

KANSAS

FY 2023 Fast Facts



• Top NSF-funded Academic Institutions for FY 2023

University of Kansas \$36,256,000

Kansas State University \$14,789,000

Wichita State University \$4,350,000

• 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.



NSF has funded the work of **261** Nobel Prize winners over 75 years.







Expanding the Frontiers of Science

The Central High Plains of the Midwest are facing increasingly frequent droughts due to climate change. An NSF Research Infrastructure Improvement Track-2 Focused Established Program to Stimulate Competitive Research collaboration award is therefore bringing together researchers from **Kansas State University**, the University of Nebraska-Lincoln and Langston University to conduct research on how to preserve soil moisture and improve water quality under drought conditions. The Microbial Innovations for Climate-Resilient Agriculture (MICRA) project is studying corn due to its economic importance in the Midwest and its substantial demand for water and nutrients. Researchers are investigating to determine the impacts of adding amendments to improve the soil; plants' behavior in response to drought and the impacts of climate change on agricultural workers; and farmers' willingness to adopt new irrigation practices relative to differing water rights and policies. The MICRA team will also mentor and train undergraduate and graduate students, including those from historically excluded groups; teach interdisciplinary courses at the graduate level; support early career faculty at the participating universities; and conduct educational outreach to rural K-12 science teachers.

STEM Education and Broadening Participation

Wichita State University (WSU) is the only urban-serving research institution in Kansas and is designated as a National Security Agency and Department of Homeland Security Center of Academic Excellence in Cyber Defense Education. Now, through the NSF CyberCorps® Scholarship for Service program, WSU is awarding scholarships to undergraduate and graduate students enrolled in its cybersecurity programs. Scholarship recipients receive individualized career advising focused on transitioning to a government career and participate in mentored research while completing a cybersecurity degree. Students have an opportunity to conduct research in areas such as biometrics, cyberphysical system security, mobile security and wireless network security. The project team will leverage its existing close ties with minority-oriented and security-oriented student organizations on campus, as well as with community colleges and local high schools, to recruit students. The project also includes retention specialists who will develop support structures, including parent mentoring, to tackle challenges faced by students from underrepresented groups. To further improve the inclusivity of the program, the project will train participating faculty on the academic challenges faced by students from underrepresented groups.



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. Researchers at **Kansas State University** and the **University of Kansas** are forming a network with nonprofits, economic development agencies and for-profit industries that is focused on economic development in biosecurity, biodefense and advanced biomanufacturing, specifically in the northeast- and central-Kansas and northwest-Missouri region. Use-inspired challenges addressed by the NSF Engine include disease mitigation and surveillance, alternatives to address microbial resistance and improvements to value-added agriculture and biomanufacturing processes.

EPSCoR

COMPETITIVE RESEARCH | Kansas is one of 28 U.S. states or territories under the NSF Established Program to Stimulate <u>Competitive Research (EPSCoR)</u>. **\$19,154,679** in awards have been made to Kansas academic institutions through EPSCoR in FY 2023. For more information, visit Kansas'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, 35% of science, engineering and health doctorates conferred in Kansas are made in life sciences. <u>Visit Kansas's science and</u> <u>engineering state profile to learn more!</u>

- **26.41**% of Kansas' higher education degrees are concentrated in S&E fields.
 - **4.70**[%] of Kansas' workforce is employed in S&E <u>occupations.</u>
 - **8.45**^w of Kansas' <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>.