

NATIONAL SCIENCE FOUNDATION

Federal Funds

RESEARCH AND RELATED ACTIVITIES

For necessary expenses in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), and the Act to establish a National Medal of Science (42 U.S.C. 1880-1881); services as authorized by 5 U.S.C. 3109; maintenance and operation of aircraft and purchase of flight services for research support; acquisition of aircraft; and authorized travel; **[\$5,183,100,000] \$5,733,240,000**, to remain available until September 30, **[2010] 2011**, of which not to exceed **[\$540,000,000] \$570,000,000** shall remain available until expended for polar research and operations support, and for reimbursement to other Federal agencies for operational and science support and logistical and other related activities for the United States Antarctic program: *Provided*, That from funds specified in the fiscal year **[2009] 2010** budget request for icebreaking services, up to \$54,000,000 shall be available for the procurement of polar icebreaking services: *Provided further*, That the National Science Foundation shall only reimburse the Coast Guard for such sums as are agreed to according to the existing memorandum of agreement: *Provided further*, That receipts for scientific support services and materials furnished by the National Research Centers and other National Science Foundation supported research facilities may be credited to this appropriation: *Provided further*, That not less than \$133,000,000 shall be available for activities authorized by section 7002(b)(2)(A)(iv) of Public Law 110-69]. (*Science Appropriations Act, 2009.*)

Program and Financing (in millions of dollars)

Identification code 49-0100-0-1-999	2008 actual	2009 est.	2010 est.
Obligations by program activity:			
00.01 Biological sciences	613	914	733
00.02 Computer and information science and engineering	535	809	633
00.03 Engineering	640	949	765
00.04 EPSCoR	120	147	147
00.05 Geosciences	758	1,154	909
00.06 Mathematical and physical sciences	1,171	1,746	1,380
00.07 Social, behavioral and economic sciences	215	315	257
00.08 Office of International Science and Engineering	48	58	49
00.09 U.S. polar research programs	380	578	448
00.10 U.S. Antarctic logistical support activities	68	67	68
00.11 Integrative activities	119	666	123
00.12 Office of Cyberinfrastructure	185	279	219
00.13 Arctic Research Commission	2	2	2
09.01 Reimbursable programs	88	120	120
10.00 Total new obligations	4,942	7,804	5,853
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year	23	1	.....
22.00 New budget authority (gross)	4,913	7,803	5,853
22.10 Resources available from recoveries of prior year obligations	7	.....	.....
23.90 Total budgetary resources available for obligation	4,943	7,804	5,853
23.95 Total new obligations	-4,942	-7,804	-5,853
24.40 Unobligated balance carried forward, end of year	1	.....	.....
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	4,844	5,183	5,733
40.01 Appropriation, Recovery Act .....	.....	2,500	.....
40.36 Unobligated balance permanently reduced	-17	.....	.....
41.00 Transferred to other accounts	-2	.....	.....
43.00 Appropriation (total discretionary)	4,825	7,683	5,733
Spending authority from offsetting collections:			
58.00 Offsetting collections (cash)	102	120	120
58.10 Change in uncollected customer payments from Federal sources (unexpired)	-14	.....	.....
58.90 Spending authority from offsetting collections (total discretionary)	88	120	120
70.00 Total new budget authority (gross)	4,913	7,803	5,853
Change in obligated balances:			
72.40 Obligated balance, start of year	6,142	6,536	9,045
73.10 Total new obligations	4,942	7,804	5,853

73.20 Total outlays (gross)	-4,553	-5,295	-6,674
73.40 Adjustments in expired accounts (net)	-28	.....	.....
73.45 Recoveries of prior year obligations	-7	.....	.....
74.00 Change in uncollected customer payments from Federal sources (unexpired)	14	.....	.....
74.10 Change in uncollected customer payments from Federal sources (expired)	26	.....	.....
74.40 Obligated balance, end of year	6,536	9,045	8,224
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	823	1,655	1,654
86.93 Outlays from discretionary balances	3,730	3,640	5,020
87.00 Total outlays (gross)	4,553	5,295	6,674
Offsets:			
Against gross budget authority and outlays:			
88.00 Offsetting collections (cash) from: Federal sources	-128	-120	-120
Against gross budget authority only:			
88.95 Change in uncollected customer payments from Federal sources (unexpired)	14	.....	.....
88.96 Portion of offsetting collections (cash) credited to expired accounts	26	.....	.....
Net budget authority and outlays:			
89.00 Budget authority	4,825	7,683	5,733
90.00 Outlays	4,425	5,175	6,554

The Research and Related Activities appropriation enables the United States to provide leadership and promote progress across the expanding frontiers of scientific and engineering research and education. This appropriation provides resources for NSF to achieve the following strategic outcome goals: Discovery—fostering research that will advance the frontiers of knowledge, emphasizing areas of greatest opportunity and potential benefit and establishing the Nation as a global leader in fundamental and transformational science and engineering; Learning—cultivating a world-class, broadly inclusive science and engineering workforce and expanding the scientific literacy of all citizens; and Research Infrastructure—building the Nation's research capability through critical investments in advanced instrumentation, facilities, cyberinfrastructure, and experimental tools. Research activities will contribute to the achievement of these goals by advancing discovery, innovation, and education beyond the frontiers of current knowledge and empowering future generations in science and engineering.

The major research program activities of NSF are:

Biological Sciences.—This activity promotes scientific progress in biology through support of research on all levels, including molecules, cells, organisms, and ecosystems. This activity also supports a comprehensive research initiative on plant genomes, including research on economically significant crops.

Computer and Information Science and Engineering.—Research within and across the many sub-fields of computing, contributing to the education and training of computing professionals and informing the preparation of a U.S. workforce with computing competencies essential to success in an increasingly competitive, global market.

Engineering.—Research supported by this activity aims to increase U.S. engineering capability and strength, and focus that capability and strength on areas that are relevant to national problems and long-term needs. This activity also includes small business innovation research.

Geosciences.—This activity supports research and associated infrastructure to advance knowledge of the properties and dynamics of the planet on which we live. Research includes understanding the causes and implications of climate change, as well as disruptive processes such as earthquakes and storms.

RESEARCH AND RELATED ACTIVITIES—Continued

Mathematical and Physical Sciences.—Research in this activity is directed at increasing understanding of natural laws and phenomena. It includes research in mathematical sciences, astronomy, physics, chemistry, and materials science.

Social, Behavioral, and Economic Sciences.—This activity supports research, education, and infrastructure in the social, behavioral, cognitive, and economic sciences and funds the collection and dissemination of statistics on the science and engineering enterprise.

Office of International Science and Engineering.—This activity promotes an integrated strategy for international science and engineering which complements and enhances NSF's broader research and education goals and which facilitates international collaboration.

U.S. Polar Research Programs.—This activity supports Arctic and Antarctic research and operational science support and other related activities for United States polar research programs.

U.S. Antarctic Logistical Support Activities.—This activity provides funding to reimburse Federal agencies for logistical and other related activities supported by the United States Antarctic Program.

Integrative Activities.—This activity supports emerging cross-disciplinary research efforts and major research instrumentation. This activity also provides support for the Science and Technology Policy Institute. The Experimental Program to Stimulate Competitive Research broadens participation of States and regions in science and engineering by helping institutions expand their research capacity and competitiveness.

Office of Cyberinfrastructure.—This activity supports acquisitions, operations, and upgrades of cyberinfrastructure in support of the Nation's science and engineering research and education community.

The United States Arctic Research Commission promotes Arctic research and recommends national Arctic research policies to guide Federal agencies in developing and implementing their research programs in the Arctic region.

Object Classification (in millions of dollars)

Identification code 49-0100-0-1-999	2008 actual	2009 est.	2010 est.
Direct obligations:			
21.0 Travel and transportation of persons	16	16	16
25.1 Advisory and assistance services	51	50	50
25.2 Other services	2	2	2
25.3 Other purchases of goods and services from Government accounts	16	10	10
25.4 Operation and maintenance of facilities	369	369	369
25.5 Research and development contracts	6	6	6
31.0 Equipment	1	2	2
41.0 Grants, subsidies, and contributions	4,393	7,229	5,278
99.0 Direct obligations	4,854	7,684	5,733
99.0 Reimbursable obligations	88	120	120
99.9 Total new obligations	4,942	7,804	5,853

Employment Summary

Identification code 49-0100-0-1-999	2008 actual	2009 est.	2010 est.
Direct:			
1001 Civilian full-time equivalent employment	4	4	4

MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION

For necessary expenses for the acquisition, construction, commissioning, and upgrading of major research equipment, facilities, and other such capital assets pursuant to the National Science Foundation Act of 1950,

as amended (42 U.S.C. 1861-1875), including authorized travel, **[\$152,010,000]** \$117,290,000, to remain available until expended. (*Science Appropriations Act, 2009.*)

Program and Financing (in millions of dollars)

Identification code 49-0551-0-1-251	2008 actual	2009 est.	2010 est.
Obligations by program activity:			
00.01 Direct program activity	167	619	117
10.00 Total new obligations	167	619	117
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year	28	67	.....
22.00 New budget authority (gross)	206	552	117
23.90 Total budgetary resources available for obligation	234	619	117
23.95 Total new obligations	-167	-619	-117
24.40 Unobligated balance carried forward, end of year	67	.....	.....
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	221	152	117
40.01 Appropriation, Recovery Act .....	.....	400	.....
40.36 Unobligated balance permanently reduced	-15	.....	.....
43.00 Appropriation (total discretionary)	206	552	117
Change in obligated balances:			
72.40 Obligated balance, start of year	222	177	631
73.10 Total new obligations	167	619	117
73.20 Total outlays (gross)	-212	-165	-248
74.40 Obligated balance, end of year	177	631	500
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority .....	.....	39	18
86.93 Outlays from discretionary balances	212	126	230
87.00 Total outlays (gross)	212	165	248
Net budget authority and outlays:			
89.00 Budget authority	206	552	117
90.00 Outlays	212	165	248

The Major Research Equipment and Facilities Construction activity supports the acquisition, construction, and commissioning of unique national research platforms and major research facilities and equipment. Performance is measured against established construction schedules, costs, and milestones.

Object Classification (in millions of dollars)

Identification code 49-0551-0-1-251	2008 actual	2009 est.	2010 est.
Direct obligations:			
25.5 Research and development contracts	13	43	13
41.0 Grants, subsidies, and contributions	154	576	104
99.9 Total new obligations	167	619	117

AGENCY OPERATIONS AND AWARD MANAGEMENT

For agency operations and award management necessary in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875); services authorized by 5 U.S.C. 3109; hire of passenger motor vehicles; not to exceed \$9,000 for official reception and representation expenses; uniforms or allowances therefor, as authorized by 5 U.S.C. 5901-5902; rental of conference rooms in the District of Columbia; and reimbursement of the Department of Homeland Security for security guard services; **[\$294,000,000]** \$318,370,000: *Provided*, That contracts may be entered into under this heading in fiscal year **[2009]** 2010 for maintenance and operation of facilities, and for other services, to be provided during the next fiscal year. (*Science Appropriations Act, 2009.*)

Program and Financing (in millions of dollars)

Identification code 49-0180-0-1-251	2008 actual	2009 est.	2010 est.
Obligations by program activity:			
00.01 Administration and management	282	294	318
09.01 Reimbursable programs	5	10	10
10.00 Total new obligations	287	304	328
Budgetary resources available for obligation:			
22.00 New budget authority (gross)	287	304	328
23.95 Total new obligations	-287	-304	-328
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	282	294	318
58.00 Spending authority from offsetting collections: Offsetting collections (cash)	5	10	10
70.00 Total new budget authority (gross)	287	304	328
Change in obligated balances:			
72.40 Obligated balance, start of year	50	72	33
73.10 Total new obligations	287	304	328
73.20 Total outlays (gross)	-264	-343	-326
73.40 Adjustments in expired accounts (net)	-2		
74.10 Change in uncollected customer payments from Federal sources (expired)	1		
74.40 Obligated balance, end of year	72	33	35
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	222	272	294
86.93 Outlays from discretionary balances	42	71	32
87.00 Total outlays (gross)	264	343	326
Offsets:			
Against gross budget authority and outlays:			
88.00 Offsetting collections (cash) from: Federal sources	-5	-10	-10
Net budget authority and outlays:			
89.00 Budget authority	282	294	318
90.00 Outlays	259	333	316

This account provides funds to administer and manage NSF programs and to advance NSF's strategic goal of Stewardship—supporting excellence in science and engineering research and education through a capable and responsive organization. NSF continually develops and refines performance measures for development and monitoring of programs.

Object Classification (in millions of dollars)

Identification code 49-0180-0-1-251	2008 actual	2009 est.	2010 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	122	134	146
11.3 Other than full-time permanent	12	12	13
11.5 Other personnel compensation	7	7	8
11.8 Special personal services payments	1	2	2
11.9 Total personnel compensation	142	155	169
12.1 Civilian personnel benefits	33	37	39
21.0 Travel and transportation of persons	7	9	11
23.1 Rental payments	22	25	26
23.3 Communications, utilities, and miscellaneous charges	5	2	2
25.1 Advisory and assistance services	52	19	25
25.2 Other services	9	10	12
25.3 Other purchases of goods and services from Government accounts	3	4	4
25.7 Operation and maintenance of equipment		24	21
26.0 Supplies and materials	3	4	4
31.0 Equipment	4	5	5
41.0 Grants, subsidies, and contributions	2		
99.0 Direct obligations	282	294	318
99.0 Reimbursable obligations	5	10	10
99.9 Total new obligations	287	304	328

Employment Summary

Identification code 49-0180-0-1-251	2008 actual	2009 est.	2010 est.
Direct:			
1001 Civilian full-time equivalent employment	1,256	1,305	1,360

OFFICE OF THE NATIONAL SCIENCE BOARD

For necessary expenses (including payment of salaries, authorized travel, hire of passenger motor vehicles, the rental of conference rooms in the District of Columbia, and the employment of experts and consultants under section 3109 of title 5, United States Code) involved in carrying out section 4 of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1863) and Public Law 86-209 (42 U.S.C. 1880 et seq.), **[\$4,030,000] \$4,340,000: Provided,** That not to exceed \$2,500 shall be available for official reception and representation expenses. (*Science Appropriations Act, 2009.*)

Program and Financing (in millions of dollars)

Identification code 49-0350-0-1-251	2008 actual	2009 est.	2010 est.
Obligations by program activity:			
00.01 Direct program activity	4	4	4
10.00 Total new obligations	4	4	4
Budgetary resources available for obligation:			
22.00 New budget authority (gross)	4	4	4
23.95 Total new obligations	-4	-4	-4
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	4	4	4
Change in obligated balances:			
72.40 Obligated balance, start of year	2	3	1
73.10 Total new obligations	4	4	4
73.20 Total outlays (gross)	-3	-6	-4
74.40 Obligated balance, end of year	3	1	1
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	3	4	4
86.93 Outlays from discretionary balances		2	
87.00 Total outlays (gross)	3	6	4
Net budget authority and outlays:			
89.00 Budget authority	4	4	4
90.00 Outlays	3	6	4

This appropriation provides policy-making and related responsibilities for NSF and provides guidance on significant national policy issues in science and engineering research and education, as required by law.

Object Classification (in millions of dollars)

Identification code 49-0350-0-1-251	2008 actual	2009 est.	2010 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	2	2	2
21.0 Travel and transportation of persons	1	1	1
25.1 Advisory and assistance services	1	1	1
99.9 Total new obligations	4	4	4

OFFICE OF THE NATIONAL SCIENCE BOARD—Continued
Employment Summary

Identification code 49-0350-0-1-251	2008 actual	2009 est.	2010 est.
Direct:			
1001 Civilian full-time equivalent employment	16	16	17

OFFICE OF INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, as amended, **[\$12,000,000]** \$14,000,000. (*Science Appropriations Act, 2009.*)

Program and Financing (in millions of dollars)

Identification code 49-0300-0-1-251	2008 actual	2009 est.	2010 est.
Obligations by program activity:			
00.01 Direct program activity	12	14	14
10.00 Total new obligations	12	14	14
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year	1		
22.00 New budget authority (gross)	11	14	14
23.90 Total budgetary resources available for obligation	12	14	14
23.95 Total new obligations	-12	-14	-14
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	11	12	14
40.01 Appropriation, Recovery Act		2	
43.00 Appropriation (total discretionary)	11	14	14
Change in obligated balances:			
72.40 Obligated balance, start of year	4	3	4
73.10 Total new obligations	12	14	14
73.20 Total outlays (gross)	-13	-13	-15
74.40 Obligated balance, end of year	3	4	3
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	10	10	12
86.93 Outlays from discretionary balances	3	3	3
87.00 Total outlays (gross)	13	13	15
Net budget authority and outlays:			
89.00 Budget authority	11	14	14
90.00 Outlays	13	13	15

This appropriation provides agency-wide audit and investigative functions to identify and correct management and administrative deficiencies which create conditions for existing or potential instances of fraud, waste, and mismanagement consistent with the Inspector General Act of 1978, as amended (5 U.S.C. App. 3).

