

2006 Budget Cuts NOAA and NIST R&D, Eliminates ATP

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

(This analysis is a preview of the Commerce 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

- **Once again, the Bush Administration proposes to eliminate the Advanced Technology Program (ATP) at the Department of Commerce in FY 2006.** The ATP has a budget of \$140 million this year.
- The budget would also reduce funding for the non-R&D Hollings Manufacturing Extension Partnership (MEP) by 57 percent down to \$47 million (see Table II-14).
- The savings would allow for a 12.7 percent boost for intramural research at the National Institute of Standards and Technology (NIST) laboratories (see Table II-14) after a similar increase this year, and a doubling of the Construction of Research Facilities (CRF) investments in NIST laboratory facilities.
- National Oceanic and Atmospheric Administration (NOAA) R&D would decline by 11.2 percent to \$565 million, mostly from the proposed elimination of FY 2005 congressional earmarks. Most NOAA research programs would stay at or slightly above current funding levels.

Department of Commerce R&D in the FY 2006 Budget: NOAA and NIST Cuts Proposed

The Department of Commerce's two major R&D agencies—the National Oceanic and Atmospheric Administration (NOAA) and the National Institute of Standards and Technology (NIST)—would both have declining R&D portfolios in the FY 2006 budget. NOAA R&D would fall 11.2 percent or \$71 million to \$565 million while NIST R&D would fall 9.7 percent to \$416 million (see Table II-14). These cuts would leave total Commerce R&D at \$1.0 billion in FY 2006, a cut of \$121 million or 10.6 percent.

In a repeat of the last several budget requests, the FY 2006 budget proposes to eliminate NIST's Advanced Technology Program (ATP). Although the House has sided with the Bush Administration in voting to eliminate the program in previous budget bills, the program has been saved every year by the Senate. Last year was no exception: the House and Administration zeroed out the program but the Senate prevailed with an appropriation of \$140 million, down substantially from \$177 million in 2004, of which \$114 million would go for R&D costs. The FY 2006 budget does not request approximately \$30 million in close-out costs for ATP, which would presumably have to be found in other NIST accounts if Congress agrees to the request.

The budget would also reduce funding for the non-R&D **Hollings Manufacturing Extension Partnership (MEP)** by 57 percent down to \$47 million. MEP operates a nationwide network of extension centers to disseminate better manufacturing technologies to small- and medium-sized manufacturers on a cost-shared basis with state governments and with users. The MEP has had its ups and downs in recent years. Historically, it has received roughly \$100 million a year, including the \$108 million for this year, but in FY

2004 MEP only received \$39 million and would receive a similar amount next year. The FY 2006 budget would leave MEP center funding heavily in state hands. As a result, many MEP centers will likely close as states continue to face tough budgetary times.

The ATP and MEP savings would allow for a 12.7 percent boost for intramural research at the National Institute of Standards and Technology (NIST) laboratories to \$357 million. **But the requested increase could come at a high cost:** two years ago, the Administration requested a large increase for the NIST laboratories and the elimination of ATP. Congress saved the ATP but found the money by cutting deeply into NIST's intramural R&D and MEP. In FY 2004, these cuts meant delays or cancellations of planned projects. The FY 2005 budget provided some relief through extra funds for the NIST labs, ATP, and MEP, but the FY 2006 request presents Congress with a familiar dilemma: saving the ATP or restoring funding to MEP could require cuts in NIST laboratories, and even eliminating the ATP could require Congress to provide \$30 million or so in close-out costs out of the laboratory accounts.

With the intramural R&D increase, NIST plans to invest an additional \$20 million for an Advances in Manufacturing initiative to perform R&D on standards and measurement technologies needed by U.S. industry, including a new nanotechnology user facility and nanomanufacturing research, and an additional \$17 million for measurement infrastructure investments.

