

DOT Budget and R&D Jump by 16 Percent in Final Bill

(This analysis is part of a series of AAAS R&D Funding Updates on the FY 2001 congressional appropriations process. This analysis includes information on R&D in the House-Senate conference report for DOT appropriations. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2001 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/R&D>) in the "FY 2001 R&D" or the "What's New" sections.)

On October 5, Congress released the conference report (final version) of the Transportation FY 2001 appropriations bill (HR 4475), which provides funding for the Department of Transportation (DOT). The next day, the House and Senate both gave final approval, [and President Clinton signed it into law on October 23.] The Transportation bill **provides \$702 million for DOT R&D, a substantial \$96 million or 15.8 percent more than the FY 2000 funding level**, though less than the President's request (see Table). The large increase to DOT R&D mirrors the large increase to the DOT budget as a whole, which rises by \$7.8 billion or 15.6 percent to \$57.9 billion thanks to large, guaranteed funding increases provided in recent highway and aviation authorization bills.

Much of the spending in the Transportation bill is exempt from limits on discretionary spending set out in spending caps and the annual budget resolution because of two new categories of discretionary spending created in the Transportation Equity Act for the 21st Century (**TEA-21**) of 1998. TEA-21, a six-year reauthorization bill for most highway and transit programs, dedicates all highway and transit trust fund receipts to transportation and creates two new categories of discretionary spending (highways and transit programs) for that purpose. Spending in these two categories is determined by receipts from transportation taxes and not by legislative limits. (Previously, Congress had diverted a substantial portion of transportation receipts to other discretionary programs, which had the effect of limiting transportation spending.)

Because transportation revenues have been rising and all these revenues are required to be spent on transportation, the Transportation bill is generous toward the two primary beneficiaries of TEA-21 spending, the Federal Highway Administration (FHWA; \$33.4 billion, up 16.4 percent) and the Federal Transit Administration (FTA; \$6.3 billion, up 8.4 percent). The FHWA budget also increases because of extra congressionally designated highway projects attached to the final Transportation bill, including funding for the Woodrow Wilson Bridge between Maryland and Virginia and a long list of other earmarked highway projects. In FY 2001, the Federal Aviation Administration (FAA) receives an even larger percentage increase (up 20.1 percent or \$2.0 billion to \$12.0 billion) because the recently-enacted Aviation Investment and Reform Act for the 21st Century (**AIR21**) would provide TEA21-like guarantees of increased funding for many FAA programs beginning in FY 2001.

Most other DOT agencies, which are funded primarily or partially from general discretionary funds, also increase in the final Transportation bill because these programs deal primarily with transportation safety, a high priority for congressional appropriators.

FHWA's R&D programs receive \$273 million, a gain of \$15 million or 6.0 percent over FY 2000, mostly because of the guaranteed funding in TEA-21. The Administration's request was for \$314 million. In the budget request, DOT had proposed to reallocate a portion of unexpected additional revenues from the highway trust fund toward uses not specified in TEA-21, including a significant diversion of funds to R&D. Congress rejected this proposal, and the final Transportation bill distributes all the additional revenue to the states according to the TEA-21 distribution formula, just as Congress rejected a similar proposal in last

year's budget request. The FHWA total includes \$49 million for R&D in the **Intelligent Transportation Systems (ITS)** program, up from \$41 million in FY 2000. There are increases for most FHWA R&D programs, though not as significant as those proposed by the Administration.

The **Federal Aviation Administration (FAA)**, because of the increased guaranteed funding in AIR21, receives \$293 million for R&D activities, a substantial increase of \$67 million or 29.6 percent. FAA's R&D, however, totaled over \$300 million annually in the early 1990s until FY 1995, and then declined sharply due to budget cuts. The final Transportation bill assigns especially high priority to aircraft safety technology, particularly research on aging aircraft, and system security technology, but most FAA research areas receive substantial increases.

The **National Highway Traffic Safety Administration (NHTSA)** receives \$58 million for R&D in FY 2001, up \$7 million from last year. Most of NHTSA's R&D involves highway safety research and the development of new safety-related technologies. R&D in the Federal Transit Administration (FTA) declines to \$14 million from \$17 million.

The majority of DOT's R&D is performed by intramural laboratories and industrial performers. Universities and colleges perform about a tenth of DOT's R&D, and a similar proportion is performed by state and local governments.

