

Table I-1. R&D in the FY 2003 Budget by Agency

**Table I-1.** R&D in the FY 2003 Budget by Agency  
(budget authority in millions of dollars)

	FY 2001	FY 2002	FY 2003	Change FY 02-03	
	Actual	Estimate	Budget	Amount	Percent
<b>TOTAL R&amp;D (Conduct of R&amp;D and R&amp;D Facilities)</b>					
Defense (military)	42,740	49,639	<b>54,827</b>	5,188	10.5%
<i>S&amp;T (6.1-6.3 + medical)</i>	9,365	10,341	<b>9,957</b>	-384	-3.7%
<i>All Other DOD R&amp;D</i>	33,375	39,298	<b>44,870</b>	5,572	14.2%
Health and Human Services	21,045	24,141	<b>27,551</b>	3,410	14.1%
<i>Nat'l Institutes of Health</i>	19,807	22,795	<b>26,452</b>	3,657	16.0%
NASA	9,887	10,232	<b>10,676</b>	444	4.3%
Energy	7,733	8,361	<b>8,323</b>	-38	-0.5%
Nat'l Science Foundation	3,320	3,526	<b>3,651</b>	125	3.5%
Agriculture	2,181	2,334	<b>2,118</b>	-216	-9.3%
Commerce	1,030	1,096	<b>1,100</b>	4	0.3%
<i>NOAA</i>	561	611	<b>605</b>	-6	-1.1%
<i>NIST</i>	413	460	<b>483</b>	23	5.0%
Interior	621	660	<b>628</b>	-32	-4.8%
Transportation	718	778	<b>736</b>	-42	-5.4%
Environ. Protection Agency	574	592	<b>627</b>	35	5.9%
Veterans Affairs	719	761	<b>810</b>	49	6.5%
Education	264	268	<b>311</b>	43	16.0%
Int'l Assistance Programs	252	268	<b>182</b>	-86	-32.1%
Smithsonian	121	126	<b>131</b>	5	4.0%
Tennessee Valley Auth.	29	30	<b>30</b>	0	0.0%
Labor	17	20	<b>10</b>	-10	-50.0%
Nuclear Reg. Comm.	53	61	<b>68</b>	7	11.5%
Corps of Engineers	27	27	<b>27</b>	0	0.0%
Housing and Urban Dev.	53	47	<b>47</b>	0	0.0%
Justice	88	98	<b>114</b>	16	16.3%
Social Security	30	37	<b>30</b>	-7	-18.9%
Postal Service	29	46	<b>47</b>	1	2.2%
Treasury	3	3	<b>3</b>	0	0.0%
<b>Total R&amp;D</b>	91,534	103,150	<b>112,047</b>	8,897	8.6%
Defense R&D	46,202	53,478	<b>58,774</b>	5,297	9.9%
Nondefense R&D	45,332	49,672	<b>53,273</b>	3,601	7.2%

Source: AAAS, based on OMB data for R&D for FY 2003, agency budget justifications, and information from agency budget offices.

Note: The projected inflation rate between FY 2002 and FY 2003 is 1.8 percent.

All years include homeland security and other emergency appropriations.

All years adjusted to include proposals to fully fund federal retiree costs.

