

FY2025 NASA STEM IMPACTS REPORT

National Aeronautics and
Space Administration



OVERVIEW

NASA and the nation need a highly skilled and competitive aerospace workforce—today and for the future. NASA’s Office of STEM Engagement (OSTEM) is committed to preparing students for aerospace careers by engaging them through real-world, industry-aligned opportunities. OSTEM connects students to NASA missions, mentors, and hands-on experiences that build the skills employers need. OSTEM internships, fellowships, challenges, and competitions help provide pathways to jobs at NASA and across the aerospace industry. OSTEM also strengthens research capacity at higher education institutions nationwide, directly supporting NASA’s mission success and the next generation of aerospace workers.

This work is supported by \$143 million in congressional funding through four OSTEM projects: **Space Grant**, **NASA Established Program to Stimulate Competitive Research (EPSCoR)**, **Minority University Research and Education Project (MUREP)**, and **Next Generation STEM Project**.

OSTEM PROJECTS

Space Grant: Fosters science and engineering training, research, and industry partnerships with the goal of cultivating a skilled, innovative talent pool to advance space exploration and innovations.

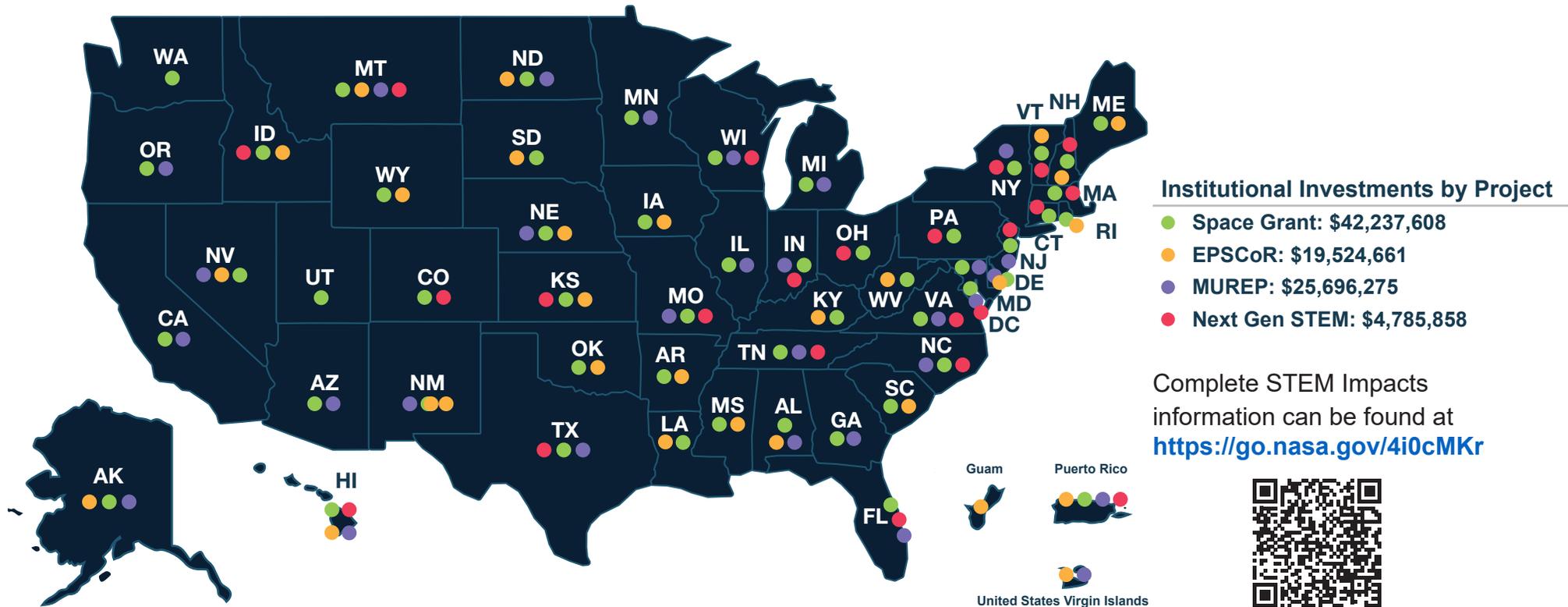
EPSCoR: Promotes the development of a highly skilled workforce by funding hands-on research opportunities that not only prepare students for STEM jobs but also lead to technological and innovative breakthroughs.

