

Commerce R&D Up 20 Percent in Senate Plan

AAAS R&D Funding Update on Commerce R&D in FY 2008 Senate Appropriations

Highlights

- **The Senate would favor the Department of Commerce's R&D programs with a substantial 19.5 percent increase of \$204 million to \$1.3 billion** (see Table), with large increases for both the National Oceanic and Atmospheric Administration (NOAA) and the National Institute of Standards and Technology (NIST).

- **The Senate would agree with proposed increases for NIST's intramural research** in the second year of the President's American Competitiveness Initiative. NIST's Scientific and Technical Research Services (STRS) would see its R&D funding increase 13.1 percent to \$421 million, while intramural Construction of Research Facilities (CRF) R&D would jump 67 percent to \$98 million after similar increases in 2007; both Senate appropriations would be slightly more than requested.

- **But the Senate would reject proposed cuts in NIST's extramural programs.** Once again, **the Senate would reject the Bush Administration proposal to eliminate NIST's external Advanced Technology Program (ATP) and instead give it \$100 million, 27 percent more than this year.** The Senate would also reject a proposal to slash funding for the non-R&D Hollings Manufacturing Extension Partnership (MEP) program by half, and instead give it \$110 million, a \$5 million increase.

- **R&D in the National Oceanic and Atmospheric Administration (NOAA) would jump 18.1 percent to \$628 million in the Senate plan in contrast to a slight requested cut (see Table).** The Senate would place particular importance on oceans and climate research in NOAA's Oceanic and Atmospheric Research (OAR). OAR R&D would climb 32 percent to \$371 million.

Commerce R&D in FY 2008 Senate Appropriations

On June 28, the Senate Appropriations Committee approved its version of the FY 2008 Commerce-Justice-Science appropriations bill (S 1745) providing funding for the Department of Commerce, the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA), for consideration by the full Senate in July. The House has drafted its own version of the bill for consideration by the House Appropriations Committee in July. Both the House and Senate bills contain close to \$54 billion in 2008 discretionary spending, \$3 to \$4 billion more than the current year and between \$2 and \$3 billion more than the President's request for these programs.

Nearly all the Department of Commerce's R&D portfolio comes from two very different science-oriented agencies, the National Oceanic and Atmospheric Administration (NOAA) and the National Institute of Standards and Technology (NIST). Commerce's February budget for 2008 proposed large increases for NIST's intramural programs, but sharp cuts in NIST extramural funding and a small cut in NOAA R&D. NIST's intramural programs would benefit from the President's American Competitiveness Initiative (ACI) that was first previewed in the 2006 State of the Union address in response to a growing wave of concern about the state of U.S. innovation. The ACI proposes to double funding for three key physical sciences agencies over the next decade. NIST in Commerce is one of the three favored agencies (the others are the DOE Office of Science, and the National Science Foundation), and received a substantial increase in 2007 with another large increase proposed in 2008 after years of flat or declining funding, but only for its intramural programs. The Administration has continued to propose steep cuts in NIST's extramural programs, and in tough budgetary times has generally proposed declining funding for NOAA R&D, whose

portfolio is oriented toward environmental R&D rather than the physical sciences. (For details of the President's request for Commerce R&D in FY 2008, see the March 21 AAAS R&D Funding Update or Chapter 12 of *AAAS Report XXXII: R&D FY 2008*.)

The Senate would give increases to the entire range of Commerce R&D, both the intramural and extramural parts of the NIST portfolio and also NOAA. **The Senate would provide \$1.3 billion for Commerce R&D in 2008, an increase of \$204 million or 19.5 percent and \$182 million more than the request** (see Table). Not only would the Senate endorse the requested increases for NIST's intramural programs but it would reject proposed cuts in its extramural programs, and would add millions of dollars to NOAA, especially for oceans and climate research and R&D earmarks.

NIST intramural research would climb 13.1 percent to \$421 million within the Scientific and Technical Research and Services (STRS) account in the Senate plan as requested, while construction funding for NIST research facilities would surge 67 percent to \$98 million. The large proposed increases would allow for more of everything: there would be increases for R&D across the broad range of NIST programs, with particular emphasis on nanotechnology research, quantum information science, measurements and standards for climate change science, and disaster resilient structures. On the construction side, the large increase would allow for major renovations at NIST's Boulder (CO) site, repair for aging facilities, and continuing construction of NIST's Center for Neutron Research. After a one-year moratorium on congressional earmarks in 2007, the Senate would add an additional (non-R&D) \$53 million to the construction account for 5 construction projects well away from NIST facilities.

