



U.S. National
Science Foundation



SOUTH DAKOTA


FY 2023 Fast Facts



\$21,378,000
Total NSF Awards to South Dakota



\$14,810,000
Invested in Fundamental Research in South Dakota



\$6,568,000
Invested in STEM Education in South Dakota

Top NSF-funded Academic Institutions for FY 2023

South Dakota School of Mines and Technology
\$7,137,000

South Dakota State University
\$3,929,000

Dakota State University
\$2,876,000

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.

DID YOU KNOW?

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



11K
Awards



1.9K
Institutions



353K
People

**Data represents FY 2023 Actuals unless otherwise indicated*



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2415 Eisenhower Avenue | Alexandria, VA 22314



Expanding the Frontiers of Science

Climate-friendly and sustainable crop nutrition solutions are required to boost rural farms' economic and environmental sustainability. Microbial fertilizers offer an easily adoptable alternative to synthetic fertilizers that have high production costs, contribute to greenhouse gas emissions, eutrophication, negative human and environmental health and have adverse socio-economic impacts. The Center for Climate-Conscious Agricultural Technologies, in a new partnership with researchers from **South Dakota State University**, the **South Dakota School of Mines and Technology**, Sitting Bull College and North Dakota State University aims to mitigate the effects of chemical fertilizer production on climate change by developing microbial biofertilizers as an alternative. The center, funded by an NSF Research Infrastructure Improvement Track-2 Focused Established Program to Stimulate Competitive Research collaboration award, collaborates with crop producers in Native American reservations and underserved parts of the Dakotas on the adoption of such climate-friendly technologies. The center also benefits K-12, undergraduate and graduate education by adding new course materials and introducing interdisciplinary research in classrooms.



STEM Education and Broadening Participation

A goal of the NSF Tribal Colleges and Universities Program is to increase the science, technology, engineering and mathematics instructional and research capacities of specific institutions of higher education that serve the nation's Indigenous students. For example, the **Thokátakiya** ("towards the future") project aims to strengthen environmental data science education and undergraduate research at **Oglala Lakota College**. The research focuses on advancing the understanding of groundwater and surface water flow in the region and provides a basis for academic research experiences and community engagement. Using advanced sensing tools, such as airborne and drone-acquired multispectral imagery and lidar, which uses laser light to detect objects, the project aims to characterize and understand the geometry, scale and effects of structural features in complex hydrologic systems. A curriculum designed around these themes and founded on Lakota Ways of Knowing aims to train future leaders in the field of data science. Core competencies are built-in courses in the environmental science and pre-engineering degree programs. Community programming emphasizes food sovereignty, aquifer health and developing a self-paced GIS certificate program for the regional STEM workforce.



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. The program seeks regional teams rooted within industry, academia, government, nonprofits, civil society and communities of practice to catalyze and foster innovation ecosystems across the U.S. which will advance critical technologies, address national and societal challenges, promote economic growth and job creation, spur sustainable regional innovation and nurture diverse talent.

To stay in the loop about future funding calls and opportunities to engage, [sign up for the NSF Engines newsletter](#).

EPSCoR

COMPETITIVE RESEARCH | South Dakota is one of 28 U.S. states or territories under the [NSF Established Program to Stimulate Competitive Research \(EPSCoR\)](#). **\$5,930,486** in awards have been made to South Dakota academic institutions through EPSCoR in FY 2023. For more information, visit South Dakota's EPSCoR state web page.

NCSES

According to the [NSF National Center for Science and Engineering Statistics \(NCSES\)](#), which is housed in NSF, 43% of science, engineering and health doctorates conferred in South Dakota are made in life sciences. [Visit South Dakota's science and engineering state profile to learn more!](#)

32.75% of **South Dakota's** [higher education degrees are concentrated in S&E fields](#).

3.80% of **South Dakota's** [workforce is employed in S&E occupations](#).

5.42% of **South Dakota'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.](#)

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