

Congress Finalizes Flat Commerce R&D Budget, Preserves ATP

AAAS R&D Funding Update on R&D in FY 2006 Commerce Conference Appropriations

Highlights

- In a compromise between steep House-proposed cuts and equally large Senate-proposed increases, the final Department of Commerce R&D budget totals \$1.1 billion, the same as 2005 (see Table).
- **The Advanced Technology Program (ATP) survives House and Administration proposals to eliminate it, though at a little more than half last year's funding level.**
- Congress sustains the non-R&D Hollings Manufacturing Extension Partnership (MEP) program by providing funding close to this year's level at \$106 million, in contrast to a requested cut of almost two-thirds (see Table). Intramural research at the National Institute of Standards and Technology (NIST) increases 5.4 percent to \$334 million (see Table).
- R&D in the **National Oceanic and Atmospheric Administration (NOAA) increases 2.7 percent to \$668 million in contrast to House and Administration proposals for steep cuts, but the increase is due to a new earmarked Alaskan fisheries R&D program, leaving other NOAA R&D down.**

DOC R&D in FY 2006 Conference Appropriations

On November 7, congressional appropriators released the conference report (final agreement) for the FY 2006 Science, State, Justice, and Commerce appropriations bill (HR 2862), setting the stage for final congressional approval and a presidential signature in the next week. But a later appropriations bill may impose across-the-board cuts of up to 2 percent on all programs, even after the bill is signed into law. Congress gives the Department of Commerce an R&D portfolio of \$1.1 billion in FY 2006, exactly the same as last year in a compromise between steep cuts in the House and Administration proposals and large increases in the Senate plan (see Table).

Because of an extensive reorganization of appropriations bill jurisdictions, in FY 2006 the Department of Commerce is funded for the first time with two other large R&D agencies, the National Science Foundation (NSF) and NASA. NSF and NASA were formerly funded in the now defunct VA-HUD appropriations bill. As a result, the former Commerce, Justice, and State appropriations bill now has "Science" in its name. The conference report contains an across-the-board cut of 0.28 percent to get the bill's totals under the congressional target, in advance of a larger across-the-board cut for all domestic programs of up to 2 percent that is expected to be included in the last FY 2006 appropriations bill. (All figures in this analysis reflect the 0.28 percent cut.)

Both of Commerce's two major R&D agencies—the National Oceanic and Atmospheric Administration (NOAA) and the National Institute of Standards and Technology (NIST)—steer a course between steep House cuts and large Senate increases in the final appropriation. **NOAA R&D increases \$18 million or 2.7 percent to \$668 million, while NIST R&D declines slightly to \$448 million** (see Table). Both agencies would have seen steep cuts in the Administration budget request. (For details of the President's request for Commerce R&D, please see Chapter 13 of *AAAS Report XXX: R&D FY 2006* or March 9 Commerce R&D Funding Update).

The Advanced Technology Program (ATP) in NIST survives another year after yet another round of House and Bush Administration proposals to eliminate it. The FY 2006 appropriation of \$80 million, however, is 43 percent below last year's budget and is enough just to cover 2006 costs of previously awarded grants. The Senate tried to set aside \$60 million for new grants, but the conference removed these funds so ATP will most likely make no new awards in 2006.

Total NIST R&D falls by 2.7 percent down to \$448 million. The main NIST R&D activity—**Scientific and Technical Research and Services (STRS)**, which funds intramural research at the NIST laboratories—gains \$17 million in R&D funding to \$334 million, a 5.4 percent increase.

In another repeat of past years, Congress disagrees sharply with the Administration request for funding of the non-R&D Hollings **Manufacturing Extension Partnership (MEP)**, a program to operate 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 \$106 million agreement for MEP is slightly off last year's funding level but well above the \$47 million request which would have phased out the federal contribution to this federal-state partnership and left MEP center funding heavily in state hands.

