



Digital Jobs Strategy and Regional Planning Case Studies

AT A GLANCE

Jobs for the Future, with funding from Google.org, awarded planning grants to four organizations to support the planning and coordination of regional digital jobs strategies and the development of locally relevant career pathways for in-demand IT occupations. This report summarizes lessons learned, highlights promising practices among the grant activities, and examines how funders and training providers might use lessons to support effective and comprehensive digital jobs strategies.

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About JFF

Jobs for the Future (JFF) drives transformation of the U.S. education and workforce systems to achieve equitable economic advancement for all.

www.jff.org.

About JFF's Language Choices

JFF is committed to using language that promotes equity and human dignity, rooted in the strengths of the people and communities we serve. We develop our content with the awareness that language can perpetuate privilege but also can educate, empower, and drive positive change to create a more equitable society. We will continually reevaluate our efforts as language usage continues to evolve.

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Introduction

In early 2022, with funding from Google.org, JFF awarded planning grants worth \$50,000 each to AZ Cyber Initiative, Talent for Tomorrow, MassHire Boston, and Miami Dade College. The grants supported the planning and coordination of regional digital jobs strategies and the development of locally relevant career pathways for in-demand IT occupations. The resulting initiative invested in the design of four regional implementation plans for digital jobs strategies meant to connect jobseekers who have low incomes to high-demand careers in areas such as cybersecurity, data management, and technical support.



Each of the regional strategies emphasizes providing opportunity to learners and workers who are underrepresented within the IT industry, including workers without a four-year degree; Black, Indigenous, and Latinx workers; and women of all racial and ethnic backgrounds. The planning grants concluded in late summer 2022.

Why Digital Jobs?

The current labor market is marked by high demand for digital skills; according to a National Skills Coalition survey of 43 million jobs that were posted in 2021, 92% required digital skills, regardless of industry or occupation.¹ And in 2019, Burning Glass Technologies and Oracle Academies reported that 90% of all IT job openings are within non-tech industries.² In fact, they said, recent growth in job openings for IT occupations is more than 50% greater in non-tech industries than in tech industries.³

Digital jobs are anticipated to maintain steady growth; specifically, IT occupations are projected to grow 11% nationwide from 2019 – 2029 and add a total of 4.4 million jobs through 2030.⁴ On average, individuals with IT skills earn 600%, or roughly \$4.4 million, more over the course of their lifetime than a worker without IT skills who receives minimum wage.⁵ Workers who qualify for jobs that require even one digital skill can earn an average of 23% more than those working in jobs requiring no digital skills, which translates to an increase of \$8,000 per year for an individual worker.⁶ IT positions have a median annual wage that ranges from \$50,000 to more than \$140,000.⁷ Moreover, 82% of middle-skill jobs require digital skills, and digitally intensive middle-skill jobs pay more than non-digital middle-skill jobs (\$20 per hour for middle-skill jobs that demand digital skills and \$28 per hour or more for jobs that require advanced digital skills such as IT networking or CRM software), placing those who hold such jobs in the top quartile of all earners.⁸



Not only are digital jobs high-paying, but workers with digital skills also experience rapid career growth compared to other industries: The National Skills Coalition found that while some core IT skills benefit workers regardless of industry sector, workers benefit most from IT training programs in skills and competencies that meet the specific needs of regional industry sectors.¹⁰ Overall, 16% of workers in IT advance within five years and at least 65% of workers in IT remain in their career area after five years.¹¹

What Do We Mean by Digital Jobs?

Based on prior work in the field, plus analysis of labor market data, JFF developed the following definition to help guide and structure the focus on digital jobs:

Digital jobs are defined roles in which people who have information technology expertise provide services to consumers and businesses to help them build, maintain, or upgrade computer systems, networks, or software, with an emphasis on cloud computing, big data, and cybersecurity.

To help categorize the variety of options in the field, JFF defined six categories of digital jobs:

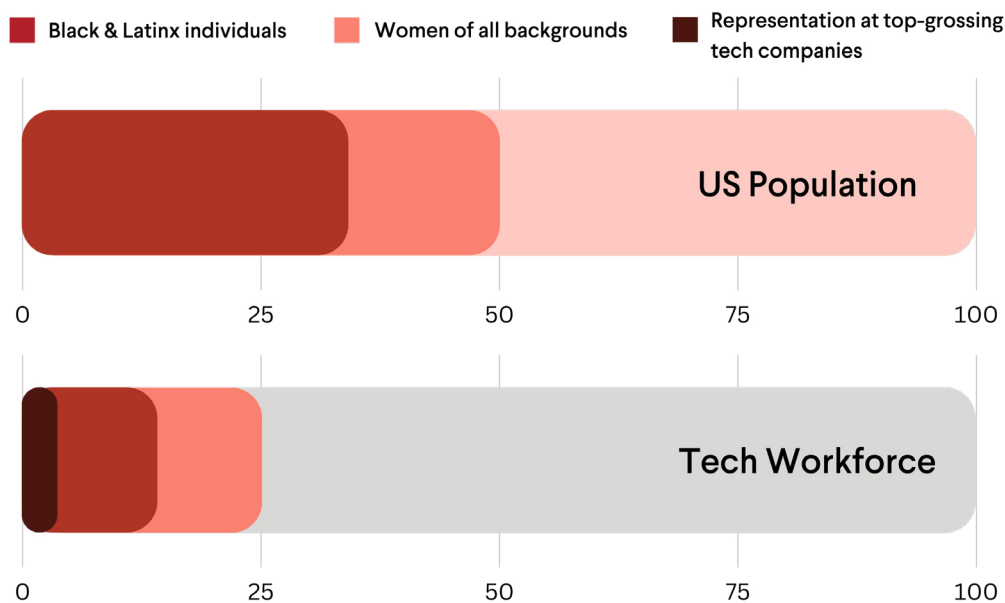
Job Category	Examples
Data Management and Analysis	Many of these data-focused jobs are in the health care sector (for example, medical records specialists).
Design	Graphic designers are the most common role in this category, which also includes animators and special effects artists.
Networking	People working in these roles are responsible for organizational connectivity and data networks, ranging from support specialists to administrators and architects
Programming and Development	The largest of the six categories, it includes software developers, web developers, and programmers.
Support	Includes user support specialists and computer repairers.
Crosscutting*	This category accounts for the interrelated nature of many roles, including many cybersecurity roles, project management positions, and business operations specialists.

