A Universe of Possibilities

Education to Career Pathways
for the Future of Work

JFF

AT A GLANCE

Innovators in a dynamic marketplace are building on the best of existing postsecondary training models to offer learners unique options—and unparalleled opportunities.

Developed by

JFFLABS

In partnership with ASA

American Student Assistance®

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Introduction

College has served as a pathway to the middle class for millions of people over the generations. But it's now clear that our society's emphasis on college as the only path to success and our embrace of the four-year degree as the benchmark of employability have also created barriers to economic advancement for individuals who lack access to college pathways, including people of color and people from low-income backgrounds. Moreover, requiring a degree as a condition of employment restricts the size of the labor pool, limiting employers' access to talent and resulting in workforces that aren't racially and ethnically diverse.

Our nation's dynamic economy requires a workforce made up of people who are prepared for today's jobs and have the ability to acquire new skills as needed to keep up with labor market demand. Workers of all backgrounds need lifelong access to flexible and affordable training and education options. Employers need access to broad pipelines of talent. Under the current model, both groups face challenges. For example, students from low-income backgrounds and Black, Latinx, and Indigenous students graduate at lower rates than members of other demographic groups, and they often incur a lot of debt whether they complete a degree or not. At the same time, employers have difficulty finding people with the skills they need, regardless of degree status.
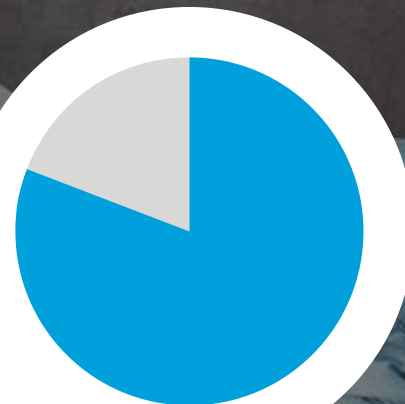
47% of Generation Z respondents to a Morning Consult survey reported that they had enough information to decide the best pathway for themselves after high school.

81% of employers polled told Morning Consult that they believe organizations should hire based on skills rather than degrees.

There are other secondary and postsecondary education to career pathways that offer learners access to rewarding careers and opportunities for economic advancement in a range of fields, including technology, health care, manufacturing, and clean energy. But too often, learners simply don't know about all of the options available to them, or they aren't aware of the factors they should consider in selecting a path that fits their goals and needs.

In research commissioned by American Student Assistance (ASA) and Jobs for the Future (JFF) and conducted in March 2022 by Morning Consult, only 47 percent of respondents who identified as members of Generation Z said they had enough information to decide what pathway was best for them after high school, according to the report in which the results are compiled— "Degrees of Risk: What Gen Z and Employers Think About Education-to-Career Pathways. . . and How Those Views are Changing." Likewise, employers said they lack clear signals about the talent pool—particularly a means of verifying that job candidates have the skills and expertise they seek. Moreover, 81 percent of employers polled told Morning Consult that they believe organizations should hire based on skills rather than degrees.

Learners and employers alike need greater awareness of the rich array of education to career pathways offering preparation for in-demand careers. And learners and workers in particular need more information, tools, and resources to help them assess their options and select the pathways that are right for them. They need assurances that these pathways, in the long term, will enable them to prepare for the future of work.

This JFF market scan examines the broad universe of possibilities: a multitude of pathways from education to careers that provide flexible, affordable, and ongoing short-term training and education programs that adapt to the ever-evolving needs of the labor market.

We found a dynamic landscape of innovative programs and providers that are both grounded in and upending established models, leveraging core building blocks of a learner's experience to develop unique, often hybridized approaches. The result is a constantly-evolving array of options that we believe will create unparalleled opportunities for learners and employers alike—especially as new models continue to emerge and be refined—to learn, grow, and realize the extraordinary potential ahead of them.
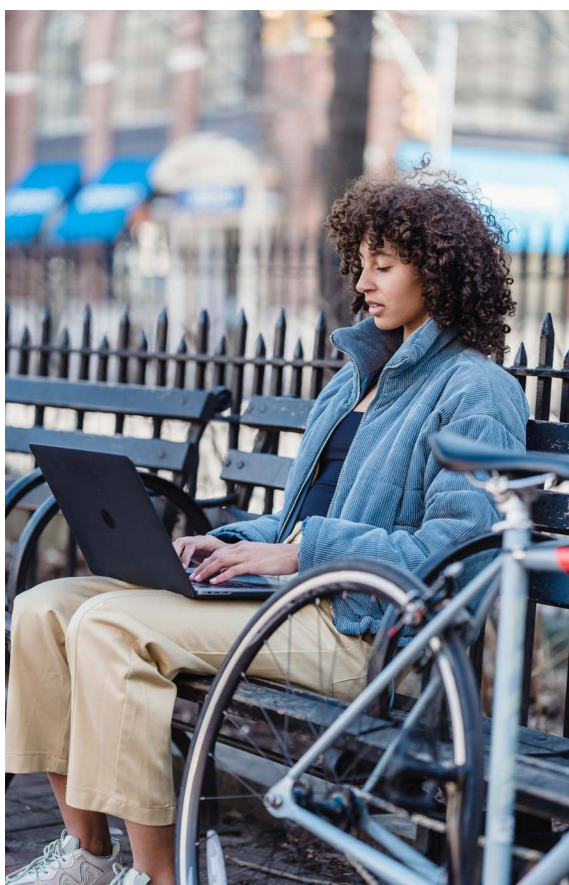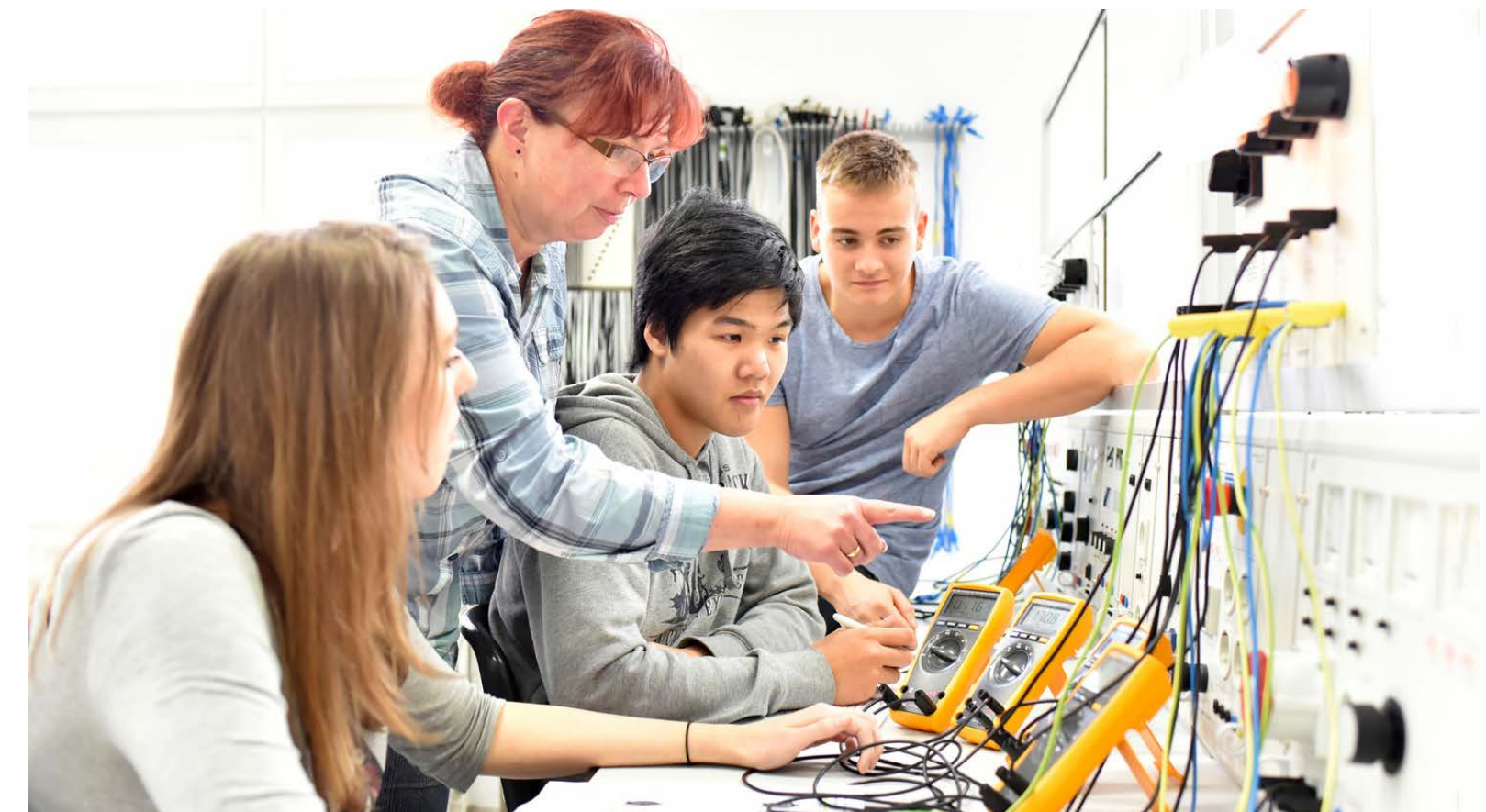
"**Research tells us that while employers and students have a favorable view of non-degree pathways, many agree that they need more information than they have today. At ASA and JFF, we believe that continued research into the efficacy of non-degree options is essential to ensuring that young people, parents, educators, and employers understand the value of these options. Better understanding and acceptance will lead to a more diverse postsecondary education landscape that can ensure greater success and better economic outcomes for all.**"

—Julie Lammers, Senior Vice President, Advocacy and Corporate Social Responsibility, ASA

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The Past and Present of Education to Career Pathways

The History of Education to Career Pathways

Training specifically designed to prepare learners for jobs and careers has helped build generations of America's middle class. Twentieth-century government policies expanded access to two- and four-year college degrees as well as other skill-focused credentials for millions of families.