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

Table I-2. Distribution of the FY 2003 Budget

**Table I-2.** Distribution of the FY 2003 Budget  
(outlays in billions of dollars)

	FY 2001 Actual	FY 2002 Estimate	FY 2003 Budget	Change FY 02-03	
				Amount	Percent
Discretionary					
Defense	309	348	<b>379</b>	31	8.9%
International	23	27	<b>26</b>	-1	-5.2%
Domestic	326	366	<b>385</b>	19	5.2%
Nondefense (Int'l + Dom.)	348	393	<b>410</b>	18	4.5%
TOTAL Discretionary	657	741	<b>789</b>	49	6.5%
Entitlements and Mandatory					
Social Security *	429	456	<b>472</b>	16	3.5%
Medicare *	214	223	<b>231</b>	8	3.6%
Medicaid	129	145	<b>159</b>	14	9.7%
Other Mandatory	283	365	<b>372</b>	6	1.7%
TOTAL Mandatory	1,056	1,189	<b>1,233</b>	44	3.7%
Net Interest	206	178	<b>181</b>	2	1.3%
Undistrib. Offsetting Receipts	-55	-55	<b>-74</b>	-19	34.2%
<b>TOTAL Budget (Outlays)</b>	1,864	2,052	<b>2,128</b>	76	3.7%
TOTAL Receipts	1,991	1,946	<b>2,048</b>	102	5.2%
Unified Surplus or Deficit	127	-106	<b>-80</b>	26	-24.3%
<i>On-budget deficit</i>	-33	-262	<b>-259</b>	3	-1.0%
<i>Off-budget surplus</i>	161	155	<b>179</b>	23	14.8%
Gross Domestic Product (GDP)	9,744	10,362	<b>10,922</b>	561	5.4%
Federal Budget as Percent of GDP	19.1%	19.8%	<b>19.5%</b>		

Source: Office of Management and Budget, *Budget of the U.S. Government FY 2003*.

Note: The projected inflation rate between FY 2002 and FY 2003 is 1.8 percent.

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

\* Excludes administrative costs for these programs, which are classified as discretionary.

Table I-3. Historical Trends in R&D and Federal Outlays

**Table I-3.** Historical Trends in R&D and Federal Outlays  
(outlays in billions of dollars)

	FY 1970	FY 1980	FY 1990	FY 2000	FY 2003
	Actual	Actual	Actual	Actual	Budget
<b>Composition of Federal Outlays</b>					
<b>(Current Dollars)</b>					
Mandatory Programs *	61	262	568	951	<b>1,159</b>
Net Interest	14	53	184	223	<b>181</b>
Defense Discretionary	82	135	300	295	<b>379</b>
International Discretionary	4	13	19	21	<b>26</b>
Domestic Discretionary	34	129	181	299	<b>385</b>
TOTAL Federal Outlays	196	591	1,253	1,789	<b>2,128</b>
Federal R&D Outlays included:					
in Defense Discretionary	8	15	42	42	<b>57</b>
in International Discretionary	NA	0	0	0	<b>0</b>
in Domestic Discretionary	8	17	23	37	<b>55</b>
TOTAL R&D Outlays	16	32	65	79	<b>112</b>
<b>Composition of Federal Outlays</b>					
Mandatory Programs *	31.2%	44.4%	45.3%	53.2%	<b>54.4%</b>
Net Interest	7.4%	8.9%	14.7%	12.5%	<b>8.5%</b>
Defense Discretionary	41.8%	22.8%	23.9%	16.5%	<b>17.8%</b>
International Discretionary	2.0%	2.2%	1.5%	1.2%	<b>1.2%</b>
Domestic Discretionary	17.6%	21.8%	14.5%	16.7%	<b>18.1%</b>
TOTAL Federal Outlays	100.0%	100.0%	100.0%	100.0%	<b>100.0%</b>
<b>Federal R&amp;D Outlays as Percent of Discretionary Outlays <sup>1</sup></b>					
Defense	10.1%	11.1%	13.9%	14.1%	<b>15.0%</b>
International	NA	0.8%	2.1%	0.8%	<b>0.7%</b>
Domestic	21.8%	13.0%	12.8%	12.3%	<b>14.2%</b>
TOTAL R&D as % of total discr.	13.1%	11.5%	13.0%	12.8%	<b>14.2%</b>
<b>Federal R&amp;D Outlays as Percent of GDP</b>					
Defense R&D	0.8%	0.5%	0.7%	0.4%	<b>0.5%</b>
Nondefense R&D <sup>2</sup>	0.7%	0.6%	0.4%	0.4%	<b>0.5%</b>
TOTAL R&D	1.6%	1.2%	1.1%	0.8%	<b>1.0%</b>

Source: *Budget of the United States Government FY 2003, Historical Tables.*

NA = data not available. \* - Net of offsetting receipts.

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

<sup>1</sup> R&D as a percent of its respective category (e.g., defense R&D as a percentage of defense discretionary).

<sup>2</sup> Includes international and domestic R&D programs.