MUREP: Funds cutting-edge research that enables students at Minority Serving Institutions to gain the expertise America needs to remain a leader in aerospace and technology.

Next Gen STEM: Prepares high school and community college students to enter the aerospace workforce through strategic partnerships and competitive awards that build their STEM skills and capabilities so they can effectively fill the jobs needed in the growing aerospace economy.

OSTEM IN YOUR STATE

Fiscal year 2025 investments



OSTEM'S FOUR FOCUS AREAS

OSTEM organizes its opportunities and experiences through the following strategic focus areas and functions:

Grants & Awards



Provide funding to institutions and partners to strengthen STEM ecosystems and align local capacity-building with NASA mission needs. These investments enable institutions to expand STEM learning, research, and workforce development pathways that directly support national aerospace priorities. OSTEM funds mission-critical research and hands-on student engagements through grants and awards to universities and other student-serving organizations.

Internships & Student Work Experiences



Immerse students in authentic NASA mission activities, giving them opportunities to build STEM identity, develop industry-valued skills, and understand real NASA workforce expectations. These experiences are designed to strengthen talent pipelines by supporting equitable access, fostering mentorship, and evaluating long-term educational and career impacts. OSTEM offers paid internship opportunities at all NASA centers.

Student Challenges & Competitions



Engage students in problem-solving, research, prototyping, and mission-aligned innovation that reflects real NASA technical gaps and exploration objectives. These programs cultivate interdisciplinary thinking and prepare students for future aerospace workforce roles through iterative design, milestone reviews, and expert feedback. Students gain firsthand technical experience solving real world technical problems and critical skills necessary to succeed in the workforce.

High School & Community College Engagement



Connect Career and Technical Education (CTE) high school and community college students to aerospace workforce careers through experiences at NASA centers, engagements with agency experts, and virtual career-focused programs. These engagements strengthen regional workforce readiness and support the development of diverse, skilled technical talent aligned with NASA's future mission needs.

\$92M+

provided by OSTEM to 290 awardees in FY 2025.

1,809

interns and fellows gained aerospace industry work experience with NASA in FY 2025.

5,807

students participated in NASA's student challenges in FY2025.

OSTEM STRATEGIC FUNCTIONS

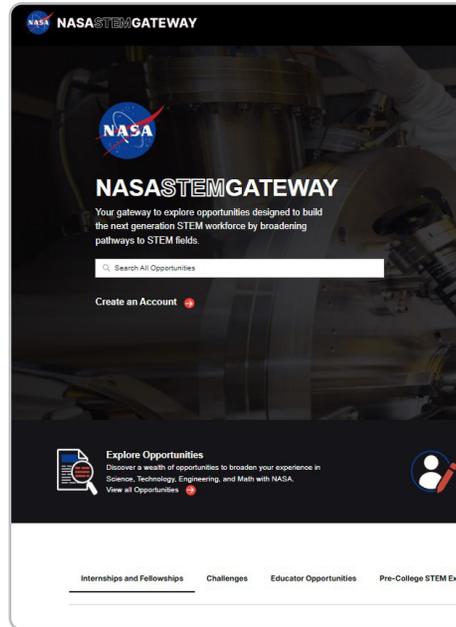
Partnerships



Provides high-impact STEM content to partners with extensive networks, enabling NASA to exponentially broaden its reach to students across the country, expanding OSTEM's digital reach.

15M+
engagements in FY 2025.

Strategic Operations



Leads OSTEM's external communications, evaluation strategy and digital platforms, ensuring NASA's STEM engagement efforts are clearly communicated, rigorously measured, and seamlessly delivered through accessible, high performing digital experiences that reach students nationwide.

11M+
OSTEM webpage views in FY 2025.

