

# Building a Stronger Bottom Line: Enhancing Labor Productivity in Construction

**FMI's 2023 Labor Productivity Study**

September 2023



[fmiconsulting.com](https://fmiconsulting.com)

# Agenda

---

- **2023 Productivity Study Introduction**
- **Why is Labor Important?**
- **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.



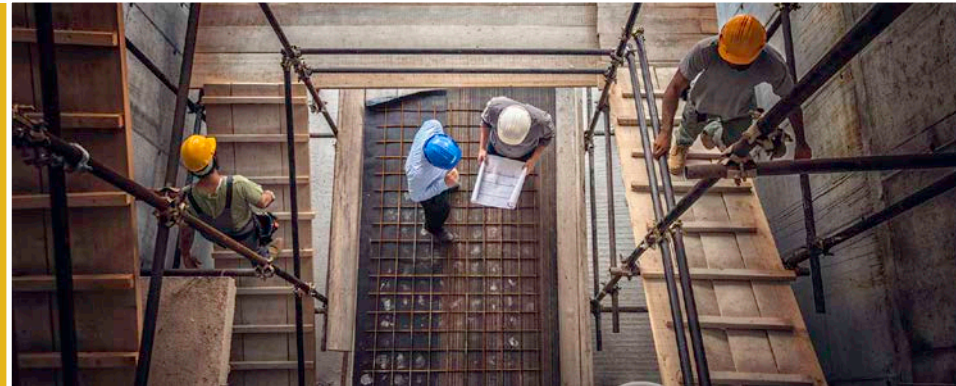
**4 of 5 contractors**  
Said low quality design /  
construction documents are a top  
external factor stunting  
productivity.



# Key Takeaways

**79% of contractors**

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



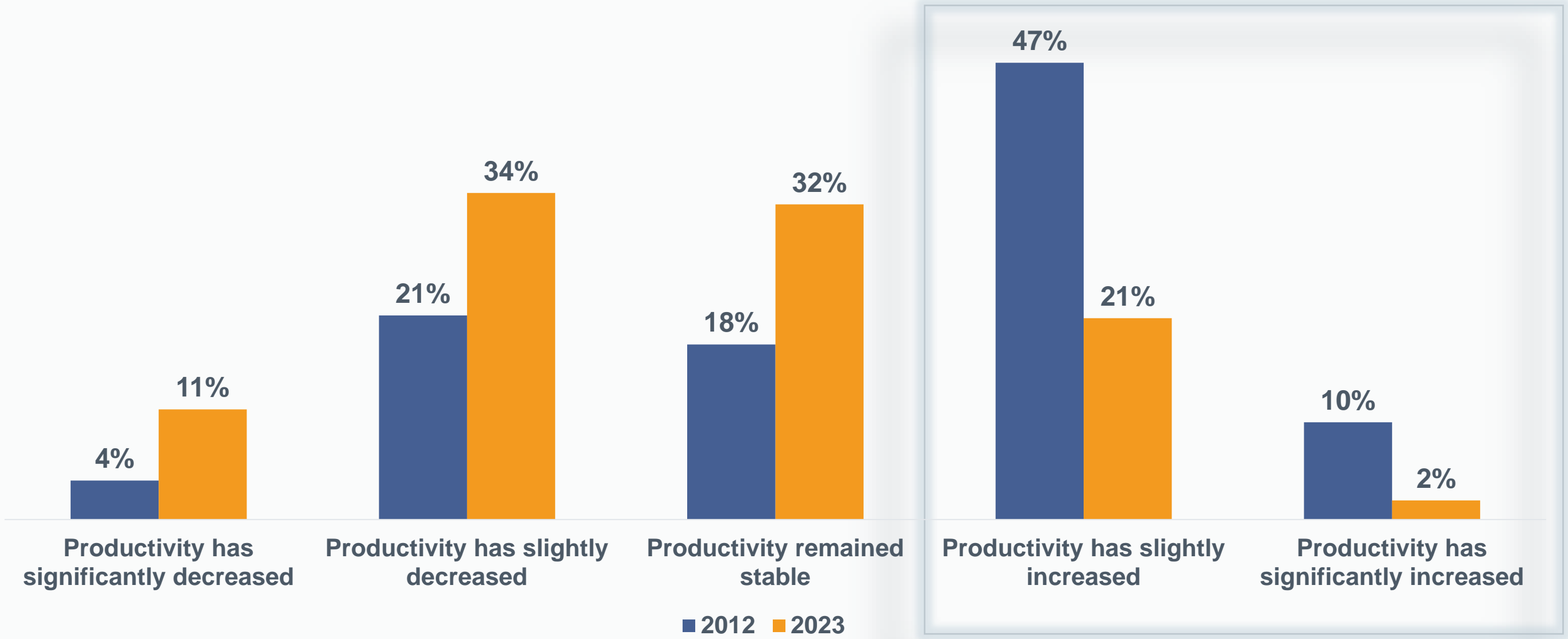
**50% average increase**

In profitability from a 6% productivity improvement.



