

Federal R&D Funding by Budget Function: Fiscal Years 2004–06

Detailed Statistical Tables

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CONTENTS

ACKNOWLEDGMENTS.....	iii
NOTES TO THE READER.	1
REPORT ORGANIZATION.....	1
DEFINITIONS.	1
R&D.	1
BUDGET AUTHORITY, OBLIGATIONS, AND OUTLAYS.	2
BUDGET FUNCTIONS.....	2
DATA SOURCES.	2
AGENCY/FUNCTION CROSSWALK.....	4
LIST OF TABLES.	5

NOTES TO THE READER

This annual report contains information about federal funding of the research and development (R&D) and the R&D plant components of agency programs, as proposed by the administration for fiscal year (FY) 2006. R&D data in this report are classified into the same federal budget function categories used in the *Budget of the United States Government, Fiscal Year 2006*, prepared by the Office of Management and Budget (OMB). Proposed FY 2006 funding levels are for budget authority (defined below), which is the basis for initial congressional action. In future *Budget Function* annual reports, these data will be revised to reflect congressional appropriation and actual program-funding decisions.

Detailed data are included on *preliminary* estimates of federal funding of R&D for FY 2005. This report also includes detailed data (by subfunction) on actual budget authorizations of R&D by federal agencies in FY 2004 and aggregate data (by broad function) on actual R&D budget authorizations in FY 2003 and earlier years.

REPORT ORGANIZATION

These notes introduce basic budget terms and concepts used in this report. The rest of the report is divided into three sections:

- 1. Federal R&D Budget Authority by Budget Function** consists of eight tables. Table 1 contains total combined R&D and R&D plant data. Table 2 contains total combined R&D data (excluding R&D plant data). Tables 3, 4, 7, and 8 provide an overview of federal R&D (and R&D plant) funding in the context of requested total federal budget authority. Table 5 contains data on federal R&D funding for national defense and civilian programs in current dollars for FY 1955–2006. Table 6 contains data on budget authority for basic research by budget function for FY 2004–06.
- 2. R&D by Specific Budget Function** presents data on R&D and R&D plant activities conducted within each budget function. This section consists of 29 tables (tables 9–37) that summarize the data for FY 2004–06.

- 3. Historical Table** (table 38) presents two historical data series: (1) federal R&D funding by budget function for FY 1955–2006 and (2) federal funding of basic research for FY 1978–2006.

DEFINITIONS

R&D

In this report, *R&D* refers to both basic and applied research and development activities in the sciences and engineering.

Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Research is classified as either basic or applied according to the objective of the sponsoring agency.

- *Basic research* is defined as systematic study directed toward fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.
- *Applied research* is defined as systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

Development is defined as systematic application of knowledge or understanding, directed toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements. It excludes quality control, routine product testing, and production.

Funds for conducting R&D include those for personnel, program supervision, and administrative support directly associated with R&D activities. Expendable or movable equipment needed to conduct R&D—for example, microscopes or spectrometers—is also included.

R&D plant includes R&D facilities such as reactors, wind tunnels, or particle accelerators or the construction, repair, or alteration of such facilities.

This report excludes all non-R&D activities performed within budget functions that conduct R&D and all functions in which no R&D is conducted.

BUDGET AUTHORITY, OBLIGATIONS, AND OUTLAYS

The federal R&D funding data presented here, with a few noted exceptions, are provided in budget authority. Budget authority is used because it is the initial budget parameter for congressional action on the President's proposed budget. Budget authority imposes a ceiling on obligations and outlays; obligations and outlays flow from budget authority.

- *Budget authority* is the primary source of legal authorization to enter into obligations that will result in outlays. Budget authority is most commonly granted in the form of appropriations by the congressional committees assigned to determine the budget for each function.
- *Obligations* represent the amounts for orders placed, contracts awarded, services received, and similar transactions during a given period, regardless of when the funds were appropriated and when the future payment of money is required.
- *Outlays* represent the amounts for checks issued and cash payments made during a given period, regardless of when the funds were appropriated or obligated.

BUDGET FUNCTIONS

All activities covered by the federal budget, including R&D, are classified into 20 broad functional categories. The federal budget total comprises funding for these 20 functions. An agency's activities are not necessarily included in only one function. Instead, the programs of one agency typically are distributed across functions, and each function often includes programs from multiple agencies. No overlap occurs among functions or among the various agency programs within those functions. In a few cases, components of a major national effort are funded through multiple functions, such as the human genome activities, which are funded under the health and general science categories.

Notably, each specific R&D activity is assigned to only one function area, consistent with the official codes used in budget documents, even though the R&D activ-

ity may address several functional concerns. For example, except for those of the U.S. Army Corps of Engineers, all R&D activities sponsored by the Department of Defense (DOD) are classified as defense, even though some activities have secondary objectives such as space or health. Moreover, only R&D funded by the Department of Health and Human Services and the Department of Labor is classified in the health function category. Yet some R&D funding, from at least three additional agencies—DOD and the Departments of Energy and Veterans Affairs—has a major health component.

The functional categories and definitions used in this report are the same as those used in the federal budget, with one exception. R&D activities categorized as general science, space, and technology (function 250) are reported separately here. Subfunction 251 contains R&D activities for general science and basic research, and subfunction 252 contains R&D activities for space research and technology. Not all federally sponsored basic research is categorized in function 251, however; some basic research is included in 12 of the remaining 19 functional categories.

Five federal budget functions—Medicare (function 570), Social Security (function 650), net interest (function 900), allowances (function 920), and undistributed offsetting receipts (function 950)—have no R&D components. Consequently, they are not discussed in this report, except where R&D is described as a proportion of total federal budget authority.

For FY 2004–06, no R&D was authorized for general government (function 800), as was the case in the last report. In previous years, small amounts of R&D were authorized for this budget function.

The agency/function crosswalk at the end of this section lists (by name and function code) the 15 individual R&D functions funded by agencies.

DATA SOURCES

Within the overall federal budget, there is no separately identified R&D budget as such, nor are most appropriations for R&D so labeled except in the case of certain program areas such as defense, energy, health, and environment. Consequently, most funds for R&D are not line items in agency budget submissions but are included within general program funding. To determine funding for federal R&D, OMB requires agencies with annual R&D funding greater than \$10 million to submit

data on their R&D programs as part of their annual budget submissions. Specifically, the agencies provide data—reported, in accordance with OMB Circular A-11, MAX Schedule C, “Research and Development Activities”—on funding levels for basic research, applied research, development, R&D facilities, and capital equipment for R&D.

The data in this report represent agencies’ best estimates of actual and proposed federal funding for R&D collected during the period between February and April 2004. These data are based primarily on information provided to OMB by 24 agencies and account for an esti-

mated 99 percent of all federally sponsored R&D activities. Also included in this report is R&D information that became available from the individual agencies after the administration’s budget was prepared and reported in the *Budget of the United States Government*. This information consists of agency budget justification documents submitted to Congress and supplemental, program-specific information obtained from agency budget and program staff through mid-March 2005. Therefore, budget numbers for individual activities, programs, or agencies may differ slightly from those published in the President’s budget or agency budget documents.

AGENCY/FUNCTION CROSSWALK

AGENCIES	FUNCTIONS														
	National Defense (050)	Health (556)	Space Research and Technology (252)	General Science (251)	Energy (270)	Transportation (400)	Natural Resources and Environment (300)	Agriculture (350)	Education, Training, Employment, and Social Services (500)	Veterans Benefits and Services (700)	International Affairs (150)	Commerce and Housing Credit (370)	Community and Regional Development (450)	Administration of Justice (750)	Income Security (600)
Agency for International Development										●					
Army Corps of Engineers (Civil)							●								
Dept. of Agriculture							●	●							
Dept. of Commerce							●				●				
Dept. of Defense (Military)	●														
Dept. of Education									●						
Dept. of Energy	●			●	●										
Dept. of Health and Human Services		●							●						
Dept. of Homeland Security	●					●								●	
Dept. of Housing and Urban Development												●			
Dept. of Justice													●		
Dept. of Labor		●							●						
Dept. of the Interior							●								
Dept. of Transportation						●									
Dept. of Veterans Affairs										●					
Environmental Protection Agency							●								
Marine Mammal Commission							●								
National Aeronautics and Space Adm.			●			●									
National Science Foundation				●											
Nuclear Regulatory Commission					●										
Smithsonian Institution									●						
Social Security Administration															●
Tennessee Valley Authority					●										

● = R&D function funded by specified agency.

SOURCES: Agencies' submission to Office of Management and Budget, Circular No. A-11, Max Schedule C, "Research and Development Activities;" agency budget justification documents; and supplemental data from the agencies' budget offices.

