



National Standards for Strong Apprenticeships

By Sarah Ayres August 26, 2014

Apprenticeship, a time-tested model of worker training, can help meet the growing demand for skilled workers in the United States. Expanding apprenticeship, however, will require employers to understand its value. While today's registered apprenticeship programs are high quality, few employers know what an apprenticeship entails or what competencies a potential employee who has completed an apprenticeship possesses. This is especially true in fields other than building and construction, where the majority of apprenticeships are now concentrated. As policymakers look to expand apprenticeships into new sectors and occupations—such as advanced manufacturing, health care, and information technology—it will be crucial to establish apprenticeship as a credible form of certification in the eyes of employers. To accomplish this, employers should develop industrywide standards that validate that a worker who has successfully completed an apprenticeship possesses the specific knowledge and competencies required for employment in that industry.

By developing a robust apprenticeship system, the United States can better meet business demand for skilled labor and strengthen its competitiveness in the global economy. Today more than ever, the United States requires new tools to equip workers with the skills employers need. Almost half of all U.S. employers report that they have a hard time filling jobs because candidates lack technical competencies.¹ By 2020, the nation will experience a shortage of 3 million workers with associate's degrees or higher and a shortage of about 5 million workers with technical certificates and credentials, according to a Georgetown University Center on Education and the Workforce analysis.²

Apprenticeships may not solve all of our nation's workforce challenges, but they have the potential to play a much bigger role in our education and training system. This issue brief discusses the benefits of apprenticeship before explaining why registered apprenticeships do not currently offer a truly portable credential and how industry-recognized apprenticeship programs can help both workers and employers. It then suggests some policies the federal government can enact to incentivize employers to write national guideline standards for apprenticeships.

Apprenticeship offers significant benefits to workers and employers

Apprenticeship, a structured form of on-the-job training combined with classroom-based instruction, can help meet employer demand for skilled workers. As discussed in the recent Center for American Progress report, “Training for Success,” apprenticeship offers substantial benefits, including higher worker wages and increased business productivity. Apprenticeship is the ultimate job-driven training tool because it immediately puts workers into high-demand jobs. Apprenticeship has proven to offer workers higher wages than other workforce development tools; it has also been shown to provide taxpayers with the greatest return on investment.³

But apprenticeship is an underutilized training tool in the United States. The Department of Labor administers a small system of 375,000 registered apprentices, and about 100,000 new apprentices start programs every year. By contrast, England starts about 3 million apprentices per year.⁴ One of the reasons U.S. employers do not more widely offer apprenticeships—particularly in nontraditional sectors and occupations such as health care, information technology, and advanced manufacturing—is that today’s apprenticeships do not provide workers with a uniform credential that employers recognize and respect. This limits apprenticeship’s value to both workers and employers.

Registered apprenticeships lack portability

The secretary of labor currently issues a certificate of completion to workers who finish a registered apprenticeship. In theory, this certificate should serve as a nationally recognized portable credential, and, in many cases, it does—especially for apprenticeship programs linked to a national labor union. However, registered apprenticeships are not as portable as they could be. This is because the exact components of an apprenticeship program in one occupation may differ across states and between employers. This means that an employer who evaluates an apprenticeship completer from another state or company may not know exactly what the worker has learned or which skills they have demonstrated.

The lack of uniform national standards is partly a result of the bifurcated administration of registered apprenticeships. The national registered apprenticeship system includes 25 states that each independently review and approve apprenticeable occupations, meaning that standards are not uniform across state lines.⁵ Prior to 2008, state apprenticeship councils of business, labor, and other public interests had the authority to register occupations, which resulted in less accountability to the U.S. Department of Labor. Today, however, the power to register occupations for apprenticeship lies exclusively with the federal Office of Apprenticeship and with federally recognized state apprenticeship agencies.⁶ This change has increased the accountability and oversight of the registered apprenticeship system, but it has not fully unified registered occupations across states.

Industry certificates do not guarantee a job

Employers are increasingly looking to develop stackable credentials that certify a worker has demonstrated the ability to perform a specific set of skills. Such industry-recognized credentials have the potential to offer significant benefits to both workers and employers, but a credential is not a job. An industry certification confirms that an individual successfully passed a test, typically after completing a course at a community college or other training provider. This is very different from an apprenticeship program, which necessarily requires that the worker be employed in a formal, on-the-job training program.

