



The Workforce Development Plan 2.0

AGC of America's New Plan to Address Growing Construction Workforce Shortages

2018

Introduction

The Associated General Contractors (AGC) of America first released a construction industry workforce development plan in the fall of 2013. Back then the industry was only a few months out of one of the worst construction downturns the industry has experienced. Nearly one-third of all construction jobs had disappeared nationally, while the sector's workforce was a mere shadow of itself in once-fast growing cities like Phoenix, Las Vegas and Miami. Yet less than two years after surviving near-Armageddon, many construction firms began reporting to the association they were having a hard time finding qualified construction workers to hire.

Instead of relying exclusively on anecdotal reports, AGC of America in the summer of 2013 conducted the first in an annual series of Construction Workforce Shortage Surveys. The results were very surprising. That year 74 percent of construction firms reported they were having a hard time finding workers. One of the main problems member firms reported was that relatively few young people were pursuing careers in construction at a time when the remaining industry workforce was aging, and retiring, at a rapid pace. In response, the association crafted a series of recommendations that federal, state and local officials could act on to reinvigorate the pipeline for recruiting and preparing qualified construction workers. The plan was called "Preparing the Next Generation of Skilled Construction Workers."

AGC of America has spent the past five years vigorously promoting the measures outlined in this plan. In large part because of our advocacy, a number of the key measures outlined in the plan have been enacted. These include our top priority, enacting a new federal measure that increases funding and flexibility for new career and technical education programs, formerly known as the Perkins Act. In addition, we are seeing renewed interest and support at the federal level for the apprenticeship system, and we helped secure significant improvements to the federal job

training law known as the Workforce Innovation and Opportunities Act (WIOA). We have also seen a lot of progress at the state and local levels, including significant increases in investments in career and technical education programs. Indeed, many governors, mayors and other local leaders now appear to appreciate that the best way to serve students is to give them multiple paths to success, including high-paying careers in construction.

Yet while we have achieved a number of significant victories in our efforts to promote workforce development measures, it will take a lot more to offset the misconceptions that have prioritized college preparation instead of skills promotion. That is why the Associated General Contractors of America is crafting this new workforce development plan. This plan is designed to build on the successes we had with our initial series of recommendations. We do this by identifying additional measures that federal officials should adopt to address a skills gap that is holding back even more economic growth. We also identify steps the association, our chapters and member firms can and will take to encourage more young adults to pursue high-paying construction careers. And we outline examples of successful steps construction firms and AGC of America chapters are taking to recruit and prepare new workers. The intent is to offer ideas that other firms and local groups can adopt to help address workforce shortages.

How Severe are Construction Workforce Shortages?

AGC of America and its partner Autodesk surveyed over 2,500 construction firms during the summer of 2018 to evaluate the extent and impacts of workforce shortages in the industry. The survey found that an overwhelming majority of construction firms are having a hard time finding qualified workers – particularly hourly craft workers – to hire. Specifically, 80 percent of firms

responding to the survey report they are having a hard time filling craft positions and 56 percent report are having a hard time filling salaried positions. These shortages are prompting many firms to raise wages, improve benefits and expand bonuses and other incentives. Labor shortages are also leading many firms to change the way they operate to become more efficient and less reliant on labor.

Labor shortages are also apparent in the monthly Job Openings and Labor Turnover Survey reported by the Bureau of Labor Statistics. BLS reports that construction industry job openings in recent months have been at the highest levels since the series began in December 2000. Meanwhile, the number of unemployed workers with recent construction experience has fallen to record lows. Together, these data show that contractors are having a hard time filling positions and are increasing having to hire workers without construction—or perhaps any—work history.

The other impact of construction workforce shortages, according to the survey, is that it takes longer and costs more to build many types of projects. Workforce shortages that make construction projects more costly and slower to build run the risk of undermining broader economic growth by making private- and public-sector development projects – including infrastructure – more expensive and time-consuming.

