



Federal Budget Authority for R&D Declines in FYs 2012 and 2013; Increase Proposed for FY 2014

by Mark Boroush¹

New data indicate that federal budget authority for research and development and R&D plant together in FY 2012 totaled \$143.7 billion (current dollars). The corresponding figure for FY 2013 was an estimated \$133.5 billion, a decline of 7.1% over the FY 2012 level (table 1, figure 1). Although the budget authority total had been declining yearly since FY 2011, this sizable drop in FY 2013 stemmed chiefly from the across-the-board spending cuts (sequestration) mandated by the Budget Control Act of 2011.

For FY 2014, total budget authority for R&D and R&D plant proposed by President Obama would rise to \$144.4 billion—restoring a majority of the reductions (at least, in current dollars) since FY 2010. The specifics of the federal budget for FY 2014 remain in debate in the Congress as this report is published.

Recent Trends in Budget Authority

Total of R&D and R&D Plant

Over FYs 2007–10, federal budget authority for the total of R&D and R&D plant increased each year, with annual growth (current dollars) aver-

aging 1.6% (table 1). When adjusted for inflation, however, the rate of growth over this period averaged 0.1%—barely ahead of the U.S. economy's general pace of price increases. Even so, the budget authority level for FY 2009 (\$164.3 billion) remains a high-water mark, where the \$145.6 billion for R&D and R&D plant resulting from the normal congressional appropriation process that year was enhanced by a one-time \$18.7 billion increase through the American Recovery and Reinvestment Act of 2009.

By contrast, over FYs 2011–13, the budget authority total has dropped noticeably, and sharply so in FY 2013 (table 1). The \$144.4 billion total in FY 2011 declined \$4.6 billion (3.1%) over the FY 2010 level (table 1). The \$143.7 billion in FY 2012 declined an additional \$0.6 billion (0.4%). The budget authority in FY 2013 dropped an estimated \$10.2 billion (7.1%). When adjusted for inflation, these budget authority declines in FYs 2011, 2012, and 2013 are even more substantial (table 1). In general, the declines in funding fell more heavily in the National defense category and less so in the nondefense functions.

The FY 2011 budget for all the federal government was not enacted in final form until 15 April 2011 (well after the 1 October 2010 start of FY 2011) and resulted in some \$38.5 billion in reductions in the FY 2011 spending levels throughout the government, including a \$4.6 billion drop in budget authority for R&D and R&D plant (table 1).

The FY 2012 budget was enacted through several spending bills in November and December of 2011. That budget was also subject to the provisions of the Budget Control Act of 2011, which was passed in August 2011 to address the national debt-ceiling crisis at the time and brought on a schedule of budget caps and spending cuts over a 10-year period beginning with FY 2012. The enacted FY 2012 budget reduced overall federal spending a further \$67 billion, although the associated reduction in budget authority for R&D and R&D plant turned out to be a modest \$0.6 billion.

The FY 2013 budget was enacted through spending bills in September 2012 and March 2013. It was also influenced by the budget-cutting provisions of the Budget Control Act and

TABLE 1. Federal budget authority for R&D and R&D plant, by budget function: FYs 2007–14

