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## EXPECTING GROWTH TO CONTINUE: THE 2018 CONSTRUCTION HIRING AND BUSINESS OUTLOOK

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## SUMMARY

Construction firms appear to be very optimistic about 2018, as they expect demand for all types of construction services to continue to expand. This optimism applies to both private- and public-sector construction demand, perhaps reflecting both optimism with current economic conditions, an increasingly more business-friendly regulatory environment, and optimism that the Trump administration will finally deliver on its promise to boost infrastructure investments.

Contractor optimism appears to be translating into plans to hire new employees, with a majority of firms reporting plans to expand headcount in 2018. In addition, firms are embracing new technologies and new techniques to be more efficient. Many firms are also embracing cloud-based computing solutions and increasing their investments in new information technology. It is likely that many firms are taking advantage of relatively positive economic conditions to make the needed investments to become more innovation and efficient so they can be better positioned to thrive.

Despite the overall optimistic outlook, the construction industry faces a number of significant challenges this year. Top among those challenges are the growing workforce shortages that have made it difficult for the vast majority of firms to find and hire qualified workers. As a result, many firms are opting to recruit workers with less experience than they would prefer. These workers lack the experience needed to operate as safely as necessary on job sites. As a result, firms are worried about workplace safety.

The labor shortages are prompting many firms to increase pay and benefits. At the same time they are boosting investments in training and education programs for their workers. Even as they cope with worker shortages, firms continue to be worried about how decisions made in Washington and state capitols are impacting their operations. Many firms report that among their biggest challenges are federal, state and local regulations. Firms are also worried about the lack of new infrastructure investments. Meanwhile, many firms report competition for work is still fierce, and poses a challenge to their bottom lines.

Despite these challenges, 2018 should prove to be a good year for the construction industry, especially if the newly enacted federal tax cuts provoke the kind of economic growth many expect. It also appears that firms are choosing to cope with workforce shortages in two ways. First, many are opting to do more in-house training to prepare the less-experienced workers they are having to hire. At the same time, they are making investments in new technologies and new ways of operating to make their operations more efficient, so they can accomplish more with fewer people. Assuming current trends continue, by the end of the year, the construction industry will employ more people, do more to train them, and be more efficient and innovative.

## CONTRACTORS EXPECT CONTINUED GROWTH IN DEMAND

Contractors expect demand for every segment of the construction market will grow in 2018. As measured by the net positive reading – the percentage of respondents who expect a market segment to expand vs. the percentage who expect it to contract – respondents are very optimistic about the overall outlook, with a net positive reading of 44 percent. When broken down by market segment, they are most optimistic about the private office market segment (22 percent net positive) followed by other transportation and the retail, warehouse and lodging segments (both 21 percent net positive), water and sewer and manufacturing (20 percent net positive for both), K-12 school (18 percent net positive) and hospital and highway construction (17 percent net positive for both).

Respondents are slightly less optimistic about growing demand in other segments. There is a 16 percent net positive for both the multifamily residential and public building segments, followed by 13 percent net positive for power, 11 percent net positive for higher education and 8 percent net positive for federal construction.

The outlook for construction demand is even more optimistic than it was at the beginning of last year, with a higher net positive reading for every market segment except the retail, warehouse & lodging segment and hospital construction. It is easier to understand the positive outlook for private sector market segments, given strong overall economic growth and growing confidence that then-proposed tax cuts would stimulate more demand. However, contractors are also optimistic about growing public sector demand. This is likely based on the fact many states have recently enacted new infrastructure funding measures and improving local and state budget conditions in many parts of the country. In addition, many contractors likely remain confident that the Trump administration will be able to secure new infrastructure funding, as it has long promised.

### **MOST CONSTRUCTION FIRMS PLAN TO ADD STAFF IN 2018**

Three quarters of construction firms report they plan to expand headcount in 2018, up slightly from 73 percent of firms who reported plans to expand headcount in 2017. Most of the hiring will only expand headcounts by a slight percentage per firm, however. Half of firms report their expansion plans will only increase the size of their firm by 10 percent or less. Meanwhile, only 5 percent of firms report plans to expand headcount by more than 25 percent above their current size whereas in 2017 six percent of firms planned expansions of a similar scope. Only three percent of respondents expect to reduce headcount in 2018, down from six percent at the start of 2017.

