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2008
CONFERENCE

FACE CHALLENGES
CREATE SOLUTIONS





A Comparison of Operation Costs Factors: Union vs. Non-union HVAC and Sheet Metal Contractors

***New Horizons Foundation
FMI Corporation***

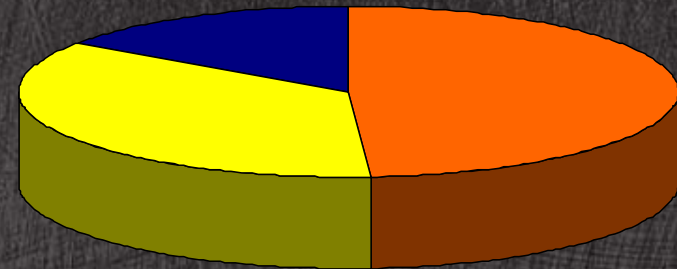


Study Participants

- Interviewed selected union HVAC and sheet metal contractors
- Identified approximately 4,000 union and non-union HVAC and sheet metal contractors nationwide
- 98 survey participants (2.5% response rate)
- Good representation of both union and non-union firms

Combination
15%

100% Union
49%

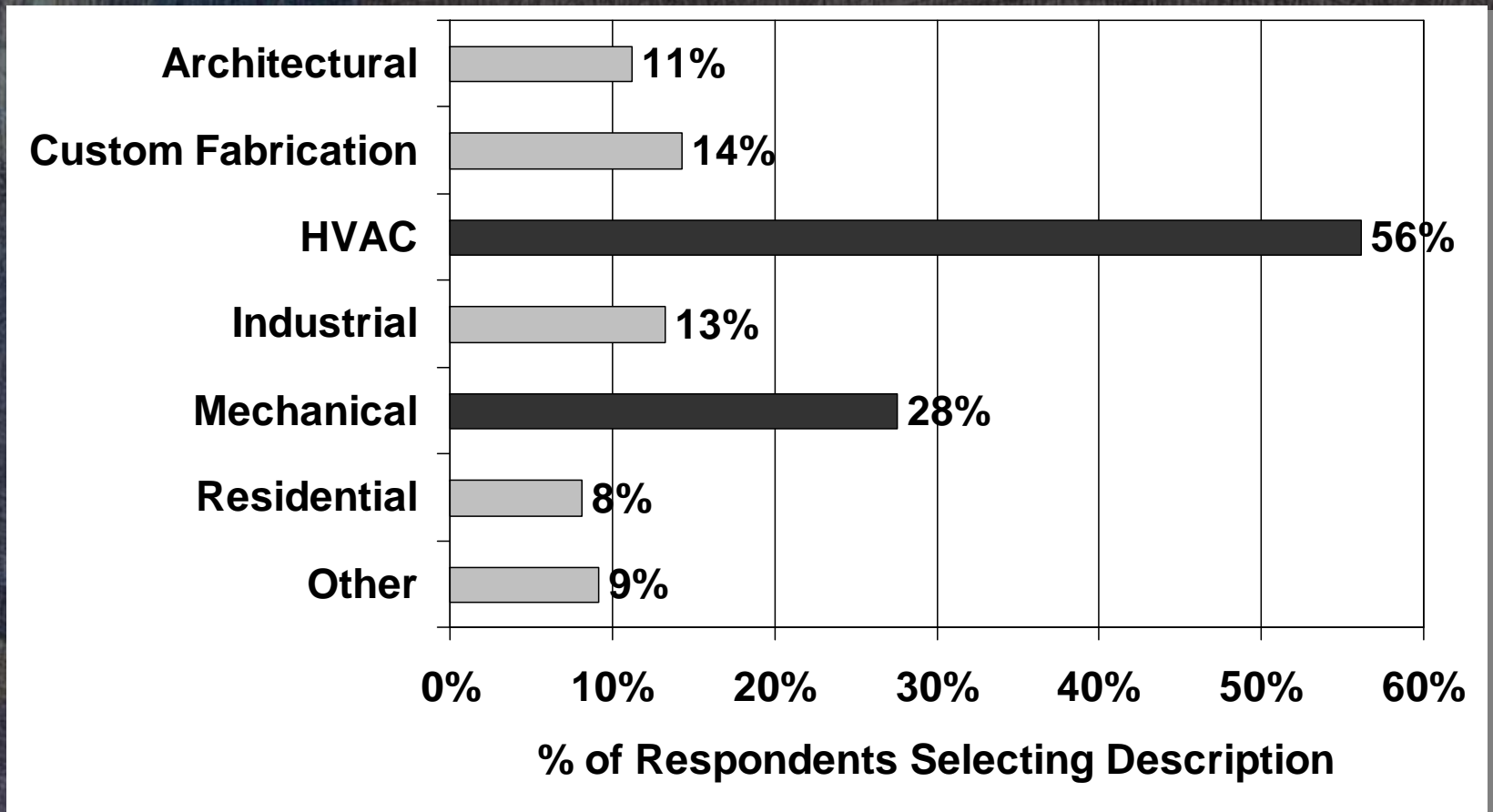


100% Non-union
36%

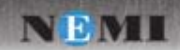
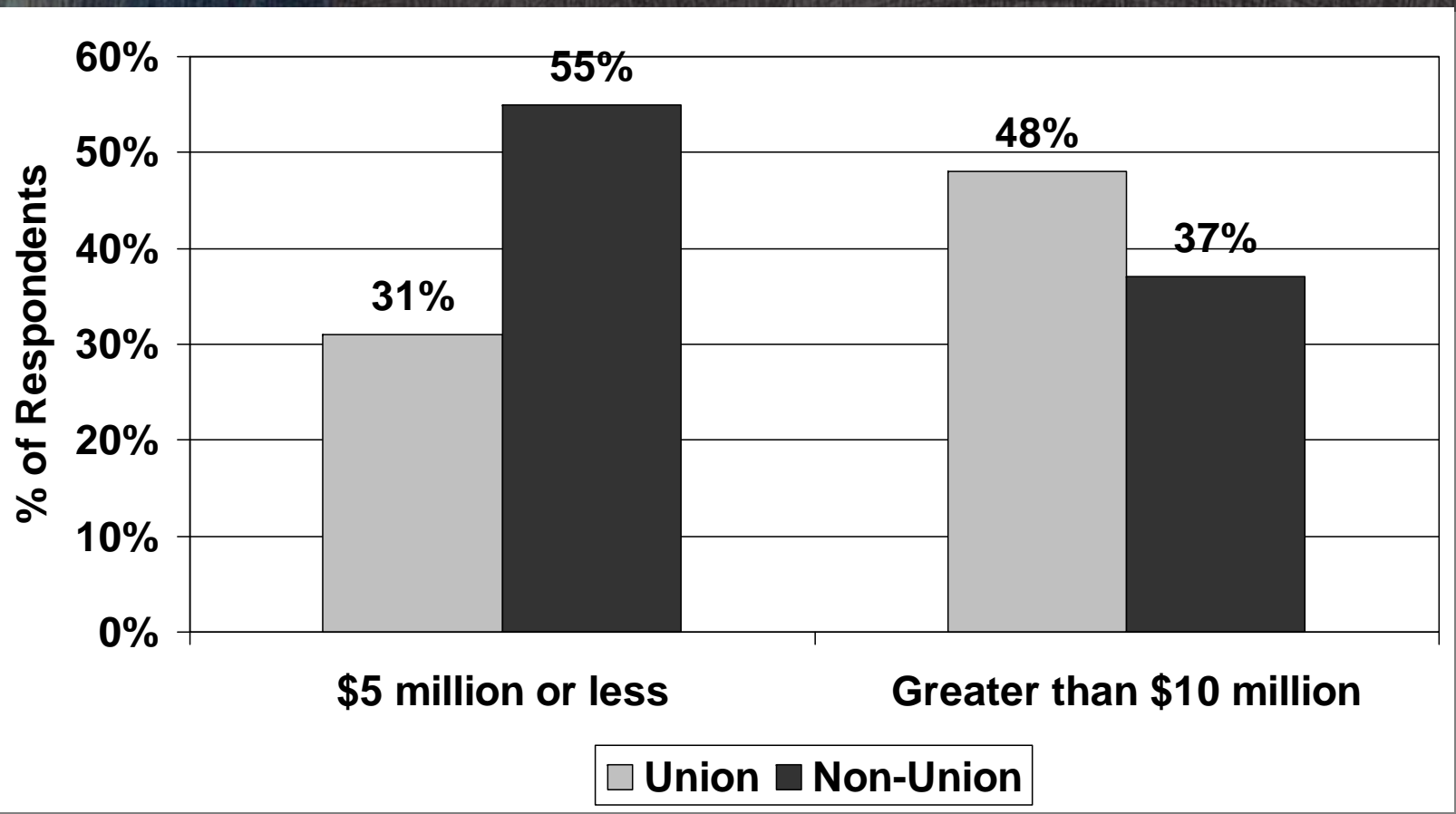


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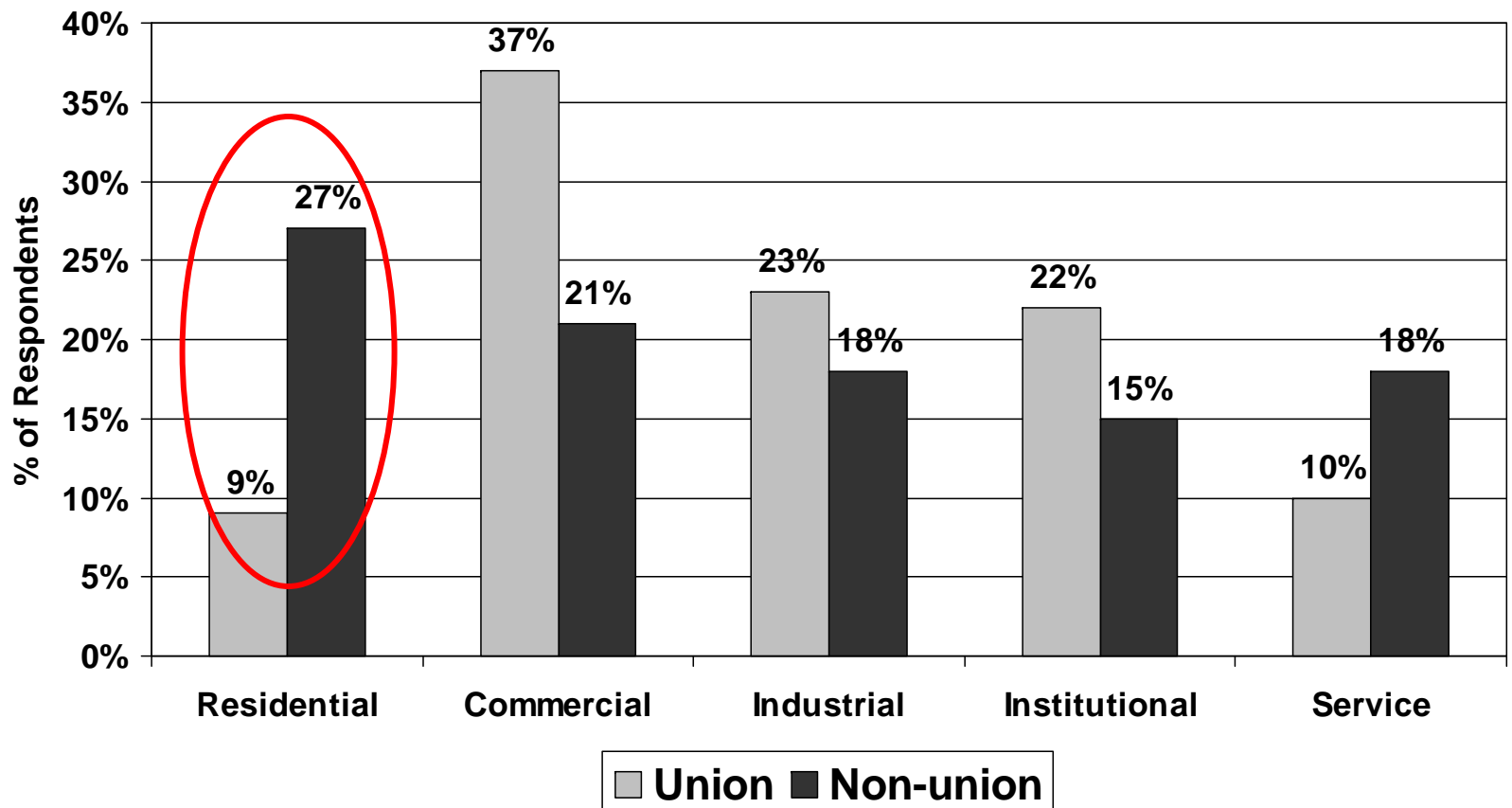
Business Description (all respondents)



