Purpose-Built to Advance Equity
Expanding Opportunities in Tech for Black Americans

AT A GLANCE
Careers in technology can open doors to economic opportunity for Black learners and workers. Our market scan identifies innovative career preparation, technology training, and advancement programs and platforms that offer a unique combination of best practices for building pathways to and advancement within tech jobs, including tailored supports and a commitment to transforming the systems in which we all learn and work.

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There is broad consensus that Black Americans are still grievously impacted by racial discrimination—both explicit and subtle—and by the longstanding structural barriers to social and economic advancement.

Black men earn on average $0.87 for every dollar white men earn. And Black women, facing the double whammy of both racism and sexism, average $0.63 for every dollar white men earn. A key contributing factor is that Black Americans are less likely to be hired into high-wage occupations and compensated equitably than comparably educated workers of other races. These persistent inequities in earnings and employment, in addition to the lingering effects of structural racism on student loan debt, property ownership, banking, and investment have all contributed to a racial wealth gap that is more pronounced today than it was in 2000. It is clear that addressing racial discrimination and promoting racial equity for Black learners and workers is both a moral and an economic imperative. It is also clear that we cannot make meaningful progress toward closing the opportunity gap for Black Americans if we do not disrupt and dismantle the occupational segregation that has historically relegated them to jobs on the lower rungs of the economic mobility ladder.

We see tremendous opportunity for Black learners and workers in tech, an industry where employment is projected to grow 13 percent between 2020 and 2030 but where Black Americans are notably underrepresented, as is clear from statistics cited earlier in this scan: Black workers account for nearly 12 percent of the total workforce but only 8 percent of the tech workforce.

Only 3 percent of all tech industry board directors are Black, a percentage that is roughly one-third lower than the percentage found at the top 200 companies in the S&P 500. Moreover, of the 172 new tech board directors added in 2020, only five were Black. Also, as of 2020, only 1 percent of venture capital had gone to Black tech founders.

The good news is that this underrepresentation can be tackled head-on with the range of actionable solutions and interventions outlined in this market scan. In so doing, we can ensure that Black learners and workers have equitable opportunities to pursue careers in fields that pay well and offer advancement potential—and that equitable opportunities become the norm, not the exception.

As this scan demonstrates, there are hundreds of incredible organizations doing innovative, transformational work to strengthen the learn-and-work ecosystem for Black Americans. We are heartened by their progress and their reach. But we understand that it’s essential to do more, and quickly, to narrow and ultimately close the economic advancement gap for Black learners and workers. We must seize this opportunity to ensure that Black Americans are equipped for, and become leaders in, the growing digital economy.
As funders, educators, employers, and policymakers consider additional investment in and strategies to advance Black learners and workers in tech, we see opportunities for maximum impact in the following areas:

- Developing strategies for learners and workers to pursue certification programs and other training opportunities that enable them to acquire both technical expertise and the soft skills that have become essential to advancement in the tech sector. This is especially important for people without four-year degrees.
- Creating collaboration opportunities for organizations with similar priority populations and goals, including facilitating warm hand-offs between programs and coordinated funder and employer engagement when possible.
- Supporting innovative financing strategies, including learn-and-earn models, to expand access to education and training programs, particularly for lifelong learners.
- Investing in recruitment, hiring, and internal mobility efforts to support Black learners and workers.
- Supporting efforts to increase the representation of Black Americans on the boards of tech companies.
- Increasing support for Black tech founders.

Moreover, to increase the probability of success as we pursue the aforementioned investment and policy recommendations, we must keep in mind the following principles for program and policy design:

- Clarity in setting goals and establishing success metrics, including defining and reviewing outcomes by race, is essential. Such benchmarks are foundational when it comes to ensuring accountability, measuring impact, and pivoting as needed to address issues in program or policy design and execution.
- Programs and policies must promote culturally responsive practices in which all learners and workers can thrive, are seen, and are regarded in the totality of their humanity. This includes the use of language that focuses on assets, not deficits, in all policies and programs to minimize harmful reinforcement of stereotypes.
- All program design, leadership, and evaluation efforts must include the voices of Black learners and workers to avoid unintentionally perpetuating and reinforcing the structural barriers that we are working to dismantle.

Opportunities to advance racial economic equity abound across the learn and work ecosystem. With the support of committed funders and policymakers, equitable opportunities for Black Americans in tech can become the standard reality, providing economic mobility with true generational impact.
Introduction

Wealth and income gaps between Black and white Americans continue to hamstring the U.S. economy, and it’s clear that, despite their many monumental accomplishments, past and current education and workforce efforts to give everyone equitable opportunities for economic advancement haven’t closed those gaps. There’s more work to do if we want to build on the achievements of and lessons learned from the civil rights movement, training and education programs, and diversity, equity, and inclusion (DEI) initiatives. All too often, Black learners and workers must navigate education, training, and workplaces that weren’t built for them and aren’t inclusive of them. The economic impacts of COVID-19 demonstrate the reality that Black learners and workers face a risk of falling even further behind as the country continues its transition to a more digital economy and workforce.

Achieving a more equitable economy will require intentional and innovative efforts to reimagine the learn-and-work ecosystem and to launch transformational initiatives that create better education, training, and career opportunities for Black people. We also need to provide Black Americans with access to other resources necessary for economic advancement, including social and financial capital.

The ultimate goal is to increase the number and proportion of Black Americans in high-earning careers and sectors of the economy. While we don’t know exactly what the future of work will look like, it is clear that the demand for tech and digital skills will continue to grow, and these skills will lead to high-paying jobs and careers across fields. Therefore, we did a deep dive into the landscape of innovative programs designed to prepare Black learners and workers to enter and advance in technology careers that lead to economic mobility. Our research identified trends and areas where there are opportunities for additional investment and innovation in the learn-and-work ecosystem.
For these programs, what we know to be best practices in education, training, and advancement are only the beginning. The most promising efforts we found are purpose-built to support Black learners and workers to overcome the structural racism that permeates the learn-and-work experience and to advance economically.

We believe this scan can serve as a guide for employers in the technology sector that want to review and redesign their recruiting, training, and advancement strategies and practices. It will also be a valuable resource that helps program designers, funders, policymakers, and other stakeholders explore which kinds of programs, policies, and practices to create, launch, and support at scale. Together, we can make equitable opportunities for Black workers in tech the rule—not the exception.

We’ve determined that Black leadership is a key factor for success in some of the most exciting programs and organizations we feature. However, building and scaling these programs should not be the exclusive responsibility of Black leaders—it takes all of us and efforts from all angles to create equitable economic mobility in the technology sector. We believe that all companies and their leaders have a historic opportunity to distinguish themselves in the marketplace by adopting equitable policies and practices that are transparent to both stakeholders and the public.

Talent is equally distributed among people of all backgrounds—but too often, meaningful opportunity is not. The more we can provide Black learners and workers with the supports, resources, and allies they need to succeed in technology careers, leading to a measurable increase in the number of Black technologists—the more we will all benefit from greater economic opportunity, mobility, and growth.
JFF’s Commitment to Racial Economic Equity

As part of JFF’s mission to drive economic advancement for all, we have redoubled our commitment to achieving racial economic equity. To reach this goal, we are drawing on JFF’s decades of education and workforce development expertise to dismantle the structural, systemic, and institutional barriers that have limited Black economic advancement.

In an approach outlined in our newly drafted framework to advance Black learners and workers, Achieving Black Economic Equity: A Purpose-Built Call to Action, JFF is partnering with stakeholders across the learn and work ecosystem to focus on two foundational priorities: disrupting persistent occupational segregation and developing innovative solutions to eradicate the longstanding Black-white wealth gap.

