

Project Spotlight:

Pennsylvania Space Grant Consortium



PennState



**Expanding Access to STEM
Research Across Pennsylvania**

About PSGC

The Pennsylvania Space Grant Consortium (PSGC) is one of 52 state-level consortia funded by NASA's National Space Grant College and Fellowship Project, a federal program initiated in 1989 to support aerospace-related STEM education and research opportunities for students at pre-college, college, and graduate levels. Based at Pennsylvania State University's flagship campus in State College, PA, PSGC consists of 17 university affiliates

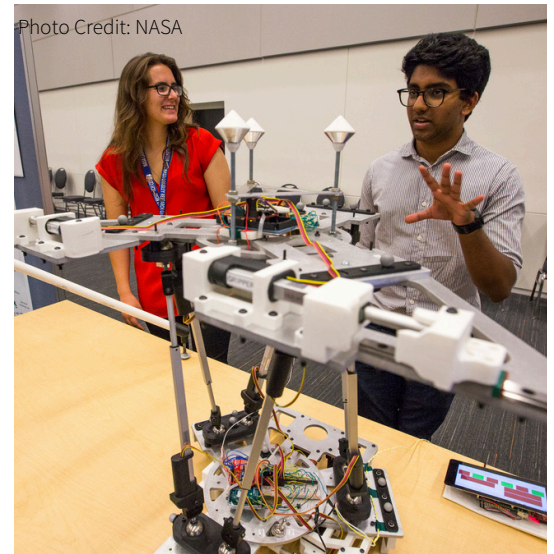
across the state and various smaller grant recipients, including other universities, high schools, and middle schools. PSGC distributes NASA's funding in the form of sub-grants to a wide variety of programs:

- **Affiliate Institution Programming:** Includes academic research assistant positions, student-run labs and interest groups, summer internships, and funding for participation in conferences, research trips, and other activities.
- **Mini-Grants:** Supports similar activities at a smaller scale, as well as STEM-related programming for middle and high school students.

In the 2020-2024 grant cycle, PSGC distributed over \$1.9 million to 62 programs across Pennsylvania.

Project Scope

For the 2025 Space Grant cycle, NASA requires each state consortium to hire an independent evaluator to track program progress and outcomes. PSGC selected Anavi Strategies to serve in this role. Together, we developed a 4-year evaluation plan designed to be useful, minimally burdensome, and seamlessly integrated into PSGC's existing processes. The plan builds on current data collection efforts and reporting practices, allowing for a streamlined approach to formal evaluation while maintaining continuity for affiliate institutions.



Expanding Access to STEM Research Across Pennsylvania

In 2024, the Pennsylvania Space Grant Consortium (PSGC) supported 348 students in hands-on STEM research and learning experiences throughout the state. These opportunities—offered through 62 programs funded between 2020 and 2024—help cultivate the next generation of space scientists, engineers, and policy leaders. Of the students who participated in 2024:

- 45% identified as female, a significant benchmark given that only 35% of the national STEM workforce identifies as female.
- Participants produced 21 research presentations and 22 publications, demonstrating PSGC’s commitment to fostering meaningful student-led contributions to the scientific community.

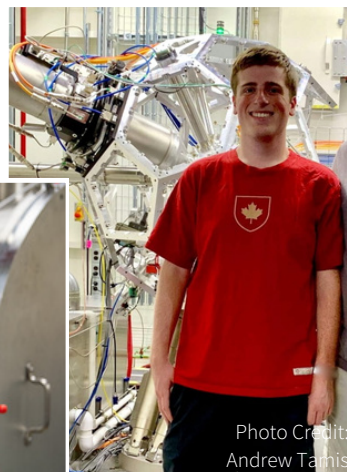
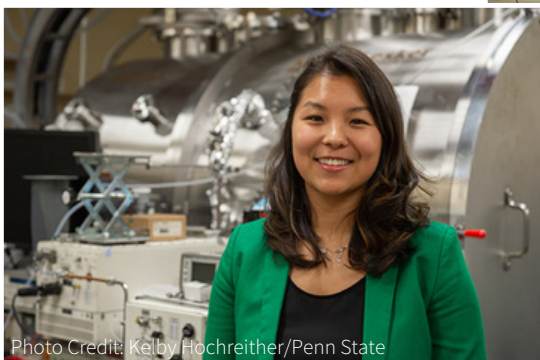
PSGC 2024 Participants by Gender



In PSGC’s 2024 programs, male participation slightly exceeded female participation among the 348 student participants.

