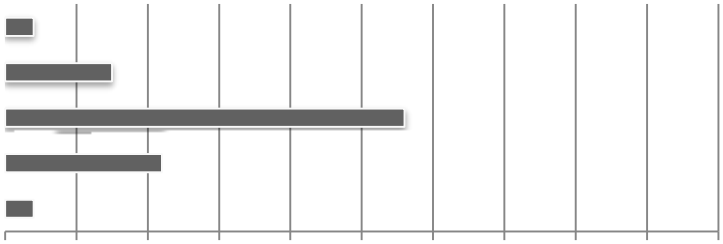
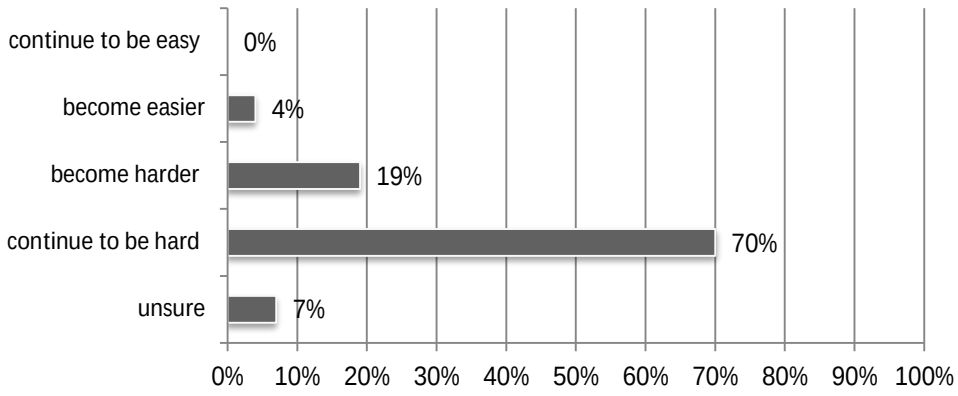
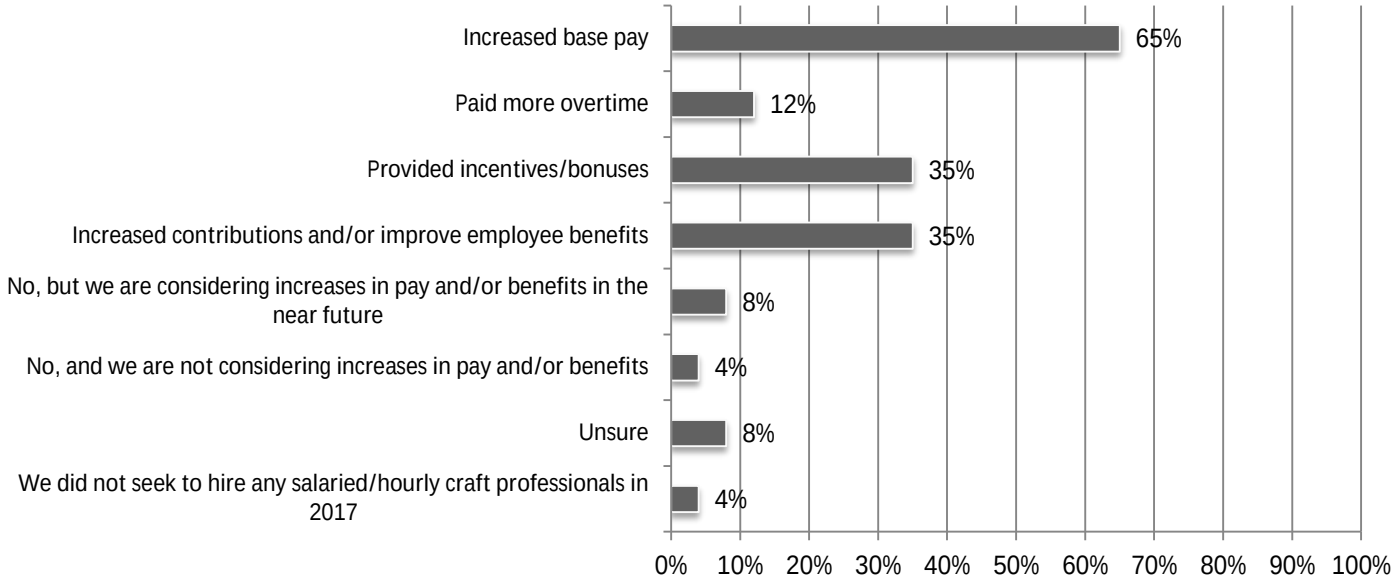
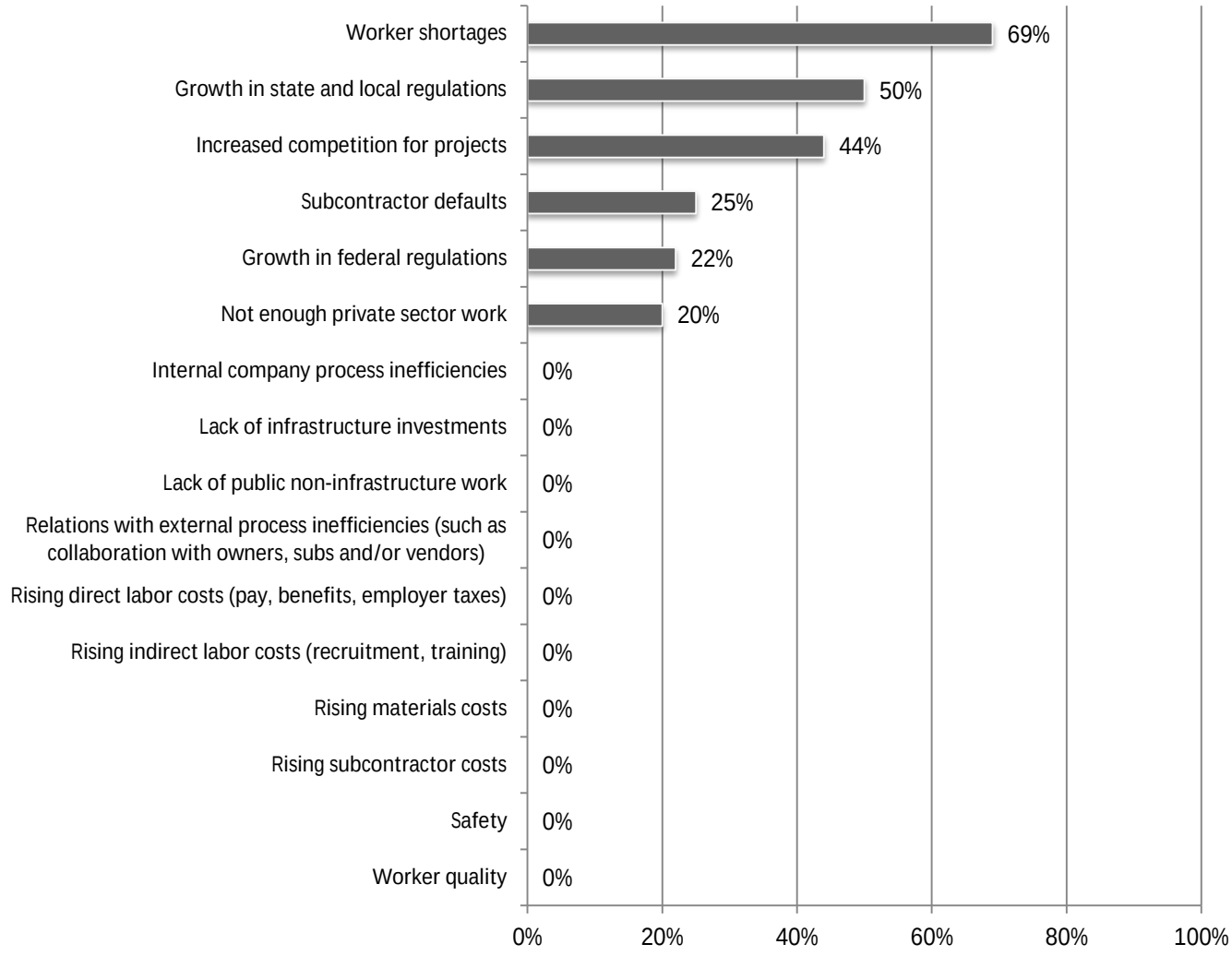
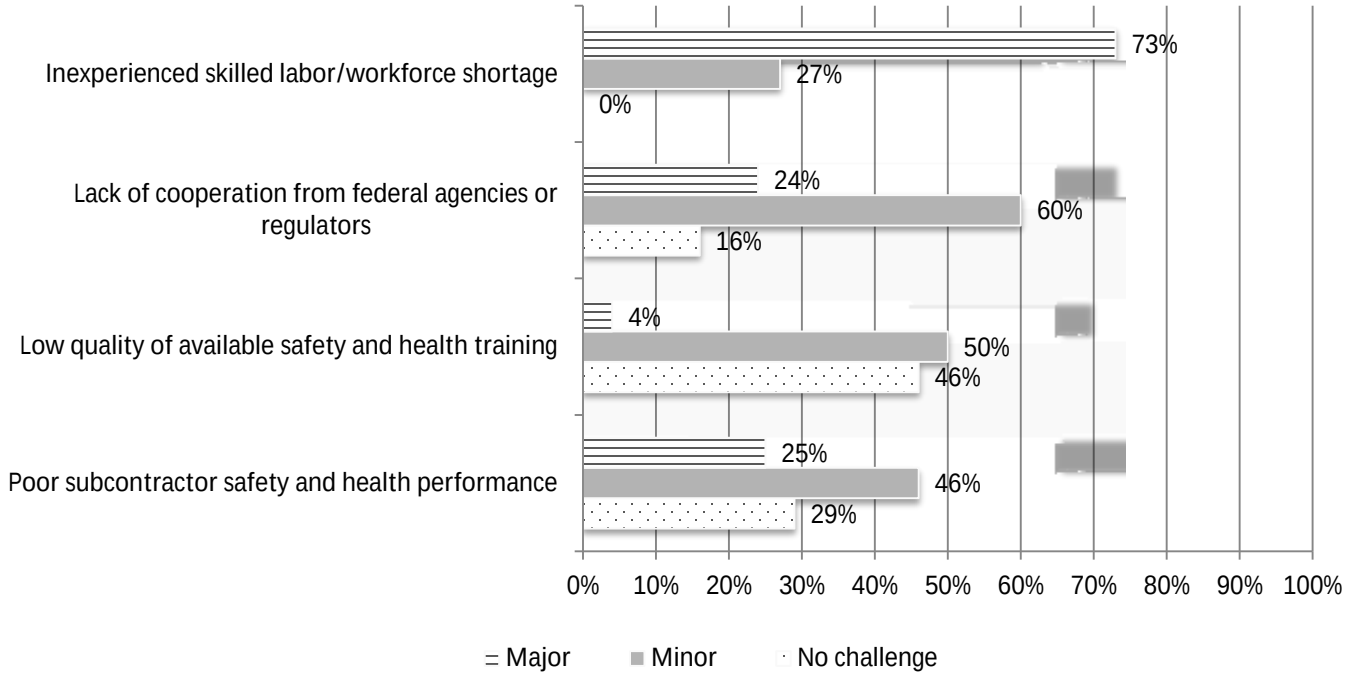
Water/Sewer	47%	0%	53%	47%
All projects	38%	5%	57%	33%
Power	38%	8%	54%	31%
Highway	41%	12%	47%	29%
Multifamily Residential	38%	13%	50%	25%
Transportation (e.g., transit, rail, airport)	29%	12%	59%	18%
Manufacturing	26%	16%	58%	11%
Private Office	26%	16%	58%	11%
Higher Education	24%	18%	59%	6%
K-12 School	24%	18%	59%	6%
Hospital	22%	17%	61%	6%
Retail, Warehouse, Lodging	22%	17%	61%	6%
Federal (e.g., VA, GSA, USACE, NAVFAC)	16%	16%	68%	0%
Public Building	16%	2ic Bu16%		

