



Stronger Field, Stronger Profits: Enhancing Labor Productivity in Construction

FMI's 2023 Labor Productivity Study

February 2024



fmiconsulting.com

Agenda

- **2023 Productivity Study Introduction**
- **Economics of Productivity**
- **Key Takeaways and Current Productivity Trends**
- **Internal and External Productivity Impacts**
- **What Are Successful Contractors Doing Differently?**
- **Best-In-Class Labor and Productivity KPIs**
- **Looking Forward**

Key Takeaways



\$30 - \$40 billion
Lost annually to poor productivity.



11% or more of field labor costs are wasted, said **60%** of respondents.



3 of the top 4
Internal factors affecting productivity are related to planning, communication and collaboration.



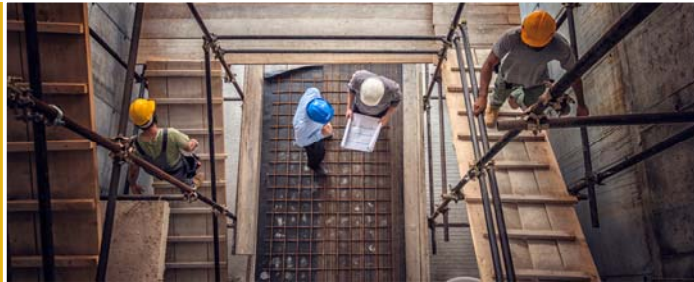
4 of 5 contractors
Said low quality design/ construction documents are a top external factor stunting productivity.



Key Takeaways

79% of contractors

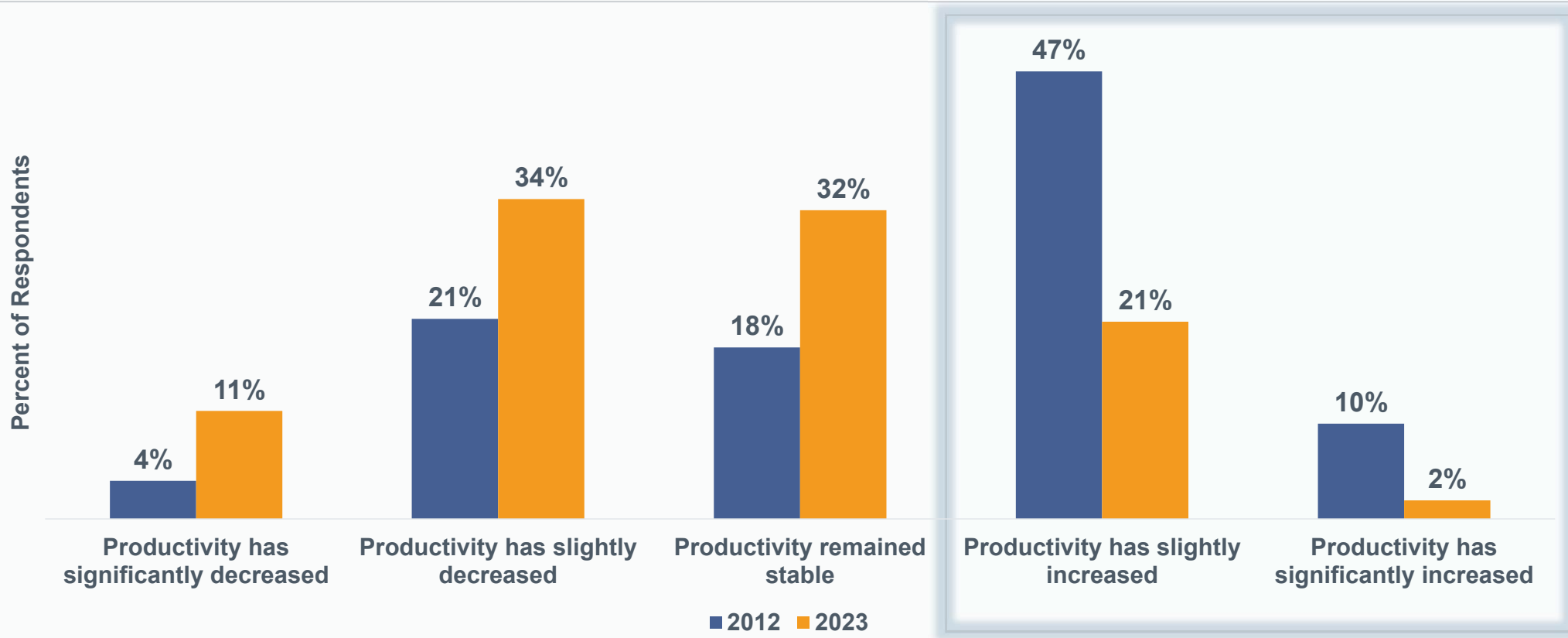
Could improve labor productivity by 6% or more with better management.



50% average increase

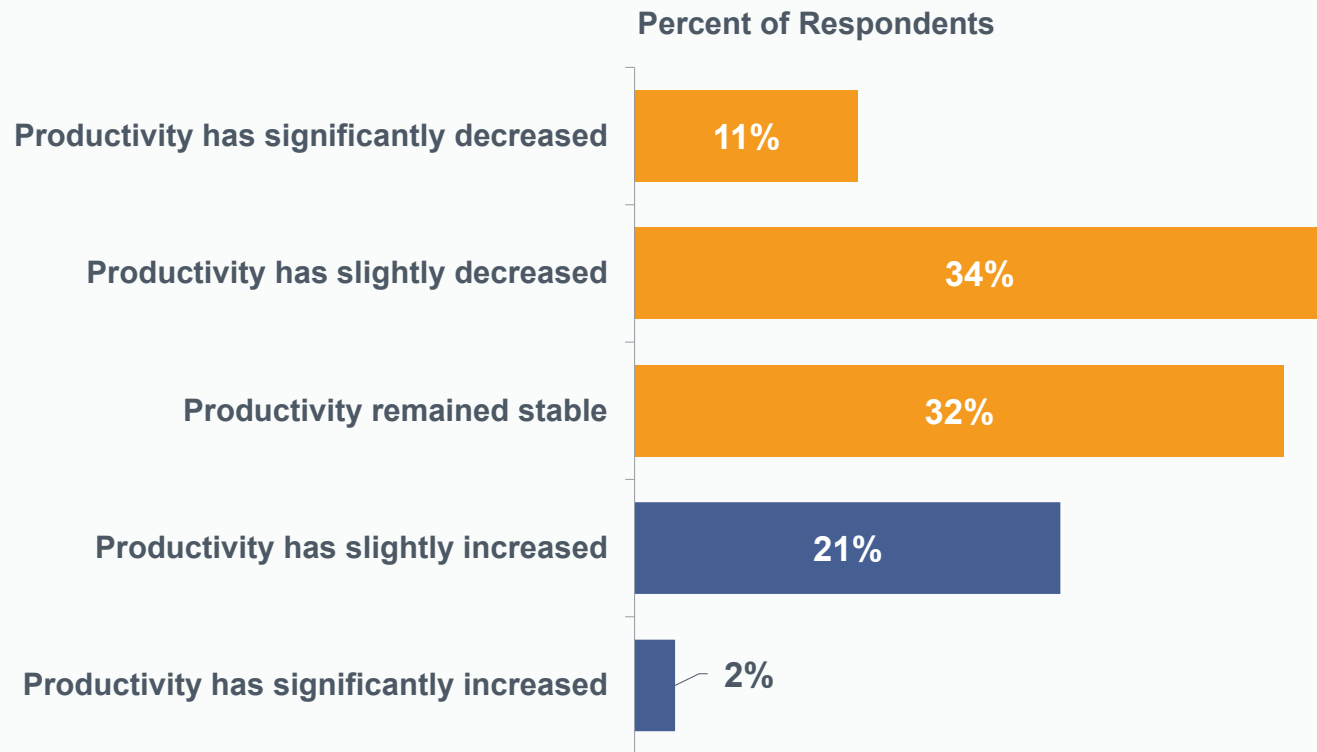
In profitability from a 6% productivity improvement.