Ways the Federal Government Can Better Support Workforce Development

AGC of America has identified a range of federal public policy changes and initiatives that taken together will help address the workforce shortage today and ensure a skilled, safe workforce in the future. The changes involve both legislative and regulatory reforms and are aimed at bringing underemployed adults and young adults to the industry. Many of the changes entail greater federal funding, greater responsibility and flexibility to tailor and create local programs for

in-demand skills in local markets. There is no “one size fits all” solution and that is why AGC of America encourages policy makers to consider many of the reforms to ensure all markets and sectors are serviced.

- **Ensure Adequate Federal Funding**

The workforce shortage is too severe and important to not adequately fund programs to address the problem. Since the early 2000s, funding for underemployed adults, initially via the Workforce Investment Act and later the WIOA, has been cut or under attack. Meanwhile, funding for students in secondary and post-secondary career and technical education programs funded through federal career and technical education programs hasn't kept pace with the needs.

- *Career and Technical Education:* CTE programs are among the most valuable education programs for exposing students to construction skills and even to a lifelong career in the industry. However, CTE programs are expensive to administer and fund, with cost-intensive classrooms and equipment, and quality CTE instructors are in short supply. Especially in construction there is a shortage of quality instructors, as they are often recruited to work in the private sector at higher salary levels than a school district can provide. The modest funding increase in the recently enacted Strengthening Career and Technical Education for the 21st Century Act is a good start, but there are still needs not being met because of the funding limitations of the program. **Funding for the program should be doubled over the next five years.**
- *Workforce Innovation Opportunity Act:* WIOA targets adults who lack the needed skills for today's economy. Given the shortage of construction workers, more

emphasis should be placed on the federal job training programs under WIOA. This approach would provide otherwise underemployed adults with a more secure career and reduce their reliance on other social safety net programs that would otherwise place greater burdens on the federal budget. **WIOA funding should be increased in order to realize the full potential of the 2014 law's improvements and incentives for employers to engage, collaborate with educators and others to provide career training.**

- *Inequities of Workforce and Education Funding:* The federal government overwhelmingly supports and encourages higher education to the tune of \$128 billion a year in Pell grants that help offset the cost of higher education for four-year degree programs. The government also provides \$10 billion for mostly higher education in the Post-9/11 G.I. bill. In comparison, the federal government only provides \$2.7 billion for WIOA and \$1.1 billion for all types of CTE. **Expanding the use of Pell grants for short term credential programs** would help recruit more students to construction careers and offset the federal government's funding biases against workforce education.

- **Reforming Higher Education to Better Prepare the Workforce**

Our nation's higher education programs haven't traditionally collaborated with industry in identifying occupations with openings, nor in preparing students for in-demand jobs. The construction industry and the greater economy have an interest in ensuring that higher education investments are productive and hold schools accountable for preparing students for career opportunities while spurring innovation. Making reforms to higher education programs with an emphasis on workforce education is sorely needed. Policy changes that

expand federal work-study programs, improve apprenticeship opportunities for providers, provide greater flexibility for Pell grants for short-term competency-based programs, and improve transparency about employment outcomes for prospective students would provide more work-ready individuals. Giving students information on education quality and outcomes will help expose more students to the many benefits of career-oriented programs, compared with traditional academic instruction.

- **Measure Student Outcomes to Ensure Quality**

A recurring theme in federal workforce and education programs is to give all prospective students greater information and data and publish the return on investment so candidates have a better grasp of their earning potential. While many states and federal agencies collect data on outcomes, including employment and future earnings, few make this data available in a usable form. The better data students have to compare college, technical training or even an industry certification, the better suited they will be to follow the most appropriate path.