This market scan is part of a series of work centered around our first goal: reimagining education and workforce systems to create more effective pathways for Black learners to enter high-growth and high-wage sectors of the economy, and creating more equitable and inclusive workplaces where Black workers can thrive and advance. Future JFF work will look outside these systems to identify innovative opportunities to address centuries of disparities in educational attainment, employment, income, and social structures that perpetuate the Black-white wealth gap.

For more information about JFF’s racial economic equity work, visit www.jff.org/purposebuilt.
About This Market Scan

At JFFLabs, we believe that innovation and technology, in concert with continued transformation of traditional systems and policy change, can revolutionize the learn-and-work ecosystem and, in turn, the ways in which we all live, learn, and work.

Our market scans are based on deep dives into innovation and technology landscapes filled with solutions that are transforming learning and working. Our goal is to identify opportunities, trends, market dynamics, and impact investment insights. Those efforts yield market scans that feature mission-aligned companies and nonprofit organizations of all sizes, from seed-stage startups founded by inspiring innovators and entrepreneurs to growth-stage organizations that are already creating significant social impact and business value. We review hundreds of organizations to assess their approach to and concern for social impact, and the traction their efforts have gained. We identify the most innovative and advanced technologies and programs connecting people to rewarding jobs and careers, valuable education and training opportunities, effective workforce and education systems, and equitable, resilient opportunities for economic security and mobility—at scale.

For this market scan, we looked for scalable, purpose-built solutions that provide equitable pathways into inclusive technology careers for Black learners and workers. The programs and platforms we highlight provide individuals with genuine opportunities for economic advancement. Because this scan prioritizes a specific population—Black learners and workers—we focused on strategies that address the specific barriers and experiences of this population. We identified programs, practices, and policies that are successful in supporting Black learners and workers to prepare for high-growth, high-wage careers as well as approaches that are designed to make workplaces and workplace dynamics more inclusive. We paid particular attention to proven approaches that are being applied in new ways or more broadly to reach more people. We sought guidance from the advisory council for our broader Racial Economic Equity Initiative. And with their support, we intentionally sought to highlight initiatives led by Black founders and leaders.

We acknowledge that achieving true equity for Black Americans will require us to look beyond equitable career pathways to address the structural and systemic challenges that contribute to the persistent and pervasive Black-white wealth gap. This market scan only partially explores solutions that address this far broader challenge. In order to address this at scale, we must look outside traditional education and training systems. We must identify and rectify inequitable policies, explore and promote financial innovations, advance Black entrepreneurs, and pursue moonshot strategies to address social determinants such as health, housing, and more. JFFLabs is eager to dive into this work further over the course of future market scans, program design, and investment opportunities.
Understanding the Landscape
Understanding the Landscape

Despite advances linked to the civil rights movement, the Equal Opportunity Employment Act, and DEI efforts, structural barriers to Black economic mobility, equity, and wealth creation have endured. Black workers earn less than white workers and the Black unemployment rate has been twice as high as the white unemployment rate for the last 50 years, across nearly all education levels. Relatedly, the Black-white wealth gap is widening.

Further exacerbating these challenges are the economic impacts of the COVID-19 pandemic as well as trends in automation that are expected to displace an estimated 4.6 million Black Americans.

Squeezed by student loan debt, hiring and wage discrimination, and inadequate income growth, Black college graduates in their 30s have seen their net worth plummet to less than one-tenth that of their white counterparts in the past three decades. Black learners and workers—particularly Black women—are consistently overrepresented in static jobs that hold little promise for advancement.

And despite the prevailing wisdom that gaining new skills and expertise is the key to closing these gaps and achieving economic advancement, education and training alone aren’t the answer. Qualified Black talent who meet the criteria for the job still aren’t getting hired—or paid equally with equal consideration for professional advancement.
It’s no wonder that Black workers who have achieved career success and upward mobility are often described as exceptional. Their experiences may seem extraordinary; but equitable opportunity should be ordinary. This is why we need an intentional effort specifically focused on enabling Black Americans to access and succeed in technology and other careers that have historically been kept out of reach.

Demand for technology talent is exploding, but Black Americans remain notably underrepresented in the tech sector—and by now, we know it’s not a pipeline issue.

Initiatives designed to attract, train, and support Black learners and workers are not new, and they include programs specifically focused on the tech sector, but these efforts have not thus far translated to an increase in Black representation in occupations that offer opportunities for economic advancement.

As research in the following pages demonstrates, a major obstacle has been the fact that such initiatives often do not take into consideration the systemic and structural barriers that Black learners and workers confront from an early age into adulthood. For example, Black children are more likely to encounter unequal access to educational resources. On average, they have less access to highly skilled teachers and high-quality curricula. Moreover, they are tracked into programs that aren’t as academically rigorous as the ones their white peers are enrolled in, they face bias from teachers and advisors regarding their abilities and their college and career options, and they are much more likely to be disciplined with detention and suspension than white students.

At the postsecondary level, even though they are earning high school diplomas at close to the national average rate of 90 percent, Black students are more likely than their white peers to attend under-resourced colleges and universities. And once in college, a confluence of factors—including insufficient advising, lack of social capital, and institutional pricing—steer them away from programs of study that directly lead to tech jobs.
UNDERSTANDING THE LANDSCAPE

For the few who do enter these programs—at traditional postsecondary institutions or short-term training institutes, they often experience curricula, teaching, and other structures that lack cultural competence or strong alignment between stated goals and outcomes.

And even for Black workers who do acquire in-demand degrees and credentials, hiring algorithms are leaving them out, contributing to persistent occupational segregation and inequities in wages and employment rates between Black Americans and their equally or lesser qualified white peers.
An Ecosystem Marked by Underrepresentation

Black learners and workers are distressingly underrepresented at every stage of the education-to-work ecosystem that leads into careers in technology.

K-12
- Black learners are more likely than their white peers to lack access to broadband internet service and other technology resources at home and at school early in life.
- Black learners are less likely to attend a school that offers a foundational computer science course, and are underrepresented in AP computer science courses.
- Black learners are more likely to attend under-resourced K-12 schools that lack the funding to adequately invest in career navigation and do not encourage students to explore technology as a career (middle school years are critical for career exploration).
- Non-Black middle and high school guidance counselors are less likely to place their Black students in classes that prepare them for college or a career, and less likely to adequately address their mental health issues.

Postsecondary Education and Training
- The percentage of Black Americans among college graduates with degrees in computer science and computer engineering has been found to be twice as high as the percentage of Black Americans in the workforces of leading tech companies.
- Black college graduates owe an average of $25,000 more than white graduates, with 29 percent making monthly payments of at least $350 and 48 percent owing an average of 12.5 percent more than they borrowed four years after graduation.
- Black Americans face greater risks from student loan debt, in part because of private and predatory lending, as well as less generational wealth and pay inequities after graduation.
- Black professors represent only 1.7 percent of faculty in computer science and related departments.
- Historically Black colleges and universities have historically been underfunded.
- Older Black workers are trying to keep up with the technological and educational requirements necessary for the future of work, but their efforts to acquire new skills often lead to increased student loan debt—especially for older Black women.

