

Apprenticeship

Apprenticeship in Brief A Discussion Paper

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Based on experience with apprenticeships in Switzerland, the Nestlé USA corporation commissioned this paper from the Committee for Economic Development (CED) of The Conference Board to gain a better understanding of implementation in the United States. CED conducted a series of interviews with national experts and diverse stakeholders (employers, community colleges, unions, and intermediaries) currently supporting apprenticeship programs to learn more about the potential of this training model, key elements of success, barriers, and lessons learned. As this information may be useful more broadly to American employers, Nestlé has graciously agreed to make this paper publicly available through CED.



Apprenticeship in Brief

A Discussion Paper

Introduction

Apprenticeship has existed for centuries, beginning as a legal contract between the apprentice and master craftsman to learn the skill of a particular trade. At its core, apprenticeship is intended to give workers direct, on-the-job experience combined with related training and instruction, allowing them to move from a low- or no-skill, entry-level position to full occupational proficiency.

Although apprenticeship models exist in the United States, they are not part of the economic fabric the way they are in other countries like Switzerland and Germany. In those countries, it is standard practice for companies to collaborate with their industry peers to design three- and four-year programs of study that give young people a mix of hands-on training in the workplace and classroom-based learning. Apprentices are paid steadily increasing wages as their skills develop, earn nationally recognized industry credentials, and are eligible for jobs with wages equivalent to college graduates. These programs are offered in a wide range of high-growth industries such as banking, insurance, information technology (IT), pre-engineering, and healthcare, as well as traditional trades, where employers have great need for skilled workers. Apprenticeships have a very positive reputation, attracting top students

who compete for coveted slots. Swiss businesses are wholly committed to the apprenticeship model as a talent pipeline, with CEOs dedicating their time to ensuring that the training is of top quality.¹

In Switzerland, employers and unions are the drivers of the apprenticeship system, determining where new occupational programs are needed based on projected changes in the economy and designing the content to meet industry standards. The United States does not have the same kind of industry-driven system for ensuring that young people and adults have opportunities to master the kinds of skills needed for today's as well as tomorrow's high-demand jobs. "The United States takes a very ad hoc approach to talent development unlike our European counterparts," according to Paul Grimwood, CEO of **Nestlé USA**.

In Switzerland, apprenticeship has high appeal, with about 70 percent of students participating in an apprenticeship. Switzerland has a unique education model. Compulsory education ends at grade 9 and students select either an academic pathway or a vocational pathway that includes apprenticeship. The apprenticeships give students opportunities to apply their learning at paid jobs in their industry of interest, smoothing their transition into the workplace. The result: youth unemployment is only 3 percent.

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Nestlé sees U.S.-based apprenticeships that provide practical job and training opportunities as critical to its business model. The company currently has 138 registered apprentices in 28 factories across the United States, including one for industrial technical engineers in Anderson, Indiana with **Ivy Tech Community College**. According to Claire Berger, director of apprenticeships and internships at Ivy Tech, “skills are the common language between employers and education institutions.” Berger worked closely with a Nestlé engineer to formulate the apprenticeship curriculum and technician training sequence. The lessons learned from the program in Anderson are now being applied at other Nestlé sites to ensure a standardized and consistent implementation of apprenticeship. The company aims to have apprenticeship programs in place at more than 30 factories by 2020, cultivating the skilled workforce it needs to keep its plants in top working order and competitive with the best in the world.

Nestlé is an example of a large employer that is using apprenticeship to identify, train, and grow talent. But many employers report struggling to find workers with the skills they need. Although national unemployment appears low at 4.1 percent, that figure almost doubles when underemployed and discouraged workers are included.² The unemployment rate among youth ages 16-24 is 9.0 percent.³ These factors indicate that a not insignificant portion of the workforce is untapped. According to federal data released in October 2017, there are 6.1 million open jobs today. Experts say we have a “skills gap”—a mismatch between skills workers have and what employers require. Whereas the challenge plagues some industries and regions more than others, the fact is many jobs are going unfilled and many workers would benefit from additional training, credentials, and access to career pathways.

