

AAAS R&D Funding Update September 28, 2004 -

## Senate Proposes Record Commerce R&D Budget, Saves ATP

### Highlights

- **The Senate would draw a sharp contrast with House and Administration plans to cut R&D in the Department of Commerce, instead proposing a record-breaking \$1.3 billion for Commerce R&D in FY 2005, a substantial increase of 17.9 percent or \$203 million (see Table). Nearly every Commerce R&D program would receive a large increase, in contrast to cuts in the House proposal.**
- **The Senate would boost Advanced Technology Program (ATP) funding to \$203 million, in sharp contrast to Administration and House plans to eliminate the program.** The Senate would join the House in tripling funding for the Manufacturing Extension Partnership (MEP) back up to last year's funding level.
- National Oceanic and Atmospheric Administration (NOAA) R&D would climb dramatically by 21.3 percent to \$748 million in the Senate proposal, again contrasting sharply with House and Administration plans to cut funding. The Senate would respond to the recent U.S. Commission on Ocean Policy report by dramatically boosting NOAA funding of ocean-related research, and would also create a new NOAA scholarship program to encourage U.S. citizens to study oceanic and atmospheric science.
- The National Institute of Standards and Technology's (NIST) intramural laboratory R&D programs would be one of the few R&D programs to do well in both the House and Senate plans, rising 17.8 percent to \$333 million in the Senate and slightly less in the House.

On September 15, the Senate Appropriations Committee approved its version of the FY 2005 Commerce/Justice appropriations bill (S 2809). The \$40 billion bill, in addition to Department of Commerce programs, funds the Department of Justice, the Department of State, and miscellaneous international programs. The Senate bill follows a House version (HR 4754) approved by the full House in July; the full Senate hopes to debate the bill before the October 1 start of FY 2005, but meeting that deadline is unlikely. The Senate would draw a sharp contrast with House and Bush Administration plans to cut Commerce R&D, instead providing a record-breaking \$1.3 billion in FY 2005, an increase of 17.9 percent or \$203 million (see Table). The Senate would boost funding for nearly every Commerce R&D program, while the House would cut nearly every program substantially and would eliminate one (the Advanced Technology Program). (For details of R&D in House appropriations, see the July 8 AAAS R&D Funding Update. For details of R&D in the FY 2005 request, see the March 16 AAAS R&D Funding Update on Commerce R&D.)

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)—would do extremely well in the Senate bill and poorly in the House, with the Senate undoubtedly hoping that the final budget will meet in the middle for a net modest increase. NIST R&D would climb 14.6 percent in the Senate and NOAA R&D would increase 21.3 percent; in the House, NIST would lose nearly a quarter of its R&D funding and NOAA R&D would fall 11.7 percent (see Table).

**Once again, the Senate would save the Advanced Technology Program (ATP) while the House would eliminate it, leaving the program's fate up in the air.** Although the House has voted repeatedly to eliminate the program in previous Commerce/Justice bills, the program has been saved every year by the Senate. In February, the Bush Administration proposed to eliminate ATP for the third time in the last four

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years; the House would go along with the latest proposal. The Administration proposed to eliminate ATP based on its belief that other federally funded research programs are more effective, that ATP funds have gone to major corporations that do not need subsidies, and that ATP-funded projects are often similar to those initiated by firms not receiving ATP support. But the most recent Senate bill would give ATP \$203 million in FY 2005, 13 percent above this year's funding level. Once again, the fate of the program will be resolved in House-Senate conference negotiations.

Total NIST R&D would rise 14.6 percent in the Senate bill to \$540 million, far above the House allocation of \$369 million because of the ATP funding. The main NIST R&D activity—**Scientific and Technical Research and Services (STRS), which funds intramural research at the NIST laboratories—would gain \$50 million in R&D funding to \$333 million, a 17.8 percent increase. The House would agree with the Senate by providing a similar increase.** Last year, the Administration requested a similar increase for the NIST laboratories and the elimination of ATP. Congress saved the ATP but found the money by cutting NIST's intramural R&D nearly 10 percent this year compared to last year. In FY 2004, these cuts have led to announcements of forced early retirements and layoffs of NIST scientists. The FY 2005 House and Senate appropriations should provide sufficient funds to avoid such tough choices next year. Both the House and Senate would agree to provide funds to invest in state-of-the-art instrumentation for the new Advanced Measurement Laboratory on NIST's Gaithersburg, MD campus, which was dedicated in June, and also provide some new funds for improvements at the NIST Center for Neutron Research, and for advanced measurement science and standards.

The House and Senate would also agree on increasing funding for the non-R&D **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. The House would give MEP \$106 million, nearly triple the FY 2004 funding level and the FY 2005 request of \$39 million, while the Senate would go even higher with \$112 million. These proposed boosts, though dramatic, would only restore funding back to the FY 2003 level. The FY 2004 appropriation and the FY 2005 request of only \$39 million would phase out the federal contribution to this federal-state partnership, but the FY 2005 congressional appropriations could restore the federal role.