Career Advancement and Entrepreneurship
- So-called “objective” and “meritocratic” criteria for hiring and promotions disproportionately rule out Black candidates who are at least as qualified as their white peers for advancement opportunities, including opportunities to earn cutting-edge technology certifications.
- According to the Kapor Center, even though Black people account for 13 percent of the U.S. population, Black workers make up only 5 percent of the tech workforce. Moreover, only 3 percent of tech executives and 1 percent of tech founders are Black.
- Only 3 percent of the members of tech industry boards of directors are Black. Moreover, of the 172 new members added to tech boards of directors in 2020, only five were Black.
- Survey data demonstrates that Black youth are more likely to want to start businesses and believe successful entrepreneurs have a responsibility to give back to the community than white youth. However, in 2018, only 1 percent of venture capital went to Black founders of tech companies, and many Black founders lacking access to pre-seed capital due to racial wealth gaps don’t have the opportunity to make it even that far.
- According to a recent survey of 1,000+ African-American adults compiled by JFF, more than 6 in 10 not working in digital or IT would consider a career change to work in the sector. However, more than half reported they were unsure where to start (55%) or felt they lacked the financial resources (51%), skills (52%) or industry connections (45%) to launch a tech career.
Over the years, programs and initiatives envisioned and led by Black Americans themselves have been particularly successful at breaking down the structural barriers to economic advancement. One of the signature developments in the centuries-long effort to build systems and institutions that prepare Black workers and learners for career success was the 1837 founding of Cheyney University of Pennsylvania, the first of the nation’s 107 historically Black colleges and universities (HBCUs).

Building on past achievements that center Black Americans will be critical to the success of ongoing efforts to effect meaningful, sustainable change for current and future Black workers and leaders. The following section looks at some of the important milestones of the past 50 years.
1970

**The country’s first official Employee Resource Group**

At Xerox, Black employees and CEO Joseph Wilson launch the country’s first official Employee Resource Group—the National Black Employees Caucus—to give Black Xerox employees opportunities to discuss their experiences and advocate for change within the company.

1990

**A 10-point plan**

In a *Harvard Business Review* article, Roosevelt Thomas Jr., then the executive director of the American Institute for Managing Diversity at Atlanta’s Morehouse College, offers corporate leaders 10 “guidelines for learning to manage diversity.”

1994

**The Dreamkeepers**

Gloria Ladson-Billings publishes *The Dreamkeepers: Successful Teachers of African American Children*, which emphasizes culturally responsive pedagogy and reshapes the conversation around the education of Black children.

2013

**Black Lives Matter**

Black Lives Matter helps to change the framework for national conversations about race, inspiring the creation of many of the programs featured later in this report.
2014  Transparency in workforce diversity
Major tech companies like Apple, Facebook, and Google begin releasing workforce diversity reports.

2020  Taking a stand
Following George Floyd's murder, many U.S. companies pledge to take steps to promote economic mobility for Black Americans.

2021  Setting goals
OneTen launched their Talent platform that represents the kick-off to their goal of upskilling, hiring, and promoting one million Black individuals who do not have a four-year degree into family-sustaining careers.
The Market Today

The current labor market presents both challenges and opportunities for Black Americans. While they have certainly been disadvantaged by the K-12, postsecondary, and workplace barriers outlined earlier in this scan, Black Americans continue to show resilience, persevering in the face of racial discrimination while pursuing opportunities for economic advancement. Our research has shown that the tech sector represents a tremendous opportunity for Black workers, as a result of these factors:

**A robust labor market**
Demand for tech professionals has increased dramatically because employers need people with technical skills to build and maintain the systems that support remote and hybrid work environments as well as ecommerce and remote customer service platforms. Employer concerns about a shortage in tech talent before the pandemic have been exacerbated by the pivot to remote operations during the pandemic.

**The potential to earn higher wages**
Tech professionals can earn up to 85 percent more than the average salary in certain states. Moreover, the shift toward remote work means that they no longer have to live in, or relocate to, one of country’s tech hubs to take advantage of these opportunities.

**Flexible pathways into the field**
Many entry-level tech support roles don’t require a bachelor’s degree; an associate’s degree or other postsecondary coursework is often enough. Some companies are dropping degree requirements altogether.

**Employer commitments to DEI**
Industry research indicates that increased awareness of systemic racism and pandemic-driven inequalities is leading many tech companies to pursue DEI initiatives and hold themselves accountable for achieving results.
Mapping the Ecosystem
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To understand this landscape, we built a list of more than 200 programs, startups, educational institutions, initiatives, and other efforts that aim to prepare, train, and advance Black learners and workers. Our emphasis was on programs focused on helping Black participants prepare for and advance in technology careers, but we also included programs that focused more broadly on all populations that are underrepresented in the tech sector.

The learn and work ecosystem is filled with initiatives designed to advance Black learners and workers and improve diversity, equity, and inclusion in the places where they learn and work. As we reviewed the landscape, we saw clearly that these efforts operate both within and between traditional educational systems, business and industry networks, and organizational structures. Examples range from K-12 and postsecondary education programs to workplace initiatives, boot camps, and services offered by startups.

It’s widely understood that no single program or pathway in isolation can lead directly to a career destination or promote meaningful economic advancement. We found a multifaceted collection of stackable resources, services, and supports. While each is beneficial on its own, we believe they have the potential to make a far bigger impact when functioning as a network of complementary pieces that work together to set people up for the best possible outcomes on their chosen career trajectories.
The current systems set up for education and training (K-12 and postsecondary systems, including community colleges) play key roles in helping Black learners and workers. Organizations that support learners and workers as they make transitions from one system to another throughout their lifelong journeys of working and learning. A person’s community (formal and informal) plays a big role here as well.

Example: A learner might complete an associate’s degree from a postsecondary institution, then go on to become an entrepreneur. Or, an entrepreneur could decide to pursue higher education opportunities to gain new knowledge and expertise in a particular field.
A Note on What is Not Included

For the purposes of this scan, we focused primarily on preparation, training, and advancement programs and initiatives that directly serve and benefit Black learners and workers (and in some cases, other learners and workers of color).

Furthermore, we chose to concentrate on offerings specifically designed to prepare people to enter and advance within careers in the technology sector.

As a result, this scan does not discuss a number of innovative programs, organizations, and institutions, including these:

- Schools and educational institutions with wide-ranging course offerings for broad populations of students, including historically Black colleges and universities and general K-12 education programs
- Laudable organizations and initiatives (such as OneTen or Black Girl Ventures) that are aimed at catalyzing Black economic mobility writ large and aren’t focused specifically on technology careers
- Programs that are narrowly focused on specific local markets or geographic regions (such as New York City’s Prep to Prep)
- Organizations that provide much-needed wraparound supports, such as mental health services, but operate outside of the education and workforce training sectors
- Initiatives, organizations, and individuals whose work or support may help make many of the offerings highlighted in this report possible but whose mandates are inherently broader, such as philanthropic or charitable organizations, organizations or funds aimed at supporting Black entrepreneurs generally, research institutes, public policy think tanks, thought leaders, and policymakers
- Standalone events like hackathons or competitions, as well as scholarships that aren’t connected to specific training programs.
Awareness, Exposure & Exploration

The Awareness, Exposure, and Exploration segment of this market primarily includes K-12 programs that build self-worth, provide early career awareness, encourage career exploration and identity development, and offer students opportunities to meet and learn from Black professionals. They also offer students opportunities to build skills both inside and outside of the classroom.

Here are examples of programs in this category:

- Academies
- Summer camps
- After-school programs
- Internships
Preparation & Navigation

The Preparation and Navigation segment of this market includes programs that focus on foundational skill-building, career exploration, and other activities to increase access to opportunities in higher education and the rapidly changing labor market.

Here are some examples of the topics covered in these programs:

- Diploma completion
- Resume-writing
- Interview skill development
Learning & Training

The Learning and Training segment of this market includes programs that help participants gain credentials that are linked to occupations in high-growth fields that pay good wages and offer opportunities for economic advancement.

Here are some examples of these types of programs:

- Work-based learning courses in which participants earn money while studying career-related topics and developing new skills on the job
- Training programs where participants improve their current skills or learn new ones
- Intensive learning workshops
- Higher education
Entry

The Entry segment of this market includes programs and services that match participants who have successfully completed training and education activities with opportunities to continue their educations and pursue in-demand degrees or enter the job market and embark on pathways to rewarding careers—or both.

