

USGS R&D Faces Cuts in 2006

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

(This analysis is a preview of the Dept. of the Interior 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 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

- **R&D in the Department of the Interior would fall 5.5 percent to \$581 million in FY 2006** (see Table II-16).
- **There would be a cut of 4.8 percent for R&D in Interior's lead science agency, the U.S. Geological Survey (USGS).** The cuts would be concentrated in USGS' mineral resources and water resources R&D, with modest increases or flat funding for other R&D priorities.
- R&D funding for Interior would be flat or declining for the sixth year in a row.

USGS R&D in the FY 2006 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. 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, 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. Nearly 90 percent of this research is conducted within Interior labs to address the science needs of Interior's other agencies.

In the FY 2006 budget released in early February, the Bush Administration requested \$934 million for the USGS total budget in FY 2006, \$2 million or 0.2 percent less than this year (see Table II-16). In addition to the FY 2006 request, a few weeks ago the Administration requested an extra \$8 million in emergency 2005 funds for the National Earthquake Information Center as part of its \$81 billion Iraq war supplemental.

R&D accounts for nearly two-thirds of the USGS budget, with the remainder going to non-R&D activities such as environmental data collection, mapping, and natural hazards reduction. **The Bush Administration proposes a cut of 4.8 percent for USGS R&D activities to \$515 million.** The request proposes to cut funding for R&D in two USGS divisions (Geology and Water Resources), keep funding flat in Biological Research, and boost funding for the remaining division (Mapping).

Unlike past requests in which nearly every USGS R&D program would have been cut, the budget cuts are more selective in the FY 2006 request, leaving most programs with flat or slightly increasing funding. R&D in the Water Resources Division would fall \$7 million or 5.7 percent to \$119 million, mostly from the proposal to eliminate the \$6.4 million water resources research institutes program, a proposal Congress has rejected before. Funding for the **Toxic Substances Hydrology Program** would decline \$1 million to \$13.1 million, but again Congress has rejected similar cuts in previous years. 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. Other water programs would remain near current funding levels. The budget proposes a slight increase for **the National Water Quality Assessment Program (NAWQA)** to \$63 million to bring it back to last year's funding level. 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. Similarly, R&D in the **Cooperative Water Program** would stay even at last year's funding level of \$64 million after a cut in the 2005 budget. This program supports the collection of basic hydrologic data, studies of specific water-resources problems, and hydrologic research through USGS partnerships.

