# Breaking Through, Rising Up

Strategies for Propelling Women of Color In Technology

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# Acknowledgments

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NPower New York students, Fall 2018

# Executive Summary

In the next decade, jobs in computer and mathematical occupations are expected to grow by 13 percent, with nearly 600,000 new jobs on the horizon (Bureau of Labor Statistics, 2017). Yet opportunities in the technology industry have not been evenly distributed. The technology workforce is predominately male and predominately white. Women of color make up less than 10 percent of the computing workforce.

Recognizing the need to not only shift the dynamics of the technology industry, but also to expand economic opportunities for women of color, in May 2018 Citi Foundation awarded a $1.64 million grant to NPower to increase the enrollment of young women in its program from 25 percent to 40 percent by the year 2022, equipping them with the technology skills needed to prosper in the digital economy.

As 40 by 22 approaches its two-year mark, NPower seeks to share some of its lessons learned, while also garnering insights from the broader field to lift up effective practices that can inform the work of its peer training programs as well as the employers who partner with them.

This report focuses on the unique potential of nonprofit technology training programs to address unmet demands in the field, while also providing critical economic opportunities to women of color who may not have had access to traditional pipelines into technology jobs.

**To date, the intersection of gender, race, and class in the technology industry has received little attention. This paper, through qualitative and quantitative data, describes what is required to invest in and benefit from the talent of women of color from low-to-moderate income communities.**

## Among the Key Themes in This Report:

- Nonprofit technology training programs address an important niche in expanding the talent pipeline for women of color from low-to-moderate income communities.

- Engaging women of color in these programs is an imperative—both to create economic opportunities for women of color and to access untapped talent for a sector with a high number of unfilled jobs.

- Both goals are achievable and can reap significant benefits yet require intentionality in how practitioners and employers support women of color in technology roles and set them up to thrive in technology careers.

Research findings in this paper cover three broad areas:

1) The motivations and barriers women of color report in pursuing technology training.

2) The ways in which technology training programs can increase women of color's participation.

3) How employers can create a culture of inclusion that allows women of color to thrive in the workplace.

The paper also highlights policy levers that can help expand opportunities for women of color in technology and concludes with a call to action for practitioners, employers and funders.

## Pursuing Technology Training: Motivations and Barriers

Female students indicate that their number one reason for pursuing technology training is a strong interest in technology. In addition, women of color cited the desire to improve upon their current employment situation—to get on a career track, make a career change, and get into a career with growth potential as motivations.

Even as young women of color express hope and optimism for their futures through their participation in technology training programs, women reported experiencing a variety of challenges while enrolled in

programs. Most notably, two-thirds of women of color enrolled in NPower's program reported experiencing financial stress. A critical mass of female participants also reported health challenges and difficulty managing caregiving responsibilities at rates that were significantly higher than male students.

## Supporting Women of Color's Participation in Technology Training Programs

Most larger technology training programs have four core aspects to their programs: 1) recruitment; 2) support services; 3) instruction; and 4) job placement services.

Technology training programs can uniquely engage and support women of color in each of these domains to ensure their success in the program and beyond. Some of the recommended programmatic strategies highlighted here benefit both men and women, but because women tend to experience greater barriers to participation, shifts in practice can be especially effective in increasing the enrollment and engagement of women of color.

### Recruitment

Technology training programs can create communications and marketing materials that speak directly to women of color, featuring images of women of color and speaking to what we know motivates their participation—an interest in technology (however informal) and a desire for economic mobility. Training programs can also leverage partnerships with community-based organizations to expand their pool of applicants and engage alumnae ambassadors to provide peer-to-peer encouragement.

### Support Services

Given that women tend to face more challenges than male students, wraparound services provided by programs take on added importance. Technology training programs can be intentional about support services, ranging from providing bridge programs as on-ramps to technology training to allocating emergency funds to

address unanticipated difficulties. Programs can also be intentional about providing social support through female role models and affinity groups.

### Instruction

Technology training programs can ensure gender-inclusive classrooms by being attentive to the ways in which bias shows up in the classroom and using a variety of instructional approaches to ensure engagement from female students. Training programs can also strive to increase the presence of female instructors to provide role models in the classroom.

### Job Placement Services

Technology training programs can support women of color's transition into the workplace by creating strong partnerships with employers and screening them for strong diversity and inclusion practices. In addition, they can prepare their women of color students to recognize and address potential experiences with bias in the workplace.

