AGC of America
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA
Quality People. Quality Projects.

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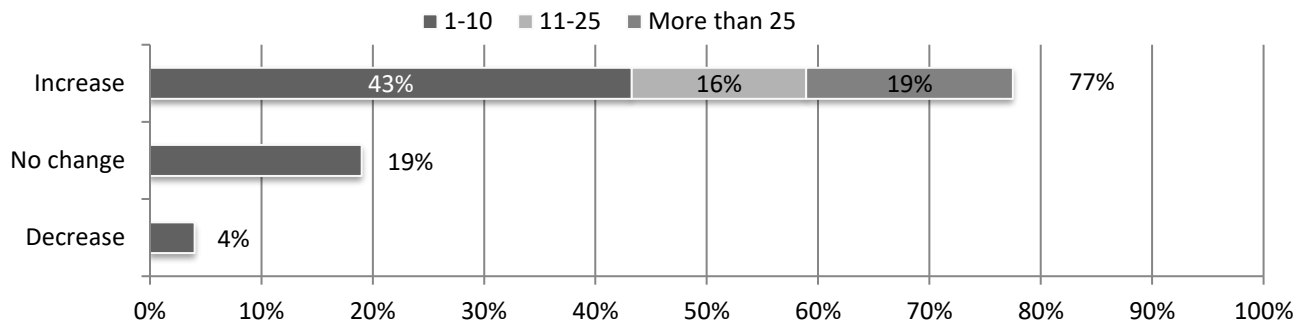## 2019 Construction Outlook Survey Results
National Results

Total Responses: 1,312. 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 2018, do you expect the available dollar volume of projects you compete for in 2019 to be (answer for all market areas in which your business operates):
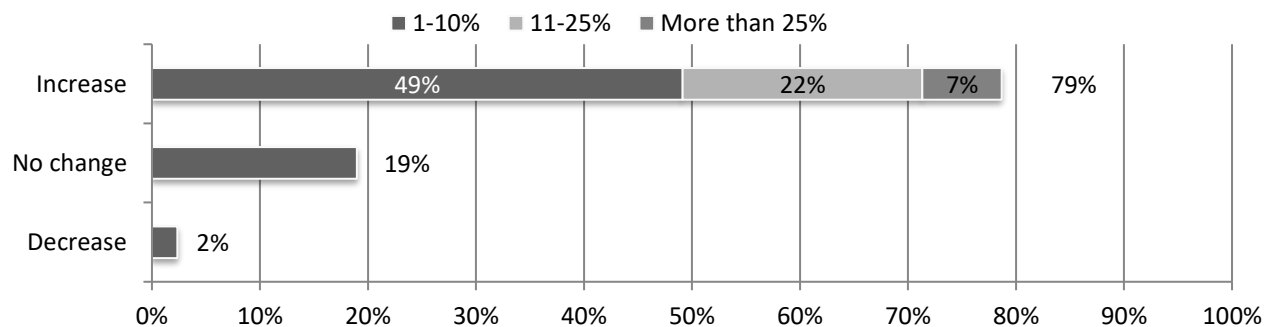
Market	Higher	Lower	Same	Net*
Public Building	28%	11%	60%	17%
Highway	30%	14%	56%	16%
K-12 School	32%	16%	53%	16%
Hospital	31%	15%	54%	16%
Retail, Warehouse, Lodging	29%	14%	57%	15%
Federal (e.g., VA, GSA, USACE, NAVFAC)	26%	12%	62%	15%
Transportation (e.g., transit, rail, airport)	29%	14%	57%	14%
Water/Sewer	27%	13%	61%	14%
Private Office	26%	13%	60%	13%
Manufacturing	29%	16%	55%	12%
Higher Education	26%	15%	59%	11%
Power	23%	14%	63%	10%
Multifamily Residential	26%	21%	52%	5%
Other	32%	11%	56%	21%

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

2. What <u>numerical</u> change do you expect in your headcount in 2019?

Legend: ■ 1-10 ■ 11-25 ■ More than 25

- Increase: 43% | 16% | 19% → 77%
- No change: 19%
- Decrease: 4%

3. What <u>percentage</u> change do you expect in your headcount in 2019?

Legend: ■ 1-10% ■ 11-25% ■ More than 25%

- Increase: 49% | 22% | 7% → 79%
- No change: 19%
- Decrease: 2%

4. How would you describe your current situation in filling salaried and hourly craft positions?

Response	Percentage
We are having a hard time filling some or all positions	78%
We are having no difficulty filling any positions	11%
We have no openings for positions	11%
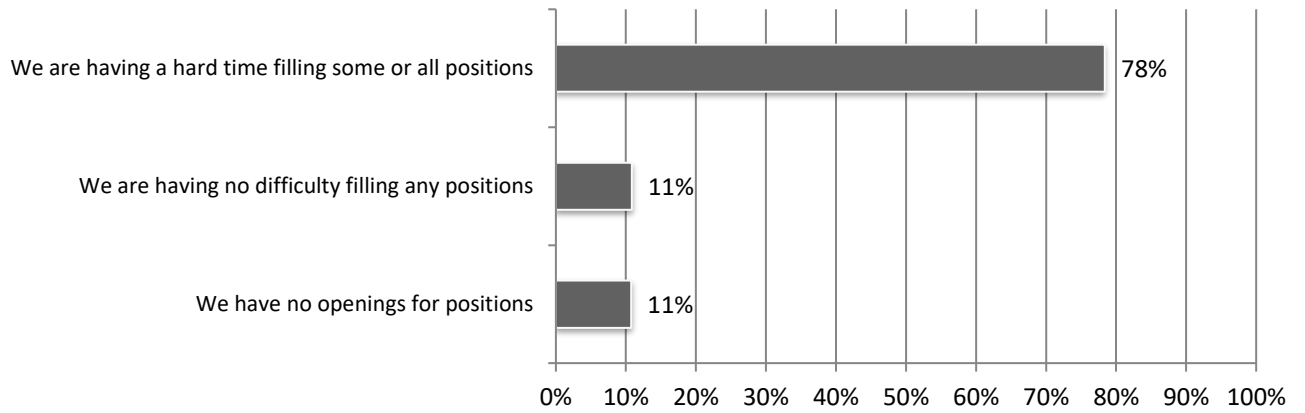
5. Do you expect any changes in the availability of hourly craft or salaried personnel over the coming 12 months?