Shortages appear particularly acute for what are known as “middle skill” jobs (requiring more than a high school diploma but less than a bachelor’s degree) in areas such as manufacturing, IT, and health care. Part of the challenge may be that these kinds of jobs require specific skills not taught in schools, often due to new technologies. As jobs change, the learning requirements increase but it is not always clear to workers what skills and credentials have value in the labor market and how to acquire them. There is an ever-growing need for skills training programs and supports to match workers with job opportunities that keeps pace with marketplace demands.

“We are wasting talent and this country’s resources,” according to Grimwood. “As employers, we complain about the skills gap but we do not give people access to desirable jobs and careers.” In fact, some say “degree inflation” is making our labor market more inefficient. A recent [report](#) by Harvard Business School notes that postings for many jobs traditionally viewed as middle skills jobs in the United States now stipulate a college degree as a minimum education requirement, whereas only one-third of the adult population possesses this credential.⁴ Because so many high school graduates leave without the basic reading, writing and math skills required in the workplace, employers rely on a four-year degree as a signal of employability. This “degree inflation” hampers employers’ ability to find talent and leaves the non-degreed workforce out of the equation. By focusing solely on college—with an emphasis on four-year degrees—as opposed to articulating a broader mix of postsecondary education and training career pathways based on skills and competencies, we ignore a wide swath of the population.

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A recent survey of parents found that almost all expect their children to earn a bachelor's or professional degree in college.⁵ But the fact is most students are unlikely to earn a postsecondary credential within six years of high school graduation. Although almost 70 percent of high school graduates immediately enroll in college, only 59 percent of those enrolling in four-year institutions will earn a bachelor's degree within six years and only 22 percent of those enrolling in two-year institutions will earn an associate's degree within three years. The numbers are worse for low-income and first-generation college goers. Furthermore, many of the non-completers pay the opportunity cost of time out of the workforce and incur signifi-

cant student debt, without the benefit of earning a credential or degree.⁶

College is expensive and time consuming, and degrees earned do not always signify that graduates have mastered competencies valued by employers. In particular, employers desire critical soft skills, such as problem solving, the ability to work in teams, effective communication, and flexibility.⁷ These skills are often learned on the job. Rather than relying on degrees as proxies of soft skills and workforce readiness, employers may be better off articulating the core skills and competencies required to do particular jobs. This would make the job match process much more transparent and effective.



Apprenticeship is not only an effective training approach. It helps companies broaden their pool of candidates and fill critical vacancies, not just one time, but providing a pipeline for the long term.

Benefits of Apprenticeship

The United States needs new postsecondary training models that include classroom time coupled with workplace applications. This combination is the “sweet spot” for learning, allowing individuals to apply lessons immediately with feedback and support of qualified professionals.

Unlike coursework that may or may not have relevance to future jobs, apprenticeship is practiced in real work assignments at the job site, overseen by trained and experienced supervisors. And workers earn wages and secure portable credentials valuable to their industry while they are learning. This combination of hands-on training and work helps secure students positions in career jobs in high-demand industries.

Zurich North America drew on the experience of its Switzerland-based headquarters which has found apprenticeship to be a highly effective talent development model. Zurich Insurance partnered with **Harper College** in Illinois to design two-year registered apprenticeships in claims, underwriting supports, finance, and technical underwriting. For Zurich Insurance, apprenticeships help the company fill the “goldilocks” middle skills jobs that do not require a full bachelor’s degree. The company is committed to hiring 100 apprentices by 2020.

“Creating an apprenticeship program stretched our thinking,” according to Al Crook, head of human resources business partners for Zurich Insurance. “Like many other companies, we defaulted to requiring a bachelor’s degree for entry-level positions that may not have been necessary. We had to step back and ask ourselves, ‘What are the core skills needed to do a particular job?’ In insurance, maybe someone doesn’t actually need to be a certified public accountant but just needs general finance skills. We went through all our job descriptions and asked ourselves, is a bachelor’s degree really required? How can we offer options such as a high school degree, plus a certain number of years of experience; or a certified apprenticeship, plus this many years of experience; or a bachelor’s degree and fewer years of experience? We tried to account for the value of learning on the job as opposed to insisting on formal classroom learning as the only entry point.”

