

## Congress Approves Small Increase for Commerce R&D

(The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2000 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/R&D>) in the "FY 2000 R&D" or the "What's New" sections.)

Today, the House narrowly gave final approval to an FY 2000 Commerce-Justice appropriations bill (HR 2670) that gives a small increase to the Department of Commerce's R&D programs. Even if the Senate approves the bill tomorrow, the President has threatened to veto it because of inadequate funding for some of his crime and international priorities. The Commerce bill **provides a \$25 million or 2.4 percent increase for R&D in the Department of Commerce, for a total of \$1.1 billion in FY 2000** (see Table). The bill provides moderate increases for R&D in both of Commerce's major R&D agencies, the National Oceanic and Atmospheric Administration (NOAA) and the National Institute of Standards and Technology (NIST).

Although FY 2000 started on October 1, Congress is still struggling to draft the 13 appropriations bills within discretionary spending caps that are forcing sharp cuts to domestic discretionary programs. The discretionary spending caps, enacted in 1997, require FY 2000 discretionary spending to be nearly \$20 billion below FY 1999 funding levels. Thanks to billions of dollars in emergency spending for the 2000 Census and cuts to requested levels for international programs in the Department of State and policing programs in the Department of Justice, the final Commerce-Justice bill manages to stay within tight budget totals while still providing increases for priority programs.

Although many Commerce programs receive increases, the bulk of Commerce's \$8.7 billion budget goes to the **2000 Census**. The final bill contains \$4.8 billion for the Bureau of the Census in FY 2000, far above the FY 1999 total of \$1.3 billion. \$4.5 billion of this amount goes toward costs of the 2000 Census, and is designated as emergency to exempt it from budget caps. Earlier in the year, the Census Bureau had assumed that **statistical sampling** could be used to fill in some missing data gaps from unreturned census questionnaires and to produce a more accurate population count, but the Supreme Court ruled earlier this year that statistical sampling could not be used to produce population figures for congressional apportionment. The appropriation, significantly above the \$3.1 billion requested in February, should allow the Bureau to perform a more comprehensive actual enumeration, while still leaving itself the option of using statistical sampling to produce population figures for non-apportionment purposes.

The final Commerce bill provides modest increases for Commerce's R&D programs, a middle ground between substantial increases in the Senate bill and deep cuts in the House bill. The **National Institute of Standards and Technology (NIST)** receives \$475 million for its R&D activities in FY 2000, a modest \$7 million or 1.4 percent above FY 1999. The Senate would have given NIST a spectacular increase of 20.4 percent for NIST R&D, while the House would have cut NIST R&D by 38 percent. While the NIST intramural laboratory research programs grow modestly by 1.1 percent to \$236 million, the **Advanced Technology Program (ATP)** receives \$131 million for R&D activities, a cut of \$48 million or 16.7 percent. ATP is NIST's extramural research grants program to provide precompetitive cost-shared R&D support for promising market technologies. The House would have eliminated the program, while the Senate would have cut it slightly from the FY 1999 funding level. The large cut to ATP is balanced by a large increase for NIST's Construction of Research

Facilities account. Its \$108 million appropriation is nearly double the FY 1999 level. Most of this appropriation will fund the start of construction of a new Advanced Measurement Laboratory (AML) at NIST headquarters in Maryland. The total NIST budget in the Commerce-Justice bill is \$639 million, down 1.3 percent from FY 1999. 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, receives \$105 million, down slightly from FY 1999.

The Commerce-Justice bill awards the **National Oceanic and Atmospheric Administration (NOAA)** an R&D budget of \$619 million in FY 2000, an increase of \$19 million or 3.1 percent over both FY 1999 and the FY 2000 request. NOAA's R&D programs on oceans, atmosphere, marine resources, and the environment would have received a 12.4 percent increase in the Senate version of the bill and an 8.9 percent cut in the House version, but as with NIST the final appropriation is a compromise. The final bill cuts many NOAA R&D programs, but awards an increase to the **Oceanic and Atmospheric Research (OAR)** account, from \$287 million in FY 1999 to \$300 million in FY 2000. The bill boosts climate and air quality research from \$122 million to \$129 million. This program funds, among other topics, NOAA research on climate models to better predict severe weather events such as El Niño and La Niña. The bill also provides increases for OAR activities in weather research, ocean research, and Great Lakes research.