Labor Productivity is Declining



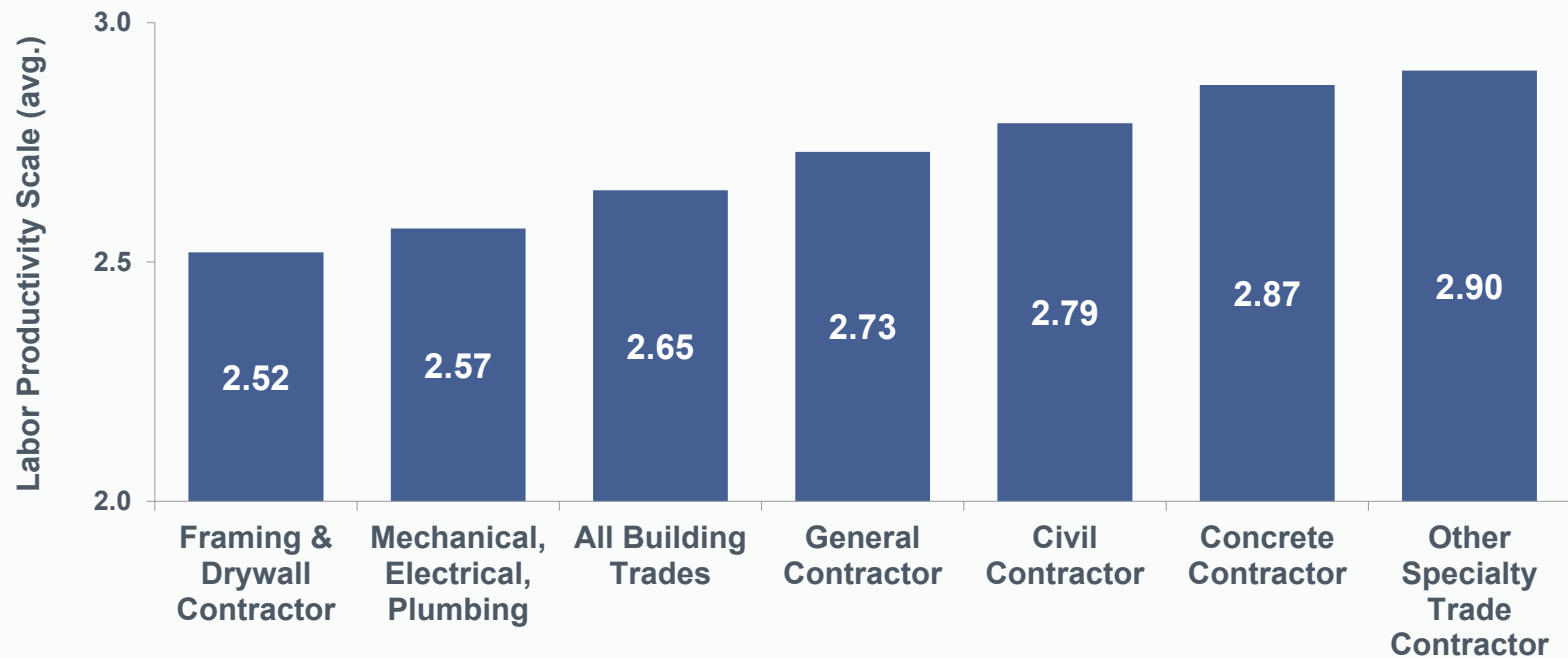
Productivity Trend Over The Last 18 Months

77% of respondents said productivity has remained stable or decreased, while only **23%** saw an increase in productivity over the last 18 months.



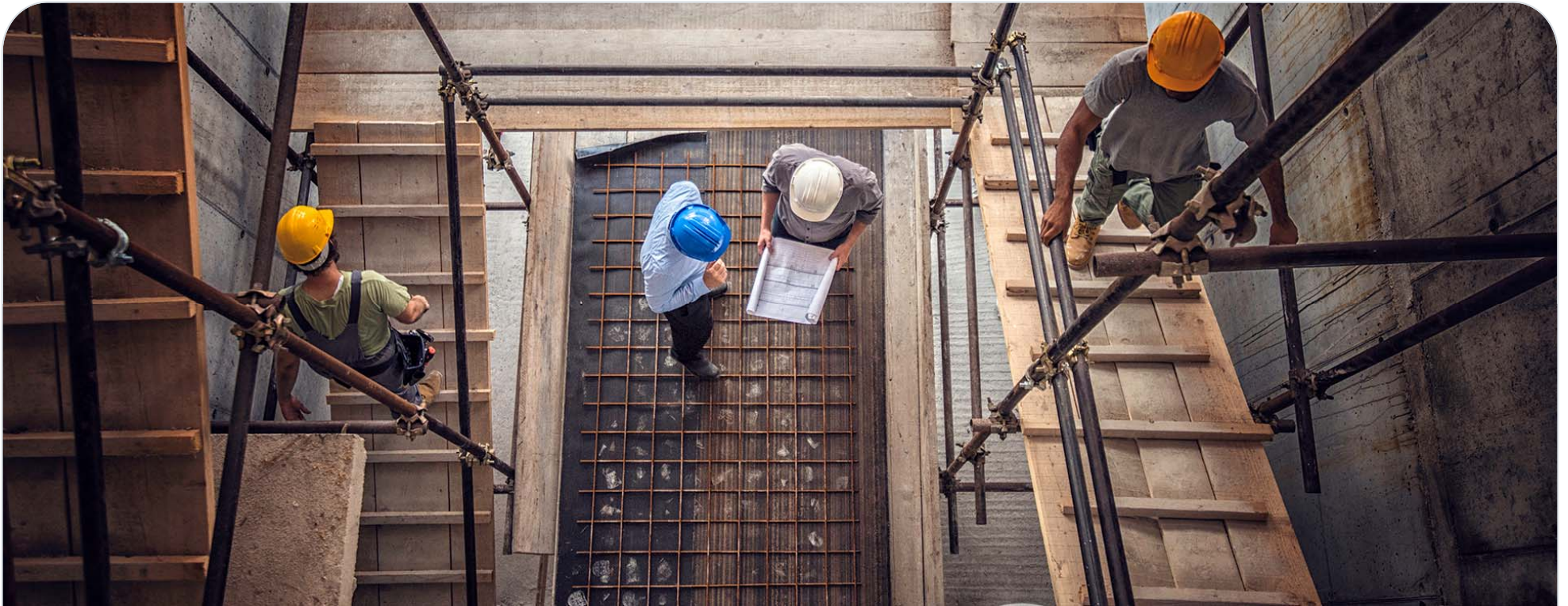
Average Productivity Trend by Contractor Type

All contractor types averaged between **2.52 to 2.90**, revealing that on average, all contractors saw productivity remain stable or slightly decline over the last 18 months.



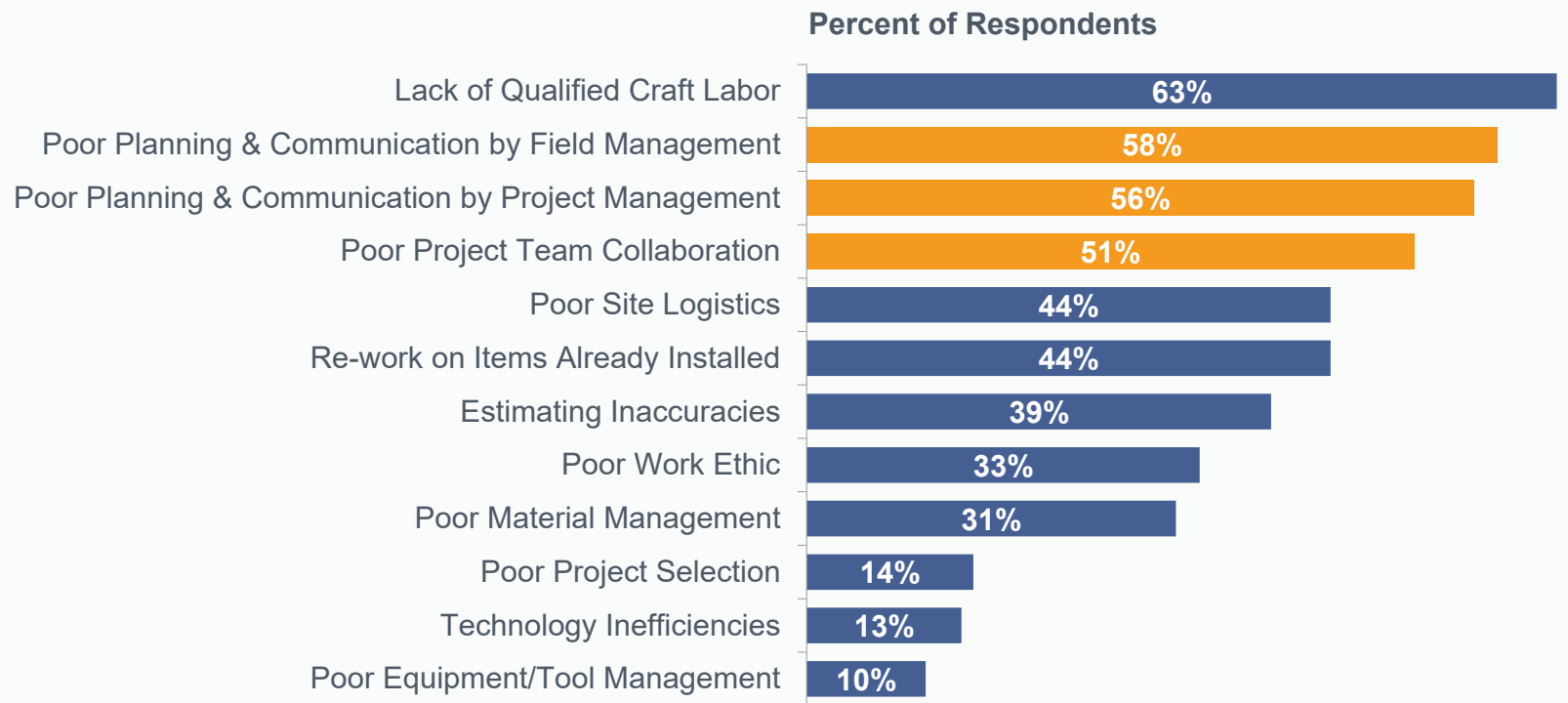
1 = Productivity Significantly Decreased 2 = Productivity Slightly Decreased 3 = Productivity Remained Stable 4 = Productivity Slightly Increased
5 = Productivity Significantly Increased

