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Directorate for Social, Behavioral, and Economic Sciences

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National Science Foundation

President's FY 2001 Budget Asks for an **Increase in R&D Funding**

by Ronald L. Meeks

Throughout the 1990s, the percentage of Federal *R&D* funding directed to nondefense activities grew and now matches the defense R&D share.

In its fiscal year (FY) 2001 budget, the Administration has proposed a total budget authority of \$82.7 billion for research and development (R&D) programs, an increase of 2.5 percent over the preliminary FY 2000 R&D total of \$80.7 billion (table 1). After adjusting for expected inflation, the FY 2001 R&D budget authority represents an increase of 0.5 percent over the FY 2000 figure.

Details on Federal funding of the R&D components of agency programs for FY 19992001 will be available in the forthcoming National Science Foundation (NSF) report, Federal R&D Funding by Budget Function: Fiscal Years 1999-2001.

This Data Brief contains information on the overall distribution and growth patterns of Federal funding of these R&D components, as proposed by the Administration for FY 2001. The discussion focuses on the five largest mission area classifications with respect to R&D funding: national defense, health, space

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Dissemination

Table 1. Federal R&D budget authority,				
by budget function: fiscal years 1999-2001				
	Agencies' budget submissions			
Budget function	FY 1999	FY 2000	FY 2001	Percent change FYs 2000-2001
	actual	preliminary	proposed	
	In billions of current dollars			1 13 2000-2001
Total	77.637	80.733	82.730	2.5
National defense	41.306	41.846	41.414	-1.0
Health	15.553	17.762	18.858	6.2
Space research				
and technology	8.245	8.447	8.732	3.4
General science	4.690	4.885	5.529	13.2
Natural resources				
and environment	1.842	1.906	1.932	1.4
Other functions	6.001	5.887	6.265	6.4
	In billions of 1996 constant dollars ¹			
Total	74.408	76.235	76.588	0.5
National defense	39.588	39.514	38.339	-3.0
Health	14.906	16.773	17.458	4.1
Space research				
and technology	7.902	7.977	8.083	1.3
General science	4.495	4.613	5.119	11.0
Natural resources				
and environment	1.765	1.800	1.789	-0.6
Other functions	5.752	5.558	5.800	4.4

¹Gross domestic product implicit price deflators were used to convert current dollars to constant fiscal year 1996 dollars.

NOTE: Data in this table reflect budget information collected through April 2000.

SOURCES: Agencies' submissions to OMB via Circular No. A-11, Max Schedule C; agency budget justification documents; and supplemental data obtained

from agencies' budget offices.

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research and technology, general science, and natural resources and environment. These R&D activities cut across agency lines.

Proposed Defense R&D

Since FY 1990, the defense share of Federal R&D budget authority has decreased from 62.6 percent. A 1.0-percent decrease in national defense R&D budget authority (in current dollars) is proposed. With this reduction, defense would account for half (\$41.4 billion) of the Federal R&D total (figure 1). Most— 91.4 percent, or \$37.9 billion—of the FY 2001 national defense R&D budget authority is vested in the Department of Defense's (DoD's) military research, development, test, and evaluation programs. R&D funding for the Department of Energy's (DOE's) atomic energy defense activities accounts for another 7.5 percent (\$3.1 billion) of the proposed FY 2001 national defense R&D budget. The remaining money for this budget function includes DoD military funding from the stockpile stewardship and stockpile management accounts.

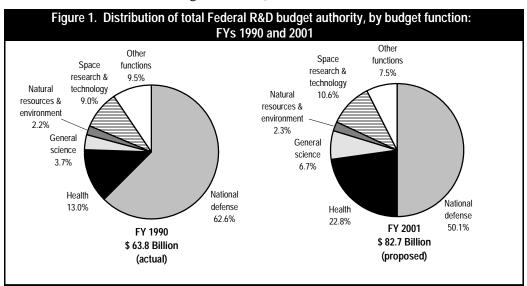
Proposed Nondefense R&D

The nondefense share of Federal R&D budget authority has increased steadily since FY 1990, rising from 37.4 percent to a proposed 49.9 percent in FY 2001 (figure 1). The President's budget contains a \$2.4 billion increase in total nondefense R&D budget author-

ity. The resulting \$41.3 billion total represents a 6.2-percent increase over preliminary FY 2000 funding.

