museum of science+industry chicago

Developing *YOU*th!
Research Brief #5: Sense of Belonging

This is part of Transition Points, a series of briefs describing the lived experiences of some alumni of the Museum's youth development program as they matriculated through college. For more details, background and other briefs visit http://bit.ly/12345

At a Glance

Participants of Science Minors and Achievers program reported they felt supported and respected during their time in the program. This positive treatment created a strong sense of belonging for them at the Museum. In this brief, we discuss ways in which our participants continued to seek a sense of belonging after leaving our program going to college. We found that some of these spaces may fall short especially for our Black Women participants.

As part of the **Developing *YOU*th! Project**, we talked to youths from the Science Minors and Achievers (SMA) program at the Museum of Science and Industry, Chicago (MSI). This report is part of a series of briefs discussing the lived experiences of some of our participants as they graduated from the program and matriculated through college.

About the Study

The **Developing *YOU*th! Project** is a mixed-method, longitudinal study following graduates of the Science Minors and Achievers program at MSI. The program focuses on high school youths from historically underserved communities and aims to prepare them for college. This study combines annual surveys with in-depth repeated interviews to follow participants through their college and professional careers. As of 2023, we will have followed our oldest cohort of participants for eight years, allowing us to look more broadly at how our participants' experiences with STEM and within STEM spaces has changed over time.

For these briefs, we drew upon qualitative research methods such as participant observation and multiple years of formal and informal in-depth interviews. We aim to center some of their lived experiences within STEM formal and informal spaces, including within the Museum itself.

This brief was prepared by Cindy La Nguyen, Ph.D. and C. Aaron Price, Ph.D.

Sense of Belonging

While At MSI

We found that, overall, participants in the Science Minors and Achievers program felt a strong sense of belonging which contributed to their feeling supported by the Museum. To our participants, the sense of belonging and feeling supported by the Museum extends beyond what the Museum provides them. Rather, it describes a relationship they perceive with the Museum that it is reciprocal: they belong to the Museum and the Museum belongs to them.

Participants described feeling proud that others associated them with the Museum, which they perceived to have a prestigious reputation. They described a sense of ownership over their role at the Museum and felt trusted with responsibilities. In addition, their access to Museum spaces, staff, and institutional knowledge contributed to their sense of belonging. Karani described attending a formal event at the Museum made him feel recognized as both belonging to the Museum, but also belonging to a larger STEM community:

> *You know, I do the Museum's Columbian Ball, I do a Black Creativity gala […], I got a tuxedo on, a bowtie, you know. And I'm meeting people […] I like to make people smile and stuff and, and I'm telling them about science, I'm telling them about the TV show, and not only that, I'm telling them about just life in general. And I'm having these mature conversations with adults that are in STEM fields. And, and I'm loving it […] I'm just like, 'This is awesome.' […] Just being a young Black man, and just my circumstances, […] I got a taste of what it was like to not be average. I got a taste of what it was like to shock somebody. And I was like, 'I'm never going back. I love this. This is amazing.'*

While In College

In college, participants continued to think of the Museum as a community where they belonged. That sense of belonging to the Museum community fueled their commitment to the program when they were still in it, as well as their continued commitment to the Museum at present through their participation in this study. While in college and thinking back on her time at the Museum, Floriana said,

> *It was a community aspect. I think it gave me a lot of like social interactions that I didn't get [otherwise] and it was just a lot. It was a supportive fun environment where I got to learn and I got to work with other peers like myself, interact with the guests. It was just, I don't know, it helped me come out of my shell and definitely made me much more confident and much more extroverted than I thought I could be.*

For many of our participants, the sense of belonging and feeling of support from a STEM community was not easy to find in college. Some participants reported feeling different from the communities they encountered in college. They described realizing that some of the people they'd meet did not care about the same things they cared about, were not as experienced with different types of people, and did not share the same interests and motivations as they did. As a result, some participants like Pia, felt not only isolated, but scrutinized:

> *I feel like it felt mostly like I was trying to connect to other people and there was just like a very clear, I don't know. We're just not thinking the same way or that we're not*

coming from the same place or same background. And so I would just… I felt most times, I felt like I was genuinely just like, being my truest self and it just felt like people couldn't meet me where I was or they expected something different from me from how I was acting—they like didn't expect me to act the way I was. And so that made me feel more isolated.

Emma described joining a student organization for Black students in Engineering at her university. While this organization helped her feel some sense of belonging in her early years of college, as she advanced in her degree, the demands of her computer science program took up all of her time and energy. Beyond the demands on her time, her major in computer science was even more disproportionately white than the rest of the school of engineering so that she became more isolated from peers who she felt understood her.

Actually, some people have told me that they believe that I'm in the position that I'm in or I'm at the companies that I'm at, because of the fact that they're trying to, like meet a quota. And I think that knowing that there's some people in my environment, or I've even had mentors tell me, 'oh, you only got that, because you're a Black woman,' and, 'you know, they're trying to increase diversity measures.' And I think that, other people having that perspective, I think that that bothers me more.

Well, I won't say more, but that bothers me, because it's like, you know, it's not like we're—Black Women are taking over tech companies [...] Black people in general make up less than probably 3% of most big tech companies. And then, you know, they could have chosen any Black guy [...]. I'm pretty sure I wasn't the only one [...] that they had as an option, so…

Implications

Many universities have student groups and organizations that are meant to give students options in finding a space where they can feel like they belong. While these spaces are critical and necessary, they may not be enough. Finding a community to belong to might be a normal part of adjusting to life on a college campus, but we found that especially for our Black Women participants like Emma and Pia, this search was marked by feelings of isolation and scrutiny surrounding their identities. Furthermore, while programs and organizations may exist to help support students of color at universities and especially in programs that are historically predominantly white, access to these communities require students of color to exert extra time and energy.

Introducing Our Youth and Young Adults

These research briefs center the lived experiences of program alumni who began as youth and are now young adults. This is a little more about them.
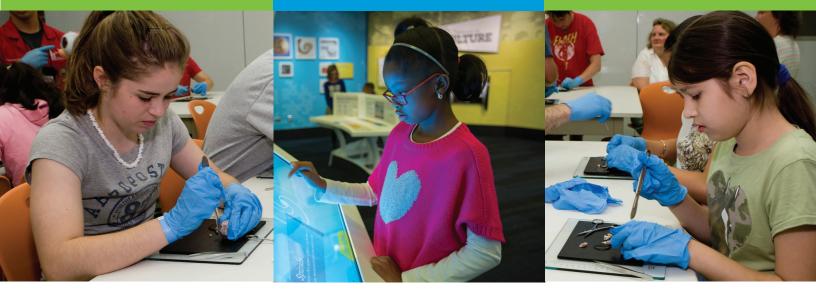
Karani

Karani identifies as a Black man and is taking a break from pursuing his undergraduate degree in Computer Science and Finance in order to take advantage of opportunities to apply his specialized skill set working with video, film, and content creation. He is currently working as a video and media content creator for a multi-platform sports media company.

Emma

Emma identifies as a Black woman and graduated with a bachelor's degree in computer science. She is currently exploring opportunities as a software engineer. Emma hopes to have the freedom in her career to integrate her passion for art and design with her math and computer science skills.

Pia

Pia identifies as a Black Caribbean American woman. Early in her undergraduate career, Pia pursued a major in neuroscience. While she still loves science, she realized her passion and calling is in theater, creative writing, and the arts.

Acknowledgements