Table I-4. Major Functional Categories of R&D

**Table I-4.** Major Functional Categories of R&D  
(budget authority in millions of dollars)

	FY 2001 Actual	FY 2002 Estimate	FY 2003 Budget	Change FY 02-03		% of Total ('03)
				Amount	Percent	
Defense <sup>1</sup>	46,202	53,478	<b>58,774</b>	5,297	9.9%	52.5%
Nondefense <sup>2</sup>	45,332	49,672	<b>53,273</b>	3,601	7.2%	47.5%
Space	8,951	9,297	<b>9,839</b>	542	5.8%	8.8%
Health	21,735	24,877	<b>28,307</b>	3,430	13.8%	25.3%
Energy <sup>3</sup>	1,320	1,565	<b>1,415</b>	-150	-9.6%	1.3%
General Science	6,353	6,574	<b>6,710</b>	136	2.1%	6.0%
Environment <sup>4</sup>	2,138	2,211	<b>2,181</b>	-30	-1.4%	1.9%
Agriculture	1,826	2,013	<b>1,824</b>	-189	-9.4%	1.6%
Transportation	1,654	1,713	<b>1,573</b>	-140	-8.2%	1.4%
Commerce	468	484	<b>494</b>	10	2.1%	0.4%
International	252	268	<b>182</b>	-86	-32.1%	0.2%
All Other	634	670	<b>748</b>	78	11.6%	0.7%
<b>Total R&amp;D</b>	<b>91,534</b>	<b>103,150</b>	<b>112,047</b>	<b>8,897</b>	<b>8.6%</b>	<b>100.0%</b>

Source: AAAS estimates based on data from OMB, agency budget justifications, and information from agency budget offices. Classifications generally follow the government's budget function categories except health (which here includes health R&D in HHS and VA). All figures are rounded to the nearest million. Changes calculated from unrounded figures.

<sup>1</sup> Includes DOD and defense R&D in DOE.

<sup>2</sup> Includes all R&D not in defense.

<sup>3</sup> Does not reflect actual or proposed deferrals of Clean Coal Technology BA.

<sup>4</sup> Includes natural resources R&D.

**Please see Chapter 3 for a discussion of this table.**

Table I-5. R&D by Character of Work

**Table I-5.** R&D by Character of Work  
(budget authority in **billions** of dollars)

	FY 1980	FY 1990	FY 2000	FY 2003	% Share of Total		
	Actual	Actual	Actual	Budget	1980	1990	2003
Basic Research	4.7	11.3	22.0	<b>25.5</b>	14.2%	17.0%	22.8%
Applied Research	6.9	10.2	21.4	<b>26.4</b>	20.8%	15.3%	23.5%
Total Research	11.6	21.5	43.5	<b>51.9</b>	35.0%	32.3%	46.3%
Development	20.0	42.3	42.8	<b>55.2</b>	60.4%	63.7%	49.3%
Conduct of R&D	31.6	63.8	86.3	<b>107.1</b>	95.5%	96.0%	95.6%
R&D Facilities	1.5	2.6	5.1	<b>4.9</b>	4.5%	4.0%	4.4%
<b>Total R&amp;D</b>	33.1	66.4	91.4	<b>112.0</b>	100.0%	100.0%	100.0%

**Constant FY 2002 Dollars**

Basic Research	9.4	14.6	23.0	25.5
Applied Research	13.8	13.2	22.4	26.4
Total Research	23.2	27.9	45.4	51.9
Development	39.9	55.0	44.8	55.2
Conduct of R&D	63.1	82.9	90.2	107.1
R&D Facilities	3.0	3.4	5.3	4.9
<b>Total R&amp;D</b>	66.1	86.3	95.5	112.0

Source: OMB data for R&D for FY 2003, agency budget justifications, agency documents, *AAAS Report XVI* (1991), and *AAAS Report VI* (1981).

Constant dollar conversions based on OMB's GDP deflators.

