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2017 Construction Outlook Survey Results
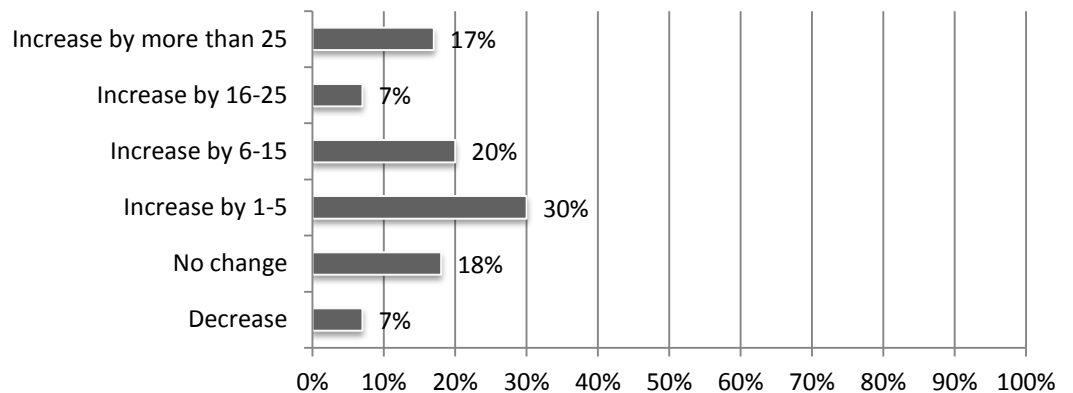## Regional Results – West

Total Responses: 402; states included Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington and Wyoming.

1. Compared to 2016, do you expect the available dollar volume of projects you compete for in 2017 to be:
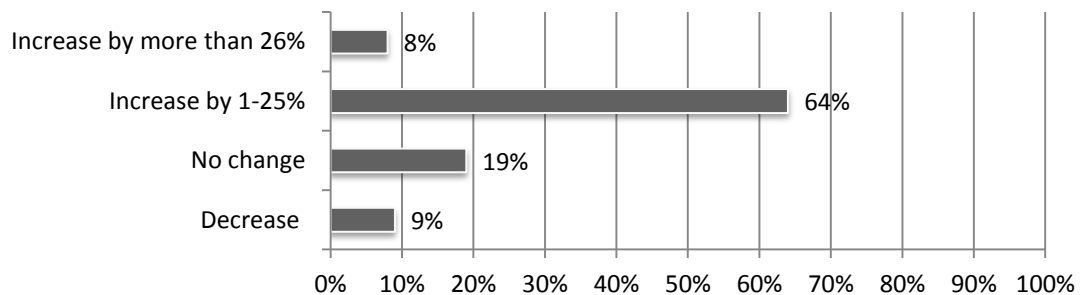
Market	Higher	Lower	Same	Net*
All projects	50%	10%	41%	40%
Retail, Warehouse, Lodging	37%	11%	53%	26%
Private Office	37%	13%	49%	24%
Other Transportation (e.g., transit, rail, airport)	35%	13%	51%	22%
K-12 School	34%	15%	51%	19%
Highway	33%	16%	51%	17%
Public Building	29%	13%	58%	16%
Hospital	31%	15%	54%	15%
Multifamily Residential	34%	19%	47%	15%
Manufacturing	28%	16%	56%	12%
Higher Education	27%	17%	56%	10%
Water/Sewer	25%	15%	60%	10%
Federal (e.g., VA, GSA, USACE, NAVFAC)	27%	20%	53%	8%
Power	21%	15%	64%	6%

*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 2017?

Increase by more than 25	17%
Increase by 16-25	7%
Increase by 6-15	20%
Increase by 1-5	30%
No change	18%
Decrease	7%

3. What percentage change do you expect in your headcount in 2017?

Increase by more than 26%	8%
Increase by 1-25%	64%
No change	19%
Decrease	9%

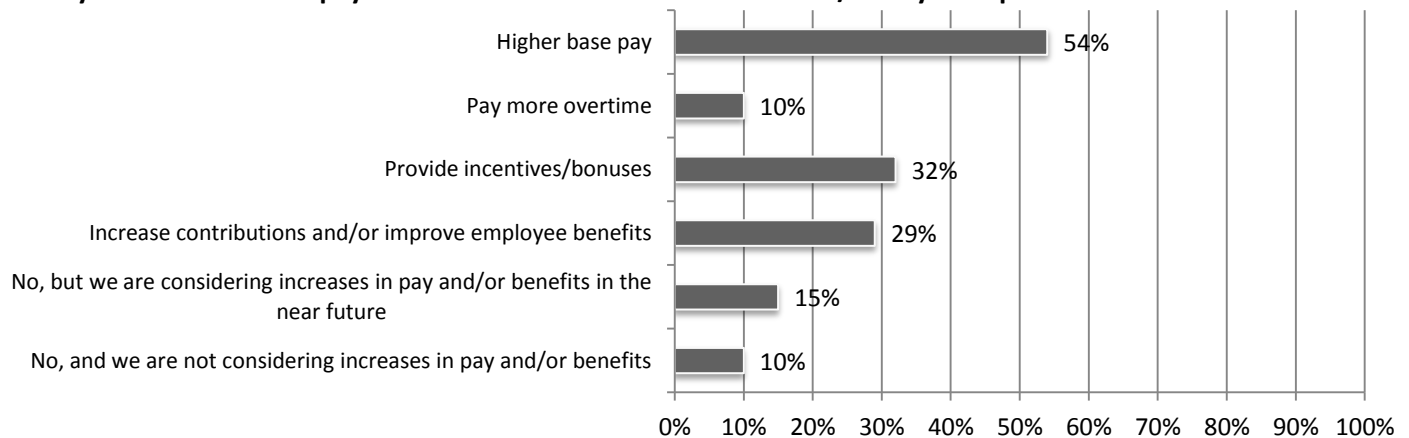**4. How would you describe your current conditions for filling key salaried positions (project manager/supervisor, estimator, etc.) and hourly craft positions (carpenter, laborer, equipment operator, etc.)?**
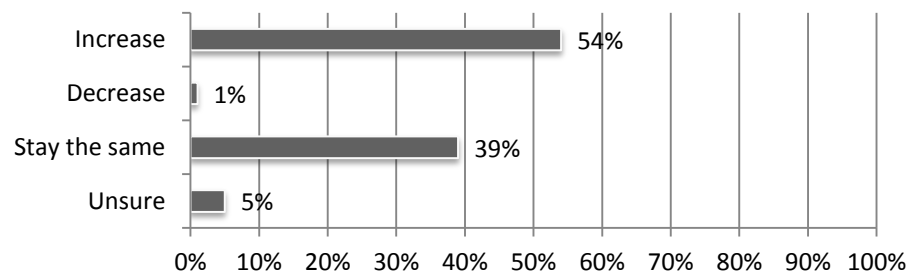
Response	Percentage
I am having a hard time filling both salaried and craft worker positions	42%
I am having a hard time filling some salaried positions, but no trouble filling craft worker positions	8%
I am having a hard time filling some craft worker positions, but no trouble filling salaried positions	19%
I am having no trouble filling any positions	17%
I am not doing any hiring	14%

