2020 Construction Outlook Survey Results
North Carolina

Total Responses: 23 (out of 956 total). Responses varied for some questions. Percentages are based on responses to each question and may not sum to 100 due to rounding.

1. Compared to 2019, do you expect the available dollar value of projects you compete for in 2020 to be (answer for all market areas in which your business operates):

<table>
<thead>
<tr>
<th>Markets</th>
<th>Higher</th>
<th>Lower</th>
<th>Same</th>
<th>Net*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water/Sewer</td>
<td>56%</td>
<td>0%</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Higher Education</td>
<td>38%</td>
<td>0%</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Hospital</td>
<td>43%</td>
<td>7%</td>
<td>50%</td>
<td>36%</td>
</tr>
<tr>
<td>Power</td>
<td>25%</td>
<td>0%</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>K-12 School</td>
<td>23%</td>
<td>0%</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>Federal (e.g., VA, GSA, USACE, NAVFAC)</td>
<td>18%</td>
<td>18%</td>
<td>64%</td>
<td>0%</td>
</tr>
<tr>
<td>Public Building</td>
<td>27%</td>
<td>33%</td>
<td>40%</td>
<td>-7%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9%</td>
<td>27%</td>
<td>64%</td>
<td>-18%</td>
</tr>
<tr>
<td>Transportation (e.g., transit, rail, airport)</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
<td>-20%</td>
</tr>
<tr>
<td>Multifamily Residential</td>
<td>10%</td>
<td>30%</td>
<td>60%</td>
<td>-20%</td>
</tr>
<tr>
<td>Private Office</td>
<td>14%</td>
<td>43%</td>
<td>43%</td>
<td>-29%</td>
</tr>
<tr>
<td>Bridge/Highway</td>
<td>13%</td>
<td>50%</td>
<td>38%</td>
<td>-38%</td>
</tr>
<tr>
<td>Retail, Warehouse, Lodging</td>
<td>7%</td>
<td>50%</td>
<td>43%</td>
<td>-43%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>33%</td>
<td>67%</td>
<td>-33%</td>
</tr>
</tbody>
</table>

*Net equals difference between number of “Higher” and “Lower” responses as percent of total.

2. What numerical change do you expect in your headcount in 2020?

- Increase of 1-10: 57%
- Increase of 11-25: 17%
- More than 25: 4%
- No change: 13%
- Decrease: 9%

3. What percentage change do you expect in your headcount in 2020?

- Increase of 1-10%: 41%
- Increase of 11-25%: 32%
- More than 25%: 0%
- No change: 18%
- Decrease: 9%
4. How would you describe your current situation in filling salaried and hourly craft positions?

- We are having a hard time filling some or all positions: 78%
- We are having no difficulty filling any positions: 4%
- We have no openings for positions: 17%

5. Do you expect any changes in the availability of hourly craft or salaried personnel over the coming 12 months?

- It will continue to be hard to hire: 48%
- It will become harder to hire: 26%
- No change: 17%
- It will become easier to hire: 9%
- It will continue to be easy to hire: 0%

6. Did your firm increase pay or benefits for salaried or hourly craft personnel in 2019 because of difficulty filling positions? (mark all that apply)

- Yes, our firm increased base pay rates more in 2019 than in 2018: 57%
- Yes, our firm provided similar or smaller increases in 2019 than in 2018: 17%
- Yes, our firm provided incentives/bonuses: 13%
- Yes, our firm increased our portion of benefit contributions and/or improved employee benefits: 9%
- No, not at this time: 22%
- We did not seek to fill any positions: 4%
7. If your firm is experiencing staffing challenges, how would you describe the impact on your projects? (mark all that apply)

- Costs have been higher than we anticipated: 43%
- We have put higher prices into our bids or contracts: 48%
- Projects have taken longer than we anticipated: 39%
- We have put longer completion times into our bids or contracts: 30%
- Completion times or costs have been lower than we anticipated: 13%
- No impact: 4%
- Other (please specify): 0%

8. In the last year, what has your firm done to invest in the training and development of skilled labor/qualified workers?

