

# OHIO

# FY 2022 Fast Facts

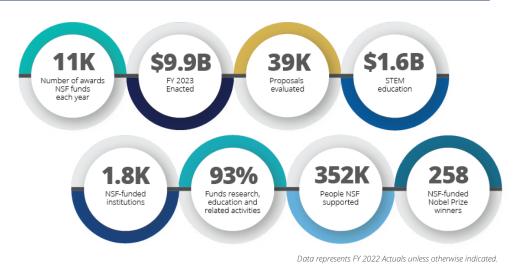


# **Top NSF-funded Academic Institutions for FY 2022**



# **NSF By The Numbers**

The National Science Foundation (NSF) is a <u>\$9.5 billion</u> 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.





### **Expanding the Frontiers of Science**

The new NSF Engineering Research Center, Hybrid Autonomous Manufacturing, Moving from Evolution to Revolution, or HAMMER, led by **The Ohio State University**, will help assert American leadership in advanced manufacturing by developing and transitioning new manufacturing technologies to industry use. Working with collaborators from more than 70 industrial, educational and technical organizations, HAMMER will develop and implement new manufacturing technologies for agile, high-performance, quality-assured components. Through basic, applied and translational research, the center will accelerate the development and deployment of intelligent autonomous manufacturing systems that use multiple processes to control material properties and component dimensions to allow rapid customization and high assured performance. HAMMER will work to develop a new class of engineers and technicians by driving new technical education and providing credentials to prepare, upskill and reskill the workforce, and will expand capabilities across the manufacturing supply chain to meet national needs. HAMMER aims to ensure this country's competitive advantage by rebuilding the U.S. industrial base, creating new high-skilled, highly paid jobs, and unleashing American ingenuity through cost-effective, local, customized production.

## **STEM Education and Broadening Participation**

NSF's Scholarships in Science, Technology, Engineering, and Mathematics program contributes to the national need for well-educated scientists, mathematicians, engineers and technicians by supporting the retention and graduation of high-achieving students with demonstrated financial need. An S-STEM award to **Lorain County Community College** will fund scholarships to 60 full and part-time students pursuing associate degrees in cyber and information security and micro-electrical mechanical systems. Students will engage in project activities including academic advising, cohort-based activities, career-focused networking events, and credit-bearing experiential learning opportunities geared toward increasing retention rates, graduation or transfer rates, and degree completion rates. The project will measure the efficacy of these practices and identify areas for improvement to positively impact completion rates for talented students in STEM career pathways. The project team at Lorain County Community College hypothesizes that aggregated and equitable support will have a significant impact on degree attainment and job placement. Achieving these objectives will enrich the STEM workforce with students who can contribute to the American innovation economy. Project evaluation will help identify best practices, which can then be shared and replicated within the broader community.

# **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

The NSF Innovation Corps (I-CorpsTM) program prepares researchers to accelerate the economic and societal benefits of basic research projects ready to move toward commercialization. I-Corps@Ohio assists faculty, staff and students from Ohio universities, colleges and community colleges validate the market potential of technologies and launch startups.

## NCSES

According to the <u>National Center for Science and</u> <u>Engineering Statistics (NCSES)</u>, which is housed in NSF, Ohio ranks 8th in the nation for federal R&D obligations. Visit Ohio's science and engineering state profile to learn more!

31.30%	of <b>Ohio's</b> <u>higher education degrees</u> <u>are concentrated in S&amp;E fields.</u>
4.83%	of <b>Ohio's</b> <u>workforce are employed</u> in S&E occupations.

**9.21%** of **Ohio'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 <u>congressionalteam@nsf.gov</u>.