Key Internal and External Productivity Challenges



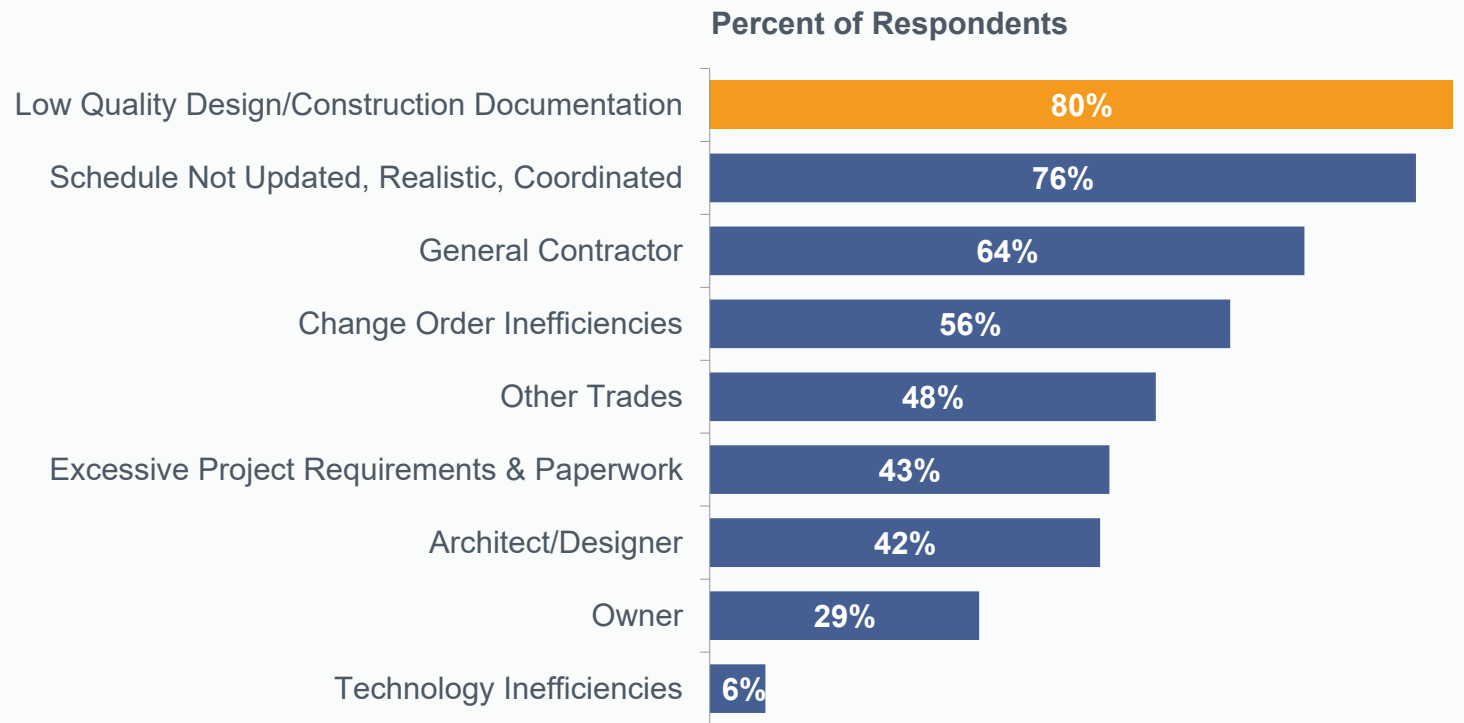
Top **Internal** Factors Negatively Impacting Productivity

3 of the top 4 internal factors negatively impacting field labor productivity are related to **planning, communication and collaboration**, all of which are variables contractors have direct control over.



Top **External** Factors Negatively Impacting Productivity

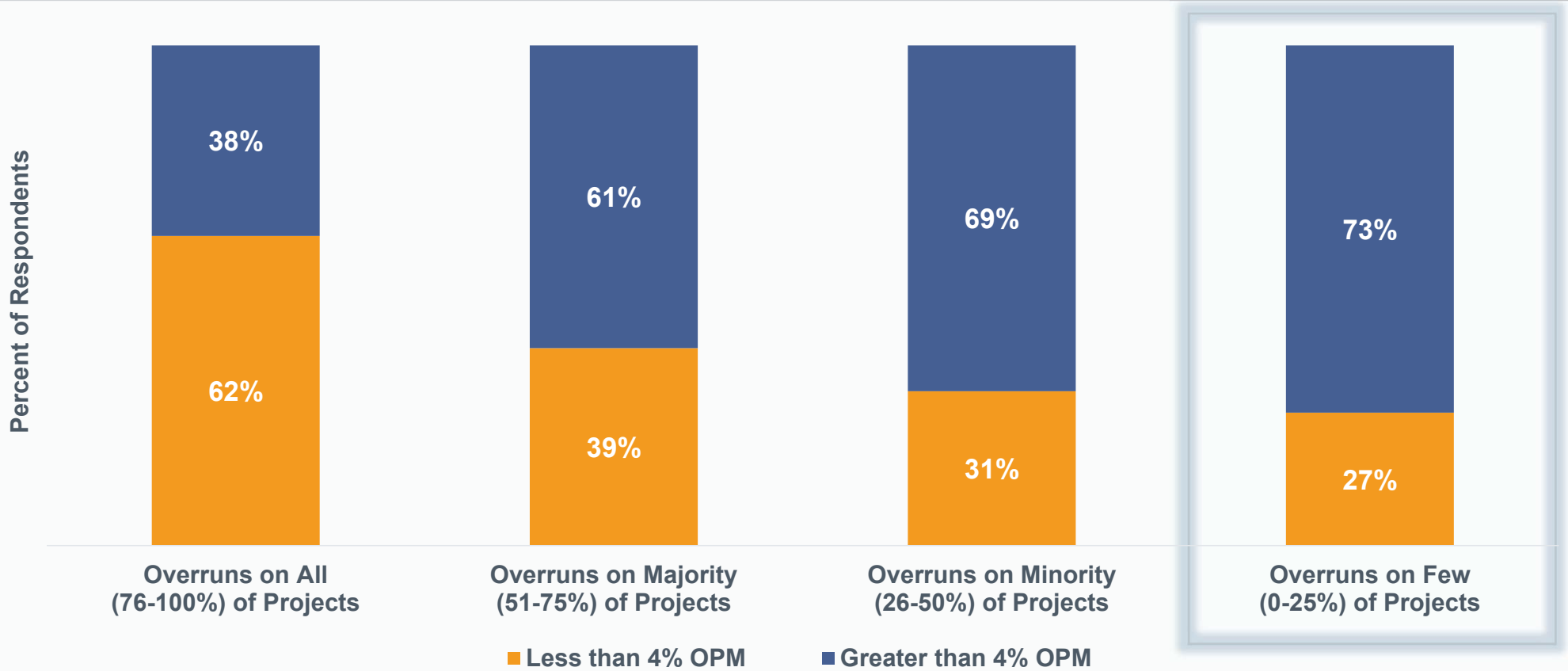
4 out of 5 contractors said that low quality design/construction documents is a **top external factor** negatively impacting productivity.



