

Who is Going to Build the Wall? A Building Trades Crisis in the U.S.A.

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Abstract

A significant workforce shortage exists in most skilled trades areas in the U.S., but this is especially true in building and construction trades. The number of jobs in the construction industry is expected to grow by almost 20% between 2008 to 2018, while only growing by 11% for all other industries. With the prospect of significant shortages in the building trades, coupled with stronger border security and stiffer immigration enforcement, the question begs to be asked, who is going to build the wall politicians are calling for on the border between the U.S. and Mexico?

Key Words: Building, Career Technical Vocational Education, Construction, Skilled Trades, Workforce Education.

Introduction

During the 2016 election campaign in the U.S., there seemed to be a resurgence of controversy and comments from notable politicians and their supporters about building a wall across the entire southern border between the United States and Mexico. The reasons given for desiring to once and for all separate the U.S. from its southern neighbor, were to stem the flow of illegal immigration, reduce the volume of illegal drugs coming into the U.S. from Mexico and South America, and to reduce the threat of terrorism by closing a porous border. However, a major question that needed to be asked in this debate was, where will the workforce to build the wall come from?

Estimates from the Bureau of Labor Statistics (2016) indicate that 28.9% of the construction workforce are Hispanic or Latino; meaning that the workforce to build the wall would likely be disproportionately comprised of individuals the wall is meant to keep out of the U.S. This fact, coupled with the accelerated pace of deportations of individuals living in the U.S. without legal documentation, heightens the possibility that there will be fewer Hispanic or Latino workers available to work on constructing the border wall or any other building project for that matter, thereby exacerbating the workforce crisis in the construction industry in the U.S.

Skilled Trades Workforce Shortage

Nielsen (2016) stated that the term “skilled trades” includes various jobs that require training and contribute to the construction industry – masons, bricklayers, electricians, plumbers, painters, carpenters, roofers, and heating and cooling (HVAC) workers. The terms “skilled trades” and “building trades” are often used interchangeably.

To emphasize the veracity of the growing workforce shortage in building trades, Renze-Rhodes (2016), echoed sentiments from the Manufacturing Institute, which is an affiliate of the National Association of Manufacturers, and which reports that today’s average age of a

tradesperson is 56, and currently in the U.S. there are 600,000 skilled jobs, but by 2020, there will be a need for 10 million new skilled workers. Assuming this forecast holds true, the demand for skilled workers will grow significantly in the near future. Additionally, Wright (2013) noted that skilled trades have far fewer 65-and-older workers than the total labor force (1.9% to 4.8%), which is a clear sign that skills trades jobs, being typically more physically demanding than other jobs, prevents workers from delaying retirement because they need the money or because they simply enjoy working. The fact is, many skilled trades workers come to a hard stop in their careers due to the physical demands of the job.

Schwartz (2015) observed that for six consecutive years, skilled trade vacancies were the hardest to fill in the U.S. and for four consecutive years were the hardest to fill globally.

Building Trades Workforce Shortage

Signs of a crisis in the construction workforce was evident before the 2007 recession started. Gibbs (2005) echoed this sentiment by stating that America is facing a skilled labor shortage in the construction industry. However, Elejalde-Ruiz (2016) wrote that the construction workforce, which thinned out dramatically as work dried up during the economic downturn, is only three-quarters what it was pre-recession. Beyer (2017) quoted an economist for the National Association of Homebuilders (NAHB), who stated that the share of builders reporting either some or serious worker shortages has skyrocketed from 21 percent in 2012, to 46 percent in 2014, 52 percent in 2015, and 56 percent in 2016. These numbers obviously give reason for concern in light of the economic upturn in the Stock Market, which usually precipitates a boom in new construction.

Schwatka, Butler, and Rosecrance (2012) predicted that the number of jobs in the construction industry will continue to grow by 19% from 2008 to 2018, compared with a projected 11% for all other industries combined. These authors also projected that growth of the construction industry will be hindered in the future by a shortage of skilled workers. Thus, keeping skilled workers employed in the industry is a high priority in the U.S.