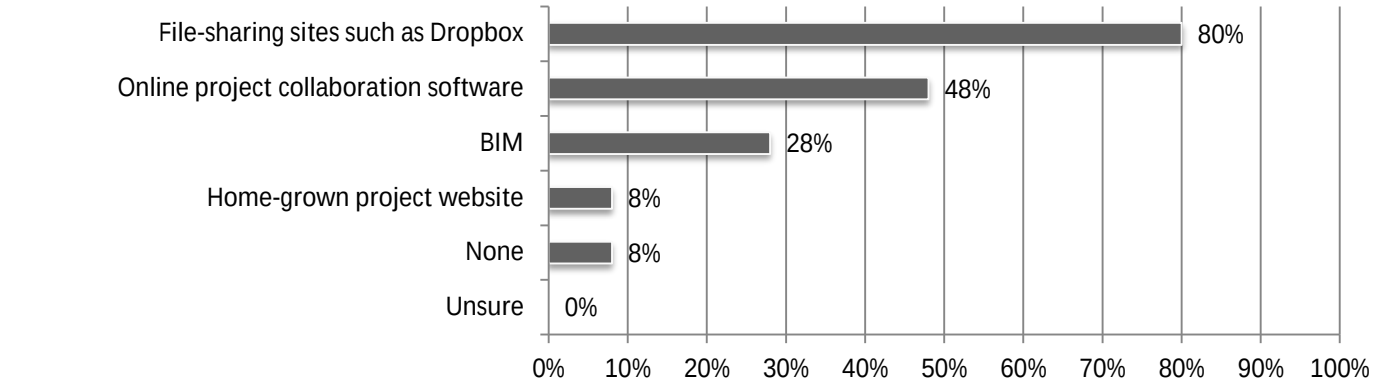


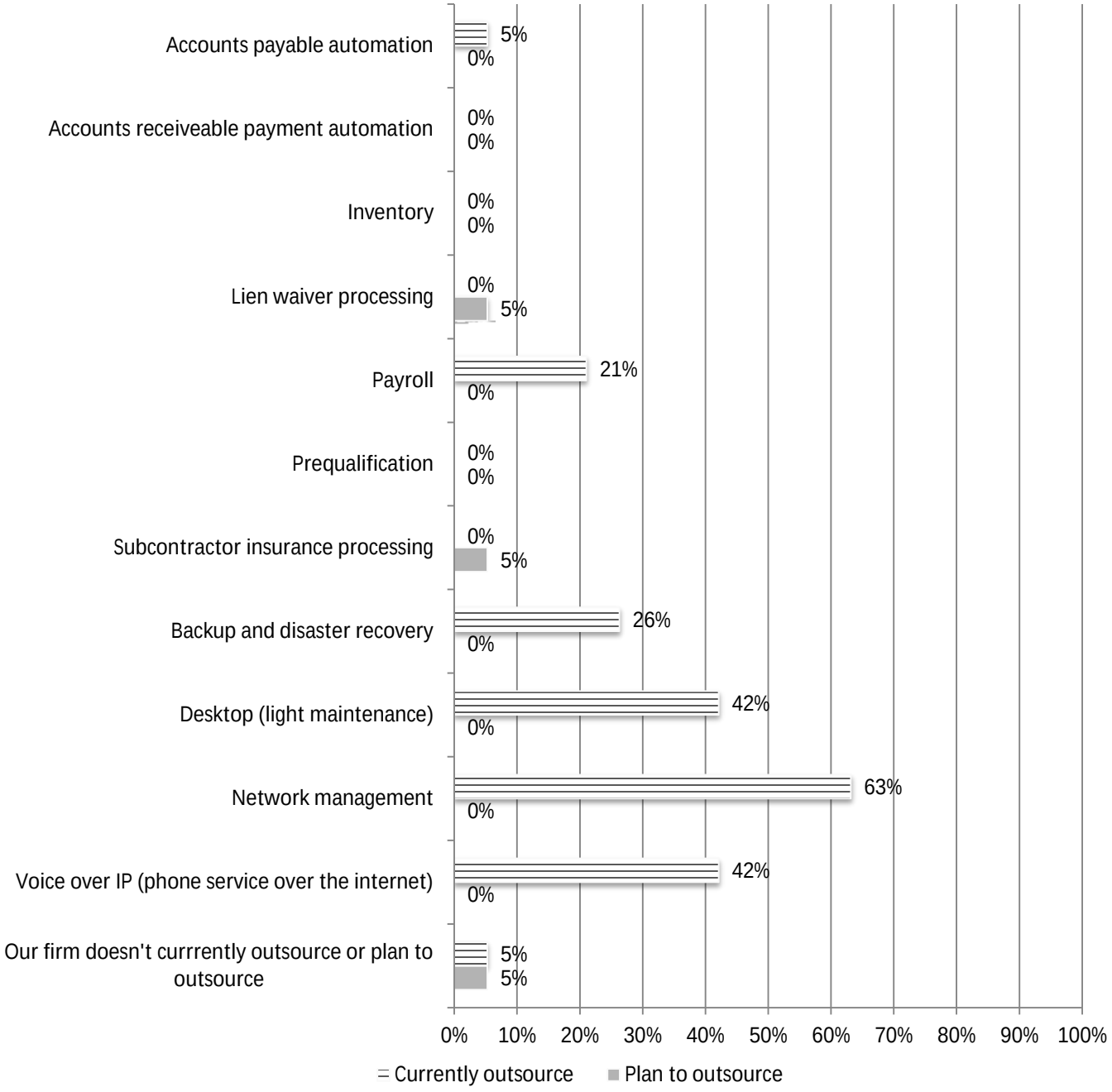

continue to be easy
0%
become easier
4%
become harder
19%
continue to be hard
70%
unsure
7%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

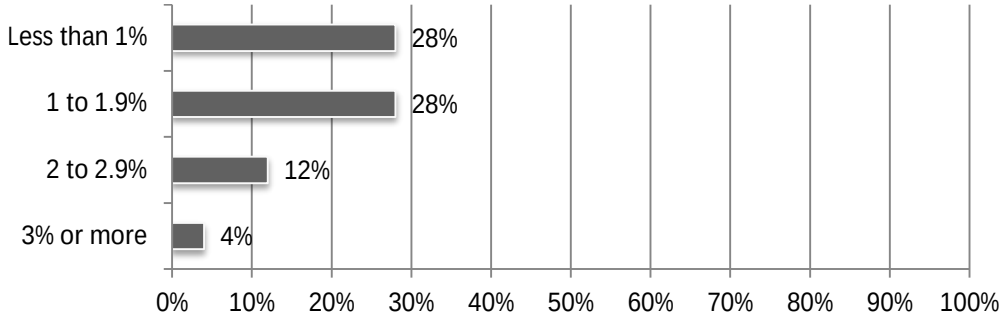

Increased base pay
65%
Paid more overtime
12%
Provided incentives/bonuses
35%
Increased contributions and/or improve employee benefits
35%
No, but we are considering increases in pay and/or benefits in the near future
8%
No, and we are not considering increases in pay and/or benefits
4%
Unsure
8%
We did not seek to hire any salaried/hourly craft professionals in 2017
4%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

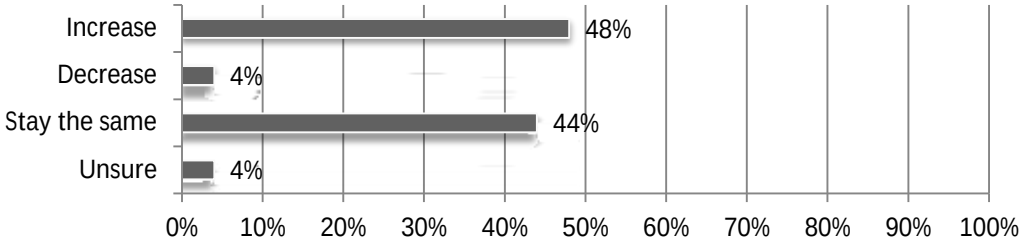

Worker shortages
69%
Growth in state and local regulations
50%
Increased competition for projects
44%
Subcontractor defaults
25%
Growth in federal regulations
22%
Not enough private sector work
20%
Internal company process inefficiencies
0%
Lack of infrastructure investments
0%
Lack of public non-infrastructure work
0%
Relations with external process inefficiencies (such as collaboration with owners, subs and/or vendors)
0%
Rising direct labor costs (pay, benefits, employer taxes)
0%
Rising indirect labor costs (recruitment, training)
0%
Rising materials costs
0%
Rising subcontractor costs
0%
Safety
0%
Worker quality
0%
0%
20%
40%
60%
80%
100%


Inexperienced skilled labor/workforce shortage
73%
27%
0%
Lack of cooperation from federal agencies or regulators
24%
60%
16%
Low quality of available safety and health training
4%
50%
46%
Poor subcontractor safety and health performance
25%
46%
29%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Major
Minor
No challenge

