



## CSI Member *Services and Digital Trade* *Workforce Development Programs*

As services and other jobs increasingly demand a high level of professional skills and digital literacy, both government and industry must do more to equip individual workers with the requisite training. The success of individual American workers and U.S. global competitiveness are closely intertwined.

A study by Brookings found that nearly two thirds of the new jobs created between 2010 and 2016 required at least a moderate level of digital skills.<sup>1</sup> The same report found that nearly a quarter of workers were already engaged in occupations with a high level of digital content. It also concluded that holding education constant, workers with better digital skills tended to earn higher wages than those with lower skills.

Government and companies should collaborate to improve education and training programs. Below we offer examples of how CSI members are upskilling workers and helping them prepare for more professionally intensive and digitally demanding work.

- **IBM**

IBM's "**new collar**" initiative is a pioneering registered apprenticeship program established in 2017. IBM coined the term "new collar" jobs to describe in-demand, well-paying roles where skills matter more than having specific degrees. In the last five years, new collar IBMers have accounted for around 15 percent of the company's total annual U.S. hiring.

The new collar initiative is based on IBM's existing **P—TECH** program, which started in 2011. P-TECH enables students to earn both their high school diploma and a two-year associate degree linked to growing, competitive STEM fields. The program has expanded over time to encompass 600 industry partners and 260 school partners, and now operates in 26 countries.

The P-TECH education model has five key elements:

- Open enrollment – no testing for admission, with a focus on underserved communities, cost-free (including degree, textbooks, and transportation)
- Mentors for all students from the employer partners
- Alignment of the program of study for grades 9-14 with the skills needed by an employer – which has helped the program become a common pathway for students to obtain subsequent STEM degrees and certifications
- Seamless pathway – considered part of the college community as soon as a student starts at P-TECH, without obstacles such as college admissions requirements, SAT tests, or FAFSA applications
- Paid internships for students from the employer – Community college education is embedded directly into the fabric of the P-TECH model, because it serves as an accelerator that can propel students into well-paying careers as well as a launch pad toward a bachelor's degree.

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<sup>1</sup> Mark Muro, Sifan Liu, Jacob Whiton, and Siddharth Kulkarni, Brookings, [Digitalization and the American Work Force](#), November 15, 2017, p. 15.

IBM also offers free, digital learning through **Open P-TECH**, which introduces students and educators to emerging technologies such as artificial intelligence, cloud computing, and cybersecurity.

In addition, to help prepare more American students and workers vital roles in cybersecurity, IBM recently pledged to train more than 150,000 people in cybersecurity skills over the next three years through a range of programs, such as [SkillsBuild](#). IBM also will partner with more than 20 Historically Black Colleges & Universities to establish Cybersecurity Leadership Centers to build a more diverse U.S. cyber workforce.

IBM believes that this exciting new era of technology – powered by the cloud, AI, and quantum computing – must be an inclusive era. By helping make community college accessible to a broader population of students, IBM can support the critical role these educational institutions play in building back a more equitable economy.

- **Amazon**

Through the **Upskilling 2025 program**, Amazon committed \$700 million to provide 100,000 employees with access to upskilling programs through 2025. Upskilling programs prepare employees with in-demand skillsets and propel them into new careers. The training programs offered through Upskilling 2025 support Amazonians as they gain critical skills to move into higher skill, better paying, technical or non-technical roles within Amazon and beyond. Amazon is focused on creating pathways to careers in areas that will continue growing in years to come, like medicine, cloud computing, and machine learning. As part of Upskilling 2025, Amazon is continuing to announce new training opportunities and expanding on existing programs for employees across the U.S., including:

**Career Choice** is Amazon’s pre-paid tuition program for fulfillment center associates looking to move into high-demand occupations. Amazon will pay up to 95% of tuition and fees towards a certificate or degree in qualified fields of study, leading to enhanced employment opportunities for in-demand jobs. Since launching Career Choice in 2012, over 40,000 Amazon employees across 14 countries worldwide have received training for high-demand occupations including aircraft mechanics, computer-aided design, commercial trucking, machine tool technologies, medical lab technologies, nursing and more.

