

NATIONAL SCIENCE FOUNDATION

Federal Funds

RESEARCH AND RELATED ACTIVITIES

For necessary expenses in carrying out the National Science Foundation Act of 1950 (42 U.S.C. 1861 et seq.), and Public Law 86–209 (42 U.S.C. 1880 et seq.); services as authorized by section 3109 of title 5, United States Code; maintenance and operation of aircraft and purchase of flight services for research support; acquisition of aircraft; and authorized travel; **[\$7,021,136,000] \$9,029,900,000**, to remain available until September 30, **[2024] 2025**, of which not to exceed **[\$640,000,000] \$700,000,000** 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. (*Science Appropriations Act, 2023.*)

RESEARCH AND RELATED ACTIVITIES

[For an additional amount for "Research and Related Activities" for necessary expenses related to damage to research facilities and scientific equipment in calendar year 2022, including related to the consequences of wildfires, \$2,500,000, to remain available until September 30, 2024.]

[For an additional amount for "Research and Related Activities", \$818,162,000, to remain available until September 30, 2024, of which \$210,000,000 shall be to implement the Research and Development, Competition, and Innovation Act (division B of Public Law 117–167).] (*Disaster Relief Supplemental Appropriations Act, 2023.*)

Program and Financing (in millions of dollars)

Identification code 049–0100–0–1–999	2022 actual	2023 est.	2024 est.
Obligations by program activity:			
0001 Biological Sciences	832	859	972
0002 Computer and Information Science and Engineering	1,015	1,053	1,172
0003 Engineering	775	811	970
0005 Geosciences	1,036	1,072	1,238
0006 Mathematical and Physical Sciences	1,615	1,690	1,836
0007 Social, Behavioral and Economic Sciences	286	314	361
0008 Integrative Activities	393	561	658
0009 Office of International Science and Engineering	54	75	71
0010 Office of Polar Programs	544	554	564
0011 Technology, Innovation, and Partnerships	413	923	1,186
0013 Arctic Research Commission	2	2	2
0091 Direct program activities, subtotal	6,965	7,914	9,030
0401 American Rescue Plan Act (ARP)	277		
0799 Total direct obligations	7,242	7,914	9,030
0801 Research and Related Activities (Reimbursable)	93	132	120
0900 Total new obligations, unexpired accounts	7,335	8,046	9,150
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	307	84	
1001 Discretionary unobligated balance brought fwd, Oct 1	36		
1020 Adjustment of unobligated bal brought forward, Oct 1	5		
1021 Recoveries of prior year unpaid obligations	30		
1033 Recoveries of prior year paid obligations	3		
1070 Unobligated balance (total)	345	84	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	7,159	7,842	9,030
1120 Appropriations transferred to other acct [049–0106]	–148		
1120 Appropriations transferred to other acct [049–0180]	–21		
1121 Appropriations transferred from other acct [049–0551]	8		
1160 Appropriation, discretionary (total)	6,998	7,842	9,030
Spending authority from offsetting collections, discretionary:			
1700 Collected	70	120	120
1701 Change in uncollected payments, Federal sources	9		
1750 Spending auth from offsetting collections, disc (total)	79	120	120
1900 Budget authority (total)	7,077	7,962	9,150
1930 Total budgetary resources available	7,422	8,046	9,150
Memorandum (non-add) entries:			
1940 Unobligated balance expiring	–3		
1941 Unexpired unobligated balance, end of year	84		
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	13,577	14,148	15,157
3010 New obligations, unexpired accounts	7,335	8,046	9,150
3011 Obligations ("upward adjustments"), expired accounts	65		
3020 Outlays (gross)	–6,722	–7,037	–8,177
3040 Recoveries of prior year unpaid obligations, unexpired	–30		