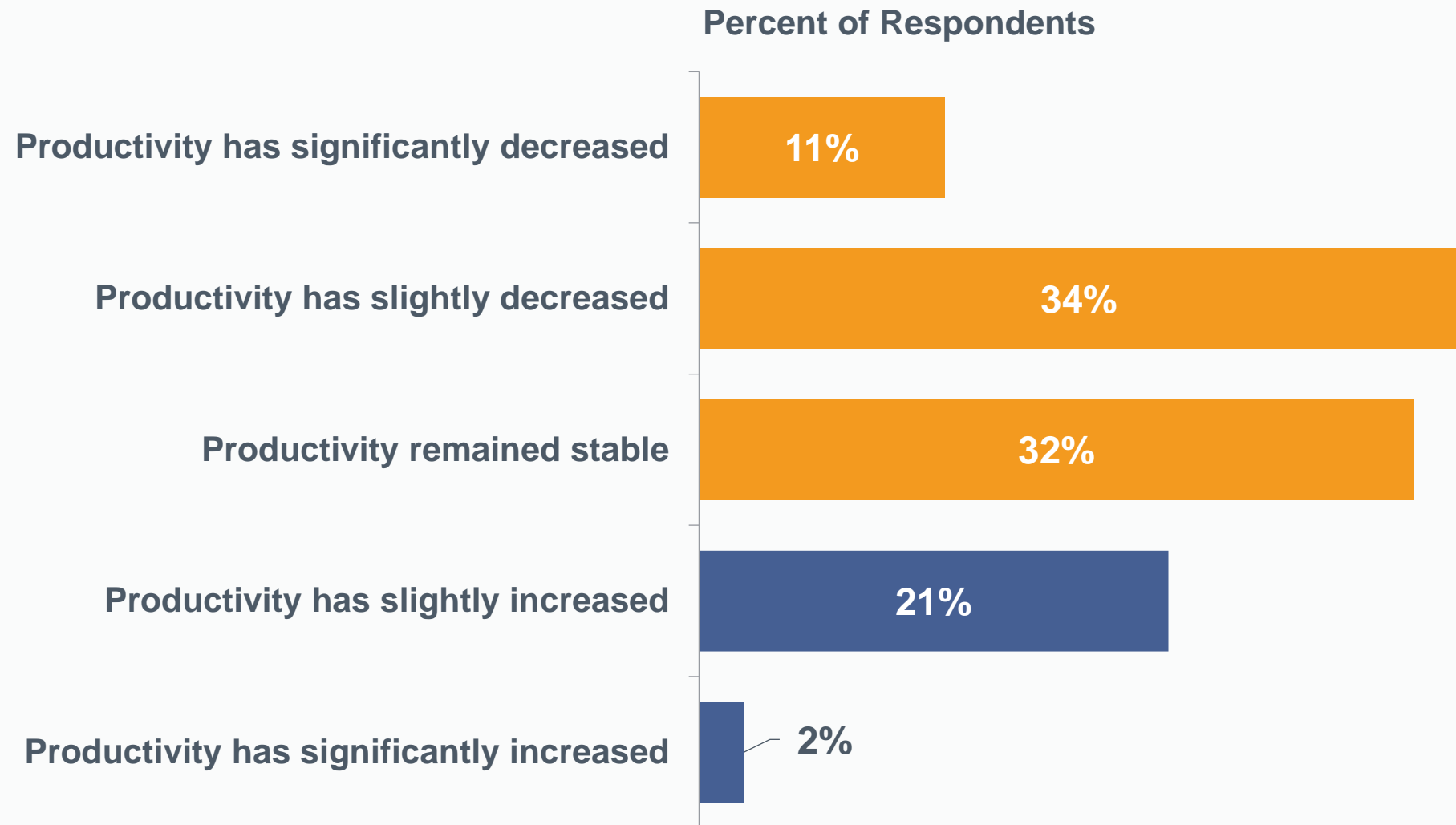
# Labor Productivity is Declining

Percent of Respondents



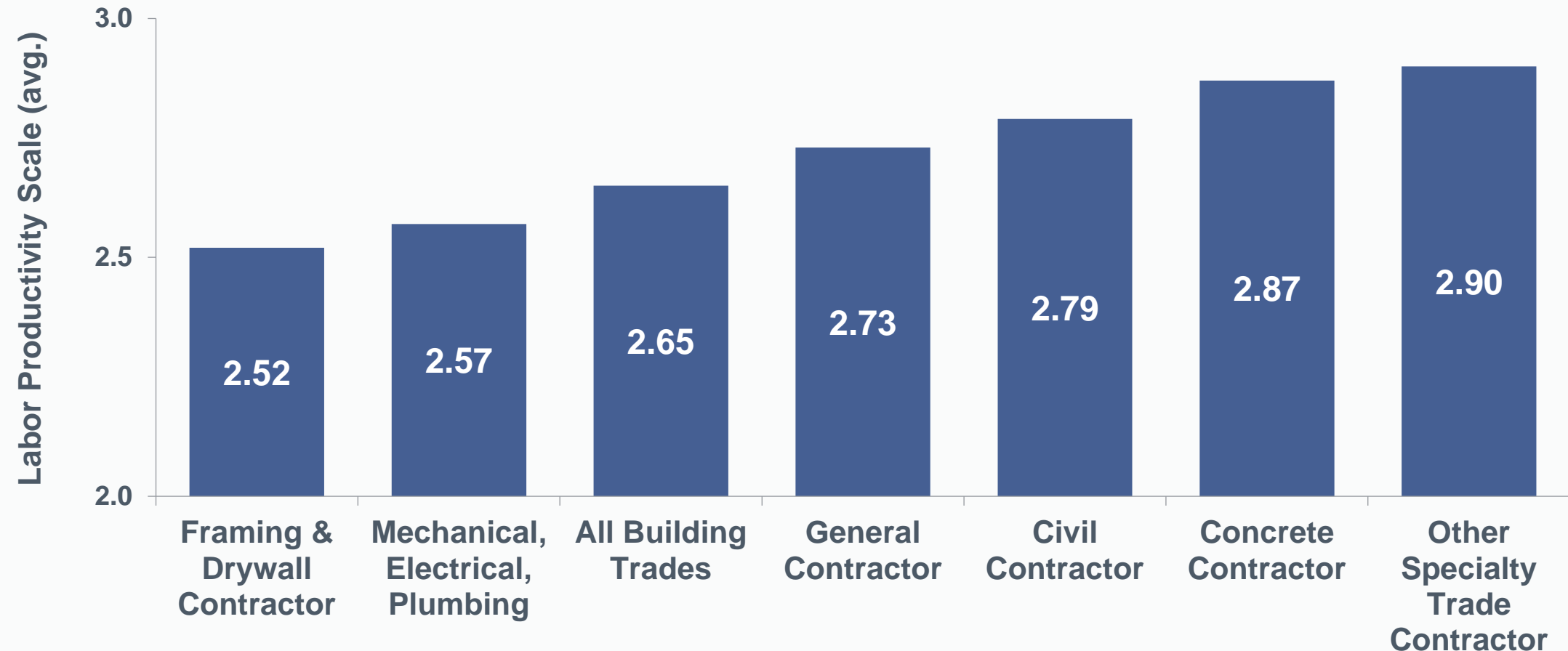
# Productivity Trend Over The Last 18 Months

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



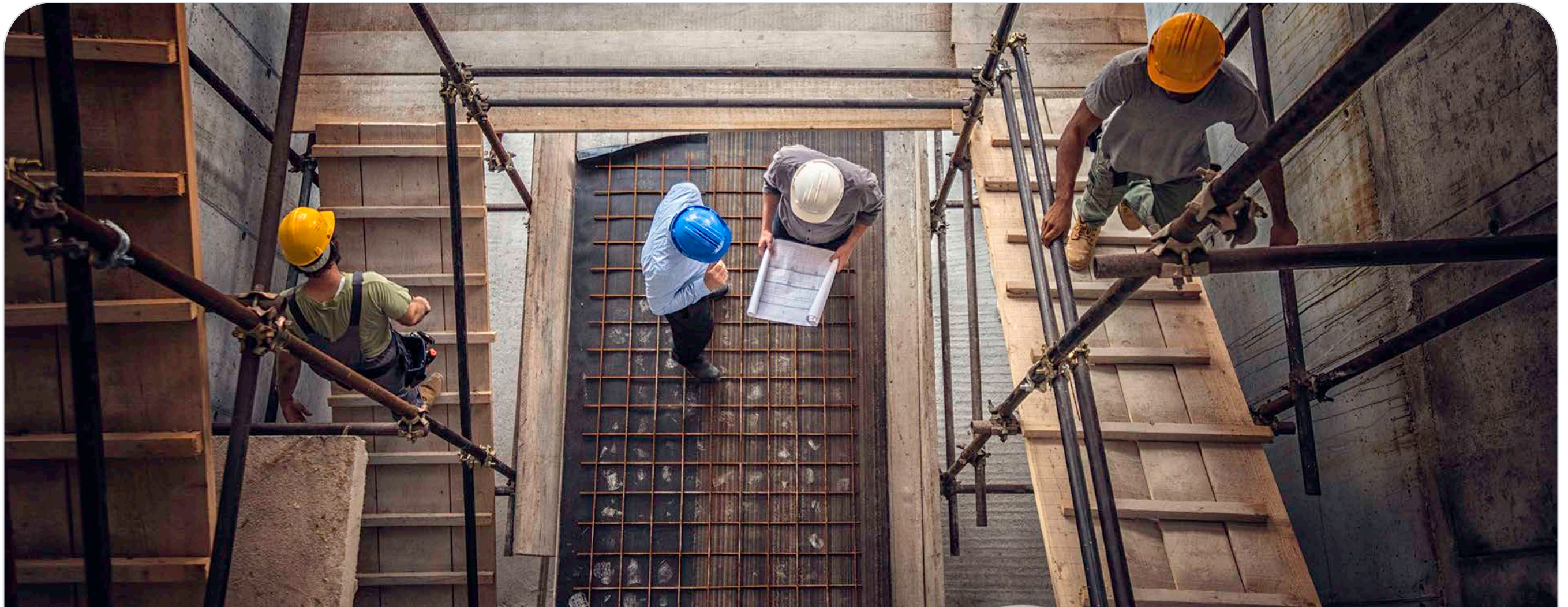
# Average Productivity Trend by Contractor Type

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.





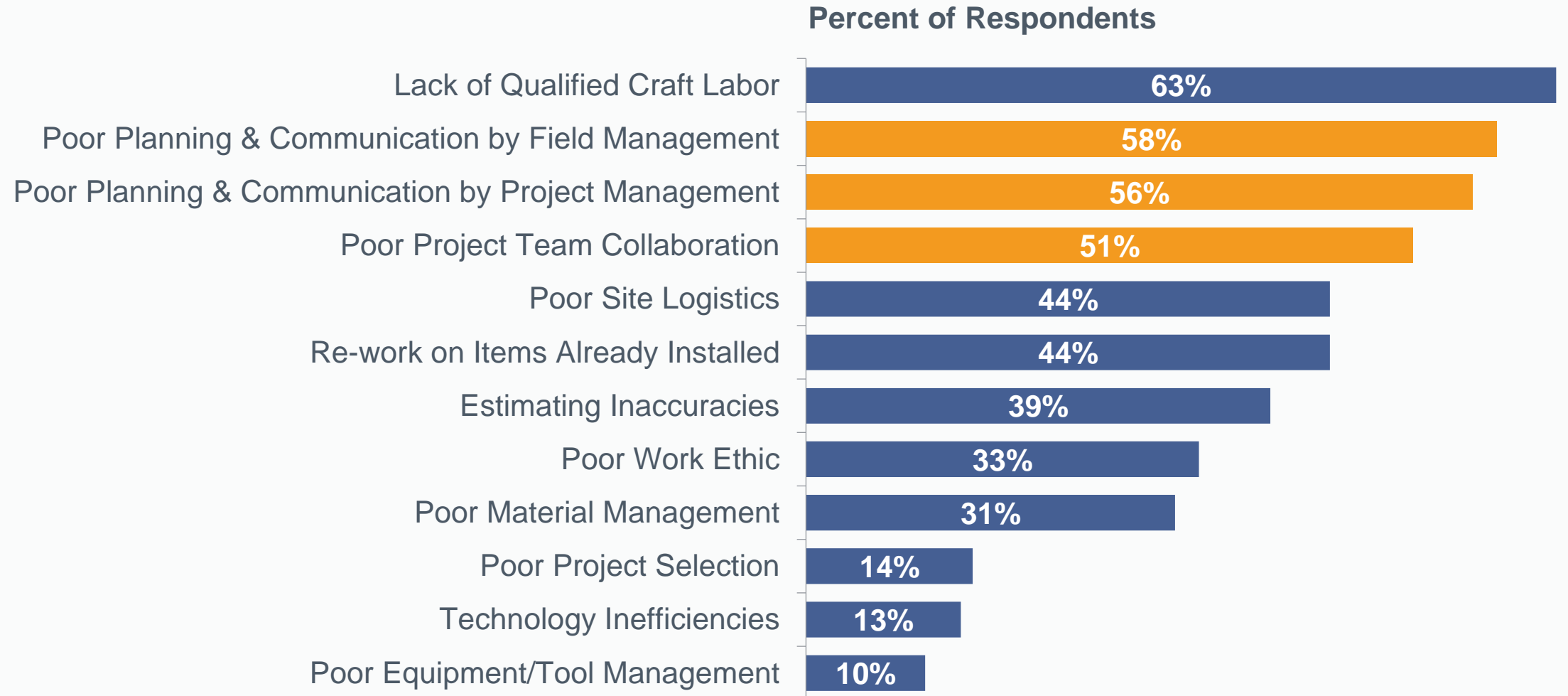
# Key Internal and External Productivity Challenges