**Machine Learning University (MLU)** is an initiative that helps Amazon employees with a background in technology and coding gain skills in machine learning. As machine learning plays an increasingly important role in customer innovation, MLU helps employees learn core skills to propel their career growth—skills that are often learned only in higher education. Divided into six-week modules, the program requires only half to one full day of participation a week. MLU is taught by more than 400 Amazon Machine Learning scientists who are passionate about furthering skills in the field. Originally launched as a small cohort, the program is on course to train thousands of employees.

**Amazon Technical Academy** is a training and job placement program that equips non-technical Amazon employees with the essential skills to transition into, and thrive in, software engineering careers. Combining instructor-led, project-based learning with real-world application, graduates of the program master the most widely used software engineering practices and tools required to thrive in a career at Amazon. This tuition-free program was created by Amazon software engineers for Amazon employees who want to move into the field.

**Amazon Technical Apprenticeship** is a Department of Labor certified program that offers paid intensive classroom training and on-the-job apprenticeships with Amazon. Providing a combination of immersive learning and on-the-job training, the Amazon Apprenticeship program has already created paths to

technical jobs for hundreds of candidates working to break into professions including cloud support associate, data technician and software development engineer.

Mechatronics and Robotics Apprenticeship gives employees the opportunity to learn skills and technical knowledge needed to fulfill a technical maintenance role. The program, which is registered with the U.S. Department of Labor, helps employees increase their wages up to nearly 40% at the end of the first phase. For apprentices who are selected for and complete the second phase, the average wage can increase by up to another 48%.

**Cloud skills.** According to Gartner, worldwide cloud industry spending is expected to grow from \$257 billion in 2020 to \$364 billion in 2022. As the cloud industry continues to grow, so will the demand for IT talent, presenting significant opportunity for entry-level and experienced IT talent alike. As part of our global commitment to provide [free cloud computing training to 29M people by 2025](#), AWS offers a suite of educational tools and programs to train and build knowledge of cloud computing competencies to expand and diversify the pipeline of cloud skilled talent within the U.S. workforce. These programs, which include **AWS re/Start, AWS Academy, and AWS Educate**, to name a few, are being implemented across the U.S., with existing statewide education engagements in CA, UT, AZ, TX, GA, IN, VA, and more. We support the workforce and economic development efforts of state and local governments via public and private education systems, teaming with institutions across the U.S. to offer cloud skills education as part of credit and non-credit programs (e.g. certificates and degrees) at scale.

AWS Training and Certification offers individuals access to free digital training and exam preparation courses to prepare for AWS Certifications. AWS Certifications enable learners to validate their AWS cloud computing expertise with an industry-recognized credential.

AWS Educate creates pathways to in-demand cloud jobs, from software development and cloud architecture to machine learning and cybersecurity. The program offers self-paced learning content with 12 Cloud Career Pathways featuring between 30 and 50 hours of self-paced content per learning pathway. The program also continues to roll out new ways to reach learners by supporting programs like Northern Virginia Community College's JumpStart program, which offers tuition-free college courses to eligible high school graduates.

AWS re/Start offers a free, full-time, 12-week skills development program that prepares individuals with little or no technology experience to pursue entry-level cloud computing positions and industry recognized AWS Certification. AWS re/Start, which is taught by an AWS Accredited Instructor, also provides learners with resume and interview coaching to prepare for employer meetings and interviews. The program connects over 90% of graduates with interview opportunities.

AWS Fiber Optic Fusion Splicing Certificate program is a two-day training course on fiber optic installation and repair hosted in collaboration with Sumitomo Electric Lightwave. These skills are increasingly needed to build out the world's data and communication networks like 5G as well as data centers. Through lectures and hands-on lessons, students accepted into the program learn real-world deployment techniques using a variety of hand tools to state-of-the-art automated fusion splicing technology. The program also includes a career networking event to connect students and potential employers. This program is offered at no charge for students.