3041 Recoveries of prior year unpaid obligations, expired	–77		
3050 Unpaid obligations, end of year	14,148	15,157	16,130
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–114	–109	–109
3070 Change in uncollected pymts, Fed sources, unexpired	–9		
3071 Change in uncollected pymts, Fed sources, expired	14		
3090 Uncollected pymts, Fed sources, end of year	–109	–109	–109
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	13,463	14,039	15,048
3200 Obligated balance, end of year	14,039	15,048	16,021
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	7,077	7,962	9,150
Outlays, gross:			
4010 Outlays from new discretionary authority	817	1,689	1,926
4011 Outlays from discretionary balances	5,830	5,250	6,200
4020 Outlays, gross (total)	6,647	6,939	8,126
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	–85	–120	–120
4033 Non-Federal sources	–65		
4040 Offsets against gross budget authority and outlays (total)	–150	–120	–120
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	–9		
4052 Offsetting collections credited to expired accounts	77		
4053 Recoveries of prior year paid obs, unexpired accounts	3		
4060 Additional offsets against budget authority only (total)	71		
4070 Budget authority, net (discretionary)	6,998	7,842	9,030
4080 Outlays, net (discretionary)	6,497	6,819	8,006
Mandatory:			
Outlays, gross:			
4101 Outlays from mandatory balances	75	98	51
4180 Budget authority, net (total)	6,998	7,842	9,030
4190 Outlays, net (total)	6,572	6,917	8,057

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 supports understanding how complex living systems function and interact with each other and with non-living systems, with research crossing scales from molecules to cells through organisms to ecosystems. This activity's investment portfolio includes projects on understanding the fundamental characteristics of biological energy systems; the changing dynamics of the biosphere; infrastructure and research resources such as databases, research centers, and observatories; and efforts to broaden participation and develop the next generation of biological researchers, all of which have direct impacts on issues related to the economy, food, human welfare, and the environment.

Computer and Information Science and Engineering.—This activity promotes the progress of computing, communication and information science and engineering research and education, and advances the development and use of advanced cyberinfrastructure across the science and engineering research enterprise; promotes understanding of the principles and uses of computing and information technology in society; and contributes to universal, trustworthy, transparent, and affordable participation in a knowledge-based economy.

Engineering.—This activity aims to grow and strengthen U.S. engineering capabilities and create a better tomorrow by driving discovery, inspiring innovation, enriching education and accelerating access.

Geosciences.—This activity is focused on elucidating the many processes that affect the global environment and earth system through research in earth, ocean, atmospheric, and geospace sciences. This activity supports basic research, facilities, and associated infrastructure that enable an understanding of 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. Research support is available in multiple modalities ranging from multi-user facilities and mid-scale instrumentation to individual investigator awards, from sites for undergraduate research experiences to early career faculty development and collaborative and international efforts.

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 (OISE).—This activity serves as the focal point of international activities at NSF. In addition to strategic funding and co-funding that targets catalytic partnerships and workforce-building international research opportunities, OISE advances NSF's global science leadership through extensive interactions with U.S. and global counterpart agencies and organizations.

RESEARCH AND RELATED ACTIVITIES—Continued

Office of Polar Programs.—This activity supports Arctic and Antarctic research and operational science support and other related activities for United States polar research programs, including funding to support Federal agencies' logistical needs in the Arctic and Antarctica, research collaborations, and related activities supported by the United States Antarctic Program.

Integrative Activities.—This activity supports innovative, transdisciplinary team science, advanced research infrastructure, use-inspired research, and emerging national research priorities. Integrative Activities supports jurisdictional and institutional capacity-building programs helping colleges and universities expand their research capacity and improve competitiveness in science and engineering research. Additionally, Integrative Activities funding supports activities that expand NSF's capacity to use evidence for decision making. This activity provides support for a federally funded Research and Development Center, the Science and Technology Policy Institute.

Technology, Innovation, and Partnerships (TIP).—This activity advances critical and emerging technologies addressing societal and economic challenges and opportunities; accelerates the translation of research results from the lab to market and society; and cultivates new education pathways leading to a diverse skilled technical workforce comprising researchers, practitioners, technicians, and entrepreneurs. TIP will accomplish these objectives by catalyzing strategic partnerships that link academia, industry, government, nonprofits, civil society, and communities of practice to cultivate innovation ecosystems throughout the U.S., growing regional economies, creating the jobs of the future, and enhancing the Nation's long-term competitiveness.

