



# Johns Manville Platinum Educational Session

Reading the Tea Leaves—  
Adjust, Adapt, Act

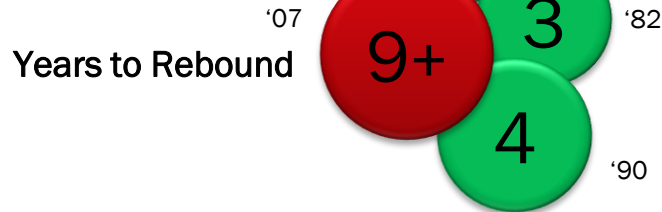
# Ability to “See” the Future is the Catalyst of Progress

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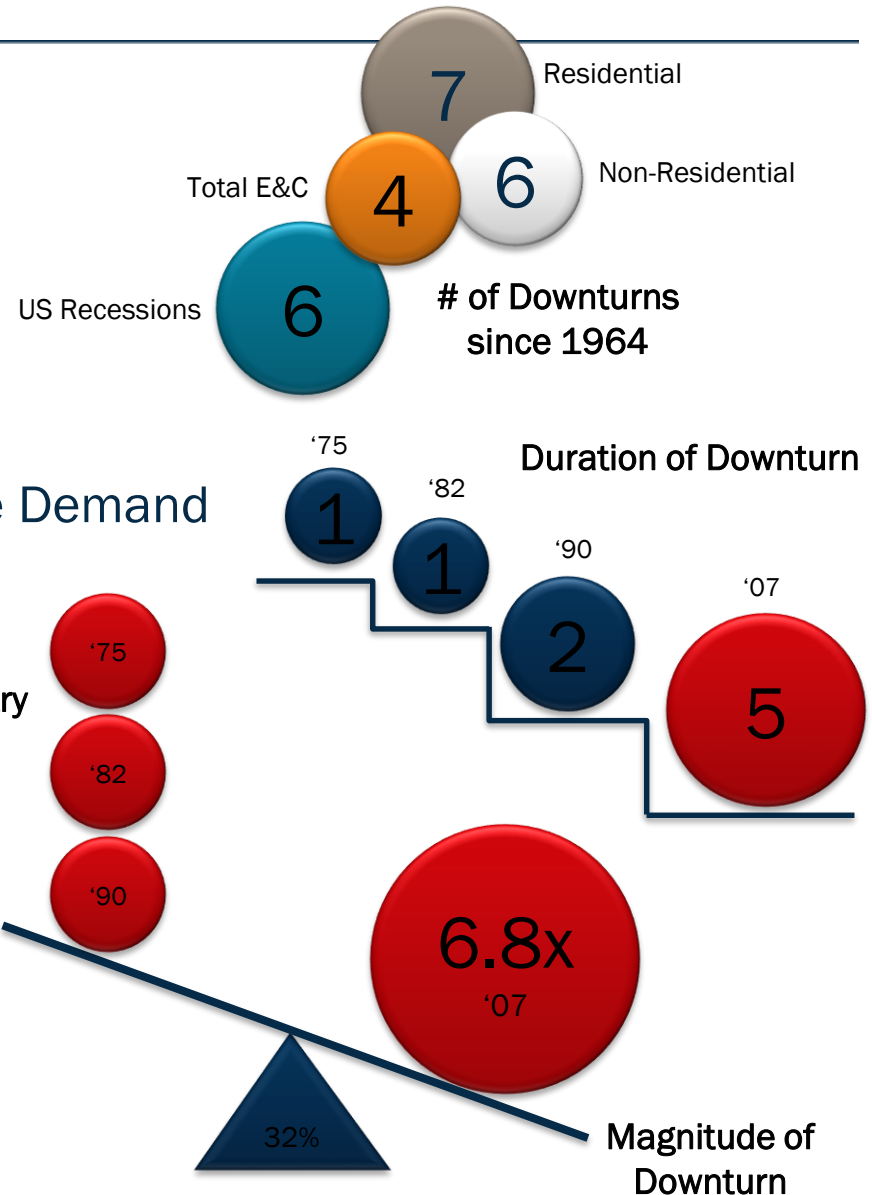


# Industry Context

- Ninth year of growth
- Prosperity amidst uncertainty
- Uneven recovery
- Energy, Industrial, Civil Infrastructure Demand



Prior Three Industry Downturns



# **Trends Impacting Construction**



# 2016 Trends in the Construction Industry (1 of 2)

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- Availability of labor at all levels is a major concern.
- Megaproject proliferation and the trend toward joint ventures.
- Technology advances too quickly to become table stakes.
- The strategic significance of risk management.
- Mergers and acquisitions: remaining strong in many sectors.

# 2016 Trends in the Construction Industry (2 of 2)

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- **Abundant low-cost natural gas is creating tailwinds.**
- **Succession issues threaten the continuity of many firms.**
- **Commercial building segment continues to be a buyer's market.**
- **Business intelligence is all about knowledge.**
- **Organizational effectiveness is a growing concern.**

# International Focus on U.S. Building and Infrastructure Market is Unprecedented

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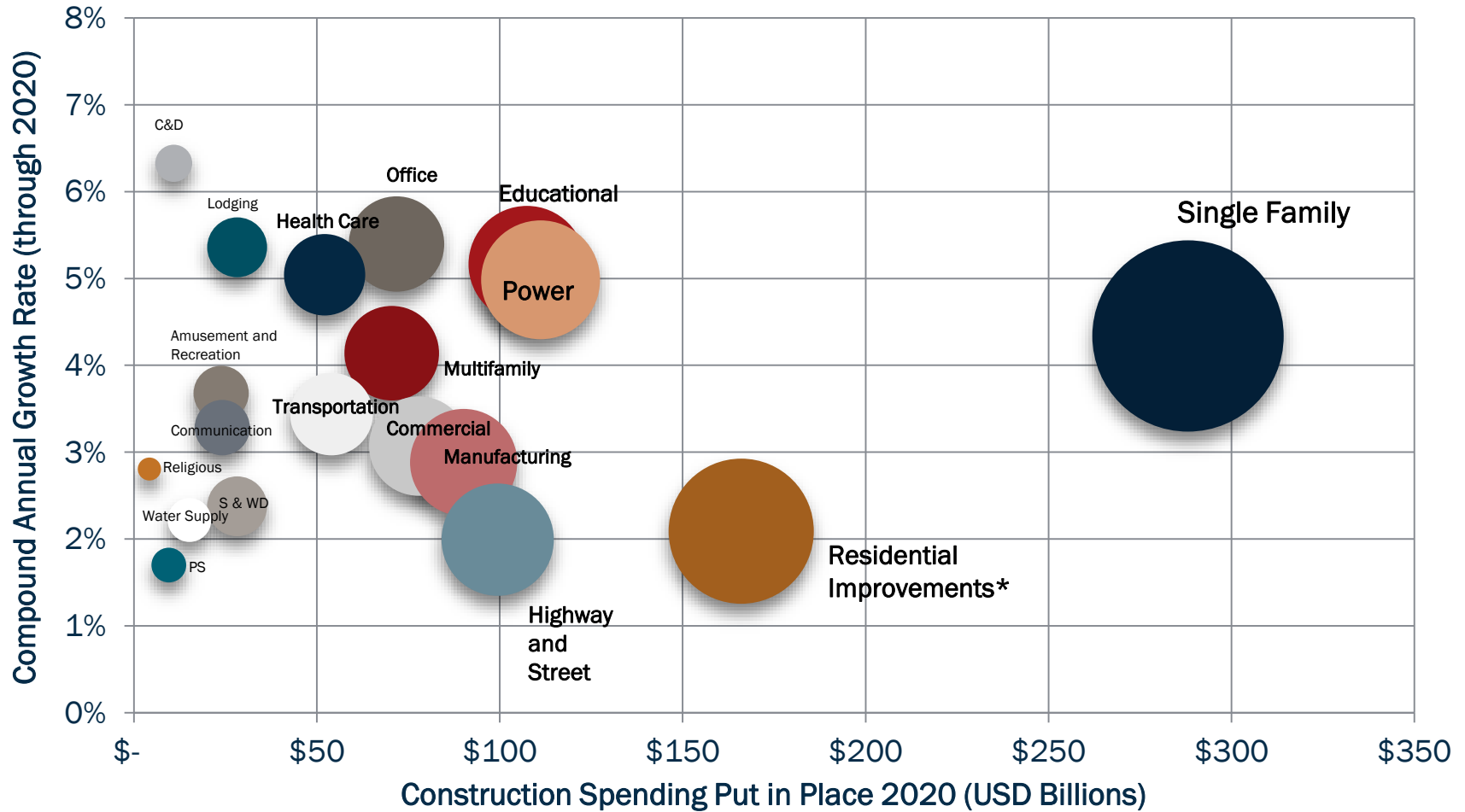


# **Construction Industry Forecast**





# U.S. Markets Construction Overview



\*Improvements include additions, alterations and major replacements. It does not include maintenance and repairs.

