2022 Workforce Survey Analysis

SUMMARY

The Associated General Contractors of America and Autodesk each year partner to measure the state of construction workforce shortages, better understand why those shortages exist, assess the impacts of labor shortages on construction projects, and learn what firms are doing to cope with and/or overcome those shortages.

The results of this year's Workforce Survey show that construction labor shortages remain quite severe. Ninety-three percent of firms report they have open positions they are trying to fill, and among them, 91 percent are having trouble filling at least some of those positions – particularly among the craft workforce that performs the bulk of the on-site construction work.

All types of firms are experiencing similar challenges. Nearly identical results were reported by contractors that use exclusively union craft labor and by firms that operate as open-shop employers; by firms with $50 million or less in annual revenue and ones with more than $500 million in revenue; by companies in all four regions of the country; and by contractors doing building construction, highway and transportation projects, federal and heavy work, or utility infrastructure.

One of the main reasons labor shortages are so severe in the construction industry is that most job candidates are not qualified to work in the industry. The most common explanation for difficulty in filling positions, cited by 77 percent of firms is that available candidates lack the skills needed to work in construction or cannot pass a drug test.

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These shortages are exacerbating the impacts of the widespread supply chain disruptions that have made it difficult for firms to get materials delivered on time and that are driving up the cost of those materials. Eighty-two percent of firms report projects they work on have been delayed because of supply chain challenges and two-thirds (66 percent) have projects that have been delayed because of labor shortages.

Supply chain problems and labor shortages are making construction more expensive. Eighty-six percent of firms have raised base pay rates for their workers while 70 percent have passed along rising materials costs to project owners during the past year. Fifty-eight percent of respondents report owners canceled, postponed or scaled back projects due to increasing costs, while one-third of firms report projects were impacted due to lengthening or uncertain completion times.

Many construction firms are working aggressively to cope with and/or overcome workforce shortages. In addition to raising base pay rates, 45 percent are providing incentives and bonuses and a quarter of firms (24 percent) have also improved their benefits packages.

Beyond improving compensation, they are also getting more involved in preparing future workers for careers in construction. Fifty-one percent of survey respondents—up from 37 percent in the 2021 survey—report they have engaged with career-building programs such as high school, college, or technical school construction programs.

They are also boosting investments in their own internal training programs as they come to terms with a workforce that lacks many of the basic skills former workers possessed. Forty-seven percent of firms are boosting spending on training and professional development programs, 25 percent are enhancing their online and video training capabilities and 16 percent are using augmented and virtual reality technology to better train workers.

Technology is also playing an important role in helping firms cope with labor shortages and other challenges they are facing. Eighty-seven percent of firms agree that their employees need to possess digital technology skills to be successful as firms adopt new labor-saving technologies. And while few candidates possess the construction skills firms want, nearly two-thirds of responding firms say at least half of the people they are hiring possess the technology skills they need.

SURVEY ANALYSIS

Finding workers to fill open positions is a major challenge. Ninety-three percent of respondents report having open positions for craft workers, while 71 percent have openings for salaried positions. The difficulties are even more widespread than in the 2021 survey, when 90 percent of firms reported having a hard time filling craft positions and 62 percent reported the same for salaried positions. Among the firms with openings, 91 percent report having a hard time filling some or all positions.

Nearly all types of craft positions are extremely hard to fill. The survey asked about difficulty in filling 21 specific crafts. For every craft, at least 70 percent of respondents whose firms employ that craft report it is difficult to fill. The most widely reported difficulty was for pipelayers, with 89 percent of firms that employ pipelayers saying they are hard to find. Close behind were concrete workers and mechanics (both of which were reported as difficult positions to fill by 87 percent of firms); truck drivers (86 percent); and carpenters, iron workers, and pipefitters/welders (85 percent each).

Many salaried positions also are hard to fill. For eight of the 11 salaried positions covered in the survey, two-thirds or more of respondents report difficulty filling. The most-mentioned hard-to-fill salaried position is project managers/supervisors, listed by 81 percent of the firms that are seeking those workers. Estimating personnel are listed by 77 percent of firms. Even the least-mentioned salaried position, IT personnel, is rated hard to fill by 42 percent of firms.