The *United States Arctic Research Commission (USARC)* is an independent agency, funded through NSF's appropriations. USARC 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 049–0100–0–1–999	2022 actual	2023 est.	2024 est.
Direct obligations:			
11.8 Personnel compensation: Special personal services payments	48	50	52
21.0 Travel and transportation of persons	4	5	6
25.1 Advisory and assistance services	164	168	170
25.2 Other services from non-Federal sources	15	32	30
25.3 Other goods and services from Federal sources	158	160	170
25.4 Operation and maintenance of facilities	274	300	300
25.5 Research and development contracts	14	15	16
25.7 Operation and maintenance of equipment	18	20	24
31.0 Equipment	3	3	3
41.0 Grants, subsidies, and contributions	6,544	7,161	8,259
99.0 Direct obligations	7,242	7,914	9,030
99.0 Reimbursable obligations	93	132	120
99.9 Total new obligations, unexpired accounts	7,335	8,046	9,150

Employment Summary

Identification code 049–0100–0–1–999	2022 actual	2023 est.	2024 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 (42 U.S.C. 1861 et seq.), including authorized travel, **[\$187,230,000]** \$304,670,000, to remain available until expended. (*Science Appropriations Act, 2023.*)

Program and Financing (in millions of dollars)

Identification code 049–0551–0–1–251	2022 actual	2023 est.	2024 est.
Obligations by program activity:			
0001 Major Research Equipment and Facilities Construction	144	517	305
0401 American Rescue Plan Act (ARP)	47		
0900 Total new obligations, unexpired accounts	191	517	305
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	260	330	
1001 Discretionary unobligated balance brought fwd, Oct 1	209		
1020 Adjustment of unobligated bal brought forward, Oct 1	–5		
1070 Unobligated balance (total)	255	330	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	274	187	305

1120 Appropriations transferred to other acct [049–0100]	–8		
1160 Appropriation, discretionary (total)	266	187	305
1900 Budget authority (total)	266	187	305
1930 Total budgetary resources available	521	517	305
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	330		
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	440	475	612
3010 New obligations, unexpired accounts	191	517	305
3020 Outlays (gross)	–156	–380	–237
3050 Unpaid obligations, end of year	475	612	680
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	440	475	612
3200 Obligated balance, end of year	475	612	680
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	266	187	305
Outlays, gross:			
4010 Outlays from new discretionary authority		11	18
4011 Outlays from discretionary balances	152	342	211
4020 Outlays, gross (total)	152	353	229
Mandatory:			
Outlays, gross:			
4101 Outlays from mandatory balances	4	27	8
4180 Budget authority, net (total)	266	187	305
4190 Outlays, net (total)	156	380	237

This appropriation supports the acquisition, construction, and commissioning of unique national research platforms and major research facilities and equipment.

Object Classification (in millions of dollars)

Identification code 049–0551–0–1–251	2022 actual	2023 est.	2024 est.
Direct obligations:			
25.3 Other goods and services from Federal sources	56	56	56
41.0 Grants, subsidies, and contributions	135	461	249
99.9 Total new obligations, unexpired accounts	191	517	305

CREATING HELPFUL INCENTIVES TO PRODUCE SEMICONDUCTORS (CHIPS) FOR AMERICA
WORKFORCE AND EDUCATION FUND

Program and Financing (in millions of dollars)

Identification code 049–0108–0–1–251	2022 actual	2023 est.	2024 est.
Obligations by program activity:			
0001 CHIPS for America Workforce and Education		25	25
0900 Total new obligations, unexpired accounts (object class 41.0)		25	25
Budgetary resources:			
Budget authority:			
Appropriations, mandatory:			
1200 Appropriation		25	25
1900 Budget authority (total)		25	25
1930 Total budgetary resources available		25	25
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1			20
3010 New obligations, unexpired accounts		25	25
3020 Outlays (gross)		–5	–15
3050 Unpaid obligations, end of year		20	30
Memorandum (non-add) entries:			
3100 Obligated balance, start of year			20
3200 Obligated balance, end of year		20	30
Budget authority and outlays, net:			
Mandatory:			
4090 Budget authority, gross		25	25
Outlays, gross:			
4100 Outlays from new mandatory authority		5	5
4101 Outlays from mandatory balances			10
4110 Outlays, gross (total)		5	15

4180	Budget authority, net (total)	25	25
4190	Outlays, net (total)	5	15

This appropriation enables the United States to provide leadership and promote progress for microelectronics workforce education and development activities.

