

# NEW JERSEY

#### FY 2023 Fast Facts



## • Top NSF-funded Academic Institutions for FY 2023

Princeton University \$65,679,000 Rutgers University-New Brunswick \$55,053,000 New Jersey Institute of Technology \$23,071,000

## • NSF By The Numbers

The U. S. National Science Foundation (NSF) is an <u>\$9.06 billion</u> independent federal agency created by Congress in 1950 to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense. NSF's vital role is to support basic research and researchers who create knowledge that transforms the future.

DID YOU KNOW? NSF has funded the work of **261** Nobel Prize winners over 75 years.





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# **Expanding the Frontiers of Science**

**New Jersey Institute of Technology (NJIT)** is a demonstrated source of high fundamental resources; however, NJIT's translation of its research activities into commercial solutions for commercial and industrial markets is relatively low, according to many standard measures of translational research activity. The NSF Accelerating Research Translation program is therefore supporting the enhancement of the research translation ecosystem at NJIT. The project has three main focuses: (1) creating institutional capacity and infrastructure for translational research activities; (2) educating and training graduate students and postdoctoral researchers; and (3) supporting Seed Translational Research projects at NJIT for immediate impact. The installment of institutional infrastructure is aided by the creation of the NJIT Center for Translational Research, which will serve as a central hub for all research translation-related activities. The translation of NJIT's fundamental research into practical applications will provide for new businesses as well as attract existing businesses to the region.

## **STEM Education and Broadening Participation**

Through the NSF Build and Broaden program, research is being performed at **Kean University** to promote data analytical skills and apply data analytics to understand current urban issues in local and global communities, particularly the complexity of contemporary living in cities with increasing use of digital technologies and platforms that inform the delivery of resources, services and goods. The project utilizes a multimethod program evaluation approach to quantitatively and qualitatively study educational and research activities supported by the Center for Data Analytics and Visualization in Urban Research. Among the activities supported and evaluated are data analytics and visualization workshops, curriculum development, and faculty and student cross-disciplinary research. The research methods include surveys and informal and formal interviews with the center leadership, advisory board, faculty and students to account for the multiple ways the center's offerings support digital literacy, knowledge management and cross-disciplinary urban research at Kean University. The project addresses the importance of digital literacy, the democratization of data knowledge, and cross-disciplinary collaborative research in the production of knowledge that is relevant to the communities served by public higher education.



## **Regional Innovation Engines**

NSF Regional Innovation Engines (NSF Engines) Development Awards help organizations create connections and develop their local innovation ecosystem within two years to prepare a strong proposal for becoming a future NSF Engine. **Princeton University** is leading a Development Award centered on the use and control of photons, or photonics, a cornerstone of telecommunications, health care, clean energy, advanced manufacturing, defense and other industries. Project partners in New Jersey, New York, Delaware, and Pennsylvania are focused on driving collaboration, workforce opportunity and economic development in the mid-Atlantic region by uniting the rich array of photonics research and development, manufacturing and workforce resources the region holds.

#### NCSES

According to the <u>NSF National Center for Science and</u> <u>Engineering Statistics (NCSES)</u>, which is housed in NSF, New Jersey ranks 6th in the nation for business R&D performance. Visit New Jersey's science and engineering state profile to learn more!

- **37.08**% of **New Jersey's** higher education degrees are concentrated in S&E fields.
  - **5.46**<sup>%</sup> of **New Jersey's** <u>workforce is employed in</u> <u>S&E occupations.</u>
  - **7.64**<sup>w</sup> of **New Jersey's** <u>total employment is</u> <u>attributable to knowledge and technology -</u> <u>intensive industries.</u>

#### Learn More

**CHIPS & SCIENCE** – The CHIPS and Science Act's investments in the U.S. National Science Foundation will help the United States remain a global leader in innovation. Implementation of this legislation will be key to ensuring that ideas, talent and prosperity are unleashed across all corners of the nation. For more information, please visit the NSF CHIPS and Science website.

**RESEARCH SECURITY** – NSF is committed to safeguarding the integrity and security of science and engineering while also keeping fundamental research open and collaborative. NSF seeks to address an age of new threats and challenges through close work with our partners in academia, law enforcement, intelligence and other federal agencies. By fostering transparency, disclosure and other practices that reflect the values of research integrity, NSF is helping to lead the way in ensuring taxpayer-funded research remains secure. To learn more, please visit the NSF Research Security website.

**CONNECT WITH NSF** – For more information on NSF's impact in your state, please contact the NSF Office of Legislative and Public Affairs at <u>congressionalteam@nsf.gov</u>.