



THE FUTURE NEEDS A PUSH

OCTOBER 2024

FEATURED

MOONSHOT THINKING
AND BIG IDEAS

CO-CREATING THE
FUTURE WITH
ADMISSIONS

THE NETWORK

ENVISIONING WHAT'S
NEXT

www.stempushnetwork.org

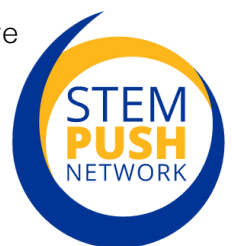
Grounding the Work, Expanding the Reach

The STEM PUSH Network convened almost 40 pre-college STEM programs in Pittsburgh for its bi-annual sharing and networking event. The theme, *Roots and Branches*, focused on deepening and institutionalizing the work (roots), and expanding STEM PUSH's reach and impact (branches).

Over the course of two and a half days, educators from Florida to California, offered big ideas to revolutionize the relationship between higher education and pre-college STEM programs. Program leaders engaged in thoughtful discussions with admissions professionals to reimagine the future of college admissions.

Together, the Network shared best practices, including ideas to impact youth voice and student engagement. STEM PUSH reflected on the power of the Network and continued to deepen national connections that will advance innovation within regions and communities nationwide. And participants crafted and delivered elevator pitches for the work to a number of potential stakeholders, including families, funders, and institutions of higher education, and launched the next collective impact cycle.

This newsletter shares critical learnings and strategies to expand STEM PUSH's mission to create systems change in college admissions.



Moonshot Thinking and Big Ideas

Throughout the convening, STEM PUSH came back to refining the big, “moonshot”, ideas from the Network that would deepen the work and expand it’s impact. Using the primary drivers identified in STEM PUSH’s theory of improvement, participants envisioned high-yield levers the Network could pull to create a new future for students in STEM.

Strengthening College-Going Pathway Supports

- Program scholarships and training on the FAFSA system to create equal financial starts for all students.
- College credits for participation in rigorous STEM programs.
- Family-focused career exploration.

Student Recruitment

- Resources for students and alumni to recruit students based on their testimonies.
- Needs assessment and focus groups to understand enrollment.
- Tools and resources to center student voice in programs and opportunities.

Creating a Sense of Belonging

- Identifying professional affinity groups, including a repository for student access.
- Creating more culturally responsive materials that reduce harmful stereotypes.

Developing Competencies that Matter in STEM

- Micro-credentials to make applications stand out.
- A resource library of customizable assessments.

Our theory of improvement is a set of hypotheses about how we get to meaningful collective impact on our shared problem. It combines our understanding of the system creating the problem we are seeking to solve with our “best bets” about the most high-leverage areas we can target to achieve our aim.

“I work at a higher ed institution and I still don’t fully understand how we select students... it feels so random because so much of it is based on humans interpreting students meeting criteria.”

Pre-college STEM program leader reflecting on the need for more transparency in admissions to strengthen STEM pathways



STEM PUSH Network leaders started the convening with a short tap dance lesson from expert tapper Anne Areta, program coordinator for USC MESA.

Co-Creating the Future with Admissions Partners

Admissions is all about relationships, a common theme that continued to come in conversations with admissions experts from Harvey Mudd College, University of Pittsburgh, and Augsburg University.

“Context matters,” said Rachael Banks, director of undergraduate recruitment at the University of Pittsburgh. Banks shared advice with the room full of pre-college STEM program leaders “We cannot connect dots that we don’t have. Show us (admissions professionals) the academic rigor and alignment with college coursework your program provides. Highlight your hands-on experiences and commitment to diversity, equity and inclusion.”



Raissa Diamante

Harvey Mudd College (CA)



Rachael Banks

University of Pittsburgh (PA)



Robert Gould

Augsburg University (MN)

Harvey Mudd College’s Executive Director of Admissions, Raissa Diamante, acknowledged the issues that all student-serving programs and organizations face - recruitment. “You all have recruitment problems so do we –it’s not a matter of more applications but a matter of the correct ones,” said Diamante. Diamante urged programs to focus on the value of experiences their students gain and to move those students to the top of a universities recruitment funnel.

Serving as the Vice President for Strategic Enrollment at Augsburg University, Robert Gould shared the University’s innovative direct admissions program developed seven years ago. As a result of a new mission and focus on systems change, Gould described Augsburg’s student centered approach to admissions. Waiving application fees, student success coaching and a strategy to create a sense of belonging before a student starts at Augsburg, the University is “applying to the student” rather than the other way around.