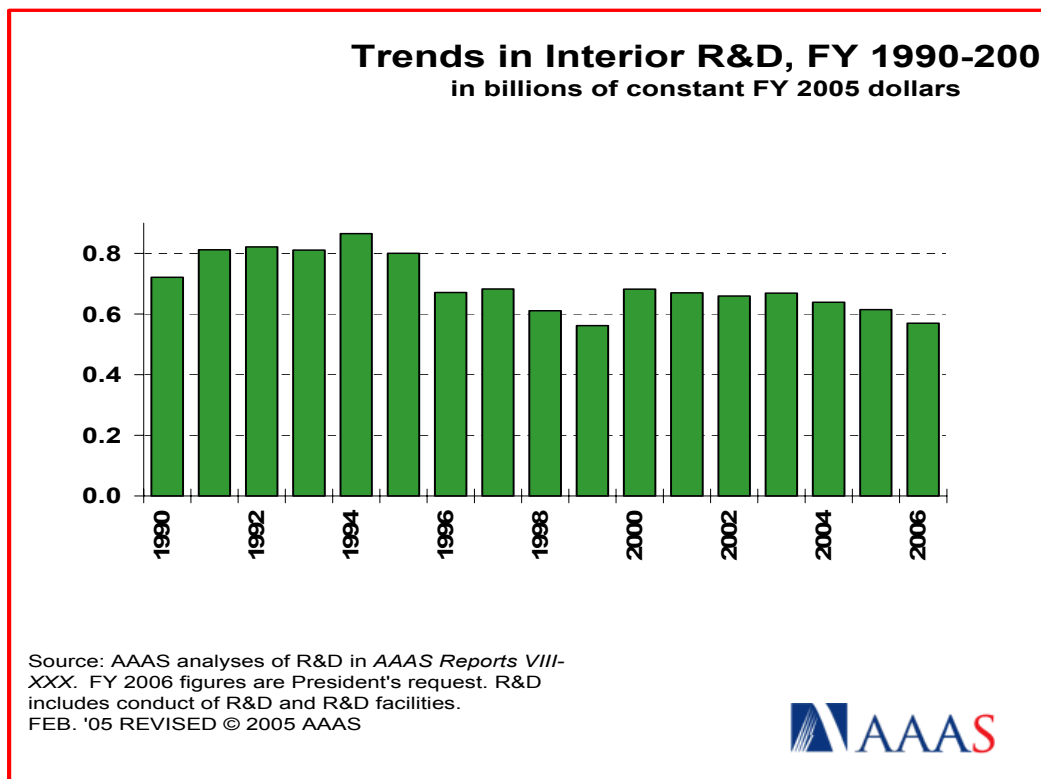


Figure 1. (click on the image for PDF)

R&D in the Geologic Hazards, Resources, and Processes Division would fall \$27 million or 13.0 percent down to \$179 million, mostly because USGS would cut the \$54 million mineral resources R&D program in half to \$25 million. Congress has disagreed strongly with similar proposals in the past two years, and restored funding to proposed cuts; a similar reaction is expected in the FY 2006 budget process. Funding for R&D on earthquakes, volcanoes, landslides, geologic mapping, geology, and earth surface dynamics would stay flat or increase slightly.

Among the other divisions, Mapping and Geography R&D would increase 22 percent or \$8 million up to \$43 million, but this would only restore funding to the 2004 level after a cut in 2005. The ups and downs in this division are in the land remote sensing programs, which operate satellites but also fund R&D on data retrieval, archiving, processing, and imaging. The Biological Research Division (BRD) would see its funding increase just \$1 million to \$173 million.

Impacts of the FY 2006 Interior Budget

The FY 2006 cut to Interior R&D would be the sixth year in a row that Interior R&D funding has lost ground to inflation (see Figure 1), and would leave the department nearly 25 percent below the funding levels of a decade ago. 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 losses after adjusting for inflation.