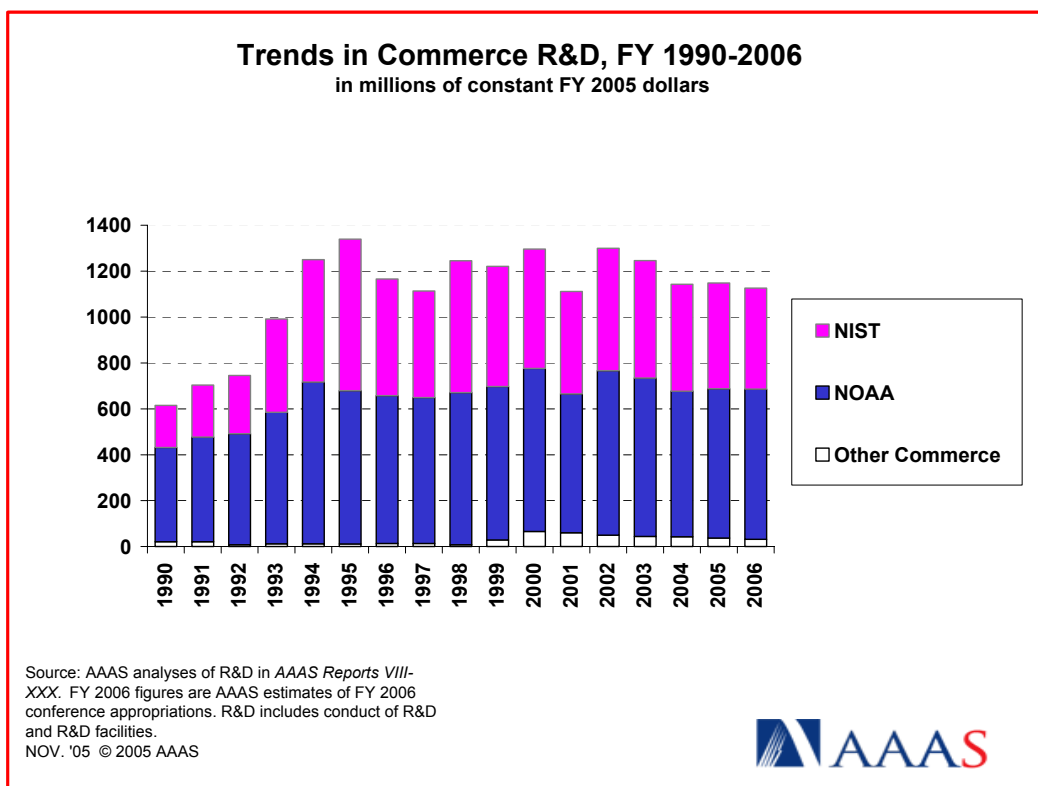


Figure 1. (click on the image for PDF)

The largest R&D gain in the NIST portfolio goes to Construction of Research Facilities (CRF), with a \$20 million or 66 percent boost in its R&D funding to \$49 million for major renovations to NIST facilities in Maryland and Colorado. But the CRF appropriation also contains \$127 million in non-R&D congressionally designated projects, mainly in South Carolina, Mississippi, and Alabama, far away from NIST facilities. Although most congressional earmarks are written into report language accompanying the bill, making them theoretically optional, these earmarks are written into the bill itself and carry the force of law. The total \$176 million CRF appropriation, more than double the \$73 million last year, is the main reason the total NIST budget increases dramatically by 8.6 percent to \$759 million in 2006.

NOAA R&D climbs \$18 million or 2.7 percent to \$668 million, but the appropriation contains \$51 million in earmarked new funds for fisheries and marine mammals R&D in Alaska, leaving all other NOAA R&D programs collectively with less than last year. NOAA is instructed to come up with a spending plan for the new program within the next month. The National Marine Fisheries Service (NMFS) R&D portfolio grows \$41 million to \$104 million because of the new program, but other NMFS R&D programs wind up with cuts. NOAA's largest R&D unit, Oceanic and Atmospheric Research (OAR), receives an R&D portfolio of \$325 million, 3.8 percent less than last year. Within OAR, Congress provides \$55 million for the National Sea Grant College Program, down from \$62 million this year. 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. OAR Climate Research falls nearly \$20 million down to \$158 million, while weather and air quality research climbs from \$51 million to \$67 million.

Next Steps and Possible Impacts

The FY 2006 appropriation leaves the Commerce R&D portfolio down in inflation-adjusted terms, consistent with trends over the past few years (see 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, 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.

