NSF FY 2026 Budget Request to Congress

The National Science Foundation Act of 1950 (Public Law 81-507) sets forth our mission: ***"To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense…"***

The National Science Foundation's FY 2026 Budget Request of $3.903 billion reflects a strategic alignment of resources in a constrained fiscal environment. NSF is prioritizing investments that complement private-sector R&D and offer strong potential to drive economic growth and strengthen U.S. technological leadership. This approach ensures public funding is directed toward areas where it can have the greatest national impact.

NSF support is vital to the U.S. research and development enterprise, to training the STEM workforce, and to cultivating access to scientific learning and resources. These investments will continue to spur the economic growth that keeps our Nation moving forward and support U.S. manufacturing competitiveness.

The allocation of funds reflects Administration policy to invest in programs that serve all Americans equally.

For over 75 years, NSF has advanced the frontiers of the full spectrum of science and engineering research and innovation. Tasked with keeping the U.S. at the leading edge of scientific and engineering discovery to the benefit of all, NSF funds research that generates new knowledge that provides a greater understanding of the world around us. NSF's long-term support for solutions-oriented research has fueled industries of the future, produced advancements for the American people, and created world-leading technologies.

NSF investments fuel groundbreaking discoveries, accelerate translational solutions, and expand participation in STEM fields. These efforts support a strong domestic workforce, bolster national security, and enhance U.S. global competitiveness in science and engineering. A new frontier of scientific discovery lies before us, defined by transformative technologies such as artificial intelligence, quantum computing, and advanced biotechnology. Breakthroughs in these fields have the potential to reshape the global balance of power, spark entirely new industries, and revolutionize the way we live and work. To secure our future, we must harness the full power of American innovation by empowering entrepreneurs, unleashing private-sector creativity, and reinvigorating our research institutions.

CRITICAL ACTIVITIES PRIORITIZED IN THE BUDGET

Artificial Intelligence (AI), including machine learning, autonomy, and related advances, ($655.23 million) investments will bring together numerous fields of scientific inquiry—including computer and information science; cognitive science and psychology; economics and game theory; education research; engineering and control theory; ethics; linguistics; mathematics; and philosophy—to advance the frontiers of trustworthy AI, including advancing perception, learning, reasoning, recommendation, and action in the context of specific fields and economic sectors. NSF investments are needed to develop new foundational AI theory and implementation techniques, as well as novel AI methods that are inspired by use cases in specific application domains and contexts.

Quantum Information Science (QIS), including quantum computing and simulation, ($231.15 million) will advance fundamental understanding of uniquely quantum phenomena that can be harnessed for information processing, transmission, and measurement in ways that classical approaches do less efficiently, or not at all. Current and future applications of QIS differ from prior applications of quantum mechanics by using distinct properties that do not have classical counterparts. The development of new applications for QIS will lay the groundwork for one of the major technological revolutions of the 21st century.

Directorate for Technology, Innovation, and Partnerships (TIP) ($350.0 million), including the Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) programs, is a strategic organizational tool for maintaining and expanding America's leadership role in science and technology. By accelerating commercialization, expanding the Nation's innovation base, and attracting and training American workers to power key technologies, TIP is a national security asset driving impact in key technology areas and national, societal, and geostrategic challenges.

CONTINUED INVESTMENTS IN KEY AREAS

Biotechnology, including genomics and synthetic biology, ($248.59 million) investments will support fundamental and translational research, infrastructure, and education to understand and harness biological processes for societal benefit.

Advanced Manufacturing, including robotics and sensing technologies, ($110.10 million) investments will accelerate breakthroughs in manufacturing materials, technologies, and systems through fundamental and translational, multidisciplinary research that transforms manufacturing capabilities, methods, and practices.

Microelectronics and Semiconductors, including advanced computer hardware, ($65.75 million) investments will address the microelectronics and semiconductor challenges facing our Nation due to technological and global trends, such as the end of Moore's Law and offshoring of semiconductor fabrication and manufacturing.

Advanced Wireless, including communications technology and immersive technology, ($59.46 million) investments will bridge knowledge gaps and advance innovations in areas critical to future generations of communications technologies and networks, such as novel wireless devices, circuits, protocols, and systems; mobile edge computing; distributed machine learning and inference on

mobile devices; human-machine-network interactions; ultra-low-latency connections; and dynamic spectrum allocation and sharing, all while ensuring security for all users.

Established Program to Stimulate Competitive Research (EPSCoR) Office ($107.70 million) provides strategic programs and opportunities that stimulate sustainable improvements to EPSCoR jurisdictions' R&D capacity and capability. EPSCoR aims to stimulate research that enhances jurisdictional competitiveness in NSF disciplinary and multidisciplinary research programs, especially those that drive economic growth and geographic diversity.

