

Another Decline for EPA R&D in 2009

AAAS R&D Funding Update on R&D in the FY 2009 EPA Budget

(This analysis is a preview of the EPA section in the forthcoming *AAAS Report XXXIII: Research and Development FY 2009*, a comprehensive look at the President's budget for R&D in FY 2009. This analysis contains revised AAAS estimates of EPA R&D, different from figures originally presented in the President's budget. More tables and continually updated supplemental materials on R&D in the FY 2009 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 portfolio of \$541 million in 2009 would be a \$7 million or 1.3 percent cut from the 2008 funding level (see Table II-17), with flat funding or cuts to most research areas partially offset by increases for homeland security-related research.**
- **EPA's R&D funding would fall to the lowest level in more than two decades (since 1985) in real terms.**

EPA R&D in the FY 2009 Budget

The Environmental Protection Agency (EPA), the primary regulatory agency for the U.S. environment, funds a broad portfolio of R&D to meet the science and technology needs of its regulatory and enforcement responsibilities. **The FY 2009 request would continue the trends of recent years by cutting EPA's R&D funding by \$7 million or 1.3 percent to \$541 million** (see Table II-17). Nearly all EPA research areas would decline.

EPA's R&D is managed by its Office of Research and Development (ORD), which funds both R&D at EPA laboratories around the country and external R&D. Nearly all of EPA's R&D funding comes from the Science and Technology (S&T) budget account, which would total \$764 million in 2009, up slightly from the final 2008 funding level. R&D funding makes up two-thirds of the S&T account. Subtracting non-R&D items such as critical infrastructure protection, operating overhead costs, and clean air standards and certification activities leaves an R&D portfolio of \$513 million from S&T, down \$7 million of which \$4 million would be from the elimination of 2008 earmarks (see Table II-17). ORD also receives R&D funding from the Superfund program (up \$1 million to \$26 million) for hazardous wastes research, and small amounts of funding from other EPA accounts.

Funding for nearly all EPA research areas would decline in the 2009 budget (see Table II-17). Clean air research would fall \$3 million to \$97 million after Congress added funds in 2008 appropriations. EPA's contribution to global change research would continue to slide, down to \$16 million from a congressionally boosted \$20 million. The clean air portfolio tries to understand the composition and effects of air pollution and to develop technologies for reducing it, and also funds research on related topics such as the health effects of fine particles in the atmosphere. Human health and ecosystems research, the largest part of the ORD portfolio, would fall \$6 million to \$217 million, with an increase in the computational toxicology program to \$15 million offset by cuts in other areas such as endocrine disrupting chemicals and human health and ecosystems protection. Within this portfolio, fellowships funding would fall \$1 million to \$9 million.

Homeland security related R&D, a growth area in recent years, would increase from \$31 million to \$37 million. Some of this effort is devoted to protecting drinking water supplies against terrorist attack through vulnerability assessments and a laboratory network for surveillance. This portfolio also funds EPA's National Homeland Security Research Center (NHSRC) to conduct R&D on a wide variety of terrorist threats that may have an impact on the natural environment, such as radiation, drinking water contamination, and the environmental impacts of cleanup technologies after a terrorist attack.

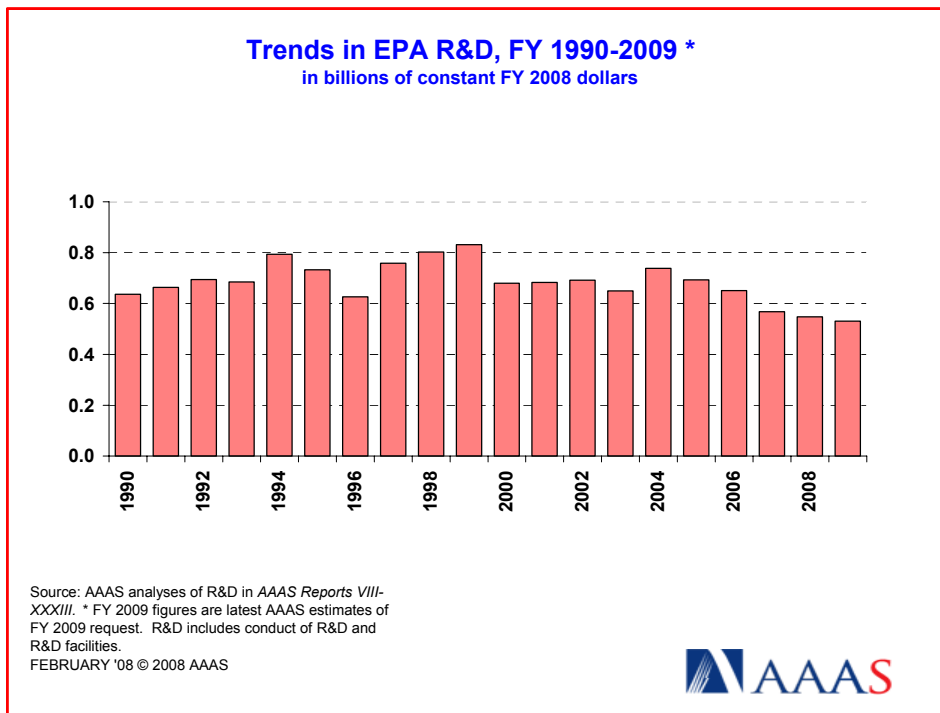


Figure 1. (click on the image for PDF)