As degree attainment increased, employers began to value the college degree as preferred evidence of knowledge and ability to learn—and of ambition, work ethic, resourcefulness, and other traits and skills valued in the workplace. This assessment was common despite the reality that college coursework alone hasn't been consistently effective in helping students develop all of the sought-after capabilities—and that many of these skills could also be acquired in other training pathways.

This misalignment led to degree inflation, as employers began to adopt across-the-board requirements that job candidates hold a bachelor's degree even when there was at least reasonable evidence that a degree wasn't required to perform the role well. This seemed to be especially true for desk jobs and particularly those that paid living wages—enough income to cover basic necessities such as food, housing, and health care.

In time, the bachelor's degree came to be seen as the prescribed ticket for financial stability and economic mobility. Meanwhile, the cost of tuition began a decades-long climb at or above the rate of inflation, putting college out of reach for millions of families. Learners from low-income backgrounds who take the financial leap often graduate with massive student loan debt, which can weaken the impact a degree can have on earning potential and increase racial economic disparities.

The Market Today: Learners

A typical four-year degree can deliver a range of earnings outcomes. College graduates currently borrow an average of about $30,000 to pay for their undergraduate educations. The return on that investment can be significant, but that isn't the case for everyone. According to a 2021 wanalysis of U.S. Census data by Georgetown University, about 16 percent of high school diploma holders and 28 percent of associate degree holders earn more than half of what workers with bachelor's degrees earn.

Four-year degree programs aren't accessible to everyone. Members of various demographic groups, including people of color, have faced—and in many cases still do face—barriers to access to college because of multiple factors, including discriminatory admissions policies and high costs.

And college degrees don't automatically create equitable on-ramps to opportunity. Women have outnumbered men on college campuses since 2003, but they still face significant wage gaps in the labor market and have lower median lifetime earnings than men at every level of education. The high cost of college impacts graduation rates for Black, Latinx, and Indigenous students. Degree attainment has failed to close long-standing economic gaps, such as the income gap and the wealth gap between white and Black workers, amplified by the fact that Black students generally carry larger educational debt burdens than their white counterparts.

Of course, a degree alone doesn't prevent discrimination or implicit bias against college graduates from populations that are underrepresented in well-paid careers that offer opportunities for economic advancement. The COVID-19 pandemic exacerbated these disparities.

People entering the workforce right after high school will avoid paying tuition and racking up $30,000 in student debt, but they still face challenges. High school graduates who get jobs immediately and, for example, work 30 hours a week, 50 weeks a year at the federal minimum wage of $7.25 per hour for the next four years can earn a total of about $43,500 before taxes during that time. And they could earn twice as much in places such as California, where local laws make it more likely that people will be paid higher starting wages. But entry-level jobs that pay living wages are drifting out of the reach of non-college graduates. And employment opportunities that require little or no training may offer limited potential for career and economic advancement.

The Market Today: Employers

Employers are beginning to expand their recruiting efforts beyond college graduates and forgo degree requirements for many jobs. A study of online job listings indicates that the longtime preference for college degrees over other training and development options may be waning. Analyzing millions of listings, researchers at Burning Glass Institute found that the share of job postings requiring four-year college degrees dropped from 51 percent in 2017 to 44 percent in 2021.

Apple, Google, and Bank of America have joined the growing list of high-profile employers who no longer require a bachelor's degree for jobs that require some post-high school training and skill development. Some companies, including IBM and Microsoft, have taken additional ownership of their workforce development needs by establishing apprenticeship opportunities. The descriptions of these programs indicate an appreciation for skills developed in tech boot camps or industry-related training courses in lieu of a college degree.

Technology advances faster with each generation, restructuring the global economy and increasing the pressure on traditional four-year degrees—and all education to career pathways—to keep pace with the labor market's evolving demand for new skills. Many of today's lucrative and in-demand professions, such as social media managers, user experience designers, machine learning analysts, and high-tech manufacturing technicians, didn't even exist when most millennials first entered college. As demands for new skills emerge, education and training providers will need to be able to develop new programs, adapt existing ones, and prepare job-ready talent with ever-increasing speed, flexibility, and responsiveness. Ultimately, our economy will need more agile approaches to training and development that move at the speed of business.
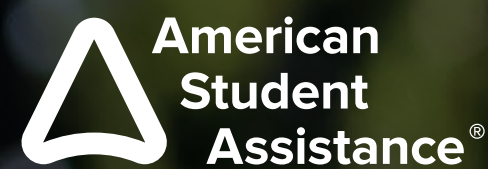
Understanding the Landscape of Education to Career Pathways

Defining Education to Career Pathways

To map the landscape of training and education options, with a focus on innovation, we gathered data on more than 400 education to career pathways across the country. While we were looking specifically for programs that didn't meet the description of a "typical" four-year degree, we did include some programs offered by four-year colleges and universities that combine work experience with training and (in some cases) opportunities to acquire a degree at an accelerated pace. We also didn't look for programs primarily designed to prepare learners for college unless those programs included a job training component.

In addition to our own research, we're grateful for the many nominations of innovative programs we received from the public in response to open calls we issued at SXSW EDU 2022 and at the 2022 ASU+GSV Summit.

We sought pathways that meet the following criteria:

Welcome learners 18-25 straight out of high school, or even still in high school—though many of the programs that we reviewed served learners of all ages.

Position learners for jobs that lead to economic advancement by offering a living wage and benefits paired with opportunities to move into more senior roles— whether in the same industry or an adjacent one.

Provide external direction in addition to verification of learner participation, progress, and evaluation, even if the learning experience might be self-paced. We steered away from self-guided pathways, such as exam certification courses limited to only self-study unless those programs included a job training component.

Offer successful learners a tangible credential (such as a certificate, a certification, a degree, or proof of eligibility to sit for licensure exams) that verifies completion and mastery of learning.

We recorded a number of attributes of each program that affect the learner experience, including financial requirements, time commitments and intensity (whether they're full time or part time, for example), format of the learning experience, the roles instructors play, credentials offered, wraparound supports provided, and program outcomes for learners.

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Our Key Insight: The Rise of Dynamism, Experimentation, and Hybridization

Our mapping of the landscape was informed by our prior knowledge of well-established approaches to training, such as apprenticeships, dual enrollment, and other long-standing career and technical education (CTE) programs, and what we've been learning about emerging models that incorporate features of these traditional programs—which we call "foundational models."

We used the initial phase of our research to develop a taxonomy to help us see the components of these programs through learners' eyes. It includes four "building blocks" of education to career pathways that play key roles in determining how programs aim to meet learners' needs. We used these building blocks, which we discuss in detail later, to draw distinctions among the newest and most innovative models we're seeing.

As we reviewed the data in search of emerging models, it became clear to us that the landscape of education to career pathways, while grounded in some clear-cut approaches like apprenticeships and coding boot camps, is **moving beyond foundational models toward a more hybridized approach.**

In this active landscape, program designers—such as private training providers, traditional educational institutions, and even employers—are using different combinations of pathway building blocks to create increasingly unique models. **We believe this atmosphere of experimentation creates ideal conditions for building innovative new education to career pathways.**

In the rest of this scan, we do the following to present a more detailed picture of this landscape and expand on insights that informed our understanding of what approaches work best:

▸ Outline foundational models to create standard definitions of commonly-used terms.

▸ Discuss the four "building blocks" of education to career pathways that we believe are emerging as key elements of the learner experience, whether as signals of program quality or as factors that may make a particular pathway a better bet for one learner versus another.

▸ Highlight organizations that we have identified as Innovators to Watch in the landscape and discuss important trends and opportunities for future investment and innovation.

Foundational Models

As we noted, our research revealed a number of established approaches to training that we're calling **foundational models of education to career pathways.**

These include apprenticeships, boot camps, career readiness programs, dual enrollment and early college, internships, licensure and professional certification programs, and online courses, including some that award certificates.

The following pages offer closer looks at these models, along with graphics listing organizations associated with each.

APPRENTICESHIPS
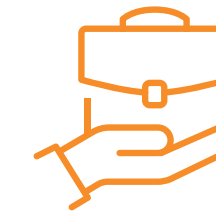
CAREER READINESS

LICENSURE AND PROFESSIONAL CERTIFICATION

PRE-APPRENTICESHIPS

DUAL ENROLLMENT AND EARLY COLLEGE

ONLINE COURSES AND CERTIFICATE PROGRAMS

BOOT CAMPS

INTERNSHIPS

Apprenticeships

Apprenticeships combine paid on-the-job learning and formal classroom or online instruction to help workers master the knowledge, skills, and competencies needed for career success. These generally vary in duration, quality, and program requirements and require no approval by state or federal agencies. However, those that are officially designated as Registered Apprenticeships (RA) by the U.S. Department of Labor's Office of Apprenticeship or federally-recognized state apprenticeship agencies are considered among the highest quality apprenticeships in the United States.

Lasting from one to six years, Registered Apprenticeships include basic elements that are common to all apprenticeships but must also meet additional quality requirements.
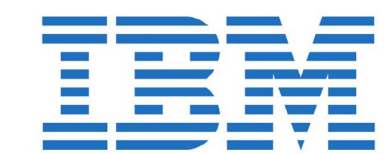
Pre-Apprenticeships

Pre-apprenticeship programs, which are related to apprenticeship but are separate forms of work-based learning, are designed to prepare participants to enter and succeed in Registered Apprenticeships or other high-quality apprenticeship programs.

The fact that participation in RA programs remained strong even at the height of the COVID-19 pandemic in 2020 demonstrates that apprenticeship pathways will play a crucial role in shaping the workforce of the future.

Through our Center for Apprenticeship & Work-Based Learning, JFF is playing a lead role in expanding apprenticeship and work-based learning to new industries and professions.

Boot Camps

Boot camps offer short-term, intensive, and typically hands-on training, especially in information technology disciplines such as software development and data science. According to a report from Career Karma, 44,254 students graduated from or attended a boot camp in 2020, a 30.32 percent increase since 2019. While some boot camps require—or state a preference for—college degrees, many do not and typically welcome learners who are at least 18.

These programs tend to be classroom-based (online or in-person), but some can be categorized as hybrids that combine work-based learning and classroom instruction. While there are a few boot camps that are open to learners at no charge, tuition and other attendance fees can be more than $17,000 for most of these programs—but that's still below the average cost of a four-year degree from a public college or university.

