

Budget Details Released

The detailed proposals for 1988 confirm the Administration's predilection for military R&D, physics, and engineering

THE fine print of the Reagan Administration's budget proposals for fiscal year 1988 was delivered to Congress on 28 January, filling out the details of the budget plan unveiled 3 weeks earlier (*Science*, 9 January, p. 151). If Congress were to approve the Administration's request unchanged (which it will not), \$64.8 billion would be obligated for R&D next year, a 12.5% increase over FY 1987.* Another \$2 billion would go to research facilities, virtually all of which would be for high energy and nuclear physics, defense research, and space programs.

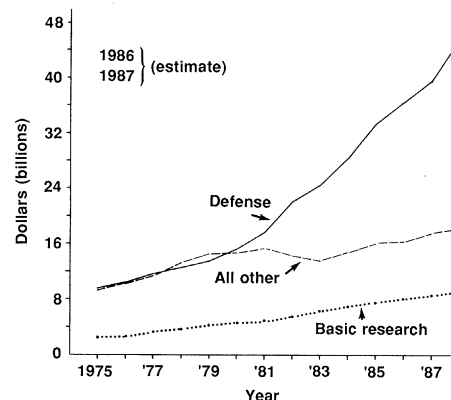
The lion's share of the proposed increase would go to military programs. Spending on military R&D, including defense programs supported by the Department of Energy, is slated to rise by 16.8%, from \$39.9 billion to \$46.2 billion. In contrast, civilian R&D programs would increase by only 2.8%, from \$17.7 billion to \$18.2 billion.

These figures indicate the extent to which

defense spending has come to dominate federal R&D. The budget proposals would boost the military's share of the R&D budget to 72%; when the Reagan Administration came to office, military and civilian programs accounted for roughly equal shares of the total R&D budget (see graph).

Defense programs largely involve applied research and development; less than 2% of the military R&D budget will go to basic research. Indeed, the share is actually declining, for basic research supported by the military is scheduled to increase by only 6% next year, while outlays—the amount actually spent in each fiscal year—would shrink by 4%.

Throughout the federal government, basic research would rise by 3.5%, to reach \$9.1 billion. In general, agencies supporting basic research primarily in the physical sciences and engineering would receive the largest increases (see table), with the National Science Foundation leading the way.



The militarization of R&D. Military research, including DOE's defense programs, would claim 72% of total government R&D funds next year. [Source: Office of Management and Budget]

NSF is scheduled to receive a 17% boost in its basic research budget. However, basic research supported by the National Aeronautics and Space Administration continues to suffer; NASA's basic research budget is slated to drop by 4.9%.

Overall, agencies supporting mostly physical sciences would step up their basic research spending by 5.7%, while those supporting biological sciences would see their basic research budgets rise by only 1.2%. This disparity is partly the result of a proposal by the Administration to spread over into FY 1988 some of the big increase Congress approved for the National Institutes of Health for 1987. But other agencies supporting life sciences would also get short shrift, with basic research spending by the Department of Agriculture and the Environmental Protection Agency, for example, held at 1987 levels.

As it has in previous years, the Reagan Administration justifies increasing support for research and development at a time of severe fiscal constraint on the grounds that R&D is the wellspring of technological innovation. This argument is being used in particular to buttress the major increase being proposed for NSF—an increase that the White House has promised will be followed by requests in future years that would result in a doubling of the foundation's budget by 1992.

Congress, which appears to have latched on to "international competitiveness" as this year's hot political topic, is likely to look favorably on R&D. However, in previous years, Congress has altered R&D priorities chiefly by stripping funds from military programs and adding to biomedical research. There is no reason to suppose this year will be any different. ■ COLIN NORMAN

CONDUCT OF BASIC RESEARCH BY MAJOR DEPARTMENTS AND AGENCIES

(In millions of dollars) ¹

Department or agency	Obligations			Outlays		
	1986 actual	1987 estimate	1988 estimate	1986 actual	1987 estimate	1988 estimate
Agencies supporting primarily physical sciences and engineering: ²						
National Science Foundation.....	1,259	1,359	1,585	1,313	1,310	1,513
Defense—Military functions.....	921	858	907	845	844	811
Energy.....	964	1,084	1,133	947	1,087	1,143
National Aeronautics and Space Administration.....	917	1,069	1,016	932	983	1,002
Interior.....	129	123	115	135	129	118
Commerce.....	26	24	24	27	23	24
Other Agencies ³	10	10	9	11	11	10
Subtotal.....	4,227	4,527	4,788	4,210	4,387	4,620
Agencies supporting primarily life and other sciences: ⁴						
Health and Human Services.....	3,335	3,663	3,712	3,234	3,475	3,579
(National Institutes of Health).....	(3,118)	(3,360)	(3,442)	(3,013)	(3,185)	(3,308)
Agriculture.....	431	454	454	419	440	474
Smithsonian Institution.....	63	73	78	59	67	72
Environmental Protection Agency.....	39	38	39	36	39	40
Veterans Administration.....	15	16	16	15	15	16
Education.....	11	12	11	8	15	11
Other Agencies ⁵	17	16	13	14	15	15
Subtotal.....	3,909	4,271	4,322	3,786	4,067	4,207
Total.....	8,137	8,798	9,110	7,996	8,454	8,827

¹ Amounts reported in this table are included in totals for conduct of R&D.

² Includes mathematics and computer sciences.

³ Includes the Corps of Engineers, the Tennessee Valley Authority, and the Department of Transportation.

⁴ Includes psychology and social sciences.

⁵ Includes the Departments of Labor, Justice, and Treasury, and the Agency for International Development.

Source: Office of Management and Budget

*Obligations represent total budget authority, including some funds that may be spent in future years. Outlays represent actual amounts spent in each fiscal year.