Here are some examples of these types of offerings:

- Higher education partnerships with employers or other career opportunities
- Talent recruitment programs
- Placement and promotion services
This segment of the market is made up of programs and services that facilitate and accelerate participants’ efforts to advance in technology careers, including by gaining more-senior roles and responsibilities, increasing earnings, and pursuing pathways such as entrepreneurship.

Here are some examples of these types of the programs in this category:

– Professional organizations and alliances
– Incubators and business accelerators to support entrepreneurship in technology
– Organizations that provide wraparound supports
– Coaching and mentoring services
Policy & Advocacy

This segment of the market is made up of programs and initiatives that focus on constructing, advocating for, and influencing policy change at the local, state, and federal levels.

They are working to achieve goals like these:

- Increasing diversity, equity, and inclusion in the technology sector
- Building the capacity and fluency of educators and employers so they can more effectively model and advocate for racial equity in the classroom and in the workplace
- Creating new sources of capital to build Black business ownership and growth particularly in the technology sector
- Supporting HBCUs and Black professional alliances, research and development organizations, think tanks, and equity-focused nonprofits
Trends to Watch
Several of the Innovators to Watch we feature later in this scan offer longer-term programs that support learners over many months or even years, in some cases following them through different stages of their education and career journey. Examples include /dev/color’s yearlong A Star programs, The Hidden Genius Project’s 15-month intensive immersion experiences, the Mentor Method’s 4-to-12-month mentoring engagements, and the 6-to-12-month immersive learning experiences that Praxis Labs offers. This is in contrast to many shorter programs. For example, most coding bootcamps span 3 months or less.

These longer term programs and others, including Black Girls Code and Girls Who Code, often offer content targeted to learners at specific ages or stages of their career journeys and then “stack” the learning experiences, with foundational programs preparing participants for more advanced offerings. Some tap program alumni to serve as facilitators, trainers, and mentors. Others broaden their reach to support entrepreneurship training and development. For example, The Hidden Genius Project’s Alumni Venture Seed Fund offers training and capital for alumni seeking to launch their own businesses.

While models such as these can be difficult to scale given their longer duration and (in some cases) smaller cohort sizes, intensive long-term programs can deepen and solidify learning, create a sense of community among participants and alumni, and expand opportunities to offer follow-on supports and coaching. They can also be correlated with higher earnings post-completion.
It’s critical for Black Americans to have access to programs that recognize and address the challenges they face in overcoming structural barriers to economic advancement. It’s not simply a matter of replicating approaches that have worked for white Americans. These programs must take into account the fact that Black Americans don’t have access to many of the resources—including and especially generational wealth—available to white Americans.

We found several innovative programs that are designed to address systemic challenges like those. For example, some like Code Nation and Ada Developers Academy offer cost-free training, helping to minimize or perhaps even eliminate the debt Black learners have to take on. Others, like Code2040, emphasize mentorship and community building. Initiatives that give participants opportunities to connect with Black professionals, facilitators, trainers, and mentors help them build a sense of belonging that enables them to approach employment and learning opportunities with confidence.

And leading programs and solutions—even those with a focus on technical skills such as coding or programming—make support for soft skills and the development of social capital core components of their approaches to education and training, such as All Star Code. They may, for example, emphasize inclusion and belonging as central tenets of their organizational cultures or offer activities that help participants develop leadership skills.

While those are best practices for education and workforce training programs in every field, we found them to be ubiquitous in this landscape, suggesting that these offerings were intentionally tailored to benefit Black learners and workers.
Many innovators in this landscape—especially those that launched businesses in the wake of the killing of George Floyd and the national wave of civic action that took place during the summer of 2020—are outspoken about the need for equity for Black Americans. And they are seeking partners who are likewise committed to doing the often difficult work of cultural and organizational transformation to create spaces that will be welcoming to Black learners and workers. They also recognize that their partners will need both the information and support to do that successfully.

We found a number of organizations that believe that big data solutions can provide employers with the information they need to assess the progress they’re making toward building welcoming workplace cultures. Kanarys, Blendoor, and Eskalera, for example, incorporate data related to workforce diversity, equity, and inclusion into platforms that companies can use to track their performance across a variety of DEI metrics.

Others are proactively engaging partners to provide support to help them achieve DEI goals. For example, as part of its tech training initiative, Code2040 urges managers that want to work with its graduates to participate in diversity and inclusion training programs. And job placement and hiring platforms like Black Tech Hire and Onramp offer coaching and consulting services to help employers strengthen their cultures of inclusion. Many of these organizations advocate publicly and fearlessly for policy change that leads to better access and outcomes for Black learners and workers—a notable dimension of engagement that helps accelerate their impact.
Innovators to Watch
Our Innovators to Watch are engaged in efforts that advance the market trends we identified. They distinguish themselves from other organizations by their potential to deliver transformative innovations that foster economic mobility for Black learners and workers in technology—and to make equitable training and work experiences common. And all were founded or are led by a team that includes Black leaders.

The 13 companies we highlight are just a few of the hundreds of organizations offering products and/or services that play key roles in the ongoing process of supporting Black learners and workers as they prepare for, enter, and advance in tech careers. These companies and organizations touch multiple stages of a Black learner or worker’s journey, from helping them build the skills and self-confidence they need to succeed in entry-level jobs to improving the workplace cultures they will navigate throughout their careers. All do more than just provide training—they help people build social capital, engage in policymaking and research initiatives, and build supportive ecosystems. While they range in size and are at various stages of development, all have achieved initial success and have shown the potential to grow and scale their operations.
Here are just a few of the key characteristics of our Innovators to Watch:

- All were founded within the past 10 years—half within the past four years.
- Five are nonprofit organizations; eight are for-profit companies.
- The amount of capital raised by startups among the for-profit companies ranges from less than $500,000 to close to $10 million.
- They’re located across the country, with headquarters in Atlanta; Birmingham, Alabama; Cambridge, Massachusetts; Dallas; Denver; New York City; and Oakland and San Francisco, California.
What does Black Girls Code do?
Black Girls Code (BGC) is a nonprofit that offers software development training to girls ages 7 to 17 to help them get started on journeys that could lead to careers in tech. Its initiatives include volunteer-led coding clubs, hackathons, summer camps, and workshops for its “Tech Divas.” BGC also offers support to alumnae as they prepare for careers in the tech sector.

Originally serving the San Francisco Bay Area, BGC now has 15 chapters throughout the United States and South Africa. It pivoted to online activities at the start of the pandemic and has since been able to reach thousands of learners with workshops on topics such as programming fundamentals, game and mobile app development, and website design. The BGC Ambassador and Alumnae program provides early career development support to former participants and their peers, offering them exposure to industry leaders and opportunities to take part in internship and mentorship programs and leadership and collaborative skill development activities.

BCG is partnering with AT&T, Comcast/NBCUniversal, Deloitte, Google, IBM, Nike, Oracle, Salesforce, and Verizon, among other companies, to achieve its goal of teaching 1 million girls to code by 2040. Recent events include a Nike-sponsored hackathon where students explored ways to use technology as a tool for social change, and a hybrid workshop-hackathon sponsored by IBM where students developed a code-based solution to a pressing societal issue.

Why did JFF select Black Girls Code?
With its extensive roster of notable partners, Black Girls Code is working to close the opportunity gap for Black women and girls in tech. It stands out because it operates at the intersection of social justice, women’s rights, and the future of work. Its model combines a number of the elements we have seen in leading-edge programs, including a focus on development of both technical and soft skills, alumni engagement, and a robust capacity to scale. Beyond that, the organization is working to equip Black girls with leadership skills and an entrepreneurial mindset—both of which will help them succeed in any career, even if they don’t choose tech.
What does Black Tech Pipeline do?
Black Tech Pipeline provides recruitment services that connect Black technologists to companies with diverse, equitable, and inclusive work environments. It runs a job board that emphasizes transparency, and it has adopted a unique recruitment model that helps employers improve their work cultures by ensuring that they are aware of and are taking steps to address systems and processes that may have bias or are not setting new employees up for success.