One industry that has made progress in this area is manufacturing, where employers have developed a system of credentials in key occupations ranging from precision sheet metal operators to fluid power technicians. The Manufacturing Institute, the nonpartisan affiliate of the National Association of Manufacturers, has introduced a system of nationally portable, industry-recognized credentials called the Manufacturing Skills Certification System.⁷

The Manufacturing Skills Certification System includes 15 certification sponsors that provide industry standards and assessments, spanning the occupational pathway from entry-level workers to engineers. Workers are certified in basic career readiness before advancing to certification in essential manufacturing skills, such as safety and maintenance awareness.⁸ At the most advanced level, 12 industry organizations offer certification of specific skills in areas including machining, welding, fabrication, automation, fluid power, mechatronics, and transportation.⁹

For now, implementation of the Skills Certification System has centered largely on encouraging community colleges to offer the credentials. In 2009, with a \$1.5 million grant from the Bill and Melinda Gates Foundation, the institute funded pilot programs in which four community colleges began to offer courses leading to the credentials.¹⁰ At the same time, the institute has encouraged employers to recognize the certifications in hiring and promoting employees.

But certification alone has its limitations. First, certification tells employers nothing about the quality of an applicant's work or even whether the applicant has any on-the-job experience. Moreover, while companies often cite the skills gap as a top concern, simply making certification available does not guarantee that more workers will attain it. Second, while an apprenticeship combines education and training into a job, certification requires workers to invest time and money in coursework that may or may not ultimately lead to a job. They are still left to "train and pray," as Secretary of Labor Tom Perez has put it.¹¹

Combining industry-recognized credentials into an apprenticeship program is a smart solution

Registered apprenticeships provide on-the-job training but fail to offer a truly portable credential, while industry-recognized credentials are portable but do not offer on-the-job training. Therefore, combining the two has the potential to truly transform our workforce. An apprenticeship developed by employers that includes industry-recognized credentials would create a path for workers to achieve the specific knowledge, skills, and certification necessary to excel in their jobs.

Fortunately, at least one such model exists. Starting in 2003, with a \$1.9 million grant from the Department of Labor, the National Institute for Metalworking Skills, or NIMS, worked closely with metalworking experts from companies and trade associations to develop a set of industry-driven national skills standards and a competency-based training curriculum for specific skillsets related to metalworking occupations.¹²

Today, employers can offer a NIMS Certified Registered Apprenticeship Program in 16 occupations, including machinist, toolmaker, and CNC setup programmer. Apprentices must demonstrate certain required competencies as they progress through their training, earning a series of NIMS credentials along the way. Employers can customize the apprenticeship by adding competencies relevant to their own companies to the list of core competencies. Upon completion, a NIMS-certified registered apprentice receives a certification from the U.S. Department of Labor in addition to the national certificates from NIMS.¹³

The NIMS program is not mandatory; employers are free to develop their own registered apprenticeship programs that do not incorporate NIMS certifications. But using the program allows employers to develop their very own pipeline of skilled workers, while workers gain career training and mentorship that leads to industry-recognized credentials.

For example, Eaton Corporation in Eden Prairie, Minnesota, developed a NIMS-certified apprenticeship program several years ago after struggling to find machinists and tool and die makers. In 2007 and 2008, Eaton became the first company in the country to have employees who completed NIMS-based apprenticeships in machine maintenance repair and Level 3 machining. Ron Krueger, training coordinator at Eaton, told *Precision Manufacturing Journal*, “NIMS works well for us because it forces our employees to prove both knowledge and skills. Most people can do some type of classroom training and pass a written test. But at the end of the day, they may or may not be able to run a piece of equipment.”¹⁴

Employer-developed national guideline standards

Successfully expanding apprenticeship requires employers to be confident that completers have the skills and competencies to excel in the workforce. Therefore, employers must write standards that reflect their industries' needs. As shown with the Manufacturing Institute's Skills Certification System, some employers are already working to identify competencies and assessments for in-demand jobs. They should move to incorporate the development of national apprenticeship standards into this work.

These new standards would identify the skills and knowledge required for specific occupations, outline a work plan and curriculum for different apprenticeships, and detail how apprentices will demonstrate the competencies needed for specific jobs. They could follow the example of the NIMS Certified Registered Apprenticeship and would be guidelines for how an apprenticeship in a given occupation should be structured and evaluated to ensure completers gain the skills and competencies employers have agreed are necessary. The guideline standards would not be required, but they would offer employers a blueprint for setting up a program that leads workers to a respected, industry-wide credential.

Participating in an industry-recognized apprenticeship program offers workers all the benefits of an apprenticeship in addition to the value of a truly portable, nationally recognized credential. An apprentice earns a job, steadily rising wages, and entry into a successful career in an in-demand field. Instead of investing in an expensive education that may or may not lead to a job, apprentices get jobs upfront and go on to gain an education with little to no debt. When they complete the program, they have a credential that proves they have the skills and competencies necessary for a job.

