In the summer of 1967 the Office of the Assistant Secretary for Community and Field Services prepared a departmental report, *Parents as Partners*, on the ways and degree to which parents are involved as participants and planners in the Department's many programs relating to children. As a result of that report, a work group was formed in February 1968 to make recommendations for policy in this area.

On June 20–21, 1968, this office cooperated with the Children's Bureau in sponsoring two 2-day meetings dealing with the concerns of youth in our society. Papers were prepared and delivered by youth and young people participating in the meetings as coequal (and often dominant) participants. Out of these meetings came a report, *Identity in a Troubled Time*, and proposals for involving young people in the processes of government in a meaningful way.

The Office also cooperated with the Department of Labor and the Office of Economic Opportunity in a joint effort to stimulate and support programs which provide promising new models for the involvement of youth such as the Neighborhood Development Youth Program (NDYP) in Washington, D.C.

In conjunction with participation on the President's Council on Youth Opportunity, this office was involved in several activities, for example:

The President's Council desired a systematic evaluation of the summer programs to provide guidelines for future program directions. Therefore, this office initiated a contract with the Trans-Century Corp. for such an evaluation. The resulting report, titled *From the Streets*, urged youth involvement in the OEO planning and operation of summer programs. The report also stressed programs which continued beyond the summer and emphasized the involvement of youth in decisionmaking roles.

The Department funded the Community Action Training Program in the District of Columbia out of its special funds. This was a model program designed to reach older hard-core youth through the use of innovative education programs dealing with youth roles in the community.

Activities in relation to juvenile delinquency assumed high priority throughout the year. Staff of the Office coordinated the Department's efforts to develop a new and expanded program—the Juvenile Delinquency Prevention and Control Act of 1968. Staff also worked with the Department of Justice to develop a coordinated approach to the problem of crime and delinquency. A series of conferences at the National, State, and local levels was spearheaded by the Office as a means of stimulating comprehensive, coordinated efforts to prevent and control delinquency.

Social Services and Welfare Programs

In May of 1968 the Office was charged with coordination of this Department's response to the Poor People's Campaign. While the campaign was actually in progress, the Office coordinated the responses submitted by the agencies and prepared the drafts which

became the basis for the Department's official response. Activities in this regard have been extended into fiscal year 1969.

The Program Analysis Group on Exits from Poverty examined and prepared a report on the conditions which lock people into poverty and alternative means of achieving the goal of eliminating poverty. Specifically, the group considered the earning power and income maintenance programs that would be required to lift the poor out of poverty and made recommendations to this effect.

In March of 1968 the Office, with the Department of Labor, sponsored a 2½-day conference on new careers in the following fields: education, social services, health, and corrections.

That same month Secretary Cohen called together a task force of experts in social services to develop a point of view and make recommendations on the allocation and organization of the social services in the United States.

The task force recognized that social services previously had never been defined and described as a field with its own unique identity. During the spring of 1968 the task force gave consideration to over 50 issue papers related to basic concepts for the development of social services, allocation of resources and the issue of priorities, organization and financing, planning and coordination, and manpower. A preliminary report was scheduled to be presented to the Secretary in October 1968 and a final report in the spring of 1969.

Consumer Services

Consumer aspects of the Department's programs were strengthened by the appointment of a special assistant to the Secretary. He was appointed to represent consumer interests and advise the Secretary on improved techniques for meeting consumer needs. Through this special focus, expanded program activities were developed affecting the status of consumer education, as well as information and service for the low-income consumer. These activities were coordinated both within the Department and with related programs in other agencies.

This focus also provides HEW with a contact point for consumers and representatives of consumer organizations seeking assistance. In addition, consumers have been invited to participate in departmental planning meetings and informational conferences for the purpose of considering the consumer viewpoint in program planning and disseminating information on programs of special concern.

Field Coordination

A key departmental priority was better coordination of programs—within the Department, with other Federal agencies, and with State

and local government—for the purpose of improving delivery of services to the people. The Office of Field Coordination and regional directors were delegated responsibility for administration of the model cities program in the field. They worked closely with the 75 "first round" model cities, now in various stages of their planning effort, and with 200 cities seeking model cities status. They carried out other priority programs requiring the coordinated efforts of the agencies such as neighborhood service programs, family planning, and the youth opportunity program.

In addition, the Office helped increase communication on mutual problems among all levels of government through seminars and conferences of Federal, State, and local officials and their associations.

Civil Rights

SCHOOL DESEGREGATION

Between the 1954 Supreme Court decision and the 1964 Civil Rights Act, there was almost no desegregation in Southern schools. In 1963 only 1.17 percent of Negro students were attending school with whites, while in 1968 20.3 percent were attending desegregated schools.

Thus, in contrast to the 1964 picture, nearly every school district today has some student desegregation. Similarly, teachers were rigidly segregated before 1964. Today, nearly all of the districts with white and Negro teachers have begun the process of faculty desegregation, and are making steady progress each year. A key to this progress has been the application of the title VI sanction where necessary. OCR has initiated enforcement proceedings against 480 school districts. However, as of June 30, 1968, only 96 districts were actually barred from Federal assistance on account of noncompliance.

The most recent policies affecting school desegregation, issued in March 1968, required all school districts still in the process of eliminating the dual school system to complete the process no later than the beginning of the 1969–70 school year. This marked the first time the Department has notified all school districts eliminating the dual system under voluntary plans (as opposed to court orders) of the target date by which they must be completely integrated or face the possibility of losing Federal financial assistance.

The new policies have resulted in nearly 300 school districts adopting acceptable plans during the past year. The Office for Civil Rights is negotiating with the remaining 340 voluntary plan districts for the submission and implementation of plans by September 1969.

To date, the Office has received statistical information from over 2,000 Northern school districts indicating the extent to which minority group students and faculty members are attending schools with white

328-184—69——6

students and white faculty members. Through June 30, 1968, preliminary reviews were initiated in five school systems in California, and five full reviews have been conducted in California, Connecticut, Pennsylvania, New Jersey, and Ohio.

Higher Education

The higher education compliance program was launched in August 1967, with a nationwide questionnaire on racial enrollments sent to 2,300 colleges and universities receiving Federal financial assistance. On the basis of data received, approximately 300 colleges having a minority enrollment of less than 1 percent were selected for compliance review and, by June 30, 1968, OCR staff had visited 30 colleges to determine whether racial discrimination exists.

HEALTH AND SOCIAL WELFARE

As of June 30, 1968, 98 percent of all hospitals in the Nation were officially committed to provide all services without discrimination. More than 3,000 of these hospitals changed their previous policies and practices to comply with title VI.

Most of these changes were achieved voluntarily. Only 35 hospitals have been involved in the hearing step of enforcement proceedings.

And only nine have lost Federal financial assistance because of noncompliance with title VI. Twelve cases are pending; the remainder came into compliance voluntarily.

During fiscal year 1968 comprehensive compliance reviews were conducted of the health and welfare programs in 12 States. In these reviews visits were made to 354 agencies and health and welfare facilities including 54 hospitals and 55 nursing homes. In addition, routine compliance reviews and complaint investigations were conducted in 232 hospitals and 32 nursing homes. OCR made compliance reviews of hospitals and nursing homes and other health and welfare agencies including local welfare agencies, child care facilities, day care centers, rehabilitation centers, special programs for the aged, and mental health facilities. Any noncompliance problems were identified and corrective action was initiated to assure full compliance with title VI of the Civil Rights Act.

CONTRACT COMPLIANCE

Contract compliance specialists have been assigned in five regional offices; 40 reviews were conducted by June 30, 1968. The purpose of these reviews was to evaluate employment policies, practices, and affirmative action measures being observed by HEW contractors. Another major concern in these reviews has been to identify community resources which could provide minority group candidates for employment by contractors.

INTERAGENCY LIAISON AND COORDINATION

The Office for Civil Rights coordinated its title VI program with the model cities program. In conjunction with the Center for Community Planning, OCR worked with the Model Cities Administration to assure that agencies of cities receiving model cities grants are in compliance with title VI.

Because of the relationship between certain programs of the Department of Housing and Urban Development and HEW's civil rights responsibilities, OCR has maintained close liaison with HUD. In this context, the Renewal Assistance Administration and OCR have developed policies which would allow cash credit for school construction occurring outside urban renewal site areas when such construction would facilitate school desegregation under title VI.

Center for Community Planning

The Center for Community Planning, which completed its organization and staffing during 1968, was established to coordinate the Department's response to urban problems. The Center also serves as HEW's urban affairs liaison with HUD and other Federal departments. The initial emphasis has been on Model Cities, neighborhood service, and parent and child center programs. In organizing for this effort, the Center established HEW's Urban Coordinating Committee, which links the activities of separate HEW agencies and advises on strategies essential to the Department-wide effort.

During the course of the year, the Center organized a system of regional response to technical assistance planning needs of Model Cities. Evaluation teams were established in Washington and in the regions for the review of applications from cities seeking Model Cities planning grants from HUD.

Recognizing the need for a clearer understanding among HEW personnel of urban needs and of HEW's role in solving them, the Center undertook a series of training programs for topflight HEW executives in the problems of the inner city. This orientation program included a living experience in an inner city ghetto. The Center and the Public Health Service also held a series of meetings throughout the country bringing together for the first time city, neighborhood, social service agency, State and Federal agency representatives in an effort to identify their roles in Model Cities planning.

The Center developed a series of publications for the information not only of HEW personnel, but of city and State planners concerned with the development of model neighborhood programs. These range from monthly publications highlighting HEW efforts in connection with the Model Cities program to inventories of the existing grants

relevant to model neighborhood activity and to comprehensive review of the kind of planning, the kind of problems, and the kind of programs necessary in model neighborhoods. *The HEW Handbook*, *City for Man*, and the monthly *Forum* are examples of CCP publications.

Working with the Comptroller's office, the Center developed and tested a system of earmarking funds for the wide variety of grant programs to meet the needs of coordinated service delivery projects in 14 cities as part of the Neighborhood Service Center program. The lessons learned in this effort are being applied in efforts to fund model neighborhood programs.

Center representatives and regional staff have met throughout the country with representatives of State Governors to assist them in identifying model neighborhood needs in terms of State involvement. Working with HUD, the Center developed Federal agreement on a partnership for States in the Model Cities effort. This partnership means that States may take part in joint technical assistance to model neighborhood planners, participate in joint evaluation of model neighborhood plans, and seek to develop State funding plans tied in with the Federal effort to make certain Model Cities are adequately financed.

Secretary's Committee on Mental Retardation

The Secretary's Committee on Mental Retardation coordinates the Department's mental retardation programs and advises the Secretary on issues related to the field. During the year the Committee was particularly concerned with the support of mental retardation university-affiliated facilities and improved training programs for personnel serving the mentally retarded. Federal participation in programs designed to serve the mentally retarded in poverty areas received special attention. The Committee also coordinated the Department's response to recommendations of the President's Committee on Mental Retardation in its 1968 report. The Under Secretary serves as chairman of this Committee.

Other Activities

The Assistant Secretary for Community and Field Services represented the Department on the United States-Mexico Border Development Commission, whose members visited several border towns in both the United States and Mexico. There they held hearings with local officials to determine special needs of the border towns and to establish a cooperative effort to meet these needs using the resources of both governments.

This office represented HEW on the National Advisory Commission on Rural Poverty. After conducting an in-depth study of current economic situations and trends relating to American rural life, the Commission offered recommendations as to how local, State, and Federal agencies could best mobilize their resources to offer assistance to the rural poor.

Health and Scientific Affairs

Extensive reorganization of the Department's health activities, and designation of the Assistant Secretary for Health and Scientific Affairs as the Secretary's alter ego on matters of health policy and programs, resulted in major changes in the functions and responsibilities of the ASHSA.

In March the Assistant Secretary was given responsibility for direction of supervision of the Public Health Service and the Food and Drug Administration, agencies which were later consolidated in an expanded Public Health Service. In all, programs budgeted at nearly $3 billion for fiscal year 1969, involving some 45,000 of the Department's employees, were placed under the supervision of the Assistant Secretary for Health and Scientific Affairs. At the same time he was made responsible for health policy direction of health programs administered by other Department agencies including Medicare, Medicaid, and the health activities of the Children's Bureau. These programs brought the total health and medical care expenditures by the Department to approximately $11 billion.

The Surgeon General of the Public Health Service was designated principal deputy to the Assistant Secretary for Health and Scientific Affairs, to serve as the Department's senior career health professional with expanded responsibilities for Department-wide leadership and guidance of health policies and programs.

The reorganization and the assignment of greatly expanded responsibilities to the Office of the Assistant Secretary for Health and Scientific Affairs reflected the need to establish a joint point for health policies in the Office of the Secretary, to provide program direction from the Office of the Secretary, and to achieve improved coordination and administration of departmental health activities that have tripled in the past 3 years alone, from $2.6 billion in 1966 to $10.9 billion in 1969. They reflect also the impact of more than 30 major pieces of health legislation for which the Department is responsible that have been enacted in the last 4 years including Medicare and Medicaid, comprehensive health planning, and numerous other measures ranging from aid for health manpower development to air pollution control.

In recent years the Federal role in health and medical affairs has expanded rapidly. In addition to its longstanding role as a major source of support for biomedical research, for the development and improvement of health facilities, and for aid to State and local programs of health services, the Federal Government now is a major purchaser of health care for the elderly, for the poor, for mothers and children, and for the disadvantaged. In addition, the Federal Government is now supporting a variety of efforts to improve the organization and delivery of medical care. Although expenditures have grown most rapidly in these areas, equally complex and important problems face the Nation in the field of environmental health.

The Federal Government has become a major partner with State and local government, the health professions, health care institutions, voluntary agencies, and the vast private health enterprises of the Nation in seeking to achieve our national health goals. The Office of the Assistant Secretary for Health and Scientific Affairs now serves as the Department locus for directing a coordinated departmental effort as our contribution to this vast undertaking.

Six staff offices are organized to assist in the execution of these functions: the Office of Planning and Program Coordination, Office of Science, Office of Health and Medical Care, Office of Family Planning and Population, Office of Health Manpower, and the Office of International Health.

The responsibilities of the Office of the Assistant Secretary for Health and Scientific Affairs include:

- Development, coordination, review, and evaluation of policies and priorities.
- Direction, review, evaluation, and policy review of programs of each PHS operating agency.
- Coordination of programs throughout the Department and on an interdepartmental basis.
- Development of health goals and program objectives; initiation, as well as the review and approval, of legislative, budgetary, and program planning proposals of PHS operating agencies.
- Liaison with professional and voluntary organizations, public and private institutions, State agencies, and other organizations to the extent that they relate to departmental policies and responsibilities.
- Interdepartmental coordination and liaison as well as representation on policy-related councils, e.g., Federal Council on Science and Technology.

- Intergovernmental policy and program coordination in relation to international health activities.
- Overall administration and direction of the Department's patent policy activities.

Planning and Program Coordination

This office is responsible for review and coordination of health activities within the Department. The Office serves the Assistant Secretary for Health and Scientific Affairs, the Surgeon General, and the staff offices directly serving the Assistant Secretary for Health and Scientific Affairs. This office also provides liaison with other staff offices in the Office of the Secretary.

The Office of Planning and Program Coordination is responsible for coordinating departmental concerns in comprehensive health planning and the activities related to the development and review of legislation, budget, and program planning. The Office serves as the Assistant Secretary's focal point for liaison with professional and voluntary organizations, private institutions, and State and local agencies; provides staff and secretariat for the National Advisory Health Council; provides policy guidance in the management of health grants throughout the Department; coordinates grant-related staff activities of the operating units reporting directly to the Assistant Secretary; and serves as the focal point for liaison and coordination with the Division of Grant Administration Policy in the Office of the Assistant Secretary, Comptroller.

International Health

The Office of International Health is the principal adviser to the Assistant Secretary for Health and Scientific Affairs on international health matters. This responsibility includes providing analyses of information necessary for policy formulation, review, and program coordination in three areas: International programs operated within the Public Health Service; professional and technical participation with multilateral health agencies and organizations; and technical support to U.S. bilateral health programs operated outside the Public Health Service, primarily by the Agency for International Development, including liaison with WHO, PAHO, UNICEF, UN, and UNESCO.

The Office of International Health has responsibility for providing effective coordination, evaluation, and policy direction for the special international research program (Public Law 480). During fiscal year

1968 a method was established to utilize the resources of the World Health Organization for the development and implementation of programs supported by excess foreign currencies.

Health and Medical Care

This office provides guidance on policy and program coordination, resource allocation, and legislative planning for HEW programs providing, purchasing, planning, or developing health and medical care services; for recommending priorities for health services research and development; and for liaison with governmental and other organizations providing, planning, developing, or purchasing health or medical care services.

New legislation enacted in fiscal year 1968 improved the capacity of the Department to deal with health services organization and distribution problems. Of particular significance were the health services and facilities amendments which emphasize regional medical programs, health services for migrating farmworkers, mental health and mental retardation programs, extension of loans to hospitals, and consumer protection services.

One of the most promising methods of distributing scarce medical manpower is group practice. In group practice several physicians can provide medical service to a far greater number of people than the composite of their individual positions. A Task Force on Group Practice reviewed the recommendations of the Conference on Promotion and Group Practice, held in 1967, and reported to the Secretary on implementation. And a working arrangement was established with the National Medical Association providing technical assistance to their foundation in setting up group practices in areas where they have sufficient membership.

Population and Family Planning

This office provides guidance on policy and program coordination, resource allocation, evaluation of legislative and program proposals in the field; coordinates the role of concerned operating agencies, particularly with the programs of other departments and agencies; and develops and maintains liaison with Federal and non-Federal organizations and institutions.

In fiscal year 1968 a committee of representatives of departmental operating agencies was set up to help in the coordination of population and family planning programs and projects within the Department. The office worked with various professional organizations to develop

professional school curriculum related to family planning, and an interagency committee was established to develop a plan for a uniform reporting system on family planning services.

Science

This office provides guidance on policy and program coordination relating to biomedical research and research training; research and development related to the occupational and environmental determinants of ill health and the elimination of environmental and work hazards; consumer protection; and drug development, evaluation, and utilization.

It serves as the focal point for liaison on matters of science; provides guidance on program priorities and resource allocation among HEW biomedical science activities; participates in the development and review of legislative proposals related to science, environmental health, and consumer protection activities; and administers the patent policy program of the Department.

During fiscal year 1968 this office served as a focal point for the development of a variety of programs such as initiating a program in response to the Federal Radiation Council's deliberations on lung cancer in uranium miners, working for the passage of the Radiation Control Act for Health and Safety of 1968, and working with the Department of Agriculture on standards for instant nonfat dry milk.

Health Manpower

This office provides guidance on policy and program coordination in health manpower development, guidance on HEW health manpower training priorities, resource allocation for program development, liaison with government and other organizations involved in health manpower matters, liaison with health professional schools and other educational institutions in policies related to institutional support for education and health manpower development, and the development of legislative proposals related to health manpower and policies related to educational institutions.

During fiscal year 1968 this office participated in the development and presentation of proposals culminating in the Health Manpower Act of 1968. This office played a key role in the analysis and implementation of the report of the National Advisory Commission on Health Manpower. In conjunction with the Department of Labor, Veterans' Administration, and the Department of Defense, a program for recruiting discharged military servicemen trained in health occu-

pations into civilian positions (Project Remed) was organized and implemented.

Education

International Affairs

In the Office of the Assistant Secretary for Education, the Office of International Affairs provides advice and assistance to the Secretary and his staff on the development and implementation of HEW international policies and programs. The Office provides departmental leadership and coordination in developing international programs in the fields of education, health, social security, rehabilitation, maternal and child welfare, and social development. The Office also is responsible for: developing U.S. policy positions for international meetings; liaison with other agencies and international and nongovernmental organizations; and representation on 23 interdepartmental and departmental committees and working groups, as well as one public advisory committee. The office also coordinates the Department's overseas research programs under the special foreign currency program authorized by the Agricultural Trade Development and Assistance Act (Public Law 83–480).

In fiscal year 1968 the Department's international programs, costing approximately $90 million, were carried out by about 1,000 staff members. Thousands of additional HEW staff members have some contact with international programs.

COOPERATION WITH INTERNATIONAL ORGANIZATIONS

HEW staff members actively participate as consultants and advisers to international intergovernmental organizations, participate in expert panels, workshops, committees, and study groups, and represent the United States on official delegations at international meetings. During fiscal year 1968, 380 staff members carried out these assignments overseas at more than 200 international meetings including such organizations as the World Health Organization, UNESCO, Pan American Health Organization, and UNICEF.

The UN General Assembly designated 1968 as the International Year for Human Rights. The Secretary was designated as a member of the President's Commission for the Observance of Human Rights Year 1968, and was represented by the Assistant Secretary for Education at Commission meetings. An ad hoc HEW committee planned activities within the Department to observe Human Rights Year, emphasizing programs which further human rights.

EXCHANGE VISITOR WAIVER REVIEW BOARD

The Exchange Visitor Waiver Review Board reviews and evaluates requests for waiver of the 2-year foreign residence requirement applicable to exchange visitors.

In 1968 the Board considered 566 applications for waivers: 398 applications for exchange visitors in the medical and paramedical fields, and 158 in the education field. Applications are submitted to the Department on behalf of the foreign visitors by colleges and universities, hospitals, local community organizations, and other institutions in all parts of the United States. In fiscal year 1968 the Board requested the Department of State to recommend to the Attorney General that the residency requirement for 77 exchange visitors be waived.

The Office of International Affairs chaired a working group, established by the Interagency Council on International Educational and Cultural Affairs, to review and to make recommendations for any needed modifications in existing visa waiver criteria and procedures. The working group affirmed the validity of current waiver criteria, called for a pilot study to determine the actual outcome resulting from waivers granted to alien physicians, and recommended that sponsors of exchange visitors assume more responsibility for the programing, training, and return of exchangees to their home countries.

International Education

The Office of Deputy Assistant Secretary for Education (International Education) was created at the beginning of the fourth quarter of fiscal year 1968. Its principal responsibilities are to:

(1) Followup on the recommendations of the Conference on the World Crisis in Education held at Williamsburg, Va., in the autumn of 1967.

(2) Develop plans for the International Education Year adopted by the United Nations General Assembly, upon motion of the United States, and expected to be celebrated during 1970.

(3) Supervise a study of international education in the Federal Government directed by the Congress.

INTERNATIONAL CONFERENCE ON THE WORLD CRISIS IN EDUCATION

The International Conference on the World Crisis in Education, held October 5–9, 1967, in Williamsburg, Va., was cohosted by then Secretary John W. Gardner and James A. Perkins, president of Cornell University.

One hundred and forty-six leaders from 50 countries participated in the Conference in their individual capacities to provide direction toward solving the world educational crisis of narrowing the gap between

what the world community expects from education and what the educational system can produce. President Lyndon B. Johnson and Rene Maheu, the Director-General of UNESCO, were two of the major speakers at the Conference.

The Conference summary report recommended action to improve the performance of education in six areas: information about education; management and structure; content and methods; teachers and students; educational resources; and international cooperation. The report also recommended the designation of an International Education Year to mobilize energies and inspire worldwide initiative to give the crisis in education the priority it deserves. The United Nations General Assembly supported that recommendation by provisionally designating 1970 as an International Year, subject to review of preparations at the 24th General Assembly Session.

The Conference was called by President Johnson and was financed by 10 foundations and the Department of HEW. The Conference Secretariat was established in the Department under supervision of the Office of International Affairs and direction of the Assistant Secretary for Education.

The Conference was unique in that it was a cooperative effort of public and private sectors, it was financed by both public and private sources, and the participants came in their own individual capacities rather than as representatives of their governments or institutions.

Office of Indian Affairs

The Office of Indian Affairs (OIA) was established late in 1967 within the Office of the Assistant Secretary for Education to serve as the focal point for:

- Developing departmental goals for providing services to Indians in cooperation with operating agencies.
- Coordinating HEW research, demonstration, and action programs in the field of Indian affairs.
- Relating the special needs of the Indian community, on and off Federal Indian reservations, to operational decisions within the Department.

The Office also must make sure that Indians are aware of HEW's more than 200 health, education, and social welfare programs, and fully participate in them.

Establishment of this departmental focal point on Indian affairs and its subsequent efforts was consistent with principles set forth in the President's March 6, 1968, message to the Congress "The American Indian."

Specific Highlights

A plan has been developed to meet OIA responsibilities consisting of three basic components. The primary component is program development aimed at identifying and meeting Indians' needs. OIA has identified areas for Department-wide program emphasis and has developed goals, objectives, and priorities concerning Indians for each HEW agency. The two supporting components can be useful in overcoming problems which beset the Indians and the several agencies which serve them, including HEW.

OIA has planned a training institute to provide orientation and other necessary learning experiences for those who serve, or will serve Indians and for Indians who are now ill-equipped to play leadership roles in programs. OIP also began planning a mechanism for gathering, storing, retrieving, and disseminating statistical and related data on Indian populations, their needs, and services to meet needs.

Significant organizational steps have been taken to expedite agency response to Indians' needs. Responsibility for Indian education within the Office of Education was delegated to the Office of Programs for the Disadvantaged, and a full-time staff has been acquired. Inter-Bureau and Inter-Administration task forces on Indian services were formed in the Office of Education and the Social and Rehabilition Service.

Departmental policies were reviewed and are continuing to be reviewed to assure that program services and benefits apply fully to Indians. In this regard, a program planning system, including a management information system closely attuned to the departmental planning-programing-budgeting system, was developed and is being implemented throughout the Department.

The Federal Interagency Committee on Education

The mission of the Federal Interagency Committee on Education (FICE) is to achieve more meaningful coordination of educational programs and to encourage better planning among all agencies concerned with education.

Meetings

FICE is concerned with and provides direction to all the educational efforts of the Federal Government. While the major focus was on higher education, FICE devoted meetings to a wide range of topics including the Education Resources Information Center (ERIC), the work of the Interagency Committee on Manpower Research, and short-range strategies to urban education and urban problems. The Committee called for a larger role for the humanities in higher education.

FICE also worked with the President's Council on Youth Opportunity.

Accomplishments of Special Projects

- *An agreement by member agencies to reinstate fellowships*, awarded on the basis of national competition, to graduate students entering military or equivalent service was announced on March 27, 1968. FICE later amended it to extend coverage to conscientious objectors who serve as Public Health Service commissioned officers, and officers of the Environment Science Services Administration.
- *The Report of the Task Force on Fellowships and Traineeships*, issued in June 1968, surveyed the fellowship and direct traineeship programs of the AEC, NASA, NSF, OE, and PHS. The report stated that Federal fellowships and traineeships in relation to graduate enrollment began to decline in 1968. Support for students in the natural and physicial sciences and engineering also declined as a proportion of total awards. The task force recommended study of all sources and types of support, as well as an examination of future manpower needs, so that Federal agencies will be better prepared to plan their support programs.
- *The Report of the Task Force on Selective Service*, sent to the White House November 30, 1967, recommended more equitable treatment for all draft-eligible men. It stated that unless the Federal Government responded to the decrease in attendance at the graduate schools, the future of graduate education might be imperiled. As a result of the work of the FICE task force, the FICE office has become a central source of information and action on issues relating to the draft.
- *The Veterans Administration*, at the urging of FICE, agreed to accept junior college candidacy for accreditation as tantamount to accreditation. Starting in October 1967 this enabled VA to pay comparable education benefits to veterans enrolled in degree-credit courses at both types of schools.
- *A report on the Miller bill* to the Senate Committee on Labor and Public Welfare in February 1968 suggested consideration of broad criteria for the establishment of an institutional grants program to provide maximum benefit to all types of higher education institutions.

Subcommittees

In response to the growing need for a standard Government directory of information on postsecondary institutions, FICE established its Subcommittee on Universe of Post-Secondary Educational Institutions in February 1968. The subcommittee proceeded to pull together all Government and non-Govrnment statistics and other pertinent information on every educational institution in the United

States beyond the secondary level. Its end product, the *FICE Directory*, will provide a common institutional serialization for machine data processing storage and retrieval which all Federal agencies may use.

The other three FICE subcommittees—the Student Support Study Group, the Subcommittee on Government-University Relations, and the Subcommittee on Manpower—met on a regular basis throughout the year. It is through this subcommittee system that the major portion of the work of FICE is carried out.

Model Secondary School for the Deaf

PLANNING OBJECTIVES

During fiscal year 1968 initial planning began for the Model Secondary School for the Deaf but engineering, architectural design, and construction was not to begin until the following year. The school will be located in Washington, D.C., on 17½ acres of land provided by Gallaudet College on the northern end of its campus. When fully constructed, the school will offer a comprehensive high school program for deaf students, who will attend on both a day and residential basis. The Model Secondary School for the Deaf Act (Public Law 89–694) specified that the school be a model in architectural and engineering design. Appropriate equipment for special visual and auditory presentation, particularly for control of acoustic and visual stimuli, will be incorporated in the facilities. The buildings will also be so designed as to facilitate the use of and accessibility to technological aids such as computers and closed circuit television. Gallaudet College will provide many supporting services directly and the remainder through contracts. The chief administrative officer of the Model Secondary School for the Deaf will be appointed by the board of directors of Gallaudet College upon nomination by the president of Gallaudet College, to whom the administrative officer will report directly.

TARGET POPULATION

Students will be admitted to the Model Secondary School for the Deaf from the District of Columbia, Maryland, Virginia, West Virginia, Pennsylvania, and Delaware. A comprehensive curriculum will be developed, including academic, technical, vocational, and other offerings which appear to hold promise in secondary education for the deaf. The curriculum will emphasize individualized learning in order to prepare students for postsecondary and terminal education. The school will begin an interim program in 1969 with approximately 50 deaf students on a nonresidential basis from the National Capital Area.

RESEARCH

Gallaudet College will develop a unit on research and demonstration in the Model Secondary School for the Deaf, and will evaluate the effectiveness of methods and materials at the school. The college will encourage relevant research both by its own faculty and by faculties of other institutions.

National Technical Institute for the Deaf

ESTABLISHMENT

The Rochester Institute of Technology was selected as the institute of higher education to enter into an agreement with the Secretary of Health, Education, and Welfare, as directed by Public Law 89–36, for the establishment and operation, including construction and equipment, of the National Technical Institute for the Deaf. The only one of its kind in the world, the institute provides a residential facility for postsecondary vocational and technical training and education of deaf persons to prepare them for successful employment.

PROGRAM

The National Technical Institute for the Deaf's curriculum, developed this year, includes courses of study designed to: correct deficiencies in the educational background of incoming students; provide assistance to students in counseling and orient them as to available and appropriate technical courses of study; and offer special supportive services to students pursuing existing Rochester Institute of Technology diploma programs. Plans for the extensive use of computer technology and instructional television in the development of curriculums were currently being implemented this year.

ENROLLMENT AND SERVICES

Full enrollment for the National Technical Institute for the Deaf will be 750 deaf students. The first interim class of approximately 70 entered in September 1968, using existing Rochester Institute of Technology facilities. NTID provided extensive supportive services for interpreting, notetaking, guidance and counseling, audiological evaluations, and speech and hearing therapy.

FACILITIES

When completed, the National Technical Institute for the Deaf facilities will consist of an academic complex including a speech and hearing clinic, an auditorium-theater, two dormitories, and a dining hall-commons.

ACTIVITIES OF THE STAFF

In order to accomplish maximum possible integration of deaf students with hearing students attending Rochester Institute of Technology, National Technical Institute for the Deaf staff gave a special orientation and training program to 105 student leaders and volunteers from Rochester Institute of Technology in February and March of 1968. An intensive 6-week summer institute was provided to 50 members of the faculty and staff of Rochester Institute of Technology. In September 1968, Rochester Institute of Technology students who will be National Technical Institute for the Deaf residence hall advisers, and other nonteaching staff, attended orientation sessions dealing with communicative and educational aspects of deafness.

RESEARCH

Several research activities have been undertaken by staff members of the National Technical Institute for the Deaf. A long-range study of NTID deaf and hearing students beginning RIT programs will compare progress of the two groups at various stages through graduation and employment. Special notebooks of pressure-sensitive paper have been developed to refine notetaking procedures. The notebooks were field tested with hearing students in the spring, were improved, and are now in general use. Further field testing is anticipated with high-school-aged deaf students.

Studies began on various applications of educational technology, particularly in mathematics. An IBM 1500 computer-assisted instruction system serves as the basis for these more advanced curriculum innovations.

President's Council on Physical Fitness and Sports

MAJOR TRENDS

During fiscal year 1968, there were two major changes in the responsibilities and operations of the President's Council on Physical Fitness and Sports. The first involved a shift in emphasis from physical fitness of American youth to physical fitness of American adults. Previously, the Council had concentrated on youth fitness, operating through the elementary and secondary school systems, both public and private. In 1968, while continuing to maintain the youth fitness program, the Council expanded contact with public and private organizations to stimulate development of physical fitness programs for their adult employees. In a second major change, the Council placed greater stress on sports participation as a physical fitness means.

328-184—69——7

HIGHLIGHTS

Executive Order 11398, issued on March 4, 1968, provided the mandate for a number of changes in Council policies and operations. The Executive order—

- Changed the Council's name to "President's Council on Physical Fitness and Sports";
- Established the Vice President of the United States as Chairman;
- Added the Secretary of State, the Director of the Office of Economic Opportunity, and the President's Consultant on Physical Fitness and Sports to the Council;
- Charged the Council with responsibility for expanding opportunities for more Americans to engage in a wider range of sports activity; and
- Created a Citizens' Advisory Committee to the Council, established its maximum size at 15, and directed the Council to take measures to activate the Committee.

At fiscal year's end, the Council had made recommendations concerning membership of the Citizens' Advisory Committee and had submitted them to the White House for its consideration and decision, and had begun planning and initial implementation of broadened sports participation opportunities.

PRESIDENTIAL PHYSICAL FITNESS AWARDS

During the 1967–68 school year, 70,619 boys and girls, ages 10–17, earned the Presidential Physical Fitness Award, nearly double the 37,165 winners in 1966–67.

The 1967–68 winners represented approximately 5,000 schools in all 50 States, the District of Columbia, and six U.S. territories. There also were 223 winners from 11 foreign countries, most of them from Canada.

Winners of the award must meet demanding performance standards (adjusted according to age and sex) in seven events. They receive an award emblem and a certificate bearing the Presidential seal and signature.

ADULT AND INDUSTRIAL FITNESS

In the area of adult and industrial fitness, the Council joined forces with the Department of the Interior to promote jogging, which resulted in four jogging courses being established in national parks in the National Capital area and one on the Mall opposite the Department of Agriculture for use of Federal employees.

The Council also helped eight Federal agencies and six private companies or associations design new employee physical fitness programs or revise existing recreation programs to incorporate a fitness program element.

PHYSICAL FITNESS CLINICS

The Council conducted five physical fitness clinics during the year: Philadelphia, Pa.; Fullerton, Calif.; New Orleans, La.; Milwaukee, Wis.; and St. Louis, Mo. A total of 6,500 school administrators, physical education specialists, teachers, recreation leaders, YMCA directors, and others participated. Approximately 1,500 boys and girls in elementary and secondary schools were involved in demonstrations. The clinics were aimed at strengthening programs of physical education and recreation in schools and community agencies.

OTHER ACTIVITIES

The first of its kind, a "Symposium on Exercise and the Heart," was sponsored by the Council, the American Medical Association, and other groups. The program featured addresses by eminent medical authorities on the relationship of exercise to heart disease, the prevention of cardiovascular disease, and exercise in the rehabilitation of persons who have suffered coronary heart disease; and demonstrations of ways to assess physical condition and how to properly perform selected exercises.

One of the Council's most significant projects affecting youth fitness was the Demonstration Center Schools. During 1968, 117 schools in 15 States were cited by their respective State departments of education for high-quality programs of physical education and physical fitness. The Council presented each school with a pennant to fly on its flagpole and a certificate of recognition and publicized the Demonstration Centers nationally.

The President's Council continued to provide leadership and service to Governors' Councils throughout the Nation. Nineteen States had such councils (or commissions) in operation in 1968, including a newly established unit in North Dakota. Connecticut sponsored a "swimming for fitness" clinic. Georgia conducted statewide physical fitness tests, and presented individual and team trophies. North Dakota declared July "physical fitness month" and sponsored a "jog-in" around the Capitol mall. Wisconsin established bicycle routes throughout the State.

PUBLICATIONS AND PUBLIC INFORMATION

Three new publications were developed: *The Fitness Challenge in the Later Years* (an exercise guide for senior citizens developed jointly

with the Administration on Aging); *Exercise and Weight Control* (a pamphlet explaining the role of physical activity in controlling and reducing weight, prepared jointly with the American Medical Association's Committee on Exercise and Physical Fitness); and *Community Recreation: How You Can Help* (explains how to overcome financial, organizational, and legal obstacles to making school sports facilities available for use as neighborhood fitness centers).

The Council initiated two nationwide public service advertising campaigns, one in the fall of 1967 and the other in the spring of 1968. The first ("President's All-America Team") urged schools and young people to participate in the Presidential Physical Fitness Award program; and the second ("Don't Fence Me Out") urged communities to make their school sports facilities available for public use as neighborhood fitness centers.

Office of Public Information

The Secretary's Office of Public Information develops and implements the Department's overall policy for communicating with the public directly and through the news media, and for providing information support to HEW's many programs and services.

Within this area, the Office coordinates and supervises the extensive information activities of the Department's six main constituent agencies. And as the primary clearinghouse for the Office of the Secretary's information efforts, OPI conducts a wide variety of information activities on behalf of the Secretary, the Under Secretary and the Assistant Secretaries of the Department.

These functions are carried out by OPI through its Press Office, Editorial Service, Television and Radio Services, Visitors-Information Center, and Regional Information Coordinator.

Press Office

OPI's Press Office has final responsibility for all news announcements that emanate from the Department. Last year, it produced more than 800 news releases for national distribution to the press, and conducted nine major press conferences at which the Secretary and his associates met with representatives of the news media. The Press Office also held special press conferences on such subjects as alcoholism, the health consequences of smoking, and traffic safety, and assisted the National Institutes of Health in press briefings on "the state of the art" in such areas as cancer, biomedical research, diabetes and dental research.

The Editorial Services branch of OPI was responsible for the Department's *Annual Report* for fiscal year 1967; the *HEW Forum Papers*, a compilation of addresses to Departmental employees by senior members of the staff, and for the Department's section of the *Catalog of Federal Domestic Assistance*, a handbook of all Federal domestic programs. Editorial Services also assisted in the preparation of various speeches, magazine articles, special materials for the White House and for Members of Congress, and the Secretary's progress reports issued in fiscal 1969.

Freedom of Information

On July 4, 1967, the Public Information Act of 1966, known as the "Freedom of Information Act," became effective. Its purpose is to provide freer access to information about the programs and policies of the Federal Government. To implement this legislation, the Secretary established the post of Associate Director of Information for Public Services to administer the Act and to improve the Department's direct services to the public.

Of 67 formal requests for information received under the Act during the fiscal year, 54 were granted and 13 were denied as constituting invasions of personal privacy, revealing trade secrets, or as otherwise exempt under the law.

Plans were developed and construction started on a Visitors-Information Center on the first floor of HEW's headquarters building. In March 1968, a model of the Center was unveiled at a public ceremony attended by Congressman John Moss, the chief architect of the Public Information Act, the Hon. L. J. Andolsek, Vice Chairman of the Civil Service Commission, and representatives of other Government agencies.

By the end of the year, the temporary Center was receiving an average of 400 to 500 visitors and 400 to 450 telephone calls of inquiry each week.

Radio and Television

A special office was established within the Office of Public Information in September 1967, to be concerned with television and radio. The first nine months were devoted primarily to developing methods of support to the electronic media, to creating new links between these media and the constituent agencies of the Department, and to servicing the agencies in response to their television and radio needs. Plans also were developed for the installation of the "Spotmaster" electronic system for making taped messages and announcements about HEW's

programs available via telephone to callers. Statements by Department officials are now accessible to callers across the country.

Regional Information Program

Fiscal year 1968 was the first year in which the Department was fully staffed with a Public Information Officer in all nine of the Department's regional offices. The Office of Public Information has the responsibility for coordinating this activity, although regional Public Information Officers are administratively responsible to their Regional Directors.

The new regional Public Information Officers devoted this first year to familiarizing themselves with the special characteristics of their regions—which consist of four to seven States—and with the various ways in which the Department's many programs affect each region.

At the same time, a two-way information link between Washington and the regions was firmly established; valuable information was received from the field on the effectiveness of HEW programs, and Washington was able to keep the regional offices posted daily—sometimes hourly, when necessary—on significant policy developments and other vital information. The regional Public Information Officers also were able to create new lines of cooperation with their counterparts in State and local governmental agencies and in private service organizations, thus providing productive new channels of communication between the Department and the general public.

Career Development

The Office of Public Information continued the development of a Career Service Board to serve public information professionals throughout the Department and to assist in the recruitment of new professional talent in this area. The Board established a formal plan for career development within the information field in the Department; it was presented to the Department's Career Development Council and later received the Secretary's approval.

Social Security Administration

Introduction

The Social Security Administration administers the Federal social security program, which provides retirement, survivors, and disability insurance, and health insurance for the aged. The program is the Nation's basic method of assuring income to the worker and his family when he retires, becomes disabled, or dies, and of assuring hospital and medical benefits to persons 65 or over.

During working years, employees, their employers, and self-employed people pay social security contributions which are pooled in special trust funds. When earnings stop or are reduced because the worker retires, dies, or becomes disabled, monthly cash benefits are paid to replace part of the earnings the family has lost.

One portion of the workers' and employers' contributions goes into a separate hospital insurance trust fund so that when workers and their dependents reach 65 they will have help in paying their bills for hospital and related services.

Voluntary medical insurance, also available to people 65 or over, helps pay doctors' bills and other medical expenses. This program is financed by premium payments shared equally by the people who sign up and by the Federal Government.

The Bureau of Federal Credit Unions, a part of the Social Security Administration, administers the Federal credit union program. Federal credit unions provide their members a place to invest their savings and a source from which they may borrow easily and at reasonable rates of interest.

Developments in Social Security

About 89 million people contributed to social security in calendar year 1968. Today, 95 out of 100 mothers and children are protected against the risk of loss of income because of the death of the family breadwinner. The survivorship protection alone, as of June 30, 1968, had a face value of about $950 billion.

About 24.1 million men, women, and children were receiving monthly social security benefits as fiscal year 1968 ended. The beneficiaries

include about 15.3 million retired workers and dependents of retired workers, 2.3 million disabled workers and their dependents, and 5.8 million survivors of deceased workers. About 0.7 million noninsured persons 72 and over were receiving special payments that are provided to certain aged persons getting no public assistance payments and little or no other governmental pensions. Virtually the entire cost of these special payments is borne by general revenues of the U.S. Treasury.

Ninety percent of those who were 65 or over at the beginning of 1968 were receiving benefits or would be eligible to receive benefits when they or their spouses retire. Of those who reached 65 in 1968, 92 percent were eligible for social security cash benefits.

Under the health insurance program for the aged, nearly all of the 19.7 million persons in the Nation 65 and over on June 30, 1968, were eligible for basic hospital insurance protection. An estimated 18.6 million aged persons were enrolled in the voluntary supplementary medical insurance plan on June 30, 1968. This was 95 percent of those eligible to enroll.

What the Program Did in Fiscal Year 1968

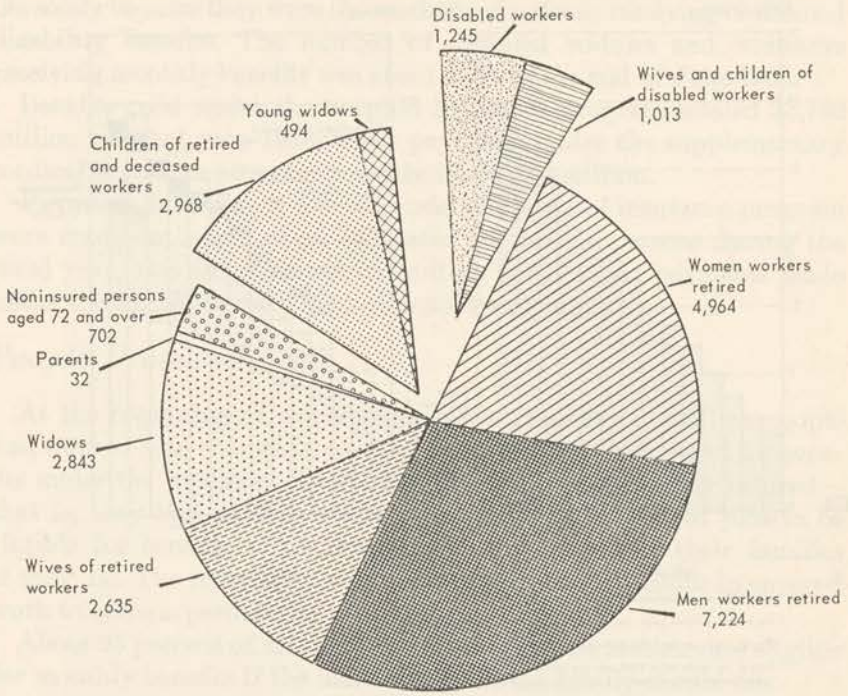
Beneficiaries and Benefit Amounts

Benefits paid under the old-age, survivors, and disability insurance program totaled $22,825 million—an increase of $2,078 million over the amount paid in the preceding fiscal year. Of this increase, about $1 billion was due to changes in the law provided by the 1967 amendments. Total benefit payments to disabled workers and their dependents were $2,088 million, 12 percent more than in fiscal year 1967. Old-age and survivors insurance monthly benefits rose 10 percent to $20,481 million. Lump-sum death payments amounted to $256 million, about $10 million more than in the previous fiscal year (chart 2).

The number of monthly benefits in current-payment status increased by 0.9 million (4 percent) to 24.1 million (charts 1 and 2) during the year, and the monthly rate rose $337.2 million (20 percent) to $2.0 billion (chart 3). The increase in the monthly rate was due mainly to the higher benefit scale provided in the 1967 amendments and, to a smaller extent, to the normal growth in the beneficiary rolls. Since only a relatively small number of the claims which resulted from the 1968 legislation could be paid in the closing months of the fiscal year, changes in the law had little effect on the growth of the benefit rolls.

In June 1968, $94 a month was the average old-age benefit being paid to a retired worker who had no dependents also receiving benefits. When the worker and his wife were both receiving benefits, the average

CHART 1.—24.1 MILLION OASDI BENEFICIARIES
NUMBERS BY TYPE OF BENEFICIARY ARE IN THOUSANDS JUNE, 30, 1968

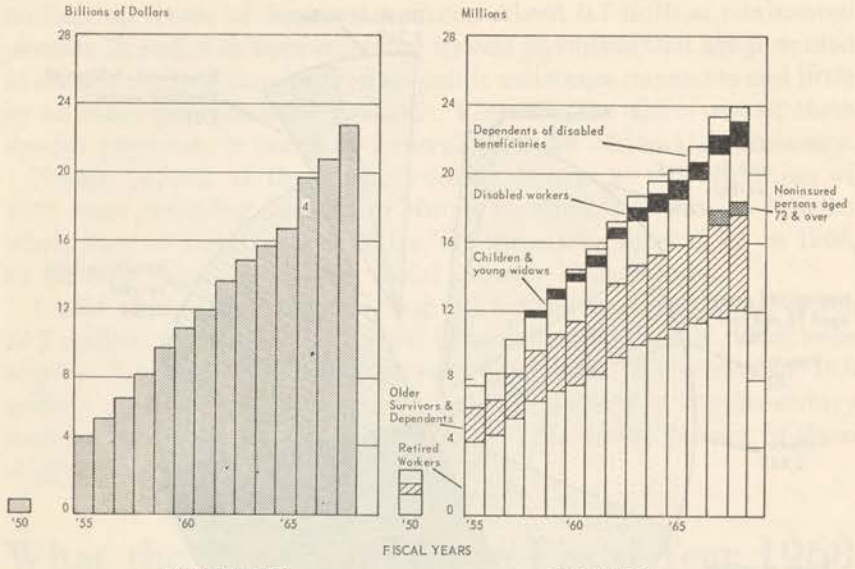


family benefit was $166. For families composed of a disabled worker and a wife under 65 with one or more entitled children in her care, the average was $245; and for families consisting of a widowed mother and two children, the average benefit was $254. The average monthly benefit for an aged widow was $86.

During the fiscal year, a period of disability was established for about 314,000 workers, 12,000 more than the previous high set in fiscal year 1967. The number of persons who met the disability requirements for childhood disability benefits totaled 22,000. Under the disability requirements of the 1967 amendments, about 13,000 persons were eligible for benefits as disabled widows or widowers, and about 7,000 workers were allowed a period of disability under the liberalized insured-status provisions for workers disabled before age 31.

The number of disabled workers receiving monthly benefits rose 9 percent in the fiscal year and totaled 1,245,000 at the end of June. Benefits were being paid to about 1,013,000 wives, husbands, and children of these beneficiaries. By the end of June 1968, child's benefits were being paid at a monthly rate of $14.5 million to 236,000 disabled persons 18 and over—dependent sons or daughters of deceased, dis-

CHART 2.—BOTH OASDI BENEFIT PAYMENTS AND NUMBER OF BENEFICIARIES HAVE INCREASED RAPIDLY SINCE 1950[1]



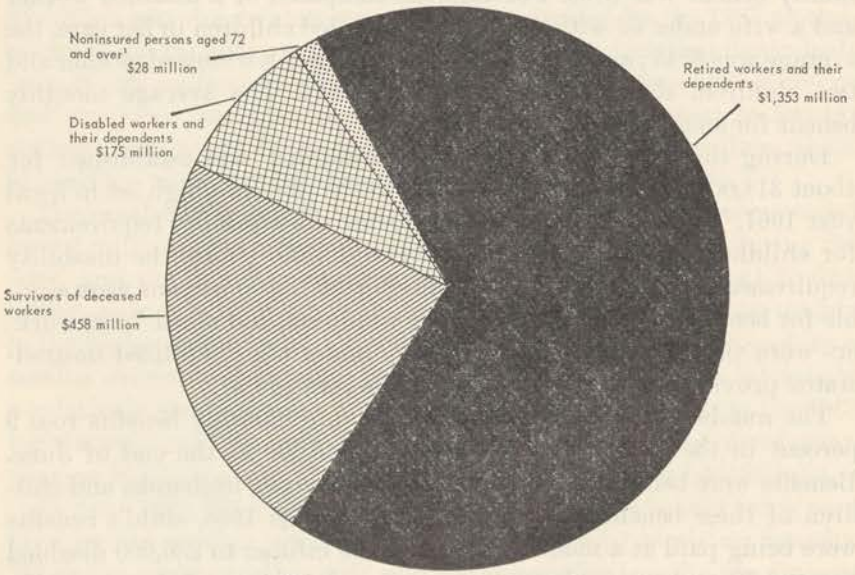
[1] The 1950 amendments made major improvements in the program.

[2] Payments in fiscal year. Includes lump-sum death payments.

[3] Beneficiaries on the rolls at the end of the fiscal year.

[4] Part of the increase in 1966 was due partly to the retroactive payment in September 1965 of monthly benefit increases for the January–June 1965 period.

CHART 3.—MONTHLY CASH BENEFITS JUNE 30, 1968 $2 BILLION



[1] Virtually the entire cost of these payments is borne by the general fund of the Treasury.

abled, or retired insured workers—whose disabilities began before they reached 18. About 26,000 women were receiving wife's or mother's benefits solely because they were the mothers of persons receiving childhood disability benefits. The number of disabled widows and widowers receiving monthly benefits was about 5,000 at the end of June 1968.

Benefits paid under the hospital insurance program totaled $3,736 million in fiscal year 1968, while payments under the supplementary medical insurance program amounted to $1,390 million.

Payments for services covered under the hospital insurance program were made on behalf of an estimated 3.9 million persons during the fiscal year, and an estimated 7.7 million persons had payments made under the supplementary medical insurance program.

People Protected

At the beginning of calendar year 1968, almost 101 million people had worked long enough in covered employment to be insured for benefits under the program. Some 63 million were permanently insured—that is, they had already worked long enough in covered jobs to be eligible for benefits at retirement age, and to protect their families if they die. The remainder were insured, but must continue in covered work to become permanently insured.

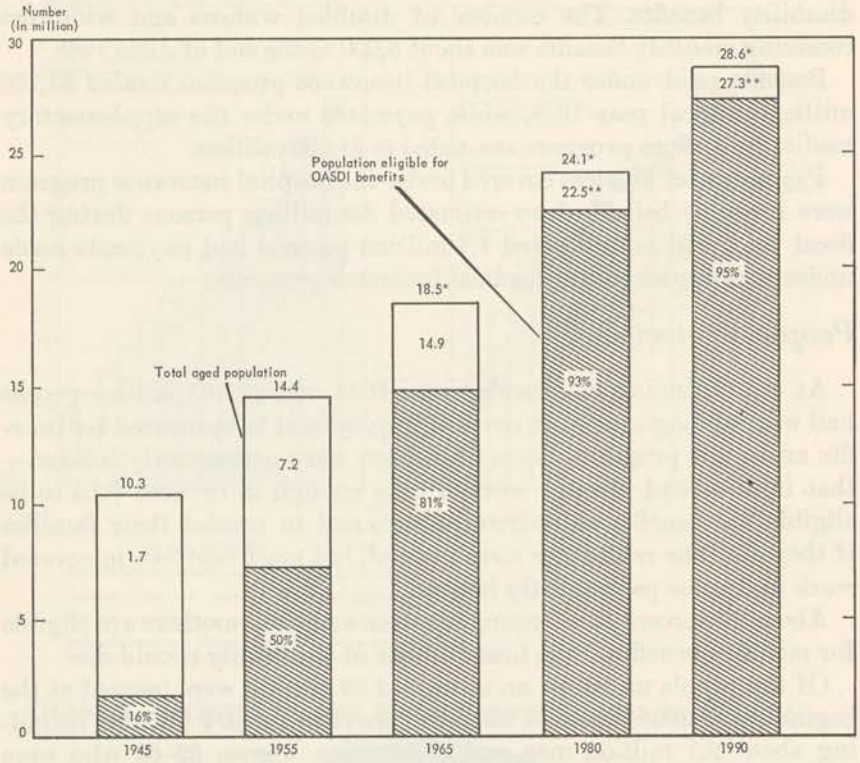
About 95 percent of all young children and their mothers are eligible for monthly benefits if the breadwinner of the family should die.

Of the people under 65, an estimated 89 million were insured at the beginning of 1968. Some 51 million were permanently insured, including about 2.1 million men and 1.4 million women 62–64 who were already eligible for old-age benefits on a reduced basis; the monthly amount is permanently reduced if retirement benefits are taken before 65.

Taking into account the 1967 amendments, there were at the beginning of February 1968 about 67 million persons under 65 who had worked long enough and recently enough to be insured in the event of extended and severe disability.

At the beginning of 1968, 17.5 million—90 percent—of the 19.5 million persons 65 or over in the United States were eligible for monthly benefits under the program, including certain noninsured persons 72 and over who were receiving monthly payments financed almost entirely from general funds of the Treasury. Some 82 percent of a cash balance of $25 million and $281 million invested in U.S. percent would have received them if they or their spouses had not been receiving substantial income from work. The proportion eligible for cash benefits is expected to rise to 93 percent by the beginning of 1980 (chart 4).

CHART 4.—OF THE POPULATION AGED 65 AND OVER, BOTH THE NUMBER AND THE PROPORTION ELIGIBLE FOR OASDI BENEFITS CONTINUE TO INCREASE (FIGURES AS OF JANUARY 1)



* Includes allowance for undernumeration in the census counts on which population projections are based.

** Includes certain noninsured persons aged 72 and over receiving monthly benefits.

Income and Disbursements

OLD-AGE AND SURVIVORS INSURANCE TRUST FUND

Expenditures from the Federal Old-Age and Survivors Insurance Trust Fund during fiscal year 1968 totaled $21,622 million, of which $20,737 million was for benefit payments, $438 million for transfers to the railroad retirement account, and $447 million for administrative expenses (including Treasury Department costs). Total receipts were $23,640 million, including $22,662 million in net contributions, $899 million in interest on investments, and $78 million in reimbursements from the general fund of the Treasury for costs of noncontributory credits for military service. Receipts exceeded disbursements by $2,018 million, and the trust fund increased by that amount during the year. At the end of June 1968, this fund totaled $25.5 billion.

Except for $2.3 billion held in cash, all of the assets of the old-age and survivors insurance trust fund were invested. The assets invested in U.S. Government obligations amounted to $3.5 billion invested in public issues (identical to Treasury securities owned by private investors), and $19.2 billion invested in securities issued solely for purchase by the trust fund. The remaining assets of about $0.5 billion were invested in securities issued by federally-sponsored agencies. The average interest rate, based on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 3.93 percent.

DISABILITY INSURANCE TRUST FUND

Expenditures from the Federal Disability Insurance Trust Fund totaled approximately $2,236 million. Benefit payments accounted for $2,088 million, administrative expenses $112 million, and transfers to the railroad retirement account $20 million. In addition, $15 million was disbursed to vocational rehabilitation agencies to help pay the cost of rehabilitation services furnished to disabled-worker beneficiaries and disabled-child beneficiaries 18 and over, as provided by the 1965 amendments. Total receipts were $2,800 million, including $2,699 million in net contributions, $85 million in net interest on investments, and $16 million in reimbursements from the general fund of the Treasury for costs of noncontributory credits for military service. Receipts exceeded disbursements by $564 million, and the trust fund, increased by this amount, totaled $2,585 million at the end of June 1968.

Assets of the disability insurance trust fund consisted of a cash balance of $236 million and $2,350 million invested. The invested assets consisted of $313 million in public issues, $1,891 million in securities of varying maturities issued solely for purchase by the trust fund, and $145 million in securities issued by federally-sponsored agencies. The average interest rate, based on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 4.49 percent.

HOSPITAL INSURANCE TRUST FUND

Expenditures from the Federal Hospital Insurance Trust Fund during fiscal year 1968 totaled $3,815 million, of which $3,736 million was for benefit payments and $79 million for administrative expenses. Total receipts were $3,902 million, including $3,514 million in net contributions, $61 million in net interest on investments, and $44 million in transfers from the railroad retirement account. The remaining receipts consisted of $273 million in reimbursements from the general fund of the Treasury toward the costs of benefits to noninsured persons (those who are neither eligible for benefits under the retirement,

survivors, and disability program nor qualified for railroad retirement annuities) and $11 million for the costs of noncontributory credits for military service. Receipts exceeded disbursements by $87 million, and the trust fund, increased by this amount, totaled $1,431 million at the end of June 1968.

Total assets of the hospital insurance trust fund, except for $60 million held in cash, were invested. The invested assets consisted of $1,259 million in securities of varying maturities issued solely for purchase by the trust fund, and $112 million in securities issued by federally-sponsored agencies. The average interest rate, based on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 5.17 percent.

SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND

Expenditures from the Federal Supplementary Medical Insurance Trust Fund during fiscal year 1968 totaled $1,532 million, of which $1,390 million was for benefit payments and $143 million for administrative expenses. Total receipts were $1,353 million, including $698 million in premium payments, $634 million in matching contributions from the general fund of the Treasury, and $21 million in net interest on investments. Disbursements exceeded receipts by $179 million, and the trust fund, decreased by this amount, totaled $307 million at the end of June 1968.

Assets of the supplementary medical insurance trust fund consisted of a cash balance of $25 million and $281 million invested in U.S. Government securities of varying maturities issued solely for purchase by the trust fund. The average interest rate, based on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 4.77 percent.

Legislative Developments During the Year

On January 2, 1968, President Johnson signed into law an important set of amendments to the social security program which had been enacted by the Congress late in 1967. These amendments resulted in the largest total increase in benefit payments since the program began, and included the first major amendments to the Medicare program. A brief summary of the 1967 amendments follows.

Changes in the Cash Benefits Provisions

INCREASE IN MONTHLY CASH BENEFITS

Monthly social security cash benefits were increased 13 percent "across-the-board," and the minimum monthly retirement benefit at 65

was increased from $44 to $55. The average monthly benefit paid to retired workers (with or without dependents) already on the rolls was increased from $86 to $98, and the average monthly benefit for a retired worker and his wife was increased from $145 to $164. Monthly benefits range from the new minimum of $55 to a maximum of $168.40 for retired workers on the rolls in January 1968.

INCREASE IN THE CONTRIBUTION AND BENEFIT BASE

The increase from $6,600 to $7,800 (effective January 1, 1968) in the amount of annual earnings on which contributions are paid and which can be used in the benefit computation (this amount is known as the contribution and benefit base) results in an ultimate maximum monthly benefit of $218, based on average monthly earnings of $650. This maximum retirement benefit will be payable to workers who are now young and consequently wil be paying contributions on these higher amounts of earnings over a considerable period of time before they retire. The higher earnings base also will increase benefit amounts significantly for the large proportion of older current contributors earning above $6,600, although they will be paying on these higher amounts for a shorter time. For example, a man 50 in 1968 who earns $7,800 a year until he is 65 (about one-third of the group now earning above $6,600 are 50 or older) will get a benefit of $188.80 at 65—21.8 percent higher than under the old law.

If the base were to remain $6,600, an increasing number of workers would have earnings above the creditable amount, as time passed, and these workers would have social insurance protection related to a progressively smaller part of their earnings. Also, unless the base is increased as earnings levels rise, the financial base of the program—the part of the Nation's payroll that is subject to contributions—will decrease proportionately. This decrease would require a higher contribution rate to finance a given level of benefits.

The amount of a wife's, dependent husband's, remarried widow's, or remarried widower's insurance benefit will be limited to a maximum of $105. This limitation does not affect anyone now on the rolls; its effect will not generally be felt for many years.

INCREASE IN SPECIAL PAYMENTS TO PEOPLE 72 AND OLDER

The special payments to uninsured people 72 and older were increased from $35 to $40 a month for a single person and from $52.50 to $60 a month for a couple. About 70,000 people who were not entitled to the special payments because they got small local, State, or Federal pensions now qualify for some payments, and over 700,000 people had their payments increased by this provision.

THE RETIREMENT TEST

The retirement test was changed so that, beginning with 1968, a beneficiary will get all benefits for the year if his annual earnings are less than $1,680 ($1,500 before the change). If his earnings exceed $1,680, then $1 in benefits will be withheld for each $2 of his earnings in the year between $1,680 and $2,880 (formerly $2,700), and for each $1 of earnings thereafter. He will get benefits, regardless of the amount of his earnings in a year, for any month in which he earns $140 or less ($125 or less before the amendments) in wages and does not perform substantial services in self-employment. About 760,000 people who could not otherwise have collected benefits will start to get them, or will get more benefits, than if the law had not been changed.

IMPROVED PROTECTION FOR DEPENDENTS OF WOMEN WORKERS

Children's Benefits

The amendments liberalized the conditions under which a child can get benefits based on his mother's earnings record. Now a child can get benefits based on his mother's earnings record under the same conditions as on his father's earnings record—that is when either parent becomes entitled to retirement or disability benefits or dies. It is estimated that 175,000 children are eligible for benefits under this provision.

Husband's and Widower's Benefits

The eligibility requirements for husband's and widower's benefits were also liberalized by removal of the requirement that a dependent husband or widower may become entitled to benefits based on his wife's earnings only if his wife had covered work in 6 out of the last 13 calendar quarters ending with her disability, retirement, or death. An estimated 5,000 husbands and widowers became eligible for benefits under this provision.

MISCELLANEOUS CHANGES

Underpayments

A provision enables the Administration to pay benefits unpaid at the time of a beneficiary's death when the estate of the deceased is small and would not otherwise require an administrator.

Limitations on Benefit Payments to Aliens Outside the United States

The 1967 amendments placed new restrictions on the payment of social security benefits to aliens residing outside the United States for more than 6 months:

- Benefits will not be paid to citizens of countries with generally applicable social insurance systems which do not provide for the

payment of benefits to otherwise qualified United States citizens who reside outside those countries.

- The Treasury Department may withhold checks for delivery in a foreign country if there is no reasonable assurance that the payee will receive the check and be able to negotiate it for full value.
- Formerly, accrued benefits were payable for months after the alien beneficiary left the country in question or after conditions in the country changed sufficiently so that the receipt of payments made to people in that country could reasonably be assured. Now, only 12 months of the alien's accrued benefits for months before July 1968 can be paid and no benefits are payable for months after July 1968 in cases where the alien beneficiary lives in a country in which checks cannot be delivered.

OTHER IMPROVEMENTS IN DEPENDENTS' PROTECTION

Child Adopted by Disabled Worker

The 1967 amendments allow a child adopted by a person getting disability benefits to get benefits, regardless of when the adoption occurred, if (a) the adoption takes place in the United States, (b) it was under the supervision of a public or private child-placement agency, (c) the disabled individual had resided in the United States for the year prior to the adoption, and (d) the child is under 18 at the time of adoption.

Child Adopted by Surviving Spouse

The amendments permit a child adopted by a surviving spouse to get benefits even though the adoption is not completed within 2 years after the worker's death, if adoption proceedings had begun before the worker died.

Definition of "Widow," "Widower," and "Stepchild"

The amendments provide a change in the definitions of "widow," "widower," and "stepchild." They will be considered as such for social security purposes now if the worker's marriage existed for 9 months, or, in case of accidental death or death in the line of duty in the uniformed service, if the marriage existed for 3 months, unless it is determined that the deceased individual could not have reasonably been expected to live for 9 months at the time of the marriage.

Changes in the Disability Provisions

DEFINITION OF DISABILITY

The law clarifies the definition of disability for workers. It specifies that a person will be found disabled only if he has an impairment so

severe that he is unable to engage in any kind of substantial gainful work that exists in the national economy. This means jobs that exist in a significant number in the region in which he lives or in several regions of the country, but without regard to whether a specific job vacancy exists for him, or whether he would be hired if he had applied for work. This statutory clarification is consistent with the interpretation that the Social Security Administration has been following.

BENEFITS FOR DISABLED WIDOWS AND WIDOWERS

The 1967 amendments provide, for the first time, that disabled widows (including surviving divorced wives) and disabled dependent widowers of insured workers can get benefits as early as age 50. These benefits are reduced, with the amount of the reduction depending on the age at which benefits begin. The widow or widower must have become totally disabled no later than 7 years after the spouse's death, or, in the case of a widowed mother, no later than 7 years after the termination of mother's benefits. The 7-year period protects widows and widowers until there has been reasonable opportunity to work long enough to be insured for disability benefits through their own earnings. The definition of disability for widows or widowers is somewhat more restrictive than for workers. Under the definition a widow or widower can get benefits only if impairment is so severe that it would ordinarily prevent a person from working. (Vocational factors are not considered as they are for disabled workers.) About 65,000 disabled widows and widowers became eligible for benefits as a result of this provision.

LIBERALIZED INSURED STATUS FOR YOUNG WORKERS

The amendments extended to all workers disabled before 31 the alternative insured-status requirement previously provided only for workers disabled by blindness before 31. Under this alternative, any worker disabled before 31 must ordinarily have quarters of coverage in half the calendar quarters elapsing after he reached 21 and up to and including the quarter in which he becomes disabled. However, if a worker becomes disabled before 24, he is insured if he has at least 6 quarters of coverage in the 12-quarter period ending with the quarter in which he becomes disabled. As a result of this change, about 100,000 people—disabled workers and their dependents—became immediately eligible for benefits.

LIBERALIZED DEFINITION OF BLINDNESS

The law now substitutes, for disability purposes, the less strict definition of blindness (central visual acuity of 20/200 or less, commonly called "industrial blindness") for the former statutory definition of blindness (central visual acuity of 5/200 or less). This new definition corresponds to that used in the Internal Revenue Code.

Changes in Social Security Coverage

CHANGES IN THE COVERAGE PROVISIONS

Military Service Credits

Under the provisions for contributory coverage of members of the Federal uniformed services in effect since the beginning of 1956, only the serviceman's basic pay could be credited under social security. The amendments provide that, in general, starting with January 1968, a serviceman gets credit for $100 a month more than his basic pay. Servicemen do not pay contributions on the deemed additional earnings. The social security trust funds are reimbursed from general revenues for the additional cost. The military service credits take into account that the regular contributory social security coverage of a serviceman does not include certain cash increments or the substantial value of payments in kind which are generally covered in other employment.

Clergymen

Beginning with taxable years ending after December 1967, services performed by clergymen, members of religious orders who have not taken a vow of poverty, and Christian Science practitioners in the exercise of their professions are covered under social security. Those who are conscientiously opposed to the acceptance of social security or other public insurance based on such services can obtain an exclusion of their ministerial services from coverage by filing a statement with the Internal Revenue Service. The change affords social security coverage for most of the 60,000 full-time clergymen (and their families) who did not elect coverage under the earlier law, and increases protection for others who work part-time in the ministry.

Federal Employees

The Congress did not enact legislation to carry out Administration proposals which, while not resulting in direct social security coverage of Federal civil service employment, would have filled major gaps in the protection of workers who have Federal civilian employment. Both the Senate Committee on Finance and the House Committee on Ways and Means, in their reports on the Social Security Amendments of 1967, requested that the Social Security Administration give further study to the problems in this area. The Committees requested that the report of the study, including positive recommendations for covering these employees on a basis that is fair to both the Government employees and all other workers, be submitted to the Congress prior to January 1, 1969.

Medicare Provisions

The 1967 amendments provide a lifetime reserve of 60 days of hospital care after the 90 days covered in a "benefit period" (spell of illness) have been used, with a $20 a day coinsurance provision; payment for a physician's services to the patient based on an unpaid itemized bill (under prior law the bill had to be paid); consolidation of all outpatient hospital benefits under the medical insurance plan; simplification of hospital billing by payment of full reasonable charges for physicians' radiological and pathological services to hospital inpatients, without regard to the $50 medical insurance deductible and 20-percent coinsurance amounts (the patient can assign the payment to the hospital); payment for diagnostic X-rays made in a patient's home or in a nursing home; payment to the patient for emergency services in nonparticipating hospitals under certain conditions and under a limited temporary retroactive provision for nonemergency services, and payment for additional outpatient physical therapy services.

Financing Provisions

The favorable long-range actuarial balance of 0.74 percent of payroll which the program had under the revised cost estimates (as amended in 1965) was sufficient to finance a substantial part of the cost of the cash benefit improvement provided by the 1967 amendments. The remaining cost of the cash benefit provisions and the cost of the hospital insurance provisions are financed by:

(a) an increase in the contribution and benefit base from $6,600 to $7,800 (effective January 1, 1968); and (b) a revised contribution rate schedule. The contribution rate schedule under the new law is shown in Table 1.

Table 1.—*Contribution rate schedules for employees and employers, and for the self-employed*

	Total	OASDI	Hospital insurance
Employer-employee (each):			
	Percent	*Percent*	*Percent*
1968	4.4	3.8	0.6
1969–70	4.8	4.2	.6
1971–72	5.2	4.6	.6
1973–75	5.65	5.0	.65
1976–79	5.7	5.0	.7
1980–86	5.8	5.0	.8
1987 and after	5.9	5.0	.9
Self-employed:			
1968	6.4	5.8	.6
1969–70	6.9	6.3	.6
1971–72	7.5	6.9	.6
1973–75	7.65	7.0	.65
1976–79	7.7	7.0	.7
1980–86	7.8	7.0	.8
1987 and after	7.9	7.0	.9

The contribution rate increases provided by the 1967 amendments will be slight. There will be no increase in the total contribution rate (4.4 percent each for employees and employers) for 1968 and the rate for 1969 and 1970 will actually be reduced—from the 4.9 percent previously scheduled to 4.8 percent for both employees and employers. The ultimate contribution rate for cash benefits will be increased from 4.85 percent to 5.0 percent beginning in 1973, and the ultimate rate for hospital insurance will be increased from 0.80 percent to 0.90 percent beginning in 1987—a total increase of only one-fourth of 1 percent over the contribution rate scheduled under earlier law.

Studies Requested by Congress

The amendments provide for an advisory council to study the question of providing health insurance protection for the disabled under the Medicare program. The Secretary of Health, Education, and Welfare was also directed to study the feasibility of covering prescription drugs under Medicare and of establishing quality and cost control standards for drugs provided under various programs of the Social Security Act; the feasibility of covering the services of additional types of health practitioners under the medical insurance portion of Medicare; and the existing retirement test and proposals for its modification (including proposals for an increase in retirement benefits because of delayed retirement). The Secretary was authorized to experiment with various methods of reimbursement to organizations, institutions, and physicians participating in Medicare, medicaid, or the Maternal and Child Health and Crippled Children's programs that will provide incentives for efficiency and economy, and at the same time maintain or increase the quality of care.

The Conference Committee requested the Department of State and the Department of Health, Education, and Welfare to explore the feasibility of entering into reciprocal agreements with neighboring nations to make Medicare benefits available to United States citizens receiving necessary hospital care in such nations. The Secretary of Health, Education, and Welfare was also requested by the Conference Committee to furnish data on first fiscal year costs incurred by providers of services under Medicare to the Committee on Ways and Means of the House of Representatives and the Senate Finance Committee for use in considering merits of alternative methods of reimbursement to providers of services.

The Finance Committee requested the Secretary to study possible coverage under Medicare of the cost of comprehensive health screening and other preventive services, and the effect of the limitations

provided in the 1965 legislation relating to the coverage of services to the mentally ill under Medicare and medicaid.

Administering the Social Security Program

The Social Security Amendments of 1967, enacted at the midpoint of fiscal year 1968, brought new challenges and expanded responsibilities to the administration of social security. Major efforts were directed toward planning for and carrying out amendment provisions. A significant accomplishment was payment—on schedule—of increased monthly benefits to the 23 million men, women, and children on the benefit rolls.

Fiscal year 1968 was also a year of refinement and consolidation of existing policies, systems, and procedures. Organizational changes were important in improving both administration and operations in social security program areas. Numerous improvements were made in administration of the Medicare and disability programs.

Additional operational improvements were made through system revisions, new and expanded use of electronic equipment, more effective manpower utilization, stepped-up staff training, and expansion of facilities to serve the public. In addition, greater emphasis was given to quality control in all aspects of operational activities.

Health Insurance

Fiscal year 1968 was Medicare's second year of operation. The 1967 amendments required the development and issuance of new Medicare policies and regulations as well as revisions and refinements in established policies, procedures, and regulations. Special efforts were made to assist State agencies, providers of Medicare services, health insurance carriers, and hospital insurance fiscal intermediaries to improve their administrative and operational procedures. Various State agencies (usually the State Health Departments) are initially responsible for the investigation, certification, and periodic recertification of providers of service and independent laboratories which take part in Medicare. In fiscal year 1968, recertification activities were begun in all States, and State agencies completed the first series of program review visits as well as comprehensive surveys of their own management practices. Procedures for formal termination actions against noncomplying providers were developed and the first formal terminations were completed.

With few exceptions, fiscal intermediaries and carriers performed at a satisfactory level. During fiscal year 1968, 354 fiscal intermediary

and carrier budgets (regular and supplemental) totaling $153.8 million were processed and approved. A total of 101 Health, Education, and Welfare audit reports, related to the intermediaries' administrative costs, were reviewed and processed, resulting in approximately 58 closing agreements and 43 reports still under review as the year ended. Many systems improvements were effected or are in stages of development. The current systems project with the most far-reaching implications is the development of a model data processing system for carriers.

The supplemental medical insurance premium was increased from $3 to $4 a month, and work began on establishing separate records for handling supplemental medical insurance premium billing and collection. During the general enrollment period (October 1, 1967–March 31, 1968), nearly 700,000 additional people 65 and over enrolled or reenrolled in the supplementary medical insurance part of Medicare.

Retirement and Survivors Insurance

The issuance of new and amended instructional materials and the training of operating personnel received top priority in fiscal year 1968. Emphasis was on speeding actions on claims and claims-related notices.

Many innovations and refinements of workload processing systems were put into effect. The majority of these related to the extended and improved use of computers and electronic data processing.

Installation of an electronic control system in all payment centers has resolved the long-standing problems of promptly associating incoming correspondence with claims folders already in operation and of locating lagging cases.

An end-of-the-line appraisal system for retirement and survivors insurance awards and disallowances provides valuable data for evaluating the effectiveness of these claims processes. To ensure uniformity among payment centers in the application of policies and procedures, an exchange review of sample cases among field appraisal staffs is included in the system.

Disability Insurance

Major efforts were directed toward putting the 1967 amendment provisions into effect; making operational improvements and staffing and organizational adjustments to meet the demands of increased workloads resulting from the amendments; expanding program understanding and uniform application of program principles, and improving liaison with professional and other groups having program-related interests.

To implement the amendments, substantial revisions in the disability regulations were made. The new regulations include medical evaluation criteria for making disability determinations under the program. Copies of the revised regulations are available at District Offices for distribution to physicians, attorneys, and other concerned people.

Special efforts were directed toward explaining the amendments to people who might be eligible for benefits. To identify and reach many of them, disability records indicating prior denials were screened. To increase knowledge of the disability program provisions among their members, regional information meetings were held with representatives of health, welfare, labor, community, and service organizations. Intensified efforts were also carried out at both the Federal and State agency levels to enlist increased cooperation and participation of the medical profession in the administration of the program.

As a step toward improved disability claims handling at intake level, specialized disability case processing units were established in selected district offices. To identify ways to accelerate case-processing, experiments with alternative methods for achieving closer integration of district office and State agency case-handling were initiated.

Continued attention was given to the refinement of criteria and the training of professional staff on the evaluation of vocational factors in disability determinations. Increased use was made of work evaluation centers as a source of specialized evaluation of the vocational capacities of disability claimants.

This was the first full year of implementation by all States of the provision for paying the cost of rehabilitation services to selected disability beneficiaries out of trust funds. When rehabilitated beneficiaries return to work and leave the benefit rolls, savings in benefit costs, are expected to equal or exceed the cost of rehabilitation services paid from trust funds. During the year, over $16 million (representing 1 percent of disability benefits paid in the previous year, as provided by law) was disbursed from trust funds to provide services to beneficiaries.

The Social Security Administration, acting jointly with the Rehabilitation Services Administration, started special training activities with staffs of State rehabilitation agencies, which provide the rehabilitation services, to promote better understanding of the objectives and policies of the beneficiary rehabilitation program and to stimulate maximum use of funds and resources available to carry out the program.

About 6,000 disability beneficiaries who received rehabilitation services paid for by social security had been rehabilitated by the end of the fiscal year. And, to provide an effective continuing evalu-

ation of the entire disability claims process, an end-of-the-line appraisal system was established for disability claims determinations, authorizations, and post-entitlement actions.

Computer Application and Data Processing

The Social Security Administration continued to expand its data processing and computer capabilities. Faster and more effective electronic equipment was added, including two 360–65 computers, one 7080 computer, several 360–30 computers, and 6 Spectra 70–35 systems. Administration operations used almost 120,000 reels of magnetic tape.

Computerized procedures were instrumental in putting provisions of the 1967 Amendments to the Social Security Act into effect. One such project adjusted over 23 million beneficiary records to reflect the new general increase in benefit rates, and at the same time prepared the records for the subsequent adjustment of benefits to reflect the increase in the monthly deduction for medical insurance premiums.

Implementing the first general enrollment period under the supplementary medical insurance program also required extensive application of EDP. In addition to recording beneficiaries' enrollments and withdrawals from the supplementary medical insurance program, new processes were developed to identify beneficiaries who needed to be informed about the enrollment period; to prepare enrollment forms; to receive, process, and record their replies; and to mail Medicare identification cards.

Improvements were made in maintaining health insurance utilization records and in processing medical insurance premiums and related correspondence. More than 25 million hospital insurance program payment records from intermediaries were processed.

The Automatic Earnings Reappraisal Operation (AERO) which determines when benefit increases may be due a beneficiary because of his additional earnings, resulted in more than 900,000 increases in benefits.

The Automatic Lump-Sum Operation (ALSO) program was begun in fiscal 1968, enabling computer processing of approximately 30,000 lump-sum death claims a month.

Computer and EDP processing of reports and notices was extended to include death termination notices, verification of continuing eligibility of student and centenarian beneficiaries, and representative payee accountability. Also, initiation of District Office input of about 25 percent of change-of-address notices eliminated many slower manual methods.

A computer program was instituted to start, stop, or modify the beneficiary's check when he reports a change in his work status or

his expected earnings. This program eliminated a time-consuming and expensive manual processing technique in 70 percent of the instances where the beneficiary reports such a change. Improved procedures and programs also increased the computer-processing of beneficiaries' annual work reports from 50 to 60 percent.

The installation of additional electronic equipment changed the Bureau of Disability Insurance Case Control System to a disk-oriented teleprocessing control system with answerback capability whenever a wanted folder is moved or an inquiry is made. Similar systems were installed in the six Retirement and Survivor's Insurance payment centers.

Direct Service to the Public

On June 30, 1968, the Social Security Administration's district office operations field facilities consisted of 642 district offices, 137 branch offices, 39 resident stations, 4 service centers, and 3,241 contact stations. These facilities are the Social Security Administration's direct contact with the public. More recent program changes, particularly Medicare, along with an increased volume of postentitlement actions, has resulted in over 55 million beneficiary and other public contacts on an annual basis. People of all ages and socioeconomic backgrounds seek and receive information about social security and its programs. Many people seek counsel before applying for social security benefits. Another, and continually growing, function of these offices is service to the beneficiary after he is entitled to benefits. This includes answering all types of questions for people about the program and their individual entitlement; assisting with notices and reports required from individuals; assisting in the selection of representative payees when necessary, and the proper accounting of entrusted funds; conducting continuing disability investigations; and assisting beneficiaries in making claims for medical insurance benefits.