*JFF-generated term

The Case for Inclusion and Representation Across the IT Industry

Despite the overwhelming advantages digital skills and jobs offer, many workers lack opportunities to develop these skills and secure stable, sustainable employment in this burgeoning field. Nearly one-third of U.S. workers do not have foundational digital skills, and the percentage is significantly higher among workers of color due to structural inequities.⁹

Women professionals of all backgrounds and professionals who are Black, Latinx, or Native American are vastly underrepresented in all occupations within the technology sector compared to both the U.S. population and the private sector as a whole.



- Women make up 50% of the U.S. population but only 25% of the tech workforce. Combined, Black and Latinx individuals make up 30% of the nation's population but just 15% of the workforce.
- Among the top-grossing technology companies, Black and Latinx employees represent only 3 to 5% of all employees.¹² Comparatively, Black workers comprise 13% of the workforce and Latinx or Hispanic workers (of any race or ethnicity) comprise 18% of the workforce.¹³

While digital skills provide a career pathway into middle- and high-skill jobs, 80% of roles within the IT profession require a four-year degree for employment, a barrier to inclusion for many Black, Latinx, and Native American applicants.¹⁴

With a growing body of research showing that increasing inclusivity generates bottom-line benefits for employers, the tech industry’s challenges with inclusive employment may well place it at a disadvantage.¹⁵ After surveying 1,700 companies, Boston Consulting Group found that inclusive management teams were more innovative than teams with a less inclusive makeup: Companies with above-average representation produced a greater proportion of revenue from innovation (45% of total) than companies with below-average representation (26% of total). Companies with diverse management teams have, on average, 10% higher EBIT margins (referring to earnings before interest and taxes) than companies with below-average management diversity. Additionally, when at least one team member shares a client’s ethnicity, the team is more likely to adequately address that client’s needs than teams where no member shares that trait.¹⁶

All of this suggests that the tech sector is fertile ground for developing

sustainable and scalable strategies to advance economic equity and ensure the inclusion of excluded populations and responsiveness to the needs of businesses and the economy. Closing the digital skill divide will be mutually beneficial for workers, businesses, and the economy: Workers who develop digital skills can increase their incomes; businesses that develop the digital skills of employees are better able to innovate; and local, state, and national economies will see an increase in tax revenue as workers increase their incomes.¹⁷



Digital Jobs Priority Challenges

JFF has observed several common challenges for communities seeking to build an inclusive strategy for digital jobs workforce development. The priorities below outline the current state of the challenge as well as the systems, representation, or behavior changes a strategy should ultimately seek to achieve.

Challenge 1

Digital jobs are not widely accessible to a wide variety of people, namely people of color, young adults seeking to advance in the labor market, women of all backgrounds, individuals without a bachelor's degree, people with records, and older workers.

Challenge 2

There is little understanding of the cross-sector skills and credentials necessary for advancement opportunities within the digital jobs market. Because it is not clear how people progress or advance in digital jobs, more transparency and awareness are needed.

Challenge 3

Employers are often unwilling to offer digital skills training, work-based learning, or apprenticeship opportunities to employees, preferring to hire people who already have those skills. This challenge is compounded by the limited opportunities or methods for advancement for people without advanced degrees in the digital jobs market.

Challenge 4

Many short-term certifications or training programs focused on digital jobs do not have labor market value and/or do not lead to jobs.