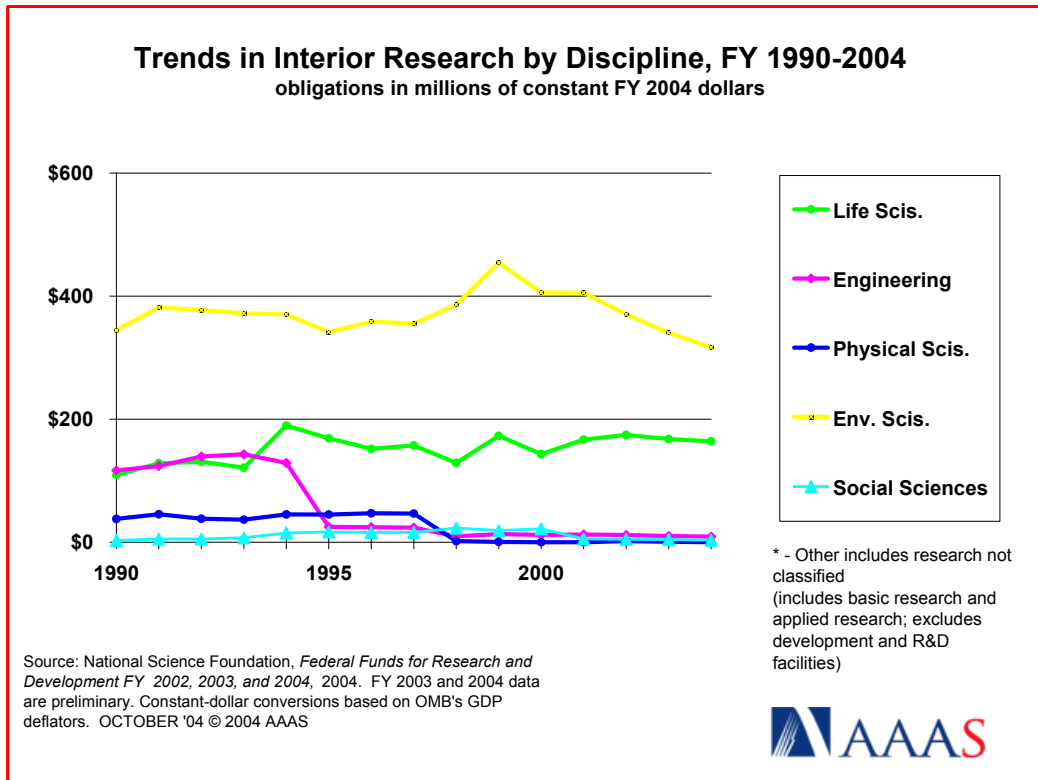


Figure 2. (click on the image for PDF)

As a result, Interior funding of research has been flat or declining in the disciplines it supports (see Figure 2). USGS work in earth sciences, water resources, and mapping falls mostly under the environmental sciences category, which accounts for two-thirds of Interior's research; budget cuts and flat budgets have eroded this portfolio in recent years. Biological research in USGS is classified under life sciences, which accounts for most of the remaining Interior portfolio; this portfolio has held up better in past budgets. USGS and the other Interior bureaus fund small amounts of other research; the steep drop in engineering research in 1995 is due to the elimination of the Bureau of Mines. The FY 2006 requested cuts would continue these recent trends.

- 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-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 2004 Actual	FY 2005 Estimate	FY 2006 Budget	Change FY 05-06 Amount Percent	
U.S. Geological Survey (USGS)					
National Mapping, Geography	42	36	43	8	21.6%
Geologic & Mineral Resources	210	206	179	-27	-13.0%
Water Resources	126	126	119	-7	-5.7%
Biological Research	175	172	173	1	0.5%
Enterprise Information 1/	0	2	1	0	-23.4%
Total USGS R&D	553	541	515	-26	-4.8%
Minerals Management Service	30	31	28	-3	-9.7%
National Park Service	14	14	14	0	0.0%
Bureau of Reclamation	16	17	10	-7	-41.2%
Bureau of Land Management	14	12	14	2	16.7%
Total Interior R&D	627	615	581	-34	-5.5%

Source: OMB data for R&D for FY 2006 and agency supporting documents.

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

1/ Transfers of IT-related programs from other accounts beginning in FY 2005.

Please see Chapter 13 for a discussion of the Interior budget.**REVISED February 24, 2005****Dept. of the Interior Budget** (includes R&D components above)

(budget authority in millions of dollars)

	FY 2004 Actual	FY 2005 Estimate	FY 2006 Budget	Change FY 05-06 Amount Percent	
Bureau of Land Management	2,613	3,369	2,362	-1,007	-29.9%
Minerals Management Service	1,339	2,001	1,965	-36	-1.8%
Office of Surface Mining...	311	363	413	50	13.8%
Bureau of Reclamation	1,017	1,073	996	-77	-7.2%
U.S. Geological Survey	938	936	934	-2	-0.2%
U.S. Fish and Wildlife Service	2,008	2,029	2,035	6	0.3%
National Park Service	2,629	2,665	2,556	-109	-4.1%
Bureau of Indian Affairs	2,429	2,384	2,275	-109	-4.6%
Other	1,370	1,421	1,517	96	6.8%
Misc. Offsetting Receipts	-4,189	-6,356	-6,033	323	-5.1%
Total Interior Budget	10,465	9,885	9,020	-865	-8.8%

Source: *Budget of the United States Government FY 2006*.

Includes budget authority from appropriations, trust funds, and permanent approps.

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

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