In a radical departure from the request, the Senate would boost funding for both of NIST's extramural programs, one proposed for elimination and the other for near-elimination. **The Bush Administration once again proposes to eliminate NIST's extramural Advanced Technology Program (ATP)**, as it has in the past several budget requests, but in a repeat of past years the Senate would save it with a \$100 million appropriation (\$21 million more than 2007). ATP has announced that it will award new grants in 2007 for the first time in years, and if the Senate prevails then there could be even more new awards in 2008. Congress is also considering separate legislation that would authorize ATP, make some policy changes, and rename it the Technology Innovation Program (TIP). In another repeat of previous requests, the budget would cut the non-R&D Hollings Manufacturing Extension Partnership (MEP) by 56 percent down to \$46 million, but the Senate would once again sustain funding, at \$110 million for 2008 for a \$5 million increase. MEP is 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 across-the-board Senate increases for NIST would bring the total NIST budget to \$863 million in 2008, a 28 percent increase over the current year (see Table). NIST R&D funding would total \$595 million in the Senate plan, a 21 percent or \$104 million increase.

The Senate, long a champion of NOAA programs, continues to step up to the bat with a substantial \$96 million or 18.1 percent increase for NOAA R&D in 2008 to \$628 million, in contrast to a small requested cut (see Table). Although more than half (\$53 million) of the R&D increase would be from the addition of R&D earmarks (congressionally designated, performer-specific projects) after an earmark-free 2007, there would still be plenty of money left over to increase core NOAA R&D programs, especially in oceans and climate research.

As in past years, the Senate takes NOAA to task for failing to fund many of the recommendations of the Pew Ocean Commission and the U.S. Commission on Ocean Policy, two high-level commissions of recent years which called for a comprehensive U.S. ocean policy, including a robust program of ocean-related research. The Senate bill criticizes NOAA for requesting steep cuts in key ocean programs in the past, and in 2008 for requesting modest increases in oceans programs only at the expense of steep cuts in other areas. The Senate points to two commissions' joint January 2007 'report card' giving the federal government a "C minus" in progress toward a U.S. ocean policy, with low grades for ocean-related research funding, as a driving force behind the Senate bill's increases for oceans research and related NOAA R&D programs. In

particular, the Senate calls attention to \$32 million in new funding for competitively awarded research grants programs in NOAA's Office of Oceanic and Atmospheric Research (OAR).

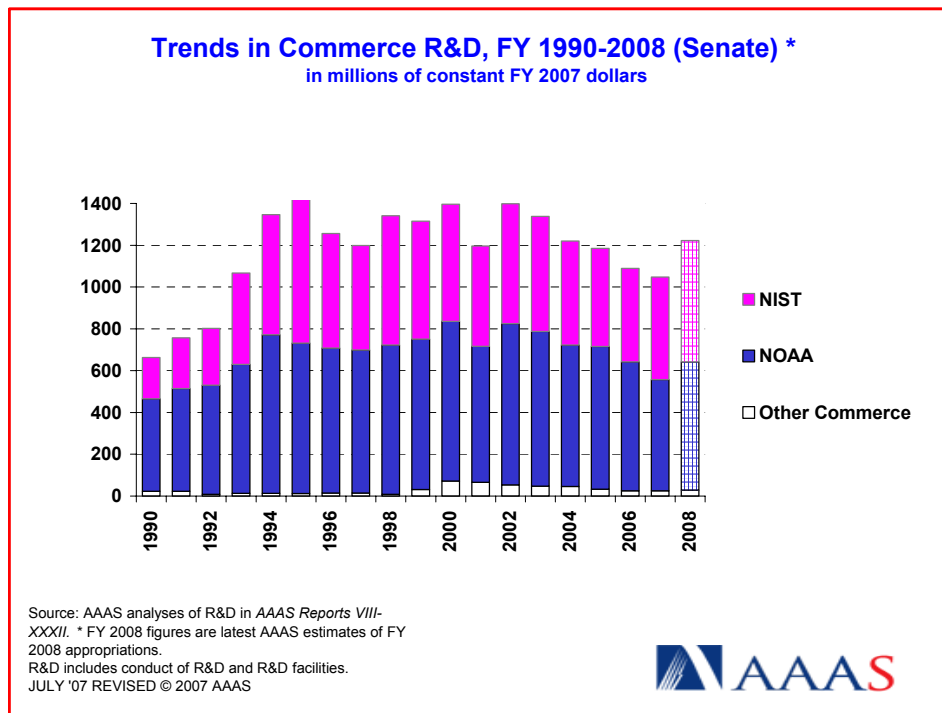


Figure 1. (click on the image for PDF)

As a result of the Senate's ocean priorities, **OAR R&D would jump 31.8 percent to \$371 million.** R&D in the National Ocean Service (NOS), more of an operational unit rather than a research unit, would fall \$14 million to \$51 million in the Senate plan, although this would be \$15 million more than requested. In OAR, the main research body for oceans research as well as climate change, atmospheric, and weather research, climate research would receive \$217 million, up dramatically from a \$193 million request. Competitive research grants for climate change research would total \$140 million, up from \$126 million. Among specifically ocean-related programs, the National Sea Grant College Program would hit \$60 million in the Senate plan, after hovering near \$54 million for the last several years; the National Undersea Research Program would receive \$15 million instead of the \$10 million level in recent years; and the Ocean Exploration program would climb to \$20 million, from below \$15 million in recent years. The Senate would also add new funding of \$10 million each for competitive research programs in ocean research and weather/air quality research.

