



Minority University Research and Education Project (MUREP)

National Sponsored Programs
Administrators Alliance
(NSPAA) Technical Workshop

June 5, 2024

NASA STEM





NASA's Commitment to DEIA



“NASA is fully committed to Diversity, Equity, Inclusion, and Accessibility (DEIA) for our entire workforce and all our workplaces. This means our Agency will continually prioritize the following: reinforcing a culture in which our employees feel they can be authentic, welcomed, respected, included, and engaged; maintaining an environment where our employees consistently and systematically receive fair, just, and impartial treatment; and ensuring our employees can fully and independently access facilities, information and communication technology, programs, and services.”

Senator Bill Nelson, NASA Administrator

September 29, 2021



NASA STEM Engagement Program Elements



NASA STEM ENGAGEMENT PROJECTS

SPACE GRANT

A national network of colleges and universities with over 1,000 affiliate institutions and organizations located in all 50 states, the District of Columbia, and Puerto Rico.
 Purpose: Expands opportunities for students to participate in NASA's aeronautics and space projects.

EPSCoR

The Established Program to Stimulate Competitive Research (EPSCoR) funds partnerships with government, higher education, and industry in 28 eligible jurisdictions (25 states and three territories).
 Purpose: Effects sustainable improvements in a state or region's research infrastructure, capacity, and competitiveness.

MUREP

The Minority University Research and Education Project (MUREP) supports minority-serving institutions (MSIs) to enhance research, academic, and technology capabilities.
 Purpose: Increases retention of underserved and underrepresented groups in STEM.

NEXT GEN STEM

Next Generation STEM (Next Gen STEM) creates K-12 and informal education STEM engagement initiatives aligned to NASA mission priorities.
 Purpose: Attracts and retains student interest in STEM careers, building a vibrant next-generation workforce.

EDUCATIONAL TOOLS AND PLATFORMS

- Focus: Access and scalability**
- Suite of tools and platforms enabling student engagement and data collection
 - NASA STEM Gateway (Phase 1 operational in early FY21)
 - stem.nasa.gov
 - intern.nasa.gov

PERFORMANCE MEASUREMENT AND EVALUATION

- Focus: Outcomes and metrics**
- Learning agenda
 - Targeted studies

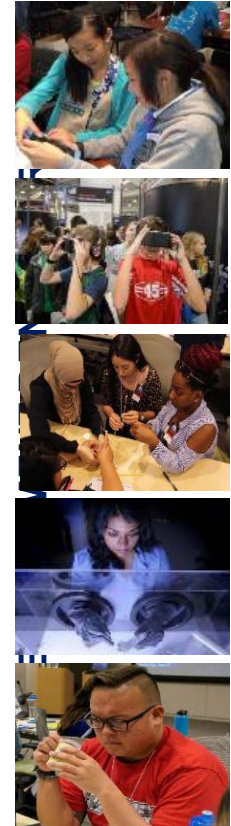
STRATEGIC PARTNERSHIPS

- Focus: Scalability**
- Comprehensive approach to foster and stimulate strategic partnerships
 - New strategy began in FY 2020

INTERNSHIPS AND FELLOWSHIPS

- Focus: Diversity and Inclusion**
- Enterprise model in collaboration with mission directorates and centers

ENABLING CROSS-CUTTING FUNCTIONS



K-Elementary School
 Middle School
 High School
 Undergraduate
 Graduate

Federal Executive Orders



MUREP is established to increase NASA's responsiveness to federal mandates related to MSIs and underrepresented and underserved communities, including women, girls, persons with disabilities and veterans.

[EO 13985](#): Advancing Racial Equity and Support for Underserved Communities through Federal Government (Underserved / Underrepresented) January 20, 2021

[EO 14031](#): Advancing Equity, Justice and Opportunity for Asian Americans, Native Hawaiians and Pacific Islanders (AA & NHPI) May 28, 2021

[EO 14041](#): White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity Through Historically Black Colleges and Universities (HBCU) September 3, 2021

[EO 14045](#): White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity for Hispanics (HSI) September 13, 2021