- **Reform Immigration to Address Worker Shortage**

For decades AGC of America has supported immigration reform that strengthens national security but also addresses workforce needs. The broken immigration system is a prime area to look to address the worker shortage with an estimated 10 million unauthorized individuals in the United States without the ability to lawfully work for employers. The lack of a legal visa program for construction workers and a recent tightening of legal immigration will worsen worker shortages if not addressed comprehensively. True reform must include a mechanism for construction industry employers to hire the temporary

foreign-born workers they need when American workers are unavailable and economic demand merits. Additional programs needing changes to increase a potential construction workforce include:

- Earned path toward legal permanent status for Deferred Action for Childhood Arrivals and Temporary Protected Status recipients.
- Opportunity for earned legal status for otherwise law-abiding undocumented workers.
- New temporary, market-based, visa program to legally alleviate current and future worker shortages and secure the border.
- Expansion of the H-2B seasonal visa program to meet the distinct needs of the construction industry.

- **Increase Apprenticeship Opportunities and Usability**

The administration has undertaken several recent initiatives to expand earn-and-learn career education and grow industry-recognized programs beyond the current, traditional system, to be overseen and accredited by third-party industry groups. AGC of America supports a national framework of third-party credentialing bodies authorized and overseen by the U.S. Department of Labor, as long as they offer greater flexibility without regulatory burdens and mandates. A future system should support the registered and industry recognized approaches equally in all respects, including funding. Apprenticeship programs should be rated on their outcomes regarding trainees getting jobs and wages. That information should be shared with students so they can make educated decisions on what programs best fit their needs. The federal government should not base its recognition of apprenticeship programs on whether they are affiliated with organized labor.

Recruiting the Next Generation of Construction Workers

Even as the association pursues a series of federal policy changes to address chronic workforce shortages, we also appreciate the need to support and expand efforts to recruit the next generation of professionals into the construction industry. Getting the federal government to take steps to improve construction training opportunities will do little to help with workforce shortages if few people are willing to enter training programs. That is why the association will continue to support a range of workforce recruiting campaigns across the nation. In addition, we are also launching a series of new measures designed to recruit even more young adults into the industry. These recruiting efforts are essential because the economics alone do not appear to be enticing many young adults to pursue careers in construction. Indeed, average hourly earnings in construction exceed the average for all nonfarm private employees by more than 10 percent, according to the Bureau of Labor Statistics. Unlike many other jobs, most construction careers do not require four-year college degrees. This means many new construction workers not only earn more, but they owe less in student debt than their peers in so-called “white collar” jobs. Yet despite that, relatively few young adults currently choose careers in construction.

As part of its efforts to encourage more young adults to pursue construction careers, the association is launching several new nationwide construction-recruiting efforts. These new measures include:

- **Launching a New Targeted Digital Recruiting Campaign**

The association is working with the Construction Personnel Executives Group and the National Center for Construction Education and Research (NCCER) to craft a new targeted digital advertising campaign to encourage young adults to pursue construction

careers. The campaign will target a series of different demographic categories who are likely to pursue construction careers in nearly a dozen metro areas. We will then direct digital advertising highlighting the many benefits of working in the construction industry to their households, so we reach them and their influencers. We will encourage ad recipients to visit a new recruiting website to learn more about the industry and identify construction career opportunities in their areas. If successful, we will explore ways to expand the scope of this campaign.

- **Organizing Nationwide Career Signing Days**

AGC of America will organize and encourage its member firms and chapters to hold construction career signing events each spring. These events, which have been successfully organized by a handful of AGC chapters, bring together graduating career and technical students with local construction employers in a region. During the event, the employers meet the students and during a professional sports-like ceremony, announce which of the students they have “signed” to join their team. These events offer a high profile, and exciting, way to promote the fact that there are many high-paying construction jobs available to graduating seniors in many parts of the country.

- **Investing in Innovation and Workforce Solutions**

The association will announce its first-ever Autodesk-AGC Innovation Award winners later this year and provide the winners with cash awards. The competition is designed to encourage construction professionals to craft innovative solutions that use technology or techniques to make the industry more efficient. The association will also explore establishing a Workforce Venture Fund to invest in and encourage the development of promising construction recruitment programs around the country. We would solicit

support for the fund from member firms and use the resources to encourage and invest in innovative workforce solutions.

