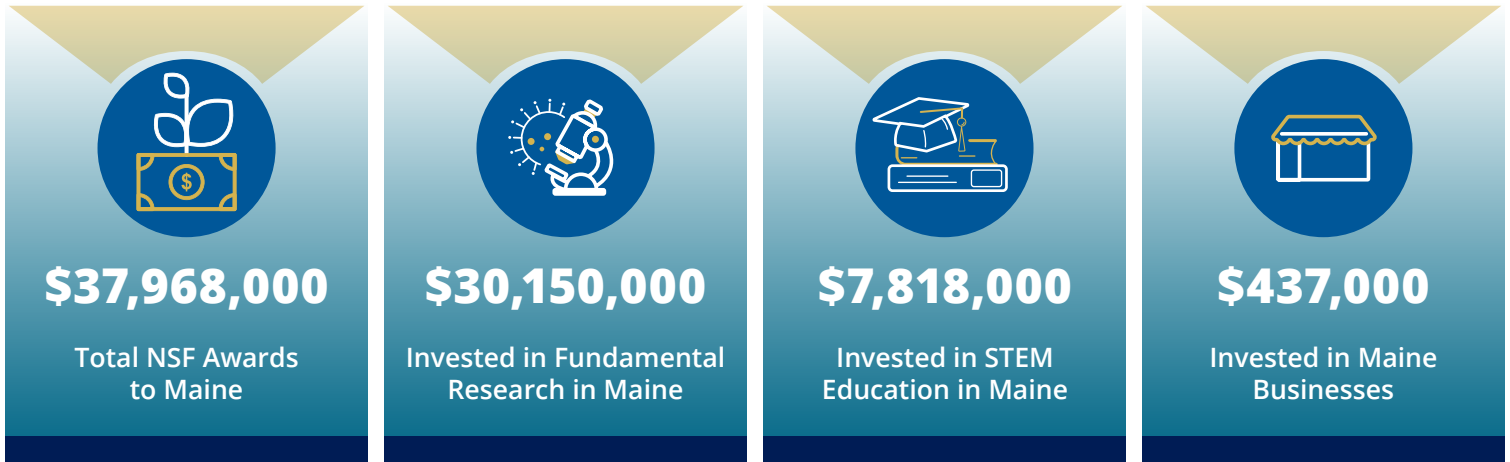


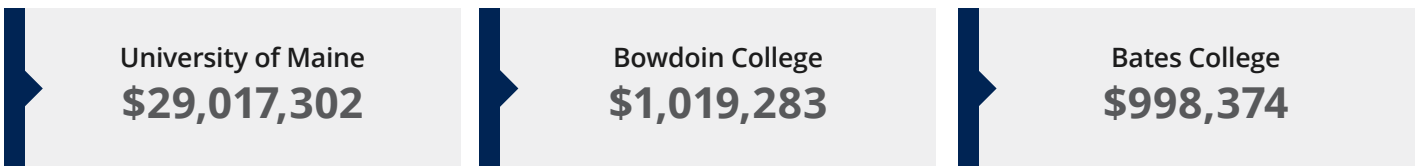


# MAINE

## FY 2022 Fast Facts

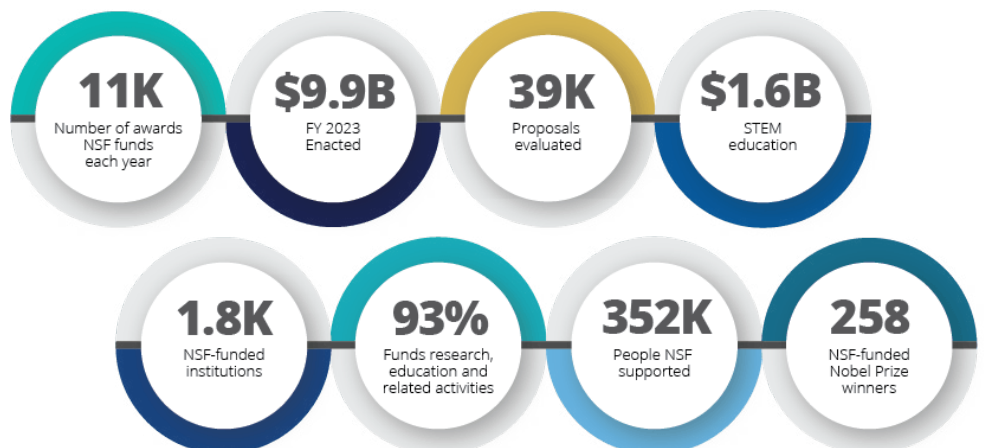


## Top NSF-funded Academic Institutions for FY 2022



## 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

Supported by the U.S. National Science Foundation's Navigating the New Arctic program, researchers at the **University of Maine** and the **Gulf of Maine Research Institute** are leading a project to understand rapid Arctic change and its implications for fisheries and fishing communities of the western North Atlantic. The project focuses on links between Arctic change and the iconic American lobster (*Homarus americanus*) fishery, the most valuable single-species fishery in North America. It is also a well-studied socioecological system, making it a good subject for convergence research. The project includes building an NNA lobster network based on cross-sector and cross-border partnerships and developing a climate vulnerability assessment focused on the northward geographic range shifts of lobsters in a warming ocean. This project is producing new knowledge to understand the links among climate-induced Arctic change, lower latitude marine ecosystems, and an iconic fishery in the northwest Atlantic.



## STEM Education

With support from NSF's Discovery Research pre-K-12, or DRK-12, and Innovative Technology Experiences for Students and Teachers, or ITEST, programs, researchers at **Bowdoin College** and the **Maine Math and Science Alliance** aim to better understand how to develop and support early childhood science learning by articulating science and engineering practices observed in children's play. These investigations will take place across more than 12 collaborating preschool and kindergarten classrooms from three demographically distinct areas. Key deliverables include a series of professional learning modules designed to support teachers in noticing, enhancing and extending science and engineering engagement through play; a refined version of the SciEPOP tool for use by educators in growing their own practice; and a series of papers and publications written for both practitioner and researcher communities. The DRK-12 program seeks to significantly enhance the learning and teaching of science, technology, engineering, mathematics and computer science by pre-K-12 students and teachers, through research and development of STEM education innovations and approaches. The ITEST program is an applied research and development program with goals to advance the equitable and inclusive integration of technology in the learning and teaching of STEM from pre-kindergarten through high school.



## 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.](#)



### EPSCoR

**COMPETITIVE RESEARCH** | Maine is one of 28 U.S. states or territories under [NSF's Established Program to Stimulate Competitive Research \(EPSCoR\)](#). Over **\$17,250,000** in awards have been made to Maine academic institutions through EPSCoR in FY 2022. For more information, [visit Maine's EPSCoR state web page.](#)



### NCSES

According to the [National Center for Science and Engineering Statistics \(NCSES\)](#), which is housed in NSF, 44% of science, engineering and health doctorates conferred in Maine are made in life sciences. Visit Maine's science and engineering state profile to learn more!

**35.36%** of Maine's [higher education degrees are concentrated in S&E fields.](#)

**3.83%** of Maine's [workforce are employed in S&E occupations.](#)

**4.48%** of Maine'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](mailto:congressionalteam@nsf.gov).