Among individual budget functions, health accounts for the largest FY 2001 R&D budget increase: it is budgeted at \$1.1 billion above the FY 2000 level and would constitute 22.8 percent (\$18.9 billion) of the total Federal R&D budget authority. The bulk of the health account (\$17.9 billion) is targeted to National Institutes of Health (NIH) programs. All 18 NIH institutes would receive increased R&D budgets, and total R&D funding for health activities at NIH is expected to increase by \$1.0 billion, or 6.0 percent, in FY 2001. The National Cancer Institute is proposed to receive the largest portion (\$3.4 billion) of NIH R&D dollars; followed by the National Heart, Lung, and Blood Institute, which would receive \$2.1 billion. Four other institutes—the National Institute of Allergy and Infectious Diseases, the National Institute of General Medical Sciences, the National Institute of Diabetes and Digestive and Kidney Diseases, and the National Institute of Neurological Disorders and Stroke—are each expected to receive more than \$1 billion.

The Administration proposed a 3.4-percent increase in R&D budget authority for space research and technology activities, up \$285



SOURCES: Agencies' submissions to OMB via Circular No. A-11, Max Schedule C; agency budget justification documents; and supplemental data obtained from agencies' budget offices.

Health-related R&D accounts for more than one-fifth of the proposed FY 2001 Federal R&D budget authority—the largest share of the total nondefense R&D.

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million from the FY 2000 level to \$8.7 billion. The entire space research and technology account is covered by National Aeronautical and Space Administration (NASA) programs. The largest shares of NASA's R&D activities include space science (31.0 percent of the agency's total R&D activities), the space station (28.2 percent), and earth science (18.2 percent). In all, space research and technology accounts for 10.6 percent of the proposed total Federal R&D budget authority.

The Administration has proposed that research funding for general science be increased 13.2 percent—or more than \$600 million—in FY 2001, to a total of \$5.5 billion. NSF accounts for 57.5 percent of these dollars, with DOE providing the rest of the general science funds. NSF supports mathematical and physical sciences; geosciences; biological sciences; engineering; computer and information sciences; and social, behavioral, and economic sciences. DOE's major funded activities (each accounting for more than \$300 million) in general science R&D include support for high energy physics, nuclear physics, basic energy sciences, and biological and environmental research. Under the proposed budget, general science would account for 6.7 percent of the total Federal R&D budget authority in FY 2001.

Natural resources and environment R&D is budgeted at \$1.9 billion in FY 2001, up 1.4 percent from the FY 2000 level (but a 0.6-percent decrease in constant dollars). Five agencies provide support for R&D activities in natural resources and environment: the Department of the Interior, which accounts for 30.2 percent of the funding in this area; the Department of Commerce, 28.8 percent; the Environmental Protection Agency, 27.5 percent; the Department of Agriculture, 11.9 percent;

and DoD's Army Corps of Engineers, 1.7 percent. Natural resources and environment R&D would account for 2.3 percent of the total Federal R&D budget authority under the proposed budget.

Data Collection Notes

The data in the annual report represent agencies' best estimates of actual and proposed Federal funding for R&D reported during the period February through April 2000. These data are based primarily on information agencies provide to the Office of Management and Budget and account for nearly all federally sponsored R&D activities. The annual report also contains R&D information that became available from the individual agencies after the Administration's budget was prepared and reported. Such information consists of agency budget justification documents submitted to Congress and supplemental, program-specific information obtained from agency budget and program staff through April 2000. Therefore, budget numbers for individual activities, programs, or agencies may differ from those published in the President's budget or agency budget documents. Pending Congressional action will determine the final budget authority for R&D in FY 2001; how actions by Congress and the Administration affect the outcome of R&D funding levels will become apparent in 2001-2002.

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