EPSCoR uses three investment strategies in pursuit of its goal to strengthen research capacity and competitiveness in eligible jurisdictions. These are:

- Research Infrastructure Improvement (RII) awards that support physical, human, and cyberinfrastructure development
- Co-Funding in partnership with NSF directorates and offices that support individual investigators and groups within EPSCoR jurisdictions
- Outreach activities and workshops that bring EPSCoR jurisdiction investigators together with program staff from across the Foundation to explore opportunities in emerging areas of science and engineering aligned with NSF strategic priorities and with jurisdictional science and technology goals

The **CybersCorps®: Scholarships for Service (SFS)** ($21.71 million) program recruits and trains the next generation of cybersecurity professionals in order to develop a superior cybersecurity workforce for the Nation. Key goals for NSF are to increase the number of qualified cybersecurity candidates for cybersecurity positions and improve the national capacity for the education of cybersecurity professionals and research and development workforce.

Historically Black Colleges and Universities-Undergraduate Program (HBCU-UP) and **-Excellence in Research Program (HBCU-EiR)** ($56.50 million in total). These programs enhance the quality of undergraduate STEM education and research and support projects that enable STEM and STEM education faculty to develop research capacity and conduct research at HBCUs.

The **Tribal Colleges and Universities Program (TCUP)** ($7.11 million) provides awards to Tribal Colleges and Universities, Alaska Native-serving institutions, and Native Hawaiian-serving institutions to promote high quality STEM education, research, and outreach.

INVESTMENTS IN RESEARCH INFRASTRUCTURE (RI)

From individual instruments to major research facilities, RI is foundational to the scientific endeavor and necessary for enabling ground-breaking discoveries and global leadership. RI is equally important in use-inspired research and technology development that meet national, societal, and geostrategic needs and challenges. Cutting-edge RI is also integral to attracting, developing, and training the next generation of STEM talent and inspiring those who will lead the next generation of advances in infrastructure. The skills required to design, operate, and maintain RI are critical for the long-term future and success of the Nation's science and technology enterprise. Key components of RI are:

Major Facilities Operations and Maintenance (O&M) ($745.0 million) reflects a balance among multiple priorities. NSF carefully allocates resources between research grants and O&M costs for research infrastructure that supports the scientific discovery for which those grants are made. In addition to regular O&M needs to keep a facility functional, support for upgrades, significant periodic maintenance, and infrastructure renewal must also be addressed within Facilities O&M. NSF continues to explore ways to invest in research infrastructure, at all scales, to keep pace with changing technologies, increased demand by users, and expanding research opportunities.

Mid-scale Research Infrastructure (Mid-scale RI) ($43.06 million total, comprising $25.0 million in the agency-wide Track 2 program plus $18.06 million in directorate-level programs), supports research infrastructure with a total project cost falling between the upper limit for the Major Research Instrumentation program at $4.0 million and the Major Facility construction threshold at $100.0 million. This dedicated funding line implements an agency-wide mechanism that includes upgrades to major facilities as well as stand-alone projects.

The **Major Research Instrumentation (MRI)** ($20.0 million) program catalyzes new knowledge by helping STEM professionals acquire or develop the instrumentation needed for innovative research. MRI grants of up to $4.0 million are provided across all NSF-supported research disciplines.

Major Research Equipment and Facilities Construction (MREFC) ($251.0 million). Construction projects that require an investment of more than $100.0 million are supported through NSF's MREFC Account. In FY 2026, funding continues construction of the Leadership-Class Computing Facility and the Antarctic Infrastructure Recapitalization project, as well as the Mid-scale Research Infrastructure - Track-2 program.

MREFC Account Funding, by Project

(Dollars in Millions)

	FY 2026 Request
Leadership-Class Computing Facility (LCCF)	$201.00
Antarctic Infrastructure Recapitalization (AIR)	24.00
Mid-scale Research Infrastructure, Track 2	25.00
Dedicated Construction Oversight	1.00
Total	**$251.00**

- The **Leadership-Class Computing Facility** ($201.0 million) is envisioned as a distributed facility that will provide unique computational and data analytics capabilities, as well as critical software and services, for the Nation's science and engineering research community to enable discoveries that would not be possible otherwise. The project will deploy a range of education and outreach activities to nurture our Nation's future STEM workforce in data and computational science.

