

Research and education in danger



Mansfield calls for new priorities and Magnuson pushes increased HEW funds.

NIH funds are barely holding to 1969 level

Within two or three weeks, President Nixon will submit to Congress his budget for fiscal 1971.

Within the same period, he will be asked to sign into law an appropriation bill that, at this late hour, is still pending under the fiscal 1970 budget supposed to have taken effect back in July. The legislation authorizing funds for the Departments of Labor and Health, Education and Welfare has yet to be enacted, and affected agencies are working under temporary authorization to spend at, or below, last year's level.

The great bulk of the Government's spending on biological research, most of its programs in medicine and the delivery of health services, virtually the entire education effort and a major portion of its social programs, are involved. And this week and next, the Senate, goaded by its Democratic majority, was preparing to fly in the face of a promised Presidential veto in an effort to force on the President more money than he wants to spend through the Department of Health, Education and Welfare.

Congress, the White House charges, has been fiscally irresponsible in its avowed intent of raising appropriations for programs in education, welfare and health research above those requested by the Administration.

Sharply increased funds for support of elementary and secondary education are the major problem, but health and research funds are also at issue.

The House passed the \$20 billion Labor-HEW package before Christmas. The Senate, which delayed action in order to block a pocket veto by the President during the vacation recess, is expected to vote approval of the bill shortly after it reconvenes Jan. 19. (see NIH)

Nixon's threatened veto reflects fiscal policy, not necessarily his view of social programs

The increased Federal funding for education contained in the appropriations bill for the Departments of Labor and Health, Education and Welfare is the latest piece of social legislation to wind up as a political football between Congress and the Nixon Administration.

President Nixon's threatened veto of the bill is based on the grounds that the \$1 billion added last month by a House-Senate conference committee would force an inflationary increase in Government spending at a particularly inopportune moment.

The added funds were voted for such measures as elementary and secondary education aid, vocational education, library facilities, and instructional technology like language-laboratory equipment.

A Presidential veto of the funds, on the other hand, would inevitably add fuel to charges that the Nixon Administration is unsympathetic to the social welfare concerns that characterized the previous Administration's Great Society programs. Senate Majority Leader Mike Mansfield (D-Mont.) says that the "question of national priorities" symbolized by the appropriations bill will emerge as a prime political issue in the 1970 Congressional elections.

The Nixon Administration has reorganized, and occasionally cut back, some of the Great Society schemes it inherited, in a manner critics interpret as hostile. The Job Corps and Head Start projects, for example, have been removed from the Office of Economic Opportunity and delegated to the Departments of Labor and Health, Education and Welfare, respectively.

The Administration has proposed a reduction in funds amounting to more than \$100 million annually for the Job

Corps, and more than \$7 million for Head Start. The Model Cities program, which Great Society planners regarded as the keystone of Federal aid for urban redevelopment, is presently enmeshed in bureaucratic difficulties, and Federal spending for the program is presently about half of original expectations.

Whether these changes amount to a systematic downgrading, however, is still unclear. Publicly, spokesmen for the Office of Economic Opportunity are eager to point out that the removal of some of their projects enables them now to concentrate on research and the development of new projects. Privately, an OEO official concedes, "The loss of a program is naturally interpreted as a mark of displeasure." But, he adds, the programs OEO has retained, including Vista, legal aid services, and health-care facilities, "are doing at least as well as they did under President Johnson."

The removed projects were, in any case, delegated in such a way that original directions may remain unchanged. "The Department of Health, Education and Welfare," says a spokesman for Head Start, relocated in Secretary Robert H. Finch's office, "can't change one single word in our guidelines as set by OEO. In fact, we're better off now than we were before because here we can take advantage of the HEW programs related to child care."

In some cases, the Nixon Administration has demonstrably expanded the aims of previous social programs. Former President Johnson's 1964 plan for Federal aid to urban mass transit systems, for instance, was funded at roughly \$100 million annually; Nixon has proposed raising the funds to more than \$3 billion for the next five years. (see Social)

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Moreover, Mr. Nixon's welfare reform proposals include an income-maintenance plan (SN: 6/7, p. 549) currently being tried out in Seattle, Wash., and Gary, Ind., that is equivalent to the guaranteed national income first proposed by liberal economists a decade ago.

In other cases, what appears to be a slackening of effort in welfare programs may eventually turn out to be a temporary halt for purposes of revision. A Presidential Task Force on Model Cities, headed by Dr. Edward C. Banfield, a Harvard University political scientist, reported last month that the program is bogged down mainly because the plethora of Federal agencies involved makes it too difficult for local officials to apply for help. A consolidation of Federal efforts and a simplified method of distributing funds, should put Model Cities back on its feet, the task force said.

If President Nixon indeed proves indifferent in the long run to innovations in social welfare begun under the last Administration, some of the blame will fall on Congress as well. Early last month an amendment giving state governors veto power over a broad range of OEO programs, including in particular OEO's legal aid services, very nearly passed the House. Only a hastily organized lobby of local officials, educators and civil-rights workers, the same kind of lobby thrown together to apply pressure for additional educational funds in the appropriations bill, prevented the amendment's passage.