AGENCY OPERATIONS AND AWARD MANAGEMENT

For agency operations and award management necessary in carrying out the National Science Foundation Act of 1950 (42 U.S.C. 1861 et seq.); services authorized by section 3109 of title 5, United States Code; hire of passenger motor vehicles; uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; rental of conference rooms in the District of Columbia; and reimbursement of the Department of Homeland Security for security guard services; **[\$448,000,000] \$503,870,000: Provided**, That not to exceed \$8,280 is for official reception and representation expenses: *Provided further*, That contracts may be entered into under this heading in fiscal year **[2023] 2024** for maintenance and operation of facilities and for other services to be provided during the next fiscal year. (*Science Appropriations Act, 2023.*)

Program and Financing (in millions of dollars)

Identification code 049–0180–0–1–251	2022 actual	2023 est.	2024 est.
Obligations by program activity:			
0001 Agency Operations and Award Management	420	452	504
0799 Total direct obligations	420	452	504
0801 Agency Operations and Award Management (Reimbursable)	7	10	10
0900 Total new obligations, unexpired accounts	427	462	514
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1		4	
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	400	448	504
1121 Appropriations transferred from other acct [049–0100]	21		
1121 Appropriations transferred from other acct [049–0106]	4		
1160 Appropriation, discretionary (total)	425	448	504
Spending authority from offsetting collections, discretionary:			
1700 Collected	6	10	10
1701 Change in uncollected payments, Federal sources	1		
1750 Spending auth from offsetting collections, disc (total)	7	10	10
1900 Budget authority (total)	432	458	514
1930 Total budgetary resources available	432	462	514
Memorandum (non-add) entries:			
1940 Unobligated balance expiring	–1		
1941 Unexpired unobligated balance, end of year	4		

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	96	111	89
3010 New obligations, unexpired accounts	427	462	514
3020 Outlays (gross)	–410	–484	–503
3041 Recoveries of prior year unpaid obligations, expired	–2		
3050 Unpaid obligations, end of year	111	89	100
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–1	–1	–1
3070 Change in uncollected pymts, Fed sources, unexpired	–1		
3071 Change in uncollected pymts, Fed sources, expired	1		
3090 Uncollected pymts, Fed sources, end of year	–1	–1	–1
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	95	110	88
3200 Obligated balance, end of year	110	88	99

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	432	458	514
Outlays, gross:			
4010 Outlays from new discretionary authority	326	377	423
4011 Outlays from discretionary balances	81	107	80
4020 Outlays, gross (total)	407	484	503
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	–7	–10	–10
4040 Offsets against gross budget authority and outlays (total)	–7	–10	–10
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	–1		

4052	Offsetting collections credited to expired accounts	1		
4070	Budget authority, net (discretionary)	425	448	504
4080	Outlays, net (discretionary)	400	474	493
Mandatory:				
Outlays, gross:				
4101	Outlays from mandatory balances	3		
4180	Budget authority, net (total)	425	448	504
4190	Outlays, net (total)	403	474	493

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 049–0180–0–1–251	2022 actual	2023 est.	2024 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	190	225	240
11.3 Other than full-time permanent	14	14	14
11.5 Other personnel compensation	7	7	7
11.9 Total personnel compensation	211	246	261
12.1 Civilian personnel benefits	72	84	90
21.0 Travel and transportation of persons	2	6	6
22.0 Transportation of things	1	1	2
23.1 Rental payments	33	10	33
23.2 Rental payments to others	1	1	1
23.3 Communications, utilities, and miscellaneous charges		1	
25.1 Advisory and assistance services	54	55	56
25.2 Other services from non-Federal sources	34	35	37
25.3 Other goods and services from Federal sources	9	9	14
31.0 Equipment	3	4	4
99.0 Direct obligations	420	452	504
99.0 Reimbursable obligations	7	10	10
99.9 Total new obligations, unexpired accounts	427	462	514

Employment Summary

Identification code 049–0180–0–1–251	2022 actual	2023 est.	2024 est.
1001 Direct civilian full-time equivalent employment	1,424	1,540	1,540

