

DOT Plans Increases in Highway Research

AAAS R&D Funding Update on R&D in the FY 2005 DOT Budget

(This analysis is a preview of the DOT section in the forthcoming *AAAS Report XXIX: Research and Development FY 2005*, a comprehensive look at the President's budget for R&D in FY 2005. This analysis contains revised AAAS estimates of DOT R&D, different from figures presented in the AAAS Preliminary Analysis of February 5. More tables and continually updated supplemental materials on R&D in the FY 2005 budget can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

Highlights

- **Department of Transportation (DOT) R&D funding would rise 6.7 percent to \$755 million in FY 2005** (see Table II-15). There would be a big boost in highway R&D, due to a perennial proposal to shift some resources away from state highway grants to highway research; similar proposals have been rejected by Congress in past years.

- R&D in the Federal Aviation Administration (FAA) would decline 10.4 percent to \$222 million as aviation security-related R&D shifts from the FAA to the Department of Homeland Security (DHS).

DOT R&D in the FY 2005 Budget

R&D is a relatively small part of the DOT budget and would total \$755 million in FY 2005, an increase of \$48 million or 6.7 percent, out of a total DOT budget of \$58.4 billion (see Table II-15). More than half of the DOT budget goes to the Federal Highway Administration (FHWA), mostly for spending out of the highway trust funds for road projects managed by state and local governments.

Transportation funding increased dramatically beginning in FY 1999 as a result of the six-year (FY 1998-2003) reauthorization of transportation programs known as the Transportation Equity Act for the 21st Century (TEA-21), which governs spending out of the highway trust funds. The law expired last September, and a temporary funding authorization is in place through the end of February until Congress can agree on a new reauthorization law. Another extension, through either the end of April or June, will be necessary to give Congress more time. The old law specified that transportation tax revenues would be devoted exclusively to transportation, and specified formulas for allocating these funds. As a result of burgeoning revenues from transportation taxes, DOT's budget climbed from \$44 billion in FY 1998 all the way to \$67 billion in FY 2001. However, these revenues have dropped off significantly in recent years as a result of a stagnant economy, and thus total DOT funding has leveled off. In addition, the Transportation Security Administration (TSA) and the Coast Guard transferred to the new Department of Homeland Security (DHS) in March 2003, bringing the DOT budget down to its current level of \$58.6 billion.

Last year, President Bush proposed a reauthorization of TEA-21, but Congress became bogged down in disputes over whether to increase the federal gasoline tax to finance increase in transportation projects. In the absence of an authorization bill, the FY 2004 budget mostly assumes extension of TEA-21 provisions into FY 2004. In FY 2005, President Bush's budget would reduce DOT spending by 0.3 percent down to \$58.4 billion, but Congress is likely to approve a transportation authorization containing much higher funding. The Administration's transportation authorization bill proposal totals \$256 billion over six years, while the Senate approved a \$318 billion bill. The House bill may go as high as \$375 billion, but will probably end up closer to the Senate level.

Nearly all the funds from the transportation authorization bill will go to the Federal Highway Administration (FHWA) for funds to state and local governments to finance road projects. Within a declining FHWA budget, however, the Bush Administration budget would increase FHWA R&D by 23.7 percent for a total of \$394 million (see Table II-15). The Administration proposes a reshuffling of the FHWA accounts to allow for more spending on highway R&D at the expense of funds to state and local governments, but in the past Congress has rejected similar proposals and maximized state and local funding. FHWA spending on surface transportation research would increase by more than 50 percent, mostly for DOT laboratory-performed research on highway operations, safety, and pavements. The FHWA total includes \$76 million for R&D in the **Intelligent Transportation Systems (ITS)** program, up slightly from this year. The largest portion of FHWA R&D funding goes to state and local governments for their transportation-related research projects; this funding would increase slightly to \$151 million.

The **Federal Aviation Administration (FAA)** would receive \$222 million for its R&D programs, a decline of 10.4 percent. FAA's R&D addresses a number of aviation-related topics, including weather research, aircraft safety technology, human factors research, and development of 'free flight' technologies to improve aviation system capacity. The FAA's R&D portfolio used to be much larger in the \$300 to \$400 million range annually before the September 2001 terrorist attacks, but most of its aviation security R&D portfolio has transferred to the Transportation Security Administration (TSA), now housed within the Department of Homeland Security (DHS). FAA investments in aircraft safety technology and aviation advanced technology development would decline in the FY 2005 budget proposal.