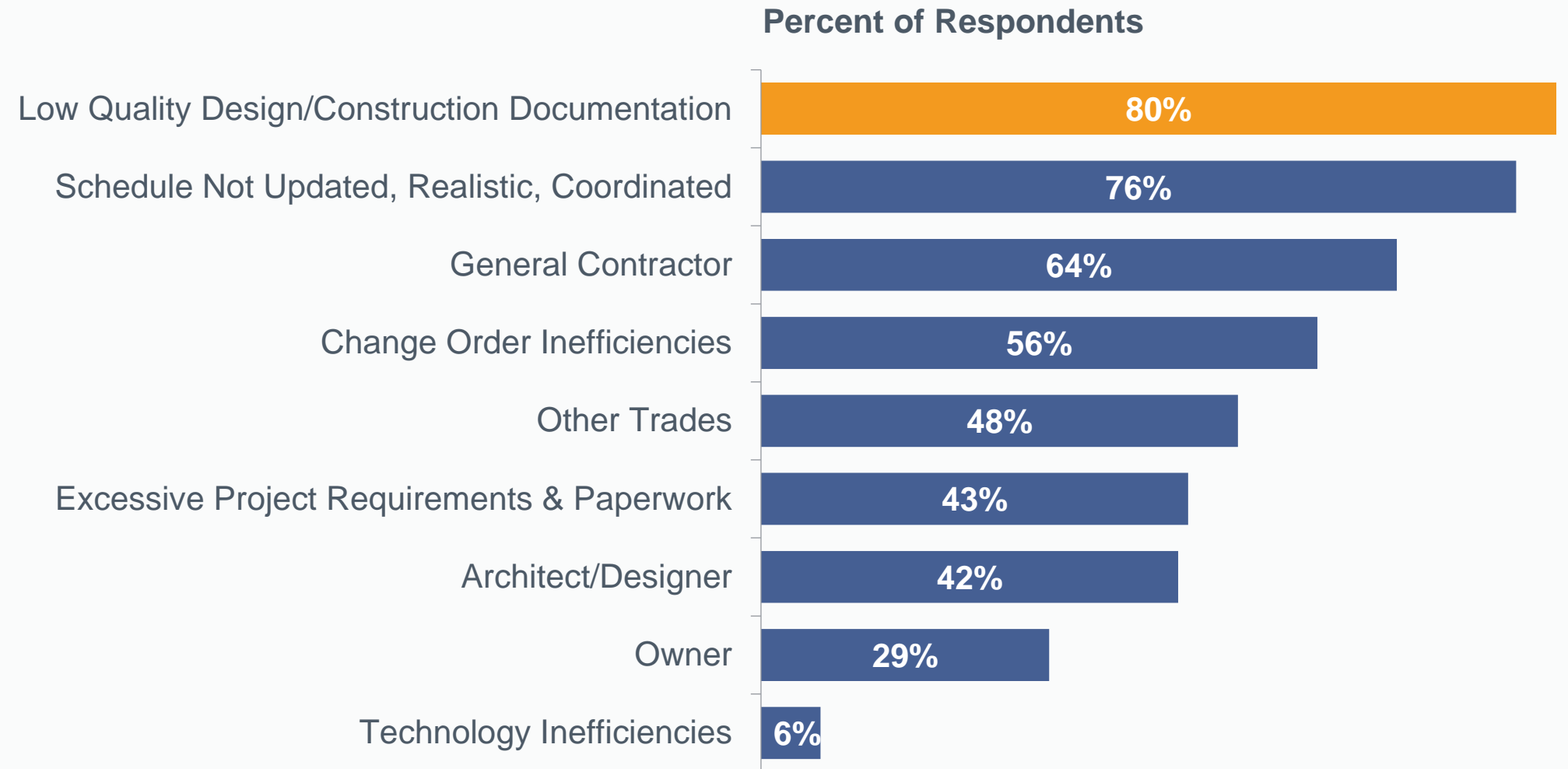
# Top Internal Factors Negatively Impacting Productivity

