



Federal R&D Funding by Budget Function: Fiscal Years 2012–14

Detailed Statistical Tables | NSF 14-301 | January 2014

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General Notes

This report contains data on the budget authority (see “Definitions” below) provided to U.S. federal agencies to fund the research and development (R&D) and R&D plant components of their programs in fiscal years 2012, 2013, and 2014. The data tables in this report are a statistical supplement to the recent InfoBrief that was authored by the National Center for Science and Engineering Statistics (NCSES) and discusses the main features of this new R&D budget authority data (<https://www.nsf.gov/statistics/infbrief/nsf14306/>).

All activities covered by the federal budget, including R&D, are classified into 20 broad functional categories (see Budget Functions and Classifying R&D below). Currently, R&D activities are present in all but 4 of these categories.

The data tables in this report provide R&D budget authority detail by agency and major programs for each of the categories in which R&D is present. Several concluding tables also include budget authority figures for R&D in FY 2011 and earlier years.

The figures for FY 2012 are the actual budget authority received by the federal agencies for R&D that year. Those for FY 2013 are preliminary, reflecting agency reporting, final appropriations outcomes, and the estimated impacts of sequestration. The FY 2014 figures are the administration’s proposed funding levels, based chiefly on the President’s *Budget of the United States Government, Fiscal Year 2014*, but also reflecting agency documents and other Office of Management and Budget (OMB) data available up through August 2013. These proposed figures for FY 2014 are the basis for subsequent legislative activity in the Congress to enact the federal government’s annual budget.

Data reported here as “preliminary” or “proposed” will be revised in subsequent editions of this report to reflect the later congressional appropriation actions and agency program-funding decisions.

Definitions

Research, Development, and R&D Plant

In this report, R&D refers to basic research, 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 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 systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

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

The data exclude 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 only a few noted exceptions) are provided in terms of budget authority. Budget authority is used because it is the initial budget stage 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 and Classifying R&D

The federal budget total is the sum of funding across the 20 broad functional categories. These categories are: National defense (function 050); International affairs (150); General science, space, and technology (250); Energy (270); Natural resources and environment (300); Agriculture (350); Commerce and housing credit (370); Transportation (400); Community and regional development (450); Education, training, employment, and social services (500); Health (550); Medicare (570); Income security (600); Social security (650); Veterans benefits and services (700); Administration of justice (750); General government (800); Net interest (900); Allowances (920); and Undistributed offsetting receipts (950).

R&D has never been reported in 4 of these 20 functions: Social security (650), Net interest (900), Allowances (920), and Undistributed offsetting receipts (950). As such, data on these categories are not

present in this report except indirectly, where R&D is described as a proportion of total federal budget authority.

For the General government (800) category, small amounts of R&D were reported up through FY 2002 but had turned to zero thereafter. The data for FYs 2012 and 2013 in this report show a return to reporting of small amounts of R&D in this category.

To better highlight R&D areas of high interest, the data tables in this report split the General science, space, and technology (250) category into its two subfunctions: General science and basic research (251) and Space flight, research, and supporting activities (252).

Overall, this report's data tables separately cover 17 functional categories: 15 at the broad functional category level and 2 at the subcategory level.

Each specific R&D activity is assigned to only one functional category—consistent with the official codes used in budget documents, even though the R&D activity may address the objectives of several functions. For example, all R&D activities sponsored by the Department of Defense (except for those of the U.S. Army Corps of Engineers) are classified as National defense (050), even though some of these have secondary objectives, such as Space flight, research, and supporting activities (252) or Health (550). Nonetheless, an agency's overall R&D effort can involve multiple activities spread across several functional categories, which means that a functional category can show the presence of several agencies. For example, the federal funding for the past national project to map the human genome, which involved the activities of several agencies and a number of R&D programs, appeared in both the Health (550) and General science and basic research (251) categories.

Finally, not all federally sponsored basic research is categorized in the General science and basic research (251) subfunction. Some basic research is included in many of the other functional categories. Also, not all of R&D included in the 251 subfunction is basic research—some is applied research.

Appendix A maps the mix of agency funding of R&D activities across the budget function categories.

Data Sources

The federal budget does not include a separately identified R&D account. Furthermore, most appropriations for R&D are not directly labeled as such (except in certain program areas such as defense, energy, health, and environment). As such, most funds for R&D are not line items in agency budget submissions, but are included instead as part of general program funding.

To provide information on federal R&D funding, OMB requires all agencies with R&D funding levels greater than \$10 million annually to submit data on their R&D programs as part of their annual budget submissions. Each such agency is requested to provide data on funding levels for basic research, applied research, development, R&D facilities, and capital equipment for R&D, in accordance with OMB's Circular A-11, MAX Schedule C, "Research and Development Activities."

The data in the present report were collected between February and August 2013 and represent the agencies' best estimates of actual and proposed federal funding for R&D over the FYs 2012–14 period. The data are based primarily on information provided to OMB by 26 agencies and account for an estimated 99% of all federally sponsored R&D activities. The data reflect R&D funding information that became available from individual agencies after the administration's budget was prepared and released after the February 2013 publication of the *Budget of the United States Government, Fiscal Year 2014*. This later information consists of budget justification documents that agencies submit to Congress and

supplemental, program-specific information obtained from agency budget and program staff, collected through August 2013. Accordingly, the budget numbers reported for individual activities, programs, or agencies may differ somewhat from those published in the President's budget or in agency budget documents.

Data Tables

Table **Federal budget authority**

by budget function: FYs 2012–14

1	R&D and R&D plant
2	% distribution, R&D and R&D plant
3	R&D and R&D plant as % of total budget authority
4	basic research
Specific budget function: FYs 2012–14	
National defense (050)	
5	R&D and R&D plant
6	obligational authority for DOD research, development, test, and evaluation
International affairs (150)	
7	R&D and R&D plant
General science and basic research (251)	
8	R&D and R&D plant
Space flight, research, and supporting activities (252)	
9	R&D and R&D plant
Energy (270)	
10	R&D and R&D plant
Natural resources and environment (300)	
11	R&D and R&D plant
Agriculture (350)	
12	R&D and R&D plant
Commerce and housing credit (370)	
13	R&D and R&D plant
Transportation (400)	
14	R&D and R&D plant
Community and regional development (450)	
15	R&D and R&D plant
Education, training, employment, and social services (500)	
16	R&D and R&D plant
Health (550)	
17	R&D and R&D plant
National Institutes of Health	
18	R&D and R&D plant
Medicare (570)	
19	R&D and R&D plant
Income security (600)	
20	R&D and R&D plant

- Veterans benefits and services (700)
- 21 R&D and R&D plant
- Administration of justice (750)
- 22 R&D and R&D plant
- General government (800)
- 23 R&D and R&D plant
- Federal funding for R&D: FYs 1955–2014**
- 24 total and basic research, by budget function
- 25 total, national defense, and civilian functions

TABLE 1. Federal budget authority for R&D and R&D plant, by budget function, ordered by FY 2012 R&D and R&D plant total:
FYs 2012–14

(Millions of dollars)

Budget function	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	143,737	133,515	144,352	-7.2	8.3
National defense	79,875	71,980	74,601	-9.9	3.6
Health	31,411	30,056	32,468	-4.9	8.7
Space flight, research, and supporting activities	10,801	10,599	11,183	-1.9	5.5
General science and basic research	10,536	9,741	10,977	-7.6	12.7
Natural resources and environment	2,300	2,190	2,603	-4.8	18.8
Energy	2,231	1,978	3,211	-11.3	62.3
Agriculture	2,005	1,850	2,183	-7.7	18.0
Transportation	1,511	1,423	1,490	-5.8	4.7
Veterans benefits and services	1,160	1,130	1,172	-2.6	3.7
Education, training, employment, and social services	640	621	617	-3.0	-0.7
Commerce and housing credit	698	725	1,966	3.9	171.0
International affairs	269	256	259	-5.0	1.4
Administration of justice	143	812	1,408	468.0	73.3
Medicare	80	76	57	-5.5	-24.6
Community and regional development	58	63	93	8.6	47.6
Income security	18	15	64	-19.0	338.8
General government	1	1	0	0.0	-100.0
R&D	141,450	131,354	141,129	-7.3	7.6
National defense	79,559	71,800	74,394	-9.8	3.6
Health	31,243	29,896	32,299	-4.9	8.7
Space flight, research, and supporting activities	10,661	10,443	10,951	-2.0	4.9
General science and basic research	9,304	8,658	9,764	-6.9	12.8
Natural resources and environment	2,147	2,034	2,425	-5.3	19.2
Energy	2,197	1,943	3,186	-11.6	64.0
Agriculture	1,920	1,771	1,932	-7.8	9.1
Transportation	1,486	1,399	1,451	-5.8	3.7
Veterans benefits and services	1,160	1,130	1,172	-2.6	3.7
Education, training, employment, and social services	597	580	581	-2.9	0.2
Commerce and housing credit	607	647	1,870	6.6	189.1
International affairs	269	256	259	-5.0	1.4
Administration of justice	143	643	630	349.6	-2.0
Medicare	80	76	57	-5.5	-24.6
Community and regional development	58	63	93	8.6	47.6
Income security	18	15	64	-19.0	338.8
General government	1	1	0	0.0	-100.0
R&D plant	2,287	2,161	3,223	-5.5	49.1
National defense	316	180	207	-43.0	15.0
Health	168	159	169	-5.3	6.0
Space flight, research, and supporting activities	140	157	231	11.9	47.8
General science and basic research	1,233	1,082	1,213	-12.2	12.1
Natural resources and environment	153	156	177	2.3	13.7
Energy	34	35	25	2.9	-28.6
Agriculture	85	79	251	-6.8	216.9
Transportation	25	24	39	-5.0	64.3
Veterans benefits and services	0	0	0	-	-
Education, training, employment, and social services	43	41	36	-4.4	-12.4
Commerce and housing credit	91	79	96	-13.7	21.9
International affairs	0	0	0	-	-
Administration of justice	0	169	778	-	359.6