Fiscal year	Nondefense											
	All functions	National defense (050)	Total	General science, basic research (251)	Space flight, research, supporting activities (252)	Energy (270)	Natural resources, environment (300)	Agri-culture (350)	Trans- portation (400)	Health (550)	Veterans benefits, services (700)	Other ^a
Current \$millions												
2007 actual	141,890	82,658	59,232	8,712	10,988	1,922	2,096	1,950	1,380	29,581	820	1,783
2008 actual	144,391	85,129	59,262	9,007	10,672	2,076	2,202	1,997	1,413	29,212	886	1,797
2009 total	164,292	85,642	78,650	14,128	9,060	3,794	2,615	2,249	1,461	42,051	943	2,349
Actual	145,553	85,342	60,211	9,941	8,374	2,234	2,371	2,073	1,357	30,989	943	1,929
ARRA	18,739	300	18,439	4,187	686	1,560	244	176	104	11,062	0	420
2010 actual	148,962	86,789	62,173	10,509	8,232	2,570	2,430	2,206	1,517	31,693	1,034	1,982
2011 actual	144,379	83,226	61,153	10,581	8,658	2,265	2,314	1,768	1,420	30,990	1,160	1,997
2012 actual	143,737	79,875	63,862	10,536	10,801	2,231	2,300	2,005	1,511	31,411	1,160	1,907
2013 preliminary	133,515	71,980	61,535	9,741	10,599	1,978	2,190	1,850	1,423	30,056	1,130	2,568
2014 proposed	144,352	74,601	69,751	10,977	11,183	3,211	2,603	2,183	1,490	32,468	1,172	4,464
Average annual growth, 2007–10 ^b (%)	1.6	1.6	1.6	6.5	-9.2	10.2	5.1	4.2	3.2	2.3	8.0	3.6
Percent change												
2010–11	-3.1	-4.1	-1.6	0.7	5.2	-11.9	-4.8	-19.9	-6.4	-2.2	12.2	0.8
2011–12	-0.4	-4.0	4.4	-0.4	24.8	-1.5	-0.6	13.4	6.4	1.4	0.0	-4.5
2012–13	-7.1	-9.9	-3.6	-7.5	-1.9	-11.3	-4.8	-7.7	-5.8	-4.3	-2.6	34.7
2013–14	8.1	3.6	13.4	12.7	5.5	62.3	18.9	18.0	4.7	8.0	3.7	73.8
FY 2005 constant \$millions												
2007 actual	133,280	77,642	55,638	8,183	10,321	1,805	1,969	1,832	1,296	27,786	770	1,675
2008 actual	132,554	78,150	54,404	8,269	9,797	1,906	2,021	1,833	1,297	26,817	813	1,650
2009 total	148,910	77,623	71,286	12,805	8,212	3,439	2,370	2,038	1,324	38,114	855	2,129
Actual	131,925	77,352	54,574	9,010	7,590	2,025	2,149	1,879	1,230	28,088	855	1,748
ARRA	16,985	272	16,713	3,795	622	1,414	221	160	94	10,026	0	381
2010 actual	133,658	77,873	55,786	9,429	7,386	2,306	2,180	1,979	1,361	28,437	928	1,778
2011 actual	126,882	73,140	53,742	9,299	7,609	1,991	2,034	1,554	1,248	27,234	1,019	1,755
2012 actual	124,040	68,929	55,110	9,092	9,321	1,925	1,985	1,730	1,304	27,106	1,001	1,646
2013 preliminary	112,861	60,845	52,016	8,234	8,959	1,672	1,851	1,564	1,203	25,407	955	2,171
2014 proposed	119,754	61,889	57,865	9,107	9,277	2,664	2,159	1,811	1,236	26,935	972	3,703
Average annual growth, 2007–10 ^b (%)	0.1	0.1	0.1	4.8	-10.6	8.5	3.5	2.6	1.6	0.8	6.4	2.0
Percent change												
2010–11	-1.6	-3.1	0.3	2.4	-1.2	0.2	-0.4	-1.4	0.1	0.3	5.3	-0.1
2011–12	-2.2	-5.8	2.5	-2.2	22.5	-3.3	-2.4	11.3	4.5	-0.5	-1.8	-6.2
2012–13	-9.0	-11.7	-5.6	-9.4	-3.9	-13.1	-6.8	-9.6	-7.7	-6.3	-4.6	31.5
2013–14	6.1	1.7	11.2	10.6	3.5	59.3	16.6	15.8	2.7	6.0	1.8	71.0

ARRA = American Recovery and Reinvestment Act of 2009.

^a Includes International affairs (150), Commerce and housing credit (300), Community and regional development (450), Education, training, employment, and social services (500), Medicare (570), Income security (600), Administration of justice (750), and General government (800).