Response	Percentage
It will continue to be hard to hire	42%
It will become harder to hire	26%
No change	27%
It will become easier to hire	3%
It will continue to be easy to hire	1%
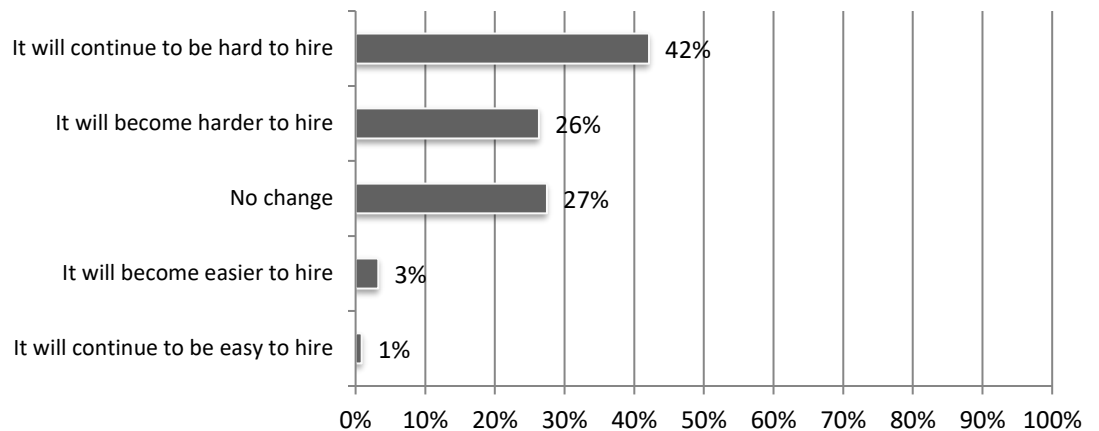
6. Did your firm increase pay or benefits for salaried or hourly craft personnel in 2018 because of difficulty filling positions? (mark all that apply)

Response	Percentage
Yes, our firm increased base pay rates	59%
Yes, our firm provided incentives/bonuses	29%
Yes, our firm increased our portion of benefit contributions and/or improved employee benefits	21%
No, but we are considering increases in pay and/or benefits in the near future	13%
No, and we are not considering increases in pay and/or benefits	11%
Don't know	6%
We did not seek to fill any positions	3%

7. If your firm is experiencing staffing challenges, how would you describe the impact on your projects? (mark all that apply)

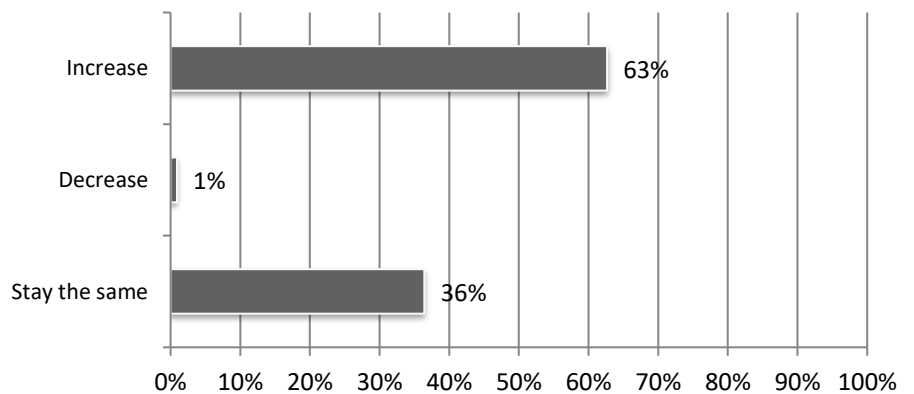| Response	Percentage
Costs have been higher than we anticipated	33%
Projects have taken longer than we anticipated	34%
We have put higher prices into our bids or contracts	37%
We have put longer completion times into our bids or contracts	18%
No impact/Stay the same	24%
Completion times or costs have been lower than we anticipated	1%
Don't know	6%
Other	7%
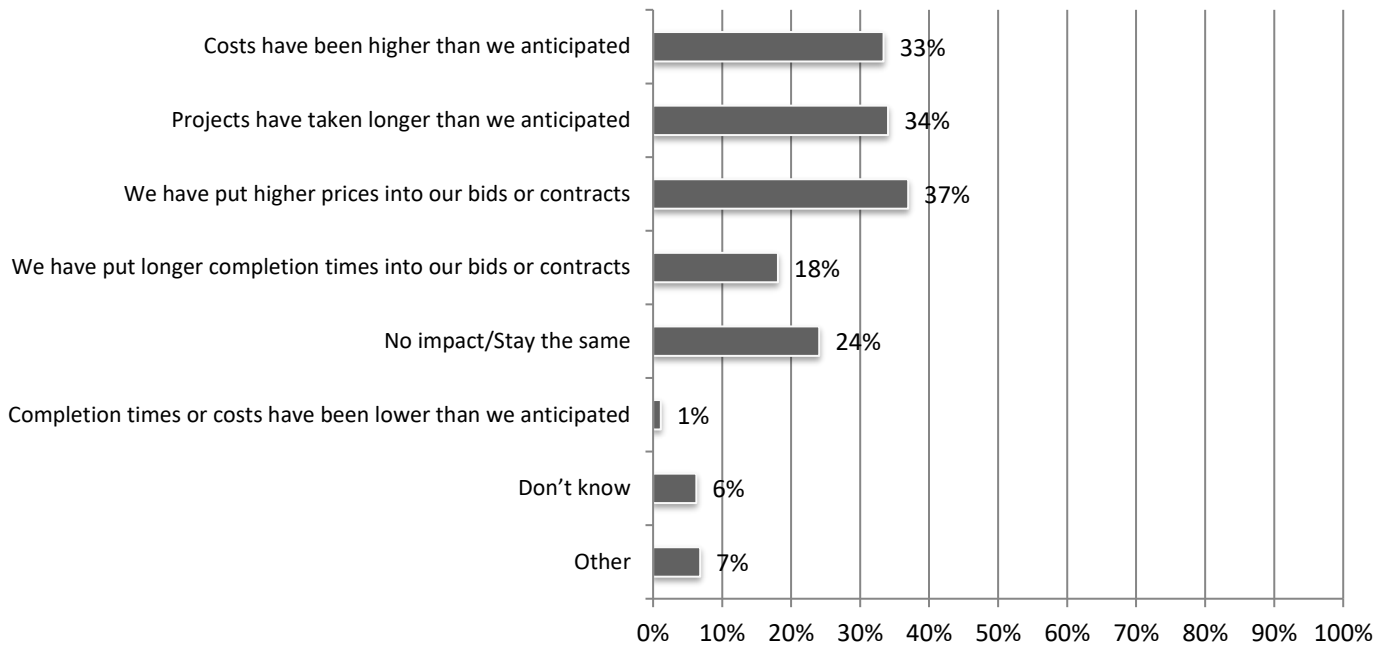
8. Has your firm adopted or increased use of the following to replace workers or skills? (mark all that apply)