Object Classification (in millions of dollars)

Identification code 49-0300-0-1-251	2008 actual	2009 est.	2010 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	7	8	8
12.1 Civilian personnel benefits	2	3	3
25.2 Other services	3	3	3
99.9 Total new obligations	12	14	14

Employment Summary

Identification code 49-0300-0-1-251	2008 actual	2009 est.	2010 est.
Direct:			
1001 Civilian full-time equivalent employment	67	64	67

EDUCATION AND HUMAN RESOURCES

For necessary expenses in carrying out science and engineering education and human resources programs and activities pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including services as authorized by 5 U.S.C. 3109, authorized travel, and rental of conference rooms in the District of Columbia, **[\$845,260,000]** \$857,760,000, to remain available until September 30, **[2010: Provided further, That not less than \$55,000,000 shall be available until expended for activities authorized by section 7030 of Public Law 110-69] 2011.** (*Science Appropriations Act, 2009.*)

Program and Financing (in millions of dollars)

Identification code 49-0106-0-1-251	2008 actual	2009 est.	2010 est.
Obligations by program activity:			
00.01 Undergraduate education	254	368	290
00.02 Graduate education	160	196	181
00.03 Human resource development	140	154	157
00.04 Research on learning in formal and informal settings	212	227	230
00.91 Subtotal appropriated activities	766	945	858
01.01 Low income scholarship program	92	75	75
01.02 Private-public partnerships in K-12	29	25	25
01.91 Subtotal H-1B non-immigrant petitioner fee activities	121	100	100
02.00 Total direct obligations	887	1,045	958
09.01 Reimbursable programs	10	15	15
10.00 Total new obligations	897	1,060	973
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year	63	50	50
22.00 New budget authority (gross)	879	1,060	973
22.10 Resources available from recoveries of prior year obligations	5		
23.90 Total budgetary resources available for obligation	947	1,110	1,023
23.95 Total new obligations	-897	-1,060	-973
24.40 Unobligated balance carried forward, end of year	50	50	50
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	766	845	858
40.01 Appropriation, Recovery Act		100	
43.00 Appropriation (total discretionary)	766	945	858
Spending authority from offsetting collections:			
58.00 Offsetting collections (cash)	10	15	15
58.10 Change in uncollected customer payments from Federal sources (unexpired)	-1		
58.90 Spending authority from offsetting collections (total discretionary)	9	15	15
Mandatory:			
60.20 Appropriation (special fund)	104	100	100
70.00 Total new budget authority (gross)	879	1,060	973
Change in obligated balances:			
72.40 Obligated balance, start of year	1,663	1,636	1,747
73.10 Total new obligations	897	1,060	973
73.20 Total outlays (gross)	-913	-949	-998
73.40 Adjustments in expired accounts (net)	-11		
73.45 Recoveries of prior year obligations	-5		
74.00 Change in uncollected customer payments from Federal sources (unexpired)	1		
74.10 Change in uncollected customer payments from Federal sources (expired)	4		
74.40 Obligated balance, end of year	1,636	1,747	1,722
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	131	118	110

86.93	Outlays from discretionary balances	708	661	748
86.97	Outlays from new mandatory authority		11	11
86.98	Outlays from mandatory balances	74	159	129
87.00	Total outlays (gross)	913	949	998
Offsets:				
Against gross budget authority and outlays:				
88.00	Offsetting collections (cash) from: Federal sources	-13	-15	-15
Against gross budget authority only:				
88.95	Change in uncollected customer payments from Federal sources (unexpired)	1		
88.96	Portion of offsetting collections (cash) credited to expired accounts	3		
Net budget authority and outlays:				
89.00	Budget authority	870	1,045	958
90.00	Outlays	900	934	983

Education and Human Resources (EHR) activities provide a comprehensive set of programs that further NSF's goal of ensuring a diverse, competitive, and globally engaged U.S. science, technology, engineering, and mathematics (STEM) workforce, as well as scientifically literate citizens. At the pre-kindergarten through grade 12 (pre-K-12) levels, EHR catalyzes reform of STEM education through the development of public-private partnerships. Its pre-K-12 programs provide new instructional materials for students and teachers that incorporate the latest advances in teaching, learning, and educational technologies; growth in the knowledge base; and teacher education opportunities that support the full continuum of STEM teacher education from pre-service and in-service, through life-long learning. Undergraduate programs improve curricula, strengthen laboratory course offerings, enhance faculty, and lead reform efforts in STEM disciplines. Programs for advanced technological education strengthen education for students preparing to enter the high-technology workforce. Graduate level support is directed primarily to fellowships and traineeships to sustain the U.S. world leadership in science and technology. All EHR programming focuses on broadening participation of groups underrepresented in STEM fields including activities focused on the improvement of infrastructure and academic programs at minority-serving institutions. EHR supports education research that advances our knowledge of how people learn in the STEM disciplines; it also supports the development and effective implementation of learning technologies. Evaluation and communication activities ensure accountability by developing indicators that measure program impact and inform the education community of best practices and relevant information. EHR activities also include programs supported by H-1B non-immigrant visa fees. These programs provide undergraduate and graduate scholarships in STEM fields, support for private-public partnerships in K-12, and support for STEM education by providing research opportunities for STEM teachers and students in grades 7-12.

Object Classification (in millions of dollars)

Identification code 49-0106-0-1-251		2008 actual	2009 est.	2010 est.
Direct obligations:				
21.0	Travel and transportation of persons	3	4	3
25.1	Advisory and assistance services	27	32	29
41.0	Grants, subsidies, and contributions	857	1,009	926
99.0	Direct obligations	887	1,045	958
99.0	Reimbursable obligations	10	15	15
99.9	Total new obligations	897	1,060	973

Trust Funds

DONATIONS

Special and Trust Fund Receipts (in millions of dollars)

Identification code 49-8960-0-7-251		2008 actual	2009 est.	2010 est.
01.00	Balance, start of year	1	1	45
01.99	Balance, start of year	1	1	45
Receipts:				
02.00	Donations, National Science Foundation	62	69	25
04.00	Total: Balances and collections	63	70	70
Appropriations:				
05.00	Donations	-62	-25	-25
07.99	Balance, end of year	1	45	45

Program and Financing (in millions of dollars)

Identification code 49-8960-0-7-251		2008 actual	2009 est.	2010 est.
Obligations by program activity:				
00.01	Atacama Large Millimeter Array	23	27	10
00.02	Gemini telescope	26	42	15
10.00	Total new obligations	49	69	25
Budgetary resources available for obligation:				
21.40	Unobligated balance carried forward, start of year	31	44	
22.00	New budget authority (gross)	62	25	25
23.90	Total budgetary resources available for obligation	93	69	25
23.95	Total new obligations	-49	-69	-25
24.40	Unobligated balance carried forward, end of year	44		
New budget authority (gross), detail:				
Mandatory:				
60.26	Appropriation (trust fund)	62	25	25
Change in obligated balances:				
72.40	Obligated balance, start of year	24	37	43
73.10	Total new obligations	49	69	25
73.20	Total outlays (gross)	-36	-63	-25
74.40	Obligated balance, end of year	37	43	43
Outlays (gross), detail:				
86.97	Outlays from new mandatory authority		25	25
86.98	Outlays from mandatory balances	36	38	
87.00	Total outlays (gross)	36	63	25
Net budget authority and outlays:				
89.00	Budget authority	62	25	25
90.00	Outlays	36	63	25

This account consists of contributions from foreign governments, organizations, and individuals to fund various cooperative efforts in science, research, and education. These efforts include major international projects, such as operation of the GEMINI telescope, and the NSF' ocean drilling program. Other smaller activities supported include cooperative research, joint seminars, exchange of senior scientists, short-term research development visits, international conferences, and support for certain special functions of NSF and the National Science Board. These funds are not otherwise available.

Object Classification (in millions of dollars)

Identification code 49-8960-0-7-251		2008 actual	2009 est.	2010 est.
Direct obligations:				
25.4	Operation and maintenance of facilities	6	9	9
41.0	Grants, subsidies, and contributions	43	60	16

DONATIONS—Continued
Object Classification —Continued

Identification code 49-8960-0-7-251	2008 actual	2009 est.	2010 est.
99.9 Total new obligations	49	69	25

GENERAL FUND RECEIPT ACCOUNT

(in millions of dollars)

	2008 actual	2009 est.	2010 est.
Offsetting receipts from the public:			
49-322000 All Other General Fund Proprietary Receipts Including			
Budget Clearing Accounts	1	2	2
General Fund Offsetting receipts from the public	1	2	2

NATIONAL SCIENCE FOUNDATION

Federal Funds

RESEARCH AND RELATED ACTIVITIES

[(INCLUDING TRANSFER OF FUNDS)]

For necessary expenses in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861–1875), and the Act to establish a National Medal of Science (42 U.S.C. 1880–1881); services as authorized by 5 U.S.C. 3109; maintenance and operation of aircraft and purchase of flight services for research support; acquisition of aircraft; and authorized travel; **[\$5,617,920,000]** *\$6,018,830,000*, to remain available until September 30, **[2011]** *2012*, of which not to exceed **[\$570,000,000]** *\$590,000,000* shall remain available until expended for polar research and operations support, and for reimbursement to other Federal agencies for operational and science support and logistical and other related activities for the United States Antarctic program, *including up to \$54,000,000 for the procurement of polar icebreaking services from the Coast Guard: Provided, That* [from funds specified in the fiscal year 2010 budget request for icebreaking services, \$54,000,000 shall be transferred to the U.S. Coast Guard "Operating Expenses" within 60 days of enactment of this Act] *the National Science Foundation shall only reimburse the Coast Guard for such sums as are agreed to according to the existing memorandum of agreement: Provided further, That* receipts for scientific support services and materials furnished by the National Research Centers and other National Science Foundation supported research facilities may be credited to this appropriation [*Provided further, That* not less than \$147,120,000 shall be available for activities authorized by section 7002(c)(2)(A)(iv) of Public Law 110–69]. (*Science Appropriations Act, 2010.*)

Program and Financing (in millions of dollars)

Identification code 49–0100–0–1–999	2009 actual	2010 est.	2011 est.
Obligations by program activity:			
00.01 Biological Sciences	914	712	768
00.02 Computer and Information Science and Engineering	810	617	685
00.03 Engineering	921	771	826
00.04 EPSCoR	163	167	154
00.05 Geosciences	1,156	882	955
00.06 Mathematical and Physical Sciences	1,719	1,378	1,410
00.07 Social, Behavioral and Economic Sciences	315	255	269
00.08 Office of International Science and Engineering	61	47	53
00.09 U.S. Polar Research Programs	576	384	460
00.10 U.S. Antarctic Logistical Support Activities	69	68	68
00.11 Integrative Activities	230	549	141
00.12 Office of Cyberinfrastructure	279	213	228
00.13 Arctic Research Commission	2	2	2
09.01 Reimbursable programs	105	120	120
10.00 Total new obligations	7,320	6,165	6,139
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year	1	481	.....
22.00 New budget authority (gross)	7,787	5,684	6,139
22.10 Resources available from recoveries of prior year obligations	11	.....	.....
22.22 Unobligated balance transferred from other accounts	3	.....	.....
23.90 Total budgetary resources available for obligation	7,802	6,165	6,139
23.95 Total new obligations	–7,320	–6,165	–6,139
23.98 Unobligated balance expiring or withdrawn	–1	.....	.....
24.40 Unobligated balance carried forward, end of year	481	.....	.....
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	7,683	5,618	6,019
41.00 Transferred to other accounts .....	.....	–54	.....
43.00 Appropriation (total discretionary)	7,683	5,564	6,019
Spending authority from offsetting collections:			
58.00 Offsetting collections (cash)	36	120	120
58.10 Change in uncollected customer payments from Federal sources (unexpired)	68	.....	.....
58.90 Spending authority from offsetting collections (total discretionary)	104	120	120
70.00 Total new budget authority (gross)	7,787	5,684	6,139

Change in obligated balances:			
72.40 Obligated balance, start of year	6,535	9,058	9,000
73.10 Total new obligations	7,320	6,165	6,139
73.20 Total outlays (gross)	–4,697	–6,223	–6,159
73.40 Adjustments in expired accounts (net)	–31	.....	.....
73.45 Recoveries of prior year obligations	–11	.....	.....
74.00 Change in uncollected customer payments from Federal sources (unexpired)	–68	.....	.....
74.10 Change in uncollected customer payments from Federal sources (expired)	10	.....	.....
74.40 Obligated balance, end of year	9,058	9,000	8,980
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	860	1,233	1,324
86.93 Outlays from discretionary balances	3,837	4,990	4,835
87.00 Total outlays (gross)	4,697	6,223	6,159
Offsets:			
Against gross budget authority and outlays:			
88.00 Offsetting collections (cash) from: Federal sources	–45	–120	–120
Against gross budget authority only:			
88.95 Change in uncollected customer payments from Federal sources (unexpired)	–68	.....	.....
88.96 Portion of offsetting collections (cash) credited to expired accounts	9	.....	.....
Net budget authority and outlays:			
89.00 Budget authority	7,683	5,564	6,019
90.00 Outlays	4,652	6,103	6,039

The Research and Related Activities appropriation enables the United States to provide leadership and promote progress across the expanding frontiers of scientific and engineering research and education. This appropriation provides resources for NSF to achieve the following strategic outcome goals: **Discovery**—fostering research that will advance the frontiers of knowledge, emphasizing areas of greatest opportunity and potential benefit and establishing the Nation as a global leader in fundamental and transformational science and engineering; **Learning**—cultivating a world-class, broadly inclusive science and engineering workforce and expanding the scientific literacy of all citizens; and **Research Infrastructure**—building the Nation's research capability through critical investments in advanced instrumentation, facilities, cyberinfrastructure, and experimental tools. Research activities will contribute to the achievement of these goals by advancing discovery, innovation, and education beyond the frontiers of current knowledge and empowering future generations in science and engineering.

The major research program activities of NSF are:

Biological Sciences.—This activity promotes scientific progress in biology through support of research on all levels, including molecules, cells, organisms, and ecosystems. This activity also supports a comprehensive research initiative on plant genomes, including research on economically significant crops.

Computer and Information Science and Engineering.—This activity supports research within and across the many sub-fields of computing, contributing to the education and training of computing professionals and informing the preparation of a U.S. workforce with computing competencies essential to success in an increasingly competitive, global market.

Engineering.—Research supported by this activity aims to increase U.S. engineering capability and strength, and focus that capability and strength on areas that are relevant to national problems and long-term needs. This activity also includes small business innovation research.

Geosciences.—This activity supports research and associated infrastructure to advance knowledge of the properties and dynamics of the planet on which we live. Research includes under-

RESEARCH AND RELATED ACTIVITIES—Continued

standing the causes and implications of climate change, as well as disruptive processes such as earthquakes and storms.

Mathematical and Physical Sciences.—Research in this activity is directed at increasing understanding of natural laws and phenomena across the astronomical sciences, chemistry, materials sciences, physics, and mathematical sciences. This fundamental research provides the long-term underpinnings for advances in areas such as sustainable energy and economic competitiveness.

Social, Behavioral, and Economic Sciences.—This activity supports research, education, and infrastructure in the social, behavioral, cognitive, and economic sciences and funds the collection and dissemination of statistics on the science and engineering enterprise.

Office of International Science and Engineering.—This activity promotes an integrated strategy for international science and engineering which complements and enhances NSF's broader research and education goals and which facilitates international collaboration.

U.S. Polar Research Programs.—This activity supports Arctic and Antarctic research and operational science support and other related activities for United States polar research programs.

U.S. Antarctic Logistical Support Activities.—This activity provides funding to reimburse Federal agencies for logistical and other related activities supported by the United States Antarctic Program.

Integrative Activities.—This activity supports emerging cross-disciplinary research efforts and major research instrumentation. This activity also provides support for the Science and Technology Policy Institute. The Experimental Program to Stimulate Competitive Research broadens participation of States and regions in science and engineering by helping institutions expand their research capacity and competitiveness.