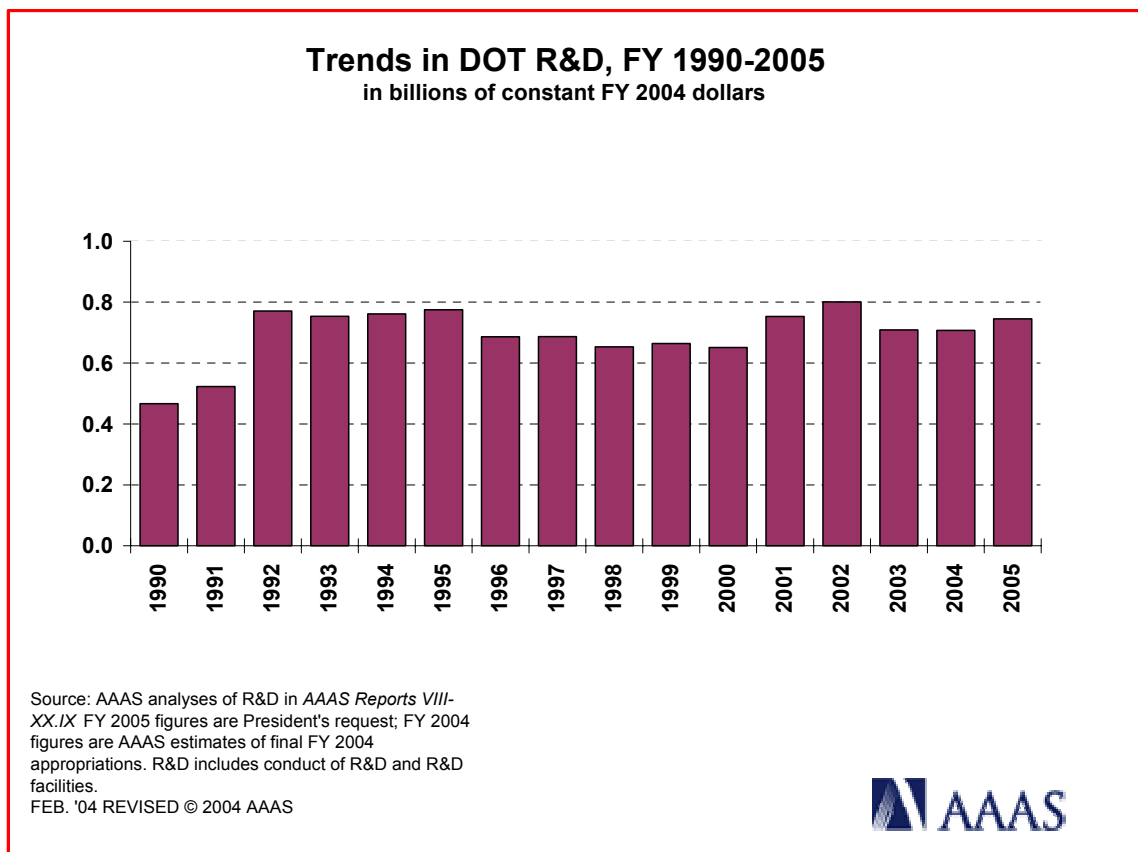


Figure 1. (click on the image to view or download a color, full-size PDF version of the chart)

Because of large increases for DOT R&D in FY 2001 and FY 2002 responding to the September 11 terrorist attacks on U.S. aviation, DOT's support for R&D reached a peak in FY 2002, after adjusting for inflation. DOT's R&D crested 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). FAA and FHWA R&D then

increased in the late 1990s, and with the help of emergency R&D funds for aviation security R&D in the aftermath of September 11 rose to the FY 2002 peak. But with the transfer of aviation security R&D to the TSA, now in DHS, recent reductions in transportation tax revenues, and the transfer of the Coast Guard and its R&D program to DHS, DOT R&D declined sharply in FY 2003 and held steady this year.