What Caused the Shortage?

There are a number of reasons given for the building trades workforce shortage. For example, Krupnick (2017) reported that many fields are facing worker shortages because so much effort has been put into encouraging high school graduates to go to college for academic degrees rather than for training in industrial and other trades. Drew-Thompson (2014) postulated that the shortage in skilled trades and construction workforce began with the steady stripping away of technical education programs from public schools in the way our society, namely parents and educators, perceive how career paths are best determined.

Conrad (2015), attributed the main causes for the workforce shortage to: a slow-down (67% decrease from 2006-2013) in immigration to the U.S. over the past decade, foreign workers who have not returned to the U.S. after the housing crisis, and increases in opportunities in Mexico along with increases in immigration enforcement along the border, which prevents workers from returning. While all of these factors may have contributed to the workforce

shortage, the one factor that seems to garner more political and legislative banter is immigration. However, because workforce shortages are so severe, a fresh look at immigration is more than likely the only viable short and long-term solution.

Decline in High Schools Technical Education Programs

For the past two decades there has been persistent declines in the number of technical education programs offered in high schools. Hudson (2013) wrote in a National Center for Education Statics (NCES) report that the average number of secondary/ high school courses taken in career and technical education declined from approximately 4.2 credits in 1990 to 3.6 credits in 2009, while the average number of credits earned in other subject areas increased. Traditionally, students who developed an interest in career and technical education (CTE) fields such as building and construction trades went to work immediately following high school. However, Oymak (2017) found that 74% of ninth graders in 2009 expected their main activity in 2013 to be postsecondary education. Only 19% expected their main activity to be work. Oymak's report also found that students' expectation for postsecondary education increased as family socioeconomic status (SES) increased. This information seems to confirm that there is a diminished view in society today when it comes to the value of traditional blue-collar jobs.

Misconception that Higher Education Always Equals Higher Income

Many students shy away from pursuing skilled trades careers because of the misconception that higher educational achievement always equals higher income levels. For example, Carlson and McChesney (2015) found that the higher the educational achievement, the higher the associated average salary. However, Hamm (2016) noted that such studies often do not paint the whole picture. Hamm argued that there is not much of a drop-off in salaries between trade school graduates (\$35,720) and those with a four-year degree (\$46,900), when the fact that trade school only takes an average of two years to complete versus four, and in many cases more years for a bachelor's degree. It puts the trade school graduate ahead by approximately \$71,440.

There are also disparities between salary levels for those with bachelor's degrees depending on field of study. The fact is, graduates from certain liberal arts programs often find themselves employed in jobs for which they received no employment training. And, quite often these positions do not offer the level of pay that many skilled trades positions offer. Not to mention the huge loans students are usually stuck with for years after completing a bachelor's degree. While Anderson (2017) agreed that learning a skill, such as welding, auto mechanics, or construction can lead to a lucrative career, a college degree has many benefits too. Therefore, a summary of the research seems to suggest that a combination of skilled trade proficiency along with postsecondary educational attainment may be the best educational preparedness.

Stricter Immigration Laws

The table-1 below, which was adapted from a U.S. Bureau of Labor Statistics (2016) report shows how various groups are represented in the building and extraction trades in the U.S. It indicates that in every category, Hispanic and Latino workers comprise a major portion of the

U.S. workforce. Since changes in immigration policies are expected to significantly impact Hispanic and Latino populations, it means that the construction workforce will continue to experience notable shortages.

