

National Aeronautics and
Space Administration



STEM Workforce Summit: Countdown to Launch Webinar

June 24, 2025

Welcome

Introduce yourself in the chat!



How to turn on closed captioning:

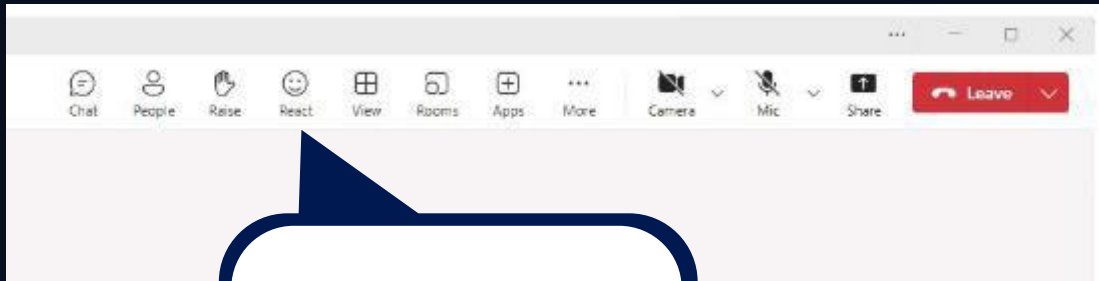
1. Go to "More" in the top bar
2. Click "Settings"
3. Click "Accessibility"
4. Toggle on desired captions settings.

NOTE:

Notetaking AI Bots are not permitted to attend NASA meetings.



Housekeeping



React

Use the
“Reactions”
feature
throughout
the session

Please note:



We will not be recording this session.



Slides will be made available to
download after the meeting.



All mics and cameras have been
disabled, except for our presenters.



You can submit questions
via <https://tinyurl.com/SWS2025> or
via QR Code



National Aeronautics and
Space Administration



STEM Workforce Summit: Countdown to Launch Webinar

June 24, 2025



Date and Time

STEM Workforce Summit: Countdown to Launch

*June 24, 2025
2:30-4:00pm EST*

Location

Virtual; Microsoft TEAMS

Participants

1,000

STEM Workforce Summit

*Tuesday, September 23 – Thursday,
September 25, 2025*

*NASA Kennedy Space Center,
Merritt Island, FL*

150

STEM Workforce Summit: Mission Debrief

*December 2025
Time TBA*

Virtual; Microsoft TEAMS

1,000

»» Agenda

01 Welcome

02 NASA Today

03 OSTEM's Focus: Aerospace Workforce Development

04 Building the Aerospace Workforce Through NASA Competitions and Challenges

05 OSTEM's State Hub Concept and Aerospace Manufacturing Jobs

06 Closing and Next Steps

NASA Today



Casey Swails

NASA Deputy Associate Administrator



OSTEM's Focus: Aerospace Workforce Development



To submit questions:
<https://tinyurl.com/SWS2025>



Trends in America's Aerospace Workforce



A continuously growing STEM workforce is needed to support the expanding aerospace economy.



Demand for STEM professionals and skilled technical workers is rapidly increasing, while the labor pool is shrinking due to:

- **Aging workforce**
- **Educational barriers to entry (cost of a four-year degree)**
- **Lack of clear alternative career pathways**