Annual Sales, Union vs. Non-union Respondents

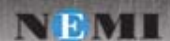


Annual Sales by Market, Union vs. Non-union Respondents



Key Findings

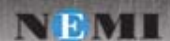
1. **Union contractors' productivity is higher**
2. **Union contractors' field supervision cost is lower.**
3. **Employee retention is higher with union firms (less turnover).**
4. **Union contractors experience less expensive rework.**
5. **Union bid prices tend to run between 12%- 21% higher.**
6. **Union labor costs are higher, ranging from 22 percent (entry level) to 39% (journeyman level).**
7. **Crew mix differences are significant and work to the non-union contractors' advantage from a labor cost perspective.**
8. **Survey respondents indicate that duct fabrication costs are about 20% higher for union firms.**



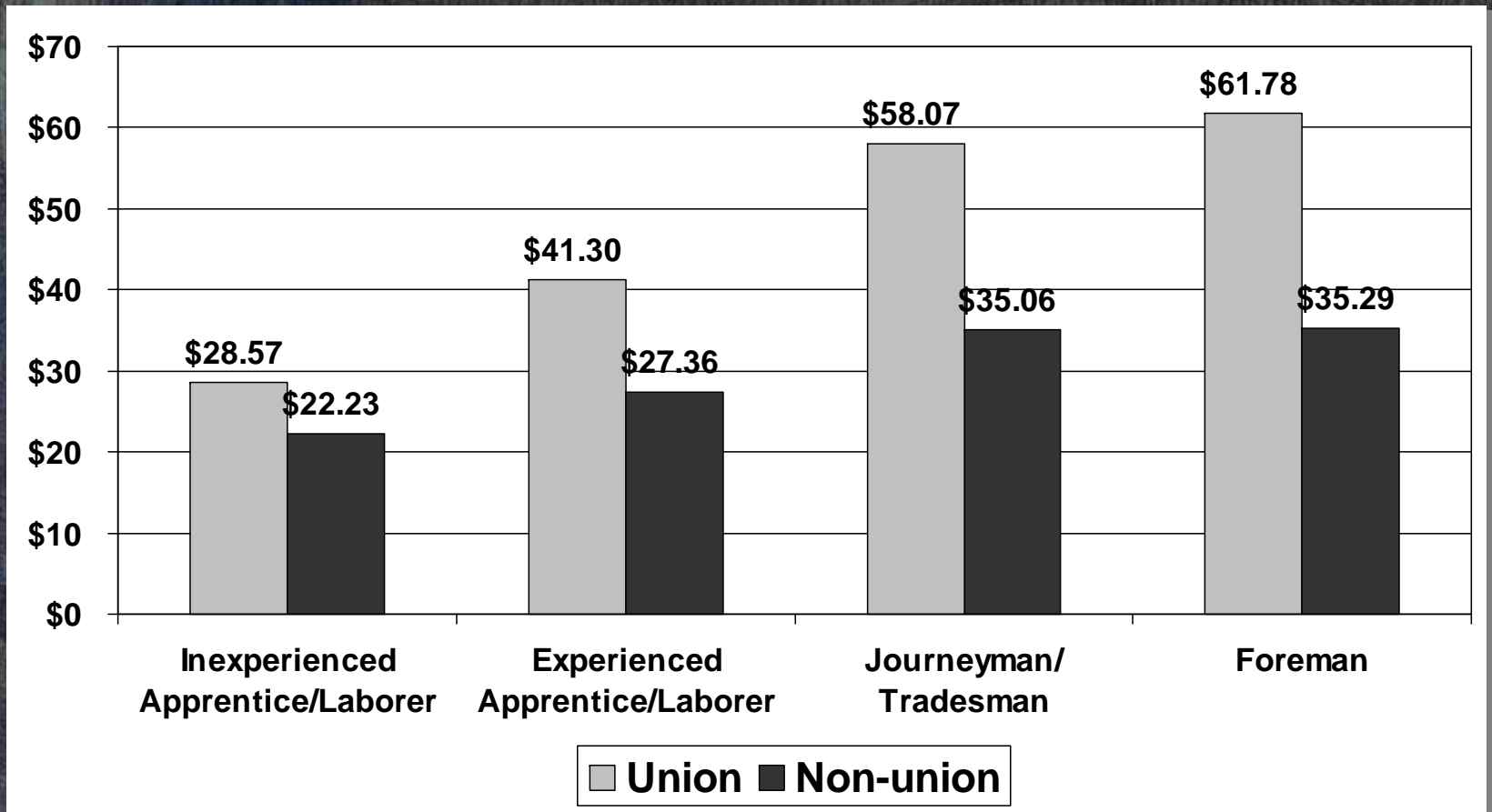
Union Bid Prices Tend to Run Between 12%- 21% Higher than Non-union

- Interviewees—Union bids are 10%- 20% higher than non-union
- Survey respondents—Union/non-union bid differential is 15%-20%
- 80% of all survey respondents perceive union bid prices to be higher than non-union
- Similar pattern observed among other trades (Electrical Contracting Foundation example).

	Union is more expensive		Union is less expensive	
	% of Respondents	Price Differential	% of Respondents	Price Differential
<\$250K	80%	21%	20%	19%
\$250-\$500K	81%	18%	19%	16%
>\$500K	82%	15%	18%	16%



