



**AGC**  
THE CONSTRUCTION  
ASSOCIATION

&

**AUTODESK**  
Make anything.

## **2019 Worker Shortage Survey Analysis**

### **SUMMARY**

The Associated General Contractors of America was the first commercial construction association to begin warning about the impacts of construction workforce shortages, releasing its first comprehensive Workforce Development Plan in 2013. Since then, the association has played a lead role in addressing construction workforce shortages.

As part of our workforce development efforts, the association has been pushing for federal measures to make it easier to set up construction recruiting and training programs. We have been educating the public about the many benefits of pursuing high-paying construction careers. The association has been making strategic investments in key workforce development programs.

AGC of America has also launched new efforts to diversify the construction industry by attracting new groups into the sector. And we have been providing our nationwide network of chapters and members with resources and tools to support their recruiting, training and retention programs.

Since we launched the association's workforce effort, we have made construction workforce issues a top national priority and helped secure a number of needed reforms and new investments that should help. These include working to get two new federal laws enacted reforming federal career and technical education and workforce training programs.

We have also secured a \$145 million increase in federal funding for career and technical education programs over the last two years. We have successfully used targeted digital advertising to recruit under-represented groups into the industry. And we have helped bring about new craft-focused workforce development funding programs in dozens of states.

One reason AGC has been so successful in our workforce development efforts is because of the work we have done to inform elected officials and the media about the extent and impacts of construction workforce shortages. Our annual Construction Workforce Shortage Survey has served as an invaluable resource for measuring both the extent and impacts of those labor shortages. As this year's results make clear, workforce shortages remain one of the single most significant threats to the success of the construction industry.

As labor shortages threaten to undermine the growth of the construction industry, contractors are taking aggressive steps to address the problem. These include increasing pay and benefits, establishing new training programs and finding new ways to be more efficient and productive. To that end, they are embracing new technologies and new techniques, including adopting robotics.

Yet even as this association and its member firms act to address construction workforce shortages, this year's survey results make it clear that more needs to be done. Workforce shortages are impacting the schedule, and cost, of too many construction projects. That is why the association is continuing to advocate for a series of new federal measures that will help alleviate construction workforce shortages.

Among the steps federal officials should take to address construction labor shortages are doubling federal investments in career and technical education over the next five years. Congress and the administration must also work together to enact comprehensive immigration reform that allows more people with construction skills to legally enter the country. And the Trump administration should explore ways to support the proliferation of rigorous, high-quality construction apprenticeship programs, particularly in predominantly open-shop markets, as well as other types of training programs.

Other steps federal officials should take include passing the Jobs Act, which would allow students enrolled in construction-focused community and technical college programs to qualify for federal Pell grants. Congress should pass bipartisan legislation to establish a temporary visa program for construction workers. And the federal government must do more to quell the opioid epidemic that appears to be disqualifying a significant number of candidates.

Construction workforce shortages pose a significant problem for the construction industry. That is why this association has made the issue its top priority and so many of our chapters and members are working to address the problem. But while the federal government has taken – at our urging – some steps to address the problem, more needs to be done, particularly to rebuild the domestic pipeline for recruiting and preparing new construction workers. Construction labor shortages are a challenge that can be fixed, and this association will continue to do everything in its power to make sure that happens.

## SURVEY ANALYSIS

**Most firms plan to expand their headcount but are having a hard time finding qualified workers – particularly craft workers – to hire.** Ninety-one percent of responding firms report they plan to hire new hourly craft personnel within the coming year, with nearly three-quarters of respondents (72 percent) saying they plan to expand their headcounts and 19 percent saying they plan to hire for replacement. Only 9 percent do not expect to hire. And 70 percent of firms say they plan to hire salaried field personnel as well. Fifty-four percent of firms also plan to hire hourly office personnel and 67 percent plan to hire salaried office personnel. Yet even as most firms plan to hire workers, 80 percent report they are having a hard time filling craft positions and 57 percent are having a hard time filling salaried positions.

**Workforce shortages are a problem for firms of all sizes.** Close to four out of five firms of all sizes report they are having a hard time finding qualified craft workers to hire: 81 percent of firms that performed \$50 million or less of work last year; 82 percent of firms that performed between \$50.1 million and \$500 million of work; and 86 percent of firms that performed more than \$500 million of work. (Not all firms listed characteristics such as size or location.)

**Concrete workers, pipelayers, carpenters, cement masons and equipment operators are particularly hard to find.** Respondents were asked if their firms are having a hard time filling any of 20 specific hourly craft positions or 10 salaried positions compared to a year ago. The five toughest craft positions to fill are concrete workers, pipelayers, carpenters, cement masons, and crane and heavy equipment operators. Notably, for all but one of the craft personnel positions, at least half of the firms that employ those crafts reported the positions were harder to fill compared to a year ago. Salaried positions were somewhat easier to fill than craft positions, although nearly half—48 percent—of firms reported that project manager/supervisor positions were harder to fill than a year ago.

**Most contractors expect labor conditions will remain tight or get worse as they worry about the pipeline for preparing new workers.** Nearly three-quarters (73 percent) of firms report that it will continue to be hard, or get even harder, to find hourly craft personnel over the coming 12 months. Meanwhile, 55 percent of firms report that it will continue to be hard, or get even harder, to find salaried field and office personnel during the coming year. One possible reason for their worries about the labor market is that many contractors are skeptical of the quality of the pipeline for recruiting and preparing new craft personnel. Specifically, 45 percent of firms say the local pipeline for prepared craft personnel who are well trained and skilled is poor. And 26 percent of contractors say the pipeline for finding workers who can pass a drug test is poor.

