Examining the Labor Shortage in the Construction Industry and Possible Solutions Presented by Industry Members

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This paper attempts to examine what factors have caused the sustained labor shortage in the construction industry. Whether it be through the lens of general contractors, trade partners, or suppliers, all parties associated with the built-environment have experienced a form of labor shortage or an increase in older employees with few replacements readily available. The main purpose of this paper is to gather enough data and opinions from construction industry members to formalize the few key factors of the diminished labor force, primarily in California’s commercial construction sector. The lack of skilled workers has negatively impacted the quality and quantity of work able to be performed by trade partners in their respective fields. Conversely, this has impacted the amount of work general contractors can partake in. An additional aim for this research paper is to garner potential solutions that industry members have that can not only expand the current construction labor force, but to also increase awareness of the construction career path to high school students and young individuals. Results of an industry survey indicate that construction firms desire more outreach to high schoolers and college-aged citizens. Whether that be through their own outreach or by unions and vocational programs, there is an emphasis on educating and exposing young people to the construction industry as a worthwhile career. Whether this is through increased funding for trades-related programs by industry members, or initiating new forms of mentorship for students, it is imperative construction members collaborate to find an end to the labor shortage.

Key Words: Construction Management, Construction Education, Labor Shortage, Leadership, Mentorship Program, Skilled Labor

Introduction

Construction accounts for one of the largest fiscal sectors in the United States’ GDP. More importantly, it serves as a multi-faceted career path, where members can specialize in certain building crafts, building trades, or even extend their reaches to property development and acquisition, among others. Construction was ranked the fifth largest source of job growth, besting the education and health services, retail, and professional services (Green & Whyte, 2009). Why is it then, that the construction industry has been experiencing a consistent labor shortage? There have been multiple answers to this burning question, yet none of those replies has fostered a permanent reversal in the downward trend of construction labor.

In its current state, much of construction is focused on building high-rise apartments and skyscrapers, rather than a horizontal expansion of the residential market. While this may not be a negative aspect for industry members themselves, outside perception of construction has slipped considerably. Many youths today do not see construction as a professional, honest, or trustworthy career path (Boyd & Clark, 2011). It’s unfortunate the idea of being a construction worker – which came with a source of great pride and ingenuity just a few decades ago – is associated with many negative personality traits. Whereas industry members should be targeting young people to replace their aging workforce, they are inadvertently pushing them away for simply being part of the profession.

Not only has the construction industry missed its opportunities to recruit young people into a financially and psychologically-rewarding career path, it’s also unable to keep pace with the demands for labor in the current market. “Forty-five percent of the [survey] respondents indicated that they had experienced a shortage of labor on a
current project” (Defnall, Olsen, & Tatum, 2012). Construction firms are essentially understaffing the majority of their projects, while simultaneously assigning themselves to work to keep their businesses afloat. And these labor shortages are not just impacting large firms with offices in multiple states, they’re affecting contractors in states not known for high construction output, like Alabama. Ninety percent of general contractors felt their subcontractors were having difficulty in either hiring or maintain adequate workforces (Olsen & Tatum, 2012).

What was once considered a prestigious and amicable career has been replaced by other careers spent behind desks and computer screens. While the pride of being part of the next towering skyscraper or expansive residential community still exists, the numbers of those laborers are dwindling. Since the 1950s, the productivity of the construction industry has remained stagnant, while almost all other sectors of the economy have gone up (Construction Industry Resources, 2016) Furthermore, the construction industry has placed a high reliance on older members of the workforce. An estimated 20% of the current labor workforce will retire within the next three years (Green & Whyte, 2009). Lastly, the construction industry is not replenishing its labor faster than it is losing them. In one study, it was estimated there was a need of 5.7 million workers, but peak construction labor during the time period was expected to only be 4.7 million, a deficit of 1 million craftspeople (Construction Industry Resources, 2016).

While the circumstances may sound dire, general contractors, subcontractors, and suppliers have all taken steps to curtail this downward trend. Organizations like Associated General Contractors, the ACE Mentor Program, and National Association of Home Builders are actively educating and recruiting high schoolers, college students, and young people nationwide about careers in construction. The ACE mentorship program is available to over 30,000 students in 31 states (Koch, 2008). Some general contractors in California are also pairing up with local area high schools to reintroduce construction-related programs and classes back into students’ education as an alternative to college. Despite what the numbers may suggest, the construction industry is involved with raising their labor force numbers. While the shortage may not end overnight, the foundations to attracting young people to this great career are well underway.

**Methodology**

The main form of data collection for this project came through an industry-wide survey. Over the course of three weeks, a survey was developed in conjunction with Cal Poly’s Construction Management staff to narrow the survey to 10 questions. An online survey service (surveymonkey.com) was utilized to create the survey. There were 46 responses with a 100% completion rate. The questions included in the survey consisted of multiple-choice answers along with a blank text box where respondents could include any additional information or opinions related to the question or answer.

Aside from demographics-style questions (such as asking how long an employee had worked at their company and their position), the survey mainly aimed to understand how a labor shortage (or lack thereof) has impacted each respondent’s company. Additionally, questions were asked regarding what solutions industry members proposed to help increase the construction labor workforce. They were also asked whether the construction industry has provided adequate education and financial funding to introduce construction and the trades to young people.