Average Fully Burdened Labor Rate

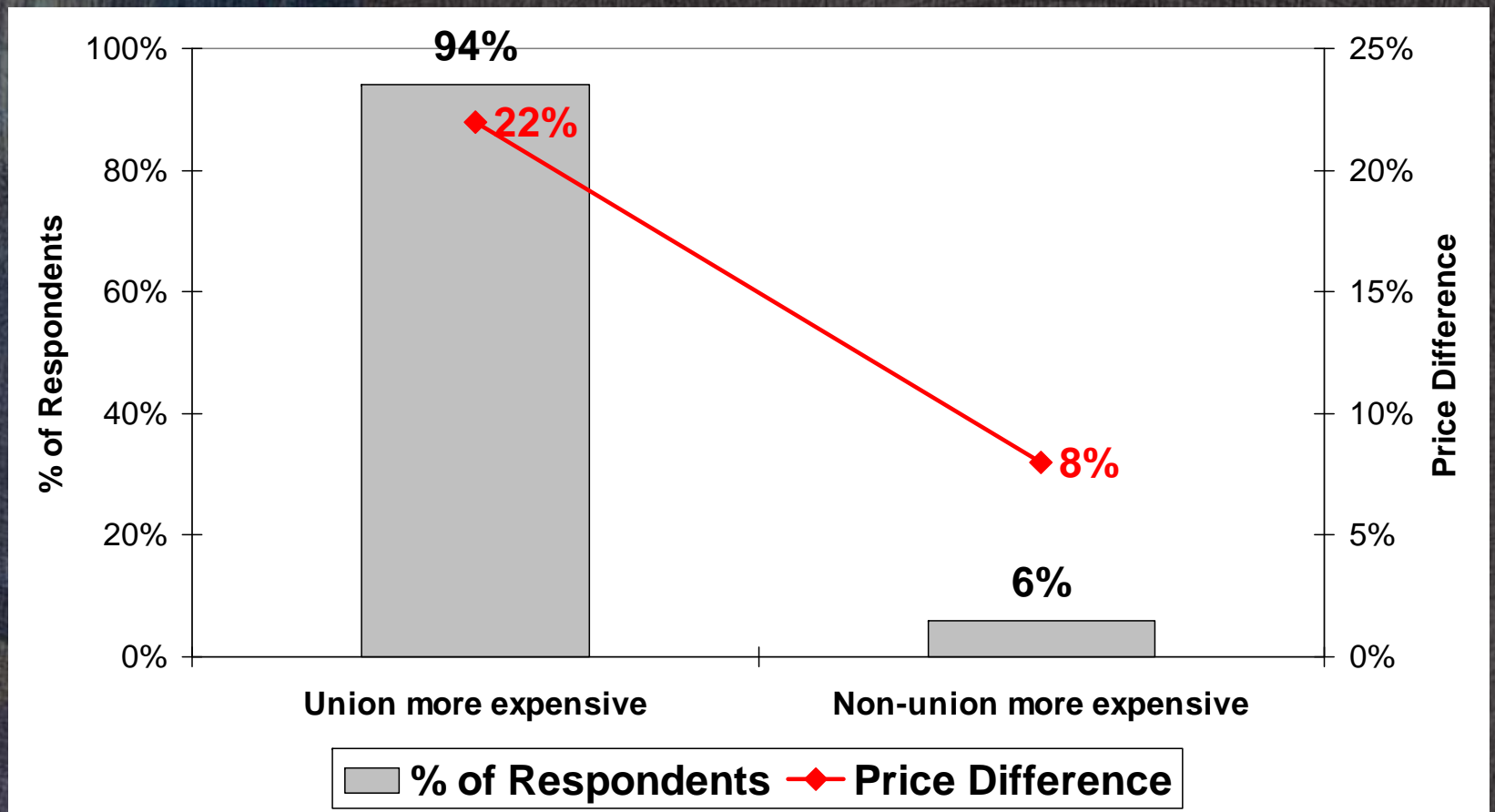


Perceived Fully Burdened Labor Rate Differential

		% Reporting Union is More Expensive	Perceived Labor Rate Differential
Apprentice/ Laborer	Union	83%	31%
	Non-union	87%	26%
Journeyman / Tradesman	Union	81%	34%
	Non-union	86%	25%
Foreman	Union	70%	28%
	Non-union	83%	13%