What are successful contractors doing differently



Frequency of Labor Cost Overruns vs. Operating Profit Margin

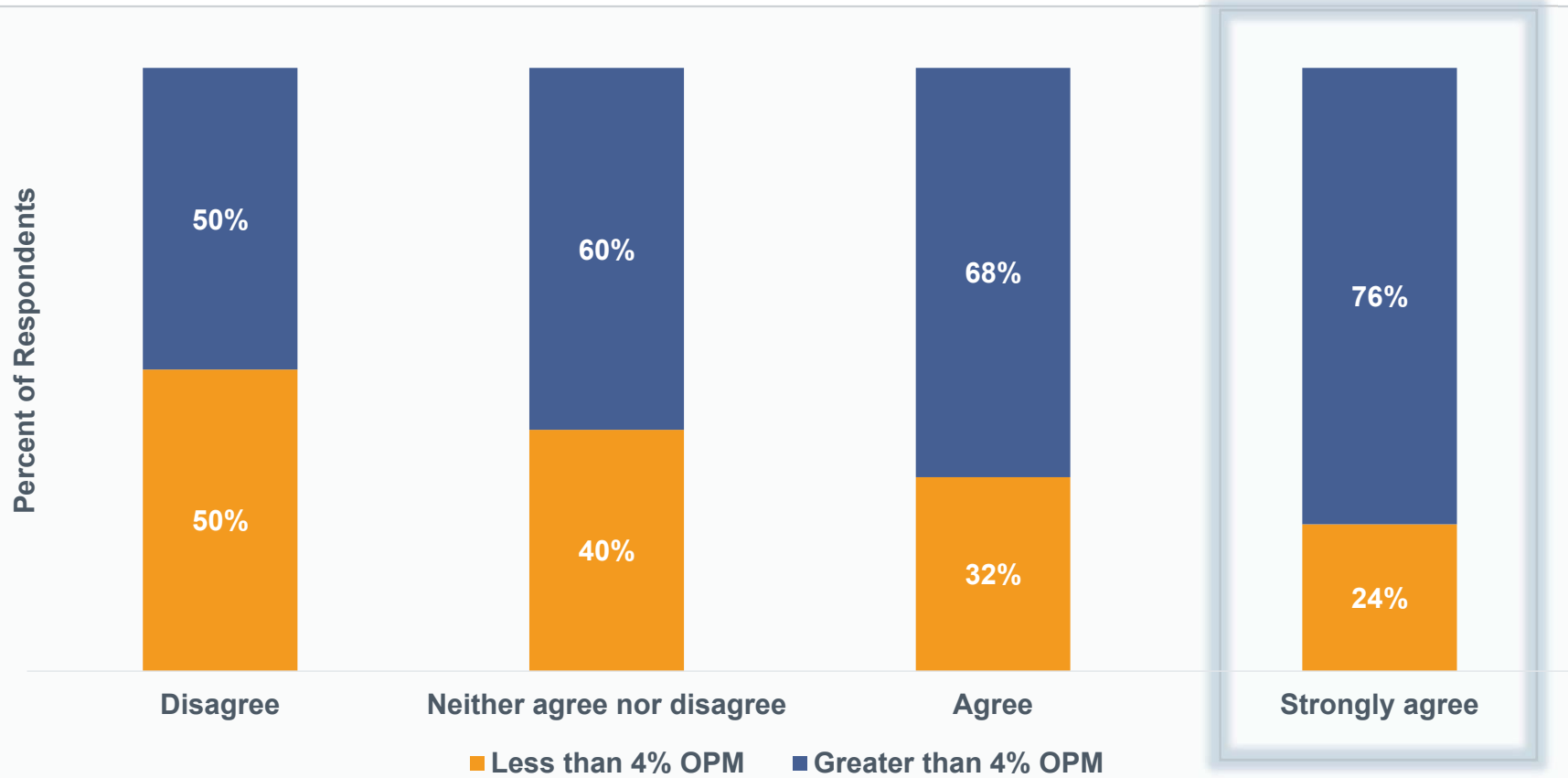


Operationally superior firms implement these strategies

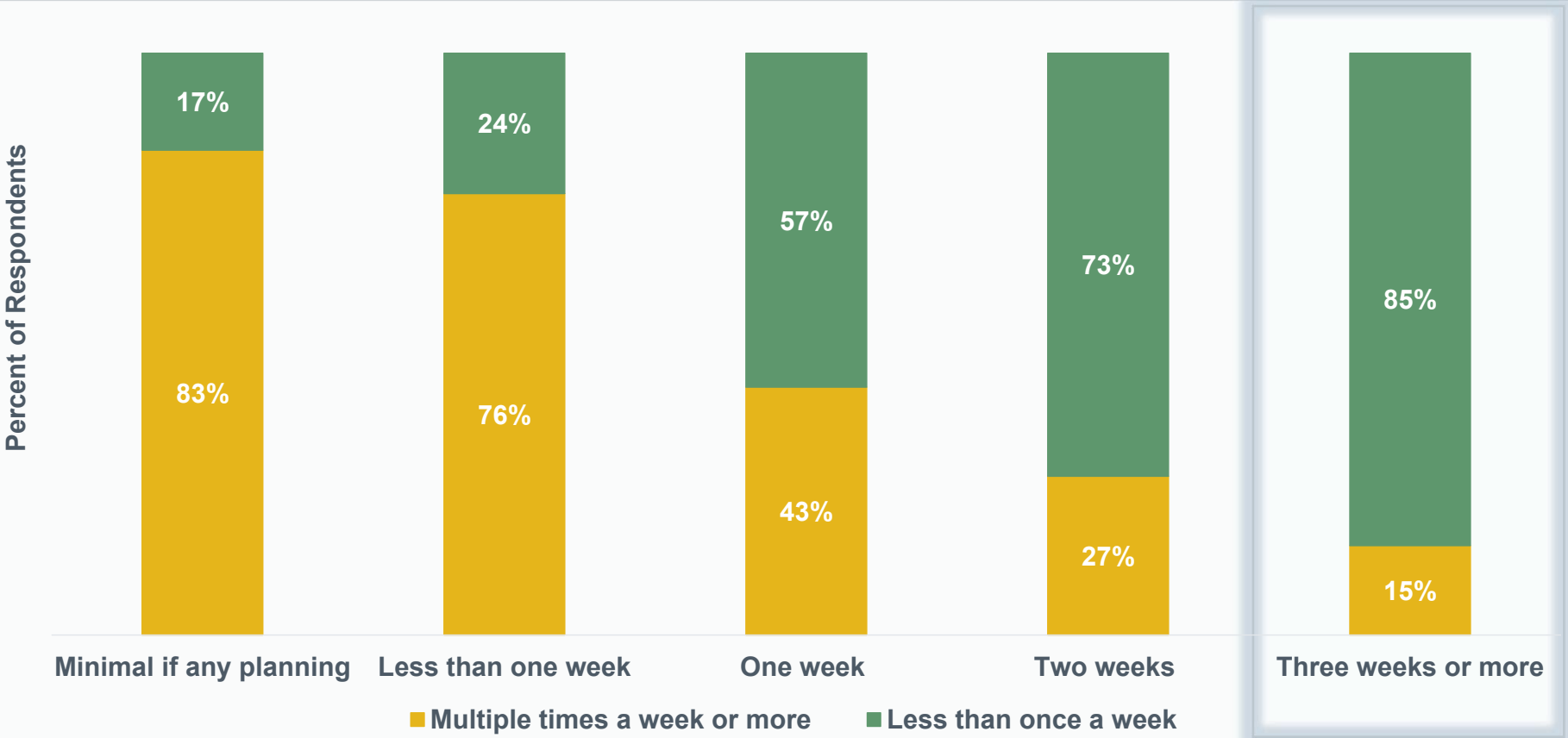
- **Pre-job planning:** Collaboratively develop strategies to optimize project performance with field buy-in prior to mobilization
- **Look-ahead planning:** Coordinate resource needs for upcoming installations driven by field leaders.
- **Daily goal setting:** Determine clear objectives, performance expectations and feedback for crews.
- **Labor productivity tracking and feedback:** Create a scoreboard for communicating labor performance, risk and opportunity to the field.
- **Cost-to-complete forecasting:** Conduct accurate field-driven estimates of what it will take to complete the remaining scopes of work.
- **Exit strategy:** Draft plans to finish the job on time and mitigate the risk of late project margin fade.
- **Post-job review:** Leverage experiential education for future success and continuous organizational improvement.