TABLE 1. Federal budget authority for R&D and R&D plant, by budget function, ordered by FY 2012 R&D and R&D plant total:
FYs 2012–14

(Millions of dollars)

Budget function	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
Medicare	0	0	0	-	-
Community and regional development	0	0	0	-	-
Income security	0	0	0	-	-
General government	0	0	0	-	-

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 2. Distribution of federal budget authority for R&D and R&D plant, by budget function: FYs 2012–14
(Percent distribution)

Budget function	2012 actual	2013 preliminary	2014 proposed
R&D and R&D plant	100.0	100.0	100.0
National defense	55.6	54.0	51.7
Health	21.9	22.4	22.5
Space flight, research, and supporting activities	7.5	7.9	7.7
General science and basic research	7.3	7.3	7.6
Natural resources and environment	1.6	1.6	1.8
Energy	1.6	1.5	2.2
Agriculture	1.4	1.4	1.5
Transportation	1.1	1.1	1.0
Veterans benefits and services	0.8	0.8	0.8
Education, training, employment, and social services	0.4	0.5	0.4
Commerce and housing credit	0.5	0.5	1.4
International affairs	0.2	0.2	0.2
Administration of justice	0.1	0.6	1.0
Medicare	0.1	0.1	*
Community and regional development	*	*	0.1
Income security	*	*	*
General government	*	*	*
R&D	100.0	100.0	100.0
National defense	56.3	54.7	52.7
Health	22.1	22.7	22.9
Space flight, research, and supporting activities	7.5	8.0	7.8
General science and basic research	6.6	6.6	6.9
Natural resources and environment	1.5	1.6	1.7
Energy	1.6	1.5	2.3
Agriculture	1.4	1.4	1.4
Transportation	1.1	1.1	1.0
Veterans benefits and services	0.8	0.9	0.8
Education, training, employment, and social services	0.4	0.4	0.4
Commerce and housing credit	0.4	0.5	1.3
International affairs	0.2	0.2	0.2
Administration of justice	0.1	0.5	0.4
Medicare	0.1	0.1	*
Community and regional development	*	*	0.1
Income security	*	*	*
General government	*	*	*
R&D plant	100.0	100.0	100.0
National defense	13.7	8.3	6.4
Health	7.3	7.4	5.2
Space flight, research, and supporting activities	6.1	7.2	7.2
General science and basic research	53.5	50.1	37.6
Natural resources and environment	6.6	7.2	5.5
Energy	1.5	1.6	0.8
Agriculture	3.7	3.7	7.8
Transportation	1.1	1.1	1.2
Veterans benefits and services	*	*	*
Education, training, employment, and social services	1.9	1.9	1.1
Commerce and housing credit	4.7	3.6	3.0
International affairs	*	*	*
Administration of justice	*	7.8	24.1
Medicare	*	*	*

TABLE 2. Distribution of federal budget authority for R&D and R&D plant, by budget function: FYs 2012–14
(Percent distribution)

Budget function	2012 actual	2013 preliminary	2014 proposed
Community and regional development	*	*	*
Income security	*	*	*
General government	*	*	*

* = less than 0.05%.

NOTES: Detail may not add to total because of rounding. Budget functions ordered as in table 1, budget authority for R&D and R&D plant.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 3. Federal budget authority for R&D and R&D plant as percentage of total budget authority, by budget function: FYs 2012–14

Budget function	2012 actual	2013 preliminary ^a	2014 proposed
All functions conducting R&D	5.4	4.7	5.2
National defense	11.7	11.3	11.5
Health	8.7	7.6	7.6
Space flight, research, and supporting activities	62.8	65.0	65.2
General science and basic research	87.6	83.3	85.7
Natural resources and environment	6.2	5.9	7.3
Energy	28.8	18.1	19.4
Agriculture	9.6	7.8	9.6
Transportation	1.7	1.5	1.1
Veterans benefits and services	0.9	0.8	0.8
Education, training, employment, and social services	0.7	0.6	0.6
Commerce and housing credit ^b	5.6	1.2	-17.2
International affairs	0.3	0.5	0.6
Administration of justice	0.3	1.4	2.6
Medicare	*	*	*
Community and regional development	0.3	0.1	0.3
Income security	*	*	*
General government	*	*	*

* = less than 0.05%.

^a Percentages are rough estimates, using budget authority calculated by applying sequestration reductions to eligible accounts. Figures are subject to revision.

^b Budget authority for R&D and R&D plant in Commerce and housing credit budget function increases each fiscal year, notably so in FY 2014 (see table 1). However, large budget authority declines in this budget function in FY 2014, primarily in subfunctions for federal mortgage credit programs and government-sponsored enterprise (e.g., Fannie Mae or Freddie Mac) purchase programs, make this function's R&D and R&D plant as a percentage of total category budget authority difficult to interpret.

NOTES: Total budget authority includes discretionary and mandatory budget authority, less offsets. Budget functions ordered as in table 1, budget authority for R&D and R&D plant.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, supplemental data obtained from agencies' budget offices, and OMB, *Budget of the U.S. Government, Fiscal Year 2013* (Washington, DC: U.S. Government Printing Office, 2012).

TABLE 4. Federal budget authority for basic research, by budget function: FYs 2012–14

Budget function	2012 actual	2013 preliminary	2014 proposed	2012–13	2013–14
	Millions of dollars			% change	
All functions conducting R&D	31,846	30,238	33,175	-5.0	9.7
National defense	2,066	2,020	2,223	-2.2	10.1
Health	16,196	15,306	16,182	-5.5	5.7
Space flight, research, and supporting activities	3,181	2,918	3,656	-8.3	25.3
General science and basic research	8,491	8,154	9,155	-4.0	12.3
Natural resources and environment	135	126	149	-6.8	18.4
Energy	57	16	18	-71.9	12.5
Agriculture	847	763	807	-9.9	5.7
Transportation	0	0	0	-	-
Veterans benefits and services	470	458	478	-2.5	4.3
Education, training, employment, and social services	206	197	221	-4.4	12.3
Commerce and housing credit	163	183	217	12.0	18.7
International affairs	0	0	0	-	-
Administration of justice	33	90	61	172.2	-32.1
Medicare	0	0	0	-	-
Community and regional development	0	8	8	-	0.0
Income security	0	0	0	-	-
General government	0	0	0	-	-

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data. Budget functions ordered as in table 1, budget authority for R&D and R&D plant.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 5. Federal budget authority for National defense (050) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	79,875	71,980	74,601	-9.9	3.6
Department of Defense, military (051)	75,585	68,036	69,680	-10.0	2.4
Research, development, test, and evaluation (RDT&E)	72,970	64,665	67,520	-11.4	4.4
Defense agencies	19,722	17,274	17,667	-12.4	2.3
Defense Advanced Research Projects Agency	2,814	2,595	2,865	-7.8	10.4
Missile Defense Agency	6,787	5,733	5,640	-15.5	-1.6
Other defense agencies	10,121	8,946	9,162	-11.6	2.4
Department of the Air Force	26,631	23,479	25,703	-11.8	9.5
Department of the Army	8,705	8,029	7,989	-7.8	-0.5
Department of the Navy	17,723	15,677	15,975	-11.5	1.9
Operational Test and Evaluation	188	206	186	9.6	-9.6
Other military funding ^a	2,615	3,371	2,160	28.9	-35.9
Department of Energy, atomic energy defense activities (053)	4,257	3,914	4,888	-8.1	24.9
Defense environmental cleanup	21	10	24	-52.4	140.0
Naval reactors development	1,040	957	1,203	-8.0	25.7
Nonproliferation	325	293	355	-9.8	21.2
Weapons activities	2,869	2,652	3,304	-7.6	24.6
Other defense activities	2	2	2	0.0	0.0
Department of Justice, Federal Bureau of Investigation (054)	33	30	33	-9.1	10.0
R&D	79,559	71,800	74,394	-9.8	3.6
Department of Defense, military (051)	75,480	67,966	69,624	-10.0	2.4
Research, development, test, and evaluation (RDT&E)	72,970	64,665	67,520	-11.4	4.4
Defense agencies	19,722	17,274	17,667	-12.4	2.3
Defense Advanced Research Projects Agency	2,814	2,595	2,865	-7.8	10.4
Missile Defense Agency	6,787	5,733	5,640	-15.5	-1.6
Other defense agencies	10,121	8,946	9,162	-11.6	2.4
Department of the Air Force	26,631	23,479	25,703	-11.8	9.5
Department of the Army	8,705	8,029	7,989	-7.8	-0.5
Department of the Navy	17,723	15,677	15,975	-11.5	1.9
Operational Test and Evaluation	188	206	186	9.6	-9.6
Other military funding ^a	2,510	3,301	2,104	31.5	-36.3
Department of Energy, atomic energy defense activities (053)	4,046	3,804	4,737	-6.0	24.5
Defense environmental cleanup	21	10	24	-52.4	140.0
Naval reactors development	975	897	1,105	-8.0	23.2
Nonproliferation	325	293	355	-9.8	21.2
Weapons activities	2,723	2,602	3,251	-4.4	24.9
Other defense activities	2	2	2	0.0	0.0
Department of Justice, Federal Bureau of Investigation (054)	33	30	33	-9.1	10.0

