

#### FY 2023 Fast Facts



\$103,631,000

**Total NSF Awards** to Alabama



\$79,512,000

**Invested in Fundamental** Research in Alabama



\$24,120,000

Invested in STEM **Education in Alabama** 



\$1,547,000

Invested in Alabama Businesses

# Top NSF-funded Academic Institutions for FY 2023

**University of Alabama** \$35,515,000

**Auburn University** \$22,211,000

**University of Alabama at** Birmingham \$10,588,000

## NSF By The Numbers

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



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



\$9.06B

FY 2024 **Total Enacted** 

93% Funds research, education and

related activities









\*Data represents FY 2023 Actuals unless otherwise indicated











### **Expanding the Frontiers of Science**

An NSF Research Infrastructure Improvement Track-2 Focused Established Program to Stimulate Competitive Research collaboration award led by **Auburn University** is seeking to make agricultural systems more resilient to climate change, reduce greenhouse gas emissions from agricultural sources in an environmentally sustainable manner (e.g., improving soil health and water and air quality) and enhance the resilience of farmers to the negative consequences of climate change. The research project is: (1) developing engineered "biochar" to lower agricultural nitrous oxide emission; (2) determining the plant genes and pathways associated with a positive yield response to engineered biochar amendment under water deficit conditions; (3) understanding the impact of engineered biochar on nutrients, greenhouse gas emissions and microbial processes; (4) simulating the impact of extreme events on crop yield and nutrient losses and identifying the suites of conditions that are less impactful for agricultural productivity; and (5) assessing farmers' perceptions on and the economics of using engineered biochar along with animal waste. The project includes educational, mentoring and training activities for undergraduate and graduate level students, postdoctoral scholars, early-career faculty and affected communities.



### **STEM Education and Broadening Participation**

The Alabama Louis Stokes Alliance for Minority Participation (ALSAMP), funded through the NSF LSAMP program, consists of nine diverse institutions, including doctorate-granting institutions and five historically Black colleges and universities. Led by the **University of Alabama**, the overarching goal of ALSAMP is to continuously improve strategies to institutionalize and sustain evidence-based recruitment and retention practices for student success in completing undergraduate and graduate degrees in STEM disciplines, particularly scientific and technical areas of national priority. Specifically, in support of developing a well-prepared 21st-century workforce to meet the challenge of the NSF "Big Idea" Harnessing the Data Revolution, ALSAMP incorporates a required suite of hybrid computational programming for all students. Evidence-based practices being implemented include: performance-based stipend support, first-year bridge programs, a spring research conference, summer research experiences, a community college/transfer bridge and international research opportunities.



## **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. In Alabama, the Mississippi Alabama Georgia Network for Electric Vehicle Technologies project, led by the **University of Alabama**, attracts stakeholders within the EV industry to collaborate on building the EV ecosystem for the greater good of the region. The expansion of EV production in the region creates opportunities in traditionally underserved communities to expand both existing and new industries.

#### **EPSCoR**

**COMPETITIVE RESEARCH** | Alabama is one of 28 U.S. states or territories under the <u>NSF Established Program to Stimulate Competitive Research (EPSCoR)</u>. **\$15,979,545** in awards have been made to Alabama academic institutions through EPSCoR in FY 2023. For more information, visit Alabama's EPSCoR state web page.

#### **NCSES**

According to the NSF National Center for Science and Engineering Statistics (NCSES), which is housed in NSF, 36% of science, engineering and health doctorates conferred in Alabama are made in life sciences. Visit Alabama's science and engineering state profile to learn more!

**26.99**% of **Alabama's** higher education degrees are concentrated in S&E fields.

**4.50**% of **Alabama's** workforce is employed in S&E occupations.

of Alabama's total employment is attributable to knowledge - and technology - intensive industries.

#### **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 <a href="mailto:congressionalteam@nsf.gov">congressionalteam@nsf.gov</a>.