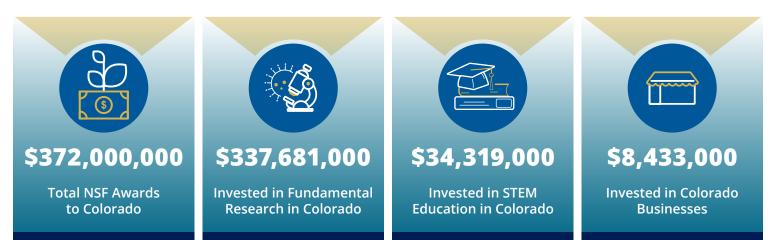


COLORADO

FY 2022 Fast Facts

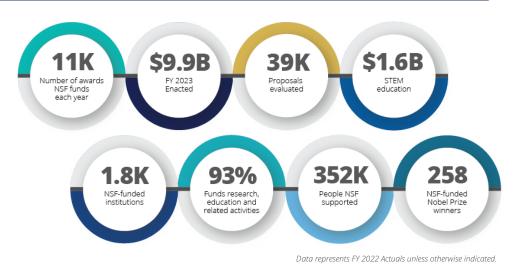


Top NSF-funded Academic Institutions for FY 2022



NSF By The Numbers

The National Science Foundation (NSF) is a <u>\$9.5 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.





Expanding the Frontiers of Science

A central challenge of science, technology, engineering and mathematics learning is how to promote deep conceptual learning via rich socio-collaborative experiences. To tackle this, the **University of Colorado Boulder** leads an NSF-funded AI Institute — the Institute for Student-AI Teaming. Its goal is to reframe the role of artificial intelligence in education and move toward a future where AI is viewed as a social, collaborative partner that helps students work and learn more effectively, engagingly and equitably, while helping educators focus on what they do best: inspiring and teaching students. The institute develops, deploys and studies AI Partners that interact naturally with students and teachers through speech, gesture, gaze and facial expression in real-world classrooms and remote learning settings. The long-term impact of the institute is to help realize the grand challenge of "Education for All" by leading the nation toward a future where all students — especially those whose identities are underrepresented in STEM — routinely participate in rich and rewarding AI-enabled collaborative learning experiences that scale across many classrooms, resulting in deeper engagement and persistence in STEM, more inclusive classroom cultures and significant improvements in learning outcomes.

STEM Education

NSF's CyberCorps® Scholarship for Service (SFS) is a scholarship program designed to recruit and train the next generation of information technology professionals to meet the needs of the cybersecurity mission for federal, state, local and tribal governments. All scholarship recipients must work after graduation for a government organization in a position related to cybersecurity. The **University of Colorado Colorado Springs** and the University of Washington Tacoma were recently awarded a CyberCorps SFS grant to jointly establish a new program, the Colorado-Washington Security Scholars Program. CWSSP leverages the host institutions' cybersecurity degree programs and their existing formal collaborations to provide multiple pipelines to create highly qualified and committed professionals to join the government workforce in cybersecurity.



Regional Innovation Engines

The NSF Engines program envisions fostering flourishing regional innovation ecosystems across the country, providing a unique opportunity to spur economic growth in regions that have not fully participated in the technology boom of the past few decades. The NSF Engines program uniquely harnesses the nation's science and technology research and development enterprise and regional-level resources. NSF Engines can catalyze robust partnerships rooted in scientific and technological innovation to positively impact the economy within a geographic region, address societal challenges, and advance national competitiveness. Find potential NSF engines in your state.

Infrastructure

Through an NSF Major Research Instrumentation award, **Colorado College** acquired a confocal Raman microspectrometer system that will further research in a variety of fields such as polymorph crystallization and bipolar electrochemistry, solid-state ionics and nanolaminates, nucleic acid metal binding, cold plasma physics, in vivo sensors, surface chemistry, virology and spin-crossover behavior.

NCSES

According to the <u>National Center for Science and</u> <u>Engineering Statistics (NCSES)</u>, 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 <u>higher education</u> <u>degrees are concentrated in S&E fields.</u>
7.79%	of Colorado's workforce are employed in S&E occupations.
7.70%	of Colorado's <u>total employment</u> <u>is attributable to knowledge - and</u> <u>technology - 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 NSF's 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 NSF's Research Security website.

CONNECT WITH NSF – For more information on NSF's impact in your state, please contact NSF's Office of Legislative and Public Affairs at <u>congressionalteam@nsf.gov</u>.