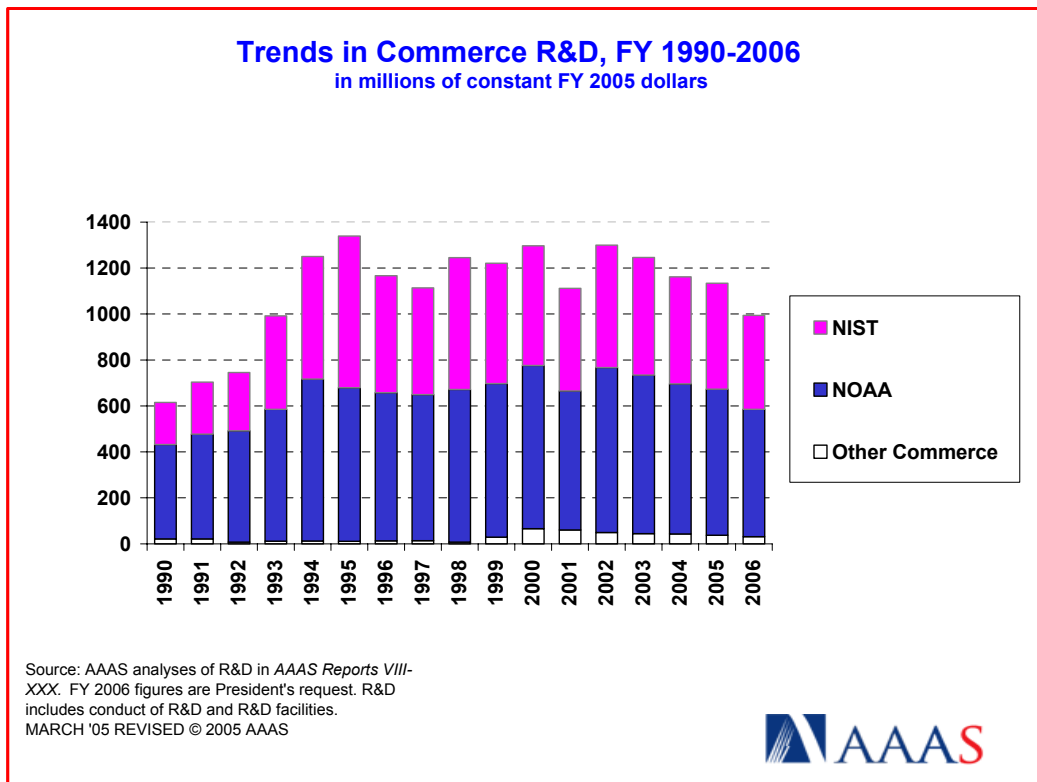


Figure 1. (click on the image for PDF)

Another NIST R&D program, Construction of Research Facilities, would double to \$59 million, after excluding \$43 million in congressionally designated projects inserted into the FY 2005 budget. The FY 2006 request would allow for major renovations to NIST facilities in Maryland and Colorado.

NOAA R&D would fall by 11.2 percent down to \$565 million. The FY 2006 request would keep most NOAA R&D programs level-funded or would increase funding; the overall cuts would be due primarily to the proposed elimination of 2005 congressional earmarks. In Oceanic and Atmospheric Research, or NOAA Research, the total R&D portfolio would fall, but most of the cuts would be from earmarks.

NOAA's climate research program would stay even at \$178 million, but the elimination of \$18 million in earmarks would allow for an equally sized increase in core research. Weather and air quality research would fall to \$38 million from \$51 million because of the elimination of earmarks. Funding for the National Sea Grant College Program would stay even at \$61 million. Begun in 1966, Sea Grant provides research grants to more than 200 universities to gain better understanding of marine life and marine resources through education, outreach, and technology transfer. The National Undersea Research Program would keep core funding even in 2006 but would decline from \$17 million to \$10 million after cutting out earmarks.

Impacts of the Commerce R&D Portfolio

The steep cut to Commerce's R&D portfolio in FY 2006 would represent the fourth year in a row of decline, as shown in Figure 1. Although Commerce R&D grew substantially in the first half of the 1990s as NIST's technology programs and NOAA's environmental programs gained in priority, Commerce R&D funding has stagnated since FY 1995, with large swings due to the up-and-down fortunes of the ATP, changing construction needs at the NIST laboratories, and tight budgets for NOAA.

The differing missions of NOAA and NIST mean that Commerce has a diverse research portfolio in terms of science and engineering disciplines, as shown in Figure 2. NOAA funds environmental sciences and life sciences research related to its oceanic and atmospheric missions, while NIST funds engineering, physical sciences, mathematics, and computer sciences research.