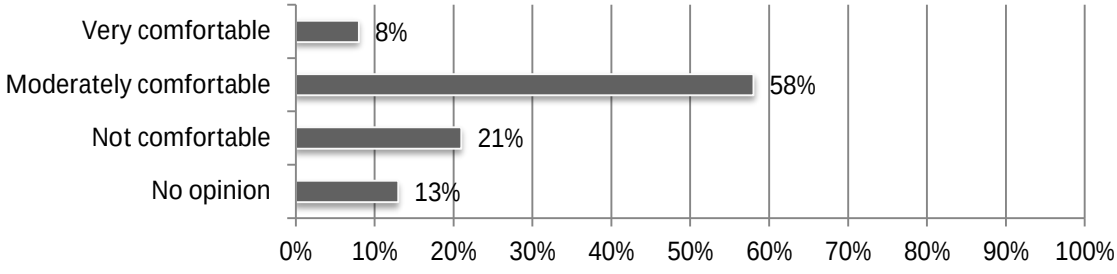

File-sharing sites such as Dropbox
80%
Online project collaboration software
48%
BIM
28%
Home-grown project website
8%
None
8%
Unsure
0%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

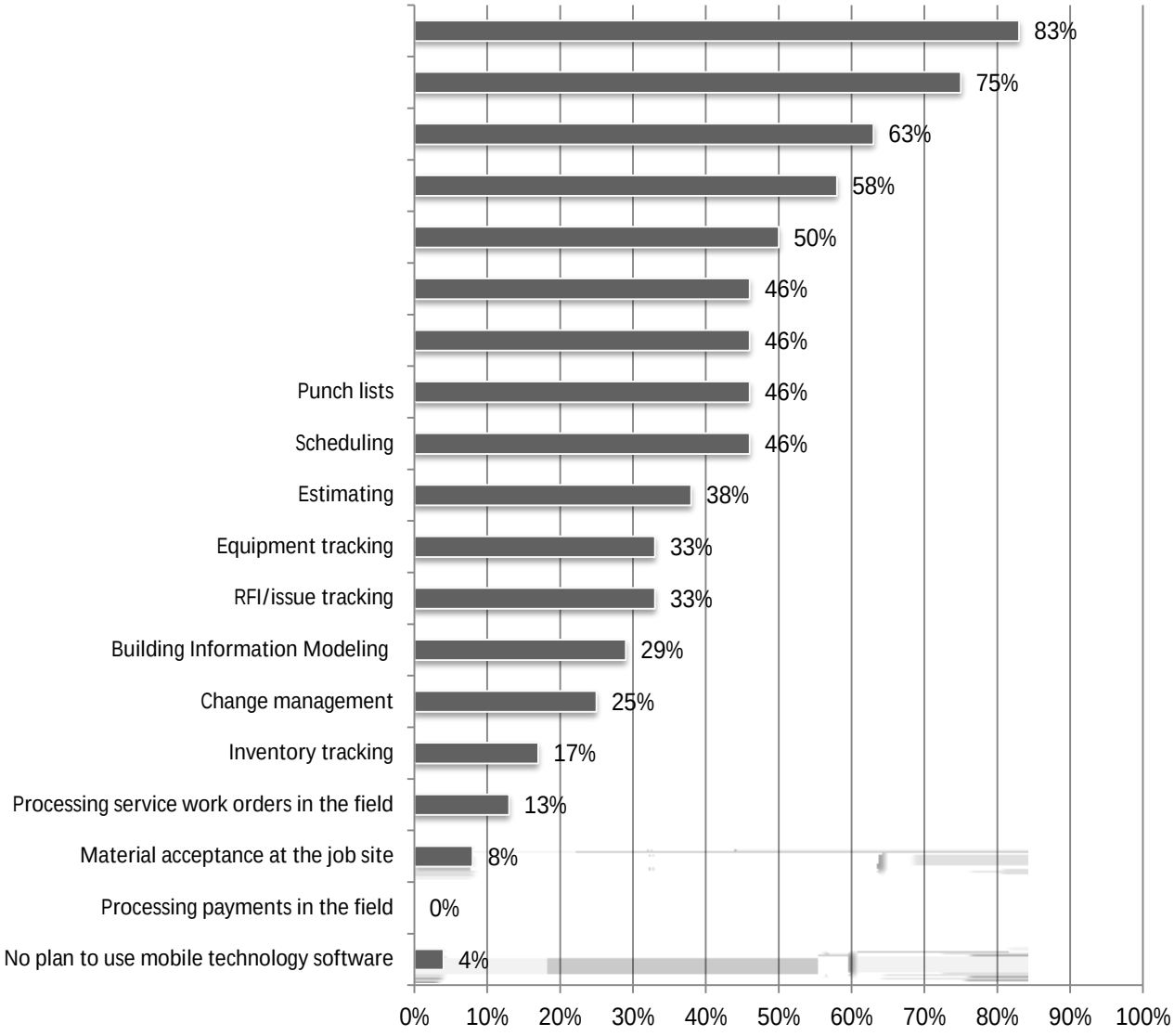

Accounts payable automation
5%
0%
Accounts receiveable payment automation
0%
0%
Inventory
0%
0%
Lien waiver processing
0%
5%
Payroll
21%
0%
Prequalification
0%
0%
Subcontractor insurance processing
0%
5%
Backup and disaster recovery
26%
0%
Desktop (light maintenance)
42%
0%
Network management
63%
0%
Voice over IP (phone service over the internet)
42%
0%
Our firm doesn't currrently outsource or plan to outsource
5%
5%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Currently outsource
Plan to outsource