Career Readiness

Career readiness programs help learners build foundational skills such as communication, critical thinking, problem-solving, and time and stress management capabilities, as well as emotional intelligence and, in some cases, financial literacy. Typically not tailored to particular industries, these programs are sometimes geared toward learners who face specific challenges in the job market, such as a disability or a past incarceration. Ultimately, career readiness pathways can equip learners with skills to navigate workplace environments and develop habits and skills that they can use throughout their careers.
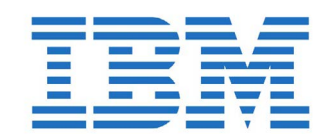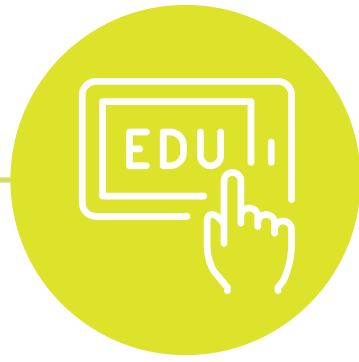
Dual Enrollment and Early College

Dual enrollment and early college programs offer participants college credit and the chance to enter the job market earlier than they would if they pursued the traditional journey from high school graduation to college. Dual enrollment programs, typically restricted to high school juniors and seniors, offer students a chance to enroll in a college course and receive academic credit from both the college and the high school. The early college model, which can start as early as the freshman year of high school, combines high school and college studies into a specially designed curriculum that simultaneously culminates in a high school diploma and a certificate, perhaps an associate degree, from the college.

Since 2001, JFF has worked with numerous partner organizations nationally to design and support the expansion of these approaches, including through the College in High School Alliance and the Early College High School Initiative.
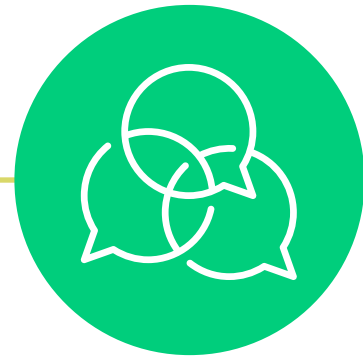
Internships

Internships are a form of work-based learning, often tied to a secondary or postsecondary program of study, in which participants work for an employer under the guidance of a supervisor for a limited period.

Typically lasting three to six months, internships can be paid or unpaid and give participants opportunities to learn about careers in specific industries, gain applied experience, build employability skills and technical skills, and make connections in fields that interest them.

Licensure and Professional Certification Programs

Licensure and professional certification programs are designed to prepare students to meet the requirements for industry certification or licensure in a specific occupation. In some cases, completing the required coursework confers certification; in others, an additional step, such as passing a government or industry exam, might be required.

Online Courses and Certificate Programs

Online courses and certificate programs typically feature self-paced, coursework-based training in specific skills or subjects that sometimes leads to, or prepares workers for, credentials. These programs may be offered as just one standalone course or as a series of increasingly advanced modules that enable learners to show greater depths of knowledge with each one they complete.

Some online courses are offered by well-known and accredited institutions, such as MIT, or employers, such as Google. Branded courses like these are typically accessed through an intermediary platform, such as edX, Coursera, or Udacity. Another popular option, massive open online courses (MOOC), are often free and open to anyone, but many do not offer a credential upon completion.
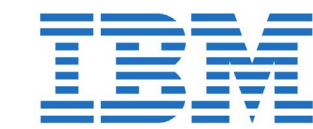
Dynamism in the Four-Year Model

The four-year college experience itself has been incorporated into a wealth of new career pathways models in recent years. Emerging networks of institutions innovating along similar lines are embracing the "college" brand to signal that they offer rigorous, comprehensive programs that leave participants well prepared to move into careers.

Work colleges, such as Paul Quinn College in Dallas, combine a four-year degree with a "requirement that all resident students participate in a comprehensive work-learning-service program for all four years of enrollment."

Hybrid colleges such as Rivet School or PelotonU are nonprofits that offer self-paced online learning, comprehensive one-on-one coaching, lower tuition than traditional colleges, and employer connections.

Four Building Blocks: Structure, Affordability, Earning Timeline, and Career Positioning

It's no longer enough to get an education or develop technical expertise and soft skills. Jobseekers also need to know how to navigate the world of work, which requires a distinct and crucial set of skills.

Career navigation—the process by which people discover their interests and find and secure jobs—is essential to ensuring that workers and learners are able to take full advantage of training pathways and career opportunities.

As they navigate their career and education and training options, people need access to streamlined, personalized pictures of their advancement opportunities, and they need to understand how their current skills are valued in the marketplace and what skills they'll need to learn to qualify for new opportunities. They also need access to mentors and broad networks of personal and professional contacts who can help them build professional social capital. And they need to be positioned to mobilize these multidimensional resources to make informed career choices.

JFF is committed to ensuring that all young people have opportunities to engage in career navigation. In 2014, we helped develop an interactive web and mobile application called MyBestBets that young people from low-income backgrounds who face barriers to education and career advancement can use to make informed decisions about the postsecondary pathways that are the "best bet" for them.

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Choosing an education to career pathway is a critical early step in career navigation. Learners assess many factors in deciding which pathway is right for them. We believe a useful tool for evaluating program designs is a taxonomy featuring four building blocks of program design: structure, affordability, earning timeline, and career positioning. The following questions reflect issues that learners and workers may consider for each building block:

1

What, how, and when will I learn?

2

How will I afford training?

3

When will I start working and earning in my field?

4

How might this program position me for career success?
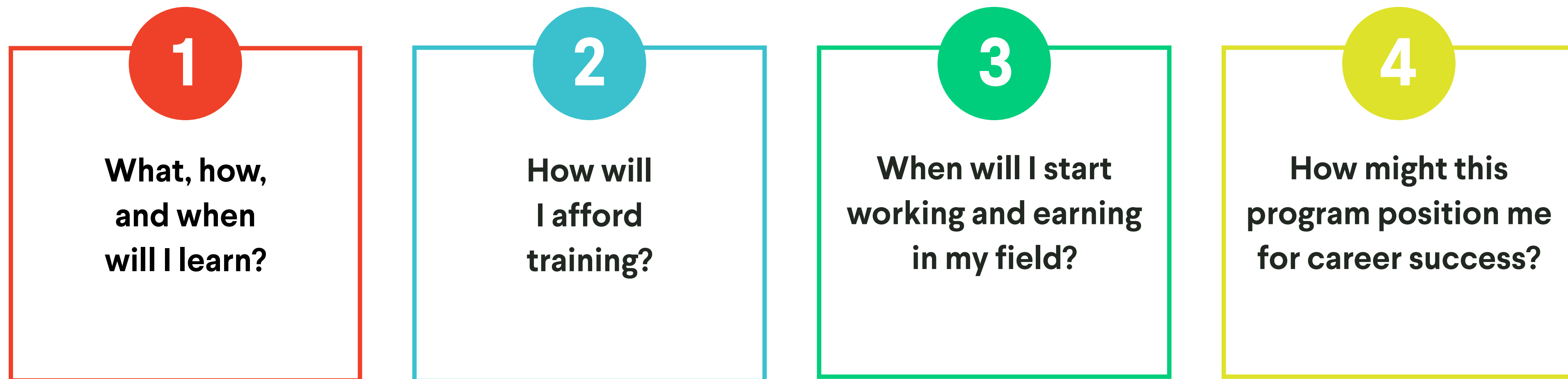
We dive into each of those questions in the following sections.

1

What, How, and Where Will I Learn?

The subject matter that programs focus on is likely the most essential factor that learners and workers will take into consideration when evaluating their options for training and education and careers, but how and where they will engage with the training are also important considerations.

What: Some pathways emphasize what may be called soft skills or human skills; some offer training in specific technical skills (at either introductory levels or at more advanced levels, sometimes as preparation to enter particular occupations or careers); and others help participants develop career readiness skills. And some address more than one of those areas and allow learners to focus closely on what they feel they need most.

How: Content is typically delivered through coursework (readings, in-person or online instruction, or written assignments), projects, or work-based learning experiences (which involve the completion of meaningful tasks in workplace settings). Some programs draw on competency-based education (CBE), an approach that allows students to learn at their own pace and advance within their courses as they demonstrate mastery of the skills they've been studying.

Learning and instructional models vary, and there's no single approach that works for every learner. Therefore, individuals benefit if they have the opportunity to choose the option that's right for them. For example, programs that offer on-the-job experience may appeal to learners who want to develop institutional knowledge, sharpen interpersonal workplace skills, and make meaningful career connections.

Support services that programs offer to help put learners in the best position to succeed in their training can also play a big role in how participants engage with these programs. These include mentorship, coaching, peer connections, and more.

Where: In-person training programs are still dominant in the landscape; however, the COVID-19 pandemic accelerated the development and adoption of online and hybrid models.

2 When Will I Start Working and Earning in My Field?

The amount of time they'll have to wait before they start earning a paycheck is, of course, a significant factor in any learner's decision about what education to career pathway to choose. Timelines vary from program to program depending on the length of the training courses themselves and how quickly programs connect learners with employers. Moreover, some pathways involve multiple stages, with successful completion of initial training providing access to more advanced training or to certification or licensure exams.

Program duration: Pathways range from a few weeks to two years or more.

Connections to employers and jobs: Some programs (apprenticeships, for example) place learners with employers from the moment they start training. Others (including programs provided by specific employers) offer participants jobs as soon as they complete their training. And some leave participants responsible for finding their own jobs but do offer job placement assistance.

3 How Will I Afford It?

In addition to the amount of time it takes to start earning money, another important financial consideration for many people is whether they'll be able to afford a particular type of program. For learners, the affordability equation includes the cost of the program—tuition and fees plus other costs of attendance—and the types of financing options available to help them cover those costs.

Program costs: Some programs are offered at no cost. For others, tuition and fees can run as high as the cost of a semester at a four-year college. Meanwhile, apprenticeships and other earn-and-learn programs pay students wages while they participate in training.