In an effort to make service more readily available to meet the needs of disadvantaged groups living in metropolitan areas, approval was given to open 61 branch offices in 30 cities. Twenty of these offices opened in fiscal year 1968.

There are 640 offices open on selected evenings or on Saturday mornings to serve those who cannot come to the office during the workday to get their social security questions answered. All newly opened offices offer this after-hours service to the public.

To inform members of the public about the program and their rights under it, district office staff members made more than 41,426 talks, 284,545 radio broadcasts, and 3,476 TV appearances, and arranged

28,398 motion picture showings. They placed 374,815 news items and 15,916 magazine articles. They set up 18,484 exhibits, and distributed an estimated 44,522,000 booklets, pamphlets, and other publications.

Approximately 19.3 million copies of a revised and updated *Medicare Handbook* were mailed to beneficiaries 65 and over. Other large distributions of the *Medicare Handbook* were made to institutions, professional groups, fiscal intermediaries, and Social Security Administration field offices.

A new 26-program color television series, "Social Security in America," was launched, featuring stories of social security beneficiaries. At the end of the fiscal year, 160 stations were using this series.

The Social Security Administration is acutely aware of its responsibility to provide clear, accurate, courteous, and prompt answers to written inquiries. To improve the quality of correspondence, the Administration expanded its use of correspondence surveys, correspondence improvement programs, and letterwriting workshops.

Space Acquisition and Office Construction

A major concern of the Administration during fiscal year 1968 was the need for additional space to house employees needed for present and projected activities. Two central office buildings and a Property Management building are underway, with completion scheduled in 1969. Two other buildings are being built under lease arrangements. Another office building is in design for 1971 completion. Efforts to find short-range solutions to the critical payment center space needs continued in fiscal year 1968. Long-range plans are being developed for payment center needs, based on estimated future workloads and personnel.

Although the austerity program brought a temporary halt to district office construction, acquisition of sites and preparation of design for offices approved in the fiscal year 1965–1966 programs continued. Two offices were completed in August and September 1967. Construction contracts were awarded for four district office buildings, and bids were invited for 11 additional projects.

Manpower Resources

The Social Security Administration had 53,142 employees at the end of fiscal 1968. The majority were in field installations—21,830 in regional and district offices to provide personal service to the public; and 12,579 in payment centers to review claims for benefits, maintain the beneficiary rolls, and make certifications to the Treasury Department for benefit payments. The Bureau of Data Processing and

Accounts, which establishes and maintains earnings records and provides central electronic data-processing services, had 8,832 employees. The Bureau of Disability Insurance, which processes claims for disability benefits, maintains the disability rolls and certifies payment, had 4,135 employees. The Bureau of Hearings and Appeals employed 1,187, and the Bureau of Federal Credit Unions 483. The Bureau of Health Insurance, which is responsible for the administration of the health insurance program, had 1,062. Other central office and regional staff total 2,846.

Employee-Management Cooperation

The Social Security Administration has complied with both the letter and spirit of Executive Order 10988. Employee organizations have been accorded exclusive recognition for 80 bargaining units covering over 26,000 employees throughout the Social Security Administration. In addition, formal recognition has been accorded to employee organizations covering employees in 49 units.

Lodges of the American Federation of Government Employees represent a large majority of social security employees. However, affiliates of the National Association of Government Employees have been accorded exclusive recognition for 5 units covering 268 employees, and locals of the National Federation of Federal Employees have been accorded exclusive recognition for 6 units covering 250 employees and formal recognition for an additional 10 units.

Equal Employment Opportunity

The Social Security Administration stresses an affirmative action program of equal opportunity for all employees, regardless of race, color, national origin or sex. Both the policy and program are widely publicized among social security personnel, and employees are encouraged to take advantage of the promotional and training opportunities open to them.

The Administration's progress in its equal employment opportunity program is evidenced by the percentage of minority-group workers on the employment rolls. On September 30, 1966, 20.5 percent of employees were from minority groups; on June 30, 1968, 27 percent of employees were members of minority groups. These employees hold positions in all grades through GS–15.

Special Employment Programs

The Social Security Administration participates in over 20 special employment programs. For example, college students between their

junior and senior years who have skills applicable to assigned work areas are employed in a Student Assistant Program. A program for the handicapped has resulted in employment for over 500 persons. A program for employing the mentally retarded was expanded from 29 to 114 employees during fiscal 1968.

Participation by the Social Security Administration in the Youth Opportunity Campaign was expanded to include 1,747 youths, compared with 915 in the previous year. One product of this participation was a novel series of pilot programs implemented as fiscal year 1968 drew to a close. Projects in 44 inner-city areas utilized young workers from the Youth Opportunity Campaign to conduct door-to-door surveys to find possible social security beneficiaries. In Baltimore, the young people also studied public understanding of social security, and at the same time gave social security information to the people they interviewed.

The Promising Underprivileged Program, which was started in fiscal 1968, hires personnel through a competitive non-written examination at grade GS–1. At the end of 6 months after being evaluated, they are either promoted, granted an additional 6 months to qualify, or terminated. Special training is provided to this group by the Administration, and it appears that the program will produce many competent employees.

The Social Security Administration also participates in many programs funded or directed by other Federal, State, and local agencies. Among these are the Concentrated Employment Program, College Work-Study Program, Neighborhood Youth Corps, Work Experience for the Needy, and the Stay-In-School Program.

Training and Career Development

Special attention was directed in fiscal 1968 to finding ways to increase the Administration's professional training capacity both in the central office and the field. A special program was initiated in instructor training and presentation techniques. A special course on program rationale and philosophy was given to field instructors to assist them in including program background in technical claims courses conducted in the field.

In view of potential retirement losses of management personnel, positive action was taken to meet the Social Security Administration's short- and long-range needs for personnel at the high and mid-management levels. An Executive Development Program was implemented for employees in grades GS–14 and up. This program provides for broadening the experience and perspectives of participants through planned work assignments, formal training programs, special project work, and

planned reading. A staff development program was developed for all GS 10–13 employees; program objectives are similar to—in a sense complement—the Executive Development program.

Workloads and Administrative Expense

During the fiscal year, 5.8 million new social security records were established. Duplicate social security numbers were issued to 4 million people because of name changes or lost or damaged cards. Over 340 million earnings items were received from employers and self-employed people for posting to social security records. More than 30 million claims inquiries about the social security programs were answered by social security personnel throughout the country.

District offices received 4.6 million claims for monthly benefits, including more than 973,000 claims for disability benefits. At the close of the year, monthly benefits were being paid to more than 24.1 million persons, including 2.3 million disabled workers and their dependents. The amount of monthly benefits being paid as of June 30, 1968, totaled $2,013 million, an increase of $337 million since the end of June 1967.

The Social Security Administration maintains the records of eligibility for benefits under the Medicare program, bills and collects medical insurance premiums, and directly assists claimants in making claims for medical insurance. There were over 6.1 million admissions to hospitals and extended care facilities in fiscal year 1968 (compared with 5.2 million in fiscal year 1967). Approximately 800,000 bills for home health services and 3.2 million bills for outpatient hospital services were paid (1.2 million in fiscal year 1967). There were 31 million bills for services of physicians, independent laboratories, and related medical services (14.1 million in fiscal year 1967). Of those in 1968, over 90 percent were for physicians' services.

Payments from all four social security trust funds for administrative expenses amounted to $782 million. This represents 2.7 percent of the $28.4 billion paid out for benefits.

Cost Reduction and Productivity

The Social Security Administration achieved cost reductions of 1,063.5 man-years and $12,593,667. Most of these savings were realized through refinement and extension of electronic data processing and refinement of operating procedures.

As a result of the continued expansion of electronic data processing and other improvements in operating procedures, productivity was increased by 2.4 percent during 1968. The following index illustrates

Cost reductions achieved in 1968

	Man-years	Money
1967 projects continued into 1968:		
Increased productivity and efficiency:		
Extension of use of mechanized equipment	63.00	$266,100
Methods and procedures improvements	239.50	2,267,580
Increased management and program effectiveness:		
Organization changes	1.00	3,290,832*
Other cost reduction, manpower utilization or management improvements	1.50	161,663
Subtotal	305.00	5,986,175
1968 projects:		
Automation of certain benefit payments	50.00	362,004
Computerized correction of the beneficiary record	51.00	369,622
Other extensions of uses of mechanized equipment	114.25	818,627
Improvements in processing of death terminations	204.25	1,485,468
Other methods and procedures improvements	277.75	2,709,107
Reduction of unit cost of procurement		113,698
Other management improvements	61.25	748,966
Subtotal	758.50	6,607,492
Grand total	1,063.50	12,593,667

*Nearly all resulted from restructuring district office jobs.

how workloads in the Social Security Administration have increased since 1960, the amount of manpower needed to process these workloads, and the index of productivity which has resulted:

Comparison of manpower with workload productivity index

[Fiscal year 1960=100]

Year	Indices of work output, manpower, and productivity		
	Work output	Manpower	Productivity
1960	100.00	100.00	100.00
1961	114.11	116.39	98.04
1962	132.10	134.50	98.22
1963	137.55	135.35	101.63
1964	144.80	137.24	105.51
1965	151.60	136.84	110.79
1966	219.47	187.66	116.95
1967	253.55	192.27	131.91
1968	286.44	212.04	135.09

Administration of the Social Security Program Abroad

The Social Security Administration foreign beneficiary roll increased in fiscal year 1968. As of February 1968, benefits of $15,266,189 per month were being paid to 194,753 beneficiaries in more than 100 foreign countries. The major emphasis of the Social Security Administration foreign operations is directed toward ensuring continuing integrity and efficiency. Primary stress has been placed on continuing the systematic validation of the foreign beneficiary rolls by rechecking

the entitlement and continuing eligibility of beneficiaries on a country-by-country basis.

Through negotiations with the Veterans Administration and the Department of State, the Administration placed social security technical advisors in Manila, Republic of the Philippines, and in Guadalajara, Mexico. Now approximately 24.87 percent of all foreign beneficiaries live in countries where there are social security technical advisors.

Validation surveys were conducted in Poland and Canada, and one is presently in progress in Portugal. These three bring the total number of countries validated to 13, representing approximately 70 percent of the total foreign beneficiary roll.

During fiscal year 1968, substantial progress was also made in evaluating the social insurance systems of a number of countries. Efforts have been made to evaluate or reevaluate the systems of 35 countries to see that requirements are met which provide that we pay their citizens if they pay ours under similar circumstances. Final determinations have been made regarding the social insurance systems of 8 of these countries. In addition, several countries are in the process of making changes in their systems to meet the requirements. Agreements have been negotiated with Mexico, Portugal, Finland, and France, and negotiations are underway with Czechoslovakia, Jamaica, Norway, and Switzerland.

Financing the Cash Benefits and Health Insurance Programs

The retirement, survivors, and disability insurance system, as modified by the 1967 amendments, has an estimated benefit cost that is in balance with contribution income. Congress again made clear that it intends the program to be self-supporting—in other words, that costs be met through the contributions made by covered workers and employers. These new estimates show that the program as amended will continue to be financed on an actuarially sound basis, both for the next 15 to 20 years and for the distant future.

Making exact estimates of the actuarial status of a program that reaches into the distant future is difficult because different assumptions on such variables as mortality, retirement, disability, earnings, or interest lead to different results. Accordingly, no one set of estimates can be looked upon as final since future experience may vary from the actuarial assumptions. The Department continually reexamines the cost estimates of the programs in the light of the latest information

available. Even though absolute precision in long-range cost estimating is not possible, the intent that the system be actuarially sound is expressed in the law by two contribution schedules that, according to the intermediate-cost estimate, keep the system substantially in balance. One schedule applies to the old-age, survivors, and disability insurance programs; a separate schedule covers the hospital insurance program.

Retirement and Survivors Insurance Benefits

The level-cost of retirement and survivors insurance benefits after 1968, on an intermediate basis, assuming an interest rate of 4.25 percent and earnings at about the levels that prevailed during 1968, is estimated at 8.34 percent of taxable 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 8.90 percent of taxable payroll, leaving a positive actuarial balance of 0.56 percent of taxable payroll.

Disability Insurance Benefits

Financing disability benefits is separate from the financing of retirement and survivors insurance benefits. The estimated level-cost of disability benefits (adjusted to allow for administrative expenses and interest earnings on the existing trust fund), on an intermediate basis, is 0.98 percent of taxable payroll. Contribution income has been specifically allocated to finance these benefits; this income is equivalent to 0.95 percent of taxable payroll. The system is therefore in close actuarial balance.

Health Insurance Benefits for the Aged

The 1965 amendments established two separate health insurance programs for people 65 and over, financed in different ways.

HOSPITAL INSURANCE BENEFITS

Hospital insurance benefits for beneficiaries of the old-age, survivors, and disability insurance system, and the railroad retirement system, are financed through contributions in the same manner as cash benefits. Hospital insurance benefits for retired people who are not entitled to cash benefits are financed from general revenues.

The level-cost of the benefits (including administrative expenses) over the 25-year period 1966–90, on an intermediate basis, assuming an interest rate of 4.50 percent, is estimated at 1.79 percent of taxable payroll, according to new cost estimates completed toward the end of

1968. The level-equivalent of the graduated tax rates in the law is 1.50 percent of taxable payroll. Accordingly, the hospital insurance program has a negative actuarial balance of 0.29 percent of taxable payroll. The lack of actuarial balance shown for this program should be viewed in the light of the assumptions underlying the cost estimates, which are very conservative. The assumption is made that the maximum taxable earnings base will remain at the present $7,800 amount in all future years despite the assumption that earnings levels will increase significantly. If the assumption were made that the earnings base will be kept up to date in the future, by increasing it proportionately, with increases in the general earnings level, the program would have a positive balance of 0.07 percent of taxable payroll.

SUPPLEMENTARY MEDICAL INSURANCE BENEFITS

Persons enrolled in the supplementary medical insurance plan pay a monthly premium which is matched by an equal contribution from general Federal revenues. During the period July 1966 to March 1968, the premium was $3. Effective April 1968, the premium is $4 per month. The law provides for appropriate adjustment in premium rates annually to assure that the program will be soundly financed.

Hearings and Appeals Activity

The Bureau of Hearings and Appeals provides fair and impartial hearings to claimants who are still dissatisfied with decisions made on their social security benefit claims after the initial decision has been reconsidered at the payment center. The claimant, after his claim has been reconsidered, can file a Request for Hearing by the Bureau. One of the Bureau's 260 hearing examiners reviews the record and any new evidence that is available; hears the claimant, if he wishes to testify; and issues a new and independent decision on his findings.

If the claimant is still dissatisfied, he can request that the Bureau's Appeals Council review the decision of the hearing examiner. The Council is not bound to grant a hearing. It can dispose of the request by a denial of the need to review the record, or the Council can render a decision based on the record (although a claimant can appear in person before the Council, if he wishes). Sometimes the Council reviews a case on its own motion. If the decision is adverse, the claimant has a right to petition a Federal Court to review the claim.

Hearing examiners handled 24,048 social security cases in fiscal year 1968, and the Appeals Council handled 8,143 cases. The hearing examiners' median time to process a case from receipt of the claim file until disposition remains at 80 days, notwithstanding a current

increase in requests for hearings. Emphasis continues to be placed on reducing case-processing time.

Hearing examiners also heard 331 cases under Title XVIII of the Social Security Act (the hospital insurance part of Medicare), including 26 cases in which providers of services (hospitals and extended care facilities) requested reconsideration of decisions pertaining to initial participation in or termination from the Medicare program. During 1968, 21 hearing examiners were on an intermittent detail to the Office of the Secretary to hear Civil Rights cases under Title VI of the Civil Rights Act of 1964. Most of these cases were heard for the Office of Education, and involved the question of the right of schools to continue to receive Federal funds.

In expectation of bigger workloads because of the 1967 amendments, additional hearing examiners were recruited, trained, and assigned to duty stations throughout the country. New policy and procedural guides were developed. Vocational experts (who determine the existence of jobs from which claimants would not be barred by their impairments) and medical advisors (who determine the degree of impairment the claimant has suffered) were issued instructions clarifying the amplified definition of disability. Efforts along these lines and through hearing examiner training conferences have substantially improved the medical and vocational documentation in hearing records.

Research Activities

The Social Security Administration has a continuing responsibility, under Section 702 of the Social Security Act, to "study and make recommendations as to the most effective method of providing economic security through social insurance. . . ."

To carry out this responsibility, the Social Security Administration undertakes both long- and short-range program-oriented research and analysis, and maintains a system for the compilation and analysis of data derived from program operations. It conducts major economic and social surveys to obtain information on the characteristics and circumstances of beneficiaries or designated population groups, and has established important linkages of SSA data with data from other statistical record systems.

Small research grants and contractual arrangements are used to stimulate or accomplish specific research objectives through extramural activities. Statistical data are available to outside researchers under conditions that ensure confidentiality of information about individuals.

Major Research Publications

Research publications of the Social Security Administration include the monthly *Social Security Bulletin*, the *Annual Statistical Supplement*, Research Reports, and special releases.

Major research studies and reports that require more comprehensive treatment than an article in the *Bulletin* appear in a series of numbered research reports. Those published during the fiscal year were—

—*Some Economic Effects of Seasonality in OASDHI Tax Payments*, Report No. 20, 1967. 55 pp.

—*Employment After Retirement—A Study of the Postentitlement Work Experience of Men Drawing Benefits Under Social Security*, Report No. 21, 1968. 48 pp.

—*Lifetime Allocation of Work and Leisure*, Report No. 22, 1968. 44 pp.

—*Retirement Systems for Employees of State and Local Governments, 1966—Findings of a Survey of Systems Whose Members Were Not Covered Under the OASDHI System*, Report No. 23, 1968. 115 pp.

—*The Economic Status of the Retired Aged in 1980—Simulation Projections*, Report No. 24, 1968. 77 pp.

The Federal Credit Union Program

The Bureau of Federal Credit Unions charters, supervises, and examines all Federal credit unions. Its activities are financed through fees paid by Federal credit unions for its services; it receives no Federal appropriations.

In fiscal year 1968, Federal credit unions continued to supply an increasing number of Americans with credit at reasonable rates, provided a place for them to invest their savings, and assisted in family financial management.

In the calendar year ending December 31, 1967, more than 9,873,000 Americans were members of Federal credit unions. They held a total of $5,400 million in credit union savings on that date, and had outstanding loans of almost $4,700 million.

Savings at Federal credit unions increased $550 million in 1967, compared to an increase in loans of $400 million. This trend has continued in calendar year 1968.

The Bureau conducts training programs to encourage the organization and effective operation of credit unions in low-income communities. As the administrative agency for the Federal credit union program, the Bureau extended and improved training and counseling

Table 2.—*Data for Federal Credit Unions by Economic Area December 31, 1967 (Showing percent increase from Dec. 31, 1966)*

[Dollar amounts in millions]

	In operation		Members		Total assets		Member's shares		Loans outstanding	
	Number	Percent increase	Number	Percent increase	Dollars	Percent increase	Dollars	Percent increase	Dollars	Percent increase
All areas	12,210	2.3	9,873,777	6.5	$6,208	9.5	$5,421	9.6	$4,677	8.2
New England	900	3.1	648,758	6.3	436	9.6	387	9.6	283	8.1
Mideast	3,194	2.3	2,448,983	6.3	1,428	9.6	1,242	9.6	1,035	9.5
Southeast	2,186	3.9	1,636,899	9.1	931	12.5	809	12.4	720	11.2
Great Lakes	1,920	1.5	1,562,919	2.8	1,064	7.0	930	7.1	764	5.0
Plains	409	.2	280,275	5.5	173	7.1	152	6.9	131	6.7
Rocky Mountain	486	.8	314,383	7.0	196	9.0	170	8.5	157	8.1
Southwest	1,195	1.6	978,599	7.9	611	10.0	528	10.1	499	9.1
Far West	1,866	1.9	1,952,275	7.0	1,348	9.5	1,184	10.1	1,071	7.0
Canal Zone, Guam, Puerto Rico, and the Virgin Islands	54	3.8	50,086	9.3	22	15.8	19	16.5	17	15.8

programs to help the poor. A 4-week course in credit unions and consumer action called *Project Moneywise* was held in several major cities. It is intended to reach community leaders who in turn will help their fellow citizens overcome some of the problems which the poor encounter in the marketplace. H.R. 14907, a bill passed by Congress at the close of fiscal 1968 and signed into law on July 5, authorizes the Bureau to improve and expand *Project Moneywise* either by means of grants and

Table 3.—*Selected data for all Federal credit unions Dec. 31, 1966, and 1967*

	Dec. 31, 1967	Dec. 31, 1966	Percent of 1966–67
Number of operating Federal credit unions	12,210	11,941	2.3
Number of members (in thousands)	9,874	9,272	6.5
Summary balance sheet data: (in thousands)			
Total assets/liabilities and capital	$6,208,158	$5,668,941	9.5
Loans to members	4,677,480	4,323,943	8.2
Cash	362,728	305,434	18.8
Total investments [1]	1,092,098	978,027	11.7
Other assets	75,852	61,536	23.3
Members' shares	5,420,663	4,944,033	9.6
Reserves and undivided earnings	641,780	575,028	11.6
Other liabilities	145,714	149,880	−2.8
Summary of income and expenses:			
Total income	503,477	456,255	10.3
Interest on loans	447,994	406,553	10.2
Other income	55,483	49,702	11.6
Total expenses	192,747	172,841	11.5
Salaries	78,159	70,613	10.7
Other	114,588	102,228	12.1
Net income	310,729	283,414	9.6

[1] Represents U.S. Government obligations (including Federal agency securities), savings and loan association shares, and loans to other credit unions.

contracts with other organizations or directly through general revenue appropriations. Appropriations for fiscal years 1970–71, for consumer education projects only, are also authorized, a new departure for the Federal credit union program, which up to now has gotten its funds from fees of member credit unions.

In the 1968 fiscal year, the Bureau also authorized a number of State-side Federal credit unions serving Department of Defense personnel to establish offices at European and Far East installations. The program was arranged with the Department of Defense in order to permit U.S. military and civilian personnel in foreign countries to have access to the same credit union services enjoyed by members of the Armed Forces in this country.

Office of Education

Introduction

The Elementary and Secondary Education Act of 1965, which authorized large-scale Federal aid for elementary and secondary school programs, continued to support the largest enterprises of the Office of Education during fiscal year 1968. The Act and its amendments authorize programs for the education of children of low-income families, for the acquisition of library materials, for the establishment of supplementary educational centers and services, for the strengthening of State departments of education, and for the education of the handicapped.

As a result of the amendments of 1967, which also extended the Act to continue through fiscal year 1970, improvement in the planning and operation of both old and new programs may be expected, since appropriation of school aid funds may now be authorized a year before they are to be used.

To develop the great potential of noncommercial television and radio, the Congress passed the Public Broadcasting Act of 1967, which authorizes $500,000 for HEW to produce a comprehensive study of school uses of television, radio, and allied electronic instructional media. The Act also extends for 3 years the construction program which helped build 92 noncommercial television stations over the past 5 years.

The Congress extended for one year the 100 percent Federal share of the Library Services and Construction Act of 1964, for State interlibrary cooperation, for State institutional library services, and for library services to the physically handicapped.

As it entered its second century of operation, the Office also administered programs under the Education Professions Development Act of 1967, the Higher Education Act of 1965, the Vocational Education Act of 1963, and amendments to the Manpower Development and Training Act and the Economic Opportunity Act.

Included among the established programs were ones to assist land-grant colleges and universities, State and local educational agencies, school construction and maintenance, training of teachers, and research in education.

Planning and Evaluation Activities

In fiscal year 1968 major issues were identified and program priorities established in the areas of education of the disadvantaged, education of the handicapped, and educational innovation.

Two analytical studies were published: *Education in the Seventies*, a forecast and projection of trends in education to the year 1975, and *Students and Buildings*, on issues of student aid and facilities construction in higher education.

Equal Educational Opportunities

The Division of Equal Educational Opportunities was established in the Bureau of Elementary and Secondary Education on November 17, 1967 to carry out provisions of title IV of the Civil Rights Act of 1964, which provides funds to assist local school districts in the elimination of all school segregation and to help them solve educational problems arising from desegregation. Prior to this date, provisions of title IV and of title VI (under which Federal funds for programs that discriminate as to race, color or national origin are prohibited) were administered jointly in the Office.

Under the Equal Educational Opportunities program, funds and services of Office personnel are used to help school systems which request such aid. Technical assistance, special training for educational personnel, and coordination with relevant Federal programs are provided through:

- Grants to school boards.
- University desegregation assistance centers.
- Short-term or regular session institutes held at institutions of higher education.
- State education agency technical assistance units.
- Direct assistance from Office specialists.

In fiscal year 1968 grants to local school systems totaled $3.1 million; to universities for desegregation assistance centers, $2.9 million and for institutes, $941,936; and to State Education Agencies for Technical Assistance Units, $1.47 million.

Staff Work on Behalf of the Disadvantaged

During fiscal year 1968 the staff:

- Conducted a survey on recipients of Educational Opportunity Grants awarded under title IV of the Higher Education Act of 1965, to study Federal assistance at the high school through college level, the characteristics of college student recipients, the ade-

quacy of the financial aid, the recipients' potential for success and their employment capabilities. More than 1,000 students were interviewed in a representative sampling of 31 colleges and universities.

- Conducted a study of projects supported through title I of the Elementary and Secondary Education Act of 1965, to determine individual program costs in relation to the number and nature of component offerings and the number of children served per program.
- Prepared a report on migrant education based on visits to six Southeast and Southwest States.
- Collected demographic data on the Gypsy population.
- Conducted a survey to determine the extent to which Negro history and culture were incorporated in elementary and secondary school curriculum.
- Served as liaison with organized community groups, college administrators and State personnel interested in Federal funding opportunities.
- Organized an Indian Unit to be responsible for coordinating activities with the Bureau of Indian Affairs.
- Published *State Profile on School Dropouts, Unemployed Youth, Juvenile Delinquents and Related Federal Programs, FY '66; Profiles of Fifty Major American Cities; Federal Programs in Job Training and Retraining;* and *Federal Research and Demonstration Programs Benefiting the Disadvantaged.*

Opportunity for Educationally Deprived Children

For the third consecutive year, under title I of the Elementary and Secondary Education Act of 1965, more than a billion dollars was obligated for special education to help about 9 million educationally deprived children. The largest proportion of Federal funds was appropriated for rural counties in the South and slum areas in the larger cities. The 50 States of the Union, the District of Columbia, Puerto Rico, the Territories of American Samoa, Guam, and the Virgin Islands, and the Territory of the Pacific Islands (which the Nation administers under the United Nations Trusteeship System) are eligible under this program. All except American Samoa participated.

In addition to grants to local educational agencies, funds were also available through amendments to title I of the Elementary and Secondary Education Act of 1965 to State educational agencies for projects involving special groups of children (Table 1).

Table 1.—*Federal assistance to help meet special educational needs of educationally deprived or handicapped children: Fiscal Year 1968 allocations*

States, other eligible areas, and Department of the Interior	Local educational agencies	Handicapped children (State agencies)	Juvenile delinquents in institutions (State agencies)	Dependent and neglected children in institutions (State agencies)	Migratory children (State agency)	Total program	Administration	Total
Total	$1,100,287,599	$24,746,993	$9,168,720	$1,113,455	$41,692,425	$1,177,009,192	$13,990,808	$1,191,000,000
Alabama	36,988,984	244,616	114,105	----------	425,652	37,773,357	377,734	38,151,091
Alaska	1,805,503	----------	10,979	----------	----------	1,816,482	150,000	1,966,482
Arizona	8,422,776	222,941	165,606	----------	1,165,372	9,976,695	150,000	10,126,695
Arkansas	22,673,547	346,752	92,047	----------	379,435	23,491,781	234,918	23,726,699
California	78,008,208	883,294	894,795	----------	6,150,119	85,936,416	859,364	86,795,780
Colorado	7,798,580	593,274	116,638	29,483	1,134,220	9,672,195	150,000	9,822,195
Connecticut	7,907,261	728,372	111,403	25,711	290,066	9,062,813	150,000	9,212,813
Delaware	2,084,729	235,275	67,716	----------	147,587	2,535,307	150,000	2,685,307
Florida	26,445,029	689,163	344,390	----------	5,454,573	32,933,155	329,332	33,262,487
Georgia	36,829,728	276,789	136,445	----------	438,419	37,681,381	376,814	38,058,195
Hawaii	2,226,608	181,925	22,229	----------	----------	2,430,762	150,000	2,580,762
Idaho	2,475,984	69,452	37,594	----------	512,723	3,095,753	150,000	3,245,753
Illinois	46,230,999	462,308	351,682	79,503	375,350	47,499,842	474,998	47,974,840
Indiana	14,580,136	805,473	139,034	110,329	338,581	15,973,553	159,736	16,133,289
Iowa	15,153,804	323,005	75,789	79,341	42,642	15,674,581	156,746	15,831,327
Kansas	9,608,706	338,323	83,283	----------	465,229	10,495,541	150,000	10,645,541
Kentucky	32,483,284	174,397	27,507	----------	186,398	32,871,586	328,716	33,200,302
Louisiana	31,530,268	456,293	278,977	----------	408,033	32,673,571	326,736	33,000,307
Maine	3,403,277	134,820	62,151	----------	5,617	3,605,865	150,000	3,755,865
Maryland	14,590,115	318,287	421,390	----------	153,204	15,482,996	154,830	15,637,826
Massachusetts	16,422,153	1,115,839	221,037	----------	155,247	17,914,276	179,143	18,093,419
Michigan	30,670,217	1,211,650	303,382	----------	2,084,085	34,269,334	342,693	34,612,027
Minnesota	18,867,365	778,541	217,307	----------	157,289	20,020,502	200,205	20,220,707

Mississippi	38,788,595	118,478	73,133	----------	579,622	39,559,828	395,598	39,955,426
Missouri	23,086,158	723,378	189,342	----------	418,247	24,417,125	244,171	24,661,296
Montana	2,993,356	158,490	46,048	26,772	441,483	3,666,149	150,000	3,816,149
Nebraska	5,666,795	182,744	49,107	17,652	112,861	6,029,159	150,000	6,179,159
Nevada	879,759	17,583	49,178	----------	16,852	963,372	150,000	1,113,372
New Hampshire	1,296,376	98,306	37,586	----------	6,639	1,438,907	150,000	1,588,907
New Jersey	22,865,209	1,325,535	267,424	----------	1,013,700	25,471,868	254,719	25,726,587
New Mexico	9,629,504	201,412	99,716	----------	564,301	10,494,933	150,000	10,644,933
New York	115,776,356	3,191,922	1,026,749	----------	1,102,303	121,097,330	1,210,973	122,308,303
North Carolina	51,096,076	768,829	324,376	----------	934,544	53,123,825	531,238	53,655,063
North Dakota	4,042,272	89,114	21,434	----------	314,579	4,467,399	150,000	4,617,399
Ohio	34,197,997	411,353	406,715	110,614	716,995	35,843,674	358,437	36,202,111
Oklahoma	17,214,771	219,592	80,814	61,793	529,575	18,106,545	181,065	18,287,610
Oregon	6,982,937	325,132	166,380	----------	952,163	8,426,612	150,000	8,576,612
Pennsylvania	46,699,583	1,965,588	207,229	146,485	327,346	49,346,231	493,462	49,839,693
Rhode Island	3,481,096	158,525	40,176	14,164	----------	3,693,961	150,000	3,843,961
South Carolina	31,540,454	305,387	128,978	39,098	396,798	32,410,715	324,107	32,734,822
South Dakota	5,649,685	112,605	23,666	----------	29,619	5,815,575	150,000	5,965,575
Tennessee	33,763,326	269,894	196,388	112,992	75,070	34,417,670	344,177	34,761,847
Texas	65,260,201	848,750	472,044	107,830	10,433,192	77,122,017	771,220	77,893,237
Utah	2,724,300	292,875	49,325	----------	115,414	3,181,914	150,000	3,331,914
Vermont	1,484,141	238,232	39,758	----------	3,064	1,765,195	150,000	1,915,195
Virginia	28,130,476	434,333	148,154	----------	433,057	29,146,020	291,460	29,437,480
Washington	9,840,169	779,232	224,576	----------	1,121,964	11,965,941	150,000	12,115,941
West Virginia	17,193,348	158,566	62,887	9,298	40,344	17,464,443	174,644	17,639,087
Wisconsin	14,357,585	444,001	233,045	----------	308,961	15,343,592	153,436	15,497,028
Wyoming	1,235,793	81,403	30,706	19,382	233,891	1,601,175	150,000	1,751,175
District of Columbia	5,397,367	234,945	178,300	123,008	----------	5,933,620	150,000	6,083,620
American Samoa	75,000	----------	----------	----------	----------	75,000	25,000	100,000
Guam	614,867	----------	----------	----------	----------	614,867	25,000	639,867
Puerto Rico	21,013,645	----------	----------	----------	----------	21,013,645	210,136	21,223,781
Trust Territories	794,398	----------	----------	----------	----------	794,398	25,000	819,398
Virgin Islands	308,743	----------	----------	----------	----------	308,743	25,000	333,743
Dept. of Interior	9,000,000	----------	----------	----------	----------	9,000,000	----------	9,000,000

A total of $24.7 million was made available to State agencies for the education of handicapped children at schools supported or operated by them. In addition $9.17 million became available for educational programs in State-operated or State-supported institutions for delinquent children; $1.1 million was authorized for neglected youngsters in State institutions; and $41.7 million was authorized in grants to educational agencies for intrastate and interstate educational programs for children of migratory agricultural workers.

The amendments also provided for $9 million to the Department of the Interior for educational programs in 254 Bureau of Indian Affairs schools, which served 50,000 children.

Supplementary Educational Centers and Services

The Projects to Advance Creativity in Education program (PACE), authorized by title III of the Elementary and Secondary Education Act of 1965, is intended to support vitally needed supplementary services and to encourage application of new knowledge. Grants may be awarded for projects which invent a creative solution to a problem, demonstrate an exemplary program, or adapt an exemplary program for local use. In fiscal year 1968, $187.9 million was allotted for title III programs.

A total of 1,678 project proposals requesting $215.5 million were submitted in fiscal year 1968 (see Table 2). A total of 566 projects requesting $70.6 million were approved; and 92 other projects were in "hold" status, pending negotiations for approval. It is estimated that operational projects will serve 9,400,000 elementary and secondary school pupils and 900,000 preschool and out-of-school children, teachers, and other adults.

Guidance, Counseling, and Testing

Title V–A of the National Defense Education Act of 1958 provides assistance to the States in establishing and maintaining guidance, counseling, and testing programs in elementary and secondary schools, junior colleges, and technical institutes.

Latest available reports indicate that in fiscal year 1967 the States and areas employed the equivalent of 43,500 full-time professional personnel in guidance and counseling programs at a cost of more than $290 million. The Federal contribution to this total was $24.3 million.

Table 2.—*Projects submitted in fiscal year 1968 for the supplementary educational centers and services program authorized under title III of the amended Elementary and Secondary Education Act of 1965*

Category	Total number [1]	Planning projects	Operational projects
Evaluative programs:			
Deficiency survey	276	50	226
Curriculum requirements	469	90	379
Resource availability and utilization	285	50	235
Total	1,030	190	840
Instruction/enrichment:			
Arts	368	28	340
Foreign languages	156	14	142
Language arts	441	30	411
Remedial reading	300	24	276
Mathematics	375	25	350
Science	415	32	383
Social science and humanities	456	32	424
Recreation and physical education	245	20	225
Vocational and industrial arts	221	16	205
Physically handicapped	117	6	111
Mentally retarded	147	14	133
Disturbed and learning disabilities	135	12	123
Dropouts	123	10	113
Minority groups and other disadvantaged	155	15	140
Total	3,654	278	3,376
Instruction addenda:			
ETV and radio	164	13	151
Audiovisual aids	356	24	332
Demonstration and learning center programs	326	13	313
Library facilities	205	12	193
Materials and service centers	299	22	277
Data processing	130	12	118
Total	1,480	96	1,384
Personal services:			
Medical and dental	124	10	114
Social and psychological and guidance	277	22	255
Total	401	32	369
Other	250	25	225
Grand total [2]	6,815	621	6,194
Number of different projects	1,678	280	1,398

[1] Estimated.
[2] Projects may be included in all applicable categories.

The number of counselors increased from 34,500 in 1966 to 38,000, and these served more than 80 percent of secondary school students. The ratio of full-time counselors to students increased from 1 to every 460 in fiscal year 1966 to 1 to every 450 in fiscal year 1967. More than 9 million scholastic ability and achievement tests were administered in the public schools and more than 400,000 in nonpublic schools during fiscal year 1967. Testing agencies working under contract in 39 States also tested nearly 275,000 additional pupils in nonpublic schools.

During the first 9 years of the program State-approved guidance, counseling, and testing programs have cost $1.4 billion. Of this amount, NDEA title V–A funds accounted for 8.4 percent, State funds for 4.7 percent, and local funds for the balance.

Instruction Materials and Equipment

School Library Resources, Textbooks, and Other Instruction Materials

Under title II of the Elementary and Secondary Education Act of 1965, grants are made to States and Territories on the basis of plans submitted by them.

The $99.4 million made available in fiscal year 1967 (the latest report available) provided materials for use by a total of 44.6 million public and private school children and 1.8 million teachers, representing an increase over fiscal year 1966 of about three percent for participating children and about six percent for participating teachers. (American Samoa and the Department of Defense did not participate.)

Among the three categories of eligible materials—school library resources, textbooks, and other instructional materials, the States continued to give priority to school library resources: $83.8 million, or about 92 percent of the entire amount, was expended for such acquisitions. Prominent in this category were audiovisual materials.

In fiscal year 1968 the States continued to revise their planning, with several States giving unusual consideration to the need for materials for economically and educationally disadvantaged children. Thirty States are making special purpose grants to provide instruction programs for the use of children and teachers in special or exemplary instruction programs. State plans must also include provision for making loaned materials accessible through catalogs or lists of materials acquired with title II funds.

In fiscal year 1967, 4,850 new public school libraries were established. Of these, 4,260 were public elementary school libraries serving 2.0 million public school pupils, and 590 were public secondary school libraries serving 381,567 public school pupils.

Strengthening Instruction in Critical Areas

This program, authorized by title III of the National Defense Education Act of 1958, seeks to strengthen elementary and secondary school instruction in subject areas of critical importance by providing funds for the acquisition of equipment and materials other than textbooks and for administrative services. By 1968 the critical areas included civics, English, geography, history, reading, economics, and industrial arts, as well as the original areas of science, mathematics, and modern foreign languages.

A total of $78.24 million was allocated for fiscal year 1968. Of this amount $75.24 million was for grants to States, $1 million for loans

to nonpublic schools, and $2 million for administration of the State plans. Although no funds were appropriated for supervisory services, $5.5 million was added to the 1968 appropriation for strengthening State education agencies (under title V of the Elementary and Secondary Education Act), thus enabling States to continue support for supervisory services.

In fiscal year 1968 the 50 States, District of Columbia, Guam, Puerto Rico, and the Virgin Islands participated in the program. Projects approved for equipment acquisition totaled $110 million in Federal, State, and local funds. This figure represents an overmatching by State and local agencies of 50 percent.

Thirteen loans for acquisitions by 11 nonpublic schools were approved for a total of $248,311. As in the previous year, the largest percentage of the amount approved for loans was for science equipment—62 percent in 1968. Modern foreign language equipment continued to account for about 15 percent of the funds. Loans for audiovisual equipment amounted to more than 11 percent.

In 1958, before the program began, there were 33 supervisors at the State level for science, mathematics, and modern foreign languages. By the end of fiscal year 1967, at the latest count, there were 108 in science, 98 in mathematics, and 69 in modern foreign languages.

Strengthening Instruction in the Arts and the Humanities

Under Section 12 of the National Foundation on the Arts and the Humanities Act of 1965, allotments of $440,000 for grants and $60,000 for loans were made to 55 jurisdictions. Loans to two private schools were approved for a total of $9,416.

College Instructional Equipment

Part A in title VI of the Higher Education Act of 1965 authorizes two grant programs to help colleges and universities improve undergraduate instruction. In fiscal year 1968 $14.5 million was appropriated for the programs. Table 3 shows Federal funds granted in fiscal year 1968, by State, under this program.

Improving Qualifications of School Personnel

The Teacher Corps

The Teacher Corps received authorization for $33 million for fiscal year 1968, $46 million for fiscal year 1969, and $56 million for fiscal year 1970.

Table 3.—*Number of approved applications by State[1] with amount of Federal grants in fiscal year 1968 under the Higher Education Act of 1965, title VI, part A (for equipment, related minor remodeling, and materials to improve undergraduate instruction)*

State	Grants for equipment, minor remodeling, and materials (other than textbooks)			
	Laboratory and other special equipment		Closed-circuit television	
	Number	Amount	Number	Amount
Alabama	17	$214,103	6	$24,704
Alaska	2	7,522		
Arizona	8	149,639	3	17,266
Arkansas	7	124,712	1	14,296
California	47	1,421,587	8	164,029
Colorado	11	180,592	3	21,098
Connecticut	14	147,542	2	17,024
Delaware	3	23,705	2	2,735
Florida	18	346,368	5	39,965
Georgia	13	228,476	6	26,363
Hawaii	2	46,048	2	5,314
Idaho	8	55,669	1	6,430
Illinois	19	574,954	7	66,341
Indiana	16	329,704	3	34,012
Iowa	17	230,486	8	26,595
Kansas	27	196,475	7	22,670
Kentucky	9	213,125	5	24,592
Louisiana	11	248,493	2	28,672
Maine	9	53,911	2	6,220
Maryland	18	182,886	3	21,417
Massachusetts	21	452,923	9	52,261
Michigan	23	576,059	5	66,468
Minnesota	18	284,999	3	32,885
Mississippi	9	166,604	1	19,224
Missouri	31	311,367	9	35,927
Montana	6	53,155	1	6,133
Nebraska	7	115,495	3	13,326
Nevada	1	13,418	1	1,548
New Hampshire	6	55,911	2	6,451
New Jersey	12	223,944	2	25,840
New Mexico	8	71,663	2	8,269
New York	52	1,014,470	7	117,053
North Carolina	23	326,964	4	37,726
North Dakota	8	60,183	2	6,944
Ohio	18	597,024	1	68,888
Oklahoma	10	218,697	2	25,234
Oregon	12	170,258	3	19,645
Pennsylvania	36	667,690	13	77,041
Rhode Island	5	69,697	2	8,042
South Carolina	13	137,566	2	15,873
South Dakota	5	63,769	1	7,358
Tennessee	16	272,215	4	31,409
Texas	28	730,942	4	84,339
Utah	4	142,114	1	17,296
Vermont	7	40,092	1	4,626
Virginia	9	224,857	2	25,945
Washington	23	271,432	4	32,342
West Virginia	15	125,109	3	14,436
Wisconsin	14	314,790	5	36,322
Wyoming	2	23,963	1	2,973
American Samoa[2]				
District of Columbia	10	97,092	2	11,203
Guam[3]				
Puerto Rico	6	81,952	1	7,389
Virgin Islands	1	1,536		
Total	735	12,953,947	179	1,490,159

[1] Sec. 801 (b) of Public Law 89-329 (Higher Education Act of 1965) specifies: "The term 'State' includes, in addition to the several States of the Union, the Commonwealth of Puerto Rico, the District of Columbia, Guam, American Samoa, and the Virgin Islands."

[2] American Samoa has no institutions of higher education as defined in sec. 801 (a) of Public Law 89-329.

[3] No institution in Guam applied for a grant under this program in fiscal year 1968.

The Teacher Corps is actually a group of 49 programs funded by the Office of Education. Each one is operated locally by a university and one or more school systems, to provide interns with 2 years of professional training and service in poverty-area schools. Interns who complete their work successfully receive a master's degree and State certification. The Federal Government pays 90 percent of an intern's salary, the local school system employing him, 10 percent. Experienced teachers, recruited from the local school systems, serve as leaders for the teams of interns during the 2-year training period.

In June 1968 the first Teacher Corps interns completed their on-the-job training and masters' programs and began full-time teaching. A survey revealed that 72 percent planned to continue teaching in schools serving disadvantaged children.

The actual appropriations of $3.8 million (1967 supplemental) and $13.5 million (fiscal 1968) did not permit the corps to expand in size. Approximately 1,150 new interns and team leaders were recruited and enrolled in 32 programs. Seventeen programs continued with the initial group of interns.

During the 1967–68 school year, 1,800 Teacher Corps members served disadvantaged children and assisted regular teachers in 125 school systems in crowded urban ghettoes, on Indian reservations, in the heart of Appalachia, and in other areas.

During the second academic year of the Teacher Corps program, school administrators and teachers became increasingly involved in the planning and operation of the program. Local school systems developed ways to utilize Teacher Corps teams more effectively, to effect changes in curriculum and teaching techniques, to release regular teachers for planning and inservice education, and to increase parent and community participation. Universities began to offer courses "on site" at local schools, thus bringing the school and university into a genuine working partnership.

In response to the needs of local programs, the Teacher Corps developed a model intensive language training institute for interns who would be working with Spanish-speaking children and their parents. A joint VISTA-Teacher Corps project was also established at the New York City Correctional Institution for first offenders on Riker's Island.

The number of applications and inquiries relating to the Teacher Corps program continued to increase. Applications to the national office totaled over 7,000, while inquiries and requests averaged over 2,000 monthly.

Plans for 35 programs were tentatively approved for a third training cycle to begin in the fall of 1968. These included 10 new programs,

six of which were to be conducted in States which had previously had none. The promise of full support for existing programs and some forward funding allowed the Corps to plan for major expansion of its efforts for the first time.

Experienced and Prospective Teacher Fellowships

Fellowship awards for graduate study, authorized by part C of title V of the Higher Education Act of 1965, are designed to raise the quality of elementary and secondary school education by improving the qualifications of those pursuing or planning a career in such schools.

During the 1967–68 academic year, programs were conducted for 1,503 experienced teacher fellows and for 2,336 prospective teachers. These were funded at a cost of $25 million from the previous year's appropriation. During the year $5 million was also available for institutional assistance.

In fiscal year 1968 awards were announced authorizing fellowships for 1,636 experienced teachers and 2,306 prospective teachers in programs to be conducted during the 1968–69 academic year at a cost of $27.5 million. Institutional assistance awards of $7.5 million were also made during the fiscal year to help strengthen teacher education programs in 111 of the institutions conducting fellowship programs.

Institutes for Advanced Study in 12 Areas

Institutes for Advanced Study are authorized under title XI of the National Defense Education Act of 1958 in 12 areas—English, English for speakers of other languages, modern foreign languages, reading, geography, history, civics, economics, industrial arts, international affairs, and for teachers of disadvantaged youth and educational media specialists.

During the 1967–68 academic year, 517 institutes were conducted with funds from the previous year's appropriation of $30 million. Most were short-term programs held during the summer of 1967. An exception was the Tri-University Project in Elementary Education, funded jointly at a cost of more than $1 million with title XI funds and support from the Bureau of Research. It was designed to focus national attention on the need for more effective preparation of elementary school teachers. The cooperative program, conducted on three university campuses, included post-doctoral college trainers of teachers and elementary teachers participating in NDEA institutes.

During fiscal year 1968 the title XI appropriation was again $30 million. From the 1,435 proposals received, 480 institutes were ap-

proved, most to be held during the summer of 1968 for 20,284 participants. The Tri-University Project was also continued for a second year with an award of more than $1.5 million from title XI and Teacher Fellowship funds.

A major new program, the Triple T Project for Training the Teachers of Teachers, was launched during the fiscal year. Four universities were provided with funds to be used for planning and for support of preliminary activities of 64 teams throughout the country, whose objective was to develop projects to improve the training of the teachers of teachers through an all-university effort conducted with school systems.

At midnight June 30, 1968, 10 years after its creation, title XI of the National Defense Education Act ceased to be an authorizing law. The Education Professions Development Act of 1967, however, authorizes a variety of training programs which include institutes similar to those previously conducted under that and other, earlier authorizations. As fiscal year 1968 came to a close more than 3,000 proposals had been received under the new Act.

Institutes in the Arts and the Humanities

Twelve institutes for advanced study to strengthen teaching of the arts and humanities in public and private nonprofit elementary and secondary schools, authorized by section 13 of the National Foundation on the Arts and the Humanities Act of 1965, were held in the summer of 1967. The cost of nearly $500,000 was covered by funds obligated in the previous fiscal year. Eleven programs scheduled to be conducted in the summer of 1968 were approved in fiscal year 1968.

Counseling and Guidance Institutes

Part B of title V of the amended National Defense Education Act of 1958 authorizes grants to colleges and universities for conducting short-term and regular-session institutes for advanced training in the counseling and guidance of students in elementary and secondary schools and in higher education institutions.

Fifty-four institutes were held during the summer of 1967 and the 1967–68 academic year using fiscal year 1967 funds. There were 1,584 participants in the program, which was conducted at a cost of $7.25 million.

During the 1968 fiscal year 44 awards were announced for institutes to be conducted in the summer of 1968 and the 1968–69 academic year. A total of 1,368 participants were scheduled to be enrolled at a cost of $7.25 million.

Training for Education of the Handicapped

Although there are now approximately 87,000 special education teachers, an estimated 237,000 more are required to serve more than 5 million handicapped children.

For academic year 1968–1969, Federal funds totaling $24.5 million were made available under this program to State and other education agencies (including those of the District of Columbia, Puerto Rico, the Virgin Islands, and Guam) and 249 colleges and universities, to train 13,269 teachers and students. The grants included 75 awards to 63 educational institutions to develop training programs for special education personnel. Training programs include academic year undergraduate and graduate programs, special study institutes and summer traineeships.

Special projects conducted during fiscal year 1968 demonstrated the feasibility of training new types of support personnel and helped set standards for improving training. Special projects were funded at six universities to meet anticipated manpower needs in developing and implementing these new approaches.

Strengthening State Departments of Education

Appropriations under title V of the Elementary and Secondary Education Act of 1965, as amended, for "Grants To Strengthen State Departments of Education," totaled $29,750,000. This does not represent an increase over the $22 million appropriation of the preceding year, however, since the 1968 figure includes $5.5 million formerly appropriated to assist States in supervisory services under title III of the National Defense Education Act of 1958 and $2 million for statistical services under title X of the same Act.

Under a formula involving public school enrollment, 85 percent of the available amount was allocated to the States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands. The States devoted 23 percent of aid funds to improving instruction services to local educational agencies, 38 percent to strengthening general administration, and lesser portions to statistical and data processing services, and to study, planning, and evaluation. Some 1,275 professional and more than 1,135 nonprofessional positions were supported by these grants.

The remaining 15 percent of the appropriated funds was reserved for special project grants (generally multi-State grants) to solve prob-

lems common to the educational agencies of all or several States. Twenty-six such projects, covering all 56 State Educational Agencies, were initiated or continued in fiscal year 1968.

Assistance to Federally Affected and to Disaster Areas

Public Laws 81–815 and 81–874 were enacted in 1950 to assist school districts in the maintenance and operation of schools and construction of school facilities where federally conducted military and civilian activities placed financial burdens on local educational agencies by increasing school populations and removing real property from local tax rolls. Assistance in the repair and replacement of school facilities damaged or destroyed by major natural disasters was authorized by an amendment to each of these laws contained in Public Law 89–313, approved November 1, 1965. Amendments to the basic provisions of both Public Laws 815 and 874 were made in Public Law 89–750, approved November 3, 1966.

School Construction

During fiscal year 1968, $11.7 million in Federal funds was allocated to 46 school districts for 38 construction projects. These provided 924 classrooms and related facilities for 27,908 children under Public Law 81–815. An additional $7.8 million was obligated for construction to provide classrooms and related school facilities for children living on Federal installations.

In fiscal year 1968 there were 14 declared disasters in 13 States. School districts in these States have submitted 72 applications under section 7 of Public Law 81–874 and one application under section 16 of Public Law 81–815.

School Maintenance and Operation

In the 1968 fiscal year 4,200 school districts were eligible for $486 million in Federal funds under Public Law 81–874. This sum includes an estimated $14 million for children who reside on Indian properties or with a parent employed on Indian properties, or both.

The $486 million is approximately 5 percent of the current operating expenses of eligible school districts. In terms of average daily attendance, it was paid on behalf of 2.76 million of the approximately 16 million children in these districts.

In fiscal year 1968, $27 million in Federal funds provided schooling for over 50,000 children living on Federal property. These are children for whom such services were not otherwise available.

Construction Service

During fiscal year 1968 the Office of Construction Service, established in 1967, became fully operational in Washington, D.C., in the regional offices, and in 24 district offices. Work was begun on 694 educational facilities construction projects during fiscal year 1968, representing a direct Federal support share of approximately $0.5 billion of the total estimated cost of $1.5 billion.

The office developed streamlined architectural/engineering procedures to improve and accelerate service to the educational community, and established an Equal Employment Opportunity program for beneficial compliance on the part of educational institutions, construction contractors, and (indirectly) the construction trades.

Two new approaches to planning were developed in the area of facility development. The first, "operational simulation," was developed under contract with the Washington Center for Metropolitan Studies. It is a computer-assisted training process designed to develop a widened perspective among architects, educational leaders, and urban and community planners. It stresses the interrelated facets of education, urban land use, tax structure, employment, and housing, population, and income patterns.

The second approach, known as a design *charette*, is a workshop technique of interdisciplinary planning in which educational facility development and investment are stressed as catalytic factors in the preservation or revitalization of the urban scene. A feature of key importance under this approach is commitment of local resources to the planning process, with significant Federal support represented but nevertheless limited to a "seed-money" proportion of the total value invested.

Financial Aid for Students

Educational Opportunity Grants

This program, authorized by title IV, part A, of the Higher Education Act of 1965, provides grants for able students from low income families who need financial assistance to obtain a postsecondary education. During the program's three-year existence approximately 400,000

such students have received initial year grants enabling them to pursue education beyond secondary school.

In fiscal year 1967, $112 million was appropriated to support 202,000 students attending 1,615 institutions. Awards averaged $415.

The adjusted appropriation of $131,413,279 in fiscal year 1968 will assist some 292,600 students in 1,780 institutions, with grants averaging $460.

College Work-Study

Under the college work-study program grants are made to institutions of higher education, area vocational schools, and certain proprietary schools to expand work opportunities for needy students.

Federal assistance usually provides about 80 percent of the student compensation and a portion of the extra overhead costs of the colleges involved. An estimated 375,000 students in 1,860 accredited institutions of higher education in the United States were part of the program in 1968. They earned approximately $140 million in the work-study programs.

Guaranteed Loans for Higher Education

Under this program, authorized by part B of title IV of the Higher Education Act of 1965, students may borrow from private commercial lending institutions to help pay for the costs of higher education. Loans provided by the lender are guaranteed by either a designated State or private guarantee agency or by the Federal insurance program. During fiscal year 1968, with the program operative nationwide, over 488,000 loans totaling more than $412 million were made by participating private lenders.

Guaranteed Loans for Vocational Education

Established under the National Vocational Student Loan Insurance Act of 1965, this program is similar in purpose and operation to the loan program for higher education. As of June 30, 1968, the program was operative in 48 States, the District of Columbia, and Puerto Rico. During fiscal year 1968, participating private lenders made over 27,000 loans totaling nearly $24 million.

National Defense Education Act Student Loan Funds

More than 1.2 million students have borrowed approximately $1.25 billion from funds at colleges and universities in the past 10 years

since this program was authorized by title II of the National Defense Education Act of 1958.

In fiscal year 1968 approximately $235 million was lent to 430,000 students in 1,800 institutions. Federal funds totaled $190 million; colleges and universities contributed $21.1 million. The remainder represents repayments that were reloaned.

The amount of loan cancellation, based on teaching service, has been increased for teachers of handicapped children and for those who teach in areas of high concentrations of low income families.

Encouraging Utilization of Educational Talent

For fiscal year 1968 a total of 72 contracts was awarded for talent search projects in 39 States, the District of Columbia and Puerto Rico, under authorization of section 408 of the Higher Education Act of 1965.

The program, which had an appropriation of $4 million in 1968, authorizes contracts of up to $100,000 for State and local educational agencies and other public or nonprofit organizations and institutions for the following purposes:

- To identify qualified youths of exceptional financial need and to encourage them to complete secondary school and undertake postsecondary training.
- To publicize forms of student financial aid.
- To encourage secondary school or college dropouts with demonstrated aptitude to re-enter educational programs.

Higher Education Facilities

Grants and loans for construction of academic facilities, authorized under the Higher Education Facilities Act of 1963, were made to 698 higher education institutions (and their branch campuses) in fiscal year 1968. In contrast, grants and loans were made to 888 in fiscal year 1967. As in previous years, some institutions received funds under more than one title of the legislation. Table 4 shows grants and loans by geographic area made under this program in fiscal year 1968.

Grants under title I provide up to 40 percent of the development cost of facilities at public community colleges and technical institutes and up to 33⅓ percent for facilities at other higher education institutions. The 203 Federal grants to public community colleges and technical institutes, totaling $70.5 million for fiscal year 1968, compared with 251 grants totaling $101.6 million the previous year.

The 555 grants to other higher education undergraduate institutions amount to $203.5 million. These figures compare with 804 grants for $349.09 million the previous year.

Construction grants under title II provide up to a third of the development cost for facilities at graduate schools or cooperative graduate centers. The fiscal year 1968 appropriation was $50 million, but only $32,423,006 was released for the program. This amount, together with funds recovered from awards made in previous fiscal years, brought the total fiscal year 1968 funding to $33,000,000 for 54 grants. Due to funding limitations, most grants awarded were considerably smaller than the amounts requested. At the end of the fiscal year, there was a backlog of grant requests totaling approximately $63 million.

Loans for construction under title III require that at least a fourth of the development cost be financed from non-Federal sources. Title III was amended by the Participation Sales Act of 1966 to create a revolving loan fund and provide for participation under the Federal National Mortgage Association Charter Act. In fiscal year 1968, 197 new loans and 43 supplemental loans were approved for a total of $147.6 million. This compares with the approval of 211 loans totaling $199.99 million the previous fiscal year.

State Administration and Comprehensive Planning

The Higher Education Amendments of 1966 authorized $7 million for grants to State commissions for administration and comprehensive planning to determine construction needs of institutions of higher education. During fiscal year 1968, the second year of the program, obligations totaled $5.96 million.

Disaster Assistance

No disaster relief funds were requested in fiscal year 1968 under the Disaster Relief Act of 1966, which amended the Higher Education Facilities Act to provide Federal assistance to public institutions of higher education which suffer a major disaster.

Accreditation and Institutional Eligibility

As a result of lengthy deliberations during fiscal years 1967 and 1968, a new Accreditation and Institutional Eligibility Staff was established in the Office in fiscal year 1968. It coordinates all activities pertaining to accreditation and to the eligibility for funding of institutions of higher education and of vocational schools wishing to par-

Table 4.—*Grants and loans by geographic area to 698 higher education institutions (and branch campuses) in fiscal year 1968 for construction of academic facilities under the amended Higher Education Facilities Act of 1963*

States [1]	Grants for undergraduate facilities (title I)						Grants for graduate facilities (title II)		Loans for academic facilities (title III)	
	Sec. 103 [2]		Sec. 104 [3]		Total					
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Alabama	11	$2,081,890	11	$3,525,974	22	$5,607,864	1	$127,207	6	$2,820,000
Alaska	0	0	1	250,972	1	250,972	1	600,000	1	950,000
Arizona	4	640,961	6	1,877,254	10	2,518,215	1	452,296	0	0
Arkansas	2	157,505	7	2,424,251	9	2,581,756	0	0	6	1,604,000
California	14	5,510,083	39	22,770,923	53	28,281,006	2	2,598,126	5	1,676,000
Colorado	4	248,359	5	3,129,478	9	3,377,837	2	317,181	0	0
Connecticut	2	763,269	8	2,676,180	10	3,439,449	2	1,352,204	3	2,183,000
Delaware	2	139,307	2	516,926	4	656,233	0	0	1	491,000
Florida	4	2,329,696	23	5,526,744	27	7,856,440	1	440,164	7	2,291,000
Georgia	2	430,589	14	5,553,318	16	5,983,907	2	958,549	4	922,000
Hawaii	2	276,813	2	857,813	4	1,134,626	1	841,520	0	0
Idaho	2	330,390	2	854,005	4	1,184,395	0	0	1	12,000
Illinois	4	2,776,977	22	10,439,144	26	13,216,121	2	1,500,000	11	6,875,000
Indiana	7	2,991,611	11	4,606,774	18	7,598,385	2	714,815	11	9,474,000
Iowa	3	1,185,139	11	3,445,771	14	4,630,910	3	1,716,940	5	2,285,000
Kansas	2	624,135	7	2,908,099	9	3,532,234	0	0	2	574,000
Kentucky	7	2,258,584	9	3,189,651	16	5,448,235	0	0	16	9,632,000
Louisiana	2	1,478,016	6	3,676,876	8	5,154,892	0	0	19	13,473,000
Maine	0	0	5	1,353,033	5	1,353,033	0	0	1	190,000
Maryland	2	1,427,793	7	3,590,930	9	5,018,723	0	0	1	680,000
Massachusetts	2	1,732,775	12	6,379,032	14	8,111,807	2	2,500,000	4	716,000
Michigan	11	6,981,435	8	5,678,517	19	12,659,952	0	0	6	2,831,000
Minnesota	3	1,515,629	10	4,251,238	13	5,766,867	2	1,383,086	3	3,473,000
Mississippi	7	1,156,088	10	2,530,296	17	3,686,384	2	445,096	1	584,000
Missouri	4	1,682,650	6	5,129,496	10	6,812,146	1	418,033	4	2,892,000
Montana	4	292,342	4	1,237,001	8	1,529,343	1	229,794	1	492,000
Nebraska	1	270,275	5	1,966,169	6	2,236,444	0	0	2	829,000

Nevada	0	0	2	421,948	2	421,948	0	0	1	318,000
New Hampshire	1	247,537	4	856,176	5	1,103,713	1	402,384	0	0
New Jersey	2	1,829,837	12	5,281,400	14	7,111,237	1	1,196,850	4	3,355,000
New Mexico	3	63,667	12	1,841,833	15	1,905,500	1	380,666	1	718,000
New York	3	4,309,379	20	17,906,116	23	22,215,495	2	2,314,583	9	10,782,000
North Carolina	15	2,169,511	12	4,854,262	27	7,023,773	1	1,000,000	5	1,879,000
North Dakota	4	402,759	5	525,545	9	928,304	0	0	1	120,000
Ohio	6	4,077,474	31	11,149,073	37	15,226,547	0	0	6	4,758,000
Oklahoma	6	557,267	21	3,218,986	27	3,776,253	1	553,153	0	0
Oregon	4	1,020,884	13	2,571,233	17	3,592,117	3	1,859,065	6	1,910,000
Pennsylvania	2	4,325,660	25	11,036,512	27	15,362,172	4	3,910,055	17	11,862,000
Rhode Island	1	306,428	7	1,048,887	8	1,355,315	0	0	1	106,000
South Carolina	8	2,436,631	10	1,657,006	18	4,093,637	0	0	4	1,343,000
South Dakota	0	0	4	1,185,946	4	1,185,946	0	0	2	716,000
Tennessee	4	1,536,015	8	3,800,692	12	5,336,707	1	441,872	4	1,715,000
Texas	11	3,827,937	23	12,209,445	34	16,037,382	3	2,186,862	18	11,440,000
Utah	4	32,901	7	2,428,883	11	2,461,784	2	445,563	0	0
Vermont	1	223,372	3	648,417	4	871,789	0	0	2	615,000
Virginia	4	1,707,311	14	3,742,069	18	5,449,380	1	350,000	4	3,198,000
Washington	1	1,358,537	10	3,916,035	11	5,274,572	0	0	6	3,769,000
West Virginia	2	618,228	6	2,271,473	8	2,889,701	0	0	7	2,347,000
Wisconsin	3	1,724,477	8	4,926,670	11	6,651,147	4	2,308,427	13	18,750,000
Wyoming	2	145,961	1	465,602	3	611,553	0	0	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0
District of Columbia	0	0	5	1,469,313	5	1,469,313	1	237,225	3	814,000
Guam	0	0	2	97,713	2	97,713	0	0	0	0
Puerto Rico	3	797,038	6	2,041,632	9	2,838,670	0	0	5	1,687,000
Virgin Islands	1	57,824	0	0	1	57,824	0	0	0	0
Adjustment		−2,557,366		−8,440,465		−10,997,831		−1,181,716		−2,013,000
Grand total	199	70,50 ,570	524	203,478,267	723	[4] 273,979,837	54	[5] 33,000,000	240	147,629,000

[1] Title IV, sec. 401(m) of Public Law 88-204 (Higher Education Facilities Act of 1963) specifies: "The term 'State' includes, in addition to the several States, the District of Columbia, the Commonwealth of Puerto Rico, The Virgin Islands, Guam and American Samoa."

[2] Public community colleges and technical institutes.

[3] Higher education institutions other than public community colleges and technical institutes.

[4] Includes $18,441,592 which was reallotted during fiscal year 1968 from fiscal year 1967 funds. Some of this amount was made available by reductions in previously approved grants.

[5] Includes $1,758,710 which was reallotted during fiscal year 1968 from fiscal years 1966 and 1967 funds.

ticipate in Federal programs. The staff office, which absorbed the older Institutional Status and Division of Student Financial Aid Eligibility Units, is composed of: Accreditation Policy Unit, Institutional Eligibility Unit-Higher Education, and Institutional Eligibility Unit-Vocational Education. An Advisory Committee for Accreditation and Institutional Eligibility was also formed.

Payments to Land-Grant Institutions

In 1968 the annual appropriation of $12 million under the Bankhead-Jones Act and $2.6 million authorized by the Second Morrill Act were used by 68 land-grant colleges and universities, serving approximately 20 percent of the Nation's 7 million students enrolled in degree programs. In some institutions the program provided a principal means of support for instruction in agriculture and engineering.

Federal City College, designated by Congress as a land-grant college in Washington, D.C. in June, 1968, was authorized to be funded under the program in fiscal year 1969.

Aid for Developing Institutions

Title III of the Higher Education Act of 1965 provides for assistance in raising the academic quality of colleges which are termed "developing institutions," by authorizing funds for a national teaching fellowship program and for the establishment of cooperative or consortium arrangements. These programs allow the developing institutions to draw on the experience, capabilities, and resources of established colleges, universities, and business enterprises in an effort to improve their academic quality.

In fiscal year 1968, 220 institutions in 45 States, Guam, Puerto Rico, and the Virgin Islands received grants totaling $30 million. Since fiscal year 1966, national teaching fellowships have been awarded in more than 50 academic fields, the most popular being English, history, mathematics, and psychology. Table 5 shows funding breakdown for institutions aided under title III.

Funding patterns included continued support for high potential institutions; increased emphasis on the consortium approach; Federal interagency cooperation for supporting disadvantaged students; use of national teaching fellowships as part of cooperative arrangements; and more effective involvement of institutions in bilateral and consortium cooperative programs.

Table 5.—*Aid for Developing Institutions: fiscal year 1968 funding under the Higher Education Act of 1965, title III*

	Number	Percent	Total funds	Average grants	National teaching fellowships
Grantee institutions	220	100	$30,000,000	$136,364	727
Predominantly Negro institutions	74	34	14,131,127	190,961	266
4-year	151	69	23,400,000	154,967	534
2-year	69	31	6,600,000	95,652	193
Private	115	52	17,022,118	148,018	396
Public	105	48	12,977,882	123,599	331

National Defense Fellowships

Graduate students who intend to enter college and university teaching are eligible for fellowships authorized by title IV of the National Defense Education Act of 1958, as amended. The 3-year fellowships support study for the Ph.D. or its equivalent. According to awards made in 1968, 15,328 fellows will be on tenure in the 1968–69 academic year at American colleges and universities, as compared with 15,000 in 1967–68.

The fellowship provides a stipend of $2,000 for the first academic year of tenure, $2,200 for the second, and $2,400 for the third, together with an allowance of $400 for each dependent. An additional stipend of $400, plus $100 per dependent, is available for summer study.

The number of new fellowships awarded in 1968 for the academic year 1968–69 dropped from 6,000 (the number awarded in each of the previous two years) to 3,328. Continuing fellowships totaled 12,000, bringing the number of fellows supported to 15,328. Universities requested 12,650 new fellowships for award in 1968—nearly four times the number available.

Fellowship awards were made in 1968 to 199 graduate schools in the Nation. Approved doctoral programs among these institutions totaled 2,990.

Beginning in academic year 1968 fellowships vacated during the academic year could be reawarded at the beginning of the following term, rather than only at the beginning of the next academic year.

Training for Higher Education Personnel

Part E of the Education Professions Development Act of 1967 authorizes the Commissioner of Education to make grants to, or contract with, institutions of higher education to assist them in training persons who are serving or preparing to serve as teachers, administrators or educational specialists in institutions of higher education.

Grants and contracts may support the following types of programs:

- Fellowships for graduate study in carefully developed and coordinated programs other than those eligible for NDEA title IV support.
- Graduate-level institutes and other short-term graduate training programs.
- Special projects at the graduate level for training higher education personnel.

Part E also replaces title VI, part B of the Higher Education Act of 1965, which funds institutes to train faculty in the use of educational media, and title V(b) of the National Defense Education Act of 1958, as amended, which supports training for higher education counseling personnel.

Although the Act was passed in June, 1967, the first appropriation for funds was made for fiscal year 1969. As a consequence, activity under part E during fiscal year 1968 was confined to planning, preparation of guidelines and application forms, and conference sessions with representatives of institutions of higher education. Priority program areas for 1969 include: training and retraining teachers for junior colleges and two-year community colleges; preparation of educational personnel who will serve in developing colleges or be concerned with the needs of disadvantaged students; improvement of undergraduate teaching at all levels; specialized training for administrators in higher education; and training of educational specialists.

The first deadline for the receipt of program applications requesting support under part E was set for September 1, 1968.

College and Research Library Resources

In fiscal year 1968 a total of 3,692 basic, supplemental and special purpose grants for $24.5 million were made to 2,111 colleges and universities and to three agencies representing combinations of institutions of higher education, to strengthen their library resources under part A, title II of the Higher Education Act of 1965.

These grants were made to institutions located in 54 States and Territories. Grant funds are to be used to purchase books, periodicals, documents, audio-visual aids, and other library materials. Since 1966, when the program began, a total of $57.4 million has been awarded under part A, title II of the Act. Most of these funds have been used by recipient colleges and universities to enrich their collections in accordance with growing curriculum needs.

Librarianship Training

Grants totaling $5.1 million were made to 51 colleges and universities under the librarianship training program authorized under part B, title II of the Higher Education Act of 1965. Of the 709 fellowships awarded in library and information science, 494 were at the master's level, 47 at the post-master's level, and 168 at the doctoral level.

In fiscal year 1968, grants totaling $2.9 million were also made under this Act of 49 institutions of higher education to support 66 training institutes. These institutes will be offered during the 1968–69 academic year and will be attended by 2,084 participants.

Since 1966, the first year of the program, a total of 1,349 fellowships has been awarded under part B, title II of the Higher Education Act of 1965.

Community Service and Continuing Education

Forty-nine States, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands are participating in programs, supported under title I of the Higher Education Act of 1965, to use the resources of colleges and universities in solving community problems. The State plans for fiscal year 1968 required $9.8 million in Federal funds. At least 50 percent of the total program budget was from non-Federal sources.

In fiscal year 1968 an estimated 341 institutions were working with about 623 projects designed to solve urban, suburban, and rural problems related to housing, employment, health, transportation, and sound community leadership.

Adult Basic Education

The Adult Education Act of 1966 provides funds to encourage programs to help adults overcome English language limitations and to improve their basic education in preparation for occupational training and more profitable employment. Section 309 of the Act provides that not less than 10 percent or more than 20 percent of the amount appropriated each year be reserved for special experimental demonstration projects and teacher training projects.

In fiscal year 1968, 50 States and five other jurisdictions participated in the State Plan Program which required $30.6 million in Federal funds. Special Project grants involving innovative methods, systems,

and materials for adult basic education programs totaled $6.6 million. Teacher training grants totaled $1.5 million. Under the State grant program there were 408,000 enrollees in fiscal year 1968, compared to 392,000 in fiscal year 1967. Awards were made for 21 special projects and 28 teacher-training institutes in fiscal year 1968, compared to 11 special projects and 19 teacher-training institutes in fiscal year 1967.

Civil Defense Adult Education

Courses in the civil defense adult education program are administered by the Office under contract with State educational agencies with funds provided by the Department of Defense. In fiscal year 1968, 49 States, the District of Columbia, and Puerto Rico participated in the personal and family survival course, which focuses on basic civil defense principles and procedures. A total of 374,441 persons completed courses, and an additional 5,102 persons qualified to teach the course.

Forty-two States, the District of Columbia, and Puerto Rico offered radiological monitoring (RAMONT) courses. During fiscal year 1968 29,415 persons completed such courses.

Thirty-four States and Puerto Rico offered shelter management training courses. During fiscal year 1968, 8,577 persons completed such courses. Total Federal funds available were $4.1 million.

Vocational and Technical Education

The Vocational Education Act of 1963 and the Smith-Hughes Act of 1917, the George-Barden Act of 1946, and supplementary acts, as amended, provide Federal funds to develop, improve, and extend State and local programs in vocational and technical education.

Legislation prior to the Act of 1963—dating back to the Smith-Hughes Act of 1917—limited Federal funds to particular occupational categories. The Act of 1963 provides increased flexibility and focuses on the needs of people rather than on occupational programs.

Programs Under Matched Funds

Under these laws, Federal funds must be matched with State and local funds. An exception under the 1963 Act is the residential vocational education school program, for which funds have not yet been appropriated.

Total enrollment in vocational and technical education programs for

fiscal year 1967 was 7,047,501, compared to 6,070,059 in 1966. It is estimated that the total enrollments will reach 8,150,000 in 1968.

Combined local, State, and Federal expenditures for vocational education in 1967 were $1.004 billion, an increase of 25.5 percent over 1966. Estimated total expenditures for 1968 are $1.137 billion. Federal expenditures in 1967 were $260 million. Estimated Federal expenditures for 1968 are $265 million.

The total Federal appropriations for 1968 were $256 million. There was, however, an amount of $265 million available for obligation. This included $198 million for grants to States under the Vocational Education Act of 1963; the permanent appropriation of $7 million under the Smith-Hughes Act; $50 million under the George-Barden and supplemental acts; and $10 million transferred from the Office of Economic Opportunity to the Office of Education for work-study programs.

SECONDARY AND POST-SECONDARY PROGRAMS

Enrollments in secondary vocational education programs reached 3,532,823 in 1967, increasing 15.9 percent from the 1966 level, and representing about 25 percent of the total secondary enrollment.

Post-secondary programs in vocational education increased 13.1 percent in enrollments during 1967, leveling off after a considerable increase in 1966. Enrollments totaled 499,906 in 1967.

ADULT PROGRAMS

Adult programs enrolled 2,941,109 students in 1967, while the projected enrollment for 1968 is 3,300,000. The 1967 enrollment increased 16.2 percent over fiscal year 1966.

PROGRAMS FOR STUDENTS WITH SPECIAL NEEDS

The rapidly increasing number of students with special needs who are now being enrolled in vocational education programs reflects the increasing concern for youth and adults who require special services to help them succeed in regular vocational education programs. Enrollments in special programs increased from 49,002 in 1966 to 73,663 in 1967, an increase of 50.3 percent. Enrollments of students with special needs in regular programs increased from 53,154 in 1966 to 92,925 in 1967.

CONSTRUCTION OF AREA VOCATIONAL SCHOOLS

Since passage of the Vocational Education Act of 1963, 1,489 area vocational schools have been approved for construction, expansion, or remodeling. In fiscal year 1967 projects were conducted in 389 schools including: 176 vocational departments of high schools; 78 vocational-technical schools; 63 specialized (trade or technical) high schools;

328-184—69——11

and 72 vocational and technical departments of junior and community colleges, colleges, or universities. The combined local, State, and Federal funding for construction during fiscal year 1967 was $195.79 million.

ANCILLARY SERVICES AND ACTIVITIES

The 1963 Act requires that at least three percent of each State's allotment of Federal funds must be expended for ancillary services. In fiscal year 1967 $24.8 million was expended for ancillary services, or 11.4 percent of total Federal expenditures under the Act. Ancillary services specified in this provision include teacher training and supervision, program evaluation, special demonstration and experimental programs, development of State administration and supervision, guidance and development of instructional materials.

Work-Study Program

The work-study section of the Vocational Education Act of 1963 provides Federal funds for part-time employment of students who require financial assistance to begin or continue in vocational education. Combined expenditures for work-study programs in 1967 amounted to $11.3 million and provided training and assistance to 50,041 students. Although no funds were appropriated for these programs under the Act during fiscal year 1968, funds transferred from the Office of Economic Opportunity enabled many students to profit from work-study programs during the year.

Construction of Facilities in Appalachia

The Appalachian Regional Development Act of 1965, as amended, supplements the Federal funding of vocational and technical school construction in West Virginia and specified counties in 12 other States.

A total of 157 projects have been approved since funds became available in fiscal year 1966. Of this number, projects benefiting 71 schools were funded in fiscal year 1968 using a total of $21.2 million transferred to the Office of Education under sections 211 and 214 of the Act.

Manpower Development and Training

The Manpower Development and Training Act of 1962 (Public Law 87–415), as amended through 1972, authorizes Federal support for training the unemployed and the underemployed and for training individuals to meet occupational skill shortages.

The program provides a variety of education and training programs including:

- Education and training for the hard-core unemployed.
- Special experimental programs for inmates of correctional institutions.
- Refresher training for unemployed professionals who require such training to continue in their professions.
- Training in redevelopment areas.
- Part-time training of persons (employed or unemployed) who can help fill vacant jobs in occupations of critical skill shortage if they are given further education or training.
- Experimental, developmental and pilot projects to improve techniques and to demonstrate the effectiveness of specialized methods in training the disadvantaged.

Administering the Act is the combined responsibility of the Secretary of Labor and the Secretary of Health, Education, and Welfare. The Division of Manpower Development and Training of the Office of Education is directly responsible for the classroom instruction.

The Department of Labor selects individuals to be trained and the Office of Education enters into agreements with State education agencies to provide the training needed. Contracts are negotiated with public or private education or training institutions to establish classroom instruction when States are unable to provide necessary institutional training.

Recent amendments to the Act reflect recognition of the success of the 55 designated Manpower Training Skill Centers in serving the education and job training needs of the hard-core unemployed. The Centers provide training, in a variety of occupations and in basic education, and extensive counseling and supportive services in a centralized facility under a single administration. Most of the Centers are operated by local public school systems.

Since the beginning of the program, 13,470 institutional projects (not including coupled on-the-job training or redevelopment area projects) have been developed for 775,000 trainees at a total Federal cost of $1.3 billion, including subsistence payments to trainees. During fiscal year 1968, 2,530 projects, providing training opportunities for 151,515 trainees, were approved at a total cost of $271 million.

Projects authorized under section 241 of the Act, which are basically similar to those under section 231, are developed specifically for residents of areas designated by the Secretary of Commerce as redevelopment areas. In fiscal year 1968, 14,024 training opportunities were approved in redevelopment area projects.

During fiscal year 1968 institutional training opportunities were

provided for 10,528 persons, while 3,141 persons received on-the-job and coupled on-the-job training for a total Federal cost of $24 million. The Office also arranged classroom instruction for 20,000 trainees, one-fifth of the total trainees enrolled in on-the-job training programs under section 204 of the Act.

Library Services and Construction

The Library Services and Construction Act of 1964, as amended in 1966 with authorization through 1971, extended title I, Public Library Services, and title II, Public Library Construction, and added three new programs.

For public library service in the areas covered by plans under title I of the Act, available funds from State and local levels increased from $448.88 million in fiscal year 1967 to $478 million in fiscal year 1968. The Federal funds available were the same—$35 million—as in fiscal year 1967. In fiscal year 1968 a combined total of $513 million was available for public library expenditures where services were unavailable or inadequate. These funds provided for improved communication and referral systems, continuing education and in-service training opportunities for staff, increased attention to people with special needs, and other improved services.

In fiscal year 1968, $12 million of the $18 million in Federal funds available under title II of the Act were obligated for 148 construction projects, while $15 million from fiscal year 1967 carryover funds were obligated for 136 construction projects. These combined funds were matched by $66 million in local funds and supplemented by $1.2 million in funds authorized by the Appalachian Regional Development Act of 1965 and $427,614 in funds authorized by the Public Works and Economic Development Act of 1965.

Fiscal year 1968 was the first year in which Federal funds were available for the Interlibrary Cooperation program (title III); the State Institutional Library Services program (part A, title IV); and Library Service to the Physically Handicapped program (part B, title IV).

Of the 56 States and Territories, 50 submitted annual programs for the year under title III, obligating $2 million of the Federal appropriation of $2.2 million. Program activities included identification of material resources available within a State or region; establishment or expansion of interlibrary loan and reference networks to include all types of libraries and information centers (including in some States the Regional Medical Libraries and the State Technical Services Act information centers); expanding or establishing technical processing

centers; and the coordination of materials acquisition among libraries in geographic areas.

Fifty States and Territories submitted annual programs under part A, title IV, obligating $1.89 million of the $2 million available in Federal funds. These were used to provide training for institution administrators and library staff, to purchase library equipment and materials and to improve library quarters, to develop cooperative networks among institutions and other libraries, and for other services.