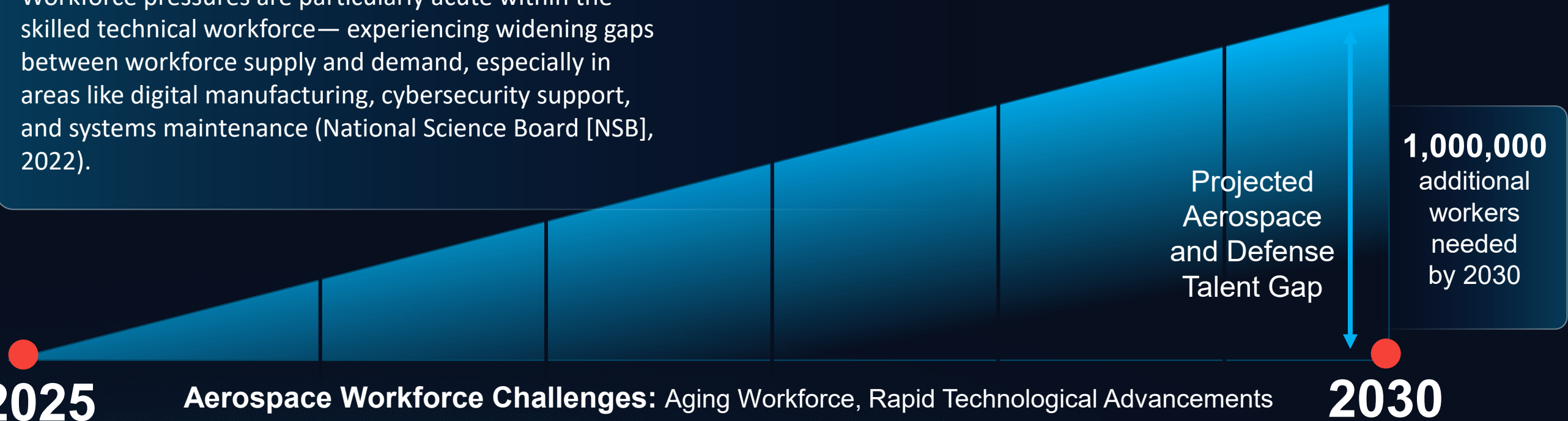
Sources:

- Recent study conducted by NASA's Office of Technology, Policy, and Strategy
- Charting a Course for Success: America's Strategy for STEM Education. A Report by the Committee on STEM Education of the National Science & Technology Council (2018)

Aerospace and Defense Industry Workforce Shortfall

Problem:

Workforce pressures are particularly acute within the skilled technical workforce— experiencing widening gaps between workforce supply and demand, especially in areas like digital manufacturing, cybersecurity support, and systems maintenance (National Science Board [NSB], 2022).



Launching Tomorrow's Aerospace Workforce



**Internships and Student
Work Experiences**



**Competitive Grants
and Awards**



**Student Challenges
and Competitions**



**High School and Community
College Engagement**

**Clear Pathway
to STEM Jobs**

**Connection and
Alignment With
Industry Needs**

**Creating
Efficiency**



NASA STEM

Launching Tomorrow's Aerospace Workforce

Building the Aerospace Workforce Through NASA Competitions and Challenges



To submit questions:
<https://tinyurl.com/SWS2025>





Student Challenges and Competitions



OSTEM's State Hub Concept and Aerospace Manufacturing Jobs



To submit questions:
<https://tinyurl.com/SWS2025>



NASA Aerospace Skilled Technical Workforce Hubs

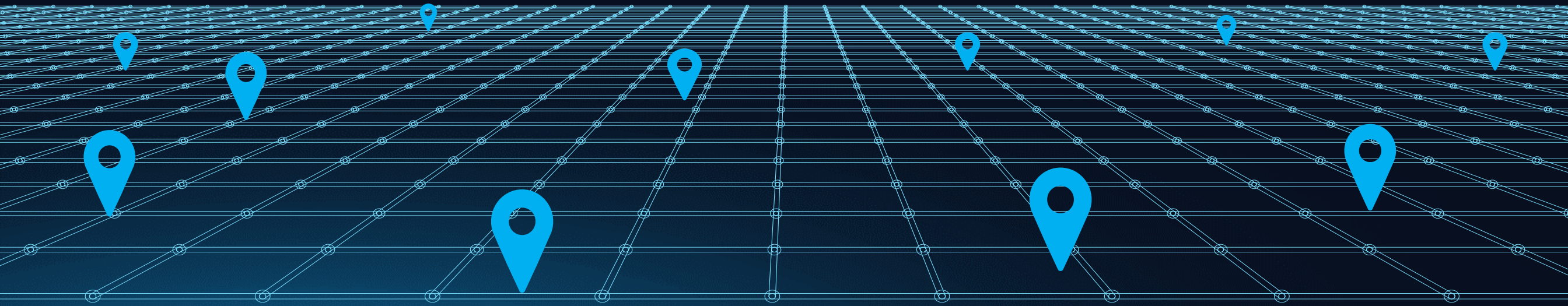
Goal:

To increase and accelerate the number of students entering the aerospace industry's **skilled technical workforce** that will enable and advance NASA's critical missions.

