

**NATIONAL SCIENCE FOUNDATION CURRENT AUTHORIZATIONS**

(Dollars in Millions)

LEGISLATION	FY 2020	FY 2021	FY 2022	Authorization Levels		
	Actual	Estimate	Request	FY 2020	FY 2021	FY 2022
<b>National Science Foundation Act of 1950, P.L. 81-507<sup>1</sup></b>						
<i>Scholarships and Graduate Fellowships</i>				<i>within limits of funds made available for this purpose</i>		
<i>General Authority</i>				<i>within the limits of available appropriations</i>		
<i>Administering Provisions</i>				<i>to make such expenditures as may be necessary</i>		
<i>International Cooperation and Coordination with Foreign Policy</i>				<i>within the limit of appropriated funds</i>		
<i>Contract Arrangements</i>				<i>utilize appropriations available</i>		
<b>American Innovation and Competitiveness Act, P.L. 114-329</b>				<i>(Does not authorize appropriations)</i>		
<i>The American Innovation and Competitiveness Act authorizes NSF's research and education programs. The law also promotes NSF's commitment to diversity in STEM fields, and incentivizes NSF programs which encourage private-sector involvement, while re-affirming NSF's continued commitment to entrepreneurship and commercialization.</i>						
<b>SBIR and STTR reauthorized through 2022 at current levels under the National Defense Authorization Act of Fiscal Year 2017, P.L. 114-328</b>						
<i>Small Business Innovation Research (SBIR) Program<sup>2</sup></i>	\$196.04	\$199.06	\$236.39	<i>3.2% of research funds in 2020, 2021, and 2022</i>		
<i>Small Business Technology Transfer (STTR) Program<sup>2</sup></i>	\$31.10	\$28.00	\$33.25	<i>0.45% of research funds in 2020, 2021, and 2022</i>		
<b>The Research Excellence and Advancements for Dyslexia Act (READ Act), P.L. 114-124<sup>3</sup></b>	\$14.56	*		\$5.00	\$5.00	NA
<i>The National Science Foundation shall support multi-directorate, merit-reviewed, and competitively awarded research on the science of specific learning disability, including dyslexia, such as research on the early identification of children and students with dyslexia, professional development for teachers and administrators of students with dyslexia, curricula and educational tools needed for children with dyslexia, and implementation and scaling of successful models of dyslexia intervention.<sup>4</sup> For each of fiscal years 2016 through 2021, there are authorized out of funds appropriated to the National Science Foundation, \$5,000,000.</i>						
<b>Promoting Women in Entrepreneurship Act, P.L. 115-6</b>				<i>(Does not authorize appropriations)</i>		
<i>Amends the Science and Engineering Equal Opportunities Act to authorize the National Science Foundation to encourage its entrepreneurial programs to recruit and support women to extend their focus beyond the laboratory and into the commercial world.</i>						

NSF Authorizations

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<b>Women in Aerospace Education Act, P.L. 115-303</b>						
<i>(Does not authorize appropriations)</i>						
<i>Amends the National Science Foundation Authorization Act of 2002 to permit certain grants awarded by the National Science Foundation (NSF) to be used to provide internships that include research experiences at national laboratories and National Aeronautics and Space Administration (NASA) centers. NSF Master Teaching Fellows and undergraduate freshman and sophomore students studying to become mathematics and science teachers under the Robert Noyce Teacher Scholarship Program are eligible for the internships.</i>						
<b>National Earthquake Hazards Reduction Program Reauthorization Act of 2018, P.L. 115-307</b>	<b>\$53.35</b>	<b>\$54.00</b>	<b>\$54.00</b>	\$54.00	\$54.00	\$54.00
<i>Amends the Earthquake Hazards Reduction Act of 1977 to expand activities under the National Earthquake Hazards Reduction Program to include: (1) gathering information on community resilience (i.e., the ability of a community to prepare for, recover from, and adapt to earthquakes); (2) publishing a systematic set of maps of active faults and folds, liquefaction susceptibility, susceptibility for earthquake-induced landslides, and other seismically induced hazards; and (3) continuing the development of the Advanced National Seismic System, including earthquake early warning capabilities.</i>						
<i>With respect to earthquake hazard reduction activities, the bill revises or expands the duties of: (1) the Interagency Coordinating Committee on Earthquake Hazards Reduction, (2) the National Institute of Standards and Technology (NIST), (3) the Federal Emergency Management Agency (FEMA), (4) the U.S. Geological Survey (USGS), and (5) the National Science Foundation.<sup>5</sup></i>						
<b>National Quantum Initiative Act, P.L. 115-368</b>						
<i>(Does not authorize appropriations)</i>						
<i>Authorizes the National Science Foundation to carry out a basic research and education program on quantum information science and engineering, and award grants for the establishment of at least 2 but not more than 5 Multidisciplinary Centers for Quantum Research and Education up to \$10 million each for each of fiscal years 2019 through 2023.</i>						

