Iowa State University
$37,881,213

University of Iowa
$11,532,618

Grinnell College
$3,838,768

NSF By The Numbers
The National Science Foundation (NSF) is a $9.5 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.
Expanding the Frontiers of Science

Wind energy and ethanol production are two of the largest growth industries in Iowa and Kansas, and both states have become national leaders in renewable energy over the past two decades. Iowa is the clear national leader in biofuel production, and the two states rank third and fourth in total wind energy production. Unfortunately, both industries face significant resource challenges. Wind energy is threatened by limited national supplies of critical minerals, particularly rare earth elements, or REEs, and ethanol production limitations imposed by access to sufficient groundwater supplies required for the conversion of corn into biofuel. The two limitations, REEs and groundwater, represent two of the largest challenges facing the future of the renewable energy industry in the United States. This joint project funded by NSF's EPSCoR program and carried out in partnership between the University of Iowa, Iowa Geological Survey, University of Kansas and the Kansas Geological Survey will utilize this multisector collaboration between universities and state governmental agencies to produce data and resources that support private sector growth by providing the technical capacity and information required for sustainable growth and development of the renewable energy sector in both jurisdictions.

STEM Education

Led by Iowa State University, this Urban-Rural Systems Research Coordination Network addresses challenges facing many regions of the U.S., including urban and suburban sprawl and disconnected food, energy and water systems. Other challenges include frequent floods and uncontrolled water runoff, urban heat-induced hospitalizations and failure of ecosystem services. These situations have disproportionate impacts on vulnerable populations and are common throughout the Mississippi River Basin. This project brings together an interdisciplinary group of researchers and stakeholders to develop new research collaborations and directions that address the multi-dimensional natural and human-made challenges faced by communities at urban-rural interfaces. Five metropolitan areas within the Mississippi basin will be studied. This network of mid-sized cities, together with their satellite communities and adjacent rural areas, constitute a large, interconnected social and environmental system from the headwaters of the river to the Louisiana delta. The network will establish a foundation for innovation in STEM education, preparing students to work in regional, transdisciplinary systems science. Project outcomes will facilitate research that leads to new regional policies and government actions to create more resilient and sustainable urban-rural environments across scales for people living within regional watersheds.

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.

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 congressionalteam@nsf.gov.