### **MOST FIRMS ARE STRUGGLING WITH WORKFORCE SHORTAGES**

Even as most firms expect to expand headcount, an overwhelming majority – 82 percent – of firms expect it will either become harder, or remain difficult to recruit and hire qualified workers in 2018, up from 76 percent at the beginning of 2017. In addition, 78 percent of firms report they are currently having a hard time finding qualified workers to hire, up from 73 percent at the start of last year.

Firms continue to take a series of steps to address growing workforce shortages. Sixty percent of firms report they have increased base pay rates, up from 52 percent last year. Thirty-six percent have provided incentives and/or bonuses, up from 35 percent last year. Twenty-four percent of firms have increased contributions and or improved employee benefits to cope with workforce shortages, down from 28 percent in 2017. And 18 percent report they are paying more in overtime because of workforce shortages, comparable to last year.

In addition to increasing compensation packages, many firms are also investing more in training programs for current and new workers. Fifty-six percent of firms report they plan to increase investments in training and development in 2018, up from 52 percent who planned to increase their training investments at the beginning of last year.

## FIRMS ARE MOST WORRIED ABOUT LABOR, COMPETITION AND WASHINGTON

When asked to identify the issues that are the biggest concern to their businesses, 41 percent of contractors listed workforce shortages. Thirty-nine percent said increased competition for projects was one of their biggest concerns for the year. The next two top concerns dealt with the impact of the federal government on the construction industry. Twenty-eight percent of firms listed growth in federal regulations as one of their top concerns and 24 percent said one of their biggest concerns was a lack of new infrastructure investments. And contractors are also worried about the proliferation in state and local regulations, with 23 percent of firms listing the issue as one of their biggest concerns for the year.

Even as contractors worry about competition, workforce shortages and Washington, they are also concerned about workplace safety. Twenty percent of firms listed safety as among their biggest concerns for the year. More specifically, 56 percent of firms reported that workforce shortages and a labor pool with little experience were major challenges for improving workplace safety.

Another 23 percent reported that a lack of cooperation from federal safety officials in helping them improve safety was a major challenge. And 19 percent of firms reported they see poor subcontractor safety and health performance as a major challenge.

## CONTRACTORS CONTINUE TO EMBRACE INNOVATION

Many contractors report they are embracing innovations such as Building Information Modeling (BIM), lean construction, newer contracting techniques and online file sharing. For example, 49 percent of contractors expect the amount of work they perform involving Building Information Modeling will either expand or remain consistent in 2018 compared to the prior year. Among firms using BIM, 46 percent say they are using the systems to identify clashes in the designs that would otherwise need to be corrected mid-project. For example, these conflicts could include hot water piping inadvertently designed to run through HVAC ducts. Another 45 percent report they are using BIM to ensure that designs are constructible. And 42 percent report they are using BIM to visually communicate the project scope to clients so they better understand the process.

Meanwhile, 44 percent of firms report they utilize lean construction principles on projects and/or in their operations. Lean construction is a methodology designed to make firms significantly more efficient in their operations. Many firms also report they follow collaborative project delivery methods. Sixty-one percent report they work on design-build projects while 39 percent work on design-assist projects. Seventy-three percent of firms report they use file-sharing sites such as Dropbox to collaborate with partners and 46 percent report they use online project collaboration software.

## CONTRACTORS ARE THINKING MORE STRATEGICALLY ABOUT INFORMATON TECHNOLOGY

Perhaps because they are looking for ways to be even more efficient amid tight margins and growing labor shortages, a growing number of contractors appreciate that information technology (IT) needs to be part of their formal business plan. Fifty-two percent of contractors report that they currently have a formal IT plan that supports business objectives. This number continues an upward trend from 47 percent of contractors (2017 Outlook) and 42 percent of contractors (2016 Outlook) that had a formal IT plan in place. An additional 8 percent of contractors who don't currently have a formal IT plan are planning to create one in 2018.