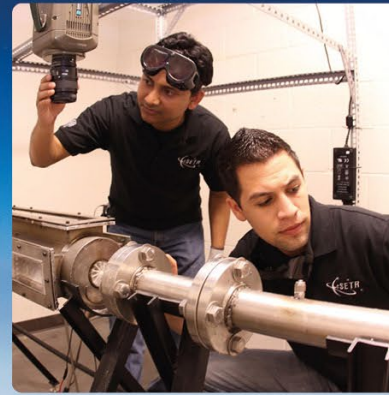
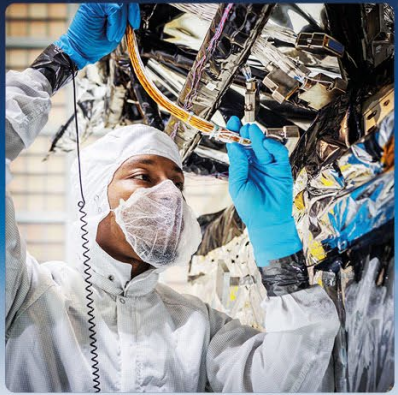
[EO 14049](#): White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity for Native Americans and Strengthening Tribal Colleges and Universities (TCU) October 11, 2021

[EO 14050](#): White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity for Black Americans (HBCU / PBI) October 19, 2021

NASA MUREP

MINORITY UNIVERSITY RESEARCH and EDUCATION PROJECT

National Aeronautics and
Space Administration



MUREP VISION

To enhance the **research, academic and technological capabilities** at MSIs by providing authentic **student learning experiences** related to **NASA missions** that contribute to a **diverse future STEM Workforce**.

MISSION

We engage Minority Serving Institutions in NASA's Missions.

How We Engage HBCUs



MUREP INVESTMENTS

RESEARCH INFRASTRUCTURE & CAPACITY BUILDING



Mission Driven
Research Efforts

STUDENT ENGAGEMENT

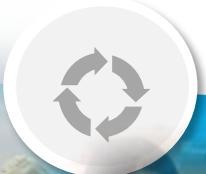


Pre-College & Higher
Education STEM Learning
Experiences

Challenges &
Competitions

Awareness Events

PARTNERSHIPS & SUSTAINABILITY



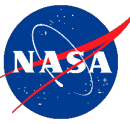
Internal & External
Collaboration

Planning Grants
Cultivating partnerships for
response to NASA funding
Opportunities and Mission
Directorate priorities.

Leveraging Virtual Tools
& Technology

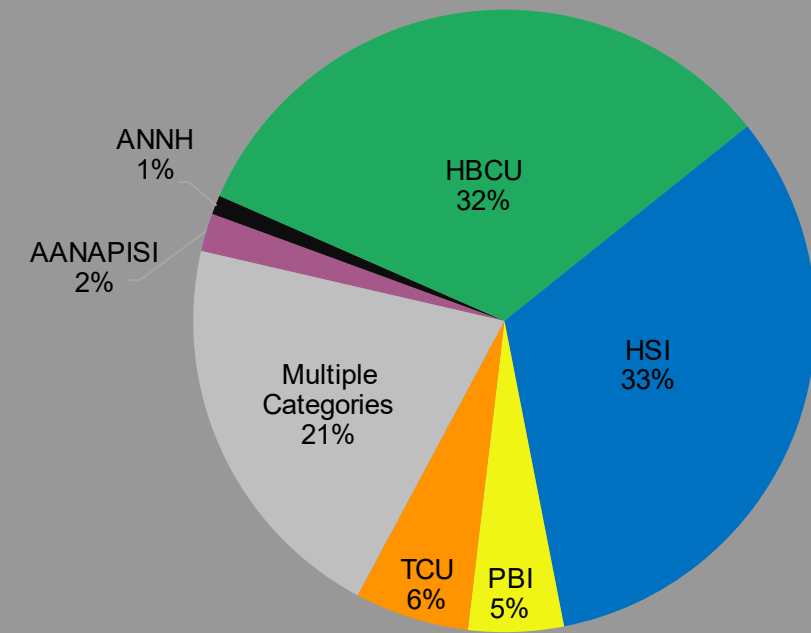
TARGETED OUTCOMES

- MISSION-CENTERED ALIGNMENT & APPROACH
- ENHANCED STEM CAPABILITIES AT MSIs
- BROADENING MSI PARTICIPATION
- STUDENT SUCCESS