Preparedness vs. Operating Profit Margin

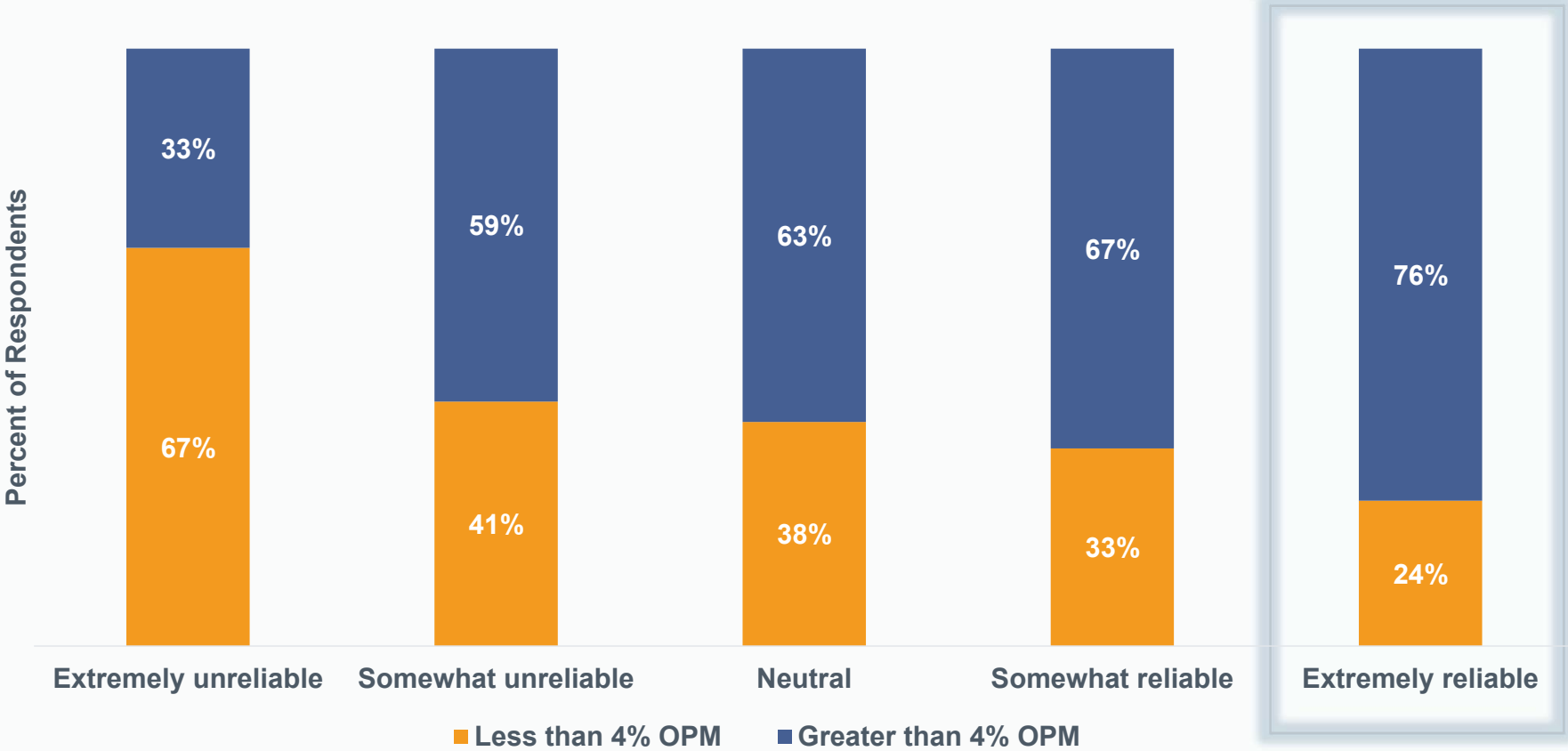
Agreement with Field Manager Preparedness Prior to Mobilization