“We are redesigning a system that was created for a student demographic from decades ago,” said Gould. “By doing things like creating a sense of belonging for students before they step foot on campus, we are giving students the opportunity to join a community and make connections.”

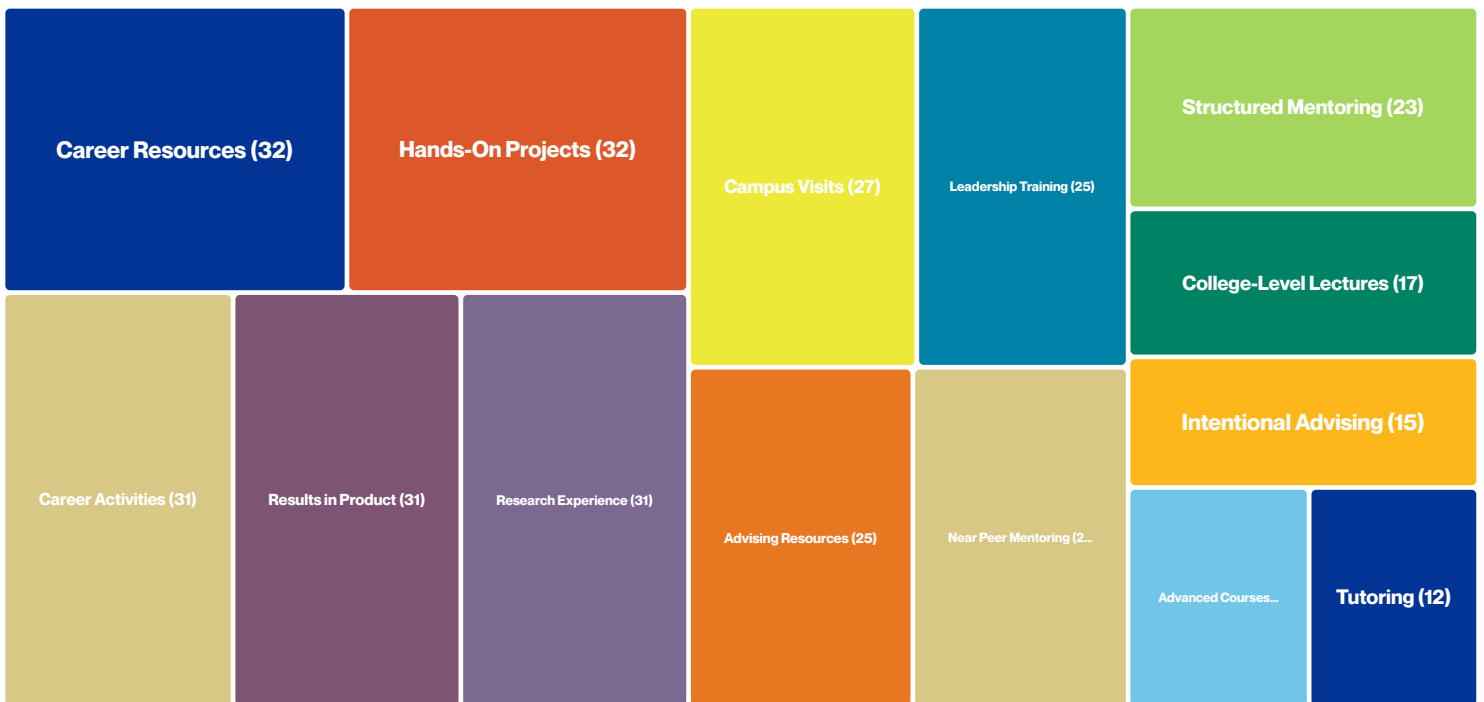
More About the Network

The STEM PUSH Network is comprised of almost 40 pre-college STEM programs, located across the nation, offering 100+ hours of rigorous, hands-on STEM learning opportunities for high school students. The Network is focused on changing the relationship between such programs and institutions of higher education to increase the number of Black, Latine, and Indigenous students enrolling and persisting in post-secondary STEM. At the convening, we took a look at what the Network looks like.*