In addition to the price of books and materials, costs of attendance can include room and board, dependent care, and transportation. Some pathways, including certain boot camps and apprenticeships, don't charge for wraparound supports that learners might otherwise have to pay for. Examples include mental health and financial counseling, daycare services, and subsidies for transportation, housing, and other costs of living.

Financing options: Some programs are eligible for financial aid, such as government grants and loans or private educational loans. Career readiness programs may be subsidized by government programs or organizations representing specific sectors of the economy. As the education and training market evolves, a number of innovative financing options, such as income share agreements (ISA), have begun to emerge to fill the gaps that traditional financial aid and student loan programs can't cover; however, these options are all relatively new and therefore don't have established track records and could be vulnerable to fraud and abuse.

4

How Might This Program Position Me for Career Success?

The purpose of education to career pathways is to prepare learners for jobs and ultimately careers—ideally careers that offer opportunities for economic advancement. There are a number of design elements and other features that learners should look for when assessing pathways to determine how well programs will prepare them for employment and position them for career success. Four especially important criteria to consider are whether programs offer college credits or lead to industry-recognized credentials, whether the credentials they offer are "stackable," and whether programs feature some degree of employer engagement.

It's critical that learners understand how these factors can influence their learning and career trajectories, and that they're aware of the potential trade-offs involved when it comes to comparing the value of various aspects of programs. But they can't do it alone: It's essential that pathway providers share as much information, with the appropriate context, as possible to help students navigate their choices.

Here's a look at each of those criteria in more detail.

Industry-recognized credentials: Employers look for certain credentials (often listing them among the requirements in job postings) as evidence that job candidates have the in-demand skills necessary to perform the job roles that employers need to fill. In some cases, credentials are required, perhaps as a condition for licensure, as is the case for many health care roles. In others, credentials may simply be strongly preferred, as they are for many technology jobs, or maybe even just seen as a "nice to have." Some leading tech companies, including Google, Cisco, Amazon Web Services, Microsoft, and Meta, offer, or are preparing to offer, credentialing programs. Learners and employers alike may see these credentials as especially attractive because they carry the "halo" of a well-known brand, which can raise job candidate profiles throughout the labor market.

4

Stackability: Many pathways include short-term training programs that lead to credentials with clear labor market value, and it's often possible for workers and learners to augment that training by completing additional courses and then "stacking" increasingly advanced credentials on top of the earlier ones. The additional training and credentials can open doors to new careers that offer more opportunities for economic advancement. Nursing offers a good example of how stackable credentials work: People who earn an initial nursing credential, such as a licensed practical nurse (LPN) certificate, can later qualify for a registered nursing (RN) program or even a college degree that offers advanced credit for their prior training experience.

Employer engagement: Many programs engage with employers in ways that can benefit workers and learners. They may work with employers to create job opportunities for participants, and in some cases the employers may hire people directly from the program. Employers may also play integral roles in designing and implementing programs. We strongly recommend that learners investigate whether employers are involved in programs that interest them. They should check program websites to see if employer partners are listed, and they should ask program staff whether employers helped shape the curriculum and whether employer partners hired graduates from the most recent cohorts of learners.

College credit: Employers may see college credits earned outside the boundaries of a traditional four-year degree program as signals that workers and learners have advanced skills. Such credits can also put the individuals who hold them ahead of the game should they one day decide to pursue a degree.
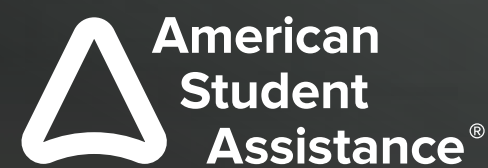
Innovators to Watch

Companies Poised for Scaled Impact

Here are some key characteristics of our Innovators to Watch:
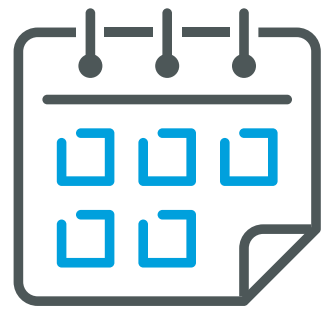
The majority of our Innovators to Watch were founded within the past 10 years, and half were founded in the past five years.

They're located across the country and overseas—in Austin, Baton Rouge, Birmingham, Boston, New York, Missouri, Oakland, Salt Lake City, and London.
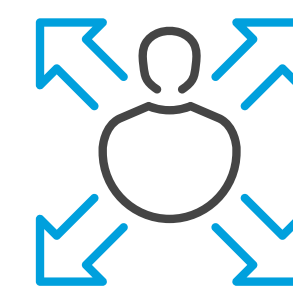
They provide career pathways across a range of industries, including IT, health care, construction, hospitality, green energy, and transportation and logistics.

Nearly all of their programs are completely free for learners; all offer no-cost pathways, tuition assistance or other forms of financial aid, or innovative financing options.

All of our Innovators serve populations of learners that are made up primarily of people who are from low-income backgrounds or communities that have been underserved by traditional pathways systems. They have implemented strategies to support the success of these learners, most of whom are members of demographic groups that are underrepresented in sectors of the economy that offer well-paid jobs and opportunities for economic advancement, including women of all backgrounds and Black, Indigenous, and Latinx individuals.

Most of these organizations are prioritizing these populations, and many have specific eligibility criteria to ensure equitable access. For instance, nine have built pathways that are intentionally designed to address systemic inequities and eliminate common barriers to access and three have made their pathways available only to individuals who earn below certain income thresholds.

Each innovator has integrated a blend of elements of the foundational models of education to career pathways, including competency-based education and apprenticeships, internships, and other forms of work-based learning.

Their pathways range in length from 12 weeks to six years, but most of them can be completed in one year or less. Eight innovators offer pathways that require full-time commitments from learners; six offer part-time pathways.

buildUP
for Urban Prosperity

buildup.work
Founded in 2018
Birmingham, Alabama

OVERVIEW

Learners Served: High school students

High School Diploma/GED Required: No

Industry Focus: Construction

Credentials and Credits: High school diploma, GED, associate degree, industry licenses

Format: Coursework, work-based learning, including Registered Apprenticeship

Program Length: Six years (full time)

MEASURES OF IMPACT

$100,000+
in student-earned wages and education stipends

24+
First-time homeownership opportunities created for over two dozen families

40+
postsecondary and employer partners that provide internships, apprenticeships, and postsecondary and on-the-job training

SEGMENTS

Apprenticeships

Career readiness

Licensure and professional certification

Program Overview

Build UP is a community-based high school that offers an early-college career pathway prioritizing engagement of individuals from populations that are underrepresented in well-paid careers, providing the skill development, education, and credentials necessary to support their journeys toward becoming professionals and civic leaders, and offering the opportunity to become homeowners and landlords.

Learning Method

Learners complete paid apprenticeships, with extensive wraparound support, including mental health services. Learners are exposed to the field of construction through job shadowing and work on project sites with staff, beginning apprenticeships during their junior and senior years. Learners receive credit through dual enrollment coursework at local community colleges, earning a high school diploma/GED and an associate degree or industry-recognized credential. Many employer partners pay for their apprentices' education and training certifications.

Support Provided

Learners meet weekly with a "success coach" to support them in their academic- and career-related progress. Build UP also partners with local nonprofit organizations and postsecondary educational institutions, ensuring that students have the support and instruction needed to overcome challenges.

After students complete the program, they identify their "Path to the Middle Class," a career pathway that can lead to a job paying a family-sustaining wage and middle-class standing. Three potential paths are obtaining a job that requires previous experience, continuing their education to a bachelor's degree, or starting their own business.

Looking Ahead

Build UP is creating a new program called Tune UP, which is focused on rebuilding and repairing cars. Students will graduate with an Automotive Service Excellence certification and go on to work as auto technicians or in advanced manufacturing positions at automotive assembly plants.

Highlighting Build UP as a Model for Innovation

Build UP is not only helping young adults create career pathways, but also investing in communities through long-term revitalization. Learners become homeowners, with many building equity and wealth as landlords. Build UP's learning plan focuses on developing financial literacy, self-advocacy skills, and public speaking abilities. Build UP also partners with local banks that help educate students about retirement planning, saving, and investments.

codefi

codefiworks.com
Founded in 2014
Cape Girardeau, Missouri

OVERVIEW

Learners Served: High school students and young adults (18+)
High School Diploma/GED Required: No
Industry Focus: IT/tech
Credentials and Credits: No credentials, but provides technical skills development
Format: Coursework, project-based learning, work-based learning
Program Length: One year (part time)

MEASURES OF IMPACT

300+
program graduates and a cohort graduation rate of about 88% in 2022

SEGMENTS

Career readiness

Online courses and certificate programs

Program Overview

Codefi focuses on developing, expanding, and sustaining an innovation economy in rural regions by preparing learners for digital careers, investing in companies, and hosting space for collaboration. It provides a software development pathway in full stack web development for young adults across southern Missouri and western Kentucky.

Learning Method

All courses are taught by active, professional software developers, known as "code coaches," who are Codefi alumni or past participants in similar programs. Code coaches guide learners through six months of instruction and technical projects that are focused on front-end development, followed by six months of back-end web development. Codefi partners with employers who sponsor and lead four-week capstone projects that meet real-world employer needs. Learners become contractors for the employers, providing the opportunity for them to work directly with senior-level professionals in the industry.

Support Provided

Codefi has established a community of software developers in rural regions by sponsoring meetings, developer network groups, and co-working spaces for alumni and practitioners to collaborate with other developers. Codefi works with community-based partners to provide additional support, including laptop assistance, financial literacy, and other services that address common needs.

Looking Ahead

Codefi has expanded throughout Missouri, announcing the Southern Missouri Innovation Network in 47 primarily rural counties, and is launching in local high schools through the Crowder College Digital Pathways in the Rural Heartland initiative. Codefi plans to provide in-person training at two high schools in the region and to expand to more schools the following year.

Highlighting Codefi as a Model for Innovation

A challenge facing rural communities is the imbalance between the demand for and supply of software development jobs, causing people to move elsewhere to pursue IT careers. Codefi is helping solve this problem by providing resources to strengthen rural economies and increase the number of software development companies and IT jobs in rural areas by investing in startup boot camps and accelerators.