**Please see Chapter 3 for a discussion of this table.**

Table I-6. Defense and Nondefense R&D by Character of Work

**Table I-6.** Defense and Nondefense R&D by Character of Work  
(budget authority in millions of dollars)

	FY 2001 Actual	FY 2002 Estimate	FY 2003 Budget	% Change FY 02-03	Distribution % '03 Total
<b>Basic Research</b>					
Defense	1,303	1,392	<b>1,383</b>	-0.7%	1.2%
Nondefense	20,073	22,243	<b>24,116</b>	8.4%	21.5%
Total Basic	21,376	23,635	<b>25,499</b>	7.9%	22.8%
<b>Applied Research</b>					
Defense	5,786	6,526	<b>5,924</b>	-9.2%	5.3%
Nondefense	16,665	18,524	<b>20,447</b>	10.4%	18.2%
Total Applied	22,451	25,050	<b>26,370</b>	5.3%	23.5%
<b>Development</b>					
Defense	38,624	45,003	<b>50,952</b>	13.2%	45.5%
Nondefense	4,334	4,386	<b>4,283</b>	-2.4%	3.8%
Total Dev.	42,959	49,390	<b>55,235</b>	11.8%	49.3%
<b>Total Conduct of R&amp;D</b>					
Defense	45,713	52,922	<b>58,259</b>	10.1%	52.0%
Nondefense	41,072	45,153	<b>48,845</b>	8.2%	43.6%
Total Conduct	86,785	98,075	<b>107,104</b>	9.2%	95.6%
<b>R&amp;D Facilities and Capital Equipment</b>					
Defense	489	556	<b>516</b>	-7.3%	0.5%
Nondefense	4,260	4,519	<b>4,427</b>	-2.0%	4.0%
Total R&D Facils.	4,749	5,075	<b>4,943</b>	-2.6%	4.4%
<b>Total R&amp;D</b>					
Defense	46,202	53,478	<b>58,774</b>	9.9%	52.5%
Nondefense	45,332	49,672	<b>53,273</b>	7.2%	47.5%
<b>Total R&amp;D</b>	91,534	103,150	<b>112,047</b>	8.6%	100.0%

Source: OMB data for R&D and agency budget justifications.

See Appendix 2 for definitions of terms.

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

Defense includes Dept. of Defense and defense programs in the Dept. of Energy.

Table I-7. "Federal Science and Technology" Budget

**Table I-7.** "Federal Science and Technology" (FS&T) Budget by Agency  
(budget authority in millions of dollars)

	FY 2001	FY 2002	FY 2003	Change FY 02-03	
	Actual	Estimate	Budget	Amount	Percent
Health and Human Services	20,438	23,433	<b>27,335</b>	3,902	16.7%
<i>(National Institutes of Health)</i>	20,438	23,433	<b>27,335</b>	3,902	16.7%
National Science Foundation	4,437	4,795	<b>5,036</b>	241	5.0%
Department of Energy	4,911	5,099	<b>5,027</b>	-72	-1.4%
<i>(Science programs)</i>	3,218	3,240	<b>3,285</b>	45	1.4%
<i>(Energy programs)</i>	1,693	1,859	<b>1,742</b>	-117	-6.3%
NASA	7,789	8,113	<b>8,774</b>	661	8.1%
<i>(Space Science)</i>	2,760	3,034	<b>3,428</b>	394	13.0%
<i>(Earth Science)</i>	1,825	1,695	<b>1,639</b>	-56	-3.3%
<i>(Aero-Space Technology)</i>	2,260	2,556	<b>2,856</b>	300	11.7%
<i>(Biological and Physical Res.)</i>	944	828	<b>851</b>	23	2.8%
Department of Defense	4,944	4,961	<b>4,952</b>	-9	-0.2%
<i>(Basic Research)</i>	1,271	1,305	<b>1,336</b>	31	2.4%
<i>(Applied Research)</i>	3,673	3,656	<b>3,616</b>	-40	-1.1%
Agriculture	1,885	1,890	<b>1,913</b>	23	1.2%
<i>(CSREES Res. And Edu.)</i>	514	552	<b>563</b>	11	2.0%
<i>(Economic Research Service)</i>	69	70	<b>82</b>	12	17.1%
<i>(Agricultural Res. Service)</i>	936	1,017	<b>1,014</b>	-3	-0.3%
<i>(Mandatory research grants)</i>	120	0	<b>0</b>	0	--
<i>(Forest Service Research)</i>	246	251	<b>254</b>	3	1.2%
Commerce	828	948	<b>861</b>	-87	-9.2%
<i>(OAR in NOAA)</i>	325	362	<b>297</b>	-65	-18.0%
<i>(NIST minus MEP)</i>	503	586	<b>564</b>	-22	-3.8%
Interior (USGS)	918	950	<b>904</b>	-46	-4.8%
Environmental Protection Agency	746	750	<b>797</b>	47	6.3%
Veterans Affairs	363	373	<b>409</b>	36	9.7%
Education	363	377	<b>431</b>	54	14.3%
Transportation	521	651	<b>548</b>	-103	-15.8%
<i>(Highway Research)</i>	387	448	<b>421</b>	-27	-6.0%
<i>(Aviation Research)</i>	134	203	<b>127</b>	-76	-37.4%
<b>Total "FS&amp;T"</b>	48,143	52,340	<b>56,987</b>	4,647	8.9%