Response	Percentage
Methods to reduce onsite worktime (e.g., lean construction, virtual construction such as BIM, offsite fabrication)	32%
Labor-saving equipment (e.g., drones, robots, 3-D printers, laser-or GPS-guided equipment)	28%
Added specialists (e.g., architects, BIM or lean construction personnel, drone or other equipment operators, data or IT personnel)	18%
No changes	50%
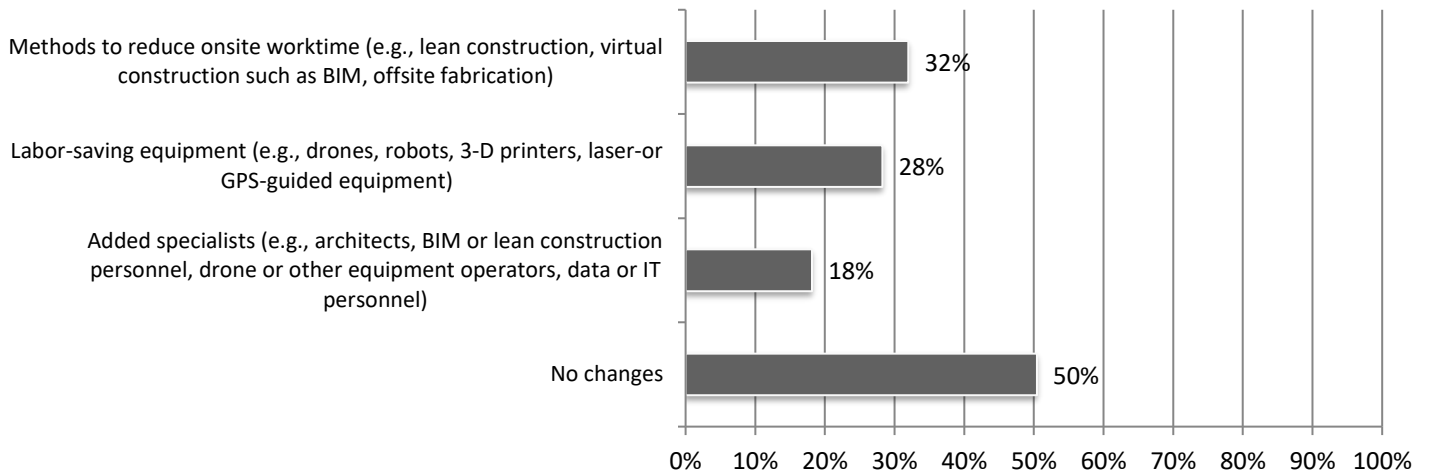
9. Compared to 2018, how will your firm's 2019 investment in training and development change?

Response	Percentage
Increase	63%
Decrease	1%
Stay the same	36%

10. Which of the following issues is the biggest concern to your firm?

Issue	Percentage
Worker shortages	30%
Increased competition for projects	10%
Safety	8%
Growth in federal regulations	8%
Worker quality	7%
Rising direct labor costs (pay, benefits, employer taxes)	7%
Lack of infrastructure investments	5%
Growth in state and local regulations	4%
Internal company process inefficiencies	4%
Rising materials costs	4%
Relations with external process inefficiencies (such as collaboration with owners, subs and/or vendors)	3%
Not enough private sector work	3%
Subcontractor defaults	2%
Rising subcontractor costs	2%
Lack of public non-infrastructure work	2%
Rising indirect labor costs (recruitment, training)	1%

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

| Challenge	Percentage
Inexperienced skilled labor/workforce shortage	43%
Poor subcontractor safety and health performance	16%
Lack of cooperation from government agencies or regulators	14%
Low quality of available safety and health training	5%
Other	1%

12. What change do you expect in 2019 in the number of your firm's projects that involve Building Information Modeling (BIM)?