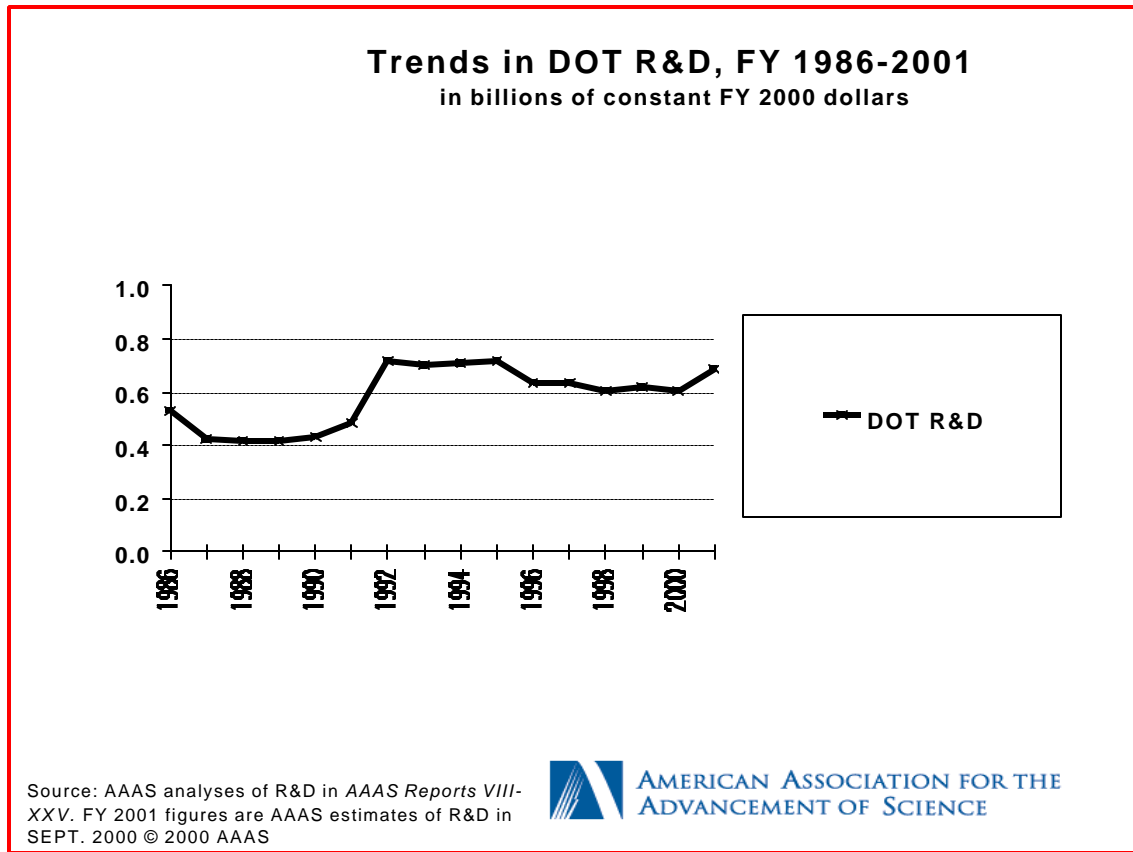
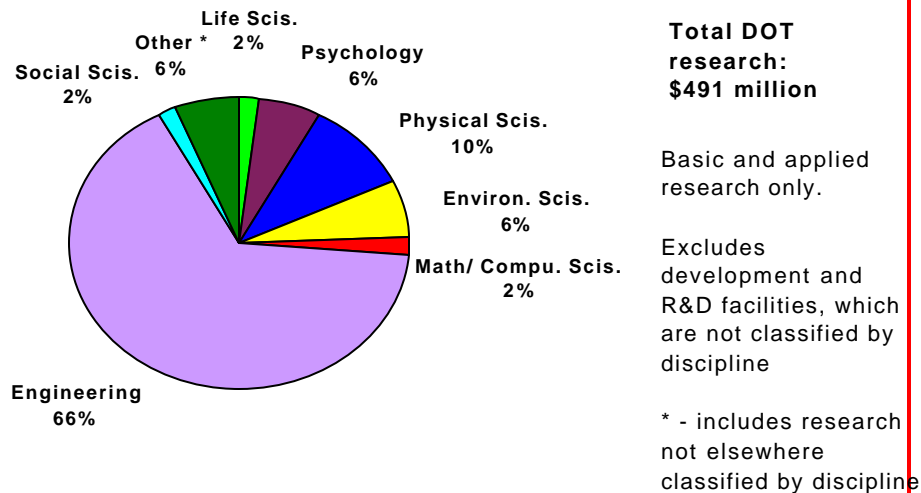


Figure 1.