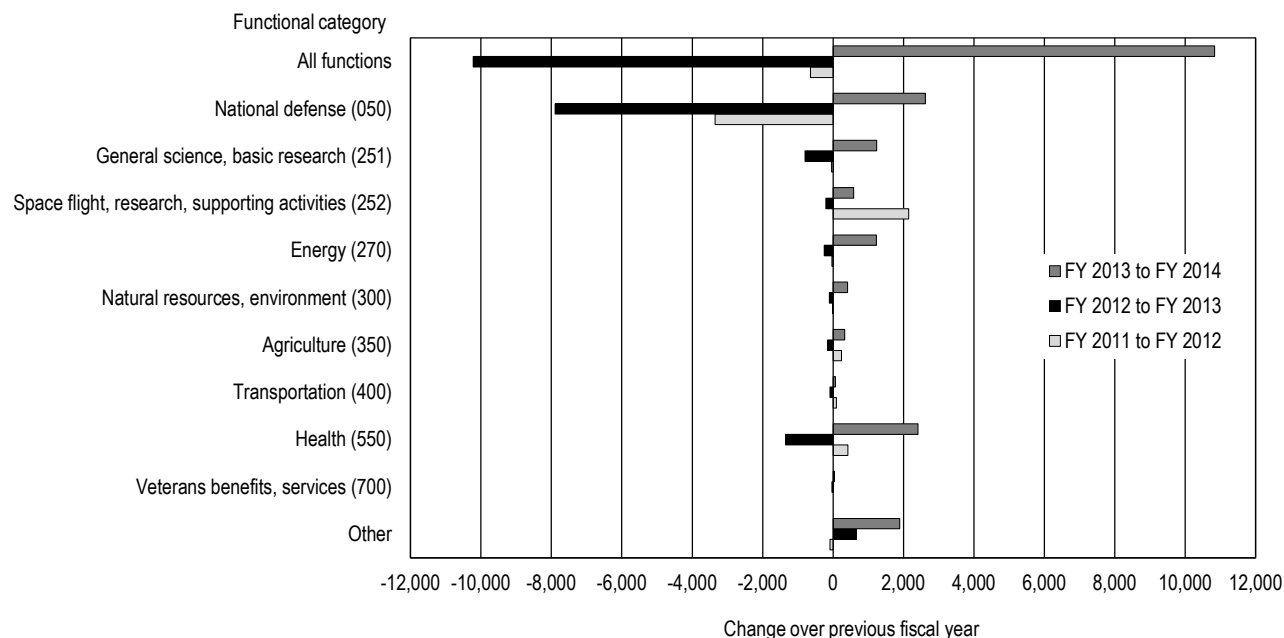
^b Calculated as compound average annual growth rate over FYs 2007–10.

NOTES: Data show budget information collected through August 2013. Data for FYs 2007–12 are final appropriations. Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table preparation. The FY 2013 data are estimates based on appropriations, the President's request, and Office of Management and Budget analyses of the Budget Control Act. FY 2014 data are mainly the President's proposed budget.

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

FIGURE 1. Federal budget authority for R&D and R&D plant, change over previous fiscal year: FYs 2011–14

(Millions of current dollars)



NOTES: Data show budget information collected through August 2013. Data for FYs 2011–12 are final appropriations. Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table preparation. FY 2013 data are estimates based on appropriations, the President's request, and Office of Management and Budget analyses of the Budget Control Act. FY 2014 data are mainly the President's proposed budget. "Other" includes International affairs (150), Commerce and housing credit (300), Community and regional development (450), Education, training, employment, and social services (500), Medicare (570), Income security (600), Administration of justice (750), and General government (800).

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.

brought on further budget caps and cuts covering a second 10-year period starting in 2013. With the Congress and administration unable to agree on alternative budget plans to meet the discretionary spending caps, the automatic across-the-board spending cuts on security and non-security programs specified by the Budget Control Act began to take effect in the summer of 2013. Although the Congress did impose some funding reductions to the FY 2013 budget authority for R&D and R&D plant through the regular appropriations process, the estimated \$10.2 billion decline that year stemmed primarily from these mandatory across-the-board spending cuts. The reductions affected almost all of the budget functions in noticeable ways, but again, the cuts fell more heavily on National

defense than on most of the other functions (table 1, figure 1).