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 (42 U.S.C. 1863) and Public Law 86–209 (42 U.S.C. 1880 et seq.), **[\$5,090,000] \$5,250,000: Provided**, That not to exceed \$2,500 shall be available for official reception and representation expenses. (*Science Appropriations Act, 2023.*)

Program and Financing (in millions of dollars)

Identification code 049–0350–0–1–251	2022 actual	2023 est.	2024 est.
Obligations by program activity:			
0001 Office of the National Science Board	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:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	1	1	1
3010 New obligations, unexpired accounts	5	5	5
3020 Outlays (gross)	–5	–5	–5
3050 Unpaid obligations, end of year	1	1	1
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	1	1	1
3200 Obligated balance, end of year	1	1	1

OFFICE OF THE NATIONAL SCIENCE BOARD—Continued
Program and Financing—Continued

Identification code 049–0350–0–1–251	2022 actual	2023 est.	2024 est.
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	5	5	5
Outlays, gross:			
4010 Outlays from new discretionary authority	4	4	4
4011 Outlays from discretionary balances	1	1	1
4020 Outlays, gross (total)	5	5	5
4180 Budget authority, net (total)	5	5	5
4190 Outlays, net (total)	5	5	5

This appropriation supports the National Science Board, which 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 049–0350–0–1–251	2022 actual	2023 est.	2024 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
25.3 Other goods and services from Federal sources	1	1	1
99.9 Total new obligations, unexpired accounts	5	5	5

Employment Summary

Identification code 049–0350–0–1–251	2022 actual	2023 est.	2024 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, [S23,393,000] \$26,810,000, of which \$400,000 shall remain available until September 30, [2024] 2025. (Science Appropriations Act, 2023.)

Program and Financing (in millions of dollars)

Identification code 049–0300–0–1–251	2022 actual	2023 est.	2024 est.
Obligations by program activity:			
0001 Office of Inspector General	19	23	27
Budgetary resources:			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	19	23	27
1900 Budget authority (total)	19	23	27
1930 Total budgetary resources available	19	23	27
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	3	3	4
3010 New obligations, unexpired accounts	19	23	27
3020 Outlays (gross)	–19	–22	–26
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	19	23	27
Outlays, gross:			
4010 Outlays from new discretionary authority	17	19	22
4011 Outlays from discretionary balances	2	3	4
4020 Outlays, gross (total)	19	22	26
4180 Budget authority, net (total)	19	23	27
4190 Outlays, net (total)	19	22	26

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.

Object Classification (in millions of dollars)

Identification code 049–0300–0–1–251	2022 actual	2023 est.	2024 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	11	14	16
12.1 Civilian personnel benefits	5	6	7
25.1 Advisory and assistance services .....	.....	.....	1
25.2 Other services from non-Federal sources	1	1	1
25.3 Other goods and services from Federal sources	2	2	2
99.9 Total new obligations, unexpired accounts	19	23	27

Employment Summary

Identification code 049–0300–0–1–251	2022 actual	2023 est.	2024 est.
1001 Direct civilian full-time equivalent employment	72	93	100

STEM EDUCATION

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 (42 U.S.C. 1861 et seq.), including services as authorized by section 3109 of title 5, United States Code, authorized travel, and rental of conference rooms in the District of Columbia, [S1,154,000,000] \$1,444,180,000, to remain available until September 30, [2024] 2025. (Science Appropriations Act, 2023.)

STEM EDUCATION

[For an additional amount for "STEM Education", \$217,000,000, to remain available until September 30, 2024, of which \$125,000,000 shall be to implement the Research and Development, Competition, and Innovation Act (division B of Public Law 117–167).] (Disaster Relief Supplemental Appropriations Act, 2023.)

Program and Financing (in millions of dollars)