NASA will:

Strengthen collaboration between **industry, education, and economic development** stakeholders to create clear career pathways.

Equip **high school, trade school and community college students** to earn industry-recognized credentials and gain relevant work-based experiences.



Background: Skilled Technical Workforce

- Occupations of the skilled technical workforce require significant technological skills and science and engineering expertise, but do not necessarily require a bachelor's degree for entry.
- The median salary of skilled technical workers is significantly higher, and the unemployment rate is lower compared to workers with less than a bachelor's degree in all other occupations.

Examples of Skilled Technical Workforce Careers in the Aerospace Industry:

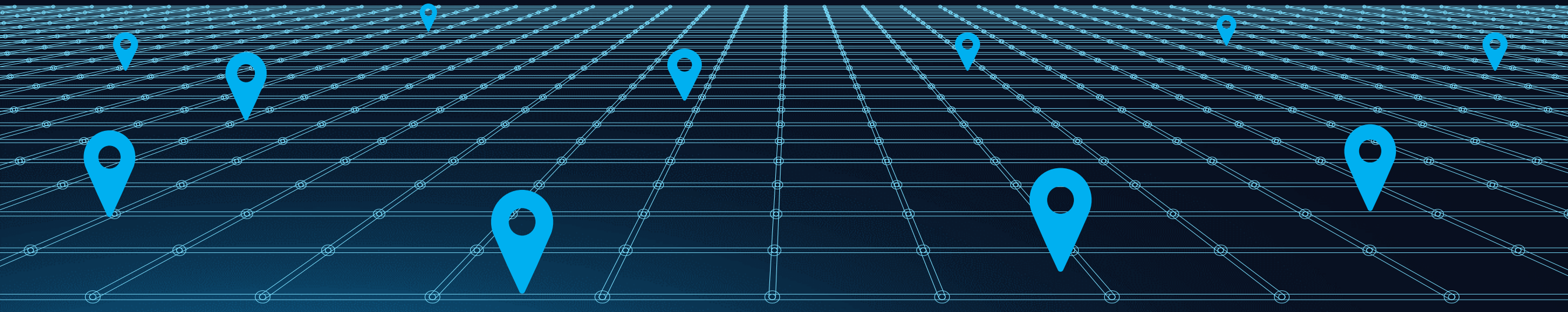
- Sheet Metal Assembler
- Structures Technician
- Aviation Electronics Assembly Technician
- Avionics Systems Integration Specialist
- Composite Fabricator
- Composite Assembler
- Orbital Systems Technician
- Drone System Specialist
- Software Integration Technician
- Cybersecurity Specialist

NASA State Hubs Align With White House Priorities

Feb 2025: Presidential Action establishing **Career and Technical Education Month**

April 2025: Executive Order, **Preparing Americans for High-Paying Skilled Trade Jobs of the Future**