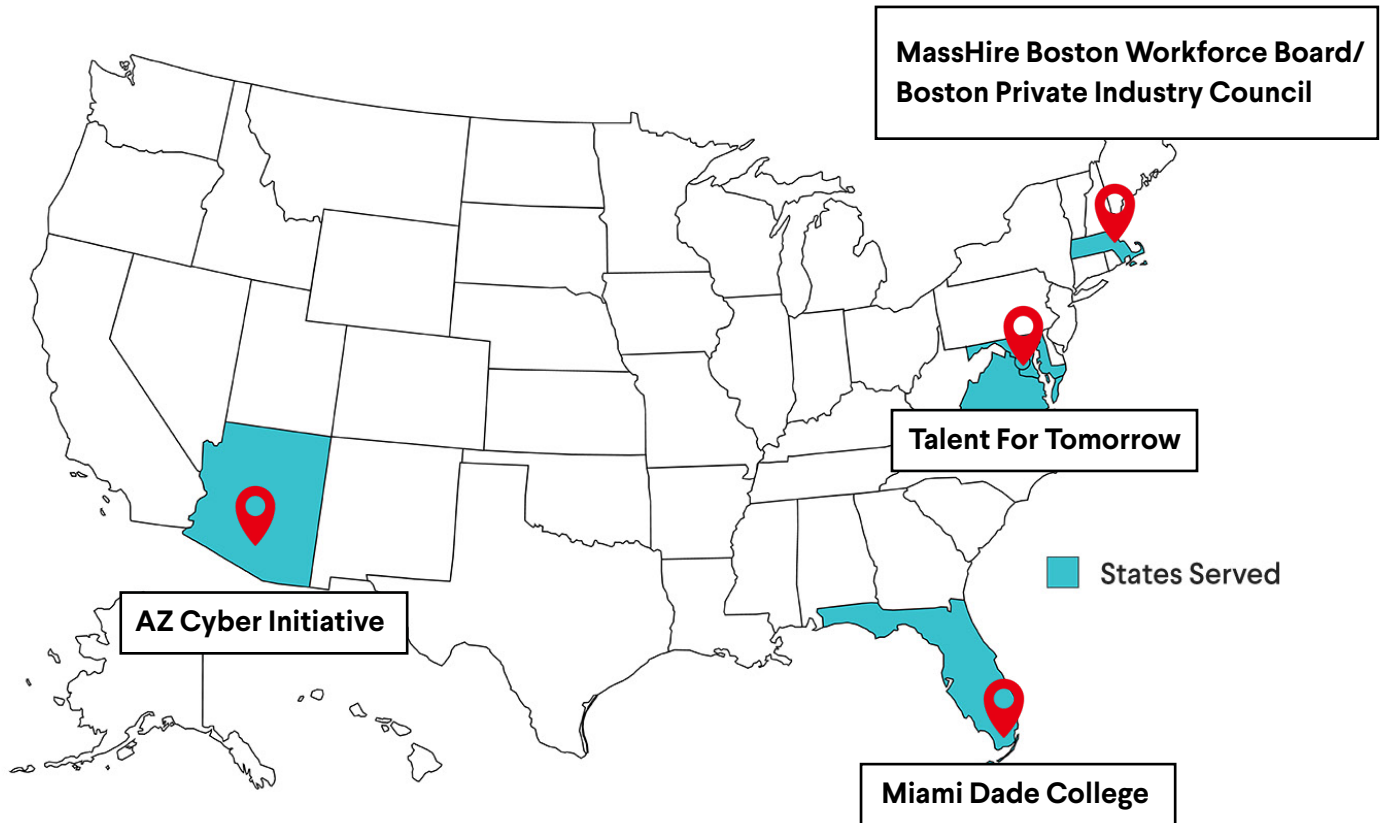
Creating Regional Digital Jobs Strategies

In response to both the tech industry's chronic challenges with diversity and equity, and the consistent demand for skilled workers in IT occupations, JFF sought to understand how regional planning processes might address these realities. Through generous funding from Google.org, JFF solicited proposals and selected four grantees to receive \$50,000 planning grants to engage in the coordination of a localized digital jobs strategy and the development of locally relevant IT career pathways. JFF hoped to learn from these grantees as they explored the opportunities in their own unique contexts to the need to strategically plan for and support digital job development and training.

JFF provided design support, subject matter expertise, and peer learning opportunities to the four grantees in the inaugural effort as they each developed a regional digital jobs strategy that connects jobseekers with low incomes to high-demand careers, with an emphasis on populations underrepresented in the tech sector. Through this process, the four grantees designed digital jobs strategies that demonstrated a cohesive regional approach to:

- ▶ Engaging business and industry in assessing digital job and skill demand as well as opportunities for work-based learning experiences and employment
- ▶ Designing flexible, competency-based IT career pathway programs that offer multiple on- and off-ramps through partnerships with regional training providers
- ▶ Developing targeted recruitment strategies that aim to increase the number of workers without a four-year degree; Black, Indigenous, and Latinx workers; and women of all racial and ethnic backgrounds
- ▶ Partnering with community organizations to offer comprehensive wraparound supports that promote participant persistence and success from enrollment to graduation, job placement, and retention

The Grantees



Planning grants were awarded to four organizations, representing a range of institutional types and geographies. The four grantees were:

AZ Cyber Initiative

Nonprofit organization

Location: Southern Arizona



AZ Cyber is a small nonprofit that seeks to support Arizona high school students pursuing tech-related careers, with a particular focus on cybersecurity. Its programming includes mentorship, internship support, and cyber boot camps.

Mission: AZ Cyber's mission is to help Arizona students pursue careers in cybersecurity by 1) working with schools to develop and implement cyber-related curricula and professional development, 2) offering programs to help students interested in cybersecurity pursue various career paths, and 3) building coalitions of community organizations with similar goals.

Miami Dade College (MDC)

Public college

Location: Miami-Dade County, Florida



MDC is a public college that serves approximately 100,000 students at eight campuses across Miami-Dade County, making it one of the largest colleges in the United States. It offers bachelor's and associate's degrees, as well as career and technical education. MDC's student body is predominantly Hispanic.

Mission: MDC seeks to change lives by providing accessible, high quality teaching and to be a leader in student learning and success. Its EnTec program offers 30 two- and four-year degrees, along with opportunities for college credit certificates. EnTec courses are taken by about 6,000 students per semester. Notable programs are cybersecurity and data analytics.