LIST OF TABLES

<i>Section</i>	<i>Page</i>
Federal R&D Budget Authority by Budget Function	
Table 1. Federal research and development and research and development plant budget authority, by budget function: FY 2004–06	8
Table 2. Federal research and development budget authority, by budget function: FY 2004–06	9
Table 3. Distribution of total federal research and development and research and development plant budget authority, by budget function: FY 2004–06	10
Table 4. Distribution of total federal research and development budget authority, by budget function: FY 2004–06	11
Table 5. Federally funded research and development for national defense and civilian functions: FY 1955–2006	12
Table 6. Federal budget authority for basic research, by budget function: FY 2004–06	14
Table 7. Federal research and development and research and development plant budget authority as a percentage of total budget authority, by budget function: FY 2004–06	15
Table 8. Federal research and development budget authority as a percentage of total budget authority, by budget function: FY 2004–06	16
R&D by Specific Budget Function	
Table 9. Federal research and development and research and development plant budget authority for national defense (050): FY 2004–06	17
Table 10. Federal research and development budget authority for national defense (050): FY 2004–06	18
Table 11. Total obligational authority for Department of Defense research, development, test, and evaluation budget: FY 2004–06	19
Table 12. Federal research and development and research and development plant budget authority for health (550): FY 2004–06	20
Table 13. Federal research and development budget authority for health (550): FY 2004–06	21
Table 14. Federal research and development and research and development plant budget authority for the National Institutes of Health: FY 2004–06	22

<i>Section</i>	<i>Page</i>
Table 15. Federal research and development budget authority for the National Institutes of Health: FY 2004–06	23
Table 16. Federal research and development and research and development plant budget authority for space research and technology (252): FY 2004–06	24
Table 17. Federal research and development budget authority for space research and technology (252): FY 2004–06	25
Table 18. Federal research and development and research and development plant budget authority for general science and basic research (251): FY 2004–06	26
Table 19. Federal research and development budget authority for general science and basic research (251): FY 2004–06	27
Table 20. Federal research and development and research and development plant budget authority for natural resources and environment (300): FY 2004–06	28
Table 21. Federal research and development budget authority for natural resources and environment (300): FY 2004–06	29
Table 22. Federal research and development and research and development plant budget authority for agriculture (350): FY 2004–06	30
Table 23. Federal research and development budget authority for agriculture (350): FY 2004–06	31
Table 24. Federal research and development and research and development plant budget authority for transportation (400): FY 2004–06	32
Table 25. Federal research and development budget authority for transportation (400): FY 2004–06	33
Table 26. Federal research and development and research and development plant budget authority for energy (270): FY 2004–06	34
Table 27. Federal research and development budget authority for energy (270): FY 2004–06	35
Table 28. Federal research and development and research and development plant budget authority for administration of justice (750): FY 2004–06	36
Table 29. Federal research and development budget authority for administration of justice (750): FY 2004–06	37
Table 30. Federal research and development budget authority for veterans benefits and services (700): FY 2004–06	38
Table 31. Federal research and development and research and development plant budget authority for commerce and housing credit (370): FY 2004–06	39

<i>Section</i>	<i>Page</i>
Table 32. Federal research and development budget authority for commerce and housing credit (370): FY 2004–06	40
Table 33. Federal research and development and research and development plant budget authority for education, training, employment, and social services (500): FY 2004–06	41
Table 34. Federal research and development budget authority for education, training, employment, and social services (500): FY 2004–06	42
Table 35. Federal research and development budget authority for the international affairs (150): FY 2004–06	43
Table 36. Federal research and development budget authority for community and regional development (450): FY 2004–06	44
Table 37. Federal research and development budget authority for income security (600): FY 2004–06	45

Historical Table

Table 38. Federal research and development obligations, budget authority, and budget authority for basic research, by budget function: FY 1955–2006	46
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TABLE 1. Federal research and development and research and development plant budget authority, by budget function: FY 2004–06

2006 rank	Budget function	2004 actual	2005 preliminary	2006 proposed	2004–05	2005–06
		\$ millions			% change	
	All functions conducting R&D	126,270	132,156	132,195	4.7	0.0
1	National defense	70,344	75,395	75,379	7.2	0.0
2	Health	28,480	29,046	29,107	2.0	0.2
3	Space research and technology	9,746	10,083	10,645	3.5	5.6
4	General science and basic research	7,352	7,391	7,354	0.5	-0.5
5	Natural resources and environment	2,244	2,173	2,023	-3.2	-6.9
6	Agriculture	1,910	2,089	1,733	9.4	-17.1
7	Transportation	1,881	1,846	1,659	-1.9	-10.1
8	Energy	1,369	1,223	1,240	-10.7	1.3
9	Administration of justice	752	813	1,057	8.1	30.0
10	Veterans benefits and services	866	784	786	-9.5	0.3
11	Commerce and housing credit	499	498	448	-0.1	-9.9
12	Education, training, employment, and social services	469	479	441	2.1	-7.9
13	International affairs	264	255	255	-3.4	0.0
14	Community and regional development	47	45	41	-4.3	-8.9
15	Income security	47	35	27	-25.5	-22.9

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 2. Federal research and development budget authority, by budget function: FY 2004–06

2006 rank	Budget function	2004 actual	2005 preliminary	2006 proposed	2004–05	2005–06
		\$ millions			% change	
	All functions conducting R&D	121,867	127,336	127,621	4.5	0.2
1	National defense	69,593	74,668	74,759	7.3	0.1
2	Health	28,251	28,746	28,984	1.8	0.8
3	Space research and technology	7,612	7,686	8,089	1.0	5.2
4	General science and basic research	6,466	6,482	6,423	0.3	-0.9
5	Natural resources and environment	2,168	2,108	1,990	-2.8	-5.6
6	Transportation	1,863	1,828	1,640	-1.9	-10.3
7	Agriculture	1,750	1,803	1,575	3.1	-12.7
8	Energy	1,343	1,194	1,210	-11.1	1.3
9	Administration of justice	684	789	1,033	15.4	31.0
10	Veterans benefits and services	866	784	786	-9.5	0.3
11	Education, training, employment, and social services	459	455	420	-0.9	-7.7
12	Commerce and housing credit	454	457	388	0.7	-15.0
13	International affairs	264	255	255	-3.4	0.0
14	Community and regional development	47	45	41	-4.3	-8.9
15	Income security	47	35	27	-25.5	-22.9

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 3. Distribution of total federal research and development and research and development plant budget authority, by budget function: FY 2004–06
(Percent distribution)

2006 rank	Budget function	2004 actual	2005 preliminary	2006 proposed
	All functions conducting R&D	100.0	100.0	100.0
1	National defense	55.7	57.1	57.0
2	Health	22.6	22.0	22.0
3	Space research and technology	7.7	7.6	8.1
4	General science and basic research	5.8	5.6	5.6
5	Natural resources and environment	1.8	1.6	1.5
6	Agriculture	1.5	1.6	1.3
7	Transportation	1.5	1.4	1.3
8	Energy	1.1	0.9	0.9
9	Administration of justice	0.6	0.6	0.8
10	Veterans benefits and services	0.7	0.6	0.6
11	Commerce and housing credit	0.4	0.4	0.3
12	Education, training, employment, and social services	0.4	0.4	0.3
13	International affairs	0.2	0.2	0.2
14	Community and regional development	*	*	*
15	Income security	*	*	*

* = less than 0.05 percent.

NOTE: Detail may not add to total because of rounding.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 4. Distribution of total federal research and development budget authority,
by budget function: FY 2004–06
(Percent distribution)

2006 rank	Budget function	2004 actual	2005 preliminary	2006 proposed
	All functions conducting R&D	100.0	100.0	100.0
1	National defense	57.1	58.6	58.6
2	Health	23.2	22.6	22.7
3	Space research and technology	6.2	6.0	6.3
4	General science and basic research	5.3	5.1	5.0
5	Natural resources and environment	1.8	1.7	1.6
6	Transportation	1.5	1.4	1.3
7	Agriculture	1.4	1.4	1.2
8	Energy	1.1	0.9	0.9
9	Administration of justice	0.6	0.6	0.8
10	Veterans benefits and services	0.7	0.6	0.6
11	Education, training, employment, and social services	0.4	0.4	0.3
12	Commerce and housing credit	0.4	0.4	0.3
13	International affairs	0.2	0.2	0.2
14	Community and regional development	*	*	*
15	Income security	*	*	*

* = less than 0.05 percent.