Unlike other short-term, work-based training programs, apprenticeships provide a long-term pipeline of prepared workers who are deeply immersed in the operations of the company, its needs and goals, and who can problem solve and adapt as things change, technology evolves, and there is opportunity to make things work better. These are the skills of the future.



Tidewater Community College (TCC) in Norfolk, Virginia works with a number of employers with a long history of registered apprenticeships including shipbuilders like Norfolk Naval Shipyard and Newport News Shipbuilding (NNS), a division of **Huntington Ingalls Industries**. NNS apprentices can pursue programs in marine design, production planning, modeling and simulation, and marine engineering. They can earn an associate's or a bachelor's degree as part of their programs. The college now has expanded its apprenticeship partnerships to include cybersecurity employers and early childhood education centers. "When employers

see the value of establishing long-term programs to build a future pipeline into the industry, they come on board," according to Michael "Todd" Estes, director of TCC's apprenticeship institute. Apprenticeship is not only an effective training approach. It helps companies broaden their pool of candidates and fill critical vacancies, not just one time, but providing a pipeline for the long term. Employers report that developing talent through apprenticeships results in a more dedicated, flexible workforce that can add to the bottom line by identifying and implementing improvements and innovations to improve existing products and systems.



State of Apprenticeship in the United States

Today, the federal government spends \$18 billion for on-the-job training to help workers secure the skills and training they need to access in-demand, well-paying jobs. That number is dwarfed by the estimated \$600 billion a year that employers spend on formal and informal training. Employers clearly are committed to investing in their workers. The question is, could those investments be made more efficiently and effectively and tap into a segment of the U.S. workforce that is currently most in need of training on-ramps and upskilling?

Whereas apprenticeships are well established in other countries like Germany and Switzerland, it has been harder for them to take root here in the United States. Our European counterparts see apprenticeship meeting a real need for skill and talent in the workplace. What can be done in the United States to build local capacity and infrastructure for some of the newer industries that may not see apprenticeship as a talent solution?

“America needs its own version of apprenticeship,” according to Jennifer Carlson, executive director of the Washington Technology Industry Association’s Workforce Institute and Apprenti, its nationally registered tech apprenticeship program. “Our industry has shorter term timelines and ever shifting skill needs. An IT company cannot conceive of waiting four years for a fully trained employee like they do in Switzerland, but the core principles of apprenticeship still work. Employers are already making serious human capital investments to recruit, train, and onboard employees and still not getting the work

ready pipeline of talent they need; those engaging in apprenticeship structure realize how effective and cost efficient it can be in producing employees with highly sought-after competencies and skills.”

The U.S. Department of Labor (USDOL)’s Office of Apprenticeship, which administers the Registered Apprenticeship System, has a process for registering apprenticeships where “sponsors” agree to design and execute apprenticeship programs that meet certain standards:⁸

1. Business plays an active role in building the program and the skills needed for workforce success form the core of the model
2. On-the-job training is conducted under the direction of one or more of the employer’s personnel
3. Apprentices receive related instruction or classroom style training that complements the on-the-job training
4. Participants are paid by employers during training and receive increases in pay as their skills and knowledge increase
5. Graduates receive an industry-recognized credential that certifies occupational proficiency

Both Presidents Obama and Trump have touted apprenticeship. In 2014, then President Obama set out an ambitious goal of doubling the number of apprenticeships to 750,000 by the end of 2018. In 2015, the federal government awarded \$175 million in apprenticeship grants, the first-ever programmatic funding for registered

One complicating element of Registered Apprenticeship is that the United States has a bifurcated system. States either can belong to the broader federal apprenticeship system or they can run their own state apprenticeship.⁹ For employers, navigating multiple state systems, each with their own rules and forms, can be difficult. And state funding incentives may only be available to apprenticeship programs that are state approved. This also results in a lack of uniform national standards, with the exact components of an apprenticeship programs differing across states and between employers, making it difficult for a hiring company to know what skills an apprenticeship graduate has mastered.¹⁰

apprenticeships in the United States. In 2016, nearly \$90 million in grants were awarded to expand access to apprenticeship, including \$60 million to support state strategies (including funding for regional industry partnerships), and \$30 million to catalyze industry partnerships in fast-growing and high-tech industries and increase diversity. In 2017, President Trump signed an executive order to double federal spending on the Apprenticeship USA program to \$200 million a year, with the money allocated from existing job training programs.