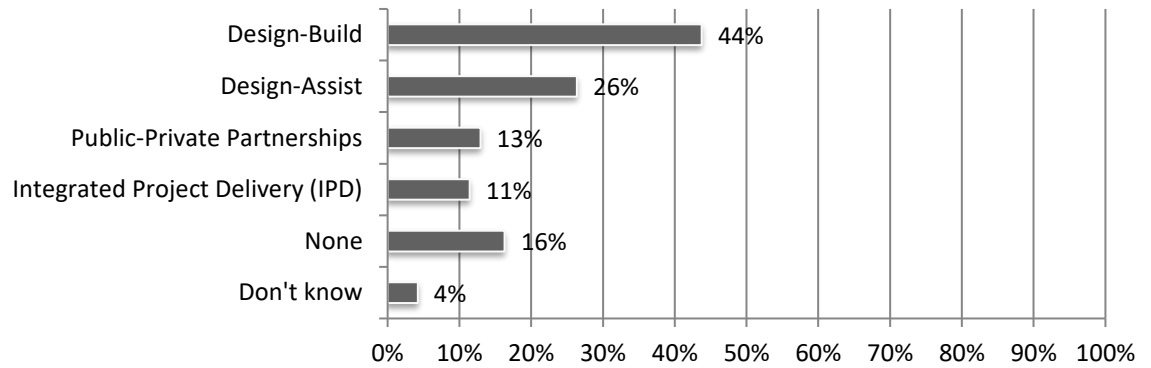Legend: ■ 11-50%　■ more than 50%

Category	Value
Increase	18% / 20%
Stay the same (+/-10%)	30%
Decrease	0%
We don't expect to use BIM on any projects in 2019	27%
Don't know	23%
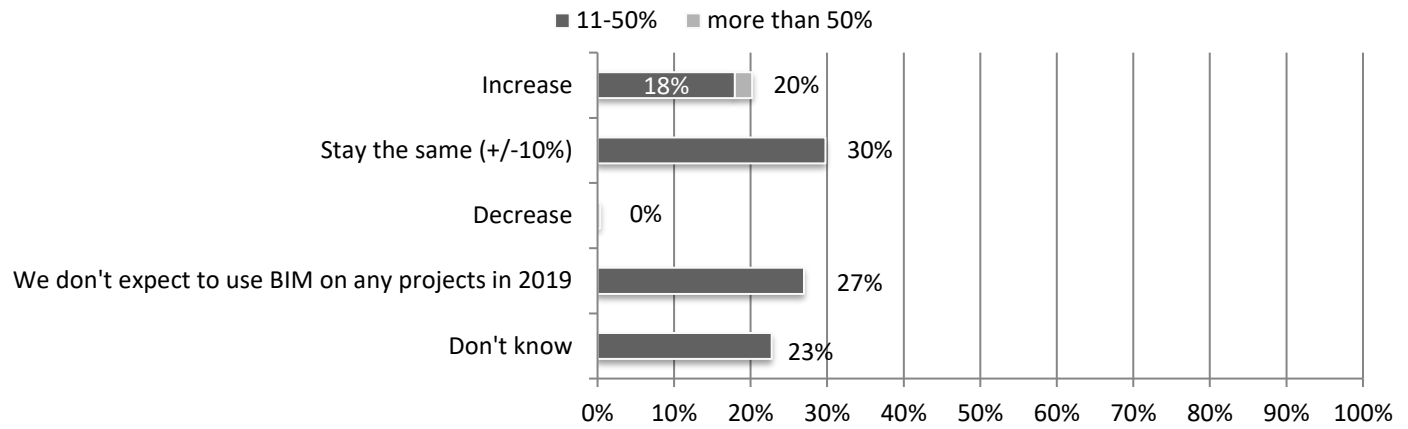
13. What is your firm using BIM for? (mark all that apply)

Category	Value
We do not use BIM	38%
Clash detection	19%
Constructability input into the design process	17%
Visually communicate project scope to clients	14%
Design of 3D model	13%
3D model-based takeoff for cost estimating	12%
Scheduling and workforce planning	11%
Safety (identify safety issues, safety by design, safety training, etc.)	7%
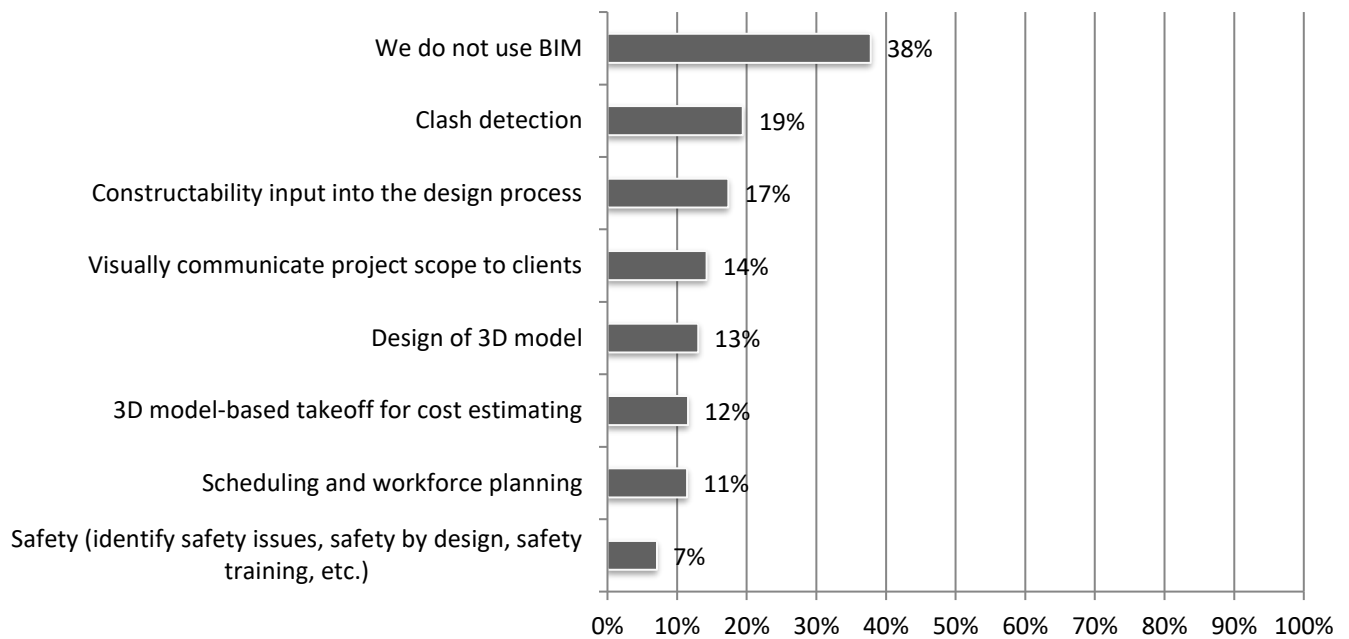
14. Does your firm utilize lean construction principles on its projects and/or in its operation?

