Brief: Short-Term and Accelerated Training Models

Introduction

Many H-1B TechHire grantees implemented short-term or accelerated training models in their H-1B TechHire Partnership Grants. The programs based on these models are designed to prepare participants for middle- and high-skill jobs with growth potential in H-1B occupations and industries. They generally last five months or less and are intended to serve individuals who need short-term and intensive training such as "boot camp"-style programs and online offerings to refresh or upgrade skills and competencies.

In this brief, we present an overview of a short-term, accelerated training model and its primary elements, introduce approaches that research has identified as promising, and common successes and challenges TechHire grantees experienced in implementing these training models. We conclude with two grantee profiles that provide a deeper, on-the-ground look at their training design.

Promising Approaches to the Accelerated Training Model

Accelerated training models are often designed to be flexible, short-term options that offer access to education to disadvantaged populations, including youth who are disconnected from work or school.[1] In addition to training focused on a specific industry, programs based on the accelerated model typically include basic skills instruction that provides students with opportunities to catch up on the essential skills they will need to succeed in the training and in the workplace. For example, some include integrated training that simultaneously combines instruction in basic skills, such as math, reading, or English, with training for a specific occupation, credential, or industry.[2] In others, students first receive basic skills support and then transition into industry-focused training. Many also include student supports such as job-

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[1] Alicia Menendez, Aparna Ramesh, Pamela Baxter, and Lindsay North, *Accelerated Education Programs in Crisis and Conflict: Building Evidence and Learning*, Pearson Institute Discussion Paper No. 36 (Chicago: the Pearson Institute, 2016), https://thepearsoninstitute.org/sites/default/files/2017-02/36.%20Menendez_Accelerated%20Education%20Programs_1.pdf.

[2] Amanda Bergson-Shilcock, *Integrated Education and Training Policy Toolkit* (Washington, DC: National Skills Coalition, 2016), https://www.nationalskillscoalition.org/resource/publications/integrated-education-and-training-policy-toolkit/.

readiness counseling and test-preparation workshops for students who will have to take credentialing exams. Work-based learning or employment opportunities are also key components of many accelerated models.

Research from the Urban Institute indicates that accelerated training is a promising approach to helping lower-skilled adults attain credentials more quickly than they might have otherwise.[3] However, training alone may not be enough to ensure that participants reach their longer-term goals, including employment, career growth, and higher earnings. A compilation of research and a synthesis of TechHire grantees' experiences suggest that the following components play a key role in the success of short-term, accelerated models:

- A variety of training modalities
- Tailored, flexible, and participant-centered approaches that offer comprehensive support
- Collaborative curriculum design and implementation
- Strong employer connections that inform program design and offer pipelines to employment

Here's a look at each one of those components in turn.

Varied Training Modalities

Because of the ways in which accelerated programs are delivered, they must differ from traditional higher education formats. Research on brain architecture and adult learning indicates that learning involves both body and mind; therefore, accelerated training must be structured to appeal to both mechanisms.[4] A literature review on accelerated education programs from the Pearson Institute recommends that teaching methodologies should be interactive and learner-centered, incorporating several aspects of multiple-intelligence learning when possible.[5] Effective models include opportunities for participants to practice the skills they're learning through intensive hands-on activities like in-person simulations or "games" and on-the-job training. Coupled with online applications or digital workplace simulations, these approaches can significantly increase the efficacy of accelerated, boot camp-style models.[6]

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[3] Theresa Anderson, Daniel Kuehn, Lauren Eyster, Burt Barnow, and Robert Lerman, *New Evidence on Integrated Career Pathways: Final Impact Report for Accelerating Opportunity* (Washington, DC: Urban Institute, 2017), https://www.urban.org/research/publication/new-evidence-integrated-career-pathways/view/full_report.

[4] Drick Boyd, "Effective Teaching in Accelerated Learning Programs," *Adult Learning* 15, no. 1-2 (January 2004): 40–43, https://journals.sagepub.com/doi/abs/10.1177/104515950401500111.

[5] Menendez et al., *Accelerated Education Programs in Crisis and Conflict*.

[6] Martha Laboissiere and Mora Mourshed, "Closing the Skills Gap: Creating Workforce-Development Programs That Work for Everyone," McKinsey and Company (blog), February 13, 2017, https://www.mckinsey.com/industries/public-and-social-sector/our-insights/closing-the-skills-gap-creating-workforce-development-programs-that-work-for-everyone#.

For example, **Employ Milwaukee**, based in Milwaukee, WI, enhances classroom learning in IT training by offering participants opportunities to refurbish computers, docking stations, and memory boards.[7] Multimodal training strategies such as these can help reinforce learning and ensure that participants are ready to enter the workforce armed with real-world skills.

