

ARKANSAS

FY 2023 Fast Facts



• Top NSF-funded Academic Institutions for FY 2023

University of Arkansas \$16,592,000 University of Arkansas at Pine Bluff \$1,825,000 University of Arkansas for Medical Sciences \$1,059,000

• NSF By The Numbers

The U. S. National Science Foundation (NSF) is an <u>\$9.06 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.

www.nsf.gov

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







Expanding the Frontiers of Science

QuAPB is an NSF Historically Black Colleges and Universities - Undergraduate Program (HBCU-UP) award led by the **University of Arkansas at Pine Bluff (UAPB)** focused on developing quantum materials and devices for integrated quantum photonics. This first-of-its-kind quantum center in central Arkansas combines research and education activities and is propelled by close collaboration with the University of Arkansas at Little Rock (UALR) and the University of Arkansas at Fayetteville. The project establishes the first UAPB graduate program in the physical sciences, adds quantum information science and engineering faculty at UAPB, reorients several nanomaterials experts at UALR and UAPB toward quantum applications, creates a hands-on quantum laboratory course for Bachelor of Science and Master of Science students, and powers a diverse pipeline of quantum trainees from the high school to master's levels. Additional education and outreach activities include new laboratory and classroom-based courses as well as public engagement focused on exciting K-12 students about quantum careers.

STEM Education and Broadening Participation

Regional industry in northwestern Arkansas has a growing demand for technicians with the necessary technical skills to implement and maintain advanced manufacturing technologies. Traditional on-campus technician programs can create barriers for potential students who have time constraints due to commuting in a rural environment, jobs or family obligations. **North Arkansas College** is leading an NSF Advanced Technological Education Award focused on implementing competency-based education for a core set of courses in electronics and controls, allowing students to complete a certificate program at their own pace. Instructional materials, competency assessments and simulation tools are being made available for students online to provide greater accessibility and flexibility. Competency-based assessments provide meaningful feedback, allowing students to practice, refine their techniques and improve their performance until they achieve the necessary competency for a module in a course. Simulation tools help students understand how to work with technologies without requiring a physical lab space. The results of this project are being made available to technical education programs at other community colleges.



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. A project led by the **Arkansas Center for Health Improvement** revolves around new delivery models for healthy food; technology-assisted diagnosis; monitoring, prevention and treatment for chronic diseases; and non-traditional diagnostic and pharmacologic therapeutics, focusing on innovations, advancements and infrastructures that improve health care for underserved populations. The project includes diverse regional stakeholders, including academic research institutions, for-profit companies, state government agencies, nonprofits and minority-owned community development finance institutions.

EPSCoR

COMPETITIVE RESEARCH | Arkansas is one of 28 U.S. states or territories under the <u>NSF Established Program to Stimulate</u> <u>Competitive Research (EPSCoR</u>). **\$2,285,171** in awards have been made to Arkansas academic institutions through EPSCoR in FY 2023. For more information, visit Arkansas's EPSCoR state web page.

NCSES

According to the <u>NSF National Center for Science and</u> <u>Engineering Statistics (NCSES)</u>, which is housed in NSF, 39% of science, engineering and health doctorates conferred in Arkansas are made in life sciences. <u>Visit Arkansas's science and</u> <u>engineering state profile to learn more!</u>

- **25.45**% of **Arkansas'** higher education degrees are concentrated in S&E fields.
 - **3.07**^w of **Arkansas**' workforce is employed in S&E <u>occupations.</u>
 - **4.92**^{*} of **Arkansas**' <u>total employment is attributable</u> <u>to knowledge - and technology - intensive</u> <u>industries.</u>

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 <u>congressionalteam@nsf.gov</u>.