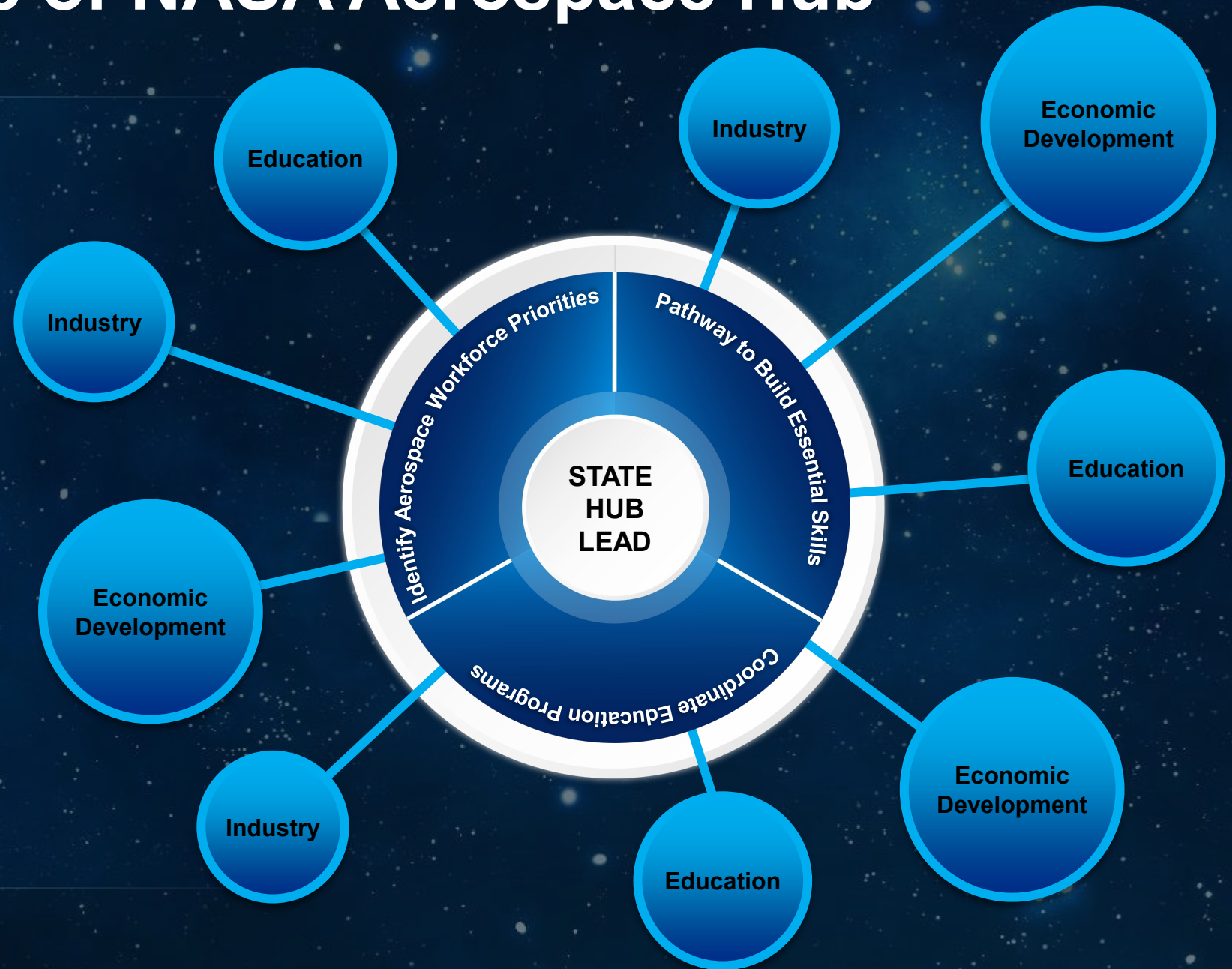
May 2025: Office of Personnel Management issues **Merit Hiring Plan** that highlights the need for the Federal Government to focus on STEM recruitment/hiring, as well as skills-based hiring, and eliminating unnecessary degree requirements.