Table 1					
Employed Persons by Occupation, Sex, Race, & Hispanic or Latino Ethnicity					
Occupation	Total Employed	Percentage of Total Employed			
		Women	Black or African American	Asian	Hispanic or Latino
Construction & extraction occupations	7,929,000	3.0	6.8	1.7	34.0
First line supervisors of construction & extraction workers	680,000	2.6	5.5	1.5	22.5
Brick, block, and stone masons	160,000	0.5	6.4	0.5	45.5
Carpenters	1,359,000	2.1	5.4	1.2	33.9
Carpet, floor, tile installers & finishers	168,000	1.9	3.5	0.9	50.8
Cement masons, concrete finishers, & terrazzo workers	56,000	2.2	10.5	1.6	48.8
Construction laborers	1,801,000	3.5	8.1	2.2	45.5
Operating engineers & construction equipment operators	351,000	2.3	8.7	0.2	19.3
Drywall & ceiling tile installers and tapers	180,000	1.1	6.7	0.5	62.7
Electricians	774,000	3.0	5.9	3.1	16.8
Insulation Workers	50,000	5.2	7.7	0.5	33.8
Painters, construction & Maintenance	612,000	6.2	5.7	3.6	50.7
Pipelayers, plumbers, pipefitters, & steamfitters	583,000	1.4	7.5	0.9	21.2
Roofers	230,000	1.7	4.9	1.1	51.7
Sheet metal workers	126,000	2.9	6.7	2.1	16.7
Structural iron & steel workers	60,000	2.0	10.7	1.9	10.8
Helpers, construction trades	57,000	6.2	9.2	0.9	42.5
Construction & building inspectors	93,000	6.4	11.8	2.4	9.9
Highway maintenance workers	92,000	3.2	9.6	0.2	15.1

SOURCE: U.S. Census Bureau 2016 Report

Strategies for Reversing Building Trades Workforce Shortages

Make it a National Priority

Enactment of the Carl D. Perkins Bill, which provides federal funding for career and technical education (CTE) programs in the U.S. first occurred in 1984. Since then there have been a couple of re-authorizations in 1998 and 2006. The Bill is currently up for another re-authorization and so far has gained enough by-partisan support to allow it in 2017 to pass in the U.S. House of Representatives. Full re-authorization will once again affirm the U.S. government's strongest support for career and technical education. Following passage of the bill in the House, Nagurka (2017) stated that the work on Perkins will now be focused in the Senate, and expressed hope that the Senate will make Perkins reauthorization a priority in the coming months. Staklis and Klein (2014) mentioned that the Carl D. Perkins Act sets a minimum allocation requirement that secondary and postsecondary CTE sub-grantees must achieve to receive federal financing. Such minimum requirements and the financial support grantees receive can go a long way in keeping CTE programs viable and in motivating educational institutions to offer them.

Increase the Number of Women and African Americans in Building Trades Careers

From a historical perspective, Wyatt and Hecker (2006) found that construction workers declined 31 percent as a proportion of total employment between 1910 and 2000, from 4.3 percent to 3.0 percent. Most of this decline was among carpenters. Historically, African American men comprised a larger portion of the construction workforce than they currently do, and this percentage continues to steadily decline. Carson (2011) stated that during the early history of the U.S., construction jobs were among the only employment Black men could get, and so a significant number of them worked in construction trades. The chart above provides substantial evidence of the current level of under-representation among women and African Americans in the building trades. Any efforts to reverse the workforce shortage must include recruitment among these groups.

Additionally, reauthorization of the Workforce Investment Act (WIA), which was initially passed in 1998, or similar legislation, might be helpful. Best and Cohen (2013) indicated that WIA, which funds workforce education, career pathways programs, and other programs typically aimed at assisting low-income and other vulnerable populations, has not been reauthorized since its passage.