"These lobbies have been amazingly effective," says an aide to Rep. Seymour Halpern (R-N.Y.). "They bowled us over." But, he continues, if the President vetoes the appropriations bill, it is unlikely that the bill's defenders can muster enough support, lobby or no lobby, to override the veto.

While disagreeing with Administration claims that the appropriations bill is inflationary, Dr. Robert Tufts, an Oberlin College economist and political scientist, feels it is too early to conclude that the Administration is ready to abandon the fundamental goals of the Great Society programs.

"Under Mr. Johnson," he says, "the country began to recognize a lot of social problems and groped for ways to deal with them. Nobody has been very happy with the results. Mr. Nixon seems to recognize the same problems and, it may be, is looking for different ways to approach them."

Political battle lines have been drawn, nevertheless, and social welfare policies will remain controversial no matter what finally happens to the appropriations bill. □

	Fiscal 1970	Fiscal 1969	Presidential Request
National Cancer Institute	190.4	185.1	180.7
National Heart and Lung Institute	171.2	166.9	160.5
National Institute of Dental Research	30.6	29.9	29.3
National Institute of Arthritis and Metabolic Diseases	146.3	143.9	137.7
*National Institute of Neurological Diseases and Stroke	106.9	128.9	101.3
National Institute of Allergy and Infectious Diseases	103.7	96.8	102.4
National Institute of General Medical Sciences	164.6	163.5	154.3
National Institute of Child Health and Human Development	76.9	73.1	75.8
National Eye Institute	24.3	none	23.6
National Institute of Environmental Health Sciences	18.3	17.8	18.3
*(An increase of \$964,500. Funds transferred to new National Eye Institute.)			

. . . NIH funds

Meanwhile, Democratic leaders are seeking enough support to override the veto if it comes, and the White House is soliciting votes to make the veto stick.

The Senate Committee on Appropriations laid the problem out in terms of priorities. "Inflation may indeed dictate firm control of the total Federal budget, but the committee has serious doubts about priority choices reflected in the 1970 Federal budget," it said in its report. "In fact, the committee holds strongly to the premise that, even in times of economic uncertainty, care must be taken to protect, or for that matter even expand, programs that represent long-term investments in the basic health and well-being of our society."

Sen. Warren Magnuson (D-Wash.), chairman of the subcommittee that handles Labor and HEW budgets, is becoming an active champion of health and education programs, moving into the position once held by the late Sen. Lister Hill.

At stake in all this, along with the variety of social and educational programs, are the activities of the National Institutes of Health, which pays for 60 percent of biomedical research done in the United States and supports graduate and postdoctoral training of both physicians and research scientists.

Since last July, in the absence of authorization for 1970 spending, NIH, under the halfway measure called a continuing resolution, has been obligating funds at a restricted level, staying one-twelfth below its \$1.4 billion operating level for fiscal 1969. President Nixon had proposed a \$54 million increase for the current year, barely enough to cover increased costs, with

funds coming out of the research institutes to support a variety of medical and paramedical manpower programs.

When the House took up the NIH appropriations for fiscal 1970, it issued a bill that essentially corresponded to the levels requested in the President's budget. The Senate declined to go along with the research cuts.

The President had requested a cut in health research and in the support of graduate and postdoctoral students totaling \$20 million. Says Magnuson, "The implications of this action are unmistakable. The cutback in health research is not intended to be temporary. Lurking below the surface of the budget and the House allowance for health research training is a subtle budget policy with long-term implications for the production of future research scientists and, most important, for the production of future teachers of physicians and medical technicians, the supply of whom is falling further behind with every passing day."

The Senate, accordingly, wrote into its NIH appropriations bill an increase of funds, above those asked by both the President and the House, for virtually every research institute and division. The \$54 million increase over the comparable NIH operational level for fiscal 1969 of \$1,394,549,500, the appropriations committee said, "is a one-step-forward-one-step-back budget," representing a slight increase for health manpower and education programs and a decided decrease for fundamental biological research and training. The proposed \$18.7 million reduction in fellowship and training grants, for example, would mean a loss of 1,224 fellowships and 246 training grants—a severe blow to young

scientists just coming on line.

Budget restrictions will also force the closing of 19 of the 93 hospital-based clinical research centers. Now operating at 50 percent capacity in a phase-out process, a \$76.6 million allocation for general research programs may save some but not all of these programs. The allocation is \$7 million above budget estimates but \$8 million below the 1969 level.

In Senate-House conference on the appropriations bill, a compromise was reached in which the Senate's increases were generally cut by half. Thus the bill, as passed by the House and coming up for Senate approval, would boost virtually all institute appropriations (see chart).

For the delivery of health care, the regional medical programs will receive the \$100 million as requested in the budget and approved by the Senate, instead of taking a \$24 million cut proposed by the House. In addition to following the original course of work

in heart disease, cancer and stroke, the regional programs are being expanded to include other diseases and are turning attention to improving health services in disadvantaged areas.