Other TechHire grantees have found that supplemental offerings can complement traditional instruction and hands-on training to further promote growth and learning. For example, TechHire grantee **JFF**, based in Boston, MA worked with subgrantees General Assembly and Per Scholas, located in New York City, NY, Atlanta, Georgia, and DC to offer boot camps and held employer visits to keep students engaged and expose them to potential job opportunities.

Tailored, Supportive, and Participant-Centered Design

TechHire grantees targeted students with barriers to employment, including youth and young adults, those with limited work experience, justice-involved youth and adults, young parents, people with limited English proficiency, people with disabilities, and incumbent workers in need of upskilling. Improving economic mobility for these target populations requires more than training and credentials. Tailored services that meet participants where they are and provide support to address life's obstacles are also critical to promoting success.

Participant-centered design in programs like TechHire could include positive youth development approaches, which address the developmental needs of young people by, for example, providing leadership opportunities or offering mentoring or coaching from trusted adults. Successful programs also address barriers to participation, which could include difficulties in meeting basic needs such as transportation, child care, and food. Support may also include referrals that connect participants to physical or mental health care services.[8] When comprehensive supports are developed as integrated components of the model, programs can better ensure that participants address and overcome barriers.[9]

Midlands Technical College (MTC), based in Columbia, South Carolina, takes a holistic approach to supporting participants on various levels via multiple "touch points." Participants are in constant communication with MTC staffers, who play distinct roles in encouraging and supporting participants through a continuum of services. The college understands that students have lives outside the classroom, and organizers have therefore built flexibility into the program's design. For example, students with demanding work schedules can choose to attend class in the evening instead of during the day. Students who get sick or suffer medical emergencies can make up a course at a later time. Others receive referrals to college

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[7] U.S. Department of Labor, *A Future to Be Proud of: Connecting TechHire IT Job Candidates With Good Jobs* (Washington, DC: U.S. Department of Labor, n.d.), https://h1btechhire.workforcegps.org/-/media/Communities/H1BTechHire/files/2019-Success-Stories/EmployMilwaukee_TechHire-SS_DSI-Final.ashx (link immediately downloads a PDF).

[8] Louisa Treskon, *What Works for Disconnected Young People: A Scan of the Evidence*, (New York: MDRC, 2016), https://disconnectedyouth.issuelab.org/resources/25634/25634.pdf.

[9] Randall Wilson, *Lessons Learned from Accelerating Opportunity*, (Boston: JFF, 2015), https://www.jff.org/resources/lessons-learned-accelerating-opportunity/.

counselors or outside providers of services, such as legal aid, housing assistance, child care, or mental health resources.[10]

Collaborative Curriculum Design and Teaching

Collaboration between multiple organizations in designing curriculum and teaching can result in highly effective programs that train participants in basic and industry-specific skills, as well as in leveraging the strengths of organizations with complimentary expertise. One promising approach is Integrated Education and Training (IET). IET models are designed so participants receive simultaneous instruction in basic skills as well as occupation or industry-specific training.[11] This intentional collaborative design process brings together institutions of higher education, nonprofit education and training providers, workforce development boards, employers and business community members, or two or more similar organizations to build relevant accelerated training. Collaboration from employers is especially important in designing curriculum from the start, as this ensures instructional relevance and often leads to work-based learning opportunities. These models also ensure that basic skills, workforce education, and supportive services are all part of an accelerated instructional approach.

IET models and this type of collaboration are often designed with a "team teaching" approach in which two instructors—one with expertise in adult learning and basic skills, and another with expertise in the targeted industry or occupation—share teaching and learning outcomes. These collaborative models have potential to be an effective adult learning innovation—in which students complete basic skills classes before proceeding to job-related coursework. However, they can be discouraging for many participants, who often struggled in basic school courses that did not have specific relevance to their career interests.[12]

One of the best examples of integrated education and training and collaborative curriculum design is MI-BEST and MI-BEST lite at **Montgomery College**, based in Rockville, MD. The college provided instruction to Limited English Proficient (LEP) students enrolled in TechHire classes prior to March 2020. Specifically, the classes provided MI-BEST/MI-BEST-L instruction to A+, database, and desktop support courses. The college worked closely with entry-level Bridges to Technology and other college departments, such as its Workforce Development and Continuing Education programs, to create equitable learning pathways for students out of those programs and into training under TechHire.