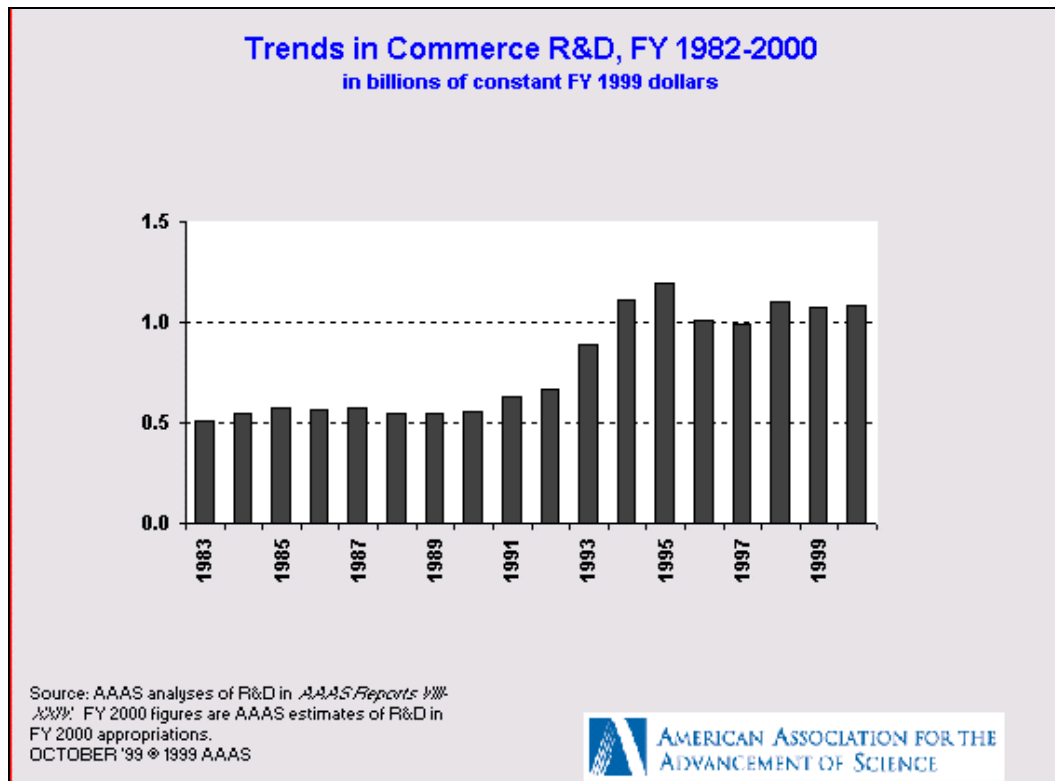


Figure 1.

The FY 2000 increase, slightly ahead of the expected inflation rate, keeps Commerce R&D at a stable funding level (see Figure 1). Mostly because of strong Clinton Administration support for NIST programs, and secondarily because of bipartisan support for NOAA's R&D programs in the early 1990s, Commerce R&D in FY 2000 is more than double the funding level of a decade ago (in inflation-adjusted terms). Commerce is now one of seven agencies to fund more than \$1 billion in R&D annually. However, in recent years Commerce R&D peaked in FY 1995 and has been up and down since then because partisan disagreements on the proper role of the federal government in

commercial technology have made ATP a contentious political issue, and because tight discretionary spending caps have limited the pool of money available for NIST and NOAA.

