

DATA BRIEF

President's FY 2000 Budget Includes Reduced R&D Request; Nondefense R&D Funding Catches Up to Defense R&D

by Ronald L.
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Throughout the 1990s, the percentage of Federal nondefense R&D funding grew and now matches the defense R&D share.

The Administration proposed a total budget authority of \$75 billion for research and development (R&D) programs in its fiscal year (FY) 2000 budget, two percent less than the preliminary FY 1999 R&D total of \$77 billion (table 1). After adjusting for expected inflation, R&D budget authority would drop four percent. Details on Federal funding of the R&D components of agency programs for FY 1998 through FY 2000 will be available in the annual National Science Foundation (NSF) report, *Federal R&D Funding by Budget Function: Fiscal Years 1998-2000*.

This Data Brief contains information on the overall distribution and growth patterns of Federal funding of the R&D components of agency programs, as proposed by the Administration for FY 2000. The discussion focuses on the five largest mission area classifications with respect to R&D funding: national defense; health; space research and technology; general science; and natural resources and environment. These R&D budget function activities cut across agency lines. Although Congressional action will determine the final budget authority for R&D in FY 2000, the information presented here highlights Federal agencies' submissions to the Office of Management and Budget in early 1999. How actions by Congress and the Administration affect the outcome of R&D funding levels will become apparent in 2000-01.

Proposed Defense R&D

A seven percent decrease in national defense R&D budget authority is proposed. With this reduction, national defense will account for half (\$38 billion) of the Federal

R&D total (figure 1). The defense share of Federal R&D budget authority has decreased from 63 percent in FY 1990 to a proposed 50 percent in FY 2000. For the first time in 20 years, the nondefense share of Federal R&D budget authority will match the defense share. The Department of Defense's (DoD's) FY 2000 military research, development, test, and evaluation (RDT&E) budget will account for 91 percent (\$34 billion) of the national defense R&D. R&D funding for the Department of Energy's (DOE's) atomic energy defense activities accounts for 8 percent (\$3 billion) of proposed FY 2000 national defense R&D.

Proposed Nondefense R&D

The nondefense share of Federal R&D budget authority has increased steadily, from 37 percent in FY 1990 to an estimated 50 percent in FY 2000 (figure 1). The President's budget contains a \$1 billion increase in total nondefense R&D budget authority, to \$38 billion. This level represents a three percent increase from estimated FY 1999 funding.

Among individual budget functions, health is slated for the largest FY 2000 R&D budget increase, \$345 million above the FY 1999 level and will constitute 21 percent (\$16 billion) of the Federal R&D budget authority. The bulk of the health account (\$15 billion) will be for National Institutes of Health (NIH) programs. All 18 NIH institutes are slated for increased R&D budgets, and total R&D funding for health activities at NIH is expected to increase by \$367 million, or 2.5 percent, in FY 2000. The National Cancer Institute is slated to get the largest portion (more than \$2.5 billion) of NIH R&D dollars, and three other units—the Office of AIDS Research; the National Heart, Lung, and Blood Institute; and the

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Health accounts for one-fifth of the total Federal R&D budget authority and the largest share of the total nondefense R&D.

Table 1. Federal R&D budget authority, by budget function: fiscal years 1998-2000