DIGITAL READY

digitalready.org
Founded in 2020
Boston, Massachusetts

OVERVIEW

Learners Served: High school students and young adults (18+)

High School Diploma/GED Required: No

Industry Focus: STEM (architecture and construction technology, engineering, technology, and computer science)

Credentials and Credits: Google, Microsoft, and Autodesk certificates and up to 18 college credits

Format: Coursework, project-based learning, work-based learning
Program Length: One year (full time)

MEASURES OF IMPACT

90%
of students take an on-ramp to college and/or a career connected to their purpose and passion.

9 out of 10
Digital Ready has a net promoter score of a 9 on a 10-point scale on how likely students are to recommend the program to a friend.

SEGMENTS

Career readiness

Dual enrollment and early college

Program Overview

Digital Ready's Year 13 is an early-college accelerated pathway for recent Black and Latinx high school graduates interested in design and technology. Its goal is to prepare participants to successfully enter high-wage careers in the innovation economy, in fields including architecture and construction, engineering, technology, and computer science.

Learning Method

Learners participate in a collaborative design studio, building technical expertise by solving real-world problems. Digital Ready works closely with employer partners, who teach and mentor the learners, enabling learners to develop relationships with industry leaders. After completing courses, learners directly engage in work-based learning, entering apprenticeships that last more than 350 hours. They can earn industry-recognized Google, Microsoft, or Autodesk certificates and up to 18 college credits that can be applied toward a bachelor's degree, making college more accessible and affordable.

Support Provided

Learners receive support through coaching sessions, labs, public speaking courses, and nudging text messages guiding them in their pathway to employment. Digital Ready has more than 100 different on-ramp partners, including boot camps and employers, that provide unique career pathways to employment for each learner. Learners also meet with career success coaches, who ensure that they are setting and achieving goals during their apprenticeships and on-ramps.

Looking Ahead

In the fall of 2022, Digital Ready will open its first full school—a facility in Revere, Massachusetts, serving 120 students. It plans to open additional schools in the future. Funded by local municipalities, these schools will offer students direct instruction and work-based learning experiences in placements with local employers.

Highlighting Digital Ready as a Model for Innovation

Digital Ready offers learners direct career exposure, providing an opportunity to learn about the areas they are passionate about and are thinking of pursuing as career pathways. Digital Ready engages employers in a strong partnership model, through which employers teach participants technical skills while providing the extensive wraparound supports learners may need to be successful.

sites.google.com/ebrschools.org/ebrctec/home
Founded in 2018
Baton Rouge, Louisiana

OVERVIEW

Learners Served: High School students
High School Diploma/GED Required: No
Industry Focus: Manufacturing, construction, IT/tech, health care
Credentials and Credits: Industry-based credentials, including CompTIA A+, ASE Master Automobile Technician, OSHA 10, and NCCER Electrical levels I and II
Format: Coursework, work-based learning
Program Length: One to two years (full time, but part of high school)

MEASURES OF IMPACT:

500+
learners have enrolled in the program since 2018.

350+
Learners have earned more than 350 credentials since 2018.

SEGMENTS

Online courses and certificate programs

Internships

Program Overview

The EBR Career and Technical Education Center (EBR CTEC) offers a work-based learning pathway through hands-on training delivered by skilled industry professional instructors in the fields of manufacturing, tech, construction, and health care. All programs offer industry-based credentials and some also offer dual enrollment.

Learning Method

Learners spend two days a week completing career-focused coursework at EBR CTEC during their junior and senior years, and all learners graduate with a GED and an industry-based certification or dual enrollment at a local community college. Students complete at least one industry-based credential before their first summer internship, between their junior and senior years, to ensure that they have industry knowledge before the internship begins.

Support Provided

EBR CTEC provides transportation to local employer sites, removing an obstacle that sometimes prevents students from engaging in work-based learning; it also provides career navigation services, including resume writing and interview preparation advice.

Looking Ahead

EBR CTEC continues to expand efforts to increase career awareness and exposure to all students in the region it serves. It is developing a summer training program for K-12 teachers in the Capital Region of Louisiana to familiarize them with career pathways in different industries EBR CTEC offers and to teach them how to educate their students about specific industries. This training will help teachers educate their students about career pathways that EBR CTEC supports.

Highlighting EBR CTEC as a Model for Innovation

EBR CTEC provides early career exploration to students in its region by incorporating work-based learning into the K-12 curriculum, which increases students' confidence in selecting a specific career pathway when they begin at EBR CTEC. All instructors have years of experience in their fields and can include customized interview preparation and core soft skill development relevant to their specific industries in their course curricula.

GRID ALTERNATIVES

gridalternatives.org

Founded in 2001
Oakland, California

OVERVIEW

Learners Served: High school students and young adults (18+)

High School Diploma/GED Required: No
Industry Focus: Solar/green energy
Credentials and Credits: Installation Basics Training
Format: Coursework, work-based learning
Program Length: Varies by program (part time and full time)

MEASURES OF IMPACT

99%
of SolarCorps fellows' GRID experience helped them get their next job.

32,000+
people have received hands-on training experience (includes volunteers, students, and job trainees).

300+
GRID has 300+ job training partners (including schools, colleges, vocational programs, and CBOs).

300,000+
Learners have spent 300,000+ hours on solar installations with a focus on job training.

SEGMENTS

Career readiness

Licensure and professional certification

Program Overview

GRID Alternatives' workforce development programs provide pathways that prepare individuals for careers in solar energy by providing hands-on installation instruction and field experiences.

Learning Method

Learners are engaged in interactive, hands-on labs, working on real-world solar programs designed by instructor experts who are industry professionals. They are given the opportunity to engage in work-based learning through an 11-month paid SolarCorps Fellowship Program, placing fellows in positions focused on construction, client outreach, and volunteer engagement within a local community organization.

Support Provided

GRID Alternatives provides resume writing assistance and other career-readiness supports to help learners secure full-time jobs. It offers guidance during work-based learning that helps learners develop the soft skills they need to be successful. All alumni participants receive networking opportunities and job referrals to full-time positions in the industry during and after the program.

Looking Ahead

Demand for green energy jobs, especially solar installation, continues to grow, and GRID Alternatives plans to continue to expand its free training programs to offer more individuals opportunities to gain the skills required for entry-level solar installation jobs.

Highlighting GRID Alternatives as a Model for Innovation

GRID Alternatives provides early career exposure to high school students through its Solar Futures program, giving them opportunities to learn about career pathways in the solar industry. It also offers a 200-hour (five-week) solar-installation training program, placing individuals in roles within the renewable energy industry in less than two months. It prioritizes making job opportunities accessible to members of populations that are underrepresented in solar industry careers, including people of color, women of all backgrounds, and formerly incarcerated individuals.

Women currently represent only one-quarter of the solar industry workforce. The GRID Alternatives Women in Solar program provides women with leadership and training opportunities to prepare them for careers in the field.

THE KNOWLEDGE HOUSE

theknowledgehouse.org
Founded in 2014
The Bronx, New York

OVERVIEW

Learners Served: youth 16-21 and adults 18+

High School Diploma/GED Required: Yes

Industry Focus: IT/tech

Credentials and Credits: Amazon Web Services Cloud Practitioner, Google certifications, Cisco certifications, and up to six college credits

Format: Coursework, work-based learning

Program Length: One year (part time)

MEASURES OF IMPACT

75%
of graduates land their first technology role after attending the Knowledge House.

50%
land a full-time role, with an average salary of $80,000, within 12 months.

1,900+
Has served over 1,900 non-white aspiring technologists.

SEGMENTS

Career readiness

Licensure and professional certification

Internships

Program Overview

The Knowledge House offers pathways in coding and design for young adults. Fellowships engage learners in project-based learning, including three-month paid internships, and prepare high school learners for STEM careers, providing college access support, internship placement, and coaching. Learners gain foundational technical skills—including coding and user interface design—and college credit. Learning tracks in the fellowships include data science, web development and design, cybersecurity, user interface design, and user experience design.

Learning Method

Learners engage in nine months of technology training, spending 16 hours a week receiving skills instruction, tutoring, and mock interview prep. They also attend guest lectures from industry professionals. They gain professional experience, working in teams to complete paid client projects. Learners are then placed in three-month paid internships with employer partners, engaging in work-based learning for a minimum of 20 hours per week.

Support Provided

Fellows receive coaching and mentorship from industry experts to track progress, set goals, and address challenges. Learners receive stipends and computers, and they complete summer pre-work to develop a foundation in business and technology.

Looking Ahead

Since 2014, the Knowledge House has helped more than 1,800 young adults from low-income backgrounds achieve economic advancement opportunities. Of those, 75 percent have obtained a full-time job. In 2021, the Knowledge House expanded programming to Atlanta, Los Angeles, and Newark, New Jersey, and doubled the size of its fellowship.

Highlighting the Knowledge House as a Model for Innovation

The Knowledge House has designed its model to provide learners with more time to develop the skills needed to be successful. The Knowledge House also provides personalized support through onboarding and multiple levels of coaching. Learners complete weekly self-guided modules and self-assessment questions to develop a performance plan for the year. This clarifies goals that learners can focus on with support from instructors, coaches, and mentors. Learners benefit from mentorship from industry professionals, who receive monthly reports on the learners' progress to identify potential challenges or barriers to completion, enabling real-time support.

multiverse

multiverse.io
Founded in 2016
London, England

OVERVIEW

Learners Served: Young adults (18–26)
High School Diploma/GED Required: Yes
Industry Focus: IT/tech, business
Credentials and Credits: Registered Apprenticeship certificate of completion
Format: Coursework, work-based learning
Program Length: One year (full time)

MEASURES OF IMPACT

68%
of all Multiverse apprentices are promoted by the end of their programs, and over 90% remain with their employers post-apprenticeship.

60%
of Multiverse partners have expanded within six months of launching an apprenticeship program.

SEGMENTS

Apprenticeships

Career readiness

Licensure and professional certification

Program Overview

Multiverse offers an apprenticeship pathway program focusing on "skills of the future," including digital marketing, data science, and software engineering. Learners are employed with companies, earning a salary with benefits and developing skills through direct career experience.