- **Cisco**

Cisco's [Networking Academy](#), which dates from 1997, has grown from a single school to an expanding community of students, educators, employers, NGOs, Cisco employees, and customers.

**Networking Academy** offers courses in high-demand areas of IT such as cloud computing and network administration through either an instructor-led or online, self-paced model. Self-paced classes at NetAcad.com are free, with the cost for instructor-led classes determined by the institution (such as a community college, public school district, or college).

Courses align with industry-recognized certifications that prepare students for positions at every level, while also boosting their earning potential. For example, students can learn to plan and install a home or small business wireless internet network, troubleshoot connectivity problems, and mitigate online security threats.

Networking Academy aligns closely with domestic efforts to reskill the workforce. For example, it has become a critical component of the state of Michigan's efforts to strengthen its workforce through a state-wide digital acceleration program centered around education.

With job creation in mind, Network Academy offers a broad range of resources to aid students in finding the right position, from incorporating business skills into classes to providing discounts on certification exams, offering career preparation webinars, and hosting a job matching engine that pairs hiring employers with qualified students.

Now offered globally, Cisco's program of instruction helped 1.9 million students find jobs between 2005 and 2019.

- **Facebook**

Facebook is partnering with Pathstream to increase access to high quality careers in digital marketing for underserved students. The 6-course [Digital Marketing Certificate](#), developed by Facebook and Pathstream, is an online program that teaches the comprehensive skills needed to succeed in entry-level digital marketing roles. Courses can be credited toward bachelor's degrees. As part of this partnership, Facebook and Pathstream support community colleges, located in various urban and rural communities across the country, to build their capacity to deliver these programs to their local communities. To do this, Facebook and Pathstream provide community college partners with the online learning environment and curriculum, implementation and technical support, ongoing instructor training, career services for students including resume reviews, recruiter engagement, and job placement. To date, over 6000 students have enrolled in the courses.

**Career Connections** is a Facebook initiative that creates jobs, trains jobseekers, and empowers local economies. Facebook partners with businesses to create paid digital marketing summer internships for jobseekers across the US, with a particular focus on underrepresented communities. Participants receive exclusive training, \$500 in Facebook/Instagram ad credits, and mentorship from a Facebook employee. Facebook's goal is to train, mentor and support jobseekers as they launch their professional careers while helping SMBs become more competitive by strengthening their online presence.

[Facebook Career Programs](#) provides access to education and connects people to jobs that can unlock greater opportunities for themselves, their families and their communities—regardless of their education, background or experience. Facebook Career programs help job seekers acquire new skills through specialized training and gain career certificates in growing fields. All people who earn a certification will gain access to the Facebook Certification Career Network—an exclusive job board that connects people with top employers who have committed to hiring skilled and certified talent through Facebook Career Programs.

In 2020, COO Sheryl Sandberg announced Facebook's commitment to support and empower Black, Latinx, and Hispanic communities through [Facebook Elevate](#). The program's goal is to provide free digital skills training to 1 Million members of the Black community and 1 Million members of the Latinx & Hispanic communities throughout the U.S. by 2023. Facebook Elevate is fueled by the mission to accelerate the economic success of these historically excluded communities of color by serving small businesses, nonprofits, creators, job seekers, and students with education, community, mentorship and empowerment.

Alongside this mission, Facebook has committed to empowering Black learners with \$100,000 dollars in [scholarships](#) towards digital skills certification through Blueprint - Facebook's online learning platform. These scholarships will allow recipients to take certification exams including the "Facebook Digital Marketing Associate" and "Social Media Marketing Certificate" at no cost. Certification enables learners to gain access to 120+ companies looking to hire skilled talent through the Facebook Certification Career Network.

For more information:

- [Facebook Elevate](#)
- [Facebook Scholarship to Certification](#)
- [Facebook Elevate Community Group](#)

**Blueprint** is a Facebook skills and training program that empowers people and businesses to reach their goals with Facebook, Instagram and Messenger. People around the world who have discovered Blueprint are developing their skills, testing their knowledge, and establishing themselves as experts in digital marketing.

