

health services of medical schools, local hospitals and community programs, will spend \$68 million in 1971. With an increase of \$19 million, projects in 55 national regions will fund advanced education and training for 188,000 doctors and nurses and 21,000 allied health personnel.

Funds for initial training of health personnel, particularly medical students, will increase \$82 million over the 1970 level to \$1 billion. In spite of the boom in Federal support of medicine in the last two decades, the number of new physicians has not risen proportionately to other biomedical scientists. For example, funds poured into biomedical research programs have enabled medical schools to increase their faculties by 422 percent since 1950 to 20,500 persons. The enrollment of medical students, however, has climbed no more than 42 percent in the same period to 37,200 students.

**Biomedical research** is not only being told that it has taken too much talent for too long and will have to give some back; it is also being told to clamp down on spending in the laboratory. Money dispersed by the National Institutes of Health is the mainstay of fundamental medical research in the United States. The NIH institutes and divisions that parcel out those funds for biomedical research will get a mere \$38 million boost, and raises will go to only a few selected programs while the rest tighten their belts. The total NIH budget, encompassing research, administrative costs and training programs, will be \$1.5 billion in 1971, up \$103 million.

The chosen programs are those concentrating on what are judged to be high priority health problems and those in which newly acquired data are significant enough to suggest that a breakthrough in disease control is imminent.

■ Evidence that viruses play a role in at least some types of cancer is strong (SN: 10/4, p. 308). Research directed toward study of a ubiquitous particle called the C-type RNA virus, toward herpes simplex viruses and toward attempts to isolate alleged human cancer viruses of all types will take the limelight. Funds for special cancer-virus programs will total \$60 million, or 50 percent more than last year.

■ Arteriosclerosis and its most serious manifestation, coronary heart disease, plus chronic lung ailments, including emphysema, will be attacked through research programs totalling \$35 million, a \$20 million boost.

■ Dental researchers predict that new developments implicating particular bacteria as a cause of caries, and work on adhesives to seal off and protect the surface of teeth, may spell the elimination of tooth decay within the decade.

Their work will be supported by \$5 million in new funds for a total of \$6.7 million.

■ Birth control and human development in the early years of life also get priority treatment. Fundamental studies for new approaches to contraception (SN: 6/7, p. 555) will gain \$13 million for a \$28.5 million sum. The relationship between maternal malnutrition and infant malnutrition, and its association with intellectual development,

will be explored in studies costing upwards of \$6.5 million.

The National Institute of Mental Health is also in for increases countered by decreases. For community mental health services, the President is asking \$83 million or \$25 million more than this year. But the overall request for NIMH, which like NIH supports basic research through the grants system, is down \$3.9 million from fiscal 1970 when it had \$350.6 million. □

## EDUCATION AND WELFARE

### More than defense

For the first time in 20 years, the Federal Government will spend more money on human resources than on national defense. Approximately 41 percent of the total fiscal year 1971 budget will be spent on domestic programs that include education, welfare, manpower and social security, with only 38 percent going to defense, and an additional 21 percent for miscellaneous expenditures. The 41 percent outlay, representing \$81.9 billion is an increase of 21 percent over last year and an increase of 10.8 percent over the estimated 1970 figure.

Spending on programs relating to the poor is up to \$32.9 billion, an increase of 10 percent over the estimated 1970 figure, and represents 16.4 percent of the budget.

**Under welfare programs**, especially, reform is the watchword. Actually the second biggest category of spending is the Government's catch-all income security plan of \$50.38 billion, up from the estimated 1970 figure of \$48.83 billion. Probably the most significant program here is the Administration's own Family Assistance Plan designed to reform the existing outmoded welfare system by providing both income and work opportunity for the poor. Under the program, a family of four would receive an annual payment of \$1,600, but payment would be reduced as the family's outside income increases. A work-incentive feature that furthers economic self-sufficiency is worked into the program.

Although that program would cost the Government about \$4.4 billion to operate, it is less than the \$7.0 billion figure now being spent on welfare, and the budget allows only \$500 million for it at first since it is expected to take time before the plan will begin operating effectively.

Also under the income security programs are benefit increases for social security and an increase in duration of benefit eligibility for unemployment compensation.

The Office of Economic Opportunity, the instrument that paves the way for

the Government to move into unexplored poverty areas, was allotted \$2.08 billion, an increase of \$132.2 million over its previous budget, even though a number of its programs have been shifted to other departments. The largest increase for OEO is in the research and evaluation area, with the responsibility for finding effective ways of dealing with problems unique to low income persons. After programs coping with these problems are fully developed the Administration plans to shift them to the appropriate department.

The increase in this area represents a figure of \$97.1 million, 201 percent above 1969 and 50 percent above 1970. According to John Wilson, assistant director for Planning, Research, and Evaluation of OEO, the increase is one of the first to bear the imprint of the new Administration.

**Through** research and evaluation, the Administration also hopes to raise student achievement. In the field of education, a substantial investment of \$10.7 billion, about the largest amount in the nation's history and 5 percent of the entire budget, is being made. However, only a third of this will be handled through the Office of Education. For OE, the budget allows \$3.56 billion, which is 20 percent less than that provided by the HEW appropriations bill recently vetoed by the President. On the other hand, it is a slight increase over the \$3.54 billion 1969 figure.

Here, the most controversial issue is the aid to children in school systems swollen by nearby Federal installations. Although the budget lists no aid for the program, the President promises to fund \$425 million in the near future. This is up from the 1970 figure, but less than requested by Congress.

Mr. Nixon feels that by restructuring the system, he can save the Government \$196 million for fiscal 1970, and \$400 million in the coming year. His idea is to concentrate aid in those areas with real need by granting them more funds than the wealthier local school districts.