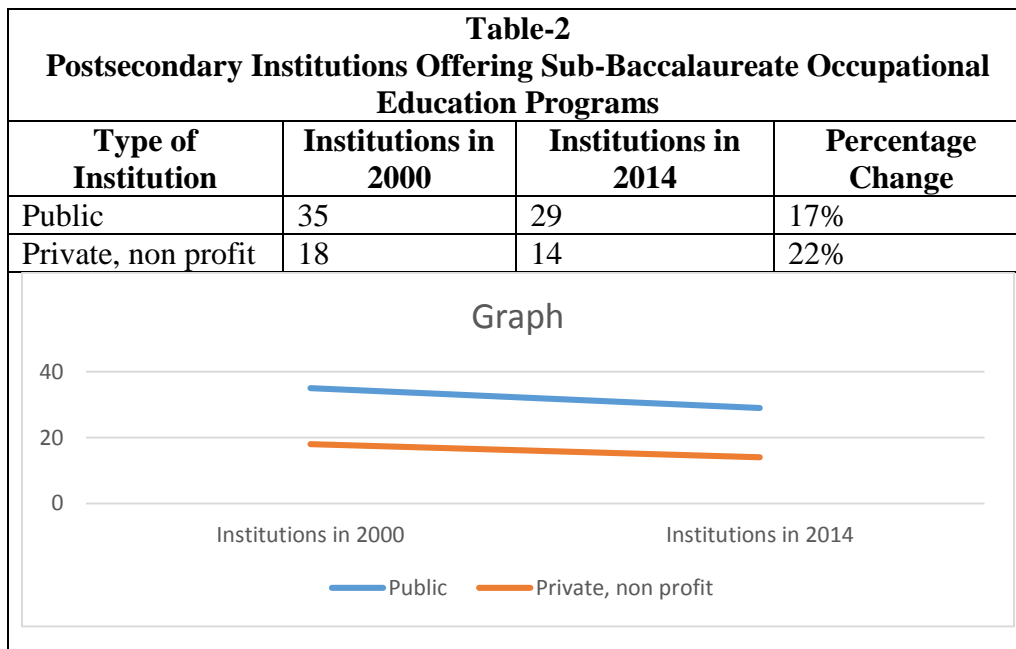
Expansion of Apprenticeships

Finkel (2016) reiterated the fact that partnerships between community colleges and employers to create apprenticeships have been around for decades. These traditionally have covered fields like the build trades – electrical, construction, and others – as well as heavy manufacturing like the automobile industry. Continued support for these types of apprenticeships is sorely needed. Helper, Noonan, Nicholson and Langdon (2016), lauded the benefits of apprenticeships by asserting that the payoffs for workers is clear: 91 percent of apprentices find employment after completing their program, and their average starting wage is above \$60,000. As a result, the U.S. Department of Labor has invested \$265 million since 2015 to expand apprenticeships. Helper et al. also examined benefits to businesses which engage in apprenticeship programs. They reported that all of the firms they studied believe that

apprenticeships improved their overall performance and provide a competitive advantage over other firms in three distinct areas: production, workforce (less turnover), and soft skills.

Re-introduce Building and Skilled Trades Programs in Secondary and Postsecondary Schools

A number of skilled trades programs, which were once taught in secondary schools, if they are still offered are now only offered to high school students through dual enrollment with a community or Junior college. Students can receive sub-baccalaureate credentials (certificates, associates degrees) through these arrangements. The number of students who can be credentialed through the dual enrollment plan is directly impacted by the availability of institutions to engage in such an arrangement. Hudson (2017) found that the number of occupational education institutions in the U.S. declined between 2000 and 2014. The following chart summarizes the decline:



Occupational education is similar to career and technical education in that it is designed to prepare students for careers following their occupational training. A decline in institutions offering occupational education training undoubtedly impacts the supply of potential workers in building and skilled trades. Additionally, Roberts (2016) established that students who matriculate in sub-baccalaureate programs in occupational fields are less likely to persist to attaining a credential than those who matriculate in other fields. Therefore, institutions that offer occupational education curricula should also have strong student retention programs.

