



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 \$72 million, including a rescission, is 49 percent below last year's budget and is enough just to cover 2006 costs of previously awarded grants. The Senate tried to provide \$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 4.7 percent down to \$439 million. The main NIST R&D activity—Scientific and Technical Research and Services (STRS), which funds intramural research at the NIST laboratories—gains \$14 million in R&D funding to \$331 million, a 4.3 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 \$105 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.

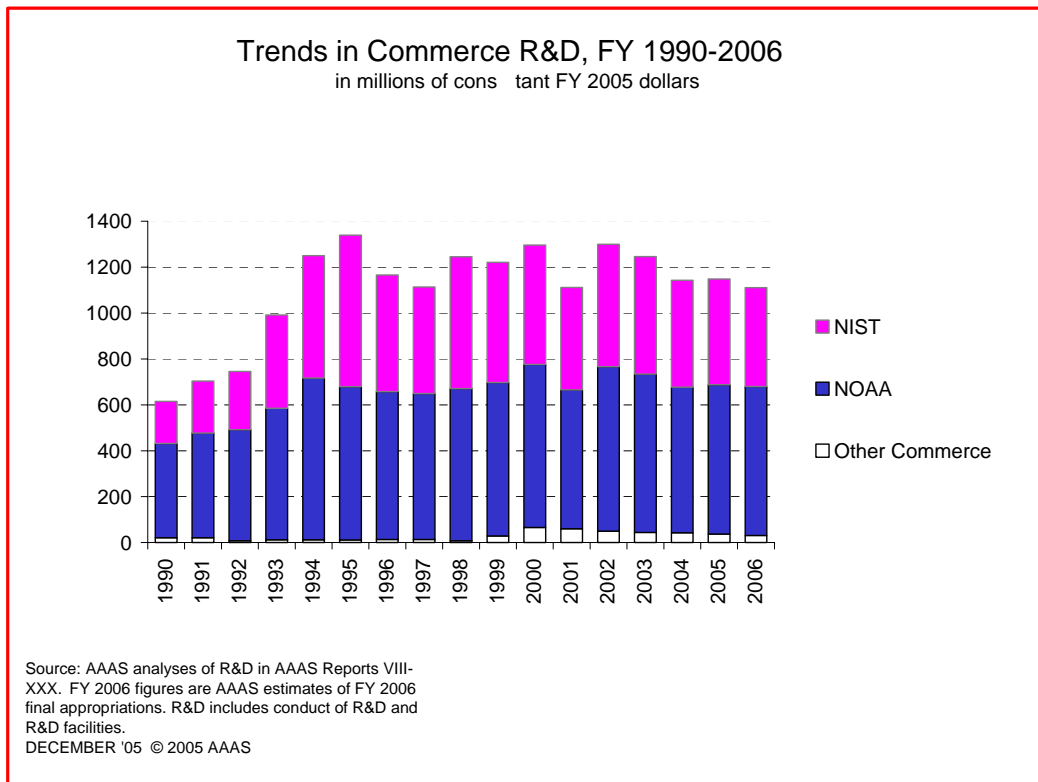


Figure 1. (click on the image for PDF)

The largest R&D gain in the NIST portfolio goes to Construction of Research Facilities (CRF) with a \$19 million or 63 percent boost in its R&D funding to \$48 million for major renovations to NIST facilities in Maryland and Colorado. But the CRF appropriation also contains \$125 million in non-R&D congressionally designated projects, mainly in South Carolina, Mississippi, and Alabama, far away from NIST facilities. Although most congressional earmarks were written into report language accompanying the bill, making them theoretically optional, these earmarks were written into the bill itself and carry the force of law. The total \$174 million CRF appropriation, more than double the \$73 million last year, is the main reason the total NIST budget increases dramatically by 6.5 percent to \$745 million in 2006.

**NOAA R&D climbs \$11 million or 1.7 percent to \$661 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 by the end of December. The National Marine Fisheries Service (NMFS) R&D portfolio grows \$40 million to \$103 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 \$322 million, 4.8 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 \$21 million down to \$157 million, while weather and air quality research climbs from \$51 million to \$66 million.

### Impacts of Commerce R&D

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.

