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# Resolving the Construction Labor Shortage

*Three key strategies that can help combat the current labor shortage in the homebuilding industry*

By DON NEFF

The building industry is facing a shortage of skilled labor that needs to be addressed if our goal is ramping up housing production. In California alone, Governor Gavin Newsom has a stated goal of 3.5MM new homes by 2025, or 500,000 homes per year. This production goal is very lofty given the industry's actual delivery trends over the past 10-20 years. Across all construction trades, the housing industry is constrained by a severe labor shortage. That said, careers in the building industry are promising and rewarding, and trade certifications provide a great alternative to a traditional college degree. To build homes for families in need is both a fulfilling experience and an honorable profession.

Unfortunately, without top grade craftsmen more tedious oversight is required by superintendents and construction managers in the field and throughout the construction process. Unskilled labor can impact budgets, cause schedule delays and put the builder at a greater risk for defects and litigation. This article presents three time-tested solutions for

consideration: 1) Training through Continuing Education; 2) Immigration Reform; and 3) Technology Applications.

## 1. TRAINING AND EDUCATION

Both private sector initiatives and public agency solutions can contribute to remedy these labor shortages. Private and non-profit options include structured apprenticeships, "BITA" training, professional certificate programs, and work-study internships. Construction trade schools can also produce trained workers with dependable skills. Programs and initiatives implemented in California have proven successful in past cycles of labor shortages and could be scaled nationally with the right sponsors in other high growth markets. Advanced education and certifications provide needed skill sets. The Light Construction

Development Management (LCDM) program is a great example. It consisted of a two-year college-level certificate program created by the Orange County Home Builders Council for people seeking advanced skills in home- building, off-site construction and community development. Classes were taught by industry professionals volunteering through the University of California/Irvine evening extension program.

"BITA" (Building Industry Technology Academy) is a privately funded high school program, sponsored by the California Homebuilding Foundation ("CHF"). This is a 501 C (3) non-profit organization, based in Sacramento, CA. Its aim is to produce skilled professionals who are qualified to enter the workforce following successful completion of a four-year curriculum. The program is provided, without cost, to California high school students.

Eligible high school students receive practical job skills in the construction trades and emerge qualified to enter the homebuilding workforce. The curriculum and support services are provided without cost to California high schools, of which over 30 are presently participating across Northern and Southern California. Four new schools will be added in the Fall of 2019. California building industry leaders in conjunction with educational institutions have provided strong leadership in pressing forward with these programs, and other states could easily follow suit using this same template.

The BITA program can result in well-paying, stable career tracks for those high school students who aren't interested in going to college. BITA graduates also benefit from more practical and transferable skill sets leading to immediate and dependable financial opportunities.

Design Build is an annual competition for Orange County high school and college students interested in the construction field. It provides a fast-paced, two-day building experience that closely follows the real issues and pressures experienced on a construction job site. Local building industry leaders and public sector building agencies provide support through

volunteer supervisors and technical coaching as well as material and equipment donations. Teams of students from the local Orange County schools design and then build their structures, following specific design guidelines, with a judging competition for best in class.

Work-study Internships are another fast track route to entry level experience, greater responsibilities and potentially higher wages. These include both volunteer and paid positions covering three to six months, varying with the company or public agency and its organizational needs. During high school and college, students can benefit directly from relevant work experiences, develop strong work habits, and build marketable skills. Earning both college credit and respectable wages while gaining valuable experience is a great opportunity and frequently can lead to significant job offers after completion.

The lack of skilled workers and a narrow talent pipeline has added extra hurdles, time, and costs to many current projects, hindering the potential production levels in the industry. We all need to contribute to the development and implementation of meaningful solutions for recruiting, training, and retaining qualified workers.



Apprenticeship programs and work-study internships are a few ways private and public sectors can address labor shortages.

## 2. IMMIGRATION REFORM

Public sector solutions could also include federal immigration reform coupled with skill development training as a pathway to immigrant green card or citizenship status. The US is a nation of immigrants, predating the founding fathers by more than a hundred years.

Those with the will to work hard and assimilate into the American culture have succeeded. Many potential immigrants could benefit from skill-based construction training in a variety of trades for entry level positions.