Office of Cyberinfrastructure.—This activity supports research, development, acquisition, and operation of advanced shared and connecting cyberinfrastructure in support of the Nation's science and engineering research and education community.

The United States Arctic Research Commission promotes Arctic research and recommends national Arctic research policies to guide Federal agencies in developing and implementing their research programs in the Arctic region.

Object Classification (in millions of dollars)

Identification code 49-0100-0-1-999	2009 actual	2010 est.	2011 est.
Direct obligations:			
21.0 Travel and transportation of persons	21	21	21
25.1 Advisory and assistance services	96	96	96
25.2 Other services	5	5	5
25.3 Other purchases of goods and services from Government accounts	23	23	23
25.4 Operation and maintenance of facilities	435	435	435
25.5 Research and development contracts	14	14	14
26.0 Supplies and materials	1	1	1
31.0 Equipment	1	1	1
41.0 Grants, subsidies, and contributions	6,619	5,449	5,423
99.0 Direct obligations	7,215	6,045	6,019
99.0 Reimbursable obligations	105	120	120
99.9 Total new obligations	7,320	6,165	6,139

MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION

For necessary expenses for the acquisition, construction, commissioning, and upgrading of major research equipment, facilities, and other such

capital assets pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including authorized travel, **[\$117,290,000] \$165,190,000**, to remain available until expended **[**: *Provided*, That none of the funds may be used to reimburse the Judgment Fund**]**. (*Science Appropriations Act, 2010.*)

Program and Financing (in millions of dollars)

Identification code 49-0551-0-1-251	2009 actual	2010 est.	2011 est.
Obligations by program activity:			
00.01 Direct program activity	415	320	165
10.00 Total new obligations	415	320	165
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year	66	203	.....
22.00 New budget authority (gross)	552	117	165
23.90 Total budgetary resources available for obligation	618	320	165
23.95 Total new obligations	-415	-320	-165
24.40 Unobligated balance carried forward, end of year	203	.....	.....
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	552	117	165
Change in obligated balances:			
72.40 Obligated balance, start of year	177	443	433
73.10 Total new obligations	415	320	165
73.20 Total outlays (gross)	-149	-330	-266
74.40 Obligated balance, end of year	443	433	332
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority .....	.....	7	10
86.93 Outlays from discretionary balances	149	323	256
87.00 Total outlays (gross)	149	330	266
Net budget authority and outlays:			
89.00 Budget authority	552	117	165
90.00 Outlays	149	330	266

The Major Research Equipment and Facilities Construction activity supports the acquisition, construction, and commissioning of unique national research platforms and major research facilities and equipment. Performance is measured against established construction schedules, costs, and milestones.

Object Classification (in millions of dollars)

Identification code 49-0551-0-1-251	2009 actual	2010 est.	2011 est.
Direct obligations:			
25.5 Research and development contracts	5	5	5
41.0 Grants, subsidies, and contributions	410	315	160
99.9 Total new obligations	415	320	165

AGENCY OPERATIONS AND AWARD MANAGEMENT

For agency operations and award management necessary in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875); services authorized by 5 U.S.C. 3109; hire of passenger motor vehicles; not to exceed **[\$9,200] \$9,000** for official reception and representation expenses; uniforms or allowances therefor, as authorized by 5 U.S.C. 5901-5902; rental of conference rooms in the District of Columbia; and reimbursement of the Department of Homeland Security for security guard services; **[\$300,000,000] \$327,190,000**: *Provided*, That contracts may be entered into under this heading in fiscal year **[2010] 2011** for maintenance and operation of facilities, and for other services, to be provided during the next fiscal year. (*Science Appropriations Act, 2010.*)

Program and Financing (in millions of dollars)

Identification code 49-0180-0-1-251	2009 actual	2010 est.	2011 est.
Obligations by program activity:			
00.01 Administration and management	294	300	329
09.01 Reimbursable programs	6	10	10
10.00 Total new obligations	300	310	339
Budgetary resources available for obligation:			
22.00 New budget authority (gross)	299	310	339
23.95 Total new obligations	-300	-310	-339
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	294	300	329
58.00 Spending authority from offsetting collections: Offsetting collections (cash)	5	10	10
70.00 Total new budget authority (gross)	299	310	339
Change in obligated balances:			
72.40 Obligated balance, start of year	70	72	64
73.10 Total new obligations	300	310	339
73.20 Total outlays (gross)	-297	-318	-341
73.40 Adjustments in expired accounts (net)	-1		
74.40 Obligated balance, end of year	72	64	62
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	236	256	280
86.93 Outlays from discretionary balances	61	62	61
87.00 Total outlays (gross)	297	318	341
Offsets:			
Against gross budget authority and outlays:			
88.00 Offsetting collections (cash) from: Federal sources	-5	-10	-10
Net budget authority and outlays:			
89.00 Budget authority	294	300	329
90.00 Outlays	292	308	331

This account provides funds to administer and manage NSF programs and to advance NSF's strategic goal of Stewardship—supporting excellence in science and engineering research and education through a capable and responsive organization. NSF continually develops and refines performance measures for development and monitoring of programs.

Object Classification (in millions of dollars)

Identification code 49-0180-0-1-251	2009 actual	2010 est.	2011 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	132	144	152
11.3 Other than full-time permanent	13	13	15
11.5 Other personnel compensation	7	8	9
11.8 Special personal services payments	1	2	2
11.9 Total personnel compensation	153	167	178
12.1 Civilian personnel benefits	36	37	39
21.0 Travel and transportation of persons	7	7	10
23.1 Rental payments	27	26	26
23.3 Communications, utilities, and miscellaneous charges	2	2	2
25.1 Advisory and assistance services	43	39	46
25.2 Other services	9	7	9
25.3 Other purchases of goods and services from Government accounts	8	6	8
26.0 Supplies and materials	5	5	6
31.0 Equipment	4	4	5
99.0 Direct obligations	294	300	329
99.0 Reimbursable obligations	6	10	10
99.9 Total new obligations	300	310	339

Employment Summary

Identification code 49-0180-0-1-251	2009 actual	2010 est.	2011 est.
Direct:			
1001 Civilian full-time equivalent employment	1,300	1,325	1,390

OFFICE OF THE NATIONAL SCIENCE BOARD

For necessary expenses (including payment of salaries, authorized travel, hire of passenger motor vehicles, the rental of conference rooms in the District of Columbia, and the employment of experts and consultants under section 3109 of title 5, United States Code) involved in carrying out section 4 of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1863) and Public Law 86-209 (42 U.S.C. 1880 et seq.), **[\$4,540,000] \$4,840,000; Provided,** That not to exceed **[\$2,800] \$2,500** shall be available for official reception and representation expenses. (Science Appropriations Act, 2010.)

Program and Financing (in millions of dollars)

Identification code 49-0350-0-1-251	2009 actual	2010 est.	2011 est.
Obligations by program activity:			
00.01 Direct program activity	4	5	5
10.00 Total new obligations	4	5	5
Budgetary resources available for obligation:			
22.00 New budget authority (gross)	4	5	5
23.95 Total new obligations	-4	-5	-5
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	4	5	5
Change in obligated balances:			
72.40 Obligated balance, start of year	2	2	1
73.10 Total new obligations	4	5	5
73.20 Total outlays (gross)	-3	-6	-5
73.40 Adjustments in expired accounts (net)	-1		
74.40 Obligated balance, end of year	2	1	1
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	3	4	4
86.93 Outlays from discretionary balances		2	1
87.00 Total outlays (gross)	3	6	5
Net budget authority and outlays:			
89.00 Budget authority	4	5	5
90.00 Outlays	3	6	5

This appropriation provides policy-making and related responsibilities for NSF and provides guidance on significant national policy issues in science and engineering research and education, as required by law.

Object Classification (in millions of dollars)

Identification code 49-0350-0-1-251	2009 actual	2010 est.	2011 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	2	3	3
21.0 Travel and transportation of persons	1		1
25.1 Advisory and assistance services	1	2	1
99.9 Total new obligations	4	5	5

Employment Summary

Identification code 49-0350-0-1-251	2009 actual	2010 est.	2011 est.
Direct:			

OFFICE OF THE NATIONAL SCIENCE BOARD—Continued
Employment Summary—Continued

Identification code 49-0350-0-1-251	2009 actual	2010 est.	2011 est.
1001 Civilian full-time equivalent employment	17	17	18

OFFICE OF INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, as amended, **[\$14,000,000]** \$14,350,000, to remain available until September 30, 2012. (Science Appropriations Act, 2010.)

Program and Financing (in millions of dollars)

Identification code 49-0300-0-1-251	2009 actual	2010 est.	2011 est.
Obligations by program activity:			
00.01 Direct program activity	12	16	14
10.00 Total new obligations	12	16	14
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year		2	
22.00 New budget authority (gross)	14	14	14
23.90 Total budgetary resources available for obligation	14	16	14
23.95 Total new obligations	-12	-16	-14
24.40 Unobligated balance carried forward, end of year	2		
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	14	14	14
Change in obligated balances:			
72.40 Obligated balance, start of year	3	2	3
73.10 Total new obligations	12	16	14
73.20 Total outlays (gross)	-13	-15	-14
74.40 Obligated balance, end of year	2	3	3
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	11	11	11
86.93 Outlays from discretionary balances	2	4	3
87.00 Total outlays (gross)	13	15	14
Net budget authority and outlays:			
89.00 Budget authority	14	14	14
90.00 Outlays	13	15	14

This appropriation provides agency-wide audit and investigative functions to identify and correct management and administrative deficiencies which create conditions for existing or potential instances of fraud, waste, and mismanagement consistent with the Inspector General Act of 1978, as amended (5 U.S.C. App. 3).

Object Classification (in millions of dollars)

Identification code 49-0300-0-1-251	2009 actual	2010 est.	2011 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	8	9	8
12.1 Civilian personnel benefits	2	3	3
25.2 Other services	2	4	3
99.9 Total new obligations	12	16	14

Employment Summary

Identification code 49-0300-0-1-251	2009 actual	2010 est.	2011 est.
Direct:			

1001 Civilian full-time equivalent employment	69	73	74
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EDUCATION AND HUMAN RESOURCES

For necessary expenses in carrying out science, mathematics and engineering education and human resources programs and activities pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including services as authorized by 5 U.S.C. 3109, authorized travel, and rental of conference rooms in the District of Columbia, **[\$872,760,000]** \$892,000,000, to remain available until September 30, **[2011: Provided, That not less than \$55,000,000 shall be available until expended for activities authorized by section 7030 of Public Law 110-69: Provided further, That not less than \$32,000,000 shall be available until expended for the Historically Black Colleges and Universities Undergraduate Program]** 2012. (Science Appropriations Act, 2010.)

Program and Financing (in millions of dollars)

Identification code 49-0106-0-1-251	2009 actual	2010 est.	2011 est.
Obligations by program activity:			
00.01 Undergraduate education	368	292	290
00.02 Graduate education	182	197	185
00.03 Human resource development	154	157	169
00.04 Research on learning in formal and informal settings	227	242	248
00.91 Subtotal Appropriated Activities	931	888	892
Mandatory H-1B Non-Immigrant Petitioner Fees Activities:			
01.01 Low income scholarship program	61	120	75
01.02 ITES grants for mathematics, science, or engineering enrichment courses	28	32	25
01.91 Subtotal Mandatory H-1B Non-Immigrant Petitioner Fee Activities	89	152	100
02.00 Total direct obligations	1,020	1,040	992
09.01 Reimbursable programs	9	15	15
10.00 Total new obligations	1,029	1,055	1,007
Budgetary resources available for obligation:			
21.40 Unobligated balance carried forward, start of year	51	67	
22.00 New budget authority (gross)	1,043	988	1,007
22.10 Resources available from recoveries of prior year obligations	2		
23.90 Total budgetary resources available for obligation	1,096	1,055	1,007
23.95 Total new obligations	-1,029	-1,055	-1,007
24.40 Unobligated balance carried forward, end of year	67		
New budget authority (gross), detail:			
Discretionary:			
40.00 Appropriation	945	873	892
Spending authority from offsetting collections:			
58.00 Offsetting collections (cash)	5	15	15
58.10 Change in uncollected customer payments from Federal sources (unexpired)	4		
58.90 Spending authority from offsetting collections (total discretionary)	9	15	15
Mandatory:			
60.20 Appropriation (special fund)	89	100	100
70.00 Total new budget authority (gross)	1,043	988	1,007
Change in obligated balances:			
72.40 Obligated balance, start of year	1,634	1,794	1,819
73.10 Total new obligations	1,029	1,055	1,007
73.20 Total outlays (gross)	-854	-1,030	-1,009
73.40 Adjustments in expired accounts (net)	-10		
73.45 Recoveries of prior year obligations	-2		
74.00 Change in uncollected customer payments from Federal sources (unexpired)	-4		
74.10 Change in uncollected customer payments from Federal sources (expired)	1		
74.40 Obligated balance, end of year	1,794	1,819	1,817
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	129	137	140
86.93 Outlays from discretionary balances	629	728	732
86.97 Outlays from new mandatory authority		11	11

86.98	Outlays from mandatory balances	96	154	126
87.00	Total outlays (gross)	854	1,030	1,009
Offsets:				
Against gross budget authority and outlays:				
88.00	Offsetting collections (cash) from: Federal sources	-6	-15	-15
Against gross budget authority only:				
88.95	Change in uncollected customer payments from Federal sources (unexpired)	-4		
88.96	Portion of offsetting collections (cash) credited to expired accounts	1		
Net budget authority and outlays:				
89.00	Budget authority	1,034	973	992
90.00	Outlays	848	1,015	994

Education and Human Resources (EHR) activities provide a comprehensive set of programs that further NSF's goal of ensuring a diverse, competitive, and globally engaged U.S. science, technology, engineering, and mathematics (STEM) workforce, as well as scientifically literate citizens. At the pre-kindergarten through grade 12 (pre-K–12) levels, EHR catalyzes reform of STEM education through the development of public-private partnerships. Its pre-K–12 programs provide new instructional materials for students and teachers that incorporate the latest advances in teaching, learning, and educational technologies; growth in the knowledge base; and teacher education opportunities that support the full continuum of STEM teacher education from pre-service and in-service, through life-long learning. Undergraduate programs improve curricula, strengthen laboratory course offerings, enhance faculty, and lead reform efforts in STEM disciplines. Programs for advanced technological education strengthen education for students preparing to enter the high-technology workforce. Graduate level support is directed primarily to fellowships and traineeships to sustain the U.S. world leadership in science and technology. All EHR programming focuses on broadening participation of groups underrepresented in STEM fields including activities focused on the improvement of infrastructure and academic programs at minority-serving institutions. EHR supports education research that advances our knowledge of how people learn in the STEM disciplines; it also supports the development and effective implementation of learning technologies. STEM evaluation activities ensure accountability by developing indicators that measure program impact and inform the education community of best practices and relevant information. EHR activities also include programs supported by H-1B non-immigrant visa fees. These programs provide undergraduate and graduate scholarships in STEM fields, improve educational opportunities for students, and support for STEM education by providing research opportunities for STEM teachers and students.

Object Classification (in millions of dollars)

Identification code 49–0106–0–1–251				
		2009 actual	2010 est.	2011 est.
Direct obligations:				
21.0	Travel and transportation of persons	3	3	3
25.1	Advisory and assistance services	26	29	29
25.2	Other services	2	2	2
41.0	Grants, subsidies, and contributions	989	1,006	958
99.0	Direct obligations	1,020	1,040	992
99.0	Reimbursable obligations	9	15	15
99.9	Total new obligations	1,029	1,055	1,007

Trust Funds

DONATIONS

Special and Trust Fund Receipts (in millions of dollars)

Identification code 49–8960–0–7–251				
		2009 actual	2010 est.	2011 est.
01.00	Balance, start of year	1	1	1
01.99	Balance, start of year	1	1	1
Receipts:				
02.20	Donations, National Science Foundation	47	25	25
02.99	Total receipts and collections	47	25	25
04.00	Total: Balances and collections	48	26	26
Appropriations:				
05.00	Donations	-47	-25	-25
05.99	Total appropriations	-47	-25	-25
07.99	Balance, end of year	1	1	1

Program and Financing (in millions of dollars)

Identification code 49–8960–0–7–251				
		2009 actual	2010 est.	2011 est.
Obligations by program activity:				
00.01	Atacama Large Millimeter Array	10	18	10
00.02	Gemini Telescope	47	41	15
10.00	Total new obligations	57	59	25
Budgetary resources available for obligation:				
21.40	Unobligated balance carried forward, start of year	44	34	
22.00	New budget authority (gross)	47	25	25
23.90	Total budgetary resources available for obligation	91	59	25
23.95	Total new obligations	-57	-59	-25
24.40	Unobligated balance carried forward, end of year	34		
New budget authority (gross), detail:				
Mandatory:				
60.26	Appropriation (trust fund)	47	25	25
Change in obligated balances:				
72.40	Obligated balance, start of year	38	45	35
73.10	Total new obligations	57	59	25
73.20	Total outlays (gross)	-50	-69	-25
74.40	Obligated balance, end of year	45	35	35
Outlays (gross), detail:				
86.97	Outlays from new mandatory authority		25	25
86.98	Outlays from mandatory balances	50	44	
87.00	Total outlays (gross)	50	69	25
Net budget authority and outlays:				
89.00	Budget authority	47	25	25
90.00	Outlays	50	69	25

This account consists of contributions from foreign governments, organizations, and individuals to fund various cooperative efforts in science, research, and education. These efforts include major international projects, such as operation of the GEMINI telescope, and the NSF ocean drilling program. Other smaller activities supported include cooperative research, joint seminars, exchange of senior scientists, short-term research development visits, international conferences, and support for certain special functions of NSF and the National Science Board. These funds are not otherwise available.

