

ARKANSAS

FY 2021 Fast Facts



\$33,841,000

Total NSF Awards to Arkansas



\$28,033,000

Invested in Fundamental Research in Arkansas



\$5,808,000

Invested in STEM Education in Arkansas



\$1,532,000

Invested in Arkansas startups

Top NSF-funded Academic Institutions for FY 2021

\$23,199,000

University of Arkansas

\$2,493,000

University of Arkansas Pine Bluff

\$706,000 Arkansas State University

• NSF By The Numbers

The National Science Foundation (NSF) is an <u>\$8.8 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.



Data represents FY 2021 Actuals unless otherwise indicated. *Corresponds to NSF investments initiated in FY 2021 and spanning multiple years.

www.nsf.gov



NSF-funded COVID-19 Research and Recovery

Researchers at the **University of Arkansas** set out to investigate the effectiveness of microwaves and plasma for low-temperature disinfection of personal protective equipment contaminated with viruses such as the coronavirus that causes COVID-19. Microwaves and plasma can effectively inactivate microbial pathogens and may be used to disinfect heat-sensitive materials such as masks, gloves and gowns.

STEM Education

With funding from NSF's Scholarships in Science, Technology, Engineering, and Mathematics program, the Path to Graduation program, or PTG, at the **University of Arkansas** aims to close the STEM labor gap by recruiting underserved populations and increasing the number of low-income students, especially from rural regions, whose challenges have been largely ignored in previous STEM student recruitment and retention efforts. PTG will adapt proven student retention and graduation initiatives to better address the financial, academic and social barriers to success so these students can thrive and succeed in their STEM studies.



Research Driving Innovation

The basic knowledge and understanding of how environmental stressors, such as high temperatures, affect cereal crop production is important for global food security. Rice, a model cereal plant and a major world staple crop, is grown in the southern United States and is threatened by increased night temperatures that contribute to unstable production, resulting in lower grain yield and quality and decreased market value. With support from NSF and led by the **University of Arkansas** campuses at Fayetteville and Little Rock, this project will identify individual rice lines that are tolerant to high nighttime temperatures and will use a variety of genetic and biochemical techniques, including CRISPR/Cas9 genome engineering, to identify potential mechanisms that underlie the ability of these plants to be tolerant to high temperatures. Knowing the actual mechanisms will aid breeders in developing new lines that can help decrease the risk of major crop losses due to high temperatures in the future.

EPSCoR

COMPETITIVE RESEARCH | Arkansas is one of 28 U.S. states or territories under <u>NSF's Established Program</u> to <u>Stimulate Competitive Research (EPSCoR</u>). Over **\$12,330,000** in awards have been made to Arkansas academic institutions through EPSCoR in FY 2021. For more information, visit <u>Arkansas' EPSCoR state web</u> page.

NCSES

According to the <u>National Center for Science and</u> <u>Engineering Statistics (NCSES)</u>, which is housed in NSF, **46%** of Science, Engineering and Health doctorates conferred in Arkansas are made in Life sciences.

- 3.07% of Arkansas' workforce are employed in S&E occupations.
- 25.20% of Arkansas' 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 <u>CARES Act</u> and <u>ARP</u> awards, and NSF's Toolkit for <u>COVID funding updates</u>.

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 <u>quantum</u>, <u>artificial intelligence</u>, and <u>advanced manufacturing</u>, and the NSF-supported <u>research</u> and <u>computing infrastructure</u> 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 <u>congressionalteam@nsf.gov.</u>