

USGS R&D Falls Again in 2008 Proposal

AAAS R&D Funding Update on R&D in the FY 2008 Dept. of the Interior Budget

(This analysis is a preview of the Interior 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 Interior 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

- **R&D in Interior's lead science agency, the U.S. Geological Survey (USGS), would fall \$23 million or 4.0 percent in the FY 2008 budget from the recently finalized 2007 appropriation** (see Table II-16). As in previous years, the cuts would be concentrated in USGS' mineral resources and water resources R&D.

- R&D in the Department of the Interior would fall 2.9 percent to \$621 million. **The FY 2008 cut to Interior R&D would mark the seventh year out of the last eight that Interior R&D funding has lost ground to inflation.**

USGS R&D in the FY 2008 Budget

The Department of the Interior manages most of the publicly owned lands in the United States, from the national park system to Indian lands to publicly owned mines. R&D to support Interior's land management responsibilities would total \$621 million in the FY 2008 budget, a cut of \$19 million or 2.9 percent from the recently finalized 2007 appropriation, mirroring proposed cuts in other environmental R&D agencies (see Table II-16).

The **U.S. Geological Survey (USGS)** is the primary sponsor of R&D in Interior. USGS is one of the leading federal sponsors of earth sciences research, along with the Department of Energy, the National Science Foundation (NSF), and the National Aeronautics and Space Administration. Within the earth sciences, USGS is particularly important in geological hazards research, including research on earthquakes and volcanoes. USGS is also a leading sponsor of water resources research and biological research. Because of these characteristics, USGS is left well out of the spotlight that shines on basic research in the physical sciences in the Bush Administration's American Competitiveness Initiative. While the FY 2008 budget proposes substantial increases for key physical sciences research programs, the President's budget proposes \$975 million for the total USGS budget, a cut of \$3 million from a 2007 appropriation that was just finalized on February 15 and also a cut from the 2006 budget of \$977 million (see Table II-16).

USGS R&D totals \$547 million in the FY 2008 request for a cut of \$23 million or 4.0 percent (see Table II-16). Just over half of the USGS budget is devoted to R&D activities, with the remainder going for science support, data gathering and dissemination, facilities operations, mapping, and natural hazards reduction. **R&D funding would decline in three of the four USGS research divisions**, with only the Biological Research Division showing a slight increase.

The Geologic Hazards, Resources, and Processes Division would see its R&D funding cut \$16 million or 7.3 percent down to \$198 million, but as in past years this proposal is unlikely to make it through Congress. In what is now an annual ritual, USGS proposes to cut the \$53 million mineral resources R&D

program in half to just \$30 million, just as it has in the last several requests. But in past years, Congress has disagreed strongly with USGS' rationale that minerals research could be funded by the private sector, and has repeatedly reaffirmed the federal role in minerals research with restored funding. There would be a modest \$3 million in new funding for oceans research, to go along with larger infusions of new money for oceans research in the NSF and the National Oceanic and Atmospheric Administration (NOAA) budgets. Half of the new USGS money would be in the Geologic division, and the other half in Water Resources. In another earth sciences-related division, Geography R&D would fall \$2 million down to \$42 million after a one-year increase in 2007 to pay for Landsat upgrades.

Water Resources Investigations R&D would fall \$8 million or 6.2 percent to \$119 million, but Congress is likely to reject these cuts as it has in the past. USGS puts forward its perennial proposal to eliminate federal funding for the water resources research institutes for a savings of \$6 million in 2008, but Congress has rejected similar proposals in past years and has preserved the federal role in these cooperatively funded institutes. The Cooperative Water Program would decline slightly to \$62 million. This program supports the collection of basic hydrologic data, studies of specific water-resources problems, and hydrologic research through USGS partnerships with state governments and other entities. Funding for the **Toxic Substances Hydrology Program** would fall to \$14 million; the program is a collaborative effort of USGS scientists, university and private-sector researchers, and state, local, and other federal agency scientists to conduct long-term research on water resource contamination in surface and groundwater environments. There would be a slight increase for the **National Water Quality Assessment Program (NAWQA)** to \$65 million; NAWQA is charged with monitoring the nation's water quality, and its data are used by the Environmental Protection Agency (EPA) and many state regulatory agencies. The remaining water portfolio would mostly stay flat, although some funding would be shifted from R&D activities to the mostly non-R&D National Streamflow Information Program.