The decision to outsource could be attributed to contractors taking a more strategic approach to IT. According to the survey, 77 percent of respondents outsource either IT or a business function. The top three IT functions outsourced are network management (43 percent), backup and disaster recovery (31 percent), and voice over IP (27 percent).

The survey also reports that contractors are continuing to increase their funding of IT plans. Fifty percent of contractors say they spend at least one percent of revenue on IT, compared to 47 percent in last year's survey (these percentages do not include those who responded that they were unsure of the percentage of revenue). In addition, 43 percent of contractors report they will further increase IT investment in 2018. The top three areas contractors plan to increase investment are document management (27 percent of respondents), estimating (27 percent), and project management (27 percent) applications.

## BIM USAGE EXPANDS BEYOND CONSTRUCTABILITY REVIEW AND CLASH DETECTION

While respondents primarily use BIM for clash detection, constructability input, and visual communication of project scope, a surprising number are also moving to more advanced uses of BIM. The use of BIM for scheduling and resource planning (35 percent of respondents), 3D model-based estimating takeoff (35 percent), and safety (20 percent) illustrate how contractors are expanding their use of technology to improve operational efficiencies and better compete for projects.

## CLOUD COMPUTING ADOPTION CONTINUES BUT WITH SOME CONFUSION

Contractors appear to be more open to moving their data into the cloud, but not without some reservations. The majority, 45 percent of respondents, say they are moderately comfortable with moving their data to the cloud, 24 percent are very comfortable, and 20 percent are not comfortable.

When asked which cloud service model they currently use, 57 percent indicate a hybrid cloud, in which their software and data remain on a private network but can be securely accessed with a web browser. Thirty-eight percent are using cloud hosting to outsource servers and networking components. Only 15 percent say they use software as a service applications that are fully cloud based. Also telling is more than half of the survey's total respondents didn't answer the question about which cloud service model they use, indicating potential confusion about what the cloud is and the options available.

The need for mobile capabilities on the job site continues to drive the largest usage of cloud-based technology. The top ways contractors plan to use mobile software are for daily field reports (67 percent of respondents), accessing customer and job information from the field (63 percent), employee time tracking and approval (59 percent), and the sharing of drawings, photos, and documents (59 percent). Only 5 percent of respondents reported that they have no plan to use mobile technology software.



## TIME AND TRADITION ARE THE BIGGEST CHALLENGES TO ADOPTING NEW INFORMATION TECHNOLOGY

Even as a growing number of firms embrace information technology, many admit that their biggest technology challenges are centered around time and tradition. Forty-five percent of firms report their biggest IT challenge is that they lack the time needed to implement and train on new systems, for example. Meanwhile 41 percent report their biggest IT challenge is that it is hard to communicate these new systems between the field and offices. Concerns about employee resistance to technology, in particular, jumped from 32 percent last year to 41 percent this year. This escalating issue combined with training time constraints could indicate a need for a phased approach to technology implementation that also includes ways to manage change within construction firms.

## REGIONAL MARKET ANALYSIS

The outlook by market segment varies among the four different regions – Northeast, Midwest, South and West – that the association analyzed. Contractors in the Midwest are most optimistic about manufacturing construction (22 percent net positive), followed by power (21 percent net) and water & sewer construction (20 percent net). Northeastern firms are most optimistic about water & sewer construction (33 percent net), followed by multifamily residential (19 percent net) and hospital construction (18 percent net). In the South, contractors are most optimistic about the prospects for private office construction (33 percent net), followed by retail, warehouse & lodging construction (26 percent net) and manufacturing construction (23 percent net). In the West, contractors are most sanguine about the highway construction segment (27 percent net), followed by public building construction (26 percent net) and water & sewer construction (23 percent net).

Contractors in all four regions were all relatively optimistic regarding their plans to expand headcounts – ranging from 67 percent in the Northeast to 79 percent in the West. Yet construction worker shortages appear to be a significant concern for contractors throughout the country. Seventy-three percent of contractors in the

Northeast report having a hard time finding workers compared to 75 percent in the South, 80 percent in the Midwest and 81 percent in the West.