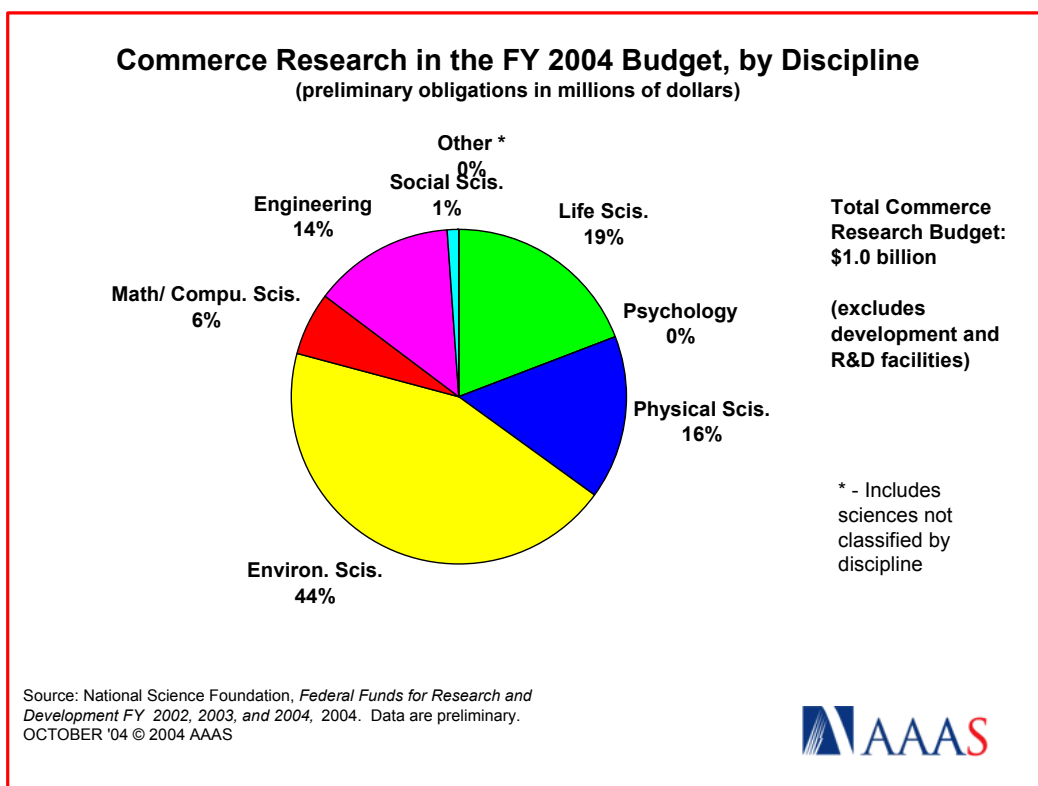


Figure 2. (click on the image for PDF)

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. Although Commerce is not the leading funding source for any of the science and engineering disciplines, the department does provide key support for specific areas in oceanography, atmospheric sciences, standards research, measurement technologies, and physics most closely related to NIST and NOAA missions.

The vast majority of Commerce R&D is performed internally in NOAA and NIST laboratories. 83 percent of Commerce R&D is performed in federal labs, both NOAA's network of laboratories throughout the country and NIST's large facilities in Maryland and Colorado. Only 13 percent of the Commerce R&D portfolio goes to universities, while just 2 percent goes to industrial firms. As a result, Commerce's R&D portfolio is heavily concentrated geographically (see Figure 3). Maryland and Colorado alone receive nearly half of Commerce's R&D funds because of NIST's and NOAA's presences in these two states. The other states in Commerce's top 10 are locations of large NOAA laboratories.