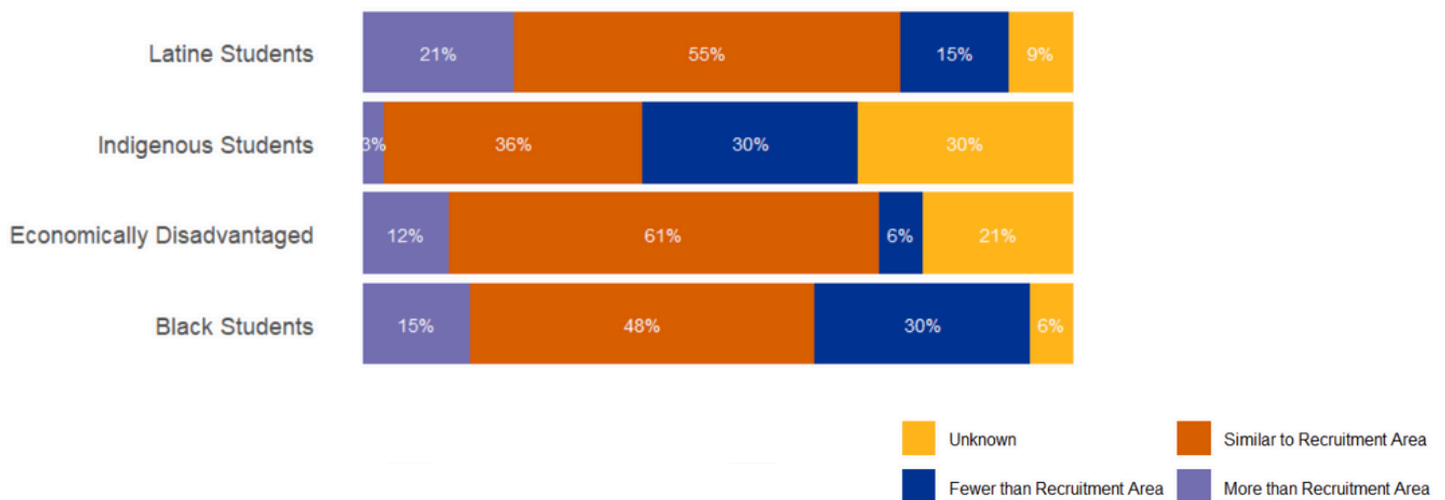
36% of programs focus on general STEM competencies.

30% of programs focus on engineering. The remaining pre-college STEM programs focus on the environment, computer science, aviation, biology, mathematics, and medicine.

Services Provided by STEM PUSH Programs



Students Served, in Comparison to Recruitment Area



*Data reflected is based on 33 programs that participated in the data collection.

Network Voices

According to the recent Network survey, STEM PUSH members report high value of the Network. During the convening, leaders reflected on the value of STEM PUSH within their programs, communities and the students they serve.



“We are the only organization doing what we do in Tulsa and it can be very isolating. Being a part of STEM PUSH has given me a community; a place of belonging. It has inspired our work.”

Mikeal Vaughn, Urban Coders Guild

“STEM PUSH gives us data to adjust things and improve activities. It improves student experiences. It makes it easier for us to tailor the program to really meet the needs of students.”

Jen Schnakenberg and Ellen Conrad
Young Naturalists, Pittsburgh Parks Conservancy



“We are always focused on the day to day - STEM PUSH gives us time to reflect and be more intentional. For example, Manny has been doing so much around alumni engagement. We realized the wealth of resources STEM PUSH provided and the need to continue to support them. This investment will be a long term benefit for our program.

Manny Leon, Rudy McCormick, Bill Pike, Arizona MESA (Math, Engineering, Science Achievement)

Special Note: Arizona MESA’s development of its alumni program, has scaled to the national level, resulting in ten alumni networks in the U.S.



In its sixth year, STEM PUSH is realizing tangible results and benefits from its networked approach to equitable systems change in higher education.

Our collective impact work will focus in sharing those results, data, and more importantly the stories of the real impact of STEM PUSH on student futures in the coming year. We understand that sharing the resources and telling the story of this unique, community driven, science backed approach to changing the STEM equation for good is critical for scaling, sustaining, and solidifying this important work.

This work would not be possible without the hard work and dedication of our Network of pre-college STEM programs and the forward thinking admissions professionals ready to remove long-standing barriers. Pre-college STEM programs can find resources at www.stempushnetwork.org/resources.

STEM PUSH also welcomes admissions offices to join the STEM PUSH Admissions Network and revise current systems to recognize the STEM learning experiences of these students in the admissions and enrollment process. Connect with us at www.stempushnetwork.org/admissions



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