Market Price Differential of Union vs. Non-union Fabricated Ductwork



Crew Mix Ratio



Supervisors

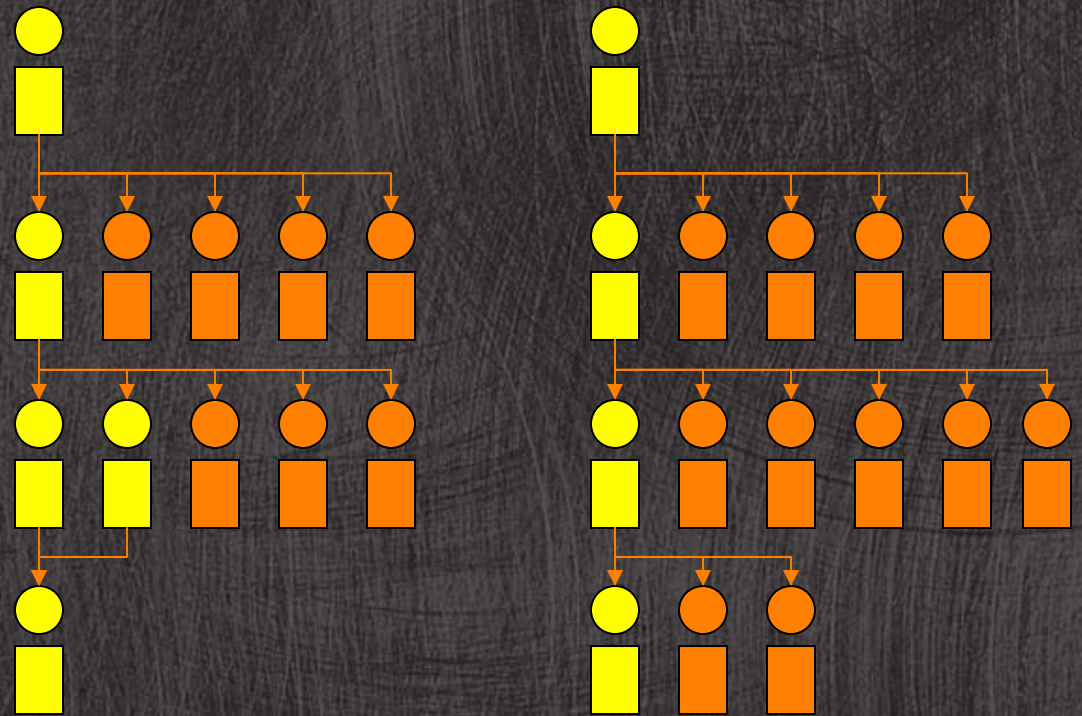
Foremen

Journeymen/
Tradesmen

Apprentices/
Laborers

Union

Non-union



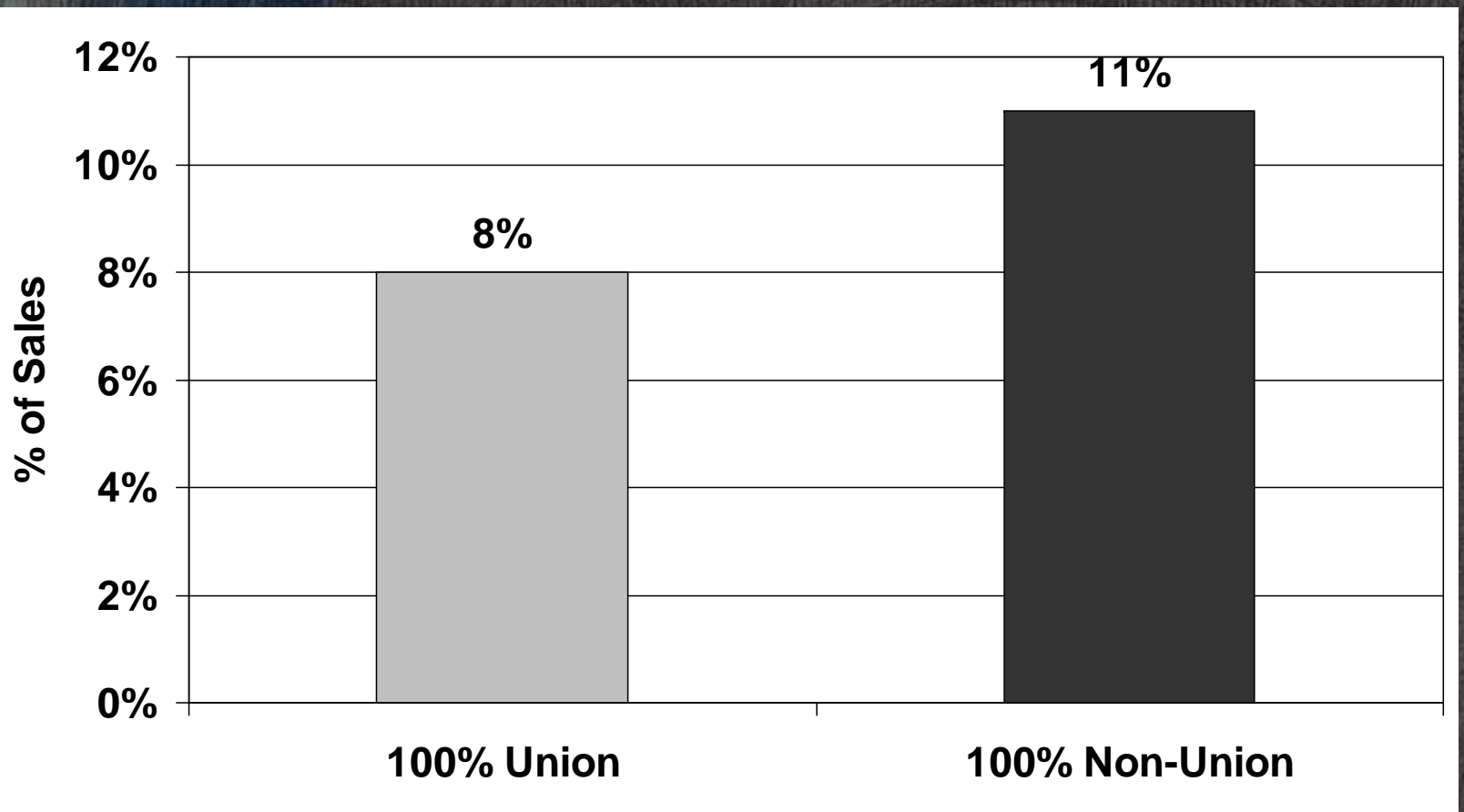
1 Apprentice – 2 Journeymen

3 Laborers – 1 Tradesmen

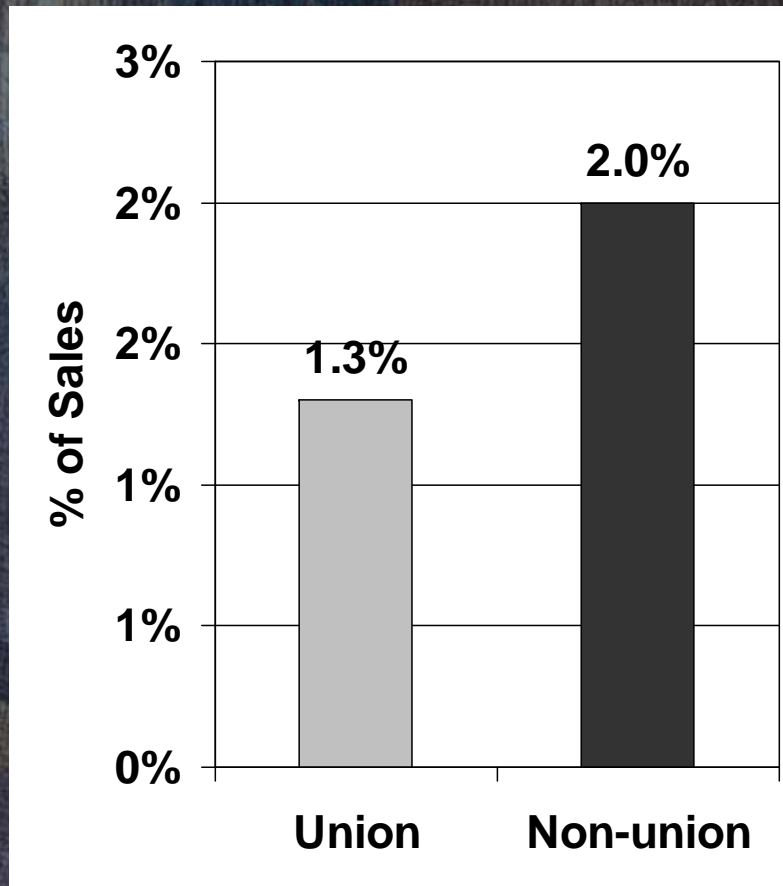


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Cost of Field Supervision as a Percentage of Sales



Training



- *Difficult to compare*
- *Training Magazine's 2005 Training Top 100, organizations nationwide allocating 3.7% of budgets to training*
- *FMI's 2005-2006 U.S. Construction Industry Training Survey, 2.7% of payroll allocated to training*