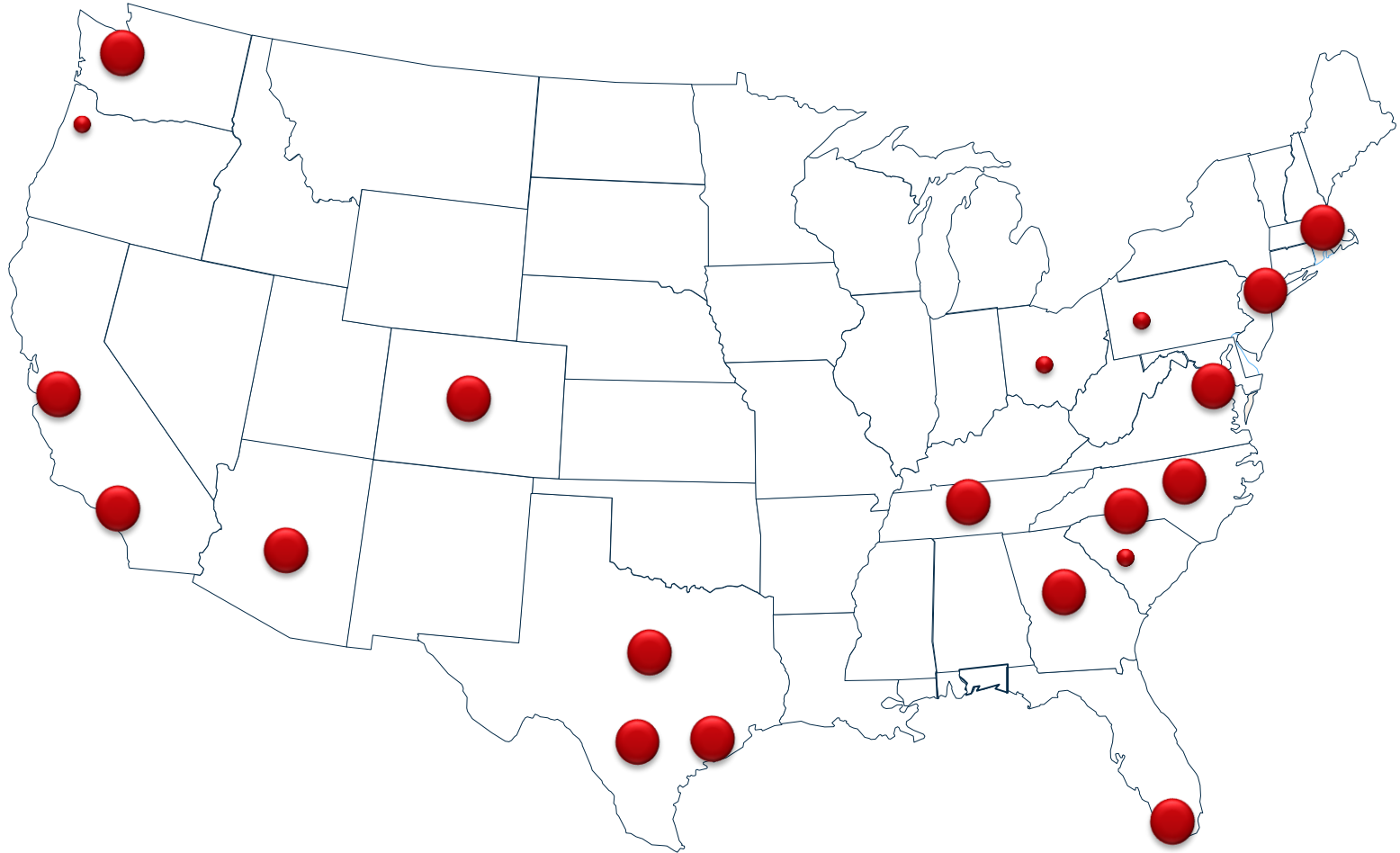
# 2016 Highlights

## Total Put in Place

Year	%
2014	10
2015	11
2016	5

- **High-volume nonresidential segments in 2016**
  - Power (\$93.9 billion)
  - Highway and Street (\$91.3 billion)
  - Education (\$86.4 billion)
- **Strongest percentage gainers in 2016**
  - Lodging (18.0%)
  - Office (16.0%)
  - Amusement and Recreation (8.0%)
  - Power (8.0%)
- **Weakest segments in 2016**
  - Public Safety (-5.0%)
  - Water Supply (-4.0%)
  - Sewage and Waste Disposal (-3.0%)