316K+
applications received in the NASA STEM Gateway in FY 2025

PREPARING TOMORROW'S STEM WORKFORCE



Through internships, fellowships, and high-impact challenges and competitions, students connect with NASA experts, immerse themselves in cutting-edge research environments, and actively contribute to solving some of the most complex challenges in space exploration. By offering these dynamic pathways, NASA is crafting the next generation of aerospace technical workers and leaders—equipped, confident, and ready to lead humanity's next giant leap into the unknown.

In FY 2025:

1,809
students were NASA
interns and fellows

5,807
students participated
in NASA challenges

NASA STEM ENGAGEMENT IMPACTS



NASA provides an exciting array of STEM experiences and opportunities to immerse students in the agency's missions and projects. By maintaining a steadfast focus on engaging students and supporting educational institutions, NASA STEM Engagement seeks to bolster America's aerospace industry and research capabilities, and to prepare tomorrow's STEM workforce.

Internships, Fellowships & Other Opportunities



8,443

internships, fellowships, research opportunities, student challenges and other college/pre-college STEM engagement opportunities

\$47.7M

in investments in students representing K-12 and higher education institutions, including two- and four-year colleges and universities

Research and Development

4,626

peer-reviewed publications, technical papers, and presentations reported by Space Grant, MUREP, and EPSCoR grantee and awardee institutions

54%

of peer-reviewed publications were authored or coauthored by students

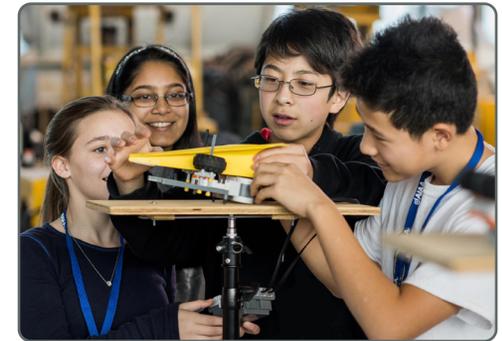
35

patents awarded to higher education institutions as a direct result of their NASA STEM Engagement grants or cooperative agreements

Student Participants

704K+

students participated in NASA STEM engagement activities

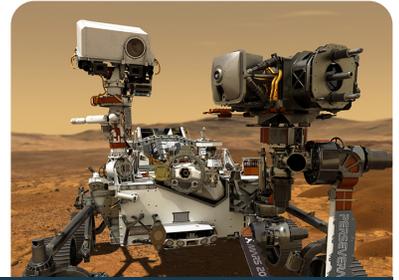
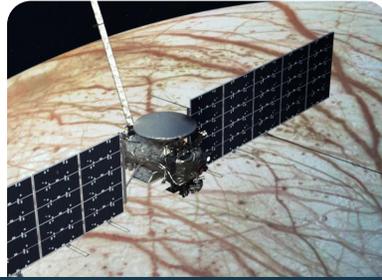


Other Participants

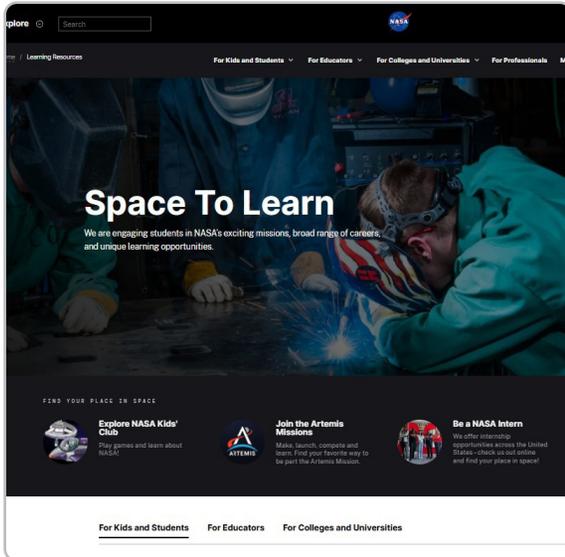
1.7M+

uncategorized students of all ages, parents, and adult participants

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Learn more about NASA STEM Engagement efforts and opportunities



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