Identification code 049–0106–0–1–251	2022 actual	2023 est.	2024 est.
Obligations by program activity:			
0001 STEM Education (formerly Education and Human Resources)	1,147	1,382	1,444
0100 Total Disc obligations	1,147	1,382	1,444
0302 S-STEM Scholarships for STEM	244	183	149
0303 ITTEST grants for Mathematics, Science, or Engineering enrichment courses	35	61	50
0391 Total Mandatory Obligations (H-1B)	279	244	199
0401 American Rescue Plan Act (ARP)	37	.....	.....
0799 Total direct obligations	1,463	1,626	1,643
0801 Education and Human Resources (Reimbursable)	5	10	10
0900 Total new obligations, unexpired accounts	1,468	1,636	1,653
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	180	62	.....
1001 Discretionary unobligated balance brought fwd, Oct 1	6	.....	.....
1021 Recoveries of prior year unpaid obligations	8	.....	.....
1070 Unobligated balance (total)	188	62	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	1,006	1,371	1,444
1120 Appropriations transferred to other acct [049–0180]	–4	.....	.....
1121 Appropriations transferred from other acct [049–0100]	148	.....	.....
1160 Appropriation, discretionary (total)	1,150	1,371	1,444
Appropriations, mandatory:			
1201 Appropriation (special or trust fund)	190	193	199
1203 Appropriation (previously unavailable)(special or trust)	9	11	11
1232 Appropriation temporarily reduced	–11	–11	–11
1260 Appropriations, mandatory (total)	188	193	199
Spending authority from offsetting collections, discretionary:			
1700 Collected	2	10	10
1701 Change in uncollected payments, Federal sources	3	.....	.....
1750 Spending auth from offsetting collections, disc (total)	5	10	10
1900 Budget authority (total)	1,343	1,574	1,653
1930 Total budgetary resources available	1,531	1,636	1,653

Memorandum (non-add) entries:			
1940	Unobligated balance expiring	-1	
1941	Unexpired unobligated balance, end of year	62	

Change in obligated balance:			
Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	2,871	3,303 3,416
3010	New obligations, unexpired accounts	1,468	1,636 1,653
3011	Obligations ("upward adjustments"), expired accounts	7	
3020	Outlays (gross)	-1,013	-1,523 -1,778
3040	Recoveries of prior year unpaid obligations, unexpired	-8	
3041	Recoveries of prior year unpaid obligations, expired	-22	
3050	Unpaid obligations, end of year	3,303	3,416 3,291
Uncollected payments:			
3060	Uncollected pymts, Fed sources, brought forward, Oct 1	-9	-9 -9
3070	Change in uncollected pymts, Fed sources, unexpired	-3	
3071	Change in uncollected pymts, Fed sources, expired	3	
3090	Uncollected pymts, Fed sources, end of year	-9	-9 -9
Memorandum (non-add) entries:			
3100	Obligated balance, start of year	2,862	3,294 3,407
3200	Obligated balance, end of year	3,294	3,407 3,282

Budget authority and outlays, net:			
Discretionary:			
4000	Budget authority, gross	1,155	1,381 1,454
Outlays, gross:			
4010	Outlays from new discretionary authority	28	203 212
4011	Outlays from discretionary balances	852	1,073 1,292
4020	Outlays, gross (total)	880	1,276 1,504
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030	Federal sources	-5	-10 -10
4033	Non-Federal sources	-7	
4040	Offsets against gross budget authority and outlays (total)	-12	-10 -10
Additional offsets against gross budget authority only:			
4050	Change in uncollected pymts, Fed sources, unexpired	-3	
4052	Offsetting collections credited to expired accounts	10	
4060	Additional offsets against budget authority only (total)	7	
4070	Budget authority, net (discretionary)	1,150	1,371 1,444
4080	Outlays, net (discretionary)	868	1,266 1,494
Mandatory:			
4090	Budget authority, gross	188	193 199
Outlays, gross:			
4100	Outlays from new mandatory authority	1	11 12
4101	Outlays from mandatory balances	132	236 262
4110	Outlays, gross (total)	133	247 274
4180	Budget authority, net (total)	1,338	1,564 1,643
4190	Outlays, net (total)	1,001	1,513 1,768

The STEM Education (EDU) 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, EDU collaborates with other NSF research units and Federal agencies, and promotes public-private partnerships. EDU 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. EDU 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 EDU programs aim to broaden participation of groups underrepresented in STEM fields by, for example, improving infrastructure and academic programs at minority-serving institutions. EDU 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 049-0106-0-1-251			
		2022 actual	2023 est. 2024 est.
Direct obligations:			
11.8	Personnel compensation: Special personal service pymts	7	7 7
21.0	Travel and transportation of persons	1	1 1
25.1	Advisory and assistance services	32	31 31
25.2	Other services from non-Federal sources	1	4 4
25.3	Other goods and services from Federal sources	2	2 2