Learning Method

Learners spend 20 percent of their time engaged in workshops, boot camps, and modules that relate to the apprentice's role, learning skills that can be applied and practiced daily. Multiverse works with employers in designing the program, to ensure success for apprentices.

Support Provided

Multiverse offers extensive networking and coaching support, with clear pathways to credentials. Learners have one-on-one coaching sessions with industry professionals, who provide regular progress reviews. After the apprenticeship ends, 90 percent of apprentices are hired by those employers.

Looking Ahead

Founded in the United Kingdom, Multiverse expanded to the United States in 2021 and currently has 300 U.S.-based apprentices among its network of 5,000 alumni apprentices. Of the professional apprentices that Multiverse places globally, 56 percent are people of color, more than half are women, and 34 percent come from communities that are underserved by public and private institutions.

Highlighting Mutiverse as a Model for Innovation

Multiverse supports career growth and skill development, directly aligned with employer demand by creating an on-ramp to train, place, and support young adult learners, allowing them to earn an income while helping employers address recruiting and retention challenges. It has developed strategic partnerships for learner recruitment with tech-focused organizations such as Girls Who Code, Per Scholas, and Generation USA to reach young people from groups underrepresented within the tech industry.

Multiverse provides wraparound supports through coaches who meet quarterly with managers and apprentices to assess progress in skills development and job performance, creating a more cohesive learning experience.

Multiverse has a unique financial model that helps support the sustainability and scalability of the program at no cost to learners. Employers pay a flat fee to Multiverse per apprentice for recruitment, training, and the wraparound supports it provides.

npower

npower.org

Founded in 2002

Brooklyn, New York

OVERVIEW

Learners Served: Young adults (18–26)

High School Diploma/GED Required: Yes

Industry Focus: IT

Credentials and Credits: CompTIA A+ & CompTIA IT Fundamentals, Google IT Support Professional, IT Generalist Apprenticeship credential, CompTIA Security+, cybersecurity support technician, AWS Cloud Practitioner, AWS Solutions Architect

Format: Coursework, project-based learning, work-based learning

Program Length: 23 weeks (part time)

MEASURES OF IMPACT

81%
of NPower students are placed in career-track jobs or continue their education.

421%
Graduates average 421% in salary increases nationwide.

80%
of students who enroll in the program graduate.

76%
of students are Black or LatinX.

31%
of students are female.

SEGMENTS

Apprenticeships

Career readiness

Licensure and professional certification

Program Overview

NPower provides mentoring, internships, and registered apprenticeships that help young adults and veterans launch careers in cybersecurity, cloud computing, and IT support.

Learning Method

The NPower Tech Fundamentals training program provides 16 weeks of virtual training, followed by a seven-week paid internship or project-based learning experience. Learners spend four hours each day completing courses taught by certified technical instructors (trained by NPower in a "trauma informed care" curriculum with a focus on racial equity and inclusion). Learners in California, New Jersey, and Texas can then participate in a 30-week IT Generalist Apprenticeship program by working at one of NPower's employer partners to receive a Registered Apprentice credential.

Support Provided

Learners receive mentoring from senior-level IT professionals, social services, and personal development support. They also participate in career readiness workshops. Placement specialists work with employers and fellows to find the best match based on interests. NPower assists learners with financial support and partners with local nonprofit organizations and government agencies that provide wraparound services. Opportunities to earn additional certifications—including CompTIA Security+, a cybersecurity support technician credential, AWS Cloud Practitioner, and AWS Solutions Architect—are offered to alumni to help them advance from entry-level to midtier jobs.

Looking Ahead

NPower has more than 6,500 alumni across the country and is continually updating its curriculum to ensure that participants learn the skills that are in demand in the labor market. It has placed more than 80 percent of its graduates in full-time jobs. NPower continues to design additional apprenticeship programs and develop new innovative strategies to support learners.

Highlighting NPower as a Model for Innovation

NPower offers learners continued support after completion, with opportunities to earn additional credentials from leading tech companies, enabling them to acquire the up-to-date skills they need for career advancement and higher-wage IT jobs. NPower is committed to increasing economic opportunity for women of color, who currently represent just 5 percent of the tech workforce. In 2019, NPower launched the 40 by 22 initiative, which aims to address the barriers women confront in the IT industry by increasing the share of young women enrolled in NPower programs to 40 percent by 2022.

PelotonU

pelotonu.org
Founded in 2012
Austin, Texas

OVERVIEW

Learners Served: Young adults (18+)
High School Diploma/GED Required: Yes
Industry Focus: Business, tech/IT
Credentials and Credits: Certificates, associate degrees, and bachelor's degrees
Format: Coursework
Program Length: 12 to 60 months (part time)

MEASURES OF IMPACT

63%
of students persist, compared to 8% for part-time community college students in Texas.

1.3
The average associate degree earner graduates in 1.3 years.

$21,372
Within six months of graduation, those who earn PelotonU bachelor's degrees see an average increase to their wages of $21,372.

SEGMENT

Online courses and certificate programs

Program Overview

PelotonU is focused on degree completion for college students who have families to support or full-time jobs. Students are matched with self-paced and competency-based associate and bachelor's degree programs in technology or business, primarily through Southern New Hampshire University and Western Governors University. PelotonU provides weekly relational coaching and robust support to ensure that students have the opportunity to earn a degree in 12 to 36 months.

Learning Method

PelotonU provides a free, six-week academic onboarding to help students navigate financial aid, credit transfers, and enrollment. Learners then complete courses asynchronously at their own pace, spending 10 to 15 hours per week engaged in coursework.

Support Provided

PelotonU works with learners to understand their working styles and identify a "college completion coach" aligned with their needs. Through a personalized approach, the coaches guide learners as they tackle common barriers to completion and connect them with community-based resources that can address their needs, including child care. PelotonU's coaching focuses on prioritizing emotional needs, followed by academic assistance. As learners approach college graduation, coaches help them with networking, job searches, and recommendations based on their needs.

Looking Ahead

PelotonU intends to expand its career support services by partnering with a last-mile support provider or hiring a full-time specialist to support learners in their job search process. It is prioritizing employer partnerships to increase career connection and employment opportunities for learners.

Highlighting PelotonU as a Model for Innovation

PelotonU prioritizes learners' emotional needs using a culturally responsive and trauma-informed approach to first address any challenges students are having and then focus on learning. This approach helps empower learners to develop tools to solve their problems, develop increased self-confidence, and learn to proactively transform challenges into opportunities for growth. The coaching support maximizes learners' development while they acquire knowledge and technical skills, enabling advancement pathways in their careers. The skill development, earned credentials, and increased self-confidence learners gain provide pathways to economic advancement.

PROPEL
AMERICA

propelamerica.org
Founded in 2018
Boston, Massachusetts

OVERVIEW

Learners Served: High school students and young adults (18–24)

High School Diploma or Equivalent Required: Yes

Industry Focus: Health care

Credentials and Credits: Certified medical assistant, registered behavioral technician, sterile processing technician, laser technician

Format: Coursework, work-based learning

Program Length: Six months or less (full time)

MEASURES OF IMPACT

65%+
of fellows completed the program and were eligible for hiring compared to 33% of people earning community college credentials or associate degrees.

1,100+
high school students have engaged in Propel's high school curriculum to build career plans and skills.

200+
fellows have participated in the program.

SEGMENTS

Career readiness

Licensure and professional certification

Program Overview

Propel America helps young adults launch careers in health care and earn a living wage quickly, typically within six months. It provides debt-free training, individual coaching, and interviews with employer partners who are ready to hire. It has partnered with National Louis University to develop a "jobs-first higher education model," offering living-wage, high-demand pathways to becoming a certified medical assistant (CMA), a registered behavior technician (RBT), or a sterile processing technician.

Learning Method

Through the RBT pathway, learners can be placed in a job within five weeks and complete remaining coursework while earning a salary. Through the CMA pathway, learners complete a six-month program and 15 weeks of online training in technical and core professional development, followed by an in-person "externship" at a local hospital or medical office. Propel holds monthly skills labs to provide hands-on practice before the externship.

Support Provided

Propel America provides weekly coaching and career preparation, helping fellows gain skills in goal setting, problem-solving, collaboration, and communication. It provides six months of wraparound support after the training program.

Looking Ahead

Propel is designing and scaling the jobs-first higher education model to be pathway-agnostic and interoperable. It is currently developing an integrated data infrastructure enabling data sharing between its partners and employers to gain insights into its fellows' success and satisfaction. Propel plans to expand to the Los Angeles region in 2023, working with the hospitals to provide pathways to employment for local talent.

Highlighting Propel America as a Model for Innovation

Propel America guarantees interviews quickly, placing fellows in paid positions in as little as five weeks and securing partnerships with employers committed to interviewing fellows for full-time jobs after completion. The program creates long-term pathways and opportunities for upward mobility by providing stackable credentials, enabling graduates to earn higher salaries and advance in their careers. Propel also offers early exposure to medical career pathways through its high school curriculum, Propel Core, which is designed to help students explore career interests and map their career journeys.

readytrack.org
Founded in 2021
Salt Lake City, Utah

OVERVIEW

Learners Served: Young adults (18+)

High School Diploma/GED Required: Yes

Industry Focus: IT/tech

Credentials and Credits: No credentials, but provides technical skills development

Format: Coursework, project-based learning, work-based learning

Program Length: One year (full time)

MEASURES OF IMPACT

$57,768.
Average annual salary for learners pre-apprenticeship is $26,662. Average annual salary post-apprenticeship (180 days after graduation) is $57,768.

52%
of learners are people of color.

SEGMENTS

Career readiness

Pre-Apprenticeships

Online courses and certificate programs

Program Overview

ReadyTrack provides a software developer pathway, including skills training and apprenticeship. It is focused on supporting people from communities that are underserved by public and private systems and institutions, including people of color, women of all backgrounds, and workers in jobs that pay less than $35,000 annually.

Learning Method

Learners develop technical and soft skills, including critical thinking and time management capabilities, by completing online courses and attending live sessions with "practitioner mentors." The mentors lead project-based activities, monitor learner progress, and encourage collaborative learning. ReadyTrack enhances its curriculum with real-world examples contributed by alumni. ReadyTrack learners must complete at least 80 percent of their assignments during each 10-week course in order to move on. In the last three months of the program, a career coach guides learners as they explore employment opportunities, including paid internships lasting six to 12 months and Registered Apprenticeships.