- Revamped initiatives to recruit labor: 61%
- Increased funding or money allocated to technical education: 30%
- Restructured or changed programming for current skilled labor recruits: 30%
- We have not done anything: 22%
- Other (please specify): 0%

9. Has your firm adopted or increased use of the following to replace workers or skills? (mark all that apply)

- Labor-saving equipment (e.g., drones, robots, 3-D printers, laser-or GPS-guided equipment): 22%
- Methods to reduce onsite worktime (e.g., lean construction, virtual construction such as BIM, offsite fabrication): 39%
- Added specialists (e.g., architects, BIM or lean construction personnel, drone or other equipment operators, data or IT personnel): 17%
- No changes: 52%
10. What are your biggest concerns for 2020 (mark all that apply)?

- Worker quality: 78%
- Worker shortages: 61%
- Rising direct labor costs (pay, benefits, employer taxes): 61%
- Subcontractor availability or quality: 57%
- Increased competition for projects: 52%
- Inadequate construction career education and training: 43%
- Inadequate funding for infrastructure: 39%
- Impact of immigration policy on labor supply: 30%
- Safety: 26%
- Federal regulations: 22%
- Inadequate funding for public building projects: 22%
- Not enough private sector work: 22%
- Materials costs: 22%
- Relations with owners, subs and/or vendors: 22%
- Impact of trade policy on materials cost, availability or on…: 17%
- State and local regulations: 13%
- Other costs (e.g., trucking, insurance, services): 13%
- Other (please specify): 0%

11. What challenges, if any, do you see regarding the safety and health of your firm’s workers? (mark all that apply)

- Inexperienced skilled labor/workforce shortage: 70% Major, 26% Minor, 4% No challenge
- Poor subcontractor safety and health performance: 36% Major, 45% Minor, 18% No challenge
- Safety hazards created by 3rd parties (e.g. motorist crashes into work zones): 30% Major, 25% Minor, 45% No challenge
- Lack of cooperation from government agencies or regulators: 14% Major, 52% Minor, 33% No challenge
- Low quality of available safety and health training: 5% Major, 29% Minor, 67% No challenge
- Other: 0%
12. What change do you expect in 2020 in the number of your firm’s projects that involve Building Information Modeling (BIM)?

- Increase: 32%
- Stay the same (+ or -10%): 32%
- Decrease: 0%
- We do not expect to use BIM: 37%

13. What is your firm using BIM for? (mark all that apply)

- Clash detection: 41%
- Constructability input into the design process: 41%
- Construction means and methods: 32%
- Scheduling and workforce planning: 27%
- Visually communicate project scope to clients: 27%
- Design of 3D model: 18%
- 3D model-based takeoff for cost estimating: 14%
- Safety (identify safety issues, safety by design, safety training, etc.): 9%
- We do not use BIM: 59%

14. Does your firm use any of the following to collaborate with project partners (mark all that apply)?

- File-sharing sites such as Dropbox: 70%
- Online project collaboration software: 52%
- BIM: 39%
- Home-grown project web site: 30%
- None: 17%
- Other (please specify): 0%
- Don’t know: 0%
15. What business or IT functions does your firm outsource or plan to outsource to a technology provider? (mark all that apply)

- Voice over IP (phone service over the internet) [50% Currently outsource, 0% Plan to outsource]
- Desktop (light maintenance) [44% Currently outsource, 0% Plan to outsource]
- Backup and disaster recovery [39% Currently outsource, 6% Plan to outsource]
- Network management [33% Currently outsource, 0% Plan to outsource]
- Payroll [22% Currently outsource, 6% Plan to outsource]
- Subcontractor insurance processing [6% Currently outsource, 0% Plan to outsource]
- Accounts payable automation [0% Currently outsource, 0% Plan to outsource]
- Accounts receivable payment automation [0% Currently outsource, 0% Plan to outsource]
- Inventory [0% Currently outsource, 0% Plan to outsource]
- Lien waiver processing [0% Currently outsource, 6% Plan to outsource]
- Prequalification [0% Currently outsource, 0% Plan to outsource]
- Other business or IT functions [22% Currently outsource, 0% Plan to outsource]
- Our firm doesn’t currently outsource or plan to outsource any business or IT functions [11% Currently outsource, 0% Plan to outsource]

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

- Less than 1% [30%]
- 1 to 1.9% [35%]
- 2 to 2.9% [4%]
- 3% or more [9%]
- Don’t know [22%]
17. Compared to 2019, how will your firm’s 2020 investment in IT change?

![Bar chart showing distribution of responses to the 17 question.