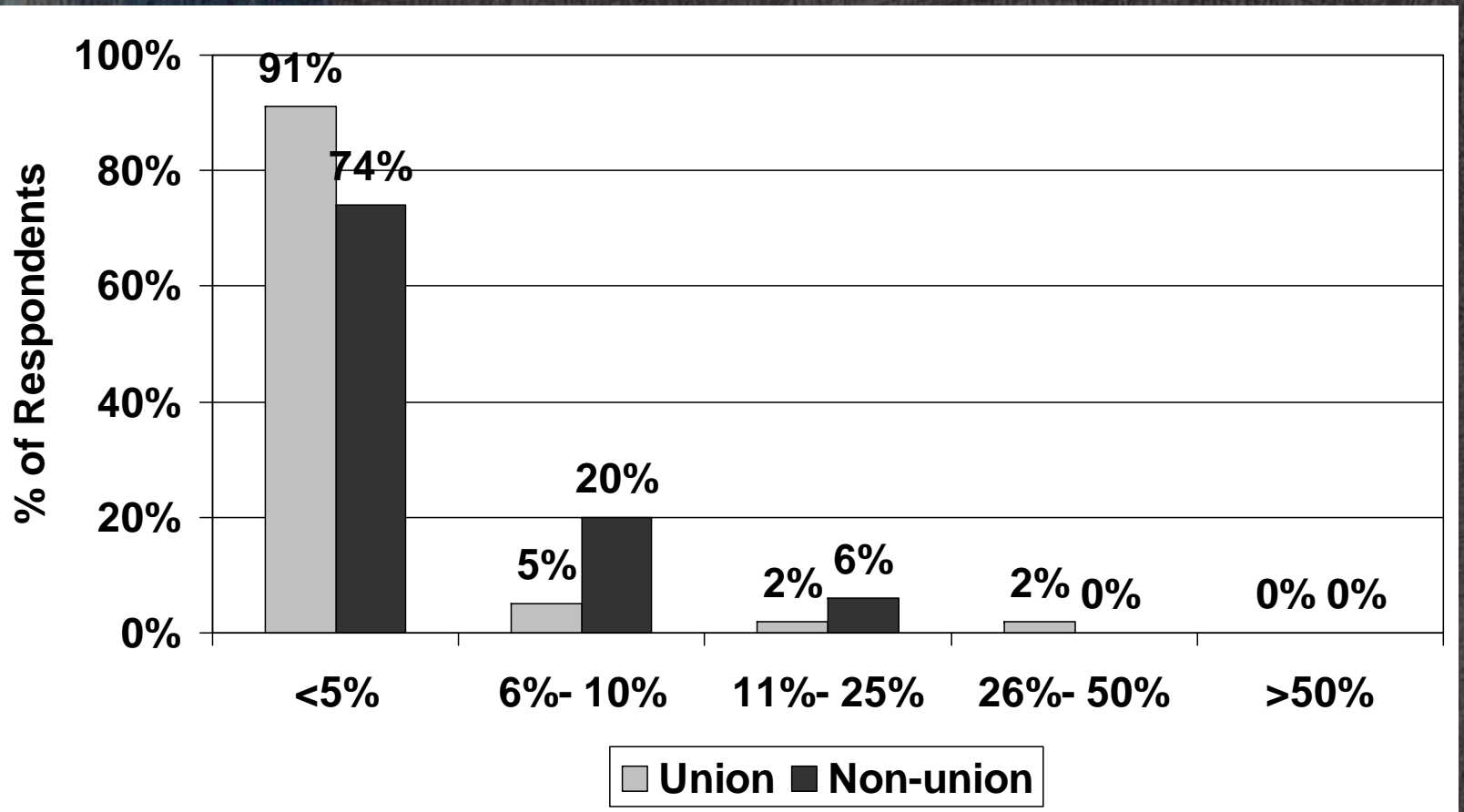
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Annual Turnover, Field/Shop Workers

	Union	Non-union
<5%	59%	26%
5-10%	26%	26%
11-25%	13%	26%
26-50%	2%	20%
>50%	0%	3%