5. Do you expect any changes in the availability of salaried/hourly craft construction professionals over the coming 12 months?

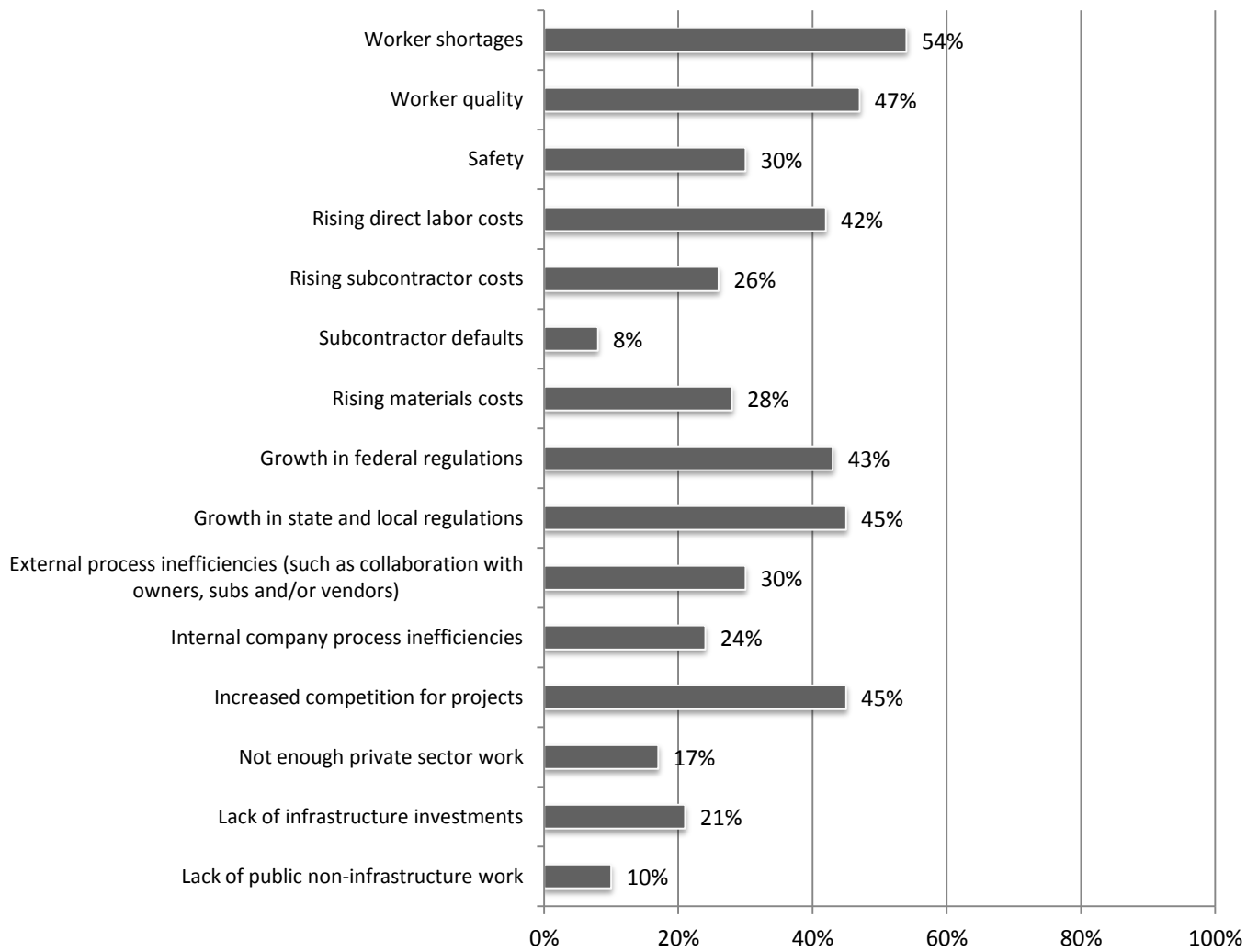| Response	Percentage
It will continue to be easy to find and hire qualified construction professionals	2%
It will become easier to find and hire qualified construction professionals	3%
It will become harder to find and hire qualified construction professionals	29%
It will continue to be hard to find qualified construction professionals	45%
Unsure	21%
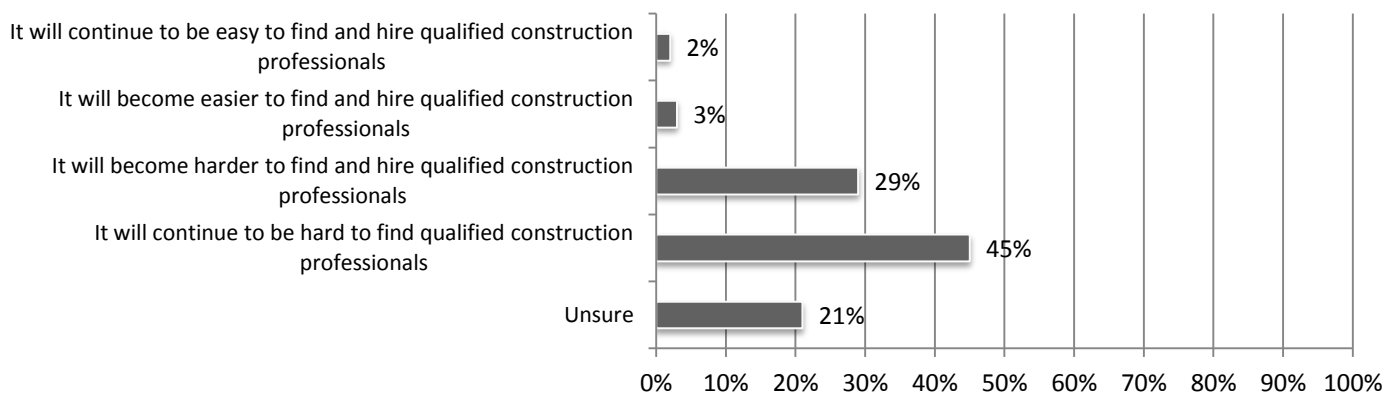
6. Has your firm increased pay or benefits to retain or recruit salaried/hourly craft professionals?