The President's proposed budget authority for R&D and R&D plant in FY 2014 is \$144.4 billion, a \$10.8 billion, or 8.1%, increase over the estimated FY 2013 level (table 1). Congressional consideration of this proposal continues as this report is released. Nonetheless, most of the issues that have enlivened the federal government budget decision-making over the past several years in the Congress and the administration remain in play.

R&D Plant

R&D plant is an essential input for R&D activity, even if R&D is by far the more sizable component in the funding picture. The \$143.7 billion total for

federal budget authority in FY 2012 consisted of \$141.5 billion for R&D and \$2.3 billion for R&D plant (table 2). The corresponding levels in FY 2013 were an estimated \$131.4 billion for R&D and \$2.2 billion for R&D plant. The President's proposed levels for FY 2014 are \$141.1 billion for R&D and \$3.2 billion for R&D plant. Over the past several years, the largest category by far of federal funding for R&D plant has been the General science and basic research function (table 2).

Distribution of Funding by Budget Function

National defense typically accounts for half or more of annual federal budget authority for the total of R&D and R&D plant. National defense was \$79.9 billion in FY 2012, or 56.6%. Despite a

sizable decrease to \$72.0 billion in FY 2013, this category was still 54.0% of the total (table 1, table 3). The balance of funding (\$63.9 billion in FY 2012, and \$61.5 billion in FY 2013) was spread among 16 non-defense functional categories (figure 1). Health is the largest of these—much less than

National defense, but still large (\$31.4 billion in FY 2012, and \$30.1 billion in FY 2013). Space flight, research, and supporting activities and General science and basic research were also sizable (\$10.8 billion and \$10.5 billion, respectively, in FY 2012; both somewhat reduced in FY 2013). Energy,

Natural resources and environment, Agriculture, Transportation, and Veteran's benefits and services each have budget authority in the range of one to several billion dollars annually. Budget authority ranges from somewhat under to well under \$1 billion annually for the eight other non-defense categories:

TABLE 2. Federal budget authority for R&D and R&D plant, by budget function and funding category: FYs 2007–14
(Millions of current dollars)

Fiscal year	All functions	National defense (050)	Total	Nondefense								
				General science, basic research (251)	Space flight, research, supporting activities (252)	Energy (270)	Natural resources, environment (300)	Agriculture (350)	Transportation (400)	Health (550)	Veterans benefits, services (700)	Other ^a
R&D												
2007 actual	138,087	82,272	55,815	7,809	9,024	1,893	1,936	1,857	1,361	29,461	820	1,654
2008 actual	140,113	84,713	55,400	8,234	8,323	1,896	2,106	1,864	1,394	29,063	886	1,634
2009 total	156,009	85,166	70,843	11,840	6,891	3,318	2,245	1,935	1,440	40,389	943	1,842
Actual	140,903	84,866	56,037	8,885	6,205	2,014	2,171	1,935	1,336	30,827	943	1,721
ARRA	15,106	300	14,806	2,955	686	1,304	74	0	104	9,562	0	121
2010 actual	146,596	86,517	60,079	9,547	8,232	2,455	2,237	2,043	1,496	31,488	1,034	1,547
2011 actual	142,457	82,972	59,485	9,483	8,398	2,233	2,171	1,916	1,395	30,903	1,160	1,826
2012 actual	141,450	79,559	61,891	9,304	10,661	2,197	2,147	1,920	1,486	31,243	1,160	1,755
2013 preliminary	131,354	71,800	59,554	8,658	10,443	1,943	2,034	1,771	1,399	29,896	1,130	2,280
2014 proposed	141,129	74,394	66,735	9,764	10,951	3,186	2,425	1,932	1,451	32,299	1,172	3,555
R&D plant												
2007 actual	3,803	386	3,417	903	1,964	29	160	93	19	120	0	129
2008 actual	4,278	416	3,862	773	2,349	180	96	133	19	149	0	163
2009 total	8,283	476	7,807	2,288	2,169	476	370	314	21	1,662	0	507
Actual	4,650	476	4,174	1,056	2,169	220	200	138	21	162	0	208
ARRA	3,633	0	3,633	1,232	0	256	170	176	0	1,500	0	299
2010 actual	2,366	272	2,094	962	0	115	193	163	21	205	0	435
2011 actual ^b	1,922	254	1,668	1,098	260	32	143	-148	25	87	0	171
2012 actual	2,287	316	1,971	1,232	140	34	153	85	25	168	0	152
2013 preliminary	2,161	180	1,981	1,083	156	35	156	79	24	159	0	289
2014 proposed	3,223	207	3,016	1,213	232	25	178	251	39	169	0	909

ARRA = American Recovery and Reinvestment Act of 2009.