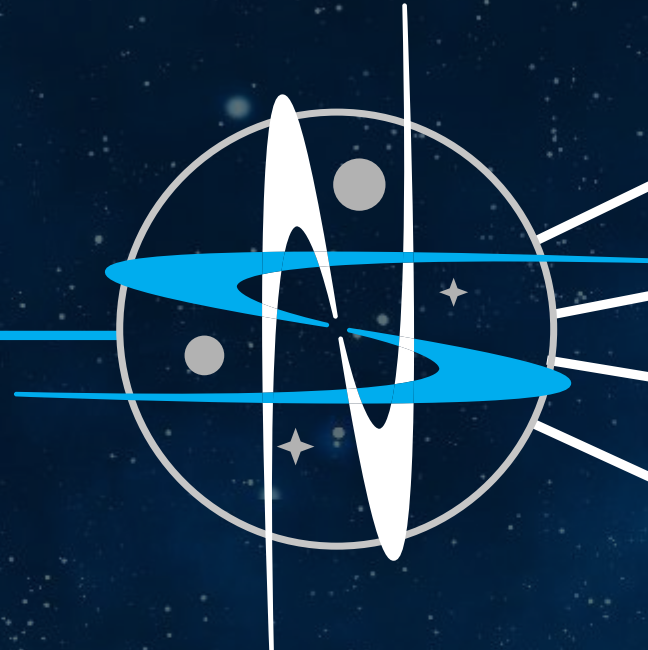
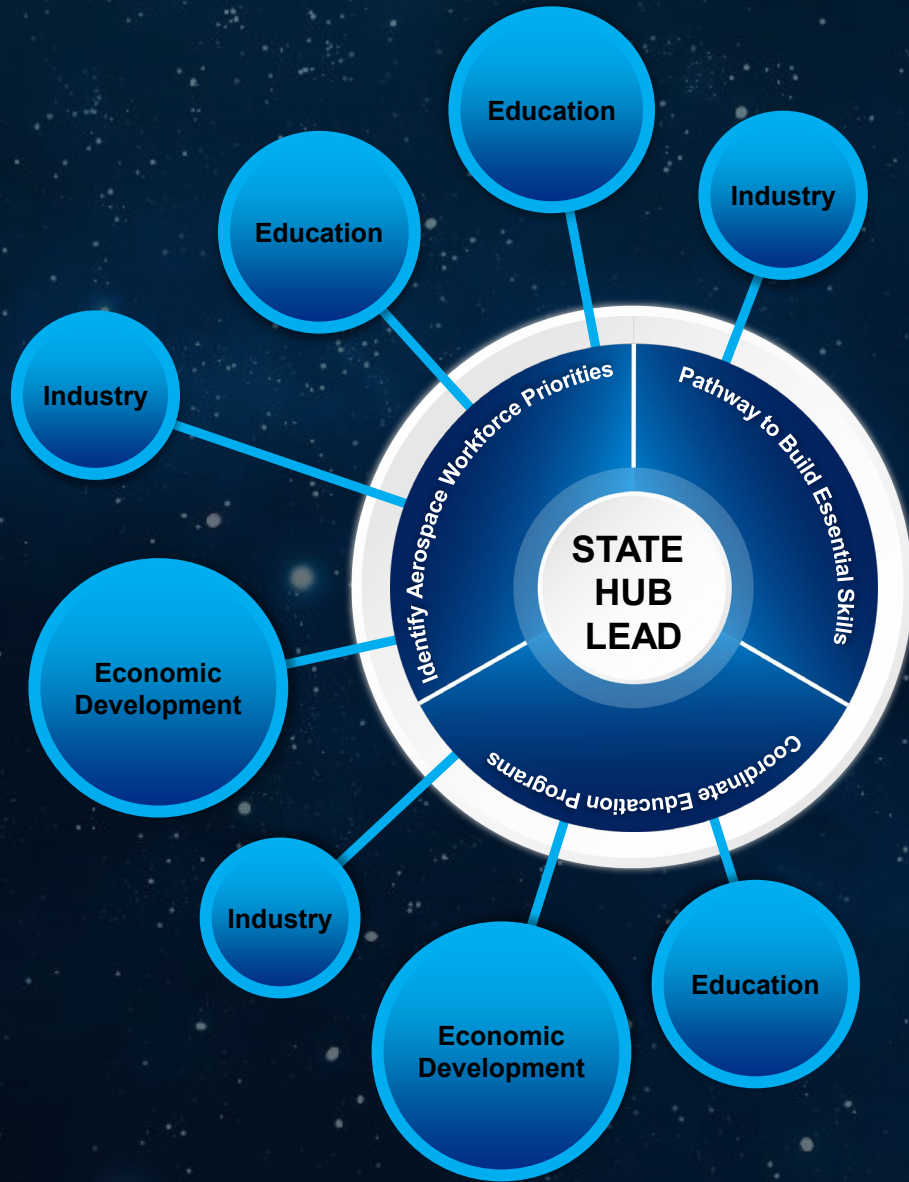


