Follow-up on the Budget

The President's budget, which is essentially a compendium of requests for funds by the Executive Branch, gets a lot of attention when it appears each January, but the question of how Congress actually deals with those requests tends to be lost in the piecemeal appropriations process. The lag in accounting the fate of particular elements, such as the federal science budget, is usually considerable. In an effort to sort out and sum up budget activity in the R & D sector, Willis Shapley and Don I. Phillips of the AAAS have prepared an analysis—*Congressional Action Research and Development in the FY 1979 Budget**—that shows some science agencies did better in the end than others.

Agencies to which the Congress most notably gave funding boosts beyond the Carter requests were the National Institutes of Health, Department of Energy, and Department of Agriculture. Major losers were the National Science Foundation, Department of Defense, and National Aeronautics and Space Administration. With the annual rate of inflation estimated at 7 percent, the report surmises that the latter three agencies will barely hold their own in terms of constant dollars. The table below, taken from the report, provides the comparative figures.

Shapley and Phillips find that, by and large, Administration R & D initiatives met "something of a mixed fate in Congress." And they observe that "There was no general congressional policy framework for R & D." So if Congress is arbitrary with Administration science policy, it is not because it has one of its own.—J.W.

Congressional action on R & D in the FY 1979 budget (budget authority in millions of dollars). The figures include funds for the conduct of R & D and for R & D facilities.

Agency	FY 1979 budget	Action by Congress		Percent change	
		Approved	Change	From budget	From 1978
Defense (military functions)	13,014.2	12,685.4	−328,8	− 2.5	+ 6.3
Energy	5,048.5	5,316.7	+268.2	+ 5.3	+ 9.0
Budget amendments (net)	+50.5	+53.5	+ 3.0	+ 5.9	
Total, energy	5,099.0	5,370.2	+271.2	+ 5.3	+10.1
National Aeronautics and Space Administration	4,345.0	4,323.6	− 21.4	− 0.5	+ 7.1
Health, Education, and Welfare					
National Institutes of Health	2,646.5	2,998.2	+351.7	+13.3	+13.9
All other	652.6	639.5	− 13.1	− 2.0	+ 5.7
Total HEW	3,299.1	3,637.7	+338.6	+10.3	+12.4
National Science Foundation	867.6	842.2	− 25.4	− 2.9	+ 6.5
Agriculture	624.6	695.6	+ 71.0	+11.4	+10.4
Environmental Protection Agency	352.7	355.6	+ 2.9	+ 0.8	+ 2.5
Interior	344.4	372.1	+ 27.7	+ 8.0	+ 3.4
Transportation	363.0	355.6	− 7.4	− 2.0	− 1.5
Commerce	326.4	315.7	− 10.7	− 3.3	+ 7.0
Nuclear Regulatory Commission	155.5	151.0	− 4.5	− 2.9	+14.4
Agency for International Development	75.7	67.9	− 7.8	−10.3	+38.5
Veterans Administration	112.7	122.8	+ 10.1	+ 8.9	+ 5.8
Housing and Urban Development	57.0	52.5	− 4.5	− 7.9	+ 2.9
Justice	42.8	42.8			+ 7.0
Labor	40.4	38.9	− 1.5	− 3.7	+17.9
Smithsonian	33.6	33.6			+ 5.0
Corps of Engineers (civil)	27.6	27.6			− 1.4
Tennessee Valley Authority	32.1	38.1	+ 6.0	+18.7	+19.1
All other agencies	34.1	34.1			+10.0
Total, January budget	29,197.0	29,509.5	+312.5	+ 1.1	+ 7.7
Budget amendments (net)	+50.5	+53.5	+ 3.0	+ 5.9	
Total	29,247.5	29,563.0	+315.5	+ 1.1	+ 7.9

* Available from the AAAS Office of Public Sector Programs, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036, or from the following cooperating societies: Association of American Universities, American Institute of Aeronautics and Astronautics, American Institute of Biological Sciences, American Psychological Association, American Society of Mechanical Engineers, National Association of State Universities and Land Grant Colleges.

tions in science graduate programs. As for undergraduate test scores, no definitive data comparing scientific and nonscientific types seems to be available. University administration officials do suggest, however, that Harvard students generally score so high that differences would not be very significant.

The view that Harvard harbors an antiscience bias appears to be a minority opinion among scientists. On the other hand, it is generally agreed that natural sciences faculty as a group are coolest to the core curriculum and that within this group there is a definite spectrum of opinion with physical scientists most critical of the new curriculum and applied scientists and biological scientists, in that order, less resistant. Social and behavioral scientists are regarded as more friendly and the humanities faculty as most receptive.

By no means all "hard" scientists oppose the core curriculum. A number of scientists prominent on the faculty, including some in the physical sciences, have indicated support either by their remarks in faculty meetings or by agreeing to consider teaching core courses. Examples are professors Henry Ehrenreich (applied physics) and Sheldon Glashow and Steven Weinberg (physics).

These scientists, however, tend to qualify their support in a particular way. They concur with Westheimer's view that it is deplorable that so few people reach a level of understanding of science which allows them to appreciate what is going on in the world of research. However, they agree that is is desirable to give undergraduates an intellectual "common ground," if that is possible, and accept that a compromise among disciplines was necessary for the core curriculum to be accepted. They are willing to reserve judgment on whether the effort will work, and, in varying degrees, are ready to pitch in themselves.

In objecting to the core curriculum, a number of scientists say they fear that the new requirements will deter very bright, highly motivated science students from coming to Harvard. There is a type of student who is completely science oriented and totally committed to a particular kind of specialization, and who wants to pursue that exclusively. To require such students to spend three quarters of their time rather than all of it on science might dissuade them from choosing Harvard.

At this stage, there seems no way to prove or disprove this argument. But proponents of the core curriculum say that many science students at Harvard eventually express regrets that they ig-

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