## Surviving and Thriving In the Workplace

This section examines the experiences of alumnae from technology training programs, and explores the ways in which employers can create a culture of inclusion to support the career advancement and success of women of color.

### Experiences in the Workplace

NPower alumni, both male and female, report generally positive experiences as they transition into the workplace, reporting high levels of belonging, strong support from managers, and ample access to role models and mentors. In many ways, these findings are a testament to the preparation provided through technology training programs as well as employers who are thoughtful and forward-thinking about creating an inclusive workplace.

- On a scale of 1 to 5 (with 5 representing "strong agreement"), both male and female alumni of color had average ratings of 4 or higher on items related to dimensions of belonging and inclusion. Alumni felt valued and respected at their companies, felt comfortable sharing opinions and ideas, and believed their organizations had a strong commitment to diversity and equity.

- Female alumnae of color reported they had ample networking opportunities (68 percent), role models in the industry (78 percent), and mentors in the industry (74 percent). A vast majority (77 percent) also indicated they were offered the necessary training and support needed to advance in their careers. These rates were similar to their male counterparts.

At the same time, these positive experiences are coupled with data that show that women of color alumnae of NPower's program report significantly higher levels of bias in the workplace and that concerns about gender bias are top of mind as they advance in their careers.

- When asked about eight distinct forms of bias, women of color were three times more likely to report experiencing incidents of stereotyping or discrimination in the workplace than men (28 percent vs 9 percent).

- When asked about barriers to future success, 24 percent of women of color worried about facing stereotypes about their commitment or ability based on their gender, compared to only 1 percent of men who worried about gender bias.

While this survey data underscores the promise of technology training programs and strong partnerships with employers, it also highlights the stark societal realities around bias and discrimination that continue to play out in the workplace and the importance of concerted efforts by employers to address and mitigate these dynamics in the workplace by building a culture of inclusion.

### Building a Culture of Inclusion in the Workplace

Technology training programs help prepare women of color coming from nontraditional backgrounds for the workplace—helping them develop the skills and strategies to navigate not only a male-dominated field, but also a corporate or white-collar culture that may be new to them. Even as women develop strategies to succeed

in the workplace, it is equally if not more important for employers to foster a culture that is inclusive of gender, racial/ethnic, and socioeconomic diversity. Employers can create this culture by doing the following:

1)  Shift the mindset to include individuals from nontraditional educational backgrounds as part of the talent pipeline. Invest in the supports needed to recruit and retain this talent.

2)  Foster inclusive leadership and establish accountability metrics.

3)  Encourage authenticity and bringing one's whole self to the workplace.

4)  Ensure opportunities for women of color to tap into networks and get exposure for their work.

5)  Promote career advancement and training and build a learning culture.

## Call to Action

This research highlights the ways in which the talent pipeline of women of color remains largely untapped and under-resourced. Creating economic opportunities for those who have the least access to them and shifting mindsets about the potential of women of color in technology may not be an easy endeavor. It will take collective and intentional efforts by funders, practitioners, and employers to invest in what we know works as well as the courage to test new ideas and approaches to expand our toolbox of strategies and solutions.



NPower students collaborating on a project at their San Jose classroom.

### Practitioners can:

- Commit to ongoing professional development opportunities to ensure that staff are aware of how gender bias may be affecting the classroom culture and program environment and that they have the know-how to interrupt and mitigate bias when it appears.

- Consider flexible training options, including online or evening/weekend courses, that can better accommodate caregiving or employment responsibilities.

- Partner strategically with other technology training programs to create a more holistic set of services and opportunities for students and alumnae.

- Conduct regular surveys of program participants and alumni to understand their challenges, motivations, experiences, and the longer-term return on investment.

### Employers can:

- Consider skills-based hiring and embrace individuals from nontraditional backgrounds, recognizing that while there may be some challenges, it is a necessary and fruitful endeavor in building the 21st century workforce.

- Be intentional about mentorship and sponsorship opportunities for women of color to ensure that they have an opportunity to advance in their careers.

- Commit to ongoing professional development related to equity and inclusion and develop benchmarks for equity and inclusion goals to demonstrate accountability.

### Funders can:

- Increase investments in nonprofit technology training specifically to engage and support women of color.

- Invest not only in classroom training, but also in wraparound services, including childcare, transportation, and mental health resources, that address the full set of supports needed to succeed.

- Serve as advocates within the funding community to convey the importance of targeted support for engaging women of color in technology.

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