2018 Construction Outlook Survey Results
New York Results

Total Responses: 35. Responses varied for some questions. Percentages are based on responses to each question and may not sum to 100 due to rounding.

1. What best describes your firm:

- General contractor/construction manager: 57%
- Specialty or subcontractor: 20%
- Supplier/service provider: 11%
- Architect/engineer/designer: 6%
- Owner/developer: 0%
- Other: 6%

2. Does your firm employ union workers, or is your firm primarily open shop?

- We employ union workers for all of our projects: 26%
- We employ union workers for most of our projects: 34%
- We are primarily an open shop contractor, but occasionally employ union workers: 14%
- We are exclusively open shop: 26%

3. Estimate the total dollar amount of work your firm performed in 2017.

- $10 million or less: 12%
- $10.1 million-$50 million: 44%
- $50.1 million-$100 million: 15%
- $100.1 million-$500 million: 12%
- Over $500 million: 18%

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

- 1-19: 9%
- 20-99: 46%
- 100-499: 14%
- 500 or more: 31%
5. 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>Hospital</td>
<td>50%</td>
<td>6%</td>
<td>44%</td>
<td>44%</td>
</tr>
<tr>
<td>Power</td>
<td>27%</td>
<td>0%</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Water/Sewer</td>
<td>27%</td>
<td>0%</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Multifamily Residential</td>
<td>31%</td>
<td>8%</td>
<td>62%</td>
<td>23%</td>
</tr>
<tr>
<td>Private Office</td>
<td>35%</td>
<td>18%</td>
<td>47%</td>
<td>18%</td>
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<tr>
<td>All projects</td>
<td>36%</td>
<td>21%</td>
<td>43%</td>
<td>14%</td>
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<tr>
<td>K-12 School</td>
<td>18%</td>
<td>6%</td>
<td>76%</td>
<td>12%</td>
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<tr>
<td>Federal (e.g., VA, GSA, USACE, NAVFAC)</td>
<td>21%</td>
<td>11%</td>
<td>68%</td>
<td>11%</td>
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<tr>
<td>Transportation (e.g., transit, rail, airport)</td>
<td>19%</td>
<td>13%</td>
<td>69%</td>
<td>6%</td>
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<tr>
<td>Higher Education</td>
<td>19%</td>
<td>19%</td>
<td>63%</td>
<td>0%</td>
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<tr>
<td>Highway</td>
<td>26%</td>
<td>26%</td>
<td>47%</td>
<td>0%</td>
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<tr>
<td>Public Building</td>
<td>29%</td>
<td>29%</td>
<td>43%</td>
<td>0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>20%</td>
<td>27%</td>
<td>53%</td>
<td>-7%</td>
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<tr>
<td>Retail, Warehouse, Lodging</td>
<td>13%</td>
<td>20%</td>
<td>67%</td>
<td>-7%</td>
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</tbody>
</table>

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

6. What numerical change do you expect in your headcount in 2018?

<table>
<thead>
<tr>
<th>Change</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
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<tr>
<td>More than 25</td>
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7. What percentage change do you expect in your headcount in 2018?

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<thead>
<tr>
<th>Change</th>
<th>0%</th>
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<tbody>
<tr>
<td>More than 25</td>
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<td>11-25</td>
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<td>Decrease</td>
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</table>

8. 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:

<table>
<thead>
<tr>
<th>Condition</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>having a hard time filling both salaried and craft worker positions</td>
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<td>43%</td>
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<tr>
<td>having a hard time filling some salaried positions, but no trouble</td>
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<td>17%</td>
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<tr>
<td>filling craft worker positions</td>
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<tr>
<td>having a hard time filling some craft worker positions, but no trouble</td>
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<td>13%</td>
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<tr>
<td>filling salaried positions</td>
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<tr>
<td>having no trouble filling any positions</td>
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<td>10%</td>
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<tr>
<td>not doing any hiring</td>
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<td>13%</td>
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</tbody>
</table>
9. Do you expect any changes in the availability of salaried/hourly craft construction professionals over the coming 12 months? Finding and hiring qualified construction professionals will:

- Continue to be easy: 0%
- Become easier: 0%
- Become harder: 24%
- Continue to be hard: 48%
- Unsure: 28%

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

- Increased base pay: 59%
- Paid more overtime: 3%
- Provided incentives/bonuses: 17%
- Increased contributions and/or improve employee benefits: 14%
- No, but we are considering increases in pay and/or benefits in the near future: 3%
- No, and we are not considering increases in pay and/or benefits: 3%
- Unsure: 17%
- We did not seek to hire any salaried/hourly craft professionals in 2017: 7%

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

- Increase: 45%
- Decrease: 0%
- Stay the same: 55%
- Unsure: 0%
12. Which of the following issues is the biggest concern to your firm out of the following list?