MassHire Boston Workforce Board/ Boston Private Industry Council (PIC)

Local workforce board

Location: Four Massachusetts counties (Middlesex, Suffolk, Norfolk, and Worcester)



MassHire, the local workforce board for the Boston area, is managed by the Boston PIC. It convenes industry stakeholders and networks and works with individuals to connect them with appropriate career training.

Mission: MassHire envisions and creates better futures for Massachusetts jobseekers, workers, and businesses. The MassHire Workforce Boards of Boston, Central Massachusetts, and Metro South/West serve countless businesses and almost 4 million residents combined.

Talent For Tomorrow (TFT)

Nonprofit consortium

Location: Washington, DC (Wards 7 and 8); Virginia (Arlington County, Alexandria City, Manassas City, Falls Church, Prince William County, southern Fairfax County); Maryland (Prince Georges County, Charles County, Montgomery County)



TFT is a consortium of five District of Columbia-area nonprofits focused on workforce development and training: YearUp, Per Scholas, GenesysWorks, New Futures, and Spark the Journey (formerly known as Capital Partners for Education). The various partner organizations have complementary focuses and target populations, and working together, they support participants from high school through adulthood with training, postsecondary education support, and career guidance.

Mission: TFT works to close racial, income, and opportunity gaps by developing a new collaborative paradigm that invests in a diverse and skilled talent pipeline. TFT partners Year Up and Per Scholas came together to offer in-demand IT certifications plus soft-skill, internship, and job placement support.

Digital Jobs Strategic Elements, Grant Activities, and Priority Challenges

With its strong history of work with corporate, philanthropic, and government partners focused on building on-ramps to tech careers and its understanding of relevant research, JFF developed a set of key components for a strong digital jobs strategy, with the explicit goal of increasing participation in the IT sector by populations that have been underrepresented, including Black, Latinx, Indigenous, and other people of color; women of all racial backgrounds; LGBTQIA+ individuals; and workers without a four-year degree. JFF then guided grantees through specific activities designed to help them assess their standing in these strategic elements and hone their digital jobs strategy appropriately. The strategic elements are:

1. Building the capacity of the core planning team
2. Creating a strong sense of shared goals
3. Engaging stakeholders and partners
4. Identifying key target populations and designing with those populations in mind
5. Designing a strategy that is responsive to labor market demand



Guided by these strategic elements, JFF offered coaching and technical assistance to grantees as they completed a set of activities designed to incorporate the elements in ways compatible with the grantees' specific missions. The activities undertaken were:

- ▶ **Needs assessment:** JFF's technical assistance team developed a process to learn about and understand each grantee's strengths, challenges, and opportunities. The information gathered helped JFF more effectively work with grantees to develop a localized digital jobs strategy and feed the development of locally relevant IT career pathways that best address each region's labor market demand.
- ▶ **Labor market analysis:** The analysis built on the conclusions of the needs assessment, particularly those in the local industry and labor market section. A profile of each regional labor market was prepared by the JFF technical assistance team, providing an initial snapshot of in-demand occupations. By completing this analysis, each grantee gained a better understanding of its labor market, which helped the grantee to better align aspects of its localized digital jobs strategies and program designs to in-demand careers and career pathways in its region.
- ▶ **Career pathways map:** This mapping process confirmed each grantee's earlier data analysis against the experience and knowledge of industry partners and identified the implications for career pathways. Maps showed key jobs within targeted industries, common transition opportunities between them, and detailed information about each role's salaries, credentials, and skill sets. The process revealed recommended pathways for jobseekers and provided clarity about the skill sets typically associated with each occupation in the pathways.
- ▶ **Implementation plan:** The technical assistance process culminated in an activity in which grantees utilized lessons learned from the grant period to lay out a plan for implementing a revised digital jobs strategy, including assessments of goals, internal capacity, stakeholder support, and measurable milestones. In addition, the implementation plan helped the JFF team understand the key lessons that grantees took from this work and the grantees' visions for operationalizing their regional digital jobs strategy.

What Does Success Look Like?

Throughout the grant activities, each grantee demonstrated strengths that corresponded to specific strategic elements. Examining and sharing these strengths can show what success with the various elements looks like and provides potential lessons for other organizations. The strengths highlighted below are also aligned with addressing specific priority challenges that were identified by JFF.

Capacity and Aligned Goals: Talent for Tomorrow

As a consortium of the following five nonprofits, TFT came together to test whether coordinating the services from organizations with complementary focuses would result in improved outcomes for learners:

- ▶ Spark the Journey (formerly known as Capital Partners for Education) provides one-to-one mentoring for high school students from low-income backgrounds in DC to help prepare them for college and their career
- ▶ Genesys Works supports high school seniors for college readiness and workforce training with a summer technical and professional skills boot camp and a yearlong paid internship program
- ▶ New Futures provides scholarships and other support for students to pursue postsecondary education
- ▶ Per Scholas (National Capital Region) advances economic equity through rigorous training for tech careers and connects skilled graduate talent to leading employers
- ▶ Year Up (National Capital Region) provides a yearlong, college accredited workforce training program and professional internships for young adults (ages 18-26)

The consortium used the planning grant to examine the hypothesis that students enrolled in two or more TFT partner programs are better supported and prepared for the digital jobs in their region and will have higher starting salaries than their peers enrolled in only one program. With this grant, TFT's leaders were able to better understand and track the digital jobs landscape from the perspectives of their students, training providers, and corporate partners. The alliance was formed with the understanding that each of the organizations has a distinct but complementary focus; by communicating and working together more closely, the TFT partners hoped to better understand their students' needs and how to serve them more effectively. Through TFT's collaborative approach, students have access to an array of comprehensive supports, such as technical training, career guidance, and educational supports that span two-year and four-year degree programs, to increase students' chances of success. It became clear that TFT's alliance provided strong benefits for nearly all the strategic elements, but this was particularly true for building capacity and developing strong shared goals.