## Recovery Concentrated in Select Metro Areas

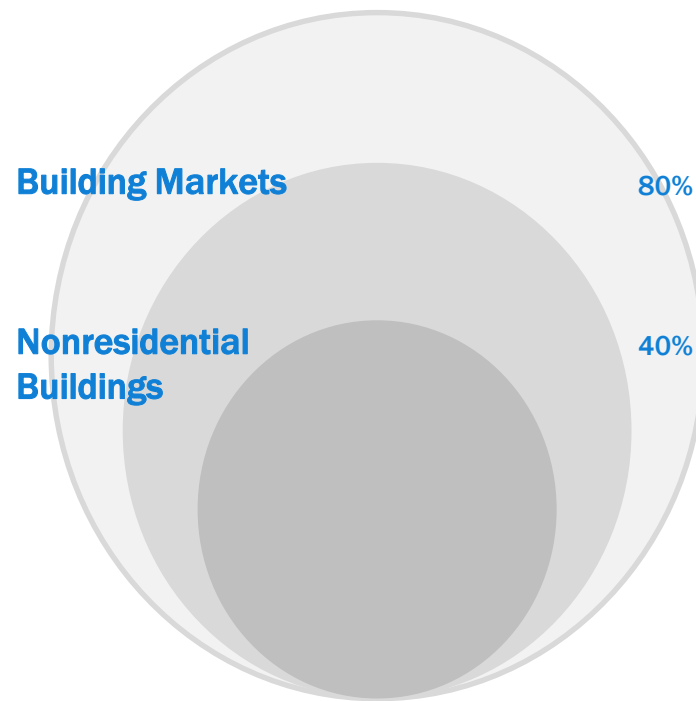


# U.S. Markets Construction Overview

## U.S. Construction Spending, \$ Billions

Source: FMI Corporation

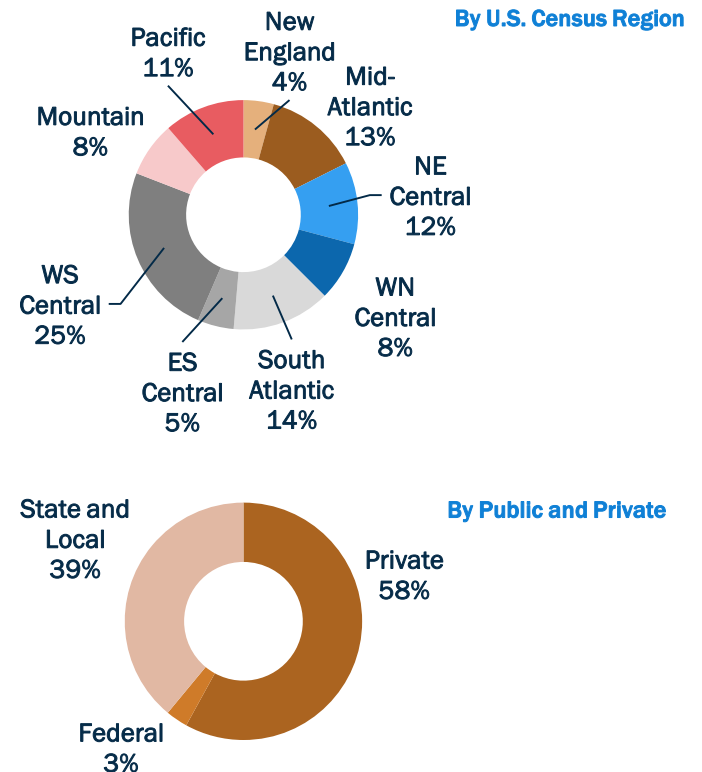
### Total Construction



Building markets include both residential and nonresidential

## U.S. Nonresidential Buildings Construction Spending Segmentation

Source: Global Insights, FMI Corporation, U.S. Census Bureau

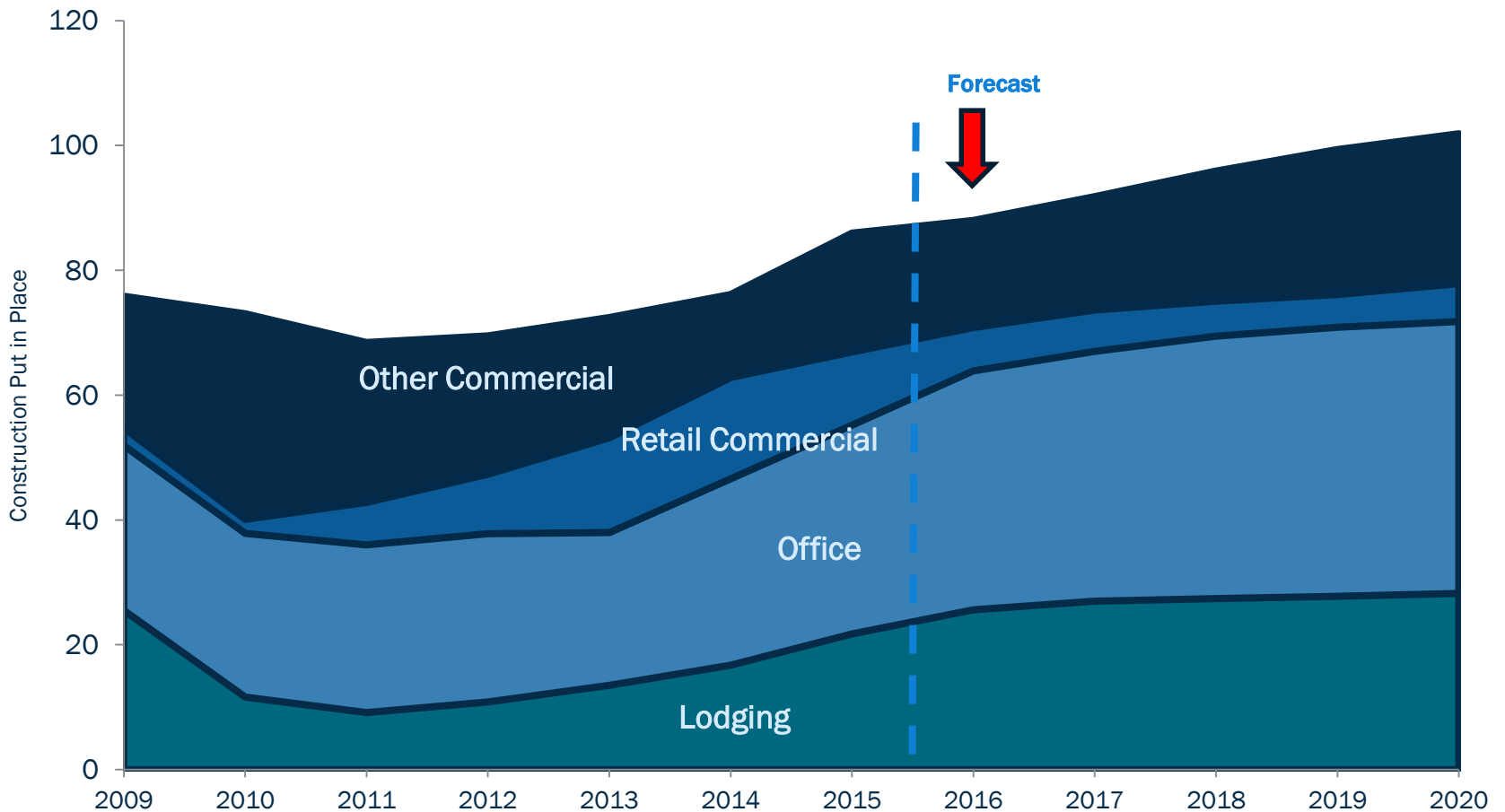


# U.S. Markets Construction Overview

## Nonresidential - Commercial

U.S. Nonresidential Commercial Buildings Construction Forecast, \$ Billions

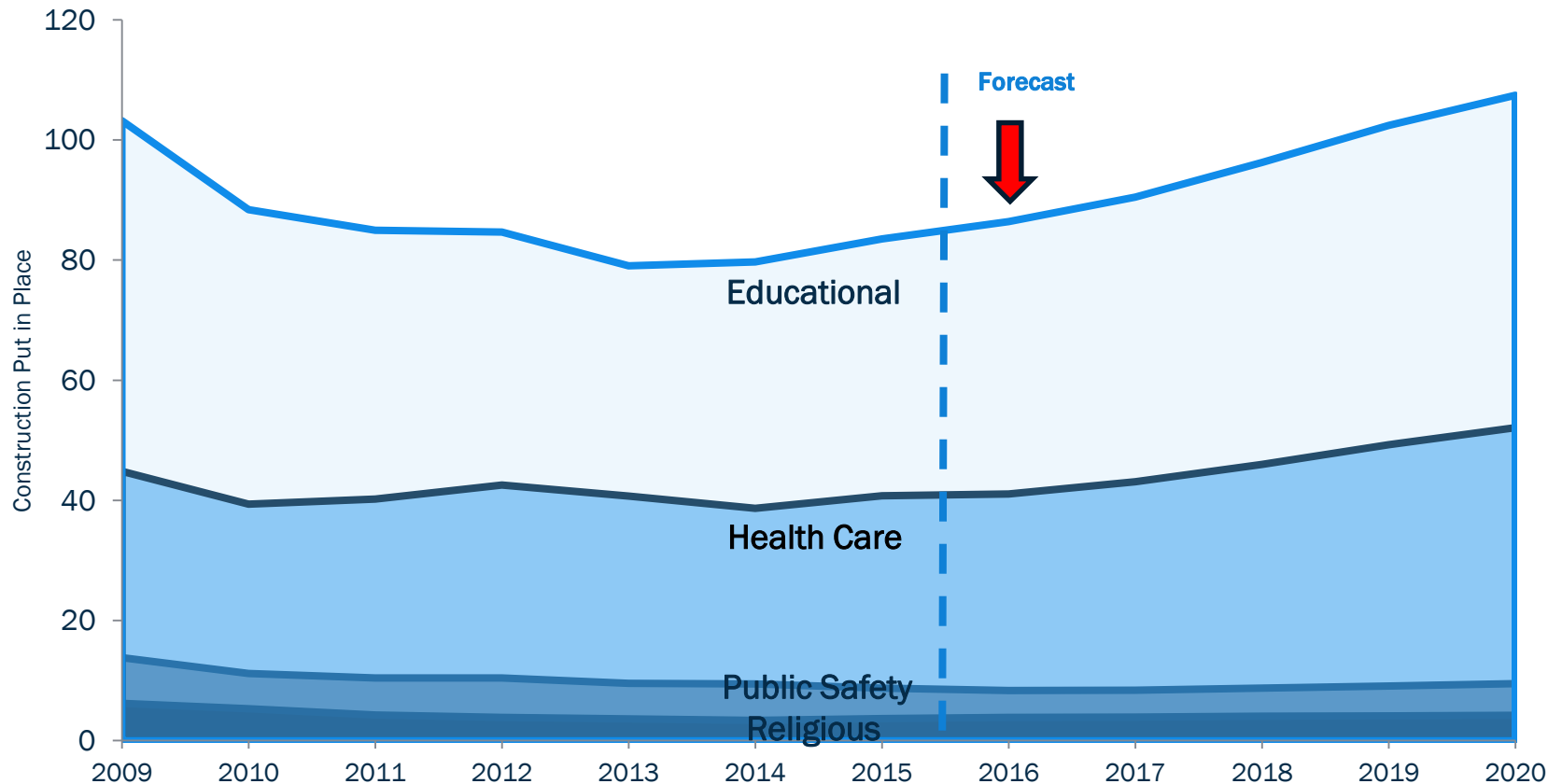
Source: FMI Corporation



# U.S. Markets Construction Overview

## Nonresidential - Institutional

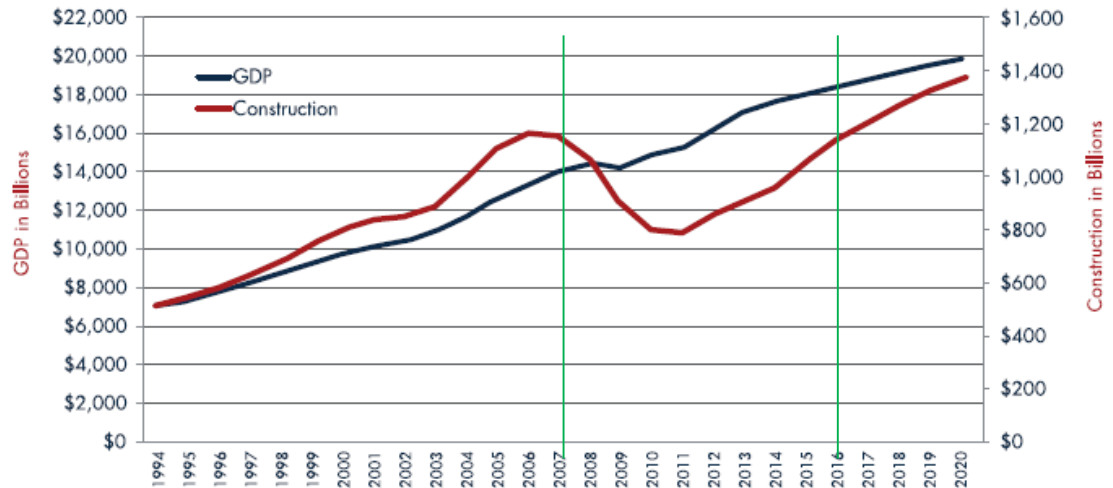
U.S. Nonresidential Institutional Buildings Construction Forecast, \$ Billions  
Source: FMI Corporation



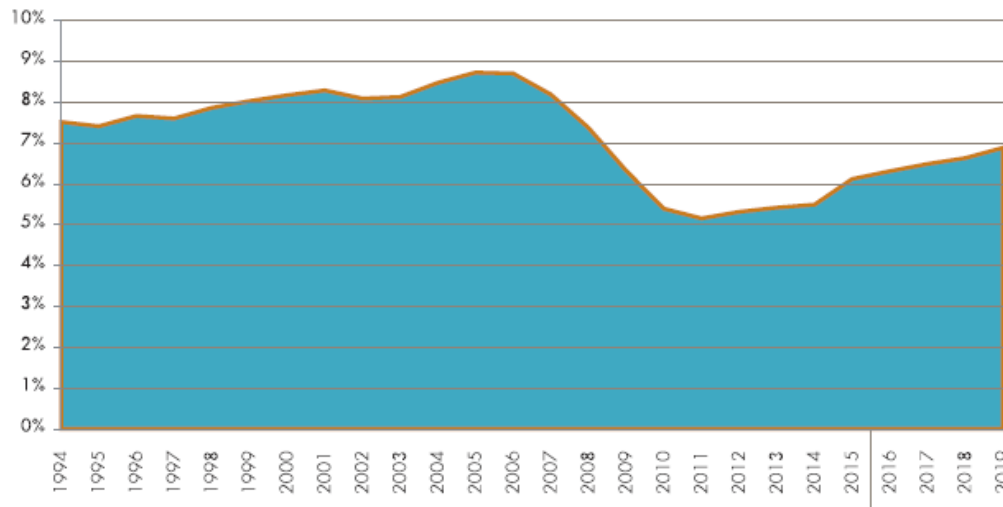
# Has the Industry Lost its Place in the Broader Economy?

*The overall economy has grown by \$4 Trillion since 2007 while the construction industry has not recovered to 2007 spending*

CONSTRUCTION SPENDING AND NOMINAL GDP



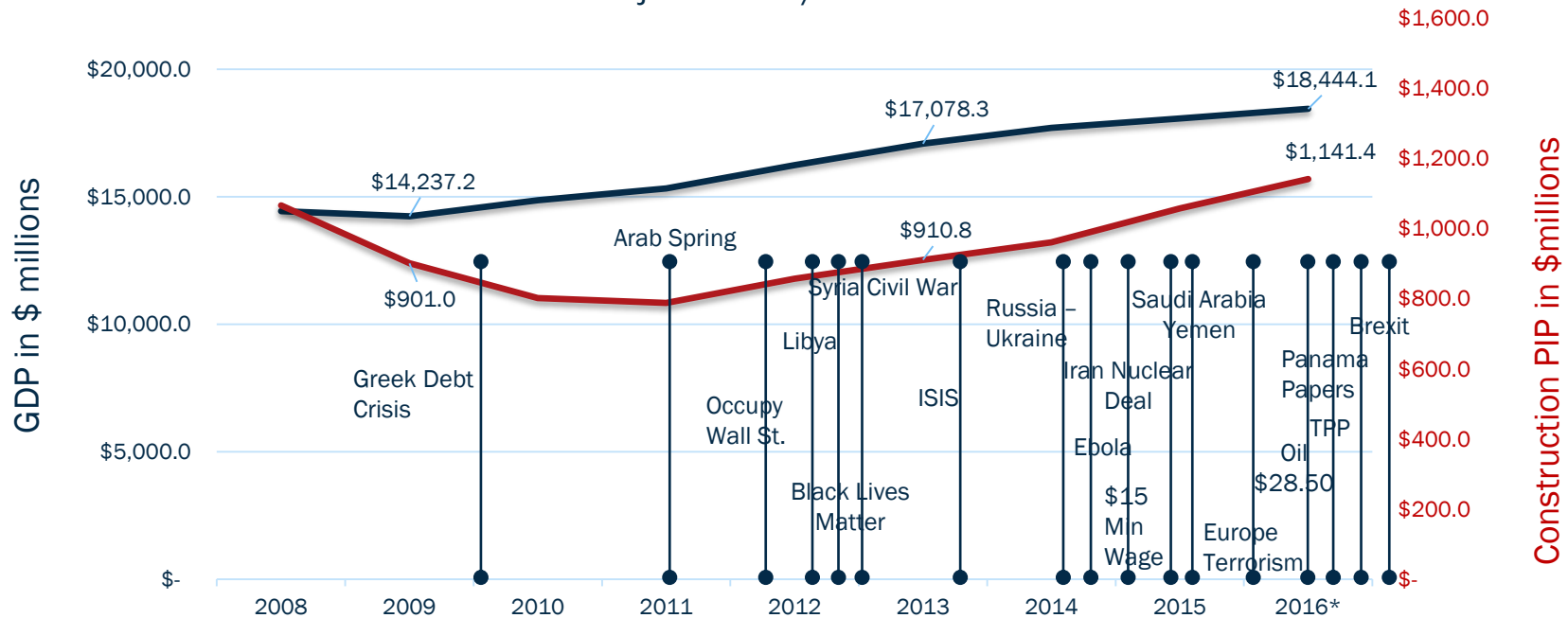
CONSTRUCTION AS A PERCENTAGE OF GDP



*The E&C industry has declined as a % of the overall economy. What are the implications of an industry downturn prior to a full recovery?*

