2023 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 highlight significant shortcomings in the nation's approach to preparing workers for careers in construction. Eighty-five percent of firms report they have open positions they are trying to fill, and among firms with openings, 88 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 these challenges. Largely similar 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. A shocking 68 percent of firms report applicants lack the skills needed to work in construction. In addition, one-third of firms report candidates cannot pass a drug test.

These shortages are adding to the impacts of 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. While these shortages have recently shown signs of abating, 65 percent of firms report projects they work on have been delayed because of supply chain challenges and 61 percent have projects that have been delayed because of labor shortages.

Supply chain problems and labor shortages are making construction more expensive, undermining demand for certain types of projects. Half the respondents report owners canceled, postponed, or scaled back projects due to increasing costs, while 22 percent of firms report projects were impacted due to lengthening or uncertain completion times.

Many construction firms are taking steps to cope with and try to overcome workforce shortages. Eighty-one percent of firms have raised base pay rates for their workers during the past year. In addition to raising base pay rates, 44 percent are providing incentives and bonuses and a quarter of firms (26 percent) have also improved their benefits packages.

Firms are also getting more creative when it comes to recruiting workers. Sixty-three percent of survey respondents—up from 39 percent in the 2022 survey—report they added online strategies, like using social media or targeted digital advertising, to connect better with younger applicants.

Contractors are also increasing investments in their internal training programs in an effort to address the fact many candidates lack the basic hard and soft skills needed to be successful. Forty-one percent of firms are boosting spending on training and professional development programs, 25 percent are enhancing their online and video training capabilities and 14 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 by automating dangerous and tedious work to make workers safer and more productive. Ninety-one percent of firms agree that their employees need to possess digital technology skills to be successful as firms adopt new labor-saving technologies. Nearly three-quarters of responding firms say at least half of the people they are hiring possess the technology skills they need. Three out of four respondents agree that their use of cutting-edge technology helps them recruit talent into their firms, while a similar share agrees that diversifying their current workforce is critical to strengthening their future business.

When it comes to two broad categories of technology—artificial intelligence (AI) and robotics—on construction jobs in the next five years, almost half of respondents (44 percent) state that AI and robotics will positively impact construction costs by automating manual, error-prone tasks. In addition, 41 percent say AI and robotics will improve the quality of construction jobs and make workers safer and more productive. But 17 percent say AI and robotics will negatively impact the construction job market by eliminating jobs, while 30 percent expect no effect on construction jobs.

SURVEY ANALYSIS

It remains difficult to find workers to fill open positions. Eighty-five percent of respondents report having open positions for craft workers, while 69 percent have openings for salaried positions. Among the firms with openings, 88 percent report having a hard time filling craft positions and 86 percent report difficulty filling salaried openings. While those figures are down slightly from 2022, when 91 percent of firms reported having a hard time filling craft positions and 89 percent reported the same for salaried positions, they remain very high.

Nearly all craft positions are hard to fill. The survey asked about difficulty in filling 21 specific crafts. For every craft, more than 60 percent of respondents whose firms employ that craft report it is difficult to fill. The most widely reported difficulty was for installers, with 83 percent of firms that employ installers (other than for drywall) saying they are hard to find. Close behind were concrete workers and pipelayers (both of which were reported as difficult positions to fill by 82 percent of firms); carpenters (80 percent); and cement masons, mechanics, and truck drivers (79 percent each).

Salaried positions also are hard to fill. For nine of the 13 salaried positions covered in the survey more than half of firms that had openings report difficulty filling them. The mostmentioned hard-to-fill salaried position is superintendents, listed by 81 percent of the firms that are seeking those workers. Project managers/supervisors are listed by 77 percent of firms and engineers by 74 percent. Even the least-mentioned salaried position, IT personnel, is rated hard to fill by 33 percent of firms.

The candidates are mostly there, they just aren't qualified to work. More than two-thirds (68 percent) of respondents report that available candidates are not qualified to work in the industry for reasons such as a lack of skills. One-third list candidates' failure to pass a drug test. Twenty-six percent report potential employees cite difficulty acquiring reliable transportation to and from a jobsite. One in four respondents reported that some candidates report needing flexible work schedules or an option for remote work, for instance to stay home to care for a loved one, making it hard to employ them in careers that require workers to be on site.