TFT works with students beginning in high school, helping them to understand what paths are most available for them and what support they need. Once a



student leaves high school, TFT's partners focus on distinct parts of the learning and education process, with various partners supporting learners through higher education, technical training, and internship and career navigation. By replacing a series of disjointed or fractured experiences with a more coordinated and streamlined process, the TFT partners can better understand where their learners are coming from and what other assistance they are receiving. Operationally, TFT utilizes a working group that executes on annual goals; an IT committee that collects data to report on joint measures; an executive committee that sets a vision, goals, and strategic focus; and a development committee that finds opportunities to fund collaborative work and manages the TFT budget.

TFT also has a consultant who serves as a dedicated facilitator and who ensures that each partner's executive leadership, program directors, fundraising team, and IT professionals are working effectively toward the alliance's collective goals. During the grant period, TFT's partners worked to further strengthen the alliance through the development and implementation of a shared data platform that makes it easier for partners to share and manage data about the status and progress of learners more easily.

TFT's digital jobs strategy work addresses a challenge in the tech sector that was identified by JFF as a priority: a lack of communication between providers; too often, there is no good way to track which solution or type of assistance would be most helpful for a given learner.

While a formal alliance structure may not be available to every organization, TFT offers an example of how close coordination and communication can lead to increased capacity and strongly aligned goals, providing more effective assistance for learners and workers.

Student Engagement: AZ Cyber

AZ Cyber outlined ambitious goals in its original grant application. Among other objectives, it was seeking to formalize a coalition to identify cross-sector digital job needs, draft a strategy for career pathways development, prioritize work-based learning and on- or off-ramps across employers and industries, identify strategies to engage youth and workers in digital skills development and career placement, and establish an action plan to improve quality broadband access along Arizona's I-19 corridor. AZ Cyber was drawn to this opportunity because Arizona has a relatively high number of tech-related career opportunities but very little infrastructure for targeted skills development and career support, particularly for high schoolers and young adults.

Throughout the grant activities, AZ Cyber displayed a strong focus on engaging with and centering the students it serves, allowing the organization to understand its target population more effectively and to design its programming accordingly. The most notable part of AZ Cyber's engagement strategy was the use of college student apprentices and high school student ambassadors who had previously participated in AZ Cyber programming to recruit applicants for current apprentice and ambassador roles.

Additionally, AZ Cyber used their network contacts of public high school teachers, counselors, and youth workforce development case workers to circulate information about the opportunity to potential applicants. AZ Cyber specifically sought to fill these positions with youth from populations that have been underrepresented in digital jobs, namely people of color, women of all racial backgrounds, and individuals who identify as LGBTQIA+. Ambassador applicants who submitted their application on time, who fit the demographic and residential/location criteria, and who were able to complete internship requirements (including accessing virtual events and online materials via phone or computer) were accepted. The application process for apprentices included submitting a resume, participating in an interview, and providing a personal recommendation. These apprentices and ambassadors served in an advisory capacity and participated in research design, peer engagement, and stakeholder engagement. AZ Cyber's planning process centered the lived experience of both local youth and local workers. Apprentices and ambassadors conducted surveys and interviews. They also led collective visioning and strategy sessions with local industry partners, community stakeholders, and students to identify approaches to training and placement that were viable and relevant for the regional economy. Executive Director Manny Felix noted that consistent engagement with the apprentices and ambassadors of youth engagement serves multiple purposes, including the following:

1. It allows the organization a deeper understanding of where students are in their accumulation of skills, what their current challenges are, and which programming and services would be most beneficial.
2. Seeking and acting on input and work from the apprentices and youth ambassadors creates enthusiasm and invests them in the program; when the youths are making meaningful contributions and providing value, they care and stay engaged.
3. Youth develop real-world skills in collaboration, project management, and relationship management. Felix comments: "Youth need experience, exposure, and opportunities. If we can't figure out how to provide those opportunities, we can't ask others to do it."

AZ Cyber set out to develop a more robust strategy that could connect educational institutions with relevant training providers and other stakeholders.

This student-centered approach to the work addresses two of the priority challenges in the digital jobs market identified by JFF: that many learners and workers do not understand the necessary steps to progress or advance in a career related to digital jobs, and that digital jobs are often not accessible to large sectors of the population, including people from low-income backgrounds, people of color, and young adults struggling in the labor market.



Convening Power: MassHire and Boston PIC

MassHire Boston used planning grant funds to form a consortium that included workforce development boards in the Boston, Metro South/West, and Central Massachusetts areas. MassHire has a proven track record of supporting innovations in the tech sector in Massachusetts, including participating as a steering committee member in the TechHire Boston grant and serving as a member of Clark University's Tech Quest Apprenticeship (TQA Clark) grant, a U.S. Department of Labor-funded initiative designed to increase the number of apprenticeship programs in the region. Additionally, as part of the planning grant work, MassHire used its vast network of stakeholders to establish an advisory committee with experts in both the health care and IT industries. The consortium sought

to prepare for accelerating demand for qualified health care IT professionals in those regions. Labor market information clearly shows the extent of regional racial and gender disparities. White people comprise 63% of the population and 69% of digital jobs. Females comprise 51% of the region's population, and males make up 48%; however, almost all the digital jobs in the covered region have significantly higher male representation.