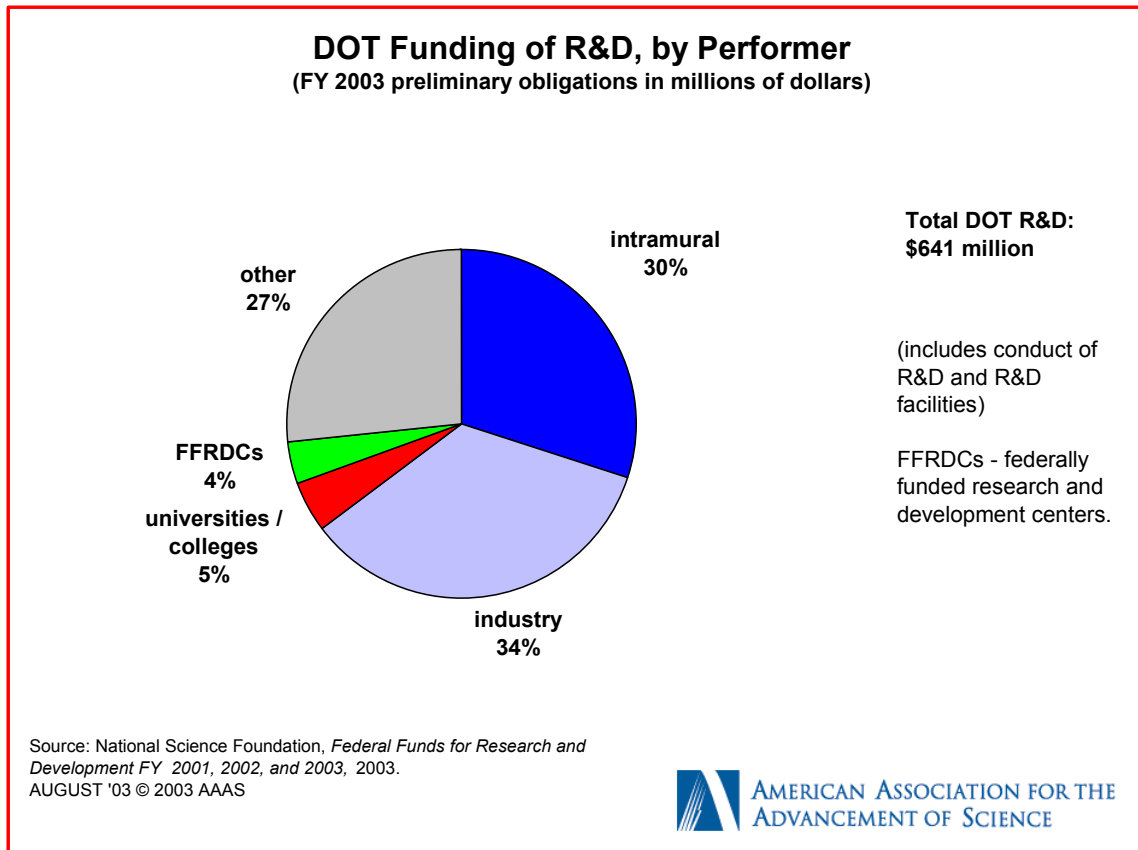


Figure 2. (click on the image to view or download a color, full-size PDF version of the chart)

The majority of DOT's R&D is performed by DOT laboratories and industry (see Figure 2). Universities and colleges perform just 5 percent DOT's R&D. Unlike the other large R&D funding agencies, a large proportion (most of the 'other' category) is performed by state and local governments. Most of this money comes from the FHWA under formula grants determined by the highway authorization bill.

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(More materials on R&D in the FY 2005 budget, historical data and charts, and more information on *AAAS Report XXIX: Research and Development FY 2005*, can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

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Table II-15. Department of Transportation R&D

Table II-15. R&D in the Department of Transportation
(budget authority in millions of dollars) *

	FY 2003	FY 2004	FY 2005	Change FY 04-05	
	Actual	Estimate	Budget	Amount	Percent
Federal Aviation Administration	274	248	222	-26	-10.4%
- <i>Research, Eng. & Development</i>	147	119	117	-2	-1.5%
- <i>Facilities and Equipment</i>	114	116	92	-24	-20.8%
- <i>All Other</i>	13	13	13	0	1.3%
Federal Highway Administration	288	318	394	76	23.7%
- <i>Surface Transportation Res.</i>	79	82	125	43	52.7%
- <i>Intelligent Transportation Sys.</i>	68	73	76	3	4.0%
- <i>State Planning and Research</i>	125	147	151	4	2.7%
- <i>All Other</i>	16	16	41	25	159.3%
Federal Transit Administration	2	5	3	-2	-44.1%
Nat'l High. Traffic & Safety Adm.	60	63	68	5	7.1%
Federal Railroad Administration	32	32	33	1	3.6%
Office of the Secretary	23	20	11	-10	-47.1%
Research & Special Programs	14	14	15	1	7.8%
Federal Motor Carrier Safety Admin.	6	7	9	3	41.1%
Total DOT R&D	700	707	755	48	6.7%

Source: OMB data for R&D for FY 2005; agency budget justification; agency documents.

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

* - DOT budget includes budget authority, limitations on obligations, and other resources.

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DOT Budget (includes R&D components; budget authority in millions): *

	FY 2003	FY 2004	FY 2005	Change FY 04-05	
	Actual	Estimate	Budget	Amount	Percent
Federal Highway Administration	30,139	34,653	34,382	-271	-0.8%
Federal Aviation Administration	13,510	13,871	13,972	101	0.7%
Federal Transit Administration	8,244	7,266	7,266	0	0.0%
Federal Railroad Administration	1,264	1,450	1,088	-362	-25.0%
Nat'l Highway Traffic Safety Admin.	434	298	689	391	131.2%
All Other ¹	1,075	1,501	1,447	-54	-3.6%
Miscellaneous Receipts	-225	-482	-468	14	-2.9%
Total DOT Budget *	54,441	58,557	58,376	-181	-0.3%

Source: *Budget of the United States Government FY 2005*.

* - DOT budget includes budget authority, limitations on obligations, and other resources.

¹ Includes Office of Secretary, RSPA, Maritime Administration, Bureau of Transportation Statistics, and others.

For more information on DOT, see Chapter 13.

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