aid is a "privilege" which is meant to subsidize education, not rioting.

At this writing it is not yet clear just what Congress will do. Representative Edith Green (D–Ore.), chairman of the special subcommittee on education, has proposed that a federal education mediator be appointed to help settle campus disputes. She has also warned educators that there is "absolutely no chance" that Congress will adjourn without passing additional legislation to deny federal financial aid to campus rioters. Educators who hope to repeal such laws are "hiding their heads in the sand," she said.

Mrs. Green's hearings on campus unrest, and her recommendation for a mediator, are said to be motivated, at least in part, by a desire to head off a more drastic crackdown by congressional conservatives. Indeed, Mrs. Green has expressed fears that Congress, in its present mood, might pass "extremely punitive" legislation. If Mrs. Green is correct in assessing the thinking of her colleagues, university officials may soon find themselves caught in a cross fire of backlash sentiment as lawmakers at both the state and national levels vie to put down what they consider "unrestrained anarchy" on the campuses.—PHILIP M. BOFFEY

NIH: Another Tight Budget, Fewer Friends in High Places

Like other federal research-supporting agencies, the National Institutes of Health (NIH) is bracing for a bleak budget year. Anti-inflation measures now being fashioned by the Administration appear not only to mean a tight budget for NIH but also to foreshadow a repetition of last year's limitations on spending below the levels voted by Congress. And as if budget troubles were not enough, NIH, which in the past has seemed to be fortune's favorite among research agencies, this year finds itself operating in a sharply altered and adverse political environment.

What amounts to an ideological impasse has blocked appointment of an assistant secretary of health and scientific affairs in the Department of Health, Education, and Welfare (HEW) and left medical research without a strong advocate in HEW at a crucial time.

The retirement of James A. Shannon last year leaves NIH with untried top leadership faced not only with budgetary straits but with the shaking down of a reorganized agency with expanded responsibilities.

On Capitol Hill the death of Representative John Fogarty and the retirement of Senator Lister Hill put the fate of NIH in the hands of men who are certainly not hostile to biomedical research but who lack Hill's and Fogarty's personal zeal for biomedical research.

Perhaps most important in the long run, the great expansion of federal programs in support of health services and manpower training is affecting public attitudes and congressional priorities and makes it seem likely that biomedical research will have to find a new competitive footing in coming years.

The most conspicuous, if temporary, problem is the policy vacuum created by the vacancy in the assistant secretary's office. The deadlock over the appointment has been represented in the press as a clash between liberals and conservatives in medical politics. Focus of the controversy is John H. Knowles, general administrator of Massachusetts General Hospital, who, as early as January, was talked of as the next assistant secretary. Strong opposition to the Knowles appointment reportedly was exerted by the American Medical Association (AMA). None of the principals in the dispute are talking, but it seems that Knowles, 42, was the personal choice of HEW Secretary Robert Finch. Knowles apparently accepted the bid, and then the AMA moved and applied sufficient pressure to block the appointment. Reportedly Knowles was asked to withdraw, but declined, and Finch is said to have stood firmly by his commitment. The episode is particularly embarrassing for the Administration because Knowles was a vocal Nixon supporter during the presidential campaign.

The controversy has antecedents going at least as far back as the early days of the Kennedy administration, when it was decided to upgrade the post of special assistant for health and medical affairs to the HEW Secretary to the assistant-secretary level. The AMA insisted then that the post go to a physician, not to someone, possibly a nonphysician, picked for legislative and administrative skills in the medical field. A showdown on the issue was averted when Philip R. Lee, a practicing physician acceptable to both sides in the controversy, was appointed.

Late in the Johnson administration the stakes went up substantially when Lee was given line authority over the range of health service programs (including Medicare and Medicaid), medical education, consumer protection, environmental-pollution control, and biomedical research programs which had been added to the traditional activities of the Public Health Service (PHS) and the Food and Drug Administration.

The assistant secretary for health and scientific affairs is now the chief federal policy-making official in the field of health and medicine, and some observers now suggest that the Nixon administration may soon seek to raise the post another notch to the undersecretary level. It is not surprising that the politically sensitized AMA sought, in behalf of the medical profession, to assert what it regarded as its right to a veto.

What the AMA resents, apparently, is that Knowles, an M.D. and research scientist by training, is a "hospital man." What the AMA suspects is that Knowles would regard the hospital and medical school, rather than individual practice, as the focus of medical care. As chief federal policy-maker, therefore, he might favor programs providing types of medical care at variance with the atomistic principle which the AMA favors for the organization of medical services.

The issue seems to have cracked the united front that organized medicine

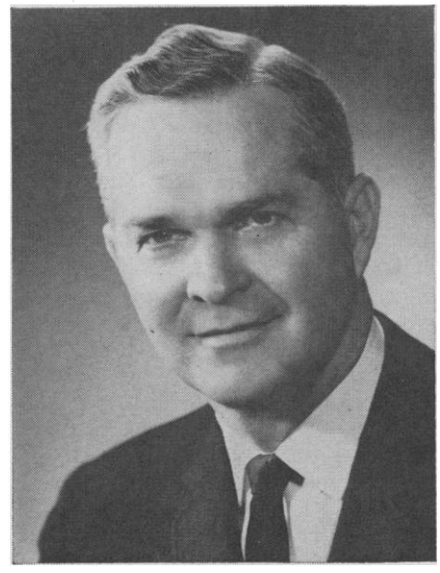
usually manages to present. Such differences are not discussed in public, but the American Hospital Association and the American Association of Medical Colleges are regarded as partial to the Knowles appointment.