^a Includes International affairs (150), Commerce and housing credit (370), Community and regional development (450), Education, training, employment, and social services (500), Medicare (570), Income security (600), Administration of justice (750), and General government (800).

^b The Agricultural Research Service received \$82 million for R&D plant in FY 2011, but this was offset by \$230 million of rescissions in prior-year R&D plant funding.

NOTES: Data show budget information collected through August 2013. Data for FYs 2007–12 are final appropriations. Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table preparation. The FY 2013 data are estimates based on appropriations, the President's request, and Office of Management and Budget analyses of the Budget Control Act. FY 2014 data are mainly the President's proposed budget.

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

Education, training, employment, and social services; Commerce and housing credit; International affairs; Administration of justice; Medicare; Community and regional development; Income security; and General government.

National Defense

The President's proposed budget authority level for R&D and R&D plant directed at national defense objectives in FY 2014 would total \$74.6 billion, an increase over the FY 2013 level but proportionately less of an expansion than that received by most of the other major functional areas (table 1). This proposed level for FY 2014 would reduce the National defense share to 51.7%, a lower point than has been seen for a number of years (table 3).

Most of the R&D dollars in National defense category support military research, development, test, and evaluation (RDT&E) programs at the Department of Defense (\$73.0 billion of the \$79.9 billion category total in FY 2012, and \$64.7 billion of \$72.0 billion in FY 2013). The Air Force and Navy have the largest engagements in this work. But the Army and several Defense Agencies (notably the Defense Advanced Research Projects Agency and the Missile Defense Agency) are also significantly involved.

R&D on atomic energy defense in the Department of Energy is a smaller but still sizable component of the defense category (\$4.3 billion in FY 2012, and \$3.9 billion in FY 2013). The two largest elements are weapons activities (\$2.9 billion in FY 2012, and \$2.7 billion in FY 2013) and development of naval reactors (\$1.0 billion in both FYs 2012 and 2013).

Health

Budget authority for health R&D and R&D plant in FY 2012 was \$31.4 billion (21.9% of the total) but dropped to an estimated \$30.1 billion (22.5%)

in FY 2013. The President's proposed funding for FY 2014 is an increase to \$32.5 billion.

The National Institutes of Health (NIH) is the predominant funder in this category: \$30.0 billion in FY 2012, and \$28.5 billion in FY 2013. This category also includes the R&D programs of the Consumer Product and Safety Commission, Food and Drug Administration, Occupational Safety and Health Administration, and a number of Department of Health and Human Services agencies other than NIH (notably, the Agency for Healthcare Research and Quality and the Centers for Disease Control and Prevention).

Space Flight, Research, and Supporting Activities

Budget authority for Space flight, research, and supporting activities was \$10.8 billion in FY 2012 and an estimated \$10.6 billion in FY 2013. The President's proposed level for FY 2014 is somewhat higher at \$11.2 billion. National Aeronautics and Space Administration (NASA) programs account for the entire amount. This category's share of the total was in the 5%–6% range for FYs 2010 and 2011, but rose to 7.5% and 7.9% in FYs 2011 and 2012, respectively. The proposed funding for FY 2014 would put its share of the total at 7.7% (table 3).