- Increased competition for projects: 53%
- Growth in state and local regulations: 50%
- Not enough private sector work: 36%
- Lack of infrastructure investments: 25%
- Safety: 25%
- Rising direct labor costs (pay, benefits, employer taxes): 17%
- Rising materials costs: 17%
- Rising indirect labor costs (recruitment, training): 14%
- Lack of public non-infrastructure work: 13%
- Worker quality: 11%
- Worker shortages: 8%
- Growth in federal regulations: 0%
- Internal company process inefficiencies: 0%
- Relations with external process inefficiencies (such as collaboration with owners, subs and/or vendors): 0%
- Rising subcontractor costs: 0%
- Subcontractor defaults: 0%

13. What challenges, if any, do you see regarding the safety and health of your firm’s workers?

- Inexperienced skilled labor/workforce shortage
  - Major: 38%
  - Minor: 48%
  - No challenge: 14%
- Lack of cooperation from federal agencies or regulators
  - Major: 58%
  - Minor: 21%
  - No challenge: 21%
- Low quality of available safety and health training
  - Major: 65%
  - Minor: 31%
  - No challenge: 4%
- Poor subcontractor safety and health performance
  - Major: 50%
  - Minor: 29%
  - No challenge: 21%
14. What change do you expect in 2018 in the number of your firm’s projects that involve Building Information Modeling (BIM)?

- Increase: 24%
- Stay the same (+/- 10%): 24%
- Decrease: 3%
- We do not expect to use BIM on any projects in 2018: 28%
- Uns sure: 21%

15. What is your firm using BIM for?

- Clash detection: 76%
- Visually communicate project scope to clients: 35%
- Design of 3D model: 29%
- Safety (identify safety issues, safety by design, safety training, etc.): 29%
- 3D model-based takeoff for cost estimating: 18%
- Constructability input into the design process: 18%
- Scheduling and workforce planning: 18%

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

- Yes: 48%
- No: 38%
- Unsure: 14%

17. Does your firm use any of the following collaborative project delivery methods?

- Design-build: 61%
- Design-assist: 29%
- Integrated project delivery (IPD): 18%
- Public-private partnerships: 11%
- None: 29%
- Unsure: 11%
18. Does your firm use any of the following to collaborate with project partners?

- File-sharing sites such as Dropbox: 57%
- Online project collaboration software: 46%
- BIM: 39%
- Home-grown project website: 21%
- None: 11%
- Unsure: 7%

19. What business of IT functions does your firm outsource or plan to outsource to a technology provider?

- Accounts payable automation: 10% Currently outsource, 20% Plan to outsource
- Accounts receivable payment automation: 10% Currently outsource, 0% Plan to outsource
- Inventory: 0% Currently outsource, 0% Plan to outsource
- Lien waiver processing: 5% Currently outsource, 0% Plan to outsource
- Payroll: 0% Currently outsource, 20% Plan to outsource
- Prequalification: 5% Currently outsource, 0% Plan to outsource
- Subcontractor insurance processing: 5% Currently outsource, 0% Plan to outsource
- Backup and disaster recovery: 45% Currently outsource, 0% Plan to outsource
- Desktop (light maintenance): 25% Currently outsource, 0% Plan to outsource
- Network management: 60% Currently outsource, 0% Plan to outsource
- Voice over IP (phone service over the internet): 35% Currently outsource, 0% Plan to outsource
- Our firm doesn’t currently outsource or plan to outsource: 20% Currently outsource, 0% Plan to outsource
20. Approximately what percent of your firm’s gross annual revenue is spent on IT?