- NSF manages all U.S. Antarctic activities as a single, integrated program, making Antarctic research possible for scientists supported by NSF and other U.S. agencies. **The Antarctic Infrastructure Recapitalization** ($24.0 million) program is a portfolio of infrastructure investments across the U.S. Antarctic stations.

- **Mid-scale Research Infrastructure - Track 2**. See discussion above.

Design of Potential New Major Facility Construction Project. Given the unaffordability of continuing funding two different multi-billion dollar telescopes, NSF will advance the Giant Magellan Telescope (GMT) into the Major Facility Final Design Phase, but the Thirty Meter Telescope (TMT) will not advance to the Final Design Phase and will not receive additional commitment of funds from NSF. NSF has received assurances from the GMT project that it can complete the final design phase without further investments. Moving into the final design phase does not guarantee that a project will be approved for construction, and doing so does not obligate the agency to provide any further funding. The FY 2026 Request supports continued design of a single telescope within the U.S. Extremely Large Telescope (ELT) program.

RESEARCH SECURITY STRATEGY AND POLICY

NSF is expanding capabilities and competencies to protect the U.S. science and engineering enterprise through its Research Security Strategy and Policy activity. The August 2022 CHIPS and Science Act contained several research security provisions that NSF is implementing. NSF participation in discussions with the U.S. research community and with international colleagues and development of common frameworks for understanding research security are major components of the NSF Research Security activity. Specific activities include:

- As required by Section 10338 of the CHIPS and Science Act, NSF will support the Safeguarding the Entire Community of the U.S. Research Ecosystem (SECURE) Program, formerly the Research Security and Integrity Information Sharing and Analysis Organization, to empower the research community to identify and mitigate foreign interference that poses risks to the U.S.-funded research enterprise. The Program includes the SECURE-Center which will share information, tools and other services related to research security risks and provide training to the research community. In addition, the SECURE-Analytics award supports the analytics needs of the broader research community and works in close coordination with the SECURE-Center.

- The Research on Research Security (RoRS) Program will advance the understanding of the full scope, potential, challenges, and nature of the research on research security field through scholarly evidence. This includes assessment of the characteristics that distinguish research security from research integrity, improving the quantitative understanding of the scale and scope of research security risks, developing methodologies to assess the potential impact of research security threats, and assessing the additional research security risks in an innovation system that includes more use-inspired research rather than staying well within the bounds of fundamental research.

ORGANIZATIONAL EXCELLENCE - AGENCY OPERATIONS AND AWARD MANAGEMENT (AOAM)

Of the $3.903 billion funding that NSF is requesting in FY 2026, NSF requests $355.0 million for AOAM, a decrease of $93.0 million or -20.8 percent below FY 2024 Current Plan level for AOAM. This reduction is commensurate to the needs of NSF at the total FY 2026 Request level.

The AOAM account funds the staff and support services at NSF that enable research and operations to steward the taxpayer investment. Investments in the AOAM account provide the fundamental framework through which the Foundation's science and engineering research and education programs are administered, and by which NSF directly supports and responds to Congressional priorities and the Administration's management and performance priorities, including a research science and security framework necessary to the well-being of the NSF-funded scientific enterprise. Over the last several fiscal year budget requests, NSF reduced or held flat support services costs to accommodate the year-over-year increases in the fixed costs for staffing and rent while minimizing growth to the AOAM account in the Request.

Emphasizing the essential nature of the AOAM account in supporting the scientific enterprise at NSF, in FY 2026 NSF proposes two changes:

- Shifting the AOAM account from one-year to two-year budget authority to bring the availability into alignment with the program funds in the R&RA account
- Shifting budget activities with an agency-wide benefit from the AOAM account to the R&RA account, under Mission Support Services, to better align the funding for such activities with where their benefit accrues as well as to accommodate the reduced AOAM level in FY 2026

HIGHLIGHTS

Expeditions in Computing

NSF's Expeditions in Computing program supports large-scale, cutting-edge research projects poised to yield lasting impacts on society, the economy, and technological advancement. Projects funded by Expeditions are characterized by their ambition and potential for transformation, leveraging advances in computing and cyberinfrastructure to accelerate discovery and innovation across various science and engineering domains. Previous awards have covered topics from synthetic biology and behavioral neuroscience to computer vision, robotics, and quantum computing. NSF has awarded $36.0 million to three projects with the potential to forge new pathways and revolutionize operating system design with machine learning. This investment will foster innovation by advancing computing performance and capability.