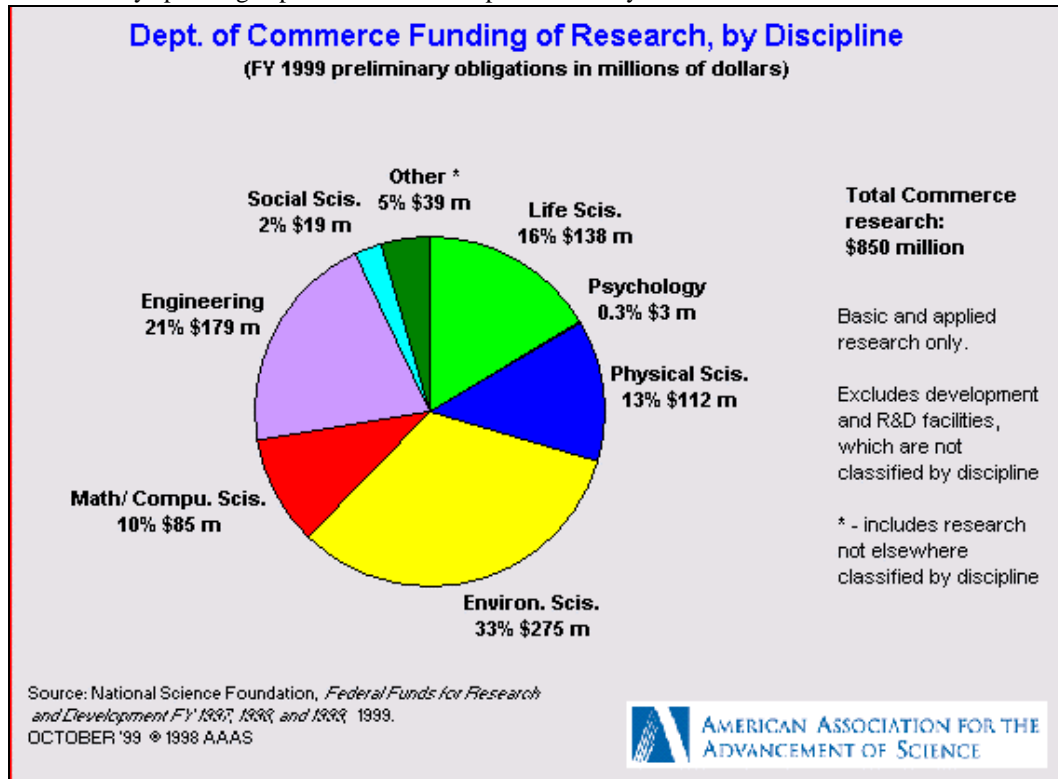


Figure 2.

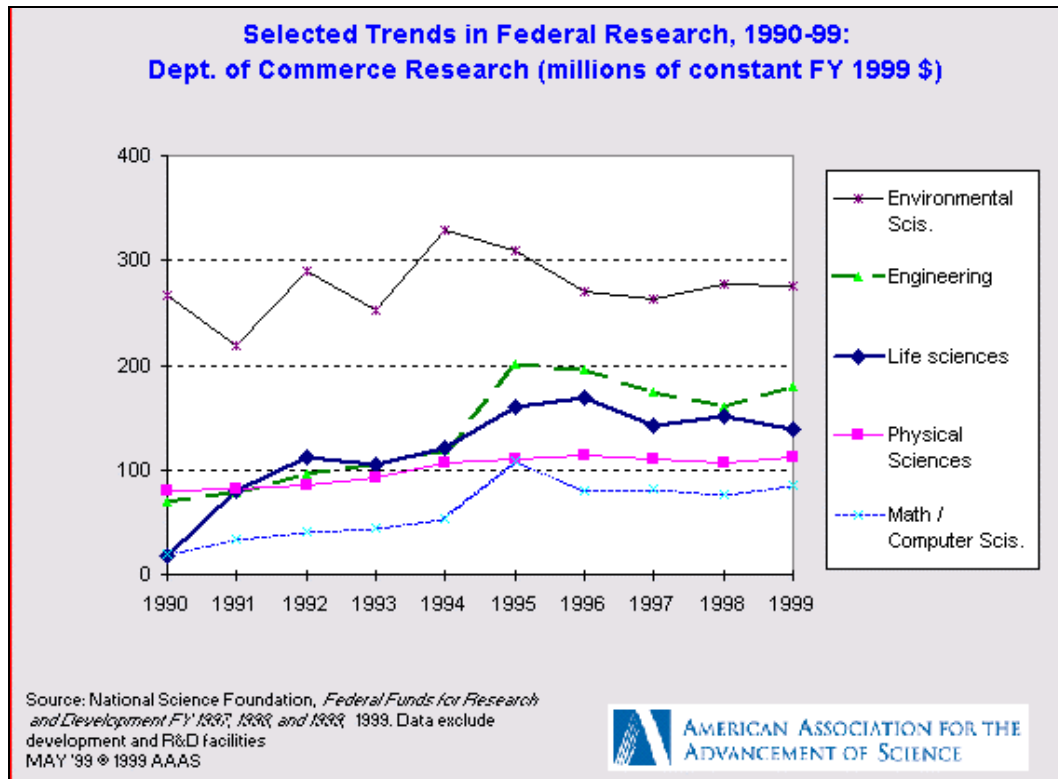


Figure 3.