Under part B, title IV, 49 States and Territories obligated $1 million of the $1.25 million available. The States used these funds to establish or strengthen Regional Libraries for the Blind, in cooperation with the Library of Congress program; to purchase additional specialized library equipment and materials; to add consultant staff to the State agency; and to encourage local libraries to identify and serve handicapped persons in their communities.

Educational Television Facilities

Title IV of the Communications Act of 1934, as amended, authorizes matching Federal grants to educational radio and television broadcasting stations for equipment for new stations and to expand facilities of existing ones. Since 1962, when such grants were first authorized by Public Law 87–447, 238 applications have been received, requesting a total of about $65 million in Federal funds for stations in 48 States, the District of Columbia and Puerto Rico.

At the end of fiscal year 1968 there were 162 operating educational television stations, as well as 22 additional ones under construction, compared with 135 the year before. Close to 155 million people are now within range of at least one educational television station, compared with about 140 million at the close of 1967. More than half of these now benefit from improved service as a result of grants made under this program. Institutions within range of broadcast instructional television services now enroll about 44 million students, compared to about 40 million at the end of 1967.

During the five-year period of authorization for grants under the Educational Television Facilities Act which expired in 1967, $32 million had been appropriated and obligated by the end of fiscal year 1967. This comprised 161 grants to help new or existing stations in 47 States, Puerto Rico and the District of Columbia.

Part IV of the Communications Act of 1934 was extended and expanded by title I of the Public Broadcasting Act of 1967 (Public Law 90–129). Authorizations made under this law were for $10.5 million for 1968, $12.5 million for 1969, and $15 million for 1970.

Since no appropriation was made under the $10.5 million 1968 authorization, no facilities grants were possible during fiscal year 1968.

Assistance for Cuban Refugees

Cuban nationals receiving political asylum in the United States are benefited by programs administered by the Office. The programs, with support from funds channeled through the Social and Rehabilitation Service, are carried out under regularized procedures for emergency actions established by the Migration and Refugee Assistance Act of 1962 as amended.

U.S. Loan Program for Cuban Refugee Students

A total of 4,234 Cuban refugee students borrowed $3.4 million to attend 362 colleges and universities in the United States during fiscal year 1967. This emergency program was first approved by the President on February 3, 1961. The average annual loan per student is $817. Since the program began 8,563 refugee students have borrowed about $16.4 million.

Aid to Dade County Public Schools

Grants to Dade County, Fla., for education services to Cuban refugees for fiscal year 1968, were made under Public Law 87–510, the Migration and Refugee Assistance Act of 1962. Grants for the elementary and secondary school program were made for 45 percent of the per pupil cost for Cuban refugee children in families not receiving public assistance, and for 60 percent for those in families who had entered the United States before October 5, 1965, and who were receiving such assistance. Grants were also made for the influx of refugee children, which began after October 5, 1965, at the full per pupil cost for current operating expenses and at the rate of $600 per child for construction of school facilities.

Total cost for operating expenses and other educational services for about 23,620 refugee children in average daily attendance in fiscal year 1968 was about $10.7 million. About $2.2 million was paid for construction of facilities for almost 3,800 children.

In the adult English language and vocational training programs, 1.5 million hours of training were provided for some 21,000 participants at a cost of about $876,000. A summer program for 6,000 children was operated at a Federal cost of $159,000.

Research and Related Activities

In fiscal year 1968, an aggregate of $102.1 million was appropriated to the Office for support of a variety of educational research and related activities conducted under cooperative arrangements with institutions and agencies outside the Office.

Cooperative Research Program

The $66.467 million appropriated under the Cooperative Research Act in fiscal year 1968, for research, training, dissemination, and demonstration, was applied to a balanced total research effort. Major components included a wide variety of general research projects, together with activities of the Research and Development Centers, the Regional Educational Laboratories, the Educational Resources Information Center (including its network of clearinghouses), and programs to train educational researchers. Funds from the Cooperative Research Act also were used in the Regional Research, Arts and Humanities Research, and Research Facilities programs.

PROJECT RESEARCH

During fiscal year 1968 approximately $20 million of Cooperative Research support was used for more than 600 separate general research projects undertaken by individuals and organizations outside the Office. These projects were in addition to large-scale continuing activities, such as regional educational laboratories and research training programs. They also supplemented research activities supported under other authorizations.

Projects were concerned with every level of education, from preschool to postgraduate, with a number directed toward improving education in inner city schools. For example, one study reported on community interaction and racial desegregation in the Detroit area. Others investigated and demonstrated various approaches to the education of the disadvantaged and sought to improve selection and training of teachers.

Projects have also been conducted to develop instructional materials in almost every area of the elementary-secondary school curriculum. One such study developed materials aimed at reducing prejudice and discriminatory behavior and at developing positive self- and group-concepts. At the higher education level, funds were provided for a group of institutions to develop improved models for a comprehensive undergraduate and inservice teacher education program for preschool and elementary education staff.

In some projects, support was provided for the research component necessary to evaluate activities funded under general provisions of the Elementary and Secondary Education Act. A national assessment program was also launched, to ascertain present educational attainment at various age levels and to lay the base for a continuing assessment of educational progress.

In the field of interagency cooperation, a study was undertaken of requirements and costs of kindergarten in Department of Defense overseas schools for dependents.

To improve geographic distribution of research participation, and to bring related services closer to those who take part in the research effort, special allocations for the Small Project Research program and for Research Development Grants are made to various regions. In fiscal year 1968 these programs utilized $2.5 million for 263 small projects (involving less than $10 thousand in Federal support) and $1 million for 19 research development grants involving 125 small or developing colleges which are organized in consortiums to improve their research capacity.

REGIONAL EDUCATIONAL LABORATORIES

In fiscal year 1968, 20 Regional Educational Laboratories, located throughout the United States, used Cooperative Research funds to help bridge the gap between educational research and application of its results. The laboratories—nonprofit corporations chartered and governed by groups of local educators, businessmen, and lay leaders—work to develop educational innovation in such areas as Afro-American, Indian, and migrant education; teacher training; curriculum development; and early childhood education.

In fiscal year 1968, the following laboratories and their programs were supported with approximately $22.4 million in Cooperative Research funds:

- Appalachia Educational Laboratory, Charleston, W. Va.
- Central Atlantic Regional Educational Laboratory, Washington, D.C.
- Central Midwestern Regional Educational Laboratory, St. Ann, Mo.
- Cooperative Educational Research Laboratory, Inc., Northfield, Ill.
- Center for Urban Education, New York, N.Y.
- Eastern Regional Institute for Education, Syracuse, N.Y.
- Far West Laboratory for Educational Research and Development, Berkeley, Calif.
- Educational Development Center, Inc., Newton, Mass.

- Mid-Continent Regional Educational Laboratory, Kansas City, Mo.
- Michigan-Ohio Regional Educational Laboratory, Detroit, Mich.
- Northwest Regional Educational Laboratory, Portland, Oreg.
- Research for Better Schools, Inc., Philadelphia, Pa.
- Regional Educational Laboratory for the Carolinas and Virginia, Durham, N.C.
- Rocky Mountain Regional Educational Laboratory, Greeley, Colo.
- South Central Regional Educational Laboratory Corporation, Little Rock, Ark.
- Southeastern Educational Laboratory, Hapeville, Ga.
- Southwestern Cooperative Educational Laboratory, Albuquerque, N. Mex.
- Southwest Educational Development Laboratory, Austin, Tex.
- Southwest Regional Laboratory, Inglewood, Calif.
- Upper Midwest Regional Educational Laboratory, Inc., Minneapolis, Minn.

RESEARCH AND DEVELOPMENT CENTERS

At the close of fiscal year 1968 the Office was supporting nine Research and Development Centers under the Cooperative Research Act and another two through provisions of the Vocational Education Act of 1963. Each Center conducts continuous, in-depth research and related activities in a specific problem area, in order to provide new concepts and improved practices and materials for classroom use. Center activities have received national recognition recently for work in such areas as Individually Prescribed Instruction (IPI), the development of problem-solving and reading skills in children, pre-service and in-service teacher training, and evaluation of instructional programs.

The following Centers, which also receive financial support from university and other sources, received continuation funds from the Office during fiscal year 1968:

- Learning Research and Development Center, University of Pittsburgh, Pittsburgh, Pa.
- Research and Development Center in Educational Stimulation, University of Georgia, Athens, Ga.
- Center for the Study of the Evaluation of Instructional Programs, University of California, Los Angeles, Calif.
- Center for Research and Development in Higher Education, University of California, Berkeley, Calif.
- Center for the Advanced Study of Educational Administration, University of Oregon, Eugene, Oreg.
- Center for the Study of Social Organization of Schools and the Learning Process, Johns Hopkins University, Baltimore, Md.

- Center for Research and Development for Cognitive Learning, University of Wisconsin, Madison, Wis.
- Stanford Center for Research and Development in Teaching, Stanford University, Palo Alto, Calif.
- Research and Development Center in Teacher Education, University of Texas, Austin, Tex.
- Center for Research, Development, and Training in Occupational Education, North Carolina State University, Raleigh, N.C.
- Center for Research and Leadership Development in Vocational Education, Ohio State University, Columbus, Ohio.

OTHER CENTER-TYPE ACTIVITIES

To accommodate growing demands from school systems across the Nation, Cooperative Research support was also used in fiscal year 1968 for special center-type activities in the areas of early childhood education and educational policy research.

The National Early Childhood Laboratory provides formal coordination of effort through a decentralized structure consisting of a national center and six cooperating centers. The National Center on Early Childhood Education is located at the University of Illinois, Urbana, Ill. Cooperating centers are located at George Peabody College for Teachers, Nashville, Tenn.; University of Chicago, Chicago, Ill.; University of Arizona, Tucson, Ariz.; University of Kansas, Lawrence, Kans.; Syracuse University, Syracuse, N.Y.; and Cornell University, Ithaca, N.Y.

During fiscal year 1968 Policy Research Centers—located at Syracuse University, Syracuse, N.Y. and Stanford Research Institute, Menlo Park, Calif.—were chosen for continued funding from among the five pilot centers previously supported. The aim of these centers is to provide schools, colleges, and education agencies with information and techniques to aid them in decision making and in planning for future needs.

EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

The Educational Resources Information Center (ERIC) is a nationwide, comprehensive information system through which educational research and research-related documents are acquired, abstracted, indexed, stored, and disseminated. Key feature of the system is a network of 19 information clearinghouses, each one of which specializes in a specific field:

- *Adult Education:* Syracuse University, Syracuse, N.Y.
- *Counseling and Personnel Services:* University of Michigan, Ann Arbor, Mich.

- *Disadvantaged:* Teachers College, Columbia University, New York, N.Y.
- *Early Childhood Education:* University of Illinois, Urbana, Ill.
- *Educational Administration:* University of Oregon, Eugene, Oreg.
- *Educational Facilities:* University of Wisconsin, Madison, Wis.
- *Educational Media and Technology:* Stanford University, Stanford, Calif.
- *Exceptional Children:* Council for Exceptional Children, Washington, D.C.
- *English (Teaching of):* National Council of Teachers of English, Champaign, Ill.
- *Foreign Languages (Teaching of):* Modern Language Association of America, New York, N.Y.
- *Higher Education:* George Washington University, Washington, D.C.
- *Junior Colleges:* University of California, Los Angeles, Calif.
- *Library and Information Sciences:* University of Minnesota, Minneapolis, Minn.
- *Linguistics:* Center for Applied Linguistics, Washington, D.C.
- *Reading:* Indiana University, Bloomington, Ind.
- *Rural Education and Small Schools:* New Mexico State University, Las Cruces, N. Mex.
- *Science Education:* Ohio State University, Columbus, Ohio.
- *Teacher Education:* American Association of Colleges for Teacher Education, Washington, D.C.
- *Vocational and Technical Education:* Ohio State University, Columbus, Ohio.

Documents selected and abstracted by clearinghouse staffs are announced in ERIC's monthly journal, *Research in Education*, which includes abstracts of completed research funded by the Office and other agencies (including Federal, State and local governments, and selected professional organizations) and announcements of research currently in progress. Cumulative indexes and other special document collections are also published. During fiscal year 1968 the ERIC clearinghouses originated 250 special products, ranging from newsletters and bulletins to bibliographies and in-depth research reviews.

EDUCATIONAL RESEARCH TRAINING

Funds for training of educational researchers and for strengthening institutional staff and curricular capability were authorized by Cooperative Research Act amendments included in title IV of the Elementary and Secondary Education Act of 1965. Support includes

both stipends for trainees and institutional allowances, as well as funds for staff and research-curriculum development.

During fiscal year 1968, 132 grants totaling $6.275 million were awarded to 75 institutions, to support the continuation of graduate and development programs started during fiscal year 1966, and for several post-doctoral programs, institutes and special projects. Emphasis was put on training researchers to respond to continuing and emerging needs for educational improvement. There were 2,291 participating trainees.

EDUCATIONAL RESEARCH FACILITIES PROGRAM

The Cooperative Research Act, as amended by title IV of the Elementary and Secondary Education Act of 1965, provides support for constructing, remodeling, and equipping major facilities for the conduct of educational research. These facilities funds remain available for obligation under a five-year appropriation spanning fiscal years 1966–70.

During fiscal year 1968 approximately $615,000 available under this program were used to provide major program-related equipment for Regional Educational Laboratories, Research and Development Centers and for advance planning preparatory to additional support of Research and Development Center facilities at the University of Pittsburgh and the University of Wisconsin.

ARTS AND HUMANITIES RESEARCH

During the five-year operating period of the Arts and Humanities Program more than $7 million has been expended to support 183 research activities in the subject areas defined in Public Law 89–209. Most of this support has come through the Cooperative Research Act; some has come from other authorizations.

In fiscal year 1968 a third Educational Laboratory Theatre Project was established in Los Angeles, California with funds from the Cooperative Research, Elementary and Secondary Education (title III) and National Foundation on the Arts and the Humanities Acts. Theatre projects previously had been established at Providence, R.I. and New Orleans, La. Investments in projects in art, music, theatre, museums, humanities, and arts-for-the-disadvantaged brought the total expenditure to $1.8 million in fiscal year 1968.

Vocational Education Research and Training

Activities funded under section 4(c) of the Vocational Education Act of 1963 are intended to strengthen vocational education capabilities

at every level, with emphasis on the needs of young people from economically depressed situations. The program also encourages an interdisciplinary approach.

In fiscal year 1968, $13.550 million was appropriated for vocational curriculum improvement; program evaluation; career development and guidance systems; instructional materials and systems for new career areas; and for further development of a comprehensive, learner-centered program focusing on academic preparation and employability. Funds were also provided for State and local administrative practices and organizational structures and for cost-benefit analyses.

Support was also given for two research and development centers, 46 State research coordinating units, and 20 institutes for vocational education teachers, administrators, teacher educators, counselors, and related personnel.

Educational Media Research and Dissemination

A total of $4.4 million was appropriated during fiscal year 1968 for grants and contracts for research and dissemination of information concerning educational uses of radio, motion pictures and other audio-visual equipment and materials, including computers and printed materials. Initially authorized by parts A and B of title VII of the National Defense Education Act of 1968, as amended, this support expired at the end of fiscal year 1968. Subsequent media research, development, and dissemination are expected to be supported through Cooperative Research Act appropriations.

Obligations totaled $3.7 million for 24 research, experimentation, and dissemination projects in fiscal year 1968.

Library Research and Development

The Library and Information Sciences Research Program was initiated in fiscal year 1967 through part B, title II of the Higher Education Act of 1965. In fiscal year 1958 more than $2 million was obligated for 21 projects in areas judged to have the greatest potential for improving library services. These projects included development of more effective curricula for training librarians and updating their knowledge and skills; applications of computers to library administration, technical services, and bibliographic activities; improvement and expansion of information and user services; and expanded use of microforms for preservation of materials and reduction of library space requirements.

Research in Foreign Languages and Comparative Education

(See page 166 International Programs, Studies and Services.)

Research and Demonstration in Education of Handicapped Children

The Office supports a wide variety of research and demonstration activities designed to improve the education of handicapped children. Authorized by Public Laws 88–164 and 89–105, appropriation for these activities totaled $11.1 million in fiscal year 1968.

Support is provided for research and demonstration activities relating to the education of children who are mentally retarded, impaired in hearing or speech, visually handicapped, seriously emotionally disturbed, crippled, or otherwise impaired in health. In fiscal year 1968, grants totaling about $10.8 million were awarded under this program. Sixty-one percent of the projects were conducted in college and university settings; others in public and private schools, State departments of education, clinics and hospitals, and by professional and research organizations.

Included in the $10.8 million was $4 million for demonstration activities, of which $2.7 million was used for a national network of 14 Instructional Materials Centers containing new or innovative educational materials for teachers of handicapped children. During the same period, $1 million was used for the support of media projects to provide tools for educating handicapped children, and an additional $617,412 was obligated for curriculum activities. The remainder, nearly $5 million, was obligated for research and development centers and a variety of other research projects.

An intramural research program was initiated in 1968 to evaluate the effectiveness of the Office's Bureau of Education for the Handicapped in implementing research efforts. Two major projects relating to the evaluation of research projects are now under way.

During 1968, the Bureau worked to increase communication with professional educators, to broaden the scope of the research and related activities it supports, and to interrelate and integrate its activities.

Preschool and School Programs for the Handicapped in Local Schools

During fiscal year 1968 grants were provided to States to assist them in initiating, expanding, and improving special education and related

services for handicapped children at the preschool, elementary and secondary school levels, under authorization of title VI–A of the Elementary and Secondary Education Act, as amended.

In fiscal year 1967 a supplemental appropriation provided $2.4 million for planning, leadership activities, and preparation of State Plans. Total amount of funds available for distribution during fiscal year 1968 was $14.25 million. All 50 States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, Trust Territory of the Pacific Islands and the Bureau of Indian Affairs submitted State Plans and received grants.

State Plans prepared under title VI–A showed that approximately 1,700,000 handicapped children were served by more than 87,000 teachers and supportive personnel during the 1965–66 school year. They also indicated that nearly 4,500,000 other handicapped children require services! The States estimate that $2.75 billion will be necessary to meet the needs of children who are not yet receiving special education services.

According to State reports, major program needs include initiation and expansion of basic services and programs in all disability areas, and development of new programs, particularly in the areas of preschool activities, the multiple-handicapped, learning disabilities and work-study programs.

The States estimated that approximately 84,000 handicapped children would receive some type of special education or related service under title VI–A during the 1967–68 school year and summer of 1968. Projects conducted during fiscal year 1968 included summer school and summer camp remedial and enrichment sessions, teacher training courses, workshops, and screening and diagnostic clinics.

Educational Services for the Handicapped in State Schools

During fiscal year 1968, $24.7 million was allotted under Public Law 89–313 to provide special education for over 87,000 children in State-supported and State-operated schools. (This Law amended title I of the Elementary and Secondary Education Act, authorizing grants to State agencies directly responsible for free public education of handicapped children, to improve and expand educational opportunities in schools they operate or support.)

Basic educational services and coordination and utilization of resources have been markedly improved as a result of projects funded under this program. Colleges and universities have also contributed

resources and expertise to help solve the special educational needs of handicapped children.

Among the programs aided in fiscal year 1968 were those designed to include younger children, to enrich and improve instructional services, and to extend school through the summer months. Most encouraging has been the increase in the number of qualified personnel serving handicapped children in special schools.

Media Services and Captioned Films for the Handicapped

During fiscal year 1968, $2.8 million was made available for Media Services and Captioned Films. These funds were expended for research, training, production, acquisition, distribution and the loan of media equipment.

Research Activities

- A continuation of a project started in fiscal year 1967 at Catholic University of America, on the training of the mentally retarded deaf through film and film media.
- A "cued speech" dissemination and parent training project which combines speech reading and hand cues to clarify nonvisible speech movements, at Gallaudet College.
- Continuation of a project involving language instruction to facilitate education, conducted by the National Education Association.
- A project to study the visual perception of deaf children, at New Mexico State University.
- A project involving the development of basic electronics assembly skills for employment-preparedness of the deaf, with Thompson Ramo Woolridge Inc.

Training Activities

- Four Regional Media Centers for the Deaf have been established in Tennessee, Nebraska, Massachusetts and New Mexico. They feature summer media institutes for teachers of the deaf and presentations of multi-media workshops.
- A national symposium, "Designing Instructional Facilities for Educating the Deaf Student," was held at the University of Nebraska.

- The audiovisual resource center at the American School for the Deaf was equipped to demonstrate vocationally-oriented use of educational media for the deaf.
- A film project was undertaken at the Colorado School for the Deaf, to prepare students for outside employment in the field of audiovisual education.
- Additional equipment for teaching the IBM punch system and typing to the deaf was purchased, to prepare students for outside employment in the IBM field, through a program of the Perceptual Development Laboratories.

Production

Film production under this program included 48 filmstrips; 500 slides on basic electronics assembly; 10 filmstrips on teaching modern mathematics; 21 loop films on vocational guidance; 30 loop films on fingerspelling; 11 titles of AFL/CIO *American at Work* series; and preparation of 126 scripts for future production of films and filmstrips.

Acquisitions

Films acquired included 42 general subject films, 62 educational films and 34 filmstrips. Also acquired were 11,700 subscriptions to the information publication, *Know Your World*, and captions for 27 free or sponsored films provided by private organizations.

Distribution

Three general interest film libraries and 60 educational media depositories continued programs to make materials available to the deaf. General and educational films were shown in schools, churches and clubs and reached an audience of 1,121,485. A total of 307 additional groups were registered for film showings during fiscal year 1968, bringing the total number of groups registered to 1,828.

Through a contract with Educational Television Program Service of Indiana University, distribution of 30 television programs for nationwide showing to deaf audiences on educational TV networks was arranged. These programs were originally produced under contract with Station KTCS, St. Paul-Minneapolis.

Loan Equipment

Loan equipment made available to schools for the deaf during fiscal year 1968 comprised 1,228 overhead projectors, 2,228 filmstrip projectors, 1,743 16″ tables, and 4,611 projection screens.

328-184—69——12

Other Programs for the Handicapped

Under Public Law 90–247 the 90th Congress authorized several other programs for handicapped children. These included the following:

- Amendments to title III, Elementary and Secondary Education Act, provide that at least 15 percent of State allotments for title III projects be used for special educational services for handicapped children. In fiscal year 1968 approximately $22,730,468 was available for this program.
- Establishment of Deaf-Blind Centers, to provide comprehensive diagnostic, evaluation and education programs for deaf-blind children.
- Establishment of Regional Resource Centers, to provide teachers and other school personnel with educational evaluation and assistance in developing specific education strategies.

International Programs, Studies and Services

Office activities in the field of international education, studies, and research are coordinated by the Institute of International Studies, which was established in March 1968. Through the Division of Foreign Studies, the Institute supports research projects and institutional and curricular development programs in international studies and offers a variety of fellowships to students and teachers for training and research in modern foreign languages and area studies, in the United States and abroad.

The Division of International Exchange and Training administers exchange programs for teachers and provides training for and informational services to foreign educators and other visitors interested in American education. The Institute also provides program and recruitment services related to educational programs in international organizations; maintains a resource center on foreign educational systems; handles requests for evaluation of foreign credentials; and supports research in comparative education.

NDEA Language and Area Centers

The National Defense Education Act of 1958 authorized support for the establishment of language and area centers at institutions of higher education. The number of centers has grown from a total of 19 which were in operation during the 1958–59 academic year, before the program of Federal support began, to 106 centers at 63 American col-

leges and universities. During the 1968–69 academic year such centers will receive $6.1 million in Federal support.

Each center offers instruction in the languages and cultures of one or more of the following world areas of specialization: East Asia, South and Southeast Asia, the Middle East, Soviet and East Europe, Africa, and Latin America. During 1968, center programs continued to emphasize non-Western studies, in response to national education needs.

Centers have influenced the structure and content of foreign studies in American higher education and promoted increased public knowledge and appreciation of non-Western cultures and civilization. Their programs provide needed training for foreign language and area specialists who will serve in educational institutions, Federal agencies, and intergovernmental and private organizations.

Undergraduate students are now enrolling in center courses in increasing numbers, while local communities and public schools are also showing heightened interest in furthering knowledge of foreign languages and studies. Support for intensive summer language programs, initiated in 1963, has accelerated graduate study programs and undergraduate instruction leading to advanced language and area degrees. During the summer of 1968, 21 programs costing $482,000 are to be conducted at 16 American universities, including a special program in African studies initiated for faculty members of small colleges at the University of California at Los Angeles.

Table 6 shows the number of courses, faculty members and enrollments, by world area, at the 106 NDEA Language and Area Centers.

NDEA Fellowships in Language and Area Studies

Modern foreign language fellowships, authorized by title VI of the National Defense Education Act of 1958, are designed to correct curriculum imbalance in foreign language and area studies by providing awards to study non-Western languages and cultures at domestic language and area centers.

The changing pattern of award distribution during the past 10 years reveals an increasing interest in study of lesser known world areas. The number of awards in Russian, for example, have decreased from 40 percent of the total issued in 1959 to less than 17 percent in 1968, while the number of African language awards has increased from less than .05 percent to about 15 percent. Although awards were first granted to graduate students only, they are now also made to college and university faculty members and for summer session study by both graduate and undergraduate students. Awards for the 1968–

Table 6.—*Number of courses, faculty members, and enrollments at 106 NDEA Language and Area Centers by World Area, Fall 1967* [1]

	Courses					Faculty					Student enrollment				
	Total	Lang.	Ling.	Lit.	Area	Total [2]	Lang.	Ling.	Lit.	Area	Total	Lang.	Ling.	Lit.	Area
Totals	3,880	1,381	198	547	1,754	2,385	888	95	201	1,202	89,122	27,123	2,573	7,768	51,658
East Asia	930	346	41	88	455	562	204	18	26	314	20,089	4,322	376	749	14,642
Southeast Asia	115	56	1	3	55	71	32	1	1	37	2,430	351	1	6	2,072
South Asia	359	129	15	18	197	221	77	5	8	131	6,059	640	429	66	4,924
Middle East	507	241	23	53	190	275	137	8	12	118	7,883	1,900	150	433	5,400
Inner Asia	39	29	------	1	9	21	16	------	1	5	154	80	------	1	73
Soviet and Eastern Europe	770	273	58	171	268	496	206	22	64	204	18,175	5,200	417	2,592	9,966
Northwest Europe	34	6	------	24	4	22	7	------	13	2	704	185	------	411	108
Sub-Sahara Africa	253	84	10	7	152	157	45	4	5	103	4,550	429	70	79	3,972
Latin America	873	217	50	------	424	560	164	37	71	288	29,078	14,016	1,130	3,431	10,501

[1] Data taken from 1967–68 technical reports.
[2] Given faculty member entered once, regardless of teaching load.

1969 academic year included 413 made to undergraduate students for intensive summer study of 50 non-Western languages.

Despite an increase in the total number of NDEA awards for undergraduate, graduate, and post-doctorate study—from 171 in 1959 to 2,388 in 1968, there are still three qualified applicants for each available fellowship. A 1968 survey of 1,996 former fellows revealed that more than 300 had received doctoral degrees and another 1,111 expected to complete work for their Ph. D. by 1970. More than 45 percent of the fellows were involved in teaching and research careers, 10 percent were employed by the Federal Government or international organizations, and 45 percent were continuing study programs.

Overseas Studies and Foreign Consultant Programs

Three kinds of programs in the field of language and area study are authorized by section 102(b)(6) of the Mutual Educational and Cultural Exchange Act of 1961 (Fulbright-Hays Act).

FELLOWSHIPS FOR LANGUAGE AND AREA STUDIES IN FOREIGN COUNTRIES

Fellowships for work on doctoral dissertations in foreign language and area studies overseas are granted for periods of study ranging from 2 to 12 months, to candidates who meet the requirements of competency in a foreign language and preparation for a career as a college or university teacher. Awards are distributed for research in all fields other than those of the four European languages which have already been widely studied: French, peninsular Spanish, German and Italian. During fiscal year 1968 Fulbright-Hays Graduate Fellowships were awarded to 28 institutions of higher education in 19 States for a total obligation of $652,651.

Faculty fellowships authorized by the Fulbright-Hays Act are awarded to help develop and improve curricula in foreign language and area studies. Grantees are currently preparing a variety of curriculum materials and syllabi for use in United States high schools, including materials for study of the Japanese, Korean, Chinese, French, German, modern Icelandic, Serbo-Croatian and Swahili languages. In addition, two study series developed by a grantee on Japan will be tested in Ohio public schools during 1968–1969. During fiscal year 1968 awards were granted to 74 faculty members of American colleges and universities for a total grant obligation of $926,550.

FOREIGN STUDIES EXTENSION

Under the Fulbright-Hays Act, grants are also made to help American institutions conduct overseas work that will develop their on-campus language and area programs. During fiscal year 1968, 35

such projects involving 676 participants were selected from 116 proposals submitted by American educational institutions at a cost of $891,756.

Project activities include summer and academic year study seminars for undergraduate and graduate students and for high school and college teachers. In 1968 these included a summer seminar for secondary school and college teachers at the University of Singapore, sponsored by Washington University in St. Louis; participation of 25 American teachers of social studies in a seminar held in Taiwan; and an experimental work-study program in undergraduate language and foreign studies training in Hamburg, Germany, conducted by the University of Cincinnati. Support was also provided for the Educational Resources Center in New Delhi, India.

Since the Foreign Studies Extension program began in 1964, $2.4 million in United States dollars has been obligated to support group projects overseas.

GRANTS TO FOREIGN CONSULTANTS

Under a third program authorized by the Fulbright-Hayes Act, foreign educators may be awarded grants to come to the United States to help develop modern foreign language and area studies courses in American high schools and colleges. During fiscal year 1968, 16 foreign consultants were awarded grants totaling $189,800 to prepare teaching materials and to provide consultative services to faculty members and to school systems, State departments of education and colleges and universities.

Language and Area Research

Language and area research programs are authorized under title VI, section 602 of the National Defense Education Act of 1958. Since the program began in 1959 research has been conducted on 135 languages, and basic courses, readers, grammars, dictionaries, recordings, bibliographies, and language manuals have been developed. Emphasis in the past two years has been placed on the development of area research material in non-Western subject areas, in order to supplement available language materials.

During fiscal year 1968, instructional materials were prepared for the Cambodian, Romanian, Turkish, Hebrew, Portuguese, Hungarian, and Polish languages, some in cooperation with the Foreign Service Institute of the Department of State. Emphasis on language training techniques is now beginning to include computer-assisted training. A major innovative project supported by the Office is providing instruction in Russian at Stanford University by combining computer teach-

ing with a language laboratory. Other language research programs conducted during 1968 included the following:

- Development of language proficency tests for use by NDEA Language and Area Centers and other institutions of higher education. Sixteen States now use these tests in certification procedures.
- Award of research contracts for preparation of bibliographies and course materials for small colleges and universities which lack the resources necessary to acquire such materials independently, such as the contract for compilation of basic bibliographies on East Asia, South Asia, and Africa, awarded to the University of the State of New York.

Of the $3 million appropriated for language development, research and studies in fiscal year 1968, $2.89 million was obligated for 19 new and 27 continuing research projects and for the Language and Area Centers primarily supported under the National Defense Education Act.

Interagency Cooperation in International Exchange and Training

During 1967–1968 the Office administered exchange and training programs involving grants to 219 American teachers for teaching assignments or seminars abroad, to 169 foreign teachers to teach in United States schools, and to 957 educators from approximately 80 countries for further study and training in the United States. Facilitative services were also provided to approximately 1,000 educators from other nations who were not supported by Office of Education grant programs.

TEACHER EXCHANGE PROGRAM

Teacher exchange programs operate under transfer funds from the Department of State and are currently authorized by the Mutual Educational and Cultural Exchange Act (Fulbright-Hays Act). During the summer of 1967 and the 1967–68 school year, 551 teachers, supervisors and school administrators were involved in this program.

A total of 388 awards was granted to American and foreign educators for the summer of 1968 and the 1968–69 academic year. Interchanges of teaching positions were arranged for 108 pairs of teachers. On a non-interchange basis, 53 teachers from the United States received awards for assignment in 18 countries, while 61 foreign teachers from 14 countries received assignments to United States schools. In 1968, 58 elementary and secondary American teachers attended sum-

mer seminars in Germany and Italy, and 83 American teachers, supervisors, and school administrators attended summer seminars in India.

Funds contributed for salaries for the program by American and foreign local school districts totaled $1,750,000 in fiscal year 1968. The Department of State provided transferred dollar funds in the amount of $46,000, while other contributions to the program came from excess foreign currency funds owed to the United States ($600,000) and from foreign governments, participating teachers and private business.

INTERNATIONAL EDUCATIONAL DEVELOPMENT PROGRAMS

The Fulbright-Hays Act, as amended, authorizes a program to provide training and information for visiting foreign educators. During fiscal year 1968, 539 teachers, supervisors, and school administrators from 60 nations came to the United States under this program, supported by funds transferred from the Department of State.

Dollar funds transferred from the Department of State for Educational Development grants in fiscal year 1968 totaled $842,275. Approximately $431,000 in foreign currencies was used by Binational Educational Commissions abroad for travel grants, and about $60,000 in converted foreign currencies was made available by Australia, Belgium, Germany, Ireland, and Italy to support 30 additional awards.

COOPERATION WITH AGENCY FOR INTERNATIONAL DEVELOPMENT

The Office offers educational advice and assistance to the Agency for International Development (AID), under the authority of the Act for International Development of 1961. Major purpose of this program is to arrange for further training of foreign individuals or groups selected to observe educational practices in the United States, in fields of study designated by their nations. During 1967–68 the Office, operating under a contractual agreement with AID, administered the Technical Assistance Training Program for 407 participants from 40 countries.

International Services and Research

The Office arranges for U.S. representation at international education conferences, assists in educational programs of international organizations, and supports research in the field of comparative education.

COMPARATIVE EDUCATION RESEARCH

Financial support for this program is provided by Office funds and by excess foreign currency appropriations authorized by the Agricul-

tural Trade Development and Assistance Act of 1954, as amended (Public Law 83–480). In fiscal year 1968 this amounted to $219,036, including renewal agreements and funds appropriated the previous year.

During fiscal year 1968, 17 comparative education studies were prepared and four grant agreements concluded for studies in Israel, to be supported by excess foreign currencies carried over from fiscal year 1967. One new project—a study of education in the Caribbean—was undertaken at the request of and funded by the Agency for International Development.

The program of annotated bibliographies on foreign educational materials, administered for the Office by the National Science Foundation, was extended in fiscal year 1968 to three new countries.

The Office also participated in workshops of admissions officers and foreign student advisors on foreign educational systems and served as host at two meetings of the Council on Evaluation of Foreign Student Credentials.

COOPERATION WITH INTERNATIONAL ORGANIZATIONS

During fiscal year 1968, the Office provided consultative and informational services to more than 30 international organizations, as well as to other international agencies in which the United States holds membership. Staff members participated in 30 international meetings.

The Office was represented on the Committee for Scientific and Technical Personnel of the Organization for Economic Cooperation and Development (OECD) and helped establish its new International Center for Educational Research and Innovation in Paris.

In its role as U.S. secretariat to the International Bureau of Education (IBE) in Geneva, the Office helped draw up statutes for the operation of that Bureau within the framework of UNESCO rather than with independent status as before.

The annual U.S. report, *Progress on Public Education in the United States of America 1967–1968*, was published in English, French, Spanish, and Russian and submitted to the 31st International Conference on Public Education sponsored by IBE and UNESCO. (This report is available from the Superintendent of Documents, U.S. Government Printing Office.)

RECRUITMENT SERVICE

By request of the Department of State the Office of Education is responsible for recruiting American educators for the technical assistance program of UNESCO. During fiscal year 1968, a total of 332 Americans were recommended to UNESCO, and 53 Americans were serving in this program.

National Center for Educational Statistics

In the field of higher education, the Center continued its efforts to bring conformity and consistency to records and files of national statistical data. In 23 States, the Higher Education General Information Survey now supplants, either in whole or in part, the previously separate State efforts. The Office's cooperatively developed manual on physical facilities inventory has been accepted in all 50 States, resulting in a decreased burden on survey respondents and an increased ability to exchange statistical data among interested groups.

In cooperation with the Committee on Educational Data Systems of the Council of Chief State School Officers, the Center developed Elementary-Secondary General Information Survey.

The Center published two handbooks, *Principles of Public School Accounting* and *Standard Terminology for Instruction in Local and State School Systems.*

With the Stanford Research Institute, a "Users Study" of educational statistics was launched to enhance the utility of the Center's services and products.

During fiscal year 1968 the Center also:

- Prepared for publication the proceedings from the Symposium on Operations Analysis of Education.
- Conducted the Fall 1967 Public School Civil Rights Compliance Survey.
- Prepared the Statistical Appendix for the first Commissioner's Report to the Congress on the condition of the education professions.
- Issued 24 statistical publications, including *Earned Degrees Conferred*, *Digest of Educational Statistics*, *Projections of Educational Statistics* and *Opening Fall Enrollment.*
- Completed and distributed 15 technical reports based on the Equality of Educational Opportunity Survey.

The Center continued to make progress in implementing the data limitation program. Thousands of formerly collected items of information have been eliminated, saving time, effort and funds for respondents as well as the Office of Education. For example, scientific sampling techniques obviate the completion of more than 100,000 public-use forms, while elimination of one questionnaire in the National Survey of ESEA Title II resulted in a saving of about 1.35 million data cells.

Educational Materials Center

Liaison between educational publishers and local, regional, and international groups interested in newly published instructional mate-

rials is provided by the Educational Materials Center. The newest texts used by elementary and secondary school students and their teachers and examples of children's school and library literature are included in the Center's collection of 15,000 volumes. Domestic and foreign educators use this nonlending collection for study and research.

The Center issued the fourth edition of its Textbook Classification Scheme, which is widely requested by educational materials centers here and abroad.

Management Review Center

The Management Review Center provides facilities and services to keep Office staff informed on new and promising developments in educational methods, materials and facilities. During fiscal year 1968, the Center was host to 438 demonstrations, staff meetings, conferences, and previews in support of Office program activities.

Public Information Activities

The Information Center, located in the Office of Education Washington headquarters, was established in July, 1967 under the Freedom of Information Act. Operating as a division of the Office of Information, the Center offers publications and information on Office programs to the visiting public and to correspondents.

Publications of the Office of Information during fiscal year 1968 included *OE–100*, issued in observance of the 100th anniversary of the Office of Education. The office also collaborated with the John Day Company of New York in publication of another centennial publication, *The Unfinished Journey: Issues in American Education.*

During fiscal year 1968, Office publications received 12 awards for design excellence from the Society of Federal Artists and Designers.

American Education

American Education magazine, a popular link between the Office of Education and the public, furnishes lay readers and professional educators with fresh, informative articles on federally supported activities in schools and libraries across the Nation. For the second year the magazine has won the Federal Editors Association award as the best magazine published in the Federal Government.

Administration of the Office

Major organizational changes within the Office during fiscal year 1968 include the following:

- Establishment of a sixth bureau, the Bureau of Educational Personnel Development, which administers all programs authorized by the Education Professions Development Act of 1967 except part E (Training Programs for Higher Education Personnel), which is administered by the Bureau of Higher Education. The new bureau is composed of the Teacher Corps (transferred from the Bureau of Elementary and Secondary Education); the Division of Program Administration (established with resources and functions of the former Division of Educational Personnel Training, Bureau of Elementary and Secondary Education); the Division of Assessment and Coordination; and the Division of Program Resources.
- Establishment of the Institute of International Studies, which provides overall coordination of international educational activities. The Institute is composed of the Division of International Exchange and Training (established with resources and functions from the former International Exchange and Training Branch of the Bureau of Elementary and Secondary Education) and the Division of Foreign Studies (transferred from the Bureau of Higher Education).
- Establishment of a Mexican-American Affairs Unit in the Bureau of Elementary and Secondary Education, to concentrate on planning and coordinating educational programs for Mexican-American and other Spanish-speaking children.
- The Division of Equal Educational Opportunities was established in the Bureau of Elementary and Secondary Education to administer title IV provisions of the Civil Rights Act of 1964, which were previously administered by a staff office.
- Establishment of the Accreditation and Institutional Eligibility staff office in the Bureau of Higher Education.
- Establishment of the Special Assistant to the Commissioner for Urban Education, responsible for promoting proposals that focus energies of the Office on urban problems of national concern.
- Establishment of the Office of Management Information in the Office of the Deputy Commissioner.
- Reorganization of the National Center for Educational Statistics.

At the close of fiscal year 1968 there were 3,631 full-time permanent and part-time temporary employees in the Office, compared with a

total of 3,172 in 1967. Training was provided for 1,884 employees, 1,602 of whom were trained by the Office, 197 by nongovernmental facilities, and 85 by the Civil Service Commission.

Chart 1 shows the organization of the Office of Education effective on June 30, 1968. Table 7 summarizes appropriations for fiscal years 1967 and 1968.

Table 7.—*Office of Education appropriation summary, fiscal years 1967 and 1968*

Program	Fiscal year 1967	Fiscal year 1968
Elementary and Secondary Educational Activities	$1,464,610,000	$1,631,463,000
School Assistance to Federally Affected Areas	469,137,000	530,564,000
Teacher Corps	11,323,700	13,500,000
Higher Educational Activities	1,179,373,775	1,159,479,000
Expansion and Improvement of Vocational Education	268,016,000	259,300,000
Libraries and Community Services	146,950,000	156,500,000
Educational Improvement for the Handicapped	37,875,000	53,400,000
Research and Training	91,050,000	86,556,000
Educational Research and Training (Special Foreign Currency Program)	1,000,000	[2] 18,425,000
Salaries and Expenses	32,836,000	35,256,000
Civil Rights Educational Activities	8,028,000	10,000,000
Arts and Humanities Educational Activities	1,000,000	[3]
Colleges of Agriculture and Mechanic Arts	2,550,000	2,550,000
Promotion of Vocational Education Act of February 23, 1917	7,161,455	7,161,455
Student Loan Insurance Fund	3,200,000	
Higher Education Loan Fund	200,659,000	102,725,000
Education Professions Development Activities	[1]	74,750,000
Total	3,924,769,930	4,141,629,455

[1] Fiscal year 1968 was the first appropriation for this program.
[2] This figure includes Foreign Language Training and Area Programs.
[3] The Arts and Humanities Educational Activities Programs have been included with either the Elementary and Secondary Educational Activities or the Education Professions Development Activities.

Social and Rehabilitation Service

In response to urgent national needs for a more effective approach to the problems of needy Americans, the Department of Health, Education, and Welfare on August 15, 1967, effected a far-reaching realignment of Federal welfare, rehabilitation, and social programs. On that date, now a landmark in the history of the Department, the Social and Rehabilitation Service was established within the Department as a major public agency.

A basic aim of this new agency—SRS—is to improve the quality and effectiveness of social and rehabilitation services provided with Federal support to the millions of individuals and families who need these services. In addition to continuing and strengthening the Federal-State partnership through which these services are provided, SRS is placing greater emphasis on efforts aimed at helping needy individuals achieve independence and self-sufficiency to the fullest extent possible.

Although there are no quick and easy remedies for dependency and for the complex of related social problems, SRS recognizes that much more can and must be done both to give hope and to redeem hope for all of the disadvantaged and the disabled who—with the proper kinds of help and encouragement—can be made fully or partially self-sufficient and productive. Equally important, much more can and must be done to ease the burdens of the many who must continue to depend upon public programs for the necessities of life.

This philosophy of rehabilitation, long the moving force in the public vocational rehabilitation program now administered by SRS, has become an essential element in SRS welfare programs as well.

The rehabilitation approach involves the provision of specialized services tailored to the needs of the individual. This is the approach that in large measure has accounted for the notable successes of the vocational rehabilitation program for the disabled. The experience with this approach, and the belief that it offers considerable promise

in meeting the needs of many welfare recipients, were important considerations in the departmental reorganization establishing SRS.

SRS places major emphasis on rehabilitation—helping people help themselves to become independent and self-reliant. For those who have the potential for self-support, the goal of SRS is to provide them with incentives to work and with counseling, training, and other services leading to employment. For those who will continue to require assistance—because of their youth, age, disability, or need to care for members of their families—the goal is to help them solve individual and family problems, increase their capabilities, and improve the quality of their lives.

SRS combines and strengthens programs formerly administered by four separate units of HEW: the Administration on Aging; Vocational Rehabilitation Administration; Welfare Administration; and the Division of Mental Retardation of the Public Health Service.

Key features of the new organization include:

- HEW services for special groups—the aged, the handicapped, families and children—are united in a single agency.
- Within SRS, social, health, and rehabilitative services are separated from the administration of income-support programs for needy persons—simplifying and strengthening both types of programs. SRS is encouraging similar changes in State and local welfare agencies in order to free social workers from the details of determining eligibility for financial assistance so that they can devote their professional skills to helping people become self-reliant.
- To make it easier for States and communities to do business with the Federal Government, an SRS regional commissioner has been appointed in each of the Department's nine regional offices and increased authority has been placed at the regional level.

With the establishment of SRS, the former Welfare Administration was abolished. The Assistance Payments Administration and Medical Services Administration were created to assume major responsibilities of the former Bureau of Family Services of the Welfare Administration. The Children's Bureau, previously part of the Welfare Administration, became a major operating agency of SRS, with additional responsibilities. The Vocational Rehabilitation Administration was renamed the Rehabilitation Services Administration and included the Division of Mental Retardation as well as other new responsibilities. The Administration on Aging retained its name while also assuming additional responsibilities.

The major programs of the five operating agencies of SRS are the following:

ADMINISTRATION ON AGING:

Community programs and services for older people under the Older Americans Act

Services for old-age assistance recipients

Foster grandparents projects

ASSISTANCE PAYMENTS ADMINISTRATION:

Financial assistance and eligibility aspects of federally aided State public assistance programs

Work experience and training projects*

Referral of AFDC recipients to Work Incentive (WIN) program*

CHILDREN'S BUREAU:

Child welfare services

Services to families receiving AFDC

Crippled children's services

Maternal and child health services

Maternity and infant care projects for low-income mothers

Projects for health services to preschool and school children in low-income areas

Studies and investigations of child life

MEDICAL SERVICES ADMINISTRATION:

Medicaid program of medical assistance for needy persons

REHABILITATION SERVICES ADMINISTRATION:

Vocational rehabilitation programs for the physically, mentally, and socially disabled

Rehabilitation services for disabled social security applicants

Services for recipients of aid to the blind and aid to the permanently and totally disabled

Programs for the mentally retarded.

Major responsibilities located in the Office of the Administrator include: research, demonstrations, and training; legislative affairs; public affairs; program planning and evaluation; statistics; Federal-State relations; Cuban Refugee Program; citizen participation; administration; and field operations.

Programs for which SRS is responsible represent a partnership among Federal, State, and local governments and private and voluntary organizations. Nationwide programs of public assistance, vocational rehabilitation, health care, and social services are supported largely through Federal grants to the States and carried out by State and local agencies, with wide participation of nongovernmental organizations.

*Transferred to Children's Bureau in fiscal 1969.

The Federal investment in SRS programs totaled more than $6 billion in fiscal 1968. These programs are carried out under several Federal laws, including the welfare and child health provisions of the Social Security Act, the Vocational Rehabilitation Act, the Older Americans Act, and the Mental Retardation Act.

Changes in Federal legislation in fiscal 1968 have combined with the establishment of SRS to advance the Nation's goal of new opportunities for all Americans to move toward greater self-support and self-reliance through rehabilitative services. A major thrust is the application of the concept of rehabilitation to the Nation's welfare programs.

Welfare provisions of the 1967 Social Security Amendments, enacted in January 1968, call for:

- A new financial incentive program to encourage families receiving assistance under the program of aid to families with dependent children (AFDC) to take advantage of opportunities for employment. For the first time, a portion of the earned income of adults in AFDC families will be disregarded in determining the amount of assistance for which a family is eligible—so that work results in increased income and not simply in reduced aid.
- A work referral program for AFDC recipients who can be placed in jobs in the private sector—including on-the-job training.
- A work and training program—including basic education, work experience, and training in skills—designed to lead to regular employment.
- Special work projects for those who are unable to qualify for private jobs or training.

These work and training activities—comprising a new Work Incentive (WIN) program—are the responsibility of the Department of Labor, following the referral of persons by State welfare agencies. SRS has continued to carry out existing work experience and training projects while the WIN program gets underway.

Congress recognized that work and training programs can succeed only if necessary supportive services are provided to a family in order to make feasible the employment of the parent. Most important among the provisions for such services are:

- A requirement that adequate child care be provided for children of AFDC mothers referred for training and jobs.
- A requirement that family planning information and services be readily available for all AFDC families—on a strictly voluntary basis.
- Provisions designed to assure high standards of social services for

children who are receiving assistance as well as for those who are not.

Other advances in Federal legislation authorize:

- Expansion of the vocational rehabilitation program to serve disadvantaged persons with problems which are barriers to employment, as well as the physically and mentally disabled.
- Increased Federal funds for child welfare services—to improve the availability and quality of homemaker service, foster care, adoption, and other services to protect the well-being of children.
- Strengthened maternal and child health programs and crippled children's services.
- Requirements for improved standards for nursing homes.
- Federal funds to help pay for the care of aged, blind, and disabled public assistance recipients in intermediate-care facilities—for persons who do not need the full medical services provided in skilled nursing homes but do need personal care services.
- Greater citizen participation, including the participation of the poor, in welfare and health programs—both in providing services and in advising on programs.

Establishment of the Social and Rehabilitation Service and these advances in legislation mark the beginning of new directions for the Nation in helping people help themselves.

Following are more detailed accounts of the activities of the constituent agencies and major offices of SRS during fiscal year 1968.

Office of the Administrator

Office of Federal-State Relations

The Office of Federal-State Relations, created within the Social and Rehabilitation Service December 2, 1967, is the focal point for contacts with governors, cabinet officers, and legislators at the State level, with county and city officials and with national public and voluntary agencies and organizations. The Office fosters the cooperative relationships necessary to improvement and more effective operation of social and rehabilitation programs across the Nation, and deals with problems which transcend the normal operational lines.

A number of additional activities have been assigned to the Office of Federal-State Relations. They include the Cuban Refugee Program; the Office of Urban Development, responsible for model cities and neighborhood service projects; and the Office of Citizen Participation, responsible for volunteer services and advisory committees in support of social and rehabilitation programs.

The Office of Federal-State Relations also is responsible for emergency health and welfare services.

POOR PEOPLE'S CAMPAIGN

In the last quarter of the year, the Poor People's Campaign opened a new dimension in relationships. SRS decided early in the campaign to be as accessible to the participants and as responsive to their complaints as possible. The Service held many meetings and discussions with both large and small delegations of the poor. The Service pursued individual complaints with the agency involved by telephone and forwarded replies to the complainant orally or in writing and, where corrective action was indicated, initiated such action through appropriate channels.

CUBAN REFUGEE PROGRAM

The orderly airlift of refugees from Cuba, which began in December 1965, continued during 1968. As of June 30, 1968, some 114,217 relatives of persons in the United States had arrived on the twice daily, 5-day-a-week flights from Cuba to Miami, Fla.

Refugee registrations at the Cuban Refugee Emergency Center in Miami, Fla. totaled 39,834 persons this year. Of that number, 35,767 resettled.

Voluntary Agencies Provide Homes and Job Opportunities

Since the program began in 1961, the Cuban Refugee Emergency Center in Miami has registered 290,353 persons.

The resettlement of a majority of the refugees has been accomplished by four national voluntary agencies—Church World Service, International Rescue Committee, United HIAS Service, and United States Catholic Conference. By June 30, 1968, these agencies had provided over 189,157 refugees with homes and job opportunities in almost 3,000 communities in every State, Puerto Rico, and the Virgin Islands. Refugees already established in the United States also contribute materially to the quick adjustment of arriving relatives. Over three-fourths of the refugees arriving by airlift are resettled from Miami within 48 hours of arrival.

Appropriations

Fiscal year 1968 appropriations totaled $55 million. Legislative authority is the Refugee and Migration Assistance Act of 1962 (Public Law 87–510).

Training Efforts Increased

Refresher training for the professions, as well as English and vocational courses, received special attention during 1968. Some 187 refugee professionals—doctors, dentists, teachers, lawyers—attended special courses in 30 colleges and universities to qualify for employment in

the United States. Refugees in Miami attending English and vocational courses accumulated an estimated 9 million student hours. This training substantially contributed to the refugees' successful resettlement.

Miami Center Focal Point of Operations

While the national headquarters of the program is in Washington, D.C., the Cuban Refugee Emergency Center in Miami continues to be the focal point of program activity. Here refugees are interviewed, given medical examinations and treatment, if needed, and counseled by the voluntary agencies on opportunities for resettlement. In cooperation with other Federal agencies, the Center processes airlift passenger lists.

OFFICE OF CITIZEN PARTICIPATION

The Office of Citizen Participation, responsible for implementing those portions of the 1967 amendments to the Social Security Act which require participation of the citizenry on advisory committees and the utilization of volunteers from all walks of life, operated with part-time staff of the HEW Professional and Executive Corps until May 1968. At that time, the Office of Citizen Participation became part of the Office of Federal-State Relations, and a full-time director was appointed.

The objectives of the Office of Citizen Participation include involvement of agency clients in determining the nature of volunteer services to be provided them and the preparation of needed guide materials. Specific activities include model position descriptions for a director of volunteer services at the State level and a coordinator of volunteer services at the local level; the functions and rationale for advisory committees which represent all segments of the citizenry, including the poor; the recruitment and selection of volunteers and advisory committee members; and the dissemination of information concerning successful and meaningful programs.

By June 30, 1968, the Office of Citizen Participation had already begun its program of field consultation to State and local agencies, launched a demonstration program on the value of volunteers to New Careers staff members, and established working relationships with national agencies and organizations concerned with volunteers.

OFFICE OF URBAN DEVELOPMENT

The Office of Federal-State Relations serves as the central focal point for liaison between the Social and Rehabilitation Service and various units in the Office of the Secretary, particularly the Center for Community Planning. Liaison with the Center includes development and coordination of social and rehabilitation services in the 75

model cities, the neighborhood services center pilot programs in 14 cities and the youth opportunity program in 50 cities. The office maintains continuing relationships with the Office of Education, Public Health Service, Social Security Administration, Office of Assistant Secretary for Administration, Office of the Comptroller, and Office of Field Coordination.

During the year, the Office enlisted the participation of and coordinated the activities of staff members from all Bureaus, the Office of Research, Demonstrations, and Training and Social and Rehabilitation Service regional staff in the urban program areas mentioned above. These activities included reviews of comprehensive plans for social and rehabilitation services, medical care, income maintenance, and services for the aged in 89 cities, development and funding of various programs in 14 pilot neighborhood service centers at a cost of approximately $2 million, special efforts directed toward the involvement of Social and Rehabilitation Service counterpart agencies at State and local levels in urban neighborhood programs, and special efforts by State and local agencies in behalf of disadvantaged youth.

Plans were made to provide employment and training opportunities for more than 700 youths in universities, hospitals, and social and rehabilitation agencies under programs financed by SRS research and demonstration project funds. In addition, State and local agencies agreed to provide meaningful jobs to many hundreds more. By waiving public assistance requirements, 17 States allowed youths in summer jobs to use their earnings for future educational purposes.

The Office promoted cooperative planning by the Children's Bureau and Medical Services Administration with the Office of Comprehensive Health Planning of the Public Health Service regarding development of health services and medical care in neighborhood service centers. The Office also encouraged cooperative programing by State agencies administering the public assistance, child welfare and vocational rehabilitation programs.

Thirty-six SRS staff members through efforts of the office, participated in the Department's training program relating to inner city problems and needs. The Office also helped plan and conduct training institutes sponsored by the Department and the Departments of Housing and Urban Development and Labor as well as the American Public Welfare Association, and national training laboratories for State and local personnel to stimulate model cities program planning.

OFFICE FOR HOUSING AND COMMUNITY IMPROVEMENT

Plans for the establishment of an Office for Housing and Community improvement in the Social and Rehabilitation Service were initiated immediately following the request of the House Committee on

Ways and Means for a study and report on home ownership and housing standards of welfare recipient families in reporting out the 1967 public welfare amendments to the Social Security Act.

The Secretary of HEW requested SRS to plan and conduct the study and to indicate where responsibility should be placed for carrying forward the Secretary's recommendation to Congress.

As a result of a growing concern in the Department with the substandard living environment of many recipients of public assistance and its deleterious effect on health and social rehabilitation of recipient families, a beginning had been made in the former Bureau of Family Services and the Administration on Aging to develop a policy of housing assistance and housing improvement services at State and local levels. The request that SRS prepare a comprehensive study and report of housing needs as identified in each of its component agencies made clear the necessity for a centralized approach to the complex area of housing-welfare cooperation.

The Office is expected to be established and staffed early in fiscal year 1969.

Office of Policy Coordination

A fundamental objective in the creation of SRS was to improve the delivery of services, by combining into one administrative organization, programs previously administered separately.

To develop a coordinated and unified approach to policies and requirements for the various SRS programs, a temporary SRS task force was established in the fall of 1967. The major initial assignment was to develop proposals for implementing the 1967 amendments to the Social Security Act. Subsequently, in March 1968, SRS established within the Office of the Administrator a unit for policy coordination.

With the enactment of major legislation in SRS programs other than those authorized by Social Security Act—vocational rehabilitation, juvenile delinquency, and services for the aging—the new policy coordination office also turned its attention to the development of a simplified, unified system for State plans for all SRS grant programs which will be initiated during the next fiscal year.

Office of Public Affairs

The Office of Public Affairs was established toward the end of calendar year 1967 to plan, direct, and coordinate the public affairs programs of SRS.

Major activities of the Office during fiscal year 1968 included:

- Organization and development of a public affairs program and staff for the Social and Rehabilitation Service.
- Preparation of a nationwide campaign on disability and rehabilitation, sponsored by SRS and carried out by the Advertising Council, the public service arm of the advertising industry. The campaign, scheduled to begin in fiscal 1969, will include television and radio spot announcements, advertisements in newspapers and magazines, and display cards in buses and subways. Its purpose is to encourage the millions of disabled American adults and parents of disabled children, who have not previously been reached, to seek help from public and voluntary agencies to overcome disabilities and achieve productive lives.
- Public information on new directions in welfare and related programs—envisioned in the establishment of SRS and called for by the Social Security Amendments of 1967. Principal emphasis in public information has been on the application to these programs of the broad concept of rehabilitation, in order to help people become self-reliant and independent, with the basic theme "Helping People Help Themselves."
- Information to reach welfare recipients and other poor persons. This has included issuance and distribution of materials by SRS and encouragement to State and local agencies to issue materials and utilize other media to inform persons in need about the programs available.
- Preparation for the establishment of a centralized public inquiries system in SRS. Centralization, to be accomplished in 1969, is designed to provide better service, more efficiently, to poor persons and others seeking help and requesting information.

Office of Research, Demonstrations, and Training

RESEARCH AND DEMONSTRATIONS DIVISION

Rehabilitation Research and Demonstration Grants

The vocational rehabilitation research and demonstration program is increasingly focused on problems of the socially and culturally disadvantaged. Whenever possible, projects are located in model city neighborhoods or ghetto areas or among the rural poor. Motivating people to work, long a priority in rehabilitation, is being expanded now into many poverty situations.

Four multipurpose centers have been established—in Atlanta, Ga.; Cleveland, Ohio; Hot Springs, Ark.; and East St. Louis, Ill.—for the purpose of demonstrating and evaluating the provision of comprehensive welfare and rehabilitation services to members of pov-

erty groups. These centers will demonstrate the coordination of all relevant parts of SRS in focusing on problems of the socially and culturally disadvantaged.

Cultural fair assessment of rehabilitation clients has become increasingly important as selection for jobs extends to cultural handicaps. To help solve this problem for retardates, the recently completed Vocational Interest and Sophistication Assessment Test, a simple pictorial inventory, has been standardized on 3,000 retarded persons. It predicts what job an individual will find most satisfying in terms of his interests.

Research on mental patients has emphasized the involvement of the community in supporting and facilitating the transition of patients to independent living. A particularly successful project of this type has placed patients in boarding houses with nonpatients while they received outpatient care from a local psychiatric clinic. This method of involving nonhandicapped persons with the emotionally handicapped resulted in eventual independent living and employment for the majority of the patients.

A number of projects have provided important devices and procedures to help secure employment for the deaf and blind. One project developed a complete bibliographic reference card catalogue of literature relevant to the rehabilitation of the blind. Another completed a braille medical dictionary for use by blind medical technicians. A training program to prepare the blind for employment as tax assisters, developed with the cooperation of the Internal Revenue Service, has been extremely effective and has aroused widespread interest. The National Theatre of the Deaf, developed by the Eugene O'Neill Memorial Theatre Foundation, continues to successfully demonstrate employment and training of deaf actors. The theater also has brought about closer communication between the deaf and hearing, including considerable response from groups of culturally disadvantaged persons. The regional facility for the deaf-blind continues to provide innovative services for this group of individuals in anticipation of the establishment of the National Center for the Deaf-Blind, expected to become operational in fiscal year 1970.

In the field of rehabilitation medicine, maxillofacial rehabilitation continues to receive strong emphasis and there are now eight such programs in each of eight HEW regions. Guidelines have been prepared for the establishment of spinal cord injury centers, emphasizing immediate posttraumatic care and complete follow-through during the entire rehabilitation process; it is anticipated that a network of such centers for prompt treatment of these pa-

tients will be established throughout the country. Leprosy is a long-neglected disease now receiving attention; a unique yet inexpensive technique has been developed for assisting such patients by immediately informing them of areas of pressure on hands or feet which, if allowed to persist, could cause further damage.

Major advances in biomedical engineering resulting from SRS research have been: improved lower extremity prostheses based on findings on normal and pathological gait; widespread introduction of the concept of the immediate or early postsurgical prosthesis; development of externally powered upper-extremity orthotics devices for quadriplegic patients; and development of a technique for combining orthopedic surgery and orthotic expertise in the treatment of acute lower extremity fractures to dramatically reduce chronic disability and hasten healing by immediate mobilization and weight bearing.

At the core of the rehabilitation program is the relationship of counselor and client, which has stimulated numerous studies. The Regional Rehabilitation Research Institute, recently established at the University of Missouri under the SRS program, was completing a state-of-the-art monograph on problems of the counseling interview which stresses cross-cultural counseling of the socially and culturally disadvantaged.

Short-term directive counseling for rehabilitation clients, a new approach to this relationship, was implemented this year in projects in Kentucky, Virginia, and North Carolina, where it reportedly has shortened counseling time and has proven successful with members of poverty groups.

New patterns of service have been extended to a number of new groups. Innovative vocational rehabilitation procedures are being developed for long-term inmates of a maximum security State prison, for Indian alcoholic clients in Iowa, and for disabled labor union members in Iowa.

Projects specifically developed for the socially and culturally disadvantaged emphasized the involvement of the clients themselves. A project in Durham, N.C., is demonstrating the effectiveness of group therapy and a halfway house in helping girls of low income families cope with and adjust to normal work situations. Another project is identifying the values, behavior, and attitudes of individuals from various subcultures in the United States so that more effective training materials may be prepared for socioculturally disadvantaged prospective employees and their middle-class supervisors. An anthropological study is analyzing the effect of school-home-peer relationships of culturally disadvan-

tanged Puerto Rican youths in Chicago, Ill., on their employment potential.

Demonstration Projects (Section 1115, Social Security Act)

In fiscal year 1968, 175 demonstration projects, authorized by section 1115 of the Social Security Act, were active at some time during the year. A total of $2,716,927 funded 67 new projects and 46 continuations; 10 projects were extended without additional funds and 52 were completed or terminated.

Of the 175 projects active during the year, 36 involved direct social services; 25 strengthened administration and stimulated program development; 18 helped develop new methods of administration; 64 aided manpower development and training or strengthened relationships with social work education; 27 developed new approaches to encourage education and prepare for self-support; and 5 helped extend eligibility or increase assistance payments. Projects were in operation in 47 jurisdictions including the District of Columbia, Guam, and Puerto Rico.

Among the new projects approved, 23 related to the Summer Youth Opportunity Campaign, and allowed AFDC youths enrolled in the projects to retain their earnings, without deduction from the family assistance grant; seven demonstrations operating in neighboorhood service centers are directed toward bringing about social change by using innovative and nontraditional methods of delivering social services; three are testing the concept of separation of eligibility and services; two are experimenting with new approaches and methods for providing foster home care for the elderly, to keep them in their own community instead of institutions; and two are directed toward finding other alternate care arrangements for the elderly who might otherwise become nursing home patients.

Cooperative Research and Demonstration Grants (Section 1110)

Fifteen new research grants awarded in fiscal year 1968 reflected interest in problems of high priority to SRS and to the Department. A total of $1.1 million was obligated for new awards and $908,000 was obligated to continue 24 projects previously begun. Major awards included: a study to improve the efficiency of processing vendor drug claims under Medicaid through such methods as automation; a research-demonstration project to train AFDC mothers in clerical skills and develop a self-sustaining program of employment for trainees; and a study of the urban Negro American, focusing on the historical antecedents of current racial and urban problems.

About 30 percent of research grant funds were obligated for projects of interest to the Social Security Administration. They included studies of the effects of coinsurance on medical care utilization; the efficiency in production of hospital services; and an economic analysis of the relationships between tax policies and children's allowances.

Under the directed research program, financed from the appropriation to the cooperative research program, a total of $1.2 million was obligated for major studies of the impact of Medicaid legislation. These projects assessed the impact on organizations and personnel providing health care to low-income people and on the health care patterns and expenses of low-income families.

Research Utilization

A Research Utilization Branch was established within the Research and Demonstrations in July 1967. The Research Utilization Task Force, appointed by the Administrator in the fall of 1966, submitted its report in December 1967. In January 1968, the Administrator authorized the task force and the branch to implement the recommendations of the report.

The overall goals of the branch and the task force are to identify effective research results, bring them to the attention of practitioners and administrators, and promote in every possible way their actual use to improve service programs for the handicapped, the socially and culturally disadvantaged, the aged, and similar groups served by SRS.

The branch prepares and distributes a continuing series of *Research Briefs*, which present significant research findings in usable one-sheet format and highlight their implications for action by practitioners. These are distributed to over 20,000 individuals and agencies throughout the country.

The Research Utilization Branch maintains close liaison with research, service, and public information programs within SRS, and—through the regional offices—with the State agencies.

RESEARCH AND TRAINING CENTERS DIVISION

Rehabilitation research and training centers provided training for a large number of new personnel entering the field of rehabilitation and allied fields, and also furnished advanced training for skilled personnel. The centers also have developed a research environment where highly skilled scientists have advanced new methods of rehabilitating the disabled and disadvantaged.

In 1968 there were 19 rehabilitation research and training centers, including 12 medical centers, 3 vocational rehabilitation centers, 3 mental retardation centers, and 1 deafness center. A new medical center was designated at Northwestern University, Chicago, Ill. Of the $10,225,000 appropriated in 1968 for the research and training center

program, $8,200,000 was allotted to the medical centers, $950,000 to the mental retardation centers, $825,000 to the vocational rehabilitation centers, and $250,000 to the deafness center.

The 19 centers conducted 526 research studies and sponsored 421 short-term courses which benefited approximately 23,800 persons in the field of rehabilitation and the allied disciplines.

In keeping with departmental priorities, 10 of the research and training centers are located in nine model cities areas. In 1968, seven of the research and training centers provided research, training, and patient care components in six neighborhood service centers. Nine research and training centers are contributing to the success of central city projects.

Particularly noteworthy was the development of employment and training opportunities, associated with rehabilitation and the allied professions, for disadvantaged youth from families receiving public assistance.

In addition, many of the centers have given special emphasis to the development of coordinated services for the aged, community studies for programing rehabilitation services for the disadvantaged, and research into the high priority area of motivating people to work.

TRAINING AND MANPOWER DEVELOPMENT DIVISION

SRS Manpower Development

New legislation was passed in 1967 affecting training and manpower development in the programs administered by SRS. First, was the passage of title VII, section 707, of the Social Security Act, providing Federal grants to educational institutions for undergraduate and graduate social work education. The title authorized a $5 million appropriation. This is the first legislation which provides for social work education without regard to a specific field of practice, and for support of undergraduate education in social work in any field of practice. It will thus enable improvement of basic social work education at the undergraduate and graduate level.

The second piece of legislation, affecting all of the Social Security titles, provided for, effective July 1, 1969, the training and effective use of subprofessionals as community service aides and volunteers.

As a result, all State departments of public welfare increased comprehensive staff development activities during fiscal year 1968. Approximately 700 full-time staff development personnel are employed in State and local departments of public welfare. Educational leave was granted to approximately 2,500 persons working in all of the public assistance programs, including medical assistance. Total expenditures including educational leave and in-service training on

the part of the State departments of public welfare for training was approximately $29.8 million.

National Citizens Advisory Committee on Vocational Rehabilitation

The National Citizens Advisory Committee on Vocational Rehabilitation was formed as a result of congressional interest and a request expressed in April 1965 in the House Report on Appropriations. This report asked this citizens advisory body to make "a comprehensive study of the current vocational rehabilitation program and of the Nation's vocational rehabilitation needs" and "to formulate goals for the program and make specific recommendations for arriving at those goals."[1] The 16 members of the Committee were appointed by former Secretary Gardner and announced by the President on March 17, 1966.

The Committee met in July 1967 to review the reports of its seven subcommittees on the hearings they had held in various parts of the country; their meetings with consultants; the answers to the letters of inquiry which they had sent to 637 organizations and individuals with experience, knowledge, or interest in the needs of the disabled; their site visits to rehabilitation facilities and workshops, to unversity training programs in rehabilitation, to research projects, and to public and voluntary rehabilitation programs; and, finally, their recommendations for the vocational rehabilitation program. The Committee's final report was printed in final form in June 1968. Their most significant recommendations may be summarized as follows:

(1) *Eligibility.*—A change in law to make clear that vocational rehabilitation services are available to any individual who is under a clear vocational handicap, regardless of the cause of the handicap.

(2) *Right to evaluation.*—A change in law to make clear that any vocationally handicapped person has a right to evaluation of his rehabilitation potential, and to authorize additional Federal funds to construct, equip, staff, and operate vocational evaluation and adjustment centers.

(3) *New patterns of service.*—Decentralization and dispersal of State vocational rehabilitation offices in major population centers to provide service in neighborhoods where disabled people live.

Establishment by vocational rehabilitation agencies of one-stop multiservice centers in ghettos and other areas where the incidence of disability is high.

Employment by the vocational rehabilitation agencies of a vastly increased number of rehabilitation aides (bilingual where necessary) from neighborhoods where service is to be provided.

[1] Report No. 272, Apr. 29, 1965, to accompany H.R. 7765, making appropriations for the Departments of Labor, and Health, Education, and Welfare for the fiscal year 1966; p. 14, par. 3. 89th Cong., 1st sess.

(4) *Facilities.*—Action by the Rehabilitation Services Administration to assure that the unique resources of rehabilitation facilities and workshops are available to the severely handicapped and particularly to those persons whose lives are blighted by social, educational, and economic disadvantage.

(5) *Handicapped children.*—Establishment of cooperative school-rehabilitation programs in all schools, public and private, in both urban and rural locations, including a central repository of health and rehabilitation records.

Evaluations of disabled children for rehabilitation purpose by vocational rehabilitation personnel at regular intervals during the elementary and junior high years—for example, at ages 8, 12, and 14—to help prepare the child for a meaningful adult vocational career.

Legislation to permit furnishing physical restoration and other vocational rehabilitation services for any child who needs them, where such services are not available with reasonable promptness from another source.

In addition, the Committee recommended the holding of a national conference on rehabilitation early in 1969.

Planning for National Citizens Conference on Rehabilitation of the Disabled and Disadvantaged

Intensive planning for this conference began in October 1967, with the meeting of an ad hoc committee which was cochaired by the Administrator of the Social and Rehabilitation Service and a member of the National Citizens Advisory Committee designated by the Committee. At this meeting it was concluded that the scope of the conference should be broadened to include rehabilitation of the disadvantaged as well as the disabled. It was also agreed that the conference should be concerned not only with pinpointing the major problems of the handicapped but with considering how these problems could be solved and how conference participants could use these problem-solving ideas in their own States and communities.

Regional planning meetings—1 day in length—were held in each of the nine HEW regions, beginning with one in Boston in December 1967 and ending with one in Chicago in March 1968.

During these regional meetings it became clear that the consumers and potential consumers of rehabilitation services should be involved in planning for the conference in addition to participating in the discussions at the conference itself. Accordingly, two meetings were held in May with a consumer advisory group, whose members were then added to the planning committee for the conference.

Before the end of fiscal year 1968, the planning committee had agreed that the conference should be held in Washington, D.C., in

June 1969, and had chosen five program content areas for presentation and discussion at the conference: (1) delivery of services; (2) consumer involvement in rehabilitation; (3) inadequately served groups; (4) financing rehabilitation services; and (5) physical barriers and transportation.

INTRAMURAL RESEARCH DIVISION

The Intramural Research Division focuses major attention and effort on applied social science research relating to policy and program issues of SRS. Major emphasis is placed on the reduction of economic dependency and the amelioration of conditions of social and cultural deprivation. Much of the Division's research effort utilizes funds provided for directed research under section 1110 of the Social Security Act. Study designs are frequently experimental and pioneering in nature, with considerable attention to research methodology. Intramural research also provides research services and consultation for other units in ORDT, other components of SRS, the Office of the Secretary, the regional offices, States, and other organizations and agencies relevant to the SRS mission.

Research conducted or planned during fiscal year 1968 related directly or indirectly to areas of concern considered high priority by the Secretary's Office. These studies involved such areas as rural poverty, model cities, neighborhood service centers, the employment of AFDC mothers, income maintenance, medicaid, and the use of subprofessionals and volunteers in public programs.

Several major studies were completed during the year. Among them were: "The Impact of Work Experience and Training Programs Upon the Life-Styles of AFDC–UP Families in Eastern Kentucky"; and "Characteristics of Accepted and Rejected AFDC Applicants in Baltimore, Md."

DIVISION OF INTERNATIONAL ACTIVITIES

The Division of International Activities is the focal point for the development of all SRS international activities. These include program operations in the fields of maternal and child health, services to crippled children, social welfare, and vocational rehabilitation. As part of the reorganization, international staff of the former Welfare Administration's Children's Bureau and International Office, and of the Division of International Rehabilitation Activities in the Vocational Rehabilitation Administration, were brought together in one unit to administer programs designed to supplement and complement domestic programs, to strengthen relationships with other countries and to

further U.S. foreign policy goals. These programs include and are strengthened by cooperation with other Federal and intergovernmental agencies and with national and international organizations.

Financial support from the Agency for International Development has been a bulwark for programs of providing training services to visitors from overseas, recruitment of U.S. personnel for assignment abroad, and other technical consultation and cooperative services, and implementing an agreement between HEW and AID for carrying out provisions of section 632(b) of the Foreign Assistance Act of 1961, as amended.

A major segment of the international program has been the development and support of cooperative rehabilitation research and demonstration projects in certain foreign countries. This program, financed with U.S.-owned foreign currencies derived from the sale of agricultural commodities, was initiated by the Vocational Rehabilitation Administration in 1961. In 1962, a similar program of cooperative research was launched in the fields of social welfare and maternal and child health. A vital adjunct to these research activities is the interchange-of-experts program authorized under the International Health Research Act. Under this authority, VRA had, since 1961, arranged for the interchange of scientists and experts engaged in rehabilitation and research between the United States and countries participating in the cooperative research program.

Cooperation With Other Agencies

Cooperation With United Nations and the Organization of American States.—The Division of International Activities cooperated with the Department of State and other agencies in preparing and reviewing position papers, speeches, and other materials for intergovernmental meetings, including the United Nations Economic and Social Council, the U.N. Commission on Social Development, U.N. Regional Commissions, the Organization of American States, and other specialized intergovernmental organizations. In response to an invitation from the Secretary-General of the United Nations, statements describing United States experience in the social welfare field were prepared for the U.N. Conference of Ministers Responsible for Social Welfare and forwarded to the United Nations through the Department of State.

The 19th session of the United Nations Commission on Social Development was held at the U.N. headquarters in New York,

February 5 to March 1, 1968. Representatives of the Division of International Activities served as advisers to the Commission.

The Preparatory Committee for the Conference of Ministers Responsible for Social Welfare met at the United Nations headquarters from August 28 to September 6, 1967. The Division of International Activities prepared technical materials and provided staff service in connection with this meeting.

The 13th Pan American Child Congress, which met in Quito, Ecuador, June 1968, considered the topic, "The Population Increase and its Effect on Children, Adolescents, Youth and the American Family." The bulk of the U.S. documentary material, except that relating to education, was prepared in the Social and Rehabilitation Service. The Children's Bureau contributed to the preparation of documents and position papers relating to health, nutrition, child welfare, and youth services.

Vietnam.—A staff member of the Division of International Activities participated in an AID Social Welfare Task Force which visited Vietnam for approximately four weeks to study social welfare problems and to recommend to USAID/VN and USAID/Washington policies and programs to meet these problems. Subsequent to the study, considerable time was devoted to preparation of the report, debriefings, and briefing of persons going to Vietnam.

Cooperation With Nongovernmental Agencies.—At the request of the U.S. Committee of the International Council on Social Welfare, the Division of International Activities served as the liason between the Committee and all Government agencies in securing Government publications for display at the U.S. exhibit at the International Conference on Social Welfare, which was held in Helsinki, Finland, in August 1968. The Division was also instrumental in arranging for films from various Government agencies to be shown at the Conference.

During fiscal year 1968, several international organizations in the field of rehabilitation cooperated with the Division in its research and interchange program overseas. The American Foundation for Overseas Blind provided consultants to work with SRS staff in developing rehabilitation programs for the blind in Karachi, Pakistan and Tunis, Tunisia. Other staff members from that organization reviewed a number of research and demonstration proposals on blindness submitted from India and Pakistan. The World Rehabilitation Fund also provided consultants in prosthetics and orthotics to develop research and demonstration projects in Tunisia, Morocco, Guinea, India, and Pakistan. Similarly, the American Leprosy Mis-

sions assisted in developing and reviewing research proposals in leprosy.

The International Society for the Rehabilitation of the Disabled assisted the Division of International Activities in distributing research reports, publications, and other materials to researchers in various countries not participating in the P.L. 480 program.

Recruitment.—The Division of International Activities, by agreement with the Department of State, recruits for United Nations social welfare positions and, on request, for social welfare positions with AID and for the Fulbright programs. Information on social workers interested in overseas assignments is also made available to the voluntary agencies.

A total of 323 potential candidates were referred to various agencies and organizations during the fiscal year. This included direct referrals of candidates for openings and indirect referral through informing agencies of persons who were available for overseas service. A total of 34 candidates were referred to the United Nations for consideration for employment, and four were referred to AID.

Extensive recruitment activities were carried on to provide to the Government of Vietnam advisors in the field of social welfare. A roster of qualified candidates was developed as a result of these activities.

Training Program

The interest of other countries in training opportunities in the United States continued during 1968. SRS international training staff provided services for foreign students, scholars, and experts for advanced academic and observation study experiences in the United States.

Services for participants from 66 countries included programs arranged for 72 U.N. and WHO fellows. AID participants included 27 primary participants and 203 other visitors, making a total of 230. Two hunderd and eighty (280) persons came under the auspices of the Department of State, their own Government, private foundation grants, or with their own resources.

More Western European countries sent experts in community mental health, maternal and child welfare, social work education, and psychiatric social work to study recent trends in these fields in the United States. Many social workers from Australia studied in graduate schools in the United States on study-observation trips to this country combined with Canadian and European conference programs.

As part of the U.N. Human Rights Year observance, human rights fellows observed and studied U.S. social and economic programs focusing on the needs of disadvantaged groups, including Indians,

Negroes, Puerto Ricans, Mexicans, and residents of Appalachia. Other human rights fellows studied legal, social, and economic programs related to the rights of women and children. Observation programs included juvenile courts, probation, rehabilitation centers, and community activities for youth.

Research and Demonstration Program

The special international research program enables professionals in the fields of rehabilitation, social services, maternal and child health services, and services for crippled children to make personal contacts with colleagues in participating countries, exchange information, and discuss research approaches.

In 1968, an appropriation of $5 million was authorized for the purchase of foreign currencies to support the rehabilitation research and demonstration program. Obligations in local currencies for new projects totaled almost $4.5 million. Increases to previous grants, awards for the interchange of experts and for student fellowships, and cost of travel by consultants accounted for the remainder of the appropriated amount.

Grants were approved for 45 research and demonstration projects in seven countries:

	Maternal and child health	Rehabilitation	Social welfare	Value
Ceylon	1	2	1	$174,489
India	0	10	4	1,366,831
Israel	0	4	0	379,471
Pakistan	0	3	0	490,999
Poland	1	0	0	100,000
Tunisia	0	1	0	318,743
Yugoslavia	0	14	4	1,522,784

From the initiation of the international program in 1961 until the end of June 1968, awards had been granted to conduct 222 projects in 11 countries. These included 143 research and demonstration projects in vocational rehabilitation, 51 in social welfare, and 28 in maternal and child health.

This was the first year in which Ceylon came into the program. India and Yugoslavia received the largest share of funds during the year because of previous commitments and the availability of suitable proposals developed in the course of communication in previous years.

Thirty-four projects launched in 1968 reflect the gamut of concerns in the domestic program in methods to rehabilitate persons disabled by chronic or catastrophic conditions such as diabetes, cardiovascular

and respiratory disabilities, sensory disorders, mental illness, mental retardation, orthopedic disabilities, and severe burns.