18. Compared to 2019, how will your firm’s 2020 investment in the following technologies change? (mark all that apply)

<table>
<thead>
<tr>
<th>Technologies</th>
<th>Increase</th>
<th>Stay the same</th>
<th>Decrease</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet tracking/management software</td>
<td>29%</td>
<td>47%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>Project management software</td>
<td>29%</td>
<td>71%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Document management software</td>
<td>28%</td>
<td>72%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Human resources (HR) software</td>
<td>21%</td>
<td>57%</td>
<td>0%</td>
<td>21%</td>
</tr>
<tr>
<td>Scheduling software</td>
<td>20%</td>
<td>80%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Subcontractor bid management/ITB software</td>
<td>20%</td>
<td>67%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>Accounting software</td>
<td>19%</td>
<td>81%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Estimating software</td>
<td>19%</td>
<td>71%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>Project collaboration software</td>
<td>19%</td>
<td>69%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>Tool/asset management/tracking</td>
<td>19%</td>
<td>56%</td>
<td>0%</td>
<td>25%</td>
</tr>
<tr>
<td>Building Information Modeling (BIM)</td>
<td>15%</td>
<td>54%</td>
<td>0%</td>
<td>31%</td>
</tr>
<tr>
<td>Prequalification software</td>
<td>15%</td>
<td>77%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>Client relationship management (CRM) software</td>
<td>13%</td>
<td>67%</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>Payroll software</td>
<td>11%</td>
<td>83%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Service management software</td>
<td>8%</td>
<td>46%</td>
<td>0%</td>
<td>46%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>67%</td>
<td>0%</td>
<td>33%</td>
</tr>
</tbody>
</table>
19. How does your company plan to use mobile software technology? (mark all that apply)

- Daily field reports: 78%
- Sharing of drawings, photos and documents: 70%
- Employee time tracking and approval: 57%
- Access to customer and job information from the field: 52%
- Access to job cost and project reports from the field: 52%
- Scheduling: 52%
- GPS tracking (e.g. fleet tracking): 39%
- Punch lists: 39%
- Submittals and commitments: 39%
- Equipment tracking: 35%
- Building Information Modeling (BIM): 30%
- Reports to owners, regulatory compliance reports: 30%
- RFI/Issue tracking: 30%
- Change management: 22%
- Estimating: 9%
- Material acceptance at the job site: 9%
- Processing payments in the field: 9%
- Processing service work orders in the field: 9%
- Inventory tracking: 4%
- No plan to use mobile technology software: 0%
- Other (please specify): 0%
- Don't know: 9%

20. Does your firm currently have a mobile security plan in place?

- Yes: 35%
- No: 30%
- Don't know: 35%

21. Does your firm currently have a formal IT plan to support your business objectives?

- Yes: 57%
- No: 43%
- Not yet, but plan to in 2020: 0%
- Don't know: 0%
22. What are your biggest IT challenges? (mark all that apply)

- Employee resistance to technology: 57%
- Integration between software used inside of our company: 52%
- Connectivity to remote job sites: 39%
- Keeping hardware current: 39%
- Keeping software current: 39%
- Time needed to implement and train on new technology: 39%
- Outdated company software and systems: 35%
- Communication between field and office: 30%
- Integration with software used by project partners outside our company: 26%
- Keeping company data secure from hackers: 26%
- Management resistance to technology: 17%
- None: 4%
- Other (please specify): 0%
- Don't know: 0%

23. Does your firm use cloud-hosted technology in any of the following ways (mark all that apply)?

- Project management: 57%
- Accounting: 39%
- Field operations: 39%
- Time tracking: 35%
- Tool management: 26%
- We do not use the cloud: 13%
- Other (please specify): 13%

24. What best describes your firm?

- General contractor/construction manager: 65%
- Specialty or sub-contractor: 26%
- Supplier/service provider: 9%
- Architect/engineer/designer: 0%
- Owner/developer: 0%
- Other (please specify): 0%
25. When you self-perform construction work, do you operate as a union contractor or an open-shop contractor?

- We always operate as a union contractor: 77%
- We primarily operate as a union contractor but not always: 0%
- We primarily operate as an open-shop contractor but not always: 9%
- We always operate as an open-shop contractor: 9%
- We do not self-perform or directly hire craft personnel: 5%

26. Estimate the total dollar amount of work your firm performed in 2019:

- Under $50 million: 65%
- $50.1 million-$100 million: 8%
- $100.1 million-$500 million: 22%
- Over $500 million: 9%

27. How many total employees does your firm employ at all of its locations?

- 1-19: 14%
- 20-99: 36%
- 100-499: 32%
- 500 or more: 18%