



EPA Boosts Homeland Security Research, Proposes Modest Increases for R&D Programs

AAAS R&D Funding Update on R&D in the FY 2006 EPA Budget

(This analysis is a preview of the EPA section in the forthcoming *AAAS Report XXX: Research and Development FY 2006*, a comprehensive look at the President's budget for R&D in FY 2006. This analysis contains revised AAAS estimates of EPA R&D, different from figures presented in the AAAS Preliminary Analysis of February 10. More tables and continually updated supplemental materials on R&D in the FY 2006 budget can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

Highlights

- **The Environmental Protection Agency's (EPA) R&D budget would decline 0.7 percent or \$4 million to \$568 million in FY 2006** (see Table II-17). The proposed elimination of R&D earmarks and a decline in the Superfund R&D program would leave room for modest increases to core EPA R&D programs in areas such as global change, particulate matter, drinking water, and water quality.
- **Homeland security-related R&D would be the big winner in the R&D portfolio**, with large increases for decontamination research and drinking water security research.
- **EPA's overall budget would fall a steep 5.7 percent down to \$7.6 billion** because of steep proposed cuts to State and Tribal Assistance Grants.

EPA R&D in the FY 2006 Budget; Earmarks Out, Homeland Security Up

EPA's R&D, mostly funded in the **Science and Technology** account, would total \$568 million in the FY 2006 budget, a modest cut of \$4 million or 0.7 percent (see Table II-17). The FY 2005 omnibus bill contained \$51 million in R&D earmarks, many of them renewed from previous years (AAAS estimates). The FY 2006 budget would eliminate these earmarks, allowing for a net increase for EPA's core R&D programs.

R&D in the S&T account would increase slightly by \$1 million to \$536 million in FY 2006, but the proposed elimination of R&D earmarks would free up an additional \$50 million for program increases. Funding for particulate matter research (\$61 million this year) would combine with \$4 million in tropospheric ozone research in a new research program of \$71 million. Global change research would rise modestly from \$20 million to \$21 million; drinking water research from \$44 million to \$46 million; and water quality research would increase from \$45 million to \$56 million. Other areas of research such as pollution prevention and human health/ecosystems would see cuts in funding.

Homeland security-related R&D would be the big winner in the R&D portfolio, nearly tripling from \$33 million in FY 2005 to \$94 million next year (AAAS estimates based on OMB data). EPA efforts would be focused in two areas. Drinking water security research would be one priority, and would involve EPA efforts to develop better surveillance and laboratory networks for drinking water supplies to counter potential terrorist threats. The other priority would be decontamination research, to develop better technologies and methods for decontaminating terrorist attack sites such as the Senate office buildings that EPA decontaminated from anthrax in 2001. EPA would also continue threat and consequence assessments and testing potential biodefense and other decontamination technologies. Much of this work would be conducted at EPA's National Homeland Security Research Center (NHSRC) in Cincinnati.

In non-R&D programs, the FY 2006 budget requests **\$8.3 million for the STAR Fellowship Program**, roughly this year's funding level, to encourage science and engineering graduate students to study environmental science fields that could be of use to EPA's mission.

EPA's S&T investments are a small part of the overall EPA portfolio (see Table II-17), and are designed to support EPA's regulatory and enforcement missions. R&D would fare better than the overall FY 2006 budget of \$7.6 billion, a loss of \$455 million or 5.7 percent. EPA requests only \$3.0 billion for **State and Tribal Assistance Grants (STG)**, perennially a higher priority for Congress than for EPA and funded at \$3.6 billion this year. Most of this money goes to state, local, and tribal governments to fund environmental projects, primarily projects to preserve clean drinking water. Most other EPA accounts would receive increases, including the Environmental Programs and Management (EPM) account that funds most of EPA's regulatory work (up 4.8 percent to \$2.4 billion).

Impacts of the EPA R&D Portfolio

EPA's basic and applied research support (excluding development and R&D facilities) comprises the large majority (80 percent) of EPA's R&D. The largest part of EPA's research is in the life sciences (primarily biology and environmental biology), with significant support for the environmental sciences and engineering as well. Although EPA is the major environmental regulatory agency in the federal government, many other agencies have environmental responsibilities related to research, resource stewardship, and economic management of the environment, so EPA is a relatively small funding source for environmental R&D. In the environmental sciences, EPA accounts for only 4 percent of total federal support, while in the life sciences EPA funds less than 1 percent.