In the field of social service, SRS awarded funds for five projects: two to extend to India the multinational studies of older persons; two to assess the rehabilitation of juvenile delinquents identified in the first phase of a study of the work of juvenile courts; and one to train mothers in the development of mentally retarded children.

Interchange of Experts and Seminars

Seminars held in Yugoslavia, Pakistan, India, and Israel brought together principal investigators on vocational rehabilitation projects sponsored by the Social and Rehabilitation Service within those countries. Participants also included members of the SRS staff and specialists from rehabilitation centers in Houston, Tex., and New York City.

A total of 72 U.S. and foreign specialists participated in the program for the interchange of rehabilitation experts. U.S. experts aiding projects abroad represented the fields of psychology, rehabilitation center operations, physical therapy, prosthetics, low-vision aids, neurology, and speech therapy. Thirty-five specialists from five countries were awarded fellowships to facilitate programs in the United States. They represented rehabilitation of the deaf, the mentally retarded, the arthritic, the severely burned, the blind, paraplegics, and the orthopedically disabled.

Considerable attention and staff work were devoted to the maternal and child health student fellowship program. As of June 30, 1967, 34 fellowship grants had been made, and an additional four awards were made in the early summer. Twenty-three fellowships were awarded for the period January 1, 1968–June 30, 1968.

CORRECTIONAL REHABILITATION STUDY ACT

The Correctional Rehabilitation Study Act of 1965 provided for a 3-year objective and thorough nationwide study of correctional manpower and training. On April 1, 1968, a grant of $800,000 was made to the Joint Commission on Correctional Manpower and Training for the third and final year of the study.

The joint commission has completed its data gathering and has released a series of reports summarizing information gathered. Such reports as *The Public Looks at Crime and Corrections* and *Attitudes of Correctional Personnel Toward the Criminal Justice System* have been widely acclaimed as first-time nationwide studies. These reports highlight problems of the correctional field having a direct relationship to critical shortages of trained manpower.

Administration on Aging

The Administration on Aging, a major component of the Social and Rehabilitation Service since the departmental reorganization of August 1967, was established by the Older Americans Act of 1965 and charged with concern for the whole range of older people's needs. There are two groups in which the Administration on Aging is particularly interested: The more than 19 million people 65 years of age and over, 12,000 of whom have passed their 100th birthday; and the 17 million men and women aged 55–64 who will be tomorrow's older Americans. The older population is a constantly changing group. Every day 3,900 people reach their 65th birthday. Every year there is a net gain of 300,000 older persons. It is estimated that by 1985, there will be 25 million people 65 years of age and over.

A major highlight of fiscal year 1968 was the unanimous passage of the Older Americans Act Amendments of 1967, which extended the Older Americans Act of 1965 and increased its funding levels.

State agencies on aging are providing the central focus and leadership for all aging programs in each participating State and are mobilizing and coordinating State resources to meet the needs of the older population. Research and demonstration projects are paving the way to more effective coordination and implementation of services and to the establishment of new service techniques to improve the quality of older people's lives. Training programs in more than a score of educational institutions and in dozens of community agencies are equipping people of all ages with the knowledge of gerontology and the specialized skills required for planning and providing services for the older population.

During the fiscal year, the Administration on Aging worked with other Federal agencies, State and local government, and private organizations to better meet the material and nonmaterial needs of older persons. Among the major objectives were adequate income, decent housing, improved health care, meaningful activity in retirement, and a service role for the older person in society.

To carry out its responsibilities, the Administration on Aging is organized into six major units: the Office of the Commissioner; the Division of Older Americans Services; the Division of Program and Legislative Analysis; the Division of Information; the Division of Research, Demonstration, and Training; and the Division of Administration. In each of the Department's nine regional offices there is an Associate Regional Commissioner on Aging, who, along with his staff, works with State and local agencies.

In fiscal year 1968, Congress appropriated $18,450,000 for AoA and provided for a central office staff of 78.

The first two titles of the Older Americans Act authorized establishment and organization of the Administration on Aging. The next three titles provided for services to older people through three grant programs.

Grants for Community Planning, Services, and Training

Under title III of the act, $10,550,000 was appropriated for carrying out State and community programs for older people. This section of the act authorizes grants for community planning, services, and training. Ten percent of each State allotment or $25,000, whichever is greater, may be used on a 50–50 matching basis by the State for administration of the State plan.

In order to participate in the title III program, each Governor was responsible for designating a State agency to submit the State plan, which outlines long-range objectives for the older population and what services the State intends to develop to carry out these goals. By the end of the fiscal year, 46 States, the District of Columbia, Puerto Rico, and the Virgin Islands had approved State plans and were actively implementing the program.

The bulk of each State allotment supports local community projects, which are administered by either public or nonprofit private agencies.

By the end of the year, 688 community projects were operating under title III. An estimated 580,000 older people were directly benefiting from these projects. Of the 688 projects, 491 provided direct services, 133 provided for community planning activities (4 million older persons live in these community planning areas), and 64 were training special personnel.

Title III projects served older people in a variety of ways: meals-on-wheels projects helped 17,341 elderly; transportation services aided 41,472; telephone reassurance, home maintenance, and friendly visiting helped 82,743; health services were provided to 40,114; and homemakers or home health aides served 6,178 aged.

Information and referral projects served 227,000; 28,974 senior volunteers helped other older people; 10,916 aged found employment through title III project referrals; and 5,980 persons were trained to work with the elderly.

Many of these activities are being carried out through multipurpose senior centers, which, in hundreds of communities throughout the country, have become the older person's focal point of social life and

contact point for services vital to health and welfare. In 1966, a national directory showed 375 senior centers. By the end of fiscal year 1968, it was estimated that the number had grown to 3,000. A contract has been awarded to the American Rehabilitation Foundation to update the *National Directory of Senior Centers* and to compile data on services offered by current centers, including a profile of center personnel and members utilizing services.

Among the projects being carried out under title III are:

- In Ryan, Okla., a town with no real industry, 40 percent of the residents are older people. Until 1966, when the "Senior Citizens Activity Center" was developed under a title III grant, there was little to occupy the elderly. In addition to a broad recreational program, the center offers arts and crafts, adult education, information and referral, counseling, and transportation. During the fiscal year, more than 1,200 different people took advantage of center activities, some of them coming from 20 or 30 miles away. The success of the center is attributed to the energy and dedication of the elderly director and other senior volunteers, the donations—cash, furniture, and supplies—of private citizens, and the solid support of the community.
- In South Routt County, Colo., many older people live in isolated mountainous areas 21 miles from the nearest doctor or hospital. Most of them have no transportation. In this project, friendly visitors call at least once a week on old people who are homebound or live alone. In some cases, volunteers telephone daily so that isolated elderly have reassurance and support. If emergency or routine medical care is needed, volunteers drive patients to the hospital or doctors' offices.
- In Wichita, Kans., a community planning and development project has successfully involved many community groups and agencies in developing and coordinating a variety of needed programs for the aging, including: Planning a geriatrics clinic at a local medical center; coordinating activities of downtown churches to reach urban older people; developing special activities through the YWCA; establishing an information and referral service; publishing and distributing a "Guidebook to Community Resources."
- In Louisville, Ky., 50 older adults are volunteering their time and skills in public junior high schools to give individualized instruction to students. This arrangement is helping students who are behind in studies as well as superior students, who are offered such additional opportunities as piano instruction. It also contributes to the well-being and usefulness of the older person.

SOCIAL SERVICES

With the establishment of the Social and Rehabilitation Service, the Administration on Aging was given responsibility at the Federal level for development of policies, standards, guide materials and for data gathering and consultation in connection with the social services to elderly public assistance recipients under titles I, XVI, and XIX of the Social Security Act and to the aged before and after hospitalization for mental illness. State and local departments of public welfare administer these programs. Of the more than 2 million persons on old age assistance eligible for such services, 200,000 were receiving them in 36 states in the quarter ending September 30, 1967.

Principal services included: Services to secure health and medical care (108,000 cases); protective services (60,000 cases); educational and vocational training (9,200 cases). More than 10,000 caseworkers in the public assistance program served the aged. Costs of social service programs to the aged, excluding eligibility determination, in fiscal year 1968 exceeded $50 million.

Of the 440 local public welfare agencies in 39 states providing homemaker services, 115 helped the frail aged with home management assistance and 93 provided personal care services. Formal volunteer services to the aged have been established in eight States. Six States have undertaken the establishment of social group services to the aged.

In 23 States, a State-level specialist on aging has been employed to supply impetus and leadership in providing services to the elderly. Ten States have carried out demonstration projects in county welfare departments for or on behalf of the aged. Projects include such activities as:

- Establishing specialist positions at State and local level in aging and in community planning, homemaker services and foster family care.
- Developing special service units demonstrating new methods of delivery in such areas as protective services, group services and foster family care.
- Developing housing assistance and improvement services, including encouragement of home repair and improvement programs in housing owned or rented by OAA recipients.
- Screening elderly residents of nursing homes to determine their health status and if alternate living arrangements would be appropriate.

Grants for Research and Demonstration

Authorized by title IV of the Older Americans Act, the research and demonstration program supports studies of older people's living con-

ditions, demonstration and development of new methods and techniques for meeting their needs, and projects devising new ways to coordinate comprehensive community services for the Nation's elderly. The projects are funded through grants or contracts with public or nonprofit private agencies, organizations, and institutions.

During fiscal year 1968, 68 new and continuation projects were funded under an appropriation of $4,155,000.

Research grants are probing such areas as: Problems of adjustment after retirement; the effects of social isolation on older people's nutritional habits; and the role of senior centers in enabling elderly to remain active in the community.

Development and demonstration grants are investigating such areas as: methods of providing low-cost meal services; administrative techniques for coordinating comprehensive health and welfare services for the aging; paid and volunteer employment in the performance of community service roles; and new means of delivering services to special groups of elderly such as the non-English speaking, the homebound and residents of rural areas.

The following projects illustrate the approaches being tried to better serve the needs of older people and make retirement more meaningful:

- In Des Moines, Iowa, Drake University is conducting an organized effort to evaluate the impact of preretirement education on the subsequent adjustment of persons to retirement. During the first year, 500 persons were divided into discussion groups of 20 to 30 persons and provided legal, financial, social security, health, and other information vital to successful retirement. During fiscal year 1969, the project plans to enroll an additional 500 persons.
- In six rural counties of Arkansas, basic services are being provided to low-income older persons in isolated rural areas lacking such services. During fiscal year 1968, 1,194 senior citizens were interviewed. Among services they received were home repairs, medical and nursing care, transportation, and recreation. More than 300 homes have been repaired, 300 ill or handicapped persons have received help at home, and 781 persons have been referred to appropriate agencies for social and health services.
- In Staten Island, N.Y., 250 older people have been brought out of retirement and into volunteer service at a State school for the retarded, two hospitals, a school for homeless children, the public schools, and in several additional service programs. They are engaged in such activities as filling warehouse supply orders, stamping new clothing, recreation work, physical therapy, feeding and playing with children, and friendly visiting with adults and children.

Studies have documented the fact that the diets of older people often are lacking in many basic nutrients. Changes in life after retirement—reduced income, altered living patterns, physiological changes such as loss of teeth or diminished sensitivity of taste and smell, and psychological disorders resulting from loneliness and anxiety—may prevent older people from buying, preparing, and consuming a well-balanced diet.

To combat this problem, President Johnson, in his message on older Americans to the first session of the 90th Congress, called for a special program to improve nutrition service for the aging. Congress appropriated $2 million for development of such a program under Title IV of the Older Americans Act. AoA's Research and Development Grants Staff this year approved 29 grants and contracts totaling $2,095,101 for nutrition.

Among the approaches being tested are:

- In New York City, a multipurpose senior center located in a large public housing project is serving 200 older people a hot noon dinner 5 days a week. A consumer education program is being coordinated with the meals service.
- In the poverty-stricken Mississippi Delta region, older people are being brought together to plan, prepare, serve, and eat one hot meal a day, 5 days a week, at a daily cost of 25 cents per person.
- In Kentucky, elderly from isolated Appalachian mountain communities are coming to community centers every Saturday night by bus for a hot, nutritious dinner and an old-fashioned "country gathering."
- In Nebraska, Omaha and Winnebago Indians are learning good nutrition practices and economical meal planning in their own homes and in group meal centers located in tribal housing projects.

Grants for Training

The field of aging urgently needs men and women who are attracted to it because they find it vital and challenging work. There is a particular need for competent, informed, well-trained people to administer retirement housing projects, homes for the aged, multipurpose senior centers, and food programs for the aging at the local, State, or national level.

Title V authorizes grants for training professional, technical, and lay personnel to plan for and serve older people in programs related to the broad purposes of the Older Americans Act.

During fiscal year 1968, 30 grants were funded, for which Congress had appropriated $2,245,000. These grants provided long-term training

for 214 career personnel and short-term training for 1,475 persons. Priorities in training were the following: Broad planning and administration in aging for work at Federal, State and local levels; planning, administration, and management training in the field of retirement housing, villages, and homes for the aged.

Additional priorities included: Planning, administration, and program supervision for personnel of multipurpose senior centers; training for specialists in aging within such professions as recreation, religion, adult education, architecture, and retirement preparation; training of faculty and specialists in aging within established professions; leadership training for members of State and community committees on aging and for older adults who wish to become active in their communities; and training for semi-professional and technical personnel to serve under professional direction as library and recreation aides and aides in housing projects, senior centers, homes for the aged, and institutions, and in homemaking and meals services.

To these ends, the following projects are examples of training being undertaken with title V funds:

- The University of Georgia, Athens, Ga., is conducting 2-week training institutes for retirement housing personnel to better acquaint them with the special needs of older people. During 1968, 127 persons were trained; 120 will be trained in 1969.
- At the Jewish Home and Hospital for the Aged in New York City, more than 500 persons were enrolled in such courses as geriatric neuropsychiatry, occupational therapy, auxiliary nursing personnel training, and institutional administration. The hospital staff and other authorities in their field provide the instruction while an adult educator from Teachers College, Columbia University, provides consultation and develops evaluation procedures.
- At Brandeis University, Waltham, Mass., a curriculum of graduate education in aging leading to masters' and doctoral degrees is training teachers, administrators, and community leaders for high-level teaching, research, and executive positions.

One of the principal activities of the training grant program is that of encouraging the development of university-based centers on aging for training, research, and service. One of the outstanding eight or nine such centers receiving support from the Administration on Aging is the University of Michigan-Wayne State University Institute of Gerontology. This institute, with support from the State of Michigan, AoA, and other Federal agencies, performs significant research in aging; trains personnel for housing management, senior center direction, architecture, public administration, community

organization, and milieu therapy programing in mental hospitals; and provides consultation and other essential services to State and community agencies and voluntary organizations.

Pursuant to authorization contained in the Older Americans Act Amendments of 1967, the Administration on Aging made grants or contracts with four organizations for studies of personnel supply and demand in the field of aging. Preliminary reports revealed that shortages of personnel in the field are far greater than had been recognized.

The Advisory Committee on Older Americans

Title VI of the Older Americans Act authorized the appointment of 15 prominent citizens and leaders in the field of aging to the Advisory Committee on Older Americans, which is chaired by the Commissioner on Aging. The Committee is charged with advising the Secretary of Health, Education, and Welfare on his responsibilities under the act and recommending new programs for the aged.

The advisory committee this year discussed the need for trained personnel in aging, coordinated services for older people, the impact of Senior Citizens Month, and the organization of the newly formed Social and Rehabilitation Service.

The Foster Grandparent Program

This program enables low-income persons over 60 to serve approximately 20 hours a week in hospitals or institutions working with retarded and handicapped children. Older people in the program derive great satisfaction from the role they play in the rehabilitation of these youngsters and the knowledge that society needs their services after retirement. Also, the payment they receive is an important supplement to retirement income. The children benefit because they are able to identify with a person who cares deeply about them and is able to give them the individual attention that they so vitally need.

By the end of the fiscal year, there were 68 projects in 40 States and Puerto Rico using the services of 4,000 foster grandparents to help 8,000 children. Thirty-seven percent of the foster grandparents were 70 years of age or over and the oldest foster grandparent was 91.

Total committed resources for fiscal year 1968 were $9,455,214, of which the Federal Government supplied $8,329,444 and local sources provided $1,125,770. The program is managed by the Administration on Aging with funds supplied by the Office of Economic Opportunity.

Senior Citizens Month

For the sixth consecutive year, the President proclaimed May as Senior Citizens Month. "Meeting the Challenge of the Later Years," which was the 1967 theme, was selected as a continuing theme and, for 1968, special emphasis was placed on the contributions older people are making to their communities. More than a million copies of informational materials were mailed out to national organizations, State and local aging units, and to individuals. Local newspaper interest in older people, their activities and their contributions, was substantial in 1968 and hundreds of news items, feature articles, photographs, and editorials were printed in newspapers all over the country during May.

In connection with Senior Citizens Month, the staff, in cooperation with the Food and Drug Administration and the President's Committee on Consumer Interests, developed a folding wallet card, "Consumer Guide for Older People." The document was so well received by older people and their organizations that half a million of the cards were requested and distributed in only 2 months. It was necessary to order a third printing of 250,000 to meet requests.

Relationships With Other Federal Agencies and Clearinghouse for Information

The Administration on Aging has been actively working with other Federal agencies such as the Office of Economic Opportunity, on development of programs to meet the needs of the elderly poor, and the Department of Housing and Urban Development, to make sure that needs of the aging are included in Model Cities proposals. Members of the AoA staff have reviewed model city applications and have prepared criteria for project review teams outlining what these applications should stress concerning older people. Papers prepared by AoA and inserted in Model Cities Planning Kits stress planning for the aging, developing a senior center program, and formulating an information and referral program.

The President's Council on Aging provides a forum for the exchange of information and ideas about aging and aging programs. The Executive Committee of the President's Council is chaired by the Commissioner on Aging. The Council's report, *A Time of Progress for Older Americans*, published during 1968, was a complete review of activities on behalf of older people by all of the Departments represented on the Council from 1965 to 1967. In October 1967, the Department of Transportation and the Office of Economic Opportunity were added to the Council, increasing its membership to 10.

In April 1968, the Administration published the model of a consumer education program for older people, "Project Moneywise-Senior," which was developed in coordination with the Bureau of Federal Credit Unions. Moneywise-Senior was successfully pilot-tested by the Massachusetts Commission on Aging in Boston in September 1967. This model program can be implemented by any State agency on aging.

Other significant publications by the Administration on Aging during the year were: *The Fitness Challenge in the Later Years*, *An Exercise Program for Older Americans; What Churches Can Do*, another in the *Designs for Action* series; seven new grant program descriptions in the *Federal Financial Assistance for Projects in Aging* series; *Some Basic Priorities in Services for Older Americans* and *A Profile of the Older American* both originally speeches; a brief general description of AoA programs, *Charged with a Concern for the Whole Range of Needs of Older People;* and a new, categorical list of AoA publications.

Aging, the official publication of the Administration on Aging, continued to be a major informational medium for professionals in the field. Monthly circulation during the year was 14,600 of which 6,100 were paid subscriptions and sales.

Legislative Highlights

Two key pieces of legislation were introduced during the fiscal year. A joint resolution calling for a White House Conference on Aging in 1971 passed the Congress and was signed by the President after the close of the year. The Older Americans Act Amendments of 1968 were still pending when Congress adjourned in October 1968. These amendments would strengthen the ability of State agencies on aging to carry out statewide planning, coordination, and evaluation of programs for older people; increase funding for State administration; authorize 10 percent of title III appropriations to be used on a project-by-project basis for statewide, regional, metropolitan, or area-wide model projects; provide fourth-year matching funds for certain title III projects providing essential community services; and establish a program of "service roles in retirement" for older people.

Assistance Payments Administration

The Assistance Payments Administration deals for the most part with the money payment programs under aid to families with dependent children, old-age assistance, aid to the blind, and aid to the

permanently and totally disabled. It develops policies, standards, and methods for (1) administering those programs and the public assistance aspects of the work incentive program;* (2) determining eligibility for money payments and, in cooperation with the Medical Services Administration, eligibility for medical assistance; (3) determining and measuring need, income, and resources; (4) providing money payments; (5) providing for fair hearings; and (6) safeguarding information about applicants and recipients.

Program Coverage and Expenditures

In June 1968, federally aided assistance under old-age assistance (OAA), aid to the blind (AB), and aid to families with dependent children (AFDC) was available in all 54 jurisdictions of the country—the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands. Aid to the permanently and totally disabled (APTD) was available in all jurisdictions but one (Nevada). General assistance (GA), wholly State and/or locally financed, was available in some form for some persons in all 54 jurisdictions.

PROGRAM COVERAGE

About 9.1 million persons were receiving money payments under public assistance programs in June 1968. This number included 2 million aged persons receiving OAA; 5.6 million dependent children and their parents or other caretakers (including 4.2 million children in 1.4 million families) receiving AFDC; 670,000 disabled receiving APTD; 81,000 receiving AB; and 737,000 receiving GA. Vendor payments for medical care also were made on behalf of many of the recipients of public assistance money payments, as well as for some other medically needy persons. (See report of Medical Services Administration.)

The total number of persons receiving public assistance money payments had increased 5 percent by June 1968, compared with June of the previous year. The largest program increase was in AFDC—11 percent; the nonfederally aided program of GA grew 10 percent and the APTD program rose 6 percent. The AB program decreased 3 percent; the OAA program declined 2 percent, in part as a result of the increase in old age, survivors, disability, and health insurance benefit levels under social security, as well as the extending of monthly OASDHI benefits to formerly ineligible individuals.

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*Work incentive responsibilities transferred to Children's Bureau in fiscal year 1969.

Because each public assistance program defines—and thus limits—the groups it is intended to help, many needy people are not eligible for assistance under any program.

Needy persons aged 21–64, for example, cannot be helped by any Federal-State assistance program unless they are blind, disabled, or are parents or close relatives caring for children who are receiving AFDC.

There are also Federal policies that are optional with the States. Some States have programs as broad as the Federal law permits, and others have programs that contain only what the Federal law requires. The following are illustrations: Nevada does not have an APTD program; 33 jurisdictions do not provide aid to families in need because a parent is unemployed (AFDC-UP); almost half the jurisdictions (24) do not provide for foster care of children; 21 jurisdictions do not permit earned income exemptions in OAA; 11 do not permit payments to children up to 21 years of age, if attending school or a vocational or technical training course; 26 do not make payments in behalf of aged patients in institutions for the mentally ill; 31 do not make payments in behalf of aged patients in institutions for tuberculosis; and 17 do not provide assistance to persons on conditional release from mental institutions under specified circumstances.

And, there are State restrictions that limit eligibility in other ways. They include residence requirements, citizenship requirements, and narrow definitions of disability.

EXPENDITURES

A total of $466 million was expended for public assistance money payments in June 1968, representing a 15-percent increase from June 1967. Assistance money payments during 1968 represented less than 1 cent per dollar of total personal income in the Nation during 1967.

Expenditures By Program

Total money payments to recipients from Federal, State, and local funds for the month of June 1968 were about $138 million for OAA; $235 million for AFDC; $34 million for APTD; and $7 million for AB. For GA, a total of $33 million was expended from State and/or local funds only.

With the exception of OAA, all the programs providing money payments to recipients reported higher expenditures in June 1968 than in June 1967. They include a 28-percent increase in GA; 27 percent in AFDC; 15 percent in APTD; and a 2-percent increase in AB. OAA decreased 3 percent.

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Monthly Average Payments

National monthly average public assistance money payments in June 1968 were $68 per recipient of OAA; $42 per recipient of AFDC ($170 per family); $81 per recipient of APTD; $91 per recipient of AB; and $45 per recipient of GA ($93 per case).

Average payments not only are low, but vary widely from State to State as evidenced in the range of payments in June 1968. Among the 50 States, monthly payments for a dependent child ranged from a low of $9 in Mississippi to a high of $58 in New Jersey; and for an old-age recipient from a low of $36 in Mississippi to a high of $100 in California.

Each State establishes its own assistance payment level, which reflects both the State's fiscal capacity and prevalent social attitudes. Because of insufficient funds, a number of States reduce the amount of the payment; some set arbitrary maximums regardless of the size of the family; and others pay only a certain percentage of need computed under the State standard or impose unrealistic policies with respect to other potential income or resources or relatives' responsibility that serve to prevent meeting full need.

Relation To Social Insurance

Nearly three-fifths of the OAA recipients received public assistance money payments to supplement their OASDHI benefits in order to meet basic or special needs. The percentages of other types of public assistance recipients who also received social security benefits were considerably smaller—about 18 percent in AB, 14 percent in APTD, and 6 percent in AFDC.

The increases in OASDHI benefits, which became effective with February payments, brought a decline in the number of assistance recipients. For the 5-month period ending June 1968, the States reported a total of 45,600 case closings—26,500 in the OAA program, 8,100 under APTD, and 8,100 under AFDC. The estimated number of persons in all cases that were closed was about 75,000.

Work Experience and Training Program

Authorized by title V of the Economic Opportunity Act of 1964, the work experience and training program is designed to move unemployable heads of families who are presently or potentially assistance recipients toward self-support by improving their employability. Work experience and training, education, maintenance, medical care, and other social services needed by the unemployed parent and his family

are used to improve employability. Generally the title V recipient is an unemployed parent who is receiving public assistance and is part of the hard-core unemployed, the most unskilled and undertrained of the poverty stricken.

Administration of the program was delegated by the Office of Economic Opportunity to the Department of Health, Education, and Welfare and further delegated to the Social and Rehabilitation Service, Assistance Payments Administration. To finance the program, money grants are made to State public welfare agencies for projects developed and operated at the community level. Obligations during the 43 months the program has been in operation, from December 1964 through June 1968, have been approximately $364 million, with $42.3 million of this being obligated during fiscal year 1968.

Major adjustments were required to carry out legislative changes that affected title V during 1968. The 1966 amendments to the Economic Opportunity Act directed that greater emphasis be placed on strengthening the manpower aspects of title V program. Projects were amended and restructured to include manpower services from the Department of Labor. Amendments to the Social Security Act in 1967 authorized a new work incentive (WIN) program under the administration of the Department of Labor. The title V program will be replaced by the WIN program in all States by July 1, 1969. The WIN program is structured to provide for an orderly transition of title V projects into WIN projects. The WIN program also replaces the community work and training program established in 12 States under the 1962 Social Security Act Amendments.

The new obligational authority (NOA) for title V in fiscal year 1968 was $45 million, a decrease of $55 million from the $100 million fiscal year 1967 level. The impact of an NOA of $45 million for fiscal year 1968 and an anticipated further reduction to $20 million in fiscal year 1969, coupled with preparation for phasing into WIN, caused a considerable cutback in title V. Over 70 projects were terminated during the year and man-months of training dropped from 808,000 in fiscal year 1967 to 605,000 in fiscal year 1968.

Although nearing termination, title V work experience and training projects served 96,500 trainees in fiscal year 1968. At the end of the 1968 fiscal year, 31,200 were still undergoing training. Omitting 13,600 who left projects because of illness or other problems, the total number of trainees terminated was 51,700. Approximately 70 percent of that number (36,000) met title V's objective of improving employa-

bility: 46 percent found jobs right away; 7 percent went into advanced vocational training; and 17 percent developed marketable skills, although they did not find jobs immediately. The entire breakdown for the 51,700 went this way:

- 23,700 found gainful employment immediately upon completion of training.
- 3,400 left various projects to take manpower development training or other advanced vocational training.
- 8,900 completed training but did not find jobs immediately.
- 10,700 left various projects or were terminated for such reasons as lack of progress, poor attendance, misconduct, or dissatisfaction with or refusal of assignment.
- 5,000 left for unknown reasons.

Trainees in title V projects during fiscal year 1968 also registered high educational achievement: 36,000 received basic adult education; 4,500 received high school equivalency training; and over 20,700 developed new work skills or upgraded existing skills through full-time vocational education. The majority required no training and entered directly into job training situations.

From December 1964—the beginning of the program—through June 30, 1968, about 216,700 trainees have participated, with some trainees receiving more than one type of training: 81,600 received adult basic education; 10,000 participated in high school equivalency courses; and 46,500 developed new work skills or upgraded existing skills through full-time vocational education.

A total of 147,100 either completed their training or terminated prior to completion but were in the project sufficient time to measure the effect of title V on the trainee. The status of these 147,100 trainees upon leaving the projects was as follows:

- 67,400 (about 46 percent) immediately found gainful employment upon leaving the projects.
- 9,700 (about 7 percent) left projects to take advanced vocational instruction.
- 25,400 (about 17 percent) completed their training but did not find jobs immediately upon leaving projects.
- 30,500 (about 20 percent) left or were terminated from projects for reasons such as lack of progress, poor attendance, misconduct, dissatisfaction with or refusal of assignments.
- 14,100 (about 10 percent) left the projects with reason for leaving unknown.

A conservative estimate of the proportion of trainees meeting the program's objective of improving employability is approximately 70 percent.

A followup analysis as of the end of fiscal year 1968 revealed that 56 percent of the former title V trainees had been employed at some time during the 3-month period following termination from title V. Nearly four out of five of these trainees were still employed at the end of the 3-month period. Of the trainees employed at the end of 3 months, four out of five were in full-time employment and their average monthly pay was $274—over 73 percent greater than the average monthly AFDC payment of $158. The average monthly pay of part-time workers was $133.

Nearly 37 percent of the trainees who had not found jobs a week after leaving a project did find jobs by the end of the 3-month period.

Administrative Developments

ORGANIZATION AND MANAGEMENT

APA worked out plans to start an automated centralized information exchange between the Social Security Administration and the State welfare agencies. These procedures will reduce the flow of paperwork between local offices of SSA and State welfare agencies.

A survey of fraud reports from State agencies shows very few cases of fraud in OAA, AB, APTD, or AFDC programs. Of 5,000,000 individual and family cases in 1966, for example, less than 0.4 percent (18,200) showed indications of fraud.

APA provided the following administrative services this year: Technical assistance and published materials to a number of States on administrative and fiscal procedures; comprehensive surveys of organization and procedures to the Kansas State welfare agency and to the Franklin County Welfare Department in Ohio; a complete survey of the Boston Department of Public Welfare, including consultation to Massachusetts in relation to its shift, effective July 1, 1968, from local administration of the public assistance programs to State administration; consulting services to Ohio on setting up a management information system; and consulting services on data-processing problems to the State of California.

In addition, APA prepared, for publication in the Federal Register and for issuance to State agencies, assistance payments regulations and policies to implement the 1967 amendments.

SEPARATION OF PAYMENTS

In March 1968, APA was assigned the responsibility for working with the States toward simplification of public assistance payments. The separation of payments from social and rehabilitation services, which is a major part of the simplification, permits trained social

workers to spend more of their time and talents in providing rehabilitation services.

The APA separation staff has developed a system which can be used to compile, in an organized way, a State-by-State analysis, evaluation, and work plan. It provides a systematic method for determining impediments to simplification and separation, as well as the identification of areas where progress has been made by States.

Technical assistance has been given to State agencies in planning and implementation of separation of payments and services. Eighteen States had taken action by the end of June 1968 toward reorganization and reemphasis of programs which will contribute toward the simplification of payments and more effective provision of services.

Public Information

Among publications issued during the year, two on Community Planning helped to delineate the key role of public welfare in neighborhood coordination of services. Another, *When the Needy Ask for Help*, originally written as a guide on Federal-State public assistance for use of clergymen, proved valuable in explaining the programs to the general public.

More than 21,000 public inquiries about public assistance were answered, editorial assistance was provided to Bureau staff, and approximately 500,000 publications were distributed.

Children's Bureau

The Children's Bureau assists the States, through technical and financial aid, in enhancing and protecting the well-being of children and youth through child health services and family and child welfare services. The Bureau also studies many types of conditions affecting the lives of children and youth, makes recommendations to promote better practices in child health, family and child welfare, and juvenile delinquency, and helps establish standards for the care of children.

The consolidation of the Federal resources in public welfare into a new agency, the realignment of functions, and the Social Security Amendments of 1967 broadened and improved the Bureau's programs for children and their families, with emphasis on the areas of infant mortality, family planning, mental retardation, a unified program of services to children and their families, day care, youth services, and training of child care workers.

1968 Appropriations

The amounts appropriated for Children's Bureau programs for fiscal year 1968 were:

Salaries and expenses	$6,151,000
Grants for maternal and child welfare	235,600,000
Maternal and child health services	50,000,000
Services for crippled children	50,000,000
Child welfare services	46,000,000
Special projects for maternity and infant care	30,000,000
Special projects for health care and services for school and preschool children	37,000,000
Research projects relating to maternal and child health and crippled children's services	5,900,000
Research, training, or demonstration projects in the field of child welfare	9,700,000
Training of professional personnel for care of crippled children	7,000,000

Interdepartmental Committee on Children and Youth

The Interdepartmental Committee on Children and Youth is composed of representatives of 40 Federal agencies whose programs affect the well-being of children and youth. The Chief of the Children's Bureau is First Vice Chairman and Acting Chairman by delegation of the Secretary of Health, Education, and Welfare, who is Chairman. The Bureau also provides the secretariat.

During fiscal year 1968, the Committee published *Federal Programs Assisting Children and Youth.* Originally intended as a document for use of member agencies, the publication became a handbook and guide for State committees for children and youth, libraries, universities, and colleges.

The Subcommittee on Transition From School to Work completed the second revision of *From School to Work—Federal Services To Help Communities Plan With Youth.* The subcommittee's work centered on finding causes of problems encountered by local programs set up to help young people make the transition from school to work.

The Subcommittee on Parent and Family Life Education prepared a statement on family planning education, the purpose of which was to provide a channel for a coordinated approach by Federal agencies.

The Committee authorized a Special Committee for the 1970 White House Conference on Children and Youth.

State Committees for Children and Youth

State Committees have been preparing for the 1970 White House Conference on Children and Youth, giving emphasis to participation of individuals from all sections of each State, youth involvement, and coordination of activity among the numerous groups and organizations.

White House Conference on Children and Youth

The dates of February 15–21, 1970, were set for the 1970 White House Conference on Children and Youth. As part of its background paper preparation for the conference, the Bureau published *The Story of the White House Conferences on Children and Youth.*

Federal Model City Program

The Federal model city program specifically requires many agencies and local citizens to develop a coordinated attack on problems of selected urban areas.

Bureau staff, cooperatively with the Social and Rehabilitation Service and the HEW Center on Community Planning, reviewed the proposed model city and multiservice neighborhood center applications for their community planning aspects and their effective utilization of Bureau programs. Regional staff helped State agencies develop cooperative goals and service programs in over 100 model city communities and in 11 demonstration neighborhood centers.

Programs of the Bureau

RESEARCH AND CHILD LIFE

In addition to issuing its own studies and cooperating in joint studies, the Bureau supported research in child health and welfare through two grant programs.

Maternal and Child Health and Crippled Children's Research Grants

Fiscal year 1968 funds of $5,579,578 funded 68 maternal and child health and crippled children's research grants.

Final reports were received on 22 projects. Among them were: "Developing a Method for Evaluation of Quality of Nursing Service to Maternity Patients"; "Medical Needs of Children in Institutions for the Mentally Retarded"; "Long-Term Expenditures on Behalf of Clients in a State Program for Handicapped Children"; "Studies of Maternity Care and Perinatal Mortality in the Southeastern Region of the United States"; and "Health and Medical Care of Mothers and Children in an Urban Community."

Child Welfare Research and Demonstration Grants

Grants totaling $3,996,021 for 39 child welfare research and demonstration projects were awarded in fiscal year 1968.

Final reports were received on 15 projects, including: "A Demonstration of Reorientation of Illegitimately Pregnant Teenage Girls Living in Rural Areas"; "The Feasibility of Training and Using Unskilled Personnel as Aides to Professional Personnel in Caring for Retarded Children"; "A Research Project to Develop and Test a Data Collecting Instrument for Universal Use of Agencies Serving Unmarried Mothers"; "Magnitude and Scope of Family Day Care Problems in New York City"; and "Family Emergency Services."

International Comparative Study of Juvenile Delinquency

With financial assistance from the Foreign Currency Fund program, the Bureau conducted an international comparative study of juvenile delinquency in Belgrade, Yugoslavia; Ljubljana, Yugoslavia; Jerusalem, Israel; Warsaw, Poland; and San Juan, Puerto Rico. The aim of the study was to determine whether it is possible to obtain reasonably uniform information about the behavior of youngsters involved with the courts of different systems of justice, and whether such information would explain differences in the results of such court actions. A report will be prepared in 1969.

Research Reports

The Bureau began a new series of publications during the fiscal year: Children's Bureau Research Reports. This series reports findings of studies of child health and welfare services, some of which will be conducted as part of the Bureau's program of research and demonstration grants.

Research Report No. 1, *On Rearing Infants and Young Children in Institutions*, was released in March 1968. Research Report No. 2, *The Webster School: A District of Columbia Program for Pregnant Girls*, and Research Report No. 3, *Prelude to School: An Evaluation of an Inner-City Preschool Program*, went to press by the end of the fiscal year.

Some Facts and Figures

The provisional number of births in the United States during 1967 was 3,533,000, or 96,000 less than in 1966. The birth rate for 1967 was 17.9 births per 1,000 population, the lowest annual birth rate on record.

In March 1967, there were 28.5 million families with related children under 18 years of age. Of this number, 25.1 million (89 percent) were husband-wife families, 2.9 million (9 percent) were families with a

female head, and 0.4 million (2 percent) were families with a male head.

Children under 21 numbered 81.6 million on July 1, 1967, an increase of 1.1 million over the preceding year.

An estimated 1,913,000 marriages were performed during 1967. The provisional 1967 annual marriage rate of 9.7 per 1,000 population was slightly higher than the rate for 1966 (9.4 per 1,000).

An estimated 534,000 divorces were granted in 1967. The 1967 divorce rate of 2.7 per 1,000 population was slightly higher than the 1966 rate of 2.5 per 1,000 population. According to the most recent data available, 60 percent of divorces involve children.

There were 10.5 million mothers in the labor force in March 1967, or about 600,000 more than in March 1966. Thirty-eight percent of all mothers in the population with children under 18 were working in March 1967. The figures included 4.1 million working mothers with children under 6, and 6.5 million with children 6–17 years of age.

The infant mortality rate for 1967 was 22.1 per 1,000 live births, a decrease of 6 percent from 1966.

According to the poverty index used by the Social Security Administration, which is based upon a food cost-income relationship to family size and composition, there were 12.5 million children under 18 in 4.2 million families living in poverty in 1966. This means that nearly 20 percent of the children under age 18 in the United States were growing up in a home where the family income was below the poverty level. An additional 6.6 million children lived in homes where the family income was only slightly above the poverty level. Children of nonwhite families or of families with a female head were more likely to be poor. More than four out of 10 such families had an income below the poverty level.

MATERNAL AND CHILD HEALTH AND CRIPPLED CHILDREN'S SERVICES

The Social Security Amendments of 1967

When the Social Security Amendments of 1967 made Child Welfare Services a part of title IV, title V became Maternal and Child Health and Crippled Children's Services. The amendments to title V were designated as the Child Health Act of 1967. They increased the authorizations for child health as follows: $250 million in fiscal 1969; $275 million in fiscal 1970; $300 million in fiscal 1971; $325 million in fiscal 1972; $350 million in fiscal 1973 and for each year thereafter.

The act also:

- Called for services to reduce infant mortality and otherwise promote the health of mothers and children.
- Spelled out, for the first time, family planning services as a regular part of health services to our Nation. Of the amounts

appropriated for title V each year, not less than six percent shall be available for family planning.

- Continued the program of maternity and infant care project grants and of comprehensive grants for the health of preschool and school children until June 30, 1972, after which they become a part of each State maternal and child health and crippled children's services plan.
- Authorized support of up to 75 percent of the cost of projects to provide comprehensive dental health services for children of low-income families. These projects will study ways of organizing community dental health programs, including ways to increase the efficiency of dentists by using assistants and auxiliary personnel.
- Combined the maternal and child health program and crippled children's services into one program and required that the States assume responsibility for project grants in 1972. It also required the States to make more vigorous efforts to screen and treat children with disabling conditions through intensified casefinding and periodic screening of children in schools.
- Specified that 10 percent of the authorization for title V for each year shall be allocated for research and training. Special emphasis will be given to projects which can increase the effectiveness of health care programs by making maximum use of health personnel with varying levels of training.

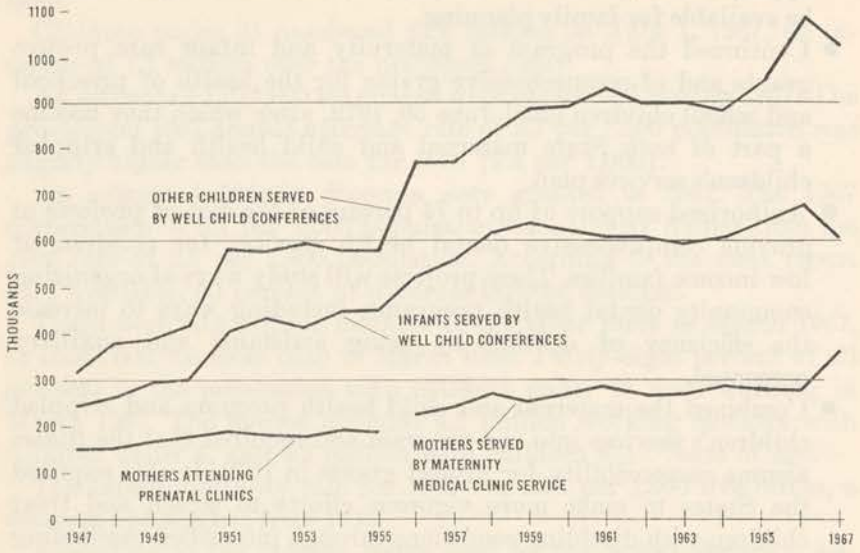
Numbers Served

During fiscal year 1967, State and local maternal and child health programs provided maternity clinic services for 366,400 expectant mothers, as compared with 282,000 in 1966. About 73,300 mothers and 7,000 premature infants received inpatient hospital care. About 89,900 expectant mothers received dental care.

About 1,631,900 children (of whom, 603,700 were under 1 year of age) were seen in well-child conferences. Over 1,711,700 school children were examined by physicians in school health programs, and, where necessary, referred for further treatment. Over 8,986,600 school children were screened for visual defects; 5,457,500 for hearing defects; and 2,549,100 for dental defects. Some 2,321,000 children received immunization (including boosters or revaccinations) for smallpox; 2,364,100 for whooping cough; 4,350,400 for diphtheria; and 4,550,600 for tetanus.

Public health nurses, working in the homes and elsewhere in the community, served 480,500 mothers. In addition to the nursing services offered in individual conferences and at schools, nursing care was provided to almost 3,000,000 children.

CHART 1.—MATERNAL AND CHILD HEALTH SERVICES, 1947–67



State and local public health agencies spent an estimated $143.6 million in fiscal year 1967 for maternal and child health services. This included expenditures of $93.1 million from State and local funds (65 percent of the total) and $50.5 million from Federal funds (35 percent).

Official health agencies reported services for more than 448,700 children with crippling conditions in fiscal year 1967. The crippled children's program reaches between five and six children per 1,000 in the population.

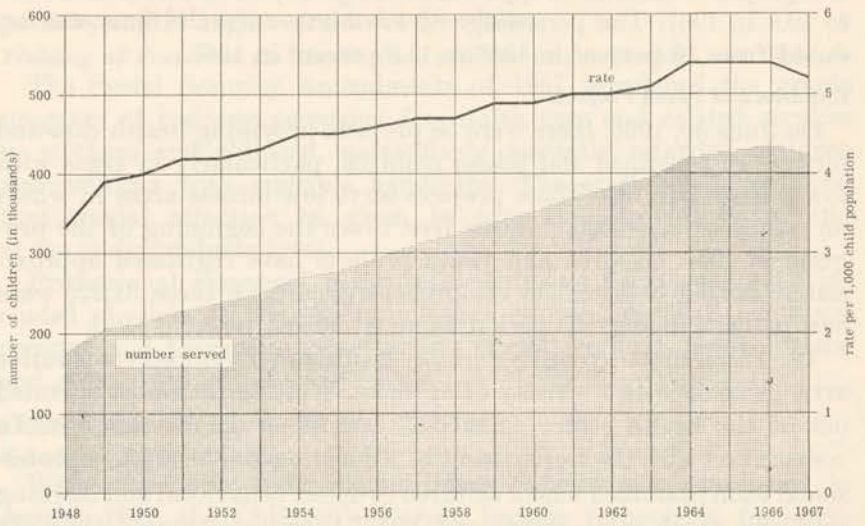
State and local crippled children's agencies spent an estimated $117.8 million in 1967 for crippled children's services. This included expenditures of $67.5 million from State and local funds (57 percent of the total) and $50.3 million from Federal funds (43 percent).

Maternity and Infant Care Projects

Fifty-three maternity and infant care projects were providing comprehensive care to mothers and infants from low-income families on June 30, 1968. During fiscal 1968, these projects admitted 118,000 new maternity patients; 83,000 new patients for family planning; and 43,000 infants (of whom, 36,000 were project born). Authorized were 46,500 visits by physicians to 18,400 infants.

Greater coordination of community services in the projects brought services closer to the families who needed them through such arrangements as mobile clinics. Hours of operation were ex-

CHART 2.—CHILDREN SERVED IN THE CRIPPLED CHILDREN'S PROGRAM, 1948–67



tended to nights and weekends to make them more convenient for the patient. Patients increasingly registered earlier for prenatal care and family planning. In some projects, husbands as well as their wives were included. Transportation was arranged for families where public transportation was inadequate. Needy, pregnant women were provided additional food stamps or food commodities and nutritional services. In some projects, homemakers extended the services of nurses and home economists by teaching child care and food serving and preparation in the home. Greater use of radio, television, signs, and billboards helped inform the public of services available through these projects.

Many projects expanded their services for schoolgirls. For example, the maternity and infant care project in Baltimore found that informing teachers, elementary through senior high, of the services available resulted in early casefinding of pregnant schoolgirls. The District of Columbia project conducted social work group sessions for pregnant adolescents and their parents biweekly.

One effect of the projects has been to demonstrate to communities that their efforts on behalf of mothers and infants were measurable in improved mortality rates and lowered incidence of prematurity. Some examples of health indices which show the effect of the maternity and infant care projects on maternal and infant health are:

In Dade County, Fla., maternal mortality for the nonwhite population was reduced by 75 percent. The stillbirth (fetal death) rate

for project deliveries dropped from 18 per 1,000 live births in 1966 to 10.8 in 1967. The percentage of low-birth-weight infants was reduced from 19 percent in 1966 to 11.8 percent in 1967.

Children and Youth Projects

On June 30, 1968, there were 58 projects providing health care and services to preschool and school children, particularly in areas with low-income families. These projects serve low-income areas in which an estimated 2,100,000 children live. Since the beginning of the program in 1966, children and youth projects have registered approximately 220,000 children for comprehensive care. Of these, 31,225 were new patients during the period January–March 1968.

The children and youth project in Baltimore developed cooperative arrangements with a variety of agencies. Welfare personnel operated out of the health center as AFDC family service caseworkers. In cooperation with the Department of Education and VISTA, a professional team examined school children to detect behavioral and learning problems at an early stage; and VISTA trainees tutored them. In cooperation with a private organization, an audiometric screening program was conducted, using volunteers. Also being utilized were an OEO-sponsored neighborhood health center, an adult education program for parents of project children, and other such community resources as camping, little theatre, arts and crafts.

Coordination of Crippled Children's Programs With Other State Programs

Some State crippled children's agencies have agreements with agencies administering title XIX medical assistance funds. These agencies were able to provide services to a larger number of crippled children because title XIX funds pay for inpatient hospital care for patients eligible under the State's medical assistance program.

State crippled children's and vocational rehabilitation programs have increasingly combined their efforts to extend services to children.

Mental Retardation Services

By June 30, 1967, there were 150 mental retardation clinics supported in whole or in part by Children's Bureau funds. Reports from clinics indicated that children were served at the rate of 37 per 100,000 children.

New patients represented only half of the patients served. About one-third of the patients visited clinics only once during the year, while one-fifth made five or more visits.

Services provided through these clinics included diagnosis, evaluation of a child's capacity for growth, the development of a treat-

ment and management plan, interpretation of the findings to the parents, and followup care and supervision.

Training of Personnel for Health Care and Services to Mothers and Children

The Social Security Amendments of 1967 broadened the grants program of training personnel for health care and related services to mothers and children, particularly mentally retarded children and children with multiple handicaps. The amendments required that special attention be given to programs providing training at the undergraduate level.

Professional personnel being trained during fiscal year 1968 included physicians, dentists, audiologists, nurses, physical therapists, occupational therapists, nutritionists, social workers, psychologists, and speech specialists.

FAMILY AND CHILD WELFARE SERVICES

Broadened Responsibilities

When the Social and Rehabilitation Service was established in August 1967, the Children's Bureau became responsible for services to AFDC families and children while the Assistance Payments Administration was made responsible for money-payment aspects of the program.

With the enactment of the Social Security Amendments of 1967, child welfare services became part of the Social Security Act title IV program—Grants to States for Aid and Services to Needy Families With Children and for Child Welfare Services.

The amendments required welfare agencies to design a program of family and child welfare services for each parent and child, based on their special circumstances and requirements.

The amendments also required the establishment of a single organizational unit within the State or local agency to provide services on behalf of families and children under the State plans for AFDC and child welfare services.

Effective July 1, 1968, States were required to furnish needed child-care services for each AFDC recipient referred to the Department of Labor for training and employment in the work incentive program (WIN). Family planning services also must be offered.

The Amendments also required the establishment of advisory committees on AFDC and child welfare services by State and local welfare agencies. At least one-third of the committee members must be recipients of financial assistance or social services. The committees will participate in both policy development and program administration.

Numbers Served

According to State reports for the quarter ending September 30, 1967, social services were provided to 844,000 families with 2,621,000

children. This number represented 61 percent of the families receiving financial assistance through the AFDC program. These services were directed toward improved family functioning, health-care, self-support, self-care, and the protection of children.

About 607,900 children were receiving child welfare services from State and local public welfare agencies on March 31, 1967, 7 percent more than on March 31, 1966. Forty-eight percent of the children were in their own homes or the homes of relatives; 34 percent were in foster family homes; 10 percent were in institutions; 7 percent were in adopted homes; and 1 percent elsewhere.

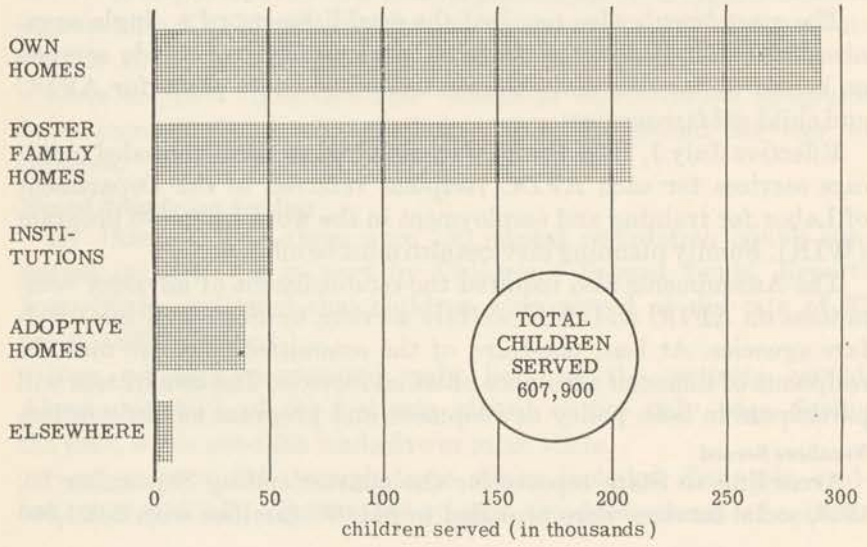
Voluntary child welfare agencies and institutions were serving 215,000 children on March 31, 1967. Twenty-six percent of these children were in their own homes or the homes of relatives; 21 percent were in foster family homes; 35 percent were in institutions; 17 percent were in adoptive homes.

State and local public welfare agencies spent an estimated $452.7 million in fiscal year 1967 for public child welfare services. This amount included expenditures of $239.2 million from State funds, $167.8 million from local funds, and $45.7 million from Federal funds.

Compensatory Education Program

Bureau staff participated in a study of a compensatory education program for preschool children in California, which was financed par-

CHART 3.—CHILDREN RECEIVING CHILD WELFARE SERVICES FROM PUBLIC WELFARE AGENCIES BY LIVING ARRANGEMENTS, MARCH 31, 1967



tially by AFDC funds and operated through a contract between State welfare and education agencies. Findings showed greatly improved functioning of the children involved and improvement in learning ability and conceptualization. The study documented the interest and active participation of the parents, particularly in minority group areas with Spanish-speaking children and parents. Both teachers and social workers believed that the experience was meaningful for parents and children; teachers expressed greatly changed attitudes toward disadvantaged families. The project also resulted in improved communication between welfare and education agencies at State and local levels.

Day Care

Public welfare departments were faced with the fact that they must provide day care resources in larger volume than in the past. Each State began assessing its need for day care and planning for expansion. Under title IV, parts A and B, of the Social Security Act, States can establish and operate day care facilities or purchase care from approved or licensed private, public, or voluntary facilities.

As of March 31, 1967, the capacity of licensed or approved day care facilities was 475,000 children, as compared with 310,400 in September 1965. Of these, 393,300 were in group day care centers, and 81,900 were in family day care homes. Twenty-one States, Puerto Rico, and the Virgin Islands were operating 430 public day care centers for children.

Bureau staff was represented on the new Federal Panel on Early Childhood, which developed the Federal interagency requirements and guidelines for day care programs.

Foster Care

The number of children in public and voluntary child welfare foster family care increased from 219,900 on March 31, 1966, to 231,200 on March 31, 1967, an increase of 5 percent.

Both public and voluntary agencies began to develop sequential training programs for foster family groups and to move toward payment for service as well as full reimbursement for the maintenance of the foster child. Agencies also put emphasis on greater involvement of the foster father. Policies and procedures for planned permanent foster family care were made also for children who have no realistic chance to return home or to be placed in adoptive homes.

Child welfare agencies in Los Angeles, Calif., and Washington, D.C., found that reasonable payment for the job, along with training of the foster parents, resulted in a better quality of foster care and much less turnover.

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To help in the recruitment of foster parents, the Bureau issued the pamphlet *A Child Is Waiting*.

Group Care of Children

Public and voluntary child welfare agencies reported mounting pressures to find good quality residential group care resources. Rising costs in operating institutions ($3,000–$5,000 per child per year) made it difficult for families with incomes under $15,000 to afford residential care for their emotionally handicapped children. States have been rapidly developing agency-operated group homes as a relatively new residential resource, especially for moderately disturbed children.

During 1968, 19 junior colleges established one or more courses to train child care workers for residential institutions. Dutchess Community College in New York State and Fall River Junior College in Rhode Island have 2-year curricula, including supervised field training. Knox College in Illinois has a 4-year program.

In March 1968, the Department of Labor funded a $1 million project to train 500 low-income child care workers in Baltimore, Chicago, Cleveland, Newark, and New York. The project will be administered by the Child Welfare League of America, with supervision by the Office of Education and consultation from the Children's Bureau. The project is scheduled to terminate on December 24, 1969.

Licensing of Child Care Facilities

The Jane Addams Graduate School of Social Work at the University of Illinois and the Children's Bureau sponsored a Conference on the Regulation of Child-Care Facilities, December 13–16, 1967, for 35 representatives of schools of social work, State welfare agencies, and national agencies concerned with children's services. *The Licensing of Child Care Facilities by State Departments of Public Welfare*, a new Children's Bureau publication, provided a basis for discussion. Goals of the conference were identification and training of leadership in child care licensing and initiation of periodic conferences to define the socio-legal base of licensing as a child welfare service.

Homemaker Services

States reported that homemaker service programs were growing, both in numbers and size. The in-home services and services that help improve family living continued to receive more attention nationally, along with the emphasis on the problems of poverty and isolation of groups with their accompanying social problems.

A total of 34 States have staff responsible for developing homemaker services in public welfare programs; 19 States have child welfare staff assigned to give special attention to development of homemaker services.

In November 1967, the Children's Bureau held a 4-day workshop for 28 State consultants and specialists on homemaker services—the first such meeting. Requests were made for further meetings to examine and explore developments, problems, practices, and areas of need. Even though the Child Welfare League of America and the National Council of Homemaker Services have homemaker service standards available, the States need help in establishing their own standards.

Child Welfare Services for the Mentally Retarded

Extension of the basic child welfare services has continued to increase resources for mentally retarded children and their families, particularly in the areas of family counseling, homemaker services, day care, and foster family care. By conservative estimates, 42,500 mentally retarded children received services from public child welfare agencies during the fiscal year.

The university-affiliated training programs, although just beginning, are expected to have substantial effect on the child welfare services available to the retarded and their families and on the teaching-learning patterns of the various professions involved. During the 1966–67 school year, 74 mental retardation agencies with related child welfare services provided field experiences for 185 students, as compared with 27 such agencies and 65 students in the preceding school year.

Protective Services for Neglected and Abused Children

Protective services, in varying degrees, were available in 49 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Two-thirds of the States, however, lacked adequate geographic coverage.

About 25 States have established specialized protective service units. To achieve statewide coverage, five States used special units exclusively; the other 20 States had one or more specialized protective service units serving a single district, county, or city.

Twenty-four hour coverage was provided in 18 States; in 22 States, informal and partial coverage was offered. In many of the States, broad child welfare programs for child protection (rather than specifically for neglected and abused children) demonstrated additional utilization of homemakers, volunteers, and nonprofessional personnel in crisis and emergency situations.

Services to Unmarried Mothers

The number of births out of wedlock rose from 240,200 in 1961 to 302,400 in 1966, the latest year for which figures are available. The

rate for girls 15–19 was 17.5 per 1,000 unmarried women, as compared to 16.7 in 1965.

A number of States emphasized staff training for child welfare workers providing services to unmarried mothers. As of January 1, 1968, there were 45 programs providing comprehensive services, including academic education, social work counseling, and medical care for teenage unmarried mothers.

Adoption Services

The number of children adopted rose from 152,000 in 1966 to 158,000 in 1967. The proportion of nonrelated children adopted through social agency placement increased from about 50 percent in 1951 to 74 percent in 1967.

By exercising flexibility in policies, some States permitted adoption of children by single persons. Publicity encouraged greater numbers of single applicants to apply.

Both public and voluntary agencies expanded their efforts to serve "hard-to-place" children. Increased efforts resulted in adoption for blind, deaf, crippled, and mentally retarded children.

Child Welfare Training Grants

A total of $5.7 million was awarded for 165 grants to strengthen teaching programs in the field of child welfare, 762 traineeships for master's degrees, 40 traineeships at the post-master's level, and 10 short-term training projects.

JUVENILE DELINQUENCY

Increases in Delinquency

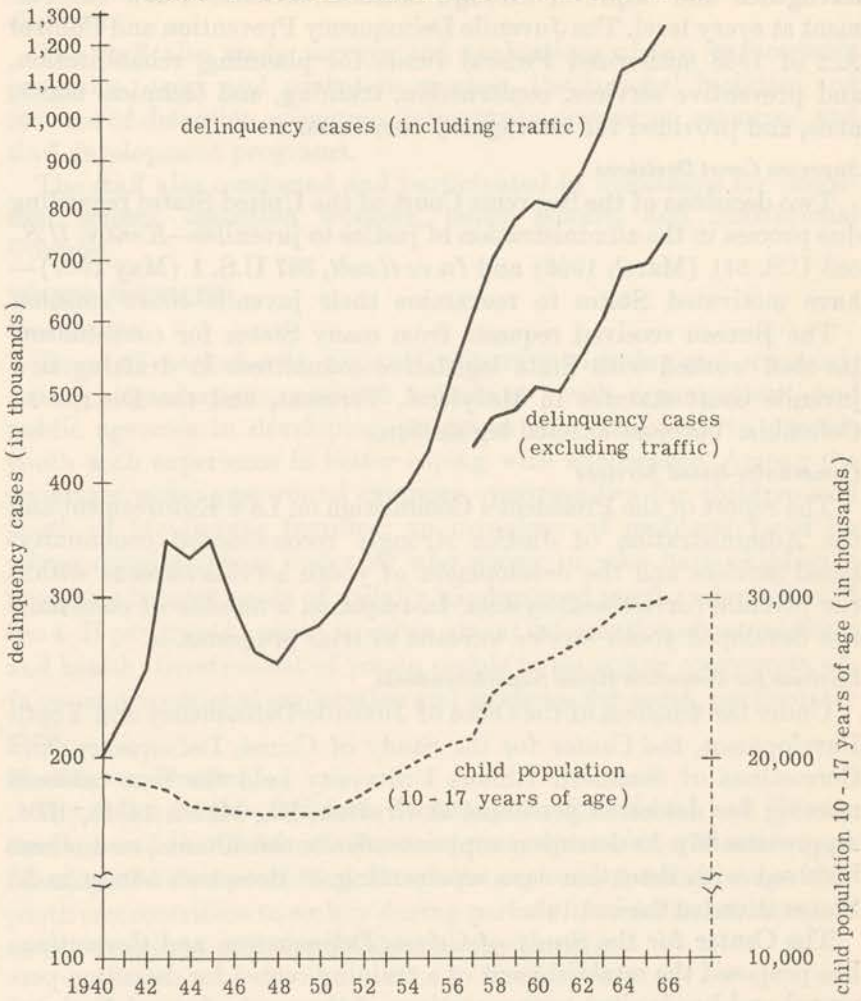
The Nation's population increased 10 percent from 1960 through 1967; however, the volume of serious crimes increased 88 percent. During this same period, the population of youth aged 10–17 increased 22 percent, but arrests of youth 10–17 increased 72 percent.

About 811,000 juvenile delinquency cases (excluding traffic offenses) were handled by juvenile courts in the United States in 1967, compared to 745,000 in 1966, an increase of 9 percent. These cases represented 699,000 children, or about 2.3 percent of all children 10–17 years of age.

The rate of juvenile delinquency court cases in urban areas was three times higher than in rural areas. However, the number of semi-urban and rural court cases increased 13 percent from 1965 to 1966, the latest years for which figures are available.

On June 30, 1966, there were approximately 51,000 children living in public institutions for delinquent children, an increase of 16 percent over 1964. There were 304 public institutions serving children committed by juvenile courts. Of these, 206 were training schools; 87

CHART 4.—JUVENILE DELINQUENCY IS STILL INCREASING



were forestry camps; and 11 were reception and diagnostic centers. Eighty percent of these institutions operated under State auspices and 20 percent under city or county auspices. Sixty-eight percent of the institutions served only boys, 23 percent served only girls, and 9 percent served both boys and girls.

The child-employee ratio in public institutions for delinquent children was 2.2 children for every full-time employee, which was unchanged from 1964.

Legislation

The 90th Congress responded to the Nation's crime problem with the Omnibus Crime Control and Safe Streets Act of 1968, which will

strengthen and improve, through national assistance, law enforcement at every level. The Juvenile Delinquency Prevention and Control Act of 1968 authorized Federal funds for planning, rehabilitation, and preventive services, construction, training, and technical assistance, and provided for interagency coordination.

Supreme Court Decisions

Two decisions of the Supreme Court of the United States regarding due process in the administration of justice to juveniles—*Kent* v. *U.S.*, 383 U.S. 541 (March 1966) and *In re Gault*, 387 U.S. 1 (May 1967)—have motivated States to reexamine their juvenile court statutes.

The Bureau received requests from many States for consultation. Its staff worked with State legislative committees in drafting new juvenile court statutes in Maryland, Vermont, and the District of Columbia. Vermont enacted legislation.

Community-Based Services

The report of the President's Commission on Law Enforcement and the Administration of Justice strongly recommended community-based services and the development of youth service bureaus within the juvenile correctional system. In response, a number of communities developed youth service bureaus as trial programs.

Institute for Detention Home Superintendents

Under the auspices of the Office of Juvenile Delinquency and Youth Development, the Center for the Study of Crime, Delinquency, and Corrections of Southern Illinois University held the first national meeting for detention personnel at Grafton, Ill., March 11–15, 1968. Approximately 50 detention superintendents, consultants, and others involved with detention care representing 35 detention homes in 28 States attended the institute.

The Center for the Study of Crime, Delinquency, and Corrections has proposed the establishment of a training center for detention personnel and has invited representatives of the newly formed National Juvenile Detention Association, the Joint Commission on Correctional Manpower and Training, the Office of Juvenile Delinquency and Youth Development, and the Children's Bureau to attend a planning workshop in July 1968.

Consultations, Surveys, and Workshops

The staff provided representatives to the Joint Commission on Correctional Manpower and Training and the Special Committee of the National Conferences of Commissioners on Uniform State Laws during the year.

States, bar associations, governors' commissions, legislative commissions, national organizations, foreign governments, and international

agencies sought consultation on every facet of services to delinquent children.

The staff also made surveys and evaluations of law enforcement programs, court and probation services, institutional facilities and services of detention programs, delinquency prevention resources, and staff development programs.

The staff also conducted and participated in workshops for probation officers, detention workers, police officers, and institutional workers.

YOUTH SERVICES

Consultation

The staff worked with national voluntary planning and standard-setting organizations, national voluntary youth organizations, and public agencies in developing programs and manpower to provide youth with experience in better coping with adolescence. Among the programs were: year-round camping opportunities for children and youth of low-income families; an inventory of problems faced by young couples (those under 20 who marry or who have children); programs to meet needs of socially handicapped youth; adaptation of the 4–H program to youth in urban areas; information about smoking and health; involvement of young people in managing community affairs; and vocational exploration and guidance for youth, particularly girls.

Workshop on Identity

The Office of the Assistant Secretary for Individual and Family Services and the Children's Bureau jointly sponsored a Workshop on Identity. Twelve youth and 15 adults explored for days ways that youth can contribute to society during periods of social stress. A report on the workshop will be published by the Bureau.

Medical Services Administration

On August 15, 1967, the Medical Services Administration was organized as one of the five operational components of the new Social and Rehabilitation Service. MSA formerly was the Medical Services Division of the Bureau of Family Services in the Welfare Administration.

Medical Services Administration's mission is to administer the Federal aspects of title XIX of the Social Security Act, known as Medicaid, as well as the medical assistance grants to States under titles I, IV, X, XIV, and XVI. It is charged with develop-

Table 1.—*Grants to States for maternal and child welfare, by program and State, fiscal year 1968* [1]

[In thousands]

	Maternal and child health services	Crippled children's services	Child welfare services
United States	$43,234.8	$43,792.5	$46,570.7
Alabama	1,272.2	1,120.8	990.9
Alaska	214.2	189.9	149.2
Arizona	656.5	403.2	489.5
Arkansas	745.6	681.3	626.9
California	1,799.5	2,107.5	3,692.0
Colorado	799.0	481.0	497.8
Connecticut	652.6	339.4	503.3
Delaware	215.0	292.1	157.6
District of Columbia	371.9	392.0	169.6
Florida	1,564.8	1,182.3	1,405.7
Georgia	1,515.0	1,340.0	1,281.2
Guam	105.0	78.6	100.4
Hawaii	225.1	444.9	217.8
Idaho	210.4	270.1	249.7
Illinois	1,245.4	1,442.7	1,850.7
Indiana	835.8	1,347.9	932.3
Iowa	461.9	1,183.4	669.3
Kansas	347.5	439.6	547.3
Kentucky	1,170.9	1,154.2	926.2
Louisiana	1,108.8	1,037.1	1,120.5
Maine	277.2	284.3	313.0
Maryland	913.6	930.9	629.1
Massachusetts	745.1	443.8	1,009.6
Michigan	1,850.5	1,926.4	1,772.4
Minnesota	813.3	1,234.6	882.9
Mississippi	1,036.4	856.0	836.5
Missouri	801.6	908.9	1,005.3
Montana	163.6	240.2	231.8
Nebraska	246.0	336.3	393.2
Nevada	213.9	203.6	143.6
New Hampshire	204.1	222.4	217.8
New Jersey	709.3	647.8	1,180.1
New Mexico	520.0	300.3	372.4
New York	1,785.0	1,495.0	2,856.3
North Carolina	1,653.9	1,544.0	1,436.0
North Dakota	250.1	233.3	242.7
Ohio	1,812.4	1,976.7	2,583.8
Oklahoma	567.4	582.7	647.6
Oregon	382.1	485.8	514.3
Pennsylvania	2,110.4	2,566.0	2,343.7
Puerto Rico	1,303.3	1,203.9	1,029.3
Rhode Island	668.7	274.0	240.3
South Carolina	990.3	993.7	866.3
South Dakota	86.6	209.6	256.0
Tennessee	1,056.9	1,175.8	1,198.5
Texas	2,186.8	2,538.9	2,778.9
Utah	335.2	332.7	346.2
Vermont	177.7	187.3	170.5
Virgin Islands	99.3	117.2	87.8
Virginia	1,237.3	1,351.3	1,148.8
Washington	741.6	526.7	590.4
West Virginia	611.3	680.8	541.0
Wisconsin	930.0	660.3	981.1
Wyoming	187.0	193.5	145.5

[1] Additional grants were made for special projects to institutions of higher learning and to public or other nonprofit agencies and organizations as follows: Maternal and child health services, $3,395.5; crippled children's services, $3,920.2; child welfare research and demonstration projects, $2,720.2; research projects relating to maternal and child health and crippled children's services, $3,413.2; child welfare training, $5,232.7; maternity and infant care projects, $29,992.2; projects for health care and services for school and preschool children, $30,895.7; and training of professional personnel for care of crippled children, $5,140.6.

ing programs and policies, setting standards, and ensuring State compliance with Federal legislation and regulations.

For the first time since the establishment of State medical assistance programs, a national conference of their directors was held. The 2-day meeting scheduled discussions of medical advisory committees, quality control, utilization review, fiscal considerations, long-range care facilities, and interagency relationships.

An agreement signed May 10, 1968, provided for coordination between the Medical Services Administration; the Division of Medical Care Administration, Bureau of Health Services, and the Division of Mental Health Service Programs, National Institute of Mental Health of the Health Services and Mental Health Administration in the administration of Medicaid. The agreement recognizes that the Medical Services Administration has primary responsibility for all title XIX policy, operations, and management. It assigns to the Bureau of Health Services and the National Institute of Mental Health responsibilities for consultation with State health and mental health agencies to further

effective collaboration with the single State agencies administering title XIX plans.

An arrangement with the Office of Economic Opportunity made in April 1968 spells out how Medicaid funds can reimburse OEO neighborhood health centers for health services provided to individuals and families eligible for Medicaid.

Ten States and Guam joined Medicaid during fiscal year 1968, making the total at the end of the year 37 States and three jurisdictions.

Total title XIX outlays—Federal, State, and local—during the period were $3,386,433,000 (estimated). The Federal share was $1,692,900,000, including $73,900,000 for administration.

The Medical Services Administration originally comprised three program divisions: Medical Program Development, Medical Program Evaluation, and Medical Program Management. Experience during the year demonstrated the need for another operational unit, and, in June 1968, the Health Services Division was formed.

In addition, the Office of the Commissioner includes the Offices of Administrative Support, Advisory Councils Support, Nursing Homes and Related Programs, Public Information, and Training and Manpower Development.

At its inception, Medical Services Administration had 39 permanent full-time employees in the central office. At the end of the year, there were 86, some of which were transferred from the Assistance Payments Administration. MSA also employed 15 part-time consultants in various professional medical specialities.

Each of the regional Social and Rehabilitation Service offices has a staff headed by an Associate Regional Commissioner for Medical Services Administration to work directly with State Administrators of Medicaid programs.

Office of the Commissioner

ADVISORY COUNCILS

The Social Security Amendments of 1967 established a 21-member Medical Assistance Advisory Council to advise the Secretary of Health, Education, and Welfare on "matters of general policy" in the administration of title XIX (Medicaid) and its relationship with title XVIII (Medicare). The Council's members were appointed in May 1968.

The 1967 Amendments also created a nine-member National Advisory Council on Nursing Home Administration to advise the Secretary of Health, Education, and Welfare and the States on

the licensing of nursing home administrators. Such licensing will be required, after July 1, 1970, of all nursing homes that receive Federal funds. Members of the Council were appointed in June 1968.

Training

The Training and Manpower Development Office organized seminars on medical care administration which were conducted at the University of Michigan School of Public Health, Ann Arbor, Michigan, November 6–17, 1967, and at the School of Public Health and Administrative Medicine, Columbia University, New York City, January 8–19. The seminars, primarily for State and local personnel responsible for administering title XIX programs, were designed to give participants current knowledge of basic concepts, principles, methods, issues, and trends in medical care administration. The Federal Government, 31 States and Guam, enrolled students.

Nursing Homes

Medical Services Administration's Nursing Homes and Related Programs Office was established in December 1967, to develop standards, policies, and guidelines related to public assistance nursing home care and for consultation with the States on the application of new policies and the implementation of new programs.

The office held a series of 2-day regional conferences with representatives of the licensing agencies and of the assistance agencies of the States in the region to brief them on new requirements relating to skilled nursing home care and intermediate care included in the 1967 Social Security amendments. The amendment's intent was to upgrade the care available in long-term care institutions by setting standards and establishing licensing requirements.

The highest priority of the Office was the development of Federal policy on intermediate care benefits provided under title XI of the Social Security amendments. Effective January 1, 1968, vendor payments became available for care provided in intermediate care facilities. Developed in cooperation with the Assistance Payments Administration and the Administration on Aging, Federal policy defines the conditions for participation as an intermediate care facility, the amount, duration and scope of the services to be provided, and the mechanisms for the administration of the program at the State, regional and Federal levels.

Experience derived from previous Federal assistance programs, and from pertinent areas of title XVIII (extended care) and title XIX

(skilled nursing home care) has highlighted many problems relating to the lack of uniform Federal standards, the absence of integrated programs to implement standards, and the need for methods and procedures for facility certifications. To increase uniformity, the Nursing Home and Related Programs Office worked with representatives of the Public Health Service and the Social Security Administration in the development of skilled nursing home policy and guidelines under title XIX.

MSA staff also participated actively in the National Conference on State Nursing Home Licensure Agencies. This was a common effort of State and Federal agencies to raise standards of nursing home patient care.

Public Information

The public information program of the Medical Services Administration interpreted Medicaid to a variety of audiences—the general public, recipients, State and local administrators, providers of professional services, case workers, and legislators—clarifying its technicalities, and explaining its broad applicability.

To publicize changes in Medicaid required by the 1967 Amendments to the Social Security Act, MSA revised the program's information handbook, *Questions and Answers—Medical Assistance—"Medicaid."* A program primer for the professional group whose services are basic to the program, *What's Medicaid to an MD?*, was distributed to States and professional organizations.

Two exhibits, one of them new, were displayed at 10 national conventions to encourage participation of professional providers of services. A third exhibit was distributed to regional offices for use at State meetings.

The MSA information staff used press releases, speeches, publications, and personal contact to inform the public, the press, professional organizations, and Congress about the program.

The staff began a project, which will be completed next year, to coordinate distribution of information about the national Medicaid program, including information about individual State programs.

Health Services

Establishment of the Health Services Division in the closing weeks of the fiscal year completed the basic reorganization of the Medical Services Administration and unified the direction of three distinct facets of the medical assistance programs: medical services performed by all licensed practitioners; the mental-health provisions of the Fed-

eral law; and pharmacy services as a part of comprehensive health services.

The Health Services Division provides leadership and direction, through its consultative services to the medical, dental, mental health. and optometric sections of the State programs, and is a focal point within the Administration for contacts with the health professions.

Program Evaluation

MSA assessed previous efforts at on-site evaluation of State Medicaid programs and developed a new procedure called the Program Review and Evaluation Project (PREP).

These week-long reviews, directed by the Medical Program Evaluation Division, were carried out by teams drawn from the Medical Services Administration, the staff of the Regional Commissioners for the Social and Rehabilitation Service, the Public Health Service, and leaders in medical-care administration. Topics covered by PREP surveys included: organization and structure of the administering agency; administrative practice; communication with recipients, providers of services, and other agencies; advisory committees; population covered; medical services; and relationships with other programs furnishing medical care.

The information gathered by PREP enabled the Medical Program Evaluation Division to recognize achievements of State Medicaid programs and to recommend improvement in State policy and practice.

During the year, PREP reviews were made in Connecticut, Delaware, Idaho, Kentucky, Louisiana, Maine, Massachusetts, Nebraska, New Mexico, Ohio, Rhode Island, Virgin Islands, Washington, West Virginia, and Wisconsin.

Program Management

The Medical Program Management Division was engaged primarily in the formulation of policies and standards for States on fiscal management, and fiscal aspects of Federal participation in the medical assistance program.

The division prepared interim policies for the following subjects affected by the 1967 Amendments to the Social Security Law: utilization review; safeguarding against payments to providers in excess of reasonable charges; coordination of title XIX with part B of title XVIII; cost sharing and similar charges; direct payments to recipients for physicians' and dentists' services. The division also prepared guidelines and background papers for implementing these policy statements,

and guidelines to help States establish review utilization of procedures to care and service given in medical assistance programs.

Planning and Development

The Medical Program Planning and Development Division provided help to States in initiating and implementing medical assistance programs, working in consultation with SRS Regional Offices. In coordination with other SRS components, the Division formulated medical eligibility criteria for the following programs: Aid to the Blind; Aid to Families with Dependent Children; and Aid to the Permanently and Totally Disabled.

The Division established a State Programs Branch to review regional action on State plan material. The rising cost of medical care and other factors made accurate cost forecasting difficult, and the resulting fiscal problems impelled many States to alter their Medicaid plans. Determination of whether amended plans still complied with Federal legislation and regulations was a prominent Division activity. In cooperation with other SRS units dealing with State plan material, the Branch evaluated program development and consistency of action.

The Division conducted two regional conferences on the mental health provisions of title XIX. During the period, 28 States operated programs for medical assistance to aged individuals in institutions for mental diseases, under titles I, XVI, and XIX. Approximately 70,000 patients 65 years and over received benefits under the program, for which Federal grants to States totaled approximately $140,000,000.

The division established working relationships with the National Institute of Mental Health, the National Association of Mental Health Program Directors, the American Psychiatric Association, and the American Association of Mental Deficiency.

Rehabilitation Services Administration

The Rehabilitation Services Administration, a major component of the Social and Rehabilitation Service, administers a broad range of programs to help rehabilitate handicapped people. These include the vocational rehabilitation program, the mental retardation program, and the program of social services for the blind and permanently and totally disabled.

Fiscal year 1968, the first reporting period under the reorganization that formed the Social and Rehabilitation Service, was highlighted by the following achievements:

- The long-sought goal of 200,000 disabled persons rehabilitated into employment was achieved during 1968, when 207,918 handicapped were rehabilitated, a 20-percent increase over 1967.
- Two major reports, one by the National Commission on Architectural Barriers to Rehabilitation of the Handicapped and one by the National Citizens Advisory Committee on Vocational Rehabilitation, were completed and presented to the Secretary.
- Two key bills passed the Congress during the year—the Vocational Rehabilitation Amendments of 1967, Public Law 90–99, signed on October 3, 1967, and the Mental Retardation Amendments of 1967, Public Law 90–170, signed December 4, 1967. Two additional measures, the Vocational Rehabilitation Amendments of 1968 and the Architectural Barriers to the Handicapped Act were introduced during 1968 but did not become law until after the close of the fiscal year.

Also during the year, the Rehabilitation Services Administration directed increased attention to the needs of disabled people living in depressed inner city and rural areas. Cooperative interagency programs and projects were established at an increased rate.

The Mental Retardation Program

The Rehabilitation Services Administration is responsible for a comprehensive nationwide program for planning, construction, development, operation and improvement of health and rehabilitation resources for the mentally retarded, including care services and the raising of standards of care in residential, community, and other service programs. The mental retardation program, formerly administered by the Public Health Service, was transferred to RSA in the reorganization that created SRS.

Grants totaling $6.8 million were awarded during fiscal year 1968 to provide support for 91 innovation projects designed to improve methods of care, treatment, and rehabilitation of the mentally retarded in State residential institutions. A complementary grant program, designed to improve patient care by increasing the knowledge, sensitivity, and effectiveness of the available staff of the State residential institutions for the mentally retarded, supported 102 projects totaling $1.8 million.

Research grants totaling $126,000 supported three projects that will attempt to discover new techniques or knowledge which will increase the efficiency of services to the mentally retarded.

In accordance with plans approved by State authorities, 73 grants totaling $16 million were awarded for construction of specially designed public and nonprofit community facilities for care and

rehabilitation of the mentally retarded. One such project grant, for $682,000, was awarded to Utah State University to assist in the planning and construction of a comprehensive center for services to the mentally retarded, personnel training, and demonstration of services.

In another phase of the program, 51 projects received $1.4 million to support planning and implementation of State plans for prevention and treatment of mental retardation.

Social Services

The Rehabilitation Services Administration is responsible for social services to public assistance applicants and recipients of aid to the blind (AB) and aid to the permanently and totally disabled (APTD).

Social services, which are optional with the States, were provided to blind public assistance recipients in 38 States and to other disabled recipients in 36 States. In general, few services were offered to former applicants or recipients, or to those potentially in need of help. These limitations reflected difficulties States have in providing their 25 percent of the costs of services, and in securing and holding qualified personnel. Work began on simplifying State plan requirements for social services to make them easier to administer, allow States greater flexibility in implementation, and encourage greater focus on prevention, alleviation, and social rehabilitation.

