U.S. National Science Foundation

NEW HAMPSHIRE

FY 2023 Fast Facts

$36,557,000
Total NSF Awards to New Hampshire

$33,396,000
Invested in Fundamental Research in New Hampshire

$3,161,000
Invested in STEM Education in New Hampshire

$1,529,000
Invested in New Hampshire Businesses

Top NSF-funded Academic Institutions for FY 2023

Dartmouth College	University of New Hampshire	Plymouth State University
$17,864,000	**$15,617,000**	**$151,000**

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.

DID YOU KNOW? NSF has funded the work of **261** Nobel Prize winners over 75 years.

$9.06B
FY 2024 Total Enacted

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

Wide and ultrawide bandgap (WBG/UWBG) power semiconductor devices have significant benefits in a variety of applications, from electric vehicles to grid-interface power electronics. However, these systems are subject to several challenges and bottlenecks. Notably, WBG devices typically operate at high voltages and require power and/or signal isolation, but conventional isolated gate drivers scale poorly to smaller sizes and are prone to electromagnetic interference. Smaller, faster, optically isolated power and signal interfaces may have broader impacts in a range of modern power and energy systems, from renewable energy and electrified transportation to performance computing and communications infrastructure. Therefore, through the NSF Addressing Systems Challenges through Engineering Teams program, researchers at **Dartmouth College** are developing WBG semiconductor platforms which use integrated/isolated optical-wireless power transfer to deliver both power and data in future high-voltage power electronics. An interdisciplinary team supports the project by leveraging skillsets in semiconductor design, optics and photonics, power electronics and integrated circuits.

STEM Education and Broadening Participation

Students from rural areas and small towns make up about 30% of the U.S. secondary school population but often lack inspirational STEM educational opportunities and experiences, making them less likely to pursue science, technology, engineering and mathematics majors in college. Through The NSF Innovative Technology Experiences for Students and Teachers program, a project at the **New Hampshire Academy of Science** is exploring how providing a comprehensive, multi-year academic and personal support system can attract and retain underrepresented rural high school students, especially girls, from underserved rural areas of New Hampshire and Vermont. All students complete annual surveys about science identity and belonging, and a subgroup is observed and interviewed. Students in the subgroup also engage with science practitioners in their local communities. Aggregated results and individual case narratives will illustrate commonalities and variations in student experiences and outcomes and suggest which program features that may contribute to those differences. The findings will contribute to a growing, but currently limited, body of research on how to attract and retain rural students in STEM and information and communication technology post-secondary pathways.

Regional Innovation Engines

NSF Regional Innovation Engines (NSF Engines) Development Awards help organizations create connections and develop their local innovation ecosystem within two years to prepare a strong proposal for becoming a future NSF Engine. An award led by the **Northern Forest Center** is set to re-tool and reinvigorate a forest-based economy in Maine, New Hampshire and Vermont, three of the most forested states in the U.S., thereby building rural community equity and strengthening economic development in these states. Focus areas include precision forestry for climate-smart sustainable management; conventional forest products, such as pulp and paper; and emerging forest bioproducts such as nanocellulose.

EPSCoR

COMPETITIVE RESEARCH | New Hampshire is one of 28 U.S. states or territories under the NSF Established Program to Stimulate Competitive Research (EPSCoR). **$3,008,721** in awards have been made to New Hampshire academic institutions through EPSCoR in FY 2023. For more information, visit New Hampshire's EPSCoR state web page.

NCSES

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

29.09% of **New Hampshire's** higher education degrees are concentrated in S&E fields.

5.79% of **New Hampshire's** workforce is employed in S&E occupations.

11.55% of **New Hampshire'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 the NSF 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 the NSF Research Security website.

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