The Role of NASA Aerospace Hub

The Concept:

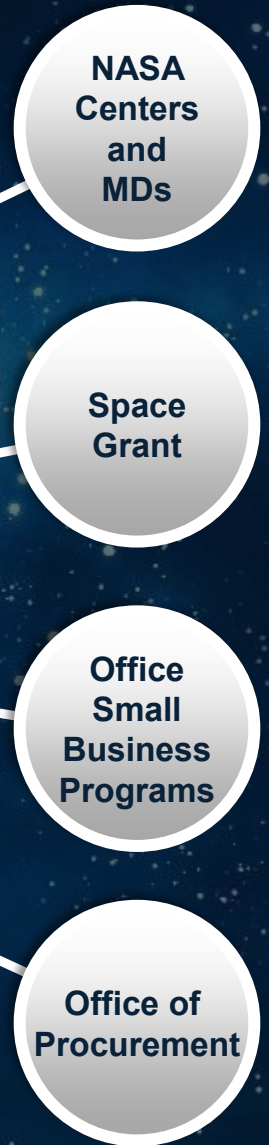
Serving as a focal point for NASA, a state's Hub facilitates coordination between NASA industry partners, education providers, and state/region economic development agencies to accelerate workforce readiness efforts by creating clear pathways for students to pursue high-needs skilled technical workforce careers.



