

## EPA R&D Falls Again in 2008 Proposal

### AAAS R&D Funding Update on R&D in the FY 2008 EPA Budget

(This analysis is a preview of the EPA section in the forthcoming *AAAS Report XXXII: Research and Development FY 2008*, a comprehensive look at the President's budget for R&D in FY 2008. 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 2008 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 \$540 million in 2008 would be a 3.1 percent cut from the final 2007 funding level (see Table II-17), with cuts to most research areas.**
- **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 2008 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 2008 request would cut EPA's R&D funding by \$17 million or 3.1 percent to \$540 million from the recently finalized 2007 funding level** (see Table II-17). In most years, cuts in EPA R&D would be primarily due to the proposed elimination of congressional earmarks, but because the 2007 EPA budget is earmark-free the 2008 cuts would be cuts to core EPA research programs. Nearly all EPA research areas would decline, and even the few increases would only partially recover ground lost from cuts in previous years.

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, mostly at universities. Nearly all of EPA's R&D comes from the Science and Technology (S&T) budget account, which would total \$755 million in 2008, down slightly from the final 2007 funding level. R&D makes up most but not all 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 \$512 million from S&T, down 3.0 percent (see Table II-17). ORD also receives R&D funding from the Superfund program (down \$2 million to \$26 million) for hazardous wastes research, and small amounts of funding from other EPA accounts. Because of congressional delays in wrapping up 2007 appropriations EPA only received its final 2007 budget on February 15, 4 ½ months into the fiscal year. Most EPA accounts were held flat at 2006 funding levels, but without detailed guidance on how EPA should spend the money. (All figures in this analysis reflect AAAS estimates of final 2007 appropriations as signed into law on February 15, based on an assumption that EPA will mostly follow its 2007 request in distributing its funding.)

**Funding for nearly all EPA research areas would decline in the 2008 budget** (see Table II-17). Clean air research would increase slightly to \$98 million, but would remain below the \$101 million 2006 funding level. EPA's contribution to global change research would continue to slide, down to \$17 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 \$11 million to \$218 million, with an increase in the computational toxicology program offset by cuts in other areas. Within this portfolio, fellowships funding would remain at \$8 million, down by half from \$16 million last year.

Homeland security related R&D, a growth area in previous years, would fall from \$38 million this year down to \$34 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.

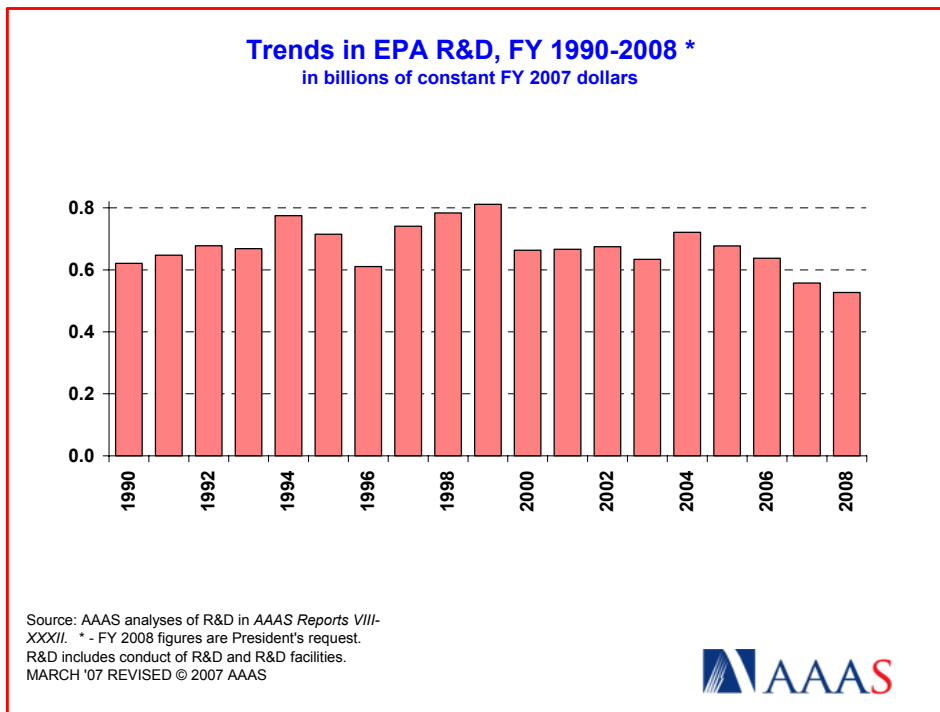


Figure 1. (click on the image for PDF)

### Outlook and Impacts for the EPA Budget

Environmental research in general and EPA R&D in particular would fall steeply in the 2008 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 2008 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 one-time 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 (see Figure 2), 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 two thirds of EPA's R&D is performed in the agency's own laboratories, while about 10 percent is performed by industrial firms. Almost 15 percent of EPA's R&D is performed by colleges and universities. The remainder is performed by nonprofit institutions and state and local governments.