Innovation Projects

Under section 3 of the Vocational Rehabilitation Act, State vocational rehabilitation agencies may undertake projects to introduce and develop new rehabilitation methods, or to provide improved services to groups having disabilities which are catastrophic or particularly severe. The Federal Government bears 90 percent of the cost of these projects for the first 3 years and 75 percent of the cost in the last 2 years. A total of 73 such projects were undertaken in 42 States and the District of Columbia in 1968, aggregating $2.1 million.

Expansion Projects

Expansion grants, under section 4(a)(2)(A) of the act, encourage program extensions and additions to increase the number of handicapped persons rehabilitated. The Federal Government bears 90 percent of the cost of these 3-year projects. The $7.5 million obligated for

this program in 1968 went to 160 projects in 47 States, the District of Columbia, and Puerto Rico. Sixty-five of these were new projects and 95 were continued from previous years. A majority of the projects serve persons with severe and multiple disabilities. Thirty projects were directed toward serving persons in urban and rural poverty areas.

Improvement, Development, and Construction of Rehabilitation Facilities

The program of grants to assist in the improvement, development, and construction of facilities, authorized in the 1965 amendments to the Vocational Rehabilitation Act, showed another year of accomplishment. By definition, "workshops" are now included in the overall term "facilities."

Half a million dollars in Project Development grants to assist in determining specific needs for facilities were awarded in 1968 to 38 grantees in 25 States. Facility improvement grants fell into two categories—new (47 grants) and continuation (124 grants) for a total of $3.5 million. Construction of facilities or purchase of existing buildings totaled almost $3 million for 27 grants in 20 States.

The technical assistance program, which provides services of specialists in such areas as contract procurement, business management, and architectural design, safety, and industrial engineering, furnished 79 consultations at a cost of $26,894.

Training services project grants, which help facilities expand their training in occupational skills and provide allowances to trainees and their dependents, nearly tripled this year; 23 new and 13 continuation grants, amounting to $5.7 million, were awarded. The National Policy and Performance Council reviewed progress in projects under this program as well as the standards for rehabilitation facilities which have been applied over the last 2 years, and set forth additional standards related to safety in rehabilitation facilities.

Finally, a voluntary Reciprocal Rehabilitation Reporting system was established to improve the quality of statistical data on private nonprofit rehabilitation facilities.

Training Rehabilitation Workers

Increased appropriations for RSA's support of training in disciplines allied with the public rehabilitation program, from $24.8 million in 1966 to $31.7 million in 1968, permitted support for 477 teaching projects in about 283 colleges, universities, and other institutions.

Grants also were made for traineeships to 5,918 selected students in the following subjects: Medicine, including physical medicine and rehabilitation, plastic surgery, orthopedic surgery and neurology; nursing, dentistry; occupational therapy; physical therapy; prosthetic-orthotic education; rehabilitation counseling; psychology; sociology; social work; speech pathology and audiology; recreation; and rehabilitation facilities administration. Grants also supported specialized training programs in rehabilitation of the blind, deaf, mentally retarded, emotionally disturbed, and public offenders.

About 2,100 students enrolled in and about 900 completed the 2-year graduate training program in rehabilitation counseling. Since 1954, 4,010 students have completed this program.

Short-term courses dealing with various aspects of vocational rehabilitation services reached nearly 9,000 rehabilitation agency personnel in 1968. As one of the staff development activities, about 150 or more State agency officials gather annually for the meeting of the RSA-sponsored Institute on Rehabilitation Services. The meeting was held at Penn State University, State College, Pa. Reports by three Institute-sponsored study groups reviewed the following issues: "Rehabilitation of the Alcoholic"; "Guidelines for Developing Cooperative Programs in Vocational Rehabilitation"; and "The Use of Support Personnel in Vocational Rehabilitation."

Architectural Barriers

The National Commission on Architectural Barriers to Rehabilitation of the Handicapped submitted its final report to the Secretary of Health, Education, and Welfare, who, in turn, submitted it to the President and the Congress. The report has been widely distributed throughout the country. The Commission recommended the following:

- Federal legislation requiring that all new public buildings and facilities be designed to accomodate the elderly and the handicapped if any Federal funds are used in their construction.
- An Executive order directing all Federal agencies to apply accessibility standards to their new construction and plan for feasible changes in existing facilities.
- State legislation requiring State and local buildings constructed with public funds to meet accessibility standards.
- Revision of all building codes so that privately owned structures used by the public will be built for accessibility.
- Governmental support and coordination of private efforts to insure that all buildings and facilities used by the people of every community will be readily accessible to the elderly and handicapped.

328-184—69——17

- Expanded education and information programs so that no longer, merely through thoughtlessness, will millions of citizens be unable to use buildings, parks, and other facilities.

Services for the Blind

During fiscal year 1968, an estimated 19,600 blind and visually handicapped individuals were rehabilitated into gainful employment in a wide range of occupations.

The 3-year research and demonstration program funded to train blind persons as Taxpayer Service Representatives of the Internal Revenue Service is developing a pattern for a new occupational field. Criteria for the selection, training, and placement of blind persons for employment in the recreation field are being made available to counselors working with the blind throughout the country.

The nationwide vending stand program for the blind, who are licensed as operators by the State rehabilitation agencies and are under their supervision, showed substantial increases over 1967. The number of stands on Federal and private property was 2,920, an increase of 4 percent. Gross sales were $79 million, up 10.5 percent. Net proceeds of $16.6 million (up 12.5 percent) to 3,259 operators, was 4.6 percent more than the previous year. The operators had average earnings of $5,580, an increase of 6.4 percent.

Guidelines were developed for social services to aid-to-the-blind recipients which will enable blind persons receiving financial assistance to lead independent lives to the extent of their ability and capacity.

Rehabilitation personnel and teachers also have been trained to use community resources more effectively to deliver services to newly-blinded homemakers.

As a first step toward developing social and rehabilitation services for the multihandicapped, pilot projects were initiated in State institutions for the mentally retarded, aimed at helping blind and visually handicapped patients return to their communities or achieve a greater degree of independence in the hospital.

Social Security Disability Applicants

An estimated 25,000 applicants for social security disability benefits were rehabilitated this year, an increase of about 20 percent over 1967. Social security trust funds as well as regular rehabilitation program funds are used to pay the cost of rehabilitation services.

State rehabilitation agencies continue to make disability determinations for entitlement to social security benefits and to consider the applicants for rehabilitation services.

Services for Other Specific Groups

THE MENTALLY ILL

The number of mentally ill in the total number of rehabilitations increased to 38,500 or 18.5 percent. A number of additional rehabilitation facilities were established by the State vocational rehabilitation agencies on the grounds of State mental hospitals.

An increasing number of State vocational rehabilitation agencies are operating halfway, or rehabilitation, houses where the patient who leaves the hospital is given guidance and support in learning to adjust to living in the community. Some State agencies are using boarding houses, where post-hospitalized mental patients live with people who have never been mentally ill.

The extended evaluation period provided for under the 1965 amendments has made it possible to provide services to those who formerly would have been excluded.

Drug Addiction

New York and California have ambitious drug addiction rehabilitation programs, undoubtedly because of the legislation enacted in these States. The New Jersey Rehabilitation Commission has initiated a special rehabilitation program in three counties. An estimated two hundred drug addicts were rehabilitated throughout the country in 1968.

Alcoholism

An estimated 4,500 alcoholics were rehabilitated this year. A number of the State agencies took advantage of Innovation and Expansion grants, while others developed programs with section 2 financing. As programs for the rehabilitation of alcoholics expand, there is increasing urgency for improving the skills of staff who work with alcoholics. The Rehabilitation Services Administration supports summer school programs on alcoholism at the Universities of Georgia and Utah. The oldest and most intensive course is held at Rutgers University, and an increasing number of State rehabilitation agencies utilize this experience as basic training for counselors who will work exclusively with alcoholics.

Lectures on alcoholism are part of the 6-month internship courses for vocational rehabilitation counselors working with psychiatric cases, at the Harvard School of Medicine, the Nebraska College of Medicine, and the University of Oregon School of Medicine.

THE MENTALLY RETARDED

An estimated 19,100 mentally retarded clients were rehabilitated in 1968, an increase of 8 percent over 1967. The approaches

Table 1.—*Major Disabling Conditions of Persons Rehabilitated, Fiscal Years 1967 and 1968*

Disability	Number of persons	
	Actual 1967	Estimated 1968
Total rehabilitations	173,594	207,918[1]
Blindness, both eyes	6,050	7,100
Other visual impairments	9,895	12,500
Deafness	4,923	5,400
Other hearing impairments	5,440	6,700
Orthopedic deformity or impairment	36,218	39,100
Amputation or absence of extremities	9,653	10,200
Mental illness	27,897	38,500
Alcoholism	(2,747)	(4,500)
Drug addiction	(117)	(200)
Mental retardation	17,724	19,100
Heart disease	5,989	6,700
Speech impairments	1,924	2,100
Tuberculosis	3,486	3,300
Epilepsy	3,066	3,300
All other conditions	41,329	53,918

[1] Actual.

used for attaining these rehabilitations included: (1) continued operation and expansion of vocational rehabilitation and special education cooperative programs; (2) continued emphasis on evaluation centers, occupational training centers, and sheltered workshops; and (3) continued and increased effort within State rehabilitation agencies in the special assignment of counselors to work with the mentally retarded.

COMMUNICATIVE DISORDERS

The U.S. Office of Education and the Rehabilitation Services Administration jointly promoted close working relations between education and vocational rehabilitation of the deaf. Great progress in case services and, consequently, adjustment of people with severe hearing impairment already is underway.

The Registry of Interpreters for the Deaf, a Social and Rehabilitation Service demonstration effort, is furthering interpreting as a professional service by developing college-level training curricula. Another example of effort in this area is the growing movement to establish urgently needed referral and adjustment centers for deaf people in urban areas.

A joint statement of working relations between the National Hearing Aid Society and the Rehabilitation Services Administration was issued and is expected to accelerate services to the hard of hearing.

The National Theater of the Deaf, a combined cultural and vocational venture, demonstrates how government can exert a positive influence on the circumstances of seriously underprivileged people. The performances of the theater have been highly acclaimed.

DISABLED WELFARE CLIENTS

In 1968, an estimated 26,000 disabled welfare clients were rehabilitated, a substantial rise over the previous year. These rehabilitations involve cooperation of the State vocational rehabilitation and welfare agencies, often including participation with other programs.

Among other things, plans were laid for vocational rehabilitation to contribute in evaluating and serving those recipients of aid to families with dependent children who are considered for the Work Incentive Program.

The establishment of SRS brought unified leadership of rehabilitation and social services for the disabled, and is having a major impact on restoring welfare clients to employment.

THE PUBLIC OFFENDER

Vocational rehabilitation agencies have made progress in meeting the needs of the disabled public offender. State vocational rehabilitation agencies participate in cooperative programs with prisons, courts and State and Federal correctional agencies. Rehabilitation programs under special cooperative arrangements for adult and juvenile offenders are operating in 40 States. These vary from part-time assignment of counselors to correctional institutions to the installation of comprehensive vocational rehabilitation units. Moreover, there were 18 expansion or innovation grant projects for public offenders in 1968.

AGING

It is estimated that 60,000 people, or more than one-fourth of the total number of persons rehabilitated during the year, were age 45 and over.

RSA supported two short-term training courses: An Institute on Rehabilitation of the Aging in cooperation with the University of Tennessee, Knoxville, Tenn.; and, in cooperation with Northeastern University, Boston, Mass., a conference on Dynamic Programing in Rehabilitation of the Aging.

National Interagency Cooperative Programs

The State-Federal vocational rehabilitation program promotes cooperative action at Federal, State, and local levels in the major poverty, manpower, and urban programs, with special emphasis on services to handicapped persons in the target groups. This marked the second year of participation at all levels in the Cooperative Area Manpower Planning System (CAMPS), and of program involvement in the concentrated employment programs, the neighborhood pilot centers

and model cities. Service-oriented agreements with voluntary agencies, such as the American Heart Association, the Arthritis Foundation, and the American Cancer Society, were developed and working relationships are being established with others.

Based on 1966 amendments to the Manpower Development and Training Act, the vocational rehabilitation program inaugurated a new program of minor medical services for MDTA applicants and trainees, whether or not they meet regular criteria for service. The purpose of the program is to correct medical conditions which may interfere with an applicant's ability to begin a course of training, may cause trainees to drop out, or may render them unable to pass a required employment examination. Cooperative agreements to provide these services are being developed by the State agencies; however, some States need to amend their laws or regulations in order to provide such services.

Extended Evaluation

To utilize all vocational rehabilitation services to determine the rehabilitation potential of severely handicapped individuals, 27,987 persons were served in extended evaluation programs which resulted in the formulation of specific rehabilitation goals for 8,650 of them.

Statewide Planning

Fifty-three States and territories have started comprehensive statewide planning projects as authorized by the 1965 amendments to the Vocational Rehabilitation Act. All but three will have completed the maximum of 2 years of planning under project support by the end of fiscal year 1969.

The plans will insure the orderly development of public and private rehabilitation resources for all disabled persons in need of services. All levels of government have been involved in project activities, and widespread citizen interest and support has developed.

Serving the Disabled in Rural Areas

Further decentralization of State district and field offices improved services to the disabled in rural areas. Plans were developed for the implementation of authorized grants to States for services to migrants and their families.

Projects and demonstrations have been established in several States to improve services to Spanish-surnamed Americans. Steps taken during the year included communications to the States encouraging the employment of indigenous workers, including bilingual aides and staff in order to facilitate services.

One rural project, with the Mississippi Research and Development Center in Greenville, Miss., provides evaluation and training for displaced rural residents from the Mississippi Delta area. The Ford Foundation also is providing funds to the project which involves other State programs and is sponsored by the Mississippi rehabilitation agency. A similar program is being considered in Arizona.

Relationships With Labor

The Rehabilitation Services Administration continued, through the support of institutes and demonstration projects, to inform organized labor of the benefits of rehabilitation services and early return of the disabled to employment.

New Legislative Authorities

Regulations were developed for project grants for services to disabled migratory agricultural workers authorized in the 1967 amendments to the Vocational Rehabilitation Act. Regulations also were drafted for projects to recruit and train handicapped people and others for careers in rehabilitation and other fields of public service; projects with industry to train and employ handicapped people; and a new grant program to provide work evaluation and adjustment services to disadvantaged people.

Research and Demonstration

The rehabilitation research and demonstration program is administered by the Social and Rehabilitation Service. During 1968, 365 research and demonstration projects, totaling $21.3 million, are seeking to discover new knowledge and develop new techniques and patterns of service.

Table 2.—*Number of Referrals and Active Cases, by Agency, Fiscal Year 1968*

Agency [1]	Referrals [2]				Active cases				
	During fiscal year				During fiscal year				
						Closed from active load			
							Not rehabilitated		
	Total	Accepted for services	Not accepted for services [3]	Remaining at end of year [4]	Total active load (receiving services)	Rehabilitated	After rehabilitation plan initiated [5]	Before rehabilitation plan initiated [6]	Remaining at end of year [7]
United States, total	999,792	329,683	327,336	342,773	680,415	207,918	34,551	26,496	411,450
Alabama	21,392	8,143	5,006	8,243	16,702	5,414	554	670	10,064
Alaska	1,189	367	343	479	681	154	38	34	455
Arizona:									
General	6,313	1,843	2,376	2,094	3,725	1,116	184	56	2,369
Blind	348	51	91	206	157	30	6	0	121
Arkansas:									
General	15,623	6,164	4,620	4,839	13,450	4,784	563	187	7,916
Blind	674	257	151	266	539	195	20	7	317
California	90,285	23,010	44,357	22,918	47,175	10,389	5,145	4,328	27,313
Colorado	9,795	3,672	2,888	3,235	7,369	2,527	545	247	4,050
Connecticut:									
General	8,069	3,132	1,747	3,190	7,007	1,970	494	358	4,185
Blind	296	107	46	143	273	90	6	2	175
Delaware:									
General	1,902	1,093	420	389	2,208	779	78	66	1,285
Blind	53	38	12	3	100	33	7	4	56
District of Columbia	5,451	3,268	1,568	615	6,260	2,137	548	475	3,100
Florida:									
General	59,543	14,013	20,699	24,831	30,311	8,929	2,170	1,402	17,810
Blind	3,613	446	1,245	1,922	1,437	332	73	37	995
Georgia	35,584	12,570	11,415	11,599	25,914	9,001	1,479	562	14,872
Guam	560	96	135	329	202	*70	7	0	125
Hawaii	2,951	1,196	852	903	2,752	565	238	82	1,867
Idaho:									
General	1,683	730	340	613	1,888	595	59	10	1,224
Blind	64	13	10	41	43	3	0	0	40
Illinois	39,671	15,959	11,531	12,181	26,743	11,563	523	534	14,123
Indiana:									
General	9,046	3,885	2,715	2,446	9,498	2,343	149	241	6,765
Blind	404	89	92	223	219	68	6	3	142
owa:									
General	14,825	5,553	3,908	5,364	11,708	3,049	402	571	7,686
Blind	409	164	64	181	435	90	11	10	324
Kansas:									
General	4,309	2,078	1,272	959	3,923	1,262	288	275	2,098
Blind	446	112	145	189	304	101	14	23	166
Kentucky	19,952	8,372	7,716	3,864	14,196	6,184	585	318	7,109
Louisiana:									
General	12,629	5,924	2,260	4,445	14,147	3,091	408	589	10,059
Blind	717	213	89	415	867	130	16	6	715
Maine:									
General	3,081	740	1,113	1,228	1,530	446	84	69	931
Blind	487	189	129	169	426	91	20	7	308
Maryland	22,803	9,659	5,949	7,195	16,267	5,984	720	616	8,947
Massachusetts:									
General	13,788	4,552	3,897	5,339	10,833	3,292	389	764	6,388
Blind	611	262	152	197	692	133	37	20	502
Michigan:									
General	26,709	8,924	8,545	9,240	20,333	6,186	1,189	503	12,455
Blind	1,122	284	271	567	742	195	19	27	501
Minnesota:									
General	18, 24	5,164	5,492	7,768	10,929	2,947	341	229	7,412
Blind	1,793	332	704	757	971	238	44	48	641
Mississippi:									
General	15,776	4,408	6,239	5,129	7,971	2,602	238	136	4,995
Blind	2,190	519	1,042	629	1,256	380	53	36	787
Missouri:									
General	23,308	8,177	7,357	7,774	13,910	5,126	649	104	8,031
Blind	1,015	329	324	362	696	238	16	8	434
Montana:									
General	3,146	1,017	1,217	912	2,799	659	69	100	1,971
Blind	371	86	119	166	181	40	6	3	132
Nebraska:									
General	4,491	2,232	1,238	1,021	4,947	1,265	163	135	3,384
Blind	554	180	242	132	487	143	24	14	306
Nevada:									
General	2,119	543	833	743	981	302	110	28	541
Blind	226	33	83	110	88	14	2	5	67

See footnotes at end of table.

Table 2—Continued

Agency [1]	Referrals [2]				Active cases				
	During fiscal year				During fiscal year				
						Closed from active load			
							Not rehabilitated		
	Total	Accepted for services	Not accepted for services [3]	Remaining at end of year [4]	Total active load (receiving services)	Rehabilitated	After rehabilitation plan initiated [5]	Before rehabilitation plan initiated [6]	Remaining at end of year [7]
New Hampshire:									
General	1,979	486	434	1,059	1,016	269	45	45	657
Blind	187	72	22	93	246	55	6	3	182
New Jersey:									
General	31,902	9,772	11,132	10,998	17,229	6,529	657	881	9,162
Blind	1,435	407	293	735	852	236	21	24	571
New Mexico:									
General	2,938	890	1,227	821	1,700	583	101	58	958
Blind	237	66	91	80	157	34	9	2	112
New York:									
General	42,163	15,402	11,416	15,345	35,621	8,787	1,534	1,876	23,424
Blind	3,710	850	690	2,170	2,207	554	47	50	1,556
North Carolina:									
General	31,324	8,902	10,614	11,808	18,499	8,021	665	361	9,452
Blind	2,462	1,009	788	665	2,015	605	21	33	1,356
North Dakota	4,296	850	776	2,670	2,193	400	33	34	1,726
Ohio:									
General	32,197	8,723	13,723	9,751	16,517	5,616	867	760	9,274
Blind	2,112	440	677	995	1,194	327	38	35	794
Oklahoma	15,896	7,240	3,075	5,581	17,641	3,815	527	326	12,973
Oregon:									
General	9,342	2,882	3,555	2,905	6,035	1,351	585	377	3,722
Blind	405	110	100	195	264	62	11	4	187
Pennsylvania:									
General	69,447	23,507	26,071	19,869	50,195	14,091	4,367	2,431	29,306
Blind	6,515	1,259	1,744	3,512	2,574	865	62	86	1,561
Puerto Rico	15,727	3,852	1,677	10,198	11,135	2,390	160	281	8,304
Rhode Island:									
General	6,213	2,422	1,839	1,952	6,490	1,879	384	142	4,085
Blind	348	238	41	69	311	87	5	6	213
South Carolina:									
General	30,604	8,730	9,716	12,158	18,856	6,559	741	591	10,965
Blind	672	196	100	376	370	113	27	15	215
South Dakota:									
General	2,934	891	596	1,447	2,021	497	48	8	1,468
Blind	682	93	245	344	246	59	8	7	172
Tennessee:									
General	19,450	6,758	5,651	7,041	14,037	4,362	573	453	8,649
Blind	1,211	433	310	468	905	364	14	13	514
Texas:									
General	44,972	15,864	14,167	14,941	30,228	8,357	1,681	1,136	19,054
Blind	4,290	1,741	1,031	1,518	3,126	1,201	58	68	1,799
Utah	4,759	2,322	1,192	1,245	5,053	1,204	187	75	3,587
Vermont:									
General	2,283	593	959	731	1,239	296	108	67	768
Blind	101	37	25	39	76	17	7	0	52
Virginia:									
General	26,122	9,843	8,636	7,643	16,607	6,542	669	409	9,077
Blind	1,508	523	458	527	967	336	31	19	581
Virgin Islands	418	74	83	261	257	57	1	6	193
Washington:									
General	16,828	3,758	4,765	8,305	6,827	1,619	406	244	4,558
Blind	628	232	188	208	536	143	18	17	358
West Virginia	22,423	6,348	7,284	8,791	15,725	4,791	606	1,412	8,916
Wisconsin:									
General	26,494	10,972	7,564	7,958	21,355	7,219	316	172	13,648
Blind	1,010	111	511	388	318	70	5	3	240
Wyoming	1,758	597	811	350	1,303	371	113	17	802

*Partially estimated.

[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] Includes a number of extended evaluation cases.

[3] 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.

[4] Eligibility for rehabilitation not yet determined.

[5] Closed after rehabilitation plan was initiated; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

[6] Closed prior to initiation of rehabilitation plan because of indifference of individual, increase in degree of disability, loss of contact, etc.

[7] In process of rehabilitation on June 30, 1968.

Table 3.—*Federal Grants and State Matching Funds in 1968 Under Sections 2, 3, and 4(a)(2)(A) of the Vocational Rehabilitation Act and Social Security Trust Funds*

State or territory	Section 2		Section 3		Social security trust funds [3]	Section 4(a)(2)(A)		Total	
	Federal grants	Matching State funds	Federal grants	Matching State funds		Federal grants	Matching State funds	Federal grants	Matching State funds
Total	$286,861,083	[1] $96,378,306	$2,100,739	[2] $252,806	$16,000,000	$7,534,877	$1,245,659	$312,496,699	$97,876,771
Alabama	9,555,000	3,184,997	45,211	5,023	410,000	207,257	23,028	10,217,468	3,213,048
Alaska	356,955	[1] 126,474			25,000	167,783	55,326	549,738	181,800
Arizona	2,854,327	951,441	25,000	2,778	233,500	32,877	3,653	3,145,704	957,872
Arkansas	6,553,142	2,184,378	26,892	2,988	196,900	20,357	6,461	6,797,291	2,193,827
California	21,791,217	7,263,732	260,222	28,914	1,779,100	521,213	57,991	24,351,752	7,350,557
Colorado	3,747,849	1,249,282	27,193	3,021	236,176	200,148	33,529	4,211,366	1,285,832
Connecticut	2,674,958	891,652	39,431	4,381	95,978	86,673	72,681	2,897,040	968,714
Delaware	592,356	[1] 248,419	25,000	2,778	15,430	15,000	12,657	647,786	263,854
District of Columbia	690,542	[1] 538,688	12,375	1,375	20,000	251,014	13,956	973,931	554,019
Florida	10,491,545	3,497,178	81,721	9,080	619,500	78,892	15,342	11,271,658	3,521,600
Georgia	12,531,875	4,177,287	51,670	17,223	550,000	226,686	25,988	13,360,231	4,220,498
Guam	279,592	93,197						279,592	93,197
Hawaii	1,118,292	372,764			15,000	53,892	5,988	1,187,184	378,752
Idaho	679,800	226,600	25,000	2,778	20,000			724,800	229,378
Illinois	12,500,000	4,166,663			451,900	436,173	62,550	13,388,073	4,229,213
Indiana	2,645,493	881,830	22,042	2,449	111,300	132,384	14,708	2,911,219	898,987
Iowa	4,266,300	1,422,099	37,786	4,198	314,200	108,057	13,254	4,726,343	1,439,551
Kansas	1,544,973	514,990	30,329	3,370	114,936	68,683	15,253	1,758,921	533,613
Kentucky	4,325,000	1,441,665	43,782	4,865	185,000	58,922	6,928	4,612,704	1,453,458
Louisiana	6,099,340	2,033,111			178,500	171,672	17,976	6,449,512	2,051,087
Maine	787,170	262,390	22,500	2,500	47,859	12,334	1,370	869,863	266,260
Maryland	5,711,428	1,903,807	49,699	5,522	358,861	144,832	26,443	6,264,820	1,935,772
Massachusetts	5,432,412	1,810,802	37,049	4,117	43,704	140,415	20,226	5,653,580	1,835,145
Michigan	8,899,720	2,966,570	85,677	9,520	584,224	231,567	25,730	9,801,188	3,001,820

Minnesota	6,399,467	2,133,154	32,221	3,580	275,000	147,112	16,346	6,853,800	2,153,080
Mississippi	4,485,896	1,495,297	21,600	2,400	490,000	305,750	33,972	5,303,246	1,531,669
Missouri	6,683,578	2,227,857	36,540	4,060	320,000	155,054	19,072	7,195,172	2,250,989
Montana	938,363	312,787	22,500	2,500	107,600	44,546	4,960	1,113,009	320,247
Nebraska	1,966,600	655,533	24,999	2,778	80,400	47,663	5,296	2,119,662	663,607
Nevada	480,551	[1] 169,881	25,000	2,778	117,000	225,920	25,103	848,471	197,762
New Hampshire	519,335	173,111	----------	----------	40,427	35,360	4,150	595,122	177,261
New Jersey	7,092,352	2,364,115	48,383	5,376	340,000	238,602	26,512	7,719,337	2,396,003
New Mexico	912,576	304,192	15,930	1,770	75,000	20,524	2,281	1,024,030	308,243
New York	19,338,972	[1] 6,827,698	210,767	23,419	1,444,563	293,281	82,721	21,287,583	6,933,838
North Carolina	9,963,518	3,321,169	68,776	7,642	522,715	122,971	16,342	10,677,980	3,345,153
North Dakota	930,000	310,000	----------	----------	125,000	43,000	5,624	1,098,000	315,624
Ohio	8,811,641	2,937,211	7,162	796	987,072	434,462	101,256	10,240,337	3,039,263
Oklahoma	5,405,929	1,801,975	9,990	1,110	269,100	139,239	15,471	5,824,258	1,818,556
Oregon	2,975,682	991,893	26,892	2,988	255,600	146,866	57,963	3,405,040	1,052,844
Pennsylvania	20,799,680	6,933,220	149,687	16,632	974,562	411,413	123,772	22,335,342	7,073,624
Puerto Rico	3,100,000	1,033,332	----------	----------	10,000	20,000	2,222	3,130,000	1,035,554
Rhode Island	1,626,845	542,281	15,000	1,667	52,474	26,719	2,969	1,721,038	546,917
South Carolina	8,022,973	2,674,322	35,571	11,857	371,600	53,365	5,930	8,483,509	2,692,109
South Dakota	1,008,960	336,320	25,000	2,778	104,264	17,550	1,950	1,155,774	341,048
Tennessee	5,379,300	1,793,098	45,428	5,048	212,900	86,055	9,561	5,723,683	1,807,707
Texas	14,566,459	4,855,481	147,896	16,433	931,500	324,634	38,717	15,970,489	4,910,631
Utah	2,220,000	739,999	----------	----------	50,100	----------	----------	2,270,100	739,999
Vermont	962,748	320,916	9,378	1,042	54,671	----------	----------	1,026,797	321,958
Virginia	7,072,975	2,357,656	55,458	6,162	350,984	438,263	48,695	7,917,680	2,412,513
Virgin Islands	100,000	33,333	----------	----------	----------	----------	----------	100,000	33,333
Washington	4,573,255	1,524,417	40,991	4,555	386,400	144,225	23,128	5,144,871	1,552,100
West Virginia	5,453,973	1,817,989	----------	----------	315,000	60,000	6,666	5,828,973	1,824,655
Wisconsin	8,270,169	2,756,720	51,991	5,777	100,000	170,472	21,606	8,592,632	2,784,103
Wyoming	670,000	223,333	25,000	2,778	29,000	15,000	12,416	739,000	238,527

[1] Adjusted to reflect the 1965 level of expenditures of State funds.
[2] Matching ratio 90-10 for all States, except for two projects at 75-25 ratio.
[3] 100 percent funding.

Table 4.—*Federal Grants and State Matching Funds in 1968 Under Sections 2 and 3 of the Vocational Rehabilitation Act and Social Security Trust Funds for the State Agencies for the Blind* [1]

State or territory	Section 2		Section 3		Social security trust funds [2]	Total [4]	
	Federal grants	Matching State funds	Federal grants	Matching State funds	Federal grants	Federal grants	Matching State funds
Total	$20,552,727	[3] $6,909,065	$264,756	$29,415	$1,630,209	$22,447,692	$6,938,480
Arizona	236,737	78,904	----	----	8,500	245,237	78,904
Arkansas	553,142	184,362	----	----	50,088	603,230	184,362
Connecticut	258,958	86,311	9,144	1,016	10,978	279,080	87,327
Delaware	118,471	[3] 49,675	----	----	6,000	124,471	49,675
Florida	1,203,210	401,030	16,904	1,878	53,900	1,274,014	402,908
Idaho	37,986	12,661	----	----	----	37,986	12,661
Indiana	121,190	40,393	----	----	34,100	155,290	40,393
Iowa	576,766	192,236	----	----	44,200	620,966	192,236
Kansas	239,820	79,932	12,037	1,337	20,000	271,857	81,269
Louisiana	431,206	143,721	----	----	40,000	471,206	143,721
Maine	293,377	97,783	----	----	12,000	305,377	97,783
Massachusetts	750,360	250,095	----	----	7,704	758,064	250,095
Michigan	611,609	203,849	9,000	1,000	100,000	720,609	204,849
Minnesota	699,467	233,132	10,350	1,150	70,000	779,817	234,282
Mississippi	909,561	303,157	----	----	61,026	970,587	303,157
Missouri	566,000	188,648	----	----	20,000	586,000	188,648
Montana	113,363	37,784	----	----	20,000	133,363	37,784
Nebraska	240,000	79,992	9,999	1,111	10,000	259,999	81,103
Nevada	96,110	[3] 33,975	----	----	17,000	113,110	33,975
New Hampshire	69,335	23,109	----	----	12,427	81,762	23,109
New Jersey	950,000	316,635	19,921	2,213	90,000	1,059,921	318,848
New Mexico	136,774	45,587	15,930	1,770	13,051	165,755	47,357
New York	2,371,000	[3] 836,963	----	----	130,763	2,501,763	836,963
North Carolina	1,363,518	454,461	47,447	5,271	113,000	1,523,965	459,732
Ohio	1,173,065	390,983	7,162	796	35,000	1,215,227	391,779
Oregon	254,868	84,948	----	----	21,000	275,868	84,948
Pennsylvania	1,600,000	533,280	79,213	8,801	181,200	1,860,413	542,081
Rhode Island	197,065	65,682	----	----	18,500	215,565	65,682
South Carolina	400,000	133,320	7,755	862	6,000	413,755	134,182
South Dakota	191,337	63,773	10,516	1,168	63,300	265,153	64,941
Tennessee	738,842	246,256	----	----	25,300	764,142	246,256
Texas	1,565,900	521,914	----	----	231,500	1,797,400	521,914
Vermont	91,125	30,372	9,378	1,042	13,672	114,175	31,414
Virginia	653,171	217,702	----	----	70,000	723,171	217,702
Washington	523,255	174,401	----	----	20,000	543,255	174,401
Wisconsin	216,139	72,039	----	----	----	216,139	72,039

[1] Funds shown are included in table 3.
[2] 100 percent funding.
[3] Adjusted to reflect the 1965 level of expenditures of State funds.
[4] Total project grants by States under section 4(a)(2)(A), which are made to VR and other public and private nonprofit organizations are shown in table 3.

Public Health Service

With the announcement of the reorganization of the Department's health activities on March 13, 1968, the Assistant Secretary for Health and Scientific Affairs was given direct authority over the Public Health Service and the Food and Drug Administration, and overall health policy direction and coordination of other health programs, including Medicare, Medicaid, and the health activities of the Children's Bureau. Under the new organization, the ASHSA oversees more than 45,000 employees and $10.9 billion in annual expenditures for the operating health agencies in HEW.

The Surgeon General of the Public Health Service, as the senior career health official, serves as the principal deputy to the Assistant Secretary, assuming expanded responsibilities for departmentwide leadership and guidance in health policies and programs.

The total funds available to the Public Health Service in fiscal year 1968 amounted to $3.4 billion. Appropriations and authorizations accounted for about $2.8 billion of this amount. The balance was made up of repayments from other agencies and of unobligated balances from previous years.

Almost half of the total available funds were obligated in the form of grants and research contracts to State and local agencies, private institutions, universities, hospitals, and individuals outside the Federal Government. The remainder of the funds was used to support the direct responsibilities of the Service, such as hospital and medical care for legally designated beneficiaries, foreign and interstate quarantine, and Indian health services.

The newly expanded PHS consists of three operating health components:

The Health Services and Mental Health Administration focuses on the quality, distribution, and accessibility of health services. Its nine operating components consist of the National Institute of Mental Health; the Community Health Service, combining the Office of Comprehensive Health Planning with components of the Division of Medical Care Administration; the Regional Medical Programs Service, including elements of the National Center for Chronic Diseases; the National Center for Health Services Research and Development; the

National Communicable Disease Center; the Health Facilities Planning and Construction Service, formerly the Division of Hospital and Medical Facilities; the National Center for Health Statistics; the Indian Health Service; and the Federal Health Programs Service, including the former Division of Direct Health Services, the Division of Federal Employee Health and the former Division of Health Mobilization. The Federal Health Programs Service also is responsible for providing administrative and professional support for the medical programs of the Bureau of Prisons, the U.S. Coast Guard, and the Bureau of Employees' Compensation.

The Consumer Protection and Environmental Health Service, composed of three constituent agencies, the Food and Drug Administration, the National Air Pollution Control Administration, and the Environmental Control Administration, consolidates all departmental activities concerned with the safety of food and drugs, pollution control, and related environmental health programs.

The National Institutes of Health, composed of the former NIH, the Bureau of Health Manpower, and the National Library of Medicine, unites modern biomedical science with health professions education.

Health Services and Mental Health Administration

The mission of the Health Services and Mental Health Administration, established April 1, 1968, is to provide leadership and direction to programs and activities designed to improve health services for the people of the United States. It administers programs that focus on comprehensive health planning, on the organization and delivery of health services, on the prevention and control of disease, on construction of hospitals and related health facilities, and on research, training, and services in the field of mental health.

The Health Services and Mental Health Administration includes the partnership for health program, the National Institute of Mental Health, the regional medical programs, the National Center for Health Statistics, the former Bureau of Health Services, and many programs of the former Bureau of Disease Prevention and Environmental Control. One of its major components is the new National Center for Health Services Research and Development, established May 1, 1968.

Comprehensive Health Planning

Significant progress was made in translating into action the intent of Public Law 89–749, the Comprehensive Health Planning and Public Health Services Amendments of 1966.

The Partnership for Health provides formula grants to States for comprehensive health planning; project grants for comprehensive areawide—or local comprehensive—health planning; project grants for training, studies, and demonstrations in comprehensive health planning; formula grants to State health and mental health authorities for health services; and project grants for health services development.

The 1968 fiscal year was a period of "tooling up" for the States as they initiated or continued their organizational activities aimed at conducting Statewide comprehensive health planning. With the approval of 36 State plans between January 1 and June 30, all the

States, the District of Columbia, and four territories were actively participating in the program. Federal formula grant funds totaling $3.5 million were awarded to the States. Thirty-four States appointed councils to advise their State comprehensive health planning agencies, bringing the total of advisory councils to 48.

The first grants to support areawide comprehensive health planning projects were awarded. Fifty-six public and private nonprofit agencies received $3.0 million to organize, develop, or conduct areawide comprehensive health planning activities.

Twenty-three grants totaling $1.7 million were awarded for curricula development to provide postgraduate education for 81 trainees to become professional health planners; to provide continuing education for 827 persons involved in or preparing to become involved in comprehensive health planning; and to train 274 persons to participate in comprehensive health planning as consumers of health services.

Formula grants amounting to $59.6 million were made to the States to support programs of public health and mental health services. Public Law 89–749 removed the former categorical restrictions which had limited the kinds of health problems that could be attacked. The States are now developing health programs based on the priorities which they determine—such as smoking and health, family planning, and comprehensive health services.

Grants for health services development totaling $61.9 million were awarded to support 943 projects. Included in this amount was $6.7 million awarded to 18 projects designed to provide programs of comprehensive health services for disadvantaged residents of urban ghettos.

Medical Care Administration

A community health services and systems activity was established to develop new and improved methods of providing comprehensive health services at the community level, particularly in poverty areas. A cooperative contract was made with the Trans Century Corp., Washington, D.C., to determine what methods of communications are successful (and unsuccessful) in reaching poverty groups. The ultimate goal is to organize these groups to develop health care programs that will be eligible for Public Health Service and other Federal assistance.

A group practice program was begun to provide technical assistance and consultation to physician and consumer groups interested in developing group medical practices. During the year, $385,815 was expended in contract funds in this area, and direct consultation was provided to more than 250 interested parties. As a means of promoting

comprehensive health care in the inner city, the Service worked closely with the National Medical Association Foundation, a largely Negro organization of physicians dedicated to health care for the underprivileged. It also sponsored the National Conference on Group Practice, the third in a series of conferences called by former Secretary John W. Gardner to find ways to improve the delivery of health services and to counter the rising cost of medical care.

The Migrant Health Activity was expanded to include support for 115 migrant health projects in 36 States and Puerto Rico. Grants totaling $7.2 million were awarded to the projects to provide health services to an estimated 310,000 migrant agricultural workers. Services include remedial care, immunizations, family-planning services, nutrition counseling, prenatal and postnatal care and child health services, health education, payment for hospitalization, and referral for follow-up services.

At the request of the Senate Finance Committee, three studies related to Medicare were conducted: (1) possible Medicare coverage for services of additional independent licensed health service personnel including clinical psychologists, social workers, optometrists, speech pathologists and audiologists, chiropractors, and physical, occupational, and corrective therapists; (2) exploration of additional means of evaluating the proficiency of such health personnel as physical and corrective therapists, independent laboratory personnel, medical librarians, and licensed practical nurses (which now is done mostly on the basis of formal education and training); and (3) possible Medicare coverage of costs of comprehensive health-screening and other preventive services, as well as informational or educational programs designed to reduce illness among beneficiaries.

The Division completed standards for new benefits provided under the 1967 Social Security Amendments affecting Medicare. These included standards for portable X-ray services, podiatry services, and outpatient physical therapy services.

A program was begun to improve care of nursing home patients through more comprehensive surveys by State agency personnel to achieve conformity with State standards and the requirements of Federal programs such as Medicare and Medicaid. Survey personnel from 50 States attended a PHS-sponsored Conference of State Nursing Home Licensure Personnel which established national committees on training, uniform survey forms and guidelines, and model nursing home regulations. The conference was followed by regional meetings in several areas.

The Division conducted a national conference of representatives of home health agencies, fiscal intermediaries, State and local health

328-184—69——18

departments, and Social Security Administration staff to discuss the impact of Medicare on home health agencies. It also promoted curricula modification in professional schools to better equip health professionals to recognize and use home health services in their communities as an integral part of comprehensive patient care.

Production was begun on three major films. One depicts the plight of migrant agricultural workers and demonstrates how communities can alleviate many of the migrants' health problems. Another portrays the group practice of medicine in action. The third shows health conditions in the inner city.

National Center for Health Services Research and Development

The National Center for Health Services Research and Development was established on May 1, 1968, to provide coordination and leadership for all research and development activities throughout the Nation aimed at improving the quality and delivery of health services. It conducts and supports research, development, demonstration, and training projects concerned with the organization, distribution, utilization, quality, and financing of health services and health care facilities. Emphasis is placed on improving health care for the disadvantaged and on exploring ways of curbing the rapidly rising costs of medical care.

The programs of the Center are organized under the following categories: Health Care Institutions, Health Care Organization and Delivery, Health Economics Analysis, Health Care Technology, Health Manpower Utilization, Social Analysis and Evaluation, and Health Care Data Systems.

Studies in health economics are supported by contracts with universities, hospitals, and voluntary health agencies. Eighteen projects are examining such areas as the utilization of health care facilities other than hospitals, the economic organization of nursing homes, the financing of health care, economic barriers to the procurement of health care by the underprivileged, and the costs of prescription drugs. The Health Economics Studies Information Exchange was set up to provide information on all current projects in the United States and is being expanded to include research in other countries.

Twenty-four contracts are supporting studies dealing with the technological problems of automated intensive care units, automated clinical chemistry laboratories, self-screening devices, bacteria-free environments, automated cell identification machines, and flexible fiber-optic endoscopes.

The Medical Systems Development Laboratory, which has developed and widely demonstrated total systems for computer analysis of medical signals and tests, analyzed electrocardiograms transmitted across the Pacific Ocean by satellite and also announced that its computer system has continuously read astronauts' electrocardiograms recorded for experimental purposes during Gemini flights 7 through 12. These monitoring techniques are being clinically tested in an operating room and a coronary care unit. The research and development aspects of automated multiphasic health screening are being investigated in three cities under contracts with the Milwaukee Health Department, the Brookdale Hospital Center, Brooklyn, N.Y., and the Tulane University School of Medicine, New Orleans.

In the field of social analysis, the Center staff is carrying on research in the methods of conducting and evaluating short-term training, attitudes that affect health behavior, techniques for communicating with the disadvantaged, physicians' attitudes toward preventive medicine and automated multiphasic screening, studies of methods of resolving provider-consumer group conflicts, and social factors affecting consumer participation in health programs.

National Institute of Mental Health

The National Institute of Mental Health made significant progress in all its programs "to promote the mental health of the people of the United States." The community mental health centers program continued to be the vehicle by which dramatic changes were taking place in the delivery of mental health services and in the development of new attitudes toward mental health problems.

By June 30, 1968, a total of 331 community mental health centers had received construction or staffing grants, or both, from NIMH. This represented two-thirds of the 1970 goal of 500 centers. It became increasingly apparent that the Institute was achieving one of its major goals: that of modernizing the Nation's outdated system for delivery of mental health services.

For the 13th consecutive year, the number of resident patients in the public mental hospitals in the United States declined. At the beginning of the year there were some 133,000 fewer patients in the large State and county hospitals than there were in 1955. The Institute expects that by 1973 the resident population will be less than 186,000—or about one-third of the number of patients in 1955.

The impact of the national mental health program is felt throughout the country, with 33 States having community mental health services acts which provide State aid for local services. In 1968, Philadel-

phia became the first major U.S. city to make community mental health services available to most of its population.

Several centers have taken the lead in developing training programs for nonprofessionals, sometimes in cooperation with junior colleges or other local institutions. The new centers are developing into local units for research, training, and evaluation of mental health services. Some have suicide prevention facilities or special programs for alcoholics and addicts. The new centers are already serving as models for the development of total preventive health care in the community.

1968 was the first full year that NIMH had responsibility for the operation of Saint Elizabeths Hospital in Washington, D.C. The Institute plans to demonstrate at Saint Elizabeths how large mental hospitals can become community-oriented treatment facilities assuming a key role in the national mental health program. Also, in 1968, more than $10 million in hospital improvement grants went to 141 State mental hospitals in 47 States. An estimated 20,000 patients have benefited from improved services made possible by the hospital improvement program now in its fifth year.

Improved treatment and prevention programs are only one part of the progress being made. The Institute intensified and expanded research efforts and began new training programs to increase the Nation's mental health manpower.

RESEARCH FINDINGS

Today, the Institute devotes nearly one-third of its budget to research, both basic and applied. Intramural research is conducted at the Clinical Center and other facilities of the National Institutes of Health, and extramural research is supported by NIMH at many universities, hospitals, and private laboratories.

In the biological sciences, researchers progressed in defining the mechanisms in the body, errors of metabolism or chemical imbalances, which either trigger or perpetuate pathological behavior in man. NIMH scientists are clarifying the mechanisms whereby the body utilizes catecholamines—the brain and body substances which play important roles in psychiatric illness and in the patient's response to drugs.

Methods were developed to measure phenothiazine metabolism in urine and in blood, opening doors to an understanding of why some patients react differently, or develop side effects to drugs.

The role of epinephrine and norepinephrine in stress and other emotional states was also further explained at NIMH. Researchers have noted a relationship between circadian rhythms—the biological clock—and the amounts of these substances in the body. Other research has

shown that circadian rhythm affects learning in animals and that the times of the day medication is administered may alter its effectiveness.

NEW CLUES IN SCHIZOPHRENIA

The Center for Studies of Schizophrenia coordinates research constituting more than one-fourth of the NIMH research program. Through studies of identical twins, conducted at NIMH laboratories, scientists found a common pattern of development in the preschizophrenic person which eventually may serve as a guide to the prevention of illness. Extensive biological and psychological tests, along with reports from family members, school, and other records, document the ways that the twins differed from birth.

In addition, comparisons of the twins as adults produced evidence of subtle neurological irregularities in the schizophrenia-prone twins. The schizophrenic twins were found as adults to have low protein-bound-iodine levels and neurological "soft signs." With physiological and psychological clues provided by these findings, the scientists hope that they will eventually be able to identify the preschizophrenic in time to prevent his illness.

Increased activity of creatine phosphokinase (CPK) and aldolase has been observed in the serum of acute schizophrenics by researchers in NIMH laboratories. These increases suggest that pathological changes occur in the brains of persons with functional psychoses.

Researchers in the Adult Psychiatry Branch, Division of Clinical, Behavioral, and Biological Research, at NIMH further refined their psychological test measures to identify communication patterns in the parents of schizophrenic children that are quite different from those of parents of neurotic and normal children.

Research to pinpoint genetic factors in schizophrenia yielded two major findings in 1968. Studies of adopted twins produced evidence that biological factors—almost certainly genetic—play a role in the cause of schizophrenia. In addition, a study of 338 sets of twins showed a possible genetic link. Both identical twins of a set were schizophrenic three times more often than were fraternal twins.

The twins studies, however, showed that the environment of identical and fraternal twins is different and that the higher rate of schizophrenia may be due partly to nongenetic influences. Environmental factors found in identical twins but not in fraternal twins include a common placental circulation and the psychological consequences of having a look-alike sibling.

The intramural laboratories of NIMH are studying another large sample of twins to determine more specifically those characteristics that might be passed on genetically to cause schizophrenia.

ADDICTION RESEARCH

Two important discoveries originated from the Addiction Research Center in Lexington, Ky.

First, scientists identified two distinct phases of physiological changes in the body which may alter behavior following morphine addiction. A prolonged withdrawal period, long suspected but only recently confirmed, may partially explain the phenomenon of relapse.

The new findings show that after about 9 weeks of abstinence from morphine patients have lower than normal blood pressure, pulse rate, and low body temperature, which is the opposite of early effects of withdrawal. These symptoms, as well as a marked decrease in the respiratory center's sensitivity to carbon dioxide, last up to 30 weeks.

Other important research at the Addiction Research Center leads scientists to believe that it is entirely feasible to develop a potent narcotic antagonist that could block the effects of heroin for over a week. Drugs such as cyclazocine and naloxone could be utilized in this way.

Researchers at the Addiction Research Center released findings that the narcotic drug methadone (widely publicized as a narcotic substitute useful in treating addicts) has serious abuse potential. No evidence was found to support the theory that nonmedical use of methadone decreases drug-seeking or antisocial behavior. During fiscal years 1962–66, 214 patients at the Lexington, Ky., and Fort Worth, Tex., Clinical Research Centers had a first drug diagnosis of methadone addiction. There was no evidence that these patients were more responsive to rehabilitation, and more than four out of five methadone addicts left treatment against medical advice.

The research experience with cyclazocine and naloxone, as well as other antagonists, indicates that essential characteristics of an effective antagonist are now isolated and may be combined in a more useful agent for treatment.

DEVELOPMENTS IN DRUGS

Major efforts centered on the efficacy of lithium carbonate in the treatment of manic-depressive psychoses. The Food and Drug Administration cleared the way in 1968 for drug companies to begin assembling the portfolio necessary to perfect and market the drug. Meanwhile, NIMH supported and conducted research to determine the mechanism of the drug and to test it further in treatment.

Results were reported in the third year of the 4-year NIMH tranquilizer and antidepressant study. The project involves more than $2.5 million in studies at 10 mental hospitals, and one of the largest samplings ever made of depressed patients. High doses of chlorpromazine, a tranquilizer, were shown to have antidepressant effects in 135

depressed patients. Following this, 555 patients received 600–800 mg. chlorpromazine daily, 300–400 mg. imipramine (antidepressant) or placebo over 7 weeks. Results show that imipramine was superior, and chlorpromazine was somewhat effective in relieving depression. Imipramine was particularly beneficial for nonschizophrenic psychotic depression.

COST CUTTING

In applied research, the techniques of systems analysis are being used to gauge the relative cost-effectiveness of various methods of delivering mental health services. One experiment, dealing with a variety of community treatment approaches for delinquents, revealed that rehabilitation in the community is twice as effective, at one-half the cost, as traditional hospital treatment programs.

A hospital study showed that when psychiatric aides are given appropriate responsibility for carrying out treatment in a ward of chronic patients, the result is a sharply reduced readmission rate. For the first time, a complete cost analysis for a mental hospital was obtained: one that will serve as a basis for more efficient economic planning of services.

MENTAL HEALTH MANPOWER

In fiscal year 1968, more than 2,000 training grants were awarded totaling nearly $98 million. Some 11,000 students received training assistance under these programs in 1968. More than 34,000 mental health professionals have been trained in NIMH-supported programs since the program was begun 20 years ago.

Training grant policies and stipend levels were changed during the year to help put trainee support on a more uniform basis throughout the Department of Health, Education, and Welfare. This resulted in higher stipends for graduate training for psychiatric residents, and new allowances for dependents and travel for most trainees.

An NIMH-supported demonstration program, to train young people in ghetto areas as mental health aides, has become the basis of a nationwide program to train preprofessionals for public service jobs. More than 5,200 youths, who were either unemployed or living in poverty, have begun training in 22 States in the new careers program of the U.S. Department of Labor. The NIMH demonstration program was conducted at Baker's Dozen, a Washington, D.C., youth center connected with Howard University.

One of the goals of the NIMH training support program is to help provide, by 1972, an additional 31,000 professionals in the key mental health disciplines of psychiatry, psychology, social work, and nursing. Staff development grants are used by hospitals and other institutions for the mentally ill to improve the skills and qualifications of psychiat-

ric aides, technicians, and professional staff. Nearly 60,000 staff members have been helped to translate existing knowledge into more effective service under this program.

NARCOTIC AND DRUG ABUSE

A total of 586 addicts were committed for examination and evaluation under the Narcotic Addict Rehabilitation Act of 1966 (NARA) during its first full year of operation ending June 30, 1968. Of the total, 348 were voluntary commitments.

Under NARA, the Surgeon General of the Public Health Service has responsibility for treating addicts who would otherwise serve prison sentences. The NIMH was designated to administer the program.

Most addicts committed under NARA were treated at the NIMH Clinical Research Centers in Lexington and Fort Worth. Treatment in these centers is followed by supervised aftercare in the community. The first aftercare and rehabilitative services have been established under NIMH contracts in 21 cities.

The Center for Studies of Narcotic and Drug Abuse coordinates a massive attack on this growing national problem. More than 100 research studies are underway, ranging from basic psychopharmacological research, through psychosociological, chemical and biochemical, and applied research projects. The Center's drug abuse education program was intensified in 1968 with the issuance of four new public information fliers designed for teenagers. A new educational thrust, involving teachers' workshops and all mass media, was started.

ALCOHOLISM

Major objectives of the new National Center for Prevention and Control of Alcoholism are the treatment, prevention, and control of alcoholism as an illness. Six university-based research centers for the study of alcoholism problems were established in 1967, and more new programs are underway to train medical students, physicians, behavioral and social scientists, and educators to meet the alcoholic's need for help. A contract was awarded one university to study the legal aspects of alcohol and alcoholism, and a Center scientist published an analysis of the sociocultural aspects of alcoholism.

SUICIDE

A new national attack on the problem of suicide is being coordinated by the Center for Studies of Suicide Prevention. More than 20,000 suicides are reported annually in the United States, and probably many more are not reported. Since its founding in 1967, the Center has established the new profession of suicidology, has started a quarterly "Bulletin of Suicidology," and has stimulated the development of local

suicide-prevention centers. There are now more than 100 such centers in 28 States. In 1968 the Center for Studies of Suicide Prevention held the first National Conference on Suicide Prevention, in Chicago, and plans are being made for the Second National Conference, in New York in 1969.

More than 30 grants were approved by the Center in 1968. These support suicide-prevention centers, followup studies of attempted suicides, evaluations of suicide-prevention programs, studies of suicide in special population groups, general research on the subject, and training for a national cadre of suicidologists.

CHILD MENTAL HEALTH

Since its founding, NIMH has devoted approximately one-fourth of its efforts and resources to the mental health of the young, more than a million and a half of whom are suffering from severe mental disorders and need psychiatric help. The Center for Child and Family Mental Health coordinates NIMH's extensive efforts in this area. These programs are in the Institute's front lines in the battle for prevention, since the physical and emotional experiences of early childhood influence adult mental health. For example, training projects for child care workers are yielding encouraging results which may help culturally deprived children overcome the disadvantages of their environment.

Results from the final battery of tests on the children in the intramural early tutoring project of NIMH confirm that intellectual stimulation during infancy (14–36 months) produces higher IQ scores among children of low socioeconomic status. The tests at 36 months showed a mean IQ of 106 among the 28 experimental children, while the controls' mean IQ was 89. The results suggest that many culturally deprived children can achieve normal IQ's if given adequate early verbal stimulation. Tutoring during the language-learning months can prevent the characteristic drop in IQ that has also been found in other studies of children of low economic status.

EPIDEMIOLOGY

The first of a proposed series of field study stations was opened in Kansas City, Mo., in 1968. Under the direction of the Center for Epidemiologic Studies, the stations will gather mental health information on various population groups, and will study ways of delivering health services appropriate to various locations and groups.

In 1968 the Center for Epidemiologic Studies concentrated on developing the tools and facilities for carrying out epidemiologic research, and on coordinating the work of professionals from various disciplines who are working in epidemiology.

MENTAL HEALTH-RELATED PROBLEMS

The Center for Studies of Crime and Delinquency works with organizations, agencies, and researchers dealing with crime prevention and control. Important activities in 1968 focused on individual violence and on community approaches to rehabilitating delinquents. Through its "Crime and Delinquency Abstracts" the Center also provides a survey of world literature concerned with these problems.

The Center for Studies of Mental Health and Social Problems led the Institute's investigations of other social problems, such as poverty, civil disorders, ethnic group relations, sexual deviancy, migrations, and population growth.

The Center for Studies of Metropolitan and Regional Mental Health is coordinating several research projects in city planning, and is concerned with the relationship of mental health to such aspects of urban life as housing, employment, race relations, and health services.

The National Center for Health Statistics

The National Center for Health Statistics collects, analyzes, and disseminates basic statistical information on the health of the American people and their demographic characteristics. Significant activities this year included:

- Inauguration of the new Applied Statistics Training Institute at the Research Triangle Park, North Carolina, offering short-term practical courses in vital and health statistics and related subjects. Training is given primarily to officials and staffs of State and local health departments and to others working in the health field.
- Publication of volume I of the eighth revision of the *International Classification of Diseases, Adapted* (ICDA). The ICDA classifies diseases by subject. Volume II, listing diseases by a numbering process, is in preparation.
- Initiation of a survey of some 44,000 of the principal practitioners in the field of vision and eye care. The survey includes ophthalmologists, optometrists, and opticians.
- Preparation of a report on the results of a survey of licensed pharmacists. The quality or degree of coverage of the survey is being evaluated by matching the records of pharmacists who were graduated during the past 10 years against the names of pharmacists obtained in the survey.
- Replacement of the 7010 computer system with an IBM system 360 model 50 computer. The new computer provides storage capacity approximately 500 times greater than the old system and

uses a multiprograming operating system which allows more than one program to function simultaneously.

- The NCHS Developmental Laboratory, a new research complex of three buildings, started construction in February 1968 at the Research Triangle Park in North Carolina.
- A new Health Interview Survey questionnaire was developed and used to obtain data on such items as disability days, medical and dental visits, length of hospital stay, and limitation of activity. This information is used to encourage more complete reporting of acute and chronic conditions, emphasizing the resulting need for medical services and the overall impact on the health of the American people.
- The publication of reports of findings from the adult cycle of the Health Examination Survey continued. The Health Examination Survey completed examinations of more than 60 percent of a representative national sample of youths 12–17 years of age. The survey emphasizes factors related to growth and development.
- A color filmstrip was produced to implement the use of the new standard certificate of birth which became effective on January 1, 1968. The film will be shown to hospital clerks and others who work with birth certificates.
- Thirty-eight new reports were published in the *Vital and Health Statistics* series.

HEALTH RECORD

Approximately 96 million persons—50 percent of the Nation's civilian noninstitutional population—have one or more chronic conditions, according to recent estimates by the Health Interview Survey conducted by the National Center for Health Statistics. In addition, about 12 percent of this group is limited in activity because of chronic illness or impairment.

During a year's time Americans suffered an estimated 366 million acute illnesses or injuries requiring medical attention or causing at least 1 day of restricted activity. About 201 million of these were respiratory conditions, including 55 million cases of influenza, and about 54 million were injuries.

Americans experienced on the average an estimated 15.4 days of restricted activity during the year because of acute or chronic conditions, of which 5.6 days were spent in bed. It is estimated that two-thirds of the population consulted a physician during the year, and about 40 percent visited a dentist.

About 1,852,000 deaths occurred in the United States in 1967, accounting for a death rate of 936 per 100,000 population, somewhat

lower than the final rate of 951 for 1966.[1] The infant mortality rate was 22.1 per 1,000 live births, a significant decrease from the rate of 23.7 in 1966.

The maternal mortality rate, based on deaths associated with pregnancy, childbirth, and confinement, was 2.9 deaths per 10,000 live births, the same as in 1966. The rates for 1966 and 1967 were the lowest ever recorded in the United States.

Heart disease, malignant neoplasms (cancer), and vascular lesions affecting the central nervous system (stroke), with respective death rates of 366, 159, and 103 per 100,000 population, together accounted for two-thirds of all deaths. Accidents, with a rate of 55, ranked fourth as a cause of death.

Although rates for these four causes have not changed greatly in the last decade, arteriosclerotic heart disease, including coronary disease, which causes more than three-fourths of all deaths from diseases of the heart, has increased by more than 9 percent during that period and the death rate for malignant neoplasm of the respiratory system has increased by nearly 47 percent. Since 1962, the motor vehicle accident death rate has increased by about 22 percent, while the rate for other accidental deaths has decreased slightly.

A baby born in 1967 could expect to live 70.5 years at the death rates prevailing for specific age groups during that year. Life expectancies by color and sex for 1967 (the latest year for which these figures are available) were as follows: White males, 67.9 years; white females, 75.0 years; nonwhite males, 61.2 years; and nonwhite females, 68.5 years. In recent years, the life expectancy at birth for girls has been increasing at a faster rate than that for boys and at a faster rate for the nonwhite population than for the white population.

BIRTHS, MARRIAGES, AND DIVORCES

In 1967 the annual number of births continued to decline, falling below 4 million for the third consecutive year. There were about 3.5 million live births, giving a general birth rate of 18 per 1,000 population and a fertility rate (number of births per 1,000 women aged 15–44 years) of 88 per 1,000. The fertility rate has been declining since 1957, when it reached a postwar high of 123. The generally downward course of fertility results from changes in the timing of childbirth and in average family size. At the older childbearing ages, fertility rates are now much lower than they were during the 1950's. This is because most

[1] All 1967 vital statistics frequencies and rates are provisional figures covering the calendar year. Data on causes of deaths are estimates based on a 10-percent sample of deaths. The frequencies and rates may change when final figures become available.

of the women who have reached these ages married early, concentrated their childbearing in the younger reproductive years of life, and had relatively large families. Now they are not having any more children.

At the same time women now in the earlier years of the reproductive period are also having lower fertility rates than did women of comparable ages in the 1950's. This is due in part to a tendency for young women to delay childbearing longer than did their counterparts in the 1950's. In addition their lower fertility at the younger ages may eventually be accompanied by a reduction in the number of children ever born by the end of the childbearing period.

A factor tending to offset the declining fertility rate is the large number of young men and women now reaching the ages when most people marry and start families. About 18.6 million children were born in the 5 years 1947–51, as compared to about 15.3 million in 1942–46, greatly increasing the number of young persons who are now entering the childbearing ages. This may offset declining birth rates enough to produce an upturn in the total number of children born each year.

The increasing number of young persons already has had some effect on the number of marriages. In 1967 there were about 1.9 million marriages, giving a marriage rate of 9.7 per 1,000 population, as compared with about 1.8 million marriages in 1966 for a rate of 9.4.

There were an estimated 534,000 divorces and annulments in 1967, as compared with about 494,000 in 1966.

Regional Medical Programs

One of the changes resulting from the reorganization of the Public Health Service in 1968 was the decision of the Health Services and Mental Health Administration to combine the Division of Regional Medical Programs with comparable and related activities of the National Center for Chronic Disease Control under the new inclusive name of Regional Medical Programs Service. As the fiscal year ended, the functions and activities involved, their relationships to one another, and the ways in which activities could best be coordinated for maximum mutual benefits were under study.

The enactment of Public Law 90–574 authorized the extension of Regional Medical Programs through 1970 and provided continued funding. The act also amended Public Law 89–239, which established Regional Medical Programs in October 1965, to include the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific; to broaden the definition of participating agencies; and to increase the membership of the National Advisory Council of Regional Medical Programs. The new law also permits funding of joint activities, allows dentists to refer patients,

and makes possible the inclusion of Federal hospitals in Regional Medical Programs.

By the end of 1968, there were 55 established Regional Medical Programs. The locales or "health market areas" represented by these Programs reflect functional, economic, and demographic factors as well as geography, and together cover the entire population of the Nation. In order to assess the health needs of their Regions, which vary from single metropolitan areas to multistate territories, and to plan practical interrelated projects to meet those needs, each of the Regional Medical Programs has received a planning grant. Funds for this latter purpose totaled nearly $42 million, and operational funds, awarded to 24 of the 55 Regional Medical Programs to put their plans into action, totaled another $38 million.

During 1968 the number of persons serving on the Programs' Advisory Groups was increased, and the community and health activities that they and Regional task forces represent were greatly broadened to include some 7,000 hospital administrators, practicing physicians, medical center and medical school officials, representatives of public and private agencies, and other health workers and members of the public. Each of these groups, established by law, works with the Region's Coordinator to provide not only the policymaking function, but the mechanism for reviewing and approving operational projects relevant to meeting the Region's needs and the Regional Medical Programs' total concept: to improve the quality and increase the availability of diagnosis and care in heart disease, cancer, stroke, and related diseases.

During the past year, the Division's efforts to develop understanding, acceptance, and support of this new concept included the use of its *News, Information and Data* publications to report national events of importance to Regional Medical Programs and all of the growing numbers of people involved with them and interested in their development; a two-volume *Proceedings* of the January 1968 Conference-Workshop on Regional Medical Programs; a revised edition of *Regional Medical Programs Guidelines;* four updated issues of a *Progress Report;* a *Selected Bibliography of Regional Medical Programs;* and other materials widely disseminated among both national and regional audiences.

Chronic Disease Control

The chief concerns of the chronic disease programs are prevention, detection, and treatment of the principal chronic diseases in the United States, and rehabilitation of the patients. Through contracts with State and local health agencies, medical centers, hospitals and

research institutions, and professional and voluntary organizations, the eight major disease programs investigate the epidemiology and etiology of chronic diseases, as well as test, evaluate, and develop economical and effective procedures for the application of new methods of preventing, detecting, and treating them.

In each disease area the primary goal is the rapid implementation of new knowledge in public health protection for the extension and preservation of life.

CANCER CONTROL

Hospital-based projects have given initial cervical cytology examinations to 1.25 million women. Routine repeat examinations numbered 420,581. Cervical cancer was diagnosed in 7,555 women. Of these, 4,708 carcinomas were *in situ*, and 2,847 were invasive. More than 5,000 physicians were involved in the office-detected cervical cancer program in 1968, compared to 4,000 the previous year; 40 State academies of general practice were involved as compared to 36; almost a million women were screened as compared to half that number; and 2,000 carcinomas were detected as compared to 1,059.

To promote early detection of breast cancer, contracts were awarded for a system based on ultrasound and an evaluation of the use of thermography. Over 400 radiologists and technologists were trained in mammography. Pilot studies were underway on the relationship between alcoholism and cancer of the head and neck; on cryosurgery as a technique for treating precancerous oral lesions; and on the DNA-acriflavine binding technique for detecting cancer and other diseases in the oral cavity.

Other new projects concern fluoredensitometry in the early diagnosis of lung cancer, with computerization by Univac; evaluation of liquid crystal as a cancer detection method; electron spin resonance measurement in cells; and a radiation dosage study. Also under development are five flexible, fiber-optic endoscopes to view stomach, throat, larynx, bronchial tubes, and a portion of the colon.

To motivate large masses of people to have regular cancer examinations, six films were in preparation for showing by television stations. Completed films are designed to promote the Pap test; to delineate and clarify "comprehensive patient care" for professional audiences; and to demonstrate examination of the mouth.

CHRONIC RESPIRATORY DISEASE CONTROL

Earlier success in developing techniques of rehabilitating respiratory cripples, and emergency care for acute respiratory failure, led the program to expand its efforts in prevention, detection, and treatment. Six projects for the development of improved methods to train physicians in the detection and treatment of chronic lung diseases

were initiated in 1968, along with six projects to determine the incidence, prevalence and natural history of emphysema and chronic bronchitis.

Because respiratory diseases account for 31 percent of infant deaths in the United States each year, and because cystic fibrosis, asthma, emphysema, and chronic bronchitis annually claim the lives of 3,000 children under 10, the program also established four pediatric pulmonary centers in 1968 for studies in the detection and treatment of childhood respiratory disease.

DIABETES AND ARTHRITIS CONTROL

Four arthritis therapy evaluation projects were begun: the efficacy of early synovectomy; the treatment of arthritis on an outpatient rather than inpatient basis; the utility of the thermograph as an aid to early diagnosis; and the value of gold therapy. Three Governor's conferences were conducted, with State health department officials, practicing physicians, and concerned voluntary organizations in the States participating.

A study was initiated to evaluate the effectiveness of two new portable blood sugar analyzers as screening devices for diabetes. If successful, these devices have the potential to reduce the cost of diabetes screening by at least 50 percent. The Boston field research section continued long-term studies of the epidemiology of diabetes in pregnant women and in two community populations.

HEART DISEASE AND STROKE CONTROL

Four small-hospital coronary care units, designed to provide information on lives saved, staffing patterns, and costs, began operation. Support continued for 12 coronary care nurse training centers, in which more than 1,100 nurses have been trained so far. A stroke intensive care unit was established to clarify the causes of death from stroke, and to develop methods of reducing the occurrence of stroke death and disability. Six communities in different parts of the country are participating in studies of stroke incidence, prevalence, and socioeconomic factors. This information will permit a more definitive appraisal of the stroke problem in the United States.

A pilot study, involving the University of Minnesota, the University of Wisconsin, and Pennsylvania State University, to determine whether persons at high risk of coronary heart disease can be encouraged to exercise on a regular basis over an extended period of time, was partly concluded. The study is the first step in a planned definitive evaluation of the preventive potential of regular exercise in such cases.

Tests continued of a rapid and inexpensive technique to automatically identify group A streptococci—the organisms implicated in

rheumatic fever—that would detect many of the streptococcal infections that now go undiagnosed and often result in heart damage. Development is also underway of a technique for evaluation of the functional status of hearts impaired by heart attacks, cardiac surgery, or trauma; and of a standard test, based upon electric monitoring of heart action, that could be used in nationwide screening programs to detect latent coronary disease.

KIDNEY DISEASE CONTROL

Development of the 12 home artificial kidney training and evaluation centers established in 1967 continued. Designed to determine whether artificial kidney treatment, either self- or family-administered, at home is significantly less expensive than and equally effective as in-hospital hemodialysis, the projects have now produced sufficient cost and medical data to begin evaluation. Currently, 100 dialysis patients are taking part in the study. A program to increase the availability of kidney transplantation was begun with a pilot cost study as the first step in an inventory of national transplantation facilities and capacities, and the identification of factors which impede successful kidney transplantation.

Kidney disease prevention studies were expanded to include the evaluation of five recently developed methods for asymptomatic bacteriuria screening. Four new studies in the etiology of urinary tract infections were also begun. A study of a major nephritis epidemic identified new strains of streptococci associated with the disease, contributing additional correlation of streptococcal infections and acute glomerulonephritis, one of the principal kidney diseases.

A Conference on the Nutritional Aspects of Uremia was held, and the proceedings were published in the *American Journal of Clinical Nutrition* 21: 349–466 and 547–643, 1968. Conferees included experts from the United States, Canada, Italy, and the United Kingdom. Also published was *Approaches to a University Kidney Disease Program*, which deals with a multidisciplinary program in a university hospital.

SMOKING AND HEALTH

The National Clearinghouse for Smoking and Health continued as the central source of information on technical assistance and support programs pertaining to smoking and health. Clearinghouse library and scientific information services were expanded to reach more than 2,000 individuals and agencies involved in smoking and health research. Public information programs continued to use a broadly based newspaper, radio, and television service to reach the public, and to use educational and community-support services to reach strategic health

328-184—69——19

professionals, educators, youth leaders and community service personnel in all parts of the country.

The 40 research and demonstration projects begun in 1967 continued to develop more effective approaches in smoking education and communication. Among these are national survey projects dealing with habits, attitudes, and knowledge with regard to smoking, studies of the dynamics of smoking behavior change, and antismoking programs with such organizations at the National Congress of Parents & Teachers, the American Dental Association, and the National Education Association.

The Clearinghouse also continued support of two comprehensive long-range community program development projects in San Diego, Calif., and Syracuse, N.Y., to test methods by which totally organized community action can reduce cigarette smoking.

NEUROLOGICAL AND SENSORY DISEASE CONTROL

Efforts to find more reliable and more broadly applicable methods for the detection and diagnosis of vision, hearing, speech, and other neurosensory disorders included: the development of devices to monitor sleeping infants in an effort to explore neurological implications of "crib deaths"; the development of a prototype self-calibrating audiometer to overcome the problems of reliability inherent in hearing measurement devices now in use; a study of the feasibility of using sound-wave measurements as a screening tool for early detection of disease of the larynx; documentation of selected speech manifestations of early neurological disease as a possible screening procedure; and evaluation of photography of the back of the eye (fundus) as a method of detecting and diagnosing eye disorders.

The program also began a survey of existing facilities for the care of epileptics.

In a pioneering effort to begin to solve the problem of noise, experts in noise control from this country and other countries were brought together in a National Conference on Noise as a Public Health Hazard. Recommendations by the group are serving as planning guides for approaches to "noise pollution."

NUTRITION

The primary mission of the nutrition program is to identify the magnitude and location of serious malnutrition and hunger in the United States. The development of the National Nutrition Survey was a major activity in 1968. Survey operations were underway in Texas, Louisiana, New York, and Kentucky, and plans were made to begin operations in Michigan. These surveys provide opportunities for

organization and development of applied nutrition programs at the local level, as well as urgently needed data.

The program continued to assist the Agency for International Development with planning and budgeting of a variety of nutrition projects; provided consultants in Bolivia and Tunisia; and prepared assessments of food supply and distribution, nutritional diseases, and existing nutrition programs in Bolivia and Turkey for use in briefing AID personnel. The program also planned and conducted two regional conferences on nutrition, one for the CENTO countries and one for West Africa, to promote understanding of the problem of malnutrition and to stimulate action by participating governments. *A Handbook on Child Nutrition in Developing Countries*, the *Proceedings of the Third Far East Symposium*, and the *West African Conference on Nutrition and Child Feeding* were published.

Work for the Advanced Research Projects Agency, Department of Defense, on delayed body growth and development studies in Iranian children, anemia research for the Far East, and studies on urolithiasis and hemolytic anemias was also completed, and surveys covering all Central American countries are in the final stages. The program published three ARPA-funded studies: *The Third Far East Symposium on Nutrition*, *A Nutrition Survey of the Republic of Uruguay*, and a *Food Composition Table for Use in Africa*.

National Communicable Disease Center

Immunization projects in 48 State and 24 local health departments protected some 5 million children against measles in 1967 and an additional 7 million against diphtheria, whooping cough, tetanus, and polio. Reported cases of measles in 1967 fell to less than one-third of the 1966 number, with a similar decline during early 1968. Continuation of this trend could eliminate measles as a public health problem by 1970.

More than 100 major epidemiologic investigations were undertaken upon request of various States. One of the most unusual involved an unexplained illness in 20 newborn babies, with two deaths, in a midwestern hospital. The cause was found to be a chemical (pentachlorophenol) which was used, contrary to instructions on the label, in laundering diapers. Proscribing its use in the hospital prevented further cases. Widespread publicity was given to the outbreak to preclude similar occurrences elsewhere.

A team of 14 Center physicians and scientists helped the Indonesian Government investigate and control an outbreak of plague in Central Java during the spring of 1968. Ninety cases occurred in 10 villages with a total population of 50,000.

For the third consecutive year, reported cases of primary and secondary syphilis in the United States declined, but reported cases of gonorrhea were up 55,774 to a total of 431,380—almost double the 216,476 cases reported in 1957. Three additional States passed legislation or regulations requiring laboratories to report all reactive tests for syphilis to the health department for followup, bringing the total requiring such reporting to 34 States and the District of Columbia.

Control activities were directed primarily against syphilis, although gonorrhea is commanding great interest because of the growing problem and the high susceptibility of certain segments of the population. Pilot control projects were established in several cities, and research activities were stepped up to develop a serologic test for gonorrhea and more effective therapeutic agents.

A system of surveillance reporting of tuberculosis infection or disease has been developed because of increasing emphasis on chemoprophylaxis as a control measure. Field trials of the system, which reports on everyone for whom tuberculosis drugs are recommended, indicate that more than 1 million persons were treated during the year. A review of the preliminary data shows the need for a national surveillance system.

Under the Clinical Laboratories Improvement Act of 1967, clinical laboratories operating in interstate commerce must be licensed by the Secretary of Health, Education, and Welfare. Licenses will be issued on the basis of acceptable performance in a proficiency testing program, personnel qualifications, and facilities and equipment. To implement the act, the Center has drafted regulations and started its basic staffing.

All 50 States, Guam, Puerto Rico, and the Virgin Islands contributed to the more than 16,000 enrollments in the Center's training courses and seminars, including 2,700 in correspondence courses. In addition, there were 625 enrollments of citizens of 94 other countries. The Center also conducted 76 community demonstration projects in 23 States and Puerto Rico and furnished consultative and training services for a workshop offered by the worldwide malaria eradication program, cosponsored by AID, WHO, and the NCDC.

In collaboration with the WHO global smallpox eradication program, the Center administered 39 million smallpox vaccinations and 6 million measles vaccinations in fiscal 1968 to persons in 16 West and Central African countries. This program is financed by AID and directed and staffed by NCDC.

For the second year, the Center gave technical advisory assistance and commodity support to malaria eradication programs financed by AID, in 18 countries. These programs also receive assistance from WHO and, in some instances, from the United Nations Children's

Fund. Field research studies were developed further at the Central America Malaria Research Station in El Salvador and the nucleus of an operation field research unit was established in Thailand.

Smallpox vaccination procedures have been modified for persons who arrive at U.S. ports from noninfected quarantine areas without valid vaccination certificates. They are now referred to their own physicians or local health departments to obtain the vaccination formerly administered upon arrival by the Public Health Service quarantine inspector. This modification does not change the regulation.

Health Facilities Planning and Construction

The Hill-Burton program focused its attention in 1968 on helping hospitals throughout the Nation to meet the mushrooming demands for additional health services and at the same time to halt the spiraling cost of medical care. These are some of the activities of the program:

Equipment planning seminars to explore better ways of providing needed services and avoiding unnecessary duplication of facilities; training sessions on environmental aspects of the hospital to acquaint administrators, housekeepers, and other hospital personnel with the principles and techniques of environmental health; broadened consultation services to health facility sponsors on topics ranging from medical records to systems analysis; studies on innovative construction techniques, identification of medical building research, and intercommunication systems among health facilities.

The activities of the Division of Hospital and Medical Facilities involved both technical assistance and grants-in-aid. Thus, the Hill-Burton program was able to continue its leadership role in helping communities not only to meet their construction objectives but to develop plans aimed at delivering high quality care in the most efficient manner possible.

TECHNICAL ASSISTANCE

Technical assistance took many forms. At regional seminars, sponsored by the Division, State Hill-Burton Agency staff members heard national leaders in health planning stress the need to avoid unnecessary duplication of services and facilities by developing shared arrangements with other facilities.

More than a dozen conferences were conducted on hospital infection control, attended by 1,300 persons from 20 States.

Direct consultation was provided hospitals requesting assistance in developing effective methods of educating the patient about his care and his role in the management of his illness. Programed instruction was applied to training materials for medical students and hospital

housekeeping staffs. Consultation services were accelerated in providing guidance in a number of areas, including medical records, hospital administration and operation, pharmacy, dietary services, architecture and engineering, central services, environmental health, and health facility planning.

Among studies underway was one to find a more economical approach to hospital construction by assembly line production of buildings on a room-by-room basis. Another study will establish guidelines for intercommunication systems among health facilities.

GRANTS-IN-AID

In fiscal 1968, the Federal contribution of $209 million in Hill-Burton grants assisted in the initiation of 505 projects costing $729 million. When completed, these projects will provide 24,283 beds in hospitals and nursing homes and 121 other health facilities such as public health centers, diagnostic or treatment centers, rehabilitation facilities, and State health laboratories.

The year's activities brought to 9,549 the number of projects approved since the beginning of the Hill-Burton program in 1946. The cost of these projects, which provided 413,797 inpatient beds and 2,737 other types of health facilities, totaled $10.05 billion, of which the Federal share was $3.11 billion.

PHS Hospitals and Clinics

The 11 hospitals of the former Division of Direct Health Services, now administered by the Federal Health Programs Service, admitted some 45,500 patients in 1968. About 1,730,000 outpatient visits were made to the Division's hospitals, outpatient clinics, outpatient offices, and designated physicians' offices. Merchant seamen accounted for 45.1 percent of the hospital admissions, and members of the uniformed services and their dependents accounted for 40.1 percent of the admissions.

The 10 general hospitals of the Public Health Service are located on Staten Island, N.Y., and in Boston, Baltimore, Norfolk, Savannah, New Orleans, Galveston, San Francisco, Seattle, and Detroit. The hospital for leprosy patients is in Carville, La.

The year marked the first phase of a hospital modernization program with the beginning of a hospital systems study at the San Francisco Public Health Service Hospital. The study introduced modern techniques of systems and industrial engineering as an integral part of the modernization of the Division's patient care facilities. The aims are improvement of the San Francisco hospital's operations, improvement of its physical facilities, and provision of a base for future research

and development. While the study is designed to provide specific data for use in the architectural and engineering phase of the modernization of the San Francisco hospital, it is also expected to provide a framework for later studies to be made at the other Service hospitals where modernization projects will be programed.

Research activities of the Division in the biomedical and health services areas were marked by two noteworthy events. In the biomedical category, the multihospital cooperative study in renal disease published preliminary results of a comparative drug study. In the health services area, a project for the computerization of all patient data emanating from the automated clinical laboratory at the Baltimore Public Health Service Hospital was completed.

Training programs in the PHS hospitals range from the postgraduate level to the training of health aides. During the year, 184 physicians were in residency training, 52 of whom completed training in their specialty fields. In addition, 124 medical interns completed training at PHS hospitals. The hospitals also provided training in dentistry, pharmacy, dietetics, medical record library science, and medical and X-ray technology. A wide variety of training for aides was also offered; most of this training was carried out in cooperation with the Office of Economic Opportunity and the Department of Labor.

