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## Pruning the Federal Science Budget

Appropriations for research fall within the "controllable" category of the federal budget, hence seem especially vulnerable when budget cutting is the order of the day. Certainly, managers of the federal budget, seeking to reduce total expenditures by tens of billions of dollars, cannot be expected to treat science as a sacred cow. As it turned out, the nature, more than the magnitude, of the proposed reductions proved to be disturbing. Instead of pro rata overall reductions, with the affected agencies given opportunity then to declare their priorities, they were directed, in successive prunings, markedly to reduce allocations to specific programs.

The scientific community will be grateful that the Office of Management and Budget (OMB) carefully preserved the central core of research and graduate education in the natural sciences, making only relatively nominal downward adjustments across government. Apart from eliminating such major new starts as the research instruments program, however, the programs selected for most other large reductions seem dictated not so much by financial constraints as by social philosophy. Thus, social science has been all but removed from the budgets of the National Science Foundation (NSF) and the National Institute of Mental Health (NIMH); the NSF education programs were virtually eliminated; the international programs of NSF were painfully shrunk; programs involving university-industry collaboration were eliminated; the institutional support component of National Institutes of Health training grants was deleted. Each warrants fair debate before the new Administration begins to implement its policies.

The NSF program for "upgrading" laboratories by providing state-of-the-art instruments is long overdue; the obsolescence of our instruments limits the pace of the national scientific endeavor and, hence, limits the national future. The international programs of NSF support a small amount of bilateral cooperative research, exchange programs with China and the East European nations, dues to the International Institute for Applied Systems Analysis and the International Scientific Unions, inter alia. Surely this country is capable of sustaining a \$14-million commitment to international partnership in the pursuit of knowledge and its beneficial applications. Severe, abrupt reductions in this program could have political repercussions out of all proportion to the sums involved.

The NSF educational programs are designed to improve education in science in every school system, not as support to routine operations. Particularly troublesome is the drastic reduction proposed for federal funding of research in social science. Patently, our knowledge of the natural world and our technology have outrun our wisdom in their use—witness the need for the very effort in which OMB is currently engaged. Agreed, the economists and sociologists have not enabled us to avoid our current national straits, but if the best of them are not assisted in their attempts to learn, we are doomed to cycles of well-intentioned policies resting on flawed theoretical bases. If there is to be adequate funding for the social sciences, natural scientists and engineers must so urge.

As this is written, nothing has been heard from agency heads; they are silent, as they should be. One can hope, however, that appropriately placed outsiders—the National Science Board and the Advisory Council of NIMH, for example—will make representations through channels and that scientists will later press their cases before congressional committees, the opportunity for the scientific community to be heard.

One cannot know whether the presence of a Science Adviser in the White House might have affected the nature—not the magnitude—of these cuts. But there would have been greater assurance of understanding of what is at stake. Inevitably, major decisions involving science and technology will again present themselves in the White House. The President's need for a highly qualified Science Adviser will surely be at least as great as in the past. Announcement of such an appointment would be reassuring.—PHILIP HANDLER, *President, National Academy of Sciences, Washington, D.C.*  
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