

# MISSISSIPPI

#### FY 2023 Fast Facts



### • Top NSF-funded Academic Institutions for FY 2023

Mississippi State University \$16,839,000	University of Southern Mississippi <b>\$6,782,000</b>	Jackson State University \$5,839,000
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## • 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.

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





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# **Expanding the Frontiers of Science**

The transdisciplinary Advancing Social and Environmental Equity through Plastics Research: Education, Innovation, and Inclusion project, awarded to the **University of Southern Mississippi** and Auburn University through the NSF Research Infrastructure Improvement program, seeks to mitigate the negative impacts of plastic pollution on vulnerable coastal communities in Alabama and Mississippi. In partnership with regional research and health institutions, local communities, small businesses and recycling service providers, the project team is assessing the impact of microplastics on marine, aquaculture and community health; developing blend compatibilizers to improve mixed polyolefin recycling; and creating next-generation bio-sourced polymers. Program elements include mentorship and advancement for early-career researchers, virtual professional development workshops and student-led symposia to foster networking and leadership skills, summer research programs for undergraduates, and specialized training sessions for workers in construction, agriculture and marine sectors to better manage plastic waste. A robust outreach program fosters community engagement by setting up research exhibits along the coast and leading hands-on expeditions for plastic debris removal from beaches.

## **STEM Education and Broadening Participation**

The NSF Historically Black Colleges and Universities - Undergraduate Program Implementation Project at **Hinds Community College—Utica Campus** seeks to address persistence in STEM fields by developing bridges that support students' matriculation at each educational level. This project aims to support the critical transitions from K-12 to four-year institutions. As students transition to community college, they undergo a two-week Student Success Camp to prepare for college courses through a Summer Bridge Program (SBP). They then enroll in science, technology, engineering and mathematics courses during the SBP and earn STEM-UP Academy cohort status. This status makes them eligible for two-year financial aid to complete a STEM associate' degree. After the second semester, they are encouraged to engage in summer research programs or internships at four-year universities and specified government or industrial STEM laboratories. Lastly, two-year colleges will form four-year college linkages, advancing research and collaborative forums as national models for joint efforts. The project serves as a model for enhancing persistence rates in STEM at 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. An award led by **Mississippi State University** is focused on accelerating the integration of intelligent technologies throughout northern Mississippi's diverse manufacturing sector. The project team, nicknamed Engine 662, is a coalition of the region's research universities, community colleges and industry partners that addresses gaps in technologies, products, workforce training, ecosystem coordination and the translation of new technologies to commercialization—positioning Mississippi for a more significant share of the technological revolution.

#### EPSCoR

**COMPETITIVE RESEARCH** | Mississippi is one of 28 U.S. states or territories under the <u>NSF Established Program to Stimulate</u> <u>Competitive Research (EPSCoR</u>). **\$8,309,369** in awards have been made to Mississippi academic institutions through EPSCoR in FY 2023. For more information, visit Mississippi'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, 37% of science, engineering and health doctorates conferred in Mississippi are made in life sciences. <u>Visit Mississippi's science</u> <u>and engineering state profile to learn more!</u>

- **25.72**<sup>%</sup> of **Mississippi's** <u>higher education degrees are</u> <u>concentrated in S&E fields.</u>
  - **2.69**<sup>%</sup> of **Mississippi's** <u>workforce is employed in S&E</u> <u>occupations.</u>
  - **5.46**<sup>w</sup> of Mississippi's <u>total employment is</u> <u>attributable to knowledge - and technology -</u> <u>intensive 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>.