Object Classification (in millions of dollars)

Identification code 49–8960–0–7–251				
		2009 actual	2010 est.	2011 est.
Direct obligations:				
25.4	Operation and maintenance of facilities	9	9	9
41.0	Grants, subsidies, and contributions	48	50	16

DONATIONS—Continued
Object Classification—Continued

Identification code 49-8960-0-7-251		2009 actual	2010 est.	2011 est.
99.9	Total new obligations	57	59	25

GENERAL FUND RECEIPT ACCOUNT

(in millions of dollars)

		2009 actual	2010 est.	2011 est.
Offsetting receipts from the public:				
49-322000	All Other General Fund Proprietary Receipts Including Budget Clearing Accounts	2	2	2
General Fund Offsetting receipts from the public		2	2	2

NATIONAL SCIENCE FOUNDATION

Federal Funds

RESEARCH AND RELATED ACTIVITIES

For necessary expenses in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861–1875), and the Act to establish a National Medal of Science (42 U.S.C. 1880–1881); services as authorized by 5 U.S.C. 3109; maintenance and operation of aircraft and purchase of flight services for research support; acquisition of aircraft; and authorized travel; \$6,253,540,000, to remain available until September 30, 2013, of which not to exceed \$550,000,000 shall remain available until expended for polar research and operations support, and for reimbursement to other Federal agencies for operational and science support and logistical and other related activities for the United States Antarctic program: Provided, That receipts for scientific support services and materials furnished by the National Research Centers and other National Science Foundation supported research facilities may be credited to this appropriation.

Note.—A full-year 2011 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 111–242, as amended). The amounts included for 2011 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49–0100–0–1–999	2010 actual	CR	2012 est.
Obligations by program activity:			
0001 Biological Sciences	715	715	795
0002 Computer and Information Science and Engineering	619	619	728
0003 Engineering	776	744	908
0004 EPSCoR	167	148	161
0005 Geosciences	892	890	979
0006 Mathematical and Physical Sciences	1,384	1,352	1,433
0007 Social, Behavioral and Economic Sciences	256	256	301
0008 Office of International Science and Engineering	48	48	58
0009 U.S. Polar Research Programs	386	381	409
0010 U.S. Antarctic Logistical Support Activities	68	68	68
0011 Integrative Activities	528	128	176
0012 Office of Cyberinfrastructure	215	214	236
0013 Arctic Research Commission	2	2	2
0091 Direct program activities, subtotal	6,056	5,565	6,254
0801 Reimbursable programs	96	120	120
0900 Total new obligations	6,152	5,685	6,374
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	482	1	.....
1021 Recoveries of prior year unpaid obligations	12	.....	.....
1050 Unobligated balance (total)	494	1	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	5,618	5,618	6,254
1120 Appropriations transferred to other accounts	-54	-54	.....
1160 Appropriation, discretionary (total)	5,564	5,564	6,254
Spending authority from offsetting collections, discretionary:			
1700 Collected	82	120	120
1701 Change in uncollected payments, Federal sources	14	.....	.....
1750 Spending auth from offsetting collections, disc (total)	96	120	120
1900 Budget authority (total)	5,660	5,684	6,374
1930 Total budgetary resources available	6,154	5,685	6,374
Memorandum (non-add) entries:			
1940 Unobligated balance expiring	-1	.....	.....
1941 Unexpired unobligated balance, end of year	1	.....	.....
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	9,138	9,787	8,759
3010 Uncollected pymts, Fed sources, brought forward, Oct 1	-81	-91	-91
3020 Obligated balance, start of year (net)	9,057	9,696	8,668
3030 Obligations incurred, unexpired accounts	6,152	5,685	6,374
3031 Obligations incurred, expired accounts	1	.....	.....
3040 Outlays (gross)	-5,466	-6,713	-6,042
3050 Change in uncollected pymts, Fed sources, unexpired	-14	.....	.....
3051 Change in uncollected pymts, Fed sources, expired	4	.....	.....
3080 Recoveries of prior year unpaid obligations, unexpired	-12	.....	.....
3081 Recoveries of prior year unpaid obligations, expired	-26	.....	.....

Obligated balance, end of year (net):				
3090	Unpaid obligations, end of year (gross)	9,787	8,759	9,091
3091	Uncollected pymts, Fed sources, end of year	-91	-91	-91
3100	Obligated balance, end of year (net)	9,696	8,668	9,000

Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	5,660	5,684	6,374
Outlays, gross:				
4010	Outlays from new discretionary authority	885	1,233	1,371
4011	Outlays from discretionary balances	4,581	5,480	4,671
4020	Outlays, gross (total)	5,466	6,713	6,042
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources	-85	-120	-120
Additional offsets against gross budget authority only:				
4050	Change in uncollected pymts, Fed sources, unexpired	-14	.....	.....
4052	Offsetting collections credited to expired accounts	3	.....	.....
4060	Additional offsets against budget authority only (total)	-11	.....	.....
4070	Budget authority, net (discretionary)	5,564	5,564	6,254
4080	Outlays, net (discretionary)	5,381	6,593	5,922
Mandatory:				
4090	Budget authority, gross .....	.....	.....	.....
4180	Budget authority, net (total)	5,564	5,564	6,254
4190	Outlays, net (total)	5,381	6,593	5,922

Summary of Budget Authority and Outlays (in millions of dollars)

	2010 actual	CR	2012 est.
Enacted/requested:			
Budget Authority	5,564	5,564	6,254
Outlays	5,381	6,593	5,922
Legislative proposal, subject to PAYGO:			
Budget Authority .....	.....	.....	150
Outlays .....	.....	.....	150
Total:			
Budget Authority	5,564	5,564	6,404
Outlays	5,381	6,593	6,072

The Research and Related Activities appropriation enables the United States to provide leadership and promote progress across the expanding frontiers of scientific and engineering research and education.

The major research program activities of NSF are:

Biological Sciences.—This activity promotes scientific progress in biology through support of research on all levels, including molecules, cells, organisms, and ecosystems. This activity also supports a comprehensive research initiative on plant genomes, including research on economically significant crops.

Computer and Information Science and Engineering.—This activity supports research within and across the many sub-fields of computing, contributing to the education and training of computing professionals and informing the preparation of a U.S. workforce with computing competencies essential to success in an increasingly competitive, global market.

Engineering.—Research supported by this activity aims to increase U.S. engineering capability and strength, and focus that capability and strength on areas that are relevant to national problems and long-term needs. This activity also includes small business innovation research.

Geosciences.—This activity supports research and associated infrastructure to advance knowledge of the properties and dynamics of the planet on which we live. Research includes understanding the causes and implications of climate change, as well as disruptive processes such as earthquakes and storms.

Mathematical and Physical Sciences.—Research in this activity is directed at increasing understanding of natural laws and phenomena across the astronomical sciences, chemistry, materials sciences, physics, and mathematical sciences. This

RESEARCH AND RELATED ACTIVITIES—Continued

fundamental research provides the long-term underpinnings for advances in areas such as sustainable energy and economic competitiveness.

Social, Behavioral, and Economic Sciences.—This activity supports research, education, and infrastructure in the social, behavioral, cognitive, and economic sciences and funds the collection and dissemination of statistics on the science and engineering enterprise.

Office of International Science and Engineering.—This activity promotes an integrated strategy for international science and engineering which complements and enhances NSF's broader research and education goals and which facilitates international collaboration.

U.S. Polar Research Programs.—This activity supports Arctic and Antarctic research and operational science support and other related activities for United States polar research programs.

U.S. Antarctic Logistical Support Activities.—This activity provides funding to reimburse Federal agencies for logistical and other related activities supported by the United States Antarctic Program.

Integrative Activities.—This activity supports emerging cross-disciplinary research efforts and major research instrumentation. This activity also provides support for the Science and Technology Policy Institute. The Experimental Program to Stimulate Competitive Research broadens participation of States and regions in science and engineering by helping institutions expand their research capacity and competitiveness.

Office of Cyberinfrastructure.—This activity supports research, development, acquisition, and operation of advanced shared and connecting cyberinfrastructure in support of the Nation's science and engineering research and education community.

The United States Arctic Research Commission promotes Arctic research and recommends national Arctic research policies to guide Federal agencies in developing and implementing their research programs in the Arctic region.

The President's Wireless Innovation and Infrastructure Initiative (WI3) proposes to reallocate a total of 500 megahertz of Federal agency and commercial spectrum bands over the next 10 years in order to increase Americans access to wireless broadband. The auctions of reallocated spectrum licenses are expected to raise more than \$27 billion by 2021. Repurposing spectrum will greatly facilitate access for smart phones, portable computers, and innovative technologies that are on the horizon. This effort will also enhance America's public safety, infrastructure, and competitiveness by investing some of the expected spectrum auction receipts in the creation of a broadband network for public safety, expanding access to wireless broadband in rural America, and a Wireless Innovation (WIN) Fund to help develop cutting edge wireless technologies. NSF will participate in the WIN Fund by supporting targeted research on experimental wireless technology testbeds, more flexible and efficient use of the radio spectrum, and cyber-physical systems such as wireless sensor networks for smart buildings, roads, and bridges.

Object Classification (in millions of dollars)

Identification code 49-0100-0-1-999	2010 actual	CR	2012 est.
Direct obligations:			
21.0 Travel and transportation of persons	22	21	21
25.1 Advisory and assistance services	96	96	96
25.2 Other services from non-federal sources	5	5	5
25.3 Other goods and services from federal sources	29	23	23
25.4 Operation and maintenance of facilities	359	435	435
25.5 Research and development contracts	7	14	14
26.0 Supplies and materials	2	1	1

31.0 Equipment	1	1	1
41.0 Grants, subsidies, and contributions	5,535	4,969	5,658
99.0 Direct obligations	6,056	5,565	6,254
99.0 Reimbursable obligations	96	120	120
99.9 Total new obligations	6,152	5,685	6,374

Employment Summary

Identification code 49-0100-0-1-999	2010 actual	CR	2012 est.
1001 Direct civilian full-time equivalent employment	3	4	3

RESEARCH AND RELATED ACTIVITIES
(Legislative proposal, subject to PAYGO)

Program and Financing (in millions of dollars)

Identification code 49-0100-4-1-999	2010 actual	CR	2012 est.
Obligations by program activity:			
0101 Wireless Innovation Fund Research			150
0900 Total new obligations (object class 41.0)			150
Budgetary Resources:			
Budget authority:			
Appropriations, mandatory:			
1200 Appropriation			150
1930 Total budgetary resources available			150
Change in obligated balance:			
3030 Obligations incurred, unexpired accounts			150
3040 Outlays (gross)			-150
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)			
Budget authority and outlays, net:			
Mandatory:			
4090 Budget authority, gross			150
Outlays, gross:			
4100 Outlays from new mandatory authority			150
4180 Budget authority, net (total)			150
4190 Outlays, net (total)			150

MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION

For necessary expenses for the acquisition, construction, commissioning, and upgrading of major research equipment, facilities, and other such capital assets pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including authorized travel, \$224,680,000, to remain available until expended.

Note.—A full-year 2011 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 111-242, as amended). The amounts included for 2011 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0551-0-1-251	2010 actual	CR	2012 est.
Obligations by program activity:			
0001 Direct program activity	312	126	225
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	204	9	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	117	117	225
1930 Total budgetary resources available	321	126	225
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	9		
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	442	597	293

3030	Obligations incurred, unexpired accounts	312	126	225
3040	Outlays (gross)	-157	-430	-245
	Obligated balance, end of year (net):			
3090	Unpaid obligations, end of year (gross)	597	293	273

Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	117	117	225
	Outlays, gross:			
4010	Outlays from new discretionary authority		7	14
4011	Outlays from discretionary balances	157	423	231
4020	Outlays, gross (total)	157	430	245
4180	Budget authority, net (total)	117	117	225
4190	Outlays, net (total)	157	430	245

The Major Research Equipment and Facilities Construction activity supports the acquisition, construction, and commissioning of unique national research platforms and major research facilities and equipment. Performance of each construction project is measured against an established baseline at regular intervals and at major milestones.

Object Classification (in millions of dollars)

Identification code 49-0551-0-1-251	2010 actual	CR	2012 est.
Direct obligations:			
25.5	Research and development contracts	5	5
41.0	Grants, subsidies, and contributions	307	121
99.9	Total new obligations	312	126

AGENCY OPERATIONS AND AWARD MANAGEMENT

For agency operations and award management necessary in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875); services authorized by 5 U.S.C. 3109; hire of passenger motor vehicles; not to exceed \$9,000 for official reception and representation expenses; uniforms or allowances therefor, as authorized by 5 U.S.C. 5901-5902; rental of conference rooms in the District of Columbia; and reimbursement of the Department of Homeland Security for security guard services; \$357,740,000: Provided, That contracts may be entered into under this heading in fiscal year 2012 for maintenance and operation of facilities, and for other services, to be provided during the next fiscal year: Provided further, That of the funds made available under this heading, not less than \$1,960,000 is for strengthening the agency's acquisition workforce capacity and capabilities: Provided further, That such funds shall be available for training, recruitment, retention, and hiring members of the acquisition workforce as defined by the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 401 et seq.): Provided further, That such funds shall be available for information technology in support of acquisition workforce effectiveness or for management solutions to improve acquisition management: Provided further, That of the funds made available under this heading, \$44,650,000 shall remain available until expended for costs associated with the acquisition of headquarters space, including design, alteration, tenant improvement, and relocation.

Note.—A full-year 2011 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 111-242, as amended). The amounts included for 2011 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0180-0-1-251	2010 actual	CR	2012 est.
Obligations by program activity:			
0001	Administration and management	300	300
0801	Reimbursable programs	5	10
0900	Total new obligations	305	310

Budgetary Resources:				
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	300	300	358

Spending authority from offsetting collections, discretionary:				
1700	Collected	5	10	10
1900	Budget authority (total)	305	310	368
1930	Total budgetary resources available	305	310	368

Change in obligated balance:				
Obligated balance, start of year (net):				
3000	Unpaid obligations, brought forward, Oct 1 (gross)	72	79	54
3010	Uncollected pymts, Fed sources, brought forward, Oct 1	-1		
3020	Obligated balance, start of year (net)	71	79	54
3030	Obligations incurred, unexpired accounts	305	310	368
3031	Obligations incurred, expired accounts	2		
3040	Outlays (gross)	-297	-335	-355
3051	Change in uncollected pymts, Fed sources, expired	1		
3081	Recoveries of prior year unpaid obligations, expired	-3		
Obligated balance, end of year (net):				
3090	Unpaid obligations, end of year (gross)	79	54	67
3091	Uncollected pymts, Fed sources, end of year			
3100	Obligated balance, end of year (net)	79	54	67

Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	305	310	368
	Outlays, gross:			
4010	Outlays from new discretionary authority	239	256	304
4011	Outlays from discretionary balances	58	79	51
4020	Outlays, gross (total)	297	335	355
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources	-6	-10	-10
Additional offsets against gross budget authority only:				
4052	Offsetting collections credited to expired accounts	1		
4070	Budget authority, net (discretionary)	300	300	358
4080	Outlays, net (discretionary)	291	325	345
4180	Budget authority, net (total)	300	300	358
4190	Outlays, net (total)	291	325	345

This account funds NSF's scientific, professional, and administrative workforce, the physical and technological infrastructure necessary for a productive, safe and secure work environment, and the essential business operations critical to NSF's administrative processes.