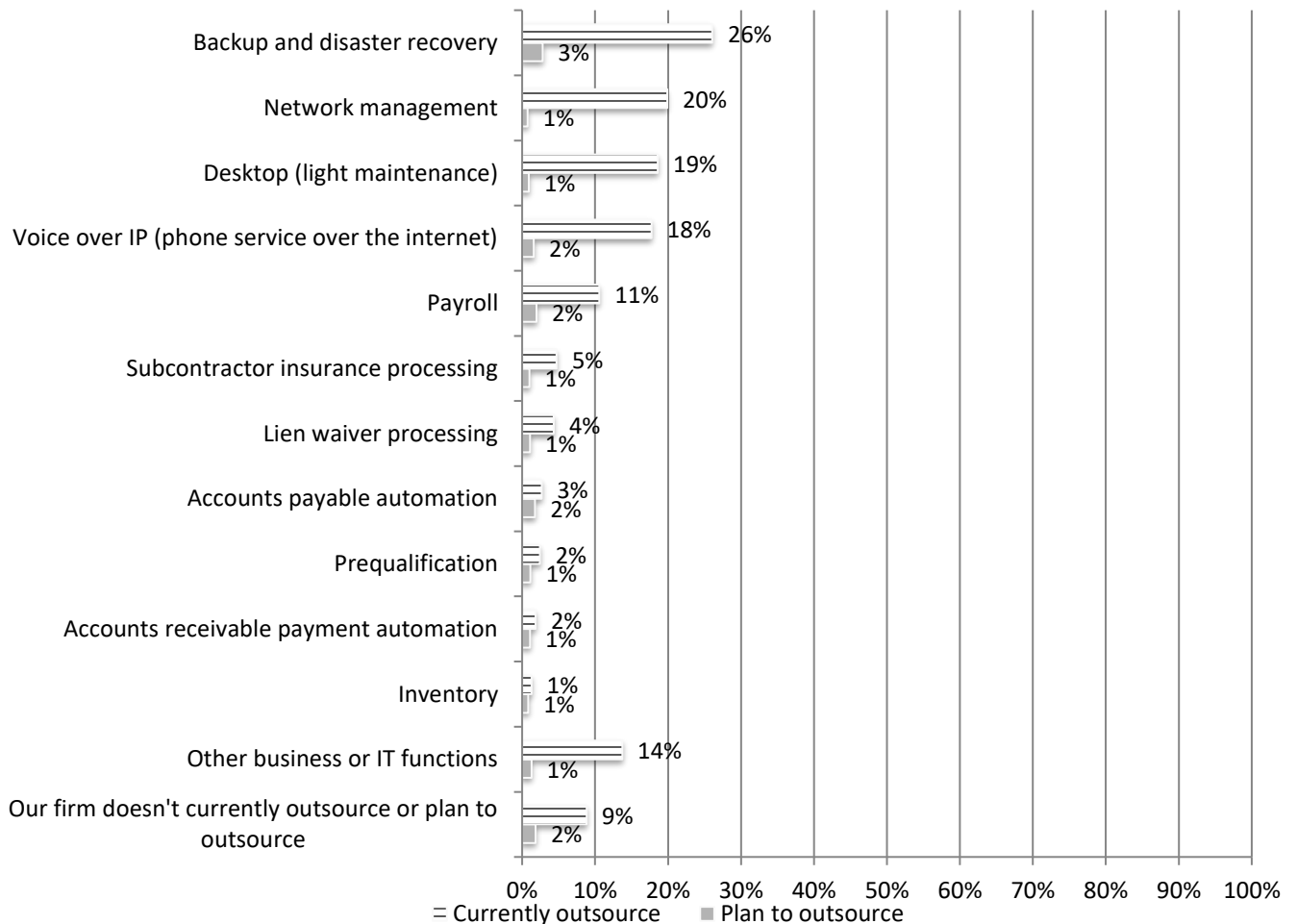| Category	Value
Yes	41%
No	44%
Don't know	15%
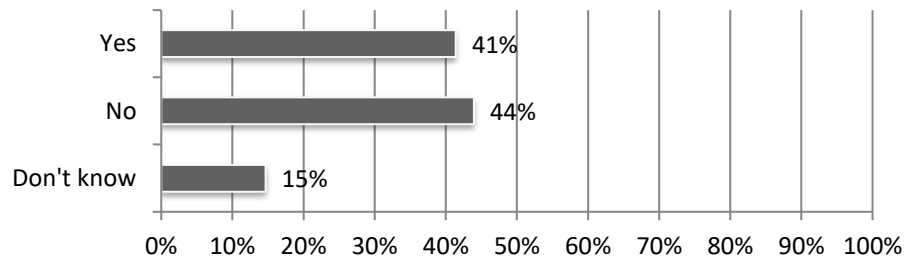
**15. Does your firm use any of the following collaborative project delivery methods? (mark all that apply)**

Method	Percentage
Design-Build	44%
Design-Assist	26%
Public-Private Partnerships	13%
Integrated Project Delivery (IPD)	11%
None	16%
Don't know	4%

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

Method	Percentage
File-sharing sites such as Dropbox	51%
Online project collaboration software	36%
BIM	22%
Home-grown project web site	12%
Other	1%
None	8%
Don't know	4%
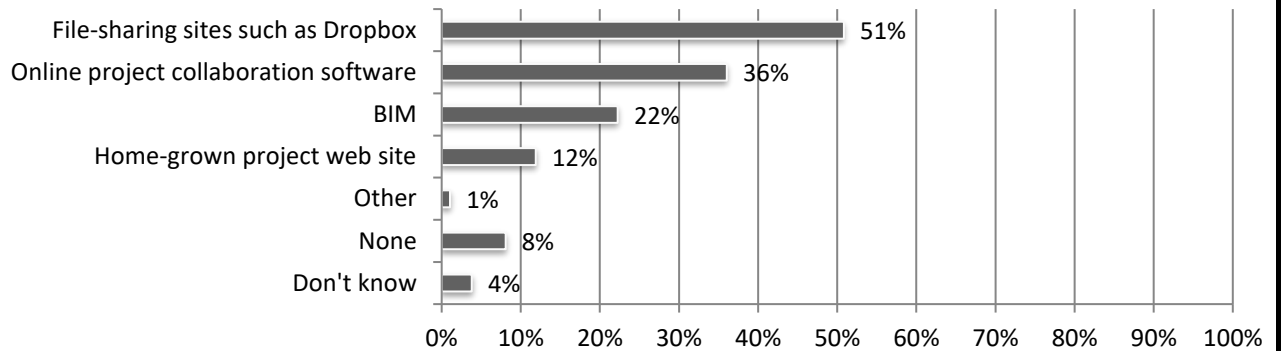
17. What business or IT functions does your firm outsource or plan to outsource to a technology provider? (mark all that apply)

Function	Currently outsource	Plan to outsource
Backup and disaster recovery	26%	3%
Network management	20%	1%
Desktop (light maintenance)	19%	1%
Voice over IP (phone service over the internet)	18%	2%
Payroll	11%	2%
Subcontractor insurance processing	5%	1%
Lien waiver processing	4%	1%
Accounts payable automation	3%	2%
Prequalification	2%	1%
Accounts receivable payment automation	2%	1%
Inventory	1%	1%
Other business or IT functions	14%	1%
Our firm doesn't currently outsource or plan to outsource	9%	2%

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

Category	Percent
Less than 1%	39%
1 to 1.9%	28%
2 to 2.9%	8%
3% or more	6%
Don't know	18%
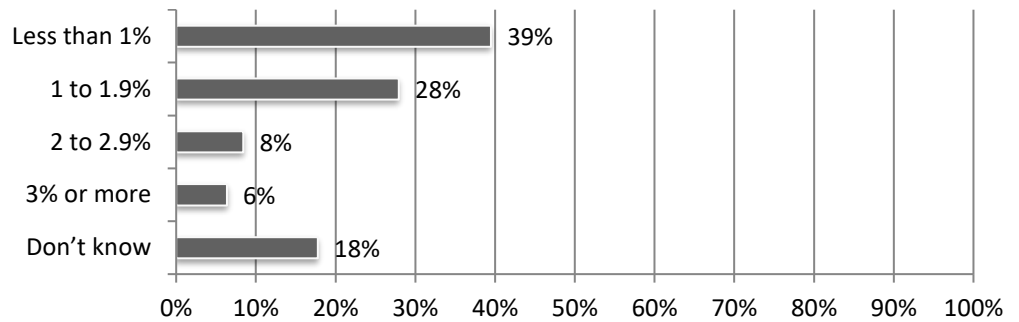
19. Compared to 2018, how will your firm's 2019 investment in IT change?