The U.S. Department of Labor created a [Quick-Start Toolkit](#) that provides resources on starting and registering an apprenticeship program.¹¹

Although the United States does not have a fully embedded apprenticeship system, “the good news is apprenticeship is gaining traction,” according to Dr. Pamela Howze, program director at the **National Fund for Workforce Solutions**. There are over 500,000 apprentices participating in more than 21,000 registered apprenticeship programs in the United States today. This is up from 375,000 just three years ago.¹²

States and the federal government have made high-level investments in recent years, and increasingly more companies are reaching out to and engaging

with education institutions, unions, workforce development boards, and other community partners to design long-term, work-based learning and schooling opportunities. Although most apprenticeships are still in the building trades and construction industries, a new diverse mix of industries is seeing the potential of “earn and learn” models to expand their talent pipelines.

The U.S. companies that have gotten involved cite a multitude of reasons for adopting the apprenticeship model, including: developing a more diverse workforce, creating new pipelines of new workers, and delivering just-in-time customized training. Some employers note that apprenticeship can both help them recruit better employees and reduce attrition by developing workers with the right skill sets and building loyalty to the company. The following examples highlight a range of models:

For **BEST Hospitality Training** in Boston, apprenticeship is a way to move low-income, minority, immigrant and impoverished workers from minimum wage fast food jobs with few benefits or paid time off into better-paying career jobs in hotels. With a strong tourism industry in Boston, a number of hotels came together with their labor partner UNITED HERE Local 26 and BEST to create a housekeeping registered apprenticeship program. These hotels are willing to pay better wages to workers who have customer service and troubleshooting skills. And the workers are grateful for the opportunities to learn, have a decent work environment, and be hired into these quality jobs with good wages and excellent benefits. Many of them had never been given professional training before. According to Marie Downey, executive director of BEST, “they have always been told to give good customer service, but no one ever explained what that actually looks like.”

BEST, along with its labor management partners, designed a six-week pre-apprenticeship program that includes a lot of role plays and modeling to help workers build confidence and problem solving skills. This upfront training prepares workers to apply for hotel housekeeping apprenticeship positions in partner hotels, most of whom are signed employers to the Local 26 collective bargaining agreement. After completing the on-the-job training program, graduates earn a nationally recognized industry certification and a total of

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12 (nine from the pre-apprenticeship and three from the apprenticeship) credits from **Bunker Hill Community College**. The apprenticeship slots are highly competitive; BEST has interviewed approximately 4,000 people for 400 slots.

Human resources executives at **Zurich Insurance** in Schaumburg, Illinois, a suburb outside Chicago, thought that apprenticeship options might attract new people to the insurance industry. “We weren’t exactly having trouble finding people, but we realized that people of all ages weren’t necessarily aiming for insurance as a career. We saw apprenticeship as a way to introduce our industry and the range of jobs and opportunities available. In doing so, more people might see it as an attractive career option. And we would create a diverse pipeline of candidates for the future,” according to Al Crook of Zurich Insurance. The company’s partner, **Harper College**, is the sponsor for the registered apprenticeship, managing the paperwork and the reporting required by USDOL. Harper also offers train-the-trainer

Nationally, 91 percent of U.S. apprentices are employed after completing their programs, with an average starting wage above \$60,000.¹³

sessions to help Zurich Insurance apprenticeship mentors know how to instruct, assess, set goals, and motivate their apprentices. Harper staff check in with the apprentices, mentors, and college faculty each semester to make sure everything is on track and apprentices are gaining skills and improving productivity.