Because of the recently increased authority of the assistant secretary, the vacant chair at HEW particularly worries NIH. The feeling of having no influential friend at court is probably heightened by the empty deputy directorship at the Office of Science and Technology. There is a feeling that the President's science adviser, Lee A. DuBridge, a physicist, is currently preoccupied with the antiballistic missile and space questions and with the problems of the National Science Foundation, and that the absence of a deputy director, traditionally drawn from the life sciences, leaves biomedical research in limbo.

Organizationally, NIH and its sibling agencies are settling into the remodeled structure of the health component of HEW. During the Kennedy and Johnson years, HEW seemed to be endlessly reorganizing. Often this amounted mainly to a juggling of bureaus and bureaucrats, but now the new form seems likely to fit the radically expanded functions in the fields of health and medical research for some time to come.

The transformation in the federal role was brought about by the rise of such programs as Medicare, Medicaid, and the regional heart-disease, stroke, and cancer centers and is symbolized in the demise of the Public Health Service and the scrapping of the traditionally limited concept of public health services.

John F. Sherman



Robert Q. Marston

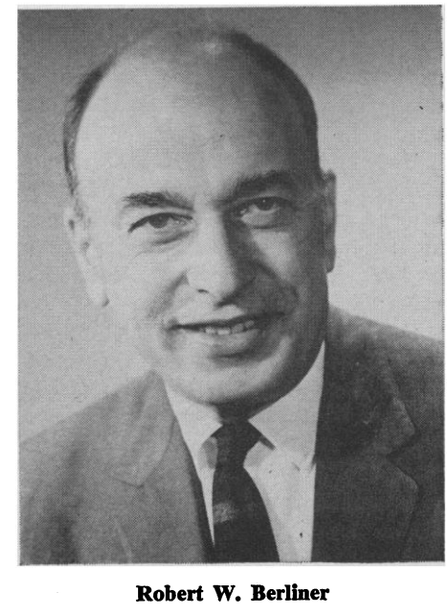
The duties of the Surgeon General, long the top federal health official, have been reduced to vestigial form. The Surgeon General is now titular head of the PHS commissioned corps and reports to the assistant secretary as a staff deputy.

The assistant secretary for health and scientific affairs now presides over a health domain divided into three main parts (*Science*, 20 June 1968). The Health Services and Mental Health Administration oversees programs designed to deliver health care to individuals. The Consumer Protection and Environmental Health Service accommodates the still semi-autonomous Food and Drug Administration and federal agencies dealing with environmental problems.

NIH is the third major subdivision in the assistant secretary's bailiwick. What used to be NIH is now called the Research Institutes and Divisions on the NIH organization charts. The NIH director now has authority not only over the institutes, as of old, but over a separate Bureau of Health Professions Education and Manpower Training (formerly the Bureau of Health Manpower) and over the National Library of Medicine, which is now administratively as well as geographically adjacent to NIH.

NIH director Robert Q. Marston, who succeeded James A. Shannon last year, cannot hope to operate in the Shannon manner. Neither Marston's temperament nor present circumstances would allow it. NIH is no longer a bureau concerned exclusively with research. The agency has acquired broad responsibilities for medical education and training in the health professions, responsibilities which are institutionalized in the big new bureau. Shannon operated in an inimitable personal style, both on Capitol Hill and in running NIH. Marston believes, as one NIH official puts it, in "participatory management." Marston's most significant administrative change has been to name two deputy directors with broad powers for science and administration, respectively. Both men are NIH veterans. The new deputy director for administration is John F. Sherman, formerly associate director for extramural programs, and the deputy director for science is Robert W. Berliner. Berliner last year was made director of laboratories and clinics after 15 years as director of intramural research at the Heart Institute. Although it is doubtful that the new arrangement will amount to collective leadership, Marston has obviously moved away from the relationship that existed between Shannon and the institute directors at NIH, which resembled cabinet government. The new programs in NIH are well represented in a new policy advisory committee. Only three institute directors at a time will in fact sit on the committee. The institute directors still have direct access to Marston, but things are not the same.

Just before Congress recessed for Easter, Marston and Co. completed 2 weeks of hearings before the House Appropriations subcommittee, which oversees NIH fund requests. Appropri-



Robert W. Berliner

ations sessions are closed, but, according to sources on Capitol Hill, the subcommittee, chaired by Representative Daniel J. Flood (D–Pa.), heard NIH testimony with interest and, for the most part, sympathetically.

