National Science Foundation

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OHIO FACT SHEET

FY 2020 FAST FACTS

$195,016,000
Total NSF awards to Ohio

$180,604,000
Invested in fundamental research in Ohio

$14,413,000
Invested in STEM education in Ohio

$4,057,000
Invested in Ohio startups through NSF's small business program

TOP NSF-FUNDED ACADEMIC INSTITUTIONS FOR FY 2020

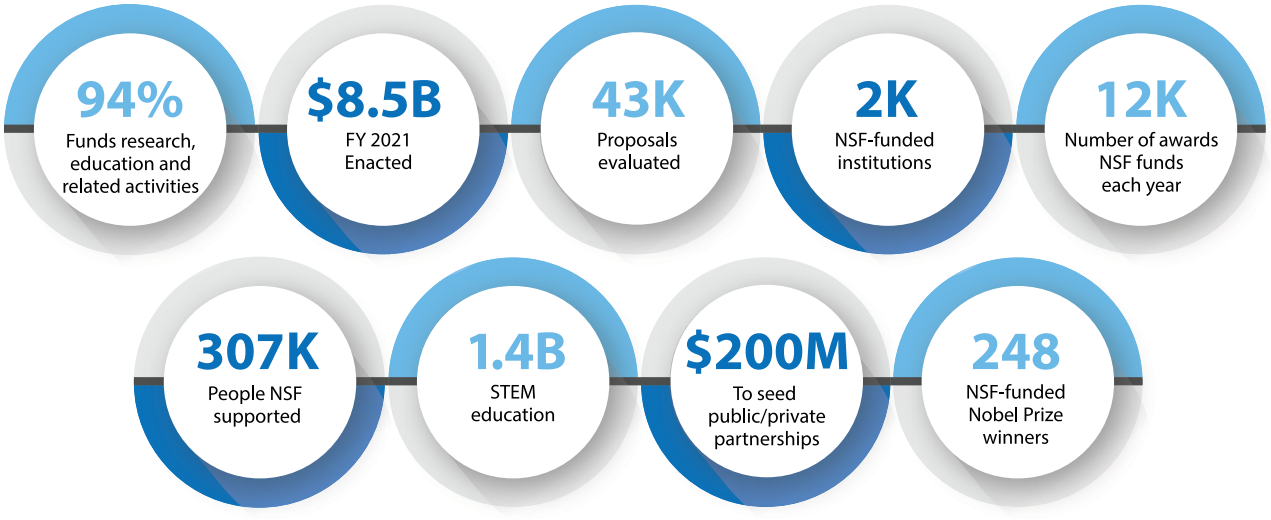
$67,451,000
Ohio State University

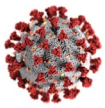
$12,134,000
University of Cincinnati

$9,608,000
Case Western Reserve University

NSF BY THE NUMBERS

The National Science Foundation (NSF) is an $8.5 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.





NSF-FUNDED RESEARCH FIGHTING COVID-19

Congress provided NSF with funding to prevent, prepare for, and respond to COVID-19 in the CARES Act of 2020 and the American Rescue Plan Act of 2021. For more information on NSF's COVID research, visit NSF's award database and COVID funding reports.

COVID-19 RESEARCH SPOTLIGHT | Researchers at **Battelle Memorial Institute** are working to build a system to detect and quantify COVID-19 from city wastewater in order to identify neighborhoods that are at highest risk as the virus spreads. Low or undetectable COVID-19 counts are expected to be observed in wastewater from neighborhoods where the outbreak is under control, whereas they will be higher in regions where social distancing or contact tracing is needed to stop viral spread. This tracking system is adaptable to other pathogens that cause outbreaks of public health concern as well, and it will help ensure public safety as the economy is re-opening and afterwards by detecting second-wave outbreaks of which the public should be aware. This tracking system will provide real-time insight into community spread and prevalence of COVID-19 by building risk models from wastewater data and comparing those to models built from other public health data. A broader impact from this research will be the development of a publicly accessible, web-based Wastewater Pathogen Tracking Dashboard.

STEM EDUCATION

STEM WORKFORCE DEVELOPMENT | With an emphasis on two-year colleges, NSF's Advanced Technological Education program focuses on the education of technicians for the high-technology fields that drive the nation's economy. The program involves partnerships between academic institutions and industry to promote improvement in the education of science and engineering technicians at the undergraduate and secondary school levels. **Lorain County Community College** Welding Education and Training Resource Center will address the changing welding industry and the need to disseminate current industry data to welding instructors and industry professionals. It will also support welding programs with competency-based curricular materials, professional development activities for teachers and faculty, and the development of an accreditation program for two-year institution welding programs.

RESEARCH DRIVING WORKFORCE INNOVATION

FUTURE OF WORK | THE EMERGENT ECOSYSTEM RESPONSES TO CHANGE BIOLOGY INTEGRATION INSTITUTE | Understanding how biological systems interact with and influence one another over time is a Grand Challenge of Biology. With NSF funding, researchers at **The Ohio State University** will integrate insights from biochemistry, genetics, molecular biology, physiology, ecology, evolution and ecosystem science to develop a comprehensive framework for these dynamic interactions. Leveraging the power of 14 organizations and 15 scientific subdisciplines, the institute will integrate research and training, field observations and laboratory experiments, and novel measurements at unprecedented resolution, to understand a climate-critical case study: how a rapidly warming Arctic is transforming permafrost into wetlands, accelerating cycling of carbon and further affecting Earth's climate. To further extend its impact, the institute will communicate its work to the public and the scientific community through such activities as a TEDx-style event and development of high school Integrative Biology Workshops. Collectively, the discoveries, tools, and cutting-edge trainees involved in this research will help society to respond to, and manage, changing biological systems.

INFRASTRUCTURE

- The NSF Innovation Corps (I-Corps) program prepares scientists and engineers to extend their focus beyond the university laboratory, accelerating the economic and societal benefits of NSF-funded basic research projects that are ready to move toward commercialization. The state of Ohio, through **I-Corps@Ohio**, was the first state to support university-based teams with state funds to go through the I-Corps program.

NCSES

- According to the National Center for Science and Engineering Statistics (NCSES), which is housed in NSF, Ohio ranks 6th in SBIR awards. Visit Ohio's science and engineering state profile to learn more!

4.70% of Ohio's workforce are employed in S&E occupations.

8.29% of Ohio's industries offer high-level science, engineering and technology occupations.

LEARN MORE

- NSF70 – In 2020, NSF commemorated its 70th anniversary and the 75th anniversary of the publication of Science - the Endless Frontier. Watch the highlight video for NSF's seven decades of funding the best and brightest ideas that have transformed our lives and established the U.S. as a science and technology leader.
- NSF FACT SHEETS – NSF provides fact sheets about the agency and its bold investments in basic research. These fact sheets profile NSF investments in research across all fields of science and engineering, including quantum, artificial intelligence, and advanced manufacturing, and the NSF-supported research and computing infrastructure powering the U.S. response to COVID-19.
- 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.