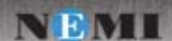


Percent of Jobs Experiencing Excessive Rework

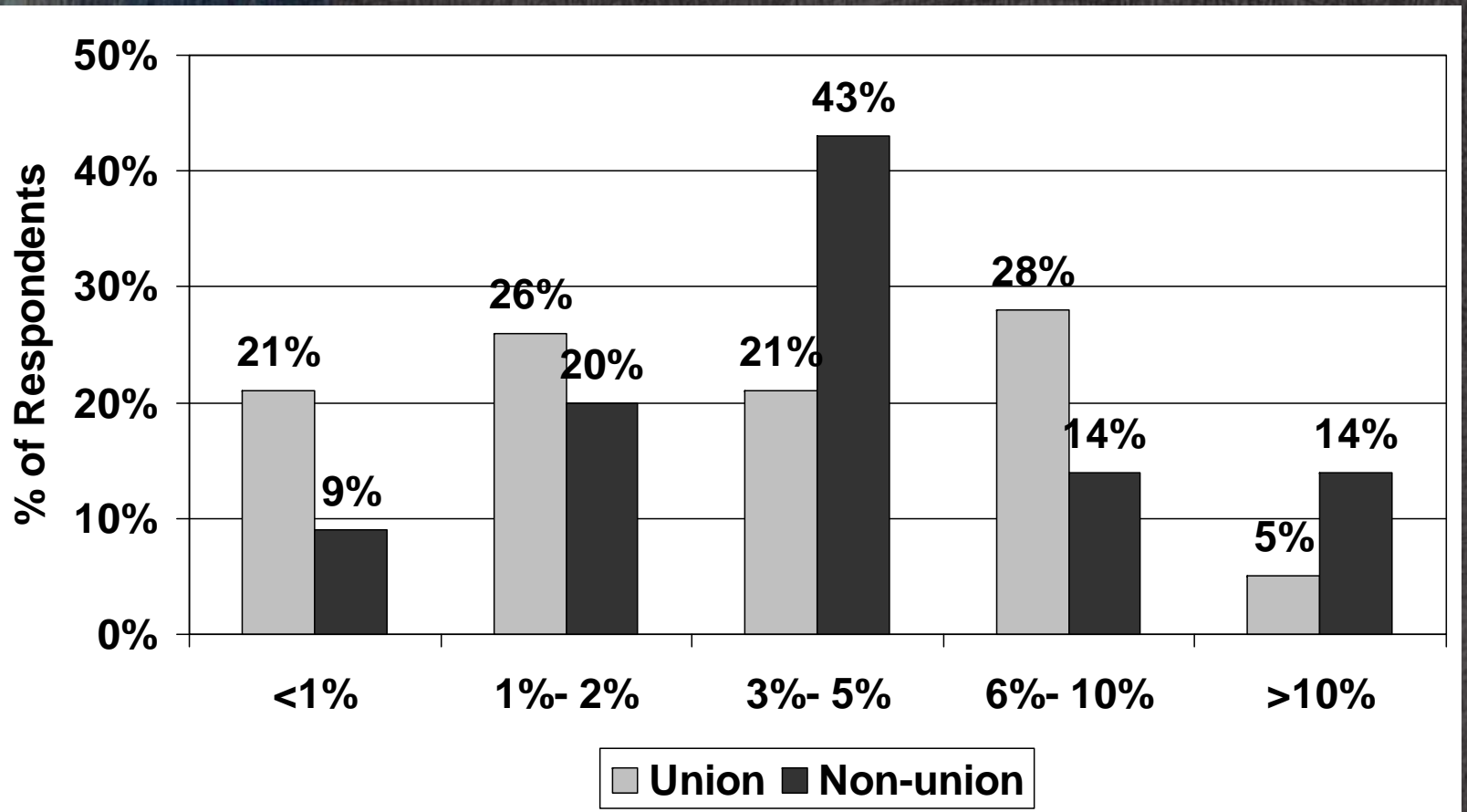


Planning and Scheduling

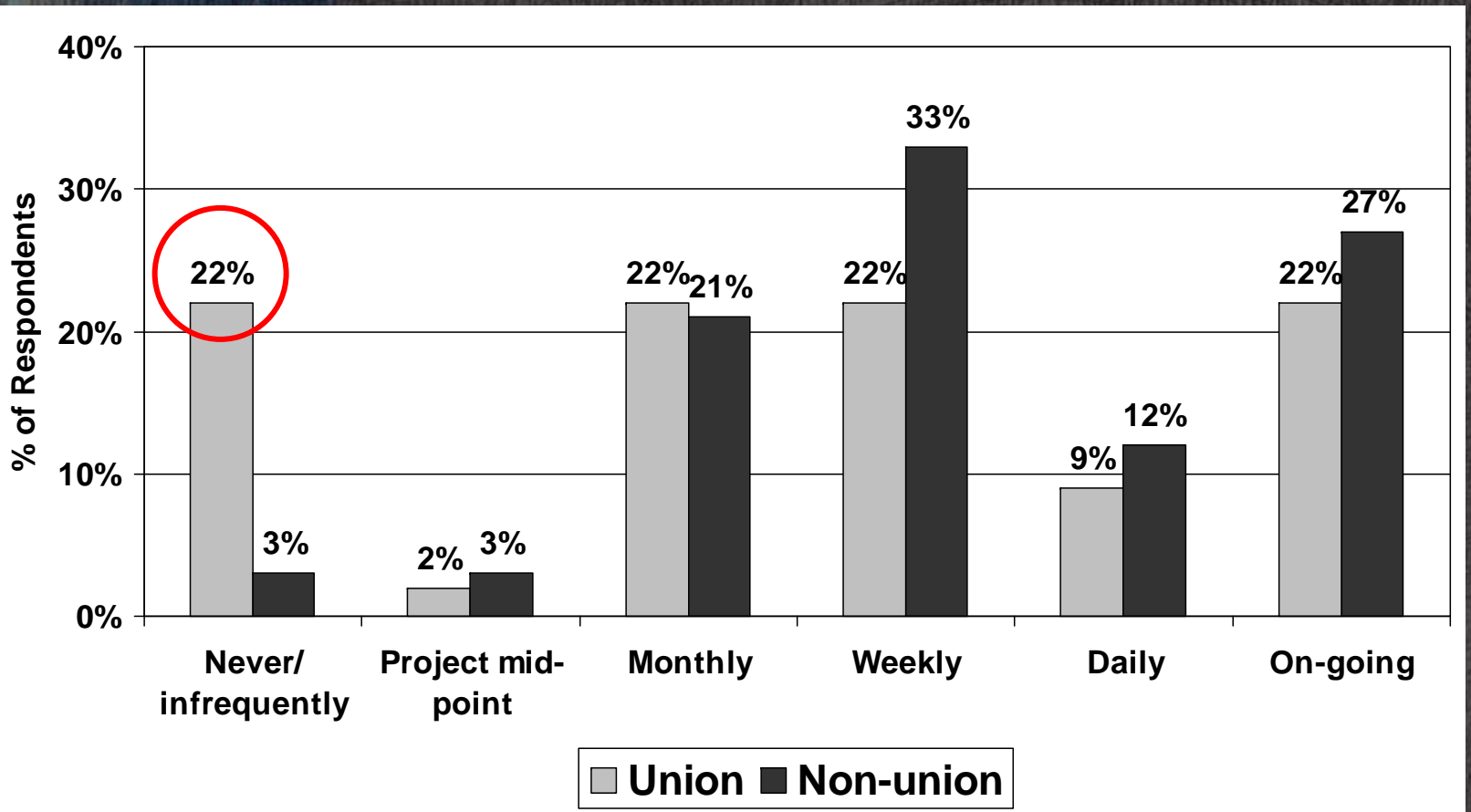
- *Union survey respondents devote minimal time to pre-job planning and scheduling*
- *Non-union survey respondents report significantly more time spent on these activities*
- *Planning/ scheduling one of project managers' top concern*
- *Union contractors spend minimal time conducting periodic schedule updates compared to non-union*
- *Lack of pre-job planning and schedule management lead to profit fade, poor client satisfaction and threaten long-term sustainability.*