Duration of Look-Ahead Planning vs Frequency of Emergency Resource Needs

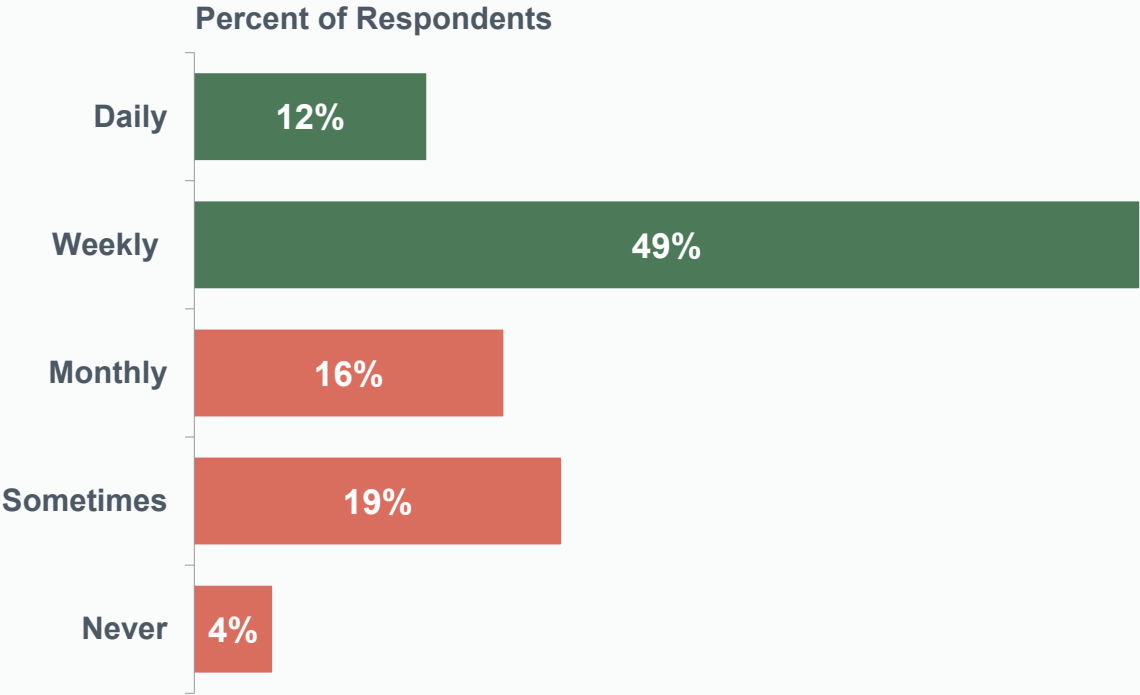


The Power of Cost-to-Complete Reporting

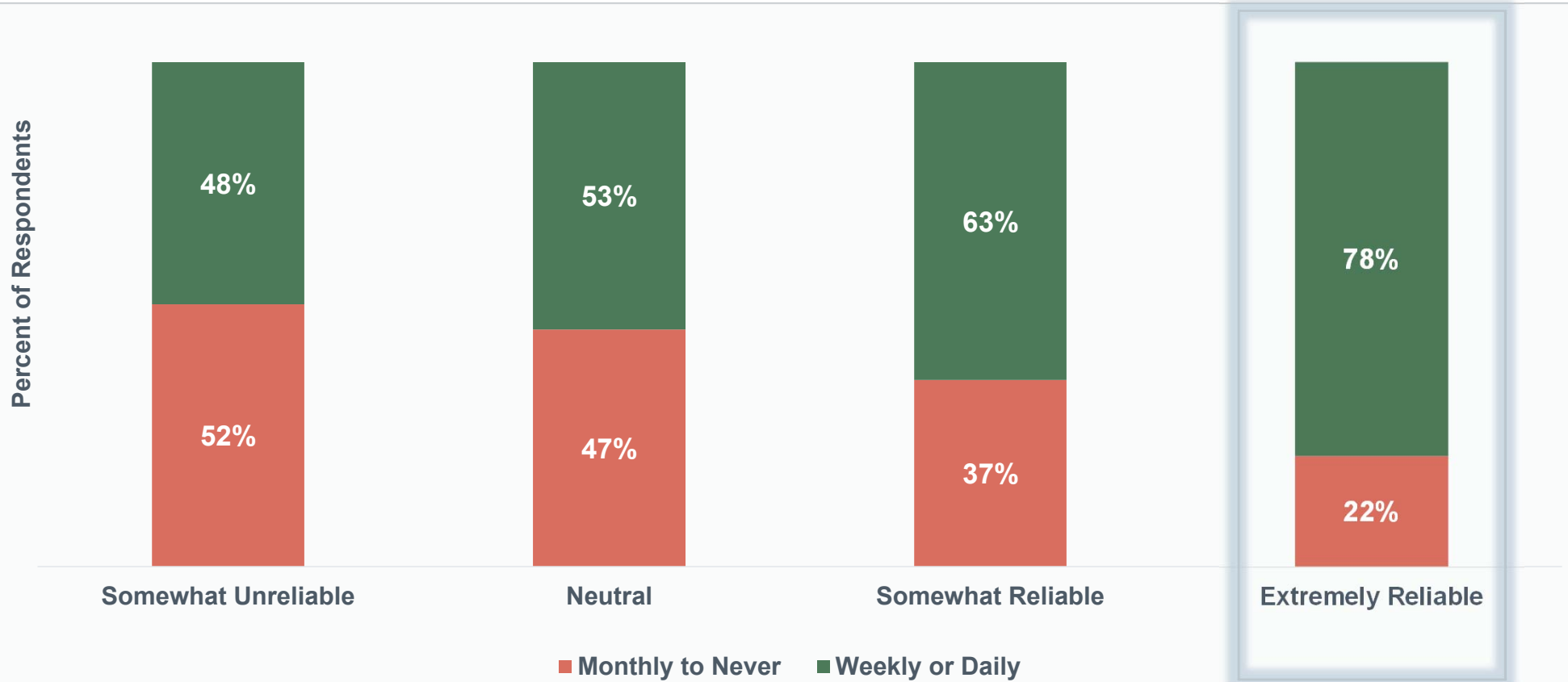


Frequency of Labor Productivity Reports

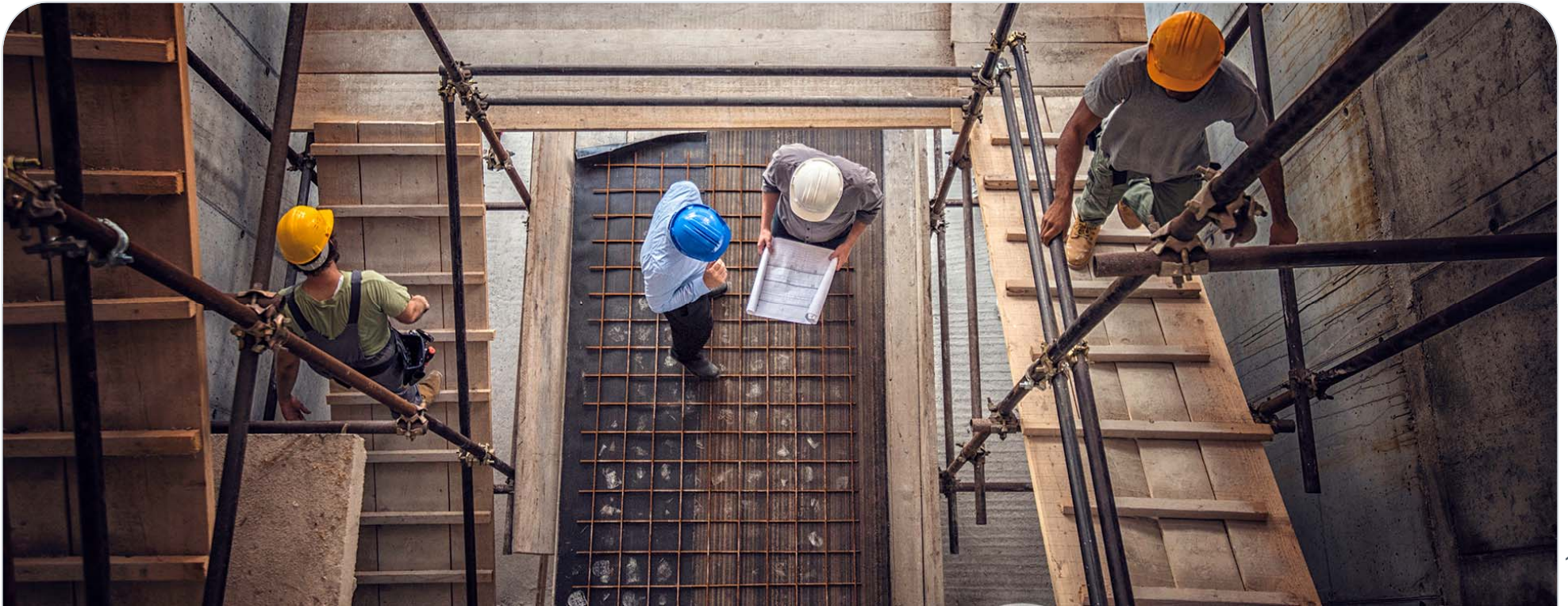
61% of contractors believe their field managers **receive labor productivity reports** on at least a weekly basis.



Cost-to-Complete Reliability vs Frequency of Productivity Reporting



Best-in-Class Labor and Productivity KPIs



KPIs for Labor Intensive Contractors

Direct Cost Variance

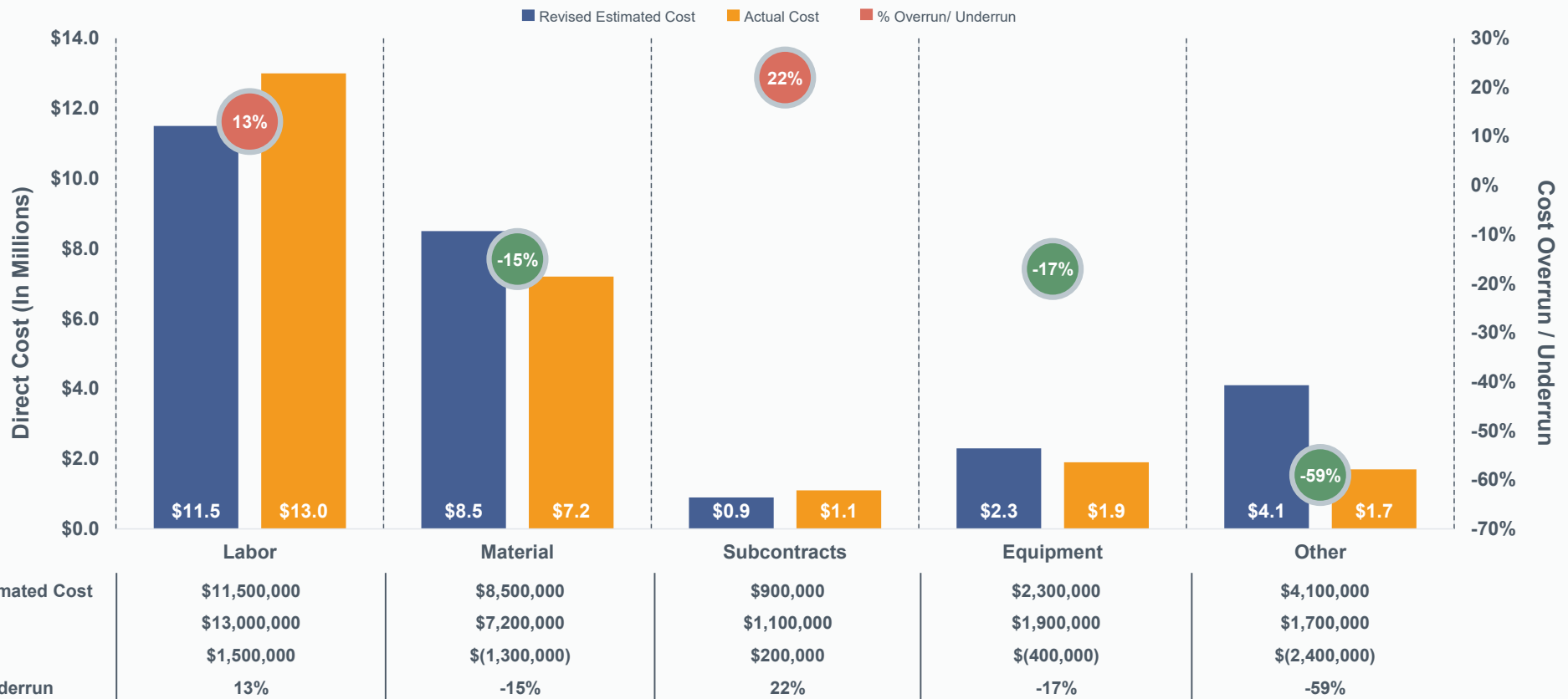
- Performed on portfolio of completed projects
- Compares revised estimated (estimated plus change order cost) cost to actual cost
- Compares how we estimated we would perform vs how we actually performed
- Can be performed on all direct costs, as well as gross profit and gross profit margin
- Only metric that focuses estimating and operations on the same goal

Productivity Tracking and Feedback

- Begins with a logical budget setup that supports operations first and estimating second
- Requires field rigor to accurately track and code time (hours) and quantities (units) to cost codes
- Productivity report provided to field managers on at least a weekly basis and reviewed weekly with PM/Superintendent
- Format must be easy to understand for the field
- Regular cycle of feedback and review will improve coding accuracy