The only Commerce R&D account to decline in the Senate plan would be NIST's Construction of R&D Facilities, funded at \$43 million in FY 2005, slightly below this year's level and \$17 million below the request. The Senate would actually appropriate \$87 million for the account, well above the \$59 million request, but \$44 million would be earmarked for a variety of non-R&D projects to specific institutions, including \$5 million for a science museum, \$1 million for civic education programs, and \$1.5 million for a community center. The House would provide \$43 million, none of it earmarked.

**The Senate would respond to the recently released U.S. Commission on Ocean Policy report by dramatically boosting NOAA funding of ocean-related research.** Overall, NOAA R&D would rise dramatically by 21.3 percent to \$748 million in the Senate, in contrast to requested cuts and even steeper House-proposed cuts. The Senate bill looks favorably on the Commission's report, "An Ocean Blueprint," reaffirming NOAA's leading role in U.S. ocean policy and calling on dramatic expansions in NOAA ocean investments, including ocean-related research. The Senate bill identifies \$454 million in FY 2005 funding to meet the recommendations of the Commission, nearly double the spending on comparable programs in FY 2004. The Senate would provide \$74 million for the National Sea Grant College Program, up 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. The National Undersea Research Program would receive \$19 million, up from \$17 million; the Ocean Exploration program would receive \$36 million, up from \$30 million. All are key to the Commission recommendations. In the National Ocean Service (NOS), the emphasis on ocean research would lead to a near-doubling of the NOS R&D effort to \$75 million.

Primarily because of the additional Commission-related funding, R&D in NOAA's core Oceanic and Atmospheric Research (OAR) account would climb 16.5 percent to \$379 million. OAR climate research

would climb from \$170 million up to \$190 million, while weather and air quality research would stay nearly even at \$54 million. There would be increases for most OAR programs, in contrast to House cuts.

Elsewhere in the bill, **the Senate would create a new oceanic and atmospheric science scholarship program in honor of retiring Senator Ernest Hollings (D-SC)**. The bill envisions NOAA awarding undergraduate scholarships in oceanic and atmospheric science to U.S. citizens through a competitive process, in the hopes of increasing undergraduate interest in these fields and in oceanic and atmospheric science careers. The Senate would set aside 0.1 percent of the NOAA budget for these scholarships, for a total of \$4 million in FY 2005. Because the House did not include this program in its version of the bill, it is unclear whether the program will see the light of day in the final Commerce budget.

The dramatic Senate boost to Commerce's R&D portfolio, though unlikely to prevail in the final FY 2005 budget, would take the portfolio to an all-time high, 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 and changing construction needs at the NIST laboratories. The FY 2005 House appropriation of \$946 million for Commerce R&D, by contrast, would be the smallest Commerce R&D investment since 1992.

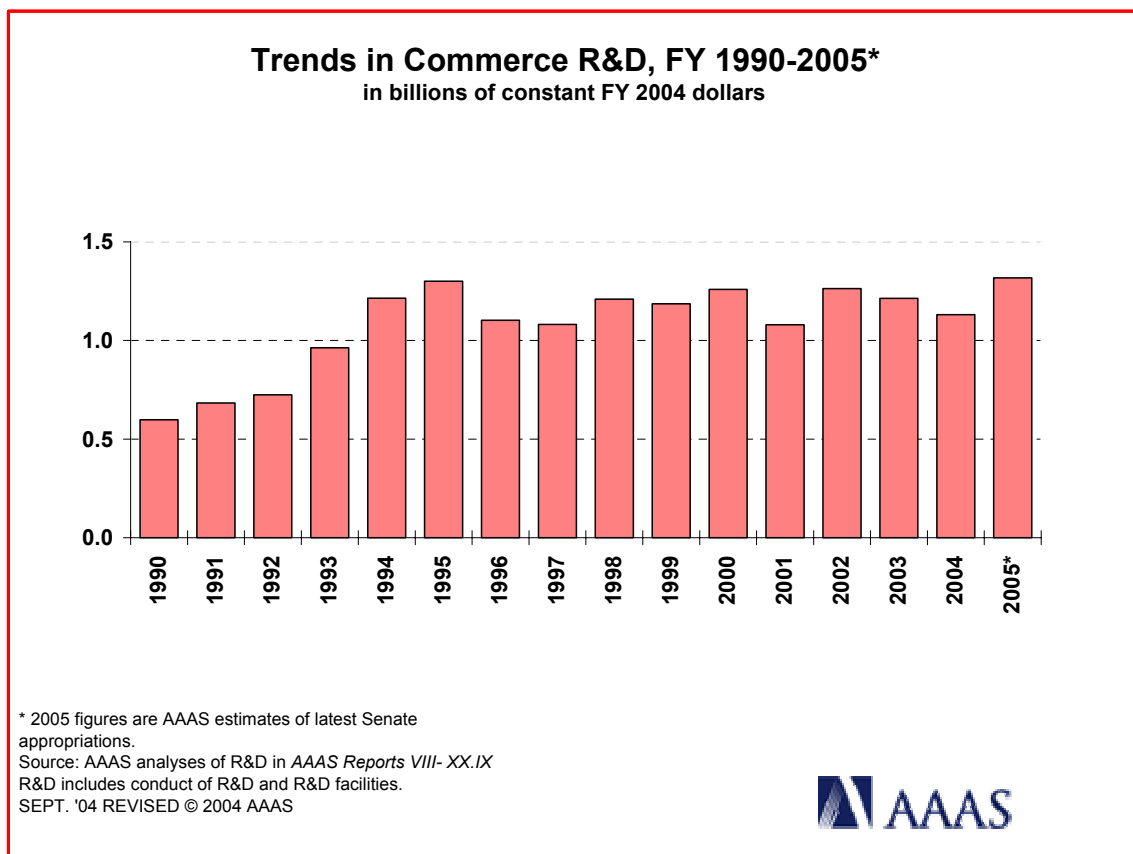


Figure 1. (click on the image to view or download a color, full-page PDF version of the chart)