**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.

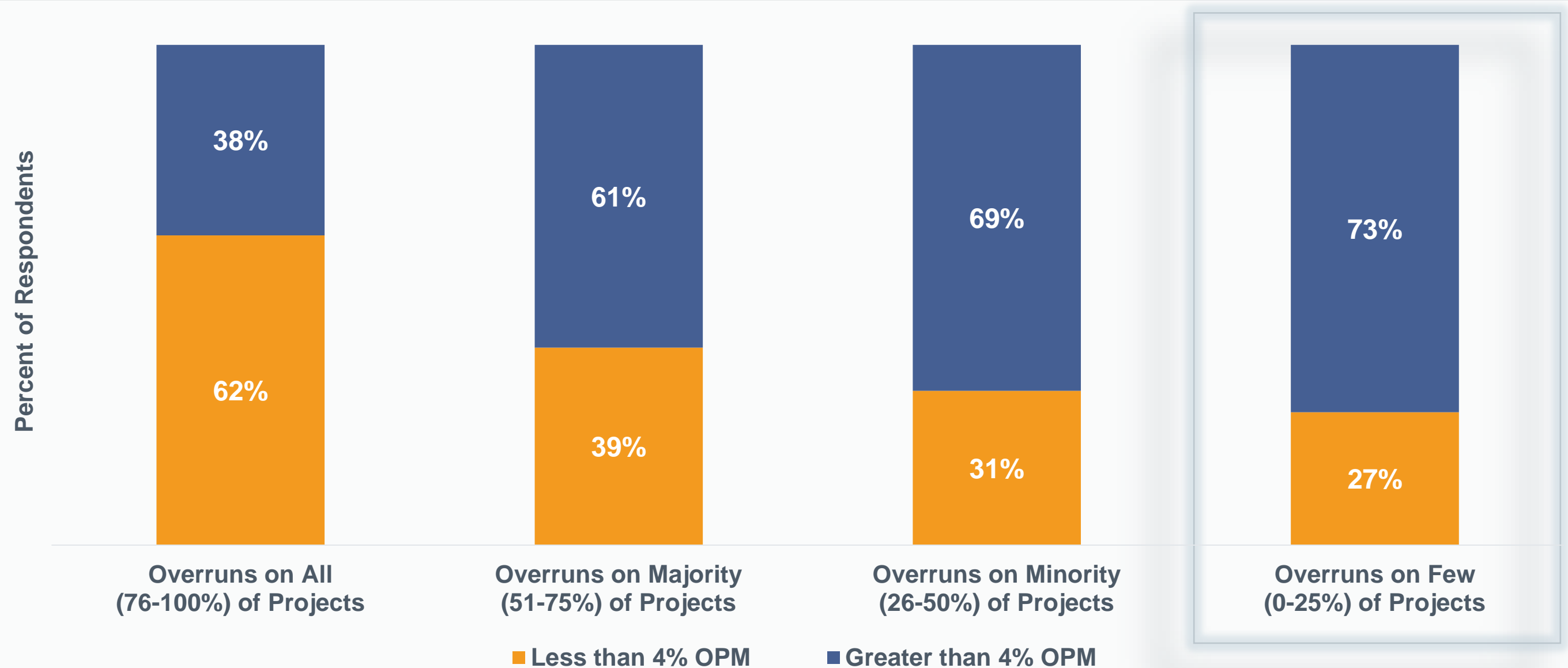




# What are successful contractors doing differently



# Frequency of Labor Cost Overruns vs. Operating Profit Margin





# Operationally superior firms implement these strategies

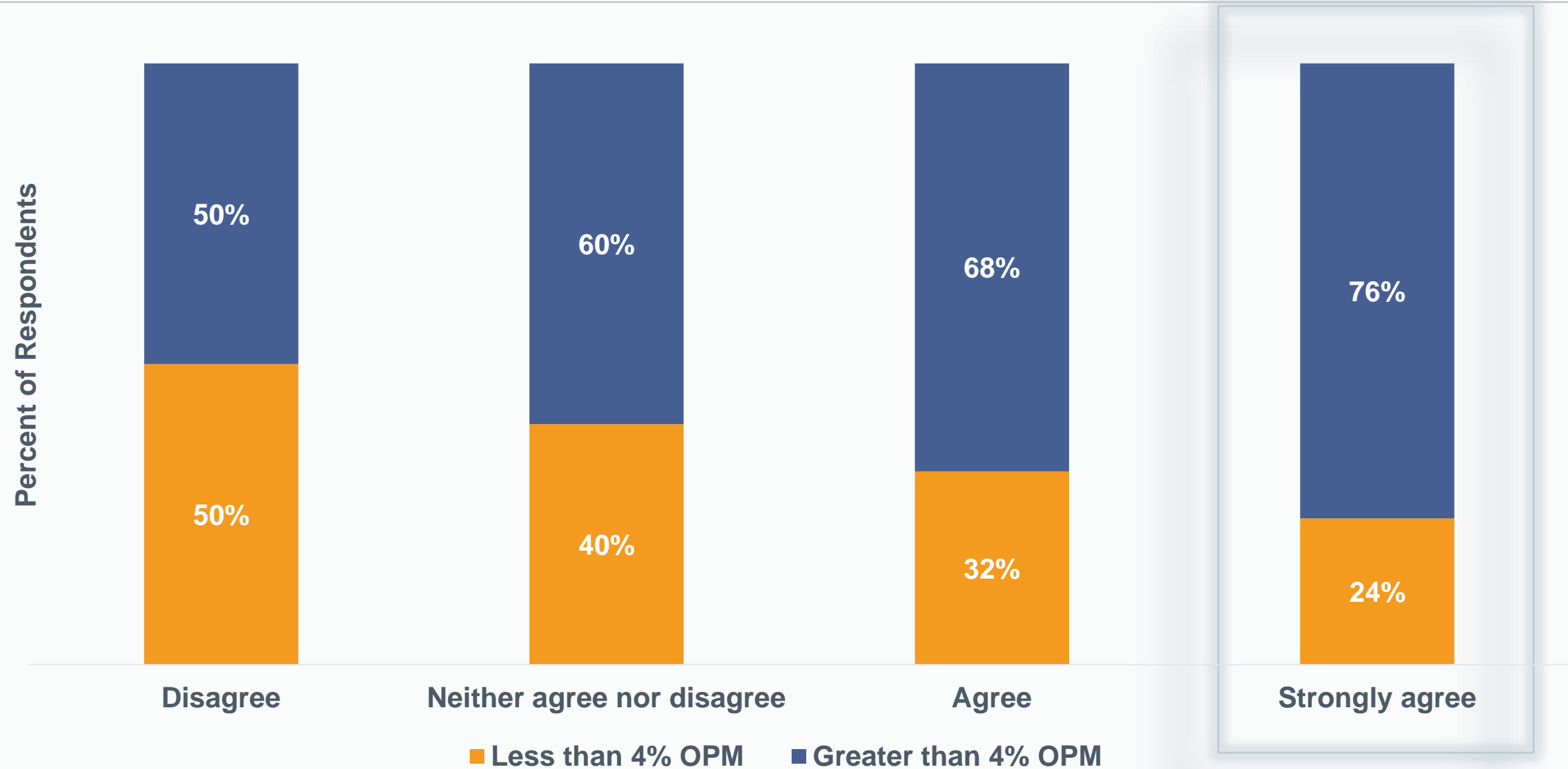
---

- **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.



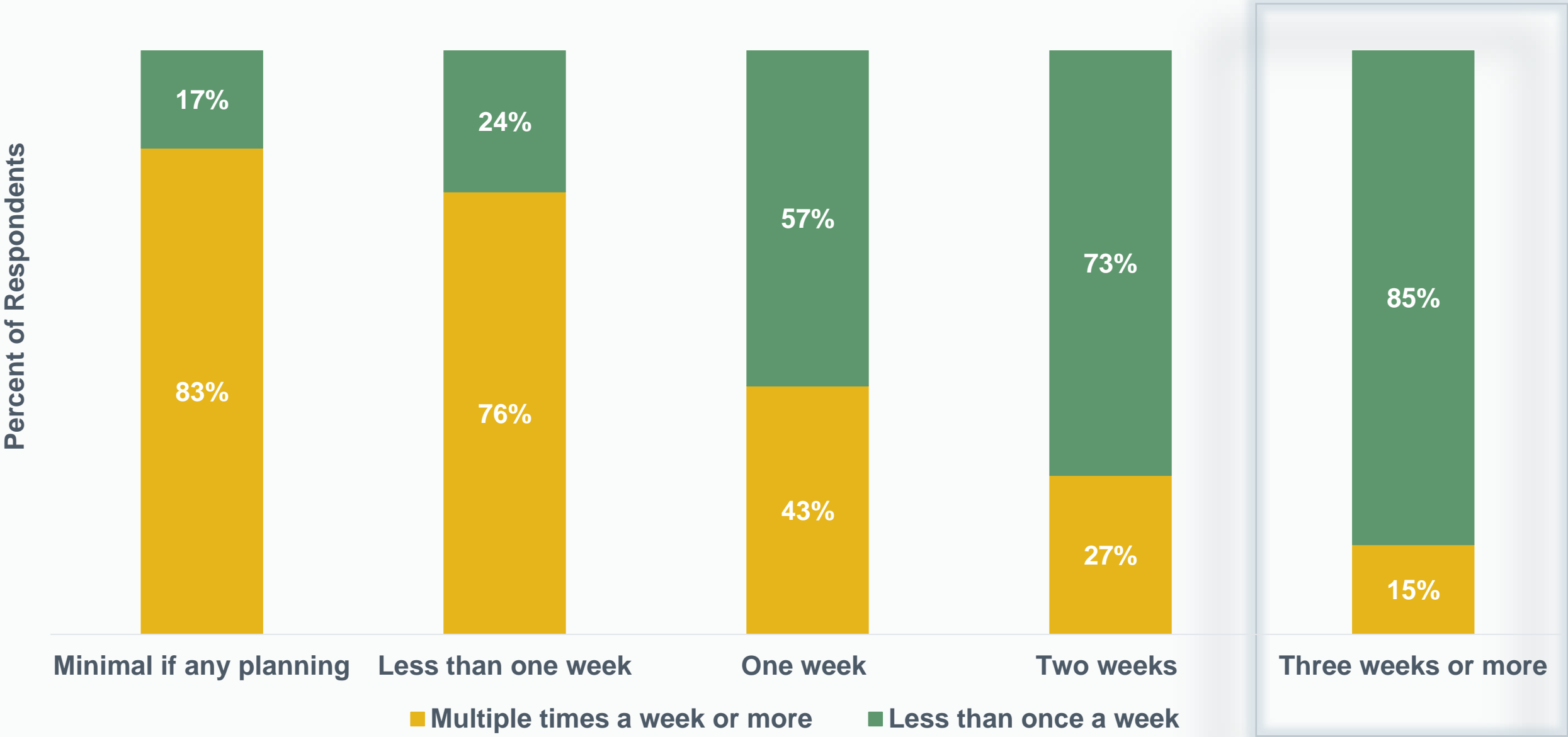
# Preparedness vs. Operating Profit Margin