Firms haven't given up on trying to find workers. Sixty-three percent of firms—up from 39 percent in the 2022 survey—report they added online strategies, such as using social media or targeted digital advertising, to connect better with younger applicants. About half (49 percent) engaged with a career-building program, at high schools, colleges, or career and technical education programs. Thirty-one percent of firms used an executive search firm or professional employer organization. Twenty-five percent each report using a craft staffing firm and engaging with a government workforce development or unemployment agency. About one out of five firms added or increased use of unions (22 percent) or sub- or specialty contractors (21 percent) or implemented software to distribute job postings and manage applications (21 percent). Just 8 percent applied for employment-based visas, such as H-1B or H-2B.

Workers are benefiting financially. Eighty-one percent of respondents report their firms increased base pay rates in the past 12 months, while 44 percent provided incentives or bonuses and 26 percent increased their portion of benefit contributions and/or improved employee benefits.

Contractors are rethinking how they operate to cope with and overcome labor shortages. The most widespread change, noted by 41 percent of respondents, was to initiate or increase spending on training and professional development. Sixty percent of the largest firms, those with annual revenue of more than $500 million, report doing this, compared with 36 percent of the firms with $50 million or less in revenue. Twenty-nine percent of firms report having lowered their hiring standards such as for education, training, employment, or arrest record. One-quarter each cite increased use of learning programs with strong online or video components, for instance holding classes using Zoom, Teams, etc. And 14 percent report using augmented, mixed, or virtual reality training devices. However, only 20 percent of firms—down from 25 percent in the 2022 survey—report paying overtime.

Despite labor shortages, most firms expect to expand in the next 12 months. Sixty-nine percent of firms expect to add employees in the next 12 months, while 27 percent expect no net change. Only a handful expect to terminate employees to reduce headcount (4 percent) and/or furlough employees temporarily (3 percent). In the past 12 months, almost half (49 percent) of firms added employees, while roughly a third (32 percent) reduced headcount and 18 percent had no change. There is a very similar degree of optimism among firms in the South (71 percent expect to expand headcount in the next 12 months), Midwest (70 percent), Northeast (69 percent), and West (66 percent).

Supply-chain problems are still causing headaches for many firms. Although materials shortages and cost increases are not as prevalent as in 2020-2022, 65 percent of firms report longer lead times or shortages have delayed some projects. The most frequently cited problems are extreme lead times for electrical equipment such as transformers and switchgear. Long lead times for heating, ventilating, and air conditioning equipment is another source of delay. In addition, 61 percent of firms cite delays due to shortages of workers—their own or subcontractors'. But only 36 percent cite transportation or delivery delays, down from 64 percent in the 2022 survey. As in that survey, 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).

Projects are being canceled, postponed, or scaled back as construction gets more expensive. Half of respondents cite increasing costs as a reason, while 36% report financing was unavailable or too expensive. Twenty-two percent list lengthening or uncertain completion times and 20 percent note changes in demand or need as reasons for project cancellations, deferrals, and scope reductions.

Most firms expect that AI and robotics will have a neutral to positive impact on construction jobs in the next five years. Almost half (44 percent) state that AI and robotics will positively impact construction costs by automating manual, error-prone tasks. In addition, 41 percent say AI and robotics will improve the quality of construction jobs and make workers safer and more productive. But 17 percent say AI and robotics will negatively impact the construction job market by eliminating jobs, while 30 percent expect no effect on construction jobs.

Most firms report little change since the 2022 survey in requirements for office workers to report to an office full-time. Seventy-nine percent state that workers must report to an office full-time, while 23 percent say some workers can choose which days they work in the office and 8 percent say workers must work from home full-time. Seventy-eight percent of respondents say their firm's office-work policy has not changed in the past 12 months, compared to 13 percent of firms that require more in-office work than 12 months ago and 9 percent that allow more work from home than a year ago.

Firms' employees increasingly need digital technology skills to be successful in their roles. Ninety-one percent of respondents either "strongly agree" (47 percent) or "somewhat agree" (44 percent) with this statement.