**Facebook Blueprint Spotlight** is a series of live and previously recorded online training webinars led by Facebook experts. These sessions dive deep into specific marketing topics, helping businesses learn the skills they need to run successful digital campaigns. In each live session, you can interact with the instructor in real-time, providing a unique, customizable learning experience. Spotlight is also one of several tools Blueprint offers to help people prepare for a Facebook Certification, the highest level of accreditation recognized by Facebook.

Improving diversity in hiring is a key focus for many companies but unconscious bias still exists. Skills based hiring provides a way for companies and candidates to be matched more efficiently while reducing the likelihood of biases. It opens the door for applicants that have non-traditional work experience, broadening the talent pool, and can lead to a more diverse workforce by not automatically eliminating candidates without a college degree. Facebook is currently piloting a **Skills Based Hiring Tool** to make job seekers more aware of the tangible skills they have in order to provide them with the confidence needed to apply to higher skilled roles. Our product is focused on helping applicants understand what companies are looking for & helps them communicate how they would meet those needs to better serve employers. We are also working with employers to change recruiting and job descriptions to reflect skills requirements to reduce discrimination in hiring practices.

Facebook is now in the 10th year of its partnership with **Year Up**, a nonprofit organization that works to close the opportunity divide by providing young adults with the training and support needed to build successful careers. At the Facebook on-campus program, Year Up has a learning and development center, providing five months of in-class learning and six months of internship experiences. With Year Up's assistance, we build the foundation not only to obtain employment, but also to thrive as an employee. We have hosted 450+ externs across 8 orgs as diverse as Enterprise Engineering, Global

Operations, Global Business Marketing, Recruiting, Infrastructure, Community Partnerships, Creative Shop, and Facilities.

Facebook's **Virtual Workforce Connection Training Program** is a 2-week long career bootcamp to help professionals climb in their careers. This comprehensive training combines best-in class job-search resources with personal career coaching, and small group workshops. The program is being delivered in partnership with Year Up and Grads of Life, national non-profits with 20+ years of expertise helping talent access quality careers.

- **Walmart**

Walmart in July 2021 announced that it will waive nominal fees and begin paying 100% of college tuition and books for associates through its **Live Better U (LBU) education program**. The initiative will allow approximately 1.5 million part-time and full-time Walmart and Sam's Club associates in the U.S. to earn college degrees or learn trade skills without the burden of education debt.

As the largest U.S. private employer, Walmart is committing to invest nearly \$1 billion over the next five years in career-driven training and development. Through its LBU program, it provides education programs through 10 academic institutions chosen for their history of success with adult and working learner programs as well as their focus on degree completion.

Walmart is committed to eliminating the burden of education debt. Cost is a leading barrier for earning a degree, with student loan debt in the U.S. topping **\$1.7 trillion**. Since launching LBU in 2018, more than 52,000 associates have participated in Walmart's program to date and 8,000 have already graduated. Nearly 28,000 associates were active in a LBU program in the summer of 2021.

In June 2021 Walmart announced an **initiative called Community Academy**, which offers free classes to the U.S. public for personal and career investment. Community Academy virtual courses are available nationwide at no cost with open **registration**. Class topics include everything from résumé building and interviewing skills to budget and finance, standardized test preparation and navigating college admissions. Each of the courses is grouped into one of five overall themes – community, personal finance, home, career progression and technology – with plans to expand offerings throughout the year.

Community Academy builds off an existing program for store associates known as **Walmart Academy**, which claims a network of more than 200 locations in stores across the country. Walmart Academy teachers have led more than 2 million training sessions on topics ranging from store processes to leadership and soft skills. The learning centers offer foundational, role-specific and ongoing education training that prepares associates both for their current role and the future. During the pandemic, Walmart **shifted to offering virtual instructor-led training**, providing more than 111,000 remote associate trainings over the past year.