

# WYOMING





\$23,017,000

**Total NSF Awards** to Wyoming



\$22,312,000

**Invested in Fundamental** Research in Wyoming



\$705,000

Invested in STEM **Education in Wyoming** 



\$1,155,000

**Invested in Wyoming** Businesses

# Top NSF-funded Academic Institutions for FY 2023

**University of Wyoming** \$21,032,000

**Laramie County Community College** \$350,000

## 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









People

\*Data represents FY 2023 Actuals unless otherwise indicated











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

The **University of Wyoming Rocky Mountain Herbarium (RM)** is among the largest public university herbaria in the United States. With over 1 million accessioned specimens, it contains the most comprehensive collection of Rocky Mountain plants in the world. The RM has outgrown its space, and the bulk of these specimens are inaccessible to researchers. Through NSF funding, more than 200 herbarium cabinets are being added to secure over 420,000 specimens and allow for the incorporation of the **Central Wyoming College Herbarium**. A key activity will be to image all mounted specimens that have not yet been imaged, resulting in a total of 700,000 completely digitized specimens. This will substantially increase the accessibility of collections data from Wyoming and the Rocky Mountains, which are widely used by the public and by land management agencies for research, teaching and outreach. The upgrades also include a summer internship program to train the next generation of herbarium scientists in both traditional and modern aspects of specimen curation and specimen-based research.



# STEM Education and Broadening Participation

The demand for information technology professionals in Wyoming, and nationally, continues to outpace many other technical and STEM fields. Employment growth projections in the IT field demonstrate positional growth of nearly 14,000 positions in the **Laramie County Community College** (LCCC) region. Through the NSF Advanced Technological Education program, a project at LCCC is addressing the demand for IT professionals by improving access, inclusion and persistence in the community college IT coursework. The goals of this project are to expand access for rural/remote students, engage and retain underserved populations and emphasize the advanced skills/certifications required to promote marketability in an increasingly competitive field. The project is developing a self-sustaining student resource model that will ensure rural/remote students are equipped with computing equipment consistent with that of industry and can participate in practical lab exercises to prepare them for career expectations. Summer boot camps and a fully remotely accessible IT Professional Club are being utilized to increase student participation, collaboration and success. Through these activities, the project is preparing qualified, skilled and diverse professionals to benefit the regional workforce and assist Wyoming's goal of diversifying its economy.



## **Regional Innovation Engines**

NSF Regional Innovation Engines (NSF Engines) represent one of the single largest broad investments in place-based research and development in the nation's history, uniquely placing science and technology leadership as the central driver for regional economic competitiveness. The **NSF Engine: Colorado-Wyoming Climate Resilience Engine**, led by **Rocky Mountain Innovation Initiative**, aims to advance the region's research and commercialization efforts focused on sensing, monitoring and predictive analytic technologies for climate resiliency spanning methane emissions, soil carbon capture, earth sensing, water scarcity, wildfires and extreme weather.

#### **EPSCoR**

**COMPETITIVE RESEARCH** | Wyoming is one of 28 U.S. states or territories under the <u>NSF Established Program to Stimulate Competitive Research (EPSCoR)</u>. **\$12,559,232** in awards have been made to Wyoming academic institutions through EPSCoR in FY 2023. For more information, visit Wyoming's EPSCoR state web page.

#### **NCSES**

According to the <u>NSF National Center for Science and Engineering Statistics (NCSES)</u>, which is housed in NSF, 24% of science, engineering and health doctorates conferred in Wyoming are made in engineering. <u>Visit Wyoming's science and engineering state profile to learn more!</u>

- **44.78**% of **Wyoming's** higher education degrees are concentrated in S&E fields.
  - **3.36**% of **Wyoming's** workforce is employed in S&E occupations.
  - of Wyoming'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>.