NSF & MINNESOTA

In Fiscal Year (FY) 2019, the National Science Foundation made $100,313,000 in awards to Minnesota in support of fundamental research, advanced technical education, entrepreneurial training, STEM teacher training, long-term ecological monitoring, small business development, major research instrumentation and more.

DID YOU KNOW?

DISCOVERY | Researchers at the University of Minnesota are working on innovations to meet the unprecedented challenge of producing more food in intensively cultivated regions with less energy and lower environmental impacts. NSF-funded researchers from the biophysical, socioeconomic, and computational sciences are investigating two types of innovations using data from the northern U.S. Corn Belt. The first investigates the incorporation of a novel oilseed crop into existing corn-soybean rotations to produce a new supply of biodiesel energy while lowering water resource impacts and creating positive ecological benefits, and the second studies emerging systems of sustainability certification for their potential to lead to broad-scale adoption of this new cropping system.

SUPPORTING STUDENTS | NSF’s CyberCorps®: Scholarship for Service (SFS) program is a scholarship program designed to recruit and train the next generation of information technology professionals, industry control system security professionals, and security managers 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 for a period equal to the length of the scholarship. Metropolitan State University has established a Cybersecurity Center with the mission of conducting research and educational activities intended to contribute to advances in formal and informal cybersecurity education.

SUPPORTING STUDENTS | Twin Cities Public Television is currently leading a three-year project to examine how gender equitable and culturally responsive teaching strategies influence middle school girls' confidence, interest and motivation around STEM studies, and their choices around STEM careers. A set of research-based strategies, called the SciGirls Seven, are currently employed in SciGirls, an NSF-funded informal STEM educational outreach program serving 125+ educational partner organizations nationwide. The goal is to update and enrich the SciGirls Seven, providing educators with a more effective resource to motivate girls in STEM studies and careers.

SCIENCE & ENGINEERING INDICATORS | 5.39% of the Minnesotan workforce is employed in S&E occupations, and 9.29% of Minnesota business establishments are industries with high employment in science, engineering, and technology (SET) occupations.

UNIVERSITY OF MINNESOTA MATERIALS RESEARCH SCIENCE & ENGINEERING CENTER (MRSEC) | NSF’s MRSECs support interdisciplinary and multidisciplinary materials research and education of the highest quality, while addressing fundamental problems in science and engineering that are important to society. The University of Minnesota MRSEC enables important areas of future technology ranging from biomedicine, separations, and plastic electronics to security, renewable energy, and information technology.