



THE FUTURE NEEDS A PUSH

AUGUST 2023

FEATURED

STEM PUSH STEERING
COMMITTEE

HOW THE COMMITTEE
WILL WORK

MEET THE COMMITTEE

Representing, Leading, Advising, & Building: STEM PUSH Steering Committee to Expand Alliance Work

As a collective of pre-college STEM program (PCSP) partners dedicated to changing higher education admissions in STEM, the STEM PUSH Network relies on our community-based educators to test and implement equity centered tools for developing STEM competencies that matter. And now, as the project matures, network members will lead the way in scaling, sustaining, and charting the next phases of the equity journey with the formation of a Network Steering Committee.

With a charge to “Represent, Lead, Advise and Build” representatives were selected to serve as the inaugural Steering Committee. As the STEM PUSH Network advances and scales the work, the Steering Committee will provide advisory input to the STEM PUSH alliance-wide strategy. Steering Committee members self-nominated or were nominated by peers to develop and implement new collective impact initiatives.

The Steering Committee will **establish collective action efforts**, consult on next steps in building the accreditation process, and envision the future of the Network alongside the Hub.

This newsletter will provide a deeper look into the Steering Committee, its members and the work.



THE CHARGE

The STEM PUSH Network Steering Committee will:



REPRESENT

Nine pre-college STEM program leaders who are representative of the Network at large in terms of cohort, region, program type/STEM foci, and interest in network priorities for 2023 and beyond.

LEAD

Provide leadership for collective action areas and ensure momentum and progress toward goals.



ADVISE

Provide feedback and suggestions for improvement cycle design/focus and other STEM PUSH strands of work (accreditation & admissions, research, and Ecosystems).

BUILD

Build a sustainable collaboration and governance structure for STEM PUSH pre-college STEM programs.



How the Committee Will Work

Prioritizing STEM PUSH's Network's mission of increasing access, opportunity and success for Black, Latina/o/e and Indigenous students, the Steering Committee will work with partners to establish collective action efforts.

The Steering Committee's agenda will prioritize the value of adding initiatives that benefit the STEM PUSH Network the most. The committee will utilize collective impact principles to accomplish as a group what no one program can accomplish alone. These efforts might include some of the greatest areas of need experienced by the majority of the Networked Improvement Community's (NIC) membership while taking into account resources, bandwidth, and most importantly impact to Black, Latina/o/e and Indigenous students.



The Steering Committee Will

- Leverage network and partner strengths
- Lead with transparency and open communication
- Document successes and strategies
- Be accountable

In collaboration with both internal and external stakeholders, like admissions offices, teachers, and subject matter experts, they will push the work of the Networked Improvement Community (NIC) forward, working to best serve pre-college STEM programs within the STEM PUSH Network.

Networked Improvement Community - How it Works

Learning is social - we learn in the interaction with others - therefore, building a network is a really good way to learn. STEM PUSH is testing change ideas within PCSPs and learning more about what works, in which contexts, and at what scale. That is the power of the STEM PUSH Network.

We are **guided** by the deep understanding of the problem - persistent racial inequities in STEM at the postsecondary level and beyond.

We are **focused** and have come together to work on the complex problem - to broaden the participation of Black, Latina/o/e, and Indigenous students in STEM, and create systemic change in postsecondary admissions.

We are **disciplined** - we test ideas for change - we start small, see how it works, under what conditions and for whom; then, if it works, we have others test the idea or tweak it a bit for further testing.

We are **coordinated** - Along the way we collect data to understand if the change is leading to improvement. We refine our routines and strategies to work in more and more contexts, we get to reliability at scale of a change idea.

Some of STEM PUSH's greatest assets are our pre-college STEM program partners - the dedicated educators leading transformative work within their communities. Meet the Steering Committee leaders, tasked with representing the Network, providing thought leadership and establishing collective impact efforts.

Grady Burrows

Executive Director HIT in the CLE

Grady Burrows serves as the Executive Director of HIT in the CLE, located in Cleveland Ohio. The organization's purpose is to educate, inspire and open doors for black and brown high school and college students in the areas of computer and data science. HIT in the CLE was created by Burrows in 2015 and will become its own stand-alone 501(c)3 or non-profit organization in 2023. Burrows oversees the execution of three primary programs as the Executive Director of HIT in the CLE, which are the Coding Community Classroom, the Annual Data Science Competition, and College Learn & Earn.



Gaby Carbonell

Environmental Sustainability Assistant Manager Museum of Discovery and Science

Gaby Carbonell is the Environmental Sustainability Assistant Manager at the Museum of Discovery and Science (MODS) in Fort Lauderdale, FL. She is responsible for developing and implementing engaging climate curriculum across the Museum, in addition to guiding exhibit development and improving Museum operations. Gaby leads the Everglades EcoExplorer internship at MODS, a program dedicated to helping high-school students become environmental ambassadors. Here, she guides under-represented students through pathways to higher education and careers in STEM. She brings a sense of wonder and determination to the Steering Committee that will help push the STEM PUSH mission forward, as well as a long and informal education in social justice activism.