## Agreement with Field Manager Preparedness Prior to Mobilization

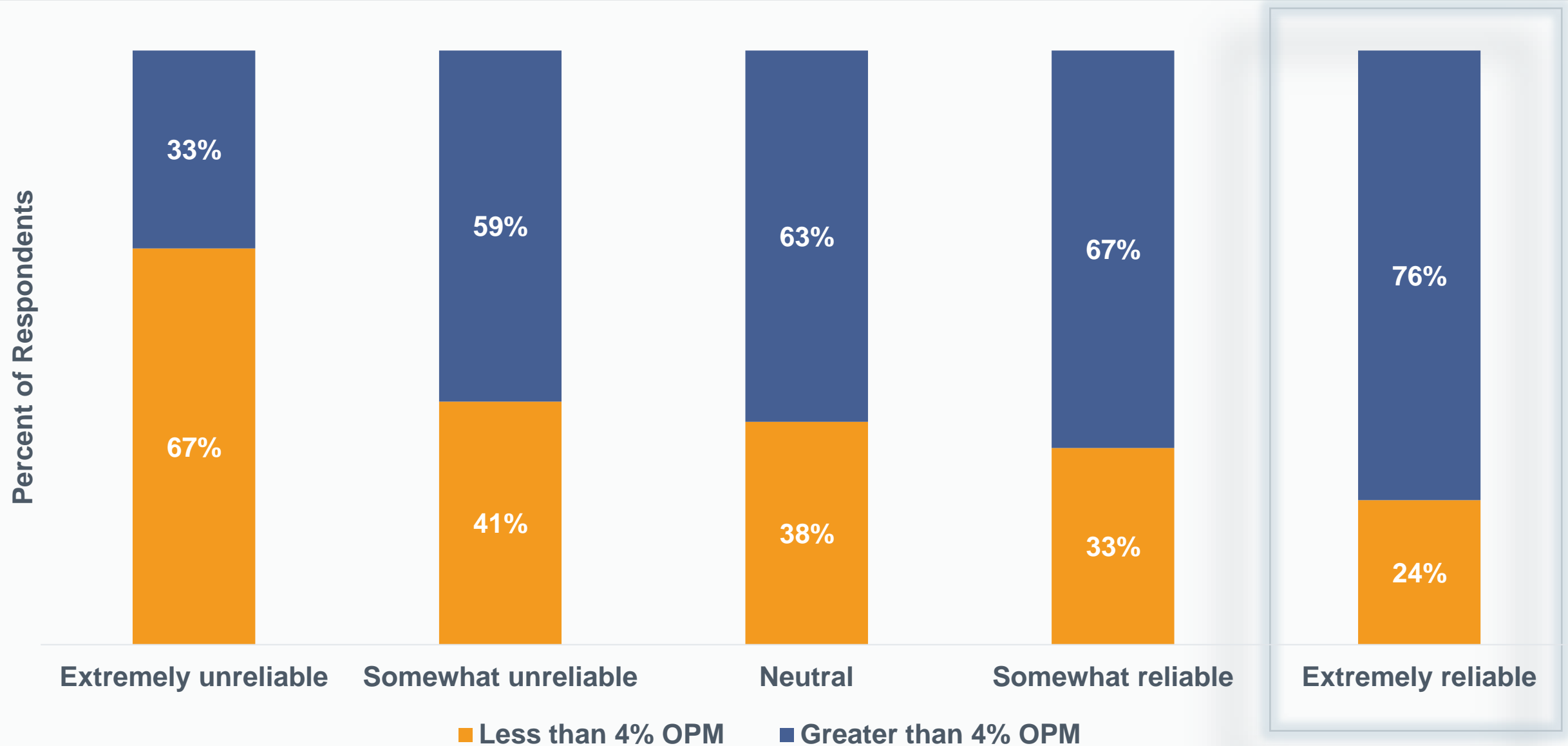




# Duration of Look-Ahead Planning vs Frequency of Emergency Resource Needs

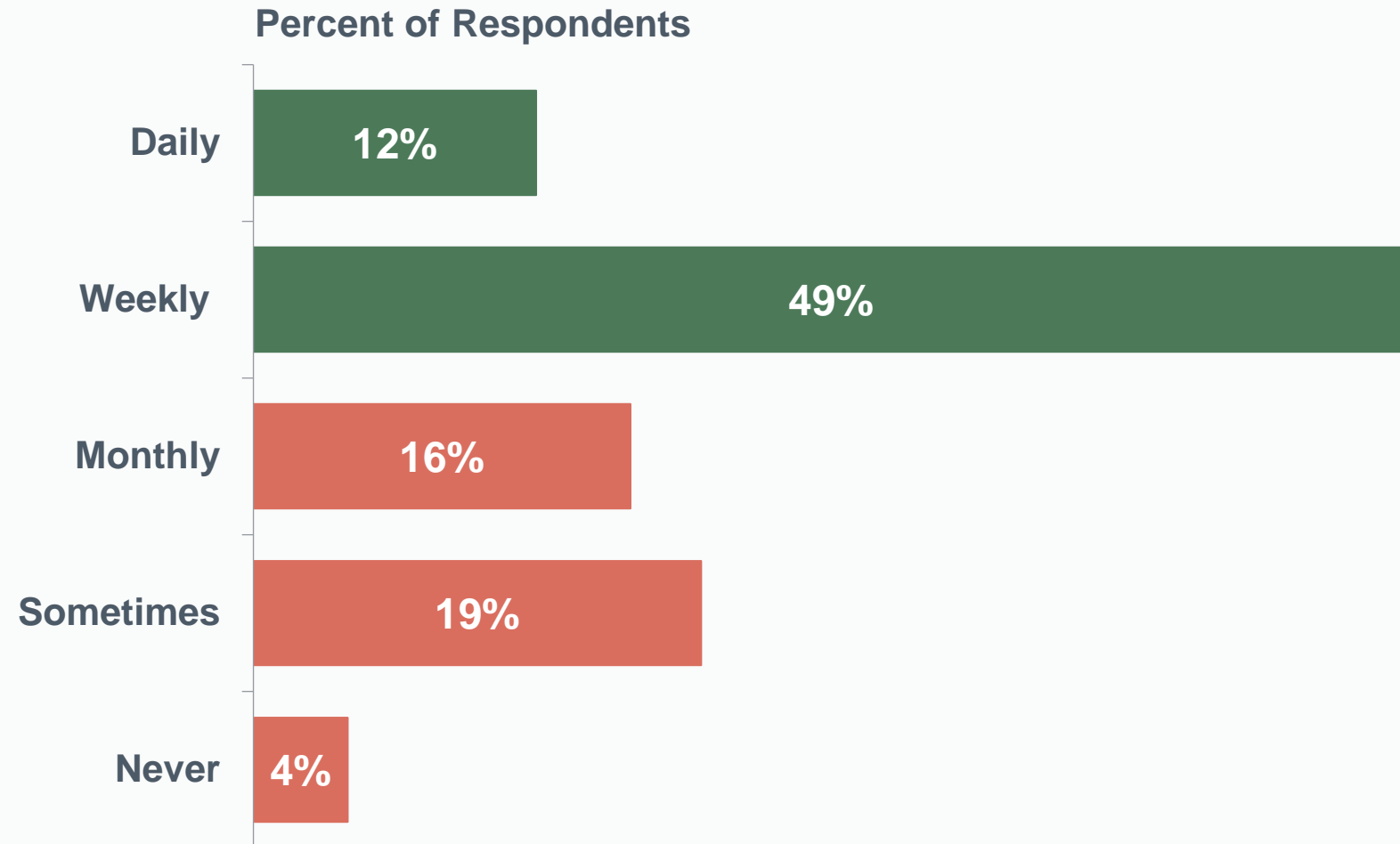


# The Power of Cost-to-Complete Reporting



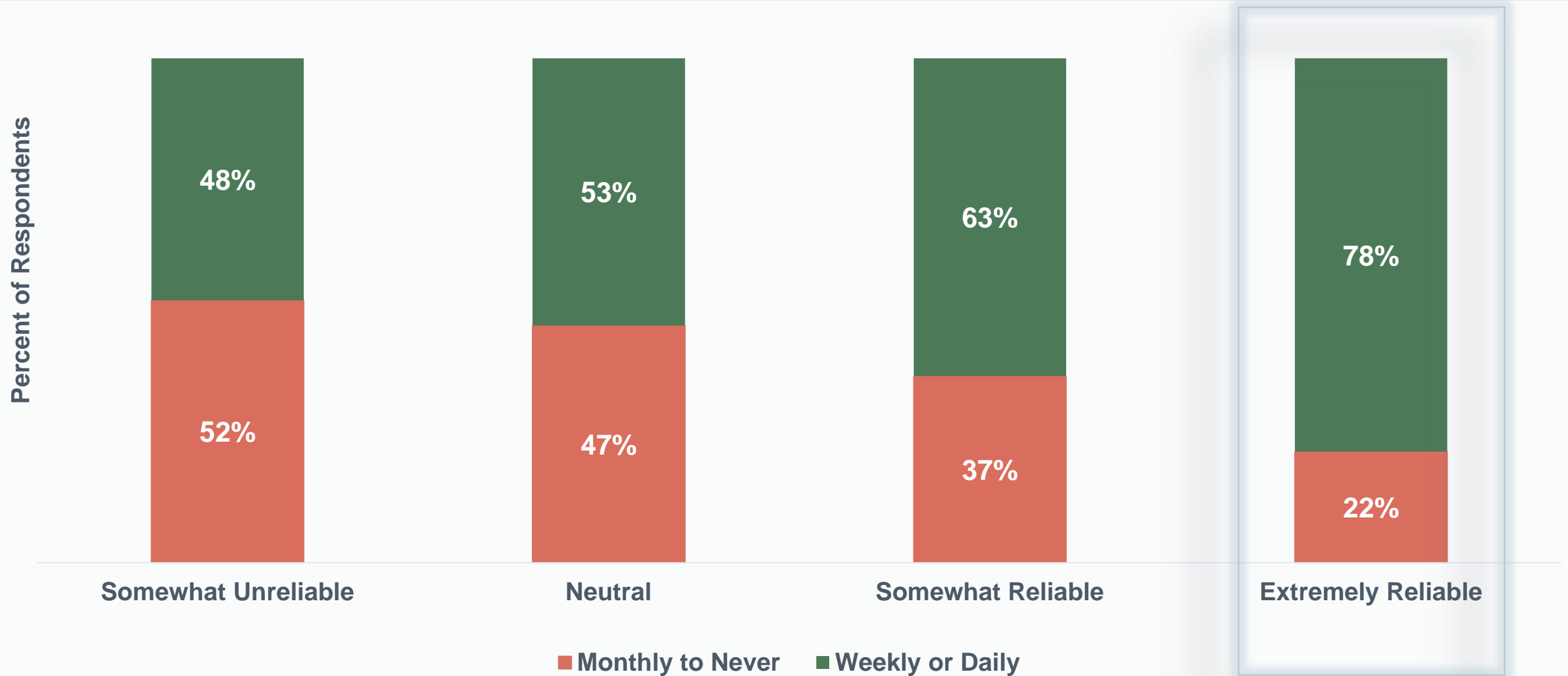
# Frequency of Labor Productivity Reports