Response	Percentage
Higher base pay	54%
Pay more overtime	10%
Provide incentives/bonuses	32%
Increase contributions and/or improve employee benefits	29%
No, but we are considering increases in pay and/or benefits in the near future	15%
No, and we are not considering increases in pay and/or benefits	10%

7. Compared to 2016, how will your 2017 investment in training and development change?

Response	Percentage
Increase	54%
Decrease	1%
Stay the same	39%
Unsure	5%

8. Which of the following issues are the biggest concerns to you and your business?

Issue	Percentage
Worker shortages	54%
Worker quality	47%
Safety	30%
Rising direct labor costs	42%
Rising subcontractor costs	26%
Subcontractor defaults	8%
Rising materials costs	28%
Growth in federal regulations	43%
Growth in state and local regulations	45%
External process inefficiencies (such as collaboration with owners, subs and/or vendors)	30%
Internal company process inefficiencies	24%
Increased competition for projects	45%
Not enough private sector work	17%
Lack of infrastructure investments	21%
Lack of public non-infrastructure work	10%

9. What challenges, if any, do you see regarding the safety and health of your workers?

Challenge	Major	Minor	No challenge
Inexperienced skilled labor/workforce shortage	50%	35%	15%
Lack of cooperation from federal agencies or regulators	22%	42%	36%
Low quality of available safety and health training	7%	31%	62%
Poor subcontractor safety and health performance	18%	4%	33%

— Major   ▪ Minor   · No challenge
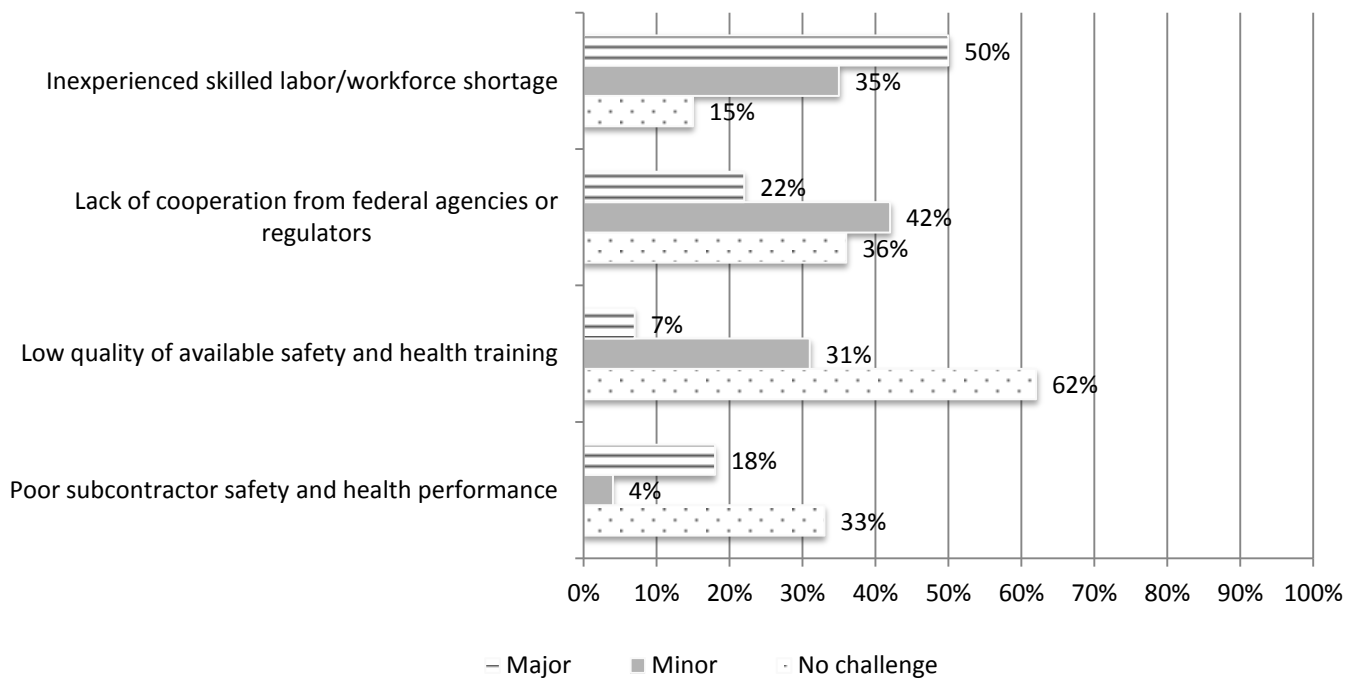
10. How would you describe credit or lending conditions for your company?