MassHire engages stakeholder partners by connecting and helping a wide network of organizations to meet up, including career center employers, training providers, and community-based organizations. In 2012, MassHire established the Boston Healthcare Careers Consortium (HCC), enlisting more than 50 workforce development and community organizations, private employers, and institutions of higher education to build a sustainable health care talent pipeline that benefits both jobseekers and employers.

In 2016, in partnership with SkillWorks, a collaborative focused on workforce development in the state, the Boston Private Industry Council (PIC) launched a regional strategy to focus on developing the IT/tech workforce. Subsequently, the Boston PIC was invited to be part of the national TechHire network of more than 70 communities working to connect 100,000 people to IT jobs. TechHire Boston hosts several public forums annually to discuss best practices and hear directly from employers. Its work is guided by an employer advisory board composed of members from SIM Boston, the oldest and largest chapter of the Society for Information Management. Recent TechHire convenings have focused on IT training, specifically encouraging employers to assign the same value to short-term credentials and training programs as they do to degree programs. A February 2021 event, "The Massachusetts Advantage: Tapping Tech Diversity Through Alternate Talent Pipelines," showcased eight leading regional tech education and training providers and their employer partners. More than 350 participants attended the event, of whom more than 50% represented corporate employers.

By bringing together relevant parties in the planning process for its digital jobs strategy, MassHire identified gaps in the health care digital jobs ecosystem, pinpointed employer hiring needs, and addressed these needs by suggesting relevant training and short-term credentials to potentially offer workers and learners. Consistently engaging with regional employers in both health care and IT, MassHire gained a comprehensive understanding of the skills employers seek when attempting to fill digital jobs and used this knowledge to provide jobseekers with a clear path to digital skills attainment connected to opportunities for income growth and career advancement through its statewide network of trained employment professionals at 29 MassHire career centers.

To navigate the combined ecosystems of tech and health care, MassHire confronted one of the priority challenges identified by JFF, namely, the lack of alignment between training providers, employers, and the labor market. Training programs are of limited use if they do not provide learners with the skills and experience sought by employers—creating a significant barrier in the digital jobs market. MassHire workforce boards and their affiliated career centers have the reach, reputation, and resources to convene diverse stakeholders (employers, training providers, and jobseekers); they are uniquely positioned to play a key role in bridging gaps between the groups. MassHire demonstrated its established relationships with local employers and regional partners, created a strong sense of shared goals, and effectively engaged these critical partners in the planning of their digital jobs strategies and the design of their health care/IT career pathways.



The stakeholders are often not naturally connected, and local workforce boards such as MassHire are uniquely positioned to bring the groups together. In the course of the grant period, MassHire was able to better understand how to best use its role and position and help other grantees understand the benefits of connecting and engaging with their local workforce boards as part of a strong digital jobs strategy.

Focusing on digital jobs in the health care market, MassHire used its workforce board status to connect providers and insurance companies to technical training providers. This connection enabled the training providers to adapt their technical training to the health care environment and filled a gap in the digital job ecosystem.



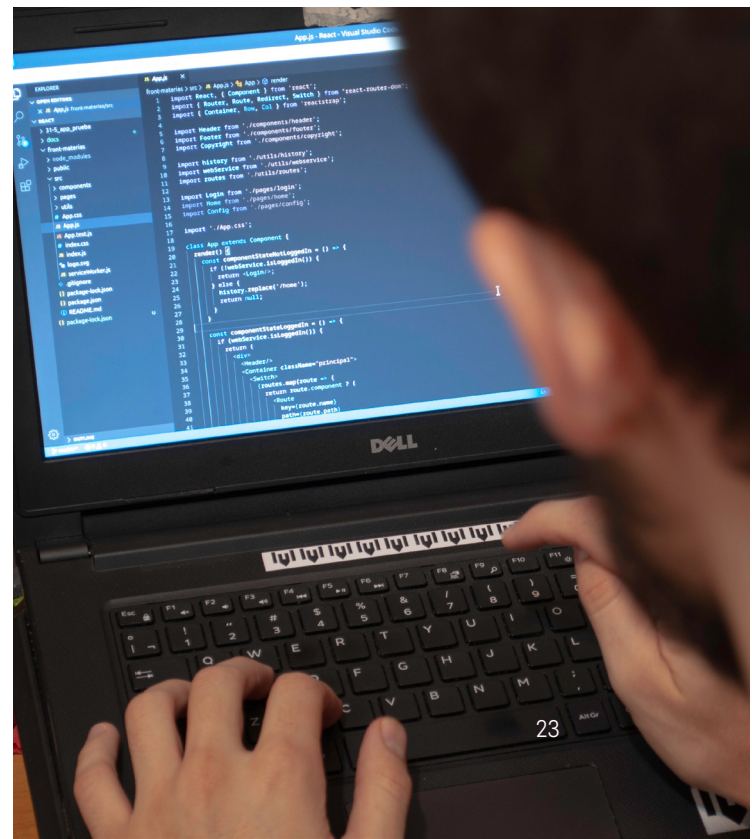
Employer Engagement: Miami Dade College

MDC identified job readiness for in-demand tech fields as an area for improvement among its students, particularly those from underrepresented demographics. MDC pursued the planning grant opportunity so that it could create an academic pathway for underrepresented students in the locally in-demand field of cryptocurrency. A strength that MDC brought to the grant was its strong relationships with local and regional employers, particularly in the tech market. This was the result of both its status as a large institution of higher education and an intentional effort by MDC staff members to cultivate and maintain connections with local industry leaders.