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



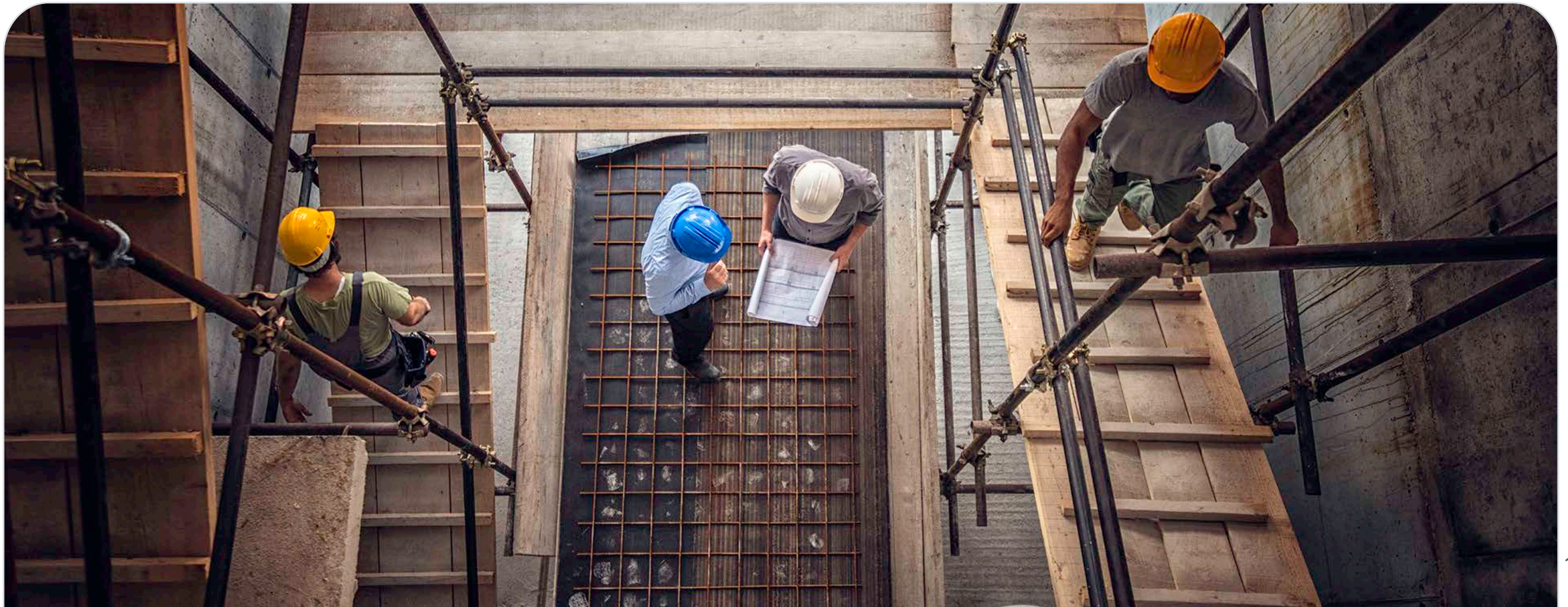


# Cost-to-Complete Reliability vs Frequency of Productivity Reporting





# 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

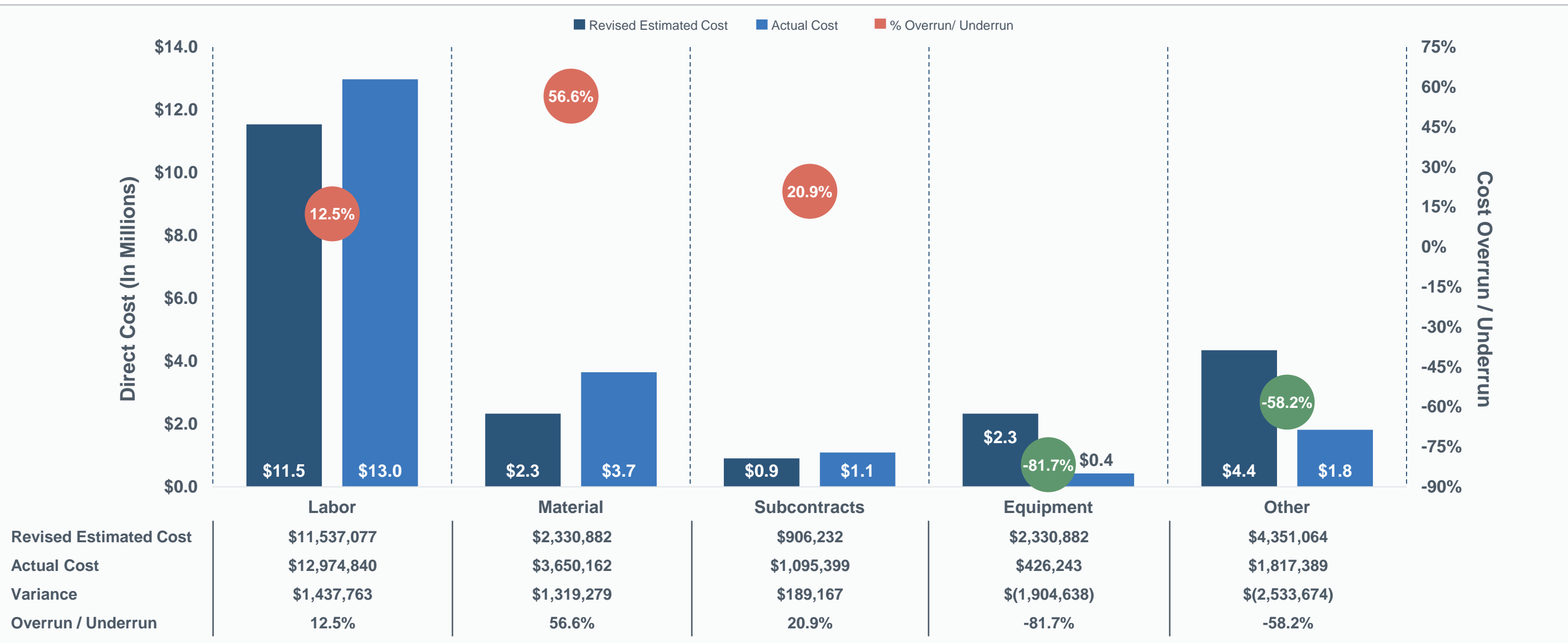
- Begins with a logical budget setup that supports operations first and estimating second
- Requires field rigor to accurately track and code time (hours) and quantities (units) to cost codes
- Productivity report provided to field managers on at least a weekly basis and reviewed weekly with PM/Superintendent
- 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