People from outside the US with existing technical skills could also benefit from a more streamlined immigration process. This precedent has already been established in the high-tech industry, and can be the case in the construction sector as well. Work study internship opportunities in the US for motivated immigrants which follow a pre-established set of standards in skill training and language development could help alleviate the continuing labor shortage.

This conceivably could be part of an immigration reform initiative with required construction training in the trades such as grading, concrete, rough framing, finish carpentry, mechanical, electrical, plumbing, cladding, stucco, sheet metal, sheet rock, roofing and landscaping. Adequacy of the training must be verified through appropriate building code- based testing and certification processes.

### 3. TECHNOLOGY APPLICATIONS

CaptureQA®, Plan Grid® and Pro-Core® are three leading digital technology solutions available to help manage through the cyclical labor shortage. Lacking top grade craftsmen, projects require more tedious oversight by field superintendents and construction managers, resulting in greater exposure to systemic project-wide defects.

Internet-based technologies, which combine project images with the associated narrative in stop-light simplicity, provide builders with real-time quality assurance reporting and related analysis in one digital package that can be acted on as quickly as daily reports are received. The onsite project inspections are conducted by trained personnel who produce this critical documentation so there is no mis- step or misinterpretation of the data. Without the help of technology-based solutions, builders and contractors face mounting delivery pressures, limiting positive identification, and closing out of open quality control items. This further results in process challenges and costly delays.

Capturing this QA data live in a real-time environment delivers three key benefits: a) evaluation of the trade contractors; b) evaluation of your field team; and c) evaluation of overall project construction performance, all of which can be automatically communicated to the builder's management team and insurance underwriters. Clearly identifying construction and vendor problems that could exist across several projects can allow the builder and contractor to act quickly to rectify problems before they become a trend that could turn into costly, ongoing construction defects. Identifying vendor and field related problems through a methodical and real-time quality assurance process can eliminate

widespread defects and save developers and contractors, and their insurance carriers, millions of dollars in repairs or in lengthy, time-consuming lawsuits.



Internet-based technologies help builders avoid delays through real-time analysis.

## IN SUMMARY

According to recent surveys from the Associated General Contractors of America, an overwhelming majority of construction firms reported having trouble finding qualified craft workers to fill key spots as demand for construction continued to rebound in many parts of the country. Of the 1,358 survey respondents, 86 percent said they had difficulty filling hourly craft or salaried professional positions, particularly carpenters, sheet metal installers and concrete workers. In addition, construction firms were having a hard time finding qualified people to fill salaried professional positions, especially project managers/supervisors, estimators and engineers.

The need for skilled and knowledgeable construction-trained employees has never been greater. With continued demand for new housing not only in California, but nationwide, we clearly need a coordinated set of industry initiatives which include both public and private sector stakeholders. We know from our on-the-ground QA consulting work across the US that the construction labor shortages are especially challenging in sunbelt markets. Fortunately, the areas outlined above—training and education; immigration reform; and technology applications—are all time-tested strategies that will provide positive and measurable results. What's in your toolbox?

## A CLOSER LOOK AT BITA'S CURRICULUM

- BITA (Building Industry Technology Academy) is a privately funded high school program, sponsored by the California Homebuilding Foundation (“CHF”). This 501 C (3) non-profit organization, based in Sacramento, CA, aims to produce skilled professionals who are qualified to enter the workforce following successful completion of a four-year curriculum. What does the curriculum encompass exactly?
- First year studies provide fundamental skills in construction math, measurement and scale, blueprint reading, safety procedures, ethics, team building, and interpersonal skills. Year two introduces the study of construction in earlier civilizations, infrastructure and building craftsmanship, which provides depth of perspective in the residential and commercial construction markets. The second year also covers more advanced studies of geometry concepts, estimating, and immersion in various trades such as framing, plumbing, and electrical (including lab work).
- Year three focuses on energy efficiency and infrastructure of the future, including green building initiatives. Climate change, pollution, waste, biodiversity and efficient use of materials are topics covered. Fourth year competencies include a significant independent research project of the student's choosing such as designing and building small houses for veterans, playhouses to be donated, and building facility improvements for their high schools.

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