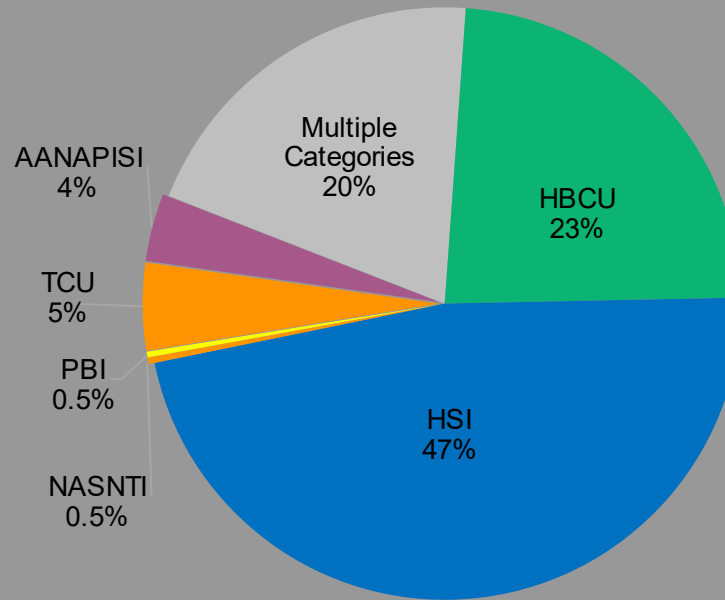
MUREP Award Summary

FY21 – FY23 Annual Funding by MSI Type



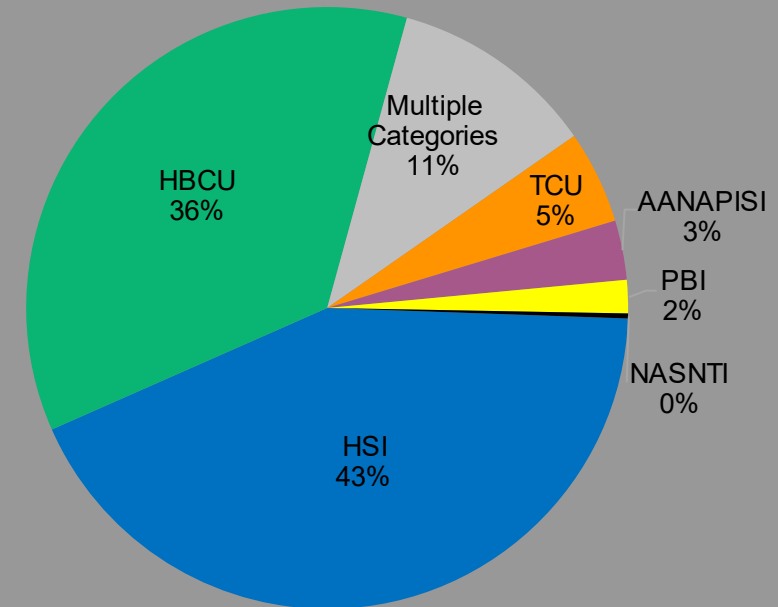
FY21

Total: \$24M



FY22

Total: \$21M



FY23

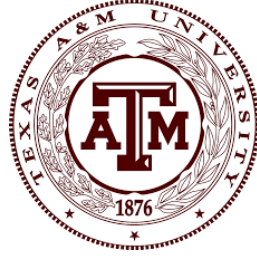
Total: \$27M

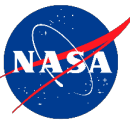




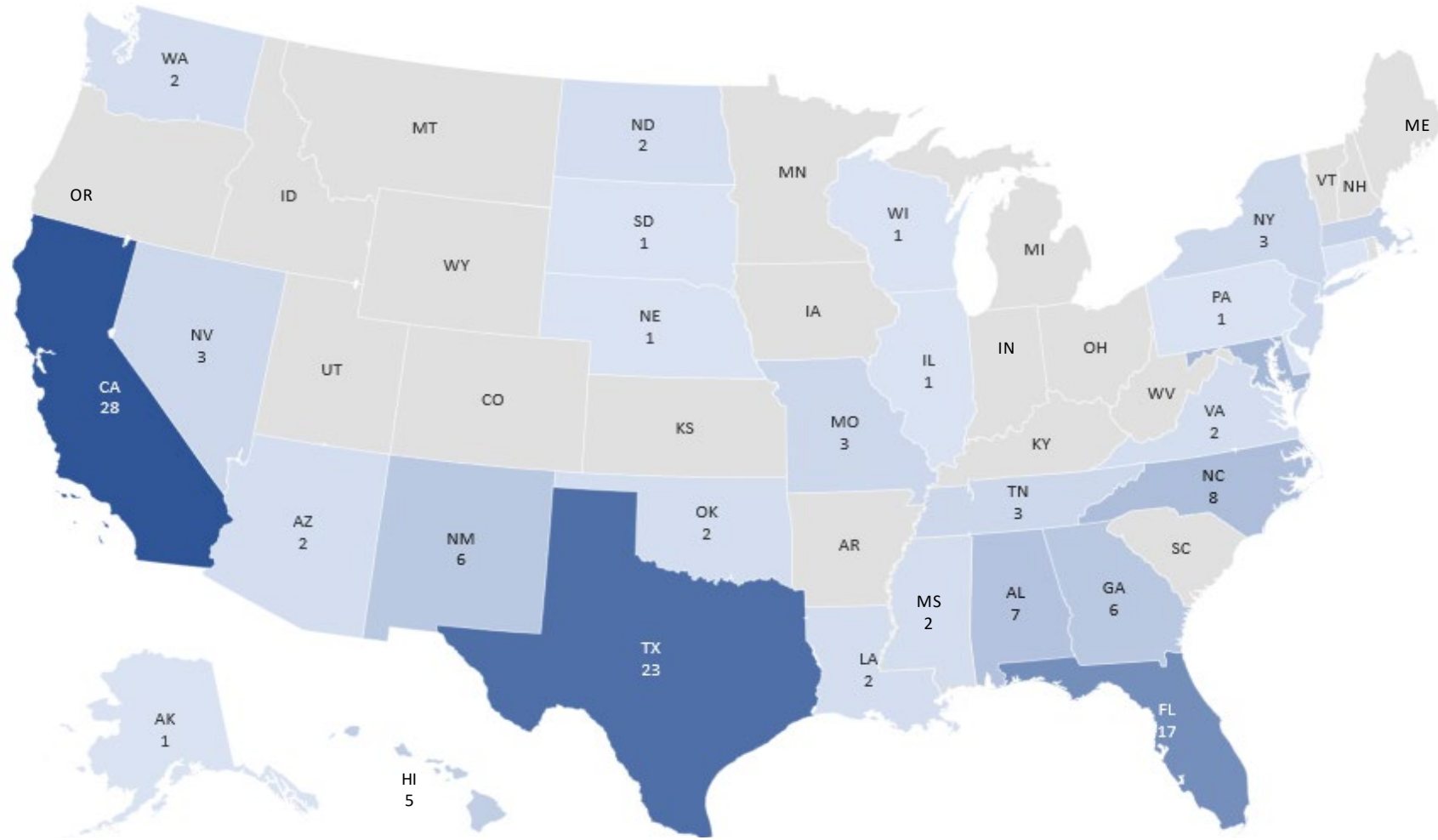
MUREP HBCU and PBI Current Awardees

MUREP investments are in support of White House Executive Orders 14041 and 14051 to advance educational equity, excellence, and economic opportunity for HBCUs and Black Americans.





FY2023 MUREP Active Awards – Gap Map



Awards by State/Territory

MA - 1	MD - 9
CT - 1	DC - 5
NJ - 1	PR - 2
DE - 1	VI - 3

158
Active Awards

93
Minority Serving Institutions and WCUs

33
States & Territories

FY23 NASA HBCU Engagement Highlights



Fayetteville State University, DEAP Principal Investigator and Students visit DEAP Mentor team at NASA's Jet Propulsion Laboratory – 2023.



Lincoln University PSI students identify the sensors of a weather station.

- ❖ In FY23, NASA allocated \$18.7 million to HBCUs across a range of missions and programs. This marks a 34 percent increase over the funds awarded in FY22.
- ❖ NASA significantly advanced its engagement with HBCUs, exemplified by the establishment of the MUREP Data Science Equity, Access and Priority (DEAP) Institutes in FY23. This initiative resulted in the allocation of \$11.7 million to eight HBCUs for 3-year awards to support data science research aligned with NASA's missions.
- ❖ NASA initiated the MUREP Precollege Summer Institute (PSI) activity to prepare high school students from traditionally underrepresented and underserved communities for STEM careers. NASA selected seven HBCUs and one Predominantly Black Institution (PBI) to receive over \$3 million in funding for 5-year awards.
- ❖ In 2023, SMD released a no due date solicitation for SMD Bridge Program Seed-Funding, for pathfinding research and partnering of under-resourced institutions (including HBCUs and MSIs) with NASA Centers.



NASA's FY24 Annual Plan to Increase Support and Opportunities for HBCUs

White House
Executive Order 14041

Submitted January 2024



Goal 1: Increase the capacity of HBCUs to compete for and receive NASA funding and other financial resources.

Goal 2: Increase the amount of funds awarded to HBCUs through competitive grants, contracts, and cooperative agreements.