**Most firms are paying more to attract and recruit workers.** Two-thirds (66 percent) of the firms report they have increased base pay rates for craft workers because of the difficulty in filling positions, 29 percent report they are providing incentives and bonuses to attract craft workers, and one in four improved employee benefits in the last year. In addition, 58 percent of firms report they have increased pay to attract salaried employees, while 34 percent are providing bonuses and 24 percent are providing improved employee benefits to attract salaried workers.

**Firms are also adjusting their operations to be able to do more with fewer workers.** Forty-six percent of firms report they have initiated or increased in-house training because of workforce shortages, while 31 percent report they have hired interns, 31 percent report they are paying more overtime and 27 percent have changed their hiring standards. Meanwhile, half of the respondents report getting involved with career-building programs at the high school and college levels. More than one-quarter of firms report using these methods: using staffing firms to locate craft and/or salaried workers, engaging with a government workforce development or unemployment agency, implementing software to distribute job postings and manage applicants, or relying more heavily on sub- and specialty contractors.

At the same time, 29 percent of firms report they are investing in technology to automate processes to supplement worker duties. One-fourth (24 percent) of firms report they are using more labor-saving equipment, including drones, robots and 3-D printers. A similar share (23 percent) of firms is adopting methods to reduce on-site worktime, including relying on lean construction techniques, using virtual construction tools like Building Information Modeling and doing more off-site prefabrication. The largest firms were especially likely to adopt these labor-saving approaches: 58 percent reported using methods to reduce on-site worktime, while 42 percent said they are used more labor-saving equipment on the worksite.

**Workforce shortages are impacting construction schedules and increasing the cost of many construction projects.** Forty-four percent of firms report that workforce shortages are causing projects to take longer than originally anticipated, while 43 percent report that costs have been higher than anticipated. To cope with these challenges, 44 percent of firms report that workforce shortages have prompted them to put higher prices into their bids for new projects, and 29 percent report they have put longer completion times into their bids for new work.

**All four regions of the country are experiencing similarly severe craft worker shortages, in contrast to last year.** In this year's survey, 83 percent of contractors in both the West and the South report they are having a hard time filling hourly craft positions, close to the 81 percent rate in the Midwest and not much higher than the 75 percent rate in the Northeast. All of these percentages are very similar to rates reported in the 2017 survey, indicating that worker shortages have not lessened. This year, 63 percent of contractors in the Northeast are having a hard time filling salaried positions (up from 59 percent last year), as are 58 percent in the West (compared to 41 percent last year), 57 percent in the Midwest (same as last year) and 56 percent in the South (up from 51 percent).

**Workforce shortages are impacting the vast majority of both union and open-shop construction firms.** More than three-quarters (76 percent) of firms that exclusively use union craft labor report difficulty filling hourly craft positions, compared to 88 percent of firms that use only non-union labor. For both types of firms, 55 percent reported difficulty filling salaried positions.

## CONCLUSIONS

Despite all that this association, its chapters and our members are doing to address the issue, construction workforce shortages remain a significant problem for the industry. Few firms appear to be immune from these labor shortages, which are impacting the cost and schedules of many construction projects.

In the short term, construction labor shortages are affecting construction compensation, training and operations. Firms are boosting pay, adding new benefits and taking other steps to make construction careers even more rewarding. They are launching new training programs and expanding existing ones. They are adopting new technologies and new techniques to increase productivity.

The longer-term consequences of these labor shortages are likely to be more significant. As the cost of labor goes up and firms look at ways to become more efficient, technology is likely to play an even greater role in the construction process. This could lead to significant changes in the way projects are planned and executed and it could also alter the nature of much of the work being performed by the sector's employees.

However, if left unaddressed, construction workforce shortages could undermine the growth and evolution of the construction industry and the broader economy. Firms can only stretch schedules and alter costs so much before jeopardizing demand for new construction projects. If workforce shortages dampen demand for new construction, that could undermine broader economic growth as new development projects are sidelined and investments in infrastructure are postponed.

It is because workforce shortages pose a risk to the broader economy that Congress and the Trump administration should act now. Among the steps they should take are allowing more immigrants to legally enter the country to work in construction, allowing construction students to qualify for Pell grants, and boosting investments in modern versions of Career and Technical Education programs that were once far more common in most high schools.

This association, its chapters and its members are committed to resolving construction workforce shortages, and indeed having taken significant steps to address them. But construction workforce shortages affect more than the construction industry. That is why Washington officials must act now to address them. Together the construction industry and the federal government can do much to encourage even more people to consider pursuing high-paying careers in construction.

### **BACKGROUND**

AGC conducted the survey of its members in July and August 2019. A total of 1,935 individuals from a broad range of firm types and sizes completed the survey. Among responding firms that identified their market segments, 68 percent are involved in building construction, 34 percent are involved in highway and transportation construction, 30 percent perform federal construction projects and 27 percent work on utility infrastructure projects. Thirty-one percent of responding firms perform \$10 million a year or less worth of work, 34 percent perform between \$10.1 million and \$50 million, 26 percent perform between \$50.1 million and \$500 million and 8 percent perform over \$500 million worth of work each year. Respondents were not paid or otherwise compensated for their responses.