



U.S. National
Science Foundation



NSF 75
YEARS OF
INNOVATION

2025 marks the 75th anniversary of NSF. Throughout the year, the agency will host in-person and virtual activities to commemorate this significant milestone. For more information, visit: [nsf.gov/75years](https://www.nsf.gov/75years)

MINNESOTA

● FAST FACTS



\$105,087,000

Total NSF Awards to Minnesota



\$77,090,000

Invested in Fundamental Research in Minnesota



\$27,997,000

Invested in STEM Education in Minnesota



\$5,971,000

Invested in Minnesota Businesses

● TOP NSF-FUNDED ACADEMIC INSTITUTIONS

University of Minnesota,
Twin Cities

\$69,661,000

Northland Community &
Technical College

\$7,880,000

University of St. Thomas

\$3,584,000

● NSF BY THE NUMBERS

The U.S. National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense. To fulfill this vital role, NSF supports basic research and researchers who create knowledge that transforms the future.

DID YOU KNOW?

NSF has funded the work of **268** Nobel Prize winners over 75 years.



\$9.06B

FY 2024
Total Enacted

92%
Funds research,
education and
related activities



11K
Awards



1.9K
Institutions



358K
People

"Data represents FY 2024 Actuals unless otherwise indicated"



www.nsf.gov



INNOVATION | *Generating new knowledge that provides a greater understanding of the world around us*

Polyfluorinated substances (PFAS) are a major group of contaminants with negative impacts on human health and the environment that are known as “forever chemicals” because of their extreme resistance to natural biodegradation. The University of Minnesota-Twin Cities is leveraging NSF funding to design synthetic biofilms capable of biodegrading PFAS. In the course of developing these biofilms, researchers are establishing a brand-new knowledge base of how to develop and manufacture use-inspired biofilms as robust structures for a range of operations. Researchers are identifying molecular mechanisms that will manipulate the composition and properties of biofilms composed of engineered bacteria. Knowledge and systems generated in this project will enable the design of new living biofilm materials for potentially transformational biotechnology processes beyond bioremediation, such as for biomanufacturing, energy and biomedical applications.

EXPANDING FRONTIERS | *Generating institutional capacity, new technologies and societal impact*

Rowbot Systems LLC is using an NSF Small Business Innovation Research Phase II project to develop and commercialize a novel artificial intelligence-based strategy for applying nitrogen fertilizer to cornfields. Using automated, unmanned ground vehicles (robots), Rowbot Systems is creating small test plots to stress test and develop an accurate simulation of each field. These simulations will determine the optimal nitrogen fertilizer application rates based on field characteristics, rainfall and growing conditions. Harvest data from the small plots will validate that the expected benefits are delivered to farmers. Over 10% of the energy consumed in the U.S. agricultural sector is used for producing nitrogen fertilizer for corn. By enabling United States corn farmers to optimize nitrogen fertilizer use, this technology will improve the efficiency of nitrogen fertilizer application, thus reducing the energy intensity and carbon footprint of U.S. agriculture. Efficient use of nitrogen fertilizer will also lower input costs and maximize yield potential, thereby improving the profitability of U.S. farmers.

EDUCATION AND WORKFORCE | *Supporting our STEM talent of today and tomorrow*

The NSF Tribal Colleges and Universities Program (NSF TCUP) supports the increase of STEM instructional and research capacities institutions of higher education that serve the nation's Indigenous students. For example, an NSF TCUP award is being used to support **White Earth Tribal and Community College's** effort to establish an accredited Associate of Science degree in the natural sciences, focusing on chemistry, physics, and biology. This new degree includes scaffolded support for graduates to either continue their studies at a four-year institution in in-demand Science and Technology fields, or be prepared for employment in local, particularly tribal, organizations.

ON THE CUTTING EDGE

NSF is pushing the boundaries of what is possible in today's most important technology areas, including [artificial intelligence](#), [quantum information science](#), and [biotechnology](#). The Foundation also maintains industry-leading, [state-of-the-art facilities](#) around the world.

NCSES

The [National Center for Science and Engineering Statistics \(NCSES\)](#) within the U.S. National Science Foundation is the nation's leading provider of statistical data on the U.S. science and engineering enterprise. As a principal federal statistical agency, NCSES conducts nationally representative surveys and publishes objective data and reports on topics related to research and development, the science and engineering workforce, and STEM education. For example, in FY 2024, **Minnesota** invested **\$10,801,000,000** on research and development.

For more information on NSF's impact in your state, please contact NSF Office of Legislative and Public Affairs at congressionalteam@nsf.gov.

LEARN MORE

- **BROUGHT TO YOU BY NSF** – NSF has invested in discoveries, inventions, and innovations that have shaped the modern world, including the internet, 3D printing, American Sign Language, Magnetic Resonance Imaging (MRI), deep sea exploration, Doppler radar and more. For more information on NSF impacts, please visit: nsf.gov/impacts.
- **RESEARCH SECURITY** – NSF is committed to safeguarding the integrity and security of science and engineering while also keeping fundamental research open and collaborative. NSF seeks to address an age of new threats and challenges through close work with our partners in academia, law enforcement, intelligence and other federal agencies. By fostering transparency, disclosure and other practices that reflect the values of research integrity, NSF is helping to lead the way in ensuring taxpayer-funded research remains secure. To learn more, please visit [NSF's Research Security website](#).
- **FOSTERING INNOVATION** – Every year, NSF funds around 400 companies across nearly all technology areas to create prototypes and commercialize technologies. Learn more at seedfund.nsf.gov.