Services to Indians and Alaska Natives

The Indian health program provides comprehensive health services for 403,000 Indians and Alaska natives (Indians, Eskimos, and Aleuts) through a system of 51 hospitals with outpatient clinics, 55 health centers with full-time staffs, and about 300 health stations. Additional services are available through contracts with community hospitals, private physicians and dentists, and State and local health agencies.

The program is a family-centered one designed to meet the needs of a largely rural people, most of whom live on reservations in the West and in remote villages in Alaska. Their health problems are influenced by cultural and geographic isolation, a poor economic base, language and educational barriers, crowded housing, and poor transportation, inadequate water and sanitation facilities, and a limited understanding of modern medical practices.

The health care program for these Americans includes a full range of curative, preventive, rehabilitative, and environmental health services. A professional staff of more than 500 physicians, dentists, and other specialists provides diagnostic and therapeutic services. Additional services include public health nursing, family planning and

maternal and child care, nutrition, mental health, and health education. Environmental health activities are carried out in cooperation with tribal authorities who have matched Federal funds 40 cents to the dollar through contributions of money, material, and labor. Water and waste facilities are constructed for Indian and Alaska native homes and communities, including those built under Federal housing programs, and training is provided for maintenance of the facilities. More than 44,000 families have benefited from this program since 1959.

Principal causes of death among Indians and Alaska natives are accidents, cardiac diseases, malignant neoplasms, influenza and pneumonia, and diseases of early infancy. Hospital admissions last year numbered more than 100,000, including births, or about 3 percent more than in the year before. Leading causes of hospitalization were deliveries and complications of pregnancy, respiratory diseases, accidents, and gastroenteric illnesses. Continuing a long record of increases, visits to outpatient facilities were up more than 5 percent and totaled more than 1,500,000.

Although the health of the Indian and Alaska native peoples is almost a generation behind that of other Americans, notable progress has been made. Tuberculosis, once the No. 1 cause of illness and death, now ranks 14th as a notifiable disease. Infant mortality has been reduced about 35 percent in the past decade. Life expectancy today is 63.5 years; in 1940 it was 52. Gastroenteric deaths are declining, influenced in some degree by increasing environmental health and health education activities.

There were new and intensified efforts last year in both treatment and prevention. Specialty care of cardiac, orthopedic, psychiatric, and eye, ear, and throat problems was considerably increased. In Alaska a program to lower the incidence of *otitis media*, the leading illness among children, was developed in cooperation with State and private agencies; and a pilot project was undertaken to provide nurse-midwife services to supplement and extend the work of physicians.

A new 50-bed Indian hospital was dedicated in Belcourt, N. Dak. Ground was broken for a 200-bed medical center, including a 25-bed research unit, in Phoenix, Ariz. A 15-bed hospital on the Mescalero Apache Reservation in New Mexico is nearing completion. Four clinics were dedicated in Taholah, Wash., and Twin Buttes, Mandaree, and Cannon Ball, N. Dak.

Education and training programs were expanded to help ease health manpower shortages, promote career development, and increase participation of Indians and Alaska natives in the health effort. Two significant training programs for health aides were begun: one to place trained native aides in 250 Alaska villages where they can provide a

direct link with PHS Alaska native hospitals; the other to permit Indian tribes to select and employ community health representatives to work with their fellow Indian people in various reservation communities.

Under an agreement between the Agency for International Development and the Public Health Service, the Indian Health Service provided technical and consultative services to the National Public Health Service of Liberia, and assumed responsibility for organizing, training, and staffing a modern medical complex in Monrovia.

Considerable progress was made by the Health Program Systems Center, Tucson, Ariz., in the development of a management information system which will make health and health-related information easily available to community health planners and to health system practitioners.

Through the Indian health boards which the Indian Health Service is establishing at every administrative level, the Indian people are expressing growing interest in their health problems and their support of the program. Members of the boards participate in establishing health goals and in all phases of planning, programing, and budgeting of the health program. The Service is also cooperating in a series of Indian leadership training programs conducted at several universities in the West.

Emergency Health Services

The Division of Emergency Health Services, formerly the Division of Health Mobilization, helps States and communities cope with emergency health problems created by disasters. It assists with both advance planning and postdisaster recovery efforts, and provides supplies, equipment, consultation, and guidance upon the request of a State health department.

Assistance and advice are available to States and communities as they develop or update plans to cope with disaster health problems. The Division has published model plans for States and communities for the guidance of planning groups.

Community hospitals, to which injured disaster victims naturally turn, are given the opportunity to obtain critical medical supplies and equipment that make it possible for them to care for a greatly expanded number of patients in time of disaster. There are two inventory expansion programs: the packaged disaster hospital (PDH) program, which enables a hospital to increase its capability by an additional 200 beds; and the hospital reserve disaster inventory (HRDI) program, which provides a 30-day backup stock of medical supplies for disaster casualty care.

To aid in the effective use of PDH's and HRDI's, the Division conducts extensive training and demonstration programs. Negotiations with selected hospitals, with priority based upon estimates of the hospital's vulnerability and potential usefulness in a disaster, were begun in 1967. By the end of 1968, more than 1,000 hospitals had signed contracts to participate in the inventory expansion programs.

A new natural disaster hospital (NDH) program is designed to increase the emergency medical services capabilities of sections of the country which experience a high incidence of natural disasters, such as tornadoes and hurricanes. An NDH is a portable 50-bed unit of essential medical supplies suitable for short-term treatment of disaster casualties. By the end of the 1968 fiscal year, several NDH's were prepositioned in the Oklahoma-Kansas-Nebraska "tornado belt," and planning had begun to place units in the Florida "hurricane belt" before the fall storm season.

The medical self-help training program provides information and training that helps to prepare people for survival in time of natural or national disaster when the services of physicians or allied health personnel are not available. The goal is to train at least one member of every family. Through the training course, more than 7 million persons have learned techniques that prepare them to care for themselves, their families, and their neighbors following a disaster that could isolate them from professional medical help.

The hospital and ambulance services program promotes standards of emergency transportation and care of victims of accidents and sudden illness. The program assists communities in developing and expanding emergency health care services and helps improve training resources for professional and allied personnel.

In the 1968 fiscal year, the Division gave direct assistance to State and local health departments during 32 disasters, 10 of which were declared major disasters by the President. The disasters included hurricanes, floods, tornadoes, fires, power failures, blizzards, civil disturbances, a bridge collapse, and a train collision.

Following civil disturbances in the summer of 1967, the Division surveyed emergency operational readiness of 77 city health agencies and 295 hospitals in those cities. It was found that most metropolitan areas were not adequately prepared to provide prompt and complete emergency health and medical services, and that few hospitals were prepared to activate and sustain the greatly expanded emergency operations necessary for the proper management of mass casualties. The most common deficiencies were in leadership, comprehensive planning, and communications. As a result of the survey, 85 followup actions in the cities were scheduled by the Division.

Federal Employee Health

The Division of Federal Employee Health broadened the scope of preventive health care and consultative programs for Federal employees.

Preparations were completed to add new health units to the existing network, bringing to 70 the total number of units to be operated by the Division. These units, operated by occupational health physicians and nurses, serve more than 125,000 Federal employees. They are located in the metropolitan Washington, D.C. area, and in cities from coast to coast. The new units are providing preventive health services and emergency care to Federal employees in Albuquerque, N. Mex., Omaha, Nebr., Reno, Nev., and Sacramento, Calif.

Important new health-screening programs were introduced on a pilot basis in some units. Among these were programs to detect hearing loss and to measure vital lung capacity. With the help of a psychiatrist from the National Institute of Mental Health, a program of group discussion in occupational mental health was developed; and opportunity was given physicians and nurses to meet regularly in small groups to discuss problems and to become aware of situations in which they could assist employees in the area of mental health. Successful pilot runs of these programs will mean new services offered in the future through the health units.

More than 260,000 visits were made to the health units in 1968; this figure does not include employees who participated in immunization and health-screening programs.

In carrying out its consultative responsibilities to Federal agencies wishing to initiate their own health unit programs, the Division prepared design drawings for the layout of 33 proposed new health units and supplied recommended equipment tables for 40 during the year.

Medical Services for Federal Agencies

The medical services of the U.S. Coast Guard and of the Federal Bureau of Prisons are legal responsibilities of the Public Health Service and are operated by personnel of the Health Services and Mental Health Administration assigned to the two agencies. The medical program of the Bureau of Employees' Compensation is conducted by PHS medical officers detailed to the BEC.

U.S. COAST GUARD, DEPARTMENT OF TRANSPORTATION

The medical program of the Coast Guard provides comprehensive health services at both shore and floating units to active and retired members of the Coast Guard and their dependents.

One hundred and four commissioned officers of the Public Health Service were assigned to full-time duty with the Coast Guard during 1968, and approximately 60 medical officers were detailed from the general hospitals and Indian hospitals of the Service for temporary assignments to cutters engaged in ocean station duties in the Atlantic and Pacific.

Medical coverage for vessels operating in the Vietnam area was continued, with five medical officers assigned at all times.

There was a general upgrading of health services by a modest increase in officer strength and increased efficiency of operation, with resultant increase in patient visits and an increase in dental services.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

Medical services of the Federal Bureau of Prisons are the legal responsibility of the Public Health Service and are provided by PHS personnel assigned to the prisons medical program.

Twelve of the 23 hospitals of the Bureau of Prisons were accredited by the Joint Commission on Accreditation of Hospitals by the end of fiscal year 1968, and the other 11 were in the process of becoming accredited.

A treatment program for prisoners committed under section II of the Narcotic Addiction Rehabilitation Act of 1966 was funded, designed, and implemented. By the end of the year, three treatment centers had become operational—at the institutions in Danbury, Conn., Terminal Island, Calif., and Alderson, W. Va. Twenty inmate patients had been received for treatment. By the end of 1969, 200 patients will be under treatment in these facilities, and 80 will be under treatment in special community aftercare programs, which are a major component of the project. A strong research unit has been established in this program.

Eleven dental clinics have been approved as hospital dental facilities by the American Dental Association, and five dental clinics underwent major construction to improve their efficiency.

The staff of the dental technician training program was increased 50 percent, and the number of inmates trained was increased by 60 percent. All of the men released from prison during the year who completed the dental technician training program were employed immediately by civilian dental laboratories.

The Central Dental Laboratory fabricated approximately 3,000 dentures for a saving of more than $400,000.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

The Bureau of Employees' Compensation administers the workmen's compensation laws and programs in connection with job-related in-

juries for approximately 3.5 million workers, including Federal civilian employees and certain employees in private employment within Federal jurisdiction.

Medical officers of the Public Health Service are detailed to the BEC on a reimbursable basis. The medical care facilities of the PHS are used to a large extent, as well as medical facilities of the Army, Navy, Air Force, and Veterans' Administration. In addition, about 3,300 physicians in private practice are designated to provide medical care in places where Federal medical facilities are not available.

The latest statistics, for fiscal year 1967, show that among the civilian Federal employees, 121,322 injuries were reported to BEC, the majority of which required medical care management for definitive treatment. In addition to compensation for wages lost, the injured employees were provided medical and surgical care, hospitalization, and vocational rehabilitation, as necessary, in an attempt to return them to gainful employment.

Consumer Protection and Environmental Health Service

Prior to July 1, the official date for the beginning of the Consumer Protection and Environmental Health Service, it was determined that the new organization would be comprised of three operating agencies; the Food and Drug Administration, the National Air Pollution Control Administration, and the Environmental Control Administration. The latter unit would contain most of the programs from the National Center for Radiological Health and the National Center for Urban and Industrial Health; both of these Centers were later to be abolished in a restructuring of activities within ECA.

This new organization for the first time focuses in a single agency the responsibility for identifying health hazards in man's environment, including the environment of the products which man must consume; for developing and promulgating criteria and standards for the control of these hazards; and for mounting appropriate compliance programs. Specifically its responsibilities are—

Establishment of a better understanding of the ecological system through consolidation of existing knowledge and acquisition of new knowledge;

Development of an environmental control strategy consistent with health, esthetic, economic, and social factors;

Acquisition, compilation, and evaluation of information on the total burden of environmental contaminants in various population groups;

Establishment of criteria and standards on permissible burdens of environmental contaminants;

Conducting action programs to implement strategy at the several levels of government; and

Assessment of the total environmental contaminant levels obtained on a continuing basis by surveillance networks.

Table 1.—*Statement of appropriations and obligations, fiscal year 1968*

[In thousands]

	Appropriations and authorizations	Transfers to (+) and from (−)	Prior year unobligated balances	Total funds available	Total funds obligated
General funds:					
Salaries and expenses, Office of the Administrator	$15,687	−$9,775		$5,912	$5,504
Food and drug control	66,000	+1,956		67,956	67,271
Air pollution control	64,185	−1,076	$4,040	67,149	61,667
Environmental control	41,750	+29,412		71,162	68,651
Buildings and facilities	1,150	+590	21,149	22,889	905
Subtotal, general funds	188,772	+21,107	25,189	235,068	203,998
Public enterprise funds: Revolving fund for certification and other services—Food and drug control				4,564	3,471
Intragovernmental funds: Advances and reimbursements:					
Food and drug control				175	175
Environmental control				3,566	3,566
Subtotal, advances and reimbursements				3,741	3,741
Total, all funds	188,772	+21,107	25,189	243,373	211,210

Table 2.—*Summary of employment in full-time permanent positions as of June 30, 1968*

	Total	Washington area	All other	Commissioned officers	All other
Office of the Administrator	324	307	17	28	296
Food and Drug Administration	4,629	2,222	2,407	194	4,435
National Air Pollution Control Administration	1,071	276	795	251	820
Environmental Control Administration	2,330	467	1,863	721	1,609
Total, CPEHS	8,354	3,272	5,082	1,194	7,160

Table 3.—*Summary of grant awards and project contracts in fiscal year 1968*

[In thousands]

	Grant awards						Project contracts
	Research	Training	Fellowships	Planning	Demonstration	Control	
Food and drug control	$2,648						$6,703
Air pollution control	7,407	$2,691	$467		$1,610	$18,647	14,697
Environmental control	11,879	5,012	73	$1,467	4,744		13,447
Total	21,934	7,703	540	1,467	6,354	18,647	34,847

Air Pollution

The National Air Pollution Control Administration administers a broad program for the prevention and control of air pollution in the United States.

THE PROBLEM

A variety of damaging pollutants is being released into the air over the United States at a rate of more than 142 million tons a year.

This mass of toxic matter in the air constitutes one of the major health challenges confronting the American people.

Severe air pollution episodes are known to be capable of causing acute and sudden illness, and death. Of even greater significance are the hazards of prolonged breathing of the lower concentrations of air contaminants, common in many American communities, which adversely affect the health of many people and are associated with the occurrence and worsening of chronic respiratory diseases and with the premature death of aged and ailing persons.

Air pollution is estimated to cost this country billions of dollars a year through injury to agriculture and livestock, corrosion and soiling of materials and structures, depression of property values, and interference with ground and air transportation.

Already some 90 million motor vehicles contribute more than 86 million tons of pollutants, including carbon monoxide, hydrocarbons, oxides of nitrogen, and particulate matter, to contamination of the air every year. Manufacturing industries add another 23 million tons; the electric power industry, 20 million; and other millions of tons are added by the heating of homes and other buildings and the disposal of solid wastes.

And as population, industrialization, and the number of automobiles increase, the burden of pollutants in the air increases correspondingly.

THE FEDERAL PROGRAM

Through implementation of the Clean Air Act of 1963 and subsequent strengthening amendments, progress was made between 1963 and 1967. Awards of Federal grant funds, authorized by the act, resulted in an expansion of control programs. Federal abatement actions will ultimately benefit millions of people living in areas where air pollution is an interstate problem. Research efforts have demonstrated the need for improved control technology, and have hastened its development. A 1965 amendment provided authority for establishment of Federal standards for the control of motor vehicle pollution: the major single factor in the national air pollution problem.

But the continuing increases in urbanization and industrial production have resulted in an overall worsening—rather than lessening—of the problem of air pollution control.

In January 1967, in a message to the Congress, President Johnson urged the adoption of new legislation to strengthen the Nation's control and research efforts. In response to the President's recommendations the Air Quality Act of 1967 was developed and passed.

THE AIR QUALITY ACT

Unanimous adoption by the Congress of the Air Quality Act represented by far the most significant development in the history of this

328-184—69——20

Nation in the fight against contamination of the air. Signed into law in November 1967, the far-reaching new legislation provides a blueprint for a systematic effort to deal with air pollution problems on a regional basis. It calls for coordinated action at all levels of government and among all segments of industry.

The Air Quality Act establishes a broad program to deal with air pollution along three major avenues:

- A mechanism for controlling industrial and other stationary sources through regional action involving State and local agencies;
- Continued national regulation of motor vehicle pollution, together with establishment of State inspection systems to insure compliance; and
- Greatly increased national research and development effort, including cooperative Government-industry programs, to find new and more effective methods of controlling air pollution sources.

Progress in Implementing the Air Quality Act

Atmospheric Areas.—On January 16, 1968, the Administration fulfilled the first Federal requirement under the Air Quality Act when it defined eight atmospheric areas covering the 48 contiguous States.

Air Quality Control Regions.—Soon after enactment of the Air Quality Act, the Administration established a goal of establishing a total of 32 air quality control regions by mid-1969—thus including the majority of the Nation's population within the regional control program set forth in the Act. In the second half of the 1968 fiscal year, work was continued on the complex process of technical evaluations required as a preliminary step toward the marking out of regional boundaries.

Air Quality Criteria.—As required by the Air Quality Act, a National Air Quality Advisory Committee was established. The Committee—with membership from industry, the universities, conservation interests, and all levels of government—will advise on the approach to be used in the preparation of air quality criteria, the selection of the pollutants for which criteria will be issued, and the evaluation of final documents. The Committee met in April and May 1968 to review plans for the development of criteria on particulate matter and on the sulfur oxides. Publication of criteria for these two groups of pollutants is expected early in calendar year 1969. Work progressed during the fiscal year on development of criterial documents for carbon monoxide and photochemical oxidants, and preliminary work was done on criteria for nitrogen oxides, hydrocarbons, and atmospheric fluorides.

Information on Control Techniques.—To develop air quality standards and plans for implementing these standards, the States will need

complete information on the economic and technical feasibility of various methods for controlling pollutant emissions. As required by the Air Quality Act, the Administration worked on development of up-to-date information on control techniques and cost effectiveness analyses, which will accompany the air quality criteria documents. This information is being derived from scientific and technical resources in the Administration, in other Federal agencies, private consulting engineers, and research and development organizations, and will consist of a comprehensive review of the latest approaches for controlling the emissions of individual pollutants. At the close of the fiscal year, reports on two of the major pollutants, particulate matter and sulfur oxides, were nearing the final review stage, and work was underway on additional control technology reports.

Standards and Emission Reduction Plans.—An important task assigned to the Department under the Air Quality Act is the review of State-proposed ambient air quality standards and emission reduction plans necessary to achieve the adopted standards. By the close of the fiscal year the Administration had made considerable progress in the preparation of detailed guidelines for the States to assist them in the work of developing regional air quality standards and control plans. Assistance to the States will include the provision of available data and engineering approaches, such as diffusion modeling, which will be of aid in determining the degree of control required on specific sources and groups of sources. A further service, the projection of air pollution trends, will be useful in determining a schedule for control activities which will ensure that the standards continue to be maintained.

Controlling Automotive Air Pollution

Motor vehicles are the prime source of carbon monoxide and hydrocarbons, and release nearly half of the total nitrogen oxides present in the air. Carbon monoxide, which impairs the oxygen-carrying ability of the blood, can reduce visual acuity and motor ability in small concentrations and is fatal in large doses. Many of the hydrocarbons form secondary products which irritate the eyes and throat and can alter physical function and aggravate respiratory disease.

In January 1968 the Secretary established revised standards for application to 1970 model-year vehicles.

The 1970 standards will lower by about one-third the level of automotive exhaust pollutants allowed by the 1968–69 standards by requiring 77-percent control of hydrocarbon emissions and 68-percent control of carbon monoxide.

In addition the new standards, for the first time, will require 35-percent control of hydrocarbons and 37-percent control of carbon

monoxide in exhaust of gasoline-powered heavy trucks and buses, and place limitations on visible smoke emissions from diesel-powered trucks and buses.

A requirement for 90-percent control of evaporation of hydrocarbons from gas tanks and carburetors of cars and light trucks will become effective in the 1971 model year.

Research and Development

Aware that implementation of the Air Quality Act would require improved technical knowledge, the Congress provided for expanded research and development, with emphasis on development of control techniques.

Many sources of air pollution can be controlled with existing equipment and techniques, and these will be brought under control when the States take action on the basis of the regional formula established in the Act. But massive research and development is needed—and this program is well underway—to improve existing controls and to develop economically practical control techniques for the many sources of pollution we cannot now control.

The Administration sets standards for the allowable emission of pollution from vehicles, and it is the responsibility of the vehicle manufacturers to meet these standards. The private sector has the means, capability, and practical knowledge to develop usable control devices and systems, and this effort is closely related to a number of manufacturing, marketing, and maintenance factors.

The Federal program in automotive research and development has three primary objectives: to stimulate optimum activity by the private sector in developing control technology, to stimulate research in areas that are not receiving attention, and to develop the technical base for establishing future Federal emission standards.

To achieve these objectives, the Administration has underway or is preparing research and development activities including:

- Studies on the feasibility of new control approaches, for example, nitrogen oxides and particulate controls, and new propulsion systems with low pollution potential, such as battery-powered and Rankine-cycle-powered (steam driven, using water or other liquid) vehicles;
- Detailed analyses of the composition of emissions from various categories of vehicles, the effects of various vehicle and fuel parameters on emissions, and detailed analyses of community atmospheres in relation to vehicle emission; and
- Laboratory tests to determine the effectiveness of various control systems, studies to provide uniform procedures for evaluating

the effectiveness of control systems, and development of improved testing techniques.

Cooperative research programs are another way in which basic information on pollution is being developed. During the fiscal year, for example, the Administration joined with the Automobile Manufacturers Association and the American Petroleum Institute in a 3-year, $10 million research program to study emission of pollutants by vehicles. The program will be directed by the Coordinating Research Council, an independent, nonprofit organization concerned with improving engines and petroleum products. The Administration will support those research projects that meet its specific needs, and generally will contribute one-third of their cost.

Control of pollutant emissions from stationary sources is an especially difficult problem because of the steady increase of the quantities of pollution emitted, and because of the great diversity and variety of sources to be controlled.

Emissions of sulfur oxides pollution is currently increasing at a rate of about 6 to 7 percent per year. At this rate sulfur oxides emissions could climb from its present level of 23 million tons per year to more than 40 million tons per year by 1976.

Sources of sulfur oxides, such as combustion processes, smelting, sulfuric acid manufacturing, and numerous others, present vastly different problems. There is diversity, too, in such factors as the volume of the gas to be treated, its composition, temperature, and other variables. Even in the case of a single class of polluters, such as coal-burning powerplants, there are many differences in terms of size, fuels used, and geographical location that have critical implications for the feasibility of various control processes. For example, some processes suitable for large, new powerplants are far too costly for use with small or existing plants. The availability of nearby markets for possible byproducts from control processes has an important role in determining the economic feasibility of various processes.

During the 1968 fiscal year, the Administration progressed in a Government-industry research and development program designed to meet the Nation's need for control techniques applicable to the sources of sulfur oxides pollution.

Emphasis is placed on the development of technology applicable to fuel combustion sources. The program, involving more than 40 non-Federal organizations and several Federal agencies, has four principal goals:

1. To demonstrate. by means of large-scale pilot plants, those first-generation sulfur oxides control processes which will be capable of providing, within the next few years, means of controlling sulfur

oxides emissions from both new and existing powerplants and, in most instances, will also yield valuable byproducts.

2. To develop second-generation processes that may be more economical and versatile than those now in advanced development, particularly those that may be capable of controlling nitrogen oxides as well as sulfur oxides.

3. To promote development of power system concepts such as new power cycles, magnetohydrodynamics, and coal liquefaction and gasification, which will incorporate control of sulfur oxides, nitrogen oxides, and particulate matter.

4. To develop methods of controlling sulfur oxides emissions from industrial processes other than fuel combustion.

To facilitate systematic management of this program, the Administration prepared, with the assistance of the Stanford Research Institute, a 5-year workplan which takes into account the current and future research and development activities of the Administration and the other Federal agencies working on the sulfur oxides problem.

The sulfur oxides program, the Administration's largest single program of research and development, is an integral part of the total program designed to deal with the unsolved problems of pollution from stationary sources. During the fiscal year, the Administration developed a comprehensive, three-pronged attack for this overall program including:

- Development of systems and processes to control specific pollutants.
- Systems surveys to define the pollution problems of industries such as primary smelters, pulp and paper manufacturers, the integrated steel industry, and waste disposal plants.
- The continuous development of new and improved control devices for use in the various control systems.

The Administration has established contact with technical resources in foreign countries and is using Federal facilities and personnel of the Tennessee Valley Authority, and the Bureau of Mines and Office of Coal Research of the Department of the Interior as well as State agencies such as the Illinois Geological Survey and the West Virginia Coal Research Bureau.

Federal Abatement Activities

INTERSTATE ACTION

A highlight of Federal interstate abatement activities during the fiscal year was action designed to improve air quality in the Washington, D.C., interstate metropolitan area. At the request of the President, a conference was called in December 1967 to consider the common air

mass of the National Capital area, which includes portions of Maryland and Virginia. The Secretary of Health, Education, and Welfare recommended creation of a regional mechanism to coordinate the development of a comprehensive air quality control plan, to prepare emergency procedures, and to promote uniform regulations and enforcement. Some of the local governments in the interstate area have taken action to institute control regulations for which the conference demonstrated a definite need.

During the 1968 fiscal year the Secretary convened eight interstate conferences and one intrastate conference. The latter, in Montana, was requested by local officials with the concurrence of the Governor. The nine abatement actions cover areas in which more than 20 million people reside. Problem areas range from a single rendering plant in Maryland to the Nation's biggest urban complex—Metropolitan New York.

FEDERAL FACILITIES

In May 1966, an Executive order directed Federal agencies to control their air pollution in accordance with standards set by the Secretary of Health, Education, and Welfare. Responding to the Executive order, 14 Federal agencies submitted on July 1, 1967, a 5-year plan, outlining 435 air pollution control projects, covering facilities in 49 States, the District of Columbia, and Puerto Rico. The Administration, responsible for coordinating Federal actions under this program, maintains surveillance of air pollution problems arising from Federal activities, provides technical assistance to other agencies and departments, and conducts studies to aid implementation of the control systems.

EMERGENCY ABATEMENT PLANS

To implement the provision of the Air Quality Act which authorizes the Secretary to curtail pollution during an emergency, the Administration established a task force whose members are proficient in meteorological modeling and forecasting, the taking of air pollution source emission inventories, and in the evaluation of the effects of air pollution on health and welfare. With the help of this task force, significant progress was made in the development of emergency abatement plans for the use of State and local agencies.

CONTROL AGENCY DEVELOPMENT PROGRAM

Aid to States and Cities

One of the major objectives of the Administration is to assist in developing and strengthening State, regional, and local air pollution control programs with financial grant-in-aid assistance, and by providing program guidance and technical assistance.

During the 1968 fiscal year, an organizational change brought together the Administration's financial and technical assistance activities under a single program—the control agency development program. This action will ensure more effective and more broadly based Federal support to control agencies.

FINANCIAL ASSISTANCE

Financial assistance to State and local agencies is provided through a number of mechanisms, including survey and demonstration grants, as well as planning, development, establishment, and maintenance grants to support air pollution control programs. Since 1963, program grant annual awards have risen from less than $5 million to the fiscal year 1968 total of more than $20 million which supports 37 State programs and 136 local and regional programs. Of the 48 States in which regular legislative sessions were held, 39 legislatures enacted comprehensive air pollution control laws during 1967 sessions, and six other States adopted amendments to strengthen earlier legislation.

Technical Assistance

Providing technical assistance to State and local air pollution control agencies has always been a significant part of the Federal program, but in the 1968 fiscal year it received even greater attention. The form of this assistance ranges from consultation on specific problems to help in developing comprehensive air pollution control programs, and includes a variety of subjects, such as control of emissions from industrial and combustion processes; air sampling and source sampling equipment and methods; air pollution control laboratory facilities; interpretation of meteorological data; conducting emission inventories, odor surveys, and smoke observer training schools; and the development of emission reduction plans.

The Administration's training activity, located in Durham, N.C., helps to identify and satisfy needs for trained air pollution control specialists. This program conducts technical training courses, primarily for State and local agency personnel, and also offers training grants and fellowships in colleges and universities. In the 1968 fiscal year, the training program conducted about 50 training courses for about 1,500 trainees.

Surveillance of Air Quality

AIR POLLUTION MONITORING

The air pollution monitoring and data acquisition activities of the Administration have two primary objectives: To provide nationwide baseline of air quality and emission data so as to define present population exposures at varying levels of risk, and to provide a means for

appraising the effectiveness of nationwide air pollution control. Air monitoring systems are of two basic kinds: Manual systems which collect samples of either gaseous or particulate pollutants for subsequent laboratory analysis, and continuous automatic systems which simultaneously sample and analyze a variety of gaseous pollutants.

MANUAL MONITORING SYSTEMS

In fiscal year 1968, the continuing expansion of the National Air Sampling Network (NASN) brought it to a total of 165 urban stations and 30 nonurban stations, all operated cooperatively by Federal, State, and local agencies. Samples are sent to the Administration's laboratories in Cincinnati for analysis. A total of 100 stations now routinely measure five gaseous pollutants—sulfur dioxide, nitrogen dioxide, ammonia, oxidant, and aldehydes—in addition to particulates. A monitoring program to obtain information on economic effects of air pollution is also in operation, including 240 stations located for the most part in interstate metropolitan areas. The Administration developed plans for a program to expand the Federal network to approximately 1,000 stations over the next 5 years to provide coverage of all urban areas with a population in excess of 25,000 as well as additional coverage of nonurban and fringe areas.

CONTINUOUS MONITORING SYSTEMS

In 1961, the Department of Health, Education, and Welfare established the continuous air monitoring program (CAMP) as a research and demonstration project. This program, while itself expanding, has spurred a tremendous growth in the number of State and local continuous monitoring programs. In fiscal year 1968, there were more than 400 continuous monitoring instruments in use by State and local agencies.

The most recent development in continuous monitoring is the telemetering of data from a number of monitoring stations to a central control center, where computers can continuously analyze or display the results, indicating the need for action before air pollution emergencies threaten to occur.

THE NATIONAL DATA BANK

The rapid increase in air monitoring during the past few years and the anticipated further expansion in air monitoring programs in the future will result in the production of vast amounts of air quality data, a substantial portion of the cost of which will be borne by the Federal grants program. To provide standard routines for the retrieval and statistical analysis of the stored data, the Administration developed and improved SAROAD (storage and retrieval of air data) system.

The SAROAD system is designed as a national air quality data bank which will permit the storage and retrieval of data covering a vast number of pollutants. It presently contains air quality data from 630 Federal, State, and local monitoring stations representing approximately 400 urban, 50 nonurban, and 50 fringe areas. It is anticipated that, by 1971, data from all existing air monitoring systems will be stored in the bank.

EVALUATION OF FUEL ADDITIVES

The registration and evaluation of fuel additives is a responsibility undertaken by the Administration under a provision of the Air Quality Act.

During the last few years increased attention has been given to the air pollution problems that can arise from lead emissions due to the antiknock agents used in motor fuels. In addition to lead compounds, however, many other chemical compounds are increasingly being added to the wide variety of fuels used for vehicles and for heating.

Work was begun during the fiscal year on an integrated program to define the harmful effects of emission products resulting from the use of fuel additives.

Environmental Control Administration

The Environmental Control Administration, a component of the Consumer Protection and Environmental Health Service, comprises most of the functions of the National Center for Urban and Industrial Health, the National Center for Radiological Health, and the Aedes Aegypti and the rat control programs in the National Communicable Disease Center.

The ECA seeks to protect and advance the national health and well-being through a better understanding and control of the environmental conditions that jeopardize health and safety. To achieve these goals the ECA conducts research, demonstration, and pilot operations in its facilities, and awards a variety of grants and contracts. It conducts surveillance activities and technical training, provides technical assistance to governmental and other organizations, and develops standards and codes for alleviating health problems.

The operating programs in 1968 were:

- Occupational health and safety, which is concerned with the health and well-being of the American worker at his job;
- Injury control program, which seeks to prevent accidental injury in and outside the home, on the highway, or elsewhere;

- Solid wastes program, which seeks ways to improve existing methods for solid waste collection, handling, and disposal in ways that will protect the public health;
- Water supply and sea resources program, concerned with the public health and medical aspects of the use of fresh and salt water, the safety of recreational waters, and shellfish sanitation;
- Environmental sanitation program, concerned with the health aspects of modern living such as those of the home, the school, crowded housing, travel accommodations, and interstate food and milk carriers;
- Arctic health program, dealing with the extreme climatic conditions of the nation's arctic and subarctic regions which present special health problems for the people who live in those regions.

Training Program

The training program conducted 529 days of short-term training in 106 course presentations for more than 3,600 professional people in the urban-industrial health fields. The program thus brought the Administration's scientific discoveries to bear on environmental problems much sooner than could conventional educational institutions. Courses included solid wastes, water supply and sea resources, housing, environmental sanitation, occupational health, milk and food, injury control, and computational analysis.

The staff of 55 trainers and assistants conducted 57 of the course presentations (402 days of training) in Cincinnati for about 1,700 trainees who come from government, industrial, and university organizations; and 49 course presentations (127 days of training) for nearly 2,000 trainees at other locations throughout the Nation. In addition, seminars and workshops presented by the regional staff of the National Center for Urban and Industrial Health (NCUIH) were attended by more than 6,000 persons.

A 1-week course was presented for high school shop teachers on "Industrial Hygiene in the Workshop" as part of the program's efforts to increase training opportunities for secondary school-level teachers, and reference libraries of training manuals and visual aids have been established in 26 universities to provide resource material.

The training program continued to investigate new training techniques. To provide training for local health department personnel who are hampered by lack of time or lack of funds, field testing of a remote lecturing system was begun between Cincinnati and Phoenix, Ariz. Covering all aspects of the environment, the course runs for 2 hours each week for 30 weeks. The system used provides remote lecturing with "live" diagraming facilities and standard training aids. The

two-way visual and audio hookup enables students to question the speaker while he is lecturing, and it enables the speaker to draw diagrams while he answers questions. Past remote lecturing has been limited to canned film presentations which provide only a "one-way" lecture.

Arctic Health

The Arctic Health Research Laboratory moved from Anchorage, Alaska, to a new, modern research building in Fairbanks. Since the new facilities are adjacent to the main campus of the University of Alaska, this will enable the laboratory to function in close collaboration with the Research and Advanced Study complex being developed by the university.

Established in 1948, the laboratory is the first permanent research facility in North America devoted to the full-time, year-round study of health problems in low-temperature environments. During its short existence, the laboratory has firmly established itself in international research circles for its contributions to medical knowledge.

Among the laboratory's research findings during the fiscal year were:

NEUROMUSCULAR DISEASES IN ESKIMOS

A condition of benign congenital hypotonia (floppy baby syndrome) was found. The disease was present in several families in the Kuskokwim area involving an unknown number of children. Electromyographic studies were normal and neurological examination gave no evidence of abnormality in the central nervous system. One muscle biopsy from a 2-year-old infant disclosed atrophy of certain muscle fibers. If this is found to be a uniform finding in other cases, a muscle disease may be identified as being responsible for the syndrome. Since recovery apparently is complete, delayed maturation of a factor responsible for normal muscle tone must be involved.

AIR POLLUTION

Gas and particulate samples were collected daily during three ice fogs. Ice fog particles were also collected on 1-meter squares of polyethylene sheeting. Preliminary investigations tended to support the theory that pollutant levels increase during ice fog periods. A series of tethered balloon flights also were made to evaluate temperatures within the ice fog dome. The local inversion moved from ground level to the 300–400-foot level over downtown Fairbanks during the ice fog. There also appeared to be strong shearing winds at the top of the inversion.

Injury Control

Administration-sponsored amendments to the Flammable Fabrics Act were enacted to extend the law's coverage to virtually all fabrics and related products. Equally important, they also authorized promulgation of standards and other regulations designed to stimulate the production and sale of fabrics far less likely to burn than those now available. The amendments were adopted on the basis of data provided by the injury control program. Continuing studies on the fabric burns problem were assigned to the Secretary of Health, Education, and Welfare, and made the responsibility of the injury control program.

At the program level, regional offices and State and local health departments encouraged increased use of less flammable clothing and fabrics, reducing electrical hazards in the home, and increasing the safe use of petroleum products and other flammable materials.

A death from carbon monoxide in Michigan led to another major shift in emphasis in program priorities. The gas had come from a wall heater that had developed cracks in the combustion chamber. Investigation showed that many of the heaters of this particular make had become defective in a similar manner. Sears, Roebuck & Co. had sold thousands of the heaters. After program officials conferred with company officials, they decided to issue a complete recall with free replacement. Press releases were issued by the company and the injury control programs and, with cooperation from State and local health agencies, thousands of the heaters were located, destroyed, and replaced.

This experience gave impetus to existing programing and brought carbon monoxide to the top of the program's priorities list in the area of consumer protection. Four injury control contracts obligated in fiscal year 1968 dealt with research in reduction of the carbon monoxide hazard or related studies.

Other consumer protection priorities were placed on injury prevention in the use of machinery and mechanical equipment (tractors, power takeoffs), drowning prevention, and reducing the incidence of accidental poisoning through safety closures on the containers and through repellent additives. Under the heading of general injury control, priorities were aimed at decreasing the risk of injuries related to the use of alcohol, of injuries from falls, and of eye injuries.

Program priorities in motor vehicle injury control were on reduction of pedestrian injury, special restraining systems for infants and small children in automobiles, medical aspects of driver licensing and driver evaluation, and motorcycle injury prevention.

Promotion of wider use of retro-reflective materials that reflect auto headlights at long range—either worn on clothing or carried as a

tag—is being stressed for reduction of pedestrian and cyclist injury during hours of darkness. Demonstrations were given in several cities in the continental United States and in the Virgin Islands and Puerto Rico. Portable demonstration units containing clothing with retro-reflective materials, materials to show use on cycles, and headlight assembly units were prepared for programing through regional offices and State and local health agencies.

Also in the area of motor vehicle injury, 11 studies were initiated or completed during the fiscal year by the program's Injury Control Research Laboratory at Providence, R.I., and eight studies were in progress as the year ended.

The laboratory's studies were in five program areas: factors affecting acceptance of risk; factors affecting vigilance and alertness; factors affecting coordination of sensory and response systems; sensory thresholds important in the perception of danger; and utilization of simulator techniques to teach hazard recognition and control.

In the field of public education, the National Broadcasting Co., in cooperation with the injury control program, videotaped a series of twenty 30-minute color television programs with the theme, "You Can Prevent Accidents." These provided basic information on ways to control injuries and prevent fatalities in the home, on the street, and in recreational activities.

The programs were aired in Washington, D.C., Cleveland, Ohio, New York City, Los Angeles, and Chicago over NBC Education Exchange and are available for further network station programing.

Occupational Health and Safety

An outstanding event affecting the future of the occupational health program was an Administration-sponsored bill in Congress to establish the Nation's first comprehensive occupational health and safety program. This legislation would have authorized the Secretary of Health, Education, and Welfare to conduct research and develop criteria for standards relating to occupational health and safety, and given the Secretary of Labor the power to set and enforce these standards. The bill did not become law, but congressional hearings were held, and national attention was drawn to the problem.

In its regular laboratory research, the program continued its study of the effects of dusts, chemicals, and other industrial contaminants on the health of workers.

There were these developments in the search for ways to reduce health hazards due to contaminants in the workplace:

ASBESTOS

Scientists from six countries working with the program, agreed on a proposed new international set of classifications of X-ray films used in diagnosing respiratory ailments suffered by workers in the asbestos industry. The international classification is expected to provide earlier detection of these ailments. Program scientists also continued their studies on more effective respirators for asbestos workers to wear on the job. Respirators now available make breathing difficult, and are uncomfortable and ill-fitting.

COAL DUST

Investigations continued to work on the development of criteria and standards for the control of coal miners' pneumoconiosis, a serious lung disorder caused by long exposure to very fine coal dust. One study indicated a marked difference in the amount of X-ray evidence of the disease in three different geographic areas (Appalachia, southern Illinois and Indiana, and Utah). Investigators found that the differences were not related to age or years in the mines. Another project modified standard techniques for reading X-rays of pneumoconiosis victims.

In addition, a study was launched into the health of about 2,500 coal miners in 30 mines throughout the country. This is to involve a series of medical examinations to find better ways to prevent pneumoconiosis. The study, conducted in cooperation with the Department of the Interior's Bureau of Mines, is designed to obtain more accurate estimates of the number of miners who have the disease and to develop adequate clinical methods of recognition and treatment, safe working standards, and engineering methods of coal dust control. Data on pulmonary function, X-ray, and work history will be collected from the miners in a series of tests over the next 15 years.

BERYLLIUM

A comprehensive study in major American industrial plants producing and using beryllium was started to determine the extent of beryllium disease and identify factors that may contribute to its development. This disease can take a number of forms, such as dermatitis, conjunctivitis, acute pneumonitis, and chronic pulmonary beryllosis, which can be fatal. The study will include medical data on beryllium workers, detailed studies of the environment in which they work, and a review of mortality records for beryllium workers. Researchers hope to develop advanced diagnostic procedures to supplement those presently available. One of the main objectives of the study is to determine safe levels of beryllium and its compounds and to recommend measures to control exposures.

LASERS

Laser lights have many industrial uses. Among other things, they can cut stone and weld metal. However, these devices also present a potential health hazard. Unless precautions are taken, their intense beams can damage the eyes or burn skin. A program-sponsored international conference on the subject made a number of recommendations on this problem regarding eye and skin exposure levels, delineation of future needs for research and education, and the establishment of a central registry for laser safety data and accidents.

As a result of a survey, program researchers estimated that 25,000 employees in the United States either work directly with lasers or are employed in laser areas. Half of the establishments surveyed lacked warning signals, such as signs, flashing lights, or buzzers to designate laser areas. In addition, 94 percent did not use interlocked doors to reduce access to laser areas during operation.

URANIUM MINING

The program resumed its efforts to prevent deaths among uranium miners who are contracting lung cancer from breathing radioactive gases and particles in the mines. Following program recommendations, increased ventilation has reduced radioactivity in many of the mines. Using program research data, New Mexico, Utah, Colorado, and Wyoming for the first time enacted legislation putting a ceiling on the concentration of radioactivity permitted in uranium mines. Additionally, the findings of the program's 20-year research on exposure to radon gas and its daughters (immediate derivatives) were incorporated into the Joint Committee on Atomic Energy's 1968 report on "Radiation Exposure of Uranium Miners." The Department of Labor, acting on program data, promulgated a standard on safe working exposure levels to radon.

NOISE

An estimated 7 million workers in this country are exposed to noise levels in the workplace that could damage their hearing. To deal with the problem, the National Noise Study, established in the occupational health and safety program, opened a series of scientific experiments in a variety of industrial sites. In a specially equipped audiometric van, they began testing workers to determine how exposure to machinery and general factory noise affects hearing. Noise levels within the respective plants also were measured.

This year, noise and hearing surveys were conducted in industrial operations involving earthmoving and heavy construction work and paper products manufacturing. Evidence of noise-induced hearing loss among workers exposed to noise was found in both instances.

Preliminary studies were started in steelmaking, quarrying, metal products, and printing operations. Findings from the industrial survey will be used to support the establishment of maximum noise levels for industry to safeguard hearing.

Radiological Health

A major activity of the radiological health program during fiscal year 1968 was the preparation of congressional testimony demonstrating the need for the Radiation Control for Health and Safety Act of 1968. Some of the information on the problem of X-ray emissions from color television receivers was supplied by the States through the Center's regional representatives.

The Technical Services Branch of the Center directed its efforts mainly toward evaluating and determining the scope of the color television X-ray problem. Accomplishments in this area included developing an instrument for rapidly surveying color receivers for X-ray emissions; conducting radiation surveys in Pinellas County, Fla., and Metropolitan Washington, D.C., to identify the emission problem for a variety of color television receivers; and initiating activities to encourage manufacturers to incorporate improved radiation protection procedures in the design and manufacture of color receivers. The Electronic Products Radiation Laboratory provided most of the support for color television activities. In addition, the laboratory initiated investigations into instrumentation requirements for measuring nonionizing forms of radiation from other electronic products.

The Compliance and Control Branch drafted model State legislation for licensing X-ray technicians. The document is expected to be available to the States before the end of the year. The Branch also assisted States in reviewing and evaluating their radiological health programs. Eleven radiological health specialists from the center were assigned to State health agencies to provide program and technical assistance. Four of these assignees directed State radiological health programs.

During fiscal year 1968, the Office of the Assistant Director for Laboratories began to implement a program to coordinate administrative direction and service, as well as program coordination, for the three center regional laboratories. The overall laboratory mission was evaluated to ensure that it was in line with center goals.

Working closely with other programs in the Public Health Service, the Standards and Intelligence Branch instituted specific guidance for the development of standards and conduct for the 36 Center liaison representatives to 30 voluntary standards-setting agencies. A working library on radiological health standards was established from which

an annotated bibliography was developed and published. It summarizes standards and guides for microwaves, ultraviolet radiation, and radiation from lasers and television receivers.

A series of documents called radiation exposure overviews, designed to link related facts on radiation exposure and exposure control for individual sources, was initiated with the preparation of a document on diagnostic dental X-rays.

The training and manpower development program, which promotes nationwide training in radiological health, conducted technical short courses for about 2,000 persons in fiscal year 1968. The technical training included new courses dealing with the hazards and control of radiation from electronic products, training in laboratory radionuclide management and techniques, and training in radiation protection for X-ray technicans.

Thirty-two radiological health grantee institutions provided long-term training for 225 graduate-level students as radiological health specialists, and 175 students received training as radiological health technicians in nine associate-degree schools. Prototype accreditable training through 4-year and 2-year degree programs for nuclear medicine technicians and a graduate program for technical administrators in radiology were developed. A university project to introduce concepts of radiation protection into the curriculum for medical students and radiology residents also was undertaken.

The radiation bio-effects program is conducting an interdisciplinary research program aimed at obtaining knowledge of the long-term effects of low-level radiation exposures in man. These studies of public health significance involve non-ionizing radiations, such as microwaves and lasers, as well as ionizing radiations. Animal studies, conducted in the center's laboratories and elsewhere, provided evidence to support the hypothesis that the unborn and the young may be uniquely sensitive to the deleterious effects of radiation. Using a variety of mammalian species, these experimental findings showed that sublethal doses cause changes in certain enzyme systems, the ultrastructure of the eye, and chromosomes of various types of cells. Other studies indicated that the combination of radiation with other environmental insults, such as viruses or chemicals, can cause additive or synergistic effects. Efforts are underway to relate these changes to the long-term effects associated with radiation both in the young and the adult animal. Preliminary investigations have also begun to assess the immediate effects of microwave radiation on cells and on laboratory rodents.

The population studies program conducted studies of human populations exposed to ionizing radiation in order to determine the extent and consequences of various types of exposure. Estimates were made of radiation doses of genetic significance received from diagnostic

X-ray examinations, and the possible dose reduction by proper X-ray beam collimation was determined. Through the development of new techniques, the radiation dose from radiopharmaceuticals used in diagnostic procedures was substantially lowered without loss of diagnostic efficiency. Data collection was completed and analysis started for long-term epidemiologic studies on the effects of fallout from nuclear bomb testing in Nevada on the thyroid glands of children in Washington County, Utah, and also on the effects of therapeutic doses of iodine 131 on patients treated for hyperthyroidism.

The environmental surveillance and control program reviewed and evaluated public health aspects in 23 plans for operating nuclear reactors and provided technical assistance to State and other Federal agencies in conjunction with these plans. In addition, studies were made on the production, release, and disposal of radionuclides from nuclear power reactors and associated facilities. The program operated six surveillance networks designed to furnish information for the assessment of population radiation exposure and maintained emergency radiological assistance competence for State and Federal agencies. The program also planned and evaluated protective action for the control and reduction of population radiation exposure from environmental contamination.

The medical and occupational radiation program produced an electrically operated automatic collimating device that will limit the size of the X-ray beam to the dimensions of the cassette. The program is working with the National Bureau of Standards in establishing cesium ^{137} calibration standards and a calibration procedure for suppliers and users of cesium^{137} medical sources. It also devised a rapid photographic method for representing isodose patterns by isodensity tracings. Recommendations that should be included in a radiation safety program for particle accelerators were developed and distributed to health agencies concerned. Projects accomplished through contracts include a new version of the dental X-ray teaching and training replica of a human head that can be used in the place of students in practicing radiographic techniques in dental schools; a system that provides stop-action X-ray pictures on a television screen during fluoroscopy, using less than 1 percent of the exposure required to produce an image on film; and a study of hazards associated with radioactive tritium targets used in neutron generators.

Solid Wastes

Communities throughout the United States find themselves increasingly unable to dispose of the mounting quantities of refuse and other solid wastes in a sanitary manner. Wastes being discarded throughout

the Nation, at the present rate of 165 million tons a year, constitute both a health and a disposal problem of national importance.

The Solid Wastes Disposal Act of 1965 has created an awareness of the magnitude and seriousness of the problem, and has given impetus to efforts to find solutions to it.

The attack on the problem is being led by the Environmental Control Administration's solid wastes program, now in its fourth year, through technical assistance; research, both in-house and grant-supported; and by demonstrations and training activities. Grants awarded now total about $9 million.

The solid wastes program awards four different types of grants: planning, demonstration, research, and training, all aimed toward the program's goals: To achieve nationwide solid waste management practices which insure that health and the environmental quality are not endangered; and to minimize the amount of ultimate wastes being generated and maximize the salvage of useful waste material.

One of the outstanding results of the demonstration grants in 1968 has been the conversion of the Kenilworth dump, Washington, D.C., into a 125-acre public park. The fires of Kenilworth dump, the District of Columbia's only dump, have been polluting the air of the Nation's capital for a quarter of a century. The Kenilworth project will serve as a national model to show dramatically what can be accomplished by utilizing proper sanitary landfills.

The need for improved solid waste handling techniques was brought sharply into focus by a nationwide solid waste management survey made in 1968 by the solid wastes program. Of an estimated 12,000 landfill sites throughout the Nation, only 6 percent or less are true sanitary landfills.

To demonstrate new or improved technologies for solid waste disposal such as the Kenilworth project, the program awarded a total of $4.75 million to 54 organizations during fiscal year 1968.

Planning grants are available to cover up to 50 percent of the cost of Statewide planning to eliminate unsatisfactory solid waste management practices and to develop comprehensive solid waste management systems that can be implemented on a regional basis. Forty-three grants, totaling $1.5 million, were awarded to 38 States, the District of Columbia, and Puerto Rico to develop solid waste management plans. Also grants have been awarded to three interstate agencies (Omaha, Nebr.-Council Bluffs, Iowa; Kansas City, Mo.-Kansas City, Kans.; Chattanooga, Tenn.-Georgia) to prepare interstate solid waste management plans.

Fifty-four research grants totaling $2.3 million were awarded primarily to universities to conduct research on solid waste problems.

One of the grants, $54,291, funded in 1968, was to a professor at Clemson University for research into the design of a bottle that will dissolve in water. Should the implementation of the work prove practical, it would remove the majority of the glass portion of refuse from the waste stream and reduce related solid waste management problems.

Two new training grants were awarded to universities to develop specialized graduate curriculums in solid wastes. The program supported a total of 10 such programs in fiscal year 1968 through grants totaling $443,000.

In addition, the program let contracts totaling $1.1 million to conduct research into various areas of solid waste management. One of these research contracts was awarded to a California firm to do research into the feasibility of combining an incinerator with a gas turbine, to develop electrical power from the combustion of refuse. Such an economical disposal method for solid wastes could reduce the cost of incineration.

During 1968, many interim goals were achieved in the program's direct operations. Work to develop guidelines for incinerator and sanitary landfill design and operation was initiated by the program and is expected to be completed in 1969. Studies of solid wastes problems peculiar to certain major industries (tobacco, wrecking and demolition) were undertaken, and plans were made to expand these studies to include other major industries.

The Solid Waste Information Retrieval System (SWIRS) became operational and presently includes over 2,500 abstracts and documents. This system is the most complete reference system for solid wastes information now in existence in the country.

Water Supply and Sea Resources

The water supply and sea resources program, which is concerned with health aspects of water supplies and with shellfish sanitation, conducted 110 joint surveys with State programs as part of the interstate carrier water supply activity. The surveys included field inspections of the source, raw water transmission, treatment, finished water storage, and pumping and distribution system. All available raw and finished water quality and operating records were reviewed and an evaluation made of State and local plumbing and cross-connection laws and their enforcement. A final report was submitted to the States for use with the municipalities concerned. Followup conferences were held concerning corrective action.

Technical liaison was provided to 50 States in evaluation of State program plans under the provisions of section 314(e) of the Public Health Service Act. Special assistance was rendered to the States

on water supply programs, training courses, and adoption of regulations at least as strong as the Public Health Service 1962 Drinking Water Standards.

During the fiscal year 1968, the program activity reviewed and commented on the public health aspects of preliminary drafts of water quality standards from 36 States transmitted by the Federal Water Pollution Control Administration. Testimony was presented in four enforcement conferences called by FWPCA. In discharging responsibilities in connection with the Water Resources Council, the program prepared a number of health guidelines for water and related land resources management. In addition, cursory review has been provided on 129 specific project studies submitted to the Department for interagency review preparatory to congressional review and authorization.

In the field of water supply research and disease studies, microbiological research made possible the detection of indicator organism of pollution in less than 8 hours.

Eighteen State health department water laboratories were inspected and certified for performing bacteriological tests of interstate water supplies.

A cooperative study with the U.S. Corps of Engineers was started in a 300,000 acre-foot reservoir in Georgia to determine the influence of artificial destratification on microbial and chemical constituents. Fourteen coagulant aids were approved as safe to use in treatment of drinking water, based on a review of manufacturers' data.

Twenty-two technical audits of State shellfish control programs were conducted by the shellfish sanitation program during 1968. In making these audits the program inspected 860 of the 1,200 shippers or packers; evaluated sanitary engineering and oceanographic surveys of 447 growing areas, covering 8.2 million acres in 21 States; evaluated marine patrol of 445 polluted or restricted shellfish-producing areas covering 2 million acres of estuarine waters; and evaluated 22 State laboratory procedures in control programs.

The Operations Section continued to publish the semimonthly 1,500-entry list of interstate shellfish shippers who have met the standards of the national shellfish sanitation program. The list is distributed to local, State, and Federal health agencies and interested members of the shellfish industry.

The program sponsored the sixth National Shellfish Sanitation Workshop in Washington, D.C., as part of its administrative role in the State-PHS-industry partnership in the shellfish sanitation program. Among the 240 participants were representatives of the currently participating countries of Canada and Japan, and observers from France and Colombia.

Among the major accomplishments of the workshop were: Adoption of a new standard of refrigeration for shucked shellfish requiring cooling to 45° F. or less within two hours after shucking with storage not to exceed 40° F.; endorsement and encouragement of application of the depuration process for shellfish; endorsement of a proposal that all foreign sources of shellfish destined for import into this country be produced under the full range of controls applicable to domestically produced shellfish; and development of a plan for controlling waste dumping at sea designed to protect the marine food resource on the Continental Shelf, particularly surf clams from such wastes.

The research and development effort in the marine health sciences laboratories is directed toward the development of knowledge concerning the relationship between the marine environment and the public health aspects of uses of estuarine and offshore waters. These laboratories are located in three environmentally strategic areas—New England, the Gulf of Mexico, and the Pacific Northwest. The laboratories have been engaged primarily in studies of the course and fate of biological and chemical pollutants of diverse nature as they proceed through the estuary; the uptake, retention, and elimination of these agents by shellfish; and the occurrence and characterization of marine biotoxins.

Grants funded in 1968 in the area of responsibility of the water supply and sea resources program totaled $696,746. They were: research grants—nine noncompeting continuations totaling $398,396; new grants, $46,469. Training grants—four noncompeting continuations, $147,726; two new grants, $91,755. Two fellowships totaling $12,400 were awarded.

Food and Drug Administration

On July 1, 1968, through the reorganization of the Department's health programs, the Food and Drug Administration was made an operating agency of a new Consumer Protection and Environmental Health Service. Administration of the Food, Drug, and Cosmetic Act, and related laws, continues as an entity within this larger framework.

The Food and Drug Administration is responsible for ensuring that foods are safe, pure, and wholesome; that drugs and therapeutic devices are safe and effective; that cosmetics are safe; and that all of these are honestly and informatively labeled and packaged. In addition, it has broad responsibilities in other areas of consumer protec-

tion: hazardous substances, poisons and pesticides, as well as other products which may present hazards to the user.

FDA's major obligation is the administration of the Federal Food, Drug and Cosmetic Act. A new pattern in the administration of this law, during fiscal year 1968, emphasized communication and cooperation with industry, and with other agencies of the State and Federal governments, in the interest of compliance.

The new pattern in FDA operations during fiscal 1968 emphasized communication and cooperation with industry and other agencies of government, in the interest of compliance.

To enable manufacturers to undertake prompt voluntary correction of deficiencies found in their plants by FDA inspectors, a new program of notification was inaugurated. Verbal notice of violative practices had previously been given, with written notice confined to sanitary violations in food plants. Under the new notification plan, "significant adverse conditions or practices", reported by FDA inspectors during plant visits, are reported to company officials by certified mail approximately 3 weeks after an inspection. Companies are advised, however, that such a report "is not intended to imply that FDA will, or will not, recommend any legal or criminal action on the basis of an inspector's findings." When food samples are collected and analyzed for filth, FDA District offices also supply the results of analysis. Other interested Federal or State agencies receive copies of the letters.

To reduce duplication of effort and to provide more effective consumer protection, FDA Field Districts are concluding voluntary agreements with State enforcement agencies whereby inspections in specific industries will be handled by the States. For example, bakeries, medicated feed plants, food warehouses, and soft drink bottlers are types of establishments which five New England States will cover under agreements with FDA's Boston District. In Maine, the State will also take responsibility for inspecting its blueberry packers and sardine canners. Some agreements provide for joint inspections; others reserve certain areas for Federal surveillance, such as products shipped interstate which are subject to bacterial contamination. Exchange of information between Federal and State agencies is also provided for by the agreements.

Each agreement in this new "single system concept" is adapted to the capabilities of the participating agency and the nature of the workload. In New Jersey, State inspectors were commissioned under the Federal law, and FDA's New York District inspectors were commissioned by the State and granted embargo powers. In one of the first operations under the new system, a firm was found to be manufacturing drugs and insecticides in the same equipment. State au-

thorities stopped operations at the plant and FDA took steps to insure that contaminated products did not reach consumers in other States.

Innovative and extensive use of the regulation-making authority interpreted the law in specific terms for industry guidance. Proposed good manufacturing practice regulations for the food industries were issued, paralleling those previously established for the drug and medicated feed industries under the 1962 Drug Amendments. The food "GMP's" spell out good sanitation practices in relation to plants and grounds, equipment, manufacturing processes and controls, storage facilities, and standards of cleanliness for personnel handling foods.

An experimental system of Plant Evaluation Reports ("PEV's") was set up to enable FDA and industry to keep track of changes and conditions, learn of problems needing greater attention and better appraise the effectiveness of their efforts. Data on forms supplied to FDA inspectors will be processed by computer to obtain the desired information. It is hoped that a better measurement of compliance than court actions will result.

A pilot program for industry self-regulation was inaugurated by formal "self-certification" agreements with two leading food companies. The first of these covered Jell-O Gelatin and Jell-O Golden Egg Custard Mix, two of many products made at the General Foods Corp. plant at Dover, Del. The second agreement, with the Green Giant Co., covers canned whole kernel corn and peas produced at Blue Earth, Minn. The Minnesota Department of Agriculture is a third party in this contract. Under the agreements the companies make available all pertinent records relating to the products, including formulas, control records and consumer complaints. The Government agencies agree to provide consumer complaints they receive and copies of any reports on plant inspections needed to carry out the objectives of the projects.

Industry acceptance and participation in FDA's voluntary compliance activities continued to accelerate in fiscal year 1968. As a result FDA expanded its efforts to assist particular industries in identifying and solving specific compliance problems of major health significance to consumers. One hundred and forty-three District workshops and twelve National conferences were held focusing on these critical problem areas:

- Drugs—total quality control; compliance with good manufacturing practice regulations;
- Drug abuse;
- Bacteriological contamination of foods;
- Chemical residues in foods;
- Sanitation in food warehousing.

The workshops concentrated on the major problems in each of the project areas, such as salmonella and botulism in smoked fish; bacterial contamination in convenience foods, shelled pecans and shellfish; and pesticide residues in dairy products.

The increasing importance of a free exchange of ideas, suggestions, and solutions between industry and government was instrumental in attracting highly skilled specialists from industry, universities, FDA and other State and Federal agencies to participate in the programs. More than 13,000 professional and management personnel, representing over 6,000 firms, participated in the seminars, conferences, and workshops.

Reflecting greater emphasis on voluntary compliance, changing priorities, and the policy of using court procedure as a last resort, the number of cases filed in court declined from 1,342 in fiscal year 1967 to 839 in fiscal year 1968. (These figures are adjusted to omit illegal drug sales cases which are no longer an FDA responsibility—see table 1.) Cases terminated during the year, including those carried over from last year, totaled 1,147 under the Food and Drug Law, and 49 under the Hazardous Substances Act (table 2).

Recalls of defective or mislabeled products from the market, initiated by industry or FDA, exceeded the number of court actions. There were 902 recalls monitored in fiscal year 1968, compared with 900 in the previous year. Drug recalls, however, increased from 651 to 722. A public record is kept of all recalls, and several trade and professional publications list them regularly to inform wholesale and retail dealers and the health professions.

The recall mechanism is significant as an application of the "creative administration" principle—using whatever means are available to provide the best and quickest consumer protection. A number of illustrations of this approach are recorded elsewhere.

Percentage allocation of FDA funds and manpower was affected by the transfer of approximately $9 million for the former Bureau of Drug Abuse Control. The FDA appropriation, however, increased from $66 million for fiscal year 1968 to $70.9 million for fiscal year 1969. Allocations for food activities declined further, from 38.2 percent, to 32.5 percent, and the drug allocation from 50 percent (including drug abuse) to 41.3 percent. Funds programed for administering the Hazardous Substances Act were greatly increased, from 1 percent to 17.6 percent, reflecting transfer to FDA of activities formerly carried on by the Public Health Service (table 3).

In line with program and policy changes, fewer routine inspections were performed and fewer samples collected (table 4). Import sample collections were likewise reduced (table 5).

A great chapter in FDA history came to an end in April 1968 when President Johnson transferred the Bureau of Drug Abuse Control to the Department of Justice, forming a new Bureau of Narcotics and Dangerous Drugs. FDA's effort to control illegal traffic in barbiturates and amphetamines began in the 1940's, and came to a climax with the advent of LSD in the 1960's. Working with inadequate law, unarmed, and with little experience in criminal investigation, FDA inspectors went under cover as drug peddlers and their work was instrumental in obtaining the conviction of hundreds of racketeers and pushers. When the strong drug abuse control amendments were passed in 1965, a new bureau was established, with a nationwide field service and over 300 trained agents. Anticipating ultimate consolidation with the Treasury Bureau of Narcotics, the new FDA bureau had been set up as a separate establishment. With the transfer, criminal investigation became a minor field of FDA activity.

Food Activities

There was a further reduction of inspection and laboratory manpower devoted to non-hazardous filth such as insect contamination, and to "pocketbook" violations such as short weight and misleading labeling. At the same time FDA sought the help of State and local authorities to deal with such problems, and stepped up its voluntary compliance activities in the food industries.

There is evidence that sanitary practices in food warehouses and in food handling and processing establishments are receiving greater attention from industry management. This year a 66-percent increase in workshops, and over a 100-percent increase in firms attending them, was tangible evidence of industry's increasing interest in seeking solutions to their sanitation problems. The effectiveness of FDA's approach to voluntary compliance has stimulated many firms to conduct training programs and seminars for their first-line supervisors, as well as employees, in basic principles of sanitation. District personnel have participated in several industry sponsored programs. Service-type associations and firms (pest control operators and sanitation consultants) have provided specialists who participated in these workshops and seminars.

FDA's oldest formal compliance program, the quality control plan for canned salmon begun in 1936, was updated during the year with signing of agreements by 61 firms producing more than 98 percent of the pack. The new agreements include more specific guidelines on sanitary requirements for plants, equipment and personnel. They also provide for regular inspections by FDA or the National Canners

Association, code identification of all production lots, and checking of samples from each lot.

In August 1967, FDA's Boston District discovered that Maine sardine canneries had a serious problem with leaking and swollen cans. In approximately 2 weeks all of the 23 canneries in Maine were inspected. The inspections uncovered leaking cans in warehouse stocks from six plants, although all packers agreed they had experienced some leakage.

On September 19, 1967, a conference between FDA, the Maine Department of Agriculture and sardine industry representatives was held. After considerable discussion, the industry agreed to voluntary correction of the problem. The voluntary action was closely monitored by FDA by can-by-can examination of suspect lots, followed by sample collections for bacteriological analysis. The State of Maine cooperated by placing an embargo on all lots at plants until freedom from contamination was established.

The agreement with the Maine sardine industry proved to be very effective. Except for two lots which were seized, all defective lots were segregated and reconditioned. One seized lot was destroyed, and the other was reconditioned under a court order. Finally, the industry has conducted an extensive investigation to evaluate cans and manufacturing operations to prevent recurrence of the problem.

Food-Borne Infection

Salmonella contamination continued to be a major public health problem affecting the food industries during fiscal 1968. Incidence of reported food-borne infections remained about the same as last year. One of the major salmonellosis outbreaks of the year implicated a frozen dessert made from unpasteurized egg yolks. The product was prepared by a processor who supplied banquet caterers, from local egg yolks not pasteurized in accordance with the Federal Standards. Fourteen incidents involved an estimated 1,800 persons. The same serotypes were isolated from stools of patients as from the frozen dessert. All of the ingredients were negative for salmonellae except the frozen egg yolks, from which two of the three serotypes involved in the illnesses were isolated. Based upon the total number of servings of the dessert produced by the manufacturer, and the attack rate of known outbreaks, it is extrapolated that between 9,000 and 21,000 persons were made ill by this one product.

Two warning statements were issued concerning hazardous practices. One warned of the potential danger of feeding poultry litter to food animals. The second cautioned vegetable shippers and others against using secondhand poultry crates for shipment of foods. This warning was issued after it was determined that such crates were being routinely

used as shipping containers for celery, cabbage, and other fresh vegetables frequently consumed without cooking.

A coordinated program was started with the Department of Agriculture, whereby the Agricultural Research Service, Animal Health Division, cooperating with State agencies, will conduct routine inspection and product sampling of all animal byproduct processors, including fishmeal producers. Those processors who fail to take positive steps to maintain a high level of sanitation and eliminate Salmonella contamination are reported to FDA for appropriate regulatory action.

The food and drug industries have continued to respond to the problem of controlling microbiological contamination. Voluntary product recalls in fiscal year 1968 totaled 57. Thirty-six food products were the subject of recalls. Eggs and egg products led the list, followed by animal feeds of byproduct origin and dried dairy products. Two nationwide recalls of finished chocolate candy were initiated because of Salmonella contamination in various production lots and batches. One candy firm found Salmonella in imported gelatin and destroyed 706,000 pounds of finished candy containing the gelatin. A yeast firm closed its plant for a complete cleanup and installation of new processing equipment. Twenty-one drug preparations, ranging from bulk drugs to finished dosage forms, were recalled.

On the educational front, industry responded by participating in and contributing to 35 District workshops attended by over 3,000 management, professional and firstline supervisory personnel from 1,480 firms. Good manufacturing practice guidelines are being prepared by the pecan, breaded shrimp, pet food, and smoked fish industries. A slide series, "The ABC's of Salmonella," was developed for industry information and training. The slides present basic information about Salmonella in a simple, easy-to-understand approach for plantworkers. Over 500 sets have been sold to date.

Approximately 55,000 product tests for Salmonella were made by FDA microbiologists during the year.

Chemicals in Foods

Pesticide residues in the Nation's food supply have remained low, and foods with residues exceeding legal tolerances are infrequently encountered.

Heptachlor residue in milk from Montana's Gallatin Valley was traced to contaminated hay. FDA gave State officials extensive laboratory and advisory support. Cheese made from contaminated milk was seized by FDA.

In February 1968 DDT and its metabolites were found in milk from the Texarkana area. Eight samples were found over the legal toler-

ance. With the help of the industry and cooperating officials, the milk was kept off the market until the contamination was reduced.

Dieldrin residues in eggs led to disposal of a flock of layers in Mississippi. Investigation of two other poultry producers indicated that dieldrin contamination was caused when a pest control service used aldrin as a rodent-tracking powder around the henhouse. Dieldrin is a metabolite of aldrin.

Endrin in carrots, toxaphene in lettuce, parathion in Brussel sprouts, accounted for scattered seizures of vegetable shipments.

DDT tolerances were reduced for 31 fruits and vegetables, from 7 parts per million (p.p.m.) to 3.5 p.p.m. for some, and 1 p.p.m. for others. Pending further study, the 7 p.p.m tolerance was retained for 5 leafy vegetables

Instances of contamination of foodstuffs in vehicles also carrying pesticide shipments led the FDA Commissioner to request the cooperation of State and national transportation associations. Such accidents in other countries caused numerous deaths.

FDA Districts held 20 industry workshops dealing with pesticide residues in fruits, vegetables, dairy products, and eggs. The effectiveness of this approach was particularly noticeable in Mississippi and Alabama. For some time the poultry men, dairymen, and dairy manufacturers in these two States had been encoutering residues in their livestock products. They requested assistance from FDA, with the result that several workshops were held in these States during which industry, State and FDA all took an active part in discussing the problems, sources and avenues of contamination and preventive solutions. Since the workshops were held, the incidence of residues has been substantially reduced. FDA Districts also held three pesticide analytical methods workshops which were attended by both State and industry scientists.

Pocketbook Protection

Seventy-six legal actions were recommended to remove substandard, short weight or mislabeled food shipments from the market, compared with 103 such cases last year. Corrective action was also sought by putting firms on notice through 96 citation hearings, and 11 recalls were carried out. FDA press releases called attention to two economic cheats—a beer seized because of label claims implying it was calorie-free and nonfattening, and a combination noodle-with-"chicken sauce" product which—although the label showed a plate heaped with noodles, along with a piece of chicken—contained little or no chicken.

In Texas a Grand Jury indicated a cottonseed processor for marketing cottonseed meal which contained less than the "41 percent protein" claimed on its label. On evidence provided by the State, the firm and its

president were convicted. The company was fined $7,500, which was suspended, and the individual defendant $750.

Foods for Special Dietary Use

A public hearing began May 21, 1968 on regulations to replace the out-of-date labeling rules adopted in 1941. Over 100 "interested persons" are participating in the hearings. The new labeling regulations are intended to provide the consumer with more facts about the food he buys for special dietary use, such as for weight reducing or controlling salt or sodium intake. The regulations also set standards for vitamin and mineral supplements and for certain foods which may be fortified with vitamins and minerals.

The public hearing deals with such questions as:

—Will standards of identity for vitamin and mineral supplements and fortified foods promote honesty and fair dealing in the interest of consumers?

—Should such standards limit the nature and quantities of vitamin and mineral nutrients added to these products?

—Should there be a restriction on the kinds of foods that may be fortified?

—Must the calorie count of a food be reduced at least 50 percent before the product can be represented as being lower in calories?

Another issue in the hearing is the proposed label information statement the regulations would require on some vitamin and mineral supplements, to read: "Vitamins and minerals are supplied in abundant amounts by commonly available foods. Except for persons with special medical needs, there is no scientific basis for recommending routine use of dietary supplements."

Fair Packaging and Labeling Act

Regulations specifying how the identity of the product, name, and address of the manufacturer, packer, or distributor, and net contents must be declared on food labeling became effective July 1, 1968. Approximately 3,300 companies, which made an effort to comply but were unable to relabel their entire product line by July 1, are given until June 30, 1969, for full compliance.

The law gives the agency discretion to grant industry exemptions from one or more provisions of the general regulations to accommodate unique practices in the packaging or labeling of a class of commodity, provided that such practices do not confuse or deceive the consumer. An exemption regarding placement of information was granted to soft drink manufacturers, so that they could continue to use multiuse and reusable bottles. Exemption requests from manufacturers of 9 other kinds of products were under consideration at the close of the fiscal year.

The first two of a series of 9 regional meetings with State and local officials, to plan cooperative efforts for enforcement of the law, were held in Trenton, N.J., and Charleston, W. Va.

DRUG AND DEVICE ACTIVITIES

Actions to insure the safety and effectiveness of drugs continued to have the highest priority in FDA planning and operations during fiscal year 1968. The number of court actions declined, but to a lesser extent than actions involving other products. There were 307 drug and device cases filed in the Federal courts, as compared with 421 in fiscal year 1967. But recalls of defective or mislabeled drugs increased from 651 to 722.

Improvement in drug quality and reliability was sought by a 3-pronged approach: a voluntary compliance program, regulatory actions, and increased assistance to industry in analytical methodology.

The educational program was guided by FDA's Bureau of Voluntary Compliance in conjunction with the FDA District offices. During fiscal year 1968 a total of 22 District workshops were held—attended by over 2,000 individuals representing over 900 drug firms.

Activities in the workshops were mainly directed toward improving understanding of the current good manufacturing practice regulations. The significance of these regulations was evident in that of the 722 drug recalls in 1968, 78 percent were attributable to deficiencies in manufacturing practices.

The importance of drug stability and the need for stability testing before, as well as after, drugs are marketed was highlighted by a national seminar on drug stability as affected by containers and environment. This conference considered the desirability of including expiration dates on drugs which presently are not dated, as an added assurance of their quality. As a result, several firms initiated a program to place expiration dates on all products.

The importance of human error in drug production, and the need to promote a better understanding of its importance, was the principle feature in the continuing visual educational program. A 25-minute FDA color film, "Good Drug Manufacturing Practices: No Margin for Error," designed to motivate drug industry personnel, was shown to over 10,000 persons from 277 firms; and a slide series on "total quality" was produced and distributed. These visual aids were widely acclaimed by drug firms, which found them of great value in their employee training programs.

Scientific aspects of drug reliability were emphasized also at two other national seminars, one dealing with analytical methods and the other with microbiological contamination of drugs. A 10-percent reduction in drug recalls due to good manufacturing practice de-

ficiencies in 1968, as compared with 1967 may be attributed in some measure to educational activities.

Manufacturers of oral contraceptives were again requested to revise their labeling—this time to advise physicians concerning British studies showing a substantially greater incidence of thromboembolic (blood clotting) disease among users. The report in the April 27 issue of the British Medical Journal noted 4 deaths per 100,000 users in the 35–44 age group, compared with 1 per 100,000 nonusers. On June 30, a warning letter from the Food and Drug Administration was sent to 309,000 practicing physicians and hospital administrators urging careful attention to the revised labeling.

A yearlong study of intrauterine contraceptive devices was made public January 22, 1968. In a 101-page report, the FDA Advisory Committee on Obstetrics and Gynecology said the devices are effective but that their insertion carries "a definite, albeit small, risk of infection and uterine perforation." The expert panel found that many of the devices were not marketed in sterile packages and did not have disposable introducers. It was recommended that all patients have a cancer smear test before insertion and periodic tests thereafter.

Regulatory Actions on Drugs

In a major regulatory program, 29 seizures were made of drugs containing thyroid and digitalis, or thyroid alone or combined with other drugs, labeled and promoted for treatment of obesity. More than 48 million doses were seized or voluntarily destroyed with a wholesale value of $680,000. Patients at "obesity clinics" would have paid millions for them.

Over 10 tons of pills were seized at one firm, the Lanpar Co., of Dallas, Tex. When they continued business as usual, FDA sought a Federal court injunction. On October 1, 1968, a permanent injunction was granted ordering Lanpar to stop representing that its products can safely bring about weight loss and to put special warnings on labels of any thyroid or digitalis they sell.

Another firm, the Lemmon Pharmacal Co., is suing FDA to prevent it from applying its policy to a product they manufacture.

Diet pill litigation is expected to continue, but action thus far is believed to have caused a substantial decline in the dangerous use of drugs for weight reduction.

The diet pill business came under public scrutiny in January at hearings before the Senate Subcommittee on Antitrust and Monopoly. A story in Life Magazine coined the name "rainbow pills" for the tablets which are the stock-in-trade of several thousand physicians who operate the so-called "clinics," FDA has no authority over the practice of medicine but was able to launch court proceedings against

promotion of the drugs for weight control. In a published statement of policy, the agency declared that the use of the drugs for obesity was without medical rationale and that such drugs would be considered as misbranded.

Actions involving proprietary nonprescription drugs included stopping distribution of Pro-Forma tablets, sold by mail order to enlarge the female breast; a recall of 450,000 packages of an antihistamine, which were slack filled, and labeling revisions for timed release aspirin products which claimed to be more effective than an equivalent dosage of other aspirin.

New Drugs

The services of physicians and pharmacists, detailed from the Public Health Service to help expedite the review of new drug applications and eliminate a long-standing backlog of pending actions, ended at the close of fiscal year 1968. Although recruitment of chemists has been successful, the replacement of PHS medical officers will be more difficult.

New drug application actions completed totaled 452. There were 59 NDA's approved, 167 not approvable, and 136 were found to be incomplete. Meeting the statutory time limit of 180 days for review was not always attained. The backlog, which varied from 0 to 25, stood at 7 on June 30.

Analysis of incomplete and not approvable NDA's showed 16 percent lacking sufficient animal safety data; 51 percent lacking in clinical safety data; 53 percent lacking clinical efficacy data; component and composition data not adequate in 33 percent and 39 percent respectively; inadequate manufacturing control in 84 percent; unacceptable samples in 55 percent; and unacceptable labeling in 61 percent.

New Drug Applications.—A total of 134 original new drug applications for drugs for human use were submitted during the fiscal year and 214 applications were resubmitted. There were also 923 amendments and other correspondence relating to pending applications. Fifty-nine drugs were approved for marketing, of which 14 were considered to represent new chemical entities.

Significant new drugs approved for marketing during the year included a non-narcotic analgesic Talwin (pentazocine lactate); psychotherapetic agents, Navane (thiothixene), and Vivactil (protiyptyline HCl); an antituberculous agent, Myambutol (ethambutol); a beta-adrenergic blocking agent, Inderal (propranolol HCl); an anticancer agent, Hydrea (hydroxyurea); a narcotic analgesic sublimaze (fentanyl citrate); a drug for the treatment of trigeminal neuralgia, Tegretol (carbamazepine); an immuno-suppressive, Imuran (azathio-

prine); a drug for the treatment of acute iron poisoning, Desferal (deferoxamine mesylate), and a radiopharmaceutical agent, cyanocobalamin Co 57.

Investigational New Drugs.—Notices to FDA of drug studies begun on human beings increased from 671 in fiscal year 1967 to 858 in 1968. In addition to these "Notices of Claimed Investigational Exemption for a New Drug" (IND's), FDA received a total of 10,103 amendments and progress reports on approximately 4,900 studies reported during the previous 5 years.

Sponsors discontinued investigations on 564 projects and 11 were terminated by the FDA. A total of 17 projects were reinstated from discontinued status. Seven projects were transferred for monitoring by the Division of Biological Standards at the National Institutes of Health, and 19 were canceled.

Maximum effort was made to reduce the backlog of reviews to a minimum to cushion the loss of the Public Health Service physicians who had played a major role in the evaluation of IND submissions. The number of IND's over the 60-day administrative time limit at the beginning of the year was 640. The number at the end of the year was 304.

During fiscal year 1968, a total of 12 clinical research investigators and 17 facilities were visited. As a result, 5 inspections related to the qualifications of clinical investigators were requested and 4 informal hearings were held.

Eighteen applications to market new antibiotic products were submitted during the fiscal year and 53 were resubmitted. Sixteen were approved for FDA testing and marketed.

New Drug Surveillance.—A total of 1,397 new drug application supplements were received during the fiscal year.

Although total supplements reviewed exceeded the number planned, they did not keep pace with the number received. Supplements in review status accordingly rose from 1,624 at the beginning of the fiscal year to 1,680 at the end. However, the new drug supplement backlog was reduced by 148 (from 1,195 over the 180-day time limit to 1,047 over the time limit at the end of year). Actions taken on NDA supplements totaled 1,595. Reports on medical experience with approved new drugs totaled 5,652. FDA requested 231 NDA supplements after reviewing reports of medical experience with approved new drugs.

Basic data on each supplement was computerized for periodic or special printout to determine the status of all supplements at any time.

Drug Efficacy Study

A Drug Efficacy Task Force, formed in June 1968, received 733 evaluation reports from the National Academy of Sciences–National

Research Council on drugs for which new drug applications were approved prior to 1962. Over half of these reports were received in June 1968. The Food and Drug Administration, concurring with the conclusions of the National Academy of Sciences—National Research Council, published the findings of the Academy on 10 of these reports in the *Federal Register* during fiscal year 1968.

