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Emulating Germany's Apprenticeship System Won't Make America Great Again

We should not delude ourselves into thinking that Trump's apprenticeship expansion will substitute for our failing K-12 schooling system.

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Trump's new program may just be Band-Aid or a temporary fix until the future catches up to us.

When U.S. President Donald Trump announced that he would expand the federal program on apprenticeships, interest in the job training plan picked up considerable steam. Those who hail the idea frequently look to Germany and its apprenticeship system for why this model might work. The German program is often credited with helping the country weather the international financial crisis with very low unemployment rates, particularly of youth. In fact, German resilience during the 2008 recession led many European countries to send delegations to Germany to see how they could reproduce the German training system. Then-U.S. President Barack Obama took a closer look at Berlin's success as well. So did a number of American state governments. The Trump executive order expanding apprenticeships pushes this interest to the next level.

But the German system is not a realistic model for the U.S. It relies on a very stratified education system along with regulated and heavily unionized labor markets. More importantly, its focus on entry-level job skills distracts attention from the much deeper

problem of ensuring the general cognitive skills that are a prerequisite for long-term growth and productivity improvement. Indeed, President Trump's executive order is motivated by the observation that "federally funded education and workforce development programs are not effectively serving American workers," even as it veers off in a direction that could magnify the impact of these problems. The expansion of apprenticeships may be a stopgap measure to deal with some current labor market issues, but it is not going to solve the deep-seated U.S. skill problem.

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A closer look at how the German system works will help reveal why. About half of all German youth participate in the vocational and apprenticeship system, which itself builds upon school tracking that occurs in the 4th grade. The dual system involves youth at the end of compulsory school splitting their time between workplace learning (3 to 4 days of the week) and academic learning in government-funded schools for the remainder of the week. The apprenticeships lead to certification in over 300 occupations, ranging from traditional blue-collar trades to an expansive set of white-collar occupations, including international technology specialists, professional engineers and a variety of administrative jobs. This system, set up by a 1969 law that regulated vocational training across the country, is reinforced by tight certification standards formulated by an agreement of unions and management. At completion of an apprenticeship, the certification makes youth much more employable in the rigid and often stagnant German labor market.

This system, and variants of it, have shown clear advantages in Germany, Switzerland, Austria and others in smoothing the school to work transition. The focus on entry into the labor market has, however, obscured a significant downside.



HEINZ-PETER BADER / REUTERS

An instructor trains an apprentice in the aeronautics industry in Austria.

Vocationally-trained workers with relatively narrow skills face a harsher labor market with time as the nature of production changes. The employment advantage of German youth with vocational as compared to general education reverses over time and disappears around age 50, according to a study I conducted along with an international team. At that point, even with Germany's

continuing emphasis on dual education, vocationally-trained workers who have not adapted to changed labor market demands, begin leaving the labor market altogether. These costs are only now being recognized as Germany's declining population has focused more attention on the growing retirement burdens.

In fact, the problematic aspects of the vocational system may be even larger than just Germany. The narrower skills and less adaptability of vocationally-trained workers in Europe have even led some macroeconomists to identify underlying training policies as an explanation for the slower growth in Europe compared to the U.S. with its more ubiquitous general education emphasis. Firms are led to choose from a smaller set of production processes that favor the existing skills of their workers.

The European Union, which generally has supported expanded vocational training, emphasizes the importance of "lifelong learning" as a way of facilitating adaptation to new labor market conditions. Indeed, job retraining does appear to be the key, but EU governments have not been successful at developing labor market retraining programs for older workers. Nor, it appears, have firms stepped up to take on this job. In German firms, workers with general training, whose academic training developed the skills to learn new things, are much more likely to get training throughout the career than those who enter with vocational training.