- My firm has had a harder time getting bank loans than a year ago — 5%
- My firm has had an easier time getting bank loans than a year ago — 8%
- Bank credit has not been an issue for my firm, but has caused my customers' projects to be delayed or canceled — 25%
- Easier bank credit has enabled customers to move ahead with previously delayed projects — 4%
- There has been no change in bank lending with regard to my firm or customers — 58%

11. Did the cost of providing health care insurance for your employees increase or decrease in 2016?

- Increased — 83%
- Decreased — 2%
- Stayed the same — 12%
- We did not provide health care insurance in 2016 — 4%

12. Do you expect the cost of providing health care insurance for your employees to increase or decrease in 2017?

- Increase — 81%
- Decrease — 2%
- Stay the same — 13%
- We did not provide health insurance in 2016 and do not plan to do so in 2017 — 2%
- We did not provide health insurance in 2016, but plan to do so in 2017 — 1%
- We provided health insurance in 2016, but do not plan to do so in 2017 — 1%
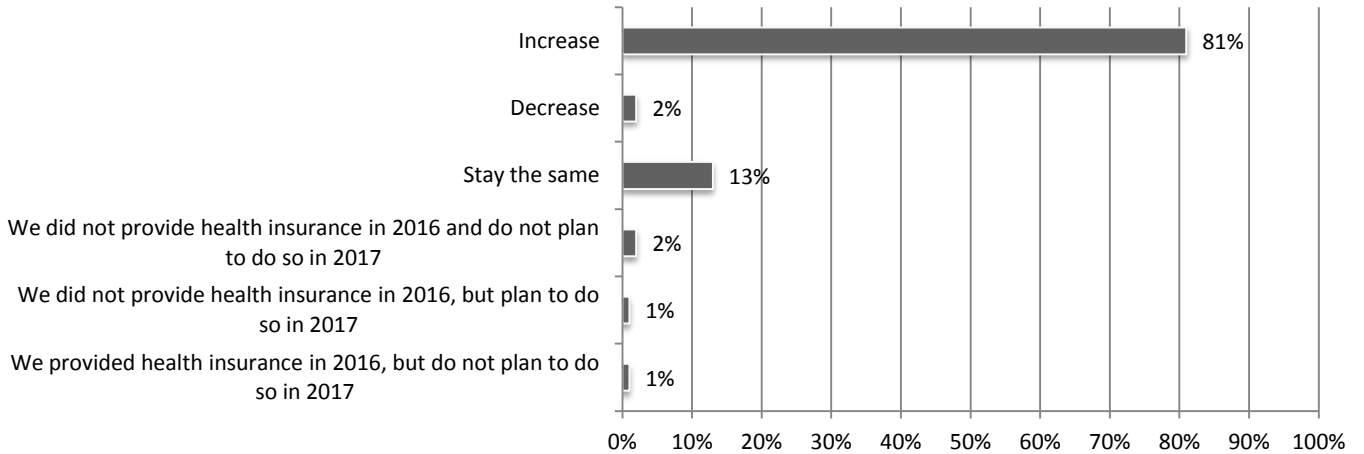
13. Do you expect the amount of projects involving Building Information Modeling (BIM) will increase, decrease or stay the same for you in 2017?
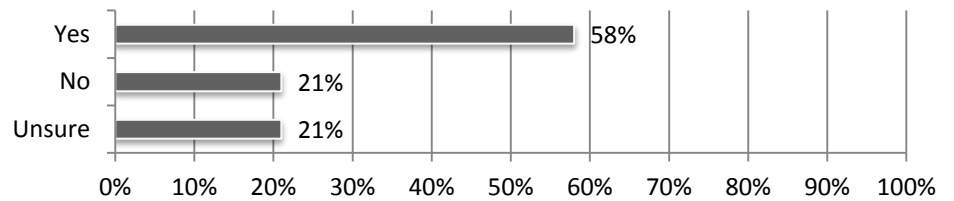
- Increase more than 26% — 7%
- Increase 11-25% — 13%
- Increase 10% or less — 15%
- Stay the same — 21%
- Decrease — 0%
- We do not expect to use BIM on any projects in 2017 — 19%
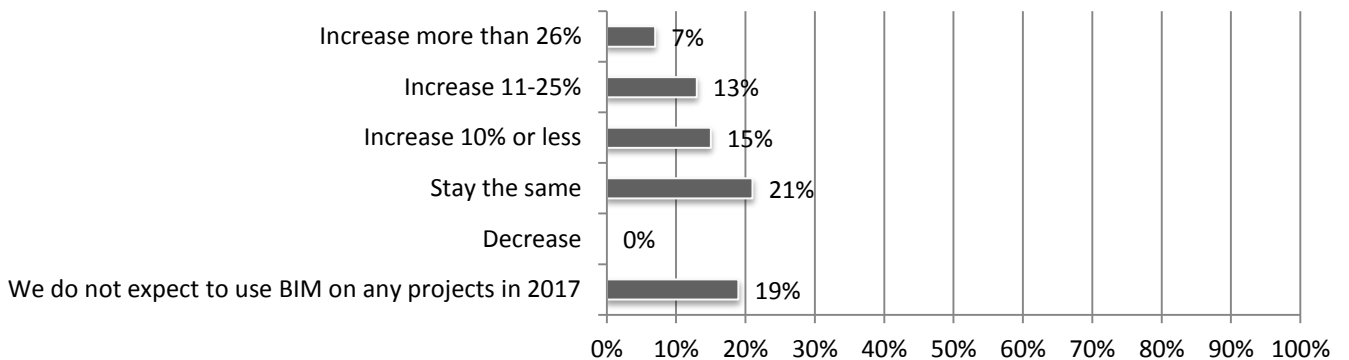
14. Do you believe that your firm utilizes lean construction principles on its projects and/or in its operation?