Expeditions projects focus on creating transformative technologies, methodologies and infrastructure that can be adopted by the broader research community, industry or society at large. *Credit: NSF.*

Leadership-Class Computing Facility

Texas Advanced Computing Center employees work on the network cabling at that will revolutionize computational research and development. *Credit: Texas Advanced Computing Center*

NSF begins construction on a new Leadership-Class Computing Facility (LCCF) at the Texas Advanced Computing Center at the University of Texas, Austin that will revolutionize computational research and development. Expected to be operational during 2026, the LCCF will deploy the largest academic supercomputer, Horizon, dedicated to open-scientific research in the NSF portfolio, enabling groundbreaking curiosity-driven and use-inspired research across all scientific disciplines. This cutting-edge facility will partner with four distributed science centers to leverage the deep expertise within the nation's cyberinfrastructure ecosystem and ensure that researchers across the country have access to its computational resources and services. The LCCF and its partners will also oversee a wide range of education and public outreach activities to grow the future science and engineering workforce.

NSF Announces $20 Million Investment in Quantum Nanofabrication Infrastructure

NSF announced a nearly $20.0 million award that will support the construction of a nanoscale fabrication facility at the University of Colorado Boulder to accelerate co-design and development of atomic-photonic quantum devices, positioning the U.S. as a global leader in quantum science and engineering. The new NSF National Quantum Nanofab (NQN) will enable quantum device fabrication, characterization, and packaging capabilities that are essential to advancing applications ranging from quantum computers and networks to atomic clocks, and advanced quantum sensors. Funded as part of NSF's Mid-Scale Research Infrastructure 1 (Mid-scale RI-1) program, NQN will be an open-access national facility for academic, government and industrial users.

Logo for National Quantum Nanofab Facility. University of Colorado Boulder. *Credit: CU Boulder*

NSF ERC Breaks Ground on Highway test bed to develop wireless charging for electric vehicles.

The Indiana Department of Transportation, Cummins, White Construction, and Purdue ceremoniously broke ground May 1, 2024, for a highway segment where Purdue engineers will test a system they designed to wirelessly provide power to a heavy-duty electric truck traveling at highway speeds. This project is part of the NSF Engineering Research Centers for advancing Infrastructure for Roadway Electrification.

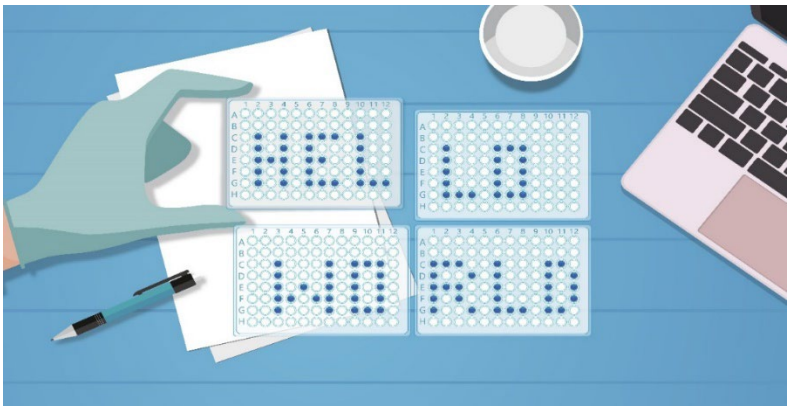
Pictured from left are Mike Smith, Indiana Department of Transportation commissioner; Tim Frazier, vice president of research and technology at Cummins Inc.; Bill Lang, vice president of White Construction; Nadia Gkritza, Purdue professor of civil engineering and agricultural and biological engineering; Arvind Raman, John A. Edwardson dean of Purdue's College of Engineering; and Purdue University President Mung Chiang. *Credit: Kayla M Albert, Purdue University* .

National Artificial Intelligence Research Infrastructure Pilot

The National Artificial Intelligence Research Resource (NAIRR) envisions a collaborative national research infrastructure designed for responsible AI discovery and innovation. Launching the NAIRR Pilot marks the initial step in achieving this vision, aiming to enhance and broaden access to essential resources vital for advancing responsible AI research and innovation.

Credit: NSF.

Accelerating Discovery Through AI-Assisted Chemical Synthesis



Conceptual representation of chemistry research conducted by AI. The work was led by Gabe Gomes at Carnegie Mellon University and supported by the U.S. National Science Foundation Centers for Chemical Innovation. *Credit: NSF.*

Supported by two NSF Centers for Chemical Innovation, researchers developed an AI-based system that successfully planned and executed real-world chemistry experiments using robotic lab equipment with minimal human direction. Their work was published in Nature and demonstrates the potential for AI to become a type of hyper-efficient lab partner that can assist human scientists in making more discoveries, faster.