Amazon Web Services is targeting military personnel with experience in communications, intelligence, and cyber-security for its pre-apprenticeship short-term training program that is followed by a one-year on-the-job registered apprenticeship. These apprenticeships can lead to full-time roles in high-demand cloud computing jobs.

Health care is a growing industry nationally. In Western Michigan, a cohort of health care

providers, including **Mercy Health**, launched a medical assistant registered apprenticeship program with three community college partners in 2015. According to Deb Lyzenga, regional director of business solutions for **West Michigan Works!** (WMW), a workforce development board that sponsors the program, “the industry was at a pain point, facing a critical shortage of skilled workers.” WMW had community connections and could help recruit individuals who faced multiple barriers to employment, could not afford college, and who may not know about growing career opportunities in the health care field. As a neutral convener, WMW was well positioned to help the employers and community colleges map desired skills and develop the employer-driven curriculum. While Mercy Health pays wages and benefits, WMW has identified funding to help cover tuition.

The IT industry in Washington State was facing a huge talent shortage and exporting jobs to other states, which merely is a microcosm of a much larger talent problem. The Washington Technology Industry Association worked with employers to understand their job needs and structure an apprenticeship program to train for mid-level jobs like data analysts, software developers, and network security administrators. **Apprenti**, the tech apprenticeship program it created, screens potential apprentices for basic math, logic and critical thinking skills and emotional intelligence. Once selected by employers, workers attend 14-20 weeks of intensive upfront training and receive their first certification of competency before starting a full-time, one-year apprenticeship. Jennifer Carlson of Apprenti reports that although the first cohort has not yet graduated from the program, “we have a high degree of confidence that these folks will succeed.” Now that Apprenti has built an infrastructure to support apprenticeships, the association wants to take its show on the road to help other states make the strategic investments needed to bring this model to scale in the IT industry.

Clearly apprenticeship is working in these examples. Employers see the value of the training model, candidates vie for the coveted slots, and community partners are excited to promote new pathways into solid, well-paying jobs with benefits. However, these partnerships are established on a “site by site” basis. We do not have the Swiss backbone of employer associations that systematically provide high-level education and training pathways to employment. As a result, it is often the large firms that have the human resources capacity to construct their own programs and partnerships. Smaller firms are daunted by the process even if they understand the potential return on investment. International studies suggest

that for every dollar spent on apprenticeships, employers receive an average return of \$1.47 in increased productivity, reduced waste, and greater innovation. The Department of Commerce report found that costs for U.S. firms varied widely, from less than \$25,000 to \$250,000 per apprenticeship, but the 13 companies interviewed were “unanimous” that the benefits outweighed the costs and “enthusiastic” in their support. However, this same report cautions that their findings cannot be generalized for all firms. It suggests that additional research is needed, given that “surprisingly little is known about the payoff to businesses from these investments.”¹⁴



Examples of State Incentives and Supports

South Carolina set out to revamp and accelerate its apprenticeship program ten years ago. Designing a new comprehensive package to encourage involvement of employers of all sizes, Apprenticeship Carolina offers an employer tax credit and access to the state's technical college system with programs in advanced manufacturing, construction technologies, energy, healthcare, IT, tourism and service industries, and transportation, distribution and logistics. Maybe most importantly, the state has hired Apprenticeship Consultants whose job it is to make registered apprenticeship as accessible and attractive as possible—at no cost to the employer. They guide companies through the registered apprenticeship development process, including identifying employment needs and skill gaps and facilitating the process of registering an apprenticeship. Since the program launched, the number of programs has increased tenfold, serving almost 27,000 apprentices.¹⁵ “Intermediaries like these are key. Tax credits open doors but having a state-level entity to engage with employers, help them form collaborations when needed, register their apprenticeship programs with the government, and more is just invaluable,” according to Brooke DeRenzis, state policy and network director at the **National Skills Coalition**. She credits South Carolina's consultancy approach to its rapid expansion across the state.