Other educational efforts by the Administration include Title I, the portion of the education act of 1965 that directed funds to children from low-income families. Efforts are being directed at fewer children so that better results are achieved, according to the Administration's logic.

Although the budget is increased \$74 million over that of this year, only 7.9 million children are expected to be reached compared with 9 million children this year.

**In line** with his campaign promises, Mr. Nixon places top priority in preschool care programs, supporting the contention that a child's potential is determined significantly by his environment during the first 5 years of life. To reach the children before they enter school, a new Office of Child Development has been created in HEW to lead and coordinate other programs for preschool children. Day-care programs to provide custodial care to children

of working mothers have been instituted.

Budgets for both Head Start and Follow Through, programs funded by OEO, have been increased. Head Start provides a variety of services, including educational, medical, and social, to three- to five-year-olds, whereas Follow Through is designed primarily to develop more effective educational techniques for disadvantaged children in elementary years.

Higher education did not fare so well, with most increases going to students rather than institutions. Furthermore, Mr. Nixon has proposed that the Government end a \$22 million annual grant to land grant colleges under the Morrill Act of 1890.

The budget sets aside approximately \$25 million for experimental schools to determine most effective approaches to improve education. But in all, the budget seeks \$186.3 million for research and evaluation of programs.

terest at the relatively low rates currently paid on tax-free municipal bonds.

The authority would obtain the money to buy the bonds by issuing its own securities to the public at existing rates for taxable securities. The net cost to the Federal Government, in addition to administrative expenses, would be the difference between the low interest it receives and the higher interest it pays.

In addition to this effort to stimulate \$10 billion in construction of waste treatment plants, the budget proposes an increase of \$2.5 million in the current authorization of \$10 million in annual grants to state and interstate agency water pollution control programs. FWPCA funds for research, development and demonstration efforts are increased \$6.8 million to \$44 million. The new funds will be aimed at such goals as developing the technology to eliminate wastes from point sources and to reclaim waste waters for reuse. Funds for enforcement of antipollution regulations are increased almost 20 percent, though the promised new approaches to enforcement are still to be outlined in a Presidential message on the environment.

Federal spending for air pollution control will be increased by some 30 percent in 1971, to \$104 million. Efforts will be accelerated to control sulfur and nitrogen oxides. The states are now being asked to set standards for two major air pollutants—sulfur dioxides and smoke particles. Standards for other pollutants are to be set shortly. The budget provides additional Federal resources to help them with the task.

**The other** major environmental thrust of the budget is toward expanding park and recreational facilities. Outlays for recreational resources in 1971 would total \$546 million, an increase of \$99 million over 1970. The budget includes \$327 million in new budget authority for the Land and Water Conservation Fund to provide more park and recreational facilities.

Of this amount \$189 million is for a new program to be announced later; it likely will concern purchases of land at Point Reyes National Seashores in California and for acquisition of park areas in cities. Of the remaining budget authority, \$63 million is for grants to states for planning, obtaining and developing new park and recreation areas. About \$73 million will be used to acquire Federal park and recreation areas.

All in all, the proposed spending budget for major environmental quality programs is \$1.115 billion, compared with \$785 million in 1970. The figures include recreational resources, water pollution and air pollution control.

## ENVIRONMENT

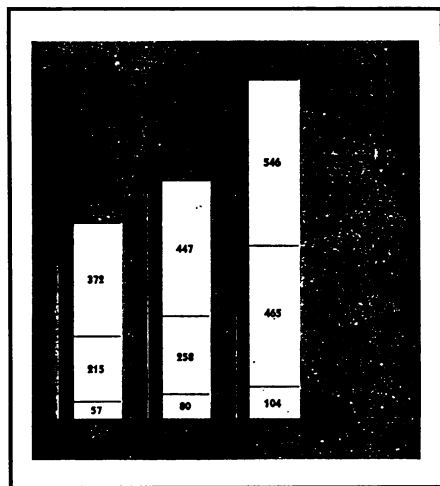
### The antipollution program

The much heralded new Federal effort to improve the quality of the environment is centered primarily on water pollution control and expansion of recreational areas, at least where President Nixon's budget proposals are concerned. These are susceptible at least to partial solutions at a price. Other questions require innovation or regulation before they are as ready as recreation and municipal pollution control for Federal funds.

The budget clears up at least some of the confusion about the \$10 billion program for construction of sewage treatment plants announced by President Nixon in his State of the Union address (SN: 1/31, p. 122). Only \$4 billion of that five-year total would be Federal money.

**Specifically,** legislation will be sought to provide \$4 billion in contract authority to use over the five-year period 1971-1975 for lump-sum grants to states and local communities to construct needed municipal waste treatment works. Of this amount \$800 million would be allocated to the states in fiscal year 1971 and each of the four succeeding years. The \$800 million figure is exactly the amount Congress appropriated under the existing program for this fiscal year, when the President requested only \$214 million. Full use of the \$800 million for fiscal 1970 will be made, according to the Department of the Interior, whose Federal Water Pollution Control Administration oversees the effort.

Although an authorization of \$800 million a year is sought, actual Federal



*Effort to protect the environment.*

spending would be far less than that in fiscal 1971. The amount spent would increase in later years as communities complete their plans and begin construction. President Nixon's proposal is smaller than that in existing authorizations, which currently pass \$1 billion a year.

**To assist** state and local governments in financing their \$6 billion share of the new program, the President proposes creation of an Environmental Financing Authority. Local governments are having serious difficulty securing funds in the municipal bond market. The new Federally established authority would purchase sewage plant bonds from state and local government units that cannot find suitable markets elsewhere. The local units would pay in-