NOTE: Detail may not add to total because of rounding.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 5. Federally funded research and development for national defense and civilian functions: FY 1955–2006

FY	Total	National defense	Civilian functions	Total	National defense	Civilian functions
	Millions of current dollars			% distribution		
1955	2,533	2,151	382	100.0	84.9	15.1
1956	2,988	2,535	453	100.0	84.8	15.2
1957	3,932	3,327	605	100.0	84.6	15.4
1958	4,570	3,801	769	100.0	83.2	16.8
1959	6,694	5,556	1,138	100.0	83.0	17.0
1960	7,552	6,107	1,445	100.0	80.9	19.1
1961	9,059	7,005	2,054	100.0	77.3	22.7
1962	10,290	7,238	3,052	100.0	70.3	29.7
1963	12,495	7,764	4,731	100.0	62.1	37.9
1964	14,225	7,829	6,396	100.0	55.0	45.0
1965	14,614	7,342	7,272	100.0	50.2	49.8
1966	15,320	7,536	7,784	100.0	49.2	50.8
1967	16,529	8,566	7,963	100.0	51.8	48.2
1968	15,921	8,275	7,646	100.0	52.0	48.0
1969	15,641	8,356	7,285	100.0	53.4	46.6
1970	15,339	7,981	7,358	100.0	52.0	48.0
1971	15,543	8,110	7,433	100.0	52.2	47.8
1972	16,496	8,902	7,594	100.0	54.0	46.0
1973	16,800	9,002	7,798	100.0	53.6	46.4
1974	17,410	9,016	8,394	100.0	51.8	48.2
1975	19,039	9,679	9,360	100.0	50.8	49.2
1976	20,780	10,430	10,350	100.0	50.2	49.8
1977	23,450	11,864	11,586	100.0	50.6	49.4
1978	25,976	12,899	13,077	100.0	49.7	50.3
1979	28,208	13,791	14,417	100.0	48.9	51.1
1980	29,739	14,946	14,793	100.0	50.3	49.7
1981	33,735	18,413	15,322	100.0	54.6	45.4
1982	36,115	22,070	14,045	100.0	61.1	38.9
1983	38,768	24,936	13,832	100.0	64.3	35.7
1984	44,214	29,287	14,927	100.0	66.2	33.8
1985	49,887	33,698	16,189	100.0	67.5	32.5
1986	53,249	36,926	16,323	100.0	69.3	30.7
1987	57,069	39,152	17,917	100.0	68.6	31.4
1988	59,106	40,099	19,007	100.0	67.8	32.2
1989	62,115	40,665	21,450	100.0	65.5	34.5
1990	63,781	39,925	23,856	100.0	62.6	37.4
1991	65,898	39,328	26,570	100.0	59.7	40.3
1992	68,398	40,083	28,315	100.0	58.6	41.4
1993	69,884	41,249	28,635	100.0	59.0	41.0
1994	68,331	37,764	30,566	100.0	55.3	44.7
1995	68,791	37,204	31,587	100.0	54.1	45.9
1996	69,049	37,801	31,248	100.0	54.7	45.3
1997	71,653	39,591	32,062	100.0	55.3	44.7
1998	73,569	39,823	33,746	100.0	54.1	45.9
1999	77,637	41,306	36,332	100.0	53.2	46.8
2000	78,664	42,580	36,084	100.0	54.1	45.9

TABLE 5. Federally funded research and development for national defense and civilian functions: FY 1955–2006

FY	Millions of current dollars			% distribution		
	Total	National defense	Civilian functions	Total	National defense	Civilian functions
2001	86,756	45,713	41,043	100.0	52.7	47.3
2002	97,624	53,016	44,608	100.0	54.3	45.7
2003	112,544	63,048	49,495	100.0	56.0	44.0
2004	121,867	69,593	52,274	100.0	57.1	42.9
2005	127,336	74,668	52,668	100.0	58.6	41.4
2006	127,621	74,759	52,862	100.0	58.6	41.4

NOTES: National defense function includes Department of Defense's military activities, Department of Energy's atomic energy defense program, and defense-related R&D of Department of Homeland Security. Civilian functions include all other federally funded R&D activities. Data for 1955–77 are obligations, data for 1978–2004 are actual budget authority, data for 2005 are preliminary estimates of budget authority, and data for 2006 are budget authority proposed by the administration.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 6. Federal budget authority for basic research, by budget function: FY 2004–06

2006 rank	Budget function	2004 actual	2005 preliminary	2006 proposed	2004–05	2005–06
		\$ millions			% change	
	All functions conducting R&D	26,529	26,840	26,536	1.2	-1.1
4	National defense	1,380	1,545	1,353	11.9	-12.4
1	Health	14,850	15,114	15,235	1.8	0.8
3	Space research and technology	2,473	2,368	2,199	-4.3	-7.1
2	General science and basic research	6,198	6,203	6,146	0.1	-0.9
7	Natural resources and environment	201	152	151	-24.3	-0.6
11	Transportation	20	37	42	85.0	13.5
5	Agriculture	780	802	738	2.8	-8.0
12	Energy	32	32	25	0.0	-20.3
9	Administration of justice	58	67	104	17.0	55.1
6	Veterans benefits and services	347	315	315	-9.2	0.0
8	Education, training, employment, and social services	125	127	134	1.6	5.5
10	Commerce and housing credit	46	61	74	31.2	22.1
13	International affairs	18	18	18	0.0	0.0
-	Community and regional development	0	0	0	na	na
-	Income security	0	0	0	na	na

- = no dollar amount for basic research.

na = not applicable.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data. The order of budget functions is same as order for Federal R&D budget authority by budget function shown in table 2.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 7. Federal research and development and research and development plant budget authority as percentage of total budget authority, by budget function: FY 2004–06

2006 rank	Budget function	2004 actual	2005 preliminary	2006 proposed
	All functions conducting R&D	8.3	9.1	8.8
4	National defense	14.3	17.8	17.1
5	Health	11.3	11.3	10.1
3	Space research and technology	68.1	65.9	68.2
1	General science and basic research	81.1	81.0	80.6
6	Natural resources and environment	6.9	6.8	7.1
7	Agriculture	5.8	7.2	6.9
10	Transportation	2.6	2.6	2.4
2	Energy ^a	43.0	92.9	74.1
9	Administration of justice	1.6	2.0	2.6
11	Veterans benefits and services	1.4	1.2	1.2
8	Commerce and housing credit	3.5	3.5	4.0
13	Education, training, employment, and social services	0.5	0.5	0.5
12	International affairs	0.6	1.0	0.8
14	Community and regional development	0.3	0.2	0.3
15	Income security	*	*	*

* = less than 0.05 percent.

^a The percentages calculated by dividing the energy R&D and R&D plant budget authority by the total energy budget authority fluctuated greatly between FY 2004–06 due to fluctuations in the total energy budget authority, as reported in the *Historical Tables of the Budget of the United States Government, Fiscal Year 2006*.

NOTES: Total budget authority includes discretionary and mandatory budget authority, less offsets. Order of budget functions is same as order for federal R&D and R&D plant budget authority by budget function shown in table 1.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; supplemental data obtained from agencies' budget offices; and Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2006* (Washington, DC: U.S. Government Printing Office, 2005).

TABLE 8. Federal research and development budget authority as percentage of total budget authority, by budget function: FY 2004–06

2006		2004	2005	2006
rank	Budget function	actual	preliminary	proposed
	All functions conducting R&D	8.0	8.8	8.5
4	National defense	14.2	17.6	16.9
5	Health	11.2	11.2	10.0
3	Space research and technology	53.2	50.3	51.8
2	General science and basic research	71.3	71.0	70.4
6	Natural resources and environment	6.6	6.5	7.0
7	Transportation	5.7	6.3	6.5
10	Agriculture	2.5	2.5	2.3
1	Energy ^a	42.2	90.7	72.4
9	Administration of justice	1.5	2.0	2.5
11	Veterans benefits and services	1.4	1.2	1.2
13	Education, training, employment, and social services	0.5	0.5	0.5
8	Commerce and housing credit	3.2	3.3	3.5
12	International affairs	0.6	1.0	0.8
14	Community and regional development	0.3	0.2	0.3
15	Income security	*	*	*

* = less than 0.05 percent.

^a The percentages calculated by dividing the energy R&D budget authority by the total energy budget authority fluctuated greatly between FY 2004–06 due to fluctuations in the total energy budget authority, as reported in the *Historical Tables* of the *Budget of the United States Government, Fiscal Year 2006*.

NOTES: Total budget authority includes discretionary and mandatory budget authority, less offsets. Order of budget functions is same as order for federal R&D budget authority by budget function shown in table 2.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; supplemental data obtained from agencies' budget offices; and Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2006* (Washington, DC: U.S. Government Printing Office, 2005).

TABLE 9. Federal research and development and research and development plant budget authority for national defense (050): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	70,344	75,395	75,379	0.0
Department of Defense-military (051) (DOD)	65,948	70,929	71,009	0.1
RDT&E	64,643	68,797	69,356	0.8
Defense agencies	18,910	20,474	18,803	-8.2
Defense Advanced Research Projects Agency	2,815	2,977	3,084	3.6
Missile Defense Agency	7,567	8,783	7,775	-11.5
Other defense agencies	8,528	8,714	7,944	-8.8
Department of the Air Force	20,291	20,754	22,612	9.0
Department of the Army	10,219	10,528	9,734	-7.5
Department of the Navy	14,921	16,731	18,038	7.8
Operational test and evaluation	302	310	168	-45.7
Other military funding ^a	1,305	2,132	1,653	-22.5
Department of Energy-atomic energy defense activities (053) (DOE)	4,198	4,138	4,031	-2.6
Environmental restoration and waste management	43	56	61	8.9
Naval reactors development	735	772	756	-2.1
Nonproliferation	226	224	272	8.9
Weapons activities	3,186	3,084	2,940	-4.7
Other defense activities	8	2	2	0.0
Department of Homeland Security (DHS)	197	328	339	3.4

RDT&E = research, development, test, and evaluation.

051 = budget subfunction code for DOD - military.

053 = budget subfunction code for atomic energy defense activities.

^aThis item includes appropriate personnel costs in direct support of conduct of research and development, other appropriations funding certain DOD programs, and medical research funded outside RDT&E accounts.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: DOD, DOE, and DHS submissions to Office of Management and Budget, MAX Schedule C; and DOD, RDT&E Programs (R-1).