Any critical appraisal of Marston's debut before the Appropriations subcommittee is probably beside the point this year. The grimmer predictions these days are that NIH and other research agencies will have to work with less funds in fiscal 1970 than they did this year. Last year, NIH, while it negotiated reductions averaging about 15 percent on most grants, was not as hard hit as other agencies. NIH strategy, however, was designed to fit a 1-year emergency. The emergency has not ended, and it is now conceded that across-the-board percentage cuts will not serve. The only practical course is likely to be the ending of some programs, both intramural and extramural. The carrying out of the first serious retrenchment in NIH history will be the first major test for Marston's leadership.

In the longer run, Marston and NIH seem to be facing a competitive future. Federal dollars are flowing into the health budget in increasing quantities, but the amounts needed to finance Medicare and Medicaid, regional health programs, and health manpower training programs are enormous, and the public demand for federal spending on health services could overwhelm the reasoned case for medical research.

NIH partisans seem to be assuming that filling the HEW assistant secretary's post would mean that a strong advocate of biomedical research would take the field. Maybe it would. But it is conceivable that, sooner or later the top federal policy-making official could have a list of priorities that put the production of medical manpower or the equalizing of medical services at the top of the list and biomedical research far down. The era when NIH operated under sanctuary conditions in Congress and when federal biomedical policy was virtually made by the panels which advise on the awarding of research grants seems to be ending. For better or worse, federal policy-making on health matters and therefore on biomedical research is being politicized. And this, as well as the Vietnam war budget squeeze, has abruptly brought to an end the decade of remarkable growth in biomedical research which already is being remembered with nostalgia as the good old days at NIH.

—JOHN WALSH

NEWS IN BRIEF

• **HEW CRITICIZED FOR AIR POLLUTION R&D**: A House Government Operations Committee report has charged that the Department of Health, Education, and Welfare (HEW) is lagging in developing new techniques to combat air pollution. The report, reviewed by the Conservation and Natural Resources Subcommittee, chaired by Representative Henry S. Reuss (D–Wis.), says that research and development on air pollution abatement, particularly on the reduction of sulfur oxide pollutants, has been largely ineffective and wasteful. The report was particularly critical of the lack of coordination in interdepartmental research efforts. "Federal air pollution research and development: An interim report on sulfur oxides pollution abatement R&D" may be obtained at no cost from the Conservation and Natural Resources Subcommittee office, Room B-349-C, Rayburn Building, Washington, D.C.

• **VENUS-MERCURY MISSION**: Scientists interested in participating in mission planning and in the development of imaging and celestial mechanics instruments for the U.S. Venus-Mercury mission scheduled for 1973 are encouraged to submit proposals to the National Aeronautics and Space Administration (NASA). Scientists are also invited to attend a preproposal briefing scheduled for 16 April in Washington, D.C. Inquiries may be sent to Stephen E. Dwornik, Code SL, Office of Space Science and Applications, NASA, Washington, D.C. Scientists may apply as individuals or in teams.

• **UNIVERSITY OF NEVADA HEALTH SCIENCES PROGRAM**: With the help of industrialist-financier Howard Hughes, the University of Nevada is establishing an experimental interdisciplinary health sciences program which would permit students to obtain degrees in 15 allied health fields. George T. Smith, acting dean of the new program, told *Science* the university is coordinating a 2-year basic medical school curriculum with graduate courses in health sciences specialties, such as medical engineering, nursing, psychology, and sociology. Smith says an agreement has been reached with the University of California School of Medicine at Davis to enroll Nevada University medical students for the third and fourth years of medical training. The Nevada University Health Sciences program is expected to have about 700 students enrolled in some phase of health sciences by 1971. Howard Hughes has contributed $6 million to the Health Sciences Program.

• **ENGINEERING ENROLLMENT DECLINES**: A survey of 270 schools of engineering indicates that full-time graduate student enrollment in engineering in 1968 in these schools is down 16 percent from 1967. The survey, conducted by the Engineering Manpower Commission of the Engineers Joint Council, shows the total number of full-time graduate students in engineering declined from 49,610 in 1967 to 41,530 in 1968. The Commission says that graduate school enrollments in engineering have risen steadily since World War II at a rate of about 12 percent per year and that the 1968 reduction represents a first and "dramatic decline." Engineering Manpower Commission officials attribute the decline to a change last year in the draft regulations, which has had the effect of cutting full-time graduate student deferments, except in the medical sciences.

• **MESON FACILITY USERS ORGANIZE**: A users group has been organized for outside scientists interested in using the new $55-million Meson Physics Facility expected to be operating by mid-1972 at Los Alamos. The Los Alamos Meson Physics Facility (LAMPF) accelerator will provide pi-mesons for research in medium-energy physics; it is expected to have about 50 percent of its beam time available to outside scientists. The LAMPF Users Group will serve as a communications link between the various outside users and the Los Alamos Scientific Laboratory. The Users Group, which has chosen Harry Palevsky of Brookhaven National Laboratory as temporary chairman, expects that the facility's beam time may be utilized by as many as 200 to 300 outside experimenters at any given time. Interested users are encouraged to contact Louis Rosen, LAMPF Administrator, Los Alamos Scientific Laboratory, P.O. Box 1663, Los Alamos, New Mexico.