Employers recruiting through Black Tech Pipeline complete an in-depth questionnaire that asks them about steps they take to create safe spaces for employees, their interview processes, and the ways in which company leaders support employees. Black Tech Pipeline then shares this information with jobseekers on its website in company profiles that also list the employer’s core values; its diversity, equity, and inclusion practices; and the offerings in its benefits package.

Founder and CEO Pariss Chandler, who transitioned into software development after participating in a Resilient Coders boot camp, told JFF, “I want companies to be transparent about what they’re doing in terms of DEI practices and initiatives, even if they’re not doing things well. I want potential applicants to make their decisions to apply based on honesty.”

Post-hire, Black Tech Pipeline holds virtual check-ins with placed candidates for 90 days to seek feedback on their experiences with their new employers, and it shares the feedback with the employers to let them know what’s going well and what could be improved.

Why did JFF select Black Tech Pipeline?
Black Tech Pipeline stood out among other recruitment platforms both for its clear focus on Black workers in technology and for its feedback model, which is designed to ensure that new hires are being set up for success and to hold employers accountable for creating workspaces that are truly diverse, equitable, and inclusive. Founded in 2018, Black Tech Pipeline is still relatively new and is still collecting data on outcomes and effectiveness, but we believe the company has come up with a promising model that can drive culture change from both outside of and within organizations. Its approach can help ensure that the conditions are in place for Black workers to thrive in technology jobs.
What does Code2040 do?

A nonprofit that’s working to build an extensive community of Black and Latinx tech professionals, Code2040 offers internships, mentoring programs, and other professional development opportunities for early-career technologists. The organization also engages in racial equity advocacy and strictly vets its partner companies, setting clear expectations for them to participate in intensive training and demonstrate a commitment to building accountable workplace cultures that emphasize equity and inclusion. This innovative model serves as the cornerstone of Code2040’s efforts to achieve its ultimate goal, which is to break down structural barriers that prevent Black and Latinx technologists from fully participating in the digital economy.

Code2040’s flagship Fellows Program is a nine-week career accelerator for Black and Latinx students pursuing graduate and undergraduate degrees in computer science. Topics covered in the fellowship’s coursework include the state of the IT industry, systems that disadvantage Black and Latinx workers, and how to advocate for racial equity in the workplace. Fellows intern at companies and participate in tailored learning experiences while building a network of peers and receiving support from mentors and managers.

Companies that wish to partner with Code2040 have to meet strict criteria. They must align with the organization’s mission and share its commitment to racial equity in the tech sector, and they cannot have relationships with prisons, law enforcement organizations, or other institutions with reputations for targeting Black and Latinx communities. Code2040 partners have included Bloomberg, Goldman Sachs, the New York Times, and Visa.

Why did JFF select Code2040?

Code2040 stands out because it is committed to mobilizing the largest racial equity community in the tech sector to combat the systemic exclusion of Black and Latinx talent from careers in IT. It emphasizes community and uses social capital to help workers navigate and improve their workplaces. Code2040 also works with industry leaders to craft unique, high-impact partnerships and initiatives that help employers hire and retain talent. And it isn’t afraid to call out—and decline to work with—companies that engage in practices that harm the Black and Latinx communities.

Code2040 also stands out for its ambitious 2020-2025 strategic plan to reach 10 percent of the software engineers in the United States under the leadership of recently-appointed CEO Mimi Fox Melton. If successful, it will change the culture of tech and increase the representation of Black and Latinx technologists in the sector.
What does CodePath do?
CodePath offers supplemental computer science courses and career services free of charge to students at two- and four-year institutions who are members of populations that are underrepresented in the tech workforce.

With the help of senior engineers at leading tech companies, CodePath has developed an extensive curriculum that covers everything from technical subjects like cybersecurity to soft skills that are core competencies for tech jobs and strategies for passing technical interviews.

The organization minimizes the administrative burden on instructors by providing lesson plans and grading students’ assignments.

CodePath's goal is not only to teach IT skills, but also to help students build confidence and develop a sense of belonging in college computer science programs and the tech workforce. Toward that end, the organization sets up “learning pods” where students can connect with one another, and it gives learners opportunities to meet tech professionals from backgrounds similar to theirs. In addition, CodePath offers students an initial self-assessment to determine where they are in their computer science educations and then paces coursework accordingly, and its courses include a mix of classroom instruction and hands-on activities.

Why did JFF select CodePath?
CodePath uses an innovative model to improve computer science education for a student population that includes Black learners, and it has helped diversify some of the most competitive tech roles. The organization is realistic about the fact that employers still have to vet job applicants, even if they say they no longer require college degrees, and it therefore focuses on helping students gain the skills and experience they need to land a job. CodePath stands out for its strategy of offering supplementary coursework at postsecondary institutions—an approach that increases its potential reach and scale. And through partnerships with employers like Microsoft and Workday, CodePath can offer real-time tech labor market insights to the students, faculty, and staff in college computer science programs. Employers trust that CodePath is connecting them with potential employees who have the skills they need, and colleges trust that CodePath's programs give their computer science students a competitive advantage.
What does /dev/color do?
/dev/color is a peer mentoring community that provides a safe and positive environment for Black technologists to support and learn from one another. Started as a small group for Silicon Valley software engineers, /dev/color now has more than 600 full-time software engineers and managers in its professional membership tier. It also has an entrepreneur- and supporter-level membership tiers, and it’s expanding to accommodate all Black technologists, regardless of role or position—including those who live outside the United States.

Members of /dev/color’s professional tier are eligible to participate in the organization’s flagship A* (A Star) program, which is made up of small cohorts (or squads) of six to eight people who help one another set and achieve ambitious career goals. To date, nearly 1,000 Black technologists have participated in the program.

Professional members also have access to career advancement resources, such as customized interview prep coaching, customized market value reports, which offer individuals recommended plans of action to ensure that they achieve pay equity. The organization also offers a yearlong, invitation-only executive leadership program for women founders, C-suite executives, and other senior professionals.

Other networking opportunities for /dev/color members include an annual conference, connections with industry experts, priority access to entrepreneur accelerators and new initiatives, member-led engagements, and meetups. Designed to create a sense of community, these events give members opportunities to strengthen their networks, build skills, and advance their careers.

In addition, /dev/color works closely with leading tech companies to build more accountable and equitable tech workplaces. Its corporate partners include Atlassian, Google, Netflix, and Pinterest, and its sponsors include Adobe and Autodesk.

Why did JFF select /dev/color?
/dev/color stands out for its commitment to promoting peer mentoring as a way to support Black IT professionals, boost their sense of belonging, and build social capital within the Black technologist community. It also stands out for its responsive programming, which is designed to reflect the personal and professional goals of its members, and for its strong partnerships with leading tech companies.
What does Ed Farm do?
Ed Farm is a nonprofit in Birmingham, Alabama, that equips educators in schools and communities with tools and strategies that support active learning for all students. The organization’s mission is to address gaps in K-12 and adult computer science education and build a more equitable tech talent pipeline. To achieve that goal, it takes a holistic approach to tech education that includes wraparound supports like participation stipends and device grants.

Ed Farm benefits from a partnership with Apple, which provides financial and programmatic support without placing restrictions on how the organization serves its community. This approach is in keeping with Ed Farm’s philosophy that communities will develop solutions that work best for them. Ed Farm is leveraging the support it receives from Apple to build the Propel Center, an Atlanta-based postsecondary institution that will offer students from all 107 HBCUs opportunities to acquire the knowledge, skills, tools, and resources necessary to transform the nation’s talent pipeline and workforce.