General Science and Basic Research

The category General science and basic research² includes the R&D programs of the National Science Foundation (NSF), the Department of Energy's (DOE's) Office of Science, and, through FY 2012, some programs in the Department of Homeland Security. Budget authority for this category was \$10.5 billion in FY 2012 (7.3% of the total of R&D and R&D plant that year) and an estimated \$9.7 billion in FY 2013 (also 7.3% of the total). The level proposed for FY 2014 is an increase to

\$11.0 billion. This category's funding has generally been increasing in recent years—\$8.7 billion in FY 2007, rising to above \$10 billion in FYs 2010–12 (table 1). In FY 2012, NSF programs accounted for \$5.7 billion, or somewhat over half of the category's budget authority total; in FY 2013, NSF programs were estimated to have been allotted \$5.5 billion, well over half the category. DOE's Office of Science was allotted \$4.5 billion in FY 2012 and \$4.2 billion in FY 2013. The Department of Homeland Security had budget authority for R&D of only \$0.4 billion in FY 2013, and its activities were recategorized to the Administration of justice function starting in FY 2013.

Energy

Budget authority for R&D and R&D plant in this functional category is \$2.2 billion in FY 2012, somewhat below the \$2.3 billion allotted in FY 2011. The President's proposed budget for FY 2014 calls for an increase to \$3.2 billion. The Department of Energy's various energy programs and the Advanced Research Projects Agency-Energy (ARPA-E) account for the vast majority of this category total (\$2.1 billion in FY 2012). This category also includes smaller R&D funding levels for the Nuclear Regulatory Commission and the Tennessee Valley Authority.

Natural Resources and Environment

This functional category includes R&D across a range of purposes: conservation and land management, pollution control and abatement, recreational resources, water resources, and other natural resources. Budget authority for the category as a whole in FY 2012 was \$2.3 billion and an estimated \$2.2 billion in FY 2013. The proposed level for FY 2014 is \$2.6 billion. The majority of this funding is associated with R&D programs in the Department of Commerce (chiefly, the National Oceanic and Atmospheric Administra-

TABLE 3. Distribution of federal budget authority for R&D and R&D plant budget, by budget function: FYs 2007–14

(Percent)

2012 rank	Budget function	2007 actual	2008 actual	2009		2010 actual	2011 actual	2012 actual	2013 preliminary	2014 proposed
				Actual	ARRA					
	All functions conducting R&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	National defense (050)	58.3	59.0	58.6	1.6	58.3	57.6	55.6	54.0	51.7
2	Health (550)	20.8	20.2	21.3	59.0	21.3	21.5	21.9	22.4	22.5
3	Space flight, research, supporting activities (252)	7.7	7.4	5.8	3.7	5.5	6.0	7.5	7.9	7.7
4	General science and basic research (251)	6.1	6.2	6.8	22.3	7.2	7.3	7.3	7.3	7.6
5	Natural resources and environment (300)	1.5	1.5	1.7	1.3	1.6	1.6	1.6	1.6	1.8
6	Energy (270)	1.4	1.4	1.5	8.3	1.7	1.6	1.6	1.5	2.2
7	Agriculture (350)	1.4	1.4	1.4	0.9	1.5	1.2	1.4	1.4	1.5
8	Transportation (400)	1.0	1.0	0.9	0.6	1.0	1.0	1.1	1.1	1.0
9	Veterans benefits and services (700)	0.6	0.6	0.7	0.0	0.7	0.8	0.8	0.8	0.8
10	Commerce and housing credit (370)	0.4	0.4	0.4	2.2	0.4	0.5	0.5	0.5	1.4
11	Education, training, employment, and social services (500)	0.4	0.4	0.4	0.1	0.4	0.4	0.4	0.5	0.4
12	International affairs (150)	0.2	0.2	0.2	0.0	0.1	0.1	0.2	0.2	0.2
13	Administration of justice (750)	0.3	0.2	0.2	0.0	*	0.1	0.1	0.6	1.0
14	Medicare (570)	na	na	*	0.0	*	0.1	0.1	0.1	*
15	Community and regional development (450)	*	*	*	0.0	0.1	0.1	*	*	0.1
16	Income security (600)	*	*	*	0.0	0.1	*	*	*	*
17	General government (800)	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*

* = amount less than 0.05%; na = not applicable.

ARRA = American Recovery and Reinvestment Act of 2009.

NOTES: Detail may not add to total because of rounding. Data show budget information collected through August 2013. Data for FYs 2007–12 are final appropriations. Agency estimates of final appropriations for FY 2013 were unavailable for most agencies at the time of table preparation. The FY 2013 data are estimates based on appropriations, the President's request, and Office of Management and Budget analyses of the Budget Control Act. FY 2014 data are mainly the President's proposed budget.