Most firms report that available candidates are not qualified. More than three-quarters (77 percent) of respondents report that available candidates are not qualified to work in the industry for reasons such as a lack of skills or failure to pass a drug test. Nearly one-quarter (23 percent) of respondents say potential employees report needing flexible work schedules or an option for remote work, for instance to stay home to care for a loved one. And 21 percent report potential employees report difficulty acquiring reliable transportation to and from a jobsite.

Firms are taking numerous steps to find workers. More than half (51 percent) of firms—up from 37 percent in the 2021 survey—report they engaged with a career-building program, at high schools, colleges, or career and technical education programs. Thirty-nine percent report they added online strategies, like using Instagram Live, to connect better with younger applicants. Between one-third and one-quarter of firms used an executive search firm or professional employer organization (32 percent of respondents), craft staffing firm (30 percent), software to distribute job postings and manage applicants (29 percent), or engaged with a government workforce development or unemployment agency (28 percent). And 22 percent of firms added or increased use of unions or of sub- or specialty contractors. Just 6 percent applied for employment-based visas, such as H-1B or H-2B.

Firms increased pay to attract and retain employees. Eighty-six percent of respondents report their firms increased base pay rates in the past 12 months, while 45 percent provided incentives or bonuses and 24 percent increased their portion of benefit contributions and/or improved employee benefits.

Firms made a variety of changes in hiring, training, or scheduling in the last 12 months. The most widespread change, noted by 42 percent of respondents, was to initiate or increase spending on training and professional development. More than two-thirds (69 percent) of the largest firms, those with annual revenue of more than $500 million, report doing this, compared with one-third of the firms with $50 million or less in revenue. Twenty-nine percent of firms report lowered hiring standards regarding, for instance, education, training, employment, arrest record, drug use or testing policy. One-quarter each cite changes in overtime and increased use of learning programs with strong online or video components, for instance holding classes using Zoom, Teams, etc. And 16 percent report using augmented, mixed, or virtual reality training devices. Fewer than one-third (32 percent) of respondents report no change.

Despite the difficulty in filling positions, more firms expect to expand in the next 12 months than did so in the past year. Seventy-one percent of firms expect to add employees in the next 12 months, while 24 percent expect no net change. Only 5 percent expect to furlough employees temporarily or terminate employees to reduce headcount. In the past 12 months, just over half (51 percent) of firms added employees, while more than a quarter (27 percent) reduced headcount. While a majority of firms in each region expects to add employers, there is slightly greater optimism among those in the South (77 percent expect to expand headcount in the next 12 months) than in the Midwest (71 percent), West (69 percent), or Northeast (63 percent).

Rising materials costs and delivery delays have also caused headaches for many firms. Only 8 percent of firms report no impact on project completion times. In contrast, most firms cite multiple causes for delayed completion times. The most commonly listed reason is delays due to longer lead times or shortages of materials, noted by 82 percent of respondents. Almost two-thirds cite delays due to shortages of workers (66 percent of firms) and delivery delays (64 percent). About one-third list delays due to government (34 percent), such as lack of approvals or inspectors, or delays due to an owner's directive to halt or redesign a project (31 percent).

Responses vary to rising materials costs. About two-thirds of respondents (70 percent) report passing on some or all of their additional costs, but 39 percent say they have tried but have not succeeded so far, and around one-third (34 percent) say they have absorbed all additional costs. Thirty-nine percent report having changed suppliers or specifications and 9 percent have canceled orders. Only 7 percent report that items they buy have not had unanticipated cost increases.

Firms are experiencing mixed impacts on upcoming or expected projects. Firms report upcoming or expected projects were canceled, postponed, or scaled back due to increasing costs (58 percent of respondents), lengthening or uncertain completion times (33 percent), or changes in demand or need (20 percent). However, 28 percent of respondents say there are more projects to bid on or projects have been expanded in scope.

Most firms require office workers to report to an office full-time. Eighty percent report that is their policy with at least some office workers, while 26 percent say some workers can choose which days they work in the office and 7 percent say workers must work from home full-time. Two-thirds of respondents say their firm's office-work policy has not changed in the past 12 months, compared to 19 percent of firms that require more in-office work than 12 months ago and 15 percent that allow more work from home than a year ago.

Firms' employees increasingly need digital technology skills to be successful in their roles. Eighty-seven percent of respondents either "strongly agree" (44 percent) or "somewhat agree" (43 percent) with this statement.