Increasing Distribution of “Build Your Future” Materials

As part of our ongoing partnership with, and support for, NCCER’s [Build Your Future](#) campaign, the association will begin routinely distributing Build Your Future materials to our chapters and members. These materials will include recruiting materials, “trading cards” that contain information about pay ranges for construction crafts, and parent resources. The intention is to provide our 88 chapters and 27,000 member firms with resources they can use as they regularly participate in career days and other recruiting activities.

In addition to the new measures, the association will continue a host of other steps it already has underway to recruit young adults into the construction industry:

- **Educate the Media and Public About the Benefits of Working in Construction**

The association will continue its extensive work to educate the media and public about the many high-paying career opportunities that exist in construction and encourage more young adults to pursue these careers. In addition, we will continue to organize local media events with our chapters designed to highlight workforce shortages and encourage young adults to pursue careers in the field. And we will continue to work with Autodesk to produce, distribute and secure significant media coverage of our annual Workforce Shortage Survey. This survey is designed to gauge the extent of workforce shortages

nationwide and offers the association a unique opportunity to talk to a broad audience about construction workforce opportunities.

- **Continue to Invest in the Future Construction Workforce**

AGC of America, through its Education & Research Foundation, will continue to award scholarships to students pursuing careers in construction in four-year, community and career colleges. In addition, the Foundation will continue funding faculty externships that place construction-focused professors with member firms so they can learn about, and later teach, the latest construction practices.

- **Supporting and Recruiting Veterans**

The association will continue to invest in supporting veterans and recruiting them into the workforce. As part of AGC of America's Centennial commemoration, the association's charitable arm, AGC Charities Inc. is undertaking its most ambitious Autodesk Operation Opening Doors charity project yet: renovating an historic barn to serve as the new National Healing Quarters for the Warrior Canine Connection. This group works with veterans with invisible wounds – like PTSD or traumatic brain injuries – to train service dogs that then go to other veterans with physical or mental wounds. Training the service dogs have proven tremendously effective at helping veterans with invisible wounds recover and heal. The association will also continue to support the U.S. Chamber of Commerce's [Hiring our Heroes](#) program. This program connects prospective employers with firms looking to hire via a jobs board and a series of regional hiring fairs.

- **Support HCSS's I Build America Campaign**

AGC of America will also continue to support the [I Build America](#) campaign, which was created by HCSS to improve the image of the construction industry. We will continue to

distribute information about their efforts and provide information to member firms about how to participate in various industry support activities organized by I Build America.

- **Support Statewide Go Build Campaigns**

Several AGC of America chapters, including the AGC of Tennessee and the Alabama AGC, have helped establish statewide [Go Build](#) campaigns that are designed to improve the image of the construction industry and encourage more high school students and other young adults to pursue high-paying construction careers. AGC of America will continue to encourage its chapters to pursue these types of campaigns and highlight the local accomplishments.

- **Offer Template Workforce Recruitment Websites and Materials**

The association has developed a template workforce recruitment website that it makes available to chapters to support their workforce recruitment efforts. So far, we have helped establish these Build (Your State) recruitment sites in dozens of states during the past several years. We will continue to work with other AGC chapters that may be interested in establishing similar such recruiting efforts to help them create their own workforce recruiting sites.

- **Create Custom Workforce Development Campaigns**

AGC has also helped create custom recruitment materials, including websites, marketing videos and other materials, to support workforce development efforts underway by AGC of America chapters in Texas, Tennessee and South Dakota. We will continue to work with other chapters interested in creating customized recruiting campaigns to support their efforts as well.

How Construction Firms and AGC Chapters are Addressing Workforce Shortages

Getting federal officials to act on our recommendations and taking additional steps to enhance construction industry recruiting will certainly help address workforce shortages. But the fact remains that the greatest opportunity to address workforce shortages lies at the local level, where many construction firms and AGC of America chapters are already taking significant, and impressive, steps to address tight labor conditions.

We identify a number of those success stories in this section to inspire and encourage similar workforce development innovations across the country. Construction firms are in the business of building things and many don't typically have in-house expertise on workforce development. As a growing number of firms realize they need to get more involved in supporting local workforce development efforts, they are looking for ideas and suggestions.