Colorado has studied the Swiss apprenticeship model and is now in the process of developing a statewide initiative to place 20,000 high school students in youth apprenticeships in high-demand, high-pay occupations by 2027. Current pathways include manufacturing, business operations, financial services, healthcare, and technology. Students earn up to 60 college credit hours while still in high school and \$12-14 in hourly wages. With funding from corporate philanthropy, CareerWise Colorado is envisioning an apprenticeship and work-based learning system that builds on sector partnerships already in place in the state. Like in South Carolina, the Colorado Department of Labor and Employment has put in place staff who can work with existing networks of industry-led sector partnerships and statewide trade industries to spread the word about how youth apprenticeship offers an innovative, flexible, and cost-effective approach to training talent.

Maryland recently enacted legislation known as the More Jobs for Marylanders Act of 2017 that takes a multi-pronged approach to scaling apprenticeships, including a tax credit, a student financial aid program for non-credit training, and a goal of having 45 percent of high school students successfully complete career and technical education, earn an industry-recognized occupational or skill credential, or complete a registered youth or other apprenticeship before graduating high school.

Changing Mindsets

Apprenticeships offer real credentials and career pathways into middle skill jobs, present a realistic, affordable option for securing postsecondary credentials, and provide employers with a skilled, productive pipeline. The question is how can we create a more robust apprenticeship system in the United States?

Part of the problem is a lack of understanding of “modern apprenticeship.” Many still assume apprenticeships are only available within blue-

collar industry training. Although apprenticeships are now offered in a diverse array of industry areas, those numbers are still small. Almost half of apprenticeships are within the skilled trades of the construction industry and another 35 percent are in manufacturing. Crook from Zurich Insurance advises other companies to “open your mind to how an apprentice might be able to solve a talent need. Don't start with existing boxes in your talent profile—try to rethink how someone could learn specific skills.”



At first glance, apprenticeships appear expensive as they require employee wages and tuition or classroom costs for workers who are not at full productivity. “American managers are programmed to think in short-term increments, from quarter to quarter, about profits and productivity. But this is short-sighted,” according to Howze at the National Fund for Workforce Solutions. Employers focus on the upfront costs of building programs from scratch and that it will be years before they have fully trained workers. But she continues, “apprenticeships provide immediate benefits—motivated staff, working for less than full pay, who are becoming immersed in the firm’s culture and expectations.”

What Works

With a market-driven economy, the United States does not have a full-fledged infrastructure in place to attract enough employers and apprentices. There are many components that need to be addressed, from getting the word out on the value and effectiveness of the apprenticeship model; to creating on-ramps and connections to existing education and training systems; to identifying intermediary organizations that can convene employers to create efficiencies, broker education and training services, identify and coordinate funding sources, and provide a range of implementation supports.

Marketing/Awareness

Many of the partners involved in supporting apprenticeships around the country believe there is a need for businesses to understand how apprenticeship provides another opportunity to engage young people and transition workers to job opportunities in their industries. Employers may already be hosting job fairs, short-term work-based learning opportunities, and seminars. Registered apprenticeships require more structure certainly, but they are much more likely to produce a fully committed, highly trained, and productive workforce. States and districts could leverage existing K-12 career and technical education programming, plus share information with students and parents, to include apprenticeship as an effective option that provides a direct pathway to high-demand jobs.

Pre-Apprenticeship

Some industries have found pre-apprenticeship or initial training to be a necessary starting point. The **BEST Hospitality Training** program in Boston found it necessary to give minimum wage workers some basic skills and an introduction to the hospitality industry and what employers expect on the job. The **Apprenti** program in Washington requires new hires to go through upfront IT training so they can be given productive assignments once they embark on the on-the-job training component of the apprenticeship. Pre-apprenticeship could also be a means for connecting existing career technology education (CTE) programs in high schools and community colleges with full-fledged apprenticeship programs.

Intermediaries with Full-Time Coordinators

One of the keys to expanding apprenticeships is the ability to convene training providers and employers in productive formats to come to agreement on the best ways to deliver education and skills training. This is true in Switzerland where employer organizations and associations drive the system, determining the content of the training plans for each occupation, and getting the word out to make sure employers have enough apprentices in place to meet their job needs. Unions often play this role in the trades. As apprenticeship expands to a broader range of industries, workforce development boards or other community partners can step into this role.

