



# DELAWARE

## FY 2021 Fast Facts



**\$46,509,000**

Total NSF Awards to Delaware



**\$39,332,000**

Invested in Fundamental Research in Delaware



**\$7,176,000**

Invested in STEM Education in Delaware



**\$256,000**

Invested in Delaware startups

## Top NSF-funded Academic Institutions for FY 2021

**\$41,535,000**

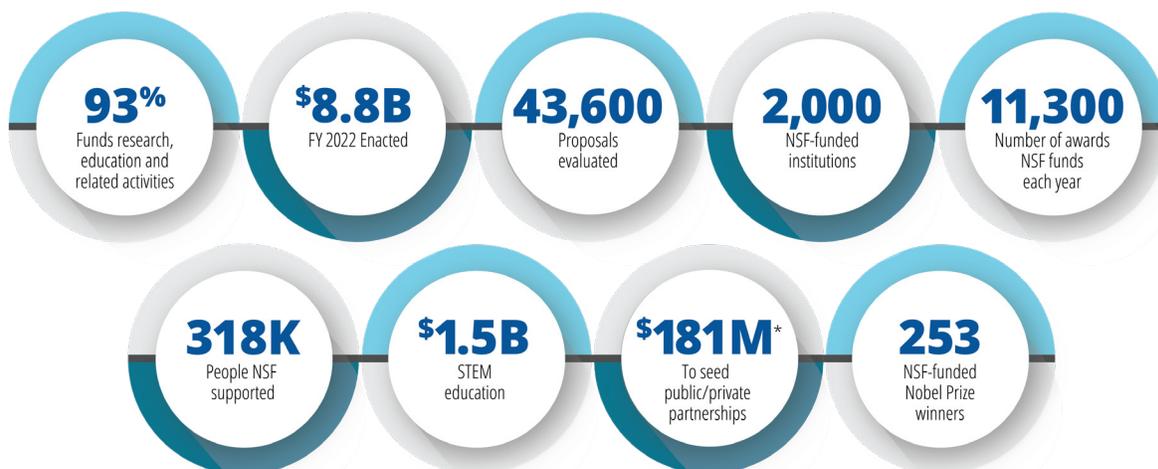
University of Delaware

**\$4,038,000**

Delaware State University

## NSF By The Numbers

The National Science Foundation (NSF) is an [\\$8.8 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 2021 Actuals unless otherwise indicated.  
\*Corresponds to NSF investments initiated in FY 2021 and spanning multiple years.



## NSF-funded COVID-19 Research and Recovery

Researchers at the **University of Delaware** are exploring how agencies and organizations addressing domestic violence have attempted to adapt to the pandemic and the resulting constraints to services, infrastructure systems and built environment use patterns. The findings will provide key data for advancing the health and welfare of millions of people who are potentially vulnerable to domestic violence during pandemics and in the aftermath of disasters. In non-disaster settings, agencies that provide support for domestic violence victims draw on empowerment theories to deliver survivor-centered services, utilizing critical infrastructure systems and built environments to support victims. However, disruptions resulting from disasters generally, and from COVID-19 specifically, have challenged providers' ability to maintain the provision of empowerment-centered services. The objective of this study is to test empowerment models in the context of disasters generally and to extend these models to capture adaptations to use patterns of built environments, where services are provided to vulnerable populations after a disaster. Extending empowerment models to the domain of disasters will improve domestic violence systems' function in disaster settings and will serve as a prototype to improve the effectiveness of other social systems that are part of the social context of the empowerment models.



## STEM Education

CRISPR-based gene editing is revolutionizing biological research as a mechanism to efficiently and precisely modify the genome of almost any organism. As a result of the wide incorporation of CRISPR-based technologies in genetic engineering, there is a need for a biotechnology workforce that is trained in its use. **Delaware Technical Community College** is developing and incorporating CRISPR-based gene editing training into its biotechnology curriculum. The college will then use this curriculum to provide workshops to train community college faculty across the nation in CRISPR-based gene editing techniques.



## Research Driving Innovation

With support from NSF, the **University of Delaware's** Center for Neutron Science is working with the National Institute of Standards and Technology's Center for Neutron Research and the **University of Maryland** to create a world-class neutron spin echo spectrometer. This instrument will strengthen U.S. research infrastructure with substantial benefit to the soft matter, biological sciences and engineering research communities. Upon completion, the instrument will be a key part of the NSF-NIST funded Center for High Resolution Neutron Scattering, a national user facility, and will enable U.S. scientists to measure materials and the dynamics of direct importance to humanity. The instrument uniquely provides these and additional measurement capabilities by closing a critical gap in U.S. research instrumentation infrastructure, with significant demand from academia and industry alike. The project also educates an advanced workforce to make efficient and effective use of this national resource.



## EPSCoR

**COMPETITIVE RESEARCH** | Delaware is one of 28 U.S. states or territories under [NSF's Established Program to Stimulate Competitive Research \(EPSCoR\)](#). Over **\$5,140,000** in awards have been made to Delaware academic institutions through EPSCoR in FY 2021. For more information, visit [Delaware's EPSCoR state web page](#).

## NCSES

According to the [National Center for Science and Engineering Statistics \(NCSES\)](#), which is housed in NSF, **35%** of Science, Engineering and Health doctorates conferred in Delaware are made in Engineering.

- **5.45%** of Delaware's workforce are employed in S&E occupations.
- **34.74%** of Delaware's higher education degrees are concentrated in S&E fields.

## Learn More

**COVID RELIEF** - 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 (ARP) Act of 2021. For more information on NSF-funded COVID-19 research and recovery, visit NSF's award database for [CARES Act](#) and [ARP](#) awards, and NSF's Toolkit for [COVID funding updates](#).

**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](mailto:congressionalteam@nsf.gov).