At an efficacy review conference in Washington on Jan. 22, 1967, it was estimated that 3,600 formulations, representing 17,000 to 18,000 individual products, would be evaluated when the project is completed. It was estimated that possibly 10 percent of these would be found either ineffective, or ineffective in some respect and in need of labeling revisions to modify their claims. FDA procedures to carry out the study recommendations were outlined at this meeting (see *FDA Papers*, March 1968). In its first action to remove from the market drugs found ineffective, FDA published a notice that there is no evidence that the drugs rutin, quercetin, hesperidin, or citrus bioflavonoids "are effective for use in man for any conditions" (see *Federal Register*, January 22, 1968).

Adverse Reaction Reporting

During the year a Division of Drug Experience evolved from what was originally known as the Adverse Reaction Task Force. The objective for fiscal year 1968 in this program was the evaluation, coding and computer storage of a backlog of adverse experience reports received under the hospital reporting program in calendar years 1966 and 1967. A total of 26,023 adverse experience reports were processed for computer input (an average of 2,000 per month). Eighty-six hospitals were reporting adverse reactions to FDA at the end of the year.

Liaison has been established between a World Health Organization pilot project for international drug monitoring and the Division of Drug Experience. With an increasing volume of data in the system, the number of searches increased, and each has been more significant because of the greater search capability.

Prescription Drug Advertising

Prescription drug advertisements reviewed during the year were mainly those of heavily advertised items and new drugs just approved.

Thirty requests for corrections in medical journal advertising were made to the industry. In addition, 18 corrective letters were sent to the medical profession at FDA's request, and one corrective advertisement was published.

Official Names for Drugs.—A total of 105 names for drugs were proposed as official names during the fiscal year 1968.

Veterinary Drugs and Medicated Feeds

Persistence of antibiotic drug residues in food products from treated animals led to a major policy determination announced April 11, 1968. This was to classify all antibiotics intended for use in animals raised for food in the same manner as "new drugs" and to require food additive regulations for their safe and effective use. The first in a series of regulations implementing the new policy was also published on April 11. Further regulations specifying the authorized uses will include injectable antibiotics as well as those administered in feed or drinking water.

Good manufacturing practice regulations for medicated premixes for animal feeds were announced October 31, 1967. They require testing of all batches of basic premixes to insure that they meet standards of strength and purity in terms of the drugs they contain. Previously, the premixes had been subject to the GMP regulations for all drugs, but some of these requirements were not applicable to the premixes.

Insuring safe uses of medicated feeds depends mainly on industry understanding and compliance with controls set up under the law. Cooperative educational programs to reach both feed mixers and the farmer were substantially expanded through FDA District workshops, exhibits at national conventions, and distribution of posters and other information materials. During the year, 22 workshops were conducted with total attendance exceeding 1,200, representing 900 firms.

A slide series, "Antibiotic Residues—Hidden Risks," was developed and made available to industry. The slides were designed to make farmers and livestock producers aware of potential hazards which may develop from indiscriminate and improper use of antibiotics to prevent and treat disease, as well as to promote growth and feed efficiency in food-producing animals. Many firms and associations are now cooperating in advising the farmer and livestock producer. One large manufacturer, with FDA's cooperation, has produced a movie on the careful use of medicated feed, paying particular attention to following label directions. An association has developed a label symbol designed to alert farmers to read and follow label directions. National feed associations, working with FDA in disseminating information on the use of medicated feed, have conducted their own workshops and have issued their own bulletins on the subject. Three thousand FDA posters dealing with careful use of medicated feed have been distributed through these associations.

FDA veterinarians play an important role in these efforts. Three more veterinarians were assigned to District offices, making a total of eight now serving in the field.

Over the years, FDA veterinary research and law enforcement have saved farmers hundreds of millions by stopping the sale of worthless, dangerous, or improperly labeled livestock remedies. An important new approach to such problems is the review of veterinary Drug Experience Reports received from manufacturers and veterinarians. During fiscal 1968 there were 173 corrective actions based on such reports. As an example, deaths of horses were prevented when it was found that settling of active ingredients in a worm medicine was causing both underdosage and overdosage. In another case, adverse reactions in dogs and cats were traced to inadequate labeling of a topical insecticide for veterinary use. Corrected labeling included additional warning statements and more explicit instructions regarding the animal species being treated.

At the close of the fiscal year, FDA was preparing for administration of the new Animal Drug Amendments Act of 1968, which consolidated procedures for regulating feed additives, noncertifiable antibiotics and new drugs, for animal use, in one section. It is hoped that the new procedure will speed the handling of clearance applications which fell behind during the year.

Therapeutic Devices

During the fiscal year 59 regulatory actions were filed against various misbranded medical devices, and some 16 actions were taken against prophylactics which failed to meet the required standards.

Litigation continued against the Diapulse Corporation of America, promoters of an electromagnetic generator claimed to be an adequate and effective treatment for more than 100 diseases and conditions. A District Court jury verdict that 49 such claims were false or misleading was upheld by the court of appeals and the Supreme Court denied further review. An injunction suit was filed in April 1968 to stop further use of the remaining claims and the firm consented to a preliminary injunction on the previously adjudicated claims pending trial. It is estimated that over 3,000 of the devices have been sold to medical practitioners throughout the nation, many of which are probably still in use.

In the case of the Hubbard E-Meters, the jury trial finding in favor of the Government is still under review by the Court of Appeals. In the meantime, some 40 E-Meters imported from England have been denied entry into this country. The Founding Church of Scientology, of Washington, D.C., the group which employed the E-Meter in its activities, has lost its tax-exempt status because a Federal court said they were too commercial.

Regulatory actions against devices which cause muscles to contract by electrical currents through pads applied to the skin have continued

on the basis of false and misleading claims for achieving weight reduction, girth reduction, and removing and preventing wrinkles on the face and neck. An injunction is presently being sought against the leading manufacturer of such devices. It is estimated that over a period of 30 years, this firm has sold over 300,000 of the devices to the public at a cost of approximately $300 each.

Excessive health claims for household humidifier devices, particularly that they prevent colds and other respiratory ailments, were curbed in a series of misbranding cases. After trial of one case the court held that the claims in the sales literature were too broad, and misleading if not false. The court reasoned that, since the cause of colds is unknown, it can not be claimed that these devices prevent them. Following the decree, which was not appealed, the industry moved to limit humidifier claims to preventing discomfort and protection of property.

Nationwide distribution of the worthless Cristofv Anti-Fatigue Unit was halted after seizure of 15 devices in Columbus, Ohio. The labeling stated that the device is adequate and effective to create and control an artificial electric power field and freely suspend negative ions within a particular field which will effectively simulate the conditions produced by the natural electric power field of the earth and will create an ideal out-of-doors atmosphere, causing an increase in capacity to work and learn; increase efficiency and productivity; prevent nervous exhaustion; increase fertility; increase mental performance; eliminate drowsiness; relieve bronchial asthma, rheumatism, respiratory complaints, aching joints, and hay fever; lower suicide rates, etc. The labeling read, "The Technical Discussion is beyond the Scope of the Space here . . . but here are some of the High Spots!"

COSMETICS

Action to ban use of bithionol, an antibacterial agent used in some cosmetics, was taken when it was found to cause severe skin reactions following exposure to sunlight. Reports from dermatologists and patch tests showed that photosensitivity could continue for long periods after contact with the chemical and that it also may produce cross-sensitization with other commonly used cosmetic materials such as hexachlorophene. Bithionol was being used in such products as shampoos, creams, lotions, detergent bars, and bases used to hide skin blemishes.

Nine seizures of cosmetic products were filed in the courts, five of these on charges of violating the drug provisions of the Act. Nineteen shipments of imported cosmetics were detained on arrival, mostly because of false claims and other labeling violations.

Two seizures of eyelash and eyebrow tints were made on charges that the materials are unsafe, in conflict with the color additive regulations.

Five products were voluntarily recalled from the market. Three of these were lotions found to contain infectious bacteria (pseudomonas). One lotion was being used at several New England hospitals and nursing homes. FDA was alerted to the problem when a Massachusetts physician reported infections in patients which he attributed to the lotion.

Two other recalls involved "hormone treatments to help you grow thicker hair." One product contained the male hormone, testosterone; the other the female hormone, estradiol. The manufacturer did not have a new drug application for either.

CERTIFICATION OF COLORS AND DRUGS

During fiscal year 1968, the National Center for Antibiotics and Insulin Analysis was established to assay all batches of insulin and antibiotics. This Center is established in the Division of Pharmaceutical Sciences of FDA's Bureau of Science. And, to handle administration of the certification processes, the Office of Certification Services was established in the Office of the Associate Commissioner for Compliance.

Color additives.—The law requires that all color additives used in foods, drugs, and cosmetics be on a "permitted list." In addition, samples from each batch of color manufactured must be submitted to the FDA to determine compliance with specifications, unless the color is specifically exempted. If specifications are met, a certificate is issued and the color is said to be "certified." In 1968, 3,620,989 pounds were certified. This amount is practically the same as was certified in 1967.

Antibiotics.—Samples of 19,179 batches of antibiotics and antibiotic-containing preparations were submitted by industry for certification. Thirty-two different antibiotic ingredients were represented. Of these, 144 batches failed to meet the standards of identity, strength, quality, or purity. An additional 317 batches of antibiotic products were submitted by other Government agencies and were examined for suitability for use or for extension of expiration date.

Insulin.—Three hundred and fifty-three batches of insulin were tested for industry and two batches for another Government agency. All batches were satisfactory.

IMPORTS

More than $4 billion worth of foods, drugs, and cosmetics are imported each year into the United States. FDA is responsible for the compliance of all such articles with the law that protects the U.S.

consumer. Since it is impossible to inspect all shipments, there is a selection for sampling and examination. A further reduction was sought this year in order to concentrate on products involving health hazards. About 17,000 samples were checked at dockside and in the FDA laboratories (see table 3) compared with 20,000 last year.

Major actions involving imports included seizure of 1.8 million pounds of cocoa beans at Baltimore, valued at $478,000, because of insanitary storage and mold and insect infestation, and 20 detentions totaling nearly 1.9 million pounds of Brazil nuts at Mobile, Ala., because of contamination with aflatoxin. To reduce the cost of salvaging and delay in marketing, Brazil nut importers worked out a plan for initial sorting by Department of Agriculture personnel, at industry expense, so that only the bad lots are handled by the FDA. Cocoa bean detentions at all ports totaled over 20 million pounds; Brazil nuts 3.9 million pounds.

A reduction in the inspection of spices, because of its lack of health significance, was followed by mounting trade complaints that a large volume of adulterated spice was reaching the consumer. A 4-week sampling program by New York District resulted in 20 seizures of contaminated products. In a new effort to deal with the problem on a voluntary compliance basis, the trade was put on notice that spices, particularly those which regularly require reconditioning, are subject to seizure if found to be adulterated. As a result, there has been a marked improvement and the industry began to explore the possibility of setting up reconditioning operations in the countries of origin.

An injunction suit contesting FDA's detention of 3,394 bags of damaged green coffee at San Francisco was decided in favor of the Government by the U.S. district court but the importer has appealed.

FDA has always worked to keep foreign producers informed concerning U.S. laws, thus reducing the incidence of goods that are denied entry at the ports. This year, a program of briefings was conducted at Washington for the commercial, agricultural, and economic attachés of foreign governments to acquaint them with the functions of the agency.

International air freight, and growing use of "containerized" shipments which remain sealed until they reach their destination, are making it necessary for inland District offices to inspect an increasing volume of imports.

Hazardous Substances Act

Compliance with the Federal Hazardous Substances Act has been good; thousands of household products now bear the improved safety labeling required by the original law of 1960 and its amendments in

1966. The Act now provides for consumer protection beyond that which can be realized through labeling because it bans outright the sale of toys and other children's articles containing hazardous substances, and provides a procedure for classifying as "banned," other household substances that are so hazardous that warning labels are not adequate safeguards. Applying the new authority, FDA proposed to declare carbon tetrachloride as a banned hazardous substance for household use. The final order was challenged by industry and has been stayed pending resolution of the issues at a public hearing.

Legal actions were initiated against several brands of automatic dishwasher detergents with labeling deficiencies. The seizures were based on the failure of the packages to bear adequate labeling, warning housewives of the hazards which could result if the products were misused, and failure of the labels to give adequate information on what to do if children were accidentally injured by the product. One of the articles bore labeling boldly declaring the product to be "SAFE." However, FDA analysis showed that the products contained alkaline silicates, substances that are harmful if ingested and corrosive to body tissues.

A number of legal actions were also initiated against large explosive fireworks, such as cherry bombs. Such articles are banned for sale to the general public for fireworks use, but may be sold to farmers for bona fide crop protection uses. FDA investigations of several serious injuries and deaths associated with fireworks revealed that the exemption was being grossly misused by persons who were selling the articles to the general public. Over 30 injuries, including several fatalities, were investigated.

The first criminal action under the Child Protection Act Amendments was initiated. In June 1967, a preliminary injunction was issued prohibiting Christie Industries, Inc., of Dupont, N.J., and its president, Edwin C. Christie, from shipping do-it-yourself bomb kits. Such kits had been responsible for property damage and serious injuries to teenage children. The firm continued to advertise through magazines with large youth audiences, and investigation by FDA showed that chemicals, fuses, and casings were still being shipped to young people.

Following a 2-day trial in Federal Court, the defendant, on June 19, 1968, was found guilty of criminal contempt for violation of injunction and a $5,000 fine was imposed.

FDA initiated a total of 61 seizures during the fiscal year, of which 28 involved fireworks and the balance included a variety of other products, such as lighter fluids, cleaning solutions, wood stains, and epoxy resin kits.

A public warning was issued in June 1968, that an increasing number of children under 5 years old are being killed or injured as a result of swallowing such products as charcoal lighter fluids. The products bear warning labels to keep them out of the reach of children. Over 900 such accidents were reported in 1967.

Other press releases were issued when FDA seized dishwasher detergents and pressurized oven cleaners that did not warn the consumer against injuries resulting from foreseeable misuse.

A series of FDA-industry conferences on labeling of household chemicals and paints was initiated to promote compliance. The Chemical Specialties Manufacturers' Association and the National Paint, Varnish and Lacquer Association were cosponsors of the conferences.

Administration of Other Acts

Tea Importation Act.—All teas imported into the United States are examined for compliance with standards set by the U.S. Board of Tea Experts, appointed from the trade. Fees paid by importers support the service. A total of 138,176,952 pounds was examined in the fiscal year, of which 827,247 pounds was rejected. Five rejections were taken to the Board of Tea Appeals but the FDA Examiner was upheld in each case.

Federal Import Milk Act.—The first regular permit for importation of milk from Europe was issued in September 1968, to a firm in Denmark for canned sweetened condensed milk.

Federal Filled Milk Act.—This law prohibits interstate distribution of milk products in which the butterfat content is replaced with vegetable oils to make them resemble milk or cream. During the year there was a marked increase in interstate sales of such products, resulting in several court actions under State laws, but no violations of the Federal Act were encountered. In some States filled milk now has a substantial share of the market.

Court Interpretations

The Supreme Court declined to review lower court decisions that a disposable applicator used for suturing blood vessels during surgery was a "new drug" and subject to FDA clearance for safety and effectiveness. The district court held that the essential element of the product is the suture, and rejected the manufacturer's argument that the article was a device, and thus not subject to premarket clearance. The court of appeals agreed and said:

> "The public will be better protected by classifying plaintiff's products as drugs rather than as devices so that proper testing,

controlled by the Government, can be pursued. It would seem that when an item is capable of coming within two definitions, that definition according the public the greatest protection should be accepted.

"Also: Since the method of administration of plaintiff's drug is new and there is a lack of general recognition of the safety of the sutures, they must be classified as new drugs."

The Supreme Court agreed to review district and circuit court decisions that an antibiotic sensitivity disk is not a drug as defined in the Food, Drug, and Cosmetic Act. Such disks are used by physicians to determine what antibiotic to use for a particular patient's infection. In a seizure of the disks the Government charged they had not been tested and certified by the FDA, as required for antibiotic products generally.

Cosmetic color regulations which would have required manufacturers of lipstick and other makeup to provide proof that the finished product, as used by the consumer, is safe, and not just the color ingredient, were found invalid by the U.S. District Court at New York. Ruling in a suit by the Toilet Goods Association the court held that the Color Additive Amendment of 1960 applies only to colors, and not to their vehicles. diluents, etc.

Hair dyes, likewise, are exempted from safety clearance if the colors used have been certified by FDA and the label contains instructions for a "patch test." The FDA regulation, declared invalid during fiscal year 1968, had the effect of extending safety clearance to the wetting agents, hair conditioners, emulsifiers, etc. used in color shampoos, rinses, or similar dual-purpose cosmetics that alter the color of the hair.

The Government has appealed the District Court's decision.

Litigation initiated by the Pharmaceutical Manufacturer's Association, challenging an FDA regulation on the use of generic drug names in labeling and advertising, was settled prior to argument in the Court of Appeals. A revised regulation was issued requiring the generic name to be used along with the trademark each time the latter designation is featured in the copy, rather than whenever the trade name appeared.

Drugs for export are not exempt from the new drug provisions of the act, according to a District Court decision in a seizure of Ethionamide-INH, a drug represented for the treatment of tuberculosis.

Two "wrinkle removers," Sudden Change, and Line Away, were involved in conflicting District Court decisions as to whether they come under the safety and efficacy requirements for new drugs. Numerous such products containing bovine albumin were seized several

years ago on charges they had not been cleared for sale as drugs "intended to affect the structure of the body."

The District Court at Brooklyn held that Sudden Change, a lotion advertised to the public as providing a "facelift without surgery," was not a drug since its action is only mechanical, and that the public does not take cosmetic claims seriously.

The District Court at Wilmington, Del., ruled that under the law it is the intended use of a product—in short, its claims—that determines whether or not it falls within the statutory definition of a drug. The court noted that "a sharp conflict exists as to whether Line Away is generally recognized by experts as safe and effective for use as recommended."

Both cases have been appealed.

The Court of Appeals upheld a District Court jury verdict that Diapulse devices were misbranded by false and misleading claims. The court held that medical journal reprints have no immunity from being considered as "labeling" under the Act. It reaffirmed that the initial responsibility for approval of new labeling is with the FDA, and that litigation is not for the purpose of determining new labeling but to determine whether the labeling used was in violation.

New Laws and Regulations

REGULATIONS

Food Additives.—During the fiscal year, 120 new food additive petitions were received and 102 orders were published involving food additive regulations, exclusive of veterinary items.

As of June 30, 1968, approximately 2,600 food additives had been made subject to regulations; in addition, 574 substances had been formally declared generally recognized as safe for certain uses, and prior sanctions were listed in the regulations for 114 items.

An order was published January 20, 1968, providing for the safe use of two octyltin stabilizers in polyvinyl chloride plastics for food-packaging use. The purpose of such stabilizers is to facilitate production of glass-clear plastic bottles and containers.

On April 19, FDA advised that it could not approve a petition for irradiated ham. Data supplied in the ham petition raised the question whether existing regulations that permit radiation processing of canned bacon could continue in effect.

Calamus, as the root, oil, or extract, has a history of use as a food flavoring and a carminative and topical counter-irritant in drug preparations. When an FDA rat-feeding study showed that the Jammu variety of calamus oil caused cancer, a policy statement was issued defining calamus as an unapproved food additive which may not be

used. The May 9 statement said that any food or drug containing any form of calamus would be considered to be in violation of the Act.

Following a proposal by the Canadian Food and Drug Directorate to withdraw approval of nordihydroguaiaretic acid (NDGA) as an antioxidant in foods, FDA concluded that NDGA could no longer be considered as generally recognized as safe. An order to remove NDGA from the list of substances generally recognized as safe was published on April 11, 1968.

Three hundred and twenty-five persons, representing leaders of industry and the scientific field, lawyers, consumer groups, and government, attended a national conference sponsored by FDA in Washington, D.C., on Feb. 13 and 14, 1968 to discuss the scientific basis of FDA policy on food packaging and indirect food additives.

Pesticides.—During the fiscal year, 111 new pesticide petitions were received and 267 tolerances were established, involving 65 pesticide chemicals. These included tolerances for herbicides, fungicides, insecticides, plant regulators and desiccants, and defoliants.

Twenty-five temporary tolerances were issued, involving 15 pesticide chemicals, to permit the marketing of crops experimentally treated with the pesticide chemical in accordance with permits granted by the Department of Agriculture.

Since enactment of the Pesticide Chemicals Amendment in 1954, 3,115 pesticide tolerances or exemptions have been established, involving 178 pesticide chemicals. One hundred and twenty-six of these tolerances are for negligible residues, involving 22 pesticide chemicals.

On September 6, 1967, an order was published revoking pesticide tolerances for residues of the antibiotics chlortetracycline and oxytetracycline from use as antibacterial agents on dressed poultry and certain seafoods because use of these agents in food preservation may prevent their effective use in treating human diseases.

The regulations were amended on September 28, 1967, to define tolerances for negligible residues and to add new groupings of raw agricultural commodities which may be designated when requesting tolerances for negligible residues. Tolerances for negligible residues are being established on the basis of petitions to take the place of "no-residue" clearances which a National Academy of Sciences committee reported to be administratively and scientifically unsound.

Certain tolerances for residues of the insecticide DDT at 7 parts per million were reduced to 3.5 or 1 part per million on June 27, 1968, on the basis that no higher levels are needed to cover residues from the registered uses. It was announced that no tolerances for DDT will be continued at a level higher than 1 part per million after the close of the 1968 growing season unless (1) facts are adduced to

support a conclusion that good agricultural practices require such higher tolerance and (2) it can also be concluded, on the basis of safety criteria, that such exceptions to a 1 part per million tolerance will be safe for consumers.

Each petition for tolerances for animal feed crops or crops with byproducts used as animal feed raises a question regarding possible transfer of residues to milk, meat, eggs, and poultry. A regulation was promulgated on May 1, 1968, to explain the conditions under which a tolerance will be established on an animal feed crop without the necessity of a tolerance on the food derived from the animal.

A proposal to exempt certain surfactants in pesticide formulations from the requirement of a tolerance was published on June 18, 1968. These surfactants would be allowed as adjuvants in formulations to be applied to crops.

Food Standards.—Two new food standards were established and became effective: canned applesauce—identity, and canned applesauce—fill of container.

In addition orders establishing new standards of identity for cranberry juice cocktail, canned fruit nectars, canned pineapple-grapefruit juice drink, lemonade, colored lemonade, limeade, orange juice drink, orangeade, and orange drink were published. Objections to these orders by interested persons will result in a stay of the effective date so that the issues in controversy can be settled at a public hearing.

Thirty-three of the existing food standard regulations were amended.

Twenty-three orders, 24 proposals, 19 confirmations of effective date, one withdrawal and four temporary permits relating to establishment of food standards were published in the *Federal Register* during the year.

Drugs and Cosmetics.—Twenty-six *Federal Register* announcements on drugs were published during the year.

The use of thyroid or other thyrogenic drugs with central nervous system stimulants with or without other drug substances for the treatment of obesity not related to hypothyrodism was found to be without medical rationale. Drugs such as these, offered for treatment of obesity, were ruled to be misbranded. Such drugs, when offered for obesity in humans directly related to hypothyroidism, are regarded as new drugs.

Regulations regarding the use of established names in prescription drug labeling and advertising were revised. The revision specifies the conditions under which the proprietary name must be accompanied by the established name.

To expedite the handling of supplemental new drug applications and to facilitate machine processing of the information, the new drug reg-

ulations regarding such supplements were revised to limit the supplements to essentially one kind of change per communication.

New drug regulations were revised to provide hearing procedures for investigators charged with submitting false data or failing to abide by commitments, and for sponsors in connection with termination of their exemptions to ship new drugs for investigational use.

Approval was withdrawn on all new drug applications for drugs containing bithional on the basis of new evidence of clinical experience not contained in the original NDA's. This new clinical experience indicated that bithionol may cause photosensitivity and cause photosensitization with other chemicals.

Proposed and pending policy statements and amendments to regulations included:

- A statement of policy to permit the over-the-counter sale of amyl-nitrate and nitroglycerine. Comments received from interested parties are being evaluated.
- A statement of policy for guidance to manufacturers of oral contraceptives in preparing promotional pieces in conformance with labeling requirements.
- A revision of the current policies regarding the amount of aspirin that may be recommended in the labeling of articles available to the layman without a prescription.
- A new drug status opinion report to inform interested persons of the policies and interpretations resulting from the review of the effectiveness of drugs cleared through the new drug procedures between 1938 and October 10, 1962.

Hazardous Substances.—Final regulations implementing the Amendments to the Federal Hazardous Substance Act (the so-called "Child Protection Act of 1966") were issued August 4, 1967.

An order published May 24, 1968, declaring carbon tetrachloride a banned hazardous substance for household use was stayed pending consideration at a public hearing.

Two exempting regulations were issued, exempting certain toys, such as model engine fuel, and plastic bubble-making kits, from the banned category.

Scientific Investigations

FDA scientists protect the consumer of foods, drugs, cosmetics, and other regulated products in two ways: by developing and using methods of assay to test these products for their compliance with the law; and by investigating their nature, properties, effects, and interactions, both in the laboratory and in living systems.

Pesticide Residues

Because of the large number of agricultural pesticides, separate assays for each possible pesticide that might leave an unsafe residue in foods would be prohibitively time-consuming. A major breakthrough on this problem was the development of a "multi-residue method" by which many of these pesticides could be identified in a single analysis. Collaborative study in other government and industry laboratories during the past year established that the method will reliably identify as many as 50 chlorinated and 10 organophosphorus pesticides in a variety of crops, and it is now being tried for additional crops and other pesticides, such as the carbamates. A similar procedure is being tested for use with about 70 of the highly toxic organophosphorus pesticides and their alteration products which are not detected by the official multi-residue method.

Other studies have shown that dieldrin and carbaryl, when applied to crops, produce alteration products whose toxicities are different from those of the parent compound. Dieldrin, which is extremely toxic, is thus altered by light to the even more toxic photodieldrin, which in turn is metabolized to a keto-dieldrin by the male rat (but not the female). Carbaryl, which has a high tolerance level in forage crops, has been shown to affect the central nervous system and the brain of pigs. The chlorinated pesticide lindane is implicated in aplastic anemia, a finding which must be assessed in relation to the use of lindane for killing insects with continuous exposure devices. These findings may eventually require changes in the tolerance levels assigned to the parent compound; moreover, the analytical methods must be modified to include these alteration products.

Food Additives

Work on food additives has culminated in the development and adoption of official test methods for the new food acidulant fumaric acid, as well as for very low levels of the carcinogenic compound benz(a)pyrene, and for residues of chlorinated solvents that remain in spice flavorings as a result of processing. Multidetection methods for polycyclic aromatic hydrocarbons in smoked foods, and for antioxidants, have been adapted to the analysis of total diet samples.

Greatly increased use of artificial sweetening agents as sugar substitutes has made it necessary to further examine the long-range effect of these compounds. FDA studies which indicate that the cyclamates have no effect on metabolic pathways, confirm research conducted on contract, which has revealed no effect of the cyclamates on carbohydrate metabolism or glucose tolerance values. To support studies of the biological effects of the artificial sweeteners on humans, an assay was devised by FDA by which very low levels of cyclohexylamine (a meta-

bolite of sodium cyclamate) can be isolated from urine and its identity established by infrared spectrometry. Another procedure is being developed to determine the total quantity of cyclamates in the urine. Four artificial sweeteners can now be detected and identified in nonalcoholic beverages by a newly devised official method.

Some years ago, substitution of cheaper vegetable oils for more expensive animal fats was a frequent regulatory problem. Changes in consumer tastes have reversed the situation, and it has now been found necessary to devise an assay to detect the presence of animal fat in vegetable oils, a practice which is both a potential economic cheat and a possible health hazard in view of the current emphasis on restriction of fat in the diet. Such a method was developed, employing thin-layer and gas chromatography.

Other studies of food additives included analysis of various commercial products such as canned soups for added glutamic acid (monosodium glutamate), which has been implicated in the illness known as "Chinese Restaurant Syndrome," and the determination of small amounts of silicones in foods that contain large amounts of silicates.

Interest in silicones was extended to their presence in cosmetics. At the suggestion of the FDA Bureau of Medicine, a number of hair sprays were analyzed for silicones. Other research on cosmetics involved the examination of perfumes as potential sensitizers.

Biological Contaminants of Food

Research has continued on all aspects of the mycotoxins—highly toxic compounds produced by molds that occur naturally on a number of crops. Critical evaluation showed that the FDA control method gives comparable results to the USDA screening method for the mycotoxin aflatoxin on peanut products. Techniques of sample preparation were developed which make it possible to perform the analysis in the field on six types of nuts. Studies indicate that storing the commodity at close temperature control may prevent the aflatoxin formation. Several new mycotoxins have been identified, and their properties have been studied. The chick embryo test is still proving useful to check the acute toxicity of the mycotoxins, although other, faster bioassays, using brine shrimp and *Bacillus megaterium* organisms, are also proving useful. Studies are underway on the metabolic, toxicological, and physiological response of certain mycotoxins.

Contamination of food by insects is a problem of many years' standing. A new approach has been to reveal the presence of the insects by using dyes which stain the insects a bright color but leave the surrounding food uncolored. This time saving technique has made it pos-

sible to use automated optical scanners to make the counts of the number of insect fragments present.

The use of incubator reject eggs in processed foods has been a prime source of microbiological contamination. Previously this violation could be detected only if decomposition had progressed far enough to produce an objectionable odor. A specific chemical test, based on the presence of beta-hydroxybutyric acid, is being tested.

Improvements have made in the detection of other forms of microbiological contamination. The time required to find Salmonella bacteria has been reduced by eliminating most of the non-Salmonella organisms at an early stage in the procedure. The method for Salmonella in dried milk has been validated by collaborative studies and adopted as official. Contract research has shown that the ratio of the prevalent serotypes that enter the industrial environment is different from the ratio that leave it, and this factor has been suggested as a source of Salmonella contamination in the manufacture of dried nonfat milk. Discovery in 1968 of a new staphylococcus enterotoxin, type D, will increase the effectiveness of surveillance of foods before they enter the market. Of the four known staphylococcus enterotoxins, three have been discovered by FDA scientists.

Antibiotics and Drugs

Studies reported by the Bureau of Veterinary Medicine during 1968 showed that hens that are fed antibiotics are more likely to produce microorganisms resistant to antibiotics than hens that have never been exposed to antibiotics. The tendency in swine was even greater, although the number of animals tested was limited. Because of the possibility that residues of antibiotics may be present in the tissues of animals that have received antibiotics in feeds or in dosage form, methods have been developed for the assay of residues of dihydrostreptomycin and penicillin in swine tissue. A procedure is being developed for chloramphenicol in veal and in calf liver. The release and absorption of antibiotics in man after administration of dosage forms is being studied in human volunteers by analysis of blood serum. Attempts are being made to correlate clinical values with laboratory tests of the rate at which the drugs dissolve in solutions.

Penicillin is known to cause allergic reactions in certain individuals because it sometimes contains contaminants called allergens. An assay for determining the presence of allergens in penicillin G is being validated by tests on guinea pigs.

The stability of pharmaceutical products under various conditions of packaging and storage is being studied to assess the need for tests, standards, and expiration dates. Nitroglycerine tablets were found to deteriorate when packaged in laminated foil containers; levarterenol

solutions also showed significant deterioration. Thirty-three studies were completed on the development of chemical and biological assays for drugs, including procedures for reserpine, digitoxin, barbiturates, thyroid, morphine in paregoric, and oral contraceptives. A field test for LSD, reported last year, has been expanded, and the complete method has been adopted as official.

Development of 29 automated methods resulted from applying new techniques and instruments to pharmaceutical analysis. The rate of sample examination for surveillance and compliance at the National Center for Drug Analysis about doubled during the year, though the staff increased only slightly.

Medical and Nutritional Studies

The Bureau of Medicine is supervising a number of studies being made under contract with various institutions. Investigations include the carcinogenic potential of oral contraceptive preparations and the effects of oral contraceptives on fatty materials (lipids) in monkeys and humans. A long-range study is progressing on the possible relationship between oral contraceptives and thromboembolic disease. An adverse drug reaction reporting program at Massachusetts General Hospital, Boston, has provided about 100 well-evaluated reports per month.

Nutritional principles were applied to medical problems to test the effect of both naturally occurring and synthetic estrogens on the role of vitamin K in experimental animals. It was shown that the compound mestranol can partially but not completely replace vitamin K in the chick. A contract study on human placenta samples revealed that the selenium content of dried placenta samples from Guatemala differed significantly from that of samples from Iowa. These differences may prove to be significant in the diagnosis and treatment of malnutrition.

Consumer Information

Two new sources of consumer information were initiated in fiscal year 1968. The FDA Information Center in the Washington headquarters was opened in July 1967 to handle inquiries under the Public Information Act. The center answers visitor and telephone requests, and letters requesting regulatory and other FDA documents. Second was the installation of a "Consumer Phone" service in six FDA district offices: New York, Dallas, Chicago, Los Angeles, Minneapolis, and New Orleans. An average of three telephone lines per office answer round-the-clock calls with a recorded message of interest to consumers. The consumer phones can also be used to carry emergency messages such as consumer-product recalls. Over 9,500 calls a month come into the six offices.

Growing interest in "consumer education" continued to expand the market for FDA information materials and services.

With many State and local departments of education updating their health curriculums to emphasize such topics as safe use of drugs, accident prevention and good nutrition, FDA is contributing new teaching aids based on its scientific and regulatory experience.

"Drugs and Your Body," a pharmacology textbook for intermediate school use, discusses how drugs act on various body systems and how to be a safe user of drugs. Other new drug curriculum resource guides for junior and senior high school use are: "How Safe Are Our Drugs?," "The Use and Misuse of Drugs," and "Young Scientists Look at Drugs." Three new teaching guides in the food area are: "How Safe Is Our Food?," "Additives in Our Food," and "Young Scientists Look at Food." Six science booklets were issued suggesting laboratory projects for young scientists in high school biology and chemistry classes.

Public interest in health hazards was also apparent in wide demand for four FDA films: *Reason for Confidence*, *Bennies and Goofballs*, *The Health Fraud Racket*, and *The Mind Benders* (on LSD and other hallucinogenic drugs). The National Medical Audiovisual Center in Chamblee, Ga., which distributes the films free on request, reported a total of 3,906 loans for the four films. This was an average of over 976 loans per title compared with an average of 65 loans per title for other films in the Center's library. Group audiences were estimated at 300,000, and it is estimated that millions viewed the films on TV (an average of 40 stations requested each film). The size of audiences is not known for the several hundred prints purchased by private organizations, other Government agencies, educational institutions, and libraries.

The conference program conducted by FDA consumer specialists (17 full-time professional women and 12 part-time professionals in fiscal year 1968) continued to prove the success of FDA's face-to-face

Table 1.—*Seizures, prosecutions, and injunctions instituted by the Food and Drug Administration and filed in the Federal courts during fiscal year 1968*

	Seizures	Prosecutions	Injunctions	Total
Food	384	70	3	457
Drugs	235	9	4	248
Devices	56	1	2	59
Cosmetics and colors	9	0	0	9
Hazardous substances	65	0	1	66
Total cases filed	749	80	10	839

NOTE.—The category "Illegal Drug Sales," which last year accounted for 312 prosecutions and 45 seizures, is eliminated because of transfer of the activity to the Department of Justice.

Table 2.—*Court actions under the Federal Food, Drug, and Cosmetic Act and Federal Hazardous Substances Act during fiscal year 1968, as reported to the Department of Justice*

FFD&C Act cases	Total	Seizures	Prosecutions	Injunctions	FHS Act seizures
Pending July 1, 1957	801	377	385	39	27
Reported to Dept. of Justice during the fiscal year	1,099	833	256	10	75
Transferred to Department of Justice on Apr. 8, 1968*		83	192		
Total pending during the year	1,900	1,210	641	49	102
Terminated during year	1,147	859	**274	14	49
Pending June 30, 1968	478	268	175	35	53

*Cases transferred when FDA Bureau of Drug Abuse Control was transferred to the Department of Justice.
**In 274 criminal cases terminated (or terminated as to some defendants) during the fiscal year the fines imposed totaled $145,809.00.

communication with consumers. A total of 408 conferences and workshops with leaders in aging, education, and labor were held, with more than 196,000 participants. Consumer specialists also spoke to lay groups, conducted demonstrations and inservice training programs, participated in radio and TV programs, and shared in community projects for an estimated total audience of 15.7 million people.

Table 3.—*Allocation of FDA funds in percent and dollars*

Item	Fiscal year 1967* (percent)	Dollars (thousands)	Fiscal year 1968* (percent)	Dollars (thousands)	Fiscal year 1969** (percent)	Dollars (thousands)
Foods	39.9	20,940	38.2	25,212	32.5	23,049
Drugs	48.1	28,860	50.0	33,000	41.3	29,290
Cosmetics	1.6	960	1.5	990	1.3	922
Devices	1.2	720	1.2	792	1.0	709
Hazardous products	2.0	1,200	1.0	1,254	17.6	12,482
Unallocable	12.2	7,320	7.2	4,752	6.3	4,468
Appropriation		60,000		66,000		70,920

*Actual, including activities of former Bureau of Drug Abuse Control.
**Estimated, including programs transferred to FDA from Public Health Service. Excludes allocations to Bureau of Drug Abuse Control (transferred to Department of Justice), and to functions taken over by Consumer Protection and Environmental Health Service.

Table 4.—*Inspections made and samples collected, fiscal years 1967 and 1968*

	1967		1968	
	Inspections made	Samples collected	Inspections made	Samples collected
Total	48,075	80,317	31,682	75,210
Foods	28,592	38,644	18,726	33,143
Drugs	16,169	39,968	8,988	39,275
Devices			1,163	856
Cosmetics	927	413	605	368
Hazardous substances	2,185	1,154	2,200	1,568
All other	202	138		

Table 5.—*Import samples collected, examinations made, and lots detained during fiscal year 1968*

	Samples collected	Examinations made	Lots detained
Total	17,015	16,765	5,280
Foods	10,428	14,779	2,360
Drugs	6,123	1,739	2,772
Devices	205	79	99
Cosmetics	100	41	19
Hazardous substances	159	127	30

National Institutes of Health

Fiscal year 1968 substantially changed the organization and broadened operational scope for the National Institutes of Health (NIH).

The April 1968 reorganization of the health services of the Department of Health, Education, and Welfare combined the National Institutes of Health, the Bureau of Health Manpower, and the National Library of Medicine into a new and enlarged NIH structure. At the same time, the Division of Regional Medical Programs was transferred from NIH to the Health Services and Mental Health Administration.

A major purpose of the reorganization was to place under unified direction related responsibilities for health research and health education. Previously, by congressional mandate, NIH had supported medical research, construction of health research facilities, and research training, while the Bureau of Health Manpower supported basic professional education.

Passage of the Health Manpower Act of 1968 extended educational assistance and health research facilities programs. The act also provided for construction of new facilities and other assistance that would enable the training of more people in existing facilities and improvement of the quality of the training they receive.

During the year, planning was completed for the John E. Fogarty International Center for Advanced Study in the Health Sciences, which will replace the Office of International Research as the organizational unit responsible for NIH international activities. The Fogarty Center memorializes the late Rhode Island Congressman, who for many years led congressional efforts to expand Federal health research and other health programs. The center will include an international conference and seminar program, a scholars-in-residence program, an international fellowship and exchange program, and a foreign visitor center.

In carrying out its research mission, NIH conducted extensive laboratory and clinical research programs in its own facilities, and continued to support biomedical investigation in medical and dental schools, universities, and other research centers throughout the country.

Research Accomplishments

In the intramural program, NIH investigators—

- Produced a pushbutton painkiller, which allows a patient to "turn off" the excruciating pain of angina pectoris. The painkiller's transmitter activates an electronic system under the patient's skin, which "kills" the pain by producing a series of reflexes that reduce the heart rate, relax the heart, and lower blood pressure in the arteries.
- Discovered, while studying the rare "Tangier Disease," some of the secrets of how the blood carries fats. Since abnormal fat transport is one of the causes of arteriosclerosis, which causes more than twice as many deaths as any other disease, this discovery is a vital one.
- Developed an experimental heart massaging device which may prove to be a valuable hospital emergency room tool. When fitted around a failing heart, the device helps restore normal heart beat.
- Isolated a new thyroid hormone that, by its ability to regulate calcium in the body, promises to be important in treating several bone-destroying diseases.
- Developed an artificial lung that may help doctors save the lives of premature babies suffering from respiratory distress syndrome, or those with severe heart defects.
- Helped refine a rubella vaccine which may produce immunity without spreading infection.

NIH also supported many outstanding research projects outside the Institutes, including:

- *The University of Utah* successfully tested two prototypes of an inexpensive artificial kidney machine (costing about $600) that could, by replacing machines costing up to $10,000, make treatment available to thousands who cannot now afford repeated trips to the hospital. Research on mass production continues.
- *Childrens Hospital in Philadelphia* implicated a herpes-type virus as the probable cause of mononucleosis, a contagious disease of the blood that afflicts 10,000 Americans annually. This may lead to development of a vaccine.
- *Cornell University* produced the first completely synthetic antibiotic, terramycin, through a method that may lead to the manufacture of other drugs tailored to combat specific infections. The molecular engineering process used can now be applied in production of other compounds.
- *Johns Hopkins University* produced a small, wristwatch-like sensor that can measure, through the intact skin, the amount of

carbon dioxide in a patient's bloodstream. The device can detect abnormal breathing danger signals, and may reduce mortality from acute respiratory syndrome and emphysema.

Bureau of Health Manpower

Under the stimulus of the growing shortages in all categories of health manpower, and with the increased interest and support of the President and the Congress, the Bureau of Health Manpower continued in 1968 to devote its full energies and resources toward—

- Increasing the capacity of health-related educational institutions and improving the quality of their programs.
- Upgrading the knowledge and ability of health practitioners.
- Encouraging better utilization of scarce skills.
- Interesting young people in health careers.
- Enlisting greater cooperation among public, voluntary, professional, educational, and industrial agencies and groups in concerted attacks on the many facets of health manpower.

Expenditures in fiscal year 1968 totaled $203 million in construction grants and $150.9 million for all other programs, compared with 1967 expenditures of $160 million for construction and $133.7 for other purposes.

DIVISION OF ALLIED HEALTH MANPOWER

The Division of Allied Health Manpower operates programs supporting the education of manpower for allied health and public health occupations and specialties.

In 1968, a total of $9.75 million in basic improvement grants was distributed to 230 junior colleges, colleges, and universities, to improve and strengthen their allied health educational programs.

Advanced Training

Grants for advanced traineeships totaling about $1.2 million were awarded to 49 colleges and universities for 257 trainees preparing to teach or to serve in administrative, supervisory, or specialist capacities.

New Occupations

Sixteen grants totaling $799,507 were awarded for the development, demonstration, and evaluation of curriculums for new types of health technologists such as physical therapy assistant, orthopedic assistant, and extracorporeal circulation specialist.

Construction

One construction grant for approximately $1.8 million was awarded which will more than double the grantee institution's student enrollment capacity in seven allied health programs.

Public Health Training

Graduate or specialized training in public health was provided for about 1,400 trainees through long-term, residency, and apprenticeship programs. In addition, 10,000 health workers received short-term training and continuing education in public health.

Special project awards totaling about $4.5 million were made for 124 graduate programs in schools of public health, nursing, engineering, medicine, and dentistry. The projects were designed to strengthen or expand graduate or specialized public health training in such areas as environmental health, preventive medicine and dentistry, public health administration, accident prevention, and medical care economics and administration. In addition, awards totaling $4 million went to the 15 schools of public health for basic educational programs support.

Special Programs

During 1968 the Division of Allied Health Manpower initiated two special programs. One is a nationwide recruitment and counseling program designed to attract people to the health occupations. The other is a study to determine the role and function of a person who might be prepared to assist the anesthesiologist.

THE DIVISION OF DENTAL HEALTH

The Division of Dental Health concentrates on manpower and education, community programs, and dental technology.

Under the Health Professions Educational Assistance Act, grants were awarded for the expansion of two existing dental schools and for the construction of three new schools, for a total of 201 additional class places.

Increasing Productivity

Under the Division's experimental program in dentist productivity, qualified dental assistants, as members of experimental teams, are performing clinical procedures normally performed by dentists. The teams, composed of one dentist, four full-time chairside assistants, and one supply-sterilization assistant, work together in a four-chair operatory.

Forty-eight dental schools—8,810 students—participated in the Division's dental auxiliary utilization (DAU) program, teaching dental students the effective use of trained chairside dental assistants. This instruction is now standard in all fully operational American dental schools.

Awards of grants for this program total $3 million for the past year, the largest in the history of the program. Since its initiation

6 years ago, the program has provided training to almost 22,000 graduates.

New Information and Methods

A National Dental Data Compilation System, developed jointly with the American Association of Dental Examiners, published data on personal and professional characteristics of the dentists licensed in 18 States. A second-cycle survey is now underway with questionnaires to dentists in 21 States.

Data on licensed dental hygienists in the participating States were collected and a format has been devised to report these data to the States.

Studies of the advance elements of undergraduate dental education were undertaken in five areas—recruitment and selection of dental students, development of dental teachers, educational administration, design of institutional facilities, and methods of instruction.

Through grants, contracts, course development, and field activities in continuing dental education, the Division has contributed considerably to nationwide activity. Approximately 50 percent of the States are engaged in continuing education systems development.

Two new and three continuing grants were awarded in fiscal year 1968. Contracts included surveys throughout the six New England States, the Southern, Midwestern, and Western States to identify dentists' needs and preferences in continuing education.

Four demonstration courses utilizing programed, group-teaching machines and other communication media were presented in 13 States to 2,285 participants in 1968. Since the start of the program in 1965, programed instruction courses have been demonstrated in 27 States to over 10,000 participants.

Public Health

The Division has continued to provide consultation and technical assistance to the dental components of Project Head Start, neighborhood health centers, Job Corps, and VISTA. Site visits were provided to all programs needing direct consultation or technical assistance.

A self-contained mobile dental unit, developed by Division staff, now is being used in OEO projects in Tennessee.

Disease Prevention

Coordinated statewide approaches to fluoridation have resulted in more rapid extension of the benefits of fluoridation of community water supplies. Delaware and Michigan passed laws making fluoridation available statewide. Massachusetts repealed a law which had required a referendum prior to the institution of fluoridation. Detroit, with a water system serving over 3 million people, joined the list of

major cities now having fluoridated water supplies. Approximately 82 million persons in the Nation, slightly over half using public water supplies, now have access to fluoridated water.

A survey of the current status and trends in prepaid dental care indicated that an estimated 5.2 million persons now have prepayment coverage, compared with 1.2 million in 1963.

Studies to determine the effects of good oral hygiene practices have continued. One project studied the oral hygiene status and habits of more than 2,000 schoolchildren of low-income families in San Francisco.

In Israel and cooperating institutions throughout the United States, the Division's dental technologists are studying new and conventional dental restorative materials in man. The records of more than 1,500 paired restorations have been prepared for review by computer to reveal the clinically significant variances in the materials and techniques tested.

During fiscal year 1968, 445 faculty members or graduate students, from 13 of the Nation's dental schools, and from Federal, State, or local health agencies' staffs, received training designed to improve their research skills. Four programed instruction courses presented by teaching machines provide the initial framework for a series of research seminars and lectures specifically designed to meet training needs.

As of June 30, 1968, 41 active research grant projects for a total of $1.26 million were supported through research grants. In fiscal year 1968, 18 new grants were approved in the total amount of $769,246.

International Dentistry

At the Division's dental health center in San Francisco, 73 dentists from 29 countries received training designed to provide ideas, skills and materials which they can take back to their own countries.

DIVISION OF HEALTH MANPOWER EDUCATIONAL SERVICES

Improvement Grants

Special health professions educational improvement grants totaling more than $10,131,000 were awarded for the first time in 1968 to 48 schools of medicine, dentistry, optometry, osteopathy, and podiatry for the best proposals for overcoming academic weakness created by financial need.

Basic improvement grants, totaling nearly $32.2 million were awarded to 270 health profession schools to improve the quality of the educational experience and to aid in supporting increases in enrollment.

Table 1.—*Health professions educational improvement grants in fiscal year 1968*

Type of school	Basic grants		Special grants	
	Number	Amount	Number	Amount
Medicine	99	$20,242,500	23	$5,476,610
Dentistry	51	8,859,500	11	2,689,059
Optometry	10	1,360,500	7	637,610
Osteopathy	5	1,063,000	2	410,299
Podiatry	5	635,000	5	918,127
Total	170	32,160,500	48	10,131,705

Table 2.—*Budgeted amounts by categories of expenditures in fiscal year 1968*

Category	Basic grants		Special grants	
	Percent	Amount	Percent	Amount
Teaching staff	64.1	$20,601,415	51.9	$5,259,041
Other staff	12.3	3,957,719	10.8	1,090,719
Equipment	12.3	3,964,189	23.6	2,391,732
Alteration and renovation	5.7	1,825,145	8.6	870,177
All other expenses	5.6	1,812,032	5.1	520,036
Total	100.0	32,160,500	100.0	10,131,705

Student Assistance

Assistance to students continued to increase in 1968 in schools of medicine, dentistry, optometry, osteopathy, podiatry, and pharmacy:

- Second-year students became eligible for scholarships for the first time in 1968, resulting in an increase of 4,164 recipients.
- Nursing student borrowers increased by 7,314, or 6 percent.
- Health professions student borrowers increased some 3,356 or 5 percent.
- The Health Professions Education Fund and Nurse Training Funds provided more direct private support of student loans—a total of $18,122,000 loaned to 534 schools.

Foreign Students

Program and guidance services were provided to 573 new foreign students and 235 carryover foreign students by the foreign students education program. Direct student loans aided 51 Cuban refugees pursuing health professions studies.

Table 3.—*Student assistance program fiscal year 1968*

	Nursing student loans	Health professions student loans	Health professions scholarships
Number of participating programs or schools	690	217	238
Total amount allocated	$16,389,885	$26,659,476	$7,198,000
Total enrollment	101,262	64,460	38,872
Student recipients	24,532	25,383	7,964

DIVISION OF NURSING

The Division of Nursing supported a number of new programs to increase the supply of nursing manpower, improve the quality of nursing services, and communicate and apply new nursing knowledge.

Educational Opportunity Grants

An amendment to the Nurse Training Act authorized nursing educational opportunity grants to enable qualified students of exceptional financial need to pursue nursing education. Through 238 participating schools of nursing, an estimated 7,700 students not otherwise able to attend nursing school received scholarships averaging $535.

An organization operating under the aegis of Boston University, ODWIN (open the doors wider in nursing), is endeavoring through a contract under this program to interest a larger number of Massachusetts nursing schools in attracting and admitting academically and financially disadvantaged students.

Also by contract with the Division of Nursing, the American Nurses' Association (ANA) is working through group leaders in District of Columbia community action agencies to identify eighth-, ninth-, and 10th-grade disadvantaged boys and girls with potential for nursing.

Construction Grants

Under the Nurse Training Act, construction grants were made for the first time to nursing education institutions in Colorado, Iowa, Michigan, Tennessee, Virginia, Washington, and Guam. Besides helping to replace, renovate, expand, and equip nursing education facilities the 23 construction grants awarded this year made it possible to establish eight new nursing programs in community colleges.

Project Grants

Project grants for the improvement of nursing training were awarded to institutions in three States previously not participating—Hawaii, Oklahoma, and Oregon.

Of the 35 new project grants awarded, they are supporting such educational innovations as joint classes to prepare nursing students and students in other health professions for working in teams, and reorganization of a nursing curriculum to help practical nurses achieve professional status.

Program Review

Achievements in these and other programs of aid to students and schools of nursing, as authorized by the Nurse Training Act and administered by the Division of Nursing, were summarized in "Nurse Training Act of 1964—Program Review Report," in December 1967.

Graduate Training and Research

A training program separate from those authorized by the Nurse Training Act—the nurse scientist graduate training grants program—this year was broadened to include support for research training in the communication of scientific knowledge. Previously, awards had been made to train nurses for research in the basic sciences but not in the science of communication. The first nurse scientist graduate training grant was awarded in June 1968 to the University of Kansas, which is strengthening its graduate department of communication and human relations and granting stipends to nurses undertaking doctoral programs.

Public Health Nursing

In cooperation with the District of Columbia Health Department, the Division of Nursing undertook a 2-year controlled study to improve public health nursing preparation and practice in the care of infants.

The study population will consist of 300 first live-born infants discharged to their mothers from the District of Columbia General Hospital and randomly assigned to either a control or experimental group for care by D.C. Health Department nurses over a 1-year period.

Nursing Manpower

The Division of Nursing supported studies of nursing manpower trends, sources, and supply. In one manpower undertaking, the Division contracted with the American Hospital Association (AHA) for a questionnaire survey of its 7,000 member hospitals to determine the number of nurses they employ both full- and part-time, by level of position. The new survey will update nursing information from a 1966 Public Health Service-American Hospital Association investigation to obtain staffing data concerning 34 professional and technical positions. It will also serve to point up nurse staffing changes which have occurred in AHA member hospitals since the advent of Medicare.

Planning

In fiscal year 1968, the Division of Nursing provided technical consultation to the first regional planning effort for achieving nursing services and educational opportunities based on regional needs rather than on State requirements. The Division is providing guidance and technical assistance to the upper midwest nursing study, which is seeking to improve nursing services in Minnesota, Montana, North and South Dakota, and upper Michigan and Wisconsin.

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Table 4.—*Fiscal summary*

	Thousands
Support for schools of nursing (Nurse Training Act):	
Projects for improvement in nurse training	$4,000
Payments to diploma schools of nursing	3,000
Nursing school construction grants	19,382
Support for students of nursing (Nurse Training Act):	
Professional nurse traineeships	9,864
Nursing student loan program	16,390
Nursing educational opportunity grants	4,120
Extramural research and research training grants:	
Extramural research grants	2,593
Special nurse fellowships	520
Nurse scientist graduate training grants	580
Direct operations	2,454
Total	62,903

THE DIVISION OF PHYSICIAN MANPOWER

The nation's undersupply of physicians continues to be a problem amplified by the Nation's population growth and the increasing demands for medical care, including care for the aged and the deprived. In 1968, active physicians in the United States totaled 311,000 but this number included those engaged in medical research, education, and administration, as well as those performing health services. Estimates indicate that 50,000 additional physicians are needed to provide adequate health care to the people of the Nation.

The Division of Physician Manpower supports a variety of programs to increase the supply and to improve the education, utilization, and effectiveness of practicing physicians.

Medical School Construction

To increase the number of students entering medical school, the Division awards grants for the construction of new schools and the expansion and renovation of existing schools. First-year places in medical schools (and other health professions schools) resulting from funds awarded under the Health Professions Educational Assistance Act are shown in the table below:

Table 5.—*New first-year student places anticipated from funds awarded under Health Professions Educational Assistance Act*

	Total	Fiscal year				
		1965	1966	1967	1968	1969
Total	3,640	1,038	749	937	702	214
Medicine and osteopathy	1,844	540	405	409	351	139
Dentistry	835	271	111	252	201	----
Public health	357	191	35	126	5	----
Optometry	157	36	41	0	80	----
Pharmacy	367	----	157	150	60	----
Veterinary medicine	80	----	----	----	5	75

Note.—Total of all awards—$433 million. Grants awarded since Jan. 1, 1968—$96 million as of Oct. 16, 1968.

Medical Education

In its efforts to encourage new approaches to the teaching of medical students and physicians, the Division sponsored a conference on the "Use of Computers in Medical Education" and the "Fourth Rochester Conference on Self-Instruction in Medical Education." A project for the retraining of inactive physicians was extended at Pacific Medical Center, California.

To upgrade the training of medical students in community health care, the Division is supporting a study at Marquette School of Medicine, Wisconsin, to develop guidelines for more effective teaching of courses in community medicine.

Continuing Education

In support of continuing education, the Division has continued a variety of projects, including one at St. Luke's Hospital in New York City, where the resources of this major medical center are providing continuing education for many of the hundreds of local physicians who have no hospital affiliation.

A contract with the Postgraduate Medical Institute, Boston, Mass., is evaluating the effectiveness of a consultation service in helping New England community hospitals establish and maintain educational programs for their physicians.

Other continuing education projects are being supported at the University of Wisconsin, Yale University, the University of Washington (Ohio), and the University of California.

Supply and Utilization

During the year, the Division launched a study, "How Medical Students Finance Their Education," a survey of the 1967–68 class of all medical and osteopathic schools in the United States. The Division also has joined with the Division of Allied Health Manpower in funding a contract through Emory Medical School in Atlanta, Ga., to study the feasibility of establishing a new health occupation—anesthesiologist assistant.

To increase substantially the productivity of physicians, the Division is studying the development of a new health worker—the physician assistant, with particular reference to the pediatric assistant. At the outset, the role of such an assistant will be analyzed and defined, and an educational program will be developed.

National Library of Medicine

By contributing biomedical information support to institutions, scientists, practitioners, and students, the National Library of Medicine has continued to meet the challenge of explosive growth of scientific

literature; tremendous expansion of health research; increasing urgency to apply new knowledge to health improvement; growing specialization of health science, education, and practice; and the introduction of sophisticated automated equipment.

MEDLARS

The National Library of Medicine pioneered establishment of the Medical Literature Analysis and Retrieval System (MEDLARS), which during the fiscal year reached a high of more than 850,000 bibliographic citations stored in a high-speed computer memory bank. In connection with this system, the Library supported six university-based decentralized MEDLARS search centers.

Of special significance was the establishment of a second generation MEDLARS. On June 11, 1968, a contract was signed for the design, development, and program support for a new, more powerful and sophisticated system. MEDLARS II will support library-based information services in the network, provide requirements for processing toxicological information, and improve effectiveness of the Library's internal operations.

REGIONAL MEDICAL LIBRARIES

As part of the grants program authorized by the Medical Library Assistance Act of 1965, grants are available for development of a national system of regional medical libraries. In October 1967, the first such library began operating at the Francis A. Countway Library of Medicine (of Harvard University and the Boston Medical Society). Known as the New England Regional Medical Library, it serves Massachusetts, Maine, Vermont, New Hampshire, Rhode Island, and Connecticut.

In June 1968, the College of Physicians of Philadelphia Library received an award to establish and operate the Mid-Eastern Regional Medical Library, which serves Pennsylvania, Delaware, and Southern New Jersey. The University Health Sciences Library of the University of Washington established the Pacific Northwest Regional Medical Library, which serves Alaska, Idaho, Montana, Oregon, and Washington. The John Crerar Library, Chicago, Ill., designated the Mid-West Regional Medical Library, serves Illinois, Indiana, Iowa, Minnesota, and Wisconsin. The National Library of Medicine serves as the Mid-Atlantic Regional Medical Library, covering Maryland, Virginia, West Virginia, and the District of Columbia.

COMMUNICATIONS SYSTEMS DEVELOPMENT

On April 1, 1968, the National Library of Medicine became part of the reconstituted National Institutes of Health but has continued

serving as the Department's center for health communication and related scientific information systems development.

Pursuant to the recommendations of the House Appropriations Committee Report, 1967, and the Rogers Special Subcommittee on Investigation of HEW (89th Cong. 2d Sess., H. Rept. 2266), the Library has established and successfully staffed a program of developmental and engineering work relating to a biomedical communication network. This staff has prepared a preliminary design for such a network, which encompasses medical libraries, specialized information centers, audiovisual communications and related components.

LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS

To house the organizational, managerial, and technical elements of the NLM network, a biomedical communication center is being planned and will be located in an annex building, which will be erected southwest of the Library.

NATIONAL MEDICAL AUDIOVISUAL CENTER

As recommended by the Rogers Special Subcommittee, the National Medical Audiovisual Center in Atlanta, Ga., was transferred administratively to the National Library of Medicine on July 1, 1967.

LIBRARY REORGANIZATION

Assignment to the Library of responsibility for toxicological information and audiovisual production and dissemination, and the establishment of a research and development program in biomedical communication, made reorganization of the Library essential to the successful management of NLM programs.

The new organization, effective January 9, 1968, identified five major programs in biomedical communications within the Library's mission: library operations; specialized information services; audiovisual programs; research and development; and extramural programs. In addition, an Office of Computer and Engineering Services was established.

National Cancer Institute

The avenues of total attack against cancer by the National Cancer Institute and the scientific organizations whose work it supports may be broadly grouped under two classifications: *Cause and Prevention* and *Diagnosis and Treatment.* Progress toward ultimate success in these areas may be measured by several criteria: increased knowledge of the fundamental nature of malignant disease; identification and control of factors involved in cause and prevention; improvements in

detection, diagnosis, and treatment leading to increased survival for the patient.

Survival is increasing in some forms of the disease. Cancer of the colon and rectum occurs more frequently than any other form of cancer in the United States. A recently completed study showed a striking increase in survival of such patients for 5 years or longer after diagnosis of their disease.

Five-year survival rates for patients with breast cancer have also gone up, slowly but steadily, and there was some indication of an increase in the number of patients diagnosed when tumors were still confined to the breast.

CAUSE AND PREVENTION

Smoking and Lung Cancer

Cancer of the lung, a largely preventable disease caused mainly by cigarette smoking, continues to increase at an alarming rate. It will claim about 55,000 lives in the United States in 1968 and continue to rank as the leading cause of cancer death in men. Although significant improvement was observed in survival of patients with localized disease, only one in five cancers of the lung was discovered in this early stage.

Leadership in planning and organizing research approaches to the lung cancer problem has been taken by the Lung Cancer Task Force established at the direction of President Johnson and chaired by the Director of the National Cancer Institute. This body, composed of scientists and physicians drawn from Government and the academic community, with liaison representation from the tobacco industry and other interests, has identified the major problems relating to lung cancer and considered lines of research attack that might be directed against them from the viewpoints of cause, prevention, diagnosis, and treatment.

The Task Force recognized that the most promising lines of prevention are cessation or at least a marked reduction in smoking, or the introduction of a less hazardous cigarette. Development of a less hazardous cigarette has been given high planning priority.

The Search for Other Environmental Causes of Cancer

Studies of population groups have provided clues to the causes of various kinds of cancer. A report on stomach cancer in Iceland and another on skin cancer in Taiwan highlighted the importance of environmental factors in cancer induction. In the Icelandic study, a relationship was reported between stomach cancer and dietary differences among various occupational groups. More specifically, the results appear to support evidence of a relationship between stomach cancer and

consumption of home-smoked and singed foods. In Taiwan, a clear dose-response relationship was established between the frequency of skin cancer and the arsenic content of the well water used by villagers in different localities.

First reports have become available of some of the results of long-term studies of the cancer experience of Japanese migrants to the United States and their children born in this country. It was found that both groups continued to experience the high stomach cancer and low breast cancer risks characteristic of homeland Japanese, but that their risk of colon cancer changed from the low Japanese to the high U.S. rate.

Initial results of a search for clues to cancer causes through studies of persons with multiple cancers were reported. Data obtained from two large New York cancer centers showed that patients with leukemia, lymphoma, or myeloma were more likely than persons in the general population to develop skin cancer, but that their risk of a second more serious malignancy was not increased.

A review of deaths from childhood neuroblastoma occurring from 1950 through 1964 shed interesting light on the possible causes of this disease. Epidemiologists found an apparent excess number of deaths in certain geographic areas at certain times and noted that neuroblastoma was most often diagnosed in the first year of life. These observations suggest an environmental factor affecting the child before birth.

Viruses as a Possible Causative Factor

Virus studies continued to dominate the field of research on cancer causation. Many investigators were seeking to confirm the exciting results of work by Philadelphia scientists who reported evidence that the herpes-type virus (HTV) previously associated with Burkitt's lymphoma, a cancer of the lymph glands occurring primarily in African children, is closely associated with and perhaps may actually cause infectious mononucleosis.

The HTV has been detected with remarkable frequency in cell lines derived from Burkitt's lymphoma, leukemic tissues, healthy donors, and patients with a variety of diseases; and blood serum surveys have shown that infections by the virus, or a close relative, are frequent and worldwide. However, except for the fact that all Burkitt's tumor patients studied have high levels of antibodies to HTV antigens, no suggestive relationship of the virus to a known disease has been previously recorded.

As the virus-cancer research pace has quickened, it has become quite clear that certain dangers are inherent in this work. Under the leadership of the National Cancer Institute, an educational and develop-

mental program is in progress aimed at protecting personnel and experiments from inadvertent exposure to suspect or known cancer viruses. A laboratory on wheels, the Biohazard Containment Mobile Laboratory, was designed and built under contract as a prototype facility for the Institute. It is presently being used by Institute virologists and will be made available to other research institutions cooperating in cancer virus programs.

A new laboratory building, the Emergency Isolation Facility, incorporating the latest biohazards protective procedures, is under construction on the grounds of the National Institutes of Health, and will be completed early in 1969. It not only will house virus-cancer experiments, but will also enable sanitary engineers and others to test new safety techniques and devices. All virus-cancer studies at the National Institutes of Health have been integrated into the National Cancer Institute program.

DIAGNOSIS AND TREATMENT

Detection of Breast Cancer

Continuous efforts are being made to obtain better results in detecting breast cancer. The techniques under development employ X-rays, heat-sensing devices, and ultrasound. The Institute continued to support an extensive screening and evaluation program for an X-ray method, known as mammography, under a contract arrangement with the Health Insurance Plan of Greater New York. On the basis of comparison between the number of breast cancers detected in the screened group and those in a control group, the investigators have been able to estimate that the program detects breast cancer on an average of 21 months earlier than is possible by clinical examination. The question, however, of whether this method of detection will bring about an improvement in the survival rate of patients remains to be determined.

Treatment Research

In recent years chemotherapy, or treatment with drugs, has been successful in effecting some control over certain forms of cancer known as the fast-growing tumors. These include leukemia, Hodgkin's disease, Burkitt's lymphoma, choriocarcinoma (a cancer of the placenta), testicular tumors, and certain tumors of childhood. As a result of this experience, investigators are beginning to understand the characteristics of cell populations making up tumors, and have begun to adapt the principles learned in these studies to the slowly growing ones. These latter tumors include lung, breast, prostate, and colon and rectum cancers, among others.

Drug Treatment of Leukemia

Studies initiated only a few years ago substantiate the remarkable pace of advancements in cancer chemotherapy. In 1968, at major treatment centers, it was possible to restore 90 percent of patients with acute lymphocytic leukemia—the most common form in children—to complete, though temporary, good health; and most of these patients can be expected to live at least 3 years. As recently as 4 years ago the complete remission rate was 50 percent and the median length of survival only 12 to 19 months.

Another encouraging development is the increasing number of persons surviving more than 5 years after diagnosis of leukemia. The Acute Leukemia Task Force, a group of medical experts assembled by the National Cancer Institute to aid in developing a coordinated research effort in this field, has compiled a worldwide registry of more than 150 long-term survivors. From this data, task force members have concluded that discontinuance of leukemia therapy appears justifiable and perhaps advisable 7 years from diagnosis, if a patient has had no evidence of disease for at least 4 years. This strongly suggests the possibility that, in some cases, leukemia can be considered cured.

Besides the drugs themselves, the technique of administering them in combinations intermittently is given major credit for recent successes in treatment. Four agents most often used have been prednisone, vincristine, mercaptopurine, and methotrexate, but others are also effective and new ones may provide even better treatment combinations in the future. For example, cytosine arabinoside has been found increasingly useful in treating acute lymphocytic leukemia which has become resistant to other drugs, and effective against undifferentiated childhood leukemia and the acute myelocytic form of the disease.

Another agent receiving consideration in clinical trial is L-asparaginase. Clinical trials of L-asparaginase are being conducted in patients with acute leukemia and lymphosarcoma.

Drug Treatment of Other Cancers

Encouraged by successes in treating leukemia with combinations of drugs, physicians have been applying this therapeutic technique to other cancers. Early, or localized, Hodgkin's disease yields to intensive irradiation, but for far-advanced disease, a regimen of four-drug treatment has been found most effective. Thus, adequate radiation therapy and adequate drug therapy provide opportunities for dramatically increasing the cure rate for Hodgkin's disease.

Concurrent use of two anticancer agents, dactinomycin and vincristine sulfate, has produced regressions of solid tumors of childhood without serious side effects, always a problem in cancer chemotherapy.

Investigators administered the two drugs to 18 children, ranging from 8 months to 16 years of age, with nine types of inoperable malignant tumors. All patients improved, and in some of the children response to chemotherapy was such that subsequently the tumors could be removed by surgery or destroyed by radiation therapy.

A drug, melphalan, has been found to produce good response and prolong survival in a high percentage of patients with multiple myeloma, cancer of the plasma cells, or bone marrow. In addition, National Cancer Institute and other investigators have reported that the calcium loss characteristic of this form of cancer can be partially restored by fluoride treatment. Fluoride treatment has also been suggested for metastases (secondary growths of a primary tumor) to the bones of patients with such common tumors as those in the breast and prostate.

The well-recognized dangers of drug treatment have been highlighted in a report by a group of Veterans' Administration investigators participating in the National Cancer Institute's cooperative chemotherapy program. These physicians found out that, although estrogen therapy results in a slight reduction in deaths from cancer of the prostate, it substantially increases the risk of death from cardiovascular disease. In many cases, this risk is justified by the severity of malignant disease; in others, alternative forms of treatment may be indicated.

Although the accomplishments in cancer research have been important and encouraging, the disease problem remains a formidable one. Over the last 30 years the survival ratio of cancer patients has been improved from fewer than one-in-five to one-in-three, and under optimum conditions of early detection and effective treatment could be increased to one-in-two. Yet, despite the steady improvement in cure rate, the death rate is increasing about 1 percent a year, and from this standpoint it may be said that we are losing ground.

National Heart Institute

The special province of the National Heart Institute is the cardiovascular system and its diseases. Its primary mission is to conduct and support research to increase knowledge of the structure and functions of this system and to search for means of preventing, alleviating, and curing the diseases that afflict it. It is a complex system, vulnerable at many points, and prey to a large family of diseases. In many instances, the causes of these diseases are not known. Some may be inherited. Others may arise from adverse factors affecting the fetus at critical stages of development. Still others may evolve from subtle abnormalities in the complex processes of metabolism. In addition,

many factors—within the person himself, his surroundings, or his mode of life—may affect susceptibility to these diseases, accelerate their development, or trigger their often devastating complications.

The complexities of the cardiovascular disease problem dictate a research program of considerable scope and diversity. The foundation of the Institute's research effort is its research grants program. During fiscal year 1968 NHI spent $95 million in support of 2,024 cardiovascular research projects at universities, hospitals, and other institutions throughout the country. The results of these projects were promulgated to the scientific and medical communities in more than 4,000 scientific papers and abstracts published during the year by NHI grantees.

Many of these studies yielded basic information on the cardiovascular system and the blood it carries; on the lungs and kidneys that oxygenate the blood and purify it of waste products; and on the nervous system and endocrine glands and their secretions, which influence cardiovascular performance. Some probed deeply into metabolic reactions occurring within individual cells, the enzymes presiding over these reactions, and genetic mechanisms that dictate the form and regulate the production of structural proteins and enzymes. But many other studies provided information, techniques, or instrumentation directly applicable to clinical problems: for example, clinical trials evaluating promising new drugs; safer, more sensitive diagnostic tests for detecting and evaluating inborn or acquired cardiovascular disorders; improved surgical methods, life support techniques, or artificial valves for the management of congenital or rheumatic heart disease; improved monitoring procedures for heart-attack patients and for averting or coping with potentially lethal complications.

ARTIFICIAL HEART–MYOCARDIAL INFARCTION PROGRAM

The NHI artificial heart-myocardial infarction program is combining bioengineering and biomedical approaches to: the development and evaluation of devices and techniques to assist a failing circulation; and reduction of death and disability from acute heart attacks, which are responsible for well over half of the 560,000 U.S. deaths occurring each year from arteriosclerotic heart disease.

One long-term goal is discovery of a completely implantable, permanent artificial heart replacement, but the program is currently concentrating on the development and refinement of a family of devices that provide pumping assistance to patients with acute heart failure. Such devices may save many otherwise doomed heart-attack patients by giving their hearts a temporary respite to mend damage and regain strength before resuming their full circulatory obligations.

During fiscal year 1968 the Artificial Heart Branch awarded 51 new contracts and extended 48 others for studies basic to the development and evaluation of circulatory-assist devices. These awards, totaling $7 million, supported research in 13 key areas of physiology and bioengineering.

The Myocardial Infarction Branch awarded four contracts totaling $2 million for the establishment of Myocardial Infarction Research Units (MIRU's) at the University of California, San Diego; Cedars-Sinai Medical Center, Los Angeles; the University of Chicago; and the University of Rochester. Support was continued for MIRUs previously established at the University of Alabama, Cornell, Duke, Johns Hopkins, and Massachusetts General Hospital.

Each MIRU is a clinical unit within the patient-care area of the hospital specially equipped and staffed for the most comprehensive care and detailed study of heart-attack patients during the acute phase of their illness.

CORONARY DRUG PROJECT

The NHI coronary drug project is directed against still another facet of the heart-attack problem. It hopes to establish that long-term reduction of blood lipids with drugs will confer some degree of protection against recurrent heart attacks and other complications of preexisting coronary heart disease, and reduce 5-year mortality rates by 25 percent or more.

As of June 30, 1968, nearly 5,000 patients had been recruited toward the final goal of 8,500 for the project. Recruitment will be terminated in June 1969, and the study itself should be completed in 1974.

NATIONAL BLOOD RESOURCE PROGRAM

The NHI national blood resource program was established in 1966 to survey our Nation's blood resources and their utilization in terms of present and foreseeable needs; and meet a steadily accelerating demand for blood products without unduly taxing these resources through improvements in technology relating to the production, storage, and distribution of these products.

During fiscal year 1968 the program awarded or extended 21 contracts totaling $1,612,290 for research in four key areas: The development of an integrated system for the mass production of blood fractions; studies of the chemical preservative adenine as a means of extending the storage life of whole blood; studies to determine the feasibility of a computer-based regional or national inventory system for blood products and blood donors; and clinical studies to assess the effectiveness of the clot-dissolving agent urokinase against clots obstructing blood vessels in the lungs (pulmonary embolism).

An important result of this work could be an AHF concentrate that could be prepared in sufficiently large quantities at sufficiently low cost to permit its use as a routine, rather than an emergency, procedure for preventing or controlling hemorrhage in hemophiliacs.

Other contracts are supporting feasibility studies of a computerized inventory system for blood products and blood donors that might be applied on a regional or national basis. If workable, such a system might make possible a more equitable distribution of the blood supply; prevent or meet local shortages through redistribution of local surpluses and reduce losses due to outdating in storage; provide means of summoning potential donors during periods of need; and provide means of locating rare blood donors in a region.

INTRAMURAL RESEARCH

A vital segment of the Heart Institute's overall research program is the basic and clinical research conducted at Bethesda, Md., and elsewhere by members of the NHI scientific staff. Among the results reported during fiscal 1968 were:

- Development of a miniaturized oxygenator that shows promise in the treatment of hyaline membrane disease in infants and in the management of other acute respiratory crises.
- Continued progress in the detection, classification, and treatment, through special diets and lipid-lowering drugs, of lipoprotein abnormalities often associated with premature development of atherosclerosis and coronary heart disease.
- Elucidation of the chemical structure of thyrocalcitonin, a hormone that shows promise in the treatment of various disorders of bone metabolism.
- Successful clinical use of an implanted carotid sinus nerve stimulator to provide almost instantaneous relief of angina pain.
- Continued progress in research on the nature and function of the genetic code that directs and regulates the production of the enzymes and structural proteins of the cell.

TRAINING SUPPORT

In addition to its research program, the Heart Institute also supports a broad program of training grants and fellowships aimed at improving the scope and quality of cardiovascular teaching in our Nation's medical institutions, expanding the available pool of highly trained research manpower in the cardiovascular field, and providing clinical training in the latest methods of cardiovascular investigation, diagnosis, and treatment. During fiscal year 1968 NHI provided $24 million in support of these training activities.

National Institute of Allergy and Infectious Diseases

TRANSPLANTATION IMMUNOLOGY PROGRAMS

When the first human heart was transplanted in December 1967, interest in this exciting frontier of medicine soared, and the need for knowledge of how and why the recipient body normally rejects such foreign tissue became clear. Much of what is presently known about this rejection phenomenon, or immune response, has been gained through the efforts of scientists participating in transplantation immunology programs of the National Institute of Allergy and Infectious Diseases. During fiscal year 1968 NIAID funds supporting research in this area amounted to more than $5 million. Studies involved laboratory investigations of the rejection phenomenon and developmental research focused on new ways to store organs until needed for transplantation. More efficient ways to collect and distribute information on the total transplant experience also were explored.

Most transplant operations to date have involved the kidney. An analysis of data based on 1,741 kidney transplants reported to a kidney registry supported by NIAID showed kidneys from related living donors have a 1-year survival of 75 percent and a 2-year survival of 67 percent. Kidneys from cadaver (unrelated) donors have a 1-year survival of 45 percent and a 2-year survival of 38 percent.

VACCINE DEVELOPMENT

In the field of vaccine development encouraging news from field trials of a rubella (German measles) vaccine was a highlight of 1968. In an NIAID-supported study, 90 percent of some 6,000 Taiwan schoolchildren given the vaccine were protected in the face of rubella epidemic. If the disease can be more or less wiped out by vaccines, and pregnant women thus shielded from the risk of infection, many birth defects can be prevented.

Work on the development of a vaccine against the principal types of pneumococci was initiated during the year. Ultimate goal of this contract program is a single preparation that will prevent approximately one-third of the estimated 55,000 to 70,000 deaths now caused each year by pneumonia and influenza.

Ongoing research on viruses and vaccines during the year resulted in the development of a new method of preparing vaccines and a new way of administering them. Grantees in Texas found that inactivation of viruses by light resulted in a vaccine which, in animal tests, surpassed the usually formalin-killed virus vaccine in inducing an immune response. In other studies, intramural scientists working with University of Maryland investigators reported that a nasal spray immunization method holds promise in influenza prophylaxis.

CHRONIC DISEASES

At NIAID's Rocky Mountain Laboratory, Hamilton, Mont., scientists continued work on selected chronic diseases of animals that resemble some human disease. A virus which appears to be the cause of progressive pneumonia of sheep was isolated. Work is now in progress to determine whether it, or similar viruses, cause some of the degenerative diseases of man.

ACUTE INFECTIONS

Work on acute infections was wide ranging. For example, a NIAID research career awardee reported serologic evidence that a virus recently associated with a form of cancer known as Burkitt's lymphona was probably the causative agent of infectious mononucleosis; and NIH scientists produced long-term cultures of cells from mononucleosis patients—thus providing an important tool for further studies of this disease.

In another study, NIAID investigators were able to transmit monkey malaria to man by mosquito bite—the mode of transmission occurring in nature. Should it be possible to complete the cycle—to retransmit the disease to the monkey via the mosquito—the implications for malaria control are significant.

ALLERGIES

The problems of hay-fever sufferers and other persons with allergic disorders were studied by a number of NIAID-supported scientists. Clinicians treating patients with medically resistant asthma reported progress through use of prolonged assisted ventilation plus a muscle-relaxant drug. These grantees also identified some of the factors leading to the medically resistant state: infection, fatigue, and overuse of aerosols of epinephrine and similar drugs.

INFORMATION

A number of steps were taken during the last year to alert both the scientific community and the general public to research developments within the Institute's purview. Three major reference catalogs on tissue typing sera, arboviruses, and research reference reagents were compiled and distributed to scientists participating in Institute programs and to other interested investigators. A symposium on public health problems in Arctic populations was cosponsored by the Institute and the University of Alaska. Some 50 participants from several countries discussed threats to health brought on by the expansion of technology into primitive societies of the circumpolar regions. In another symposium, scientists representing many different fields came together to consider the possible causes of emphysema. These experts gave

special consideration to the selection of a suitable laboratory animal for studies of this increasingly important lung disease.

The Institute played an active part in the production of "The Miraculous Pool," a film depicting steps in the vaccine development program of NIAID and other activities of the National Institutes of Health. The film was produced by a private foundation at no cost to the Government. The Institute contracted for 100 prints and film distribution, and more than 200 showings by television stations across the country helped report this research progress to the public.

National Institute of Arthritis and Metabolic Diseases

In its research on a broad array of chronic diseases with long-term disabling effects, the National Institute of Arthritis and Metabolic Diseases (NIAMD) seeks primarily to understand their complex mechanisms and bring about more effective, rational treatment and, where possible, prevention. Within the Institute's purview are various forms of arthritis, connective tissue disorders, diabetes, gout, cystic fibrosis and other metabolic disorders, diseases of the gastrointestinal tract, liver, and gallbladder; disorders of nutrition and endocrinology; urologic disorders and diseases of the kidney, artificial kidney development and a related kidney transplant program; diseases of blood, bone, and skin, and orthopedic surgery.

ARTHRITIS

During the year research supported by the Institute strengthened the hypothesis that infectious agents may be involved in causing rheumatoid arthritis. Investigators produced arthritis in both monkeys and rabbits by injecting them with *Bedsonia* organisms isolated from human patients with Reiter's syndrome, a disease closely related to rheumatoid arthritis.

Among numerous drugs under clinical trial are cyclophosphamide, which has produced favorable results in treating certain types of rheumatoid arthritis, and shows promise in treating certain cases of osteoarthritis, a common arthritic disorder associated with degenerative changes in the mechanical structure of joints.

LESCH-NYHAN DISEASE

Institute scientists pinpointed an enzyme defect in Lesch-Nyhan disease, a grave inherited metabolic disorder of childhood, marked by cerebral palsy, self-mutilization, mental retardation, and overproduction of uric acid.

Following this discovery, the researchers developed a urinary screening test with which early detection of Lesch-Nyhan disease now is possible. The procedure also can detect certain cases of gout.

