Apprenticeships, though underutilized, are a highly effective method of training and education that delivers a big return on public investment.

By Ben Olinsky and Sarah Ayres Steinberg | December 2, 2013

Apprenticeships are not a familiar concept to many Americans, but expanding the use of this highly effective training model can help our nation meet the demand for skilled workers, create pathways to well-paying careers for unemployed young workers, and give American businesses a competitive edge in the global marketplace. Apprenticeships have been a tried and true method of educating and training workers since the Middle Ages, and they continue to enhance productivity and boost workers’ earnings in many countries around the world today. At a time when too many American workers lack the education and training to secure well-paying, middle-class jobs, and American businesses increasingly rely on high-skill workers to innovate and expand, we believe that apprenticeships hold great promise for addressing our nation’s economic challenges. In this report, we will discuss America’s insufficient workforce training system, demonstrate that
apprenticeships are a time-tested solution to our workforce training challenges, and propose a set of policies to expand apprenticeships while addressing the reasons they have not yet been widely adopted in the United States.

An apprenticeship is a job in which an individual is paid to learn a set of skills through on-the-job training. In the United States, a formal system of “registered apprenticeships” was created in 1937 by the National Apprenticeship Act and is overseen by the U.S. Department of Labor and the individual states. Under the system, a sponsor of an apprenticeship registers its program and its apprentices with the federal government or a delegated state agency. For each “apprenticeable” occupation, a set of requirements details the duration and/or competency standards necessary for completion. When an apprentice completes these requirements, the government issues a certificate of completion that then serves as a nationally recognized portable credential.

Despite the existence of a formal registered apprenticeship system in the United States, the training model is not widely used or understood by American workers or businesses. America had 358,000 active registered apprentices in 2012—only 7 percent of the number of apprenticeships in England when adjusting for population size. Apprenticeships are also a key conduit for many German and Swiss young adults to enter the workforce.

In the United States, registered apprenticeships last between one and six years, with an average of four years. The requirements for completing an apprenticeship may be time-based, competency-based, or a hybrid of the two. Apprenticeships typically include 2,000 hours of on-the-job learning and a minimum of 144 hours of classroom-based instruction each year. The classroom-based instruction is often conducted at local community or technical colleges or other vocational schools. Unlike internships, in which individuals work for little or no money and rarely receive formal training, apprenticeships follow an “earn-while-you-learn” model. They are real jobs with extensive on-the-job and classroom-based training and wages that go up as skills are mastered.

Apprenticeships are run by employers, employer associations, and labor-management organizations. The costs of apprenticeships are usually borne almost entirely by their sponsors, who pay for an apprentice’s wages, all on-the-job training costs, and often much of the tuition for their classroom instruction. In the case of joint labor-management programs, both groups make significant investments: Each year, building trades unions and their partner contractors invest more than $1 billion in apprentice and journey-level training, tens of millions of dollars more in construction training plants and equipment, and $10 billion in apprentice wages and benefits.

In exchange for this investment, employers receive a pipeline of skilled workers steeped in the culture of their firms and who exhibit strong loyalty to their sponsors. In a number of states, employers may also qualify for tax breaks or other
subsidies. A number of federal workforce funding streams may also be applied toward the costs of an apprenticeship.

Expanding the U.S. apprenticeship system would help strengthen our economy, as research shows that the United States is not producing enough skilled workers to meet our future economic needs. By 2020, America is projected to experience a shortage of 3 million workers with associate’s degrees or higher and 5 million workers with technical certificates and credentials. Compounding our inadequate workforce development system, research shows that employers are now spending less on training than they have in the past. At the same time, industry surveys show that a lack of qualified workers is a top concern for many employers.

Apprenticeships can help meet the demand from businesses, while offering workers higher wages and better employment outcomes. Evidence on the effectiveness and return on investment for apprenticeships is strong—they are overwhelmingly recommended by employers and lead to significant increases in lifetime earnings and benefits of up to $300,000 for workers.

But expanding apprenticeships will require overcoming a number of hurdles that have thus far prevented their broader adoption in the United States. Businesses must take on significant costs to hire apprentices and are frequently unaware of the benefits they will gain in return. Similarly, workers are unfamiliar with the range of occupations, educational requirements, and salaries associated with apprenticeships. Despite efforts to diversify, apprenticeships remain largely the domain of men in traditional trades such as construction. Our disjointed national system of administering apprenticeships makes it difficult to collect data that would better inform their use and hinders the development of a uniform credentialing system that would provide the most benefit to workers and employers. Finally, unions have invested significant resources into developing high-quality apprenticeship programs through joint apprenticeship committees; a broad expansion of apprenticeships into new sectors and nonunionized workplaces would face the challenge of moving forward without that significant expertise and support.

In this report, we outline a set of policy recommendations that, if implemented, will address these challenges and set the stage for a large-scale expansion of apprenticeships in the United States. We recommend improvements to marketing efforts to generate demand from businesses, tax incentives to help businesses defray the cost of training apprentices, and competitive grants to support promising public-private partnerships. We recommend improving access to workers by establishing an online database of openings and launching an initiative to bring recent high school graduates into apprenticeships. And we recommend improvements to research and data collection that will enhance our understanding of the economic benefits of apprenticeships and how to expand their reach to women and workers in nontraditional occupations. We believe that our proposals can connect workers to good jobs, enable businesses to boost their productivity, and offer taxpayers a high return on investment.
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