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

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

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

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

TABLE 6. Department of Defense, total obligational authority for research, development, test, and evaluation, by DOD budget activity: FYs 2012–14
(Millions of dollars)

Budget activity ^a	Funding category and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
	RDT&E total budget authority	71,845	64,665	67,334	-10.0	4.1
	RDT&E total obligational authority ^b	72,970	64,665	67,520	-11.4	4.4
1	Basic research	2,010	1,970	2,165	-2.0	9.9
	Defense Agencies	517	508	588	-1.7	15.7
	Department of the Air Force	494	475	525	-3.7	10.4
	Department of the Army	409	402	437	-1.7	8.6
	Department of the Navy	591	584	615	-1.1	5.3
2	Applied research	4,730	4,352	4,627	-8.0	6.3
	Defense Agencies	1,752	1,587	1,779	-9.4	12.1
	Department of the Air Force	1,236	1,032	1,128	-16.5	9.3
	Department of the Army	930	922	886	-0.9	-3.9
	Department of the Navy	813	812	835	-0.1	2.8
3	Advanced technology development	5,318	5,185	5,192	-2.5	0.1
	Defense Agencies	2,914	3,001	3,109	3.0	3.6
	Department of the Air Force	663	586	618	-11.5	5.3
	Department of the Army	1,067	976	882	-8.6	-9.6
	Department of the Navy	674	621	583	-7.9	-6.1
4	Advanced component development and prototypes	13,579	11,666	12,057	-14.1	3.3
	Defense Agencies	7,210	6,178	5,903	-14.3	-4.5
	Department of the Air Force	1,494	1,109	877	-25.8	-21.0
	Department of the Army	513	432	636	-15.9	47.4
	Department of the Navy	4,362	3,948	4,641	-9.5	17.6
5	System development and demonstration	13,573	12,918	13,699	-4.8	6.0
	Defense Agencies	751	511	735	-31.9	43.7
	Department of the Air Force	3,706	4,507	5,079	21.6	12.7
	Department of the Army	3,135	2,842	2,857	-9.4	0.5
	Department of the Navy	5,981	5,058	5,028	-15.4	-0.6
6	RDT&E management support	5,694	4,168	4,325	-26.8	3.8
	Defense Agencies	1,300	939	913	-27.8	-2.7
	Department of the Air Force	1,697	1,115	1,180	-34.3	5.8
	Department of the Army	1,342	1,087	1,160	-19.0	6.7
	Department of the Navy	1,167	821	886	-29.6	7.9
	Operational test and evaluation	188	206	186	9.6	-9.6
7	Operational system development	28,065	24,406	25,456	-13.0	4.3
	Defense Agencies	5,279	4,550	4,641	-13.8	2.0
	Department of the Air Force	17,341	14,654	16,298	-15.5	11.2
	Department of the Army	1,309	1,369	1,131	4.6	-17.4
	Department of the Navy	4,137	3,833	3,386	-7.3	-11.7
	Adjustment for RDT&E budget authority ^b	-1,125	0	-186	na	na

na = not applicable.

DOD = Department of Defense; RDT&E = research, development, test, and evaluation.

^a RDT&E budget activity codes are broad categories reflecting different types of RDT&E efforts, as specified in DOD Financial Management Regulation.

^b Detailed budget information on DOD RDT&E activities is available only in total obligational authority (TOA), which is 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. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, supplemental data obtained from agencies' budget offices, and OMB, *Budget of the U.S. Government, Fiscal Year 2013* (Washington, DC: U.S. Government Printing Office, 2012).

TABLE 7. Federal budget authority for International affairs (150) R&D and R&D plant: FYs 2012–14

(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	269	256	259	-5.0	1.4
Agency for International Development (151)	126	120	120	-5.0	0.3
Department of State (151)	81	77	77	-5.0	0.1
International Security Assistance (152)	62	59	62	-5.0	5.3
R&D	269	256	259	-5.0	1.4
Agency for International Development (151)	126	120	120	-5.0	0.3
Department of State (151)	81	77	77	-5.0	0.1
International Security Assistance (152)	62	59	62	-5.0	5.3

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 8. Federal budget authority for General science and basic research (251) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	10,536	9,741	10,977	-7.6	12.7
Department of Energy					
Office of Science	4,463	4,231	4,737	-5.2	12.0
Department of Homeland Security ^a	368	na	na	-	-
National Science Foundation ^b	5,705	5,510	6,240	-3.4	13.3
Arctic Research Commission	1	1	1	-4.1	0.7
Biological Sciences	712	679	761	-4.7	12.0
Computer and Information Science and Engineering	653	859	950	31.4	10.7
Education and Human Resources	831	833	880	0.3	5.6
Engineering	825	814	911	-1.3	12.0
Geosciences	885	1,266	1,394	43.0	10.1
International and Integrative Activities	349	433	537	24.3	23.8
International Science and Engineering ^c	50	na	na	-	-
Major Research Equipment and Facilities	198	196	210	-1.0	7.1
Mathematical and Physical Sciences	1,309	1,250	1,386	-4.5	10.9
Office of Cyberinfrastructure ^d	284	na	na	-	-
Social, Behavioral, and Economic Sciences	254	243	272	-4.6	12.3
U.S. Polar Research Programs ^e	436	na	na	-	-
Budget authority adjustment ^f	-1,082	-1,064	-1,063	na	na
R&D	9,304	8,658	9,764	-6.9	12.8
Department of Energy					
Office of Science	3,839	3,671	4,046	-4.4	10.2
Department of Homeland Security ^a	295	na	na	-	-
National Science Foundation ^g	5,170	4,987	5,718	-3.5	14.6
Arctic Research Commission	1	1	1	-4.1	0.7
Biological Sciences	712	679	761	-4.7	12.0
Computer and Information Science and Engineering	653	859	950	31.4	10.7
Education and Human Resources	831	833	880	0.3	5.6
Engineering	825	814	911	-1.3	12.0
Geosciences	885	1,266	1,394	43.0	10.1
International and Integrative Activities	349	433	537	24.3	23.8
International Science and Engineering ^c	50	na	na	-	-
Mathematical and Physical Sciences	1,309	1,250	1,386	-4.5	10.9
Office of Cyberinfrastructure ^d	284	na	na	-	-
Social, Behavioral, and Economic Sciences	254	243	272	-4.6	12.3
U.S. Polar Research Programs ^e	436	na	na	-	-
Budget authority adjustment ^h	-1,419	-1,390	-1,375	na	na

na = not applicable.

^a Office of Management and Budget (OMB) reclassified Department of Homeland Security Science and Technology Directorate as subfunction 751 (Justice) beginning in FY 2013.

^b Total National Science Foundation (NSF) budget shown here includes only R&D and R&D plant; however, subaccount budgets (Arctic Research Commission, Biological Sciences, etc.) include some non-R&D and non-R&D plant funding.

^c International Science and Engineering merged with Integrative Activities in FY 2013 and renamed International and Integrative Activities.

^d Office of Cyberinfrastructure was moved into the Directorate for Computer and Information Science and Engineering in FY 2013.

^e U.S. Polar Research Programs was moved into the Directorate for Geosciences in FY 2013.

^f Budget authority adjustment subtracts non-R&D and non-R&D plant spending (such as support and overhead) from subaccount budgets.

^g Total NSF budget shown here includes funding for only R&D; however, subaccount budgets (Arctic Research Commission, Biological Sciences, etc.) include some non-R&D funding.