Compared to other STEM-related environments, the PSGC has an impressive amount of gender parity, or nearly equal representation.

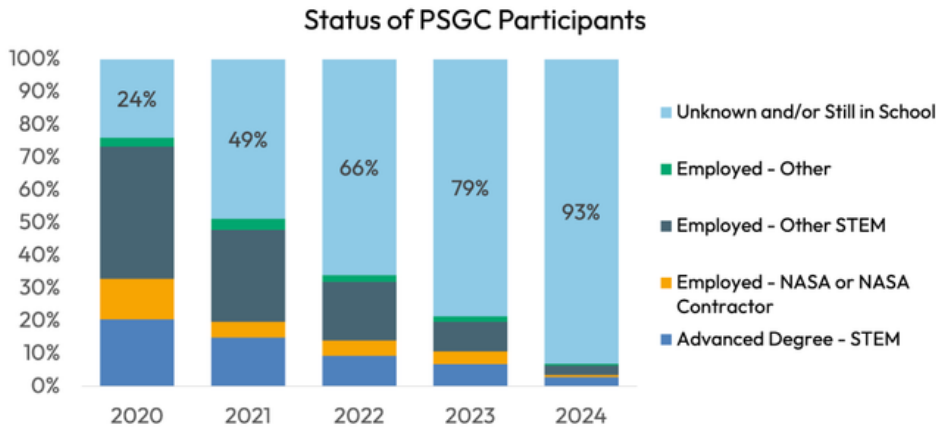
PSGC supports students like Natalia, Andrew, and Matthew as they pursue education and careers in aerospace.



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Current Career Outcomes by Participation Year



Most students are still in school or else have not yet reported their career outcomes.

The present-day career status of PSGC participants from the last four years tracks closely to the time each participant likely graduated from college.

Note: Survey participants include current and past students, up to 25 years after graduation.

Participant Career Outcomes - Responses to Survey

Most participants who responded to the survey reported benefiting from the PGSC program both educationally and professionally.

How did participation in these programs impact your education and life?			What role have you played in the aerospace industry since graduation?		
Impact	Responses	Share	Impact	Responses	Share
Had a positive impact on career	85	97%	Had a positive impact on career	31	66%
Identified room for improvement	2	2%	Identified room for improvement	8	17%
Mixed impact	1	1%	Mixed impact	8	17%
Total	88	100%	Total	47	100%

Student Outcomes & Lasting Impact

The PSGC experience supports student success far beyond the classroom. While many 2024 participants are still completing their degrees, early results from recent program alumni show a clear connection between their time in PSGC and career progress in STEM.

Participants report significant academic and professional benefits:

- Early career alumni have gone on to roles in aerospace, science policy, and academic research.
- PSGC programming has supported student publications, advanced degrees, and national-level fellowships.
- The financial and academic support provided by PSGC makes research accessible to a broader and more diverse group of students, helping address systemic barriers in STEM education.

“Without the experience of working on a space-related project and gaining exposure to space systems engineering, I am sure I would not have a career at NASA, now working on Artemis, Orion, and HLS.”

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“The financial support was crucial to me being able to begin research as an undergrad, resulting in a publication.”

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“In my role as a Congressional Science Fellow in the U.S. Senate, I had the opportunity to make recommendations on funding decisions for NASA programs, and routinely met with representatives from the aerospace industry to find ways to support their missions.”



Looking Ahead

The PA Space Grant Research Internship Program has three 'pathways' to apply: WISER, MURE, and FURP. All three pathways feed into one central internship program, and a student must qualify for one or more of the pathways to be eligible. We often refer to the internship program as WISER|MURE|FURP (or WMF for short).

As PSGC prepares for the next 4-year cycle, it remains focused on continuing to support equitable, high-impact research opportunities for students across Pennsylvania. The Consortium is committed to using data-driven evaluation and stakeholder input to strengthen outcomes and ensure lasting value for its students and communities.



Contact Us

For information or questions about the WISER|MURE|FURP program, email **Dr. Erin DiMaggio** (PSGC undergraduate programs director) at dimaggio@psu.edu.

For questions about general programs, scholarships, and other internships through PA Space grant, email spacegrant@psu.edu