Direct Cost Variance Analysis

Aggregate

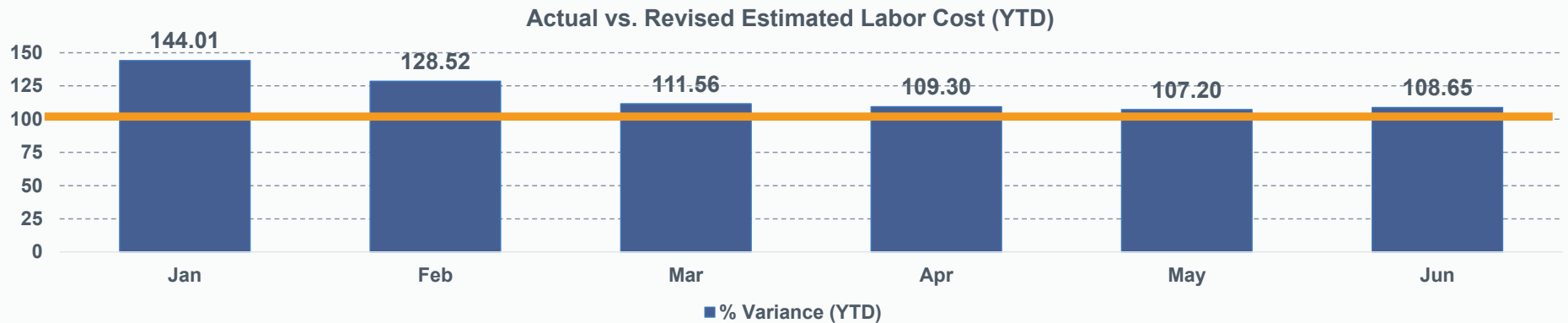


Direct Cost Variance Analysis

By Month

	Jan	Feb	Mar	Apr	May	Jun
Actual Labor Cost (for month)	\$ 924,552.00	\$ 309,398.00	\$ 1,860,717.00	\$ 691,464.00	\$ 51,786.00	\$ 1,379,650.00
Revised Estimated Labor Cost (for month)	\$ 642,007.00	\$ 318,132.00	\$ 1,813,744.00	\$ 690,230.00	\$ 116,118.00	\$ 1,222,043.00
\$ Variance (for month)	\$ 282,545.00	\$ (8,734.00)	\$ 46,973.00	\$ 1,234.00	\$ (64,332.00)	\$ 157,607.00
% Variance (for month)	144.01	97.25	102.59	100.18	44.60	112.90

	Jan	Feb	Mar	Apr	May	Jun
Actual Labor Cost (YTD)	\$ 924,552.00	\$ 1,233,950.00	\$ 3,094,667.00	\$ 3,786,131.00	\$ 3,837,917.00	\$ 5,217,567.00
Revised Estimated Labor Cost (YTD)	\$ 642,007.00	\$ 960,139.00	\$ 2,773,883.00	\$ 3,464,113.00	\$ 3,580,231.00	\$ 4,802,274.00
\$ Variance (YTD)	\$ 282,545.00	\$ 273,811.00	\$ 320,784.00	\$ 322,018.00	\$ 257,686.00	\$ 415,293.00
% Variance (YTD)	144.01	128.52	111.56	109.30	107.20	108.65



Productivity Tracking and Feedback

Earned Value Data Collection

A	B	C	D	E	F	G	H F/B	I (F/B) X D	J	K I/J	L
	BUDGETED				ACTUAL					PRODUCTIVITY	PROJECTED
Activity	Units	UOM	Hours		Units	UOM	% Comp.	Earned Hrs.	Act. Hours	Earned/ Actual	Hours
41-00	100,000	SF	3,740		50,000	SF	50%	1,870	2,013	0.93	4,023
45-00	50,000	LF	2,828		10,626	LF	21%	601	1,112	0.54	5,233
51-00	1,000	EA	2,110		1,000	EA	100%	2,110	2,560	0.82	2,560
52-00	2,000	SF	976		0	SF	0%	0	143	0.00	976
55-00	1,500	SF	1,580		1,500	SF	100%	1,580	1,020	1.55	1,020
62-00	450	LF	801		450	LF	100%	801	1,361	0.59	1,361
75-00	1,250	LF	1,950		726	LF	58%	1,132	988	1.15	1,702
76-00	1	LS	320		22%	LS	22%	70	56	1.25	256
80-00	1	LS	960		14%	LS	14%	131	453	0.29	3,320
TOTAL			15,225					8,295	9,646		20,451

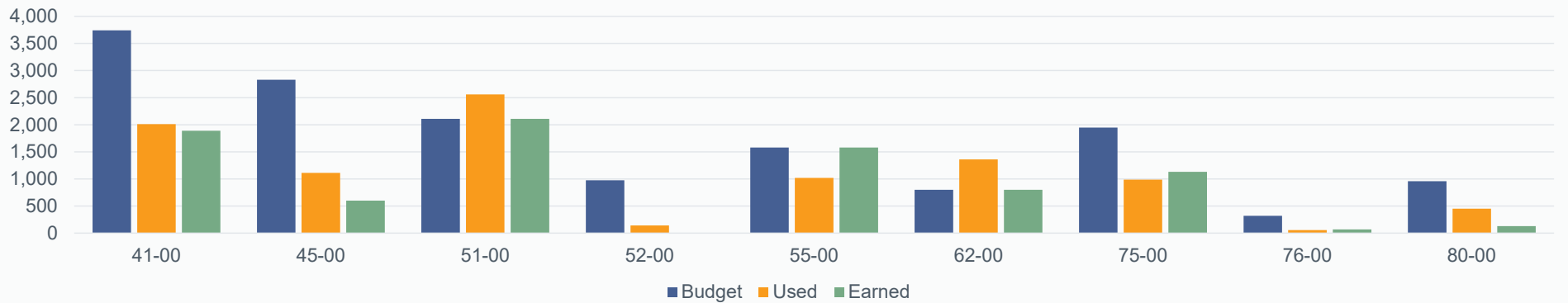
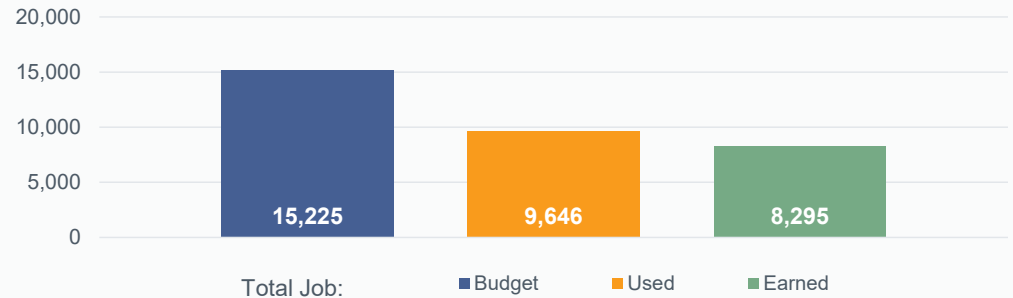
Productivity Tracking and Feedback