Re-examine Guest-Worker Programs

Workforce shortages in building and construction trades in the U.S. have been so prolonged and increasingly intense that the problem appear unsolvable by a supply of workers who are either citizens or permanent residents of the U.S. Prospects seem more bleak now than

they did in the past ten years. Political efforts to address the situation appear meager in light of the problem. For example, Greenhouse (2013) reported that an immigration deal crafted in the U.S. Congress capped the number of guest construction workers admitted to the U.S. each year at 15,000, and in a bow to labor unions, bars admission for any higher-skilled workers like electricians, crane operators or elevator repair technicians. Several major construction industry groups criticized the agreement, claiming that the number of visas allowed is too low.

Guest-worker programs allow workers from foreign countries to legally work in the U.S. particularly in high-demand areas where there is a shortage of U.S. workers. The type of visa issued is called an H-2B visa, which is available to skilled or unskilled construction workers. In describing the requirements for employers to obtain guest workers, Slowey (2016) stated that the open position(s) must be of a one-time or seasonal nature, which excludes any work available year-round. Employers must show that there are no American workers able and willing to do the work, and they must cover all travel and visa expenses the guest worker might incur. These and other regulations make this option somewhat prohibitive for employers in the construction industry. Reform is needed to make guest worker programs friendlier and easier for employers to pursue with the appropriate government anti-abuse oversight.

Change Marketing from Menial to Meaningful

A movement is needed to reeducate society, particularly parents and educators about what a good job looks like. Krupnick (2017) reported that the State of California is spending \$6 million on a campaign to revive the reputation of vocational education, and \$200 million to improve the delivery of it. The author noted that some view this as a “cultural rebuild.” In reflecting on a message given by Senator Marco Rubio, R-Florida, during the 2016 presidential campaign, Krupnick echoed Rubio’s statement that “welders make more money than philosophers.”

Wright (2013) reported concerns that for two or three generations, the focus of education has been to go to college, get a degree and in doing so ensure a brighter future with more access to employment. The issue at hand is, the focus on academic instruction resulted in neglect of career education. Wright noted that in a two-year institution, costs are less, and the average student can finish with skills to gain immediate employment. Academic and career education do not have to be competing choices as they can complement each other. Most importantly, Wright concluded that skilled trades can provide a promising career path depending on a job seeker’s skills and location. Somehow, this message has been lost but needs to be communicated again in order to reverse declining workforce shortages in skilled and building trades.

Conclusion

The desire to build a wall on the southern border between the U.S. and Mexico will likely bring greater attention to the building trades workforce shortage, which has grown to crisis levels in the U.S. Since employers are finding it difficult to find workers for construction projects across the U.S. it should be expected that there will also be worker shortages to build the border wall. It should also be expected that if the wall is to be built, a disproportionate number of workers on that project will reflect the way it is on projects across the country, namely, many of the workers

will be Hispanic or Latino. If Hispanic or Latino workers are not available for any reason, the wall will either take longer to build, or may not be built at all.

There are no viable short-term options to addressing the skilled and building trades workforce shortage in the U.S. other than to through immigration and guest worker programs. Other options, such as promoting skilled trades in secondary and postsecondary institutions will not yield the number of workers needed to address the shortage, and will take longer than can be afforded. While politicians may expediently sell the idea that immigrants take jobs away from Americans, the fact is, many jobs in the construction industry are going unfilled, and this is not because Americans do not know they are available.

Admittedly, the social stigma associated with being a construction worker may not equal what it is in some other positions, which require traditional academic training, but that stigma needs to change because in many cases, skilled trades jobs pay as good, or better. This needs to be communicated to young people who are often herded into academic disciplines thinking that is the only practical means to making a decent living; only to find it difficult later to make the descent living they expected, while struggling to pay off the debt they incurred trying to gain the required academic training.

To reverse the workforce crisis, which is looking as if it will become worse in the years ahead, a multifaceted approach must be taken through government's financial support, immigration legislation, reintroducing skilled trades programs in secondary and postsecondary schools, recruitment of more women and African Americans, and rebranding the status of skilled and building trades professions in the U.S.

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