OMB data from *Budget of the U.S. Government FY 2003: Analytical Perspectives* Chapter 8. The programs in the Federal Science and Technology Budget do not correspond to definitions of R&D. The FS&T Budget contains selected R&D and non-R&D programs with an emphasis on basic and applied research and the creation of new knowledge or technologies. The programs in this table were selected by OMB, and differ from the original definitions of FS&T proposed by the National Academy of Sciences. **See Chapter 3.**

Table I-8. R&D Expenditures at Colleges and Universities

**Table I-8.** R&D Expenditures at Colleges and Universities  
**Fiscal Year 2000**

	FY 1999	FY 2000	% Change FY 99-00	% of Total (FY 00)
<b>(R&amp;D expenditures in millions of dollars)</b>				
- by funding source:				
Federal Government	16,070	<b>17,493</b>	8.9%	58.2%
State and Local Government	2,024	<b>2,204</b>	8.9%	7.3%
Industry	2,036	<b>2,178</b>	7.0%	7.2%
Institutional Funds	5,400	<b>5,924</b>	9.7%	19.7%
All Other Sources	1,999	<b>2,262</b>	13.2%	7.5%
Total	27,529	<b>30,062</b>	9.2%	100.0%
- by science and engineering field:				
Engineering	4,261	<b>4,550</b>	6.8%	15.1%
Physical Sciences	2,604	<b>2,706</b>	3.9%	9.0%
Environmental Sciences	1,691	<b>1,769</b>	4.6%	5.9%
Mathematical Sciences	313	<b>341</b>	8.8%	1.1%
Computer Sciences	861	<b>878</b>	2.1%	2.9%
Life Sciences	15,632	<b>17,480</b>	11.8%	58.1%
Psychology	464	<b>516</b>	11.2%	1.7%
Social Sciences	1,254	<b>1,296</b>	3.4%	4.3%
Other Sciences, n.e.c. *	450	<b>526</b>	17.0%	1.8%
Total	27,529	<b>30,062</b>	9.2%	100.0%
- by character of work:				
Basic Research	18,931	<b>20,791</b>	9.8%	69.2%
Applied Research and Development	8,598	<b>9,271</b>	7.8%	30.8%
Total	27,529	<b>30,062</b>	9.2%	100.0%

Source: National Science Foundation, *Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2000, 2001*.

The complete data, and definitions of science and engineering fields, are available at <http://www.nsf.gov/sbe/srs/stats.htm>.

\* not elsewhere classified.

These data are based on performer surveys of expenditures, and thus differ from data presented elsewhere in this report.