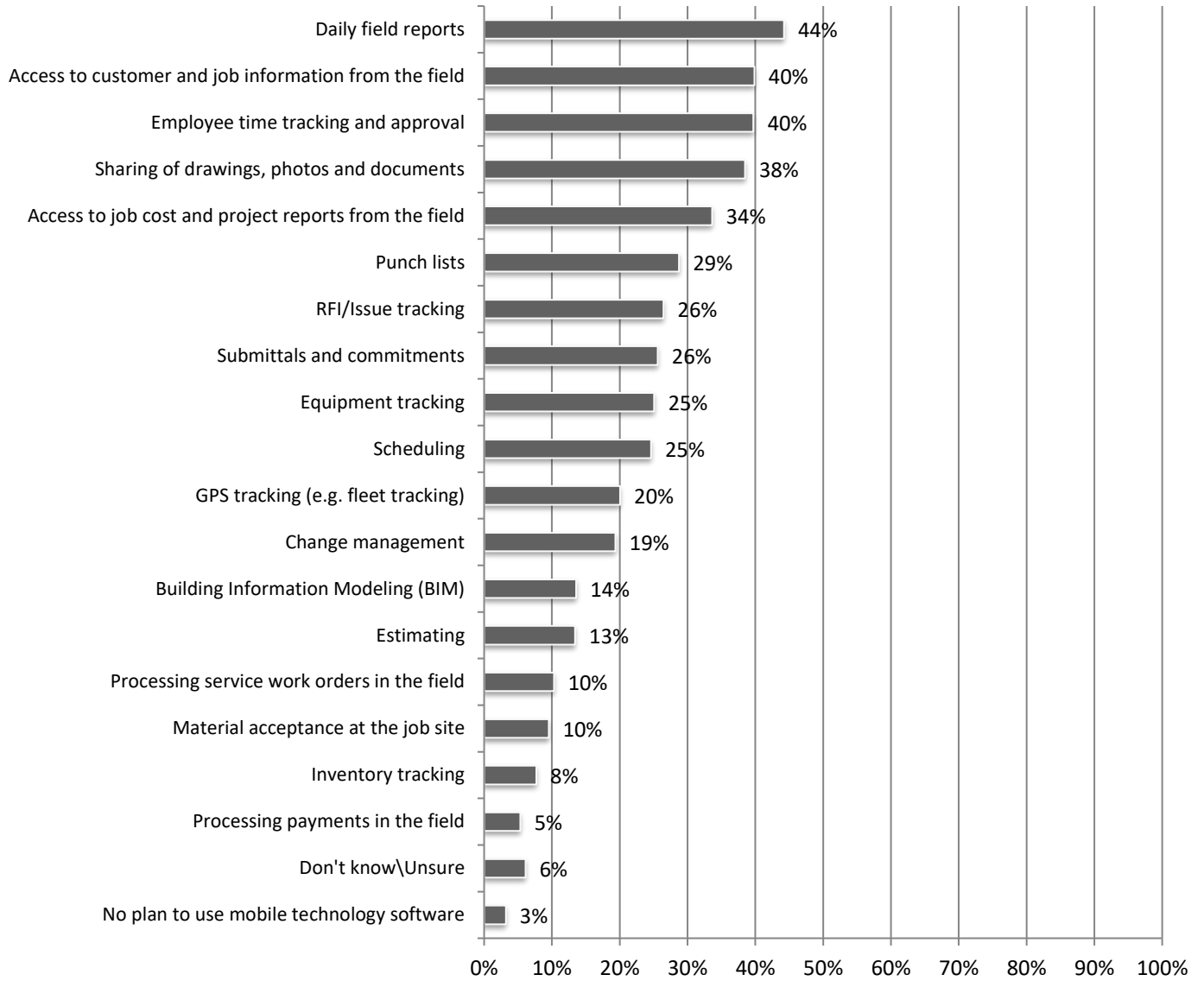| Category	Percent
Increase	42%
Decrease	3%
Stay the same	45%
Don't know	10%
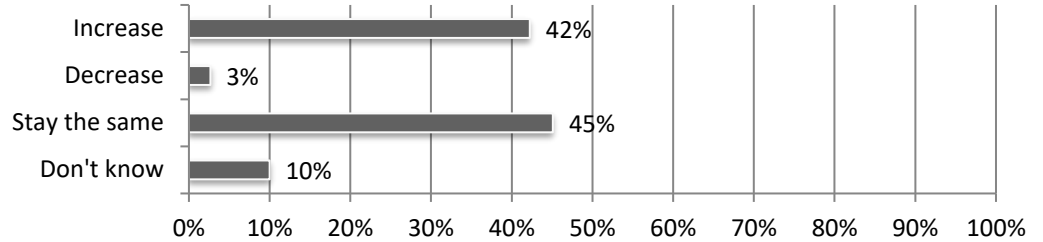
20. Compared to 2018, how will your firm's 2019 investment in the following technologies change? (mark all that apply)

Technologies	Increase	Stay the same	Decrease	Unsure
Project management software	30%	57%	1%	12%
Document management software	30%	57%	1%	12%
Estimating software	26%	64%	1%	9%
Scheduling software	24%	63%	1%	12%
Building Information Modeling (BIM)	23%	44%	1%	32%
Accounting software	23%	69%	2%	7%
Fleet tracking/management software	21%	60%	1%	18%
Project collaboration software	21%	58%	0%	21%
Human resources (HR) software	21%	63%	1%	16%
Client relationship management (CRM) software	19%	55%	1%	25%
Payroll software	16%	74%	1%	9%
Service management software	10%	64%	1%	25%
Subcontractor bid management/ITB software	9%	68%	1%	22%
Prequalification software	5%	69%	1%	26%
Other	8%	46%	0%	46%

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

Category	Percent
Very comfortable	31%
Moderately comfortable	44%
Not comfortable	18%
No opinion	7%
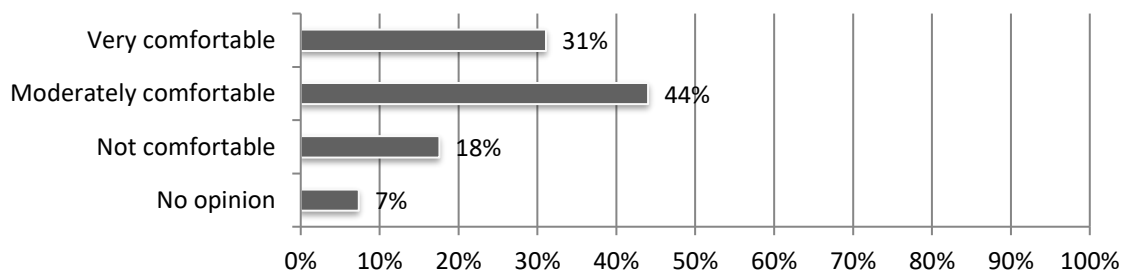
22. How does your firm plan to use mobile software technology? (mark all that apply)