- Less than 1%: 37%
- 1 to 1.9%: 30%
- 2 to 2.9%: 4%
- 3% or more: 0%

21. Compared to 2017, how will your firm’s 2018 investment in IT change?

- Increase: 33%
- Decrease: 0%
- Stay the same: 52%
- Unsure: 15%

22. Compared to 2017, how will your firm’s 2018 investment in the following technologies change?

<table>
<thead>
<tr>
<th>Technologies</th>
<th>Increase</th>
<th>Stay the same</th>
<th>Decrease</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting software</td>
<td>12%</td>
<td>69%</td>
<td>0%</td>
<td>19%</td>
</tr>
<tr>
<td>Building Information Modeling</td>
<td>26%</td>
<td>26%</td>
<td>0%</td>
<td>48%</td>
</tr>
<tr>
<td>Client relationship management software</td>
<td>29%</td>
<td>38%</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>Document management software</td>
<td>24%</td>
<td>52%</td>
<td>0%</td>
<td>24%</td>
</tr>
<tr>
<td>Estimating software</td>
<td>23%</td>
<td>58%</td>
<td>0%</td>
<td>19%</td>
</tr>
<tr>
<td>Fleet tracking/management software</td>
<td>14%</td>
<td>52%</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>Human resources software</td>
<td>10%</td>
<td>48%</td>
<td>0%</td>
<td>43%</td>
</tr>
<tr>
<td>Payroll software</td>
<td>4%</td>
<td>75%</td>
<td>0%</td>
<td>21%</td>
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<tr>
<td>Prequalification software</td>
<td>14%</td>
<td>45%</td>
<td>0%</td>
<td>41%</td>
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<tr>
<td>Project collaboration software</td>
<td>17%</td>
<td>52%</td>
<td>0%</td>
<td>30%</td>
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<tr>
<td>Project management software</td>
<td>32%</td>
<td>44%</td>
<td>0%</td>
<td>24%</td>
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<tr>
<td>Scheduling software</td>
<td>21%</td>
<td>63%</td>
<td>0%</td>
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<tr>
<td>Service management software</td>
<td>0%</td>
<td>50%</td>
<td>0%</td>
<td>50%</td>
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<tr>
<td>Subcontractor bid management/ITB software</td>
<td>0%</td>
<td>59%</td>
<td>0%</td>
<td>41%</td>
</tr>
</tbody>
</table>

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

- Very comfortable: 42%
- Moderately comfortable: 31%
- Not comfortable: 8%
- No opinion: 19%
24. How does your firm plan to use mobile software technology?

- Access to customer and job information from the field: 63%
- Access to job cost and project reports from the field: 58%
- Daily field reports: 58%
- Sharing of drawings, photos, and documents: 54%
- Scheduling: 42%
- Employee time tracking and approval: 38%
- Punch lists: 38%
- RFI/issue tracking: 38%
- Change management: 29%
- Submittals and commitments: 29%
- Equipment tracking: 21%
- Building Information Modeling: 17%
- GPS tracking (e.g., fleet tracking): 17%
- Material acceptance at the job site: 13%
- Processing service work orders in the field: 13%
- Processing payments in the field: 8%
- Estimating: 4%
- Inventory tracking: 4%
- No plan to use mobile technology software: 4%

25. Which of the following cloud service models does your firm plan to use?

- Cloud hosting: we outsource our servers and networking components to a cloud service provider’s data center: 50%
- Hybrid cloud: our software and data is on a private network but can be securely accessed with a web browser: 63%
- SaaS: we use software-as-a-service (SaaS) applications that are fully cloud-based: 19%

- Currently use
- Plan to use
26. Does your firm currently have a mobile security plan in place?

- Yes: 25%
- No: 38%
- Unsure: 38%

27. Does your firm currently have a formal IT plan that support your business objectives?

- Yes: 58%
- No: 33%
- No, but plan to do so in 2018: 0%
- Unsure: 8%

28. What are your firm’s biggest IT challenges?

- Time needed to implement and train on new technology: 44%
- Connectivity to remote job sites: 40%
- Employee resistance to technology: 40%
- Communication between field and office: 32%
- Keeping hardware current: 28%
- Integration with software used by project partners outside our company: 24%
- Keeping company data secure from hackers: 24%
- Keeping software current: 24%
- Integration between software used inside of our company: 20%
- Outdated company software and systems: 12%
- Management resistance to technology: 8%
- None: 4%