New hires vary widely as to how prepared they are with the requisite digital technology skills on day one. Overall, 72 percent of firms report that half or more of new hires are prepared, including 7 percent of respondents who say that nearly all new hires are prepared, 29 percent who say most new hires are prepared, and 35 percent who report about half of new hires are prepared. Only 28 percent report that few or none are prepared, down from 34 percent in the 2022 survey.

Three-quarters of respondents agree that "the use of cutting-edge technology helps me recruit talent into my firm," including 18 percent who "strongly agree" and 57 percent who "somewhat agree" with the statement. Only 25 percent disagree, either "strongly" (5 percent) or "somewhat" (20 percent).

There is similarly widespread agreement with the statement that "diversifying the current workforce at our firm is critical to strengthening our future business." Seventy-seven percent of respondents either "strongly agree" (34 percent) or "somewhat agree" (43 percent). Of the 23 percent who disagree, 10 percent disagree "strongly" and 13 percent "somewhat".

CONCLUSIONS

Beyond the fact it remains hard for firms to find workers, the biggest takeaway from this year's Workforce Survey is how much the nation is failing to prepare future workers for high-paying careers in fields like construction. Too often, the applicants who are available lack even the basic qualifications needed to be employable.

The comments many survey respondents added about why labor is so hard to find get to the heart of the problem. Many noted that applicants will accept positions but never show up to work. Others talk about employees who are incapable of arriving on time, or who report to work only erratically. Many also focus on the fact candidates who have no skills expect to be compensated as if they did. In short, the survey paints a picture of a candidate pool that neither knows how to work nor appreciates how unqualified it is.

It is time to rethink the way we as a nation educate and prepare workers. In virtually every community in this country there are open construction positions that pay better than the average job and are vital to local economic growth. Yet too few schools offer classes in construction or expose students to the opportunities that exist in the field.

We have convinced ourselves as a country that the only path to success lies through college and a job that once took place in an office. This is a viable path for many, but there are many other paths, including construction. The problem with focusing on a single path is it signals to those who don't want to follow it that they will not be successful. Telling people they won't succeed is often self-fulfilling, which may be why so many candidates appear to lack the motivation and skills needed to be employable.

As AGC of America has long championed, public officials need to significantly boost investments in programs that expose students to the opportunities and the skills needed for careers in construction. This will put more students on a path to professional and financial success and address the needs of many more local employers. It will also signal to students that there are multiple paths to success in life, and one is not better than another.

That is why AGC of America will continue pushing federal officials to narrow an education funding gap that currently invests five times as much in encouraging students to enroll in college as it does preparing them for careers in craft fields like construction. This includes boosting funding for the Perkins Act as well as rethinking who can qualify for programs like Pell Grants.

We also need to appreciate that it took decades to dismantle our once robust vocational education programs and it will take years to rebuild them. In the meantime, federal lawmakers need to allow more people with construction skills to lawfully enter the country and work in the sector. And since the only people who benefit from having a large pool of undocumented workers in the country are those who are willing to exploit them, we also need a path to legal status for people who are already here.

If there is a silver lining in this year's survey results, it is that there are people who want to work in construction. We just need to do a better job as a nation preparing them for the many high-paying career opportunities that exist in this industry. AGC of America and its network of chapters will continue pushing policy makers to do just that.

Combined with our other efforts to attract and retain workers, we are confident that investing in construction education will help solve worker shortages in this sector. And we are dedicated to doing just that.

BACKGROUND

AGC conducted the survey of its members in July and August 2023. A total of 1,401 individuals from a broad range of firm types and sizes completed the survey. Among responding firms that identified their market segments, 70 percent are involved in building construction, 34 percent perform federal construction projects, 32 percent are involved in highway and transportation construction, and 31 percent work on utility infrastructure projects. Among firms that identified their revenue size, 60 percent performed $50 million or less worth of work in the preceding 12 months, 31 percent performed between $50.1 million and $500 million, and 9 percent performed over $500 million worth of work. Fifty-four percent of firms always operate as open-shop contractors and 7 percent primarily operate that way, while 22 percent always operate as union contractors and 6 percent do so primarily; the remaining 10 percent do not self-perform or directly hire craft personnel. Respondents were not paid or otherwise compensated for their responses.