JFF's subgrantees, General Assembly and Per Scholas, also recognized the value of a collaborative design process and worked together to develop CodeBridge. A 17-week web-development course, CodeBridge begins with four weeks of training preparation provided by Per

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[10] U.S. Department of Labor, *Midlands TechHire: A 'Many Hands' Approach to Student Support* (Washington, DC: U.S. Department of Labor, Employment and Training Administration, 2019), https://h1btechhire.workforcegps.org/resources/2019/01/23/18/52//media/1A6A6828D8454FEC938C67E48FB707DC.ashx (link immediately downloads a PDF).

[11] Bergson-Shilcock, *Integrated Education and Training Policy Toolkit*.

[12] Bergson-Shilcock, *Integrated Education and Training Policy Toolkit*.

Scholas. That is followed by a transitional "bridge week" during which students are prepped for the second part of the program: 12 weeks of rigorous technical coursework and hands-on training provided by General Assembly. The collaborative approach allowed each partner to bring its strengths to the table to support participants in the best way possible *(see the JFF grantee profile on page 39 of this brief for more information)*.

Business Engagement and Employer Partnerships

Studies of accelerated training programs show that relationships with employers can be critical components of success.[13] Employers can help design coursework to ensure that it is responsive to labor market needs, and the relationships between training providers and employers open up pipelines to job opportunities for program participants.

Lessons learned from the TechHire experience suggest that training programs should prepare participants for an occupation as opposed to simply helping them earn a specific certificate or credential. Employers are looking for candidates who are ready to work, are capable of thriving in the work environment, and have a proven ability to complete key job tasks. Therefore, training programs should be designed to equip students with the competencies they need to perform specific job tasks and then immediately transition them to the job-search process. One way employers could help develop programs to do this is by creating simulations of real-world work experiences that not only help students develop new skills, but may also put them in a good position for jobs with those very same employers.

Employ Milwaukee successfully engaged the business community by drawing on industry feedback to develop a program that provides skills training, hands-on practical experience, employability and job-search skills, as well as wraparound supports and services.

In addition to helping design training and job-preparation programs, business and industry partners could offer internships or other work-based learning opportunities, or participate in mock job interview workshops, which can help hiring managers adjust their idea of qualified IT job candidates while also offering participants an opportunity to practice marketing their unique skills, knowledge, and abilities to employers.[14]

Given the fast pace and targeted nature of short-term training models, including business partners in the design and implementation of programs is crucial to ensuring that offerings align with employers' needs and expectations.

Conclusion

Workforce training providers and other organizations are seeking ways to help young people and others facing multiple barriers to education and employment connect to careers in high-growth sectors such as IT. Using efficient, tailored, flexible, and innovative strategies that meet

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[13] Theresa Anderson et al., *New Evidence on Integrated Career Pathways*.

[14] U.S. Department of Labor, *A Future to Be Proud of.*

participants where they are is critical to addressing labor market gaps and high levels of unemployment. The strategies outlined in this brief demonstrate how these organizations, including community colleges, nonprofits, and workforce boards, can take short-term approaches to helping those disconnected from work prepare for careers and find jobs with opportunities for long-term growth and advancement.

GRANTEE PROFILE

JFF
Tailoring Short-Term Boot Camp Training to Young People

With a four-year H-1B TechHire Partnership grant focused on IT, JFF, Per Scholas, and General Assembly established an innovative partnership to offer accelerated boot camp-style IT training to nontraditional jobseekers.[15] During the TechHire grant, the JFF team offered five distinct accelerated training models. Except for incumbent-worker trainings, which were called Career Accelerators, each training model universally targeted young people between the ages of 17 and 29 who had a high school diploma, were unemployed, and had received at least a 10th-grade score on the Test of Adult Basic Education *(see Table 1)*.

Table 1: JFF, Per Scholas, and General Assembly TechHire IT Training Models

Model Name	Training Focus and Partnership
CodeBridge	▪ Per Scholas / General Assembly partnership ▪ Web-development training
IT Security	▪ Per Scholas only ▪ Entry-level network security training
Cybersecurity	▪ Per Scholas only ▪ Mid-level network security training
Career Accelerator 1	▪ General Assembly only ▪ Incumbent-worker training ▪ Data visualization training
Career Accelerator 2	▪ Per Scholas / General Assembly partnership ▪ Incumbent-worker training ▪ Python and data analytics training

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[15] Per Scholas is a national nonprofit, with 14 locations around the country, that offers no-cost IT training for low-income populations. General Assembly is a national training organization, with more than 30 campuses, that offers training in IT, design, data, and business.

Partnership and Co-Design Strategies

IT is a fast-paced field, so it's imperative for IT workers to continually upskill and reskill in disciplines such as web development and design. Because the need for workers with the most up-to-date skills is so high, well-established technology companies often prefer to recruit talent from well-known training programs, which tend to be expensive. This makes it difficult, if not impossible, for young people with limited education and experience to pursue high-paying IT jobs.