For a variety of reasons, some of which are listed above, the U.S. simply cannot adopt wholesale the vocational training systems of Germany. U.S. schools used to have significant vocational education tracks, but these have now largely disappeared — partly the result of the inability of schools to keep up with ever-changing industries. This generally uniform retreat of U.S. secondary schools from providing a vocational curriculum does not feed into the idea of expanded apprenticeships well. The lower levels of unionization — and the significantly lower levels of certification and of labor market restrictions — further create a very different environment for firm participation in any general training. And, the lack of strong bonds between schools and firms makes it difficult to emulate the dual aspect of the German system that emphasizes a strong parallel academic program.



MICHELE TANTUSSI/GETTY IMAGES

Apprentices work in a German training center ranked among the leading electric steel plants worldwide.

If not German-style apprenticeships, then what?

But just because America can't easily replicate the full German model of apprenticeships, it doesn't mean the idea of apprenticeships are wholly unrealistic for the country. There may be other paths to success that could come without buying into the German system. In the generally strong current U.S. labor market, firms report large numbers of jobs unfilled because they lack sufficient numbers of qualified applicants. Could an apprenticeship program help to fill these gaps? Such a program would require finding trainable youth, a commodity that unfortunately seems to be in short supply in our quite tight labor market. Unless we attract currently active workers from other employment, the available youth would have to be heavily weighted toward those who



have not succeeded in the schooling system, including many who failed to graduate from high school. For whatever reason, this group has stopped formal schooling, and it is generally the case that they have less general academic skills. This does not bode well for a training system that is geared towards learning new things.

Specifically, we must ask whether the target participants, generally with only rudimentary reading and math skills, are well-positioned for training into high-skilled occupations. Moreover, as these alternative occupations change, are those we've picked to train well-positioned to adapt to changes?

The limited existing apprenticeships in the U.S. have been most successful in the building trades, in large part because of their unionized and regulated employment. Indeed, in many people's minds, discussion of apprenticeships leads to images of the neighborhood plumber or electrician who is paid high wages for ever-needed services. If currently unskilled youth could be provided training in these areas, there could be obvious employment gains. But, such trades are a small portion of the available unfilled jobs.

The larger skill gaps are found in a wide range of service and technology areas, many in the white-collar occupations. Thinking of moving apprenticeships into such new areas is not simple. First, there is the issue of convincing firms in these shortage areas to provide extensive training to new workers when these workers might not stay with the firms providing the training. Then, there are also issues of defining the areas in which to focus attention. As more and more jobs become routinized and automated, which occupations will remain static and in high demand, requiring little adaptation? Indeed, the difficulty of forecasting future occupational demands is an ever-present problem, particularly for the government. Even the Germans with their well-honed system are struggling with this.



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Another motivation for expanded vocational education in America is a perceived overemphasis on college degrees, which could perhaps be corrected by providing a viable alternative. With the current public discussions emphasizing providing college-ready skills to all high school graduates, many people question whether everybody should go to college. Isn't there going to be increased demand for skilled workers who have not gotten expensive college degrees? The answer, of course, is yes. But at the same time, future workers will still quite uniformly require the basic skills that allow them to adapt to an ever-changing economy. The retraining problem will not go away.

Ultimately, the issues raised about expanded apprenticeships are not arguments against the training of new workers or against "career and technical education" — CTE — in general. But they are arguments against thinking that expanded training of youth is a substitute for high-quality primary and secondary schooling that provides basic cognitive skills to all and prepares them for an uncertain future. Fixing this continuing American problem isn't as simple as turning to another country's successful system or expanding our own alternative education program. But it may be a step in the right direction if we acknowledge these central problems.

Looked at from a longer term perspective, one of the most significant labor market problems facing the U.S. today is the number of workers whose middle-class jobs are slipping away and who lack the ability to adjust to a rapidly moving labor market. We are struggling to find ways of dealing with that problem. But the caution here is that we should not lock in this situation for the future by failing to provide basic skills to the next generation. We should not delude ourselves into thinking that we can easily bring in apprenticeships to substitute for failing K-12 schooling. As with Germany, we must build any vocational education on a strong, internationally competitive base of basic cognitive skills. Otherwise, Trump's new program may just be Band-Aid or a temporary fix until the future catches up to us.