

## PROPOSED FY 2003 BUDGET WOULD COMPLETE PLAN TO DOUBLE HEALTH R&D FUNDING, CONSIDERABLY EXPAND DEFENSE R&D

by Ronald L. Meeks

In President Bush's budget request, the administration has proposed a fiscal year (FY) 2003 budget authority<sup>1</sup> of \$107.1 billion for research and development (R&D) programs. This amount represents an increase of 9.2 percent over the preliminary FY 2002 R&D total of \$98.0 billion (table 1)—or 7.3 percent, after adjusting for expected inflation. The majority of these large R&D increases are slated for defense and health activities. R&D for all other functional categories combined would rise by 3.4 percent (up 1.6 percent in constant dollars).

This InfoBrief contains information on the overall distribution and patterns of Federal funding of the R&D components of the budget functions, as proposed by the administration for FY 2003.<sup>2</sup> The discussion focuses on the five largest functional classifications with respect to R&D funding: national defense, health, space research and technology, general science, and natural resources and environment. These R&D activities cut across agency lines and account for nearly 94 percent of the total Federal R&D budget authority.

<sup>1</sup>Budget authority is what the law authorizes, or allows, the Federal Government to spend for programs, projects, or activities.

<sup>2</sup>All activities covered by the Federal budget, including R&D, are classified into 20 broad functional categories called budget functions. In this InfoBrief, R&D activities under the budget function general science, space, and technology are reported as two separate subfunctions: (1) general science and (2) space research and technology. Five Federal budget functions have no R&D components and are not discussed in this InfoBrief.

Details on Federal funding of the R&D components of agency programs for FY 2001-03 will be available in the forthcoming National Science Foundation (NSF) report, *Federal R&D Funding by Budget Function: Fiscal Years 2001-03*. More detailed data are available from NSF, Division of Science Resources Statistics, R&D Statistics Program.

---

*Health-related R&D would rise 12.5 percent in FY 2003, accounting for nearly one-quarter of the total Federal R&D budget.*

---

### Proposed Defense R&D

The defense share of the Federal R&D budget authority dropped from 54.1 percent in FY 2000 to 52.7 percent in FY 2001. In FY 2002, the defense share accounted for 54.0 percent of the Federal R&D total. The Bush administration has proposed a 10.1 percent increase in national defense R&D budget authority (in current dollars) for FY 2003. With this gain, defense would account for 54.4 percent (\$58.3 billion) of the Federal R&D total. The Department of Defense's (DoD's) military research, development, test, and evaluation programs plus other DoD appropriations account for most—94.1 percent, or \$54.8 billion—of the FY 2003 national defense R&D budget authority. R&D funding for the Department of Energy's (DOE's) atomic energy defense activities accounts for the



Table 1. Federal R&amp;D budget authority, by budget function: FY 1998-2003

Budget function	Agencies' budget submissions						Percent change FY 2002-03
	FY 1998 actual	FY 1999 actual	FY 2000 actual	FY 2001 actual	FY 2002 preliminary	FY 2003 proposed	
Billions of current dollars for R&D							
Total.....	73.569	77.637	78.664	86.756	98.029	107.057	9.2
National defense.....	39.823	41.306	42.580	45.713	52.922	58.259	10.1
Health.....	13.576	15.553	17.869	20.758	23.654	26.615	12.5
Space research and technology.....	8.198	8.245	5.363	6.126	6.556	7.435	13.4
General science.....	4.360	4.690	4.977	5.468	5.717	5.890	3.0
Natural resources and environment.....	1.855	1.842	1.999	2.096	2.159	2.136	-1.1
Other functions <sup>1</sup> .....	5.757	6.001	5.876	6.595	7.021	6.722	-4.3
Billions of constant FY 1996 dollars for R&D							
Total.....	71.157	74.124	73.587	79.323	87.706	94.091	7.3
National defense.....	38.517	39.437	39.832	41.797	47.349	51.203	8.1
Health.....	13.131	14.849	16.716	18.980	21.163	23.392	10.5
Space research and technology.....	7.929	7.872	5.017	5.601	5.866	6.535	11.4
General science.....	4.217	4.478	4.656	5.000	5.115	5.177	1.2
Natural resources and environment.....	1.794	1.759	1.870	1.916	1.932	1.877	-2.8
Other functions <sup>1</sup> .....	5.568	5.729	5.497	6.030	6.282	5.908	-5.9

<sup>1</sup>Other functions include transportation; agriculture; energy; veterans benefits and services; education, training, employment, and social services; commerce and housing credit; international affairs; administration of justice; community and regional development; income security; and general government.

**NOTE:** Data reflect budget information collected through April 2002.

**SOURCES:** Agencies' submissions to the Office of Management and Budget, Circular No. A-11, Max Schedule C; agencies' budget documents; and supplemental data obtained from agencies' budget offices.

remaining 5.9 percent (\$3.5 billion) of the proposed FY 2003 national defense R&D budget.