Because of the differing missions of NOAA and NIST, Commerce has a diverse research portfolio, as shown in Figure 2. Although Commerce is not the dominant supporter of research in any one discipline, it does provide significant amounts of research funding for several disciplines. NOAA is a leading supporter of research in the life sciences and especially the environmental sciences, including atmospheric and oceanographic research. NIST is a leading supporter of research in the physical sciences (including chemistry and physics), computer sciences, and the engineering sciences. Most of NOAA's and NIST's research is performed in intramural laboratories.

Commerce funding for many of these disciplines has stagnated or declined in recent years because of continuing disputes over the proper role of NIST in funding R&D and stagnant funding for NOAA within tight discretionary budgets. The trends shown in Figure 1 are mirrored in trends for Commerce support of specific disciplines, as shown in Figure 3. NOAA's support of environmental sciences and life sciences has declined in tandem with losses in purchasing power in NOAA's overall R&D budget, although funding levels are still higher than they were in the early 1990s. NIST dramatically expanded its support of engineering, physical sciences, and computer sciences research in the early 1990s. But since 1995, when the Republican Congress began casting a harshly critical eye to NIST's activities (especially ATP), its support of these disciplines has stagnated or declined. The increase in Commerce's R&D in FY 2000 is too small to reverse these downward trends.

The Commerce-Justice bill won House approval by the narrowest of margins (215-213) because of its cuts to international and justice programs, so Senate approval is uncertain. For the same reason, President Clinton has threatened to veto the bill if it reaches his desk. If it is vetoed, the bill becomes a likely candidate to be rolled into an omnibus appropriations bill, and it is highly uncertain whether funding levels for Commerce's R&D programs will stay the same. Congress may reallocate funds within the bill to satisfy the President's demands, and in addition Congress is seriously considering enacting across-the-board cuts in discretionary spending to get all FY 2000 appropriations under budget targets.

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**Table. Department of Commerce  
House-Senate Conference on R&D in the FY 2000 Budget  
(budget authority in millions of dollars)**

	FY 1999 Estimate	FY 2000 Request	House-Senate Conference				
			<b>FY 2000 CONF.</b>	Chg. from Request Amount	Chg. from Request Percent	Chg. from FY 1999 Amount	Chg. from FY 1999 Percent
National Oceanic and Atmospheric Administration:							
TOTAL NOAA R&D	600	600	<b>619</b>	19	3.1%	19	3.1%
<i>Total NOAA (incl. non-R&amp;D)</i>	2,205	2,446	<b>2,299</b>	-148	-6.0%	94	4.3%
National Institute of Standards and Technology:							
Scientific & Technical Research	233	240	<b>236</b>	-4	-1.7%	2	1.1%
Advanced Technology Program R&D	178	219	<b>131</b>	-88	-40.3%	-48	-26.7%
Construction	57	107	<b>108</b>	2	1.5%	52	91.2%
TOTAL NIST R&D	468	565	<b>475</b>	-91	-16.0%	7	1.4%
<i>STRS Non-R&amp;D Activities</i>	47	50	<b>47</b>	-2	-4.6%	1	1.1%
<i>ATP Non-R&amp;D Activities</i>	25	20	<b>12</b>	-8	-40.3%	-13	-52.6%
<i>Manufacturing Extension Partnership</i>	107	100	<b>105</b>	5	5.0%	-2	-1.8%
<i>Total NIST Budget</i>	647	735	<b>639</b>	-96	-13.1%	-8	-1.3%
Bureau of the Census	2	2	<b>2</b>	0	0.0%	0	0.0%
National Telecomm. and Info. Admin.	4	4	<b>4</b>	0	0.0%	0	0.0%
Economic Development Administration	1	1	<b>1</b>	0	0.0%	0	0.0%
<b>Total Commerce R&amp;D</b>	1,075	1,172	<b>1,100</b>	-72	-6.1%	25	2.4%

AAAS estimates. Includes conduct of R&D and R&D facilities.

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

**Based on House-Senate conference funding levels.**

**These figures are final unless additional appropriations or rescissions are enacted in omnibus appropriations.**