^h Budget authority adjustment subtracts non-R&D spending (such as support, overhead, and R&D plant) from subaccount budgets.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data. Not all federally sponsored basic research is categorized in subfunction 251. Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and OMB analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 9. Federal budget authority for Space flight, research, and supporting activities (252) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	10,801	10,599	11,183	-1.9	5.5
National Aeronautics and Space Administration					
Cross-agency support	38	26	329	-32.0	1,168.7
Innovative Partnerships	38	26	329	-32.0	1,168.7
Exploration	3,414	3,646	3,512	6.8	-3.7
Exploration research and development	311	309	337	-0.4	9.0
Exploration systems development	2,697	2,568	2,355	-4.8	-8.3
Commercial spaceflight	406	769	819	89.5	6.5
Science	5,052	4,520	4,847	-10.5	7.3
Astrophysics	635	590	709	-7.2	20.2
Earth science	1,756	1,646	1,746	-6.2	6.1
Heliophysics	645	600	614	-7.0	2.4
James Webb Space Telescope	519	582	659	12.2	13.3
Planetary science	1,498	1,102	1,119	-26.4	1.5
Space operations	1,627	1,603	1,570	-1.5	-2.0
International space station	1,604	1,597	1,567	-0.4	-1.9
Space flight and support	22	5	3	-77.4	-37.4
Space technology	530	648	693	22.3	6.9
Construction, environmental compliance, and remediation	140	157	231	11.9	47.8
R&D	10,661	10,443	10,951	-2.0	4.9
National Aeronautics and Space Administration					
Cross-agency support	38	26	329	-32.0	1,168.7
Innovative Partnerships	38	26	329	-32.0	1,168.7
Exploration	3,414	3,646	3,512	6.8	-3.7
Exploration research and development	311	309	337	-0.4	9.0
Exploration systems development	2,697	2,568	2,355	-4.8	-8.3
Commercial spaceflight	406	769	819	89.5	6.5
Science	5,052	4,520	4,847	-10.5	7.3
Astrophysics	635	590	709	-7.2	20.2
Earth science	1,756	1,646	1,746	-6.2	6.1
Heliophysics	645	600	614	-7.0	2.4
James Webb Space Telescope	519	582	659	12.2	13.3
Planetary science	1,498	1,102	1,119	-26.4	1.5
Space operations	1,627	1,603	1,570	-1.5	-2.0
International space station	1,604	1,597	1,567	-0.4	-1.9
Space flight and support	22	5	3	-77.4	-37.4
Space technology	530	648	693	22.3	6.9
Construction, environmental compliance, and remediation	0	0	0	-	-

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 10. Federal budget authority for Energy (270) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	2,231	1,978	3,211	-11.3	62.3
Department of Energy (271)	2,091	1,882	3,107	-10.0	65.1
Energy programs	1,821	1,634	2,546	-10.3	55.8
Energy efficiency and renewable energy	1,003	856	1,715	-14.7	100.4
Electricity delivery and energy reliability	98	94	100	-3.8	6.0
Fossil energy	206	197	280	-4.4	42.1
Nuclear energy	514	487	451	-5.3	-7.4
ARPA-E	255	232	345	-9.0	48.7
Bonneville Power Administration Fund	15	16	16	6.7	0.0
Energy Security Trust (272)	na	na	200	-	-
Nuclear Regulatory Commission (276)	83	79	86	-5.0	9.1
Tennessee Valley Authority (271)	17	17	18	0.0	5.9
U.S. Department of Agriculture (271)					
National Institute of Food and Agriculture-Biomass R&D ^a	40	0	na	-100.0	-
R&D	2,197	1,943	3,186	-11.6	64.0
Department of Energy (271)	2,057	1,847	3,082	-10.2	66.8
Energy programs	1,787	1,599	2,521	-10.5	57.6
Energy efficiency and renewable energy	986	838	1,703	-15.0	103.2
Electricity delivery and energy reliability	98	94	100	-3.8	6.0
Fossil energy	189	180	267	-4.8	48.3
Nuclear energy	514	487	451	-5.3	-7.4
ARPA-E	255	232	345	-9.0	48.7
Bonneville Power Administration Fund	15	16	16	6.7	0.0
Energy Security Trust (272)	na	na	200	-	-
Nuclear Regulatory Commission (276)	83	79	86	-5.0	9.1
Tennessee Valley Authority (271)	17	17	18	0.0	5.9
U.S. Department of Agriculture (271)					
National Institute of Food and Agriculture-Biomass R&D ^a	40	0	na	-100.0	-

na = not applicable.

ARPA-E = Advanced Research Projects Agency-Energy.

^a Biomass R&D program is authorized in the Farm Bill. It received mandatory funding in FY 2012, and was reauthorized as a discretionary program in FY 2013 but received no appropriation. It has not yet been reauthorized for FY 2014, but is under consideration for such reauthorization in the 2013 Farm Bill.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 11. Federal budget authority for Natural resources and environment (300) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	2,300	2,190	2,603	-4.8	18.8
Conservation and land management (302)	435	402	486	-7.6	20.9
Department of the Interior ^a	109	85	145	-21.7	69.8
U.S. Department of Agriculture	326	317	341	-2.9	7.7
Forest Service	326	317	341	-2.9	7.7
Pollution control and abatement (304)	569	532	561	-6.5	5.4
Environmental Protection Agency	568	531	560	-6.5	5.4
Oil spill response research	1	1	1	-43.6	77.2
Science and technology	544	509	537	-6.5	5.6
Superfund	23	22	22	-4.3	0.0
U.S. Coast Guard (DHS)	1	1	1	0.0	0.0
Recreational resources (303)	26	29	34	11.3	17.5
National Park Service (DOI)	26	29	34	11.3	17.5
Water resources (301)	23	23	28	-1.8	24.0
Army Corps of Engineers (DOD)	11	10	11	-5.0	5.3
Bureau of Reclamation (DOI)	12	12	17	1.1	40.2
Other natural resources (306)	1,247	1,204	1,494	-3.4	24.0
National Oceanic and Atmospheric Administration (DOC)	574	561	733	-2.2	30.6
National Environmental Satellite, Data, and Information Service	27	27	27	0.3	1.1
National Marine Fisheries Service	54	51	51	-4.2	-0.1
National Ocean Service	63	61	84	-3.6	38.3
National Weather Service	23	22	40	-4.5	86.8
Office of Oceanic and Atmospheric Research	339	331	439	-2.1	32.4
Office of Marine and Aviation Operations	70	70	92	0.4	31.5
U.S. Geological Survey (DOI) ^b	673	643	761	-4.5	18.3
Administration and enterprise information	1	*	*	-10.5	9.5
Climate and land use change	103	100	119	-3.3	18.9
Core science systems	88	78	107	-11.5	37.1
Ecosystems	158	153	181	-3.3	18.2
Energy, minerals, and environmental health	96	91	107	-5.0	17.7
Natural hazards	106	103	119	-2.7	15.2
Water resources	120	117	127	-2.9	8.8
R&D	2,147	2,034	2,425	-5.3	19.2
Conservation and land management (302)	428	390	477	-9.0	22.4
Department of the Interior ^a	106	83	140	-22.1	69.6
U.S. Department of Agriculture	322	307	337	-4.6	9.7
Forest Service	322	307	337	-4.6	9.7
Pollution control and abatement (304)	564	528	556	-6.4	5.3
Environmental Protection Agency	563	527	555	-6.4	5.3
Oil spill response research	1	1	1	-43.6	77.2
Science and technology	539	504	532	-6.4	5.5
Superfund	23	22	22	-4.7	0.4
U.S. Coast Guard (DHS)	1	1	1	0.0	0.0
Recreational resources (303)	26	29	34	11.3	17.5
National Park Service (DOI)	26	29	34	11.3	17.5
Water resources (301)	23	23	28	-1.8	24.0
Army Corps of Engineers (DOD)	11	10	11	-5.0	5.3
Bureau of Reclamation (DOI)	12	12	17	1.1	40.2
Other natural resources (306)	1,106	1,065	1,330	-3.7	24.9
National Oceanic and Atmospheric Administration (DOC)	433	422	570	-2.6	34.9

TABLE 11. Federal budget authority for Natural resources and environment (300) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
National Environmental Satellite, Data, and Information Service	27	27	27	0.3	1.1
National Marine Fisheries Service	54	51	51	-4.2	-0.1
National Ocean Service	62	60	83	-3.6	38.9
National Weather Service	19	18	36	-4.5	104.5
Office of Oceanic and Atmospheric Research	273	267	372	-2.1	39.5
Office of Marine and Aviation Operations	0	0	0	-	-
U.S. Geological Survey (DOI) ^b	673	643	761	-4.5	18.3
Administration and enterprise information	1	*	*	-10.5	9.5
Climate and land use change	103	100	119	-3.3	18.9
Core science systems	88	78	107	-11.5	37.1
Ecosystems	158	153	181	-3.3	18.2
Energy, minerals, and environmental health	96	91	107	-5.0	17.7
Natural hazards	106	103	119	-2.7	15.2
Water resources	120	117	127	-2.9	8.8

* = less than \$0.5 million.

DHS = Department of Homeland Security; DOC = Department of Commerce; DOD = Department of Defense; DOI = Department of the Interior.

^a Includes Bureau of Land Management, Office of Surface Mining Reclamation and Enforcement, Fish and Wildlife Service, Bureau of Ocean Energy Management, and Bureau of Safety and Environmental Enforcement.