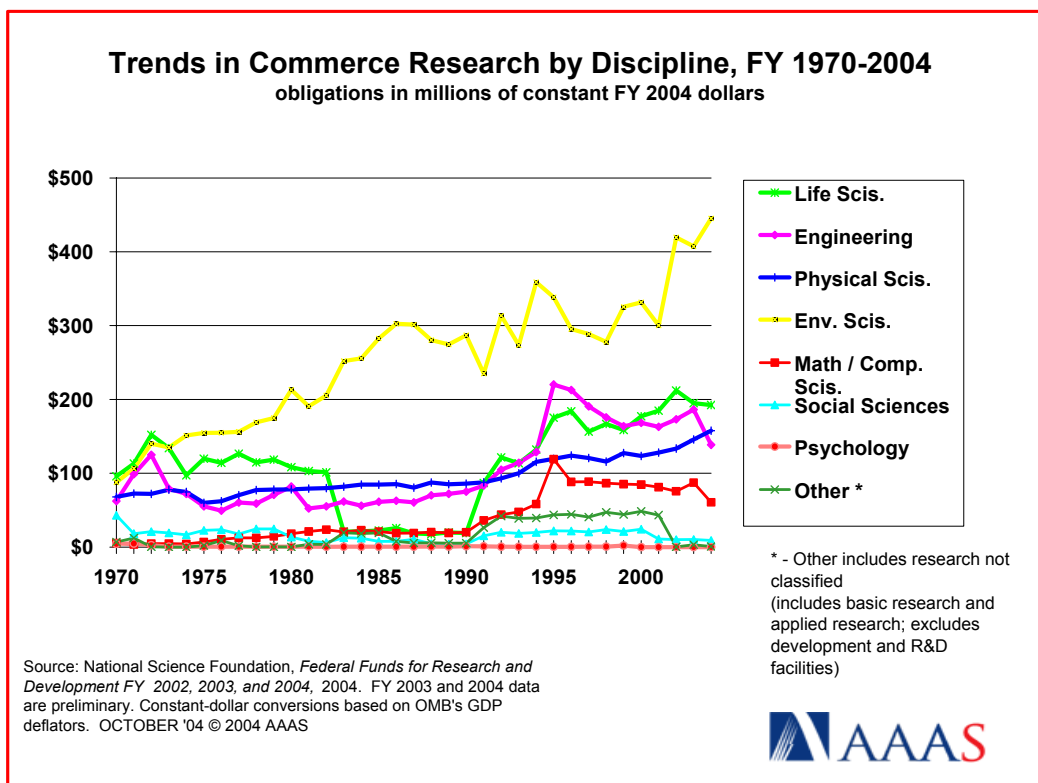


Figure 2. (click on the image for PDF)

NOAA's research has increased at a more predictable rate than NIST research, resulting in mostly steady increases in Commerce support for research in the environmental sciences and the life sciences (see Figure 2), although life sciences research has leveled off in recent years. The proposed cuts to NOAA R&D would result in shrinking support for the environmental sciences. NIST research, however, has been subject to the ups and downs of key NIST programs. NIST support for the engineering sciences and the computer sciences has lagged since FY 1995, and recent and proposed budget cuts will most likely result in

continuing cuts in NIST support. NIST support for the physical sciences, however, has mostly remained steady and has shown upward trends in most years as the NIST labs move aggressively into nanotechnology, materials, and homeland security. But the 2005 and proposed 2006 cuts in ATP could turn these sharply downward.

- March 9, 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-14. Department of Commerce R&D

Table II-14. R&D in the Department of Commerce
(budget authority in millions of dollars)

	FY 2004 Actual	FY 2005 Estimate	FY 2006 Budget	Change FY 05-06	
				Amount	Percent
National Oceanic and Atmospheric Administration (NOAA - Non R&D excluded)					
Total NOAA R&D	640	636	565	-71	-11.2%
National Institute of Standards and Technology (NIST - Non-R&D components excluded)					
Scientific & Technical Research	279	317	357	40	12.7%
Advanced Tech. Program R&D	134	114	0	-114	-100.0%
Construction of Res. Facils. *	43	30	59	29	99.0%
Total NIST R&D	457	461	416	-45	-9.7%
<i>STRS Non-R&D Activities</i>	62	62	69	7	11.9%
<i>ATP Non-R&D Activities</i>	43	26	0	-26	-100.0%
<i>Non-R&D Construction</i>	21	43	0	-43	-100.0%
<i>Manuf. Extens. Partnership</i>	39	108	47	-61	-56.5%
<i>Total NIST Budget</i>	622	699	532	-167	-23.9%
Dept. Administration	1	11	1	-10	-90.9%
Nat'l Telecomm. & Info. Admin.	20	6	9	3	50.0%
- <i>Telecommunication Sci. Res.</i>	6	6	9	3	50.0%
- <i>Tech. Opportunity Grants</i>	14	0	0	0	--
Bureau of the Census	21	20	22	2	10.0%
Economic Development Admin.	0	0	0	0	--
Total Commerce R&D	1,139	1,134	1,013	-121	-10.6%

Source: OMB data for R&D, NOAA and NIST R&D documents, and agency documents.

* - Excludes congressional earmarks of \$21 mil. (2004) and \$43 mil. (2005).

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

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

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