MDC's leadership team turned to their business advisory council called the Business Industry Leadership Team (BILT). The BILT puts employers in co-leadership positions to help to prioritize key curricular elements and to engage with students on career pathways and navigation. The BILT structure is mutually beneficial, offering employers the chance to play a stronger role in their local community and providing students with workforce preparedness and a greater understanding of employers' goals and perspectives. MDC's employer engagement, coupled with rigorous labor market analysis, enabled MDC to identify certain job market developments and trends and respond by broadening the focus of its digital jobs strategy from cryptocurrency to blockchain technology. MDC identified the increase in blockchain-related tech activity in the greater Miami area, analyzed the growth of this emergent technology, determined which skills would be most relevant, and began to develop programming that would be resilient and responsive in a new and quickly shifting area.

MDC adapted its digital jobs strategy quickly and efficiently by responding to labor market demands and engaging relevant stakeholders in the cryptocurrency/blockchain market.

MDC's adaptive and flexible approach to its digital jobs strategy allowed it to navigate one of the priority challenges identified by JFF, namely that many short-term certifications or training programs focused on digital jobs do not have labor market value. MDC avoided this pitfall by adapting its programming to the needs of regional employers and identified a gap in the local training ecosystem.



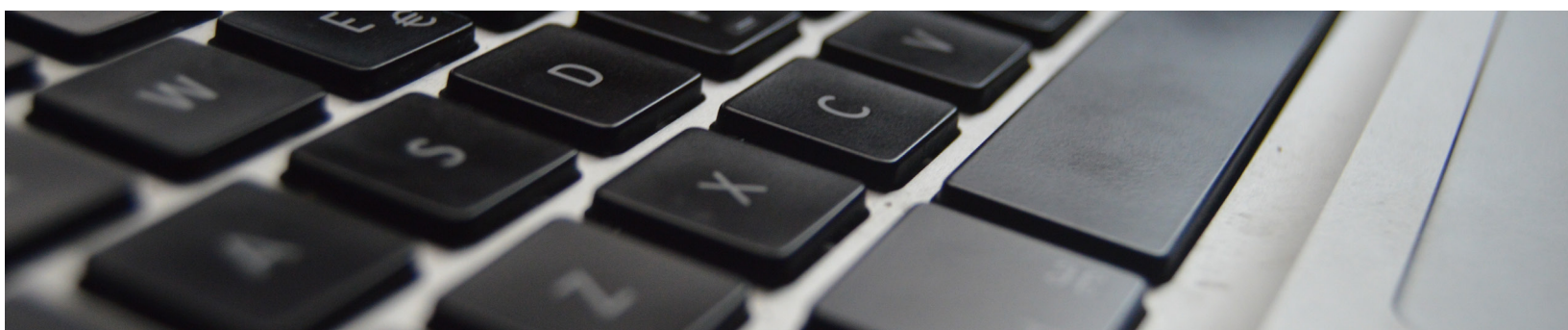
Key Challenges and Solutions

In addition to important insights on strengths and best practices, grant recipients gained an opportunity to consider some of the challenges that organizations are most likely to encounter as they build their regional digital jobs strategies. In turn, these challenges offer a collective opportunity for funders and other leaders to identify key focus areas when engaging with organizations focused on digital jobs training and development.

Capacity and Resources

Developing and implementing a strong digital jobs strategy takes significant time and effort on the part of the individuals and organizations involved. For many organizations and institutions, securing the necessary staff capacity and resources for this type of effort is a challenge. Most organizations involved in such efforts have staff members who are already spending most of their time on other core tasks, such as designing and providing programming to learners. To address this, funders should consider providing specific support to help organizations build this capacity, with a focus on timelines that allow for the growth and development of relationships and practices.

For providers, it is important to identify which aspects of capacity-building would be most beneficial: designated staff time to focus on this kind of strategy or expansion of relevant networks and partnerships. In this case, the TFT alliance provides some helpful lessons: Thanks to the collaboration between organizations, a relatively modest commitment of time and staff resources allows all parties to operate much more effectively and strategically. In particular, the decision was made to use a consultant whose role was to execute this grant and coordinate across organizations on behalf of the entire consortium.



Labor Market Responsiveness

Use of labor market data proved helpful for the grantees but also raised new challenges in certain instances. One clear example involves organizations that focus on working with individuals without postsecondary education yet find that the most in-demand tech roles in their area have specific requirements for a bachelor's degree. This is not the only example, but it is perhaps the clearest of instances in which there is a clear divide between the population served by providers and the qualifications sought by employers. Such instances highlight the need for additional engagement to understand and shift employer practices, such as that practiced by MassHire. This type of collaborative engagement between groups helps highlight existing gaps and engage stakeholders to find collaborative solutions to better match the jobseekers and employers.