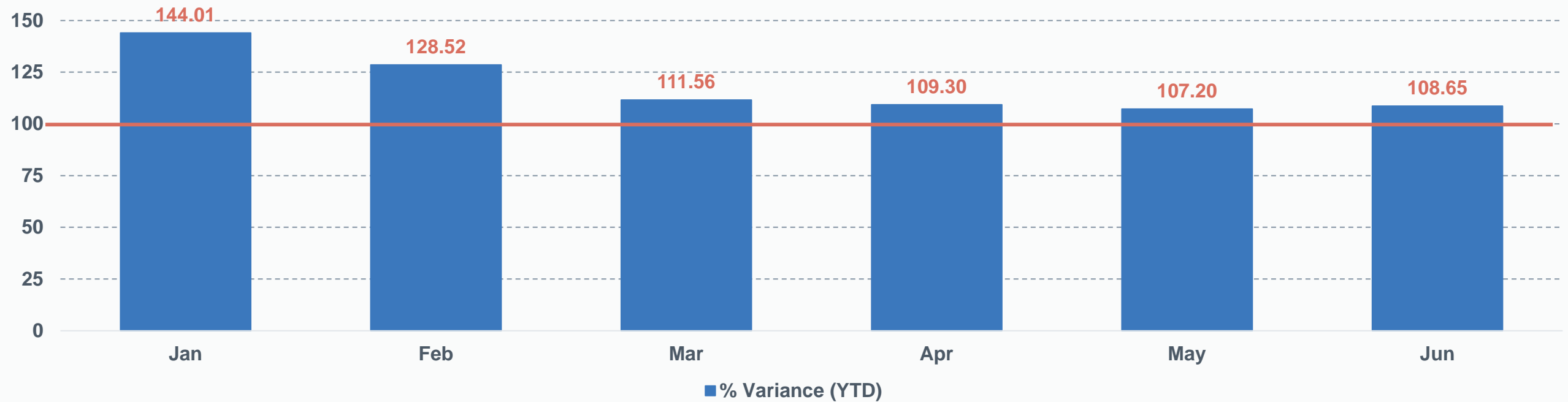
## By Month

	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

Actual vs. Revised Estimated Labor Cost (YTD)



# 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	3,741		50,521	SF	51%	1,890	2,013	0.94	3,984
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			15,226					8,315	9,646		20,412



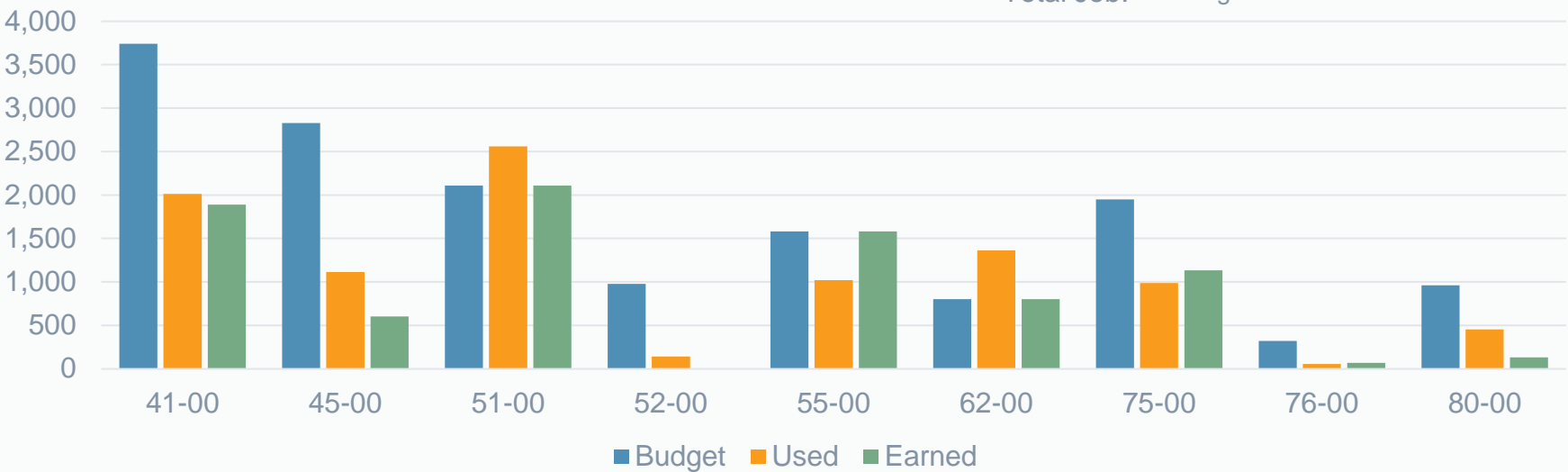
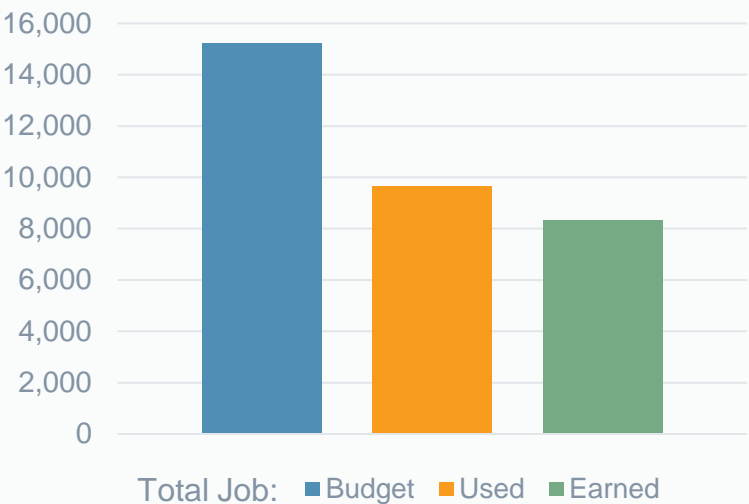
# Productivity Tracking and Feedback

## Earned Value – Field Report

Earned Value Report

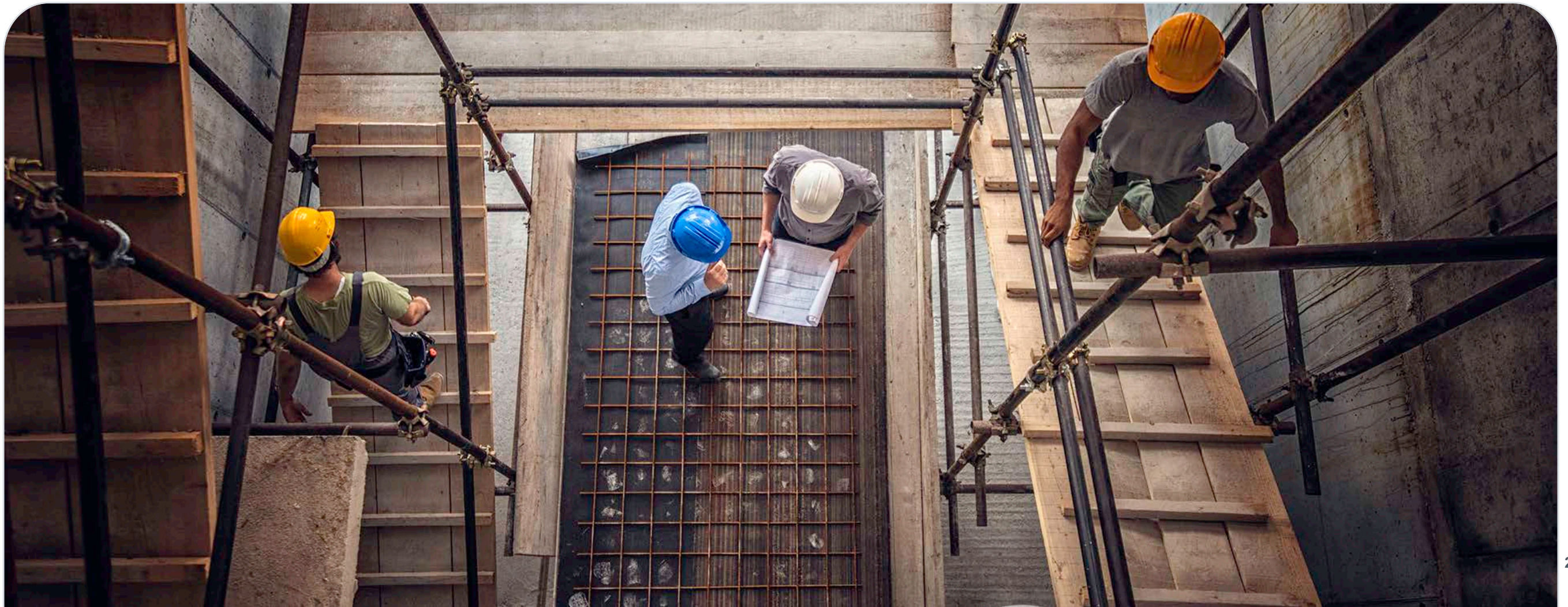
Cost Code	Budget	Used	Earned
41-00	3,741	2,013	1,890
45-00	2,828	1,112	601
51-00	2,110	2,560	2,110
52-00	976	143	0
55-00	1,580	1020	1,580
62-00	801	1,361	801
75-00	1,950	988	1,132
76-00	320	56	70
80-00	960	453	131
Total Job:	15,226	9,646	8,315