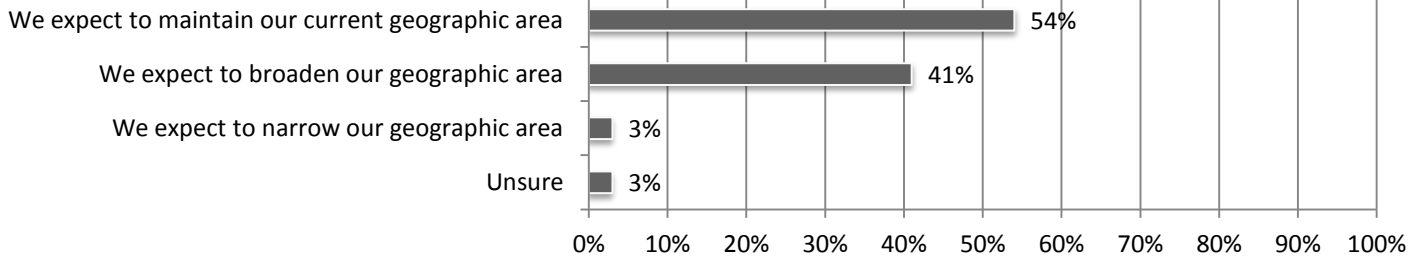| Response	Percentage
Yes	65%
No	12%
Unsure	23%
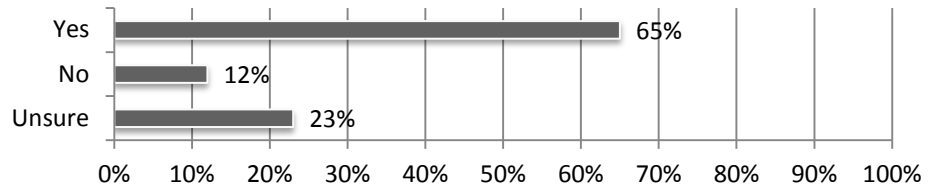
15. Do you expect your firm will work on a project using modular construction and/or off-site construction/prefabrication in 2017?
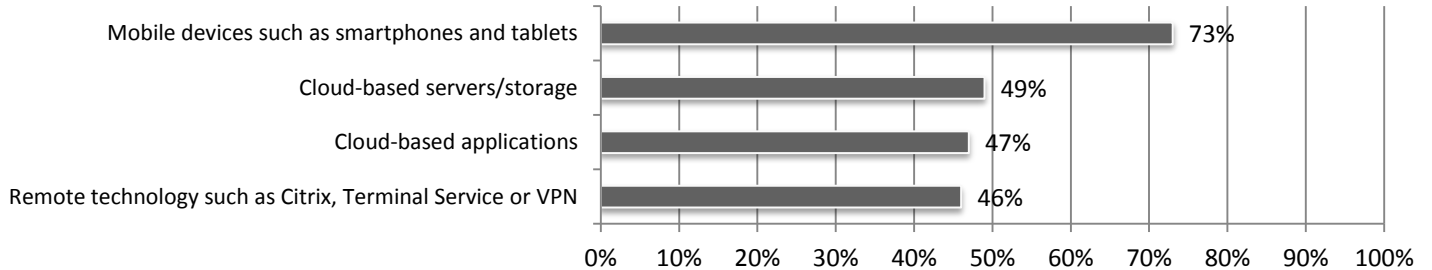
Response	Percentage
Yes	33%
No	41%
Unsure	25%
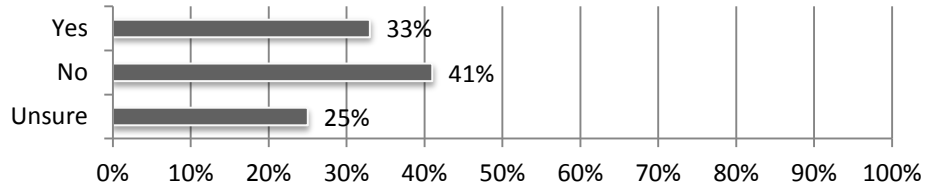
16. Does your company plan to purchase or lease new fleet vehicles this year?

Response	Percentage
Yes	58%
No	21%
Unsure	21%

17. How do you expect your geographic market area will change in 2017?

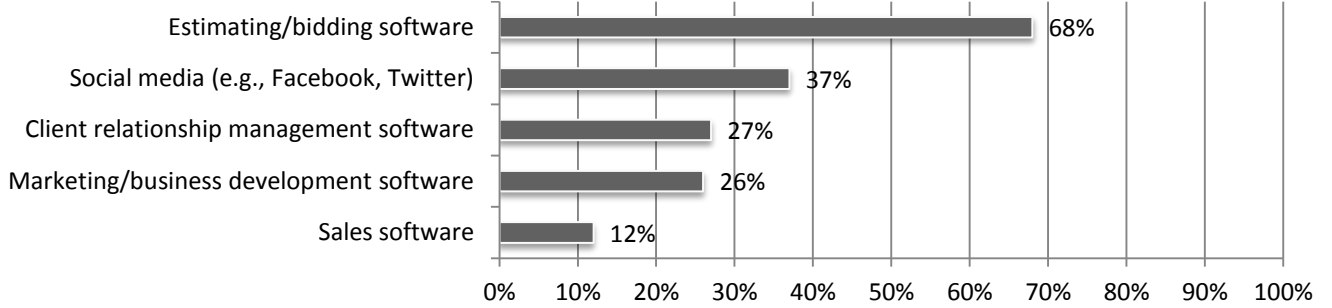| Response	Percentage
We expect to maintain our current geographic area	54%
We expect to broaden our geographic area	41%
We expect to narrow our geographic area	3%
Unsure	3%

18. What technology do you use or will you implement to see or manage projects outside your traditional market area?

Response	Percentage
Mobile devices such as smartphones and tablets	73%
Cloud-based servers/storage	49%
Cloud-based applications	47%
Remote technology such as Citrix, Terminal Service or VPN	46%