One of the core functions of an association like AGC of America is to provide a forum where members can share suggestions and success stories with their peers from across the country. That is why the association has established resources that member firms and AGC chapters can use to learn about what their peers are doing to support workforce development. These resources include sites like the [AGC Workforce Development Resource Center](#) as well as our [Industry Recruiting Best Practices](#).

In addition to these resources, we also seek to highlight successful workforce development programs to inspire other chapters and member firms to establish similar programs in their areas.

Among recent examples we have highlighted are:

- **United Infrastructure Group**

In 2015, long-time Carolinas AGC member United Infrastructure Group (UIG) made the decision to transition from a temporary-to-permanent hiring strategy to a direct-hire strategy.

The firm implemented an online applicant tracking and onboarding software, which is the latest in human resources technology for recruiting and onboarding, especially millennials and younger employees. This has achieved several things: a broader outreach of its job postings; 24-hour access to UIG job descriptions and applications via computer, tablet, or smartphone; a dramatic increase in the number of applications received; and significantly faster hiring and onboarding time frames, all of which are critical in this competitive job market.

The firm also sponsored a Teen Career Exploration Opportunity at Winthrop University, participated in multiple job and career fairs throughout the Carolinas, sponsored a youth apprentice in its maintenance shop, hosted college interns each summer, and advised and supported a construction training program called 'Behind the Fence' at a South Carolina correctional facility to prepare incarcerated veterans for a skilled trade.

The firm also established a Recruitment and Retention Task Force made up of a cross-section of staff – from a board member to operations and administration managers – to conduct market-based wage analyses, performance review process, and develop a variety of policies and procedures that impact our workforce.

- **Wisconsin Operating Engineers**

In early 2015, the Wisconsin Operating Engineers identified workforce development as a critical issue they needed to help contractors address. The primary initiative the

Wisconsin Operating Engineers launched was with Destinations Career Academy, an online pre-apprenticeship program available to high school students interested in the operating engineers career path. This innovative public charter school allows students to remain full-time in their school district, while taking up to four online courses that earn high school continuing education credits, technical college credit and complete the curriculum required of first-year apprentices.

To drive interest in a career as an operating engineer, the Wisconsin Operating Engineers hosts an externship for students, educators and parents twice a year, where guests have the opportunity to tour the training center, test their skill on equipment simulators, gain hands-on experience with mini-excavators and learn about apprenticeship opportunities. The pre-apprenticeship program enrolled its first eight students from two districts in the fall of 2016. By the spring of 2018, 51 students from 16 districts were enrolled.

- **Fluor Corporation**

Fluor Corporation established its U.S. Gulf Coast Craft Training Center in Pasadena, Texas, in 2015. The Center offers tuition-free, pre-employment training in the welding, electrical, instrumentation, millwright and pipefitting disciplines.

The 12-week courses are based on NCCER's industry-leading curriculum and are taught by experienced professionals utilizing a combination of both classroom and hands-on delivery. Fluor's U.S. Gulf Coast Craft Training Center graduates approximately 300 students per year, greatly strengthening the pipeline of skilled construction talent to meet current industry demands, as well as future needs.

In addition to hands-on, technical training, Fluor also provides more than 40 hours of instructor-led training in employability skills development to help foster healthy attitudes

toward construction careers. Topics addressed as part of this curriculum include:

Teamwork, giving and receiving criticism, sexual harassment and diversity training, conflict resolution, and managing your career.

Fluor's U.S. Gulf Coast Craft Training Center has been a success. Since inception, more than 530 students have graduated from the program—many going on to work for Fluor on projects in the Gulf Coast and southeastern United States.

- **Shapiro & Duncan**

Shapiro & Duncan is a third-generation family company based in Rockville, Maryland, that provides mechanical engineering and construction solutions — including design-build, fabrication, installation and maintenance services that promote sustainability at every stage of a building's life cycle. The firm has been involved in workforce development formally and aggressively since 1998.