Object Classification (in millions of dollars)

Identification code 49-0180-0-1-251	2010 actual	CR	2012 est.
Direct obligations:			
Personnel compensation:			
11.1	Full-time permanent	140	144
11.3	Other than full-time permanent	14	13
11.5	Other personnel compensation	7	8
11.8	Special personal services payments	1	2
11.9	Total personnel compensation	162	167
12.1	Civilian personnel benefits	38	37
21.0	Travel and transportation of persons	7	7
23.1	Rental payments	26	26
23.3	Communications, utilities, and miscellaneous charges	2	2
25.1	Advisory and assistance services	44	39
25.2	Other services from non-federal sources	8	7
25.3	Other goods and services from federal sources	7	6
26.0	Supplies and materials	4	5
31.0	Equipment	2	4
32.0	Land and structures		
99.0	Direct obligations	300	300
99.0	Reimbursable obligations	5	10
99.9	Total new obligations	305	310

Employment Summary

Identification code 49-0180-0-1-251	2010 actual	CR	2012 est.
1001	Direct civilian full-time equivalent employment	1,329	1,325

OFFICE OF THE NATIONAL SCIENCE BOARD

For necessary expenses (including payment of salaries, authorized travel, hire of passenger motor vehicles, the rental of conference rooms in the District of Columbia, and the employment of experts and consultants under section 3109 of title 5, United States Code) involved in carrying out section 4 of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1863) and Public Law 86-209 (42 U.S.C. 1880 et seq.), \$4,840,000: Provided, That not to exceed \$2,500 shall be available for official reception and representation expenses.

Note.—A full-year 2011 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 111-242, as amended). The amounts included for 2011 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0350-0-1-251	2010 actual	CR	2012 est.
Obligations by program activity:			
0001 Direct program activity	5	5	5
Budgetary Resources:			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	5	5	5
1930 Total budgetary resources available	5	5	5
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	2	2	2
3030 Obligations incurred, unexpired accounts	5	5	5
3040 Outlays (gross)	-5	-5	-6
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	2	2	1
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	5	5	5
Outlays, gross:			
4010 Outlays from new discretionary authority	3	4	4
4011 Outlays from discretionary balances	2	1	2
4020 Outlays, gross (total)	5	5	6
4180 Budget authority, net (total)	5	5	5
4190 Outlays, net (total)	5	5	6

This appropriation provides policy-making and related responsibilities for NSF and provides guidance on significant national policy issues in science and engineering research and education, as required by law.

Object Classification (in millions of dollars)

Identification code 49-0350-0-1-251	2010 actual	CR	2012 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	2	2	2
12.1 Civilian personnel benefits	1	1	.....
21.0 Travel and transportation of persons .....	.....	.....	1
25.1 Advisory and assistance services	2	2	2
99.9 Total new obligations	5	5	5

Employment Summary

Identification code 49-0350-0-1-251	2010 actual	CR	2012 est.
1001 Direct civilian full-time equivalent employment	19	17	18

OFFICE OF INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, as amended, \$15,000,000, to remain available until September 30, 2013.

Note.—A full-year 2011 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continu-

ing resolution (P.L. 111-242, as amended). The amounts included for 2011 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0300-0-1-251	2010 actual	CR	2012 est.
Obligations by program activity:			
0001 Direct program activity	14	16	15
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	2	2	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	14	14	15
1930 Total budgetary resources available	16	16	15
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	2	.....	.....
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	3	4	5
3030 Obligations incurred, unexpired accounts	14	16	15
3040 Outlays (gross)	-13	-15	-14
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	4	5	6
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	14	14	15
Outlays, gross:			
4010 Outlays from new discretionary authority	12	11	12
4011 Outlays from discretionary balances	1	4	2
4020 Outlays, gross (total)	13	15	14
4180 Budget authority, net (total)	14	14	15
4190 Outlays, net (total)	13	15	14

This appropriation provides agency-wide audit and investigative functions to identify and correct management and administrative deficiencies which create conditions for existing or potential instances of fraud, waste, and mismanagement consistent with the Inspector General Act of 1978, as amended (5 U.S.C. App. 3).

Object Classification (in millions of dollars)

Identification code 49-0300-0-1-251	2010 actual	CR	2012 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	9	9	9
12.1 Civilian personnel benefits	2	2	3
25.2 Other services from non-federal sources	3	5	3
99.9 Total new obligations	14	16	15

Employment Summary

Identification code 49-0300-0-1-251	2010 actual	CR	2012 est.
1001 Direct civilian full-time equivalent employment	76	73	84

EDUCATION AND HUMAN RESOURCES

For necessary expenses in carrying out science, mathematics and engineering education and human resources programs and activities pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including services as authorized by 5 U.S.C. 3109, authorized travel, and rental of conference rooms in the District of Columbia, \$911,200,000, to remain available until September 30, 2013.

Note.—A full-year 2011 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 111-242, as amended). The amounts included for 2011 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0106-0-1-251	2010 actual	CR	2012 est.
Obligations by program activity:			
0001 Undergraduate education	292	292	295
0002 Graduate education	197	182	192
0003 Human resource development	157	157	160
0004 Research on learning in formal and informal settings	242	242	264
0091 Subtotal Appropriated Activities	888	873	911
0101 Low income scholarship program	76	115	75
0102 ITTEST grants for mathematics, science, or engineering enrichment courses	21	35	25
0191 Subtotal Mandatory H-1B Non-Immigrant Petitioner Fee Activities	97	150	100
0200 Total direct obligations	985	1,023	1,011
0799 Total direct obligations	985	1,023	1,011
0801 Reimbursable programs	6	15	15
0900 Total new obligations	991	1,038	1,026
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	68	50	.....
1021 Recoveries of prior year unpaid obligations	4	.....	.....
1050 Unobligated balance (total)	72	50	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	873	873	911
1120 Appropriations transferred to other accounts	-87	.....	.....
1121 Appropriations transferred from other accounts	87	.....	.....
1160 Appropriation, discretionary (total)	873	873	911
Appropriations, mandatory:			
1201 Appropriation (special fund)	91	100	100
Spending authority from offsetting collections, discretionary:			
1700 Collected	3	15	15
1701 Change in uncollected payments, Federal sources	3	.....	.....
1750 Spending auth from offsetting collections, disc (total)	6	15	15
1900 Budget authority (total)	970	988	1,026
1930 Total budgetary resources available	1,042	1,038	1,026
Memorandum (non-add) entries:			
1940 Unobligated balance expiring	-1	.....	.....
1941 Unexpired unobligated balance, end of year	50	.....	.....
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	1,801	1,895	1,837
3010 Uncollected pymts, Fed sources, brought forward, Oct 1	-8	-7	-7
3020 Obligated balance, start of year (net)	1,793	1,888	1,830
3030 Obligations incurred, unexpired accounts	991	1,038	1,026
3040 Outlays (gross)	-881	-1,096	-1,029
3050 Change in uncollected pymts, Fed sources, unexpired	-3	.....	.....
3051 Change in uncollected pymts, Fed sources, expired	4	.....	.....
3080 Recoveries of prior year unpaid obligations, unexpired	-4	.....	.....
3081 Recoveries of prior year unpaid obligations, expired	-12	.....	.....
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	1,895	1,837	1,834
3091 Uncollected pymts, Fed sources, end of year	-7	-7	-7
3100 Obligated balance, end of year (net)	1,888	1,830	1,827
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	879	888	926
Outlays, gross:			
4010 Outlays from new discretionary authority	106	137	143
4011 Outlays from discretionary balances	661	804	754
4020 Outlays, gross (total)	767	941	897
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-7	-15	-15
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	-3	.....	.....
4052 Offsetting collections credited to expired accounts	4	.....	.....
4060 Additional offsets against budget authority only (total)	1	.....	.....
4070 Budget authority, net (discretionary)	873	873	911
4080 Outlays, net (discretionary)	760	926	882
Mandatory:			
4090 Budget authority, gross	91	100	100

Outlays, gross:			
4100 Outlays from new mandatory authority	11	11	.....
4101 Outlays from mandatory balances	114	144	121
4110 Outlays, gross (total)	114	155	132
4180 Budget authority, net (total)	964	973	1,011
4190 Outlays, net (total)	874	1,081	1,014

Education and Human Resources (EHR) activities provide a comprehensive set of programs that further NSF's goal of ensuring a diverse, competitive, and globally engaged U.S. science, technology, engineering, and mathematics (STEM) workforce, as well as scientifically literate citizens. At the pre-kindergarten through grade 12 (pre-K-12) levels, EHR catalyzes reform of STEM education through the development of public-private partnerships. Its pre-K-12 programs provide new instructional materials for students and teachers that incorporate the latest advances in teaching, learning, and educational technologies; growth in the knowledge base; and teacher education opportunities that support the full continuum of STEM teacher education from pre-service and in-service, through life-long learning. Undergraduate programs improve curricula, strengthen laboratory course offerings, enhance faculty, and lead reform efforts in STEM disciplines. Programs for advanced technological education strengthen education for students preparing to enter the high-technology workforce. Graduate level support is directed primarily to fellowships and traineeships to sustain the U.S. world leadership in science and technology. All EHR programming focuses on broadening participation of groups underrepresented in STEM fields including activities focused on the improvement of infrastructure and academic programs at minority-serving institutions. EHR supports education research that advances our knowledge of how people learn in the STEM disciplines; it also supports the development and effective implementation of learning technologies. STEM evaluation activities ensure accountability by developing indicators that measure program impact and inform the education community of best practices and relevant information. EHR activities also include programs supported by H-1B non-immigrant visa fees. These programs provide undergraduate and graduate scholarships in STEM fields, improve educational opportunities for students, and support for STEM education by providing research opportunities for STEM teachers and students.

Object Classification (in millions of dollars)

Identification code 49-0106-0-1-251	2010 actual	CR	2012 est.
Direct obligations:			
21.0 Travel and transportation of persons	4	3	3
25.1 Advisory and assistance services	33	29	29
25.2 Other services from non-federal sources	3	2	2
41.0 Grants, subsidies, and contributions	945	989	977
99.0 Direct obligations	985	1,023	1,011
99.0 Reimbursable obligations	6	15	15
99.9 Total new obligations	991	1,038	1,026

Trust Funds

DONATIONS

Special and Trust Fund Receipts (in millions of dollars)

Identification code 49-8960-0-7-251	2010 actual	CR	2012 est.
0100 Balance, start of year	1	.....	.....
Adjustments:			
0191 Rounding adjustment	-1	.....	.....
0199 Balance, start of year .....	.....	.....	.....

DONATIONS—Continued
Special and Trust Fund Receipts—Continued

Identification code 49-8960-0-7-251	2010 actual	CR	2012 est.
Receipts:			
0220 Donations, National Science Foundation	55	25	25
0299 Total receipts and collections	55	25	25
0400 Total: Balances and collections	55	25	25
Appropriations:			
0500 Donations	-55	-25	-25
0599 Total appropriations	-55	-25	-25
0799 Balance, end of year			

Program and Financing (in millions of dollars)

Identification code 49-8960-0-7-251	2010 actual	CR	2012 est.
Obligations by program activity:			
0001 Atacama Large Millimeter Array	4	30	10
0002 Gemini Telescope	17	19	15
0003 B&M Gates Foundation	4	15	
0004 US Civilian Research	19	7	
0900 Total new obligations	44	71	25

Budgetary Resources:

Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	35	46	
Budget authority:			
Appropriations, mandatory:			
1202 Appropriation (trust fund)	55	25	25
1930 Total budgetary resources available	90	71	25
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	46		

Change in obligated balance:

Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	44	34	46
3030 Obligations incurred, unexpired accounts	44	71	25
3040 Outlays (gross)	-54	-59	-25
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	34	46	46

Budget authority and outlays, net:

Mandatory:			
4090 Budget authority, gross	55	25	25
Outlays, gross:			
4100 Outlays from new mandatory authority		25	25
4101 Outlays from mandatory balances	54	34	
4110 Outlays, gross (total)	54	59	25
4180 Budget authority, net (total)	55	25	25
4190 Outlays, net (total)	54	59	25

This account consists of contributions from foreign governments, organizations, and individuals to fund various cooperative efforts in science, research, and education. These efforts include major international projects, such as operation of the GEMINI telescope, and the NSF ocean drilling program. Other smaller activities supported include cooperative research, joint seminars, exchange of senior scientists, short-term research development visits, international conferences, and support for certain special functions of NSF and the National Science Board. These funds are not otherwise available.

Object Classification (in millions of dollars)

Identification code 49-8960-0-7-251	2010 actual	CR	2012 est.
Direct obligations:			
25.4 Operation and maintenance of facilities	9	9	9
41.0 Grants, subsidies, and contributions	35	62	16
99.9 Total new obligations	44	71	25

GENERAL FUND RECEIPT ACCOUNT

(in millions of dollars)

	2010 actual	CR	2012 est.
Offsetting receipts from the public:			
49-322000 All Other General Fund Proprietary Receipts Including Budget Clearing Accounts	1	2	2
General Fund Offsetting receipts from the public	1	2	2

NATIONAL SCIENCE FOUNDATION

Federal Funds

RESEARCH AND RELATED ACTIVITIES

For necessary expenses in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861–1875), and the Act to establish a National Medal of Science (42 U.S.C. 1880–1881); services as authorized by 5 U.S.C. 3109; maintenance and operation of aircraft and purchase of flight services for research support; acquisition of aircraft; and authorized travel; **[\$5,719,000,000] \$5,983,280,000**, to remain available until September 30, **[2013] 2014**, of which not to exceed **[\$550,000,000] \$500,000,000** shall remain available until expended for polar research and operations support, and for reimbursement to other Federal agencies for operational and science support and logistical and other related activities for the United States Antarctic program: *Provided*, That receipts for scientific support services and materials furnished by the National Research Centers and other National Science Foundation supported research facilities may be credited to this appropriation *[Provided further*, That not less than \$150,900,000 shall be available for activities authorized by section 7002(c)(2)(A)(iv) of Public Law 110–69: *Provided further*, That up to \$50,000,000 of funds made available under this heading within this Act may be transferred to "Major Research Equipment and Facilities Construction": *Provided further*, That funds so transferred shall not be subject to the transfer limitations described in the Administrative Provisions in this Act for the National Science Foundation, and shall be available until expended only after notification of such transfer to the Committees on Appropriations]. (*Science Appropriations Act, 2012.*)

Program and Financing (in millions of dollars)

Identification code 49–0100–0–1–999	2011 actual	2012 est.	2013 est.
Obligations by program activity:			
0001 Biological Sciences	712	712	734
0002 Computer and Information Science and Engineering	636	654	710
0003 Engineering	763	826	876
0004 EPSCoR	147	151	158
0005 Geosciences	885	885	906
0006 Mathematical and Physical Sciences	1,313	1,309	1,345
0007 Social, Behavioral and Economic Sciences	247	254	260
0008 Office of International Science and Engineering	49	50	51
0009 U.S. Polar Research Programs	373	368	382
0010 U.S. Antarctic Logistical Support Activities	68	68	68
0011 Integrative Activities	113	199	274
0012 Office of Cyberinfrastructure	301	212	218
0013 Arctic Research Commission	1	1	1
0799 Total direct obligations	5,608	5,689	5,983
0801 Reimbursable programs	121	128	120
0900 Total new obligations	5,729	5,817	6,103
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	1	8	.....
1021 Recoveries of prior year unpaid obligations	100	.....	.....
1050 Unobligated balance (total)	101	8	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	5,575	5,719	5,983
1120 Appropriations transferred to other accts [70–0610]	-54	.....	.....
1120 Transferred to other accounts [49–0551] .....	.....	-30	.....
1130 Appropriations permanently reduced	-11	.....	.....
1160 Appropriation, discretionary (total)	5,510	5,689	5,983
Spending authority from offsetting collections, discretionary:			
1700 Collected	72	120	120
1701 Change in uncollected payments, Federal sources	54	.....	.....
1750 Spending auth from offsetting collections, disc (total)	126	120	120
1900 Budget authority (total)	5,636	5,809	6,103
1930 Total budgetary resources available	5,737	5,817	6,103
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	8	.....	.....
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	9,786	9,586	8,819
3010 Uncollected pymts, Fed sources, brought forward, Oct 1	-91	-127	-127

3020 Obligated balance, start of year (net)	9,695	9,459	8,692
3030 Obligations incurred, unexpired accounts	5,729	5,817	6,103
3031 Obligations incurred, expired accounts	1	.....	.....
3040 Outlays (gross)	-5,797	-6,584	-6,038
3050 Change in uncollected pymts, Fed sources, unexpired	-54	.....	.....
3051 Change in uncollected pymts, Fed sources, expired	18	.....	.....
3080 Recoveries of prior year unpaid obligations, unexpired	-100	.....	.....
3081 Recoveries of prior year unpaid obligations, expired	-33	.....	.....
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	9,586	8,819	8,884
3091 Uncollected pymts, Fed sources, end of year	-127	-127	-127
3100 Obligated balance, end of year (net)	9,459	8,692	8,757
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	5,636	5,809	6,103
Outlays, gross:			
4010 Outlays from new discretionary authority	836	1,258	1,317
4011 Outlays from discretionary balances	4,961	5,326	4,721
4020 Outlays, gross (total)	5,797	6,584	6,038
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-89	-120	-120
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	-54	.....	.....
4052 Offsetting collections credited to expired accounts	17	.....	.....
4060 Additional offsets against budget authority only (total)	-37	.....	.....
4070 Budget authority, net (discretionary)	5,510	5,689	5,983
4080 Outlays, net (discretionary)	5,708	6,464	5,918
4180 Budget authority, net (total)	5,510	5,689	5,983
4190 Outlays, net (total)	5,708	6,464	5,918

The Research and Related Activities appropriation enables the United States to provide leadership and promote progress across the expanding frontiers of scientific and engineering research and education.