TABLE 10. Federal research and development budget authority for national defense (050): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	69,593	74,668	74,759	0.1
Department of Defense-military (051) (DOD)	65,896	70,774	70,959	0.3
RDT&E	64,643	68,797	69,356	0.8
Defense agencies	18,910	20,474	18,803	-8.2
Defense Advanced Research Projects Agency	2,815	2,977	3,084	3.6
Missile Defense Agency	7,567	8,783	7,775	-11.5
Other defense agencies	8,528	8,714	7,944	-8.8
Department of the Air Force	20,291	20,754	22,612	9.0
Department of the Army	10,219	10,528	9,734	-7.5
Department of the Navy	14,921	16,731	18,038	7.8
Operational test and evaluation	302	310	168	-45.7
Other military funding ^a	1,253	1,977	1,603	-18.9
Department of Energy-atomic energy defense activities (053) (DOE)	3,519	3,577	3,470	-3.0
Environmental restoration and waste management	43	56	61	8.9
Naval reactors development	681	712	687	-3.6
Nonproliferation	164	148	196	32.4
Weapons activities	2,623	2,659	2,524	-5.1
Other defense activities	8	2	2	0.0
Department of Homeland Security (DHS)	177	317	331	4.3

RDT&E = research, development, test, and evaluation.

051 = budget subfunction code for DOD - military.

053 = budget subfunction code for atomic energy defense activities.

^a This item includes appropriate personnel costs in direct support of conduct of research and development, other appropriations funding certain DOD programs, and medical research funded outside RDT&E accounts.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: DOD, DOE, and DHS submissions to Office of Management and Budget, MAX Schedule C; and DOD, RDT&E Programs (R-1).

TABLE 11. Total obligational authority for Department of Defense research, development, test, and evaluation budget: FY 2004-06

Funding category and agency	2004	2005	2006	2005-06
	actual	preliminary	proposed	
	\$ millions			% change
Total RDT&E (budget authority)	64,643	68,797	69,356	0.8
Total RDT&E (TOA) ^a	64,367	69,200	69,356	0.2
Basic research	1,358	1,513	1,319	- 12.9
Defense agencies	195	246	222	- 9.8
Department of the Air Force	326	383	341	- 11.1
Department of the Army	369	393	308	- 21.7
Department of the Navy	468	491	448	- 8.7
Applied research	4,347	4,850	4,139	- 14.7
Defense agencies	1,738	1,964	2,018	2.8
Department of the Air Force	886	946	852	- 9.9
Department of the Army	1,046	1,118	671	- 39.9
Department of the Navy	678	822	598	- 27.3
Advanced technology development	6,185	6,708	5,064	- 24.5
Defense agencies	2,875	3,332	2,790	- 16.3
Department of the Air Force	1,074	1,000	788	- 21.3
Department of the Army	1,187	1,385	756	- 45.4
Department of the Navy	1,036	975	730	- 25.1
Operational test and evaluation	13	15	0	- 100.0
Advanced component development and prototypes	12,947	14,711	14,143	- 3.9
Defense agencies	7,332	8,909	7,747	- 13.0
Department of the Air Force	1,988	1,831	2,754	50.4
Department of the Army	874	874	365	- 58.3
Department of the Navy	2,753	3,097	3,276	5.8
System development and demonstration	15,339	17,222	19,754	14.7
Defense agencies	330	442	579	31.1
Department of the Air Force	4,377	4,552	5,071	11.4
Department of the Army	4,500	4,580	5,226	14.1
Department of the Navy	6,132	7,647	8,878	16.1
Management support	4,443	3,721	3,777	1.5
Defense agencies	1,052	798	809	1.3
Department of the Air Force	1,001	764	951	24.3
Department of the Army	1,140	1,174	1,093	- 6.9
Department of the Navy	961	689	757	9.9
Operational test and evaluation	289	296	168	- 43.1
Operational systems development	19,747	20,475	21,160	3.3
Defense agencies	5,334	4,921	4,638	- 5.7
Department of the Air Force	10,582	11,335	11,856	4.6
Department of the Army	1,086	1,034	1,315	27.2
Department of the Navy	2,746	3,186	3,351	5.2
Adjustment for RDT&E budget authority ^a	276	-403	0	na

na = not applicable.

RDT&E = research, development, test, and evaluation.

TOA = total obligational authority.

^aDetailed budget information on DOD RDT&E activities is available only in TOA, which is the sum of new budget authority, unobligated budget authority from previous years, and other authorized credits. Adjustment converts TOA to budget authority by subtracting unobligated budget from authority from previous years and other authorized credits from TOA.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Data derived from DOD, RDT&E Programs (R-1); and Office of Management and Budget, Budget of the United States Government, Fiscal Year 2006 (Washington: DC, U.S. Government Printing Office, 2005).

TABLE 12. Federal research and development and research and development plant budget authority for health (550): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	28,480	29,046	29,107	0.2
Health care services and health research and training (551, 552)	28,335	28,892	28,955	0.2
Department of Health and Human Services (DHHS)				
Agency for Healthcare Research and Quality	333	351	348	- 0.9
Centers for Disease Control and Prevention	521	485	485	0.0
Centers for Medicare and Medicaid Services	78	78	45	- 42.3
Health Resources and Services Administration	46	57	30	- 47.4
National Institutes of Health	27,248	27,784	27,925	0.5
Departmental Management	109	137	122	- 10.9
Consumer and occupational health and safety (554)	145	154	152	- 1.3
Food and Drug Administration (DHHS)	142	151	149	- 1.3
Occupational Safety and Health Administration (DOL)	3	3	3	0.0

DOL = Department of Labor.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from agencies' budget offices.

TABLE 13. Federal research and development budget authority for health (550): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	28,251	28,746	28,984	0.8
Health care services and health research and training (551, 552)	28,118	28,595	28,835	0.8
Department of Health and Human Services (DHHS)				
Agency for Healthcare Research and Quality	333	351	348	- 0.9
Centers for Disease Control and Prevention	521	485	485	0.0
Centers for Medicare and Medicaid Services	78	78	45	- 42.3
Health Resources and Services Administration	46	57	30	- 47.4
National Institutes of Health	27,031	27,487	27,805	1.2
Departmental Management	109	137	122	- 10.9
Consumer and occupational health and safety (554)	133	151	149	- 1.3
Food and Drug Administration (DHHS)	130	148	146	- 1.4
Occupational Safety and Health Administration (DOL)	3	3	3	0.0

DOL = Department of Labor.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from agencies' budget offices.

TABLE 14. Federal research and development and research and development plant budget authority for the National Institutes of Health: FY 2004–06

Agency by 2006 funding level	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	27,248	27,784	27,925	0.5
National Cancer Institute	4,671	4,752	4,769	0.4
National Institute of Allergy and Infectious Diseases	4,241	4,338	4,395	1.3
National Heart, Lung, and Blood Institute	2,788	2,849	2,859	0.3
National Institute of Diabetes and Digestive and Kidney Diseases	1,764	1,807	1,814	0.4
National Institute of General Medical Sciences	1,715	1,753	1,763	0.5
National Institute of Neurological Disorders and Stroke	1,469	1,507	1,518	0.7
National Institute of Mental Health	1,319	1,349	1,355	0.4
National Institute of Child Health and Human Development	1,204	1,232	1,239	0.6
National Center for Research Resources	1,173	1,109	1,094	- 1.3
National Institute on Aging	1000	1,027	1,032	0.5
National Institute on Drug Abuse	974	984	985	0.1
National Institute of Environmental Health Sciences ^a	689	704	708	0.5
National Eye Institute	640	656	660	0.7
National Institute of Arthritis and Musculoskeletal and Skin Diseases	487	495	497	0.4
National Human Genome Research Institute	471	481	483	0.5
National Institute on Alcohol Abuse and Alcoholism	417	426	429	0.5
Office of the Director	327	358	385	7.6
National Institute on Deafness and Other Communication Disorders	368	380	384	0.8
National Institute of Dental and Cranofacial Research	367	375	376	0.4
National Library of Medicine	308	315	318	0.9
National Institute of Biomedical Imaging and Bioengineering	283	290	291	0.6
National Center for Minority Health and Health Disparities	172	176	176	0.1
National Institute of Nursing Research	124	127	128	0.3
National Center for Complementary and Alternative Medicine	113	118	118	0.5
John E. Fogarty International Center	65	67	67	0.6
Buildings and facilities	99	110	82	- 25.7

^a Includes funding from Superfund-related transfers and appropriations.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data. Institute totals exclude non-R&D components of institute budgets.

SOURCES: Departmental submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from NIH budget office.

