NSF AT A GLANCE

The National Science Foundation is an independent federal agency created by Congress in 1950 to promote the progress of science; advance the national health, prosperity and welfare; and secure national defense. NSF is the only federal agency whose mission supports all fields of fundamental science and engineering disciplines, from mathematics, engineering and geosciences to biological, behavioral and computer sciences.

WHO WE ARE

The NSF Director, who is appointed by the President and confirmed by the Senate, leads a workforce driven to improve the world through research, discovery and innovation. The workforce consists of 200 rotating scientists and engineers, 1,400 career employees and 450 contract employees.

In addition, a 24-member National Science Board, also presidentially appointed, establishes the overall policies of the foundation. Board members and the NSF director serve six-year terms.

WHAT WE DO

Discovery

NSF supports U.S. researchers as they probe the unknown and seek to understand nature’s great mysteries. These pioneers generate new knowledge and discoveries that transform the understanding of the world, while also transforming modern society through technological innovations. Situated at the intersection of all S&E disciplines, NSF is also uniquely positioned to identify and guide investments toward emerging frontier areas for scientific research.

Research Infrastructure

NSF funds supercomputers, ground-based telescopes, U.S. research stations in the Arctic and Antarctic, the world’s largest and highest-powered magnet lab, long-term ecological sites, engineering centers and other infrastructure and state-of-the-art tools to sustain the nation’s scientific enterprise. Many of the research facilities NSF supports not only drive discoveries, but also serve as training grounds for the next generation of scientists and engineers.

Learning

NSF programs support STEM education and training that attract individuals from every sector and group in society, ensuring a pipeline of people and ideas ready to solve the pressing global challenges in STEM.
ADVANCING THE NATIONAL HEALTH
As the severity of the COVID-19 crisis loomed, NSF rapid-research investments enabled lifesaving personal protective equipment as well as rapid sequencing and identification of the virus weeks after its discovery. NSF helps safeguard our national health by strengthening the public response to crises like these, while supporting various health-related studies, from diagnostic tools to medical devices to more personalized therapies and faster vaccines.

ENHANCING THE NATION’S SECURITY
Within 24 hours of the September 11 terrorist attacks, rapid-response researchers funded by NSF arrived at Ground Zero to help locate survivors with shoebox-sized robots; study how building structures failed; and collect other critical data that would prepare the nation for such extreme events. NSF has helped the scientific community respond similarly to other catastrophes in support of the nation’s defense. In addition, NSF-funded researchers help support the U.S. military by exploring everything from lighter, more flexible bulletproof vests to next-generation prosthetics.

SUSTAINING GLOBAL LEADERSHIP
NSF’s support for cutting-edge research has positioned the U.S. as a global leader in science and technology. We advance the frontiers of knowledge across the smallest and grandest of scales, from atoms and black holes to tissue engineering, artificial intelligence and quantum mechanics. NSF’s long-term support for research conducted at U.S. colleges and universities has helped transform these institutions into global centers of discovery and innovation, fueling the Industries of the Future and creating world-leading technologies.

FUELING THE U.S. ECONOMY
NSF’s commitment to fund high-risk, high-reward ideas strengthens the U.S. economy by producing discoveries that lead to emerging industries and jobs. NSF programs like Innovation Corps and SBIR expand and sustain the nation’s innovation ecosystem. NSF also upholds America’s competitive edge by training and preparing a 21st century STEM workforce and funding research that leads to new technologies, from Google’s page-ranking algorithm and the internet to Qualcomm and magnetic resonance imaging.

NSF RESEARCH AREAS

DID YOU KNOW?
NSF investments in basic physics research led to an advanced laser technology now used in LASIK vision correction.