The major research program activities of NSF are:

Biological Sciences.—This activity promotes scientific progress in biology through support of research on all levels, including molecules, cells, organisms, and ecosystems. This activity also supports a comprehensive research initiative on plant genomes, including research on economically significant crops.

Computer and Information Science and Engineering.—This activity supports research within and across the many sub-fields of computing, contributing to the education and training of computing professionals and informing the preparation of a U.S. workforce with computing competencies essential to success in an increasingly competitive, global market.

Engineering.—Research supported by this activity aims to increase U.S. engineering capability and strength, and focus that capability and strength on areas that are relevant to national problems and long-term needs. This activity also includes small business innovation research.

Geosciences.—This activity supports research and associated infrastructure to advance knowledge of the properties and dynamics of the planet on which we live. Research includes understanding the causes and implications of climate change, as well as disruptive processes such as earthquakes and storms.

Mathematical and Physical Sciences.—Research in this activity is directed at increasing understanding of natural laws and phenomena across the astronomical sciences, chemistry, materials sciences, mathematical sciences, and physics. This fundamental research provides the long-term underpinnings for advances in areas such as sustainable energy and economic competitiveness.

Social, Behavioral, and Economic Sciences.—This activity supports research, education, and infrastructure in the social, behavioral, cognitive, and economic sciences and funds the col-

RESEARCH AND RELATED ACTIVITIES—Continued

lection and dissemination of statistics on the science and engineering enterprise.

Office of International Science and Engineering.—This activity promotes an integrated strategy for international science and engineering which complements and enhances NSF's broader research and education goals and which facilitates international collaboration.

U.S. Polar Research Programs.—This activity supports Arctic and Antarctic research and operational science support and other related activities for United States polar research programs.

U.S. Antarctic Logistical Support Activities.—This activity provides funding to reimburse Federal agencies for logistical and other related activities supported by the United States Antarctic Program.

Integrative Activities.—This activity supports emerging cross-disciplinary research efforts and major research instrumentation. This activity also provides support for the Science and Technology Policy Institute. The Experimental Program to Stimulate Competitive Research broadens participation of States and regions in science and engineering by helping institutions expand their research capacity and competitiveness.

Office of Cyberinfrastructure.—This activity supports research, development, acquisition, and operation of advanced shared and connecting cyberinfrastructure in support of the Nation's science and engineering research and education community.

The *United States Arctic Research Commission* promotes Arctic research and recommends national Arctic research policies to guide Federal agencies in developing and implementing their research programs in the Arctic region.

Object Classification (in millions of dollars)

Identification code 49-0100-0-1-999	2011 actual	2012 est.	2013 est.
Direct obligations:			
21.0 Travel and transportation of persons	22	22	22
25.1 Advisory and assistance services	102	102	102
25.2 Other services from non-Federal sources	5	5	5
25.3 Other goods and services from Federal sources	32	32	32
25.4 Operation and maintenance of facilities	350	350	350
25.5 Research and development contracts	7	7	7
26.0 Supplies and materials	2	2	2
31.0 Equipment	2	2	2
41.0 Grants, subsidies, and contributions	5,086	5,167	5,461
99.0 Direct obligations	5,608	5,689	5,983
99.0 Reimbursable obligations	121	128	120
99.9 Total new obligations	5,729	5,817	6,103

Employment Summary

Identification code 49-0100-0-1-999	2011 actual	2012 est.	2013 est.
1001 Direct civilian full-time equivalent employment	3	3	3

MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION

For necessary expenses for the acquisition, construction, commissioning, and upgrading of major research equipment, facilities, and other such capital assets pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including authorized travel, **[\$167,055,000] \$196,170,000**, to remain available until expended[: *Provided*, That none of the funds may be used to reimburse the Judgment Fund]. (*Science Appropriations Act, 2012.*)

Program and Financing (in millions of dollars)

Identification code 49-0551-0-1-251	2011 actual	2012 est.	2013 est.
Obligations by program activity:			
0001 Direct program activity	125	198	196
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	9	1	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	117	167	196
1121 Appropriations transferred from other accts [49-0100] ....	.....	30	.....
1160 Appropriation, discretionary (total)	117	197	196
1930 Total budgetary resources available	126	198	196
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	1	.....	.....
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	597	494	380
3030 Obligations incurred, unexpired accounts	125	198	196
3040 Outlays (gross)	-228	-312	-254
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	494	380	322
3100 Obligated balance, end of year (net)	494	380	322
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	117	197	196
Outlays, gross:			
4010 Outlays from new discretionary authority .....	.....	12	12
4011 Outlays from discretionary balances	228	300	242
4020 Outlays, gross (total)	228	312	254
4180 Budget authority, net (total)	117	197	196
4190 Outlays, net (total)	228	312	254

The Major Research Equipment and Facilities Construction activity supports the acquisition, construction, and commissioning of unique national research platforms and major research facilities and equipment. Performance of each construction project is measured against an established baseline at regular intervals and at major milestones.

Object Classification (in millions of dollars)

Identification code 49-0551-0-1-251	2011 actual	2012 est.	2013 est.
Direct obligations:			
25.5 Research and development contracts	5	5	5
41.0 Grants, subsidies, and contributions	120	193	191
99.9 Total new obligations	125	198	196

AGENCY OPERATIONS AND AWARD MANAGEMENT

For agency operations and award management necessary in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875); services authorized by 5 U.S.C. 3109; hire of passenger motor vehicles; not to exceed \$8,280 for official reception and representation expenses; uniforms or allowances therefor, as authorized by 5 U.S.C. 5901-5902; rental of conference rooms in the District of Columbia; and reimbursement of the Department of Homeland Security for security guard services; \$299,400,000: *Provided*, That contracts may be entered into under this heading in fiscal year **[2012] 2013** for maintenance and operation of facilities, and for other services, to be provided during the next fiscal year. (*Science Appropriations Act, 2012.*)

Program and Financing (in millions of dollars)

Identification code 49-0180-0-1-251	2011 actual	2012 est.	2013 est.
Obligations by program activity:			
0001 Administration and management	300	299	299

0801	Reimbursable programs	7	10	10
0900	Total new obligations	307	309	309
Budgetary Resources:				
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	300	299	299
1130	Appropriations permanently reduced	-1		
1160	Appropriation, discretionary (total)	299	299	299
Spending authority from offsetting collections, discretionary:				
1700	Collected	7	10	10
1701	Change in uncollected payments, Federal sources	1		
1750	Spending auth from offsetting collections, disc (total)	8	10	10
1900	Budget authority (total)	307	309	309
1930	Total budgetary resources available	307	309	309

Change in obligated balance:				
Obligated balance, start of year (net):				
3000	Unpaid obligations, brought forward, Oct 1 (gross)	79	72	54
3010	Uncollected pymts, Fed sources, brought forward, Oct 1		-1	-1
3020	Obligated balance, start of year (net)	79	71	53
3030	Obligations incurred, unexpired accounts	307	309	309
3040	Outlays (gross)	-311	-327	-306
3050	Change in uncollected pymts, Fed sources, unexpired	-1		
3081	Recoveries of prior year unpaid obligations, expired	-3		
Obligated balance, end of year (net):				
3090	Unpaid obligations, end of year (gross)	72	54	57
3091	Uncollected pymts, Fed sources, end of year	-1	-1	-1
3100	Obligated balance, end of year (net)	71	53	56

Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	307	309	309
Outlays, gross:				
4010	Outlays from new discretionary authority	252	255	255
4011	Outlays from discretionary balances	59	72	51
4020	Outlays, gross (total)	311	327	306
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources	-7	-10	-10
Additional offsets against gross budget authority only:				
4050	Change in uncollected pymts, Fed sources, unexpired	-1		
4070	Budget authority, net (discretionary)	299	299	299
4080	Outlays, net (discretionary)	304	317	296
4180	Budget authority, net (total)	299	299	299
4190	Outlays, net (total)	304	317	296

This account funds NSF's scientific, professional, and administrative workforce, the physical and technological infrastructure necessary for a productive, safe and secure work environment, and the essential business operations critical to NSF's administrative processes.

Object Classification (in millions of dollars)

Identification code 49-0180-0-1-251				
		2011 actual	2012 est.	2013 est.
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	143	144	147
11.3	Other than full-time permanent	12	13	14
11.5	Other personnel compensation	7	3	4
11.8	Special personal services payments	1	1	1
11.9	Total personnel compensation	163	161	166
12.1	Civilian personnel benefits	40	42	43
21.0	Travel and transportation of persons	6	6	6
23.1	Rental payments	26	26	27
23.3	Communications, utilities, and miscellaneous charges	2	2	2
25.1	Advisory and assistance services	44	44	39
25.2	Other services from non-Federal sources	8	8	6
25.3	Other goods and services from Federal sources	2	2	2
26.0	Supplies and materials	4	4	4
31.0	Equipment	4	4	4
99.0	Direct obligations	299	299	299
99.0	Reimbursable obligations	8	10	10
99.9	Total new obligations	307	309	309

Employment Summary

Identification code 49-0180-0-1-251				
		2011 actual	2012 est.	2013 est.
1001	Direct civilian full-time equivalent employment	1,323	1,327	1,352

OFFICE OF THE NATIONAL SCIENCE BOARD

For necessary expenses (including payment of salaries, authorized travel, hire of passenger motor vehicles, the rental of conference rooms in the District of Columbia, and the employment of experts and consultants under section 3109 of title 5, United States Code) involved in carrying out section 4 of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1863) and Public Law 86-209 (42 U.S.C. 1880 et seq.), \$4,440,000: *Provided*, That not to exceed \$2,500 shall be available for official reception and representation expenses. (*Science Appropriations Act, 2012.*)

Program and Financing (in millions of dollars)

Identification code 49-0350-0-1-251				
		2011 actual	2012 est.	2013 est.
Obligations by program activity:				
0001	Direct program activity	4	4	4
Budgetary Resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1		1	
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	5	4	4
1160	Appropriation, discretionary (total)	5	4	4
1930	Total budgetary resources available	5	5	4
Memorandum (non-add) entries:				
1940	Unobligated balance expiring		-1	
1941	Unexpired unobligated balance, end of year	1		
Change in obligated balance:				
Obligated balance, start of year (net):				
3000	Unpaid obligations, brought forward, Oct 1 (gross)	1	1	1
3030	Obligations incurred, unexpired accounts	4	4	4
3040	Outlays (gross)	-4	-4	-5
Obligated balance, end of year (net):				
3090	Unpaid obligations, end of year (gross)	1	1	
3100	Obligated balance, end of year (net)	1	1	

Budget authority and outlays, net:

Discretionary:				
4000	Budget authority, gross	5	4	4
Outlays, gross:				
4010	Outlays from new discretionary authority	3	3	3
4011	Outlays from discretionary balances	1	1	2
4020	Outlays, gross (total)	4	4	5
4180	Budget authority, net (total)	5	4	4
4190	Outlays, net (total)	4	4	5

This appropriation provides policy-making and related responsibilities for NSF and provides guidance on significant national policy issues in science and engineering research and education, as required by law.

Object Classification (in millions of dollars)

Identification code 49-0350-0-1-251				
		2011 actual	2012 est.	2013 est.
Direct obligations:				
11.1	Personnel compensation: Full-time permanent	2	2	2
12.1	Civilian personnel benefits	1	1	1
25.1	Advisory and assistance services	1	1	1
99.9	Total new obligations	4	4	4

OFFICE OF THE NATIONAL SCIENCE BOARD—Continued
Employment Summary

Identification code 49-0350-0-1-251	2011 actual	2012 est.	2013 est.
1001 Direct civilian full-time equivalent employment	18	18	18

OFFICE OF INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, as amended, \$14,200,000, to remain available until September 30, 2014. (Science Appropriations Act, 2012.)

Program and Financing (in millions of dollars)

Identification code 49-0300-0-1-251	2011 actual	2012 est.	2013 est.
Obligations by program activity:			
0001 Direct program activity	14	16	14
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	2	2	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	14	14	14
1160 Appropriation, discretionary (total)	14	14	14
1930 Total budgetary resources available	16	16	14
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	2		
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	3	3	6
3030 Obligations incurred, unexpired accounts	14	16	14
3040 Outlays (gross)	-14	-13	-15
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	3	6	5
3100 Obligated balance, end of year (net)	3	6	5
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	14	14	14
Outlays, gross:			
4010 Outlays from new discretionary authority	12	11	11
4011 Outlays from discretionary balances	2	2	4
4020 Outlays, gross (total)	14	13	15
4180 Budget authority, net (total)	14	14	14
4190 Outlays, net (total)	14	13	15

This appropriation provides agency-wide audit and investigative functions to identify and correct management and administrative deficiencies which create conditions for existing or potential instances of fraud, waste, and mismanagement consistent with the Inspector General Act of 1978, as amended (5 U.S.C. App. 3).

Object Classification (in millions of dollars)

Identification code 49-0300-0-1-251	2011 actual	2012 est.	2013 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	9	9	9
12.1 Civilian personnel benefits	2	2	2
25.2 Other services from non-Federal sources	3	5	3
99.9 Total new obligations	14	16	14

Employment Summary

Identification code 49-0300-0-1-251	2011 actual	2012 est.	2013 est.
1001 Direct civilian full-time equivalent employment	74	78	78

EDUCATION AND HUMAN RESOURCES

For necessary expenses in carrying out science, mathematics and engineering education and human resources programs and activities pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including services as authorized by 5 U.S.C. 3109, authorized travel, and rental of conference rooms in the District of Columbia, [\$829,000,000] \$875,610,000, to remain available until September 30, [2013: Provided, That not less than \$54,890,000 shall be available until expended for activities authorized by section 7030 of Public Law 110-69] 2014. (Science Appropriations Act, 2012.)