### Next Steps

The House version of the Commerce-Justice bill was approved by the full House on July 8, but the Senate version is stalled. Although FY 2005 starts on October 1, the Senate will not debate and approve the bill by then and perhaps not even by the October 8 target adjournment date. The Senate may not debate the bill at all because of the crush of other appropriations bills and other legislation that must be completed this year.

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If the Senate does not approve its version as a stand-alone bill, then the Commerce-Justice bill will be rolled a year-end omnibus appropriations bill. In omnibus negotiations, it remains unclear whether there is enough support in the Senate for the ATP and other Commerce R&D programs to reverse the proposed House and Administration cuts.

(This analysis is one of a series of AAAS R&D Funding Updates on the FY 2005 appropriations process. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2005 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/rd>) in the “FY 2005 R&D” or the “What’s New” sections.)

- September 28, 2004  
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Table. Dept. of Commerce R&amp;D in FY 2005 Senate Appropriations

**Table. Department of Commerce  
Senate Appropriations Committee Action on R&D in the FY 2005 Budget  
(budget authority in millions of dollars)**

	FY 2004 Estimate	FY 2005 Request	FY 2005 House	Action by Senate				
				FY 2005 Senate	Chg. from Request Amount	Percent	Chg. from FY 2004 Amount	Percent
National Oceanic and Atmospheric Administration (NOAA):								
National Ocean Service	43	45	33	<b>75</b>	29	65.3%	32	74.0%
National Marine Fisheries Service	122	133	103	<b>150</b>	17	12.4%	28	22.6%
Oceanic and Atmospheric Research	326	293	278	<b>379</b>	87	29.6%	54	16.5%
National Weather Service	14	29	20	<b>21</b>	-8	-27.0%	7	48.0%
National Env. Satellite and Data Info.	24	26	24	<b>30</b>	4	16.8%	7	27.7%
All Other NOAA R&D	88	84	86	<b>93</b>	9	10.5%	5	5.5%
<b>TOTAL NOAA R&amp;D</b>	<b>617</b>	<b>610</b>	<b>545</b>	<b>748</b>	<b>138</b>	<b>22.6%</b>	<b>131</b>	<b>21.3%</b>
National Institute of Standards and Technology (NIST):								
Scientific & Technical Research	283	367	326	<b>333</b>	-34	-9.2%	50	17.8%
Advanced Technology Program R&D	145	0	0	<b>164</b>	164	--	19	13.3%
Construction	43	59	43	<b>43</b>	-17	-28.3%	-1	-2.1%
<b>TOTAL NIST R&amp;D</b>	<b>471</b>	<b>426</b>	<b>369</b>	<b>540</b>	<b>113</b>	<b>26.6%</b>	<b>69</b>	<b>14.6%</b>
<i>STRS Non-R&amp;D Activities</i>	62	56	50	<b>51</b>	-5	-9.2%	-11	-17.4%
<i>ATP Non-R&amp;D Activities</i>	34	0	0	<b>39</b>	39	--	5	13.3%
<i>Non-R&amp;D Construction</i>	21	0	0	<b>44</b>	44	--	22	102.7%
<i>Manufacturing Extension Partnership</i>	39	39	106	<b>112</b>	73	185.8%	73	189.2%
<i>Total NIST Budget</i>	<b>627</b>	<b>521</b>	<b>525</b>	<b>785</b>	<b>263</b>	<b>50.5%</b>	<b>158</b>	<b>25.1%</b>
Departmental Administration	1	1	1	<b>1</b>	0	0.0%	0	0.0%
Bureau of the Census	23	26	24	<b>23</b>	-3	-11.5%	0	0.0%
National Telecomm. and Info. Admin.	18	10	6	<b>21</b>	11	108.4%	3	15.8%
Economic Development Administration	1	1	1	<b>1</b>	0	0.0%	0	0.0%
<b>Total Commerce R&amp;D</b>	<b>1,131</b>	<b>1,075</b>	<b>946</b>	<b>1,334</b>	<b>259</b>	<b>24.1%</b>	<b>203</b>	<b>17.9%</b>

AAAS estimates based on FY 2005 appropriations bills. Includes conduct of R&D and R&D facilities.

FY 2004 and FY 2005 request figures based on OMB R&D data and supplemental agency budget data.

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

**September 28, 2004- AAAS estimates of House and Senate Appropriations Committee-approved funding levels.**