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The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

Tightening Federal Budgets

Last month William Carey, executive assistant director of the Bureau of the Budget, warned the 17th National Conference on the Administration of Research that the rapidly increasing research and development budgets of the past two decades have brought us to a level at which "reaction is at last setting in. It is apparent in the scientific community. . . . It is apparent also in the Executive Branch of the Federal Government, where the budgetary pinch is becoming acute. And it is perhaps most spectacularly apparent in the Congress, where a mounting wail of frustration and uneasiness is being reflected in a rash of proposals to bring science and technology to heel."

We have not reached a ceiling; most of the scientific and technical agencies will have more money for 1964 than they had for 1963. But Carey's warning must be taken seriously nevertheless. The House of Representatives recently supplied jolting evidence by cutting the 1964 budget of the National Science Foundation by a whopping 45 percent and by forbidding that agency to start any new programs.

The Senate is now considering the NSF budget and, as it has in some other years, may vote a larger appropriation that will require a compromise between House and Senate levels. The Senate may do this, but so far it has had little encouragement to go above the House level; congressional files of telegrams and correspondence contain little evidence that scientists are objecting to the reduction in the NSF budget or to the restrictions on NSF operations.

The House action constitutes an immediate test of how scientists will react to a sudden cessation of the growth trends of past years. But Carey's paper, which was presented before the House acted, went beyond specific budgets to deal with a problem that results from a slowing down of the rate of growth: the necessity of developing rational means of assigning priorities. Someone will have to adjudicate the competing claims of Big Science and little science; apportion funds among fields; weigh the relative merits of spending for research, for facilities, and for the improvement of teaching; and decide how much is justified for high-energy physics, for oceanography, for radio astronomy, and for other fields in which the costs for basic facilities are high. Some fur may fly before the decisions are reached, but in the process issues will be illuminated more clearly than they have been in the past. This will be good, but the decisions will still be painful.

In all of this there are two clear warnings. One is that unless the university and research scientists, the cognizant agencies (NIH, NSF, and others), and the President's scientific and budgetary aides learn to collaborate effectively in making the necessary decisions on priority, Congress will make those decisions. The other is that the spokesmen for science are going to have to do their homework more thoroughly. We have grown lazy during the period of rapidly increasing appropriations. From now on it will be foolish to approach Congress with anything other than a strong and soundly documented case.—D.W.