NSF & OKLAHOMA

In Fiscal Year (FY) 2019, the National Science Foundation made $31,122,000 in awards to Oklahoma 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 | Storm-generated boundaries are the focal point for tornado genesis. As such, a more complete understanding of boundary structure in supercell thunderstorms is required to advance understanding of the processes responsible for supporting near-surface tornadic rotation. The University of Oklahoma is working to improve the conceptual model of supercell thunderstorms through coordinated and tightly-focused deployments of new and established remote-sensing and in-situ instruments tasked to collect storm observations both aloft and at the surface. University of Oklahoma students are participating in a field campaign spanning two spring seasons over an operations domain covering much of the central US — the students will collect data in different parts of storms by utilizing observing platforms including unmanned aircraft systems, mobile Ka-band radars, mobile X-band radar, and other mobile monitoring stations.

STEM WORKFORCE DEVELOPMENT | Supported by an Advanced Technological Education (ATE) award, a new experiential-learning education program at the Rose State College has been developed to train students who will become the future workforce in the design, maintenance, and use of unmanned aerial systems (drones). With an emphasis on two-year Institutions of Higher Education (IHEs), the ATE program focuses on the education of technicians for the high-technology fields that drive our nation’s economy. The ATE program supports curriculum development; professional development of college faculty and secondary school teachers; career pathways; and other activities.

SUPPORTING STUDENTS | A NSF Major Research Instrumentation award to the University of Tulsa provided for the acquisition of a transmission electron microscope. Access to this instrument is critical for conducting modern materials science research and for pushing the limits of understanding in other fields as diverse as biology and archeology. This award allows the University of Tulsa to finalize the creation of a regional electron microscope facility, available for use by educational and research institutions in the area and by regional companies and industries such as oil and gas, aerospace and advanced manufacturing.

SCIENCE & ENGINEERING INDICATORS | 3.51% of the Oklahoma workforce is employed in S&E occupations, and 8.58% of Oklahoma business establishments are industries with high employment in science, engineering and technology (SET) occupations.*

COMPETITIVE RESEARCH | $2,560,000 in awards to Oklahoman academic institutions through NSF’s Established Program to Stimulate Competitive Research (EPScoR), which promotes scientific progress in states that have traditionally received lesser amounts of NSF R&D funding.

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