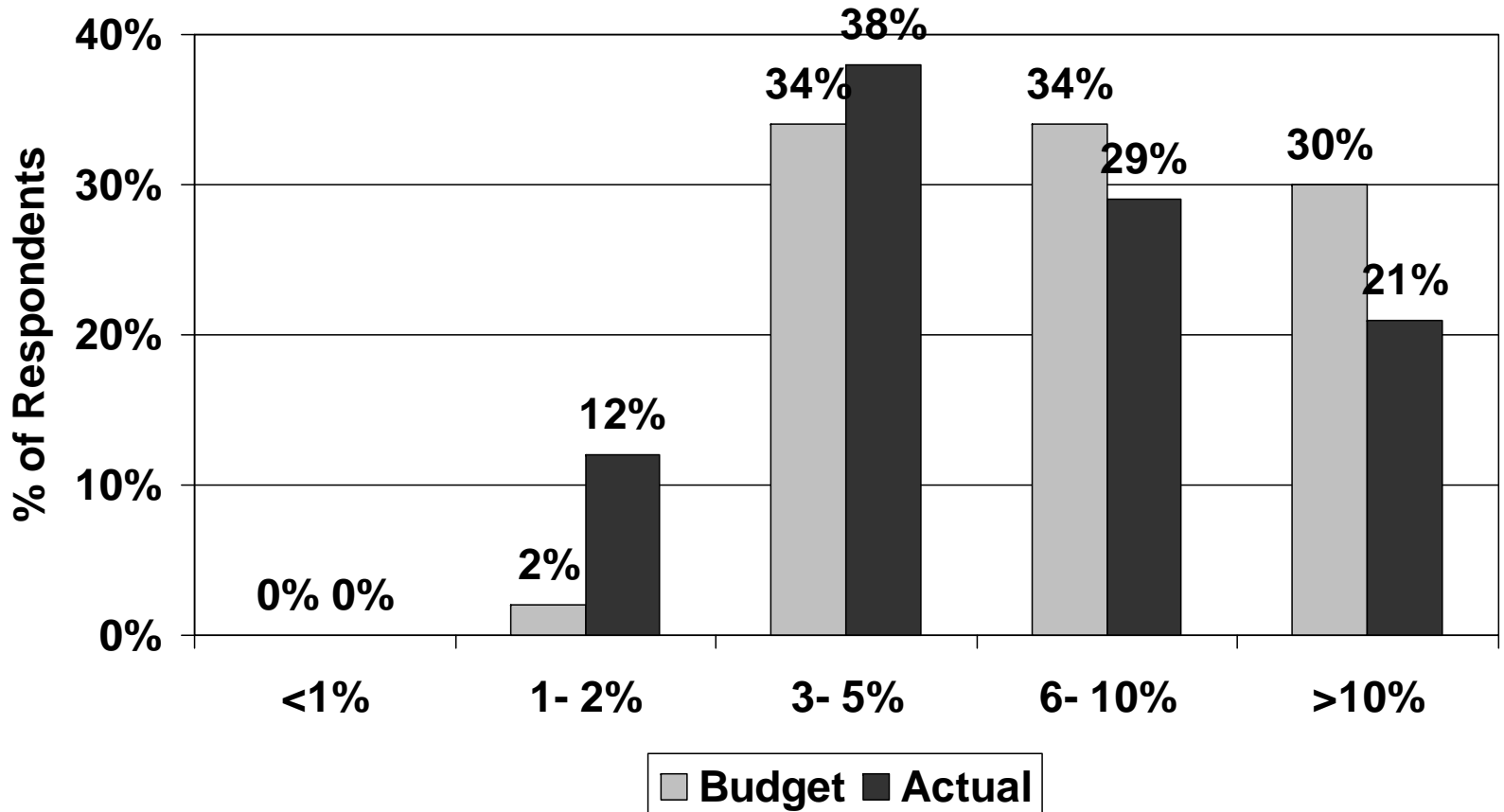
Pre-job Planning and Scheduling Time Spent vs. Total Project Duration



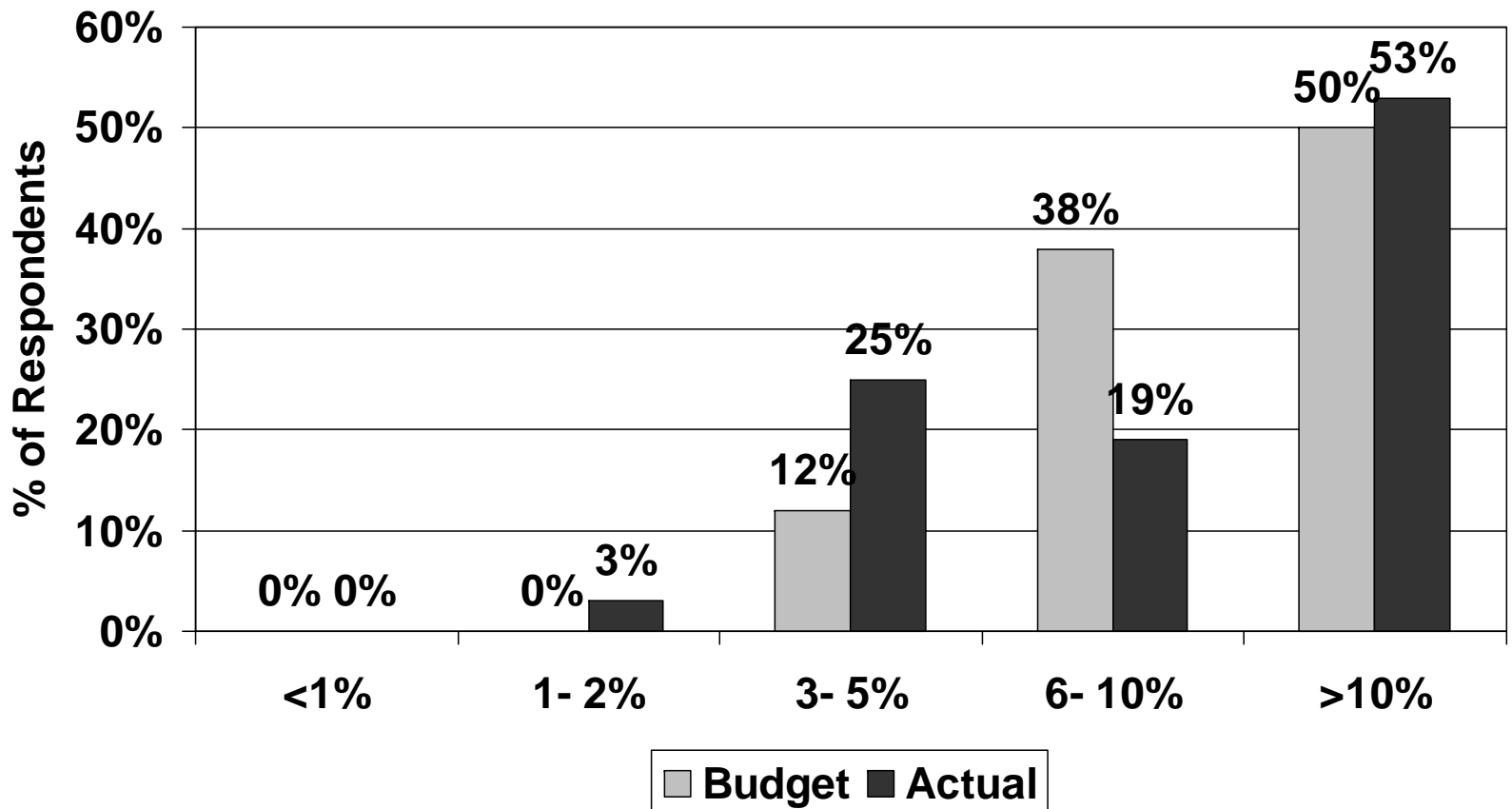
Schedule Update Frequency



Typical Job Profit (Union)



Typical Job Profit (Non-union)



Typical Job Profit (Budgeted vs. Actual)



	Budget	Actual	Erosion	
			Absolute	Percent
Union	7.1%	6.1%	-0.9%	13%
Non-union	8.5%	7.9%	-0.7%	8%



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Common Concerns

1. *Insufficient labor availability and quality*
2. *Elevated and rising materials prices*
3. *Adverse evolution of legal and regulatory conditions*