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				FY 2020	FY 2021	FY 2022
<b>H.R. 3196 - Vera Rubin Survey Telescope Designation Act, P.L. 116-97</b>				<i>(Does not authorize appropriations)</i>		
<i>Renames the Large Synoptic Survey Telescope as the Vera C. Rubin Observatory.</i>						
<b>S. 737 - Building Blocks of STEM Act, P.L. 116-102</b>				<i>(Does not authorize appropriations)</i>		
<i>A bill to direct the National Science Foundation to support STEM education research focused on early childhood. This includes an increase the participation of underrepresented populations in STEM fields may be used for research into various subjects regarding female students in prekindergarten through elementary school, including the role of teachers and caregivers. Also, offer female-inclusive computer science enrichment programs, and acquainting female students in prekindergarten through elementary school with careers in computer science.</i>						
<b>S. 153 - Supporting Veterans in STEM Careers Act, P.L. 116-115</b>				<i>(Does not authorize appropriations)</i>		
<i>Requires NSF to develop a veteran outreach plan and tracking of veteran participation, include data on veterans in annual STEM indicators report, and updates Noyce Teacher Scholarship program, NSF fellowship programs, and cyber grant programs to all include outreach to veterans.</i>						
<b>S. 881 - Promoting Research and Observations of Space Weather to Improve the Forecasting of Tomorrow (PROSWIFT) Act, P.L. 116-181</b>				<i>(Does not authorize appropriations)</i>		
<i>Establishes an interagency working group on space weather where NSF is a member. The Director of the National Science Foundation shall maintain and improve ground-based observations of the Sun, and continue to provide space weather data.</i>						
<b>S. 2904 - IOGAN Act P.L. 116-258</b>				<i>(Does not authorize appropriations)</i>		
<i>Directs NSF and the NIST to support research on generative adversarial networks. A generative adversarial network is a software system designed to be trained with authentic inputs (e.g., photographs) to generate similar, but artificial, outputs (e.g., deepfakes). NSF must support research on manipulated or synthesized content and information authenticity.</i>						

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<b>S. 461 - HBCU PARTNERS Act, P.L. 116-270</b>				<i>(Does not authorize appropriations)</i>		
<i>To strengthen the capacity and competitiveness of historically Black colleges and universities through robust public-sector, private-sector, and community partnerships and engagement, and for other purposes. Calls on NSF to submit to the Secretary of Education, the Executive Director of the White House Initiative on Historically Black Colleges and Universities, the Committee on Health, Education, Labor, and Pensions of the Senate, the Committee on Education and Labor of the House of Representatives, and the President's Board of Advisors an annual Agency Plan describing efforts to strengthen the capacity of HBCUs to participate or be eligible to participate in the programs and initiatives under the jurisdiction of NSF.</i>						
<b>S. 914 - Coordinated Ocean Observations and Research Act of 2019, P.L. 116-271</b>				<i>(Does not authorize appropriations)</i>		
<i>A bill<sup>6</sup> that clarifies the authority of the Administrator of the National Oceanic and Atmospheric Administration with respect to post-storm assessments, and to require the establishment of a National Water Center, and for other purposes. Amends Section 12407(a) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3706(a)) stating that the Director of NSF shall continue to carry out research activities on ocean acidification.</i>						
<b>National Defense Authorization Act for Fiscal Year 2021, P.L. 116-283</b>				<i>(Does not authorize appropriations)</i>		
<i>Sec. 5105 Directs NSF to enter into a contract with the National Research Council of the National Academies to conduct a study of the current and future impact of Artificial Intelligence (AI) on the workforce of the U.S. across sectors.</i>						
<i>Sec. 5106 Establishes a task force, in coordination with the OSTP, to investigate the feasibility and advisability of establishing and sustaining a National AI Research Resource and to propose a roadmap detailing how such resource should be established and sustained.</i>						
<i>Sec. 5201 Authorizes NSF to award AI Institutes and establishes an AI Leadership Network.</i>						