While Ed Farm focuses on serving the Birmingham, Alabama, community, it’s taking steps to scale.

Why did JFF select Ed Farm?
Ed Farm stands out for its holistic approach to tech education. Each of its programs is intentionally localized to a specific community and focuses on increasing educational equity, improving learning outcomes, and preparing the future workforce. The organization is also engaged in a strategic effort to expand to communities with similar needs in Atlanta; Montgomery, Alabama; and Guilford County, North Carolina—all of which are notably outside of traditional technology hubs. Ed Farm will also be able to expand its reach and increase its impact thanks to its partnership with Apple and its effort to engage HBCU students through the Propel Center.
What does Eskalera do?
Eskalera developed a digital platform called the Inclusion Index that’s designed to offer large and midsize employers insights about the effectiveness of their diversity, equity, and inclusion (DEI) efforts and help them translate those insights into actions that lead to improvements in workplace culture.

The Inclusion Index captures, processes, and analyzes data from employees via easy-to-use mobile and desktop tools and uses the data to measure four main drivers of DEI: trust, belonging, growth mindset, and voice. It offers companies real-time measurements of their DEI performance and allows them to track progress over times. It also offers instructional micro-learning modules that suggest exercises designed to help employees gain insight into their own experiences, practice social and emotional intelligence skills, reflect on those skills with follow-up exercises, and apply those skills through conversations and connections. The instructional modules for managers are designed to help users gain leadership skills that enable them to cultivate a culture of belonging, effect behavioral change, and recognize and address opportunities for coaching and development.

Why did JFF select Eskalera?
Eskalera stands out for its use of artificial intelligence and data science in a holistic solution that combines technology with an evidence-based approach to designing DEI strategies that enable companies to improve employee engagement, productivity, and growth. Also noteworthy is the fact that it offers three months complimentary DEI training to companies that are truly committed to creating sustainable change. Moreover, Eskalera does not just evaluate organizational culture; it also offers research-backed training activities and recommendations to help employees develop or improve the skills, behaviors, and mindsets that contribute to more equitable and inclusive cultures when it matters most—in the day-in, day-out flow of work.

JFF also featured Eskalera in Thrive@Work, our market scan of products and services that could improve the on-the-job experiences of young workers.
What does Girls Who Code do?
Girls Who Code creates pathways into tech careers for girls and young women. It advocates for gender equity in K-12 computer science classrooms, teaches elementary, middle, and high school-age girls and nonbinary students to code, and works to create a sense of community among college-age women who share an interest in tech. To date, it has taught 450,000 girls to code, 90,000 of whom are now college-age or in the workforce.

Its signature initiatives are the free, volunteer-led programs that provide introductions to coding, computational thinking, and tech careers for girls and nonbinary students in grades 3-5 and 6-12. These programs are offered through more than 6,000 clubs in the United States, Canada, India, and the UK. Girls Who Code also offers a summer immersion program whose participants receive exposure to tech jobs, meet women in tech careers, and join a community of like-minded aspiring technologists. Another program, College Loops, connects college-age women with university-level networks of other women with similar interests.

Girls Who Code has worked with state policymakers on legislative strategies to close the gender gap in K-12 computer science education. Its 2018 policy recommendations have been adopted in states across the country and have led to legislation or policy changes in six states.

Why did JFF select Girls Who Code?
Girls Who Code stands out because it has achieved success at scale in its combined efforts to offer technology education and advocate for young people in an effort to achieve its goal of closing the gender gap in new entry-level tech jobs by 2030. Its programs immerse girls, young women, and nonbinary learners from grade 3 up in a tech-oriented community and support them as they move through the learn and work ecosystem. In addition, its policy recommendations have formed the framework for legislative action across the country.
The Hidden Genius Project helps young Black males build technical skills, connect with mentors, and take part in experiences that will enable them to succeed as technologists, leaders, and entrepreneurs. Its programs engage learners at every point in the journey from middle school and high school to college and beyond.

The Hidden Genius Project’s flagship 15-month Intensive Immersion Program provides computer science, software development, entrepreneurship, and leadership training to Black male students entering grades 9 to 11. After completing the program, alumni can become youth educators and go on to support programs that introduce young people to technical skills and pathways with events or through community-based partnerships. Another noteworthy program is Brothers Code, an annual event that introduces young people and adults of color to coding and tech careers. Hosted jointly by The Hidden Genius Project and the Kapor Center, Brothers Code takes place during Computer Science Education Week. The organization also has a startup development program called the Alumni Venture Seed Fund, which provides early-stage seed funding as well as coaching and training to former participants in its programs who want to start businesses.

The Hidden Genius Project was founded in Oakland, California, in 2012 and has since expanded to serve Los Angeles and Richmond, California, as well. Its executive director, Brandon Nicholson, was recently chosen as a member of the 2021 cohort of Atlantic Fellows for Racial Equity.

Why did JFF select The Hidden Genius Project?
The Hidden Genius Project’s approach is designed to address the needs of Black male youth through a notably intensive, long-term development and support process that prioritizes their growth as young people and leaders as much as—if not more than—their growth as tech professionals. It provides robust community-centric and pathway-based programming for early secondary and postsecondary learners, and it offers safe spaces where participants can come to an understanding of current events and engage in advocacy. In addition, it goes beyond the traditional workplace to support young entrepreneurs, investing in them so they can invest in their communities. Its reach and impact are evident through the widespread recognition it is receiving as a changemaker, the grants it has been awarded, and the invitations to collaborate on educational initiatives that it has received.
What does Kanarys do?
Kanarys offers employers a data-driven approach to improving their diversity, equity, and inclusion initiatives. At the start of the process, the Kanarys data analytics platform collects data from anonymous employee reviews and other sources and analyzes it to identify employee concerns and problems that may be present in the employer’s policies, procedures, and processes. The platform then presents key findings in the form of clear, comprehensive metrics and benchmarks. Kanarys representatives then recommend ways to address gaps, and they collaborate with company officials to design and implement long-term strategies to make the workplace more inclusive and equitable.

Kanarys serves as the “canary in the workplace” for businesses. Its use of anonymous reviews empowers employees to speak up and challenge the status quo.

The company’s client roster includes Neiman Marcus, the Dallas Mavericks, and Yum Brands. Its work has garnered considerable interest and support: Cofounder and CEO Mandy Price and Cofounder and COO Star Carter were recently named as two of Inc.’s 2021 Female Founders 100 honorees. Kanarys is also one of the few organizations led by Black women that has raised more than $1 million in funding.

Why did JFF select Kanarys?
Kanarys’s tech- and data-driven solution meets an important need at a time when employers are recognizing that they must have a holistic understanding of the ways in which every aspect of their culture, operations, and strategies affect employees’ sense of belonging, their ability to be productive, and the company’s success. Kanarys says that, in less than three years since its founding in 2018, it has already become one of the largest data-driven DEI platforms in the United States. It is changing corporate cultures by giving employees a voice and then working with employers to enact meaningful change.
What does The Mentor Method do?
The Mentor Method matches learners and workers with mentors to help them forge relationships through which they can build the social capital they need to advance in their careers. The company's approach is noteworthy because it aims to carefully customize matches between workers and mentors and uses a model that makes mentoring and building social capital more explicit, formalized, and equitable. It is particularly interested in offering inclusive mentorship experiences to Black, Indigenous and Latinx workers, and women of all backgrounds.