Job Name: Central Commons  
Week Ending: 3/15/23





# Looking into the Future

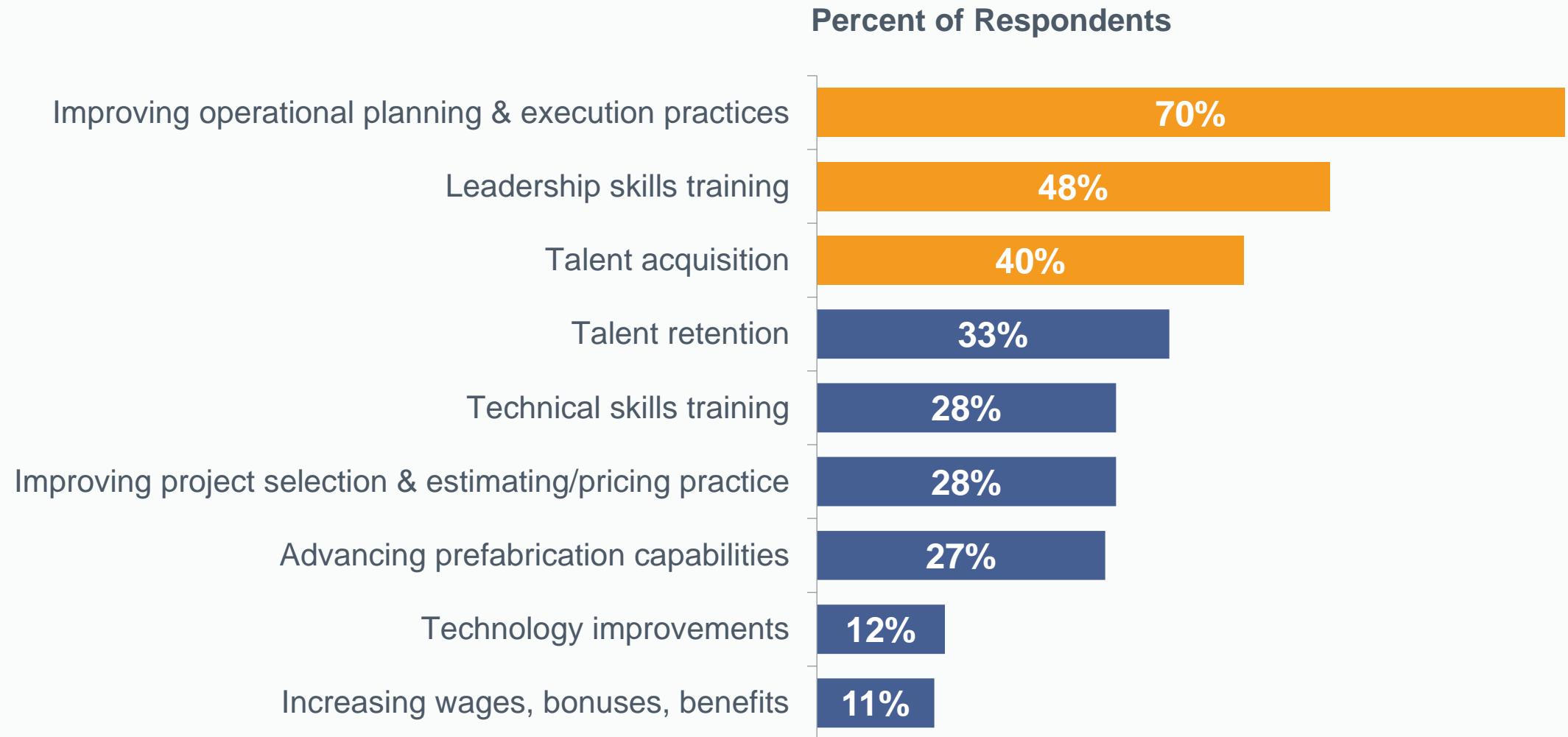




# Future Priorities to Increase Productivity in the Field

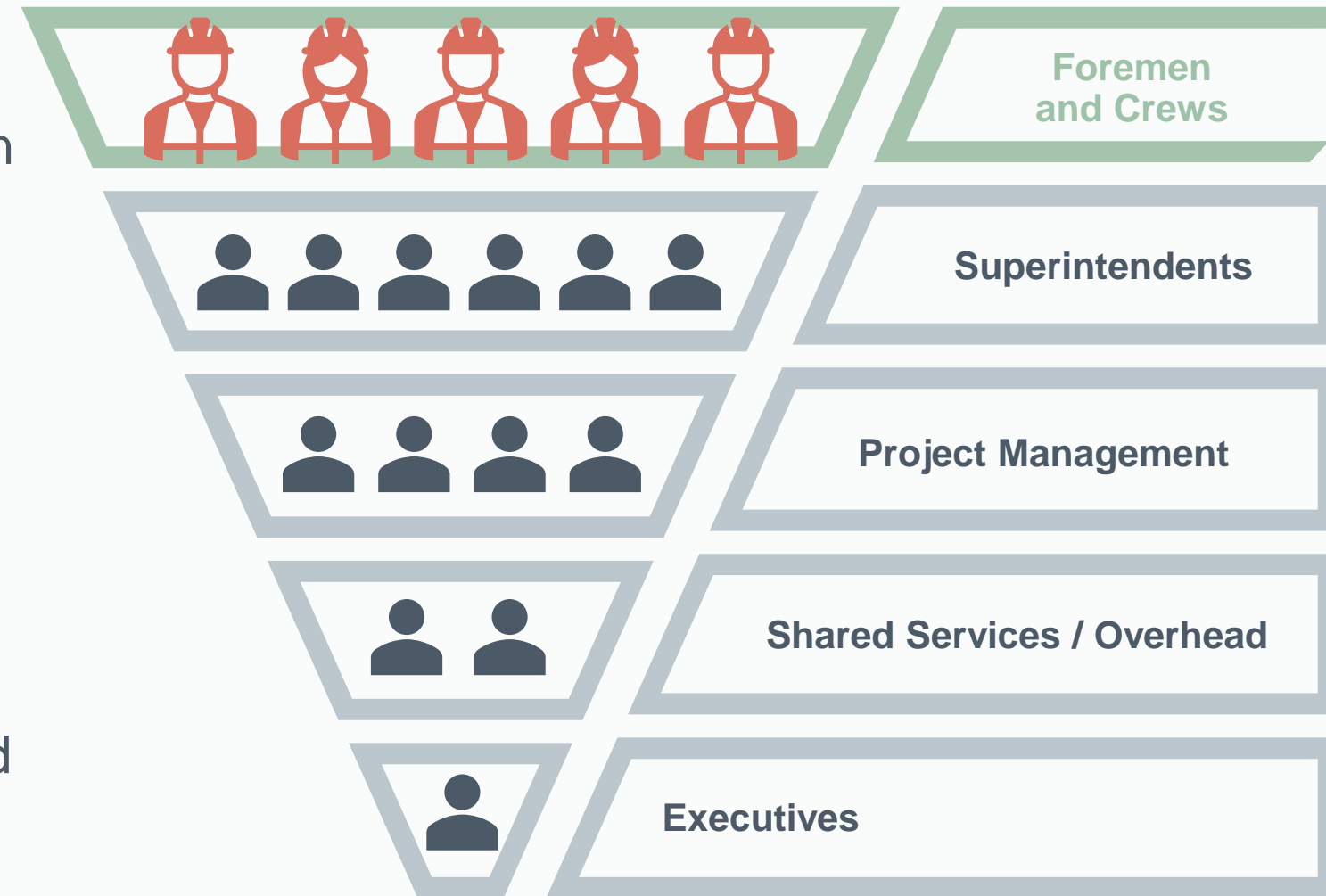
The **top 3** most selected priorities to improve productivity over the next 12 to 18 months:

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 can be addressed with improved stakeholder communication and management.
- Higher profitable contractors have operationally superior practices and understand labor, track it diligently and manage it well.
- Contractors that adequately support the field and put them first will be more productive and profitable.







Email

Michael.Keller@fmicorp.com

Phone

813.404.9520



Sign up to receive an  
advanced copy of:

## **FMI's 2023 Labor Productivity Report**



FMI is a leading consulting and investment banking firm dedicated exclusively to the built environment. We serve as the industry's trusted advisor, providing current market insights, deep industry research and key relationships that deliver tangible results for our clients.

---

**Denver**

44 Cook Street  
Suite 900  
Denver, CO 80206  
303.377.4740

**Houston**

1301 McKinney Street  
Suite 2000  
Houston, TX 77010  
713.936.5400

**Raleigh**

223 S. West Street  
Suite 1200  
Raleigh, NC 27603  
919.787.8400

**Tampa**

4300 W. Cypress Street  
Suite 950  
Tampa, FL 33607  
813.636.1364