Over the years the firm has developed a lot of great relationships in the community and school system. It has brought a lot of young people into the industry by exposing them to opportunities.

In getting the word out, the Shapiro & Duncan team regularly goes to elementary, middle and high schools any time there is a career day. They also conduct presentations about different careers in construction to expose students to all the different roles that are available.

The firm is also involved in the university complex at Shady Grove in Montgomery County, Maryland, that has programs from nine institutions around the state that offer bachelor's and master's degrees. Many of the courses are offered on nights and weekends to accommodate students who have daytime jobs.

- **McCarthy Building Companies**

McCarthy Building Companies formalized its workforce development program in 2014 to expand efforts to recruit, train and engage its craft professionals and also to support the many industry efforts underway. The firm's workforce development program has been quite successful. It has a full-time dedicated staff that focuses on three areas — recruiting, training and engaging its craft partners.

The firm also engages in a host of outreach programs, including meeting with students, faculty, parents, community leaders and military transition personnel to explain to them the value of a career as a craft professional. In the first half of 2018, the firm attended nearly 50 formal outreach events.

- **AGC of Colorado**

The AGC of Colorado, in close coordinate with the Colorado Contractors Association, has put in place a comprehensive program designed to recruit and prepare young adults for high-paying careers in construction. These efforts include establishing a Colorado Construction Connection program to create hands-on construction experiences for high school students. The program also provides information to high school counselors and teachers on ways students can enter the construction industry.

The chapter also created a Careers in Construction high school education program that is currently in place at 6 schools in state. And the chapter established its Construction

Careers Now quick start pre-apprenticeship program that provides a four-week introduction to construction, including course work on construction math, OSHA 10-hour safety training, and an introduction to various construction trades, small hand tools and soft skills.

The chapter also operates an apprenticeship training program for six different construction crafts. And it maintains and operates the [BuildColorado](#) website to serve as its main recruiting and information sharing platform.

Conclusion

Shortages of available, qualified construction workers continue to become more severe in most parts of the country as demand for new projects grows. These shortages are prompting many firms to increase pay and benefits to retain and recruit from a relatively small pool of labor, which is good news for workers. But they are also prompting firms to slow schedules, increase the cost of construction and rethink bidding on projects. Rising construction costs, longer completion times, and less choice of contractors all pose significant risks to homebuyers and renters, private nonresidential developments, and infrastructure and public building projects.

In other words, construction workforce shortages pose a threat not only to the industry but to the broader economy. That is why public officials should act on the recommendations we outline in this plan. These policy solutions are designed to make it easier for education and industry officials alike to create new, or expand existing, construction recruiting and training programs. Meanwhile, the common-sense immigration reform measures we outline in this plan

will provide the kind of short-term relief the industry needs while the pipeline for recruiting and preparing domestic workers is rebuilt.

The industry, and this association, are ready to do their part as well. AGC of America will expand its workforce recruiting efforts while continuing to pursue a host of outreach measures we have initiated during the past five years. The intent is to counter the misconceptions that have stigmatized construction careers, despite the fact the economics of working in the industry is substantially more advantageous than in many other industries.

And construction firms and our chapters are ready to continue expanding their recruitment and training programs. Many of our member firms have shared their workforce development success stories and are eager to continue learning from each other. Meanwhile, our chapters have taken many significant steps that are already transforming state and local education priorities and putting greater emphasis on skills-based education.

Solving the chronic workforce shortages that are plaguing the construction industry will require active support from all levels of government, from associations like AGC of America and our network of chapters, and from construction firms. This plan is designed to serve as a guide to let each player know what they can and should do to rebuild our once-robust pipeline for recruiting and preparing the next generation of construction workers. While the challenge ahead remains difficult, our experiences in successfully promoting workforce development measures during the past five years shows that this is a problem that can be solved. With a lot of hard work, coordination and commitment, we can help attract many more young people into successful, rewarding and fulfilling careers in construction.