THE AGC/SAGE CONSTRUCTION HIRING & BUSINESS OUTLOOK FOR 2018

January 3, 2018
**CONTRACTORS ARE OPTIMISTIC ABOUT ALL MARKET SEGMENTS**

*Compared to 2017, do you expect the available dollar volume of projects you compete for in 2018 to be:*

<table>
<thead>
<tr>
<th>Market</th>
<th>Higher</th>
<th>Lower</th>
<th>Same</th>
<th>Net*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All projects</td>
<td>53%</td>
<td>9%</td>
<td>37%</td>
<td>44%</td>
</tr>
<tr>
<td>Private Office</td>
<td>35%</td>
<td>13%</td>
<td>52%</td>
<td>22%</td>
</tr>
<tr>
<td>Transportation (e.g., transit, rail, airport)</td>
<td>33%</td>
<td>12%</td>
<td>55%</td>
<td>21%</td>
</tr>
<tr>
<td>Retail, Warehouse, Lodging</td>
<td>32%</td>
<td>11%</td>
<td>57%</td>
<td>21%</td>
</tr>
<tr>
<td>Water/Sewer</td>
<td>31%</td>
<td>11%</td>
<td>58%</td>
<td>20%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>33%</td>
<td>13%</td>
<td>54%</td>
<td>20%</td>
</tr>
<tr>
<td>K-12 School</td>
<td>34%</td>
<td>16%</td>
<td>50%</td>
<td>18%</td>
</tr>
<tr>
<td>Hospital</td>
<td>33%</td>
<td>15%</td>
<td>52%</td>
<td>17%</td>
</tr>
<tr>
<td>Highway</td>
<td>32%</td>
<td>15%</td>
<td>53%</td>
<td>17%</td>
</tr>
<tr>
<td>Multifamily Residential</td>
<td>34%</td>
<td>17%</td>
<td>49%</td>
<td>16%</td>
</tr>
<tr>
<td>Public Building</td>
<td>29%</td>
<td>14%</td>
<td>57%</td>
<td>16%</td>
</tr>
<tr>
<td>Power</td>
<td>25%</td>
<td>13%</td>
<td>62%</td>
<td>13%</td>
</tr>
<tr>
<td>Higher Education</td>
<td>27%</td>
<td>16%</td>
<td>57%</td>
<td>11%</td>
</tr>
<tr>
<td>Federal (e.g., VA, GSA, USACE, NAVFAC)</td>
<td>23%</td>
<td>15%</td>
<td>62%</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Net equals difference between number of “Higher” and “Lower” responses as percent of total.*
HEADCOUNTS WILL CONTINUE TO EXPAND IN 2018

What percentage change do you expect in your headcount in 2018?

- More than 25: 18%
- 11-25: 17%
- 1-10: 40%
- No change: 22%
- Decrease: 3%
FIRMS WILL CONTINUE TO COPE WITH WORKER SHORTAGES

How would you describe your firm’s current conditions for filling key salaried positions (project manager/supervisor, estimator, etc.) and hourly craft positions (carpenter, laborer, equipment operator, etc.)? My firm is:

- Having a hard time filling both salaried and craft worker positions: 50%
- Having a hard time filling some salaried positions, but no trouble filling craft worker positions: 21%
- Having a hard time filling some craft worker positions, but no trouble filling salaried positions: 7%
- Having no trouble filling any positions: 9%
- Not doing any hiring: 10%
MOST FIRMS ARE INCREASING PAY OR BENEFITS...

Did your firm increase pay or benefits in 2017 to retain or recruit salaried/hourly craft professionals?

- Increased base pay: 60%
- Provided incentives/bonuses: 36%
- Increased contributions and/or improve employee benefits: 24%
- Paid more overtime: 18%
- No, but we are considering increases in pay and/or benefits in the near future: 9%
- No, and we are not considering increases in pay and/or benefits: 7%
- We did not seek to hire any salaried/hourly craft professionals in 2017: 3%
- Unsure: 7%
...AND INVESTING IN TRAINING & DEVELOPMENT PROGRAMS

Compared to 2017, how will your firm’s 2018 investment in training and development change?

- Increase: 56%
- Decrease: 1%
- Stay the same: 40%
- Unsure: 3%
FIRMS ARE WORRIED ABOUT LABOR, COMPETITION & WASHINGTON

Which of the following issues is the biggest concern to your firm out of the following list?

- Worker shortages: 41%
- Increased competition for projects: 39%
- Growth in federal regulations: 28%
- Lack of infrastructure investments: 24%
- Growth in state and local regulations: 23%
- Safety: 20%
- Internal company process inefficiencies: 16%
- Rising direct labor costs (pay, benefits, employer taxes): 16%
- Worker quality: 16%
- Not enough private sector work: 13%
- Lack of public non-infrastructure work: 10%
- Rising subcontractor costs: 8%
- Relations with external process inefficiencies (such as...): 7%
- Rising materials costs: 6%
- Subcontractor defaults: 5%
- Rising indirect labor costs (recruitment, training): 3%
CONTRACTORS CONTINUE TO EMBRACE INNOVATION

What change do you expect in 2018 in the number of your firm’s projects that involve Building Information Modeling (BIM)?

- Increase: 17%
- Stay the same (+/-10%): 32%
- Decrease: 0%
- We do not expect to use BIM on any projects in 2018: 30%
- Unsure: 18%

Does your firm utilize lean construction principles on its projects and/or in its operation?

- Yes: 44%
- No: 34%
- Unsure: 23%
CONTRACTORS ARE THINKING MORE STRATEGICALLY ABOUT INFORMATION TECHNOLOGY

Does your firm currently have a formal IT plan that supports your business objectives?

- Yes: 52%
- No: 32%
- No, but plan to do so in 2018: 8%
- Unsure: 8%

Approximately what percent of your firm’s gross annual revenue is spent on IT?

- Less than 1%: 49%
- 1 to 1.9%: 32%
- 2 to 2.9%: 11%
- 3% or more: 7%
Does your firm use any of the following to collaborate with project partners?

- File-sharing sites such as Dropbox: 73%
- Online project collaboration software: 46%
- BIM: 33%
- Home-grown project website: 16%
- None: 12%
- Unsure: 6%
BIM USAGE EXPANDS BEYOND CONSTRUCTABILITY REVIEW AND CLASH DETECTION

What is your firm using BIM for?

- Clash detection: 45%
- Constructability input into the design process: 45%
- Visually communicate project scope to clients: 42%
- 3D model-based takeoff for cost estimating: 35%
- Design of 3D model: 35%
- Scheduling and workforce planning: 35%
- Safety (identify safety issues, safety by design, safety training, etc.): 20%
CLOUD COMPUTING ADOPTION CONTINUES BUT WITH SOME CONFUSION

How comfortable is your firm with moving its data to the cloud?

- Very comfortable: 24%
- Moderately comfortable: 45%
- Not comfortable: 20%
- No opinion: 10%
TIME AND TRADITION ARE THE BIGGEST CHALLENGES TO ADOPTING NEW INFORMATION TECHNOLOGY

What are your firm’s biggest IT challenges?

- Time needed to implement and train on new technology: 45%
- Communication between field and office: 41%
- Employee resistance to technology: 41%
- Connectivity to remote job sites: 39%
- Keeping company data secure from hackers: 33%
- Keeping software current: 28%
- Integration between software used inside of our company: 25%
- Keeping hardware current: 23%
- Integration with software used by project partners outside our company: 17%
- Outdated company software and systems: 17%
- Management resistance to technology: 13%
- None: 5%
QUESTIONS?

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