For example, **West Michigan Works!** serves as an intermediary that sponsors the registered apprenticeships, recruits candidates, assesses their readiness, helps them prepare for job interviews with the employer hosts, and identifies and coordinates funding. In 2015, Michael “Todd” Estes was hired as a full-time apprenticeship director for **Tidewater Community College** to play two key roles. The first was facilitating employer interaction with the college and serving as a single point of contact on issues like admissions, advising, and navigating course offerings across multiple campuses. The second was serving

as an advocate for apprenticeships and helping employers to understand the model, its benefits, and how to register with USDOL. “We’ve found that this requires a heavy touch. We’re here to hand hold and help businesses see the value of creating apprenticeship pipelines,” according to Estes. Having an intermediary staffed by a full-time coordinator is critical to expanding successful registered apprenticeships.

Flexibility

The instructional component of apprenticeship can be an expensive element—and also time consuming if apprentices are working towards a full credential or college degree. Some employers expressed an interest in exploring online learning options. This flexible delivery model could make it possible for large numbers of workers, across states, to access learning even if they do not have a college campus easily available to them. **Ivy Tech Community College**, the nation’s largest statewide singly accredited community college system, is known for its expansive online course offerings. The college has a number of apprenticeship partnerships in place and is trying to map specific sets of skills with current courses and degrees to help facilitate additional apprenticeships.





Current Federal and State Policy Efforts

Connecting workers with middle-class careers is likely to require a multi-pronged, public-private investment strategy that includes K-12 schools, postsecondary institutions, labor, business, and state and federal government. Although some states are making commitments to apprenticeship that go beyond tax credits and tuition assistance (see page 9 for state apprenticeship model examples), the federal government also is taking steps to make apprenticeship more appealing, competency based, and turnkey.

USDOL has initiated several efforts to help expand registered apprenticeships to a broader range of occupations. These new occupations extend to advanced manufacturing, information technology, healthcare, energy, transportation, banking and finance, and hospitality. In addition, the government also is creating frameworks to make registered apprenticeship models more “off the shelf” and readily adaptable. One approach is to move away from an established, set number of training hours and towards competency-based models that emphasize workers achieving the necessary skills. So far, there are five approved competency-based occupational frameworks with another two dozen under review. These frameworks can serve as voluntary guidelines to encourage employers to think about using competencies as the primary method for structuring apprenticeships.

According to Diane Auer Jones, senior fellow at the **Urban Institute**, who serves as a technical contractor to USDOL, the question becomes “Can you do the job? This is what matters to employers. And it has the added benefit of taking into account prior knowledge, especially for more experienced workers and veterans who are interested in translating their military experience to civilian jobs.” Carlson of **Apprenti** echoes this sentiment, noting that the size and scale of the talent shortage in industries like IT requires new recruitment methods which “focus on identifying and qualifying prospective talent with competency over pedigree. U.S. employers need to direct talent investment and training resources into those with the greatest potential for success and sustainability.”

USDOL is also funding national industry intermediaries to support the expansion of Registered Apprenticeships in a variety of industries. These “contract intermediaries” are tasked with building capacity within their industries and could go a long way to developing the kinds of systems that are currently lacking in the United States. For example, the **Healthcare Career Advancement Program**, a national labor-management organization that includes SIEU locals and healthcare employers, has created a clearinghouse of learning outlines, tools, and competency models that others can adapt and use. Intermediaries in a range of industries are helping employers see the value of starting new or growing existing programs.

USDOL has started a campaign to expand registered apprenticeships known as Apprenticeship USA LEADERS to encourage greater adoption of it as a workforce and talent development strategy. Companies involved in this program represent a wide range of industries, including construction, manufacturing, health care, finance, and retail.

The Task Force on Apprenticeship Expansion, created through an executive order by President Trump, is charged with identifying strategies and proposals to promote apprenticeships.