**Please see Chapter 3 for a discussion of this table.**

Table I-9. R&D by Appropriations Subcommittee

**Table I-9.** R&D Funding by Congressional Appropriations Subcommittee  
(budget authority in millions of dollars)

	FY 2001	FY 2002	FY 2003	Change FY 02-03	
	Actual	Estimate	Budget	Amount	Percent
Defense <sup>1</sup>	42,740	49,639	<b>54,827</b>	5,188	10.5%
VA, HUD, Independent Agencies	14,553	15,157	<b>15,811</b>	654	4.3%
Labor, HHS, Education	21,201	24,292	<b>27,734</b>	3,442	14.2%
Energy & Water	7,027	7,522	<b>7,626</b>	104	1.4%
Interior	1,912	2,064	<b>1,875</b>	-188	-9.1%
Agriculture	1,981	2,187	<b>1,992</b>	-195	-8.9%
Commerce, Justice, State	1,118	1,194	<b>1,214</b>	20	1.6%
Transportation	718	778	<b>736</b>	-42	-5.4%
Foreign Operations	252	268	<b>182</b>	-86	-32.1%
Treasury, Postal, Gen. Gov't.	32	49	<b>50</b>	1	2.0%
<b>Total R&amp;D</b>	<b>91,534</b>	<b>103,150</b>	<b>112,047</b>	<b>8,897</b>	<b>8.6%</b>

Source: AAAS, based on estimates for R&D from OMB and agency data.

<sup>1</sup> A fraction of DOD R&D may be funded in Military Construction.

**R&D as Percent of Discretionary Appropriations by Appropriations Subcommittee for FY 2003** (budget authority in **billions** of dollars)

	FY 2003	FY 2003	R&D as %
	R&D	Discr. <sup>2</sup>	of Discr.
Defense <sup>1</sup>	54.8	360.4	15.2%
VA, HUD, Independent Agencies	15.8	93.5	16.9%
Labor, HHS, Education	27.7	131.2	21.1%
Energy & Water	7.6	25.3	30.1%
Interior	1.9	19.5	9.6%
Agriculture	2.0	17.2	11.6%
Commerce, Justice, State	1.2	41.2	2.9%
Transportation	0.7	19.7	3.7%
All Other	0.2	58.9	0.4%
<b>Total</b>	<b>112.0</b>	<b>766.9</b>	<b>14.6%</b>
Defense Discretionary	58.8	396.1	14.8%
Nondefense Discretionary	53.3	370.8	14.4%

Source: AAAS, based on estimates of R&D and *Budget of the U.S. Government FY 2003*.

<sup>1</sup> A fraction of DOD R&D may be funded in Military Construction (in "All Other").

<sup>2</sup> District of Columbia, Legislative Branch, and Military Construction.

NOTE: Discretionary budget authority does not include limitations on obligations from transportation trust funds. Discretionary totals are not reduced by offsets.

All years adjusted to include proposals to fully fund federal retiree costs.

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

**See Chapter 1 for a discussion of this table.**

Table I-10. Interagency S&amp;T Initiatives

**Table I-10.** Interagency Science and Technology Initiatives  
(budget authority in millions)

	FY 2001 Actual	FY 2002 Estimate	FY 2003 Budget	Change FY 02-03	
				Amount	Percent
<b>National Nanotechnology Initiative</b> (see Chapter 24)					
National Science Foundation	150	199	<b>221</b>	22	11.1%
Defense	125	180	<b>201</b>	21	11.7%
Energy	88	91	<b>139</b>	48	52.9%
NASA	22	46	<b>51</b>	5	10.9%
Commerce (NIST)	33	38	<b>44</b>	6	16.5%
National Institutes of Health	40	41	<b>43</b>	2	5.9%
Other (EPA, DOT, Justice)	8	10	<b>11</b>	1	10.1%
<b>Total Nanotechnology</b>	466	604	<b>710</b>	106	17.5%
<b>Networking and Information Technology R&amp;D</b> (see Chapter 23)					
Commerce	38	43	<b>42</b>	-1	-2.3%
Defense	310	320	<b>306</b>	-14	-4.4%
Energy	326	312	<b>313</b>	1	0.3%
Environ. Protection Agency	4	2	<b>2</b>	0	0.0%
Health and Human Services	277	310	<b>336</b>	26	8.4%
NASA	177	181	<b>213</b>	32	17.7%
National Science Foundation	636	676	<b>678</b>	2	0.3%
<b>Total IT R&amp;D</b>	1,768	1,844	<b>1,890</b>	46	2.5%
<b>U.S. Global Change Research Program</b> (see Chapter 15)					
National Science Foundation	181	188	<b>188</b>	0	0.0%
Energy	116	120	<b>126</b>	6	5.0%
Commerce (NOAA)	93	100	<b>100</b>	0	0.0%
Agriculture	51	56	<b>66</b>	10	17.9%
Interior	27	28	<b>28</b>	0	0.0%
Environ. Protection Agency	23	21	<b>22</b>	1	4.8%
Health and Human Services	54	60	<b>68</b>	8	13.3%
Smithsonian	7	7	<b>7</b>	0	0.0%
NASA	1,176	1,090	<b>1,109</b>	19	1.7%
<b>Total USGCRP</b>	1,728	1,670	<b>1,714</b>	44	2.6%

Source: OMB supporting data for FY 2003 Budget.