# A Persistent Recovery Amidst Global Chaos

U.S. GDP and Construction Spending  
and Major Political/Economic Events





# Reading the **Economic** Tea Leaves

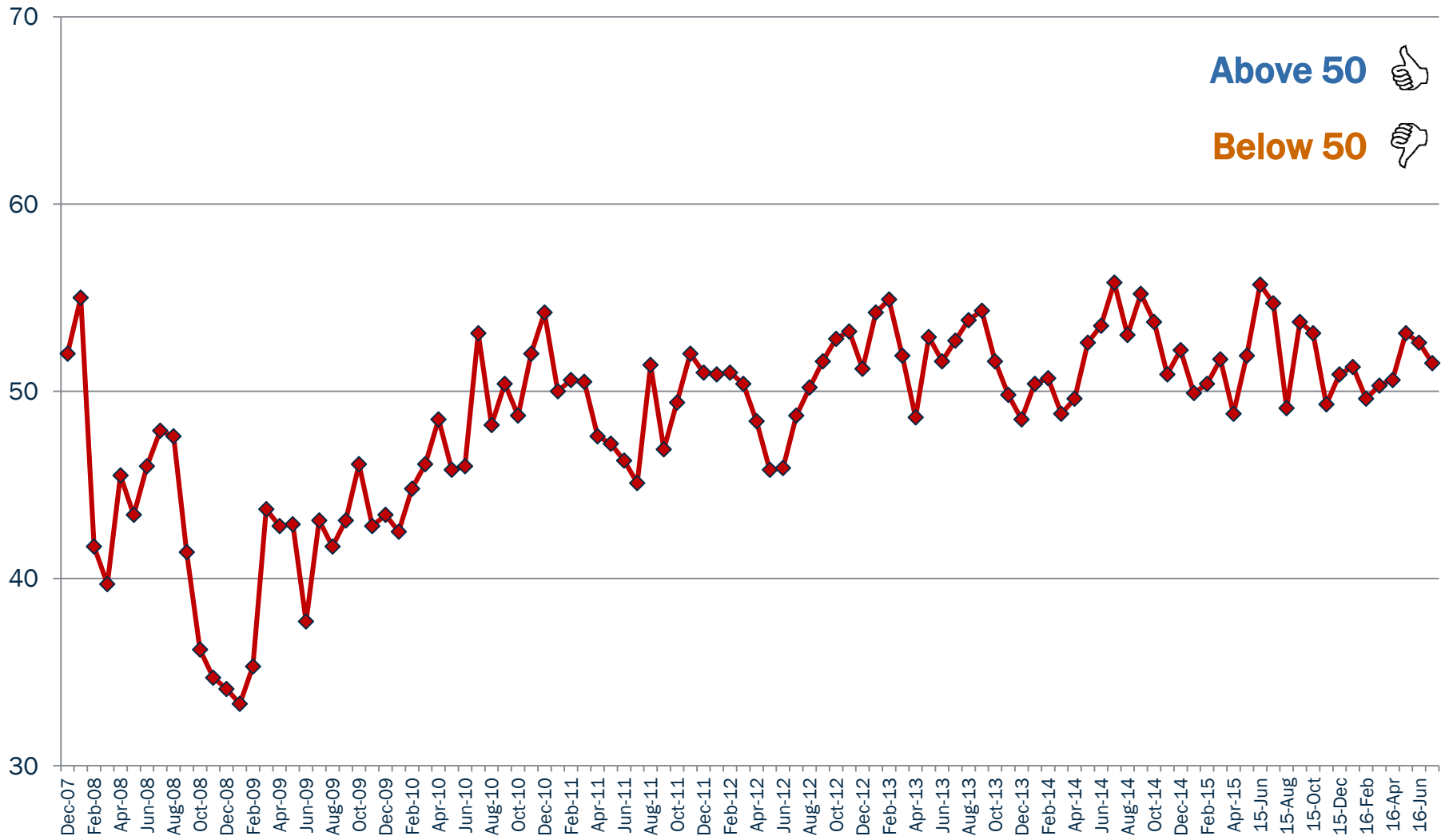


# NRCI Third Quarter 2016

	Overall Economy
	Overall Economy Where We Do Business
	Our Construction Business
	Nonresidential Building Construction Market Where We Do Business
	Our Expected Backlog
	Cost of Construction Materials: Higher
	Cost of Labor: No Change
	Productivity: Lower

# Architecture Billing Index (ABI)

Source: AIA

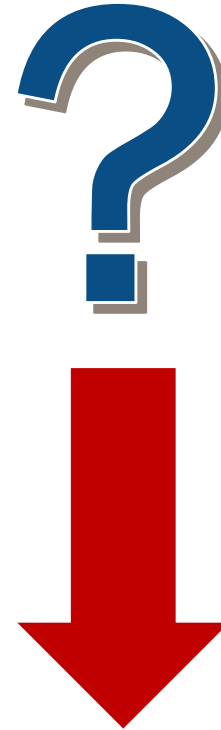


# Anticipating the Next U.S. Recession and E&C Downturn

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Perhaps some combination of the following

- Presidential and congressional elections
- Major domestic or European terror event
- Rising energy prices and core inflation
- Premature/over action by the Fed on interest rates
- Commercial Real Estate Bubble / Debt
- Another European debt crisis
- Failure to pass TPP



*FMI best 'guess' is barring an unpredictable event, a general recession followed by a relatively mild E&C industry downturn more than likely within next two years and most likely in second half of 2017 or first half of 2018*

# NRCI Third Quarter 2016: Predicting the Next Recession

Q3 NRCI panelists noted trends regarding when and why we may experience the next recession.

Panelist remarks highlight:

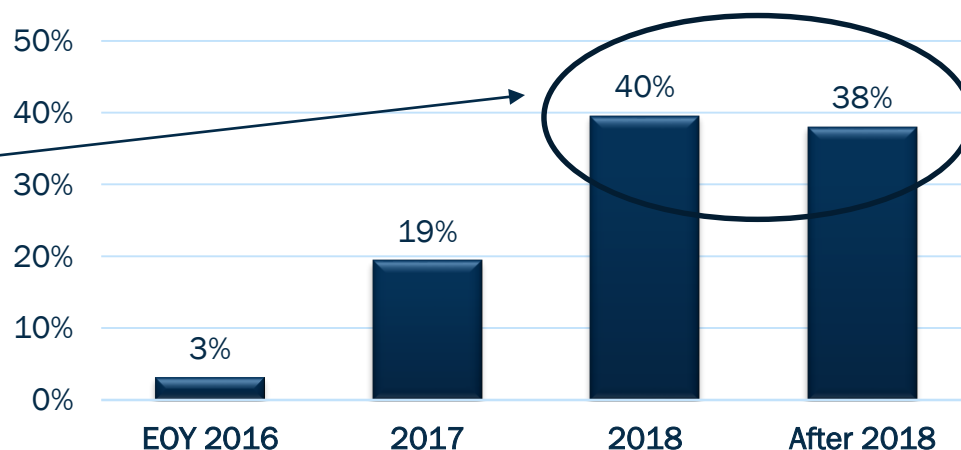
- Overbuilding in select markets
- Rising labor and material costs
- Resources / people limiting growth
- Instability overseas
- Interest rate manipulation
- Election / political influence
- Generalized uncertainty
- We are due

Q3 2016 NRCI Survey Word Cloud



Nearly 80% of respondents do not expect a recession until 2018 or thereafter.

Several panelists commented on their health backlogs and anticipated continued expansion in the coming years.



**What Trends Does the Future Hold?**



# Healthier Building Trends: Features

Common features used in more than 50% of all projects:

- |                                    |  |
|------------------------------------|--|
| 1) <i>Better lighting/daylight</i> | 5) <i>Acoustical comfort products</i>    |
| 2) <i>Thermal comfort products</i> | 6) <i>Exclusion of certain materials</i> |
| 3) <i>Social spaces</i>            | 7) <i>Occupant controls</i>              |
| 4) <i>Air quality products</i>     | 8) <i>Mood-enhancing spaces</i>          |

Owner top-three interests in healthier building features:



**61% - Enhanced Ventilation**



**40% - Layout Encouraging Physical Activity**



**30% - Transparency of Product Information**

Source: The Drive Toward Healthier Buildings 2016 SmartMarket Report, Dodge Data & Analytics, 2016

# Productivity Gains Will Happen Through Accelerated Tech/Lean Process Adoption

Technological advances in pre-con and construction ops pivotal to maintaining competitive position

- Building Information and Modeling (BIM) is key to construction scheduling optimization
- Job-site technologies to work faster, smarter and safer are expanding at an accelerated pace

## Implications

- Tech-savvy firms becoming more essential and less elective
- Talent selection and development needs to factor willingness to embrace and capacity to apply new practices
- Without clarity of long-term direction, every innovation looks important and represents a potential distraction versus benefit

*Adoption of these tools does not necessarily translate to productivity gains or margin expansion*





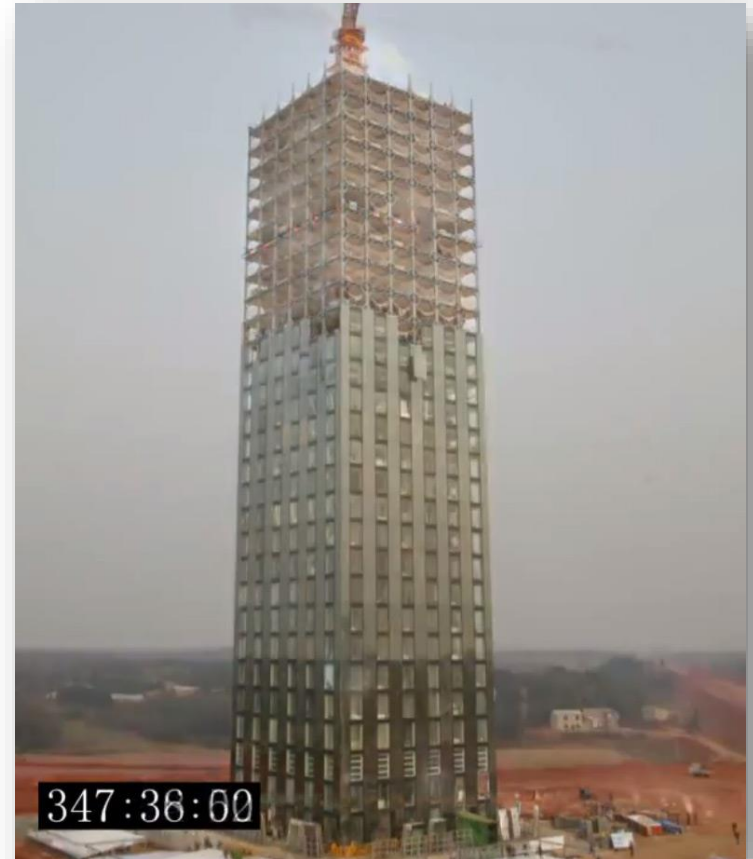
# Expect More “Building Manufacturing” Through Prefabrication

Use of prefabricated building components on the rise

- Higher quality
- Improved job-site performance
- Ideal for repetitive sections
- Architectural style NOT compromised