Changing Market Conditions

Understanding what employers are seeking is vital, through both engagement and labor market data. But it is also important to assess and understand how fluid those conditions are and adjust strategies for long-term success. This was most evident in the evolution of MDC's focus; although it felt that it had a strong sense of what the industry was most interested in, it was open to adjusting its focus as the market shifted. When the cryptocurrency market contracted in 2022, MDC broadened its focus to cover all blockchain-related skills, with intentional efforts to focus on programming that was immediately relevant while still equipping learners with fundamentals that would be transferable and applicable in a number of other digital job settings.

Funding Limitations

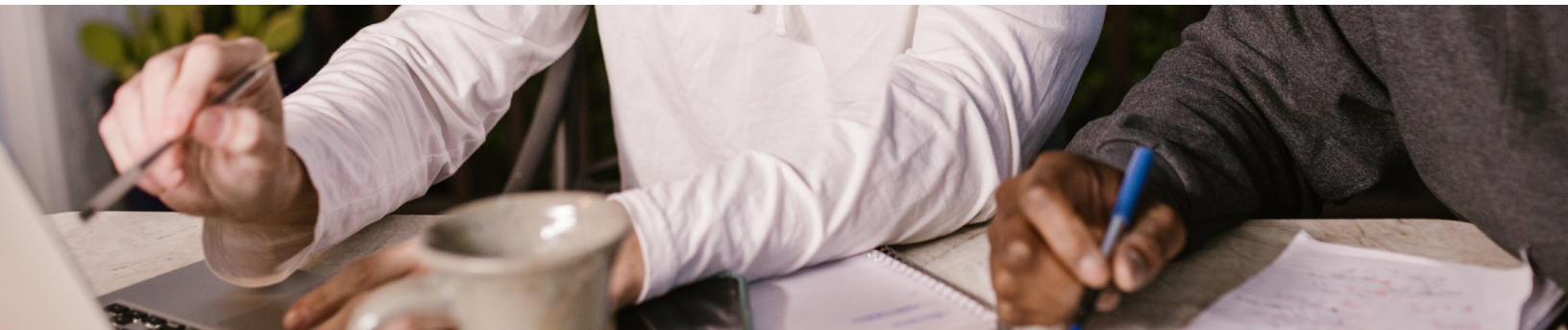
The funding for this grant was guaranteed only for the development of a strategy and an implementation plan, not for the process of implementation. For many training providers, limited funding such as this creates a challenge for following up on all aspects of the plan. This was a point of frustration and a limiting factor in grantees' abilities to pursue their strategies.

Next Steps

The grantees and their activities strongly reinforced the strategic elements identified by JFF before the grant and provided key insights into how organizations can put those components into action and confront challenges. Given these findings and experiences, JFF makes the following recommendations for training providers and related organizations, funders, and system leaders:

Training Providers

- ▶ **Actively engage employers:** Providing technology training that is applicable and desirable in the job market is critical, but too often it falls short. This can be addressed by making sure there is a clear understanding of what employers need and making clear to employers what learners are bringing to the table. The tech sector is prone to sudden disruptions, and training providers should be agile enough to provide rapid upskilling so that workers can quickly adapt to labor market changes. Engaging with employers makes it easier to build employer commitments and can make them more willing to offer digital skills training and work-based learning opportunities and to support advancement of incumbent workers in the field.
- ▶ **Engage directly with learners:** Understanding the needs and challenges of the learners being served is important for effective training and programming. Actively involving these learners when designing programs ensures that their needs are being met and increases the likelihood of strong and lasting participation. Digital jobs are disproportionately held by straight white men, to the detriment of the larger community and the employers themselves. Engaging with learners who don't fit that profile helps ensure that programming meets their specific needs and presents an opportunity to close gaps in racial, gender, and economic equity.



- ▶ **Seek collaborative opportunities:** Providers can increase their effectiveness by better understanding the other organizations working in the same areas, particularly on a regional level. Sharing practices and information can help organizations better understand which solutions learners and workers need at a given moment and provides an opportunity to build more robust IT career pathway maps that embed robust academic and wraparound services into the program design, development, and execution in order to provide durable employment and growth opportunities for participants.

Funders and Leaders

The grantees and their activities strongly reinforced the strategic elements identified by JFF before the grant and provided key insights into how organizations can put those components into action and confront challenges. Given these findings and experiences, JFF makes the following recommendations for training providers and related organizations, funders, and system leaders:

Invest in capacity-building: While programmatic operations and support are vital, many providers and organizations need additional support to dedicate resources to developing and executing a comprehensive digital jobs strategy.

Provide opportunities for collaboration and engagement: A key barrier in this work is the lack of coordination and collaboration, both between organizations and between the organizations and employers. Funders and leaders can help alleviate this by providing resources and space for organizations to learn, collaborate, and communicate together, particularly on a regional level.

Assist with labor market information: Using robust and up-to-date labor market information is an important aspect of a strong digital jobs strategy, but many organizations lack the data and/or the relevant expertise. Providers that have access to these tools can operate more effectively and strategically.

Invest in both strategy and implementation: Training providers are often reliant on outside funding to complete this work and face challenges when funding is limited to either strategy or implementation. Support in both phases is necessary in order to

develop strategies and then put those strategies into action, without cutting short one part of the process.

As technology and related jobs continue to advance and evolve, it is critical to understand the opportunities and challenges for learners and workers navigating their careers. Whether it serves to inform a provider, funder, or other sector leader, this report provides considerations for developing strategies that effectively and equitably serve learners and workers in securing high-quality digital jobs.



Endnotes

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