Goal 3: Increase the recruitment and applicant pool of HBCU students and graduates for STEM engagement and future workforce opportunities.

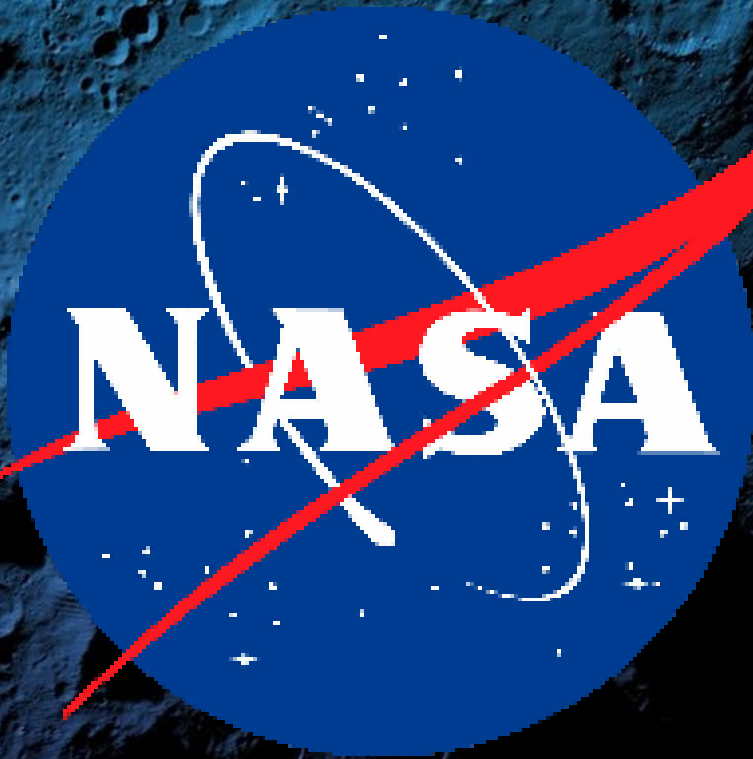
Goal 4: Increase the representation and selection of HBCU students in NASA sponsored programs.



NASA STEM INSPIRE · ENGAGE · EDUCATE · EMPLOY
The Next Generation of Explorers



stem.nasa.gov



MUREP C.O.A.C.H Overview
Collaboration of Agencies
Connecting HBCUs

Government Act Supporting Federal Agency Partnerships



Public Law No: 116-270 (12/31/2020)

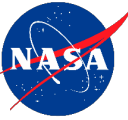
HBCU Propelling Agency Relationships Towards a New Era of Results for Students Act or the HBCU PARTNERS Act

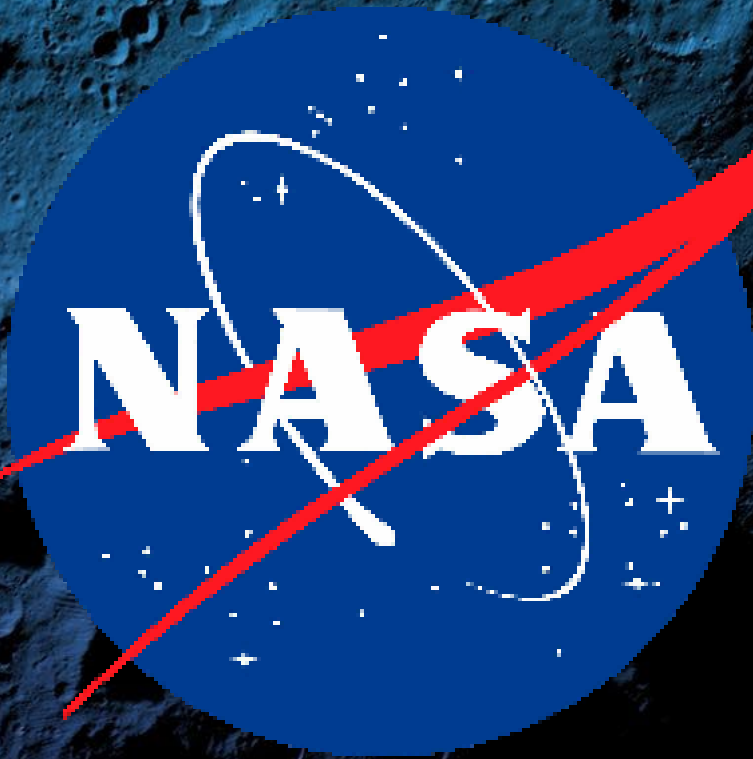
This bill addresses the capacity of historically Black colleges and universities (HBCUs) to participate in federal programs. Specifically, the bill requires certain agencies to submit annual plans for strengthening the capacity of HBCUs to participate in federal programs. Among other things, the plans must establish how the agencies intend to increase the capacity of HBCUs to compete effectively for grants, contracts, or cooperative agreements.