## Implications

- Less skilled labor on jobsites
- Changing playing field - who will be contracting the work?
- Competencies in manufacturing process required
- Heightened ability to collaborate across trades

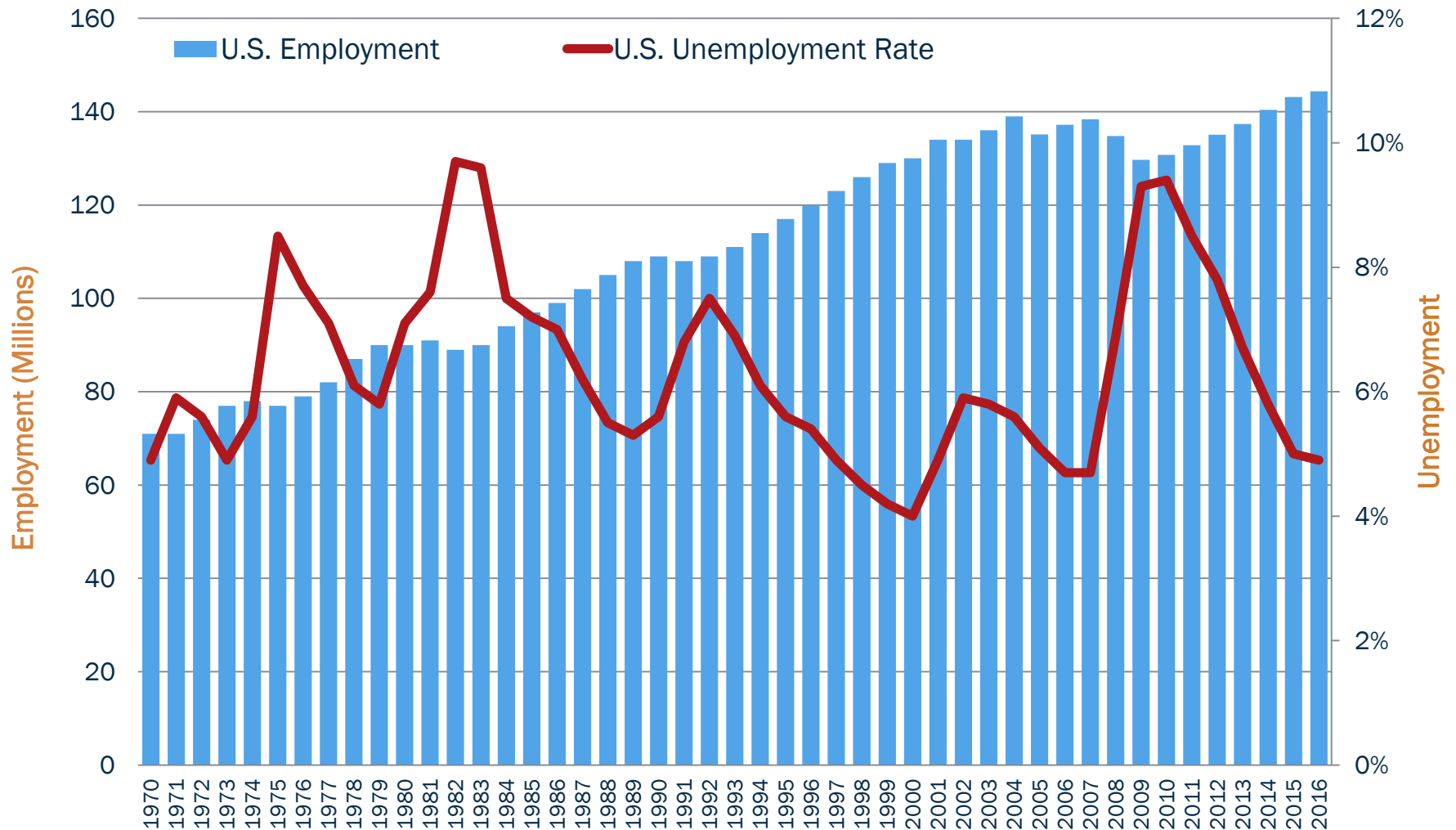


# **Talent, Generations & Future Leadership**



# Jobs and Unemployment *(1 of 2)*

## Employment and Unemployment Rates | 1970–2016

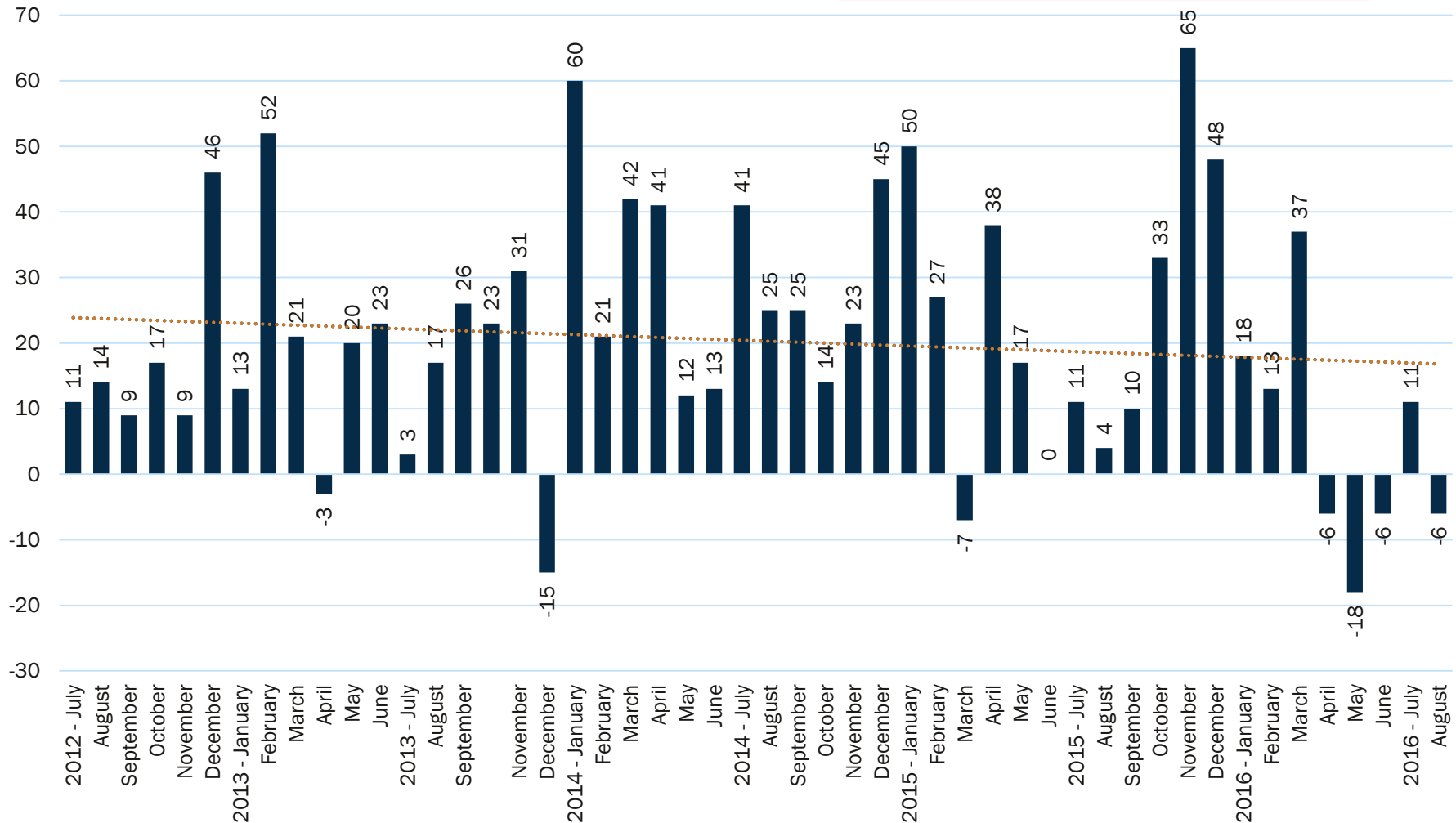


# Jobs and Unemployment (2 of 2)

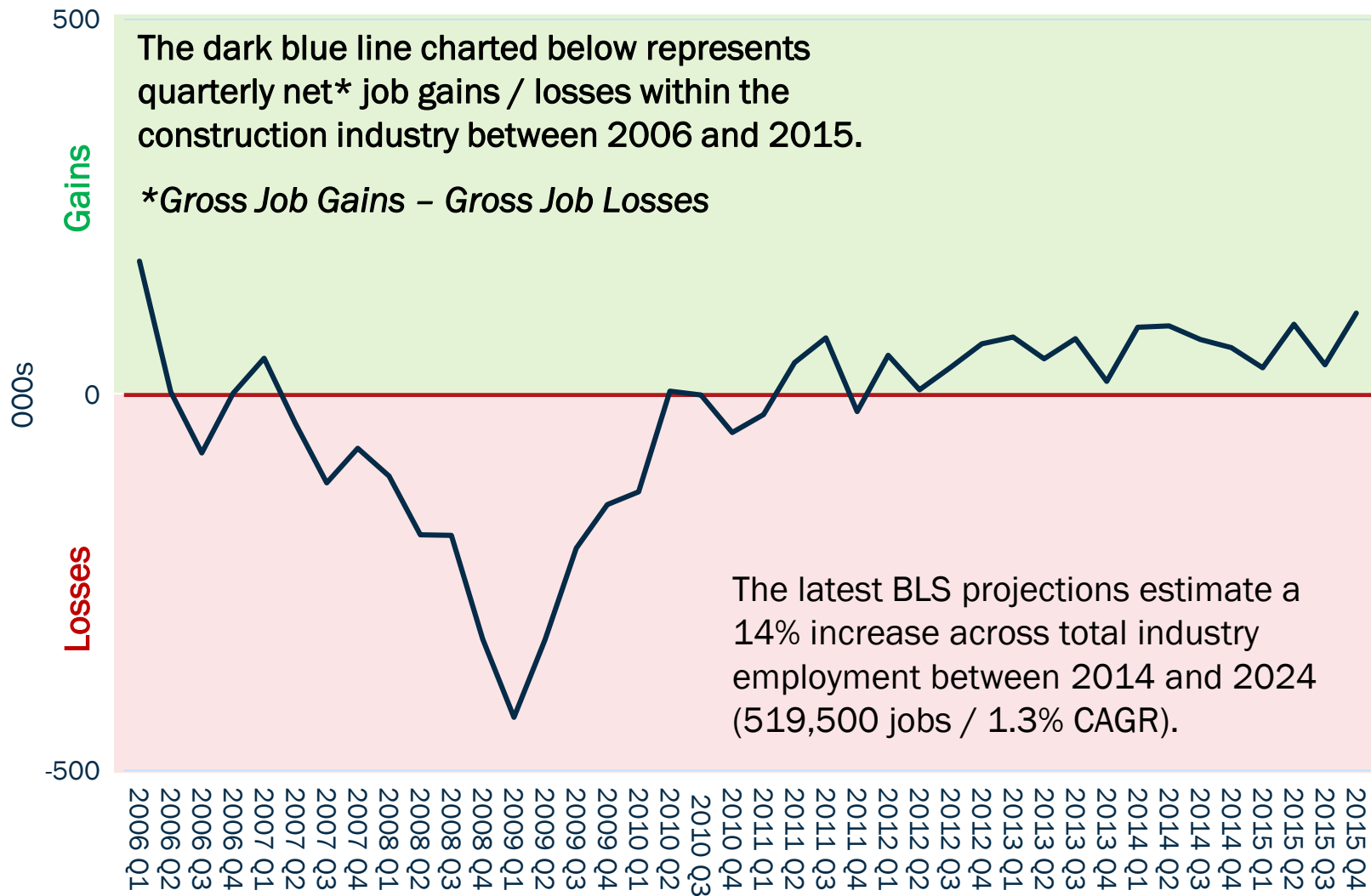
## Employment in construction

Month over month change, thousands

Construction added 199,000 jobs over the past year.