Outlook and Impacts for the EPA Budget

Environmental research in general and EPA R&D in particular would fall steeply in the 2009 budget within a tight overall domestic budget. In inflation-adjusted dollars, **EPA R&D would fall to the lowest funding level in more than two decades (since 1985) if the FY 2009 budget becomes final.** EPA's R&D support has been declining steadily for the past few years after steady growth in the late 1990s (see Figure 1). EPA R&D fell in FY 2000, and has eroded in inflation-adjusted dollars since then except for a boost in FY 2004 for homeland security-related R&D.

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 life sciences (primarily biology and environmental biology) and the environmental sciences dominate the EPA research portfolio, with significant support for 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 just 1 percent.

More than three quarters of EPA's R&D is performed in the agency's own laboratories (see Figure 2). About 13 percent of EPA's R&D is performed by colleges and universities. The remainder is performed by nonprofit institutions, industrial firms, and state and local governments.

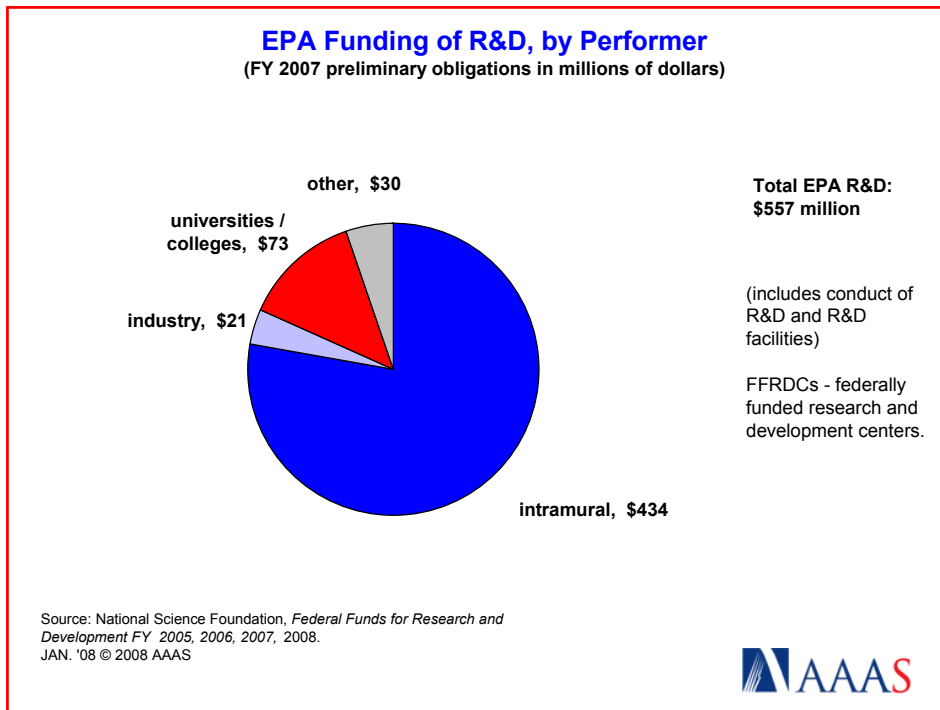


Figure 2. (click on the image for PDF)

While Congress will try its best to boost the 2009 request when it begins the FY 2009 appropriations process in late spring, congressional add-ons may end up going to earmarked projects rather than to boost core EPA research programs, leaving most EPA research on a downward path.

(More materials on R&D in the FY 2009 budget, historical data and charts, and more information on *AAAS Report XXXIII: Research and Development FY 2009*, 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 2007 Actual	FY 2008 Estimate	FY 2009 Budget	Change FY 08-09	
				Amount	Percent
EPA R&D by account:					
Science and Technology 1/	525	520	513	-7	-1.4%
<i>Congressional Projects</i>	0	4	0	-4	-100.0%
<i>Clean Air</i>	94	100	97	-3	-2.7%
<i>Clean Water</i>	105	104	101	-3	-2.8%
<i>Human Health & Ecosystems</i>	229	224	217	-6	-2.8%
<i>Land Protection</i>	10	11	13	3	26.4%
<i>Sustainability</i>	24	22	20	-2	-9.5%
<i>Pesticides and Toxics</i>	26	25	27	2	8.6%
<i>Homeland Security</i>	34	31	37	6	19.9%
<i>BA adjustment</i>	2	0	0	0	--
Superfund	30	26	26	1	2.7%
Leaking Undergrd. Storage Tanks	1	1	0	0	-42.9%
Oil Spill Response	1	1	1	0	-22.2%
Total EPA R&D	557	548	541	-7	-1.3%

Source: OMB data for R&D for FY 2009, agency budget justification, information from agency budget office, and *Budget of the United States Government FY 2009*. 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 12 for a discussion of EPA R&D.