USGS biological research programs would barely increase to \$181 million. The largest increase in USGS would go to the newly created Enterprise Information unit, whose R&D funding would increase from \$5 million to \$7 million. This mostly non-R&D unit contains the National Geospatial Program transferred from the Geography R&D division.

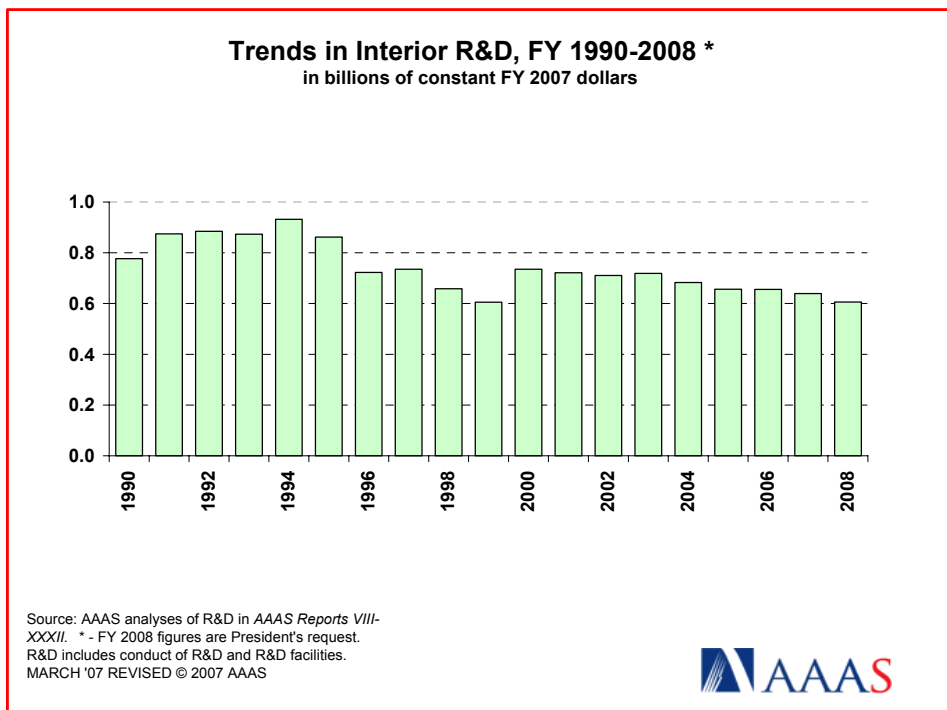


Figure 1. (click on the image for PDF)

Other Interior Agencies

Although USGS is the primary science agency in Interior, four other Interior bureaus also fund R&D (see Table II-16). These include funds for minerals and mining research in the Minerals and Management Service (MMS), wildfire prevention research in the Bureau of Land Management (BLM), water resources research in the Bureau of Reclamation, and R&D for the Florida Everglades restoration and other park-related projects in the National Park Service.

Impacts of the FY 2008 Interior Budget

Although physical sciences research would be a high priority in the FY 2008 budget, environmental research funding would decline along with other domestic programs. **The FY 2008 cut to Interior R&D would mark the seventh year out of the last eight that Interior R&D funding has lost ground to inflation** (see Figure 1), and would leave the department more than 25 percent below the funding levels at the beginning of this decade. Interior R&D has declined sharply since FY 1994, primarily because of the elimination of the Bureau of Mines in FY 1996 and the merging of the former National Biological Service into USGS in the mid-1990s. After a large increase in FY 2000, Interior R&D has been mostly flat since then, resulting in steady losses after adjusting for inflation. 84 percent of Interior's R&D is performed in-house, with only 8 percent performed at universities and colleges. Industries, state governments, and nonprofits combined perform the remaining 8 percent of Interior R&D.

Interior support for research has followed trends in Interior R&D, because nearly all of Interior's R&D portfolio is research with only a small amount for development. A third of Interior's research goes to the life sciences (see Figure 2), primarily from the Biological Research Division. Life sciences research increased with the creation of the National Biological Service in the early 1990s, but budget cuts in subsequent years have eroded support. 60 percent of Interior research goes to the environmental sciences, primarily in earth-related fields such as geology. Interior support for environmental sciences research has declined steadily as the USGS budget has lost purchasing power. Interior used to be a significant supporter of engineering research, but this support was almost entirely eliminated with the closure of the Bureau of Mines.

