FY 2023 Fast Facts

- **$497,116,000** Total NSF Awards to Texas
- **$413,558,000** Invested in Fundamental Research in Texas
- **$82,279,000** Invested in STEM Education in Texas
- **$12,698,000** Invested in Texas Businesses

Top NSF-funded Academic Institutions for FY 2023

- University of Texas at Austin: $135,277,000
- Texas A&M University: $51,233,000
- William Marsh Rice University: $35,475,000

NSF By The Numbers

The U.S. National Science Foundation (NSF) is an **$9.06 billion** independent federal agency created by Congress in 1950 to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense. NSF’s vital role is to support basic research and researchers who create knowledge that transforms the future.

- **93%** Funds research, education and related activities
- **11K** Awards
- **1.9K** Institutions
- **353K** People

*Data represents FY 2023 Actuals unless otherwise indicated*
Expanding the Frontiers of Science

Through the NSF funding, researchers at The University of Texas at Dallas are revolutionizing live-cell imaging by harnessing the power of nanodiamond quantum sensing and advanced microscopy. While traditional fluorescence microscopy provides valuable insights into cell structures and functions, nanodiamond quantum sensors have the potential to study the intricacies of life processes with unprecedented detail. By integrating nanodiamond quantum sensors with advanced imaging techniques, the project aims to capture 4D information: 3D spatial data and an additional temporal dimension. Machine learning algorithms and image processing techniques are utilized to analyze the acquired data and extract valuable insights into the dynamics of live cells. This work 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 bridges the gap between fundamental quantum science and applied bioengineering and brings quantum sensing into rich applications in biomedical fields.

STEM Education and Broadening Participation

NSF CyberCorps® Scholarship for Service (SFS) program funds proposals for establishing or continuing scholarship programs in cybersecurity and aligns with the U.S. National Cyber Strategy to develop a superior cybersecurity workforce. Sam Houston State University, a National Center of Academic Excellence in Cyber Defense Education designated by the National Security Agency and Department of Homeland Security, has recently established an SFS program to serve four cohort classes of undergraduate and graduate students. With an emphasis on interdisciplinary education and research opportunities for scholars, the program will prepare 20 highly qualified students to become cyber leaders in the government workforce, increasing the percentage of scholars who are from underrepresented groups and supporting transfer students from community colleges. The program will educate and train scholars in different aspects of cybersecurity, such as computer science, digital forensics and more. This interdisciplinary collaboration offers practical experiences to ease the transition into the workforce. The selected scholars will receive academic advisement, research and career mentoring, extracurricular activities and coordinating placement with the Office of Personnel Management for internships.

Regional Innovation Engines

NSF Regional Innovation Engines (NSF Engines) represent one of the single largest broad investments in place-based research and development in the nation’s history, uniquely placing science and technology leadership as the central driver for regional economic competitiveness. The NSF Engine: Paso del Norte Defense and Aerospace Innovation Engine, led by The University of Texas at El Paso, aims to fuel the growth of dynamic aerospace and defense manufacturing in Paso del Norte, an eight-county region on the U.S.-Mexican border, by creating a platform that combines an emerging digital engineering paradigm and skilled workforce development.