According to CEO and Founder Janice Omadeke, who is now a JFF Innovation Fellow, “Traditional mentorship matches individuals based on age, race, and gender without considering who they are as people with goals, skills, everything else. We differ in that we provide monthly guided checklists and have tool kits to help mentors and mentees set expectations for the relationship (roles and responsibilities) and remove bias in the relationship.”

The Mentor Method works with leading Fortune 100 companies to refine and improve their retention and inclusion strategies by aligning those efforts with employee needs.

Omadeke is only the 94th Black woman to raise at least $1 million in venture capital, and she was recently named one of the Forbes Next 1000. A recipient of a cash award through Google’s 2021 Black Founder Fund, The Mentor Method is an ETF@JFFLabs portfolio company.

Why did JFF select The Mentor Method?
The Mentor Method seeks to solve an ongoing HR and employment challenge that affects both workers and employers: While employees seek inclusive mentorship to advance their careers, employers often do not have capacity or resources to provide them with mentors, especially ones who can truly identify with the workers as individuals. This disconnect sometimes leads employees to seek new opportunities elsewhere, and then employers must incur significant costs to fill the newly vacant positions. A number of mentoring platforms have emerged to address this problem (some are featured in JFF’s Thrive@Work market scan), and The Mentor Method stands out because it incorporates several best-in-class practices. For example, it aims to help mentors and mentees maintain long-term connections, provides tailored supports for participants, and specifically focuses on helping people of color and women of all backgrounds.
What does Onramp do?

Onramp has pioneered a new model for skills-based hiring that is designed to build a diverse talent pipeline for the technology industry and create new career pathways for jobseekers who may get overlooked in traditional hiring processes.

The company works with a network of more than 100 boot camps, online communities, and education and training providers to identify candidates who want to pursue tech careers and provides them with supportive pathways into open roles, internships, and apprenticeships. It also partners with employers and helps the employers and candidates engage with one another through tech talks, community events, and other activities. If candidates need to fill gaps in their skills sets to qualify for certain jobs, Onramp helps them find role-specific training. The company’s platform then matches vetted candidates with open jobs at its partner employers, giving the employers access to a much more diverse pool of jobseekers than they might have found through traditional university recruiting avenues.

In just three years, Onramp has connected with more than 50,000 aspiring technologists.

Onramp works with a roster of employer partners that includes Twitch, Blend, and Pandora to develop, test, and prove its model. Onramp is also an ETF@JFFLabs portfolio company.

Why did JFF select Onramp?

Onramp is laser-focused on creating a diverse tech talent pipeline and helping young people develop the skills employers are seeking. And recognizing that learners and workers from populations that are underrepresented in the tech industry may get overlooked by traditional hiring practices, the company helps candidates navigate the job search, application, and interview processes through informational workshops and events with titles like “A Day in the Life of a Software Engineer” and “Demystifying the Technical Interview.” What sets Onramp apart from other career services is the way it embeds training and community resources within its recruitment and job placement services, especially its strategy of offering “last mile” training to help candidates fill actual or perceived gaps that might otherwise make them less competitive for a role—or less likely to apply because they feel underqualified. Onramp’s approach helps strengthen what would otherwise be a leaky pipeline between entry-level technology training and meaningful access to first and mid-level jobs.
What does Opportunity Hub do?
Opportunity Hub (OHUB) is taking an innovative approach to closing three major gaps that limit Black economic mobility: the racial representation gap in tech, funding and market gaps, and the racial wealth gap. Leveraging a metrics-driven blueprint and methodology that it developed in collaboration with the Federal Reserve Bank of Kansas City, Opportunity Hub is committed to increasing racial equity by providing skills development, early exposure to the tech ecosystem, job placement, job creation, and entrepreneurship support for college students, young professionals, founders, and investors in the United States and beyond.

Since its founding in 2013, Opportunity Hub has become the holding company of a suite of businesses: OHUB Futures, OHUB Talent, OHUB Startups, Equity District, and the 100 Black Angels & Allies Fund. Among its most notable initiatives are an innovation lab at the Morehouse Innovation & Entrepreneurship Center in Atlanta and OHUB.Campus, which works with colleges and universities to empower their students and alums to “effectively launch a technology, startup, and venture ecosystem from the ground up.” Another exciting initiative is OHUB.SXSW, which has sponsored Black, Latinx, and Indigenous students to attend SXSW since 2016, giving them an opportunity to gain exposure to the tech business and interview for internships and full-time roles at leading companies, including Deloitte, Microsoft, and Comcast NBCUniversal.

Why did JFF select Opportunity Hub?
Opportunity Hub stands out for its whole-ecosystem approach, which offers programs for Black learners and workers at every stage of their journeys into and through careers in technology—a model that includes efforts to support entrepreneurship and business ownership as paths toward economic mobility. Moreover, the organization has adopted a lean staffing and decentralized operations model, enabling it to scale and pivot nimbly to adjust to changes in the labor market and the economy. The ambitious scope of OHUB’s offerings and operations reflects the breadth of the opportunity available to organizations that want to support Black learners and workers as well as OHUB’s spirit of experimentation and its responsiveness to the needs it identifies.
**What does Praxis Labs do?**

Praxis Labs uses virtual reality (VR) as a training tool to help organizations build more empathetic, equitable, and inclusive workplaces. In its flagship program, Pivotal Experiences, employees complete a series of training modules that include immersive experiences, learning activities, and reflection over the course of a six or 12 months. Using either a web browser or a VR headset, participants enter into immersive experiences where they go through on-the-job scenarios from new perspectives—often of people with different backgrounds or identities from their own. As part of these activities, they experience or witness bias or barriers to equity, and they are asked how they’re responding to what they are experiencing. This approach enables participants to understand their own biases and practice how to respond to similar scenarios in real life. Afterward, they reflect on what they experienced, learn more about the barriers to equity they encountered, anonymously share whether they see similar issues in their workplaces, and commit to taking actions to improve equity and inclusion in the workplace and more broadly.

**Why did JFF select Praxis Labs?**

Praxis Labs stands out for its use of a VR platform that takes DEI training beyond the annual online courses or consultant-led workshops that often feel like “check-the-box” exercises for employers and employees alike. Its immersive activities help participants experience what other people go through, making it more likely that they will absorb the lessons, build empathy, and gain the skills they need to effectively address incidents of bias and discrimination in real life. This approach was validated by a PwC study showing that people learn four times faster and gain more confidence with VR experiences than in traditional classroom instruction. Praxis Labs also stands out for its use of data to provide insights and recommendations that employers can use to address barriers to equity and inclusion in the workplace, giving its programs a measurable impact that is sometimes lacking in traditional DEI training.

JFF also featured Praxis Labs in our 2020 Immersive Learning Technology market scan.
“This moment calls for a renewed commitment to and focus on racial equity. Advancing Black learners and workers in the tech industry is a critical element of our goal to disrupt occupational segregation.”

—Maria Flynn, President and CEO, JFF
Looking Ahead
Innovation and Investment Opportunities

JFF’s Racial Economic Equity Framework offers a wide array of overall approaches for advocacy, access, supports, and employer engagement to help expand opportunities for Black learners and workers in the digital economy. The insights we gathered through this market scan offer more specific areas for intervention. We believe the field could build even further on the initiatives we highlighted in this market scan by pursuing opportunities such as these to accelerate the development of the education and career ecosystem for Black learners and workers:

**Earn-and-learn tech training programs for Black high school students.**

Innovative employers and school systems are beginning to explore earn-and-learn offerings that can serve as direct pathways into employment while also helping participants build foundational, technical, and soft skills. These types of initiatives can make training more accessible by allowing workers to move directly into jobs that pay family-supporting wages, so they don’t have to defer opportunities to make money in order to attend college or take part in training programs. In conjunction with earn-and-learn programs, all high schools at minimum should be supported to offer computer science and technology curricula.