In addition to what USDOL has underway, there is a potential opportunity for Congress to address apprenticeship as part of reauthorizing the Carl D. Perkins Vocational Education Act, the major K-12 and postsecondary career technology education (CTE) legislation known as Perkins. Currently, the Perkins law does not explicitly mention apprenticeship, leaving it out of state CTE infrastructures. With many community colleges already providing the education component of registered apprenticeships, there is a real opportunity to embed apprenticeship into existing CTE systems to help provide better connections and pathways from youth career exploration and work-based learning into apprenticeship and degree programs that lead into high-wage, high-demand jobs and careers.¹⁶



Conclusion

Registered apprenticeship is clearly a topic of interest to many in the United States today. A growing number of U.S. companies across a range of industries are designing apprenticeship programs to give workers access to on-the-job learning opportunities that allow them to transition into in-demand jobs and careers.

This discussion paper provides a snapshot of the current state of apprenticeship in the United States based on interviews with national experts and key stakeholders engaged in apprenticeship implementation, including employers, community colleges, unions, and intermediaries. We briefly explored what is needed to build successful programs and highlighted current federal and state policy efforts to encourage registered apprenticeship expansion.

The United States does not have a full-fledged, employer-coordinated apprenticeship infrastructure in place the way Switzerland and Germany do. Those countries have a strong history of formal union- and employer-supported apprenticeships that attract a significant percentage of secondary school graduates who are interested in continuing their learning on the job under the guidance of experienced mentors. In the United States, the approach is much more decentralized and reliant on individual employers to take the lead in partnering with education partners in devising their own programs.

Given the context of our market-based economy and orientation of local control, we solicited suggestions for how to grow registered apprenticeship opportunities in the United States. The following observations and recommendations are based on the set of interview conversations:

1) Provide Standardized Models

Employers, especially small and medium-sized companies, can be deterred by the process of registering, designing, funding and implementing their own apprenticeship education and training frameworks. Rather than building individual programs from scratch each time, the more that apprenticeship models and certifications can be standardized, the more likely it is that employers and intermediaries will get involved.

2) Reduce Complexity

The bifurcated registered apprenticeship system in the United States, with some states running their own systems and others belonging to the federal system, adds complexity and confusion. While federal and state governments are making efforts to provide incentives and funding to encourage employer participation, the variation of these offerings across state lines makes the process difficult to navigate. Improved coordination and aligned funding streams could increase interest.

3) Measure Value

Establishing an apprenticeship program requires employer and education partners investing staff time and resources upfront to define job skills, design a curriculum and training sequence, and establish an apprenticeship structure. Employers often focus on these upfront costs without fully understanding the potential long-term benefits. Additional research on costs and benefits to U.S. employers in a variety of industries and to respective state economies and public spending would help others to see the potential value.

4) Learn from Innovative Models

This discussion paper spotlights a few innovative models and partnerships. Given that many employers, community colleges and intermediaries appear willing to share their frameworks and lessons learned, others could adapt these successful programs rather than recreating the wheel. The federal and state governments could also consider funding pilot projects to spur growth.

In closing, we found general agreement that apprenticeships have the potential to provide a structured, yet flexible, workforce training solution for skilled jobs across a wide variety of industries. For companies and the country's workforce to remain competitive in today's global and fast-changing economy, we need to think creatively and design new skills training options that open doors for workers and solve talent shortages. Apprenticeship is one potential strategy to achieve those collective goals.



Interview List

The Committee for Economic Development conducted phone interviews with the following individuals and thanks them for providing background and insight into apprenticeships:

BEST Hospitality Training: Marie Downey

Harper College: Rebecca Lake

Healthcare Career Advancement Program: Daniel Bustillo

Ivy Tech Community College: Claire Berger

National Fund for Workforce Solutions: Pamela Howze

National Skills Coalition: Brooke DeRenzis

Nestlé USA: Paul Grimwood

New America: Mary Alice McCarthy and Brent Parton

SkillUp Washington: Susan Crane

Tidewater Community College: Michael “Todd” Estes

Urban Institute: Diane Auer Jones

Washington Technology Industry Association: Jennifer Carlson

West Michigan Works!: Deb Lyzenga

Zurich North America: Al Crook

Endnotes

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Apprenticeship



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