# Dynamic Construction Industry Employment: Gains Less Losses



# Growth Impediments Due to Talent Shortages

Availability has become a top impediment to performance

- Recession created industry exodus
- Baby boomers retiring
- Slowdown in U.S. immigration

*The E&C industry downturn occurred when Millennials were coming of age*

## Implications

- Top strategic leader focus – how do we attract and retain an “unfair” advantage of a limited talent pool
- Understand what is required to attract and effectively leverage Millennials
- Internal development of talent
- Can applied technology produce more with fewer people?

If you cannot reasonably meet the need for skilled labor and tradespeople in the next few years, what do you think will be the impact for your business?

**61% believe the lack of skilled labor will impact competitiveness and / or slow ability to grow**



# Boomers are Retiring, Millennials are the Future

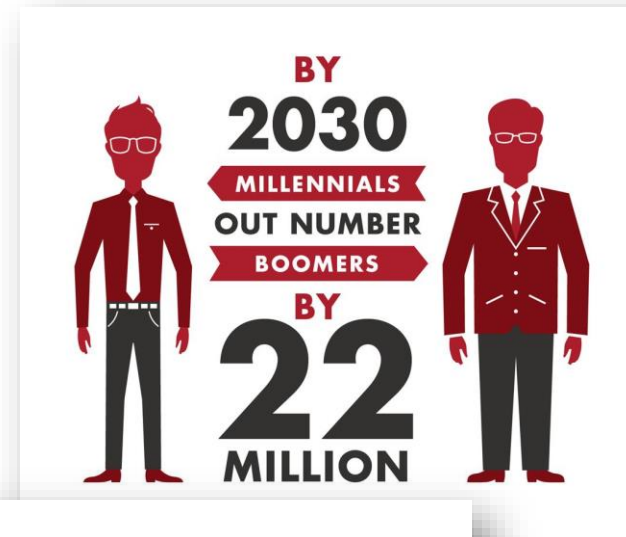
Majority of industry leadership retiring in the next five to seven years

- Gen X insufficient to cover the gap
- Millennials think and work differently but understand and can apply technology
- Millennials feel disenfranchised, not attracted to construction
- Millennials will be our customers in 10 to 15 years

## Implications

- Leadership needs to quickly learn how to understand, leverage effectively this generation
- Mentoring and stretch assignments critical
- Clarifying a company's purpose and direction critical

*Aging baby-boomers retained ownership through the past decade, largely forgoing the opportunity to transition ownership to GenX and are now behind the curve for a time-based transition....*



# **2016 ICAA Survey Results**



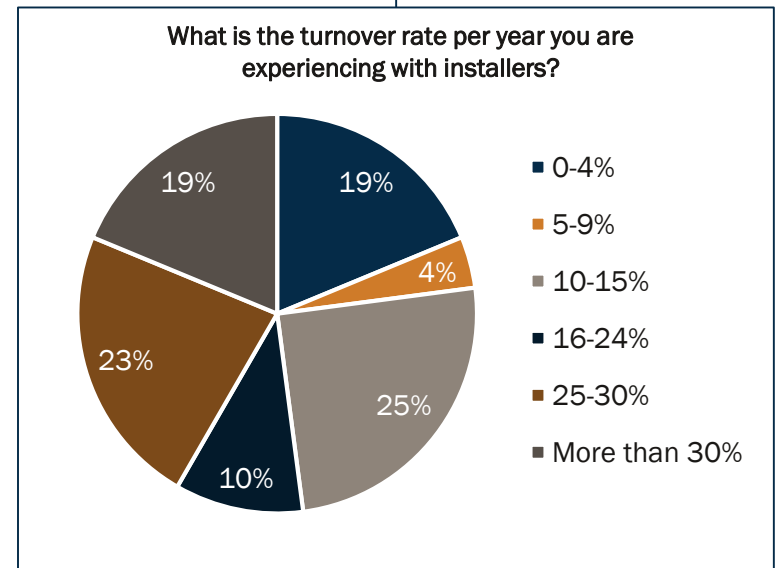
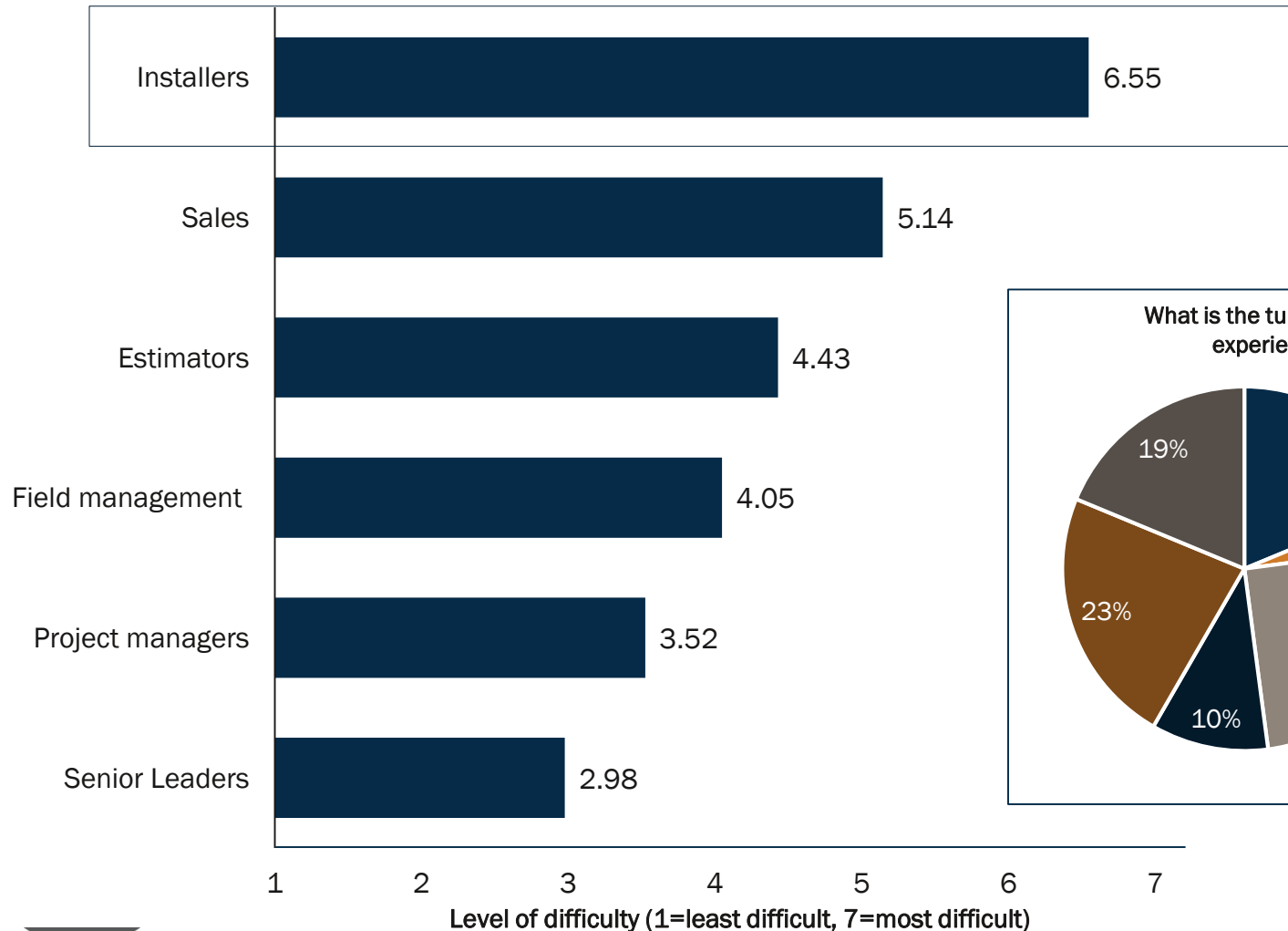