Program and Financing (in millions of dollars)

Identification code 49-0106-0-1-251	2011 actual	2012 est.	2013 est.
Obligations by program activity:			
0001 Undergraduate education	285	303	246
0002 Graduate education	171	168	185
0003 Human resource development	157	125	135
0004 Research on learning in formal and informal settings	248	233	310
0091 Subtotal Appropriated Activities	861	829	876
0101 Low income scholarship program	78	121	75
0102 ITEST grants for mathematics, science, or engineering enrichment courses	18	40	25
0191 Subtotal Mandatory H-1B Non-Immigrant Petitioner Fee Activities	96	161	100
0200 Total direct obligations	957	990	976
0799 Total direct obligations	957	990	976
0801 Reimbursable programs	6	20	15
0900 Total new obligations	963	1,010	991
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	50	66	
1021 Recoveries of prior year unpaid obligations	3		
1050 Unobligated balance (total)	53	66	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	863	829	876
1120 Appropriations transferred to other accts [49-0106]	-87	-55	
1121 Appropriations transferred from other accts [49-0106]	87	55	
1130 Appropriations permanently reduced	-2		
1160 Appropriation, discretionary (total)	861	829	876
Appropriations, mandatory:			
1201 Appropriation (special or trust fund)	105	100	100
1260 Appropriations, mandatory (total)	105	100	100
Spending authority from offsetting collections, discretionary:			
1700 Collected	4	15	15
1701 Change in uncollected payments, Federal sources	6		
1750 Spending auth from offsetting collections, disc (total)	10	15	15
1900 Budget authority (total)	976	944	991
1930 Total budgetary resources available	1,029	1,010	991
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	66		
Change in obligated balance:			
Obligated balance, start of year (net):			
3000 Unpaid obligations, brought forward, Oct 1 (gross)	1,895	1,934	1,842
3010 Uncollected pymts, Fed sources, brought forward, Oct 1	-7	-12	-12
3020 Obligated balance, start of year (net)	1,888	1,922	1,830
3030 Obligations incurred, unexpired accounts	963	1,010	991
3040 Outlays (gross)	-912	-1,102	-1,045
3050 Change in uncollected pymts, Fed sources, unexpired	-6		
3051 Change in uncollected pymts, Fed sources, expired	1		
3080 Recoveries of prior year unpaid obligations, unexpired	-3		
3081 Recoveries of prior year unpaid obligations, expired	-9		
Obligated balance, end of year (net):			
3090 Unpaid obligations, end of year (gross)	1,934	1,842	1,788
3091 Uncollected pymts, Fed sources, end of year	-12	-12	-12
3100 Obligated balance, end of year (net)	1,922	1,830	1,776
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	871	844	891
Outlays, gross:			
4010 Outlays from new discretionary authority	102	131	138

4011	Outlays from discretionary balances	695	819	757
4020	Outlays, gross (total)	797	950	895
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	-5	-15	-15
	Additional offsets against gross budget authority only:			
4050	Change in uncollected pymts, Fed sources, unexpired	-6		
4052	Offsetting collections credited to expired accounts	1		
4060	Additional offsets against budget authority only (total)	-5		
4070	Budget authority, net (discretionary)	861	829	876
4080	Outlays, net (discretionary)	792	935	880
	Mandatory:			
4090	Budget authority, gross	105	100	100
	Outlays, gross:			
4100	Outlays from new mandatory authority		11	11
4101	Outlays from mandatory balances	115	141	139
4110	Outlays, gross (total)	115	152	150
4180	Budget authority, net (total)	966	929	976
4190	Outlays, net (total)	907	1,087	1,030

Education and Human Resources (EHR) activities provide a comprehensive set of programs that further NSF's goal of ensuring a diverse, competitive, and globally engaged U.S. science, technology, engineering, and mathematics (STEM) workforce, as well as scientifically literate citizens. At the pre-kindergarten through grade 12 (pre-K-12) levels, EHR catalyzes reform of STEM education through the development of public-private partnerships. Its pre-K-12 programs provide new instructional materials for students and teachers that incorporate the latest advances in teaching, learning, and educational technologies; growth in the knowledge base; and teacher education opportunities that support the full continuum of STEM teacher education from pre-service and in-service, through life-long learning. Undergraduate programs improve curricula, strengthen laboratory course offerings, enhance faculty, and lead reform efforts in STEM disciplines. Programs for advanced technological education strengthen education for students preparing to enter the high-technology workforce. Graduate level support is directed primarily to fellowships and traineeships to sustain the U.S. world leadership in science and technology. All EHR programming focuses on broadening participation of groups underrepresented in STEM fields including activities focused on the improvement of infrastructure and academic programs at minority-serving institutions. EHR supports education research that advances our knowledge of how people learn in the STEM disciplines; it also supports the development and effective implementation of learning technologies. STEM evaluation activities ensure accountability by developing indicators that measure program impact and inform the education community of best practices and relevant information. EHR activities also include programs supported by H-1B non-immigrant visa fees. These programs provide undergraduate and graduate scholarships in STEM fields, improve educational opportunities for students, and support for STEM education by providing research opportunities for STEM teachers and students.

Object Classification (in millions of dollars)

Identification code 49-0106-0-1-251	2011 actual	2012 est.	2013 est.
Direct obligations:			
21.0 Travel and transportation of persons	4	4	4
25.1 Advisory and assistance services	33	33	33
25.2 Other services from non-Federal sources	4	4	4
41.0 Grants, subsidies, and contributions	916	949	935
99.0 Direct obligations	957	990	976
99.0 Reimbursable obligations	6	20	15

99.9	Total new obligations	963	1,010	991
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Trust Funds

DONATIONS

Special and Trust Fund Receipts (in millions of dollars)

Identification code 49-8960-0-7-251	2011 actual	2012 est.	2013 est.
0100	Balance, start of year		
	Receipts:		
0220	Donations, National Science Foundation	53	25
0400	Total: Balances and collections	53	25
	Appropriations:		
0500	Donations	-53	-25
0799	Balance, end of year		

Program and Financing (in millions of dollars)

Identification code 49-8960-0-7-251	2011 actual	2012 est.	2013 est.
Obligations by program activity:			
0001	Atacama Large Millimeter Array	10	29
0002	Gemini Telescope	17	24
0003	B&M Gates Foundation	5	12
0004	US Civilian Research	15	12
0900	Total new obligations	47	77
Budgetary Resources:			
	Unobligated balance:		
1000	Unobligated balance brought forward, Oct 1	46	52
	Budget authority:		
	Appropriations, mandatory:		
1201	Appropriation (special or trust fund)	53	25
1260	Appropriations, mandatory (total)	53	25
1930	Total budgetary resources available	99	77
	Memorandum (non-add) entries:		
1941	Unexpired unobligated balance, end of year	52	
Change in obligated balance:			
	Obligated balance, start of year (net):		
3000	Unpaid obligations, brought forward, Oct 1 (gross)	34	46
3030	Obligations incurred, unexpired accounts	47	77
3040	Outlays (gross)	-35	-111
	Obligated balance, end of year (net):		
3090	Unpaid obligations, end of year (gross)	46	12
3100	Obligated balance, end of year (net)	46	12
Budget authority and outlays, net:			
	Mandatory:		
4090	Budget authority, gross	53	25
	Outlays, gross:		
4100	Outlays from new mandatory authority		25
4101	Outlays from mandatory balances	35	86
4110	Outlays, gross (total)	35	111
4180	Budget authority, net (total)	53	25
4190	Outlays, net (total)	35	111

This account consists of contributions from foreign governments, organizations, and individuals to fund various cooperative efforts in science, research, and education. These efforts include major international projects, such as operation of the Gemini telescopes, and the NSF' ocean drilling program. Other smaller activities supported include cooperative research, joint seminars, exchange of senior scientists, short-term research development visits, international conferences, and support for certain special functions of NSF and the National Science Board. These funds are not otherwise available.

DONATIONS—Continued
Object Classification (in millions of dollars)

Identification code 49–8960–0–7–251	2011 actual	2012 est.	2013 est.
Direct obligations:			
25.4 Operation and maintenance of facilities	9	9	9
41.0 Grants, subsidies, and contributions	38	68	16
99.9 Total new obligations	47	77	25

ADMINISTRATIVE PROVISION

Not to exceed 5 percent of any appropriation made available for the current fiscal year for the National Science Foundation in this Act may be transferred between such appropriations, but no such appropriation

shall be increased by more than 15 percent by any such transfers. Any transfer pursuant to this section shall be treated as a reprogramming of funds under section 505 of this Act and shall not be available for obligation except in compliance with the procedures set forth in that section. (*Science Appropriations Act, 2012.*)

GENERAL FUND RECEIPT ACCOUNT

(in millions of dollars)

	2011 actual	2012 est.	2013 est.
Offsetting receipts from the public:			
49-32200 All Other General Fund Proprietary Receipts Including Budget			
Clearing Accounts	1	2	2
General Fund Offsetting receipts from the public	1	2	2

NATIONAL SCIENCE FOUNDATION

Federal Funds

RESEARCH AND RELATED ACTIVITIES

For necessary expenses in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861–1875), and the Act to establish a National Medal of Science (42 U.S.C. 1880–1881); services as authorized by 5 U.S.C. 3109; maintenance and operation of aircraft and purchase of flight services for research support; acquisition of aircraft; and authorized travel; \$6,212,290,000, to remain available until September 30, 2015, of which not to exceed \$520,000,000 shall remain available until expended for polar research and operations support, and for reimbursement to other Federal agencies for operational and science support and logistical and other related activities for the United States Antarctic program: Provided, That receipts for scientific support services and materials furnished by the National Research Centers and other National Science Foundation supported research facilities may be credited to this appropriation.

Note.—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Resolution, 2013 (P.L. 112–175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49–0100–0–1–999	2012 actual	2013 CR	2014 est.
Obligations by program activity:			
0001 Biological Sciences	712	712	761
0002 Computer and Information Science and Engineering	653	865	950
0003 Engineering	825	832	911
0004 EPSCoR	151	.....	.....
0005 Geosciences	885	1,328	1,394
0006 Mathematical and Physical Sciences	1,309	1,310	1,386
0007 Social, Behavioral and Economic Sciences	254	254	272
0008 Office of International Science and Engineering	50	.....	.....
0009 U.S. Polar Research Programs	368	.....	.....
0010 U.S. Antarctic Logistical Support Activities	68	.....	.....
0011 International and Integrative Activities	198	400	542
0012 Office of Cyberinfrastructure	284	.....	.....
0013 Arctic Research Commission	1	1	1
0014 CR Increment .....	.....	65	.....
0799 Total direct obligations	5,758	5,767	6,217
0801 Reimbursable programs	97	124	120
0900 Total new obligations	5,855	5,891	6,337
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	7	17	.....
1021 Recoveries of prior year unpaid obligations	85	.....	.....
1050 Unobligated balance (total)	92	17	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	5,719	5,754	6,212
1120 Appropriations transferred to other accts [49–0551]	–30	.....	.....
1121 Appropriations transferred from other accts [15–0401] .....	.....	.....	5
1160 Appropriation, discretionary (total)	5,689	5,754	6,217
Spending authority from offsetting collections, discretionary:			
1700 Collected	68	120	120
1701 Change in uncollected payments, Federal sources	25	.....	.....
1750 Spending auth from offsetting collections, disc (total)	93	120	120
1900 Budget authority (total)	5,782	5,874	6,337
1930 Total budgetary resources available	5,874	5,891	6,337
Memorandum (non-add) entries:			
1940 Unobligated balance expiring	–2	.....	.....
1941 Unexpired unobligated balance, end of year	17	.....	.....
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	9,586	9,507	8,706
3010 Obligations incurred, unexpired accounts	5,855	5,891	6,337
3011 Obligations incurred, expired accounts	2	.....	.....
3020 Outlays (gross)	–5,813	–6,692	–6,026
3040 Recoveries of prior year unpaid obligations, unexpired	–85	.....	.....
3041 Recoveries of prior year unpaid obligations, expired	–38	.....	.....
3050 Unpaid obligations, end of year	9,507	8,706	9,017

Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–127	–125	–125
3070 Change in uncollected pymts, Fed sources, unexpired	–25	.....	.....
3071 Change in uncollected pymts, Fed sources, expired	27	.....	.....
3090 Uncollected pymts, Fed sources, end of year	–125	–125	–125
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	9,459	9,382	8,581
3200 Obligated balance, end of year	9,382	8,581	8,892
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	5,782	5,874	6,337
Outlays, gross:			
4010 Outlays from new discretionary authority	842	1,271	1,364
4011 Outlays from discretionary balances	4,971	5,421	4,662
4020 Outlays, gross (total)	5,813	6,692	6,026
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	–93	–120	–120
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	–25	.....	.....
4052 Offsetting collections credited to expired accounts	25	.....	.....
4070 Budget authority, net (discretionary)	5,689	5,754	6,217
4080 Outlays, net (discretionary)	5,720	6,572	5,906
4180 Budget authority, net (total)	5,689	5,754	6,217
4190 Outlays, net (total)	5,720	6,572	5,906

The Research and Related Activities appropriation enables the United States to provide leadership and promote progress across the expanding frontiers of scientific and engineering research and education.

The major research program activities of NSF are:

Biological Sciences.—This activity promotes scientific progress in biology through support of research on all levels, including molecules, cells, organisms, and ecosystems. This activity also supports a comprehensive research initiative on plant genomes, including research on economically significant crops.

Computer and Information Science and Engineering.—This activity supports investigator initiated research in all areas of computer and information science and engineering, helps develop and maintain cutting-edge national computational and information infrastructure for research and education generally, and contributes to the education and training of the next generation of computer and computational engineers.

Engineering.—Research supported by this activity aims to increase U.S. engineering capability and strength, and focus that capability and strength on areas that are relevant to national problems and long-term needs. This activity also includes small business innovation research.

Geosciences.—This activity supports research and associated infrastructure to advance knowledge of the properties and dynamics of the planet on which we live. Research includes understanding the causes and implications of climate change, as well as disruptive processes such as earthquakes and storms. Additionally, this activity supports Arctic and Antarctic research and operational science support and other related activities for United States polar research programs, including the funding to reimburse Federal agencies for logistical and other related activities supported by the United States Antarctic Program.

Mathematical and Physical Sciences.—Research in this activity is directed at increasing understanding of natural laws and phenomena across the astronomical sciences, chemistry, materials sciences, mathematical sciences, and physics. This fundamental research provides the long-term underpinnings for advances in areas such as sustainable energy and economic competitiveness.

RESEARCH AND RELATED ACTIVITIES—Continued

Social, Behavioral, and Economic Sciences.—This activity supports research, education, and infrastructure in the social, behavioral, cognitive, and economic sciences and funds the collection and dissemination of statistics on the science and engineering enterprise.

Office of International and Integrative Activities.—This activity supports emerging cross disciplinary research efforts; major research instrumentation; and promotes an integrated strategy for international science and engineering that complements and enhances NSF's broader research and education goals and facilitates international collaboration. This activity also provides support for the Science and Technology Policy Institute. The Experimental Program to Stimulate Competitive Research broadens participation of States and regions in science and engineering by helping institutions expand their research capacity and competitiveness.

The *United States Arctic Research Commission* promotes Arctic research and recommends national Arctic research policies to guide Federal agencies in developing and implementing their research programs in the Arctic region.

Object Classification (in millions of dollars)

Identification code 49-0100-0-1-999	2012 actual	2013 CR	2014 est.
Direct obligations:			
21.0 Travel and transportation of persons	18	17	17
25.1 Advisory and assistance services	99	99	95
25.2 Other services from non-Federal sources	7	7	7
25.3 Other goods and services from Federal sources	38	38	38
25.4 Operation and maintenance of facilities	338	339	343
25.5 Research and development contracts	6	6	6
26.0 Supplies and materials	2	2	2
31.0 Equipment	1	1	1
41.0 Grants, subsidies, and contributions	5,249	5,258	5,708
99.0 Direct obligations	5,758	5,767	6,217
99.0 Reimbursable obligations	97	124	120
99.9 Total new obligations	5,855	5,891	6,337

Employment Summary

Identification code 49-0100-0-1-999	2012 actual	2013 CR	2014 est.
1001 Direct civilian full-time equivalent employment	3	3	3

MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION

For necessary expenses for the acquisition, construction, commissioning, and upgrading of major research equipment, facilities, and other such capital assets pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including authorized travel, \$210,120,000, to remain available until expended.

Note.—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Resolution, 2013 (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0551-0-1-251	2012 actual	2013 CR	2014 est.
Obligations by program activity:			
0001 Major Research Equipment and Facilities Construction	198	169	210
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	1	1	
1021 Recoveries of prior year unpaid obligations	1		
1050 Unobligated balance (total)	2	1	

Budget authority:

Appropriations, discretionary:			
1100 Appropriation	167	168	210
1121 Appropriations transferred from other accts [49-0100]	30		
1160 Appropriation, discretionary (total)	197	168	210
1930 Total budgetary resources available	199	169	210
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	1		

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	494	415	232
3010 Obligations incurred, unexpired accounts	198	169	210
3020 Outlays (gross)	-276	-352	-135
3040 Recoveries of prior year unpaid obligations, unexpired	-1		
3050 Unpaid obligations, end of year	415	232	307
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	494	415	232
3200 Obligated balance, end of year	415	232	307

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	197	168	210
Outlays, gross:			
4010 Outlays from new discretionary authority		10	13
4011 Outlays from discretionary balances	276	342	122
4020 Outlays, gross (total)	276	352	135
4180 Budget authority, net (total)	197	168	210
4190 Outlays, net (total)	276	352	135

The Major Research Equipment and Facilities Construction activity supports the acquisition, construction, and commissioning of unique national research platforms and major research facilities and equipment. Performance of each construction project is measured against an established baseline at regular intervals and at major milestones.

