U.S. National Science Foundation

COLORADO

FY 2023 Fast Facts

$348,222,000
Total NSF Awards to Colorado

$306,056,000
Invested in Fundamental Research in Colorado

$29,768,000
Invested in STEM Education in Colorado

$11,374,000
Invested in Colorado Businesses

Top NSF-funded Academic Institutions for FY 2023

University of Colorado Boulder	Colorado State University	Colorado School of Mines
$93,019,000	**$42,693,000**	**$17,958,000**

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*

Expanding the Frontiers of Science

One of the more surprising predictions of Einstein's theory of general relativity is that a clock further from the Earth will tick faster relative to one closer to the Earth. From the human perspective, the magnitude of the effect is small. Still, it has important impacts for GPS navigation and fundamental timekeeping and, as a new project at the **University of Colorado Boulder** will show, for measuring gravity and the shape of the Earth, a concept known as relativistic geodesy. In this project, funded by the NSF Quantum Sensing Challenges for Transformational Advances in Quantum Systems program, researchers transport a cold-atom optical clock — and advanced quantum sensor of time — to the mountainous regions of Colorado. By comparing the mountain clock's time to that of a reference clock at the National Institute of Standards and Technology, they can measure the shape of the Earth at the 1 cm level. The effort uniquely explores how research and technologies from quantum, atomic and laser physics can be better engineered and applied for the benefit of gravitational and geophysics.

STEM Education and Broadening Participation

The Teach@Mines program at the **Colorado School of Mines**, funded through the NSF Robert Noyce Scholarship program, aims to serve the national need of preparing high-quality STEM teachers as well as developing high-quality strategies and resources for encouraging STEM faculty to talk about teaching as a profession on a level playing field with other careers a student can pursue with the same degree. The project recruits both undergraduate majors and career changers in science, technology, engineering and mathematics disciplines intending to fund 40 internships and at least 17 unique individuals as Noyce scholars over five years. The project provides clear, transparent and timely advising in addition to the education, experiences and support within Noyce scholars' licensure coursework and induction focused on developing cultural competence, pedagogical knowledge and dispositions to be successful STEM teachers in high-need schools. To support Noyce recipients during their first years of teaching, induction support includes working in tandem with the hiring schools, connecting scholars with external teacher networks and providing personal support from Teach@Mines faculty. Scholars have access to a Mines mentor teacher and participation in the Mines alumni network for a minimum of three years.

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. **NSF Engine: The 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. Additionally, an NSF Engines Development Award led by the **Catalyst Campus for Technology & Innovation** is focused on igniting technological innovation and workforce development to foster technology commercialization and technology transfer in space systems, space infrastructure and space cybersecurity for the space economy.

NCSES

According to the NSF National Center for Science and Engineering Statistics (NCSES), which is housed in NSF, Colorado ranks 5th in the nation for SBIR awards. Visit Colorado's science and engineering state profile to learn more!

39.40% of **Colorado's** higher education degrees are concentrated in S&E fields.

7.79% of **Colorado's** workforce is employed in S&E occupations.

7.70% of **Colorado'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 congressionalteam@nsf.gov.