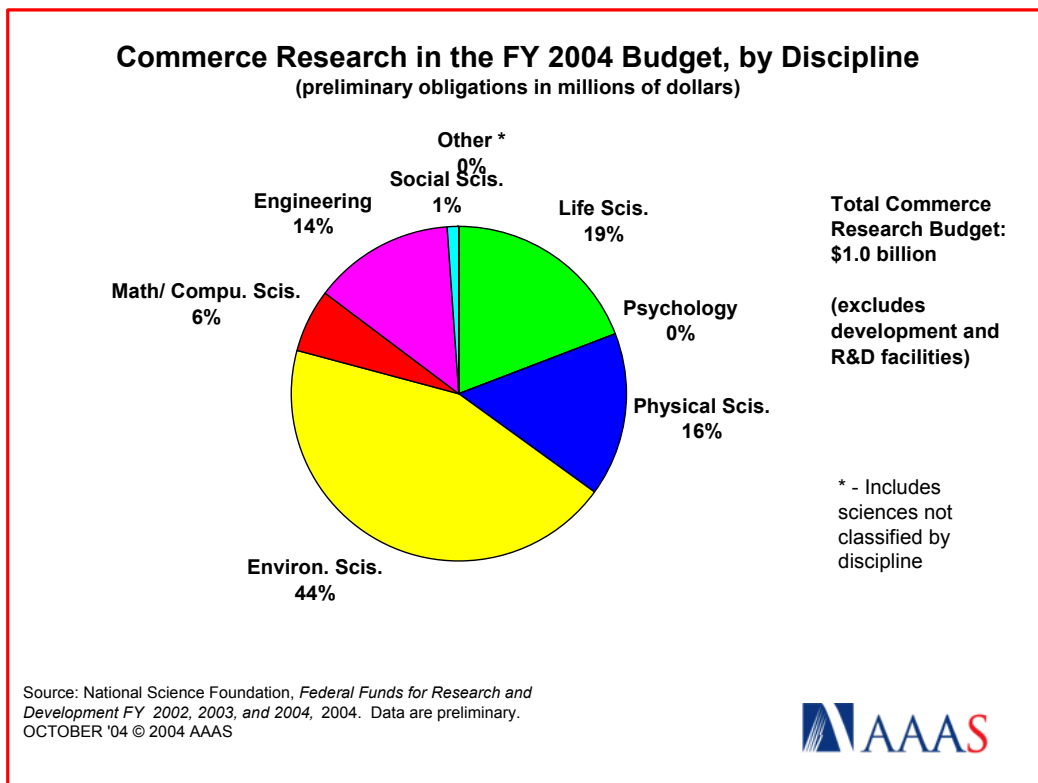


Figure 2. (click on the image for PDF)

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.

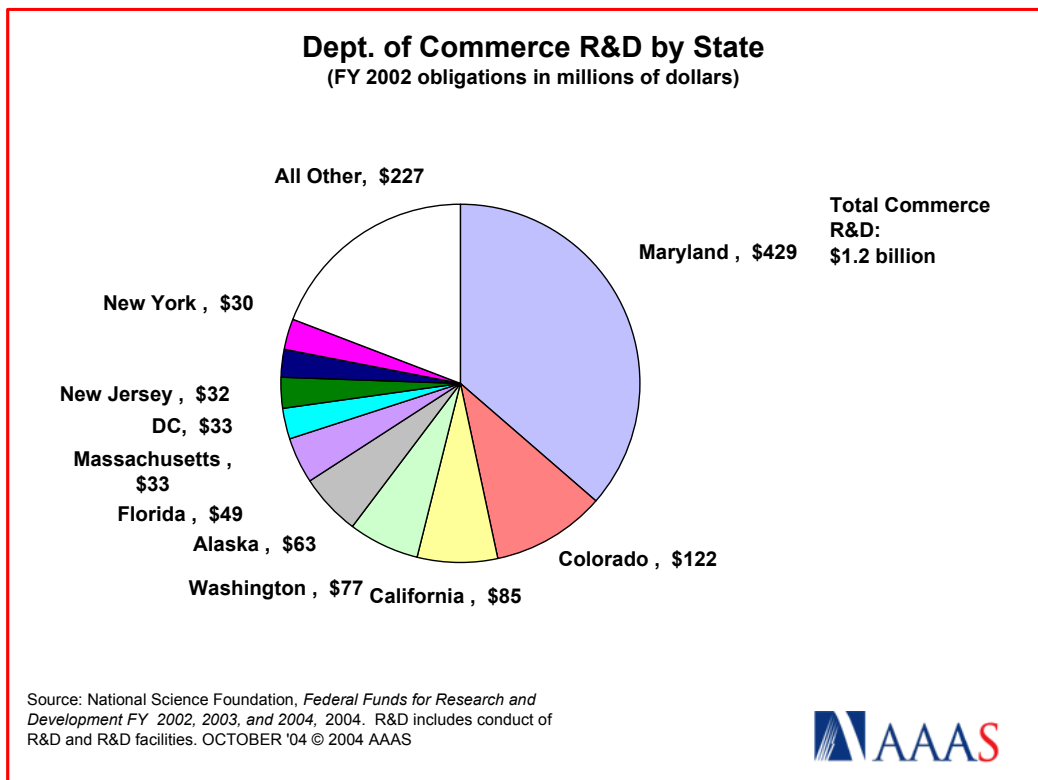


Figure 3. (click on the image for PDF)

(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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 AAAS R&D Budget and Policy Program  
 1200 New York Ave, NW  
 Washington, DC 20005  
 (202) 326-6607; -6600  
[www.aaas.org/spp/rd](http://www.aaas.org/spp/rd)



