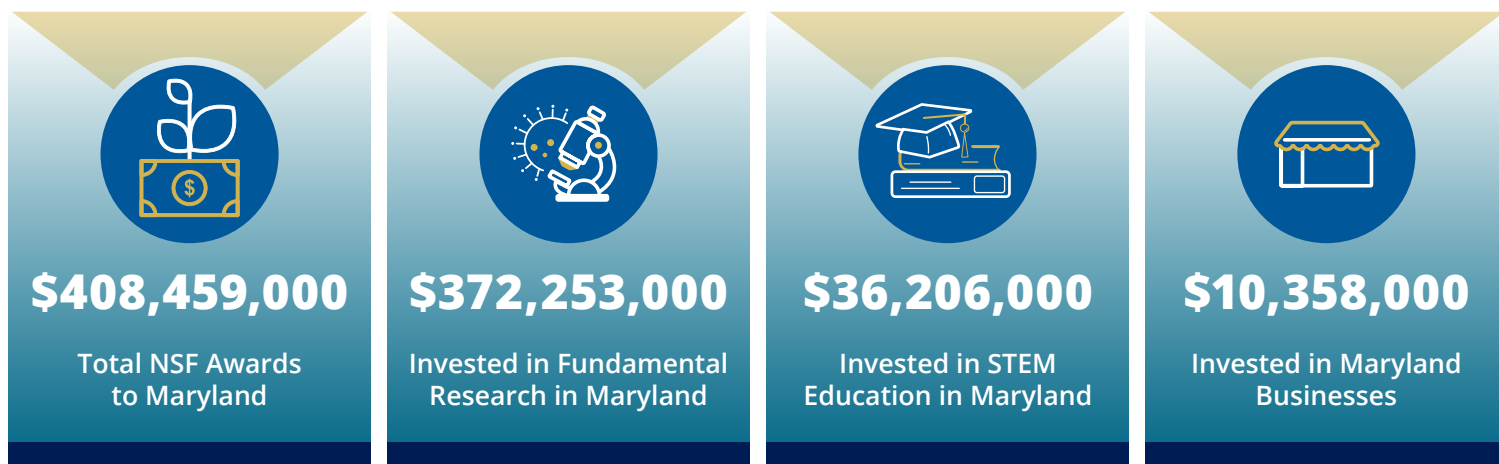




MARYLAND

FY 2022 Fast Facts

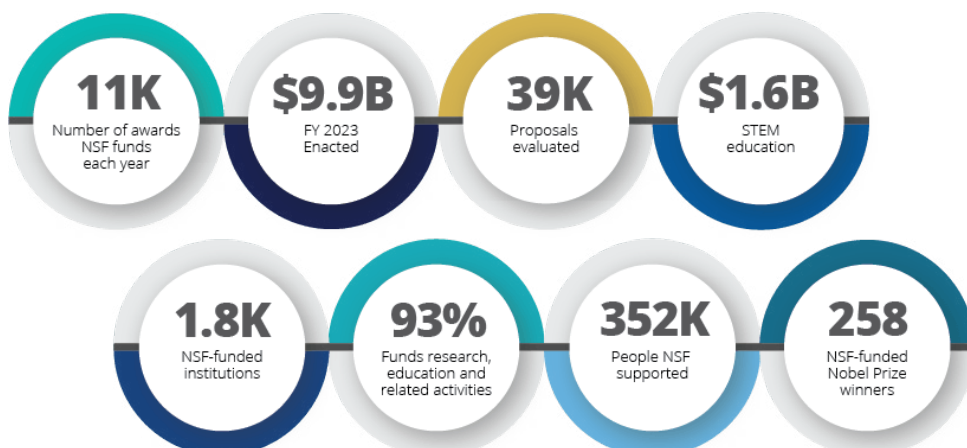


Top NSF-funded Academic Institutions for FY 2022



NSF By The Numbers

The National Science Foundation (NSF) is a [\\$9.5 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 2022 Actuals unless otherwise indicated.



Expanding the Frontiers of Science

With science currently undergoing a quantum revolution, NSF is driving large-scale investments into Quantum Leap Challenge Institutes that further the understanding of basic quantum phenomena, fundamental discoveries that will translate into transformative technologies. **The University of Maryland - College Park** leads the Institute for Robust Quantum Simulation, which aims to develop quantum systems and the methods and tools needed for large-scale quantum simulators that will allow for quantum computation. Researchers will also create outreach and education programs that engage diverse groups of students in quantum science, introduce cross-disciplinary undergraduate specializations in quantum information, and provide quantum information training for postgraduates and professionals.



STEM Education

With an emphasis on two-year colleges, NSF's Advanced Technological Education (ATE) program focuses on the education of technicians for the high-technology fields that drive our nation's economy. Working closely with industry leaders, an ATE project from **Frederick Community College** will create a specialized curriculum to meet the needs of the regional biotechnology workforce. The project will establish a new advisory team comprised of business and industry leaders to guide the development of a new Cell Therapy and Flow Cytometry course. Faculty will receive training, a flow cytometer will be purchased, and the instrument will be used in the delivery of hands-on instruction. This project has the potential to broaden participation in the science, technology, engineering and mathematics workforce by making affordable, relevant, industry-validated biotechnology technician education accessible to local students, many of whom represent underserved populations.



Regional Innovation Engines

The NSF Engines program envisions fostering flourishing regional innovation ecosystems across the country, providing a unique opportunity to spur economic growth in regions that have not fully participated in the technology boom of the past few decades. The NSF Engines program uniquely harnesses the nation's science and technology research and development enterprise and regional-level resources. NSF Engines can catalyze robust partnerships rooted in scientific and technological innovation to positively impact the economy within a geographic region, address societal challenges, and advance national competitiveness. [Find potential NSF engines in your state.](#)

Infrastructure

NSF's Major Research Instrumentation program supported the acquisition of a fluorescence-activated cell sorter instrument at **Loyola University Maryland**. Acquisition of this instrument enabled the establishment of a new flow cytometry core facility and enhanced the existing microscopy core facility. It will provide valuable training for undergraduate students enrolled in five Maryland colleges and universities and for undergraduate students who come to Loyola from across the U.S. for training in research techniques each summer.

NCSES

According to the [National Center for Science and Engineering Statistics \(NCSES\)](#), which is housed in NSF, Maryland ranks 1st in the nation for federal R&D obligations. Visit Maryland's science and engineering state profile to learn more!

46.42% of Maryland's [higher education degrees are concentrated in S&E fields.](#)

8.31% of Maryland's [workforce are employed in S&E occupations.](#)

7.49% of Maryland's [total employment is attributable to knowledge - and technology - intensive industries.](#)

Learn More

CHIPS & SCIENCE – The CHIPS and Science Act's investments in the U.S. National Science Foundation will help the United States remain a global leader in innovation. Implementation of this legislation will be key to ensuring that ideas, talent and prosperity are unleashed across all corners of the nation. [For more information, please visit NSF's CHIPS and Science website.](#)

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.](#)

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.