



FAST FACTS

\$25,013,000

Total NSF awards to
Maine in FY19

\$20,925,000

Amount invested in
fundamental research in
Maine in FY19

\$4,088,000

Amount invested in STEM
education in Maine in FY19

\$235,000

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

\$8,290,000

Amount dedicated to
stimulating competitive
research in Maine through
NSF EPSCoR

TOP 3 NSF-FUNDED ACADEMIC INSTITUTIONS FOR FY18

\$13,140,000

University of Maine

\$2,646,000

Bates College

\$1,638,000

Bowdoin College

CONNECT WITH US ONLINE

 @NSF

 /US.NSF

 @nsfgov

 nsf.gov/transform.pdf

NSF & MAINE

In Fiscal Year (FY) 2019, the **National Science Foundation made \$25,013,000 in awards** to Maine 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 | NSF-funded researchers from **Bigelow Laboratory for Ocean Sciences** used cutting-edge molecular methods to study microbes, which thrive in the hot, oxygen-free fluids that flow through the Earth's crust. Called Hydrothermarchaeota, this group of microbes lives in such an extreme environment that they have never been cultivated in a laboratory for study. The researchers bypassed the problem of cultivation with genetic sequencing methods called genomics, a suite of novel techniques used to sequence large groups of genetic information. The study has revealed how a group of deep-sea microbes provides clues to the evolution of life on Earth.

STEM WORKFORCE DEVELOPMENT | The University of Maine has received a **\$1,250,000 award** under the NSF STEM+Computing (STEM+C) program. The STEM+C program addresses an urgent need for real-world, interdisciplinary, and computational preparation of students from the early grades through high school (pre-K-12). Through carefully designed curricula that combines programming with physical, biological, and earth sciences, middle school students in rural Maine will develop essential skills towards participating in the future technological workforce.

SUPPORTING STUDENTS | The Major Research Instrumentation (MRI) program serves to increase access to multi-user scientific and engineering instrumentation for research and research training in the nation's institutions of higher education and not-for-profit scientific/engineering research organizations. The goal of an MRI award is to enhance research training for students who will become the next generation of instrument users, designers and builders. The **University of Maine** received an MRI award that allowed for the acquisition of a 500 MHz nuclear magnetic resonance spectrometer, the first and only spectrometer of this caliber in the state. The spectrometer allows research in a variety of fields such as those that accelerate chemical reactions of significant economic importance, as well as allows the study of biologically relevant species. Having a spectrometer with this field strength positively impacts educators and scientists at institutions ranging from biomedical research institutes to local high schools and industries.

SCIENCE & ENGINEERING (S&E) INDICATORS | **3.57 % of the Maine workforce is employed in S&E occupations**, and 6.78 % of Maine's business establishments are industries with high employment in science, engineering and technology occupations.⁺



Thanks to funding from NSF the University of Maine chemistry Lab is acquiring a 500 MHz Nuclear Magnetic Resonance (NMR) spectrometer.
Image Credit: University of Maine