National Science Foundation

ARIZONA

FY 2021 Fast Facts

$157,394,000
Total NSF Awards to Arizona

$131,118,000
Invested in Fundamental Research in Arizona

$26,276,000
Invested in STEM Education in Arizona

$5,394,000
Invested in Arizona startups

Top NSF-funded Academic Institutions for FY 2021

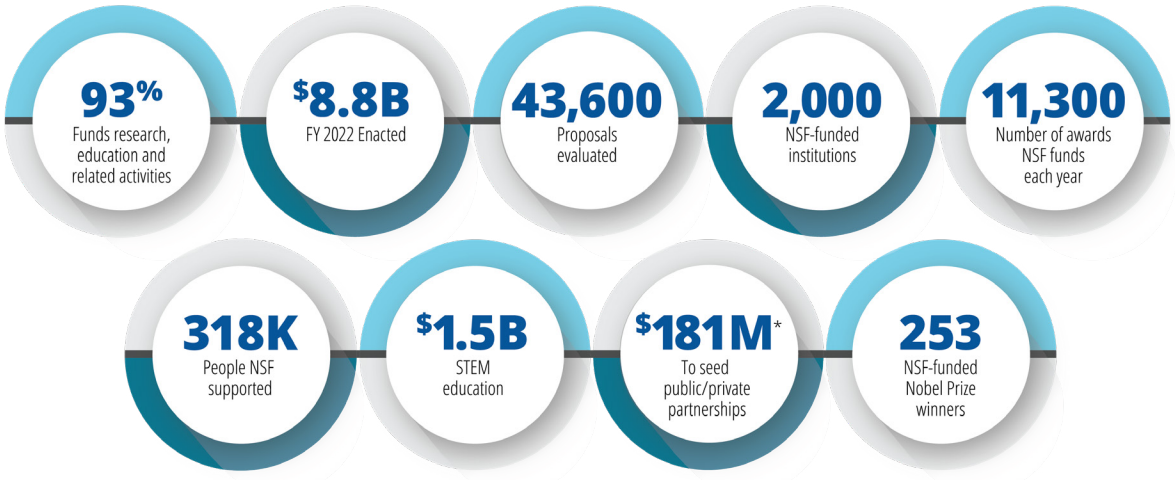
$74,637,000
Arizona State University

$45,783,000
University of Arizona

$16,018,000
Northern Arizona University

NSF By The Numbers

The National Science Foundation (NSF) is an $8.8 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.



Data represents FY 2021 Actuals unless otherwise indicated.
**Corresponds to NSF investments initiated in FY 2021 and spanning multiple years.*

NSF-funded COVID-19 Research and Recovery

Researchers at the **University of Arizona** are exploring how students and instructors cope with the challenges of moving to online formats due to the COVID-19 outbreak. The study will also examine how course experiences are impacted by this move and how findings differ for students and instructors from underrepresented and underserved Latinx and Native American communities. College and minority stress exacerbated by the current pandemic can lead to depression and reduce persistence, especially as resources for success are not always accessible to underserved communities. The study will help identify resources and the most helpful supports for students and instructors, as well as catalog needed resources.

STEM Education

NSF is supporting a **Maricopa County Community College** District program focused on experiential learning to increase STEM student retention and graduation at two-year Hispanic-serving institutions. The program provides students with mentored work experience in computer information systems and access to on-campus work experience and externships in business and industry. Examples of potential student projects include mobile application development, cybersecurity and computer support, which are expected to increase undergraduate student interest, persistence and success in computer information systems and in STEM more broadly.

Research Driving Innovation

The electric grid is susceptible to increasing wildfire risks, particularly in forested and rural areas. This is primarily due to a lack of risk awareness in such remote locations, which makes prevention and response management difficult. NSF is funding a project led by **Arizona State University** that addresses this problem by designing and testing a wildfire awareness and risk management system that uses Internet of Things wireless sensors to monitor the environment around remote electric power infrastructures and supports resilient grid operations during high wildfire risk periods. The project will bring transformative changes to the way power utilities, regulatory agencies and municipal managers react to wildfire threats by raising their real-time situational awareness and developing methods and strategies that increase their options for successful prevention and rapid response. These changes will be achieved by making advances in remote sensing, wireless communication, power system security analysis and optimization. The sensor suites and risk management approaches developed through this project can have broader impacts in disaster mitigation, environmental monitoring and public safety.

Infrastructure

The Engineering Research Center for Quantum Networks (CQN) at the **University of Arizona**, will take on one of the great engineering challenges of the 21st century: to lay the technical and social foundations of the quantum internet. Partner institutions include **Harvard**, **MIT**, and **Yale** – several member institutions, as well as strong industry support and international partners.

NCSES

According to the National Center for Science and Engineering Statistics (NCSES), which is housed in NSF, Arizona ranks **15th** in the nation for SBIR awards. Visit Arizona's science and engineering state profile to learn more!

- **5.44%** of Arizona's workforce are employed in S&E occupations.
- **25.28%** of Arizona's higher education degrees are concentrated in S&E fields.

Learn More

COVID RELIEF - Congress provided NSF with funding to prevent, prepare for, and respond to COVID-19 in the CARES Act of 2020 and the American Rescue Plan (ARP) Act of 2021. For more information on NSF-funded COVID-19 research and recovery, visit NSF's award database for CARES Act and ARP awards, and NSF's Toolkit for COVID funding updates.

NSF FACT SHEETS – NSF provides fact sheets about the agency and its bold investments in basic research. These fact sheets profile NSF investments in research across all fields of science and engineering, including quantum, artificial intelligence, and advanced manufacturing, and the NSF-supported research and computing infrastructure powering the U.S. response to COVID-19.

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