Object Classification (in millions of dollars)

Identification code 49-0551-0-1-251	2012 actual	2013 CR	2014 est.
Direct obligations:			
25.5 Research and development contracts	1	1	1
41.0 Grants, subsidies, and contributions	197	168	209
99.9 Total new obligations	198	169	210

AGENCY OPERATIONS AND AWARD MANAGEMENT

For agency operations and award management necessary in carrying out the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875); services authorized by 5 U.S.C. 3109; hire of passenger motor vehicles; not to exceed \$8,280 for official reception and representation expenses; uniforms or allowances therefor, as authorized by 5 U.S.C. 5901-5902; rental of conference rooms in the District of Columbia; and reimbursement of the Department of Homeland Security for security guard services; \$304,290,000: Provided, That contracts may be entered into under this heading in fiscal year 2014 for maintenance and operation of facilities, and for other services, to be provided during the next fiscal year.

Note.—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Resolution, 2013 (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0180-0-1-251	2012 actual	2013 CR	2014 est.
Obligations by program activity:			
0001 Agency Operations and Award Management	299	301	304
0801 Reimbursable programs	6	10	10
0900 Total new obligations	305	311	314

Budgetary Resources:				
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	299	301	304
1160	Appropriation, discretionary (total)	299	301	304
Spending authority from offsetting collections, discretionary:				
1700	Collected	6	10	10
1750	Spending auth from offsetting collections, disc (total)	6	10	10
1900	Budget authority (total)	305	311	314
1930	Total budgetary resources available	305	311	314

Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	73	73	58
3010	Obligations incurred, unexpired accounts	305	311	314
3020	Outlays (gross)	-302	-326	-315
3041	Recoveries of prior year unpaid obligations, expired	-3		
3050	Unpaid obligations, end of year	73	58	57
Uncollected payments:				
3060	Uncollected pymts, Fed sources, brought forward, Oct 1	-1		
3071	Change in uncollected pymts, Fed sources, expired	1		
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	72	73	58
3200	Obligated balance, end of year	73	58	57

Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	305	311	314
Outlays, gross:				
4010	Outlays from new discretionary authority	245	256	260
4011	Outlays from discretionary balances	57	70	55
4020	Outlays, gross (total)	302	326	315
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources	-7	-10	-10
Additional offsets against gross budget authority only:				
4052	Offsetting collections credited to expired accounts	1		
4070	Budget authority, net (discretionary)	299	301	304
4080	Outlays, net (discretionary)	295	316	305
4180	Budget authority, net (total)	299	301	304
4190	Outlays, net (total)	295	316	305

This account funds NSF's scientific, professional, and administrative workforce, the physical and technological infrastructure necessary for a productive, safe and secure work environment, and the essential business operations critical to NSF's administrative processes.

Object Classification (in millions of dollars)

Identification code 49-0180-0-1-251	2012 actual	2013 CR	2014 est.	
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	143	146	150
11.3	Other than full-time permanent	13	13	14
11.5	Other personnel compensation	2	2	2
11.8	Special personal services payments		1	1
11.9	Total personnel compensation	158	162	167
12.1	Civilian personnel benefits	42	42	43
21.0	Travel and transportation of persons	5	6	5
23.1	Rental payments	26	27	31
23.3	Communications, utilities, and miscellaneous charges	3	2	2
25.1	Advisory and assistance services	43	44	36
25.2	Other services from non-Federal sources	9	8	8
25.3	Other goods and services from Federal sources	7	2	6
26.0	Supplies and materials	4	4	4
31.0	Equipment	2	4	2
99.0	Direct obligations	299	301	304
99.0	Reimbursable obligations	6	10	10
99.9	Total new obligations	305	311	314

Employment Summary

Identification code 49-0180-0-1-251	2012 actual	2013 CR	2014 est.	
1001	Direct civilian full-time equivalent employment	1,320	1,323	1,352

OFFICE OF THE NATIONAL SCIENCE BOARD

For necessary expenses (including payment of salaries, authorized travel, hire of passenger motor vehicles, the rental of conference rooms in the District of Columbia, and the employment of experts and consultants under section 3109 of title 5, United States Code) involved in carrying out section 4 of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1863) and Public Law 86-209 (42 U.S.C. 1880 et seq.), \$4,470,000: Provided, That not to exceed \$2,500 shall be available for official reception and representation expenses.

Note.—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Resolution, 2013 (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0350-0-1-251	2012 actual	2013 CR	2014 est.	
Obligations by program activity:				
0001	Direct program activity	4	4	4
Budgetary Resources:				
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	4	4	4
1160	Appropriation, discretionary (total)	4	4	4
1930	Total budgetary resources available	4	4	4
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	1	1	2
3010	Obligations incurred, unexpired accounts	4	4	4
3020	Outlays (gross)	-4	-3	-4
3050	Unpaid obligations, end of year	1	2	2
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	1	1	2
3200	Obligated balance, end of year	1	2	2
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	4	4	4
Outlays, gross:				
4010	Outlays from new discretionary authority	3	3	3
4011	Outlays from discretionary balances	1		1
4020	Outlays, gross (total)	4	3	4
4180	Budget authority, net (total)	4	4	4
4190	Outlays, net (total)	4	3	4

This appropriation provides policy-making and related responsibilities for NSF and provides guidance on significant national policy issues in science and engineering research and education, as required by law.

Object Classification (in millions of dollars)

Identification code 49-0350-0-1-251	2012 actual	2013 CR	2014 est.	
Direct obligations:				
11.1	Personnel compensation: Full-time permanent	2	2	2
12.1	Civilian personnel benefits	1	1	1
25.1	Advisory and assistance services	1	1	1
99.9	Total new obligations	4	4	4

OFFICE OF THE NATIONAL SCIENCE BOARD—Continued
Employment Summary

Identification code 49-0350-0-1-251	2012 actual	2013 CR	2014 est.
1001 Direct civilian full-time equivalent employment	17	18	19

OFFICE OF INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, as amended, \$14,320,000, to remain available until September 30, 2014, of which not to exceed \$400,000, shall remain available until September 30, 2015.

Note.—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Resolution, 2013 (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0300-0-1-251	2012 actual	2013 CR	2014 est.
Obligations by program activity:			
0001 Direct program activity	15	15	14
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	2	1	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	14	14	14
1160 Appropriation, discretionary (total)	14	14	14
1930 Total budgetary resources available	16	15	14
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	1		
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	3	3	4
3010 Obligations incurred, unexpired accounts	15	15	14
3020 Outlays (gross)	-15	-14	-13
3050 Unpaid obligations, end of year	3	4	5
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	3	3	4
3200 Obligated balance, end of year	3	4	5
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	14	14	14
Outlays, gross:			
4010 Outlays from new discretionary authority	12	11	11
4011 Outlays from discretionary balances	3	3	2
4020 Outlays, gross (total)	15	14	13
4180 Budget authority, net (total)	14	14	14
4190 Outlays, net (total)	15	14	13

This appropriation provides agency-wide audit and investigative functions to identify and correct management and administrative deficiencies which create conditions for existing or potential instances of fraud, waste, and mismanagement consistent with the Inspector General Act of 1978, as amended (5 U.S.C. App. 3).

Object Classification (in millions of dollars)

Identification code 49-0300-0-1-251	2012 actual	2013 CR	2014 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	9	9	9
12.1 Civilian personnel benefits	2	2	2
25.2 Other services from non-Federal sources	4	4	3
99.9 Total new obligations	15	15	14

Employment Summary

Identification code 49-0300-0-1-251	2012 actual	2013 CR	2014 est.
1001 Direct civilian full-time equivalent employment	78	78	78

EDUCATION AND HUMAN RESOURCES

For necessary expenses in carrying out science, mathematics and engineering education and human resources programs and activities pursuant to the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-1875), including services as authorized by 5 U.S.C. 3109, authorized travel, and rental of conference rooms in the District of Columbia, \$880,290,000, to remain available until September 30, 2015.

Note.—A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Resolution, 2013 (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 49-0106-0-1-251	2012 actual	2013 CR	2014 est.
Obligations by program activity:			
0001 Undergraduate education	304		
0002 Graduate education	168		
0003 Human resource development	124		
0004 Research on learning in formal and informal settings	235		
0005 Education and Human Resources		835	880
0091 Subtotal Appropriated Activities	831	835	880
Mandatory H-1B Immigrant Petitioner Fees Activities:			
0100 Mandatory H-1B Immigrant Petitioner Activities	831	835	880
0101 Low income scholarship program	73		
0102 ITEST grants for mathematics, science, or engineering enrichment courses	21		
0103 Mandatory H-1B Immigrant Petitioner Activities		199	100
0191 Subtotal Mandatory H-1B Non-Immigrant Petitioner Fee Activities	94	199	100
0200 Total direct obligations	925	1,034	980
0799 Total direct obligations	925	1,034	980
0801 Reimbursable programs	4	19	15
0900 Total new obligations	929	1,053	995
Budgetary Resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	65	104	
1001 Discretionary unobligated balance brought fwd, Oct 1	4	5	
1021 Recoveries of prior year unpaid obligations	6		
1050 Unobligated balance (total)	71	104	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	829	834	880
1120 Appropriations transferred to other accts [49-0106]	-55		
1121 Appropriations transferred from other accts [49-0106]	55		
1160 Appropriation, discretionary (total)	829	834	880
Appropriations, mandatory:			
1201 Appropriation (special or trust fund)	129	100	100
1260 Appropriations, mandatory (total)	129	100	100
Spending authority from offsetting collections, discretionary:			
1700 Collected	3	15	15
1701 Change in uncollected payments, Federal sources	1		
1750 Spending auth from offsetting collections, disc (total)	4	15	15
1900 Budget authority (total)	962	949	995
1930 Total budgetary resources available	1,033	1,053	995
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	104		
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	1,934	1,897	1,856
3010 Obligations incurred, unexpired accounts	929	1,053	995
3011 Obligations incurred, expired accounts	1		
3020 Outlays (gross)	-948	-1,094	-1,012
3040 Recoveries of prior year unpaid obligations, unexpired	-6		

3041	Recoveries of prior year unpaid obligations, expired	-13		
3050	Unpaid obligations, end of year	1,897	1,856	1,839
	Uncollected payments:			
3060	Uncollected pymts, Fed sources, brought forward, Oct 1	-12	-11	-11
3070	Change in uncollected pymts, Fed sources, unexpired	-1		
3071	Change in uncollected pymts, Fed sources, expired	2		
3090	Uncollected pymts, Fed sources, end of year	-11	-11	-11
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	1,922	1,886	1,845
3200	Obligated balance, end of year	1,886	1,845	1,828
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	833	849	895
	Outlays, gross:			
4010	Outlays from new discretionary authority	91	131	139
4011	Outlays from discretionary balances	748	828	752
4020	Outlays, gross (total)	839	959	891
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	-5	-15	-15
	Additional offsets against gross budget authority only:			
4050	Change in uncollected pymts, Fed sources, unexpired	-1		
4052	Offsetting collections credited to expired accounts	2		
4060	Additional offsets against budget authority only (total)	1		
4070	Budget authority, net (discretionary)	829	834	880
4080	Outlays, net (discretionary)	834	944	876
	Mandatory:			
4090	Budget authority, gross	129	100	100
	Outlays, gross:			
4100	Outlays from new mandatory authority		11	11
4101	Outlays from mandatory balances	109	124	110
4110	Outlays, gross (total)	109	135	121
4180	Budget authority, net (total)	958	934	980
4190	Outlays, net (total)	943	1,079	997

The Education and Human Resources (EHR) appropriation funds and manages a comprehensive set of programs that further NSF's goals of ensuring a diverse, globally competitive U.S. science, technology, engineering, and mathematics (STEM) workforce, as well as a scientifically literate population. To advance those goals, EHR collaborates with other NSF research units, federal agencies, and promotes public-private partnerships. EHR supports research on STEM teaching and learning to provide the evidence base for improvements in education at all levels in the STEM disciplines. Supporting development and effective implementation of new learning technologies is also a priority. EHRs pre-K-12 education-research programs, for example, develop and test new instruction materials for students and teachers, which incorporate the latest advances in teaching, learning, and education technologies. STEM teacher-education opportunities occur throughout the full continuum, from pre-service and in-service, through life-long learning. Research programs at the undergraduate level improve curricula, strengthen laboratory courses, enhance faculty effectiveness and lead education reforms in STEM disciplines. Advanced technological education programs strengthen student preparation for the high-technology workforce. Support of graduate-level STEM education primarily includes fellowships and traineeships to sustain U.S. leadership in global science and technology. All EHR programs aim to broaden participation of groups underrepresented in STEM fields by, for example, improving infrastructure and academic programs at minority-serving institutions. STEM-education evaluation activities ensure accountability by developing indicators that measure program impact and informing the education community of best practices and other relevant findings. EHR activities also include programs supported by H-1B non-immigrant visa fees, which provide undergraduate and graduate scholarships in STEM disciplines, improve educational opportunities for students, and provide research opportunities for STEM teachers and students.

Object Classification (in millions of dollars)				
Identification code 49-0106-0-1-251	2012 actual	2013 CR	2014 est.	
Direct obligations:				
21.0	Travel and transportation of persons	4	4	4
25.1	Advisory and assistance services	27	27	27
25.2	Other services from non-Federal sources	2	2	2
25.3	Other goods and services from Federal sources	1	1	1
41.0	Grants, subsidies, and contributions	891	1,000	946
99.0	Direct obligations	925	1,034	980
99.0	Reimbursable obligations	4	19	15
99.9	Total new obligations	929	1,053	995

Trust Funds

DONATIONS

Special and Trust Fund Receipts (in millions of dollars)

Identification code 49-8960-0-7-251	2012 actual	2013 CR	2014 est.	
0100	Balance, start of year			
Receipts:				
0220	Donations, National Science Foundation	47	25	25
0400	Total: Balances and collections	47	25	25
Appropriations:				
0500	Donations	-47	-25	-25
0799	Balance, end of year			

Program and Financing (in millions of dollars)

Identification code 49-8960-0-7-251	2012 actual	2013 CR	2014 est.	
Obligations by program activity:				
0001	Atacama Large Millimeter Array	19	19	10
0002	Gemini Telescope	1	40	15
0003	B&M Gates Foundation	5	7	
0004	US Civilian Research	32		
0005	Direct program activity	1		
0900	Total new obligations	58	66	25
Budgetary Resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	52	41	
Budget authority:				
Appropriations, mandatory:				
1201	Appropriation (special or trust fund)	47	25	25
1260	Appropriations, mandatory (total)	47	25	25
1930	Total budgetary resources available	99	66	25
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	41		
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	46	53	64
3010	Obligations incurred, unexpired accounts	58	66	25
3020	Outlays (gross)	-51	-55	-31
3050	Unpaid obligations, end of year	53	64	58
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	46	53	64
3200	Obligated balance, end of year	53	64	58
Budget authority and outlays, net:				
Mandatory:				
4090	Budget authority, gross	47	25	25
Outlays, gross:				
4100	Outlays from new mandatory authority		15	15
4101	Outlays from mandatory balances	51	40	16
4110	Outlays, gross (total)	51	55	31
4180	Budget authority, net (total)	47	25	25
4190	Outlays, net (total)	51	55	31

This account consists of contributions from foreign governments, organizations, and individuals to fund various cooperative efforts

DONATIONS—Continued

in science, research, and education. These efforts include major international projects, such as operation of the Gemini telescopes, and the NSF ocean drilling program. Other smaller activities supported include cooperative research, joint seminars, exchange of senior scientists, short-term research development visits, international conferences, and support for certain special functions of NSF and the National Science Board. These funds are not otherwise available.

Object Classification (in millions of dollars)

Identification code 49-8960-0-7-251	2012 actual	2013 CR	2014 est.
Direct obligations:			
25.4 Operation and maintenance of facilities	32	32	16
41.0 Grants, subsidies, and contributions	26	34	9
99.9 Total new obligations	58	66	25

ADMINISTRATIVE PROVISION

Not to exceed 5 percent of any appropriation made available for the current fiscal year for the National Science Foundation in this Act may be transferred between such appropriations, but no such appropriation shall be increased by more than 15 percent by any such transfers. Any transfer pursuant to this section shall be treated as a reprogramming of funds under section 504 of this Act and shall not be available for obligation except in compliance with the procedures set forth in that section.

GENERAL FUND RECEIPT ACCOUNTS

(in millions of dollars)

	2012 actual	2013 CR	2014 est.
Offsetting receipts from the public:			
49-32200 All Other General Fund Proprietary Receipts Including Budget			
Clearing Accounts	2	2	2
General Fund Offsetting receipts from the public	2	2	2