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.

tion and the U.S. Geological Survey), the Environmental Protection Agency, and the Department of Agriculture (notably, the Forest Service). The category total also includes R&D activities in the Department of the Interior (including the Bureau of Reclamation and National Park Service), the Army Corps of Engineers, and the U.S. Coast Guard.

Agriculture

Budget authority for this category was \$2.0 billion in FY 2012 and \$1.9 billion in 2013. The proposed level for FY 2014 is \$2.2 billion. This category is entirely composed of Department of Agriculture R&D programs.

Transportation

Budget authority for R&D and R&D plant in this category was \$1.5 billion in FY 2012 and \$1.4 billion in FY 2013, with \$1.5 billion proposed for FY 2014. Most of the R&D in this category is directed at air transportation and ground transportation issues, but there is also some in water and other transportation areas. Most of the funding is for Department of Transportation agencies and NASA.

Veterans Benefits and Services

Budget authority for R&D and R&D plant in this category was \$1.2 billion in FY 2012 and \$1.1 billion in FY 2013, with \$1.2 billion proposed for FY

2014. The funding in this category is for R&D programs at the Department of Veterans Affairs (medical services, as well as medical and prosthetic research).

Definitions

Budget authority is the primary source of legal authorization for a federal agency to enter into obligations that will result in outlays.

Budget functions are categories defined by the Office of Management and Budget (OMB) into which all activities funded by the federal budget are classified. There are 20 such broad functional categories currently, most

with a number of subfunctions. R&D activities are currently present in 16 of these broad functional categories. The 17 categories discussed in this report include 15 of these broad categories plus one of the broad categories separated into its two subfunctions (see note 2 below). For a tally of the federal budget by function and subfunction see table 5-1 in the Historical Tables section of the President's *Budget of the United States Government, Fiscal Year 2014* (<http://www.whitehouse.gov/omb/budget/Historicals/>). For a further discussion of the recognition of R&D in these budget functions see the OMB's guidance in *Circular A-11*, MAX Schedule C, "Research and Development Activities" (http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/s84.pdf).

Research and development (R&D) refers to basic research, applied research, and development in the sciences and engineering.

R&D plant refers to the acquisition of, construction of, major repairs to, or alterations in structures, works, equipment, facilities, or land for use in R&D activities.

Data Sources and Availability

The statistics described in this report account for nearly all federally spon-

sored R&D activities and are based chiefly on information federal agencies provide to OMB.

The underlying data are tabulated for NSF by the American Association for the Advancement of Science and reflect federal budget information collected and analyzed through August 2013. The data through FY 2012 are final appropriations. The statistics for FY 2013 draw on the federal budget as enacted by the Congress for that year (mainly on the second appropriations bill of 26 March 2013) and on estimates of agency spending plans. Accordingly, these budget numbers are marked "preliminary." The figures for FY 2014 are mainly from the President's proposed budget of the United States government for FY 2014 (publicly released 10 April 2013), but they also include subsequent executive branch and agency budget office information. Accordingly, the budget numbers for individual activities, programs, or agencies may differ from those published in the President's proposed budget or agency budget documents.

A full set of detailed tables on federal budget authority for R&D in FY 2012 and 2013, and the President's proposed levels for FY 2014 are available in a

companion statistical report, *Federal R&D Funding by Budget Function: Fiscal Years 2012–14*, accessible at <http://www.nsf.gov/statistics/fedbudget/>. For more information contact the author.

Notes

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2. The Office of Management and Budget's broad category of General science, space, and technology (250) divides into a pair of subfunctions: General science and basic research (251) and Space flight, research, and supporting activities (252). Given the intrinsic differences in these two R&D endeavors and the significant public interest in each, these subfunctions are discussed separately in this report. Furthermore, despite the General science and basic research title, not all basic research funded by the federal government is classified in this single category. Federal funding for basic research arises in other functional categories—such as National defense or Health—and is included in the category funding totals there.

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