**Table I-11. AAAS Analysis of the Outyear Projections for R&D in the FY 2003 Budget, FY 2002-2007**

(budget authority in millions of dollars)

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	% Chg. FY '02-'07	
	Estimate	Budget	Projected	Projected	Projected	Projected	current \$	constant \$
Defense (military)	49,639	54,827	58,066	61,789	60,009	59,065	19.0%	<b>8.7%</b>
Health and Human Services	24,141	27,551	28,136	28,761	29,431	30,104	24.7%	<b>13.9%</b>
<i>Nat'l Institutes of Health</i>	<i>22,795</i>	<i>26,452</i>	<i>27,009</i>	<i>27,610</i>	<i>28,254</i>	<i>28,916</i>	26.8%	<b>15.9%</b>
NASA	10,232	10,676	11,144	11,370	11,815	12,240	19.6%	<b>9.3%</b>
Energy	8,361	8,323	8,470	8,627	8,798	8,974	7.3%	<b>-1.9%</b>
<i>Defense</i>	<i>3,839</i>	<i>3,947</i>	<i>4,003</i>	<i>4,062</i>	<i>4,127</i>	<i>4,192</i>	9.2%	<b>-0.2%</b>
<i>Nondefense</i>	<i>4,522</i>	<i>4,376</i>	<i>4,468</i>	<i>4,565</i>	<i>4,671</i>	<i>4,782</i>	5.8%	<b>-3.4%</b>
Nat'l Science Foundation	3,526	3,651	3,728	3,811	3,900	3,991	13.2%	<b>3.4%</b>
Agriculture	2,334	2,118	2,286	2,273	2,319	2,373	1.7%	<b>-7.1%</b>
Commerce	1,096	1,100	1,122	1,147	1,172	1,199	9.4%	<b>-0.1%</b>
Interior	660	628	641	654	668	682	3.4%	<b>-5.5%</b>
Transportation	778	736	750	763	779	797	2.5%	<b>-6.4%</b>
Environ. Protection Agency	592	627	640	653	669	685	15.7%	<b>5.7%</b>
All Other	1,792	1,810	1,842	1,877	1,915	1,954	9.1%	<b>-0.4%</b>
<b>Total R&amp;D</b>	<b>103,150</b>	<b>112,047</b>	<b>116,824</b>	<b>121,726</b>	<b>121,476</b>	<b>122,065</b>	<b>18.3%</b>	<b>8.1%</b>
<i>Nondef. R&amp;D minus NIH</i>	<i>26,877</i>	<i>26,821</i>	<i>27,746</i>	<i>28,264</i>	<i>29,086</i>	<i>29,892</i>	11.2%	<b>1.6%</b>
Defense R&D	53,478	58,774	62,069	65,851	64,136	63,257	18.3%	<b>8.1%</b>
Nondefense R&D	49,672	53,273	54,755	55,874	57,340	58,808	18.4%	<b>8.2%</b>

The two detailed analyses (one for defense R&D and one for nondefense R&D) containing agency details and methodology are available on the World Wide Web at <http://www.aaas.org/spp/R&D/>.

Please see Chapter 3 for a discussion of this table.