Impacts of Commerce R&D

The Senate's good news for NIST and NOAA's R&D programs would result in a sharp turnaround from the steady fall in Commerce R&D for most of this decade (see Figure 1), but similar Senate appropriations in recent years have been chiseled away in conference negotiations with the traditionally less-generous House. Since 2002, the Commerce R&D budget has declined in real terms every year; while the Senate appropriation would be a big jump, it would only bring Commerce R&D back to the 2004 funding level in real terms. Even NOAA, despite the strong endorsement from the Senate, would still be 20 percent below the peak 2002 funding level.

Outlook and Next Steps

The full Senate is expected to debate and approve the Commerce-Justice-Science bill in July, while the House Appropriations Committee is expected to consider its version in July, also. Congress will try to send

a final version of the bill to President Bush before the October 1 start of FY 2008. The President has threatened to veto any 2008 appropriations bill that exceeds his request, as the Senate bill does by more than \$3 billion, so the bill may have a long way to go before its funding levels become final.

(This analysis is one of a series of AAAS R&D Funding Updates on FY 2008 congressional appropriations. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D in FY 2008 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/rd>) in the "FY 2008 R&D" or the "What's New" sections.)

- July 5, 2007

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Table. Dept. of Commerce R&D in FY 2008 Senate Appropriations

**Table. Department of Commerce
Senate Appropriations Committee Action on R&D in the FY 2008 Budget
(budget authority in millions of dollars)**

	FY 2007 Estimate	FY 2008 Request	Action by Senate				
			FY 2008 Senate	Chg. from Request Amount	Chg. from Request Percent	Chg. from FY 2007 Amount	Chg. from FY 2007 Percent
National Oceanic and Atmospheric Administration (NOAA):							
National Ocean Service	65	36	51	15	40.1%	-14	-21.4%
National Marine Fisheries Service	42	42	45	4	9.1%	3	8.3%
Oceanic and Atmospheric Research	281	300	371	71	23.6%	89	31.8%
National Weather Service	24	23	23	0	1.4%	-1	-4.9%
National Env. Satellite and Data Info.	24	27	27	0	-0.7%	3	11.9%
All Other NOAA R&D	95	100	111	11	11.4%	16	16.4%
TOTAL NOAA R&D	532	528	628	101	19.1%	96	18.1%
National Institute of Standards and Technology (NIST):							
Scientific & Technical Research	372	420	421	1	0.3%	49	13.1%
Advanced Technology Program R&D	60	0	76	76	--	16	26.6%
Construction *	59	94	98	4	4.3%	39	66.9%
TOTAL NIST R&D	491	514	595	81	15.8%	104	21.2%
<i>STRS Non-R&D Activities</i>	<i>60</i>	<i>81</i>	<i>81</i>	<i>0</i>	<i>0.3%</i>	<i>21</i>	<i>34.0%</i>
<i>ATP Non-R&D Activities</i>	<i>19</i>	<i>0</i>	<i>24</i>	<i>24</i>	<i>--</i>	<i>5</i>	<i>26.6%</i>
<i>Non-R&D Construction</i>	<i>0</i>	<i>0</i>	<i>53</i>	<i>53</i>	<i>--</i>	<i>53</i>	<i>--</i>
<i>Manufacturing Extension Partnership</i>	<i>105</i>	<i>46</i>	<i>110</i>	<i>64</i>	<i>137.4%</i>	<i>5</i>	<i>5.1%</i>
<i>Total NIST Budget</i>	<i>675</i>	<i>641</i>	<i>863</i>	<i>222</i>	<i>34.7%</i>	<i>188</i>	<i>27.8%</i>
Departmental Administration	1	1	1	0	0.0%	0	0.0%
Bureau of the Census	22	26	26	0	0.0%	4	18.2%
National Telecomm. and Info. Admin.	2	2	2	0	0.0%	0	0.0%
Total Commerce R&D	1,048	1,070	1,252	182	17.0%	204	19.5%

AAAS estimates based on FY 2008 appropriations bills. Includes conduct of R&D and R&D facilities.

FY 2007 and FY 2008 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.

These figures have been revised since the publication of *AAAS Report XXXII: R&D FY 2008*.

July 2, 2007 - AAAS estimates of Senate Appropriations Committee-approved appropriations.

These figures may be amended or rejected by the full Senate.