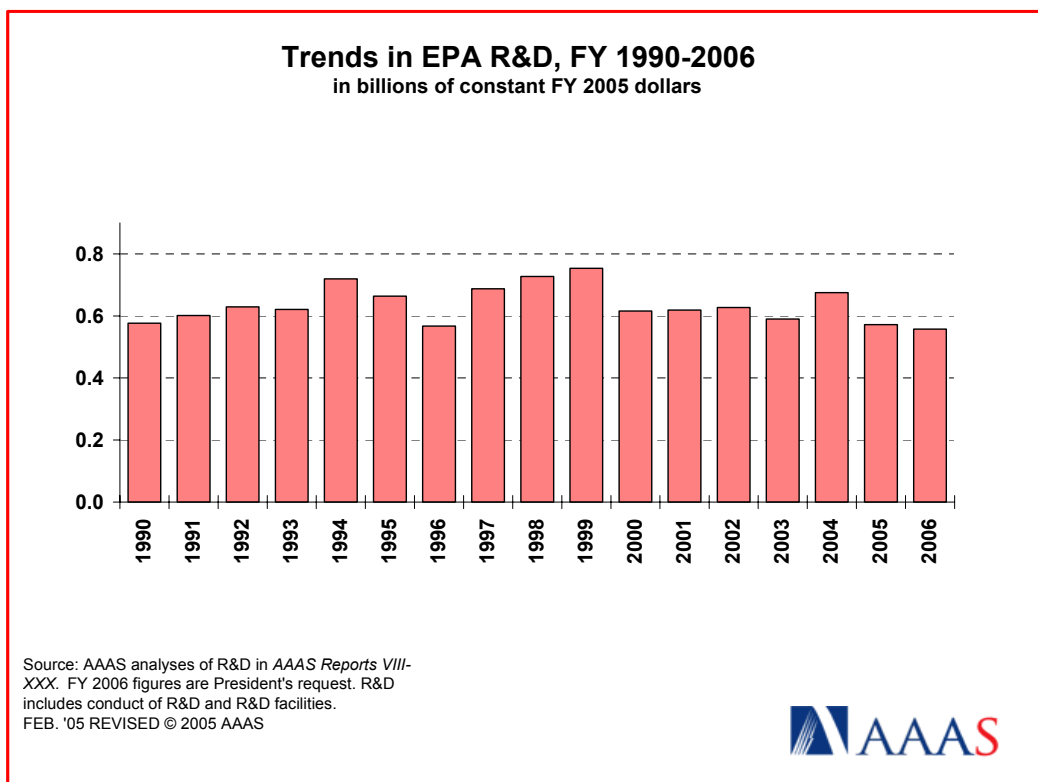


Figure 1. (click on the image for PDF)

Roughly 47 percent of EPA's R&D is performed in the agency's own laboratories, while about 10 percent is performed by industrial firms. Nearly a third of EPA's R&D is performed by colleges and universities, a

share that has been growing in recent years as EPA has attempted to expand its links with academia. The remainder is performed by nonprofit institutions and state and local governments.

EPA's R&D support has been declining slowly for the past few years after steady growth in the late 1990s. EPA's R&D budget declined sharply after FY 1994 and bottomed out in FY 1996 (see Figure 1). In subsequent years, EPA's R&D grew until FY 1999. EPA R&D declined again in FY 2000, and has eroded slowly in inflation-adjusted dollars since then except for a one-time boost in FY 2004 for homeland security-related R&D. EPA R&D has essentially stayed at \$600 million in today's dollars for more than a decade.

- March 2, 2005

(More materials on R&D in the FY 2006 budget, historical data and charts, and more information on *AAAS Report XXX: Research and Development FY 2006*, can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

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Table II-17. Environmental Protection Agency R&D

Table II-17. R&D in the Environmental Protection Agency
(budget authority in millions of dollars)

	FY 2004 Actual	FY 2005 Estimate	FY 2006 Budget	Change FY 05-06 Amount Percent	
EPA R&D by account:					
Science and Technology ¹	585	535	536	1	0.2%
Superfund	75	36	31	-5	-13.9%
Leaking Undergrd. Storage Tanks	1	1	1	0	0.0%
Oil Spill Response	1	1	1	0	0.0%
Environmental Progs. and Mngmt.	0	0	0	0	--
Total EPA R&D	662	572	568	-4	-0.7%
EPA Budget (Includes R&D components above):					
Science and Technology ¹	781	744	761	17	2.3%
Environmental Progs. and Mngmt.	2,282	2,294	2,404	110	4.8%
Superfund	1,258	1,248	1,279	31	2.5%
State and Tribal Assistance Grants	3,877	3,575	2,961	-614	-17.2%
Buildings and Facilities	40	42	40	-2	-4.8%
Leaking Undergrd. Storage Tanks	76	69	73	4	5.8%
Oil Spill Response	16	16	16	0	0.0%
Inspector General	38	38	37	-1	-2.6%
Total EPA Appropriations	8,368	8,026	7,571	-455	-5.7%

Source: OMB data for R&D for FY 2006, agency budget justification, information from agency budget office, and *Budget of the United States Government FY 2006*.

Discretionary budget authority only. Excludes mandatory spending and offsets.

All figures are rounded to the nearest million. Changes calculated from unrounded figures.

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¹ Excludes transfers from Superfund (see Superfund line).

Please see Chapter 13 for a discussion of EPA R&D.