^b U.S. Geological Survey reorganized its divisions for FY 2012.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 12. Federal budget authority for Agriculture (350) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	2,005	1,850	2,183	-7.7	18.0
Agricultural research and services (352)					
Department of Agriculture	2,005	1,850	2,183	-7.7	18.0
Agricultural Marketing Service	0	1	1	-	0.0
Agricultural Research Service	1,125	1,048	1,303	-6.8	24.3
Animal and Plant Health Inspection Service	39	29	39	-26.5	36.0
Economic Research Service	78	72	79	-8.1	10.2
Federal Grain Inspection Service	6	6	0	-5.0	-100.0
Foreign Agricultural Service	0	1	1	-	0.0
National Agricultural Statistics Service	7	7	7	-5.0	5.3
National Institute of Food and Agriculture	750	687	753	-8.4	9.6
R&D	1,920	1,771	1,932	-7.8	9.1
Agricultural research and services (352)					
Department of Agriculture	1,920	1,771	1,932	-7.8	9.1
Agricultural Marketing Service	0	1	0	-	-100.0
Agricultural Research Service	1,040	969	1,053	-6.8	8.6
Animal and Plant Health Inspection Service	39	29	39	-26.5	36.0
Economic Research Service	78	72	79	-8.1	10.2
Federal Grain Inspection Service	6	6	0	-5.0	-100.0
Foreign Agricultural Service	0	1	1	-	0.0
National Agricultural Statistics Service	7	7	7	-5.0	5.3
National Institute of Food and Agriculture	750	687	753	-8.4	9.6

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 13. Federal budget authority for Commerce and housing credit (370) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	698	725	1,966	3.9	171.0
Other advancement of commerce (376)					
Department of Commerce	681	708	1,949	4.0	175.2
Bureau of the Census	118	116	318	-1.7	174.2
National Institute of Standards and Technology	557	588	1,626	5.5	176.7
Construction of research facilities	55	56	60	1.0	7.3
Industrial technology services	0	19	18	-	-3.0
Scientific and technical research and services	502	513	618	2.3	20.4
National manufacturing network ^a	na	na	930	-	-
National Oceanic and Atmospheric Administration	1	0	0	-100.0	-
National Marine Fisheries Service	1	0	0	-100.0	-
National Telecommunications and Information Administration	5	5	5	-8.6	9.4
U.S. Postal Service	17	16	15	-5.0	-7.1
Department of the Treasury	na	1	2	-	100.0
R&D	607	647	1,870	6.6	189.1
Other advancement of commerce (376)					
Department of Commerce	590	630	1,853	6.7	194.3
Bureau of the Census	118	116	318	-1.7	174.2
National Institute of Standards and Technology	466	509	1,530	9.3	200.6
Construction of research facilities	0	0	0	-	-
Industrial technology services	0	19	18	-	-3.0
Scientific and technical research and services	466	490	582	5.2	18.7
National manufacturing network ^a	na	na	930	-	-
National Oceanic and Atmospheric Administration	1	0	0	-100.0	-
National Marine Fisheries Service	1	0	0	-100.0	-
National Telecommunications and Information Administration	5	5	5	-8.6	9.4
U.S. Postal Service	17	16	15	-5.0	-7.1
Department of the Treasury	na	1	2	-	100.0

na = not applicable.

^a Reflects proposed legislation for mandatory funding in FY 2014.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submission to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget office.

TABLE 14. Federal budget authority for Transportation (400) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	1,511	1,423	1,490	-5.8	4.7
Air transportation (402)	931	895	871	-3.9	-2.6
Federal Aviation Administration (DOT)	367	348	341	-5.0	-2.2
National Aeronautics and Space Administration					
Aeronautics research	565	546	531	-3.3	-2.8
Ground transportation (401) (DOT)	528	485	569	-8.1	17.3
Federal Highway Administration	406	369	380	-9.0	2.9
Federal Motor Carrier Safety Administration	7	6	8	-5.0	19.1
Federal Railroad Administration	40	38	91	-5.0	140.8
Federal Transit Administration	7	6	17	-5.0	165.7
National Highway Traffic Safety Administration	69	65	73	-5.0	12.4
Water transportation (403)	27	20	20	-26.1	0.3
U.S. Coast Guard (DHS)	27	20	20	-26.1	0.3
Other transportation (407) (DOT) ^a	25	24	30	-5.0	25.8
R&D	1,486	1,399	1,451	-5.8	3.7
Air transportation (402)	909	873	852	-3.9	-2.4
Federal Aviation Administration (DOT)	344	327	322	-5.0	-1.6
National Aeronautics and Space Administration					
Aeronautics research	565	546	531	-3.3	-2.8
Ground transportation (401) (DOT)	526	483	549	-8.1	13.7
Federal Highway Administration	406	369	380	-9.0	2.9
Federal Motor Carrier Safety Administration	7	6	8	-5.0	19.1
Federal Railroad Administration	37	35	71	-5.0	100.2
Federal Transit Administration	7	6	17	-5.0	165.7
National Highway Traffic Safety Administration	69	65	73	-5.0	12.4
Water transportation (403)	27	20	20	-26.1	0.3
U.S. Coast Guard (DHS)	27	20	20	-26.1	0.3
Other transportation (407) (DOT) ^a	25	24	30	-5.0	25.8

DHS = Department of Homeland Security; DOT = Department of Transportation.

^a Includes Office of the Secretary and Pipeline and Hazardous Materials Safety Administration.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 15. Federal budget authority for Community and regional development (450) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	58	63	93	8.6	47.6
Department of Housing and Urban Development (451)	58	55	80	-5.2	45.5
Department of the Interior (452)	na	na	5	-	-
Bureau of Indian Affairs and Bureau of Indian Education	na	na	5	-	-
Department of the Treasury (452)	na	8	8	-	0.0
R&D	58	63	93	8.6	47.6
Department of Housing and Urban Development (451)	58	55	80	-5.2	45.5
Department of the Interior (452)	na	na	5	-	-
Bureau of Indian Affairs and Bureau of Indian Education	na	na	5	-	-
Department of the Treasury (452)	na	8	8	-	0.0

na = not applicable.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submission to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget office.

TABLE 16. Federal budget authority for Education, training, employment, and social services (500) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	640	621	617	-3.0	-0.7
Research and general education aids (501, 502, 503)	565	538	527	-4.9	-2.0
Department of Education programs	322	305	277	-5.2	-9.3
Smithsonian Institution programs	243	232	250	-4.4	7.6
Social services (506)	75	83	90	11.3	7.8
Administration for children and families (HHS)	na	12	15	-	21.3
Rehabilitation services (ED)	75	71	75	-5.2	5.5
R&D	597	580	581	-2.9	0.2
Research and general education aids (501, 502, 503)	522	496	491	-4.9	-1.1
Department of Education programs	322	305	277	-5.2	-9.3
Smithsonian Institution programs	200	191	214	-4.4	11.9
Social services (506)	75	83	90	11.3	7.8
Administration for children and families (HHS)	na	12	15	-	21.3
Rehabilitation services (ED)	75	71	75	-5.2	5.5

na = not applicable.

ED = Department of Education; HHS = Department of Health and Human Services.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 17. Federal budget authority for Health (550) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	31,411	30,056	32,468	-4.9	8.7
Consumer and occupational health and safety (554)	412	394	416	-4.3	5.5
Consumer Product Safety Commission	2	2	2	-5.0	5.3
Food and Drug Administration (HHS)	406	389	410	-4.3	5.5
Occupational Safety and Health Administration (DOL)	4	4	4	-5.2	5.5
Health care services and health research and training (551, 552)	30,999	29,662	32,052	-4.9	8.7
Department of Health and Human Services	30,879	29,365	31,554	-5.5	8.1
Agency for Healthcare Research and Quality	394	374	349	-5.2	-6.6
Centers for Disease Control and Prevention	408	387	529	-5.2	36.7
Departmental management (other)	55	52	150	-6.0	190.1
Health Resources and Services Administration	12	11	36	-5.2	216.5
National Institutes of Health (NIH) ^b	30,010	28,542	30,490	-5.5	7.5
Patient-Centered Outcomes Research Trust Fund ^a	120	296	498	146.7	68.2
R&D	31,243	29,896	32,299	-4.9	8.7
Consumer and occupational health and safety (554)	377	361	381	-4.3	5.6
Consumer Product Safety Commission	2	2	2	-5.0	5.3
Food and Drug Administration (HHS)	371	355	375	-4.3	5.6
Occupational Safety and Health Administration (DOL)	4	4	4	-5.2	5.5
Health care services and health research and training (551, 552)	30,866	29,535	31,918	-4.9	8.7
Department of Health and Human Services	30,746	29,239	31,420	-5.5	8.1
Agency for Healthcare Research and Quality	394	374	349	-5.2	-6.6
Centers for Disease Control and Prevention	408	387	529	-5.2	36.7
Departmental management (other)	55	52	150	-6.0	190.1
Health Resources and Services Administration	12	11	36	-5.2	216.5
National Institutes of Health (NIH) ^b	29,877	28,415	30,356	-5.5	7.5
Patient-Centered Outcomes Research Trust Fund ^a	120	296	498	146.7	68.2

DOL = Department of Labor; HHS = Department of Health and Human Services.

^a Established by Patient Protection and Affordable Care Act (P.L. 111-148) to prioritize and fund comparative effectiveness research. Funds are managed by private, nonprofit Patient-Centered Outcomes Research Institute.