TABLE 15. Federal research and development budget authority for the National Institutes of Health: FY 2004–06

Agency by 2006 funding level	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	27,031	27,487	27,805	1.2
National Cancer Institute	4,671	4,744	4,761	0.4
National Institute of Allergy and Infectious Diseases	4,241	4,189	4,365	4.2
National Heart, Lung, and Blood Institute	2,788	2,849	2,859	0.3
National Institute of Diabetes and Digestive and Kidney Diseases	1,764	1,807	1,814	0.4
National Institute of General Medical Sciences	1,715	1,753	1,763	0.5
National Institute of Neurological Disorders and Stroke	1,469	1,507	1,518	0.7
National Institute of Mental Health	1,319	1,349	1,355	0.4
National Institute of Child Health and Human Development	1,204	1,232	1,239	0.6
National Center for Research Resources	1,055	1,079	1,094	1.4
National Institute on Aging	1,000	1,027	1,032	0.5
National Institute on Drug Abuse	974	984	985	0.1
National Institute of Environmental Health Sciences ^a	689	704	708	0.5
National Eye Institute	640	656	660	0.7
National Institute of Arthritis and Musculoskeletal and Skin Diseases	487	495	497	0.4
National Human Genome Research Institute	471	481	483	0.5
National Institute on Alcohol Abuse and Alcoholism	417	426	429	0.5
Office of the Director	327	358	385	7.6
National Institute on Deafness and Other Communication Disorders	368	380	384	0.8
National Institute of Dental and Cranofacial Research	367	375	376	0.4
National Library of Medicine	308	315	318	0.9
National Institute of Biomedical Imaging and Bioengineering	283	290	291	0.6
National Center for Minority Health and Health Disparities	172	176	176	0.1
National Institute of Nursing Research	124	127	128	0.3
National Center for Complementary and Alternative Medicine	113	118	118	0.5
John E. Fogarty International Center	65	67	67	0.6

^a Includes funding from Superfund-related transfers and appropriations.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data. Institute totals exclude non-R&D and R&D facilities components of institute budgets.

SOURCES: Departmental submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from NIH budget office.

TABLE 16. Federal research and development and research and development plant budget authority for space research and technology (252): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	9,746	10,083	10,645	5.6
National Aeronautics and Space Administration (NASA) ^a				
Biological and physical research	986	1,031	0	-100.0
Crosscutting technology	1,588	0	0	na
Earth science	1,608	1,459	0	-100.0
Earth-sun system	0	0	2,064	na
Education programs	209	195	146	-25.0
Exploration systems	0	1,654	3,165	91.4
Space science	3,992	4,068	0	-100.0
Space station	1,364	1,676	1,857	10.8
Solar system exploration	0	0	1,901	na
Universe	0	0	1,512	na

na = not applicable.

^a NASA proposes to restructure its budget in FY 2005 and 2006, including the creation of two new directorates, Exploration Capabilities and Science, Aeronautics and Exploration.

NOTES: Includes funds for research and research program management but excludes fixed capital equipment costs. Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: NASA submissions to Office of Management and Budget, MAX Schedule C; NASA budget justification documents; and supplemental data obtained from NASA budget and NASA budget office.

TABLE 17. Federal research and development budget authority for space research and technology (252): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	7,612	7,686	8,089	5.2
National Aeronautics and Space Administration (NASA) ^a				
Biological and physical research	443	588	0	-100.0
Crosscutting technology	1,588	0	0	na
Earth science	1,608	1,459	0	-100.0
Earth-sun system	0	0	2,049	na
Education programs	209	195	146	-25.0
Exploration systems	0	1,654	2,782	68.2
Space science	3,763	3,790	0	-100.0
Space station	0	0	0	na
Solar system exploration	0	0	1,839	na
Universe	0	0	1,273	na

na = not applicable.

^a NASA proposes to restructure its budget in FY 2005 and 2006, including the creation of two new directorates, Exploration Capabilities and Science, Aeronautics and Exploration.

NOTES: Includes funds for research and research program management but excludes fixed capital equipment costs. Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: NASA submissions to Office of Management and Budget, MAX Schedule C; NASA budget justification documents; and supplemental data obtained from NASA budget and NASA budget office.

TABLE 18. Federal research and development and research and development plant budget authority for general science and basic research (251): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	7,352	7,391	7,354	-0.5
National Science Foundation (NSF)	4,123	4,057	4,170	2.8
Mathematical and physical sciences	1,092	1,070	1,086	1.5
Geosciences	713	694	709	2.2
Computer and information science and engineering	605	614	621	1.1
Biological sciences	587	577	582	0.9
Engineering	566	561	581	3.5
U.S. polar research programs	342	344	387	12.4
Major research equipment	156	174	250	44.0
Social, behavioral, and economic sciences	184	197	199	1.0
Integrative activities	164	130	135	3.8
Education and human resources	152	140	115	-17.9
Budget authority adjustment ^a	-438	-443	-494	11.5
Department of Energy (DOE)	3,229	3,334	3,184	-4.5
Basic energy sciences	991	1,105	1,146	3.7
High energy physics	716	736	714	-3.1
Biological and environmental research	574	582	456	-21.7
Human genome	64	65	64	-0.5
All other research	510	517	391	-24.3
Nuclear physics	380	405	371	-8.4
Fusion energy sciences	256	274	291	6.1
Advanced scientific computing research	197	232	207	-10.9
Small business innovation research ^b	115	0	0	na

na = not applicable.

^a Budget authority adjustment subtracts costs for research facilities, major equipment support, and other non-R&D from total NSF budget authority.

^b DOE treats this activity as a budget execution program (i.e., funds are collected from existing appropriations and are not allocated until three quarters into the fiscal year).

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data. Not all federally sponsored basic research is categorized in subfunction 251.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 19. Federal research and development budget authority for general science and basic research (251): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	6,466	6,482	6,423	-0.9
National Science Foundation (NSF)	3,780	3,695	3,741	1.2
Mathematical and physical sciences	1,092	1,070	1,086	1.5
Geosciences	713	694	709	2.2
Computer and information science and engineering	605	614	621	1.1
Biological sciences	587	577	582	0.9
Engineering	566	561	581	3.5
U.S. polar research programs	342	344	387	12.4
Social, behavioral, and economic sciences	184	197	199	1.0
Integrative activities	164	130	135	3.8
Education and human resources	152	140	115	-17.9
Budget authority adjustment ^a	-625	-632	-673	6.6
Department of Energy (DOE)	2,686	2,787	2,682	-3.8
Basic energy sciences	669	763	846	10.9
High energy physics	611	638	649	1.6
Biological and environmental research	535	548	432	-21.2
Human genome	64	65	64	-0.5
All other research	471	483	367	-24.0
Nuclear physics	337	366	332	-9.3
Fusion energy sciences	231	248	223	-10.2
Advanced scientific computing research	188	224	201	-10.4
Small business innovation research ^b	115	0	0	na

na = not applicable.

R&D = research and development.

^a Budget authority adjustment subtracts costs for research facilities, major equipment support, and other non-R&D from total NSF budget authority.

^b DOE treats this activity as a budget execution program (i.e., funds are collected from existing appropriations and are not allocated until three quarters into the fiscal year).

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data. Not all federally sponsored basic research is categorized in subfunction 251.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 20. Federal research and development and research and development plant budget authority for natural resources and environment (300): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	2,244	2,173	2,023	-6.9
Pollution control and abatement (304)				
Environmental Protection Agency	662	572	568	-0.7
Science and technology	585	535	536	0.2
Superfund	75	36	31	-13.9
Leaking underground storage tanks	1	1	1	0.0
Oil spill response research	1	1	1	0.0
Other accounts	0	0	0	na
Conservation and land management (302)	357	357	360	0.8
Forest Service (USDA)	312	314	318	1.3
Department of the Interior ^a	44	43	42	-2.3
Marine Mammal Commission	1	0	0	na
Recreational resources (303)	189	186	187	0.5
U.S. Geological Survey (Interior)	175	172	173	0.5
National Park Service (Interior)	14	14	14	0.0
Water resources (301)	37	38	31	-18.4
Department of Defense, Army Corps of Engineers	21	21	21	0.0
Department of the Interior, Bureau of Reclamation	16	17	10	-41.2
Other natural resources (306)	1,000	1,019	877	-14.0
Department of Commerce, NOAA	621	650	534	-17.8
Oceanic and atmospheric research	332	338	315	-6.7
Climate research	145	159	162	2.1
All other research	187	180	154	-14.5
National ocean service	79	101	64	-36.8
National marine fisheries service	69	63	49	-22.5
National environmental satellite, data and information service	23	31	26	-16.0
National weather service	20	22	23	5.6
All other NOAA	99	94	56	-40.4
U.S. Geological Survey	378	369	342	-7.2
Geologic and mineral resource surveys and mapping	210	206	179	-13.0
Water resources investigations	126	126	119	-5.7
National mapping, geography, and survey	42	36	43	21.6
Enterprise information	0	2	1	-23.4

na = not applicable; USDA = U.S. Department of Agriculture; NOAA = National Oceanic and Atmospheric Administration.