**Table I-12. Historical Tables: Federal R&D by Agency, FY 1992-2003**

(budget authority in millions of dollars)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002**	2003***
DOD	37,779	38,848	35,510	35,349	35,783	37,238	37,569	38,888	39,960	42,740	49,639	54,827
NASA	8,544	8,815	9,406	9,459	9,432	9,352	9,751	9,717	9,494	9,887	10,232	10,676
DOE	8,133	7,444	6,771	6,416	6,273	6,217	6,351	6,966	6,956	7,733	8,361	8,323
NIH *	9,624	9,891	10,474	10,762	11,425	12,217	13,110	14,995	17,234	19,807	22,795	26,452
NSF	1,972	2,014	2,243	2,396	2,391	2,424	2,501	2,670	2,931	3,320	3,526	3,651
USDA	1,519	1,467	1,528	1,487	1,488	1,556	1,561	1,645	1,776	2,181	2,334	2,118
Interior	643	649	708	668	571	591	536	499	618	621	660	628
DOT	621	621	641	666	601	612	590	607	607	718	778	736
EPA	493	497	588	554	482	595	637	669	558	574	592	627
Commerce	583	793	1,022	1,118	966	964	1,091	1,084	1,174	1,030	1,096	1,100
All Other *	2,029	1,890	2,185	2,073	1,794	2,166	2,247	2,431	2,461	2,922	3,137	2,909
Total R&D	71,941	72,928	71,074	70,948	71,206	73,934	75,942	80,171	83,769	91,534	103,150	112,047
Defense R&D	41,231	42,114	38,299	37,833	38,465	40,047	40,571	42,085	43,161	46,202	53,478	58,774
Nondef. R&D	30,709	30,815	32,775	33,115	32,741	33,886	35,371	38,086	40,608	45,332	49,672	53,273
Basic Res.	12,943	13,444	13,693	13,772	14,442	14,961	15,523	17,433	19,470	21,376	23,635	25,499

(continued)

**Table I-12 (continued). Historical Tables: Federal R&D by Agency, FY 1992-2003 in constant FY 2002 dollars**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002**	2003***
<b>(in constant FY 2002 dollars)</b>												
DOD	46,027	46,226	41,362	40,298	39,994	40,827	40,615	41,498	41,781	43,679	49,639	53,858
NASA	10,410	10,489	10,956	10,783	10,543	10,253	10,542	10,369	9,927	10,105	10,232	10,487
DOE	9,909	8,858	7,887	7,314	7,012	6,817	6,866	7,434	7,273	7,903	8,361	8,176
NIH *	11,726	11,769	12,200	12,269	12,769	13,395	14,172	16,002	18,020	20,242	22,795	25,984
NSF	2,402	2,396	2,612	2,731	2,673	2,658	2,704	2,849	3,065	3,393	3,526	3,586
USDA	1,851	1,745	1,780	1,695	1,663	1,706	1,688	1,755	1,857	2,229	2,334	2,081
Interior	783	772	824	762	638	648	579	532	646	635	660	617
DOT	757	739	746	759	672	671	637	648	635	734	778	723
EPA	600	591	685	632	539	652	689	714	583	586	592	616
Commerce	711	944	1,190	1,275	1,079	1,057	1,179	1,156	1,227	1,053	1,096	1,080
All Other *	2,472	2,249	2,545	2,363	2,005	2,375	2,429	2,594	2,573	2,987	3,137	2,858
Total R&D	87,647	86,778	82,788	80,880	79,586	81,059	82,100	85,553	87,588	93,545	103,150	110,066
Defense R&D	50,233	50,111	44,612	43,129	42,992	43,907	43,861	44,910	45,128	47,217	53,478	57,735
Nondef. R&D	37,414	36,666	38,177	37,751	36,594	37,152	38,239	40,642	42,460	46,328	49,672	52,331
Basic Res.	15,769	15,997	15,950	15,700	16,142	16,403	16,782	18,603	20,358	21,845	23,635	25,048

Source: AAAS Reports VII through XXVII, based on OMB and agency R&D budget data.

Constant dollar conversions based on OMB's GDP deflators from the FY 2003 budget.

\* Between FY 1991 and 1992, R&D from ADAMHA (HHS) transferred to NIH. ADAMHA R&D included in NIH totals for all years.

\*\* - Latest estimate for FY 2002. \*\*\* - AAAS estimates of President's request for FY 2003.

The full version of this table ('76-'03) is available on the World Wide Web at [www.aaas.org/spp/R&D/](http://www.aaas.org/spp/R&D/).