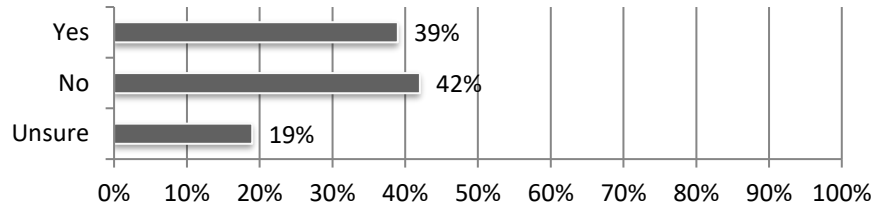| Category	Percentage
Daily field reports	44%
Access to customer and job information from the field	40%
Employee time tracking and approval	40%
Sharing of drawings, photos and documents	38%
Access to job cost and project reports from the field	34%
Punch lists	29%
RFI/Issue tracking	26%
Submittals and commitments	26%
Equipment tracking	25%
Scheduling	25%
GPS tracking (e.g. fleet tracking)	20%
Change management	19%
Building Information Modeling (BIM)	14%
Estimating	13%
Processing service work orders in the field	10%
Material acceptance at the job site	10%
Inventory tracking	8%
Processing payments in the field	5%
Don't know\Unsure	6%
No plan to use mobile technology software	3%

23. Which of the following cloud service models does your firm currently use or plan to use? (mark all that apply)

Category	Currently use	Plan to use
Cloud hosting: we outsource our servers and networking components to a cloud service provider's data center	20%	5%
Hybrid cloud: our software and data is on a private network but can be securely accessed with a web browser	23%	3%
SaaS: we use software-as-a-service (SaaS) applications that are fully cloud-based	10%	2%

= Currently use   ▪ Plan to use
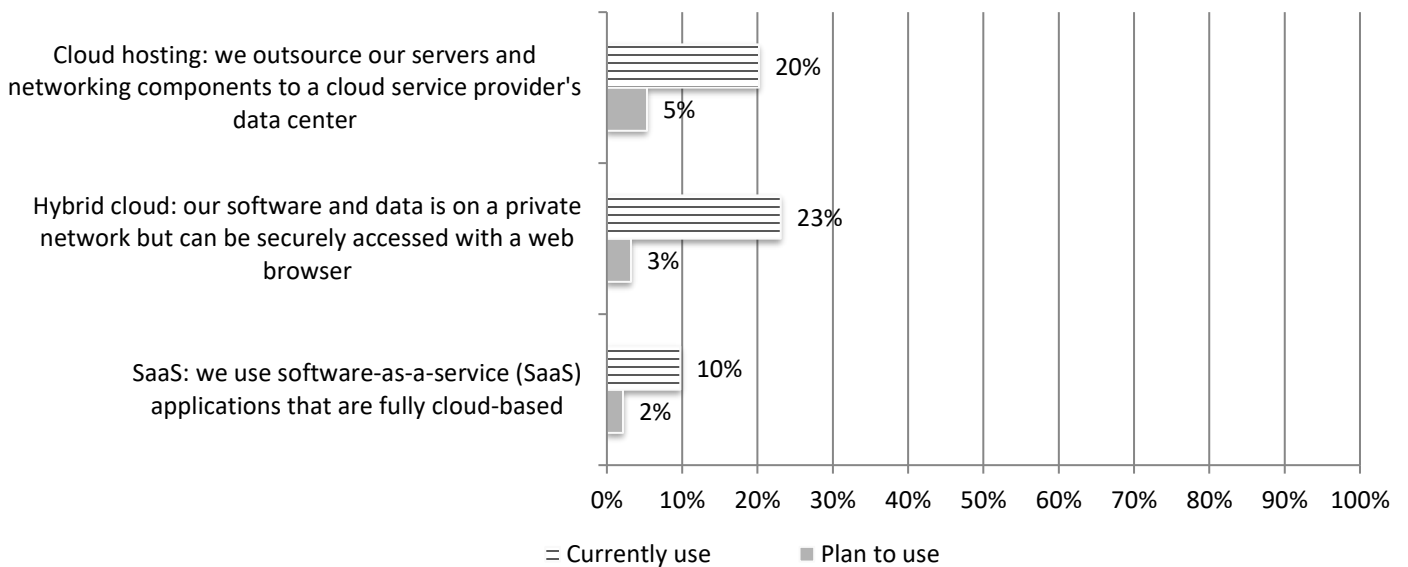
24. Does your firm currently have a mobile security plan in place?

Yes	39%
No	42%
Unsure	19%

0%　10%　20%　30%　40%　50%　60%　70%　80%　90%　100%

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

Yes	53%
No	28%
No, but plan to do so in 2019	9%
Don't know	9%

0%　10%　20%　30%　40%　50%　60%　70%　80%　90%　100%
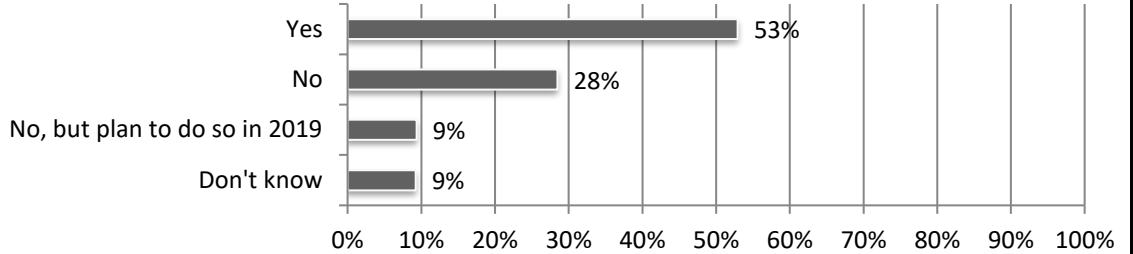
26. What are your firm's biggest IT challenges? (mark all that apply)