^b NIH totals include budget authority for Cooperative Research and Development Agreements.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 18. National Institutes of Health, federal budget authority for R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Organization and program (by FY 2011 rank order)	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	29,994	28,525	30,473	-4.9	6.8
National Cancer Institute	5,001	4,756	5,059	-4.9	6.4
National Institute of Allergy and Infectious Diseases	4,426	4,209	4,516	-4.9	7.3
National Heart, Lung, and Blood Institute	2,978	2,831	2,999	-4.9	5.9
National Institute of Diabetes and Digestive and Kidney Diseases	1,884	1,790	1,898	-5.0	6.0
National Institute of General Medical Sciences	2,222	2,115	2,192	-4.8	3.6
National Institute of Neurological Disorders and Stroke	1,591	1,513	1,610	-4.9	6.4
National Institute of Mental Health	1,435	1,364	1,421	-4.9	4.2
National Institute of Child Health and Human Development	1,285	1,222	1,304	-4.9	6.7
National Center for Advancing Translation Sciences	563	535	654	-4.9	22.1
Office of the Director	1,434	1,359	1,442	-5.3	6.2
National Institute on Aging	1,068	1,025	1,167	-4.0	13.8
National Institute on Drug Abuse	1,027	977	1,046	-4.9	7.1
National Institute of Environmental Health Sciences ^a	744	708	751	-4.9	6.1
National Eye Institute	691	657	688	-4.9	4.7
National Institute of Arthritis and Musculoskeletal and Skin Diseases	519	494	524	-4.9	6.2
National Human Genome Research Institute	504	477	507	-5.2	6.2
National Institute on Alcohol Abuse and Alcoholism	446	424	451	-4.9	6.3
National Institute on Deafness and Other Communication Disorders	402	383	409	-4.8	7.0
National Institute of Dental and Craniofacial Research	399	379	400	-4.9	5.5
National Library of Medicine	337	321	382	-4.9	19.2
National Institute of Biomedical Imaging and Bioengineering	308	293	309	-4.9	5.4
National Center for Minority Health and Health Disparities	276	263	283	-4.9	7.9
National Institute of Nursing Research	134	128	136	-4.8	6.3
National Center for Complementary and Alternative Medicine	125	118	125	-5.9	6.1
John E. Fogarty International Center	70	66	73	-4.9	10.2
Buildings and facilities	125	119	126	-5.0	5.9
R&D	29,861	28,398	30,339	-4.9	6.8
National Cancer Institute	4,993	4,748	5,051	-4.9	6.4
National Institute of Allergy and Infectious Diseases	4,426	4,209	4,516	-4.9	7.3
National Heart, Lung, and Blood Institute	2,978	2,831	2,999	-4.9	5.9
National Institute of Diabetes and Digestive and Kidney Diseases	1,884	1,790	1,898	-5.0	6.0
National Institute of General Medical Sciences	2,222	2,115	2,192	-4.8	3.6
National Institute of Neurological Disorders and Stroke	1,591	1,513	1,610	-4.9	6.4
National Institute of Mental Health	1,435	1,364	1,421	-4.9	4.2
National Institute of Child Health and Human Development	1,285	1,222	1,304	-4.9	6.7
National Center for Advancing Translation Sciences	563	535	654	-4.9	22.1
Office of the Director	1,434	1,359	1,442	-5.3	6.2
National Institute on Aging	1,068	1,025	1,167	-4.0	13.8
National Institute on Drug Abuse	1,027	977	1,046	-4.9	7.1
National Institute of Environmental Health Sciences ^a	744	708	751	-4.9	6.1
National Eye Institute	691	657	688	-4.9	4.7
National Institute of Arthritis and Musculoskeletal and Skin Diseases	519	494	524	-4.9	6.2
National Human Genome Research Institute	504	477	507	-5.2	6.2
National Institute on Alcohol Abuse and Alcoholism	446	424	451	-4.9	6.3
National Institute on Deafness and Other Communication Disorders	402	383	409	-4.8	7.0
National Institute of Dental and Craniofacial Research	399	379	400	-4.9	5.5
National Library of Medicine	337	321	382	-4.9	19.2
National Institute of Biomedical Imaging and Bioengineering	308	293	309	-4.9	5.4
National Center for Minority Health and Health Disparities	276	263	283	-4.9	7.9

TABLE 18. National Institutes of Health, federal budget authority for R&D and R&D plant: FYs 2012–14

(Millions of dollars)

Organization and program (by FY 2011 rank order)	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
National Institute of Nursing Research	134	128	136	-4.8	6.3
National Center for Complementary and Alternative Medicine	125	118	125	-5.9	6.1
John E. Fogarty International Center	70	66	73	-4.9	10.2

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

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data. Institute totals exclude non-R&D components of institute budgets. Totals reported here do not include budget authority for Cooperative Research and Development Agreements.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 19. Federal budget authority for Medicare (570) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	80	76	57	-5.5	-24.6
Department of Health and Human Services (571)					
Centers for Medicare and Medicaid Services	80	76	57	-5.5	-24.6
R&D	80	76	57	-5.5	-24.6
Department of Health and Human Services (571)					
Centers for Medicare and Medicaid Services	80	76	57	-5.5	-24.6

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 20. Federal budget authority for Income security (600) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	18	15	64	-19.0	338.8
Department of Health and Human Services (609)					
Administration for Children and Families	10	7	10	-30.0	42.9
Social Security Administration (609)	8	8	54	-5.2	612.0
R&D	18	15	64	-19.0	338.8
Department of Health and Human Services (609)					
Administration for Children and Families	10	7	10	-30.0	42.9
Social Security Administration (609)	8	8	54	-5.2	612.0

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 21. Federal budget authority for Veterans benefits and services (700) R&D and R&D plant: FYs 2012–14

(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	1,160	1,130	1,172	-2.6	3.7
Department of Veterans Affairs					
Medical and Prosthetic Research (703)	580	565	586	-2.6	3.7
Medical Services (703)	580	565	586	-2.6	3.7
R&D	1,160	1,130	1,172	-2.6	3.7
Department of Veterans Affairs					
Medical and Prosthetic Research (703)	580	565	586	-2.6	3.7
Medical Services (703)	580	565	586	-2.6	3.7

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data. Includes administration and operating expenses related to Department of Veterans Affairs research.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 22. Federal budget authority for Administration of justice (750) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	143	812	1,408	468.0	73.3
Department of Homeland Security (751) ^a	84	751	1,352	794.4	80.0
Department of Justice	59	61	56	3.3	-8.1
Federal Prison System (753)	11	11	11	-3.0	3.0
Office of Justice Programs (754)	48	50	45	4.8	-10.5
R&D	143	643	630	349.6	-2.0
Department of Homeland Security (751) ^a	84	582	574	592.9	-1.4
Department of Justice	59	61	56	3.3	-8.1
Federal Prison System (753)	11	11	11	-3.0	3.0
Office of Justice Programs (754)	48	50	45	4.8	-10.5

^a Office of Management and Budget (OMB) reclassified Department of Homeland Security (DHS) Science and Technology Directorate as subfunction 751 (Justice) beginning in FY 2013. In prior years, this DHS R&D was classified as subfunction 251 (General science and basic research), and subfunction 751 included only R&D in Domestic Nuclear Detection Office and Customs and Border Patrol.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and OMB analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 23. Federal budget authority for General Government (800) R&D and R&D plant: FYs 2012–14
(Millions of dollars)

Budget function and agency	2012 actual	2013 preliminary	2014 proposed	2012–13 (% change)	2013–14 (% change)
R&D and R&D plant	1	1	na	0.0	-
National Archives and Records Administration	1	1	na	0.0	-
R&D	1	1	na	0.0	-
National Archives and Records Administration	1	1	na	0.0	-

na = not applicable.

NOTES: Detail may not add to total because of rounding. Percentage change calculated on unrounded data.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submission to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget office.

TABLE 24. Federal funding for R&D and basic research, by budget function: FYs 1955–2014
(Millions of dollars)

Fiscal year	Budget functions	National defense (050)	International affairs (150)	General science and basic research (251)	Space flight, research, and supporting activities (252)	Energy (270)	Natural resources and environment (300)	Agriculture (350)	Commerce and housing credit (370)	Transportation (400)	Community and regional development (450)	Education, training, employment, and social services (500)	Health (550)	Medicare (570)	Income security (600)	Veterans benefits and services (700)	Administration of justice (750)	General government (800)	Other ^a
All R&D ^b																			
1955	2,533	2,151	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	67	na	NA	NA	NA	NA	315
1956	2,988	2,535	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83	na	NA	NA	NA	NA	370
1957	3,932	3,327	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	na	NA	NA	NA	NA	465
1958	4,570	3,801	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	177	na	NA	NA	NA	NA	592
1959	6,694	5,556	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	233	na	NA	NA	NA	NA	904
1960	7,552	6,107	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	305	na	NA	NA	NA	NA	1,140
1961	9,059	7,005	NA	137	777	373	73	125	NA	55	NA	NA	405	na	NA	NA	NA	NA	108
1962	10,290	7,238	NA	187	1,413	448	108	136	NA	101	NA	NA	551	na	NA	NA	NA	NA	107
1963	12,495	7,764	NA	246	2,812	515	120	146	NA	142	NA	NA	626	na	NA	NA	NA	NA	125
1964	14,225	7,829	NA	277	4,241	571	134	165	NA	122	NA	NA	728	na	NA	NA	NA	NA	160
1965	14,614	7,342	NA	304	4,887	585	159	195	NA	147	NA	NA	792	na	NA	NA	NA	NA	203
1966	15,320	7,536	NA	377	4,976	575	189	201	NA	251	NA	NA	900	na	NA	NA	NA	NA	315
1967	16,529	8,566	18	409	4,778	600	320	218	43	380	37	154	915	na	48	41	*	3	na
1968	15,921	8,275	17	437	4,304	657	331	217	48	304	44	166	1,021	na	50	45	1	5	na
1969	15,641	8,356	26	433	3,799	597	323	221	54	404	32	169	1,088	na	78	50	5	5	na
1970	15,339	7,981	32	452	3,606	574	340	238	79	535	47	164	1,084	na	136	59	9	6	na
1971	15,543	8,110	32	513	3,048	556	416	259	90	728	65	215	1,288	na	145	63	10	7	na
1972	16,496	8,902	29	625	2,932	574	479	294	50	558	66	235	1,547	na	106	69	23	8	na
1973	16,800	9,002	28	658	2,824	630	554	308	50	572	78	290	1,585	na	106	74	33	7	na
1974	17,410	9,016	24	749	2,702	759	516	313	51	693	82	236	2,069	na	71	85	35	9	na
1975	19,039	9,679	29	813	2,764	1,363	624	342	65	635	93	239	2,170	na	72	95	44	12	na
1976	20,780	10,430	42	858	3,130	1,649	683	383	69	631	109	255	2,351	na	48	98	35	12	na
1977	23,450	11,864	66	974	2,832	2,562	753	457	71	708	101	230	2,629	na	55	107	30	13	na
1978	25,976	12,899	57	1,050	2,939	3,134	904	501	77	768	92	345	2,968	na	67	111	44	20	na
1979	28,208	13,791	117	1,119	3,136	3,461	1,010	552	93	798	127	354	3,401	na	57	123	47	23	na
1980	29,739	14,946	125	1,233	2,738	3,603	999	585	101	887	119	468	3,694	na	47	126	45	22	na
1981	33,735	18,413	160	1,340	3,111	3,501	1,061	659	106	869	104	298	3,871	na	43	143	34	22	na
1982	36,115	22,070	165	1,359	2,584	3,012	965	693	104	791	63	228	3,869	na	32	139	31	10	na
1983	38,768	24,936	177	1,502	2,134	2,578	952	745	107	876	44	189	4,298	na	32	157	37	6	na
1984	44,214	29,287	192	1,676	2,300	2,581	963	762	110	1,040	46	200	4,779	na	26	218	24	8	na