# Survey participants indicated installers to be the most difficult position to find and recruit in today's market.

**Which positions are the most difficult to find and recruit today?**

Weighted average scores: Q1, Q12

Source: ICAA survey

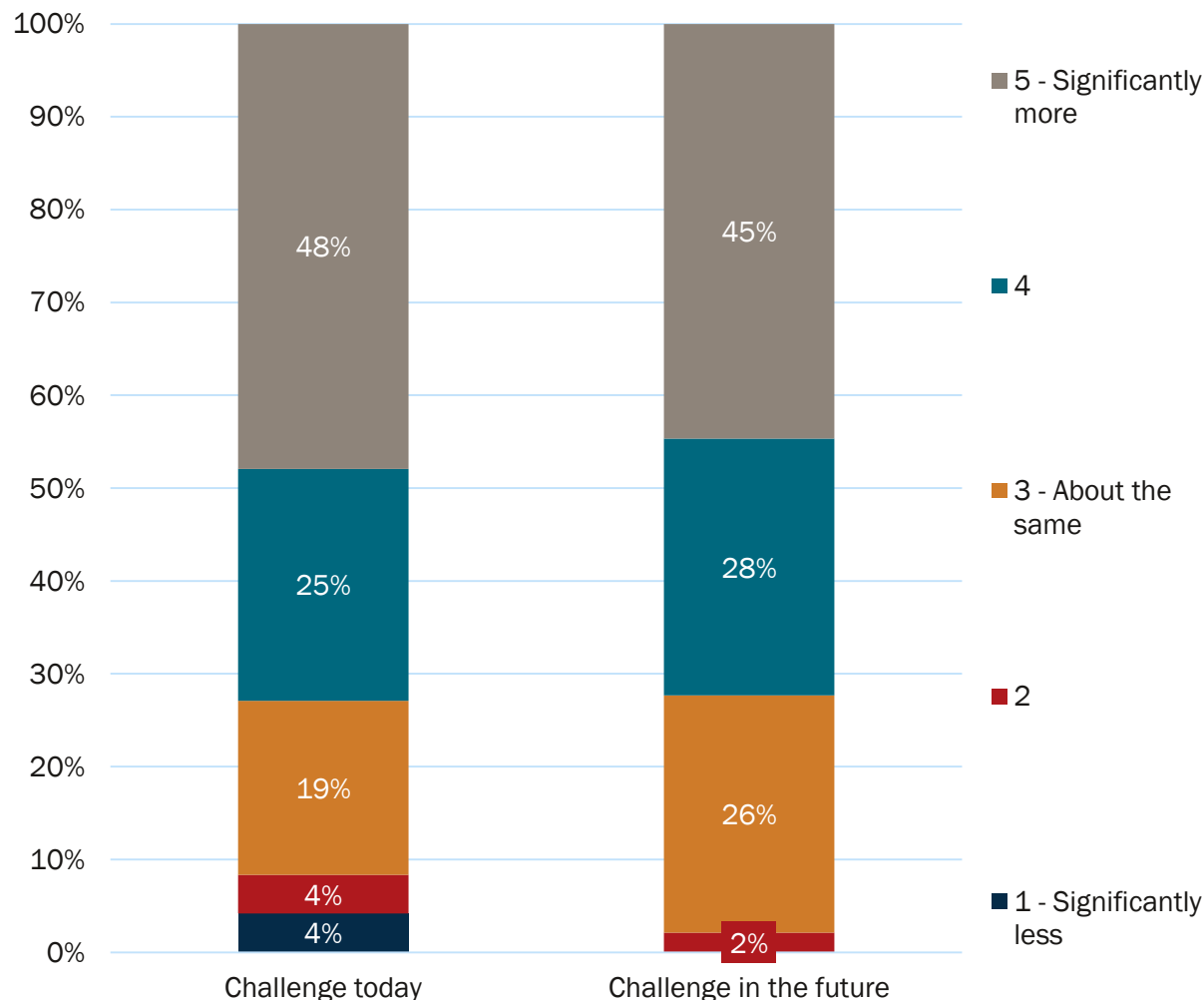


# Overall, challenges in recruiting, developing and retaining installers are expected to continue in the next two to three years.

How big of a challenge is it to recruit, develop and retain installers today and how will recruiting, developing and retaining installers change in the next two to three years?

Q2, Q3

Source: ICAA survey



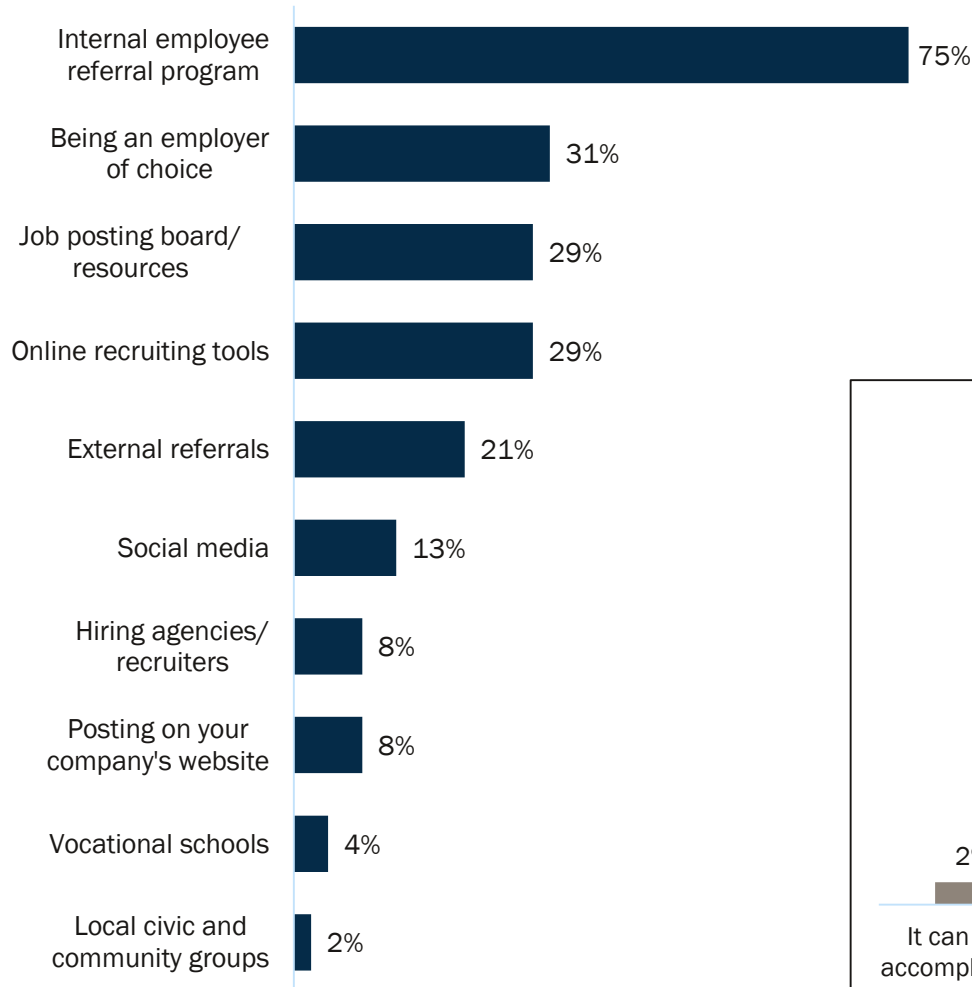
- Overall, survey participants indicated the current challenge of recruiting, developing and retaining installers will continue to be a challenge in the coming future (i.e., two to three years).
- More than half (55%) of survey respondents that indicated the challenge of recruiting, developing and retaining installers will stay about the same or be less challenging in the next two to three years were from the Southeast or Southwest.
- Whereas, all survey participants from the Northwest indicated recruiting, developing and retaining installers will be a greater challenge in the next two to three years.

# Internal employee referral programs were perceived to be the best source for hiring quality installers.

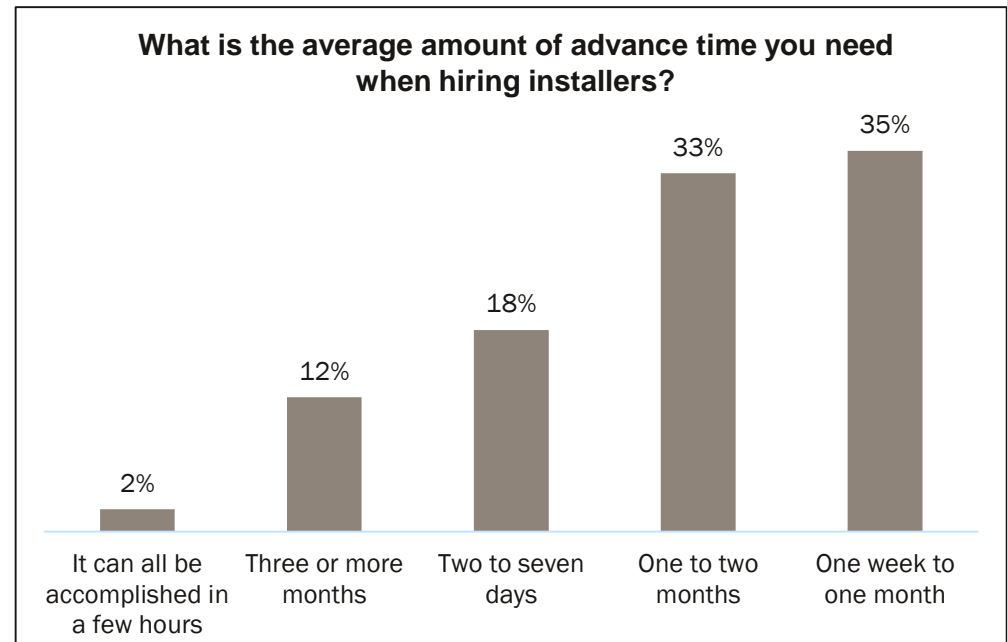
What are your best sources for hiring quality installers? Choose up to three.

Q8, Q9

Source: ICAA survey



- Traditional means for hiring individuals such as posting on the company's website or hiring agencies/ recruiters were not favorably viewed by survey respondents.
- Sixty-eight percent of respondents believe the average amount of advance time needed when hiring installers is between one week and two months.