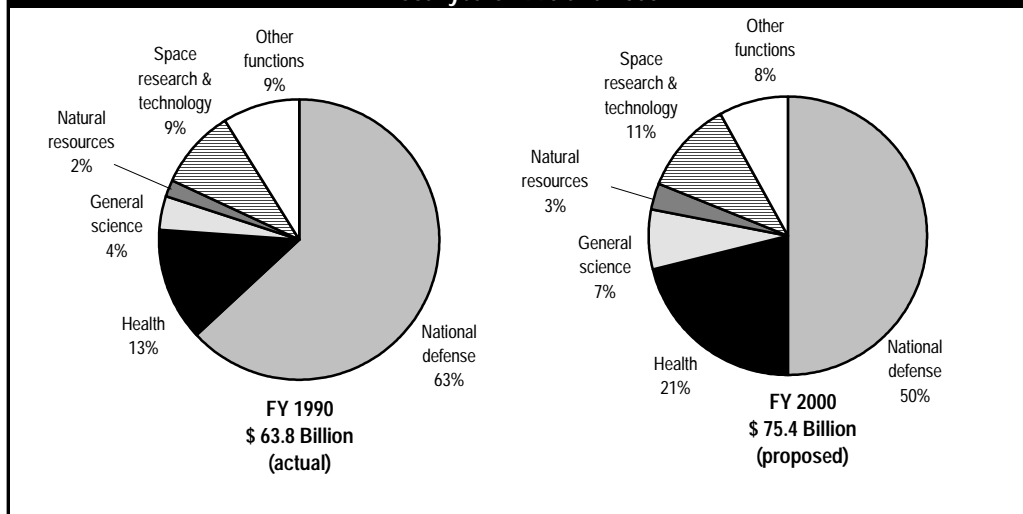
| Budget function | Agencies' budget submissions ¹ | | | Percent change FYs 1999-2000 |
|---|--|------------------------|---------------------|---------------------------------|
| | FY 1998 actual | FY 1999 preliminary | FY 2000 proposed | |
| | (In billions of current dollars) | | | |
| Total..... | 73.569 | 76.886 | 75.415 | -1.9 |
| National defense..... | 39.823 | 40.387 | 37.710 | -6.6 |
| Health..... | 13.576 | 15.479 | 15.824 | 2.2 |
| Space research and technology..... | 8.198 | 8.239 | 8.422 | 2.2 |
| General science..... | 4.360 | 4.739 | 4.951 | 4.5 |
| Natural resources and environment..... | 1.855 | 1.928 | 1.944 | 0.8 |
| Other functions..... | 5.757 | 6.114 | 6.564 | 7.4 |
| | (In billions of FY 1992 constant dollars) ² | | | |
| Total..... | 65.007 | 67.067 | 64.496 | -3.8 |
| National defense..... | 35.189 | 35.230 | 32.250 | -8.5 |
| Health..... | 11.996 | 13.502 | 13.533 | 0.2 |
| Space research and technology..... | 7.244 | 7.187 | 7.203 | 0.2 |
| General science..... | 3.853 | 4.134 | 4.234 | 2.4 |
| Natural resources and environment..... | 1.639 | 1.682 | 1.663 | -1.1 |
| Other functions..... | 5.086 | 5.332 | 5.613 | 5.3 |

¹Data in this table reflect budget information collected through April 1999.

²Gross domestic product implicit price deflators were used to convert current dollars to constant fiscal year 1992 dollars.

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

Figure 1. Distribution of total Federal R&D budget authority, by budget function: fiscal years 1990 and 2000



SOURCE: National Science Foundation/Division of Science Resources Studies, *Federal R&D Funding by Budget Function: Fiscal Years 1998-2000*.

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National Institute of General Medical Sciences—are each expected to receive more than \$1 billion.

The Administration proposed a two percent increase in R&D budget authority for space research and technology activities, up \$183 million to more than \$8 billion. The largest share of the National Aeronautical and Space Administration's (NASA's) R&D activities include: the space station (34 percent of NASA's R&D activities); space science (30 percent); and earth science (19 percent). Space research and technology will likely account for 11 percent of the total Federal R&D budget authority in FY 2000.

The Administration has proposed that research funding for general science increase 4.5 percent, or more than \$200 million in FY 2000, to nearly \$5 billion. The National Science Foundation (NSF) will account for 54.5 percent of these dollars, with DOE contributing 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 more than \$300 million) for general science R&D include support of basic energy sciences; high energy physics; biological and environmental research; and nuclear physics. General science is likely to account for more than six percent of the total Federal R&D budget authority.

Natural resources and environment R&D is budgeted at \$2 billion for FY 2000, up one percent from the FY 1999 level (but a 1-percent decrease in constant dollars). Five agencies provide support for R&D activities in natural resources and environment: the

Environmental Protection Agency (EPA), which accounts for 27.5 percent of the funding in this area; the Department of the Interior (30 percent); the Department of Commerce (29 percent); the Department of Agriculture (USDA) (12 percent); and DoD's Army Corps of Engineers (nearly 2 percent). Natural resources and environment R&D would account for nearly 3 percent of the total Federal R&D budget authority.

Data Collection Notes

The data in the annual report represent the agencies' best estimates of actual and proposed Federal funding for R&D reported during the period February through April 1999. These data are based primarily on information that 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 1999. Therefore, budget numbers for individual activities, programs, or agencies may differ from those published in the President's budget or agency budget documents.

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