**Results**

*Industry Opinions on the Labor Shortage*

It must first be noted questions 1-3 of the survey sent to industry were meant to gather general information about the respondent. The first three questions asked the person’s position in their company, what type of company they worked for (whether general contractor, subcontractor, designer, or other), and how long they had been with their current company. Also, questions 9-10 of the survey asked if respondents wanted to conduct an additional interview where they could explain their opinions in more detail. There were indications respondents were willing, but did not return communications when asked to set up an extended interview opportunity.

When asked whether their company was experiencing a labor shortage, 30 out of 46 (65%) responded with the answer “yes”. Another 14 answered “no”, while two answered “unsure”. Respondents were able to include
additional text answers to explain how their company was combating labor shortages. Most companies have utilized in-house and out-sourced recruiting to universities and union halls to potentially raise their labor force. Others were more focused on training their current employees or hiring from union halls. (Fig. 1)

**Figure 1:** Companies experiencing labor shortages

The next question was met with a wide variety of answers. Respondents were asked who they believed were responsible for outreach and training to replace the shortage of skilled workers. Options included: field personnel, office personnel, human resources, upper management, and other. Those who answered “other” were in the majority, at 12 out of 46 returns. Field personnel and upper management both had 10 answers, while human resources had 9, and office personnel had 5. Many who commented “other” explained that either union halls, out-sourced recruiters, or a combination of everyone at the company is involved in recruiting. This presents a clear issue on who is deemed responsible. If there isn’t a concentrated effort from one department or set of team members, it will be that much more difficult to find new employees. (Fig. 2)

**Figure 2:** Who is responsible for outreach and training within the company

The common conception of construction is that it’s labor force is dominated by an aging population, having worked in the industry for decades. These individuals are nearing retirement and have few people readily available to replace them. However, when this survey asked respondents if they relied more on these older, established workers, 31 out of 46 (67%) said “no”. Additional text answers to this question indicate that many employees’ companies are heavily invested in training their younger and more inexperienced workers. While this may benefit those already in the industry, it does little to bring people directly into it. (Fig. 3)
The core of this paper was aimed at understanding whether industry members felt their colleagues and competitors were participating in helping end the labor shortage. The next question asked if general contractors and subcontractors should increase their funding and participation for hiring younger, skilled workers. A resounding 34 out of 46 (74%) responded “yes”. The additional question asked what specific recommendations these industry members would have to increase a younger, skilled workforce. The most common remarks were concerned with increasing visibility of the construction industry in high schools. Whether these were through renewed shop classes or direct contact between the school and a contractor, construction industry members want our youth to be exposed to the construction career path. With this knowledge in mind, it would be best for industry members to create first-hand experiences with high school students to show construction as an alternative path to post-secondary education while also being a worthwhile life-long career. (Fig. 4)

Lastly, survey respondents were asked whether current professional organizations such as Associated General Contractors (AGC) and the California Homebuilding Foundation were promoting the construction industry well enough to young people. It should first be noted, however, that many of these organizations actively market their services and mentorship programs throughout the nation. The focal point of the question is to better estimate whether industry members believe those organizations have sufficiently contributed to replenishing the workforce. Surprisingly, 18 of 46 respondents (39%) and 23 of 46 respondents (50%), answered “no” or “unsure”, respectively. As with the question before, text responses indicated that professional organizations are not marketing the...
construction industry to a satisfactory level, according to current industry members. However, industry members again indicated that they would like to see more vocational and trade school programs installed back in schools to expose students to the construction profession. (Fig. 5)

**Figure 5:** Are professional organizations promoting the construction industry well enough

### Conclusion

The main objective of this project was to identify what possible solutions industry members had to curtail the ongoing labor shortage. With an ever-increasing workforce population that is made of men and women closer to retirement than those one to five years removed from college, the construction industry cannot keep pace with its ambition labor projections. Consequently, construction firms have either had to reduce the amount of work they can attain or focus a larger portion of their efforts on recruitment and retaining of current employees. Ideally, there would be sufficient plans such as the ACE Mentorship program in place to boost the number of young architects, contractors, and engineers entering the workforce.

However, as history has noted, the public perception of the construction industry has consistently slipped. What was once considered a profession that one took immense pride in has been replaced by observations of deceit, distrust, and lack of organization. For those working in construction, those ideas could not be farther from the actual truth. Thus, the main solutions offered by construction industry members is to increase awareness of the benefits and opportunities that construction (more specifically, the trades) can offer young people. An excellent alternative to college with high-pay and high-skills should be advocated for in high schools. Engaging young people may be the only long-term solution regarding reducing this decades-long labor shortage.

### Future Research

Future research should likely focus on high schools. It would be ideal if a successor could gather data on high schools that are involved in the ACE Mentorship program, have a direct program with a general contractor, subcontractor, or union hall, and schools that already utilize vocational programs. Perhaps an analysis could be done to gauge how many students that participated in the aforementioned programs went on to have careers in the construction industry, or if they are considering joining the industry in the future. Considering current industry members believe outreach to high schoolers would be the most effective solution to ending the labor shortage, this would indicate how effective mentorship programs are, or whether a different course of action is needed.

### References


