the 3-year fellowships will be about half the 1968 total. Perhaps half the "new starts" in the coming year will be in the physical sciences and mathematics, since NDEA fellowships are awarded in the humanities and social sciences as well as the sciences.

Despite an Administration decision to put more of its basic-science eggs in one basket, which favored the National Science Foundation (NSF), there will be a net reduction in graduate student support by the agency. The number of NSF fellowships is to be increased modestly from 2220 under the 1970 budget to 2530 in the 1971 budget. But in the traineeship program, which has been NSF's mainline program of predoctoral support, no new traineeships are to be awarded in fiscal 1971. NSF's traineeship program peaked in 1968 when 2211 new awards were made, and the total reached 5666. In the current fiscal year, 1897 new starts (tenable in the coming academic year) are scheduled, and the total will drop to 5123. By academic year 1971–72 when the impact of no new starts in fiscal 1971 hits, the total will probably be down to half the peak number.

NSF officials say that the suspension of traineeship awards does not necessarily mean that the door is closed definitively on the traineeship program. The agency has, however, like other federal science-supporting agencies, been exploring the question of shifting to a "loan operation" in support of graduate education.

There has been considerable speculation on whether the Administration will press on in applying to graduate education the principle—which it espouses for federal support of undergraduates—of guaranteeing loans rather than providing grant support. The most definitive Administration statement on the subject to date was contained in a letter written in late April by Presidential Counsellor Daniel P. Moynihan in reply to Harvard President Nathan M. Pusey, who is also serving this year as president of the Association of American Universities.

In his letter Pusey made the point that "our experience commands us to urge that graduate students should be supported primarily by fellowships rather than loans." In his reply, Moynihan commented on this point as follows:

> The Administration does not disagree that graduate students should be supported by fellowships as well as by loans. (One science dean tells me that at his institution it costs something in the neighborhood of $900,000 to produce a Ph.D. in radio astronomy. It would be hard to expect young scientists to go into hock for such amounts, and of course they do not.) The [proposed Foundation on Higher Education], when established, will continue to grant college teacher fellowships in the amount, at the very least, of the present program.
>
> Fellowships will, of course, also continue to be available from the many other Federal agencies that presently provide them and, under the President's proposals, graduate students will be eligible for substantially increased loans. We believe that the foundation should carefully examine national manpower needs in the highly specialized fields that are supplied by the nation's graduate schools and should determine those areas that warrant fellowships support. At the same time, the increase in student loan funds would also preserve the individual graduate student's freedom to seek schooling in any field of his choosing.

The policy is the product of a Bureau of the Budget forced by pressures of Vietnam war costs and inflation to make cuts in areas of controllable spending—like support of graduate education.

There is at least a prima facie supply-and-demand argument for the cuts, since Ph.D.'s are facing a job squeeze unprecedented since before World War II.

But the shift, even a partial one, from grants to loans in graduate support, represents a major shift in science policy, and there has been remarkably little public discussion of policy or of the immediate impact on research institutions or of the longer-term effects on manpower.

It is said that Administration espousal of selective grant support for graduate students marks a change from an earlier inclination toward a wholesale shift from grants to loans. And inside lobbying by Presidential Science Adviser Lee A. DuBridge and his aides at the Office of Science and Technology is said to have helped to change the Budget Bureau stance.

A further opening up of the discussion may be effected by the forthcoming report of a President's Science Advisory Committee (PSAC) panel, chaired by Patrick Haggerty of Texas Instruments. If hopes for it are fulfilled, the report on manpower will be a 1970's version of the oft-referred-to report of the PSAC committee chaired by M.I.T.'s Edwin R. Gilliland in the early 1960's.

A sense both of urgency and of good timing is revealed in efforts by the new group's subpanel on academic science, chaired by Caltech's Murray Gellmann, to complete a report by September so that it may serve as input in the process of budget making in the coming year.

It should be possible with better planning to minimize damage done in a period of budget contraction, but, unless policy makers come squarely to grips with problems posed by cuts such as those in graduate support, they are likely to find themselves locking the lab door after the researchers are gone.

—JOHN WALSH

APPOINTMENTS

R. C. Wood

R. B. Leighton

Robert C. Wood, director, Center for Urban Studies, M.I.T.-Harvard, to president, University of Massachusetts. . . . **Robert B. Leighton**, professor of physics, California Institute of Technology, to chairman, division of physics, mathematics and astronomy at Caltech. . . . **Norman H. Cromwell**, chairman, chemistry department, University of Nebraska, to executive dean, graduate studies at the university. . . . **Carl J. Nyman**, chemistry professor, Washington State University, to dean of the graduate school at the university. . . . **David M. Gates**, director, Missouri Botanical Garden and professor of biology, Washington University, St. Louis, has been named chairman, Environmental Studies Board, National Academy of Sciences–National Academy of Engineering. . . . **Martin D. Jenkins**, president, Morgan State College, to director, new office of urban affairs, American Council on Education. . . . **Paul B. W. Gollong**, United Nations project manager in Israel, to senior scientific affairs officer, United Nations Office for Science and Technology. . . . **Robert M. Bird**, associate dean for planning and development, University of Oklahoma, to dean, School of Medicine at the university.