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<b>National Defense Authorization Act for Fiscal Year 2021, P.L. 116-283 continued</b>						
<i>Sec. 5401(a-e) Authorizes NSF to carry out research and education on AI; requires a report on potential options for requiring an ethics statement in all or a subset of NSF applications for research funding; establishes Faculty Recruitment Fellowships to retain tenure-track or tenured faculty in AI and related fields; establishes Faculty Technology Ethics Fellowships to enable researchers in social and behavioral sciences, ethics, law, and related fields to establish new research and education partnerships with researchers in AI and related fields; updates the Noyce teacher scholarship program to include "artificial intelligence"; and updates the ATE program to establish national centers of scientific and technical education to advance education and workforce development in areas related to AI.</i>						(Does not authorize appropriations)
<i>Sec 5401(f) Establishes the National Science Foundation Pilot Program of Grants for Research in Rapidly Evolving, High Priority Topics to assess the feasibility and advisability of awarding grants for the conduct of research in rapidly evolving, high priority topics using funding mechanisms that require brief project descriptions and internal merit review, and that may include accelerated external review.</i> <sup>3,7</sup>		*	*	NA	\$868.00	\$911.40
<i>Sec 9405 Updates the American Innovation and Competitiveness Act, the Scientific and Advanced-Technology Act of 1992, and the American Competitiveness and Workforce Improvement Act of 1998 to include "Cybersecurity" and ensures that educators and mentors in fields related to cybersecurity are considered for Presidential Awards for Excellence in Mathematics and Science Teaching and Presidential Awards for Excellence in STEM Mentoring.</i>						(Does not authorize appropriations)
<b>H.R. 8810 - National Landslide Preparedness Act, P.L. 116-323</b>		*	*	NA	\$11.00	\$11.00
<i>Provide grants, on a competitive basis, to State, territorial, local, and Tribal governments to research, map, assess, and collect data on landslide hazards within the jurisdictions of those governments. For each of fiscal years 2021 through 2024 there is authorized to be appropriated to the National Science Foundation, \$11,000,000 to carry out this section.</i> <sup>3</sup>						
<b>H.R. 3153 - EFFORT Act P.L. 116-335</b>						(Does not authorize appropriations)
<i>This bill directs the National Science Foundation to support merit-reviewed and competitively awarded research on the science of opioid addiction.</i>						

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<b>H.R. 4704 - Advancing Research to Prevent Suicide Act, P.L. 116-339</b>				<i>(Does not authorize appropriations)</i>		
<i>Directs NSF to award competitive, merit-reviewed grants to institutions of higher education (or their consortia) to support multidisciplinary, fundamental research with potential relevance to suicide, including potential relevance to prevention and treatment.</i>						
<i>In awarding such grants, the NSF shall encourage applications submitted by early career researchers, including doctoral students and postdoctoral researchers, to promote the researchers' development.</i>						

<sup>1</sup> Organic legislation establishing NSF.

<sup>2</sup> SBIR and STTR are reauthorized through September 30, 2022.

<sup>3</sup> Actual amounts will be reported after awards are completed.

<sup>4</sup> The \$5.0 million shall include not less than \$2.50 million for research on the science of dyslexia, for each of fiscal years 2017 through 2021. FY 2020 Actuals funding includes \$3.40 million for dyslexia research.

<sup>5</sup> Authorizes \$54.0 million for the National Earthquake Hazards Reduction Program at NSF for each of fiscal years FY 2019 through FY 2023.

<sup>6</sup> Reauthorizes the Integrated Coastal and Ocean Observation System Act of 2009 through 2025.

<sup>7</sup> Authorizes appropriation of funds for the Pilot Program of Grants for Research in Rapidly Evolving, High Priority Topics. Outyear funding is \$956,970,000 for fiscal year 2023; \$1,004,820,000 for fiscal year 2024; and \$1,055,060,000 for fiscal year 2025.