^a Includes Bureau of Land Management, Office of Surface Mining and Reclamation, and Minerals Management Service.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 21. Federal research and development budget authority for natural resources and environment (300): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	2,168	2,108	1,990	-5.6
Pollution control and abatement (304)				
Environmental Protection Agency	662	572	568	-0.7
Science and technology	585	535	536	-30.4
Superfund	75	36	31	72.8
Leaking underground storage tanks	1	1	1	0.0
Oil spill response research	1	1	1	0.0
Other accounts	0	0	0	na
Conservation and land management (302)	336	338	341	0.9
Forest Service (USDA)	294	298	302	1.3
Department of the Interior ^a	41	40	39	-2.5
Marine Mammal Commission	1	0	0	na
Recreational resources (303)	189	186	187	0.5
U.S. Geological Survey (Interior)	175	172	173	0.5
National Park Service (Interior)	14	14	14	0.0
Water resources (301)	37	38	31	-18.4
Department of Defense, Army Corps of Engineers	21	21	21	0.0
Department of the Interior, Bureau of Reclamation	16	17	10	-41.2
Other natural resources (306)	945	973	863	-11.4
Department of Commerce, NOAA	566	604	520	-13.9
Oceanic and atmospheric research	332	338	315	-6.7
Climate research	145	159	162	2.1
All other research	187	180	154	-14.5
National ocean service	79	101	64	-36.8
National marine fisheries service	69	63	49	-22.5
National environmental satellite, data and information service	23	31	26	-16.0
National weather service	20	22	23	5.6
All other NOAA	44	48	42	-12.5
U.S. Geological Survey	378	369	342	-7.2
Geologic and mineral resource surveys and mapping	210	206	179	-13.0
Water resources investigations	126	126	119	-5.7
National mapping, geography, and survey	42	36	43	21.6
Enterprise information	0	2	1	-23.4

na = not applicable; USDA = U.S. Department of Agriculture; NOAA = National Oceanic and Atmospheric Administration.

^a Includes Bureau of Land Management, Office of Surface Mining and Reclamation, and Minerals Management Service.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 22. Federal research and development and research and development plant budget authority for agriculture (350): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	1,910	2,089	1,733	-17.1
Agricultural research and services (352)				
Department of Agriculture (USDA)				
Agricultural Research Service	1,165	1,306	1,079	-17.4
Research on plant sciences	384	385	333	-13.6
Research on commodity conversion	170	178	178	0.2
Research on animal sciences	178	184	171	-6.8
Research on human nutrition	75	77	75	-2.7
Research on soil, water and air sciences	107	105	71	-32.3
Integration of agricultural systems	54	52	52	0.2
Agricultural library services	23	22	22	4.3
Trust funds	14	18	18	0.0
Facilities and equipment	161	286	158	-44.7
Cooperative State Research, Education, and Extension Service	616	650	520	-20.0
National Research Initiative	164	180	250	39.2
Payments under the Hatch Act	179	179	89	-50.0
Regional, state and local grants	0	0	75	na
Payments to 1890 colleges and Tuskegee Institute (Evans-Allen)	36	37	38	4.2
McIntire-Stennis cooperative forestry	22	22	11	-50.0
Special research grants	111	120	3	-97.2
Other research programs	105	113	53	-52.9
Economic Research Service	71	74	81	9.5
Animal and Plant Health Inspection Service	24	25	22	-12.0
Natural Resources Conservation Service	14	14	12	-14.3
Federal Grain Inspection Service	7	7	8	14.3
National Agricultural Statistics Service	5	5	5	0.0
Agricultural Marketing Service	6	6	4	-33.3
Foreign Agricultural Service	2	2	2	0.0

na = not applicable.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: USDA submission to Office of Management and Budget, MAX Schedule C; USDA budget justification documents; and supplemental data obtained from USDA budget office.

TABLE 23. Federal research and development budget authority for agriculture (350): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	1,750	1,803	1,575	-12.7
Agricultural research and services (352)				
Department of Agriculture (USDA)				
Agricultural Research Service	1,005	1,020	921	-9.8
Research on plant sciences	384	385	333	-13.6
Research on commodity conversion	170	178	178	0.2
Research on animal sciences	178	184	171	-6.8
Research on human nutrition	75	77	75	-2.7
Research on soil, water and air sciences	107	105	71	-32.3
Integration of agricultural systems	54	52	52	0.2
Agricultural library services	23	22	22	4.3
Trust funds	14	18	18	0.0
Cooperative State Research, Education, and Extension Service	616	650	520	-20.0
National Research Initiative	164	180	250	39.2
Payments under the Hatch Act	179	179	89	-50.0
Regional, state and local grants	0	0	75	na
Payments to 1890 colleges and Tuskegee Institute (Evans-Allen)	36	37	38	4.2
McIntire-Stennis cooperative forestry	22	22	11	-50.0
Special research grants	111	120	3	-97.2
Other research programs	105	113	53	-52.9
Economic Research Service	71	74	81	9.5
Animal & Plant Health Inspection Service	24	25	22	-12.0
Natural Resources Conservation Service	14	14	12	-14.3
Federal Grain Inspection Service	7	7	8	14.3
National Agricultural Statistics Service	5	5	5	0.0
Agricultural Marketing Service	6	6	4	-33.3
Foreign Agricultural Service	2	2	2	0.0

na = not applicable.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: USDA submission to Office of Management and Budget, MAX Schedule C; USDA budget justification documents; and supplemental data obtained from USDA budget office.

TABLE 24. Federal research and development and research and development plant budget authority for transportation (400): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	1,881	1,846	1,659	-10.1
Air transportation (402)	1,450	1,347	1,085	-19.4
National Aeronautics and Space Administration ^a				
Aeronautics	1,057	906	852	-6.0
Federal Aviation Administration (DOT)	248	263	233	-11.4
Transportation Security Administration (DHS)	145	178	0	-100.0
Ground transportation (401) (DOT)	382	447	549	23.0
Federal Highway Administration	332	337	445	32.0
National Highway Traffic Safety Administration	7	61	62	2.1
Federal Railroad Administration	32	33	30	-7.6
Federal Motor Carrier Safety Administration	6	8	10	15.5
Federal Transit Administration	5	8	2	-69.3
Water transportation (403)	15	18	0	-100.0
U.S. Coast Guard (DHS)	15	18	0	-100.0
Other transportation (407) ^b (DOT)	34	35	25	-28.1

DOT = Department of Transportation.

DHS = Department of Homeland Security.

^a Includes funds for research and research program management.

^b Includes Office of the Secretary, Pipeline and Hazardous Materials Safety Administration and the Research and Innovative Technology Administration.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from agencies' budget offices.

TABLE 25. Federal research and development budget authority for transportation (400): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	1,863	1,828	1,640	-10.3
Air transportation (402)	1,433	1,330	1,067	-19.8
National Aeronautics and Space Administration ^a				
Aeronautics	1,057	906	852	-6.0
Federal Aviation Administration (DOT)	232	246	215	-12.6
Transportation Security Administration (DHS)	145	178	0	-100.0
Ground transportation (401) (DOT)	381	445	548	23.1
Federal Highway Administration	332	337	445	32.0
National Highway Traffic Safety Administration	7	61	62	2.1
Federal Railroad Administration	30	31	29	-7.8
Federal Motor Carrier Safety Administration	6	8	10	15.5
Federal Transit Administration	5	8	2	-69.3
Water transportation (403)	15	18	0	-100.0
U.S. Coast Guard (DHS)	15	18	0	-100.0
Other transportation (407) ^b (DOT)	34	35	25	-28.1

DOT = Department of Transportation.

DHS = Department of Homeland Security.

^aIncludes funds for research and research program management.

^bIncludes Office of the Secretary, Pipeline and Hazardous Materials Safety Administration and the Research and Innovative Technology Administration.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from agencies' budget offices.

TABLE 26. Federal research and development and research and development plant budget authority for energy (270): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	1,369	1,223	1,240	1.3
Department of Energy	1,285	1,141	1,179	3.2
Fossil energy (271)	449	288	382	32.6
Petroleum, coal, and gas program	539	440	379	-13.8
Cooperative R&D	8	8	3	-63.8
Clean coal technology	-98	-160	0	na
Energy supply (271)	382	423	397	-6.4
Solar and renewables	224	247	230	-7.0
Nuclear energy	87	85	95	11.8
Electricity transmission and distribution	71	91	72	-21.5
Energy conservation (272)	379	367	356	-3.0
Radioactive waste management (271)	75	63	44	-30.2
Nuclear Regulatory Commission (276)	60	61	61	0.0
Tennessee Valley Authority (271)	24	21	0	-100.0

na = not applicable.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; Department of Energy budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 27. Federal research and development budget authority for energy (270): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	1,343	1,194	1,210	1.3
Department of Energy	1,259	1,112	1,149	3.3
Fossil energy (271)	442	281	382	35.9
Petroleum, coal, and gas program	532	433	379	-12.4
Cooperative Research and Development	8	8	3	-63.8
Clean coal technology	-98	-160	0	na
Energy supply (271)	368	404	373	-7.7
Solar and renewables	210	228	207	-9.3
Nuclear energy	87	85	95	11.8
Electricity transmission and distribution	71	91	72	-21.5
Energy conservation (272)	374	364	350	-3.8
Radioactive waste management (271)	75	63	44	-30.2
Nuclear Regulatory Commission (276)	60	61	61	0.0
Tennessee Valley Authority (271)	24	21	0	-100.0

na = not applicable.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; Department of Energy budget justification documents; and supplemental data obtained from agencies' budget offices.

TABLE 28. Federal research and development and research and development plant budget authority for administration of justice (750): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	752	813	1,057	30.0
Department of Justice (DOJ)	80	94	109	16.0
Office of Justice Programs (754)	41	50	65	30.0
Federal Bureau of Investigation (751)	28	33	33	0.0
Federal Prison System (753)	11	11	11	0.0
Department of Homeland Security (DHS) (751)	672	719	948	31.9

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from DOJ and DHS budget offices.