Time needed to implement and train on new technology	26%
Employee resistance to technology	24%
Communication between field and office	24%
Connectivity to remote job sites	23%
Keeping company data secure from hackers	21%
Keeping software current	18%
Integration between software used inside of our company	17%
Keeping hardware current	15%
Integration with software used by project partners outside our company	13%
Outdated company software and systems	10%
Management resistance to technology	7%
Don't know	4%
None	4%

0%　10%　20%　30%　40%　50%　60%　70%　80%　90%　100%

27. What best describes your firm:

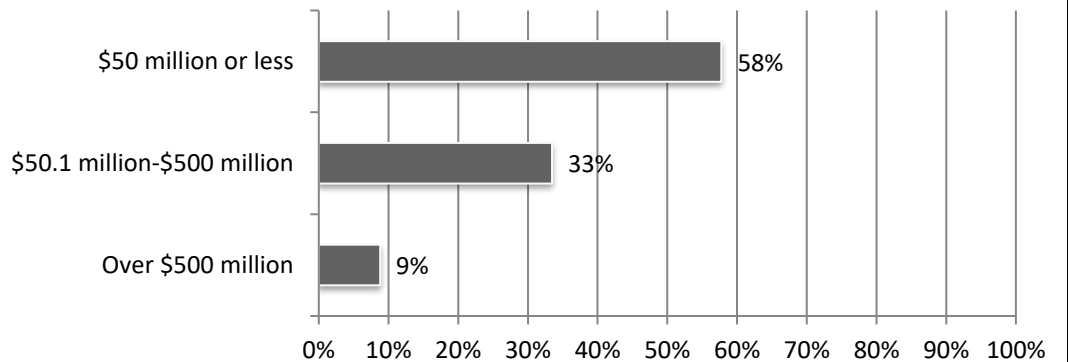| Category	Percentage
General contractor/construction manager	53%
Specialty or sub-contractor	32%
Supplier/service provider	8%
Architect/engineer/designer	2%
Other	5%
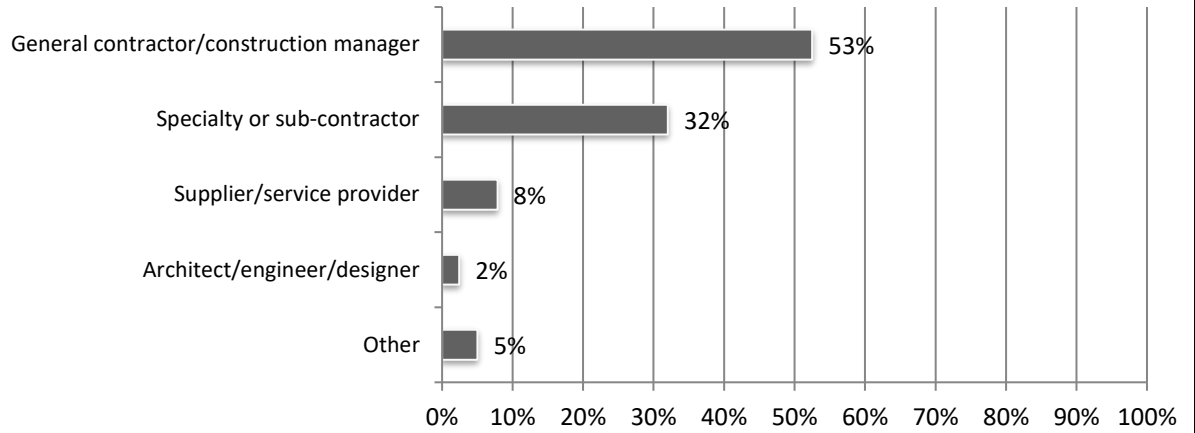
28. When you self-perform construction work, do you operate as a union contractor or an open-shop contractor?

Category	Percentage
We always operate as a union contractor	26%
We primarily operate as a union contractor but not always	7%
We primarily operate as an open-shop contractor but not always	7%
We always operate as an open-shop contractor	49%
We do not self-perform or directly hire craft personnel	11%
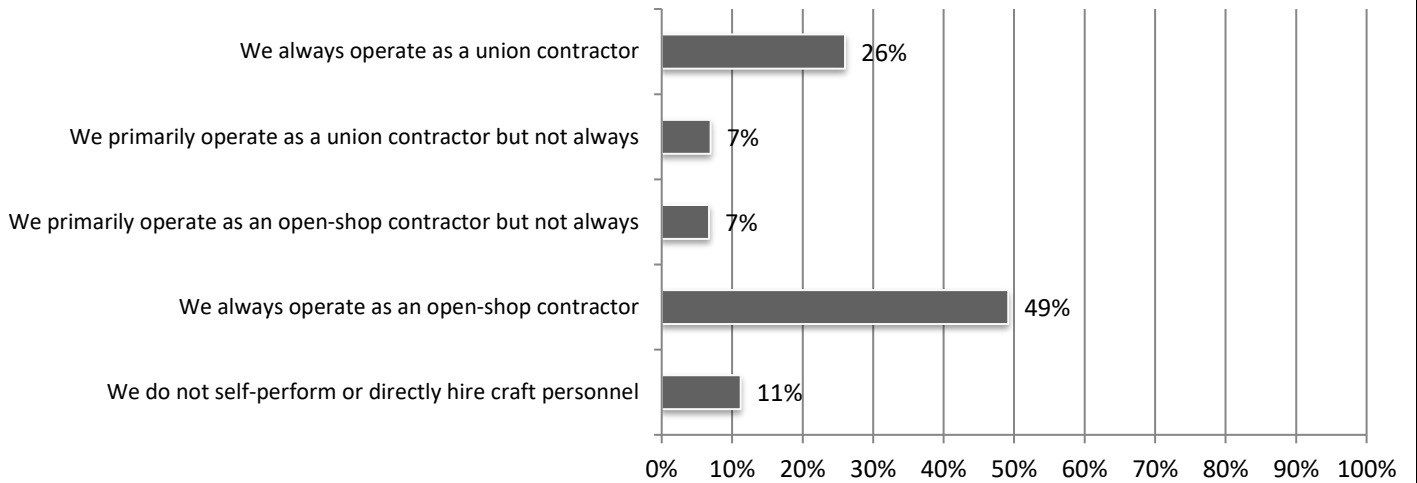
29. Estimate the total dollar amount of work your firm performed in 2018.

Category	Percentage
$50 million or less	58%
$50.1 million-$500 million	33%
Over $500 million	9%

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

Category	Percentage
1-19	17%
20-99	37%
100-499	31%
500 or more	16%