The agencies must provide technical assistance and information to the White House Initiative on HBCUs to enhance communication with HBCUs concerning their program activities and initiatives as well as applications for grants, contracts, or cooperative agreements.

In addition, the bill provides statutory authority for the President's Board of Advisors on HBCUs.

Government Act Supporting Federal Agency Partnerships





**Leveraging Technology
to Drive Collaboration**



MUREP MSI Exchange

The MSI Exchange is a public website and searchable database, to present capabilities found at HBCUs / MSIs that are relevant to NASA's Mission.

Tools and Resources for NASA, other federal agencies, industry and academia:

- Search MSI STEM Profiles and Capability Statements
- Identify Institutions for Partnership Opportunities
- Subscribe to MSI Newsletter



Competitive Advantage: Capability Statements

Serves as a resume for your HBCU



- Developed by your Office of Sponsored Programs.
- Provides high-level snapshot of your institution's expertise.
- Required in many government registration processes.
- Sets your campus apart from others.
- Opens doors.

A capability statement is not...

- A white paper.
- A marketing brochure.
- The history of your school.
- Everything you can do.

Five Key Areas

1. Corporate Data
2. Core Competencies
3. Differentiators
4. Past Performance
5. Contact Information

Value Proposition: Visibility and Awareness



✓ NASA Organizations

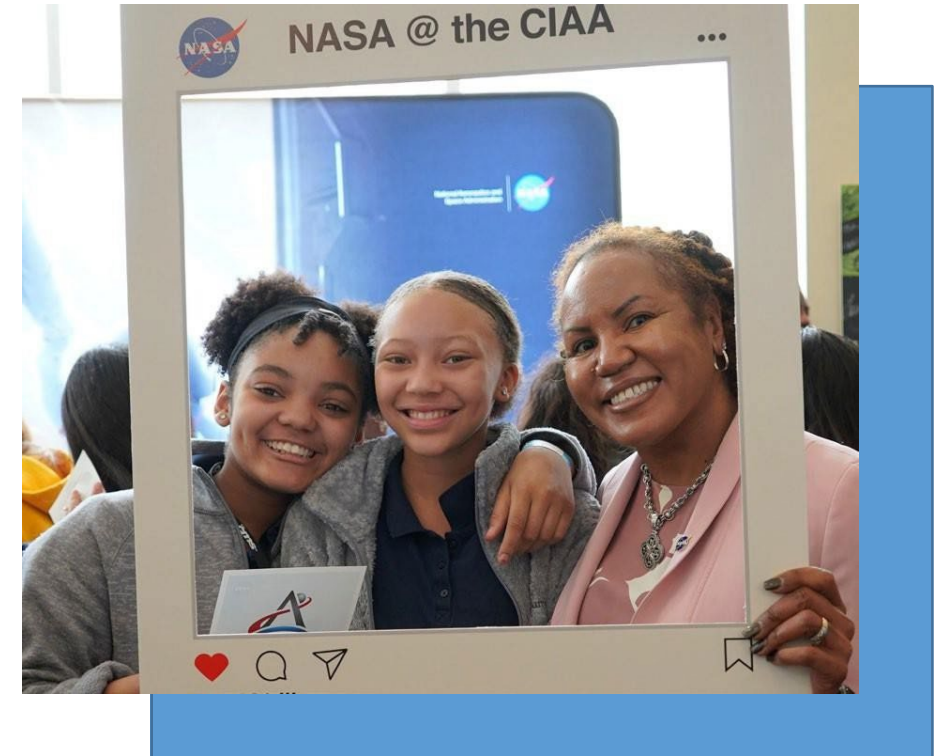
- Mission Directorates, Office of Small Business Programs, Recruiters and Hiring Managers.