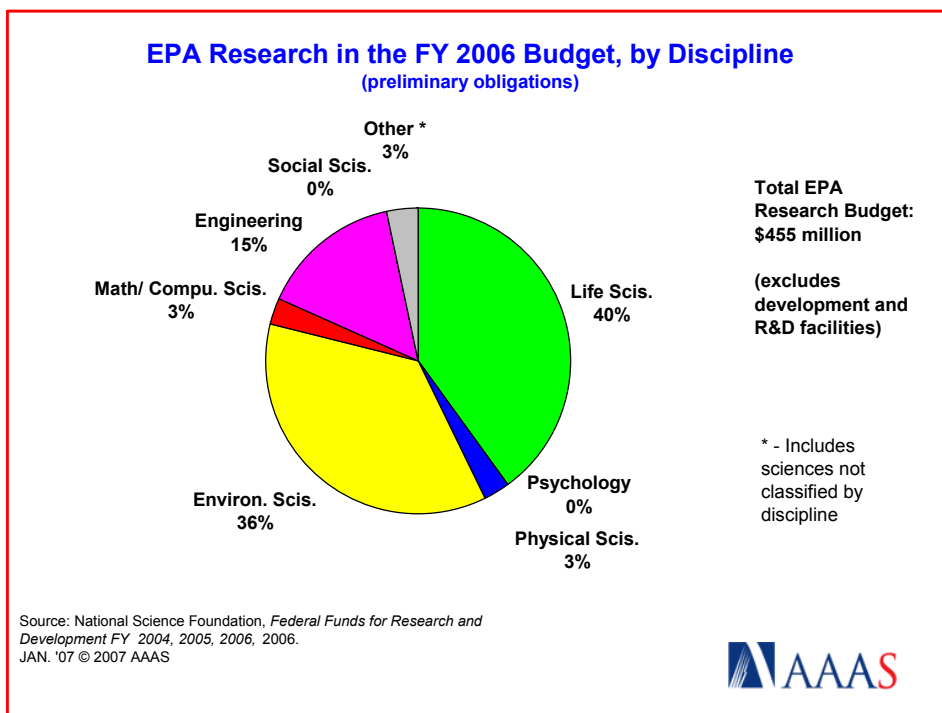


Figure 2. (click on the image for PDF)

While Congress will try its best to boost the 2008 request when it begins the FY 2008 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 with further cuts to come.

(More materials on R&D in the FY 2008 budget, historical data and charts, and more information on *AAAS Report XXXII: Research and Development FY 2008*, can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

- March 2, 2007  
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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 2006 Actual	FY 2007 Estimate *	FY 2008 Budget	Change FY 07-08	
				Amount	Percent
<b>EPA R&amp;D by account:</b>					
Science and Technology <sup>1</sup>	585	528	<b>512</b>	-16	-3.0%
<i>Congressional Projects</i>	54	0	<b>0</b>	0	--
<i>Clean Air</i>	101	95	<b>98</b>	3	2.9%
<i>Clean Water</i>	100	106	<b>105</b>	-1	-1.1%
<i>Human Health &amp; Ecosystems</i>	243	228	<b>218</b>	-11	-4.7%
<i>Land Protection</i>	12	11	<b>11</b>	0	1.3%
<i>Sustainability</i>	32	24	<b>22</b>	-1	-5.9%
<i>Pesticides and Toxics</i>	28	26	<b>25</b>	-1	-5.4%
<i>Homeland Security</i>	30	38	<b>34</b>	-4	-10.4%
<i>BA adjustment</i>	-16	0	<b>0</b>	0	-193.2%
Superfund	33	28	<b>26</b>	-2	-6.1%
Leaking Undergrd. Storage Tanks	1	1	<b>1</b>	0	0.0%
Oil Spill Response	1	1	<b>1</b>	0	0.0%
Environmental Progs. and Mngmt.	3	0	<b>0</b>	0	--
<b>Total EPA R&amp;D</b>	<b>622</b>	<b>557</b>	<b>540</b>	<b>-17</b>	<b>-3.1%</b>

Source: OMB data for R&D for FY 2008, agency budget justification, information from agency budget office, and *Budget of the United States Government FY 2008*.

Discretionary budget authority only. Excludes mandatory spending and offsets.

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

**March 2, 2007 - revised**

\* - FY 2007 figures are AAAS estimates of final FY 2007 appropriations (P.L. 110-5).

<sup>1</sup> Excludes transfers from Superfund (see Superfund line).

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