



# NSF & PUERTO RICO

In fiscal year (FY) 2019, the **National Science Foundation (NSF)** made **\$19,355,000 in awards** to Puerto Rico in support of fundamental research, STEM education, long-term ecological monitoring, small business development, student support, entrepreneurial training, and more.

## DID YOU KNOW?

**IMPACT** | The **University of Puerto Rico Medical Sciences Campus** received a \$5,000,000 continuing grant through August 2022 to continue development of its Phase II Center for Environmental Neuroscience under NSF's Centers of Research Excellence in Science and Technology (CREST) program. CREST supports the enhancement of research capabilities of minority-serving institutions through the establishment of centers that effectively integrate education and research. CREST promotes the development of new knowledge, enhancement of the research productivity of individual faculty, and an expanded presence of students historically underrepresented in STEM disciplines. Investigators and students will explore the impact of anthropogenic environmental degradation on nervous systems at the structural, physiological and behavioral levels.

**STEM WORKFORCE DEVELOPMENT** | **Universidad Metropolitana** received an Advanced Technological Education (ATE) award to help address the need for additional STEM technicians in the fields of fiber-optics and photonics, which have been critical for the reconstruction and maintenance of the island's communication infrastructure following Hurricanes Irma and Maria in 2018. 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** | The **University of Puerto Rico (UPR) Mayaguez** received a \$1,111,530 award under NSF's Improving Undergraduate STEM Education: Hispanic-Serving Institutions Program (HSI Program), which aims to enhance undergraduate STEM education and build capacity at HSIs. Projects supported by the HSI Program will also generate new knowledge about how to achieve these aims. This project will advance the aims of the HSI Program by increasing the number of students who complete baccalaureate degrees in engineering or related degrees in resilient and sustainable infrastructure. This collaborative project between UPR Mayaguez, UPR Rio Piedras and UPR Ponce will develop an interdisciplinary Resilient Infrastructure and Sustainability Program to educate undergraduate STEM students in engineering and related skills needed to respond to natural disasters.

**COMPETITIVE RESEARCH** | **NSF made \$6,340,000 in awards** to Puerto Rico academic institutions through NSF's Experimental Program to Stimulate Competitive Research (EPSCoR), which promotes scientific progress in states that have traditionally received lesser amounts of NSF research and development funding.

**FACILITY** | **Arecibo Observatory**, Arecibo, Puerto Rico. Built in 1963, Arecibo is the world's largest operating single dish radar/radio telescope with a 305-meter-diameter reflector. Three major areas of research are supported by Arecibo: radio astronomy, solar system radar astronomy, and space and atmospheric sciences. Arecibo is operated by the University of Central Florida, Yang Enterprises, and Metropolitan University, under a five-year cooperative agreement that began April 1, 2018. Arecibo is jointly supported by NSF's Directorate for Mathematical and Physical Sciences Division of Astronomical Sciences and Directorate for Geosciences Division of Atmospheric and Geospace Sciences. Arecibo is also supported by NASA under their Near-Earth Object Observation Program.



The Arecibo Observatory in Puerto Rico.  
Image Credit: NAIC Arecibo Observatory, NSF

## FAST FACTS

**\$19,355,000**

Total NSF awards to Puerto Rico in FY19

**\$14,541,000**

Amount invested in fundamental research in Puerto Rico in FY19

**\$4,814,000**

Amount invested in STEM education in Puerto Rico in FY19

**\$1,843,000**

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

**\$6,340,000**

Amount dedicated to stimulate competitive research in Puerto Rico through NSF EPSCoR

## TOP NSF-FUNDED ACADEMIC INSTITUTIONS FOR FY19

**\$13,566,000**

University of Puerto Rico (all campuses)

**\$1,310,000**

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