DIABETES

Specific pathological tissue and molecular changes fundamental to diabetes are being examined. Insulin, long thought homogenous, was shown to be present in man in two distinctly different forms. In another study, a substance, "proinsulin," was identified. This is believed to represent the first step in the biochemical formation of insulin.

ARTIFICIAL KIDNEY AND TRANSPLANT PROGRAM

In the past year a diet restricted to small quantities of high-quality proteins but furnishing unlimited carbohydrates and fats was shown to prolong for several months the comfortable life of patients in end-stage kidney failure. The diet can serve as a stopgap measure while the patient with chronic renal disease is considered for dialysis (blood cleansing through the artificial kidney machine) or for kidney transplantation.

Extensive research is now underway on the biochemical and physiological characteristics of the uremic end stage of chronic kidney failure. Meanwhile, a series of new artificial kidneys is under development in the search for more efficient and less expensive dialysis methods.

One very compact "hollow fiber" kidney, simulating the human kidney's network of blood capillaries, has been used successfully during recent months in human patients.

Prognosis for liver transplants, a relatively new procedure, is continuing to improve, with a few young recipients surviving up to a year or more.

NUTRITION

One major effort is aimed at alleviation of malnutrition and nutritional deficiencies (such as iron-deficiency anemia) both in the United States and abroad. The Institute continues to contribute to an understanding of the physiologic and metabolic actions of the various nutrients and their requirements in man. In India and the Philippines the Institute is engaged in developing and evaluating new and inexpensive protein sources for undernourished peoples.

"Facts About Nutrition," published by the Institute this year, became a best seller after radio and television public service broadcasts informed the public of its availability.

National Institute of Child Health and Human Development

By the end of fiscal year 1968 the National Institute of Child Health and Human Development, established in January 1963, had completed its first 5 years.

328-184—69——25

The legislation authorizing the Institute recognized, in the early 1960's, the urgent need to stimulate, support, and develop research into the nature of human development.

Institute research during fiscal year 1968 concerned the health of infants, children, adults, and aged persons, and the causes and significance of biological and behavioral changes in both normal and abnormal aspects of the human development.

Among the Institute's major efforts were—

- Research in the areas of poor nutrition, and how this affects the childbearing woman and her progeny;
- Research into population problems, including demographic studies and studies to develop safer, more acceptable, and more effective contraceptives;
- Research into the disease conditions of infancy: blood incompatibility caused by the Rh factor, respiratory distress in the newborn, the sudden death of apparently healthy infants in the first few months of life;
- Research extending over the lifespan of individuals and generations, to explore the biological and behavioral consistencies and inconsistencies within the individual and between generations in the same family;
- Research concerned with mental retardation—its causes, prevention, and treatment.
- Research in aspects of human behavior such as how children acquire values and how changes in our culture affect personality structure within the individual.

Not only does the Institute deal with biomedical investigation but also with social issues such as: How we can cope with a rapidly expanding population; how we can reduce infant deaths; how we can prevent mental retardation, which imposes a serious emotional and financial drain on parents; how we can learn more about the aging process, which may eventually alleviate some of the health and social problems faced by the aged?

EXTRAMURAL ACTIVITIES

The Institute now is supporting 1,500 grants totaling $53 million, three-fourths of which represents research grants and one-fourth, research training, a substantial increase from the 1,000 projects totaling $27 million for 1964.

INTRAMURAL ACTIVITIES

The fiscal year 1968 marked the first full year of operation of the intramural research programs. Of primary importance was the completion, occupancy, and dedication of the Gerontology Research Center Building at the Baltimore City Hospital, Baltimore, Md.

In other significant moves, the Children's Diagnostic and Study Branch, the Behavioral Biology Branch, and the Laboratory of Biomedical Sciences, which had previously cooperated in studies of mental retardation at the National Naval Medical Center, were given separate resources and independent bases of operation during the past year.

The Institute was designated the National Institutes of Health focal point for population control and family planning research, and additional funds allocated for contract support resulted in several investigations of the medical effects of oral contraceptives and other aspects of family planning. Contracts were awarded to Kaiser Permanente Medical Care Program, Oakland, Calif.; St. Mary's Hospital, London, England; and the University of California at Los Angeles, Calif. Over 15,000 women will participate in these studies.

Significant Publications

Optimal Health Care for Mothers and Children: A National Priority summarized five meetings with groups of consultants in the fields of obstetrics and gynecology, pediatrics, behavioral sciences, nursing, and social work.

The Institute also published the proceedings of a conference on the *Prevention of Mental Retardation Through the Control of Infectious Diseases*, the first of a series which will cover research and clinical problems relating to the prevention of mental retardation.

RESEARCH RESULTS IN POPULATION DYNAMICS AND REPRODUCTIVE BIOLOGY

Despite a 25-percent decline in the U.S. birth rate since 1957, there still is little evidence that today's average American family will ultimately be much smaller, according to an Institute-supported study at the University of Wisconsin and Princeton University. Instead, the study explained, the 10-year decline in the birth rate is a result of an increase in the average age of wives at childbearing—largely a consequence of a trend towards later marriage—and an increasing tendency to space childbearing over a longer period of time.

MATERNAL AND INFANT HEALTH

In 1967, more than 78,000 infants in the United States died during the first year of life—an infant mortality rate of 22.1 per 1,000 live births, or a drop of six percent compared with 1966. This represents the most significant drop in infant death rates in more than a decade. Diet, drugs, environmental influences, heredity, maternal illnesses, and social factors have been found to have a profound effect on the well-being of the unborn child.

However, one health hazard to many infants, the presence of Rh blood incompatibility, which has caused the deaths of approximately

5,000 infants per year, may be eliminated in the next few years as a result of Institute-supported research. An anti-Rh preparation designed to prevent a mother with Rh-negative blood from becoming sensitized to her infant's Rh-positive blood has been developed, used successfully in a large number of cases, and is now generally available.

RESEARCH RESULTS ON THE DEVELOPING YEARS

An investigator at Harvard University, under contract with the Institute, is studying early cognitive development as related to social class and maternal behavior in children of middle- and lower-class backgrounds. Preliminary analyses of his data suggest that the effects of social class become evident earlier for girls than for boys, and are reflected most clearly in early patterns of vocalizations.

Two Institute grantees at the University of Minnesota, Minneapolis, Minn., have found that culturally deprived children appear to value school and school books highly, at least at the beginning of their school careers, but that their attitudes toward school become increasingly negative with time. They also found that the same phenomenon occurred in a group of middle-class controls. These findings suggest that schools themselves may be a major cause of the negative attitudes of culturally disadvantaged children toward education, and that the schools are failing in one of the most important objectives of education—that of maintaining a positive attitude toward school by the students.

RESEARCH RESULTS ON NUTRITION IN INTELLECTUAL DEVELOPMENT

The science of nutrition has moved beyond traditional concepts of simple deficiencies and minimum requirements. Now attention is being directed toward patterns of nutrient intake which may result in optimum body development and composition, and perhaps also in the achievement of maximum intellectual ability.

One of the most exciting new findings in pediatric nutrition concerns the effects of diet on the development of intellectual capacity. For years, the brain and central nervous system have been considered to be untouched by nutritional variations. Recent studies have greatly modified this concept. In an attempt to explore this concept more fully, the Institute is supporting a contract for a prospective long-term study in rural Central America. Two similar groups of children are being compared, one with an improved diet and the other with the conventional diet of the region. The project focuses on the entire physical and mental development, beginning with nutritional studies of family units and following pregnant women through pregnancy and delivery.

RESEARCH RESULTS IN MENTAL RETARDATION

The Institute has made a heavy investment in the study of the behaviorial and biological aspects of mental retardation. During the past 3 years, 12 institutions have received awards from the National Institutes of Health for the construction of mental retardation research centers, which promise to make a significant contribution in efforts to prevent, diagnose, and manage mental retardation.

Two Institute-supported researchers at the George Peabody College for Teachers in Nashville, Tenn., have found that basic personality factors may be more important than material rewards in determining the level of performance. These researchers found that retardates who achieved satisfaction through the actual performance of a task performed better under the promise of another task than they did under material—money—or no-reward conditions. On the other hand, children whose satisfaction came mainly from the ease, safety, comfort, security, and material rewards of the environment performed better under money incentives than under either of the other reward conditions.

RESULTS IN AGING RESEARCH

The new Gerontology Research Center, when fully staffed, will provide space for approximately 400 research workers. It is the largest center for gerontological research in the world and will provide regional, national, and international stimulus to gerontological research.

The new facility will permit expansion of the Center's programs of research related to alterations occurring in the human being during the aging process.

Another area in which the Institute has been active in the past year is retirement. Little is known about retirement and postretirement phases of life, partly because the presence of large numbers of people in this period of life is a recent phenomenon. To help launch a research effort on the phenomenon of retirement, the Institute began a series of conferences, bringing together experts in aging, medicine, social sciences, and administration for an analysis of this critical period and its problems.

National Institute of Dental Research

PREVENTING TOOTH DECAY

Three times a week, 300 preschool children of U.S. Coast Guard families on Governors Island, N.Y., visit the dental clinic to make their own contribution to a tradition of service. Under the supervision of a dental hygienist, they apply to their teeth for 3 minutes a custom-fitted mouthpiece filled with a cherry- or lime-flavored fluoride gel.

Participating in a study by the National Institute of Dental Research, they are testing a new method of topical application of fluoride. If it works, the youngsters will not only benefit themselves but will also help to free future generations of children from the pain of dental caries.

Virtually all children are susceptible to tooth decay. At school age, the average child has three decayed teeth, and by age 15, he has 11 of them. It is hoped that fluoride applications at an early age will provide a foundation for defense that will be maintained longer.

In earlier tests in a community which does not fluoridate its public water supply, this technique reduced tooth decay in school age children by 80 percent. Another study of junior high school students now underway in Charlotte, N.C., is examining whether increased protection may be expected where caries incidence is already low due to water fluoridation. Of particular public health interest is that a single dental hygienist, using this method of application, can supervise several hundred children—many more than is possible with current techniques of topical treatment.

Clinical trials of this technique were begun following successful laboratory studies by scientists at the National Institute of Dental Research. Observing its 20th anniversary this year, the Institute pioneered in research leading to water fluoridation. Now, a continuing area of study is aimed at increasing the benefits of fluoride. The Governors Island and Charlotte studies illustrate the work that is being carried out in this area.

Another approach to the problem of tooth decay focuses on bacteria, since dental caries is due to an interaction between decay-causing bacteria, carbohydrates in the diet, and susceptibility of the teeth. A major accomplishment of the past few years has been the identification of specific microorganisms as a cause of dental caries. Now it is known that these bacteria secrete a sticky material (dextran) which enables them to adhere to the smooth sides of teeth in a film called dental plaque. Held fast in the film, the bacteria bathe the teeth in cavity-producing acid which they produce by fermenting carbohydrates, especially sugar. This new research lead holds promise for one of the most effective approaches in preventive dentistry in recent years.

Preliminary collaborative research with industrial scientists shows that, when a specific enzyme known as dextranase is given to animals in food and water, it almost completely prevents the formation of plaque and the production of smooth-surface caries by the bacteria. Clinical trials are planned.

Still in an experimental stage, a new technique developed by grant-supported investigators seals the pits and fissures in the grinding surfaces of teeth with a plastic mixed with fine silica particles. The ad-

hesive wears off in time but reportedly gives excellent protection against tooth decay for 6 months. Grinding surfaces are the ones most susceptible to caries.

PERIODONTAL DISEASE

Studies of periodontal disease (pyorrhea) continue to shed light on this complex problem. The chief cause of tooth loss after age 35, periodontal disease eventually affects nearly everyone. For the first time, studies of diseased human gingival tissue have shown the presence of the enzyme hyaluronidase. This enzyme is antagonistic to a component of the cementing substance between fibers of the normal gums and leads to a breakdown of these tissues.

Hydrogen sulfide, a waste product of at least five types of microorganisms found in crevices between teeth and gums, has been identified as another suspect in periodontal disease. Institute scientists have detected this gas in gum pockets and are now studying its effects on periodontal tissues.

RESTORATIVE MATERIALS

Until oral disorders can be prevented, most people will require some kind of restorative service. At present, the restoration of decayed teeth requires that the filling be locked in mechanically. This necessitates the removal of sound tooth structure. If an adequate adhesive filling material were available, it would be necessary to remove only the diseased part of the tooth, thereby also reducing discomfort and treatment time. The development of an effective adhesive filling material therefore has high priority in the Institute's research efforts.

One research path has led to the natural cement that holds barnacles to ship hulls, piers, and buoys. To encourage further research into the chemical and physical properties of this cement and its synthetic preparation, the Institute published and distributed a report on scientific progress to date entitled "Barnacle Cement as a Dental Restorative Material."

Research has shown that, in spite of their small organic content, transplanted teeth from a different donor do sensitize a recipient. Thus, rejection is to be expected unless the immune response is suppressed or tissues can, in some way, be matched. These findings emphasize the need to develop synthetic teeth of nonallergic material as replacements for missing teeth. One project of this type, supported by the Institute, involves acrylic plastic teeth. Such teeth have been implanted in the jaws of baboons to replace natural teeth and thus far have remained firm for 7 years.

GROWTH AND DEVELOPMENT

This year, 6,000 new babies will join the ranks of over a quarter of a million persons in the United States born with some form of cleft lip or palate, or both. Several environmental hazards in pregnancy appear to be related to clefting. Seeking more clarification of the metabolic processes involved, the Institute is supporting studies of the effects of drugs in animals that closely resemble man.

Although hereditary aspects of cleft palate are difficult to study in man, they are being explored by Institute geneticists. They find that not only do clefted patients have more birth defects of other kinds than the general population but also their relatives are more likely to have serious abnormalities.

Continuing emphasis is placed on improving diagnostic and rehabilitative techniques, including surgery and speech therapy, to enable cleft victims to achieve near-normal appearance and function. A multipronged research program is also yielding valuable data on the psychological aspects of cleft deformities.

Institute investigators have developed an animal model system to study effects of excess vitamin D in pregnancy. Blood vessel and dental malformations, including malocclusion, have been produced in newborns. Since malocclusion in human patients seems to be increasing in frequency, it may be significant that some pregnant women consume many times the daily dosage of vitamin D recommended by nutritionists. Any possible relationship, however, needs to be further studied.

OTHER DISORDERS

A new finding helps to explain why certain viral diseases, such as fever blisters, persist even though antibodies are built up against them by the body's defenses. It is now known that a virus can combine with its antibody without losing infectivity.

Through other studies, the Institute continues to seek the causes and to improve treatment of oral cancer and of oral ulcers.

National Institute of General Medical Sciences

Traditionally, this Institute supports biomedical sciences that provide data about the nature and structure of man, especially those sciences basic to the research components of the National Institutes of Health.

In addition, the Institute identifies, and applies its research capabilities to, major public health problems.

Unexpected and life-threatening complications encountered in the normal use of drugs, for example, continued to undergo intensive investigation. Research leading to the automation of clinical laboratories

to speed and improve the diagnosis and treatment of disease also progressed. New research projects focused sharply upon trauma, the fourth leading cause of death and the foremost cause of disability in the United States.

PHARMACOLOGY/TOXICOLOGY

Using funds provided by the Institute's special program in pharmacology and toxicology, teams of scientists in seven large university research centers have been working to secure comprehensive knowledge of the way drugs are broken down in the human body and how they act upon physiological processes. The teams also have been trying to determine how different drugs interact, one to another and with other chemicals which occur naturally in the body or which may be received from the environment. Information gained from these studies is vital to the safe and effective use of drugs, and to the development of new drugs to combat many kinds of disease.

Receiving particular attention were drugs which cause adverse reactions and the hazardous side effects associated with long term use of drugs. Investigations in this area were expanded by a new project at Baylor University School of Medicine, Houston, Tex., in which scientists are exploring effects in newborn children from drugs administered to their mothers during pregnancy. Drugs under study include those used to control weight, blood pressure, neurological disorders, infectious diseases, and inflammation. Parallel studies are examining the effects of drugs used to combat illnesses and diseases in infants and young children, who react to drugs quite differently than adults because of their immature body processes.

Other scientists have developed a central, computerized system for monitoring and evaluating the results of drugs administered to hundreds of patients in five Boston hospitals. Now being introduced in a number of clinical drug studies supported by the Institute, this system could become a model for adoption by hospitals throughout the country. Over the past year it has been used to spot quickly trends of adverse reactions caused by individual drugs, and by drugs given in combination. It also has led to the discovery of important relationships between drugs and the genetic makeup of patients, including sex and blood type, plus variations in drug effects with patient age. For example, a drug widely used to prevent blood clotting was found to produce serious bleeding far more often in older female patients, and at much lower doses, than in males or young women. Other evidence was obtained that barbiturates behave quite differently in persons with different blood types. Such information makes it possible to identify and protect persons who may be susceptible to harm from particular kinds of drugs.

AUTOMATED CLINICAL LABORATORIES

Biomedical engineering—the application of engineering principles to problems in biology and medicine—centered on activities leading to the automation of clinical laboratories.

Studies of disease and of patient responses to therapy have in recent years become increasingly dependent on clinical laboratory findings. As a result, the clinical laboratory occupies a crucial position in medicine. While progress has been made in partially automating a few analytical techniques, laboratories for the most part are handicapped by time-consuming manual methods and are unable to cope with new demands for services. Hospital admissions have escalated sharply and physicians often request complete lab workups for nearly all patients admitted. Nearly one billion laboratory tests were performed in the past year and the workload is expected to double in the next few years.

The inability of clinical laboratories to keep pace with demand has, in many instances, caused unconscionable delays in getting vital information to physicians, and pressure for more and more tests has gravely imperiled laboratory accuracy. Health authorities are agreed that the problem can only be solved by totally automating clinical laboratory operations.

By supporting a carefully programed mixture of basic and applied research activities, the Institute is seeking to develop a single online analytical system capable of performing rapidly and accurately a broad spectrum of multiple analyses on minute samples of tissues, blood and other body fluids.

One such unit in advanced development combines collection and calculation of body chemistry data from laboratory instruments, transfers the results to electronic reporting media, and blends bookkeeping and laboratory test results into a system which promises to reduce substantially hospital staff time.

In the area of badly-needed new instruments, advances have been made in development of laser microprobe technology for histo- and cytochemical analysis, including trace metal analysis. This technique permits ultramicro concentrations of zinc, magnesium, and other trace elements to be measured within a single cell. Beginning with vaporization of a tissue sample by a laser beam passed through a microscope, spectral lines of elements in the rising vapor are photographed and evaluated quantitatively by optical scanning methods.

The procedure is shedding new light on the relationship of zinc to cirrhosis and cancer, cadmium to kidney disease, selenium to muscle metabolism, and aluminum to diseases of the lung—all part of the general problem of toxicity of common metals.

Another biomedical engineering achievement in fiscal year 1968 was the development of a new instrument that continuously tells a physician whether proper lung function is being maintained in critically ill or injured patients. It is a small, wristwatch-like sensor which detects subtle danger signals in breathing patterns by measuring automatically, through the intact skin, the amount of carbon dioxide in a patient's blood stream. Institute supported physicians and engineers who developed the sensor believe it will help reduce substantially the number of Americans who die each year from acute respiratory disorders, including 20,000 infants who die in the first 5 days of life from an occult breathing disorder known as acute respiratory syndrome, and more than 17,000 patients who die from emphysema.

TRAUMA

The goal of the Institute's trauma research program is to discover or improve lifesaving techniques for treating severely injured persons. Trauma often is termed the "neglected disease" of our society. Epidemic in scope, it is the leading cause of death in the first half of the life span. For every person killed, a dozen or more are hospitalized. These patients now require 22 million bed days a year, or 12 percent of all available hospital space. Injuries cost the Nation's economy nearly $20 billion annually, exclusive of the human suffering and social disruption which attends them.

Except for work carried out by the military services, efforts to control and reduce loss of life from injuries (100,000 deaths per year) has centered largely on measures to prevent accidents.

Substantial gains can be made by a concerted effort to understand and counter the succession of barely perceived physiological changes and events which attend and often precipitate death following severe injury.

To this end, a major Institute program stimulates and supports development of university-based centers for trauma research. These centers combine high quality clinical and emergency treatment facilities with interrelated research by scientists in a number of disciplines. The goal is to define patient problems, test findings in the laboratory, and apply solutions to patient care at the earliest possible moment.

Four trauma research centers were established this year. One, at the University of Cincinnati, Cincinnati, Ohio, is concentrating on the problem of infections resulting from trauma. A second center, at Parkland Memorial Hospital in Dallas, Tex., is concerned with causes and ways to correct kidney failure, loss of fluid balance, reduced heart function, circulatory disturbances, respiratory distress and other

life-threatening factors. The other two new centers are located at Albany Medical College, Albany, N.Y., and the University of Maryland, Baltimore, Md.

Although the Institute's program is relatively new, important information has been gained. New methods to measure and evaluate body fluid balance have been discovered. Imbalances in body fluid often occur with patients who have undergone severe shock as, for example, when the skin vapor barrier is destroyed by severe burns or when there is massive destruction of tissue. Early and precise measurement of these imbalances is essential to successful therapy.

Also, a new topical antibacterial agent which has been synthesized has proved highly effective in controlling infection in burn wounds. Studies of endotoxin shock, caused also by bacteria, have produced new methods for treatment which in animals have reduced the fatality rate by 20 percent.

RESEARCH TRAINING

Institute research training grants and fellowship awards this year supported more than 7,500 young men and women of unusual promise in universities throughout the country. In fundamental health sciences alone, Institute support provides training for about 40 percent of the total national graduate enrollment. In some disciplines, this figure is as high as 70 percent.

This support has a substantial impact on the future quality of medical education. Past experience has demonstrated that half of all Institute-supported trainees and fellows are recruited for research and academic positions in the Nation's medical schools. Ph. D. candidates receiving Institute support tend to complete their studies more than a year earlier than those who do not receive such assistance.

National Institute of Neurological Diseases and Blindness

In the 15 years of its existence, the National Institute of Neurological Diseases and Blindness (NINDB) has developed a broad program of basic and applied research both at its Bethesda, Md., laboratories and at grantee institutions. It has strengthened this program by training scientists to cope with the complexities of neurological research.

Prime targets during the past year included cerebrovascular disease (strokes), epilepsy, degenerative neurological disorders, problems associated with head injury, disorders of vision, and the events of the perinatal period which may cause conditions such as cerebral palsy and mental retardation.

COLLABORATIVE PERINATAL PROJECT

The most critical time of life is the period from conception to shortly after birth. Often marked by excessive fetal loss and infant mortality, this perinatal period is also the source of many neurological disorders and of a large percentage of mental retardation. Scientists of the Institute gained greater insight this year into the importance of the prenatal period in total development. Scientists in the Institute's collaborative perinatal project found strong evidence that malnutrition in a pregnant woman adversely affects the intelligence of her child. They believe the impairment can result either from an inadequate food supply of proteins and calories or from a chemical nutritional imbalance traceable to disease.

Mild depression of intellect occurs more frequently among the disadvantaged populations of this and other countries than among the privileged. Part of the difference of IQ between higher and lower socio-economic groups may be attributed to poor nutrition. If this line of thinking is substantiated by further investigations, a whole new approach to an age-old problem may be in the offing.

One of the most prevalent neurological disorders caused by unknown events during the perinatal period is cerebral palsy. Another study this year has confirmed previous work which indicated that spastic diplegia is a specific type of cerebral palsy found among premature infants. A survey of all premature births in the project, surviving to the age of one year and weighing less than 2,000 grams (about 4½ pounds), led investigators to confirm that almost all cerebral palsy cases classified as spastic diplegia occur in this weight group.

The Institute is intensively investigating many of the factors believed related to the causes of cerebral palsy at its Laboratory of Perinatal Physiology in Puerto Rico. Using the rhesus monkey as the experimental animal, scientists there are investigating such major problems as the role of asphyxia in brain damage, placental blood flow, placental insufficiency, and placental abruption. These are known complications in humans linked with infant death and high prematurity rate.

Scientists in the Puerto Rico laboratory found that the brain may not be as vulnerable to loss of oxygen for short periods as now commonly believed. It was found that the sudden production of total circulatory arrest is tolerated by the animal for up to 16 minutes without brain damage. Apparently less extreme but continued impairment of blood supply is the more common cause of the usual forms of cerebral palsy.

EPILEPSY RESEARCH

Epilepsy is another condition occurring early in life. Affecting a large number of people in the United States, epilepsy has been a major emphasis of the Institute's research program since its founding.

The major attack on epilepsy is being carried out through clinical research centers, established by NINDB in universities. These investigators are studying basic electrical activity of the brain, the way in which it can be surgically altered to reduce epileptic seizures, effects of drug therapy, and the basic mechanisms of epileptic discharges in animals. A pioneer computer laboratory is producing new information about the essential nature of the electrical nerve discharge.

Recognizing the need for better communication of research knowledge in epilepsy, the Institute has developed a new service, *Epilepsy Abstracts*. Each monthly issue digests approximately 200 articles related to epilepsy from the world's biomedical literature.

DISORDERS AFFECTING THE AGED

At the other end of the long scale of human development are disorders that affect the aged. These include stroke, Parkinson's disease, and many other neurological and sensory disorders.

New hope for sufferers of Parkinson's disease has been raised by the recent discovery of a possible new therapy. As a result of limited clinical trials, scientists now have evidence that L–DOPA, a synthetic amino acid that leads to the formation of dopamine in the brain, is effective in relieving the symptoms of parkinsonism in some cases. Whether these encouraging results presage a therapeutic breakthrough in parkinsonism remains to be seen.

A second condition which also largely affects the aged is cerebrovascular disease, or stroke. Stroke is one of the major targeted areas of the Institute. In addition to an extensive program of research projects in this area, 18 cerebrovascular research centers are now being supported in major population centers of the country. Each center is concentrating on a major approach to the disease problem. Factors being studied are the dynamics of cerebral blood flow, the biochemistry of blood constituents, the effect of anticoagulant drugs, cerebral cellular metabolism, and aphasia.

SCLEROSING DISORDERS

Another group of diseases or conditions which affect people mainly in their middle and most productive years are the sclerosing disorders. Multiple sclerosis (MS), the most common disease of this group, is a disease of temperate climates. A worldwide epidemiologic survey has revealed that the place where one spends early childhood is a determining factor in whether MS develops in later life. A study is now being

planned to determine the latency of this disease and the most common age at which it is actually acquired.

Among the most dramatic developments highlighting the area of clinical investigation have been those relating to the role of unusual viral-like agents in degenerative disorders of the nervous system. The role of such an agent in kuru, a rare neurological disease found only in New Guinea, has now been well established. The role of a viral agent in subacute sclerosing panencephalitis has been virtually proven. There are indications that an atypical or incomplete form of measles virus is responsible for this disease, now found to be much more prevalent than previously recognized. These findings have wide implications for other chronic neurological disorders.

NEUROMUSCULAR DISEASES

A large group of disorders, the neuromuscular diseases, especially affect children and young people. These include muscular dystrophy (MD) in its various forms, myasthenia gravis (MG), and a number of less prevalent conditions.

Knowledge of the fundamental mechanism in myasthenia gravis is progressing rapidly. The disease is clearly related to abnormalities of the thymus gland. Institute studies now show that thymectomy is a useful procedure, especially in young women. The use of anticholinesterase drugs is increasingly effective. Germine diacetate has been found effective in treating MG patients who cannot be helped with anticholinesterase medication.

The specific metabolic defect present in each of three inherited, retarding, and progressively fatal disorders of infancy—in Niemann-Pick, Gaucher's, and Fabry's diseases—has been identified by Institute researchers, and blood tests developed to detect these diseases.

HEAD INJURY RESEARCH

Many of the estimated 10 percent of the population who suffer from some neurological condition are victims of accidents and have suffered head and spinal cord injury.

The Institute is conducting a laboratory program for head injury directed toward understanding the factors causing brain swelling after head injury. It has been proved this year that whiplash injuries, even without direct impact to the head, may cause brain concussion and bleeding. Experimental whiplash injury in rhesus monkeys has demonstrated that cerebral concussion, bleeding and contusions can be produced by rotational jarring of the head on the neck alone, without direct head impact.

RESEARCH ON SENSORY SYSTEMS

To the physician, the eye is one of the most valuable sources of information for diagnosis of systemic disease. By examining the back of

the eye, he can learn a great deal about other diseases of the brain and its blood vessels. To improve the precision of such an examination, the Institute is developing a special television camera that can observe and measure subtle changes in the minute structures of the eye.

EYE RESEARCH PROGRAM

The Institute's eye research program is largely concentrated in 12 large clinical research centers. Research in these centers has recently produced notable advances in the successful repair of retinal detachment by better techniques of examination, surgery, and care. The laser has been used successfully to "spot weld" the retina in certain types of retinal detachment. The successful treatment of some patients with diabetic retinopathy has been accomplished by the removal of the pituitary gland.

Other advances include better diagnosis and treatment of glaucoma, more effective grafting of corneal transplants, tests to detect the harmful side effects of such drugs as chloroquine, and new methods of detecting and treating ocular tumors. A new drug, isosorbide, has been found to be a useful agent in acute primary and secondary glaucoma, and as a preoperative medication for various types of eye surgery.

The significance of advances of fundamental knowledge in vision research was highlighted this year when two of the Institute's grantees received Nobel Prizes for their contributions—Dr. Halden Keffer Hartline for studies of the physiology of vision, and Dr. George Wald for contributions to the understanding of the chemistry of the visual pigments.

INFORMATION NETWORK

To hasten dissemination of scientific information and to aid in program analysis, the Institute this year established a National Informaton Center on Vision Research at the Harvard University library. Objectives of the center are to define, identify, and store for retrieval the literature of vision so that the information may be more useful to research scientists, teachers, and practitioners. The vision center is the last of four such centers comprising the Institute's Information Network. This network is now providing scientific information to scientists through the world, covering basic and clinical neurology areas and communication.

Clinical Center

The Clinical Center provides necessary facilities and support services for the clinical investigation programs of the various NIH Institutes through its 516-bed research hospital. Primary consideration, however, is the welfare of the individual patient.

During fiscal year 1968, Clinical Center patients numbered 6,510. Readmitted patients outnumbered almost 2 to 1 those admitted for the first time. First registrations were 1,378; readmissions, 2,649. Outpatient registrations totaled 2,483. There were 4,027 patients admitted. Patients (adult and pediatric) were hospitalized for an average of 33 days; 69 percent of the beds were occupied on the average.

Construction of two additional floors (sixth and seventh) on the D wing was completed. The new area totals approximately 14,000 square feet. Occupancy by patient care staff took place in June.

In its first full year of operation, the Department of Nuclear Medicine conducted 3,246 complete studies and performed more than 1,300 laboratory and other surveys.

Television engineering was increasingly used in various diagnostic techniques. Installation of two new video tape recorders enabled the staff to completely tape biplane procedures from the Heart Catheterization Laboratory and images produced by the Nuclear Medicine Department's gamma scintillation camera.

More effective utilization of blood by the blood bank permitted 20,962 transfusions of blood or components from total acquisitions of 16,308 pints.

Clinical Pathology staff members worked with Bureau of Standards personnel on development and use of highly purified chemicals as standard materials for clinical chemistry. Notable progress was made on instrumental design for automated urine analyses.

Division of Biologics Standards

The Division of Biologics Standards (DBS) is responsible for administration of those provisions of the Public Health Service Act concerned with the Federal licensing and control of biologic products that are offered for sale in interstate commerce or for export or import.

These biologics include the vaccines, serums, toxins, antitoxins, as well as human blood and its derivatives, that are used for the prevention and treatment of diseases in man.

RUBELLA VACCINE

In the past several years, great strides have been made in rubella research. Infections of this disease during early pregnancy frequently result in spontaneous abortions, stillbirths, or birth of infants with grave defects such as blindness, deafness, heart disease, and brain damage. It has been estimated that during the last epidemic in the United States (1964–65), rubella led to 30,000 fetal deaths and the birth of 20,000 deformed children.

328-184—69——26

In 1966 two DBS scientists reported the attenuation or "taming" of the virus. They used their weakened virus (named HPV–77) to prepare the first effective experimental rubella vaccine. The HPV–77 strain was made freely available to investigators and pharmaceutical manufacturers here and abroad.

Vaccines prepared from this strain had been administered to approximately 20,000 persons by June 30, 1968. No vaccinees have experienced adverse reactions from the vaccine, and more than 90 percent have developed antibodies indicating immunity. Continued evaluation of the first children inoculated 2 years ago by the DBS team indicates that the level of vaccine-induced protective antibodies in their blood is unchanged. These observations encourage investigators to feel that the immunity conferred by the HPV–77 attenuated strain will be of long duration. Trials with HPV–77 vaccines have been conducted in the United States, Canada, England, France, Russia, Holland, Finland, Sweden, and Taiwan.

Studies have shown that the attenuated HPV–77 strain does not spread to contacts of vaccinees, such as other family members or, in institutional settings, other infants, children or young adults.

This past year, a simple blood test (HI test) to determine rubella immunity was perfected by DBS scientists. This procedure has now moved from the DBS research laboratory to international application in vaccine development centers, hospitals, diagnostic laboratories, and doctors' offices.

In vaccine work, the HI test is used to identify appropriate candidates (persons susceptible to rubella) for vaccine studies and to determine the antibody (immunity) response induced by the vaccines. Because of its simplicity, precision, and speed, the HI test is expected to advance the target date of a final rubella vaccine by about 1 year, and to result in a saving of over a million dollars in Government expenditures for rubella vaccine research.

Rh_0 (D) IMMUNE GLOBULIN

Each year, about 300,000 babies whose mothers have Rh-negative blood and whose fathers have Rh-positive, are possible victims of Rh disease (erythroblastosis fetalis). It occurs in about 10 percent of all pregnancies in which an Rh-negative mother gives birth to an Rh-positive baby, and is estimated to cause the death of 5,000 infants in this country annually.

Rh incompatibility becomes a problem when, during birth, red blood cells pass from the fetus into the mother's blood stream. If the baby's cells have the Rh-positive factor, the Rh-negative mother's body may begin to develop antibodies against them, just as though it had been

invaded by an infectious disease. The first child of an Rh-incompatible union is rarely affected, but serves to sensitize the mother so that, in future pregnancies, the sensitized mother's antibodies may enter the Rh-positive baby's blood stream and destroy the red cells.

The principal therapy for affected infants has been exchange blood transfusion, but for the past 8 years scientists in this country and abroad have been looking for a practical means of preventing the disease. After 12 months of intensive study, the DBS developed standards for Rh_0 (D) immune globulin, a form of gamma globulin used to prevent Rh disease. This product, under the trade name of Rh_0GAM, was licensed in April 1968.

MULTIPLE ANTIGENS

DBS research on biological products is necessarily related to current public health and medical practice. Because of the many diseases which can be prevented by immunization, there has been a growing tendency to use multiple vaccines combined in one injection. The usefulness of multiple antigens, however, must be determined on the basis of the combined effect, and with the assurance that no component inhibits the immunogenic effect of another.

DBS scientists have pioneered over the past several years in investigating the possibility of combining certain live virus vaccines. In their early work (Upper Volta, West Africa 1964) they found that combined measles, smallpox, and yellow fever vaccines could be administered safely and effectively by jet inoculation into susceptible children. Such combinations are especially useful for mass immunization campaigns in the developing countries of the world.

Based in part on these early findings of DBS, one of the larger pharmaceutical manufacturers began developmental work on the combination of live measles and smallpox vaccines for commercial production. This cooperative effort resulted in the licensing in late 1967 of a combined measles-smallpox vaccine, the first commercial combination of live virus vaccines. It is anticipated that additional multiple antigens will be developed, and DBS research in this area is continuing on that premise.

MUMPS VACCINE

A live mumps vaccine, under extensive testing for safety and potency in DBS laboratories for a year and a half, was licensed in December 1967 for commercial distribution. The new, single-injection live vaccine, which was developed by the manufacturer over a 5-year period, is prepared in chick embryo culture—the system which is already in use for the production of live measles vaccines. In the nationwide clinical tests, approximately 95 percent of the susceptible children

and adults to whom it was administered developed protective antibodies.

The vaccine is recommended for children approaching puberty, adolescents, and adults who have not had mumps. It is not recommended for younger children pending development of more information on the duration of immunity. Mumps infects about 80 percent of the population before adulthood and is usually regarded as an innocuous disease in childhood, although complications may occur. After the onset of puberty, however, the virus may affect the reproductive organs.

INFLUENZA VACCINES

Influenza vaccine was first licensed in 1945. Unlike vaccines against other virus diseases, the protection provided by influenza vaccines depends on representation of prevalent virus strains known to have caused recent influenza epidemics. The properties of these viruses do not remain constant but change from time to time in unpredictable ways.

Since influenza has a worldwide incidence, DBS keeps in close contact with influenza centers throughout the world. A yearly review of epidemiologic and laboratory data obtained from many sources on the prevalent influenza viruses enables DBS to establish a vaccine formula suitable for the next year's influenza season.

Early in the spring of 1967, all influenza vaccine manufacturers were advised by the DBS of the desirability of making available two influenza vaccine formulas for the 1967–68 season: a newly introduced bivalent vaccine and the traditional polyvalent vaccine. The bivalent provides greater protection against current strains of influenza, whereas the polyvalent vaccine stimulates a broader immunologic response. Both the bivalent and the polyvalent vaccine formulas contain the same total quantity of influenza antigens, but the bivalent includes considerably greater representation of contemporary A_2 and B strains than is possible in the polyvalent.

Division of Computer Research and Technology

The Division of Computer Research and Technology is charged with planning and conducting research, developmental and demonstration programs in mathematical and other computer-related sciences, including information processing, in support of NIH programs. The Division provides a technical advisory resource in relevant areas of mathematics and other computer related sciences.

UTILIZATION OF ELECTRONIC DIGITAL COMPUTERS

During fiscal year 1968 conversion of the central computer facility to OS/360 equipment was achieved. A third 360/50 was installed in May 1968, and significant advancements were made in modifying the vendor-supplied operating system to provide reliable, efficient and responsive machine servicing to the broad computer needs of NIH. Computational and programming support to research and management programs was increased.

In fiscal year 1968 the Division took initial steps in establishing a computer center to handle all computer needs and requirements of the Institutes and Divisions. Currently, the center has approximately 700 users. Ultimately it will enable any NIH scientist to type out in program language a request for information, send it to the center via telephone lines, and promptly receive the required information.

Two projects, both of which will increase computer efficiency while resulting in reduction of costs, were initiated. One project involved implementation of two systems—HASP and SPOUT—on the 360/50 computers, and increased computer throughput by about 30 percent while realizing an estimated savings of $30,000 in fiscal year 1968. The two systems, operating in defined segments of the computer's memory at the same time, increased the total of jobs processed per day from 350 in January 1968 to well over 600 per day in May.

A shared libraries project involved establishing a central library for programs which all Division computers may use, which is expected to significantly reduce costs.

OTHER PROGRAM ACHIEVEMENTS

A 360 program for adaptive filtering of bioelectric signals was completed and documented, and supplementary methods of programming were developed by the Laboratory of Applied Studies. This technique permits analysis of noise patterns in relation to signal content, and estimating of signal/noise ratios in many experimental situations. A system of linked computer programs completed in fiscal year 1968 made it possible to analyze continuously recorded measurements of cardiac pressures and blood flow obtained during heart surgery and diagnostic procedures.

In the Laboratory of Physical Sciences, numerical procedures and programs were developed for interpreting nuclear magnetic resonance data. A mathematical model was developed for the effects of noise on nerves.

The Heuristics Laboratory was established in midyear to develop concepts, techniques, and programs for automatic answering of questions and deductive solving of biomedical problems.

A major effort by the Computation and Data Processing Branch molded the vendor-supplied IBM 360 software into a reliable, responsive, and expandable computer system. Computers are now able to operate with four simultaneous streams. While computation of one program is underway, input for the next few jobs is simultaneously being read in and stored. Results for the last several jobs are being printed simultaneously, with one output stream and one printer devoted to systems messages, diagnostics, and small scientific results that have immediate relevance, and another output stream and printer to large printing loads resulting from administrative and management data processing.

Tablemaker II became operational on new hardware early in the year. This device enables anyone with no computer experience to take a basic file of data, extract relevant information, recode the control variables or otherwise regroup or reexpress the data. The data can be operated on by logical or arithmetic operations to computer frequencies, averages or expectancy tables, and then presented along with appropriate descriptive material in tabular form.

Division of Environmental Health Sciences

The mission of the Division of Environmental Health Sciences is to determine the significance and magnitude of the health hazard of low-level concentrations of biological, chemical, and physical agents present in or introduced into our environment. The Division tests selected contaminants, singly and in combination, to determine the underlying mechanisms of adverse response, with the goal of determining standards and guidelines for protective or preventive control measures.

CONSULTATIVE SERVICES

During the year, the Division provided consultative services, guidance, and documents for the following environmental problems to other Federal agencies:

- Lung-cancer hazards to uranium miners.
- Hazards associated with the asbestosis problem.
- Position documents on smoking and health.
- Pesticide hazards to man including DDT, DDD, and DDE in milk and milk products.
- Potential hazards of Mace as a riot-control agent.
- Problems of drinking-water quality standards and the water recycling program.
- Carcinogenic hazards associated with particulate contamination of the air.

LABORATORY RESEARCH

During this fiscal year, an in-house laboratory research program was launched at the National Environmental Health Sciences Center (NEHSC), the intramural research component of the Division.

ANIMAL SCIENCE AND TECHNOLOGY

The Animal Science and Technology Branch, during the year, conducted research in the following areas: interactions between chemicals, such as heavy metal salts and pesticides, and viral infections; the effect of a prototype alkylating agent on the immune responses of rabbits to an attenuated viral vaccine; the effect of whole body gamma radiation on the immune response of rabbits to an attenuated viral vaccine; a project to test the suitability of hydroponically grown grass as a supplement for laboratory animal diets; and a study of embryo development as a measure of environmental changes.

CELL BIOLOGY

Research programs being carried out by Cell Biology Branch scientists included: studies on toxin production by fungi found on vegetables and other foodstuffs for human consumption; studies of the effects of compounds, such as pesticides and heavy metals, on enzymatic and other processes involved in collagen synthesis and differentiation of cells and tissues; studies on the effects of selected alkylating agents in inflammatory reactions, on the synthesis and functioning of peptide hormones, and on specific enzymes and metabolic processes; and studies on the effects of pesticides and other environmental toxicants on cell membrane structure and function.

PHARMACOLOGY AND TOXICOLOGY

Pharmacology and Toxicology Branch research was designed to study the chronic effects of long-term, low-level exposures to environmental agents. Projects centered on such areas as: the influence certain compounds which pass the placental barrier have upon the fetus; teratogenic responses to administration of specific drugs; the postnatal effects of prenatally administered chemicals on the developing fetus; and genetically determined characteristics that modify response to chemicals.

ANALYTICAL AND SYNTHETIC CHEMISTRY

Accomplishments of the Chemistry Branch included: the assembly of environmental chambers for the elaboration of the effects of ultraviolet radiation, ozone exposure, and other factors on the stability of certain groups of pesticides; the separation and identification of components of oils of calamus and nutmeg by chromatographic and spectroscopic techniques; and the synthesis of intermediates for metabolic and teratogenic studies.

OCCUPATIONAL STUDIES

The Occupational Studies Program continued and completed several studies transferred from the National Cancer Institute in July 1967: Also, an analysis of uranium miner data led to a report to the Federal Radiation Council for a review of radiation exposure in miners; assessment of steelworker mortality findings; updating of mortality findings on chromate paint workers; and assessment of data on other industrial workers, such as those in the cutting oil industries.

RESEARCH PROJECT GRANTS

The increasing use of soaps, cosmetics, detergents, antibiotics, diuretics, and tranquilizers containing photochemical agents is multiplying the number of patients experiencing externally induced skin diseases. Grantees of the Division have developed a phototesting unit that facilitates the development of screening tests for the prediction of the photoactivity of chemicals prior to their commercial use.

Although satisfactory procedures for the detection of pesticides in fat tissue have been available for some time, these methods are not sufficiently sensitive to detect these pesticides in tissues such as liver, brain, gonad, and kidney in the minute concentrations in which they are present in the general population. A group of grantees has developed a rapid, reliable procedure capable of detecting pesticides in concentrations of a fraction of a part per billion. This highly sensitive chemical procedure was then utilized in an attempt to discern current levels of exposure to pesticides in the general population as well as the occupationally exposed.

The role of the home usage of pesticides in the variable concentrations of pesticides stored in human bodies has been investigated by DEHS grantees. A striking correlation was observed between the concentration of the insecticide DDT and the degree of household exposure. The average DDT concentration in a group of people associated with high household usage of the insecticide was over four times the average concentration among individuals who rarely used pesticides in the home. The results suggest that while an average baseline concentration may be produced by pesticide-contaminated food, the household use of pesticides is responsible for increased pesticide levels in the body.

Swedish observations that heredity is an important factor in certain coronary and respiratory symptoms in smokers have been confirmed by Division grantees. A questionnaire addressed to almost 15,000 male twins sought information concerning medical data, smoking, and occupational activities. The lack of difference in the prevalence of coronary symptoms between smoking and nonsmoking twins suggests the importance of genetic factors in the development of coronary

symptoms. Respiratory symptoms were more prevalent among smoking twins than among their nonsmoking counterparts, although the difference was not as marked as that found between smokers and nonsmokers in the general population. These findings indicate that both genetic factors and smoking influence the onset of respiratory symptoms.

The continuing release of new chemicals into the environment as a consequence of technological progress results in new and potentially hazardous exposures to human populations. Inasmuch as certain of these chemicals are accumulated in body tissues, the question is raised concerning the role these stored agents may play in interference with biological mechanisms and in development or exaggeration of chronic disease. A group of DEHS grantees has developed a method of measuring the concentrations of zinc, copper, cadmium, and lead in hair. A study of over 200 individuals of various ages in an urban population sample revealed gradual but varying increases in the metals over a lifespan. Inasmuch as cadmium tends to localize in such organs as the liver and kidney and to displace zinc, which is essential in trace amounts in certain cellular functions, further study is indicated concerning the role of long-term exposure to cadmium in human health.

Table 6.—*Division of environmental health sciences, distribution of appropriation*

[In thousands]

	1967 actual	1968 actual
Research grants:		
Regular program:		
Noncompeting	$1,654	$3,631
Competing	896	360
Supplemental	67	34
New	1,451	924
Total, regular	4,068	4,949
Special program:		
General research support		547
University-based centers	2,529	3,000
Total, special	2,529	3,547
Total, research grants	6,597	8,496
Fellowships	99	42
Training grants	3,693	3,763
Total grants	10,389	12,301
Laboratory and clinical research	1,113	2,825
Research contracts	(100)	(583)
Review and approval	270	302
Program direction	145	274
Management fund	434	1,006
Total, direct operations	1,962	4,407
Total	12,351	16,708

UNIVERSITY-BASED CENTERS

A considerable portion of the Division's resources has been devoted to the development and support of comprehensive university-based centers for research and research training in environmental health—with particular relevance to human health. These centers provide a focus for continuous problem definition, synthesis of existing knowledge, research stimulation and training, as well as a collaborative attack on a host of current and emerging research problems.

During the past year an additional center was created, bringing the total number to five. This new center at the Harvard University School of Public Health will emphasize studies of the biological effects of atmospheric pollution, pesticides and other food residues, and the effects of body burdens of radionuclides and other chemicals.

Table 7.—*Research grants program analysis*

	1968 Estimate
Toxicology	$2,167,000
Pesticides	2,098,000
Natural products	325,000
Synthetic organics	218,000
Heavy metals	174,000
Smoking and health	82,000
Subtotal, regular program	5,064,000
General research support grants	547,000
University-based centers	3,000,000
Total, research grants	8,611,000

Division of Research Facilities and Resources

The Division of Research Facilities and Resources seeks to expand and improve the Nation's institutional resources essential to biomedical research and scientific progress through five programs: special research resources; general clinical research centers; animal resources; general research support; and health research facilities.

SPECIAL RESEARCH RESOURCES

This program provides biomedical research institutions throughout the United States with the complex, highly specialized equipment needed for advanced research but too expensive for individual projects.

In the fiscal year 1968, through grants totaling $10 million, the program supported 50 specialized research resources, of which 41 were computer centers and six were analytic biochemistry instrumentation resources.

Computer centers funded by this program made possible high-speed memory storage and retrieval as well as the collection, processing,

and analysis of data on a massive scale, permitting studies otherwise inconceivable. They also can continuously monitor and automatically modify certain types of research experiments.

For example, in a study at Washington University, St. Louis, Mo., a machine was taught to recognize abnormalities in heart rhythm, making it possible to collect and rapidly analyze data on the electrical behavior of the heart following myocardial infarction. Ultimately, it is hoped this will lead to devices to alert the physician to undesirable coronary events taking place.

Another intriguing and potentially powerful advancement in computer technology is the capability of the computer to "read" and respond to the user in a conversational mode. While full exploitation of this power is many years away, a Division-sponsored study at the University of California in Los Angeles, has enabled a user to request individual or grouped patient data, ask detailed questions about it, and perform statistical evaluations. He may also display and analyze chromosomal patterns at the console.

GENERAL CLINICAL RESEARCH CENTERS

This program is designed to translate laboratory findings into new diagnostic and treatment techniques which can more readily be brought to the patient. During the fiscal year, the program provided $30,443,000 to support 91 centers. New advances against disease and disability were made in many areas.

A group of hypertensive patients was found to have markedly increased production of certain adrenal hormones. It was found that these individuals have a specific adrenal enzyme defect which results in abnormally high rates of adrenocorticotropin (ACTH) production. In these patients, ACTH secretion has been suppressed by small doses of hydrocortisone, and lifelong hypertension has been cured.

Two centers have undertaken thymus transplants, one with notable success, in an attempt to reconstitute immunologic reactivity in patients with fatal deficiencies in this regard. In the successful case, a thymus gland from an aborted fetus was transplanted into an infant born without the gland. Since implantation, the baby has thrived and his blood counts are normal; he can reject a skin graft and has had no significant infections.

The diagnosis, treatment, and basic understanding of cancer continues to evoke massive research efforts at the centers. The site of many tumors can now be identified by an elevated temperature of the overlying skin, as heat is produced by the increased metabolic activity accompanying malignancy. Thermography is being utilized to discover previously unidentified foci of malignancy, especially in the breast, and to measure the effectiveness of various kinds of therapy.

A valuable adjunct of the clinical center program has been the training of medical students, interns, nurses, and other medical personnel. Reports for fiscal year 1967, the most recent year for which data is available, indicate that more than 5,000 medical students, interns, residents, and fellows have been trained through this program. Of this number, almost 2,000 were medical students.

ANIMAL RESOURCES

The animal resources program helps institutions secure the high-quality research animals needed for biomedical investigation. The program supported 58 animal resource projects under an appropriation of $5.1 million.

Established in 1967, the Reference Center for the Study of Primate Viruses, a national resource at the Southwest Foundation for Research and Education in San Antonio, Tex., provided such services as a working repository of newly isolated primate viruses, and an information exchange between primate centers and other research organizations using the baboon as a research model; it also served as a source of reference reagents for new and existing prototype viruses.

The Animal Resources Branch also awarded eight training grants totaling $318,000 in fiscal year 1968. Awarded to academic institutions to support postdoctoral training for veterinarians in laboratory animal medicine, these grants supported 26 trainees in programs requiring 2 to 3 years for completion. With an appropriation of $200,000, the laboratory animal science fellowship program offered approximately 20 postdoctoral and special fellowships to qualified individuals holding the D.V.M., M.D., or Ph. D. degree.

The seven regional primate research centers were instrumental in improving animal care and veterinary medicine for primates. In fiscal year 1968, $10.5 million was appropriated for this program.

Also during the year, 111 professional center core staff members were actively engaged in research at primate centers, which provided facilities and assistance for 32 visiting scientists and material for 83 collaborators from numerous domestic and foreign universities. The center core staff was engaged in 44 federally supported project grants totaling $2,532,000.

GENERAL RESEARCH SUPPORT

The general research support programs help institutions develop their scientific research capabilities so they may become effective partners with the Federal Government in the pursuit of the biomedical research and research training objectives important to both.

The program is composed of three distinct elements: general research

support, biomedical sciences support, and health sciences advancement awards.

During fiscal year 1968, $48.2 million was distributed to 311 institutions for GRS support. Of this total, $25.8 million went to medical schools. The next largest category, hospitals, received $8.2 million.

At the University of Colorado School of Medicine, Denver, Colo., under this program, a screening test was devised for evaluating the intellectual and behavioral development of children from birth to 6 years. The test has proven so valuable that the American Academy of Pediatrics has recommended its routine use to pediatricians, and it has been adopted on a nationwide basis for evaluating Project Headstart children. Hundreds of requests about this test have been received by the Division from schools and pediatric organizations.

The biomedical sciences support grant program was initiated to include nonhealth professional components of the graduate divisions of academic institutions. In 1968, $7.5 million was appropriated for this program and awards were made to 102 institutions.

The health sciences advancement award program is a competitive program to encourage comprehensive institutional advancement toward excellence in biomedical research and research training. It provides grants to carefully selected colleges and universities that can become institutionally distinguished in research and research training by developing their facilities, staff, and research potential. The 1968 appropriation of $4 million permitted two new awards, bringing the total to nine.

HEALTH RESEARCH FACILITIES

The health research facilities construction program, created in 1956 to expand the Nation's physical facilities for research in the health sciences, supports grants for new construction and remodeling of present facilities. In fiscal year 1968, 45 grants totaling $39,482,293 were awarded; 40 facilities employing construction grant funds were completed.

Exciting work in cardiovascular surgery, pioneered by distinguished investigators such as Drs. Michael DeBakey, Adrian Kantrowitz, and Norman Shumway, has been performed in facilities funded partly by grants from the health research facilities program. Similarly, Drs. Arthur Kornberg and M. Goulian did their epoch-making work on the synthesis of DNA—popularly described as the creation of living matter in the test tube—in facilities built with the assistance of health research facilities program funds.

In the 12 years since its inception, the health research facilities program has awarded 1,462 grants totaling over $452 million. The 406 recipient institutions have contributed over $600 million in matching

non-Federal funds to these moneys, resulting in the addition of over 18 million net square feet of space to the Nation's health research resources.

Division of Research Grants

At the beginning of fiscal year 1968, an office was established within the Office of the Director, DRG, to undertake responsibility for two "single-manner" functions delegated to the Division by the Surgeon General: (1) the evaluation of assurances received from grantee institutions in compliance with PHS policy on projects involving human subjects; and (2) the expansion of the program to authorize certain major PHS grantees to undertake increased management responsibility for prior approval changes in restricted budget categories.

In April 1968 the Division assumed responsibility for coordinating and issuing NIH extramural policy and procedural materials.

Throughout the period under review, the Division continued to receive and process research, research training, and research fellowship applications for all sectors of the Public Health Service. An estimated 30,000 grant and award applications were received by the Division. Of these, 25,003 research grant applications were processed and assigned of which 11,000 or more were reviewed for scientific merit by the DRG study sections and committees. The Division also received and assigned 5,097 new and competing renewal fellowship award applications; 530 new and competing renewal research career applications, and 2,165 new and competing renewal training grant applications.

There was an overall increase in training program applications of 4.5 percent in new and competing renewal, and 1.5 percent in all training applications received and assigned over the previous year.

More than 18,000 reprints and 2,000 progress reports resulting from PHS-supported research were received and distributed to appropriate offices and staff.

Division of Research Services

The Division of Research Services provides scientific, technical, and engineering services to support and further the research programs of the NIH.

The programs of the Division may be divided into two broad classifications: programs in direct support of research; and programs related to NIH facilities and proper environment.

The Division of Research Services is comprised of eight branches: Engineering Design; Construction Engineering; Plant Engineering;

Environmental Services; Biomedical Engineering and Instrumentation; Laboratory Aids; the NIH Library; and Medical Arts and Photography.

Recently the Division strengthened management of DRS activities by realining functions within and among several of the branches.

The most extensive area of reorganization concerns the former Research Facilities Planning Branch and the Plant Engineering Branch. To handle NIH's increased construction and maintenance workloads, RFPB was abolished and its elements regrouped into an Engineering Design Branch and a Construction Engineering Branch. At the same time, the engineering design and construction activities of PEB were transferred into the appropriate new branches, with PEB retaining responsibility for operation, maintenance, and alterations of the NIH buildings and grounds.

In another change, the sectional structure of the Environmental Services Branch was reorganized to enable the branch to be more responsive to Institute needs. The branch organization is now based on functional programs rather than professional disciplines, and recognizes the growing role of biohazards control as a prime factor in maintaining a satisfactory environment.

CONSTRUCTION

A primary function of DRS is administering NIH construction programs. In fiscal year 1968, design and construction associated with the expansion of NIH facilities continued at a record pace. The current program includes more than 20 projects in various stages of planning, design, or construction, having a total cost in excess of $100 million. Eleven projects were under construction during the year. The Gerontology Research Center, a 93,000-square-foot laboratory building located on the Baltimore City Hospital's grounds, was completed. Also, three major construction projects were carried to virtual completion during the year. The projects are the NCI virus isolation facility, located southwest of the National Library of Medicine, the library and cafeteria additions to the south side of the Clinical Center, and the 2-story addition to wing D, on the south side of the Clinical Center. The design of several projects, including two multilevel parking facilities, was nearly completed.

RESEARCH ANIMALS

DRS also provides research animals for NIH scientists. Over a million laboratory rodents and rabbits were produced in 1968. Major emphasis was placed upon data processing of production and animal issue information, to achieve greater efficiency in the utilization of limited production facilities.

Programs to improve the quality of all animals furnished to intramural research programs were continued. For the first year in recent history, the rodent and rabbit production colonies experienced no major outbreaks of disease. Significant improvement was made in the quality of the random source dogs and cats issued. This is directly attributable to the lengthening of the conditioning period from 30 to 45 days.

A development of singular importance, the successful establishment of a large colony of donor dogs to furnish whole blood, has resulted in a significant reduction in the number of dogs required for research purposes at NIH. The furnishing of blood, coupled with improvements in the health status of conditioned random source dogs, reduced the need for dogs by 786 animals. Projected dog issues for the year were 3,612, the fewest number of dogs issued since fiscal year 1960.

BIOMEDICAL ENGINEERING

A dramatic new area of research support in DRS is biomedical engineering, which combines the talents of engineers and medical researchers. Major emphasis was placed on direct collaboration between DRS professional staff and intramural researchers in the conduct of biomedical research and development programs.

The biomedical engineering staff was involved in approximately 400 research and development tasks. During the year, the staff made noteworthy original contributions in the areas of artificial organs, materials, laser technology, mechanization, automation, physiological monitoring, patient care, and physiological systems analysis.

Federally Aided Corporations

Howard University

Howard University, located in the District of Columbia, was chartered by an Act of Congress on March 2, 1867. The University consists of 10 schools and colleges, and 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's degree are registered in the graduate school; professional students are registered in the colleges of medicine, dentistry, pharmacy, fine arts, schools of engineering and architecture, social work, law and religion. (The school of religion receives no support from Federal funds.)

Enrollment of Students

The University served a total of 13,236 registrants during the year 1967–68 distributed as follows: 9,391 students during the regular two-semester session; 2,203 students during the 1967 summer session; and 1,642 registrants for special programs. For the regular two-semester term, the 9,391 enrollment for the several divisions was as follows: liberal arts, 5,190; graduate school, 1,231; engineering and architecture, 813; fine arts, 482; social work, 218; medicine, 410; dentistry, 342; pharmacy, 235; law, 417; religion, 53. There were 212 students enrolled in Army ROTC and 515 students in Air Force ROTC.

There were 9,727 degree-seeking students from the United States: New England States, 211; Mideastern States, 5,286; Great Lakes States, 608; Plain States, 129; Southeastern States, 3,116; Southwestern States, 204; Rocky Mountain States, 20; Far Western States, 151; Alaska, 1; and Hawaii, 6.

There were 1,755 foreign students enrolled during the second semester, 1967–68. These foreign students came from 38 countries and 8 island possessions of the British, French, and Dutch West Indies.

Faculty

There were 1,164 teachers serving the University during the school year. There were 568 full-time teachers and 596 part-time teachers.

The full-time equivalent of the teaching staff was 704.84. Of this full-time equivalent, 688.57 were teaching at the rank of Instructor or above.

Graduates

During the 1967–68 school year, there were 1,438 graduates from the 10 schools and colleges, distributed as follows: liberal arts, 679; engineering and architecture, 69; fine arts, 66; graduate school, 207; social work, 99; medicine, 93; dentistry, 72; dental hygiene, 19; pharmacy, 22; law, 97; religion, 15. From the date of its establishment in 1867, Howard has graduated 27,860 persons.

The professional programs have produced graduates in the following fields: medicine, 3,833; dentistry and dental hygiene, 2,300; law, 2,002; religion, 477; engineering and architecture, 1,527; and social work, 1,033.

Program Developments

Among the significant events which took place during the school year 1967–68 were: Exhibition of Paintings and Prints by Charles Mungolo, under the patronage of the Democratic Republic of the Congo; Summer Workshops in the Materials of Negro Culture, sponsored by the National Foundation on the Arts and the Humanities; Institution of a Work-Study program with Government and Industry for students in the School of Engineering and Architecture; Conference on the Medical Genetics of the Negro, sponsored by the Department of Pediatrics, College of Medicine; the Annual Meeting of the American Physiological Society; Expansion of the Continuing Education Program in Dentistry offering short refresher courses and exposition courses designed for the general practitioner; and a symposium on the future of Puerto Rico, held in the School of Law.

Three teachers received study grants from the Ford Foundation to assist them in completing work for the Doctor of Philosophy degree. Several members of the faculty traveled abroad collecting materials for publication of books now in process.

The Building Program Office had 17 projects under its administration in varying stages of development. They represented an expenditure, when completed, of approximately $50 million. The rising cost of construction, resulting in estimates of cost in excess of appropriations, has delayed the progress of several projects.

Gallaudet College

Program Emphasis

As its principal activity, Gallaudet College offers an accredited 4-year undergraduate course of studies for the deaf leading to either the B.A. or the B.S. degree. In addition, it offers a 1-year college preparatory course for deaf students and, for both the deaf and the hearing, accredited 2-year Master's degree programs in education of the deaf and in audiology. Partly as a public service and partly to provide laboratory schools for graduate students, it also operates on-campus facilities for education of deaf children from the District of Columbia and adjacent States at preschool, elementary, and secondary levels. Planning for establishment of a model high school for the deaf on campus is in an advanced stage.

Research

The research activities of the College produced a variety of outputs during the year. The Sensory Communication Research Laboratory developed a visible speech trainer that was tested extensively in the speech training of deaf students. Joint research over the past several years by the Linguistics Research Laboratory, the Office of Institutional Research, and the department of English culminated in a textbook on generating English sentences that was put into classroom use during the year. The Office of Institutional Research produced books and video tapes on some 700 new signs with precise meanings that had been developed specifically to assist instruction in the various departments of the College; these signs were also put into classroom use during the year. The Office of Demographic Studies succeeded in developing a nationwide system for collecting demographic, educational, and audiographic data on hearing impaired children; as a result, a permanent program for an annual census of such children has been established.

Enrollment

Regular session enrollment in the 1967–68 academic year rose to 968, an increase of 80 over the previous year. Enrollments in subsidiary schools decreased slightly, the nursery school from 50 to 44, and the elementary and secondary school from 185 to 173. A total of 112 Bachelor's and 33 Master's degrees were awarded.

Students enrolled in full sessions in the summer of 1968 totaled 134. Of these, some (primarily teachers of the deaf) were attending a graduate institute in science; the rest were newly admitted deaf students taking courses to remove deficiencies in English and mathematics.

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. The Federal act "To Promote the Education of the Blind," 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: "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 pupils from kindergarten through the high school grades. A total of 8,312 blind pupils were enrolled through public educational institutions for the blind and 11,263 through State departments of education—a total of 19,575 blind pupils being served by the Printing House—for the fiscal year ending June 30, 1968.

During the year, Braille books, educational periodicals, and music made up approximately 35.25 percent of the materials required by the schools; Braille slates, Braillewriters, maps, and other mechanical devices, 20.27 percent; talking books, 2.44 percent; recorded educational tapes, 0.61 percent; large-type books, 34.45 percent; and miscellaneous items, 6.98 percent.

Detailed Contents

Page

THE SECRETARY'S INTRODUCTION

The Stewardship 1
Is HEW Manageable? 4
The Last Health Hurdles 11
Schooling: The Great Steps Forward 21
Assuring a Decent Livelihood 28
To Better the Quality of American Life: Paying the HEW Bill 35

OFFICE OF THE SECRETARY

Legislation 45
- Education Enactments 45
- Health Enactments 46
- Social Security Enactments 48
- Consumer Protection Enactments 48

General Counsel 49
- Education 49
- Civil Rights 49
- Consumer Protection and Environmental Health 50
- Social Security 50
- Public Welfare 51

Program Planning and Evaluation 53
Comptroller 54
- Appropriations and Outlays, Fiscal Year 1968 54
- Finance 54
  - Letter of Credit Operations 54
  - New Computer System 55
  - Improved Payroll System 55
  - Accounting Systems Development and Approval 55
  - Accrual Accounting 56
- Grants Administration 56
- Audit Agency 57
  - Total Audit Concept 57
  - Cross-Servicing Arrangements 58
  - Utilizing Outside Auditors 58

Administration
- Personnel 59
- Equal Employment Opportunity 61
- Management Systems 62
- General Services 63
- Surplus Property Utilization 63
- State Merit Systems 65
- Defense Coordination 65

	Page
Community and Field Services	66
Programs Dealing With Children and Youth	66
Social Services and Welfare Programs	67
Consumer Services	68
Field Coordination	68
Civil Rights	
School Desegregation	69
Health and Social Welfare	70
Contract Compliance	70
Interagency Liaison and Coordination	71
Center for Community Planning	71
Secretary's Committee on Mental Retardation	72
Health and Scientific Affairs	73
Planning and Program Coordination	75
International Health	75
Health and Medical Care	76
Population and Family Planning	76
Science	77
Health Manpower	77
Education	
International Affairs	78
Office of Indian Affairs	80
Federal Interagency Committee on Education	81
Model Secondary School for the Deaf	83
National Technical Institute for the Deaf	84
President's Council on Physical Fitness and Sports	85
Office of Public Information	88

SOCIAL SECURITY ADMINISTRATION

Introduction	91
Developments in Social Security	91
What the Program Did in Fiscal Year 1968	92
Beneficiaries and Benefit Amounts	92
People Protected	95
Income and Disbursements	96
Legislative Developments During the Year	98
Changes in the Cash Benefits Provisions	98
Changes in Disability Provisions	101
Changes in Social Security Coverage	103
Medicare Provisions	104
Financing Provisions	104
Studies Requested by Congress	105
Administering the Social Security Program	106
Health Insurance	106
Retirement and Survivors Insurance	107
Disability Insurance	107
Computer Application and Data Processing	109
Direct Service to the Public	110
Space Acquisition and Office Construction	111
Manpower Resources	111
Employee-Management Cooperation	112

ADMINISTERING THE SOCIAL SECURITY PROGRAM—CONTINUED Page
EQUAL EMPLOYMENT OPPORTUNITY 112
SPECIAL EMPLOYMENT PROGRAMS 112
TRAINING AND CAREER DEVELOPMENT 113
WORKLOADS AND ADMINISTRATIVE EXPENSE 114
COST REDUCTION AND PRODUCTIVITY 114
ADMINISTRATION OF THE SOCIAL SECURITY PROGRAM ABROAD 115
FINANCING THE CASH BENEFITS AND HEALTH INSURANCE PROGRAM 116
RETIREMENT AND SURVIVORS INSURANCE BENEFITS 117
DISABILITY INSURANCE BENEFITS 117
HEALTH INSURANCE FOR THE AGED 117
HEARING AND APPEALS ACTIVITY 118
RESEARCH ACTIVITY 119
MAJOR RESEARCH PUBLICATIONS 120
THE FEDERAL CREDIT UNION PROGRAM 120

OFFICE OF EDUCATION

INTRODUCTION 123
PLANNING AND EVALUATION ACTIVITIES 124
EQUAL EDUCATIONAL OPPORTUNITIES 124
STAFF WORK ON BEHALF OF THE DISADVANTAGED 124
OPPORTUNITY FOR EDUCATIONALLY DEPRIVED CHILDREN 125
SUPPLEMENTARY EDUCATIONAL CENTERS AND SERVICES 128
GUIDANCE, COUNSELING, AND TESTING 128
INSTRUCTIONAL MATERIALS AND EQUIPMENT 130
SCHOOL LIBRARY RESOURCES, TEXTBOOKS, AND OTHER INSTRUCTIONAL MATERIALS 130
STRENGTHENING INSTRUCTION IN CRITICAL AREAS 130
STRENGTHENING INSTRUCTION IN THE ARTS AND THE HUMANITIES 131
COLLEGE INSTRUCTIONAL EQUIPMENT 131
IMPROVING QUALIFICATIONS OF SCHOOL PERSONNEL 131
THE TEACHER CORPS 131
EXPERIENCED AND PROSPECTIVE TEACHER FELLOWSHIPS 134
INSTITUTES FOR ADVANCED STUDY IN 12 AREAS 134
INSTITUTES IN THE ARTS AND HUMANITIES 135
COUNSELING AND GUIDANCE INSTITUTES 135
TRAINING FOR EDUCATION OF THE HANDICAPPED 136
STRENGTHENING STATE DEPARTMENTS OF EDUCATION 136
ASSISTANCE TO FEDERALLY AFFECTED AND TO DISASTER AREAS 137
SCHOOL CONSTRUCTION 137
SCHOOL MAINTENANCE AND OPERATION 137
CONSTRUCTION SERVICE 138
FINANCIAL AID FOR STUDENTS 138
EDUCATIONAL OPPORTUNITY GRANTS 138
COLLEGE WORK-STUDY 139
GUARANTEED LOANS FOR HIGHER EDUCATION 139
GUARANTEED LOANS FOR VOCATIONAL EDUCATION 139
NATIONAL DEFENSE EDUCATION ACT STUDENT LOAN FUNDS 139
ENCOURAGING UTILIZATION OF EDUCATIONAL TALENT 140
HIGHER EDUCATION FACILITIES 140
COMPREHENSIVE PLANNING 141
DISASTER ASSISTANCE 141
ACCREDITATION AND INSTITUTIONAL ELIGIBILITY 141

	Page
Payments to Land-Grant Institutions	144
Aid for Developing Institutions	144
National Defense Fellowships	145
Training for Higher Educational Personnel	145
College and Research Library Resources	146
Librarianship Training	147
Community Service and Continuing Education	147
Adult Basic Education	147
Civil Defense Adult Education	148
Vocational and Technical Education	148
Programs Under Matched Funds	148
Work-Study Program	150
Construction of Facilities in Appalachia	150
Manpower Development and Training	150
Library Services and Construction	152
Educational Television Facilities	153
Assistance for Cuban Refugees	154
U.S. Loan Program for Cuban Refugee Students	154
Aid to Dade County Public Schools	154
Research and Related Activities	155
Cooperative Research Program	155
Vocational Education Research and Training	160
Educational Media Research and Dissemination	161
Library Research and Development	161
Research in Foreign Languages and Comparative Education	162
Research and Demonstration in Education of Handicapped Children	162
Preschool and School Programs for the Handicapped in Local Schools	162
Educational Services for the Handicapped in State Schools	163
Media Services and Captioned Films for the Handicapped	164
Research Activities	164
Training Activities	164
Production	165
Acquisitions	165
Distribution	165
Loan Equipment	165
Other Programs for the Handicapped	166
International Programs, Studies and Services	166
NDEA Language and Area Centers	166
NDEA Fellowships in Language and Area Studies	167
Overseas Studies and Foreign Consultant Programs	169
Language and Area Research	170
Interagency Cooperation in International Exchange and Training	171
International Services and Research	172
National Center for Educational Statistics	174
Educational Materials Center	174
Management Review Center	175
Public Information Activities	175
American Education	175

Page

ADMINISTRATION OF THE OFFICE 176
SOCIAL AND REHABILITATION SERVICE 179
OFFICE OF THE ADMINISTRATOR 183
OFFICE OF FEDERAL-STATE RELATIONS 183
OFFICE OF POLICY COORDINATION 187
OFFICE OF PUBLIC AFFAIRS 187
OFFICE OF RESEARCH, DEMONSTRATIONS, AND TRAINING 188
ADMINISTRATION ON AGING 202
GRANTS FOR COMMUNITY PLANNING, SERVICES, AND TRAINING 203
GRANTS FOR RESEARCH AND DEMONSTRATION 205
GRANTS FOR TRAINING 207
THE ADVISORY COMMITTEE ON OLDER AMERICANS 209
THE FOSTER GRANDPARENT PROGRAM 209
SENIOR CITIZENS MONTH 210
RELATIONSHIPS WITH OTHER FEDERAL AGENCIES AND CLEARINGHOUSE FOR INFORMATION 210
LEGISLATIVE HIGHLIGHTS 211
ASSISTANCE PAYMENTS ADMINISTRATION 211
PROGRAM COVERAGE AND EXPENDITURES 212
WORK EXPERIENCE AND TRAINING PROGRAM 214
ADMINISTRATIVE DEVELOPMENTS 217
PUBLIC INFORMATION 218
CHILDREN'S BUREAU 218
1968 APPROPRIATIONS 219
INTERDEPARTMENTAL COMMITTEE ON CHILDREN AND YOUTH 219
STATE COMMITTEES FOR CHILDREN AND YOUTH 220
WHITE HOUSE CONFERENCE ON CHILDREN AND YOUTH 220
FEDERAL MODEL CITY PROGRAM 220
PROGRAMS OF THE BUREAU 220
RESEARCH AND CHILD LIFE 220
MATERNAL AND CHILD HEALTH AND CRIPPLED CHILDREN'S SERVICES 222
FAMILY AND CHILD WELFARE SERVICES 227
JUVENILE DELINQUENCY 232
YOUTH SERVICES 235
MEDICAL SERVICES ADMINISTRATION 235
OFFICE OF THE COMMISSIONER 237
TRAINING 238
NURSING HOMES 238
PUBLIC INFORMATION 239
HEALTH SERVICES 239
PROGRAM EVALUATION 240
PROGRAM MANAGEMENT 240
PLANNING AND DEVELOPMENT 241
REHABILITATION SERVICES ADMINISTRATION 241
THE MENTAL RETARDATION PROGRAM 242
SOCIAL SERVICES 243
INNOVATION PROJECTS 243
EXPANSION PROJECTS 243
IMPROVEMENT, DEVELOPMENT, AND CONSTRUCTION OF REHABILITATION FACILITIES 244

REHABILITATION SERVICE ADMINISTRATION—CONTINUED Page
TRAINING REHABILITATION WORKERS 244
ARCHITECTURAL BARRIERS 245
SERVICES FOR THE BLIND 246
SOCIAL SECURITY DISABILITY APPLICANTS 246
SERVICES FOR OTHER SPECIFIC GROUPS 247
NATIONAL INTERAGENCY COOPERATIVE PROGRAMS 249
EXTENDED EVALUATION 250
STATEWIDE PLANNING 250
SERVING THE DISABLED IN RURAL AREAS 250
RELATIONSHIPS WITH LABOR 251
NEW LEGISLATIVE AUTHORITIES 251
RESEARCH AND DEMONSTRATION 251

PUBLIC HEALTH SERVICE

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

COMPREHENSIVE HEALTH PLANNING 259
MEDICAL CARE ADMINISTRATION 260
NATIONAL CENTER FOR HEALTH SERVICES RESEARCH AND DEVELOPMENT 262
NATIONAL INSTITUTE OF MENTAL HEALTH 263
RESEARCH FINDINGS 264
NEW CLUES IN SCHIZOPHRENIA 265
ADDICTION RESEARCH 266
DEVELOPMENTS IN DRUGS 266
COST CUTTING 267
MENTAL HEALTH MANPOWER 267
NARCOTIC AND DRUG ABUSE 268
ALCOHOLISM 268
SUICIDE 268
CHILD MENTAL HEALTH 269
EPIDEMIOLOGY 269
MENTAL HEALTH RELATED PROBLEMS 270
NATIONAL CENTER FOR HEALTH STATISTICS 270
HEALTH RECORD 271
BIRTHS, MARRIAGES, AND DIVORCES 272
REGIONAL MEDICAL PROGRAMS 273
CHRONIC DISEASE CONTROL 274
CANCER CONTROL 275
CHRONIC RESPIRATORY DISEASE CONTROL 275
DIABETES AND ARTHRITIS CONTROL 276
HEART DISEASE AND STROKE CONTROL 276
KIDNEY DISEASE CONTROL 277
SMOKING AND HEALTH 277
NEUROLOGICAL AND SENSORY DISEASE CONTROL 278
NUTRITION 278
NATIONAL COMMUNICABLE DISEASE CENTER 279
HEALTH FACILITIES PLANNING AND CONSTRUCTION 281
TECHNICAL ASSISTANCE 281
GRANTS-IN-AID 282

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION—CONTINUED

Page

PHS Hospitals and Clinics 282
Services to Indians and Alaska Natives 283
Emergency Health Services 285
Federal Employee Health 287
Medical Services for Federal Agencies 287
U.S. Coast Guard, Department of Transportation 287
Bureau of Prisons, Department of Justice 288
Bureau of Employees' Compensation, Department of Labor 288

CONSUMER PROTECTION AND ENVIRONMENTAL HEALTH SERVICE

Air Pollution 292
The Problem 292
The Federal Program 293
The Air Quality Act 293
Federal Abatement Activities 298
Surveillance of Air Quality 300
Air Pollution Monitoring 300
Manual Monitoring Systems 301
Continuous Monitoring Systems 301
The National Data Bank 301
Evaluation of Fuel Additives 302
Environmental Control Administration 302
Training Program 303
Arctic Health 304
Neuromuscular Diseases in Eskimos 304
Air Pollution 304
Injury Control 305
Occupational Health and Safety 306
Asbestos 307
Coal Dust 307
Beryllium 307
Lasers 308
Uranium Mining 308
Noise 308
Radiological Health 309
Solid Wastes 311
Water Supply and Sea Resources 313
Food and Drug Administration 315
Food Activities 319
Drug and Device Activities 324
Cosmetics 331
Imports 332
Hazardous Substances Act 333
Administration of Other Acts 335
Court Interpretations 335
New Laws and Regulations 337
Scientific Investigation 340

NATIONAL INSTITUTES OF HEALTH Page
Research Accomplishments 350
Bureau of Health Manpower 351
Division of Allied Health Manpower 351
Division of Dental Health 352
Division of Health Manpower Educational Services 354
Division of Nursing 356
Division of Physician Manpower 358
National Library of Medicine 359
Medlars 360
Regional Medical Libraries 360
Communications System Development 360
Lister Hill National Center for Biomedical Communications 361
National Medical Audiovisual Center 361
Library Reorganization 361
National Cancer Institute 361
Cause and Prevention 362
Diagnosis and Treatment 364
National Heart Institute 366
Artificial Heart-Myocardial Infarction Program 367
Coronary Drug Project 368
National Blood Resource Program 368
Intramural Research 369
Training Support 369
National Institute of Allergy and Infectious Diseases 370
Transplantation Immunology Programs 370
Vaccine Development 370
Chronic Diseases 371
Acute Infections 371
Allergies 371
Information 371
National Institute of Arthritis and Metabolic Diseases 372
Arthritis 372
Lesch-Nyhan Disease 372
Diabetes 373
Artificial Kidney and Transplant Program 373
Nutrition 373
National Institute of Child Health and Human Development 373
Extramural Activities 374
Intramural Activities 374
Research Results in Population Dynamics and Reproductive Biology 375
Maternal and Infant Health 375
Research Results on the Developing Years 376
Research Results on Nutrition in Intellectual Development 376
Research Results in Mental Retardation 377
Results in Aging Research 377
National Institute of Dental Research 377
Preventing Tooth Decay 377
Periodontal Disease 379
Restorative Materials 379
Growth and Development 380
Other Disorders 380

NATIONAL INSTITUTE OF HEALTH—CONTINUED

Page
National Institute of General Medical Sciences 380
Pharmacology/Toxicology 381
Automated Clinical Laboratories 382
Trauma 383
Research Training 384
National Institute of Neurological Diseases and Blindness 384
Collaborative Perinatal Project 385
Epilepsy Research 386
Disorders Affecting the Aged 386
Sclerosing Disorders 386
Neuromuscular Diseases 387
Head Injury Research 387
Research on Sensory Systems 387
Eye Research Program 388
Information Network 388
Clinical Center 388
Division of Biologics Standards 389
Rubella Vaccine 389
Rh_0 (D) Immune Globulin 390
Multiple Antigens 391
Mumps Vaccine 391
Influenza Vaccines 392
Division of Computer Research and Technology 392
Utilization of Electronic Digital Computers 393
Other Program Achievements 393
Division of Environmental Health Sciences 394
Consultative Services 394
Laboratory Research 395
Animal Science and Technology 395
Cell Biology 395
Pharmacology and Toxicology 395
Analytical and Synthetic Chemistry 395
Occupational Studies 396
Research Project Grants 396
University-Based Centers 398
Division of Research Facilities and Resources 398
Special Research Resources 398
General Clinical Research Centers 399
Animal Resources 400
General Research Support 400
Health Research Facilities 401
Division of Research Grants 402
Division of Research Services 402
Construction 403
Research Animals 403
Biomedical Engineering 404

FEDERALLY AIDED CORPORATIONS

Howard University 405
Gallaudet College 407
American Printing House for the Blind 408

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