TABLE 29. Federal research and development budget authority for administration of justice (750): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	684	789	1,033	31.0
Department of Justice (DOJ)	80	94	109	16.0
Office of Justice Programs (754)	41	50	65	30.0
Federal Bureau of Investigation (751)	28	33	33	0.0
Federal Prison System (753)	11	11	11	0.0
Department of Homeland Security (DHS) (751)	604	695	924	33.1

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from DOJ and DHS budget offices.

TABLE 30. Federal research and development budget authority for veterans benefits and services (700): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	866	784	786	0.3
Department of Veterans Affairs				
Medical and prosthetic research (703)	866	784	786	0.3

NOTES: Includes administration and operating expenses related to Department of Veterans Affairs research.

SOURCE: Department of Veterans Affairs submission to Office of Management and Budget, MAX Schedule C.

TABLE 31. Federal research and development and research and development plant budget authority for commerce and housing credit (370):
FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	499	498	448	-9.9
Other advancement of commerce (376)				
Department of Commerce				
National Institute of Standards and Technology	457	461	416	-9.7
Materials science	51	59	62	4.5
Computer science and applied math	44	56	62	9.9
Construction of research facilities	43	30	59	99.0
Chemical science and technology	41	43	50	17.5
Electronics and electrical engineering	44	45	47	4.1
Physics	36	40	44	10.5
Manufacturing engineering	21	23	37	56.9
Research support activities	20	29	31	8.5
Building and fire research	20	20	23	13.2
Technology assistance	3	3	3	4.3
Industrial technology services				
Advanced Technology Program	134	114	0	-100.0
Bureau of the Census	21	20	22	10.0
National Telecommunications and Information Administration	20	6	9	50.0
Departmental administration	1	11	1	-90.9

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Department of Commerce (DOC) submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from DOC budget office.

TABLE 32. Federal research and development budget authority for commerce and housing credit (370): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06
	actual	preliminary	proposed	
	\$ millions			% change
Total	454	457	388	-15.0
Other advancement of commerce (376)				
Department of Commerce				
National Institute of Standards and Technology	413	431	357	-17.1
Materials science	51	59	62	4.5
Computer science and applied math	44	56	62	9.9
Chemical science and technology	41	43	50	17.5
Electronics and electrical engineering	44	45	47	4.1
Physics	36	40	44	10.5
Manufacturing engineering	21	23	37	56.9
Research support activities	20	29	31	8.5
Building and fire research	20	20	23	13.2
Technology assistance	3	3	3	4.3
Industrial technology services				
Advanced Technology Program	134	114	0	-100.0
Bureau of the Census	21	20	22	10.0
National Telecommunications and Information Administration	20	6	9	50.0

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Department of Commerce (DOC) submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from DOC budget office.

TABLE 33. Federal research and development and research and development plant budget authority for education, training, employment, and social services (500): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	469	479	441	-7.9
Research and general education aids (501, 502, 503)	303	361	326	-9.7
Department of Education programs	179	222	184	-17.1
Smithsonian Institution programs	124	139	142	2.2
Social services (506)	164	116	112	-3.4
Rehabilitation services (ED)	120	75	77	2.7
Administration for Children and Families (DHHS)	41	38	35	-7.9
Administration on Aging (DHHS)	3	3	0	-100.0
Training and employment (504)	2	2	3	50.0
Employment and Training Administration (DOL)	2	2	3	50.0

DHHS = Department of Health and Human Services; DOL = Department of Labor; ED = Department of Education.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from agencies' budget offices.

TABLE 34. Federal research and development budget authority for education, training, employment, and social services (500): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	459	455	420	-7.7
Research and general education aids (501, 502, 503)	293	337	305	-9.5
Department of Education programs	179	222	184	-17.1
Smithsonian Institution programs	114	115	121	5.2
Social services (506)	164	116	112	-3.4
Rehabilitation services (ED)	120	75	77	2.7
Administration for Children and Families (DHHS)	41	38	35	-7.9
Administration on Aging (DHHS)	3	3	0	-100.0
Training and employment (504)	2	2	3	50.0
Employment and Training Administration (DOL)	2	2	3	50.0

DHHS = Department of Health and Human Services; DOL = Department of Labor; ED = Department of Education.

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from agencies' budget offices.

TABLE 35. Federal research and development budget authority for international affairs (150): FY 2004–06

Funding category and agency	2004 actual	2005 preliminary	2006 proposed	2005–06
	\$ millions			% change
Total	264	255	255	0.0
Agency for International Development (151)	233	223	223	0.0
International Security Assistance (152)	31	32	32	0.0

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from agencies' budget offices.

TABLE 36. Federal research and development budget authority for community and regional development (450): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	47	45	41	-8.9
Department of Housing and Urban Development (451)	47	45	41	-8.9

NOTES: Detail may not add to total because of rounding. Percent change derived from unrounded data.

SOURCES: Department of Housing and Urban Development (HUD) submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from HUD budget office.

TABLE 37. Federal research and development budget authority for income security (600): FY 2004–06

Funding category and agency	2004	2005	2006	2005–06 % change
	actual	preliminary	proposed	
	\$ millions			
Total	47	35	27	-22.9
Social Security Administration (650)	47	35	27	-22.9

NOTE: Percent change derived from unrounded data.

SOURCES: Social Security Administration (SSA) submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from SSA budget office.

TABLE 38. Federal research and development obligations, budget authority, and budget authority for basic research, by budget function: FY 1955–2006
(Millions of dollars)

	Federal R&D obligations and authority	All functions	Budget function																
			Administration of justice	Agriculture	Commerce and housing credit	Community and regional development	Education, training, employment, and social services	Energy	General government	General science and basic research	Health	Income security	International affairs	National defense	Natural resource and environment	Space research and technology	Transportation	Veterans benefits and services	Other
	All R&D obligations																		
	1955	2,533	NA	NA	NA	NA	NA	NA	NA	67	NA	NA	2,151	NA	NA	NA	NA	315	
	1956	2,988	NA	NA	NA	NA	NA	NA	NA	83	NA	NA	2,535	NA	NA	NA	NA	370	
	1957	3,932	NA	NA	NA	NA	NA	NA	NA	140	NA	NA	3,327	NA	NA	NA	NA	465	
	1958	4,570	NA	NA	NA	NA	NA	NA	NA	177	NA	NA	3,801	NA	NA	NA	NA	592	
	1959	6,694	NA	NA	NA	NA	NA	NA	NA	233	NA	NA	5,556	NA	NA	NA	NA	904	
	1960	7,522	NA	NA	NA	NA	NA	NA	NA	305	NA	NA	6,107	NA	NA	NA	NA	1,140	
	1961	9,059	NA	125	NA	NA	NA	373	NA	137	405	NA	7,005	73	777	55	NA	108	
	1962	10,290	NA	136	NA	NA	NA	448	NA	187	551	NA	7,238	108	1,413	101	NA	107	
	1963	12,495	NA	146	NA	NA	NA	515	NA	246	626	NA	7,764	120	2,812	142	NA	125	
	1964	14,225	NA	165	NA	NA	NA	571	NA	277	728	NA	7,829	134	4,241	122	NA	160	
	1965	14,614	NA	195	NA	NA	NA	585	NA	304	792	NA	7,342	159	4,887	147	NA	203	
	1966	15,320	NA	201	NA	NA	NA	575	NA	377	900	NA	7,536	189	4,976	251	NA	315	
46	1967	16,529	*	218	43	37	154	600	3	409	915	48	18	8,566	320	4,778	380	41	na
	1968	15,921	1	217	48	44	166	657	5	437	1,021	50	17	8,275	331	4,304	304	45	na
	1969	15,641	5	221	54	32	169	597	5	433	1,088	78	26	8,356	323	3,799	404	50	na
	1970	15,339	9	238	79	47	164	574	6	452	1,084	136	32	7,981	340	3,606	535	59	na
	1971	15,543	10	259	90	65	215	556	7	513	1,288	145	32	8,110	416	3,048	728	63	na
	1972	16,496	23	294	50	66	235	574	8	625	1,547	106	29	8,902	479	2,932	558	69	na
	1973	16,800	33	308	50	78	290	630	7	658	1,585	106	28	9,002	554	2,824	572	74	na
	1974	17,410	35	313	51	82	236	759	9	749	2,069	71	24	9,016	516	2,702	693	85	na
	1975	19,039	44	342	65	93	239	1,363	12	813	2,170	72	29	9,679	624	2,764	635	95	na
	1976	20,780	35	383	69	109	255	1,649	12	858	2,351	48	42	10,430	683	3,130	631	98	na
	1977	23,450	30	457	71	101	230	2,562	13	974	2,629	55	66	11,864	753	2,832	708	107	na
	All R&D authority																		
	1978	25,976	44	501	77	92	345	3,134	20	1,050	2,968	67	57	12,899	904	2,939	768	111	na
	1979	28,208	47	552	93	127	354	3,461	23	1,119	3,401	57	117	13,791	1,010	3,136	798	123	na
	1980	29,739	45	585	101	119	468	3,603	22	1,233	3,694	47	125	14,946	999	2,738	887	126	na
	1981	33,735	34	659	106	104	298	3,501	22	1,340	3,871	43	160	18,413	1,061	3,111	869	143	na
	1982	36,115	31	693	104	63	228	3,012	10	1,359	3,869	32	165	22,070	965	2,584	791	139	na
	1983	38,768	37	745	107	44	189	2,578	6	1,502	4,298	32	177	24,936	952	2,134	876	157	na
	1984	44,214	24	762	110	46	200	2,581	8	1,676	4,779	26	192	29,287	963	2,300	1,040	218	na
	1985	49,887	47	836	114	50	220	2,389	17	1,862	5,418	21	210	33,698	1,059	2,725	1,030	193	na
	1986	53,249	41	815	111	88	248	2,286	14	1,873	5,565	14	211	36,926	1,062	2,894	917	183	na
	1987	57,069	49	822	110	99	267	2,053	17	2,042	6,556	25	223	39,152	1,133	3,398	908	215	na
	1988	59,106	51	882	122	108	285	2,126	17	2,160	7,076	23	224	40,099	1,160	3,683	896	195	na
	1989	62,115	45	907	128	74	347	2,419	15	2,373	7,773	27	279	40,665	1,255	4,555	1,064	212	na
	1990	63,781	44	950	140	67	374	2,726	17	2,410	8,308	33	375	39,925	1,386	5,765	1,045	216	na
	1991	65,898	51	1,052	178	88	433	2,953	4	2,635	9,226	30	378	39,328	1,582	6,511	1,231	219	na
	1992	68,398	51	1,155	192	95	365	3,153	4	2,659	10,055	37	371	40,061	1,688	6,744	1,523	245	na