19. Do you use any of the following to collaborate with project partners?

Response	Percentage
Email	90%
File sharing sites such as Dropbox	74%
Online project collaboration software	45%
Building Information Modeling	30%
Home-grown project website	19%
None or do not collaborate	2%
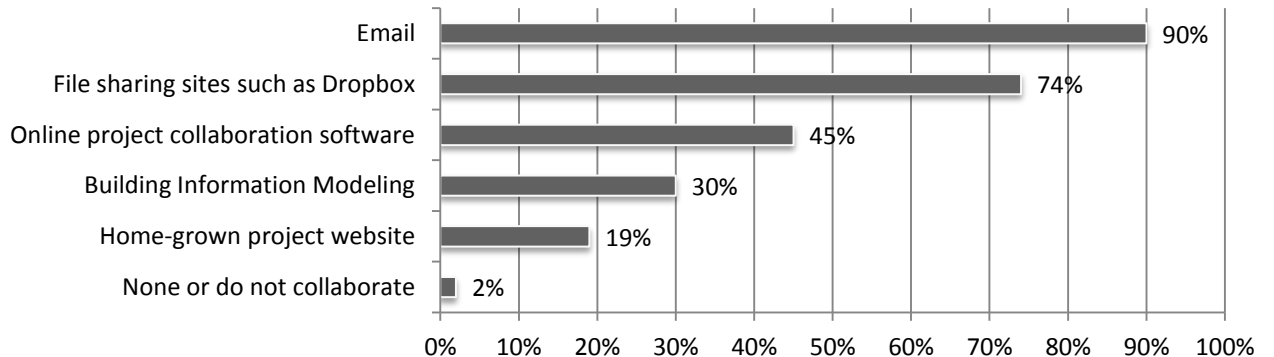
20. What information technology (IT), if any, do you use to obtain work?

Category	Percent
Estimating/bidding software	68%
Social media (e.g., Facebook, Twitter)	37%
Client relationship management software	27%
Marketing/business development software	26%
Sales software	12%

21. What is the size of your in-house IT staff?

Category	Percent
1 person	27%
2-5 people	22%
6-10 people	5%
More than 11 people	6%
No in-house staff	39%
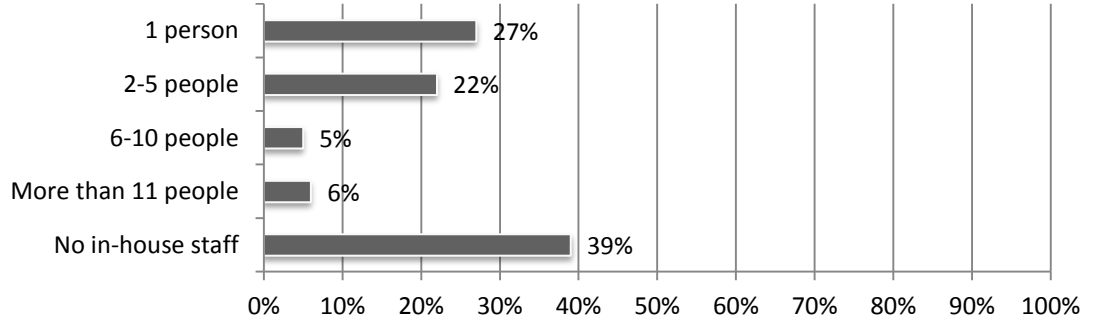
22. Do you use an outsourced service for IT?

Category	Percent
Yes	62%
No	34%
No, but plan to do so in 2017	1%
Unsure	3%
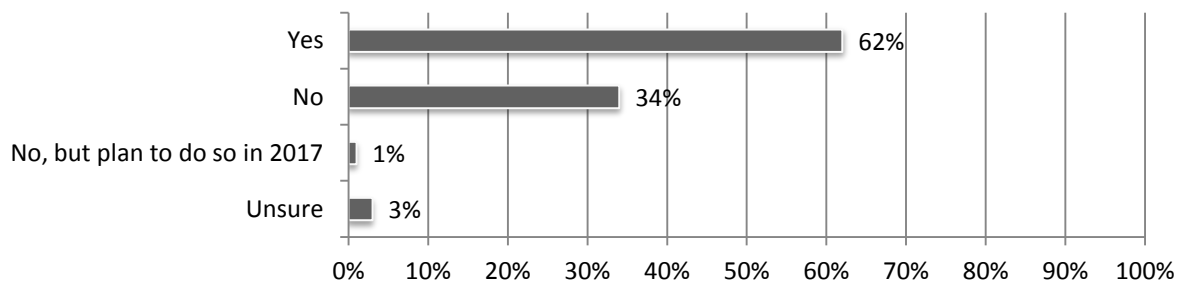
23. Approximately what percent of your gross annual revenue do you spend on IT?

Category	Percent
Less than 1%	41%
1 to 1.9%	16%
2 to 2.9%	6%
3% or more	9%
Unsure	27%
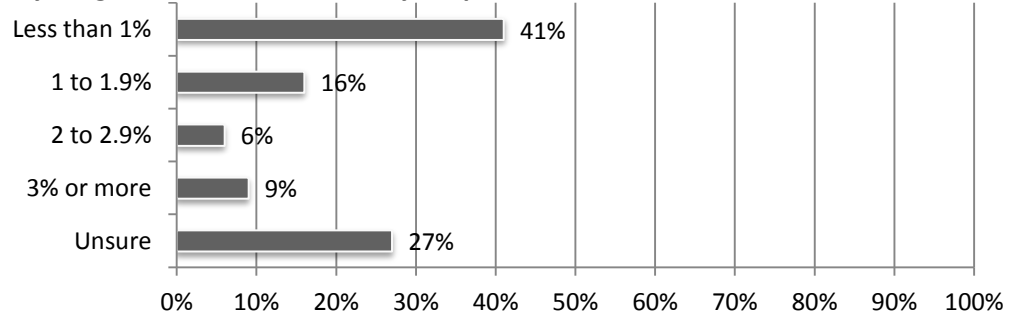
24. Compared to 2016, how will your 2017 investment in IT change?