Although DOT wins a large increase in FY 2001, its support of R&D is still below the levels of the early 1990s in inflation-adjusted terms. DOT's R&D peaked in FY 1995 and then suffered a steep decline, particularly in the FAA, as a result of efforts to bring the federal budget into surplus (see Figure 1). The large increase in FY 2001, especially in FAA, helps to bring total DOT R&D back toward its early 1990s funding levels.

DOT Funding of Research, by Discipline
 (FY 1999 preliminary obligations in millions of dollars)



Source: National Science Foundation, *Federal Funds for Research and Development FY 1998, 1999, and 2000, 2000.*
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Figure 2.

Two-thirds of DOT's research (excluding development and R&D facilities) is in the engineering sciences, particularly in civil engineering, but DOT also is a key federal funding source for research in psychology and physics (see Figure 2). DOT is only the fifth-largest supporter of engineering research despite its importance in the DOT portfolio, funding 5 percent of all federal support for engineering. The major sponsors of engineering research are the Department of Defense and the National Aeronautics and Space Administration, with about a third each of total federal support, followed by the Department of Energy and National Science Foundation. FAA funds 5 percent of total federal support for psychology, mostly into the role of human factors in aviation safety.

Although FY 2001 began on October 1, most FY 2001 appropriations remain unfinished. [President Clinton signed the Transportation bill into law on October 23.]

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

**Table. Department of Transportation
House-Senate Conference on R&D in the FY 2001 Budget
(budget authority in millions of dollars)**

	FY 2000 Estimate	FY 2001 Request	FY 2001 CONF.	House-Senate Conference			
				Chg. from Request		Chg. from FY 2000	
				Amount	Percent	Amount	Percent
Federal Aviation Administration	226	284	293	9	3.1%	67	29.6%
Federal Highway Administration	257	314	273	-42	-13.3%	15	6.0%
Federal Transit Administration	17	14	14	0	0.0%	-3	-16.9%
Nat'l Highway Traffic Safety Admin.	51	95	58	-38	-39.6%	7	13.8%
Federal Railroad Administration	25	29	28	-1	-5.0%	3	11.9%
Coast Guard	20	23	23	0	0.0%	2	11.5%
Research and Special Programs	7	13	11	-3	-18.7%	4	54.0%
Office of Secretary	3	5	3	-2	-32.5%	0	0.0%
Total DOT R&D	606	778	702	-76	-9.8%	96	15.8%
DOT Budget (includes R&D components): ¹							
Federal Aviation Administration	9,997	11,222	12,009	787	7.0%	2,012	20.1%
Federal Highway Administration	28,727	30,358	33,446	3,088	10.2%	4,720	16.4%
Federal Transit Administration	5,785	6,321	6,271	-50	-0.8%	486	8.4%
Coast Guard	4,022	4,609	4,519	-90	-1.9%	497	12.4%
Federal Railroad Administration	735	1,056	726	-330	-31.3%	-9	-1.2%
All Other ²	811	1,001	926	-75	-7.5%	115	14.2%
Total DOT Budget	50,077	54,566	57,897	3,331	6.1%	7,820	15.6%

AAAS estimates based on FY 2001 appropriations bills. Includes conduct of R&D and R&D facilities.

FY 2000 and FY 2001 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.

¹ Includes budget authority from appropriations, limitation on obligations from trust funds, and other budgetary resources.

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

² Includes Office of Secretary, NHTSA, RSPA, Bureau of Transportation Statistics, and others.

Does not include Maritime Administration (funded in the Commerce-Justice bill).

FY 2001 Conference FHWA budget figures include non-FHWA funds for miscellaneous highway projects.

October 6, 2000 - House-Senate conference funding levels.

These funding levels are FINAL unless the bill is vetoed, or rescissions/supplementals are enacted in later appropriations bills.