Leslie Imelda Serpas

Program Coordinator Upward Bound Math-Science Program

Leslie Imelda Serpas is the Program Coordinator for the Upward Bound Math-Science program out of California State University, Dominguez Hills. In this role, she works closely with high school students to help them realize their potential in STEM. Her passion for STEM equity and college access stems (pun intended) from her experiences as a first-generation college student from a low-income background. Her whole life she was encouraged to pursue a career in Computer Science or Computer Programming due to her early experiences working with computers and her ability to pick up new information quickly. However, she was discouraged from pursuing this field in college due to Imposter Syndrome and the lack of representation of Latinas in this field. After this experience, she vowed to make sure that other students did not have the same experience.





Steven M. Jones

Project Manager UPMC Hillman Cancer Center Academy

Steven M. Jones is the Project Manager for the UPMC Hillman Cancer Center Academy (Hillman Academy) in Pittsburgh, PA. Steven manages and coordinates the Hillman Academy, a year-long program providing students from underrepresented groups in biomedicine the opportunity to participate in authentic lab research experience. Serving about 80 students in the summer and 30 during the academic year, Steven is responsible for marketing, outreach, development, and implementation of all aspects of the program. In addition, he works to ensure that every student feels a sense of belonging and is receiving the best overall experience possible.

Manny Leon

Assistant Director for the Mathematics, Engineering, Science Achievement (MESA) Program University of Arizona's Office of Early Academic Outreach

Manny Leon is the Assistant Director for the Mathematics, Engineering, Science Achievement (MESA) program housed at the University of Arizona's Office of Early Academic Outreach. Manny began working with the office in 1997 where he works on behalf of and in conjunction with K-12 teachers, staff and students to provide broader access to higher education and STEM careers for under-represented populations. He has addressed this need through; his coordination of various STEM events; facilitation of STEM and college-access sessions with teachers, students and parents; and the design and facilitation of engineering design challenges to support youth inquiry through the engineering design process.



Abigail (Aby) Romo

Education Programs and Bilingual Spanish Specialist The Chicago Academy of Sciences

Aby is an Education Programs and Bilingual Spanish Specialist in the Education Department at The Chicago Academy of Sciences / Peggy Notebaert Nature Museum. In this role Aby works in different educational programs that support locally-based, rigorous and accessible science experiences centered in real-world, curiosity-driven learning. Aby is a co-leader on the TEENS program, Teenagers Exploring and Explaining Nature and Science, at the Nature Museum. TEENS is an out-of school time program for Chicago high school students to explore nature in the city, learn about college and career paths in natural science fields, and participate in hands-on scientific environmental investigations. As a co-leader on this program Aby leads investigations with participants, adds ideas to the investigations we do, and helps to create a welcoming and safe environment.



Edlyn Thompson-Mettle

**Director of High School Enrichment Programs
Stevens Institute of Technology**

Edlyn Thompson-Mettle is the Director of High School Enrichment Programs at Stevens Institute of Technology where she oversees pre-college programs that were created to expose, stimulate, and support talented high school students from underrepresented backgrounds and under-resourced communities realize their full potential in the field of STEM and provides them with the tools needed to succeed. She specializes in leading youth programs that provide academic and career coaching to students who have graduated from high school and are transitioning into college. Overall, her passion for producing the next generation of leaders has served as a driving force in her professional life.



Mary Eustace Valmont, Ph.D

**Associate Executive Director for Health
Sciences Education
Arthur Ashe Institute for Urban Health**

Mary Eustace Valmont, Ph.D, is the Associate Executive Director for Health Science Education at the Arthur Ashe Institute for Urban Health (AAIUH), and responsible for the development, implementation and management of its Health Science Academy (HSA) at SUNY Downstate Health Sciences University in Central Brooklyn. HSA is a health science pipeline afterschool program annually serving over 250 students of color, grades 6-12 and our alumni. Since 1994, HSA has served over 2,900 students.



Elizabeth Waters, Ph.D

**Director of STEM Outreach
The Cooper Union for the Advancement
of Science and Art**

Elizabeth Waters, Ph.D. is the Director of STEM Outreach at The Cooper Union for the Advancement of Science and Art. Prior to joining Cooper Union, she worked for Iridescent Learning on their Curiosity Machine engineering curriculum and assessment programs. In the last decade, she has trained scientists, engineers, and educators from across the United States and around the world in STEM learning both inside and outside traditional classrooms. During a residency at TED talks, she promoted the use of authentic scientific research in elementary and secondary schools to build knowledge based in and controlled by the school and their community.





The experiences of our members are critical to our learning. Pre-college STEM program leaders have authentic perspectives on the context of what works within each of their communities. This insight is what allows STEM PUSH to adjust and test new ideas. These understandings allow STEM PUSH to continue the research into what works best for reliable change at scale. This is research put into practice.

The Steering Committee is an important step in both centering the expertise of community-based practitioners and sustaining the work of the STEM PUSH Network. The Steering Committee allows STEM PUSH, a Network that was designed for its members, to now also be a Network led by its members.



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