✓ Federal Agencies & Industry

- DOT, HHS, DOE
- Jacobs, KBR, Boeing

✓ Academia

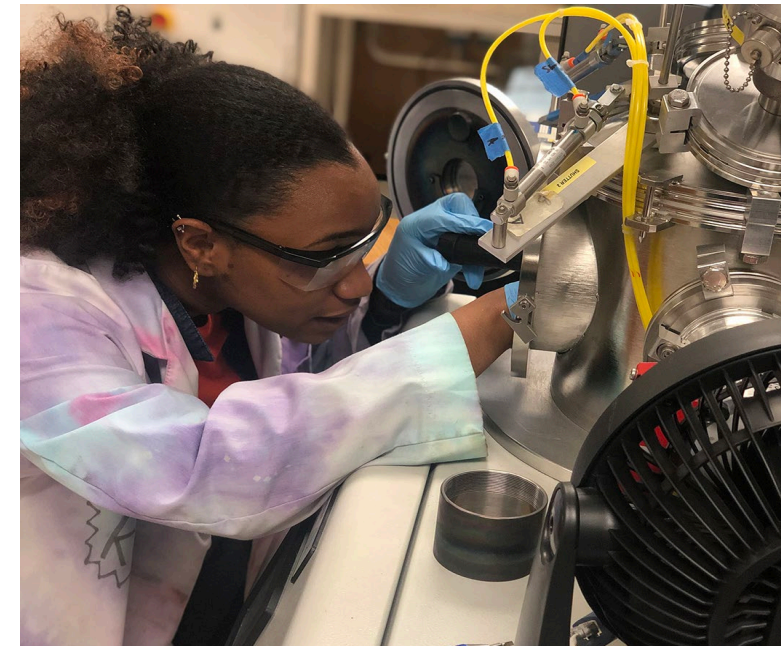
- Seeking partners for collaboration and teaming for grants and other funded opportunities.



HBCU / MSI Engagement Newsletter



- ✓ Emailed twice monthly to your inbox
- ✓ Occasional MUREP Opportunity Alerts
- ✓ Topics Include NASA Opportunities for:
 - Funding (Contracts and cooperative agreements)
 - Faculty (Training, research, RFI's, etc.)
 - Students (Internships, fellowships, challenges & competitions)
- ✓ Storytelling
 - HBCUs, MSIs & NASA in the news

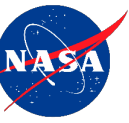




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msiexchange.nasa.gov/subscribe



Connect with NASA MUREP

The screenshot shows the NASA MUREP website with a dark blue header and a sidebar on the left. The main content area features a large banner for the MUREP project, a list of Minority Serving Institutions (MSI) with a download button, and several informational cards. The sidebar contains navigation links for 'Follow', 'MUREP Home', and 'Related Topics'.

Header: NASA logo, Topics, Missions, Galleries, NASA TV, Follow NASA, Downloads, About, NASA Audiences, Search, and social media icons.

Sidebar (Left):

- Follow
- Facebook, Twitter, YouTube, Pinterest icons
- MUREP Home
- About MUREP
- How to Find MUREP Funding Opportunities
- MUREP Opportunities and Resources
- Annual Performance Reports
- MUREP Contacts
- MUREP Frequently Asked Questions
- NASA STEM Engagement
- Related Topics
- All Topics A-Z

Main Content Area:

- MUREP Banner:** "MINORITY UNIVERSITY RESEARCH and EDUCATION PROJECT" with a collage of images showing students and research.
- Minority University Research and Education Project:** MUREP engages underrepresented populations through a wide variety of initiatives. Multiyear grants are awarded to assist Minority Institution faculty and students in research of pertinent missions.
- How to find MUREP Funding Opportunities:** Image of two students looking at a laptop.
- MUREP Opportunities and Resources:** Through MUREP activities, NASA supports Historically Black Colleges and Universities (HBCU), Hispanic Serving Institutions (HSI), Asian American and Native American Pacific Islander Serving Institutions (AANAPI), Tribal Colleges and Universities (TCU), and other minority serving institutions, through multi-year research grants. Additionally, MUREP provides...
- NASA Minority Serving Institutions (MSI) List:** A table listing various institutions with columns for Name, State, and Type. A red PDF download icon is overlaid on the table.
- NASA STEM:** "INSPIRE • ENGAGE • EDUCATE • EMPLOY" logo with a QR code and the text "Visit MUREP.nasa.gov".

Connect with NASA STEM Engagement



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Find your place in space

Explore NASA Kids' Club
Play games and learn about NASA!

Join the Artemis Mission to the Moon
Make, launch, teach, compete and learn. Find your favorite way to be part of the Artemis Mission.

Be a NASA Intern
We offer internship opportunities across the United States. Check us out online and find your place in space!

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Connecting Our NASA Network of Educators for Collaborating Together in STEM.