Category	Percent
Increase	41%
Decrease	2%
Stay the same	45%
Unsure	13%
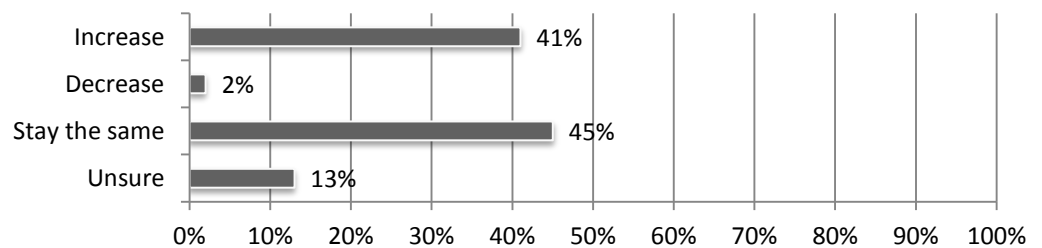
25. What software technology do you plan to invest in during 2017?

Software	Percentage
Accounting software	30%
Estimating software	28%
Document management software	23%
Project management software	20%
Human resources software	19%
Fleet tracking/management software	17%
Scheduling software	16%
Client relationship management software	14%
Building Information Modeling	10%
Project collaboration software	9%
Outsource payroll	5%
Prequalification software	5%
Subcontractor bid management/ITB software	5%
Service management software	4%
None	11%

26. How does your company plan to use mobile software technology?

Use	Percentage
Daily field reports	63%
Access to customer and job information from the field	52%
Sharing of drawings, photos, and documents	52%
Scheduling	47%
Access to job cost and project reports from the field	43%
Equipment tracking	34%
Punch lists	34%
GPS tracking (e.g., fleet tracking)	29%
Time capture and approval	27%
Building Information Modeling	20%
Inventory tracking	17%
Processing service work orders in the field	14%
Material acceptance at the job site	12%
Processing payments in the field	7%

27. How do you handle the use of mobile devices (e.g., tablets, smartphones) in your company?

Company supplies mobile devices to staff; no staff-supplied devices — 49%

Employees use their own mobile devices; no company-supplied devices — 7%

We do a combination of both — 43%

Unsure — 1%
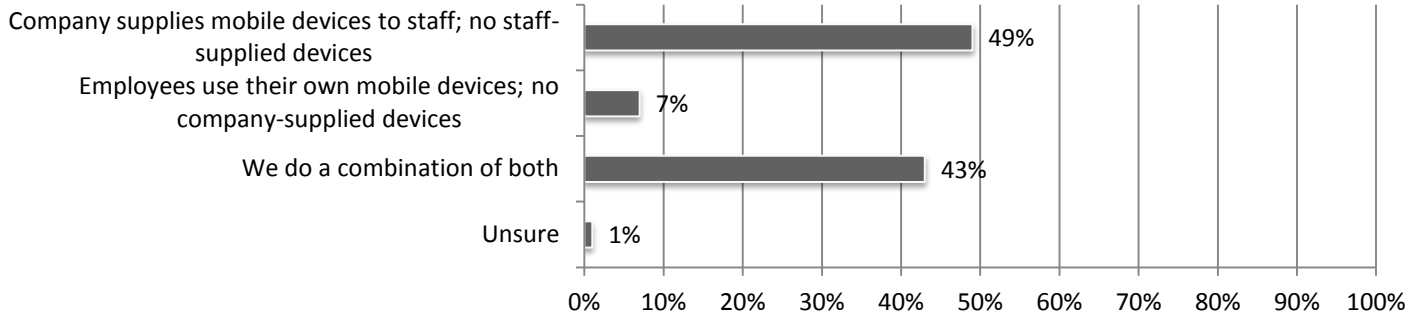
28. Do you currently have a mobile security policy in place?

Yes — 53%

No — 36%

Unsure — 11%
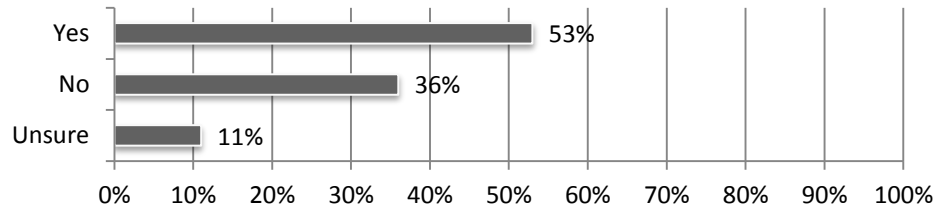
29. Do you currently have an overall IT security plan in place to protect against hacking?

Yes — 75%

No — 17%

Unsure — 8%
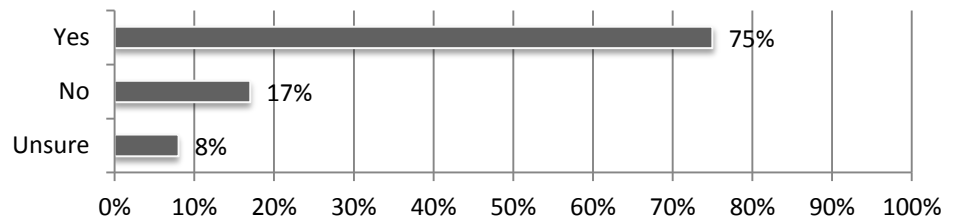
30. Do you have a formal IT plan that supports your business objectives?

Yes — 50%

No — 28%

No, but plan to do so in 2017 — 7%

Unsure — 16%
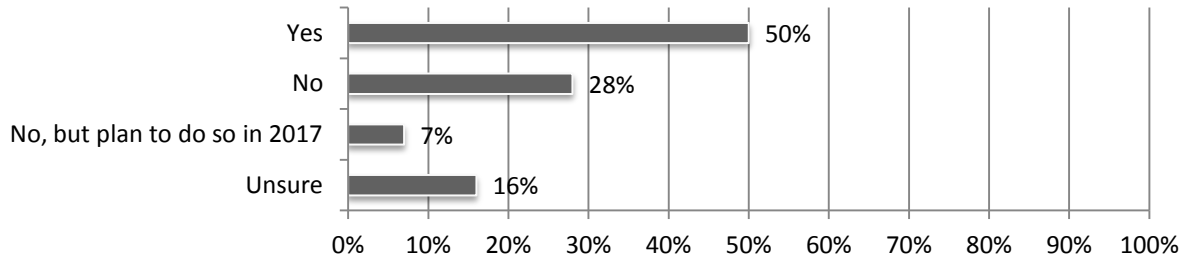
31. What is the main reason you use or plan to adopt cloud-based software?

