



### FAST FACTS

**\$31,122,000**

Total NSF awards to Oklahoma in FY19

**\$29,807,000**

Amount invested in fundamental research in Oklahoma in FY19

**\$1,314,000**

Amount invested in STEM education in Oklahoma in FY19

**\$955,000**

Amount invested in Oklahoma startups through NSF's small business program in FY19

**\$2,560,000**

Amount dedicated to stimulate competitive research in Oklahoma through NSF EPSCoR

### TOP 3 NSF-FUNDED ACADEMIC INSTITUTIONS FOR FY19

**\$14,881,000**

University of Oklahoma

**\$10,155,000**

Oklahoma State University

**\$2,814,000**

University of Tulsa

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## 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.



Flux tower at the NEON terrestrial field site at Klemme Range Research Station in the Rolling Red Plains Resource Area. Image Credit: NSF

**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.<sup>+</sup>

**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.

<sup>+</sup> National Science Board, National Science Foundation. 2020. Science and Engineering Indicators 2020: The State of U.S. Science and Engineering. NSB-2020-1. Alexandria, VA. Available at <https://ncses.nsf.gov/pubs/nsb20201/>.