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Next Steps



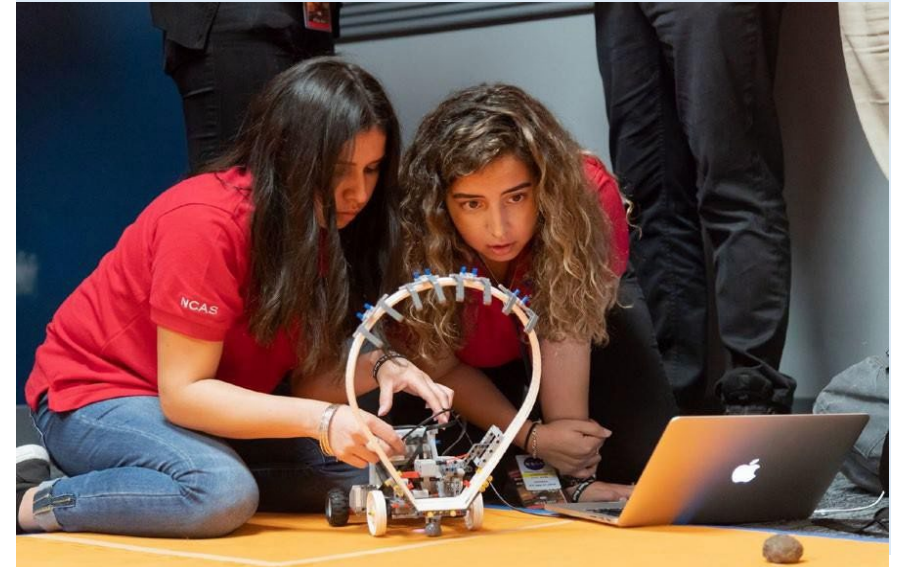
- 1) Bookmark the [MSI Exchange](#) and Subscribe to our [Mailing List](#).
- 2) Submit your [Capability Statement](#).
- 3) Share Capability Statement Training dates with colleagues:
 - [June 24 at 3 p.m. EST](#)
 - [July 22 p.m. EST](#)
- 4) Create an [NSPIRES](#) profile for solicitation opportunities and **register** to serve as a proposal reviewer.

Email Us

NASA-MSIExchange@mail.nasa.gov

Bookmark the MSI Exchange

<https://MSIExchange.nasa.gov/>



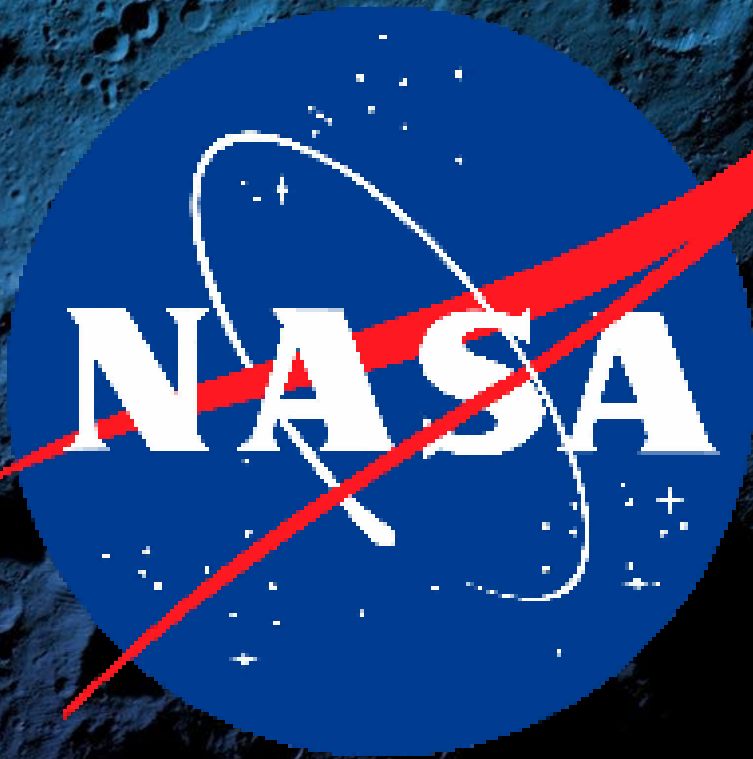
We Value Your Feedback



Help us improve our processes and better support HBCUs in submitting proposals to NASA. Your insights are crucial for identifying specific areas where NASA can offer more targeted support and resources.

Scan here to complete the survey





Discussion and Questions