TABLE 38. Federal research and development obligations, budget authority, and budget authority for basic research, by budget function: FY 1955–2006
(Millions of dollars)

Federal R&D obligations and authority	All functions	Budget function																
		Administration of justice	Agriculture	Commerce and housing credit	Community and regional development	Education, training, employment, and social services	Energy	General government	General science and basic research	Health	Income security	International affairs	National defense	Natural resource and environment	Space research and technology	Transportation	Veterans benefits and services	Other
1993	69,884	49	1,152	220	57	348	2,677	*	2,691	10,280	36	382	41,249	1,802	6,988	1,703	250	na
1994	68,331	46	1,193	380	68	373	2,873	0	2,712	10,993	45	254	37,764	2,062	7,414	1,888	265	na
1995	68,791	59	1,194	525	70	369	2,844	1	2,794	11,407	43	287	37,204	1,988	7,916	1,833	257	na
1996	69,049	56	1,176	432	50	331	2,521	2	2,846	11,867	16	252	37,801	1,802	7,844	1,795	259	na
1997	71,653	59	1,203	409	48	373	2,372	2	2,944	12,670	9	190	39,591	1,886	7,844	1,785	267	na
1998	73,569	72	1,249	398	42	444	948	2	4,360	13,576	18	163	39,823	1,855	8,198	1,833	587	na
1999	77,637	88	1,288	432	59	403	1,131	3	4,690	15,553	38	190	41,306	1,842	8,245	1,725	644	na
2000	78,664	73	1,426	406	46	418	996	6	4,977	17,869	25	200	42,580	1,999	5,363	1,636	645	na
2001	86,756	88	1,657	429	54	411	1,314	3	5,468	20,758	30	252	45,713	2,096	6,126	1,640	719	na
2002	97,624	91	1,606	467	50	411	1,327	3	5,753	23,560	37	279	53,016	2,160	6,270	1,838	756	na
2003	112,544	299	1,708	463	48	430	1,403	0	6,129	26,517	38	269	63,048	2,151	7,355	1,869	817	na
2004	121,867	684	1,750	454	47	459	1,343	0	6,466	28,251	47	264	69,593	2,168	7,612	1,863	866	na
2005 preliminary	127,336	789	1,803	457	45	455	1,194	0	6,482	28,746	35	255	74,668	2,108	7,686	1,828	784	na
2006 proposed	127,621	1,033	1,575	388	41	420	1,210	0	6,423	28,984	27	255	74,759	1,990	8,089	1,640	786	na
Authority for basic research																		
1978	3,665	10	197	9	8	57	157	0	962	1,246	2	*	320	207	412	70	9	na
1979	4,108	10	222	10	8	59	172	*	1,026	1,579	1	0	365	131	440	75	10	na
1980	4,716	9	246	15	8	61	200	*	1,152	1,761	1	0	552	136	482	79	14	na
1981	5,107	5	281	17	5	66	220	3	1,256	1,951	3	12	610	131	445	89	15	na
1982	5,305	4	295	17	7	78	260	2	1,296	1,953	0	10	696	139	434	102	13	na
1983	6,247	4	326	19	6	70	320	3	1,439	2,475	0	10	788	156	501	117	14	na
1984	7,072	5	353	20	5	77	365	3	1,606	2,813	0	3	845	192	646	125	15	na
1985	7,810	4	406	23	6	86	428	4	1,779	3,243	0	4	856	206	498	255	15	na
1986	8,193	5	390	26	6	83	456	5	1,795	3,324	0	5	960	204	737	184	15	na
1987	9,021	8	397	26	4	78	511	4	1,942	3,851	0	3	900	206	843	231	17	na
1988	9,553	8	428	28	7	83	571	5	2,061	4,087	0	3	905	210	944	197	17	na
1989	10,648	7	433	29	3	92	703	3	2,265	4,413	0	3	965	331	1,099	287	16	na
1990	11,288	9	456	31	3	106	761	3	2,306	4,661	0	4	964	336	1,389	242	16	na
1991	12,405	6	486	39	10	115	878	0	2,526	5,021	0	6	1,188	389	1,479	246	16	na
1992	12,973	5	528	35	11	118	921	0	2,532	5,506	0	6	1,147	383	1,499	266	16	na
1993	13,440	5	553	34	10	121	917	0	2,553	5,700	0	8	1,323	376	1,588	238	16	na
1994	13,552	5	567	38	9	145	921	0	2,542	5,889	0	6	1,174	224	1,796	220	16	na
1995	13,772	9	565	35	3	153	930	0	2,622	6,068	0	0	1,181	187	1,614	389	16	na
1996	14,442	12	547	37	0	140	1,182	0	2,662	6,395	0	2	1,165	147	1,685	456	13	na
1997	14,961	13	548	34	0	142	1,288	0	2,753	6,852	0	2	1,090	153	1,653	420	14	na
1998	15,523	16	571	35	0	133	34	0	4,121	7,356	0	1	1,067	145	1,610	411	23	na
1999	17,433	18	602	41	0	99	36	0	4,464	8,634	0	0	1,110	142	1,667	358	263	na
2000	19,470	20	651	39	0	107	36	0	4,722	10,099	0	42	1,184	146	1,616	542	266	na
2001	21,376	27	749	50	0	112	40	0	5,187	11,642	0	50	1,303	215	1,695	17	289	na

TABLE 38. Federal research and development obligations, budget authority, and budget authority for basic research, by budget function: FY 1955–2006
(Millions of dollars)

Federal R&D obligations and authority	All functions	Budget function																
		Administration of justice	Agriculture	Commerce and housing credit	Community and regional development	Education, training, employment, and social services	Energy	General government	General science and basic research	Health	Income security	International affairs	National defense	Natural resource and environment	Space research and technology	Transportation	Veterans benefits and services	Other
2002	23,848	30	762	56	0	115	45	0	5,561	12,957	0	53	1,404	471	1,912	17	465	na
2003	25,323	42	824	53	1	125	40	0	5,907	14,162	0	18	1,409	185	2,206	23	327	na
2004	26,529	58	780	46	0	125	32	0	6,198	14,850	0	18	1,380	201	2,473	20	347	na
2005 preliminary	26,840	67	802	61	0	127	32	0	6,203	15,114	0	18	1,545	152	2,368	37	315	na
2006 proposed	26,536	104	738	74	0	134	25	0	6,146	15,235	0	18	1,353	151	2,199	42	315	na

* = less than \$500,000.

na = not applicable.

NA = not available; data were not collected for all budget functions in all years. "Other" includes amounts for all functions for which data were not explicitly collected.

NOTES: Detail may not add to total because of rounding. In FY 2004 the Department of Homeland Security changed its R&D portfolio to reclassify funding in general science and basic research and in agriculture as administration of justice. In FY 2000 the National Aeronautics and Space Administration transferred funding for the space station program from R&D to R&D plant, this change reflected in the budget authority for space research and technology. In FY 1998 many Department of Energy programs were reclassified from energy to general science and basic research, and the Department of Veterans Affairs began reporting medical care support funds as part of its total research budgetary resources, this change reflected in budget authority for veteran benefits and services.

48 SOURCES: 1955–94 data are from agencies' submissions to Office of Management and Budget, Circular No. A-11, Exhibit 44A, "Research and Development Activities," and supplemental data obtained from agencies' budget offices. 1995–2006 data are from agencies' submissions to Office of Management and Budget, MAX Schedule C, agency budget justification documents, and supplemental data obtained from agencies' budget offices.