Ability to access information anytime and from anywhere — 51%

We do not use or plan to adopt cloud-based software — 16%

Redundancy and disaster recovery — 11%

Built-in security — 4%

Reduced IT cost — 3%

Faster implementation — 1%

Other/unsure — 13%
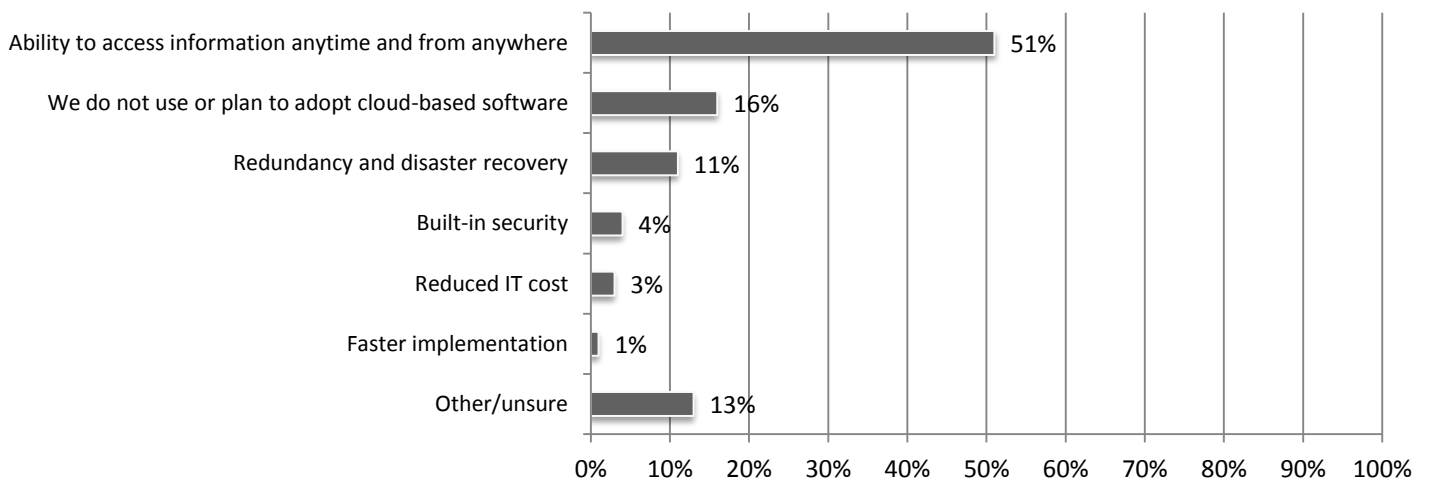
32. What are your biggest IT challenges?

Challenge	Percentage
Time to implement and train on new technology	42%
Connectivity to remote job sites	40%
Communication between field and office	39%
Employee resistance to technology	28%
Integration between software used inside of our company	25%
Keeping company data secure from hackers	21%
Outdated company software and systems	17%
Integration with software used by business partners outside our company	13%
Management resistance to technology	7%
None	6%

33. Estimate the total dollar amount of work your firm performed in 2016.

Category	Percentage
$10 million or less	39%
$10.1 million-$30 million	20%
$30.1 million-$50 million	9%
$50.1 million-$100 million	10%
$100.1 million-$500 million	12%
Over $500 million	10%
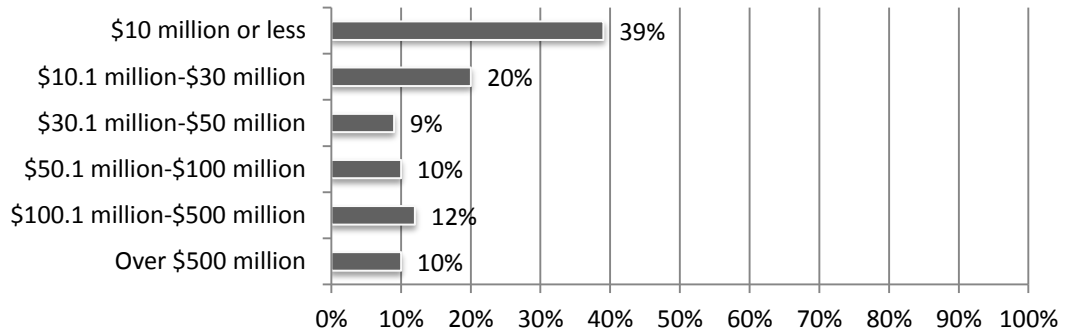
34. How many total employees does your organization employ at all of its locations?

Employees	Percentage
1-49	40%
50-249	32%
250-499	13%
500-999	4%
1,000 or more	11%
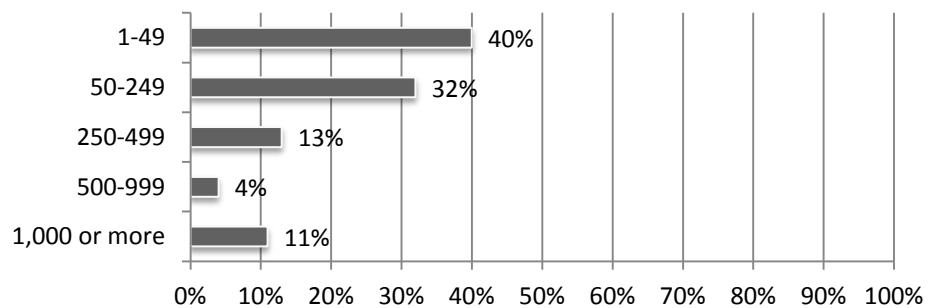
35. Do you employ union workers, or is your firm primarily open shop?

Response	Percentage
We employ union workers for all of our projects	23%
We employ union workers for most of our projects	10%
We are primarily an open shop contractor, but occasionally employ union workers	16%
We are exclusively open shop	51%