Allocations for the construction of health education, research and library facilities will be \$149 million, up from \$93 million last year, and funds for general research support grants, given to entire academic departments, will hold even at \$60,700,000.

Altogether, the proposed NIH increases, a spokesman says, represent no tremendous jump over funding for the previous year and, in fact, the institutes are doubtful that they will ever actually receive the increases if they are appropriated.

The expectation is that once the appropriations bill is passed, the Bureau of the Budget will actually release funds at a level corresponding to that initially requested by the President even though members of Congress have warned against such a course.

system, which shows up in slower reaction time and perception. The results of these experiments have been contradictory, insofar as they can be compared at all.

At low levels, most researchers agree there may be some impairment of performance and behavior. But the severity of impairment is still unresolved. Dr. T. H. Rockwell of Ohio State University in Columbus found that human performance in regard to automobile driving decreased as carboxyhemoglobin level increased from 0 to 20 percent. On the other hand, Dr. P. J. Mikulka and his associates at Old Dominion University in Norfolk, Va., found that reaction time and perception did not degrade as a function of three hours' exposure to carbon monoxide at levels of 250 parts per million. Furthermore, Dr. Thrift G. Hanks of SysteMed Corp., in Newport Beach, Calif., reports no significant relationship between carbon monoxide exposure for about 4 hours at levels up to 100 parts per million, and the ability to perform critical tasks.

Dr. Lawther could not find any impairment of perception at levels up to 10 percent, but at this level the ability to do mathematical problems was somewhat affected.

One trouble with these experiments is that their results defy comparison because the experimental conditions are not matched. Even more serious is the difficulty in measuring psychological performance, particularly in subjects whose recent activities are not known.

Such things as alcohol consumption the night before or smoking habits, could bias the results significantly, says Dr. Lawther.

But impaired perception and reaction time are not as serious as possible effects of high levels of carbon monoxide on the heart and circulatory system. Unfortunately, the effects of atmospheric carbon monoxide on these systems are even more difficult to determine than behavioral impairment. As yet, there is no evidence at all that community air pollution produces any chronic effects specific to carbon monoxide.

In fact, suggests Dr. Goldsmith, some carbon monoxide intake would have a sedative effect that might be beneficial to some.

The conference, says Dr. Ronald F. Coburn of the University of Pennsylvania, who was co-chairman with Dr. Lawther, was designed to review the present state of research on carbon monoxide effects for the use of Government officials setting pollution standards. What the conference shows, says Dr. Lawther, is "the need for repeated experiments by highly qualified researchers under controlled conditions."

A WASPISH CONFERENCE

No consensus on CO research

Carbon monoxide is a major component of air pollution, and the automobile is the major contributor of carbon monoxide in the urban atmosphere. It is known that the gas in large doses affects the health and can even cause death, but those levels have not yet been reached in community air. The present trace levels are enough to cause worry, but the extent of their impact on the human system is not yet clearly known (SN: 11/22, p. 480).

That lack of knowledge showed up this week at a New York Academy of Sciences conference on carbon monoxide, which found scientists in waspish disagreement over the extent of the problem. While the formal presentation of papers was carried out with genteel politeness, it was clear that the subject has raised emotions.

The tone was set by Dr. Patrick J. Lawther of St. Bartholomew's Hospital Medical College in London, who said, "Seventy percent of those who are doing research in the field should go home and do something else." The quality of carbon monoxide research, he says, is just not up to par.

The controversy revolves around the effects of small amounts of carbon monoxide on the central nervous system, where it can affect behavior, and the more serious physiological disturbances in such areas as the heart and the respiratory system, where oxygen supply plays a major role.

In both cases, carbon monoxide when inhaled, enters the system by joining with hemoglobin in the blood

to form a compound called carboxyhemoglobin. The increased amount of carboxyhemoglobin restricts the amount of oxygen that the blood can carry.

One area of controversy is the translation of a measure of carbon monoxide in the air into levels of carboxyhemoglobin in the blood of an average urban breather.

In Los Angeles, for instance, says Dr. John R. Goldsmith of the California State Department of Public Health in Berkeley, the average year-round carbon monoxide level is between 10 and 12 parts per million. After 12 hours of continuous exposure to such levels, carboxyhemoglobin reaches a level of 2 percent in the blood, he says.

But that doesn't mean that all Angelenos can be assumed to have 2 percent carboxyhemoglobin in their blood, says Dr. Lawther. The carbon monoxide level, at different times and places, could climb briefly as high as 100 parts per million, and levels of 300 parts per million have been measured. Similarly, individual characteristics and activities could alter the time it takes for monoxide to enter the system. A lot depends on the weather, too.

Asking what the carboxyhemoglobin level is, says Dr. Lawther, is like asking, "How high is up?"

Even if carboxyhemoglobin levels could be accurately determined, their effects are elusive. Most experimentation has been done on impairment of the functioning of the central nervous