Industry-recognized apprenticeship programs also benefit employers by combining the value of a respected credential with the ability to build a pipeline of skilled workers. Companies that sponsor apprentices are able to meet the demand for skilled labor, gain workers with customized skills, boost retention, save money on wages, and improve productivity.¹⁵ Instead of hoping that the right people decide to attain the right credentials and apply for job openings, employers are able to build their own pipeline of skilled workers to meet current and future needs.

An established national credentialing system would provide greater credibility to American apprenticeships as a whole. The streamlined, industry-led initiative would further incentivize companies to register their apprenticeship programs, instead of offering their own nonstandard, unregistered training programs. Because an industry-recognized apprenticeship will come with a stamp of approval from both employers and the federal government, workers will know that their certification can travel across state lines, be recognized by a range of employers, and boost their earning power.

Facilitating employers' development of the standards

The development of national guideline standards should be industry led, but there are steps the government can take to incentivize employers. In the case of the NIMS Certified Registered Apprenticeship Program, a \$1.9 million grant from the Department of Labor leveraged \$7.5 million in private investment to bring stakeholders together to agree on a set of skills standards and apprenticeship frameworks.¹⁶

Congress should appropriate funds for competitive grants to facilitate the development of national guideline standards for apprenticeships. This could be accomplished either by creating a new grant program or by appropriating additional funds to existing grant programs. The grants, matched by industry investment, should be for nonprofit industry associations to convene industry stakeholders and experts, pinpoint several high-demand occupations in their industry, determine the necessary skillsets for each, and write apprenticeship standards that reflect the needs of employers. For each occupation, the standards should incorporate any relevant pre-existing industry certifications into a competency-based or hybrid apprenticeship program.

Applicants for the grants should be evaluated on at least two criteria:

1. Ability to represent industry broadly and to leverage private-sector investment.

Partnerships should include leading employers in the sector and representatives from small- and medium-sized employers. At a minimum, partnerships should provide matching funds worth 50 percent of the total grant. For instance, a partnership applying for a \$2 million grant should contribute an additional \$1 million in matching funds, for a total program budget of \$3 million.

2. In addition to the traditional trades, focus on high-growth occupations in which apprenticeship is not traditionally used. Partnerships should develop standards for occupations projected to grow that do not already have well-established apprenticeship programs.

One grant program that has funded similar activities is the Department of Labor's Trade Adjustment Assistance Community College and Career Training, or TAACCCT program. The TAACCCT program offers competitive grants to community colleges to provide training programs that connect people with jobs in growing industries. Established in 2010, the TAACCCT program has supported partnerships between community colleges, the workforce, employers, and industry groups to transform the way they design and deliver courses through accelerated learning strategies; redesigned curricula; distance learning; work-based training, such as registered apprenticeships; and innovative uses of technology to enhance learning activities. Although the four-year initiative recently accepted applications for its final round of grants, Congress could reauthorize it to facilitate the development of national guideline standards for apprenticeship.

An existing program that could fund this work is the Department of Education's Fund for the Improvement of Postsecondary Education, or FIPSE. This work falls within the program's scope; the program offers competitive grants to colleges and universities, technical schools, professional associations, trade unions, and other education-related postsecondary nonprofits.¹⁷ The program's goal is to "support the implementation of innovative educational reform ideas" that have national applications.¹⁸ Many of the projects supported by FIPSE involve curriculum or skills-standards development.

In 2014, FIPSE will award up to \$75 million in grants through its First in the World competition.¹⁹ Although the 2014 deadline for these funds has passed, in future years, the Department of Education could give preferential treatment to applicants who seek to develop apprenticeship standards. Congress could also appropriate additional funds to FIPSE specifically for these activities.

Conclusion

Apprenticeship is an underutilized education and workforce development strategy with the potential to connect businesses to skilled workers and workers to good jobs. One of the hurdles preventing U.S. companies from adopting apprenticeship programs is the lack of uniform apprenticeship standards. This makes it difficult for an employer in one state or company to know the exact skills and knowledge of an apprenticeship completer from another state or company. This is especially true of employers in sectors and occupations that have not historically employed apprentices. As policymakers look to expand apprenticeships into new high-demand, nontraditional sectors, they should engage employers to write the standards for key occupations in their industries. By giving industries the power to determine the components of an effective apprenticeship program, policymakers can ensure that the U.S. apprenticeship system meets employers' needs and offers workers the most useful and portable training and education program. In doing so, they will strengthen the registered apprenticeship system and pave the way for its expansion into new occupational fields.

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Endnotes

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