

Congress tempered Reagan on '83 federal research budget

Total R&D by Federal Agency (Budget Authority in Millions)

Fiscal Year	FY 82 Actual	FY 83 Request	Congress Approved	% Change from Request	% Change from FY 82
Defense (military)	\$20,692.5	\$25,300.8	\$23,468.4 ¹	- 7.2	+13.4
NASA	5,981.4	6,612.9	6,809.2	+ 3.0	+13.8
Energy	5,474.9	4,713.2	5,576.6 ¹	+18.3	+ 1.9
HHS	4,008.4	4,127.1	4,372.8 ¹	+ 6.0	+ 9.1
NIH	(3,452.1)	(3,553.2)	(3,793.3) ¹	(+ 6.8)	(+ 9.9)
NSF	970.7	1,052.3	1,060.0	+ 0.7	+ 9.2
Agriculture	827.3	863.0	865.4	+ 0.3	+ 4.6
Transportation	328.2	388.5	377.4	- 2.9	+15.0
Interior	374.0	349.7	379.2	+ 8.4	+ 1.4
EPA	254.4	207.6	218.5	+ 5.3	-14.1
NRC	222.7	219.7	222.7 ¹	+ 1.4	0.0
Commerce	285.4	242.9	281.6 ¹	+15.9	- 1.3
VA	133.3	142.9	157.8	+10.4	+18.4
AID	166.7	156.9	161.8 ¹	+ 3.1	- 2.9
Education	125.3	102.5	129.4	+26.2	+ 3.3
All Other	193.4	198.7	200.5	+ 8.4	+21.9
Total R&D	\$40,038.6	\$44,678.7²	\$44,281.3	- 0.9%	+10.6%

¹ Amounts provided by continuing resolution expiring September 30, 1983. Data from Shapley, Teich and Weinberg

² Reflects amendments to February 1982 budget request.

HHS — Health and Human Services; NIH — National Institutes of Health; NSF — National Science Foundation; EPA — Environmental Protection Agency; NRC — Nuclear Regulatory Commission; VA — Veterans Administration; AID — Agency for International Development

With the Reagan administration's fiscal-year 1984 budget proposals due for public unveiling next week, what better time to take stock of congressional action on the current year's budget? And three federal-budget analysts with the American Association for the Advancement of Science have done just that. According to Willis Shapley, the team's senior budget watcher, "Our general assessment is that Congress really treated the [research and development] business and science very well." While there was a "general paring" of budgets across the board, he said, "I don't think the R&D community could have expected anything better out of the budget than they got."

As the figures show (see tables), Congress was able to slightly increase research funding during a period of fiscal austerity. Congress also prevented Reagan from carving major new policy initiatives with this budget. The "net effect" of these congressional actions, Shapley says, was "not to turn around the administration's policy, really," but merely to slow implementation of Reagan's policy reform—one attempting to shift R&D funding to the private sector. In fact, notes Albert Teich, a member of the AAAS team, there has been an increase in private-sector funding of R&D; the federal share now represents less than half of the nation's overall R&D expenditures.

A 40-page roundup of congressional action on the FY 83 budget was published this week by the AAAS. Its authors, Shapley, Teich and Jill Weinberg, concede that imputing what's happened to R&D funding — particularly after the recent lameduck session of Congress — "is not an exact science." However, their research indicates that by the end of the year, Congress had approved an estimated \$44.3 billion for R&D spending — roughly 1 percent less than the administration had initially asked for. Explains Teich, this 1 percent change

largely reflects a \$1.8 billion cut in funds originally earmarked by the administration for defense programs, and a partially compensating \$1.4 billion increase for nondefense research.

In basic-research funding, there appeared to be a 0.4 percent increase during FY 83 — to \$5.9 billion. Teich noted, however, that the increase may not be real as the figure falls within the error range of his team's calculation methodology.

Though defense funding increased 13 percent from last year, and 35 percent from FY 81, in constant 1972 dollars the two-year increase amounts to only 18 percent. Shapley points out that though this increase represents only 60 percent of what the administration had requested for the Defense Department, "I don't think anyone's going to claim this is a disaster in the technological evolution of the defense program."

Proportionately, nondefense programs fared less well. Across the board, their funding increased 7 percent from the pre-

vious year, 2 percent over the FY 81 level. But measured in constant 1972 dollars, the nondefense share of the federal research budget actually fell more than 10 percent from FY 81 to FY 83. Still, compared with the belt-tightening Reagan had proposed for R&D budgets in FY 83, Congress legislated notable changes: For all areas of R&D funding this year, except defense and general science, Congress increased budget allocations over the levels Reagan had proposed.

(Interestingly, the general-science drop resulted when Congress decided to hold Energy Department spending to FY 1982 levels with a continuing resolution. Though holding the agency's funding relatively constant staved off an administration attempt to gut DOE's programs in energy conservation and renewable technologies [such as solar], it also killed the substantial increase Reagan had proposed this year for high-energy physics programs directed by that agency.)

Among other budget changes attributable to congressional action last year:

- a \$240 million increase for the National Institutes of Health — nearly a 10 percent increase — to bring the number of new and competing grants back close to the previous level of 5,000, and to prevent a proposed 10 percent cut in reimbursement for indirect research-grant costs,
- \$15 million more for the National Science Foundation's science-and-engineering-education budget,
- a \$26.8 million increase for support, research and analysis of planetary-science data collected at Mauna Kea observatory,
- a 16 percent increase over the President's request, for oceanic and atmospheric studies conducted by the National Oceanic and Atmospheric Administration, and
- \$3.7 million more for NSF's social-science programs.

—J. Raloff

Trends in Major Areas (Budget Authority in Millions)

	FY 1982 Estimate	FY 1983 Request	Congress Approved ¹	% Change from: ²		
				Request	FY 1982	FY 1981
Current \$						
Defense	\$22.6	\$27.4	\$25.6	- 6.5	+13.4	+34.7
Space ³	5.4	6.1	6.2	+ 2.1	+13.0	+25.9
Health ⁴	4.1	4.2	4.5	+ 6.3	+ 9.5	+ 8.2
Energy	3.3	2.3	3.2	+39.5	- 4.2	-26.8
Gen. Science ⁵	1.5	1.7	1.6	- 2.8	+ 5.9	+ 8.7
All Other	3.1	3.0	3.2	+ 4.8	+ 3.4	- 6.5
Total R&D	\$40.0	\$44.7	\$44.3	- 0.9%	+10.6%	+18.6%
Constant FY 72 \$						
Defense	\$ 9.9	\$11.5	\$10.7	- 6.5	+ 7.9	+18.2
Space ³	2.4	2.5	2.6	+ 2.1	+ 8.7	+17.6
Health ⁴	1.8	1.8	1.9	+ 6.3	+ 4.2	- 4.9
Energy	1.4	0.9	1.3	+39.5	- 8.8	-35.8
Gen. Science ⁵	0.7	0.7	0.7	- 2.8	+ 0.8	- 4.5
All Other	1.4	1.3	1.3	+ 4.8	- 1.3	-17.9
Total R&D	\$17.6	\$18.7	\$18.5	- 0.9%	+ 5.3%	+ 4.2%

¹ Estimates based on appropriations and continuing resolution data. Data from Shapley, Teich and Weinberg

² Percentages calculated on unrounded numbers; changes may not correspond to differences between rounded numbers shown.

³ All NASA less aeronautics and space applications (such as certain earth-resources satellites).

⁴ Health research in HHS, VA, EPA and Education.

⁵ NSF and Department of Energy general science.