New hires vary widely as to how prepared they are with the requisite digital technology skills on day one. Overall, two-thirds of firms report that at least half of new hires are prepared, including 7 percent of respondents who say that nearly all new hires are prepared, 32 percent who say most new hires are prepared, and 28 percent who report about half of new hires are prepared. Another 26 percent say few new hires are prepared, and 8 percent report almost none are prepared.

Opinion is divided as to whether "the use of cutting-edge technology helps me recruit talent into my firm." Sixty-three percent of respondents either "strongly agree" (12 percent) or "somewhat agree" (52 percent) with the statement, while 37 percent either "strongly disagree" (11 percent) or "somewhat disagree" (26 percent).

CONCLUSIONS

After a brief respite in 2020 because of the pandemic, construction workforce shortages are severe and having a significant impact on construction firms of all types, all sizes and all labor arrangements. These workforce shortages are compounding the challenges firms are having with supply chain disruptions that are inflating the cost of construction materials and making delivery schedules and product availability more uncertain.

In short, labor shortages and supply chain problems are making it more expensive and more time consuming to build projects today. These increased costs and delayed schedules are undermining demand for construction, as a significant percentage of owners seek to delay, downscale, and even cancel projects in facing of rising costs and slower schedules.

The main culprit for these workforce shortages is that too few people are being prepared with the skills needed to be qualified to work in the industry. This includes a failure to teach basic construction skills that will allow new workers to safely operate on a job site as they enhance their skill set. But many applicants also lack softer skills, including understanding the need to be able to pass a drug test or show up consistently on time, early in the morning, to work on most job sites.

Construction firms are working aggressively to address workforce shortages. Firms are increasing pay and improving benefits. They are getting more involved in construction education programs to help ensure that new workers have basic essential skills. And they are boosting investments in their own training programs as they accept more workers who lack those key skills.

The Associated General Contractors of America and its chapters are supporting the industry with a broad range of workforce development initiatives. This includes the national association's Construction is Essential targeted digital recruiting campaign and its Culture of Care workplace retention program.

Public officials also have a vested interest in making sure new workers are better prepared for high-paying construction careers. Without enough workers to keep pace with demand, the federal government's new infrastructure funding and more recent investments in semiconductor factories and energy infrastructure projects will not deliver as much as promised.

As the responses to this survey makes clear, our education and job training programs are failing to prepare workers for careers in construction. They aren't teaching the hard skills workers need to be successful on the job site, or the soft skills workers need to stay on the payroll.

Federal, state, and local leaders must invest in the kind of career and technical education programs that will expose more existing and future workers to the many career opportunities that exist in construction. These programs also provide the kind of essential skills employers are seeking when they hire new workers.

Investing in new career and technical education programs will take time, however. In the meantime, federal officials should take steps to allow more workers to lawfully enter the country to help meet unfilled demand. This will prevent the exploitation of undocumented workers that is unfair to all workers and responsible contractors. And it will buy the nation time to keep building while restoring the pipeline for preparing domestic workers.

Public officials must also continue working to untangle supply chains that have been hammered by government imposed COVID lockdowns, shipping and manufacturing labor shortages and massive inflationary pressure. These supply chain problems have a similar potential to undermine new infrastructure and manufacturing investments as do labor shortages.

The bottom line is there is plenty of work for the industry to perform. Unfortunately, there aren't enough people to do the work or materials to complete the projects. Addressing labor shortages and supply chain problems will ensure that the construction industry can upgrade America's infrastructure, modernize our manufacturing sector, and help deliver a more reliable and cleaner energy grid.

BACKGROUND

AGC conducted the survey of its members in July and August 2022. A total of 1,266 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, 35 percent are involved in highway and transportation construction, 32 percent perform federal construction projects and 27 percent work on utility infrastructure projects. Among firms that identified their revenue size, 66 percent perform $50 million a year or less worth of work, 28 percent perform between $50.1 million and $500 million, and 6 percent perform over $500 million worth of work each year. Respondents were not paid or otherwise compensated for their responses. Fifty-six percent of firms always operate as open-shop contractors and 6 percent primarily operate that way, while 23 percent always operate as union contractors and 5 percent do so primarily; the remaining 10 percent do not self-perform or directly hire craft personnel.