



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)

INDIANA

● FAST FACTS



\$159,244,000

Total NSF Awards
to Indiana



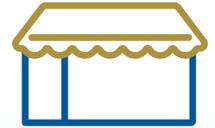
\$147,381,000

Invested in Fundamental
Research in Indiana



\$11,863,000

Invested in STEM
Education in Indiana



\$7,111,000

Invested in Indiana
Businesses

● TOP NSF-FUNDED ACADEMIC INSTITUTIONS

Purdue University
\$79,721,000

University of Notre Dame
\$38,246,000

Indiana University
\$29,829,000

● 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*

A Quantum Sensing Challenges for Transformational Advances in Quantum Systems project at **Purdue University** aims to revolutionize live-cell imaging by harnessing the power of nanodiamond quantum sensors. While traditional fluorescence microscopy provides valuable insights into cell structures and functions, nanodiamond quantum sensors with ultra-high sensitivity to local electromagnetic fields can see through live cells and reveal the underlying physical mechanisms of life processes. Integrating nanodiamond quantum sensors with advanced imaging techniques will allow for the capture of four-dimensional information: three-dimensional spatial data plus an additional temporal dimension. This has wide-ranging implications, from enhancing cancer immunotherapy through the monitoring of T cell activity to unraveling the mysteries of membrane potentials in cardiac and neuronal cells. The project will bridge the gap between fundamental quantum science and applied bioengineering and bring quantum sensing into rich applications in biomedical fields.



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

Private data federations (PDFs) are emerging systems designed to address the challenge of multiple parties collaborating on sensitive data. They enable secure analytics across isolated private data without requiring direct data sharing and provide end-to-end privacy throughout the process. Despite significant efforts to develop efficient PDF systems, their adoption within the scientific community remains limited due to a substantial usability gap, as these systems often require expertise in security and system fundamentals. The SciPDF project at the **University of Indiana**, supported by the NSF Cybersecurity Innovation for Cyberinfrastructure program, democratizes this complex PDF pipeline by making cutting-edge PDF features accessible to the general scientific research community without the need for specialized expertise. This work significantly lowers the barriers to research collaboration in critical domains such as healthcare, biomedicine, federal statistics, finance and criminal investigations. Furthermore, the research findings are part of a comprehensive education, dissemination and outreach plan that includes new undergraduate and graduate courses as well as open-source tutorials accessible to the public.



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

Combating the deadly opioid epidemic is a national priority. Specifically, teenagers and young adults (TYAs) are disproportionately affected by and particularly vulnerable to opioid misuse and addiction. An NSF Track-1 Smart and Connected Communities Integrative Research Grant to the **University of Notre Dame** supports the design and development of a new artificial intelligence-driven paradigm to facilitate personalized interventions tailored to the TYA community's characteristics and circumstances. These messages promote their resilience against opioid misuse and addiction and thus help enhance national public health, safety and welfare. The developed framework can be scaled and easily transferred to other communities to prevent and reduce corresponding harm. The proposed work will advance scientific theory in related research communities and benefit multidisciplinary domains, including epidemiology, economics, and social and behavioral sciences. Lastly, the work will integrate research with education, and the outcomes will be made publicly accessible and broadly distributed.

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, **Indiana** invested **\$11,434,000,000** 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.