Earned Value – Field Report

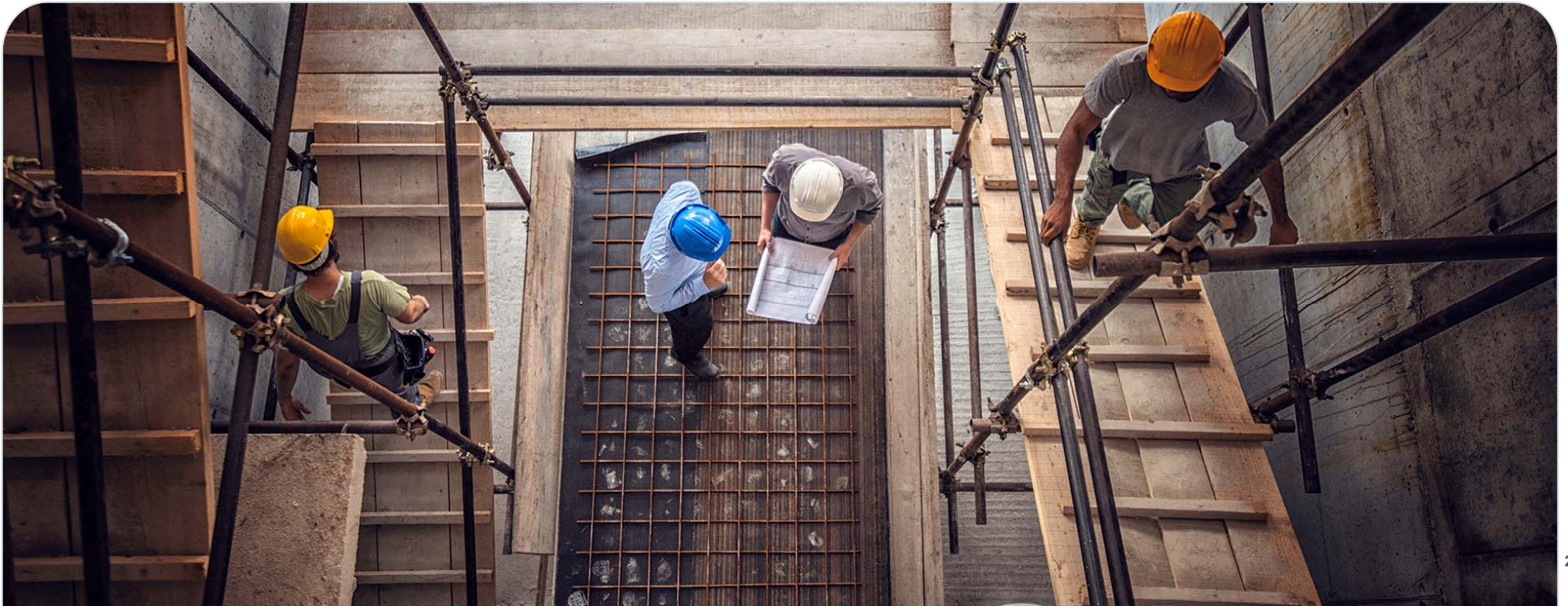
Earned Value Report

Cost Code	Budget	Used	Earned
41-00	3,740	2,013	1,870
45-00	2,828	1,112	601
51-00	2,110	2,560	2,110
52-00	976	143	0
55-00	1,580	1,020	1,580
62-00	801	1,361	801
75-00	1,950	988	1,132
76-00	320	56	70
80-00	960	453	131
Total Job:	15,225	9,646	8,295

Job Name: Central Commons | Week Ending: 2/2/24



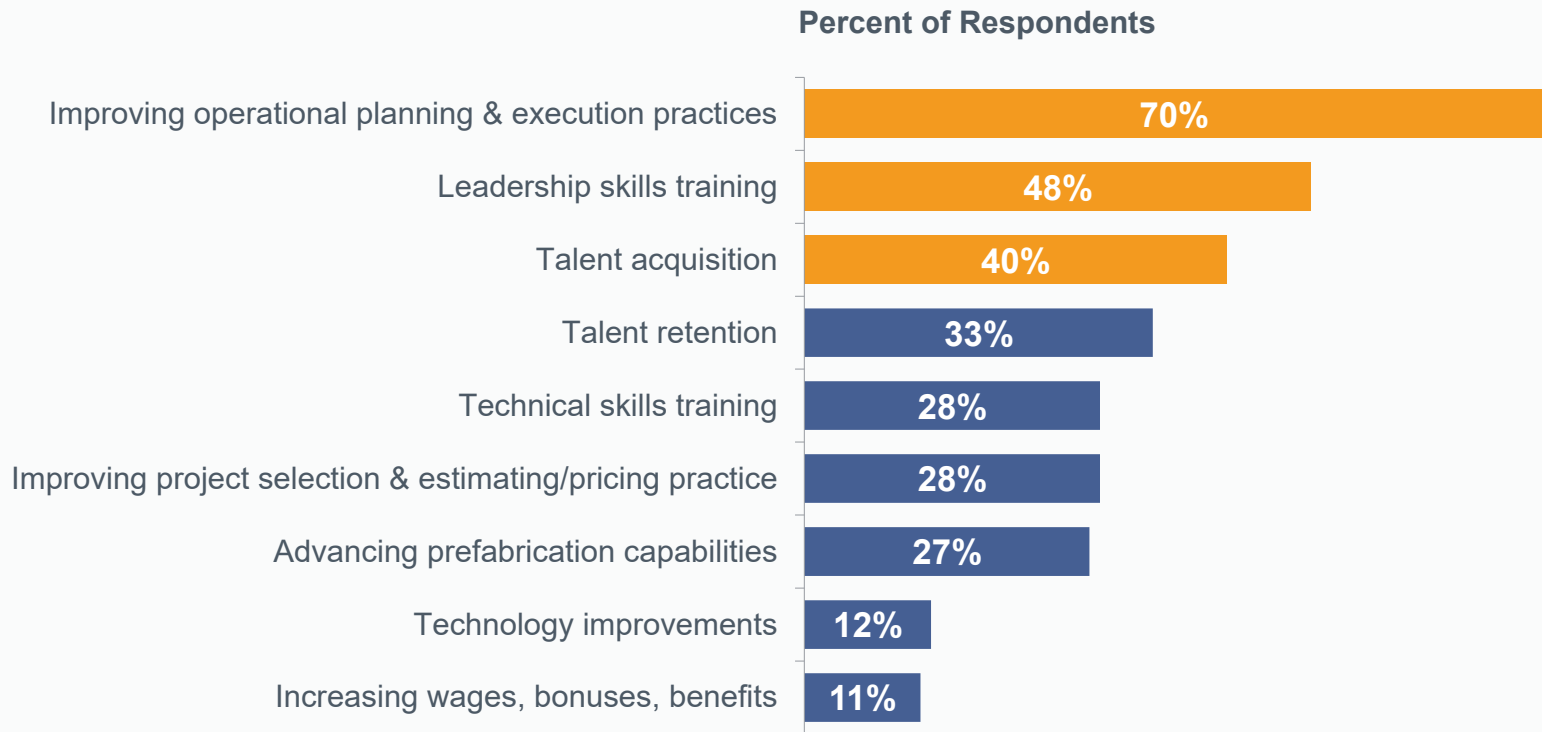
Looking Forward



Future Priorities to Increase Productivity in the Field

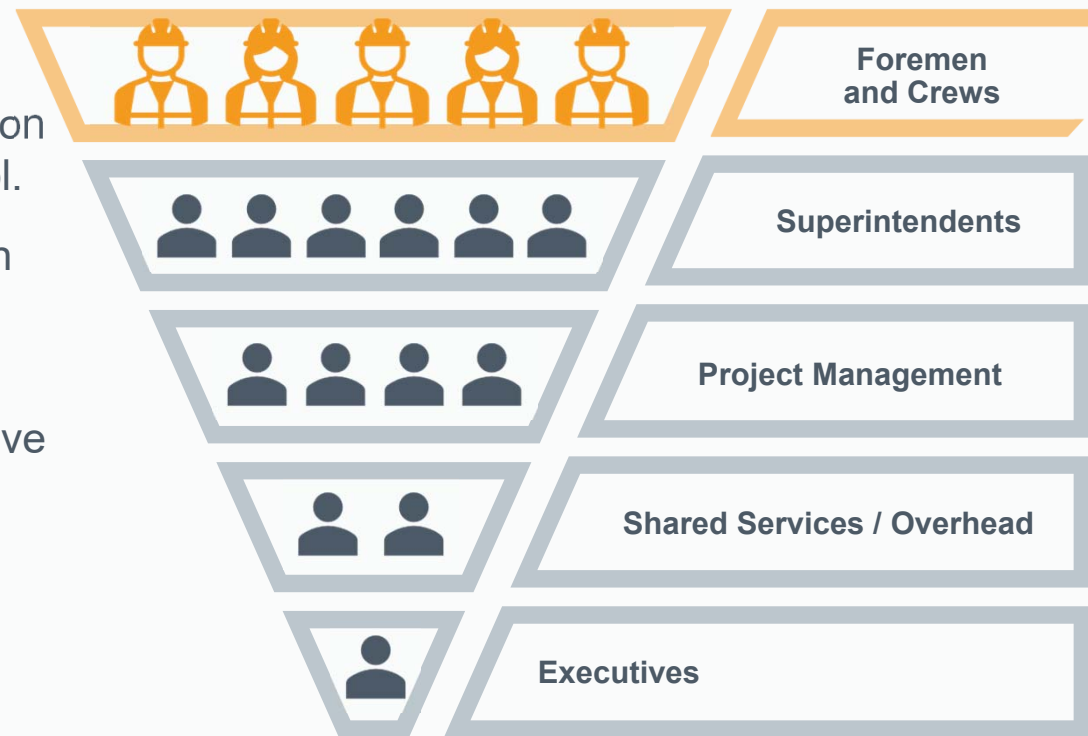
The **top 3** most selected priorities to improve productivity over the next 12 to 18 months:

1. Improving operational planning and execution practices
2. Leadership skills training
3. Talent acquisition



Key takeaways

- Labor productivity is a growing concern.
- The top internal struggles around communication and collaboration are within contractors' control.
- External challenges may be addressed through innovation and improved stakeholder communication and management.
- Highly productive and profitable contractors have consistent operational processes in place that prioritize and support the field.
- What would a 5 to 10% impact on your labor spend have on your bottom line?





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