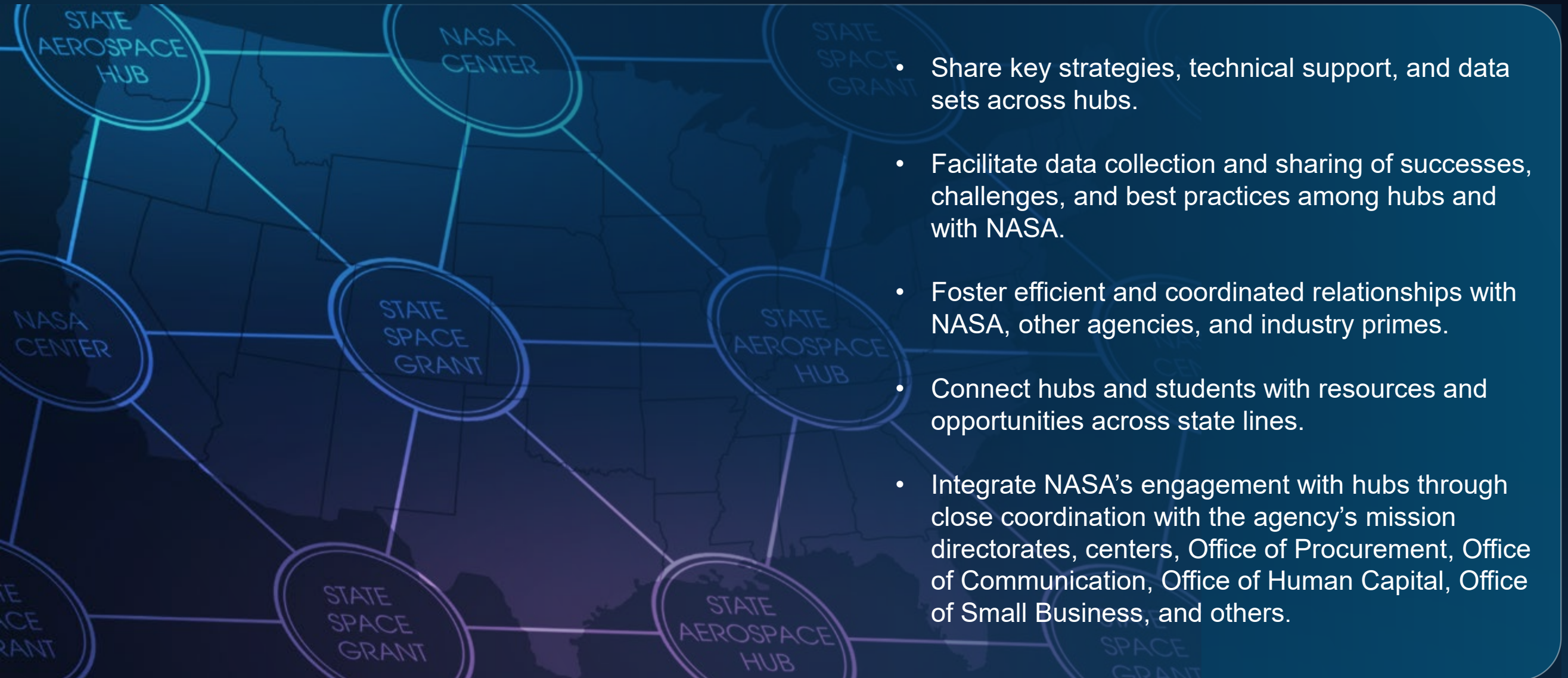


NASA
STEM

- Internships
- Challenges and Competitions
- Competitive Grants/Awards
- High School and Community College Programming



OSTEM Leads A National Coalition of NASA Aerospace Hubs



Skilled Technical Workforce: Pathways to STEM Jobs



To submit questions:
<https://tinyurl.com/SWS2025>



Case Example: Space Florida Space Academies

NASA Aerospace Skilled Technical Workforce Hubs are building upon key lessons learned from a prior NASA-led pilot with three states.

Space Florida Space Academies graduate over 6K students with industry-aligned aerospace credentials.

Space Florida, the state's aerospace finance and development authority, worked with industry to identify in-demand skills, and then with 23 school districts across Florida to train students with these credentials. The Space Florida Academy Program launched within those districts in August 2024.

The program connects students with high-demand credentials and skills necessary to work in the aerospace industry. This effort is a collaboration with industry leaders, the Florida Department of Education, the Florida Department of Commerce, the REACH Office (Reimagining Education and Career Help), and CareerSource Florida.



Eau Gallie High School



Closing and Next Steps



To submit questions:
<https://tinyurl.com/SWS2025>





Building America's STEM Workforce:

*Charting the Path Forward
through Collaboration*



When: September 23-25, 2025



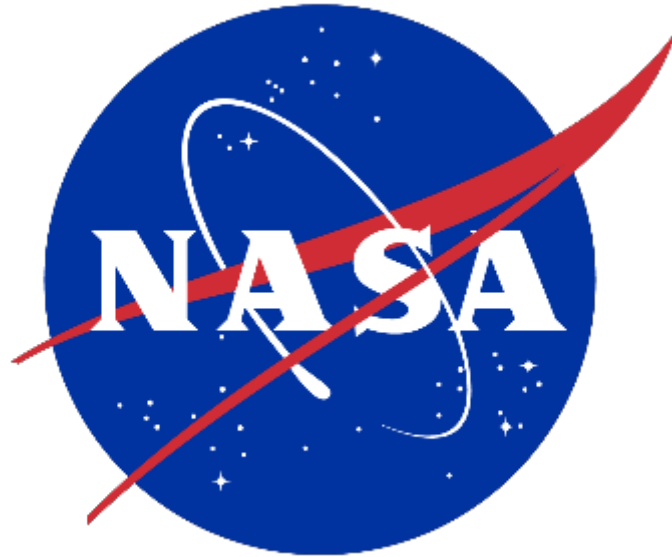
Location: Kennedy Space Center (KSC)
Visitor Complex, Merritt Island, Florida



Audience: Institutions of Higher
Education, Aerospace Industry, and
STEM Ecosystem Leaders



Objective: Identify and apply
collaborative efforts to successfully map
America's future STEM workforce



www.nasa.gov