Support Provided

ReadyTrack provides support through a five-tier model featuring practitioner mentors, career coaches, external professionals, apprentice advocates, and community-based organizations (CBO). Mentors provide academic support, while career specialists help learners with resumes, LinkedIn profiles, mock interviews, and elevator pitches. External IT professionals, including alumni, who come from backgrounds similar to the learners, provide real-world perspectives during "Ask Me Anything" sessions and help learners understand the challenges they may face in their careers. ReadyTrack also partners with CBOs, which provide wraparound support to help learners who are facing challenging life circumstances, including lack of housing and food insecurity.

Looking Ahead

Recently, ReadyTrack was certified for the Eligible Training Provider Lists (ETPL) in Utah and Colorado. ReadyTrack is currently operating in Nevada and plans to expand to Colorado, Michigan, Illinois, Texas, and Mississippi and will apply for ETPL designation in those states as well.

Highlighting ReadyTrack as a Model for Innovation

ReadyTrack's support model guides learners in building self-confidence and social capital through networks of peers, mentors, and professionals. Through strong collaborative partnerships, ReadyTrack helps employers learn about apprentices and earn Registered Apprenticeship designation so that they're eligible to receive funding from the U.S. Department of Labor. This is increasing the number of earn-and-learn opportunities in the tech industry for young adults.

RESILIENT CODERS .ORG

resilientcoders.org
Founded in 2014
Cambridge, Massachusetts

OVERVIEW

Learners Served: Young adults (18–30)
High School Diploma/GED Required: No
Industry Focus: IT/tech
Credentials and Credits: No credentials, but learners build technical skills
Format: Coursework, project-based learning
Program Length: 20 weeks (full time)

MEASURES OF IMPACT

83%
In 2021, 83% of graduates were placed into jobs, earning an average salary of $94,400.

SEGMENTS

Career readiness

Online courses and certificate programs

Boot camps

Program Overview

Resilient Coders offers a 20-week, full-time software development pathway for young adults who identify as people of color from low-income backgrounds.

Learning Method

The curriculum includes five hours of instruction daily, and learners develop problem-solving skills and learn how to work in a team through group assignments as they build an application. Courses are taught by software developers, many of whom are alumni who return as experts in residence (EIR) after working in the tech industry for a year. Resilient Coders holds events for employers to meet learners and watch videos they made to illustrate their technical skills by demonstrating how they coded a project. In turn, employers pitch their businesses to Resilient Coder learners, recruiting them for job opportunities.

Support Provided

Resilient Coders uses a high-touch, high-impact model, with a 12:1 student-to-instructor ratio and one-on-one support and mentorship for career preparation and placement activities. Learners receive a $2,000 monthly stipend while participating in the program. Resilient Coders partners with therapists of color and community-based organizations to provide wraparound support.

Looking Ahead

In 2021, Resilient Coders expanded from Boston, serving learners in Philadelphia and Pittsburgh, and it plans to continue strengthening partnerships with employers.

Highlighting Resilient Coders as a Model for Innovation

Resilient Coders uses an alumni engagement model to build a pipeline of mentors and provide learners with individual technical support opportunities. Instructors come from backgrounds similar to those of learners, and Resilient Coders believes this representation matters. Instructors develop deep relationships with learners and help provide the preparation essential for success in the field. The hiring process for software development jobs can take months, and it's difficult for young adults from low-income backgrounds to go through prolonged interview periods if they're unemployed. To avoid that scenario, Resilient Coders begins the interview process with six weeks left in the program.

Rivet School

rivetschool.org
Founded in 2018
Richmond, California

OVERVIEW

Learners Served: Young adults (18+)
High School Diploma/GED Required: Yes
Industry Focus: Business, IT/tech
Credentials and Credits: Associate and bachelor's degrees
Format: Coursework
Program Length: About two years (part time)

MEASURES OF IMPACT

2.3 years
Median time to degree for graduates

75%
Lifetime persistence

86
Net Promoter Score

71%
of students are Black or Latinx.

75%
are first-generation students.

SEGMENT

Online courses and certificate programs

Program Overview

Rivet School provides an affordable two-to-three-year online pathway to a bachelor's degree. The school partners with Southern New Hampshire University and Western Governors University to enroll students in programs with coursework in subjects such as technology, business, and education.

Learning Method

Rivet School also partners with accredited nonprofit universities that offer competency-based coursework designed to help working learners earn degrees, with an emphasis on course relevance and flexibility. Its supports help learners engage in self-paced, project-based learning. The school has developed a 10-week, hands-on onboarding experience called Bridge to support adults ages 18-22, providing a cohort experience to prepare learners for earning a bachelor's degree. In the program, learners meet with a coach and peers in their cohort multiple times a week in sessions focused on developing relationships and building independent study habits and time management strategies.

Support Provided

Students are paired with coaches who support them as they go through the steps of enrolling, securing financial aid, and onboarding, and then offer personalized guidance to help them learn how to complete degree requirements. Coaches receive real-time student performance data to help them know who needs support. Rivet continues to offer students supports such as career coaching and job placement services for six months after they graduate.

Looking Ahead

Rivet School plans to scale its programs and increase the number of learners it serves. It's aiming to support more 250 students while expanding its community partnerships and wraparound support offerings. Its plans include mental health partnerships and a program that trains volunteers to provide additional academic intervention and tutoring services.

Highlighting Rivet School as a Model for Innovation

While many employers are adopting skills-based hiring models and relaxing degree requirements for jobs, JFF recognizes that degrees do hold value and are required for certain professions, such as teaching. Therefore, we believe that programs such as Rivet School have an important role to play in the evolving postsecondary education and training ecosystem. Rivet School distinguishes itself by the intensity, accessibility, and range of support it offers. In addition, the school offers students the option of financing their educations with income-share agreements through which they pay nothing up front and start to pay back tuition only when they reach a salary of $40,000.

STRIVE®

strive.org
Founded in 1984; STRIVE Future Leaders in 2015
New York, New York

OVERVIEW

Learners Served: Young adults (18+)

High School Diploma/GED Required: Varies by program (not required for Future Leaders)

Industry Focus: Construction, accommodations and food services/hospitality, health care social assistance, and transportation warehousing

Credentials and Credit: Some, including OSHA 10/30, Certified Logistics Associate, Quality Inventory Control, Forklift. Silica Awareness, GPRO, Electronic Health Records Specialist CEHRS , CompTIA A+

Format: Coursework, work-based learning

Program Length: 12 to 16 weeks (full time)

MEASURES OF IMPACT

80,000
graduates of the program across the country since 1984

70%
placement rate

92%
of alumni identify as people of color

33%
were defendants or had been convicted in the criminal justice system.

SEGMENTS

Career readiness

Internships

Program Overview

STRIVE provides job readiness and occupational skills training by creating career pathways to economic opportunity for young adults, supporting their placement in jobs that offer high advancement potential.

Learning Method

Learners engage in synchronous instruction and group work but also learn asynchronously through simulation exercises and work-based learning at employer partner sites. Instructors and coaches are full-time STRIVE employees who have professional experience in relevant industries and understand how to work with young people in social justice settings. After completing a career exploration workshop, learners are placed in internships and full-time jobs to develop skills, gain work experience, and earn an income.

Support Provided

All learners work with a career coach who supports them as they work their way through the program and navigate their career paths. Learners also receive one-on-one support, case management services, and mentoring to help them with child care concerns, housing and food insecurity, financial challenges, mental health and wellness issues, and lack of access to technology. Through its alumni services program, STRIVE provides support to students who want to build new skills, improve their health and wellness, or find new jobs or learn about other strategies for building financial resilience.

Looking Ahead

STRIVE plans to expand its digital skills training and help close the digital divide. It will also provide learners with opportunities to earn digital badges and certifications.

Highlighting STRIVE as a Model for Innovation

STRIVE offers support for both short- and long-term employment options to help learners concentrate on entering and remaining on promising career pathways. It provides two years of active support to ensure that alumni maintain employment, or to help them find new jobs if they become unemployed. It also provides learning opportunities and support for alumni throughout their lives.

STRIVE covers a broad base of opportunities for well-paid jobs in industries offering career advancement opportunities, including health care, construction, and logistics. Through employer partnerships, STRIVE works directly with human resources leaders to identify requirements and specifications for positions to accelerate the job placement process.
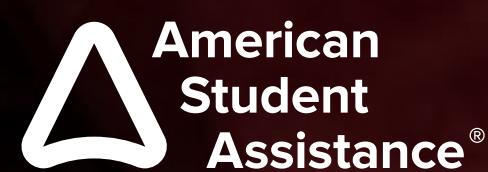
Trends and Opportunities

Trends to Watch

The best of college in a career-focused model: Some emerging models are chipping away at the long-standing dichotomy of college versus non-college pathways by offering some of the benefits typically associated with college. These benefits include rigorous instruction and evaluation—and in some cases, college credit—helping reassure learners and employers alike that these pathways offer robust preparation for careers. They can also include financial aid, frameworks for learning with peers and advanced learners, career advising and job placement services, employer engagement and in-program recruiting, and access to jobs that pay family-supporting wages, including office roles and opportunities at high profile companies. And they are providing these benefits in programs that are shorter and often less expensive than degree programs, meaning learners can access the job market faster than their college-going peers, often with less debt.

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Increasing transparency to support learner decision-making:
The amount, and clarity, of the information education-to-career programs make available up front is on the rise, making it easier for learners to make informed choices. They're providing details about program design, total costs, the supports they offer, and outcomes. They're also offering information that helps learners answer the questions associated with the four key building blocks we discuss above. That said, as we discuss in more detail below, data and information on program quality and outcomes is still woefully limited, and we urge providers to disclose significantly more information—including details about program accreditation, learning methods, costs, employer engagement, and wraparound supports, as well as data about completion rates and alumni job placements, earnings, and career advancement.