### Proposed Nondefense R&D

The President's FY 2003 budget contains a \$3.7 billion increase in total nondefense R&D budget authority. The resulting \$48.8 billion total represents an 8.2 percent increase over preliminary FY 2002 funding. The nondefense share of Federal R&D budget authority increased during the 1990's, rising from 37.4 percent in FY 1990 to 46.8 percent in FY 1999. After a slight increase in share between FY 2000 (45.9 percent) and FY 2001 (47.3 percent), the nondefense share of Federal R&D budget authority declined to 45.6 percent in the FY 2003 budget request.

The bulk of the increase in nondefense R&D is slated for health-related activities. In fact, among individual nondefense budget functions, health accounts for the largest FY 2003 R&D budget increase. It is nearly

\$3.0 billion above the FY 2002 level and would constitute 24.9 percent (\$26.6 billion) of the total Federal R&D budget authority. Almost all of the health account is targeted to National Institutes of Health (NIH) programs.<sup>3</sup> The proposed NIH R&D budget for FY 2003 of \$25.6 billion is a 14.5 percent increase, and in line with the often-stated goal to double the NIH budget between FY 1998 (\$12.9 billion) and FY 2003. NIH programs include support for research in such areas as HIV/AIDS, cancer, diabetes, and bioterrorism.

Total R&D funding for health activities at NIH would increase by \$3.2 billion in the FY 2003 budget request. All 19 NIH institutes would receive increased R&D budgets. The National Cancer Institute is proposed to receive the largest portion (\$5.0 billion) of NIH R&D dollars, followed by the National Institute of Allergy

<sup>3</sup>Beginning with its FY 2000 data, NIH reconsidered the nature of its R&D and reclassified all of what it previously called "development" activities as "research."

and Infectious Diseases at \$3.7 billion and the National Heart, Lung, and Blood Institute at \$2.6 billion. Five other institutes—the National Institute of General Medical Sciences, the National Institute of Diabetes and Digestive and Kidney Diseases, the National Institute of Neurological Disorders and Stroke, the National Institute of Mental Health, and the National Institute of Child Health and Human Development—are each proposed to receive more than \$1 billion.

The administration proposed a 13.4 percent increase in R&D budget authority for space research and technology activities, up \$879 million from the FY 2002 level to \$7.4 billion. The entire space research and technology account is covered by National Aeronautics and Space Administration (NASA) programs. The largest shares of NASA's R&D activities include space science (43.1 percent), advanced space transportation (25.0 percent), and earth science (22.0 percent). In all, space research and technology accounts for 6.9 percent of the proposed total Federal R&D budget authority.

Beginning in FY 2000, NASA reclassified its space station program as a physical asset and space station research as equipment and transferred funding for the space station program from R&D to R&D plant (data for R&D plant are not included in table 1). The proposed budget for NASA's R&D plant decreases from \$2.7 billion in FY 2002 to \$2.4 billion in FY 2003.

The administration has proposed that R&D funding for general science be increased 3.0 percent—or by \$173 million—in FY 2003, to a total of \$5.9 billion. NSF accounts for 57.8 percent of these general science funds; DOE accounts for the rest. 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 in general science R&D (each accounting for more than \$300 million) 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 5.5 percent of the total Federal R&D budget authority in FY 2002.

Natural resources and environment R&D is budgeted at \$2.1 billion in FY 2003, down 1.1 percent from the

FY 2002 level. Five agencies provide support for R&D activities in this area: the Department of the Interior and the Environmental Protection Agency, each accounting for 29 percent of the funding; the Department of Commerce, 27 percent; the Department of Agriculture, 13 percent; and DoD's Army Corps of Engineers, 1 percent. Natural resources and environment R&D would account for 2.0 percent of the total Federal R&D budget authority under the proposed budget. R&D funding for the combined 11 other functions is proposed to decrease 4 percent in FY 2003.

### Data Collection Notes

The data in the forthcoming report, *Federal R&D Funding by Budget Function: Fiscal Years 2001-03*, represent agencies' best estimates of actual and proposed Federal funding for R&D as reported during the period February through April 2002. 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 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 2002. Budget numbers for individual activities, programs, or agencies may therefore 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 2003; how actions by Congress and the administration affect the outcome of R&D funding levels will become apparent in 2003-04.

This InfoBrief was prepared by:

Ronald L. Meeks  
Research and Development Statistics Program  
Division of Science Resources Statistics  
National Science Foundation  
4201 Wilson Boulevard, Suite 965  
Arlington, VA 22230  
703-292-7787  
rmeeks@nsf.gov

RETURN THIS COVER SHEET TO ROOM P35 IF YOU DO NOT WISH TO RECEIVE THIS MATERIAL  , OR IF CHANGE OF ADDRESS IS NEEDED  , INDICATE CHANGE INCLD-ING ZIP CODE ON THE LABEL. (DO NOT REMOVE LABEL).

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300

NATIONAL SCIENCE FOUNDATION  
ARLINGTON, VA 22230

PRESORTED STANDARD  
POSTAGE & FEES PAID  
National Science Foundation  
Permit No. G-69

NSF 02-326