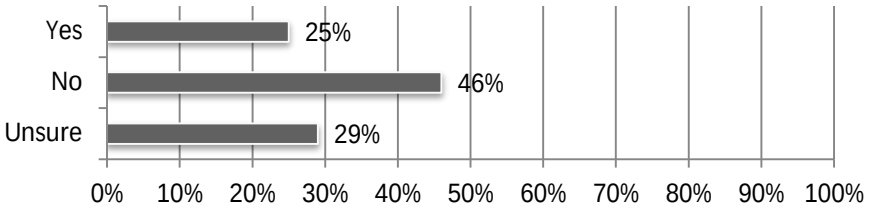


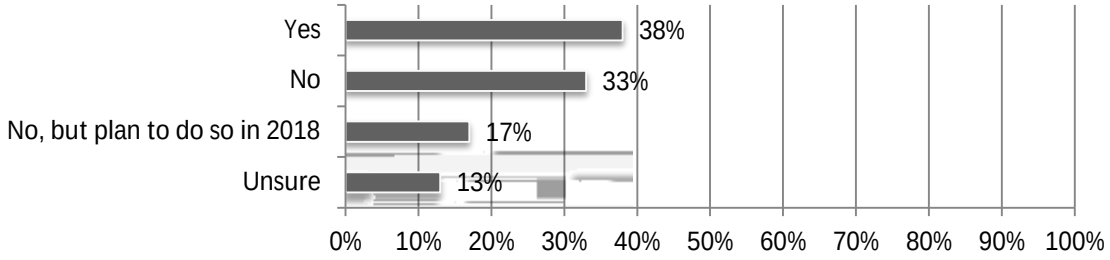


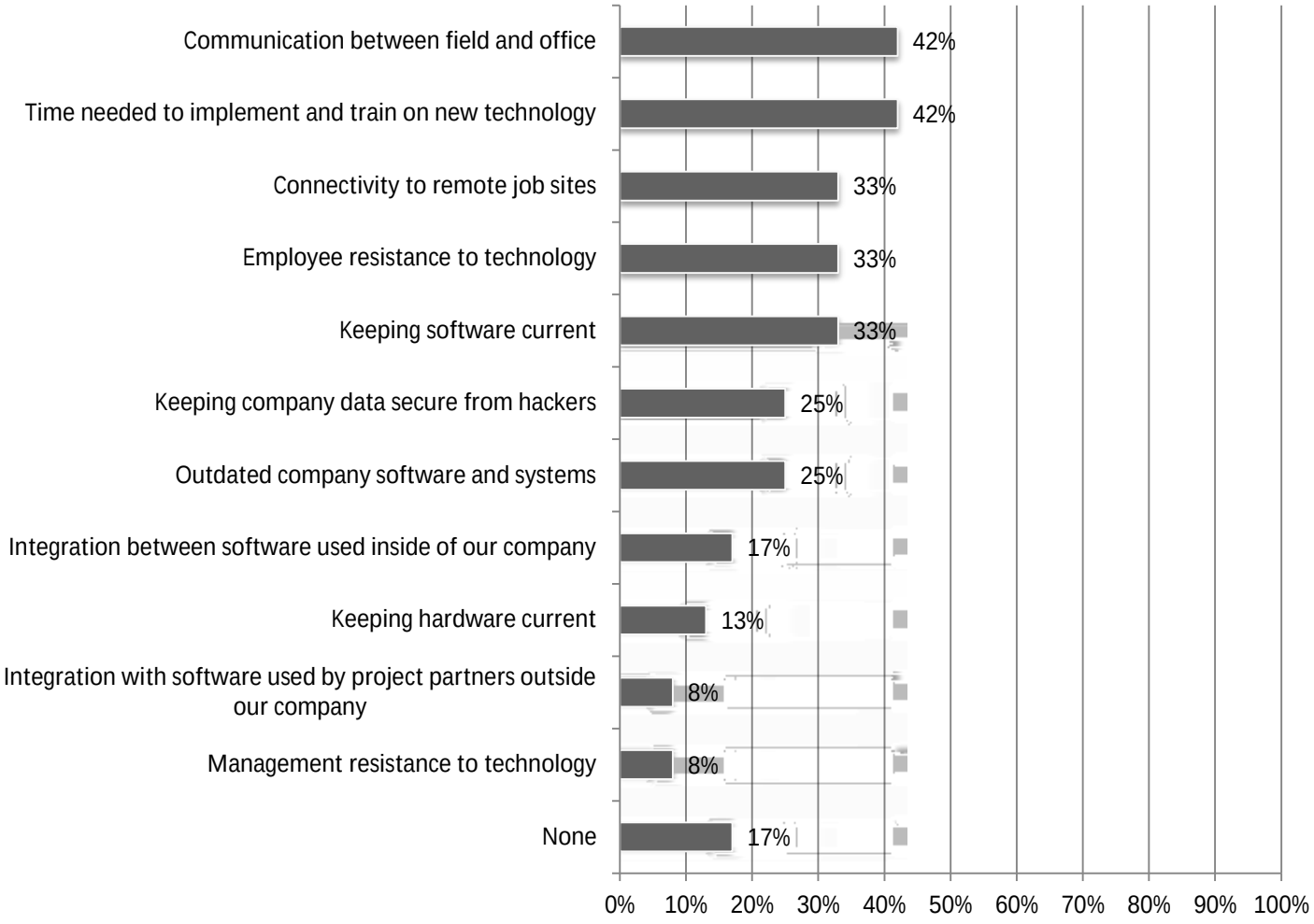
Accounting software	13%	75%	0%	13%
Building Information Modeling	23%	50%	0%	27%
Client relationship management software	18%	45%	0%	36%
Document management software	25%	63%	0%	13%
Estimating software	35%	52%	0%	13%
Fleet tracking/management software	24%	57%	0%	19%
Human resources software	18%	64%	0%	18%
Payroll software	13%	74%	0%	13%
Prequalification software	0%	65%	0%	35%
Project collaboration software	18%	50%	0%	32%
Project management software	27%	55%	0%	18%
Scheduling software	27%	55%	0%	18%
Service management software	10%	62%	0%	29%
Subcontractor bid management/ITB software	5%	64%	0%	32%




83%
75%
63%
58%
50%
46%
46%
Punch lists
46%
Scheduling
46%
Estimating
38%
Equipment tracking
33%
RFI/issue tracking
33%
Building Information Modeling
29%
Change management
25%
Inventory tracking
17%
Processing service work orders in the field
13%
Material acceptance at the job site
8%
Processing payments in the field
0%
No plan to use mobile technology software
4%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%


Yes
No
Unsure
25%
46%
29%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%


Yes
No
No, but plan to do so in 2018
Unsure
38%
33%
17%
13%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%


Communication between field and office
Time needed to implement and train on new technology
Connectivity to remote job sites
Employee resistance to technology
Keeping software current
Keeping company data secure from hackers
Outdated company software and systems
Integration between software used inside of our company
Keeping hardware current
Integration with software used by project partners outside our company
Management resistance to technology
None
42%
42%
33%
33%
33%
25%
25%
17%
13%
8%
8%
17%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%