TABLE 24. Federal funding for R&D and basic research, by budget function: FYs 1955–2014

(Millions of dollars)

Fiscal year	Budget functions	National defense (050)	International affairs (150)	General science and basic research (251)	Space flight, research, and supporting activities (252)	Energy (270)	Natural resources and environment (300)	Agriculture (350)	Commerce and housing credit (370)	Transportation (400)	Community and regional development (450)	Education, training, employment, and social services (500)	Health (550)	Medicare (570)	Income security (600)	Veterans benefits and services (700)	Administration of justice (750)	General government (800)	Other ^a
1985	49,887	33,698	210	1,862	2,725	2,389	1,059	836	114	1,030	50	220	5,418	na	21	193	47	17	na
1986	53,249	36,926	211	1,873	2,894	2,286	1,062	815	111	917	88	248	5,565	na	14	183	41	14	na
1987	57,069	39,152	223	2,042	3,398	2,053	1,133	822	110	908	99	267	6,556	na	25	215	49	17	na
1988	59,106	40,099	224	2,160	3,683	2,126	1,160	882	122	896	108	285	7,076	na	23	195	51	17	na
1989	62,115	40,642	279	2,373	4,555	2,419	1,255	907	128	1,064	74	347	7,773	na	27	212	45	15	na
1990	63,781	39,925	375	2,410	5,765	2,726	1,386	950	140	1,045	67	374	8,308	na	33	216	44	17	na
1991	65,898	39,328	378	2,635	6,511	2,953	1,582	1,052	178	1,231	88	433	9,226	na	30	219	51	4	na
1992	68,398	40,083	371	2,659	6,744	3,099	1,688	1,155	192	1,523	127	365	10,055	na	37	245	51	4	na
1993	69,884	41,249	382	2,691	6,988	2,677	1,802	1,152	220	1,703	57	348	10,280	na	36	250	49	*	na
1994	68,331	37,764	254	2,712	7,414	2,873	2,062	1,193	380	1,888	68	373	10,993	na	45	265	46	0	na
1995	68,791	37,204	287	2,794	7,916	2,844	1,988	1,194	525	1,833	70	369	11,407	na	43	257	59	1	na
1996	69,049	37,801	252	2,846	7,844	2,521	1,802	1,176	432	1,795	50	331	11,867	na	16	259	56	2	na
1997	71,653	39,591	190	2,944	7,844	2,372	1,886	1,203	409	1,785	48	373	12,670	na	9	267	59	2	na
1998	73,569	39,823	163	4,360	8,198	948	1,855	1,249	398	1,833	42	444	13,576	na	18	587	72	2	na
1999	77,637	41,306	190	4,690	8,245	1,131	1,842	1,288	432	1,725	59	403	15,553	na	38	644	88	3	na
2000	78,664	42,580	200	4,977	5,363	996	1,999	1,426	406	1,636	46	418	17,869	na	25	645	73	6	na
2001	86,756	45,713	252	5,468	6,126	1,314	2,096	1,657	429	1,640	54	411	20,758	na	30	719	88	3	na
2002	97,624	53,016	279	5,753	6,270	1,327	2,160	1,606	467	1,838	50	411	23,560	na	37	756	91	3	na
2003	112,544	63,048	269	6,129	7,355	1,403	2,151	1,708	463	1,869	48	430	26,517	na	38	817	299	0	na
2004	121,867	69,593	264	6,466	7,612	1,343	2,168	1,750	454	1,863	47	459	28,251	na	47	866	684	0	na
2005	126,601	74,047	255	6,570	7,300	1,296	2,168	1,820	423	1,847	45	470	28,824	na	35	742	758	0	na
2006	131,624	78,037	255	6,691	8,204	1,195	2,120	1,869	390	1,711	55	495	28,797	na	27	769	1,008	0	na
2007	138,087	82,272	246	7,809	9,024	1,893	1,936	1,857	428	1,361	49	536	29,461	na	27	819	369	0	na
2008	140,113	84,713	255	8,234	8,323	1,896	2,106	1,864	450	1,394	50	497	29,063	na	27	886	355	0	na
2009 ^c	156,009	85,166	255	11,840	6,891	3,318	2,245	1,935	618	1,440	62	479	40,389	30	63	943	335	0	na
Non-ARRA	140,903	84,866	255	8,885	6,205	2,014	2,171	1,935	507	1,336	62	469	30,827	30	63	943	335	0	na
ARRA	15,106	300	0	2,955	686	1,304	74	0	111	104	0	10	9,562	0	0	0	0	0	na
2010	146,596	86,517	194	9,280	8,232	2,455	2,237	2,043	550	1,496	109	535	31,488	36	77	1,034	313	0	na
2011	144,379	83,226	196	10,581	8,658	2,265	2,314	1,768	651	1,420	83	636	30,990	180	68	1,160	184	0	na
2012	141,450	79,559	269	9,304	10,661	2,197	2,147	1,920	607	1,486	58	597	31,243	80	18	1,160	143	1	na

TABLE 24. Federal funding for R&D and basic research, by budget function: FYs 1955–2014
(Millions of dollars)

Fiscal year	Budget functions	National defense (050)	International affairs (150)	General science and basic research (251)	Space flight, research, and supporting activities (252)	Energy (270)	Natural resources and environment (300)	Agriculture (350)	Commerce and housing credit (370)	Transportation (400)	Community and regional development (450)	Education, training, employment, and social services (500)	Health (550)	Medicare (570)	Income security (600)	Veterans benefits and services (700)	Administration of justice (750)	General government (800)	Other ^a
2013 preliminary	131,354	71,800	256	8,658	10,443	1,943	2,034	1,771	647	1,399	63	580	29,896	76	15	1,130	643	1	na
2014 proposed	141,129	74,394	259	9,764	10,951	3,186	2,425	1,932	1,870	1,451	93	581	32,299	57	64	1,172	630	0	na
Basic research																			
1978	3,665	320	*	962	412	157	207	197	9	70	8	57	1,246	0	2	9	10	0	na
1979	4,108	365	0	1,026	440	172	131	222	10	75	8	59	1,579	0	1	10	10	*	na
1980	4,716	552	0	1,152	482	200	136	246	15	79	8	61	1,761	0	1	14	9	*	na
1981	5,107	610	12	1,256	445	220	131	281	17	89	5	66	1,951	0	3	15	5	3	na
1982	5,305	696	10	1,296	434	260	139	295	17	102	7	78	1,953	0	0	13	4	2	na
1983	6,247	788	10	1,439	501	320	156	326	19	117	6	70	2,475	0	0	14	4	3	na
1984	7,072	845	3	1,606	646	365	192	353	20	125	5	77	2,813	0	0	15	5	3	na
1985	7,810	856	4	1,779	498	428	206	406	23	255	6	86	3,243	0	0	15	4	4	na
1986	8,193	960	5	1,795	737	456	204	390	26	184	6	83	3,324	0	0	15	5	5	na
1987	9,021	900	3	1,942	843	511	206	397	26	231	4	78	3,851	0	0	17	8	4	na
1988	9,553	905	3	2,061	944	571	210	428	28	197	7	83	4,087	0	0	17	8	5	na
1989	10,648	965	3	2,265	1,099	703	331	433	29	287	3	92	4,413	0	0	16	7	3	na
1990	11,288	964	4	2,306	1,389	761	336	456	31	242	3	106	4,661	0	0	16	9	3	na
1991	12,405	1,188	6	2,526	1,479	878	389	486	39	246	10	115	5,021	0	0	16	6	0	na
1992	12,973	1,147	6	2,532	1,499	921	383	528	35	266	11	118	5,506	0	0	16	5	0	na
1993	13,440	1,323	8	2,553	1,588	917	376	553	34	238	10	121	5,700	0	0	16	5	0	na
1994	13,552	1,174	6	2,542	1,796	921	224	567	38	220	9	145	5,889	0	0	16	5	0	na
1995	13,772	1,181	0	2,622	1,614	930	187	565	35	389	3	153	6,068	0	0	16	9	0	na
1996	14,442	1,165	2	2,662	1,685	1,182	147	547	37	456	0	140	6,395	0	0	13	12	0	na
1997	14,961	1,090	2	2,753	1,653	1,288	153	548	34	420	0	142	6,852	0	0	14	13	0	na
1998	15,523	1,067	1	4,121	1,610	34	145	571	35	411	0	133	7,356	0	0	23	16	0	na
1999	17,433	1,110	0	4,464	1,667	36	142	602	41	358	0	99	8,634	0	0	263	18	0	na
2000	19,470	1,184	42	4,722	1,616	36	146	651	39	542	0	107	10,099	0	0	266	20	0	na
2001	21,376	1,303	50	5,187	1,695	40	215	749	50	17	0	112	11,642	0	0	289	27	0	na
2002	23,848	1,404	53	5,561	1,912	45	471	762	56	17	0	115	12,957	0	0	465	30	0	na
2003	25,323	1,409	18	5,907	2,206	40	185	824	53	23	1	125	14,162	0	0	327	42	0	na
2004	26,529	1,380	18	6,198	2,473	32	201	780	46	20	0	125	14,850	0	0	347	58	0	na
2005	27,678	1,508	18	6,238	2,486	31	195	789	53	65	0	130	15,826	0	0	297	42	0	na