25.5	Research and development contracts	2	1 1
41.0	Grants, subsidies, and contributions	1,418	1,580 1,597
99.0	Direct obligations	1,463	1,626 1,643
99.0	Reimbursable obligations	5	10 10
99.9	Total new obligations, unexpired accounts	1,468	1,636 1,653

Trust Funds

DONATIONS

Special and Trust Fund Receipts (in millions of dollars)

Identification code 049-8960-0-7-251			
		2022 actual	2023 est. 2024 est.
0100	Balance, start of year		
Receipts:			
Current law:			
1130	Offsetting receipts (proprietary)	20	40 40
2000	Total: Balances and receipts	20	40 40
Appropriations:			
Current law:			
2101	Appropriations	-20	-40 -40
5099	Balance, end of year		

Program and Financing (in millions of dollars)

Identification code 049-8960-0-7-251			
		2022 actual	2023 est. 2024 est.
Obligations by program activity:			
0005	General Trust Fund	7	40 40
0900	Total new obligations, unexpired accounts (object class 41.0)	7	40 40

Budgetary resources:			
Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1	38	24 24
1020	Adjustment of unobligated bal brought forward, Oct 1	-27	
1070	Unobligated balance (total)	11	24 24
Budget authority:			
Appropriations, mandatory:			
1201	Appropriation (special or trust fund)	20	40 40
1930	Total budgetary resources available	31	64 64
Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	24	24 24

Change in obligated balance:			
Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	35	17 16
3001	Adjustments to unpaid obligations brought forward Oct 1	-22	
3010	New obligations, unexpired accounts	7	40 40
3020	Outlays (gross)	-3	-41 -36
3050	Unpaid obligations, end of year	17	16 20
Memorandum (non-add) entries:			
3100	Obligated balance, start of year	13	17 16
3200	Obligated balance, end of year	17	16 20

Budget authority and outlays, net:			
Mandatory:			
4090	Budget authority, gross	20	40 40
Outlays, gross:			
4100	Outlays from new mandatory authority		24 24
4101	Outlays from mandatory balances	3	17 12
4110	Outlays, gross (total)	3	41 36
4180	Budget authority, net (total)	20	40 40
4190	Outlays, net (total)	3	41 36

This account consists of contributions from organizations and individuals to fund various efforts in science, research, and education supported by NSF.

ADMINISTRATIVE PROVISIONS

(INCLUDING TRANSFERS OF FUNDS)

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 10 percent by any such transfers. Any

transfer pursuant to this paragraph 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.

The Director of the National Science Foundation (NSF) shall notify the Committees on Appropriations of the House of Representatives and the Senate at least 30 days in advance of any planned divestment through transfer, decommissioning, termination, or deconstruction of any NSF-owned facilities or any NSF capital assets (including land, structures, and equipment) valued greater than \$2,500,000.

There is hereby established in the Treasury of the United States a fund to be known as the "National Science Foundation Nonrecurring Expenses Fund" (the Fund). Unobligated balances of expired discretionary funds appropriated for this or any succeeding fiscal year from the General Fund of the Treasury to the National Science Foundation by this or any other Act may be transferred (not later than the end of the fifth fiscal year after the last fiscal year for which such funds are available for the purposes for which appropriated) into the Fund. Amounts deposited in the Fund shall be available until expended, and in addition to such other funds as may be available for such purposes, for information and business technology system modernization and facilities infrastructure improvements, including nonrecurring maintenance, necessary for

the operation of the Foundation or its funded research facilities, subject to approval by the Office of Management and Budget. Amounts in the Fund may be obligated only after the Committees on Appropriations of the House of Representatives and the Senate are notified at least 15 days in advance of the planned use of funds. **1** (*Science Appropriations Act, 2023.*)

GENERAL FUND RECEIPT ACCOUNTS

(in millions of dollars)			
	2022 actual	2023 est.	2024 est.
Offsetting receipts from the public:			
049-320000 Collections of Receivables from Canceled Accounts	2	1	1
049-322000 All Other General Fund Proprietary Receipts Including			
Budget Clearing Accounts	4	5	5
General Fund Offsetting receipts from the public	6	6	6