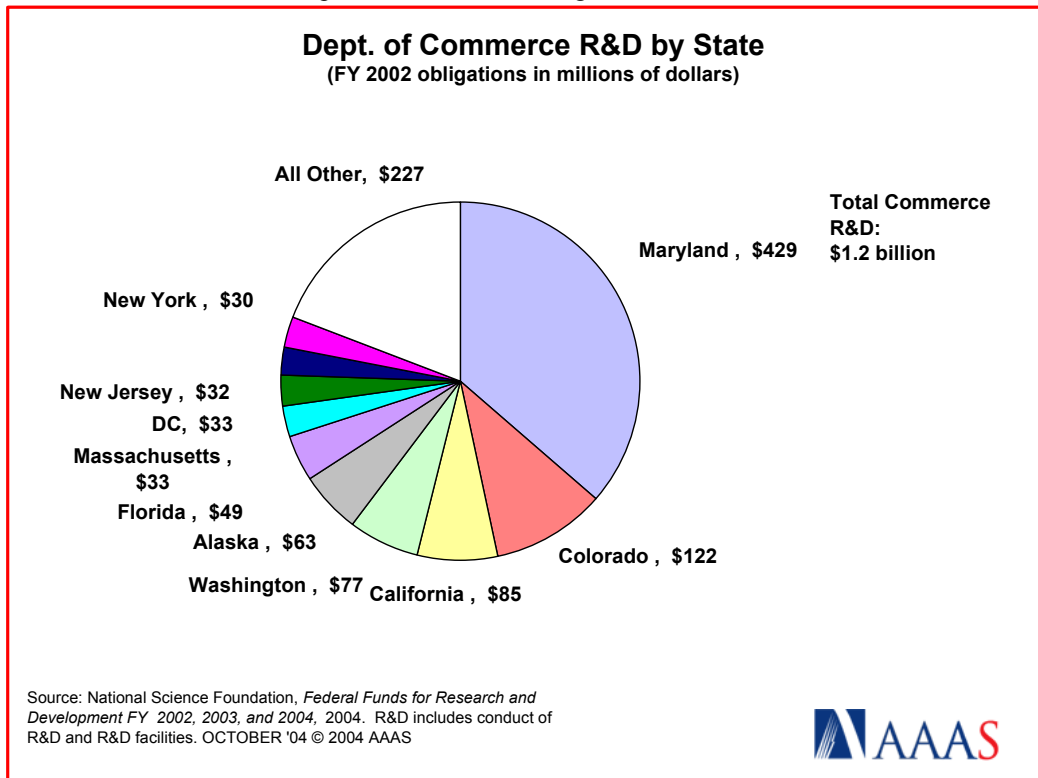


Figure 3. (click on the image for PDF)

The House and the Senate are expected to give final approval to the Science, State, Justice, and Commerce bill shortly, and President Bush is expected to sign the bill into law before the temporary FY 2006 funding bill expires on November 18. But this conference report may not be the final word; Congress is working on an across-the-board cut for all appropriations to add to the final FY 2006 appropriations bill. The cut is expected to affect even enacted appropriations bills and reduce funding for all programs by up to 2 percent.

(This analysis is one of a series of AAAS R&D Funding Updates on FY 2006 congressional appropriations. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D in FY 2006 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/rd>) in the "FY 2006 R&D" or the "What's New" sections.)

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Table. Dept. of Commerce R&D in FY 2006 House-Senate Conference

**Table. Department of Commerce
House-Senate Conference on R&D in the FY 2006 Budget
(budget authority in millions of dollars)**

	FY 2005 Estimate	FY 2006 Request	House-Senate Conference				
			FY 2006 CONF.	Chg. from Request Amount	Chg. from Request Percent	Chg. from FY 2005 Amount	Chg. from FY 2005 Percent
National Oceanic and Atmospheric Administration (NOAA):							
National Ocean Service	101	64	96	32	50.3%	-5	-5.0%
National Marine Fisheries Service	63	49	104	55	113.6%	41	65.5%
Oceanic and Atmospheric Research	338	315	325	10	3.1%	-13	-3.8%
National Weather Service	22	23	24	0	1.0%	1	6.6%
National Env. Satellite and Data Info.	31	26	31	4	16.9%	-1	-1.8%
All Other NOAA R&D	94	56	88	32	56.6%	-6	-6.6%
TOTAL NOAA R&D	650	534	668	134	25.1%	18	2.7%
National Institute of Standards and Technology (NIST):							
Scientific & Technical Research	317	357	334	-23	-6.5%	17	5.4%
Advanced Technology Program R&D	114	0	65	65	--	-49	-43.2%
Construction *	30	59	49	-10	-16.6%	20	65.9%
TOTAL NIST R&D	461	416	448	32	7.7%	-13	-2.7%
<i>STRS Non-R&D Activities</i>	62	69	64	-4	-6.5%	3	4.6%
<i>ATP Non-R&D Activities</i>	26	0	14	14	--	-12	-45.1%
<i>Non-R&D Construction</i>	43	0	127	127	--	84	195.2%
<i>Manufacturing Extension Partnership</i>	108	47	106	59	125.9%	-2	-1.7%
<i>Total NIST Budget</i>	699	532	759	227	42.8%	60	8.6%
Departmental Administration	11	1	1	0	0.0%	-10	-90.9%
Bureau of the Census	20	22	22	0	-0.3%	2	9.7%
National Telecomm. and Info. Admin.	6	9	9	0	-0.3%	3	49.6%
Total Commerce R&D	1,148	983	1,148	166	16.9%	0	0.0%

AAAS estimates based on FY 2006 appropriations bills. Includes conduct of R&D and R&D facilities.

FY 2005 and FY 2006 request figures based on OMB R&D data and supplemental agency budget data.

NOAA figures have been revised since the April release of AAAS Report XXX: R&D FY 2006.

FY 2006 Conference figures adjusted to reflect an across-the-board cut.

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

* - Excludes congressional earmarks of \$43 million in 2005 and \$127 million in 2006.

November 8, 2005 - AAAS estimates of House-Senate conference report.

These figures may be reduced by later across-the-board reductions or rescissions.