TABLE 24. Federal funding for R&D and basic research, by budget function: FYs 1955–2014
(Millions of dollars)

Fiscal year	Budget functions	National defense (050)	International affairs (150)	General science and basic research (251)	Space flight, research, and supporting activities (252)	Energy (270)	Natural resources and environment (300)	Agriculture (350)	Commerce and housing credit (370)	Transportation (400)	Community and regional development (450)	Education, training, employment, and social services (500)	Health (550)	Medicare (570)	Income security (600)	Veterans benefits and services (700)	Administration of justice (750)	General government (800)	Other ^a
2006	27,336	1,490	18	6,406	2,299	8	195	805	66	0	0	131	15,532	0	0	318	68	0	na
2007	28,166	1,533	18	6,887	2,318	7	260	821	92	2	0	149	15,637	0	0	335	106	0	na
2008	28,740	1,631	18	7,260	2,183	16	210	790	98	0	0	146	15,909	0	0	354	125	0	na
2009 ^c	36,400	1,772	18	10,727	932	28	219	799	152	0	0	155	21,108	0	0	375	115	0	na
Non-ARRA	28,161	1,769	18	7,913	900	28	219	799	112	0	0	145	15,767	0	0	375	115	0	na
ARRA	8,240	3	0	2,814	32	0	0	0	40	0	0	10	5,341	0	0	0	0	0	na
2010	29,614	1,849	0	8,578	1,109	57	223	881	131	0	0	174	16,125	0	0	413	74	0	na
2011	29,888	1,940	0	8,738	1,199	47	218	823	154	0	0	207	16,002	0	0	438	122	0	na
2012	31,846	2,066	0	8,491	3,181	57	135	847	163	0	0	206	16,196	0	0	470	33	0	na
2013 preliminary	30,238	2,020	0	8,154	2,918	16	126	763	183	0	8	197	15,306	0	0	458	90	0	na
2014 proposed	33,175	2,223	0	9,155	3,656	18	149	807	217	0	8	221	16,182	0	0	478	61	0	na

* = less than \$500,000. na = not applicable. NA = not available; data were not collected for all budget functions in all years.

ARRA = American Recovery and Reinvestment Act of 2009.

^a Includes amounts for all functions for which data were not explicitly collected.

^b Data for 1955–77 are obligations; data for 1978–2013 are budget authority.

^c For total FY 2009, sum FY 2009 non-ARRA and FY 2009 ARRA funds.

NOTES: Detail may not add to total because of rounding. In FY 2009 the National Aeronautics and Space Administration (NASA) adjusted its R&D reporting to more closely match survey data reported to the National Science Foundation. In FY 2007 the Department of Homeland Security (DHS) changed its R&D portfolio to reclassify funding in National defense and most Administration of justice as General science and basic research; in FY 2013 this was reclassified back as Administration of justice. In FY 2004 DHS changed its R&D portfolio to reclassify funding in General science and basic research and in Agriculture as Administration of justice. In FY 2000 NASA transferred funding for International space station program from R&D to R&D plant; the change is reflected in the budget authority for Space flight, research, and supporting activities. In FY 2000 the National Institutes of Health in the Department of Health and Human Services classified all of its previous development activities as basic research or applied research, with resulting increase in Health basic research. In FY 1998 many Department of Energy programs were reclassified from Energy to General science and basic research. In FY 1998 the Department of Veterans Affairs began reporting medical care support funds as a part of its total research budgetary resources; change is reflected in budget authority for Veteran benefits and services.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Data from 1955–94 are from agencies' submissions to OMB, Circular No. A-11, Exhibit 44A, "Research and Development Activities," and from supplemental data obtained from agencies' budget offices. Data from 1995–2013 are from agencies' submissions to OMB per MAX Schedule C, budget justification documents, and supplemental data obtained from agencies' budget offices.

TABLE 25. Federal funding for R&D for national defense and civilian functions: FYs 1955–2014

Fiscal year	Total	National defense	Civilian functions	Total	National defense	Civilian functions
	Current \$millions			% distribution		
R&D obligations						
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
R&D authority						
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	40,642	21,473	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
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	126,601	74,047	52,554	100.0	58.5	41.5
2006	131,624	78,037	53,586	100.0	59.3	40.7

TABLE 25. Federal funding for R&D for national defense and civilian functions: FYs 1955–2014

Fiscal year	Total	National defense	Civilian functions	Total	National defense	Civilian functions
	Current \$millions			% distribution		
2007	138,087	82,272	55,815	100.0	59.6	40.4
2008	140,113	84,713	55,400	100.0	60.5	39.5
2009 ^a	156,009	85,166	70,843	100.0	54.6	45.4
Non-ARRA	140,903	84,866	56,037	100.0	60.2	39.8
ARRA	15,106	300	14,806	100.0	2.0	98.0
2010	146,596	86,517	60,079	100.0	59.0	41.0
2011	144,379	83,226	61,154	100.0	57.6	42.4
2012	141,450	79,559	61,891	100.0	56.2	43.8
2013 preliminary	131,354	71,800	59,554	100.0	54.7	45.3
2014 proposed	141,129	74,394	66,735	100.0	52.7	47.3

ARRA = American Recovery and Reinvestment Act of 2009.

^a For total FY 2009, sum FY 2009 non-ARRA and FY 2009 ARRA funds.

NOTES: National defense function includes Department of Defense military activities and Department of Energy atomic energy defense program; years also include defense-related R&D in Department of Homeland Security and Department of Justice. Civilian functions include all other federally funded R&D activities.

Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table publication. The FY 2013 figures are estimates based on appropriations, the President's request, and the Office of Management and Budget (OMB) analyses of the Budget Control Act.

SOURCES: Agencies' submissions to OMB per MAX Schedule C, agencies' budget justification documents, and supplemental data obtained from agencies' budget offices.

APPENDIX A. Agency and budget function crosswalk

Agency	Budget function																
	National defense (050)	International affairs (150)	General science and basic research (251)	Space flight, research, and supporting activities (252)	Energy (270)	Natural resources and environment (300)	Agriculture (350)	Commerce and housing credit (370)	Transportation (400)	Community and regional development (450)	Education, training, employment, and social services (500)	Health (550)	Medicare (570)	Income security (600)	Veterans benefits and services (700)	Administration of justice (750)	General government (800)
Agency for International Development		●															
Army Corps of Engineers (Civil)						●											
Consumer Product Safety Commission												●					
Department of Agriculture					●	●	●					●					
Department of Commerce						●		●									
Department of Defense (Military)	●																
Department of Education											●						
Department of Energy	●		●		●												
Department of Health and Human Services											●	●	●	●			
Department of Homeland Security			●			●			●							●	
Department of Housing and Urban Development										●							
Department of the Interior						●				●							
Department of Justice	●															●	
Department of Labor												●					
Department of State		●															
Department of the Treasury								●		●							
Department of Transportation									●								
Department of Veterans Affairs															●		
Environmental Protection Agency						●											
International Security Assistance		●															
National Aeronautics and Space Administration				●					●								
National Archives and Records Administration																	●
National Science Foundation			●														
Nuclear Regulatory Commission					●												
Patient-Centered Outcomes Research Trust Fund												●					
Smithsonian Institution											●						
Social Security Administration														●			
Tennessee Valley Authority					●												

● = R&D function funded by specified agency.

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

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