FAST FACTS

$147,284,000
Total NSF awards to Indiana in FY18

$131,874,000
Amount invested in fundamental research in Indiana in FY18

$15,410,000
Amount invested in STEM education in Indiana in FY18

$1,995,765
Amount invested in Indiana startups through NSF’s small business program in FY18

TOP 3 NSF-FUNDED ACADEMIC INSTITUTIONS FOR FY18

$67,681,000
Purdue University

$49,916,000
Indiana University (IU)

$25,682,000
University of Notre Dame

NSF & INDIANA

In Fiscal Year (FY) 2018, the National Science Foundation made $147,284,000 in awards to Indiana 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

Monitoring drinking water contamination is vitally important to inform consumers about water safety, identify source water problems, and facilitate discussion of public health and the environment of drinking water. NSF-funded research at the University of Notre Dame is developing a framework for reliable and timely detection of drinking water contamination. By focusing on communities that use private wells for drinking water, the project engages the community to participate, through public participatory scientific research, also referred to as citizen science, in data gathering. The researchers have also developed new inference models using approaches from machine learning and statistics to improve accuracy, reliability, trustworthiness and value of the data, gathered through public participation. By leveraging these advances in data analytics, and exploring the technological and social dimensions of public participation, researchers and citizens help to answer a public health question: Is the drinking water in the community safe?

STEM WORKFORCE DEVELOPMENT

NSF’s CyberCorps® Scholarship for Service 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 federal, state, local or tribal government organization in a position related to cybersecurity for a period equal to the length of the scholarship. Purdue University Northwest in collaboration with Ivy Tech, has established the Purdue Northwest Cyber Defenders Program to recruit, prepare and support students – allowing Ivy Tech students a seamless pathway to continue their higher education at Purdue University Northwest’s cybersecurity program. Recruiting students and exposing them to real-world cybersecurity research and practices will motivate them to develop practical expertise in this critical field and allow them to leverage their experience as they enter the government workforce.

SCIENCE & ENGINEERING INDICATORS

3.61 percent of the Indiana workforce is employed in S&E occupations and 7.23 percent of Indiana business establishments are industries with high employment in science, engineering and technology occupations.*

ENGINEERING RESEARCH CENTER (ERC) FOR INNOVATIVE AND STRATEGIC TRANSFORMATION OF ALKANE RESOURCES (CISTAR)

The United States’ proven reserves of natural gas have nearly doubled in the past 15 years as a result of technologies to extract gas from shale formations. A sizeable fraction of these reserves are located in remote areas. Currently, the infrastructure and economics are not favorable for transporting the light hydrocarbon (LHC) alkane constituents (methane, ethane, propane and butanes) of this “stranded” gas to centralized plants, where they can be processed to valuable liquid fuels and chemical intermediates. The NSF CISTAR ERC at Purdue University aims to provide basic research understanding in the areas of catalysts, separations and process design needed to develop small, modular, local and highly networked processing plants that will convert LHCs from remote shale resources to liquid chemicals and transportation fuels, thereby economically utilizing resources that would otherwise be underutilized. The CISTAR Innovation Ecosystem brings together the key industrial partners and non-industrial stakeholders, such as government agencies, regulators, NGOs and consumers, to commercialize the center’s research discoveries and to maximize benefits to society.