To address the lack of IT training opportunities for people from underrepresented populations, JFF partners General Assembly, a well-regarded IT training accelerator, and Per Scholas, a nonprofit known for helping low-income young people prepare for entry-level IT jobs, created a 17-week web-development course called CodeBridge. JFF Project Director Nate Anderson explained that the goal of the TechHire partnership "was to bring these two worlds together—to build a bridge—where we would create high-paying job opportunities for Per Scholas's target population and do so with fidelity to both General Assembly's and Per Scholas's models."

Per Scholas led the first four weeks of CodeBridge, offering coursework that introduced the fundamentals of web development, including HTML, CSS, and Java, and assigning a final project. The fifth week was a "bridge week" focused on readying students for the rigor of General Assembly's curriculum and preparing them for the move to a new program. In the remaining 12 weeks, General Assembly offered rigorous technical coursework and hands-on training to prepare the students for careers in web development.[16]

Reflecting on their partnership, JFF said that Per Scholas and General Assembly's co-design process and strong partnership were key to their success. Here's a look at four best practices that emerged from JFF's TechHire partnership.

Take time to learn about each co-design partner's programmatic strengths and needs.

Both General Assembly and Per Scholas came to the partnership with a clear idea of what they wanted from it, but it was also important for them to coordinate their recruitment, training, and job-placement efforts. Each program learned from the other, and that dynamic enhanced the value of their coordinated offerings.

For example, Per Scholas' strengths are its understanding of its student population and its ability to support learners during intense boot camp experiences. Through its work with General Assembly, Per Scholas learned how to adapt and prepare students for the rigor and demanding culture of training programs like General Assembly's. For its part, General Assembly's strengths include its understanding of the web-development industry and the IT job market, as well as its ability to quickly prepare students for high-paying web-development careers. Through its work with Per Scholas, General Assembly learned how to successfully incorporate learners from low-income populations into its culture and training process.

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[16] For more information on General Assembly's 12-week immersive software engineering program, see https://generalassemb.ly/education/software-engineering-immersive-remote.

Create a co-design work plan and timetable.

To build a coordinated training offering, General Assembly and Per Scholas engaged in a 12-month co-design process that began before they had secured the TechHire grant. The grant funding helped galvanize the team, enabling them to identify deliverables and set an aggressive timeline for fulfilling their goal of bridging the two programs' efforts and ensuring that students could successfully transition from one to the other, fully prepared for General Assembly's advanced training. General Assembly and Per Scholas leaders who championed the co-design effort held regular meetings during the 12-month design process and for the first two years of the TechHire grant. In their planning discussions, the organizations focused on delegating duties across teams, determining the specifics of the curriculum, and designing bridge-week programming that effectively prepared students for General Assembly's training. Once CodeBridge was up and running, meetings focused on troubleshooting problems that arose and engaging in a process of cultural discovery across the organizations.

Identify and resolve inconsistencies in support services or programmatic approaches.

The thoughtful co-design process also revealed that the organizations had to address differences in the ways they approached training, student support, and job-placement processes. For example, the partners realized that they had different job-placement practices: Per Scholas took a very hands-on approach to helping students find work, and General Assembly expected students to be more self-directed. For CodeBridge, they created a hybrid approach that included job-placement assessments and interview preparation workshops. They also agreed to take a coordinated approach to student communication: both used the Slack messaging platform to stay in contact with students and identify and resolve problems quickly.[17]

Create mechanisms for gathering student feedback.

To ensure that their co-designed course was meeting students' needs, General Assembly and Per Scholas built opportunities for participants to provide real-time feedback into the 17-week program. For example, students could share their thoughts in focus groups and in one-on-one meetings during the bridge week. The input from the learners helped the partners sustain and improve CodeBridge by tweaking transitions and other aspects of their approach. For example, the feedback revealed that students needed more support from Per Scholas career coaches and other services during the 12 weeks of General Assembly training. Implementing those supports helped increase retention.

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[17] Slack is a messaging platform that supports both direct messaging and group chats, and allows users to have conversations in breakout rooms.

Next Steps for JFF Partners

Through the partnership, General Assembly learned how to support TechHire's target youth populations, while Per Scholas increased its capacity to offer accelerated training programs. Their co-design process yielded strong outcomes in terms of the number of participants who completed the training, earned credentials, and found jobs. Both programs continue to draw from the lessons they learned during the TechHire grant. General Assembly has set up an opportunity grant program for low-income populations, and Per Scholas offers an accelerated web-development training course.