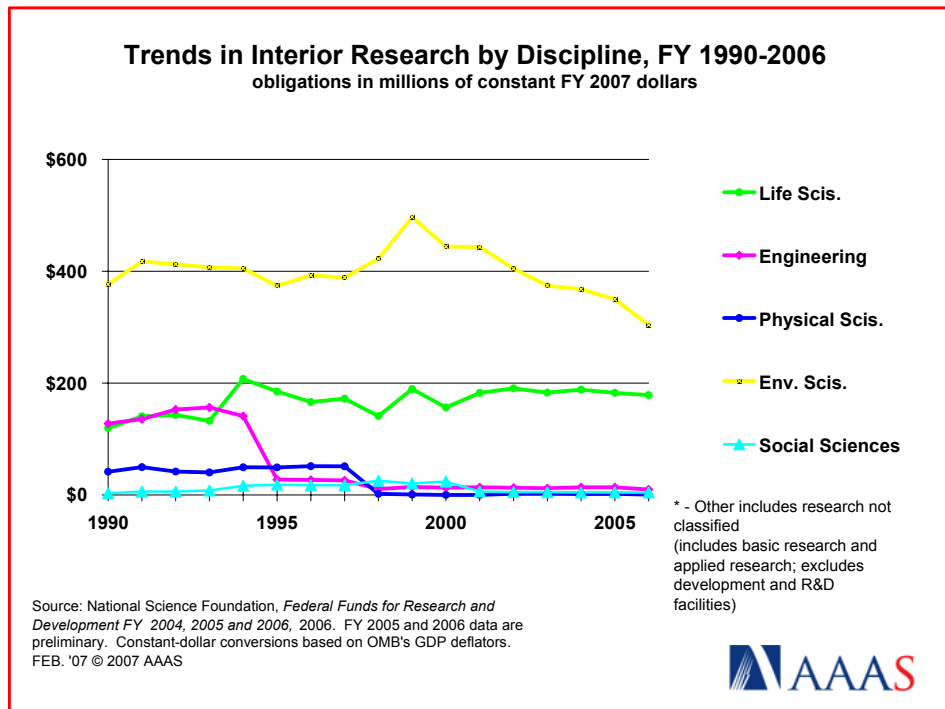


Figure 2. (click on the image for PDF)

Congress now takes up the Interior budget. Despite a change in party control, there are likely to be few changes in the script for how Congress responds to the President's request. Appropriators are likely once again to restore the proposed cuts in cooperative water research and mineral resources and turn a falling USGS R&D budget to at least a flat one. But it remains to be seen whether they will be able to reverse the longstanding decline in Interior R&D investments.

(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>.)

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Table II-16. Department of the Interior R&D

Table II-16. R&D in the Department of the Interior
(budget authority in millions of dollars)

	FY 2006 Actual	FY 2007 Estimate *	FY 2008 Budget	Change FY 07-08	
				Amount	Percent
U.S. Geological Survey (USGS)					
Geographic Research	39	44	42	-2	-4.0%
Geologic Hazards, Resources	214	214	198	-16	-7.3%
Water Resources	127	126	119	-8	-6.2%
Biological Research	180	180	181	1	0.4%
Enterprise Information	1	5	7	2	37.5%
Total USGS R&D	<u>561</u>	<u>570</u>	<u>547</u>	-23	-4.0%
<i>USGS Non-R&D Items</i>	<u>415</u>	<u>408</u>	<u>428</u>	20	4.9%
<i>Total USGS Budget</i>	<u>977</u>	<u>978</u>	<u>975</u>	-3	-0.3%
Minerals Management Service	29	26	29	3	11.5%
National Park Service	19	19	20	1	5.3%
Bureau of Reclamation	18	13	13	0	0.0%
Bureau of Land Management	12	12	12	0	0.0%
Total Interior R&D	<u>639</u>	<u>640</u>	<u>621</u>	-19	-2.9%

Source: OMB data for R&D for FY 2008 and agency supporting documents.

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

Please see Chapter 13 for a discussion of the Interior budget.

March 5, 2007 - revised

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