**Federal, state, and local Public Private Partnerships**

Allocate funding to Public Private Partnerships that would be specific to attracting and retaining Black talent in the technology sector. These partnerships should offer students relevant work experience in the public sector, student loan forgiveness, and direct access and support to apply to full-time positions afterwards with the private sector partners (similar to others such as the Cybersecurity Talent Initiative).

**Statewide (or even nationwide) peer mentoring communities**

An infrastructure that allows Black learners and workers to connect with their peers in other communities across lines of career interests will make it possible for them to build and maintain a successful peer mentoring relationships and share ideas and insights in brave spaces.
Standardized DEI benchmarks and reporting processes for employers

When companies pledge to build more inclusive cultures, investors should hold them accountable for following through on those commitments. Investors should encourage employers to share data from internal surveys of employees’ views on matters related to diversity, equity, and inclusion in the workplace, as well as data disaggregated by race and gender on hiring, wages, and advancement. They should ask corporate leaders to discuss that information during earnings calls and at shareholder meetings. In addition, investors should call on companies to hire more Black employees and increase the number of Black leaders on boards of directors and senior executive teams, including through investing in platforms and solutions that assist employers in providing anti-bias training and support for their recruiters and hiring teams to ensure that discrimination does not unintentionally seep into the hiring process. And again, they should hold them accountable to reporting on their results.

Local training programs and seed funds to support Black entrepreneurship

To give Black learners and workers of all ages opportunities to build entrepreneurial skills and test their ideas, traditional and alternative education programs should incorporate business startup training into their coursework and communities should set up micro grant programs or other alternative investment vehicles to support ventures launched by Black businesspeople. Evergreen funds that reinvest their gains could help keep wealth within Black communities and compound growth by financing additional startups. Recruiting program alumni to serve as mentors and coaches—as some of our Innovators to Watch do—would add value to such offerings.
Policy Recommendations

Federal and state policy play a key role in the experience of Black learners and workers. JFF believes the strategies proposed in the following policy recommendations have the potential to positively impact the education, training, and on-the-job experiences of Black learners and workers.

Focus on improving Black learner and worker access to high-quality postsecondary education and training options that prepare participants for entry into and advancement within the tech sector.

- Every state should adopt—and reward progress toward—targets for increasing equity in postsecondary credential attainment. Those targets should include metrics broken out by racial, ethnic, and socioeconomic categories, and goals for attainment of credentials aligned to careers high-demand, high-wage fields like tech. States should also offer financial rewards to educational institutions that close racial gaps in access to and attainment of credentials with labor market value.

- State and federal governments should invest in short-term training programs that are proven to accelerate entry into the tech sector. States should develop quality criteria that ensure that programs lead to credential attainment and to in-demand jobs that pay family-supporting wages, with pay assessed in terms of both immediate earnings and growth potential. The federal government and state governments should also provide workforce development agencies and postsecondary systems with sufficient funding to offer high-quality short-term programs and expand traditional financial aid. (For more, see the JFF Policy Leadership Trust policy brief Realizing the Potential of Rapid Reskilling.)

- States should expand and scale evidence-based models for strengthening entry into, persistence in, and completion of postsecondary education and training programs, especially those tied to the tech sector. State policies should support the implementation of preparatory programs, such as integrated basic education and skills training and co-requisite remedial coursework, which are proven to accelerate successful entry into postsecondary programs for learners who have not yet fulfilled all of the traditional college entry requirements. States should also widen the use of prior learning assessments so that Black learners and workers can receive credit toward college degrees and credentials based on skills and knowledge they’ve acquired on the job and elsewhere. And finally, states should invest in emergency aid initiatives, expand student access to public assistance programs, and increase spending on programs that give students access to success coaches and other supports. (For more, see the JFF State Policy Road Map briefs Strong Social and Financial Supports and Accelerated and Efficient Pathways to Postsecondary Credentials With Labor Market Value.)
Focus on improving Black learner and worker access to tech jobs that pay family-supporting wages and offer career advancement opportunities.

- **Policymakers should support programs that foster equitable access to high-quality career navigation services.** State and federal governments should fund the development of a unified career navigation technology platform that would be accessible to all jobseekers and students to help them make informed choices about their employment, training, and educational options, based on timely and reliable information about skills that are in demand the types of jobs employers are eager to fill. The platform should offer guidance on how to assess and represent their skills. In addition, state systems should offer personalized support from culturally competent professional counselors and mentors who can show them how to build professional networks and social capital, engage in self-advocacy, identify jobs and employers that offer opportunities for advancement, and combat barriers based on race and class. (For more, see the JFF State Policy Road Map briefs *Universal Career Navigation Services* and *Essential for a Post-COVID Economy: Recommendations for a Fully Funded and Transformed Workforce Development System*.)

- **State and federal governments should encourage employers to adopt more equitable and inclusive hiring and talent development practices to curb racial bias and strengthen career pathways for Black learners and workers.** Officials should craft policies that offer employers incentives for taking an inclusive and skills-based approach to outreach, recruiting, and hiring, and for investing in training for frontline and entry-level workers, with the goal of curbing employer bias and expanding talent pipelines for the tech sector. States should invest in regional sector strategies and in intermediary organizations that create a workforce development infrastructure and broker employer partnerships with workforce agencies and education and training providers in order to scale successful recruiting and hiring practices and on-the-job training programs. Registered apprenticeships are another policy lever that encourage employers to invest in equitable career pathways. (For more, see the JFF State Policy Road Map briefs *Expansion of Quality Jobs*, *Regional Sector Strategies*, and *Integrating Learning and Work*, as well as the recommendations we offered the White House in *How to Achieve an Equitable Economic Recovery for America: A Blueprint for the Biden Administration*.)
State and federal governments should encourage Black entrepreneurship in the tech sector.

Officials should develop policies that expand access to capital, low-cost loans, grants, and business training. Additionally, they should support efforts to establish regional partnerships between government agencies and private employers and institutions of higher education (with an emphasis on historically Black colleges and universities and minority-serving institutions) to provide incubation opportunities, counseling, and consulting services to spur entrepreneurship and small business development. Finally, policymakers should focus economic development programs on communities that have not benefited from public or private investments by establishing opportunity zones and leaning on venture capital funds and community development financial institutions that are owned by and support Black and Indigenous people and other people of color. (For more, see the JFF State Policy Road Map briefs Inclusive Approach to Economic Development and Job Generating Investments, as well as the recommendations we offered the White House in How to Achieve an Equitable Economic Recovery for America: A Blueprint for the Biden Administration.)
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JFF is building a society in which everyone has the skills, resources, and credentials they need to achieve economic advancement. To reach this goal, we drive transformation of the American workforce and education systems.

This market scan is a product of JFFLabs, which bridges JFF’s traditional field leadership with new relationships, practices, and business models. We partner with visionary entrepreneurs, Fortune 500 companies, and investors to foster innovative solutions that create positive change in education and workforce systems. We are proud to identify and scale the most innovative and advanced technologies with the potential to transform America’s education and workforce systems.
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Managing Partner, New Profit

**Kenyatta Lovett**  
Managing Director of Higher Education, Educate Texas

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Partner, McKinsey

**Allison Scott**  
CEO, Kapor Center

**John Simpkins**  
President, MDC, Inc.

**Monique Umphrey**  
President, Houston Community College Northeast
“This analysis provides a new level of insight into high-impact models of education, training, and career development that can accelerate pathways to careers in tech for Black talent. Just as importantly, this report provides recommendations for how policymakers, companies, and communities can help create the conditions for Black professionals to advance in technology careers – from career entry to leadership.”

— Dalila Wilson-Scott, executive vice president and chief diversity officer, Comcast Corporation
This market scan is made possible through the generous support of Comcast NBCUniversal.

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