Employers are seeing the benefits of engaging with these programs. No one knows better than employers themselves what skills they need in their current and future employees. As the labor market has tightened, they're not only relaxing college degree requirements for some jobs; they're also playing increasingly active roles in developing and supporting training programs that can serve as talent pipelines for their organizations and their industries. Some companies are working through intermediaries, perhaps forming recruitment and networking partnerships. Others are engaging directly with providers or other stakeholders to create work-based learning components of training programs, and they're offering advice about curricula, learner screening processes, and plans for scaling programs. Still others are sponsoring students via training scholarships, subsidizing pathways, or facilitating income share agreements with training providers. Our scan also uncovered several employer-led pathways, including single-company apprenticeship programs and sector-based initiatives driven by industry consortia or employer partnerships.

Opportunities for Innovation and Investment

Data-driven indicators of program quality and outcomes. While we were encouraged to see an increase in the amount of information programs provide to learners up front, we feel that, overall, data on program quality is still lacking. We need standardized, universally accepted measures of program quality; and robust and readily available systems for collecting data on these indicators (especially information about how graduates fare in the job market in the short and long terms). Registered Apprenticeship programs must provide individual-level data outcomes, which is a way to ensure quality and analyze impact more broadly that more programs should adopt. We also need to at least elevate our expectations about how much data programs share with learners and partners—and how transparently they share it. We may even need to call on policymakers to require programs to share that information. And independent oversight of programs might also be a good idea. Greater transparency will help reassure learners and those who support them that programs they choose will deliver on the promise of economic advancement. It would also help funders and partners direct resources to programs with the most reliable records of success.

JFF is committed to helping learners and employers get the information they need about program quality. In February 2022, we acquired Education Quality Outcomes Standards (EQOS), a nonprofit that developed a framework that learners and employers can use to assess the quality of short-term training and education programs. Specifically, EQOS examines data about a range of near- and medium-term program outcomes related to student learning, program completion, job placement, earnings, and client satisfaction. JFF has also written extensively about indicators of program quality in work-based learning programs, and continues to explore this topic in depth.

Even deeper employer engagement. The market will grow if we identify and eliminate barriers to collaboration between programs and employers. Top priorities should include facilitating industry-wide approaches to maximizing opportunities for learners and supporting long-term program resilience and adaptability. Moreover, pathways and employers could forge partnerships to identify creative ways in which employers can support the expansion of pathways, perhaps by improving the technological infrastructure that supports these programs or developing more flexible curricula to enable speedier transitions between training and careers.

More personalized learning. We are encouraged to see ongoing efforts to develop high-impact education-to-career pathway models that can be tailored to individual learning styles. At the same time, there's a need for additional efforts to build models that support multiple learning styles and include self-assessments, culturally responsive teaching, social-emotional learning (SEL), and other pedagogical best practices and innovations. Innovations like those will increase learner engagement, persistence, and success.

Innovative approaches to making pathways more affordable. We see an ongoing need to find innovative new financing tools that will make it possible for pathways to offer free or subsidized training experiences. Such efforts should include continued investigation of pay-for-success financing models such as income share agreements (ISA), with an emphasis on approaches that advance equity in the postsecondary education and training market. Other possibilities include models that leverage stakeholder support to cover related expenses, such as the cost of materials and learners' housing and transportation expenses.

JFF is committed to promoting innovative approaches to financing education and training. Our Financing the Future (FTF) initiative is challenging stakeholders to reimagine how we pay for postsecondary education and skills development programs. Recognizing that there are no silver bullets, FTF is considering an array of options, including ISAs, merit-based lending, social impact bonds, and individual training accounts. They're also exploring new ways for employers to invest in workers, new approaches to federal aid, and more.

Shared "backbone" supports. Regional partnerships or industry consortia could strengthen pathways and help the market advance through shared investments in support of services such as centralized career coaching programs or common data management platforms.

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Let's Widen Our Focus to Include a Broader Universe of Possibilities

Joel Vargas
Vice President of
Programs, JFF

Our economy and labor market today demand a great deal from workers. New hires must emerge from their education and career training with in-demand competencies and skills ready to hit the ground running. They must also continue learning and adapting to fill new job roles that emerge every few years as our technology-driven economy evolves. Over the past several decades, employers have demanded a four-year college degree as primary proof of a job candidate's capability to meet these expectations.

The bachelor's degree is still a significant currency in the job market for various reasons, but employers and learners are beginning to realize this paradigm is no longer sustainable. The traditional college journey is not

designed for everyone. Many people don't have the resources or access necessary to make full-time pursuit of a four-year degree a possibility. For others, a college education ultimately may not match their career aspirations. Earning a bachelor's degree can deliver a significant return on investment. But the cost of a degree is so high that the investment represents a big risk with lifetime implications for students of low and modest income backgrounds.

Many graduates struggle to pay down student loan debts that grow from year to year—a situation that can be exacerbated for those whose fields of study don't lead to high-paying careers. Moreover, far too many students leave school without graduating—and with less capacity to pay back the loans they've taken out. We know substantial education debt helps perpetuate the Black-white wealth gap and other systemic disparities in U.S. society and limit families' ability to build and pass along generational wealth.

At the same time, the world and the economy are changing rapidly, and colleges and universities can struggle to keep their curricula up to date and produce graduates who have developed the most in-demand skills. And in this dynamic labor market, there are a variety of postsecondary credentials that hold more value than bachelor's degrees, but guidance and advising programs may rarely provide learners with information about these pathways, much less encourage students to pursue them.

An expansive education and workforce development ecosystem filled with multiple pathways to careers can be more fluid and adaptable than one focused on the traditional college pathway. For example, JFF recently has argued for new grade 11-14 institutions and systems that blur the boundaries between the end of high school, the first two years of postsecondary education, and career experience.

But there's some work to be done if we want to build that ecosystem. First, we'll need greater transparency for assessing the quality of pathways and ensuring equitable outcomes. And more employers will need to invest in the design of learning experiences—ideally in partnership with educators. And they'll have to validate those new learning experiences by providing access to good jobs to those who are successful in them.

We'll also need a more transparent and robust choice architecture that gives learners the flexibility to explore options and move quickly along career preparation paths with strong economic advancement prospects while also still having the flexibility to switch paths without losing much time.

Many young people won't know what they can become unless they have contextual on-the-job learning experiences, such as "earn and learn" programs that can include early college experiences that offer college credits or credentials with labor market value. Delaying the experience of actually working and finding out what a job is like for four years or more can lead people to commit to unsatisfying careers simply because they've already spent a lot of time and money to acquire a particular credential. Educators, advisors, and even parents can certainly provide young people with guidance about their career options, but there's no substitute for experience when it comes to helping young adults to make informed career choices—and build the professional social capital that will help them continue to make informed choices throughout their careers.

A system that offers permeability and stackability—ensuring that students can transfer prior learning, credits, and credentials toward other and more advanced career paths—can mitigate the risk of people having to live indefinitely with choices they made early in their work and learning journeys.

In that type of system, workers won't feel compelled to stay in occupations that didn't turn out to be the right fit or jobs they took out of economic necessity—scenarios that can be less than ideal for employers, too. A more practical framework would allow students to build efficiently upon their learning experiences, whether they ultimately decide to pursue a college degree or not.

Our recommendations shouldn't be interpreted as a call to do away with colleges and universities. The bachelor's degree will likely continue to be valuable currency in the job market.

However, we do believe it's essential to transform the current static, closed education to career pathway model. It should be replaced by a system that's more inclusive and filled with more possibilities in order to meet the evolving needs of young learners and employers alike and offer equitable opportunities for economic advancement along with increased access to in-demand careers.

What does a world with abundant high-quality pathways look like?
In the system we envision, young people would be able to enter the job market sooner while continuing their learning. They would have the opportunity to combine learning experiences along the way to customize their career trajectories and increase their economic options. Lifelong journeys of learning and skills development would be the norm, and they would be facilitated, and even accelerated, via pathways that included early college and dual enrollment programs combined with work-based learning experiences. Employers would value proven mastery of in-demand skills as much as college credentials. Most important, this new system would enable us to begin to close the racial wealth gap and other economic disparities, because fewer young people would face the need to take on significant student debt. And finally, our national and regional economies and labor markets would be more inclusive and grow increasingly nimble, making them better able to adapt and respond to technological advances and other shifts in the future of work.

It's time to widen our focus to include the broader universe of possibilities:
a multitude of education-to-career pathways that can provide the stackability and permeability that learners, their prospective employers, and our economy need.

"As a dynamic landscape of innovative education to career pathways emerges, now is the time to ensure that learners have access to high-quality, affordable programs that prepare them for good jobs—and that they have the tools they need to navigate the rapidly evolving world of work and learning. JFF and ASA are committed to building and making sense of this ecosystem."

– David Soo, Chief of Staff, Jobs for the Future

About JFFLabs Market Scans

At Jobs for the Future, 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 JFFLabs 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 comprehensive reports 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.

Contributors and Authors

JFF

Maria Flynn
President & CEO

Kristina Francis
Executive Director, JFFLabs

David Soo
Chief of Staff

Joel Vargas
Vice President

Dan Obregon
Vice President

Kyle Hartung
Associate Vice President

Alex Swartsel
Deputy Director,
Acceleration

Tasha Williams
Lead Writer and
Researcher

Stacy Holliday
Associate Director

Jason Schunkewitz
Manager

Jennifer Giffels
Senior Manager

Amy Wilson
Human-Centered
Advisor

Tyler Nakatsu
Associate Director

Carlin Praytor
Manager

Bob Rawson
Senior Editor

About Jobs for the Future

Jobs for the Future (JFF) drives transformation of the American workforce and education systems to achieve equitable economic advancement for all. www.jff.org

About JFFLabs

JFFLabs 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.

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.

This market scan is made possible through the generous support of American Student Assistance (ASA).

About ASA

American Student Assistance® (ASA) is a national nonprofit committed to helping students know themselves, know their options, and make informed decisions to achieve their education and career goals. ASA believes all students should have equitable access to career readiness learning, starting in middle school, so they can develop a plan for their future. ASA fulfills its mission by providing digital-first programming, resources, and experiences, including Futurescape™, directly to millions of students, in addition to support for educators and intermediaries. To learn more about ASA, visit www.asa.org/about-us.

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