## CONCLUSION

Contractors expect 2018 to be an even better year for the construction industry than 2017. There are a number of likely reasons for this optimism, among them, strong overall economic growth, the Trump administration's efforts to reduce needless regulatory burdens, expectations that pending federal tax cuts will further boost demand, and a sense that technology can help solve long-running challenges such as workforce shortages.

Yet it is also clear that contractors' optimism is likely based on two key assumptions: that tax cuts will lead to stronger demand and that the Trump administration will finally deliver on its promise to boost investments in infrastructure. If the tax cuts don't deliver as promised, then it is likely that private-sector demand for new construction will not grow as fast as many firms expect. And if the administration fails to deliver new infrastructure investments, contractors who perform public-sector work will not experience the kind of growing demand for their services they currently expect. Failure to enact new federal infrastructure investments will prove particularly punishing for contractors in states that have yet to enact new funding increases for infrastructure as well.

The best thing Washington officials can do to make sure that federal tax cuts deliver on their full potential is to continue the hard, time-consuming and tedious work of rolling back needless regulatory burdens. Congress and the administration took a number of important steps in 2017, but a lot of work remains to be done to put in place a responsible regulatory regimen that protects workers and the environment without unduly stifling job growth and economic prosperity. The association remains committed to working with administration officials to help identify regulations that can be improved and others that can be removed.

Just as federal officials need to push forward with their efforts to put in place a more rational regulatory program, the administration must finally deliver on its promise to boost investments in infrastructure. Many contractors who perform public-sector work reported they were optimistic about the prospects for 2018. Given current construction spending trends – with declining or flat infrastructure investments – it is clear that this optimism is based in large part on an expectation that the federal government will boost investments in infrastructure. The association has already been working aggressively to push for new infrastructure investments. We will continue to take every possible opportunity – on our own and via the various coalitions we either help run or belong to – to encourage the administration and Congress to work together to enact new infrastructure investments.

Congress and the Trump administration can also take steps to address chronic workforce shortages. Among these is enacting a new Perkins Act that boosts funding for career and technical education and gives state and local officials greater flexibility to put in place programs based on local market conditions, instead of federal priorities. They can also clarify that the recent executive order to make it easier for firms to set up apprenticeship training programs applies to construction firms. And they can enact multi-employer pension reforms that will make it easier for firms to support viable retirement plans for years to come. The Associated General Contractors of America will continue to lead the effort to encourage new federal, state and local measures to rebuild the pipeline for recruiting and preparing the next generation of construction professionals.

As this association celebrates a century of service to the construction industry and the broader economy, it is fitting that 2018 should be a good year for the construction industry. The economy is growing, taxes are falling and regulatory burdens are shrinking. Technology is helping many firms overcome the twin challenges of tough competition and tight labor market conditions. And firms are embracing new approaches to be more efficient and more innovative. As long as federal officials continue to work to boost infrastructure investments, reduce regulations and support workforce development, 2018 will be a strong year for the construction industry.

## ABOUT THE SURVEY

AGC conducted the survey that serves as the basis for the 2018 Construction Hiring and Business Forecast during November and December 2017. A total of 1,046 firms from the District of Columbia and forty-nine states completed the survey. (Varying numbers responded to each question.) Participating firms represent a broad cross-section of sizes. Thirty percent report performing \$10 million or less worth of work in 2015. Thirty-three percent performed between \$10.1 million and \$50 million worth of work, fourteen percent between \$50.1 and \$100 million, fifteen percent between \$100.1 and \$150 million, and eight percent performed over \$500 million worth of work. Thirty-three percent of firms report they employ union workers most or all of the time while the remainder are either exclusively open shop or only occasionally employ union labor. Contractors who completed the survey were entered into a raffle to win an iPhone or a cooler. Other than that, firms and their employees were not compensated or in any other way reimbursed for completing the survey.

The regions covered in the survey included the following states:

### Northeast

Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

### South

Alabama, Arkansas, District of Columbia, Georgia, Florida, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia

### Midwest

Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

## West

Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, Wyoming