‘Hypervisible and invisible’: Olin College president discusses journey as a Black woman in engineering

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Gilda Barabino, the president of Olin College of Engineering in Needham. JOHN TLUMACKI/GLOBE STAFF

Gilda Barabino is the president of Olin College of Engineering in Needham. Here, she talks about the challenges and responsibilities of being one of the first Black women in the country to enter the field of chemical engineering — as told to Boston Globe reporter
Katie Johnston. Part of *Inequality at Work*, an occasional series of personal essays by people of color working in the Boston area.

My family was a military family. We moved around a lot. When we were in Dover, Delaware, there wasn’t a kindergarten where we lived, so I didn’t have the opportunity to go to kindergarten. And I was more excited to go to first grade than any child you have ever met. I was the only Black student in an otherwise all-white public school classroom. The teacher asked us where we were born, and I stood up and said I was born in Anchorage, Alaska. And she said, “You’re lying. Why would you make this up?” And my thought was, “Yes, why would I make that up?” So here I was, this first grader who could not wait to go to school, and my first interaction is with a teacher who thinks that I’m not telling the truth. I knew enough to know that I was the only one in the class who was Black, and I was the only one she didn’t believe – I assume perhaps because she didn’t think Black people lived in Alaska.

I’ve gotten accustomed to entering spaces where I am the first, or the only. I was the first African American in the chemical engineering graduate program at Rice University, and the fifth Black woman to receive a PhD in chemical engineering in the country. When you step into any space where you’re the “other” you are both hypervisible and invisible at the same time. Another aspect of being “othered” is isolation, because humans tend to be drawn to others who are more like them. You start to notice when you are being invited in, and when you are not. It could be to a group working on homework, or it could be as simple as being invited into a conversation. And many times I wasn’t invited.

When I was doing my PhD thesis, I wanted to investigate something that would allow me to give back to my own community. Sickle cell anemia disproportionately affects Blacks, and studying it allowed me to go beyond examining the science and physiology of the disease to look at the intersection of race and health and politics, while designing novel approaches to care and treatment for a debilitating disease. There’s a concept called “equity ethic,” which is the desire to use STEM skills — science, technology, engineering, and math — for social justice. Ebony McGee has written about this, and showed that
Black and Latinx students in particular are inclined to enter fields where they can give back.

My first academic job was teaching chemical engineering at Northeastern University, in 1989. I was the first Black woman to hold a tenure-track faculty position in chemical engineering in the country. My first day of class held a certain level of excitement, but also confusion. The students are congregating in the hall and poking their head into the classroom and stepping back out. I went out and asked, “Are you here for Chemical Engineering 1421?” And they said, “Yes, but the instructor’s not here.” Because when they looked in and saw someone who didn’t fit their image of the instructor, they assumed the instructor wasn’t there.

When you’re entering a space that people like you weren’t in before, there is a heightened pressure to do well. If you don’t, then that opening might be closed for someone who shares your background, so you’re carrying the load on your shoulders. I wanted to be...
successful so that I could continue to change the environment and also be able to bring others in.

Women of color also carry a disproportionate service load in academia. It could be that you’re expected to mentor and take on advising for other women of color. You’re also expected to carry out diversity, equity, and inclusion efforts. Do you want to diversify a committee? If you add a woman of color, it’s a two-fer. That work is often unseen. It’s unrecognized and it’s unrewarded. People like me want to give back, we want to help others, particularly those from underrepresented groups. But that type of work often gets overlooked and doesn’t generate any currency toward progressing your career.

I was the only woman of color when I was a visiting faculty member on sabbatical at an institute at Georgia Tech. Students would seek me out, particularly women of color, and they’d share their experiences and ask how I got to where I was. It got to the point where literally there was a line outside my door every day. So I started having group lunches. But I said, “This is not a session just to sit and complain about how you’re being held back. What are you going to do about it?” I would assign readings. I brought in a
psychology professor, and we created focus groups that led to a paper in Science Education about how women of color form professional identities as scientists.

Because I often felt invisible and isolated, I had to work harder at building connections and forging relationships. So I would reach outside engineering to collaborate with people who were in social sciences, women’s studies, and other disciplines. Connecting with other women around the sociology and psychology of STEM careers enriched my own experiences and also contributed to a broader understanding of the field.

During my academic career, there’s progress we can point to. In the Boston area, just look at the number of other college presidents who are Black women: at Boston University, Cambridge College, Harvard University, Mount Holyoke, Simmons University, and Wellesley College. There’s clearly progress. But there are still cultural barriers society is grappling with overall.
I cochaired a committee for the National Academies of Sciences, Engineering, and Medicine that just published a report about advancing antiracism. People have a hard time creating inclusive environments where everyone can thrive. Sometimes we make assumptions that researchers working in the same area will automatically collaborate, and I don’t think this necessarily happens if you’re a woman of color and you’re “new.” I once met with a group of researchers who used my ideas in the development of a grant proposal but didn’t include me in the submission.

One of the official values we adopted at Olin last year is a commitment to “fight for equity and justice.” One thing that attracted me to Olin was the founding precept that engineering is something you do for societal good, such as developing affordable diagnostic tools that can screen for diseases in low-resource settings.

Under my leadership, Olin has increased our representation of women and people of color among faculty and students. We speak about engineering for everyone, meaning everyone has the opportunity to pursue engineering, and engineering is done in service of everyone.

Still, no matter how much I’ve risen through the ranks, I realize that inequity is ingrained. It doesn’t matter what level you are. I carry that with me as a reminder that change is needed, change is possible, and the benefits of effecting change will serve everyone.

Gilda Barabino can be reached at president.barabino@olin.edu.

To tell your story, contact reporter Katie Johnston at katie.johnston@globe.com. Explore the full Inequality at Work series.

Katie Johnston can be reached at katie.johnston@globe.com. Follow her @ktkjohnston.