# A Great Place to Work



The Great Place to Work: How to Build it, How to Keep it, and Why it Matters

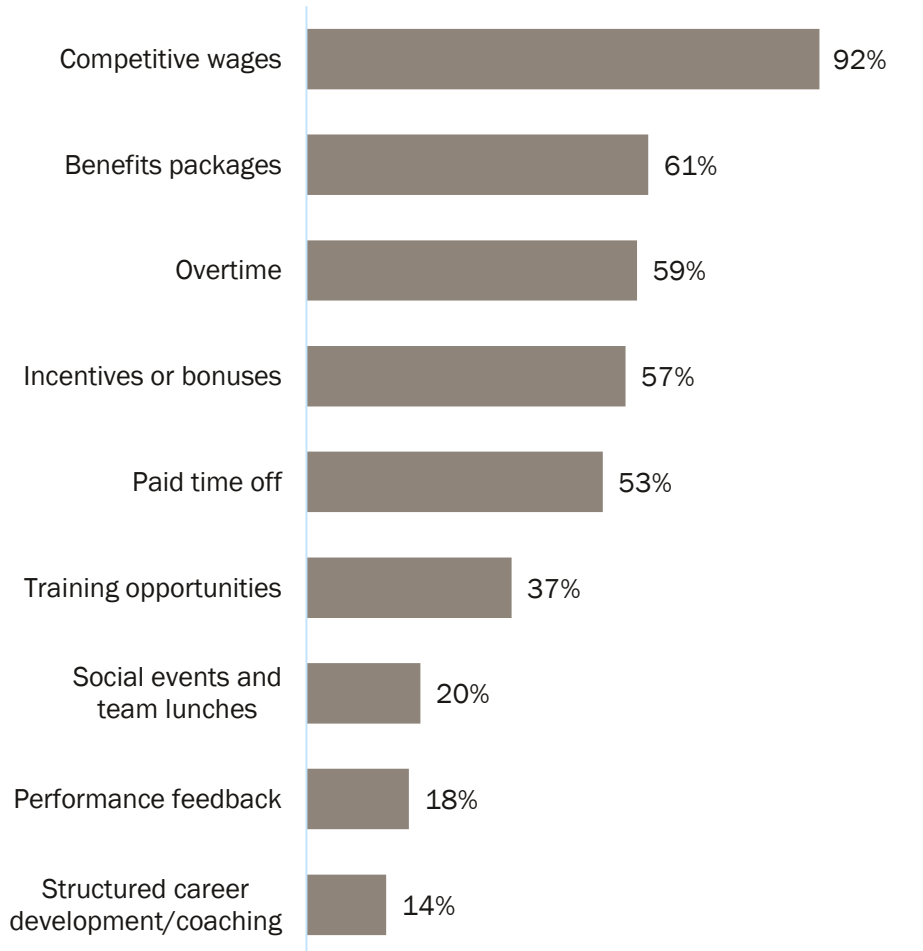
—Michael Burchell and Jennifer Robin

# Survey participants believe that competitive wages are the number one strategy to retain quality skilled installers.

**What are the top strategies you are using to retain skilled installers? Select all that apply.**

Q9

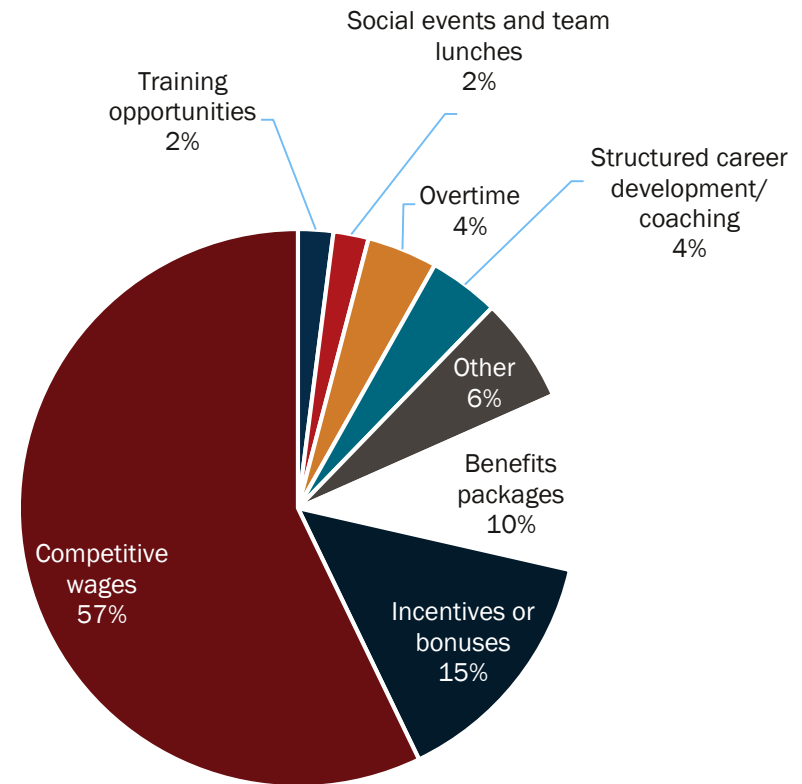
Source: ICAA survey



**Thinking of the strategies you selected in the question above, which one strategy do you believe is the number one reason you are able to retain quality skilled installers?**

Q10

Source: ICAA survey

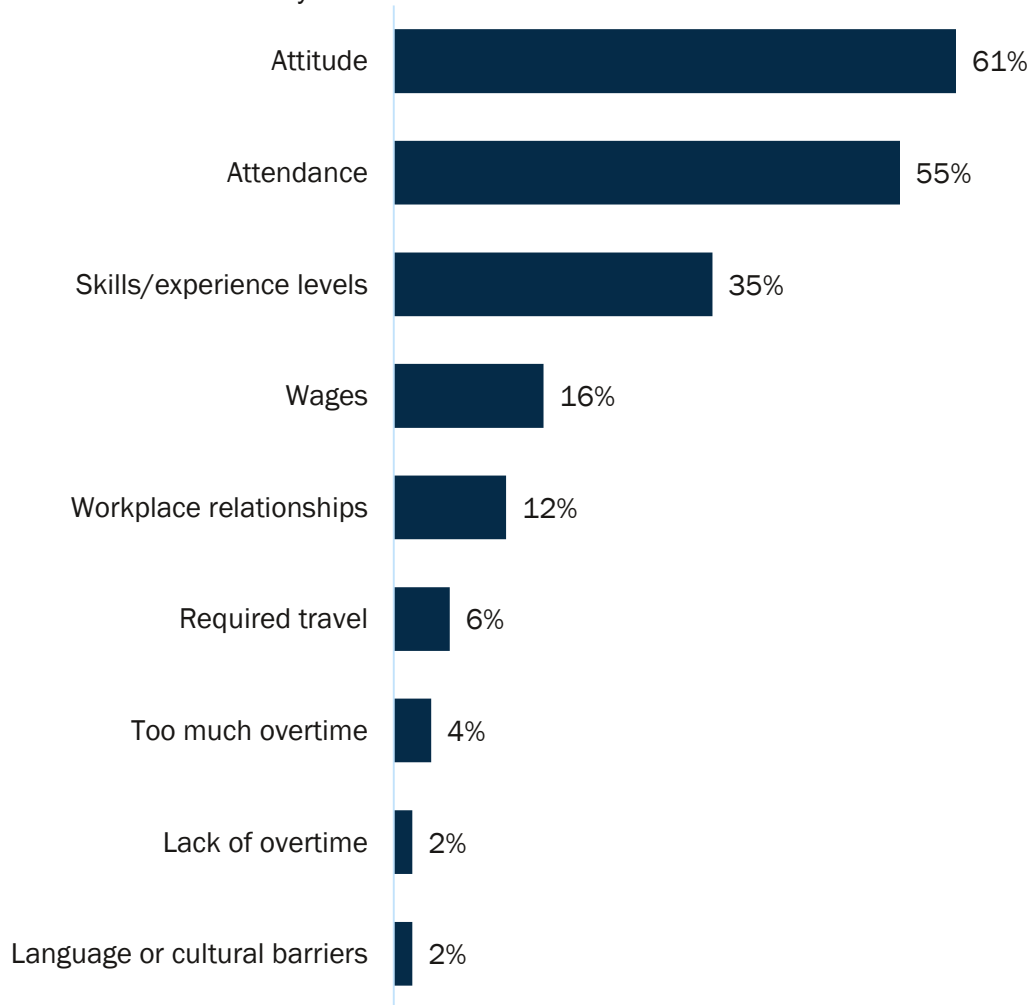


# Poor work ethic and a lack of punctuality were indicated to be significant factors in installers being asked to leave.

When installers leave, either by choice or are asked to leave, what are the most common reasons why? Select all that apply.

Q11

Source: ICAA survey



## Respondent suggestions for better recruiting, developing and retaining of top installers

*"Only hire motivated installers if you can find them."*

*"Take care of what you have; be flexible and understanding."*

*"Treat your people with respect."*

*"Show appreciation for employees, both in the form of pay and respecting their time away from work."*

*"Take care of your good employees."*

*"Offer unlimited overtime for those who want it."*

*"Make sure your pay scale is equal to others in your area."*

*"Make sure you operate a great place to work and grow for everyone"*

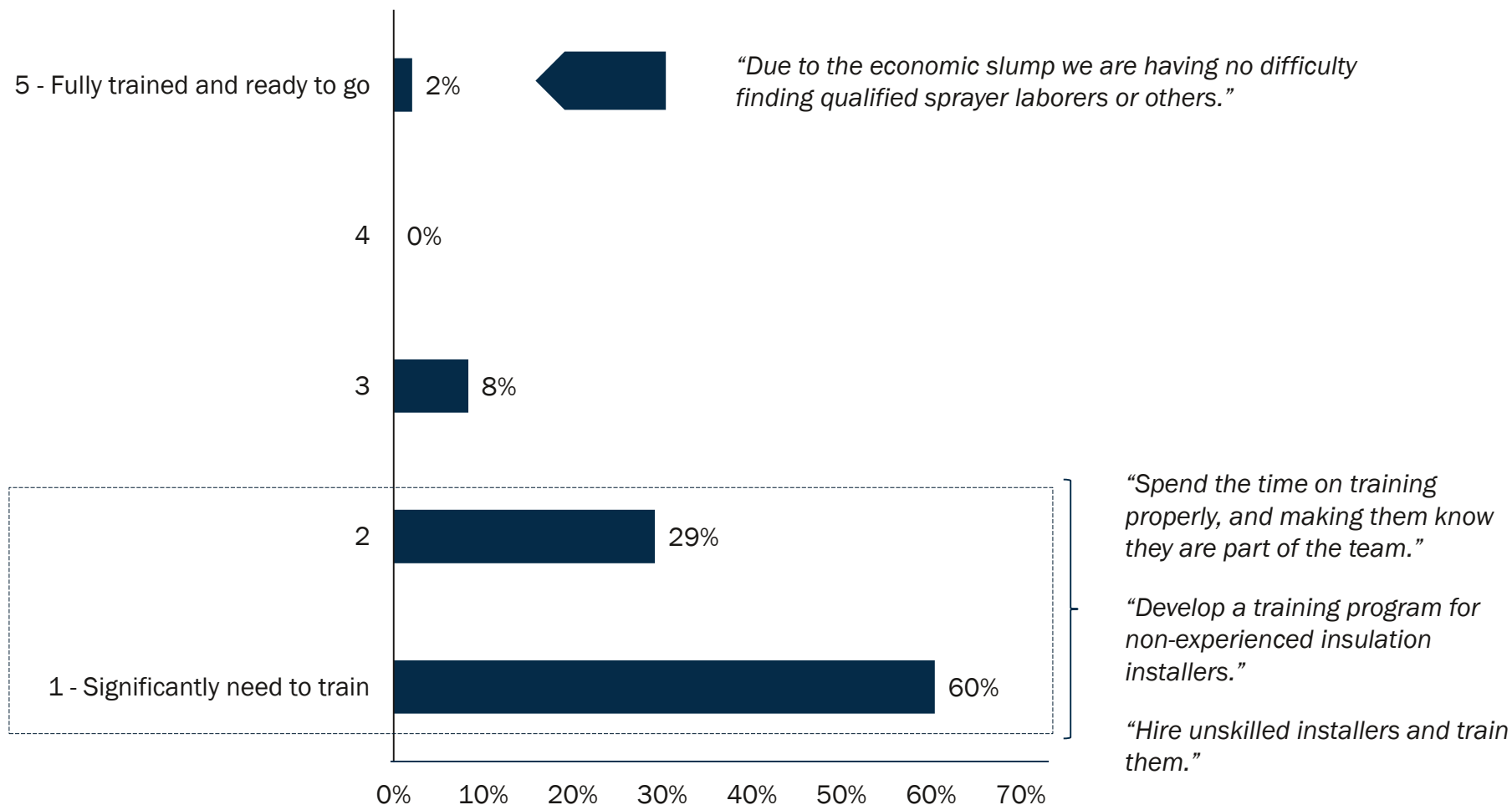
*"Be prepared to spend time to find the right person."*

# Nearly 90% of new installers found by survey participants require significant training.

What is the average skill level of the new installers you are finding?

Q4

Source: ICAA survey

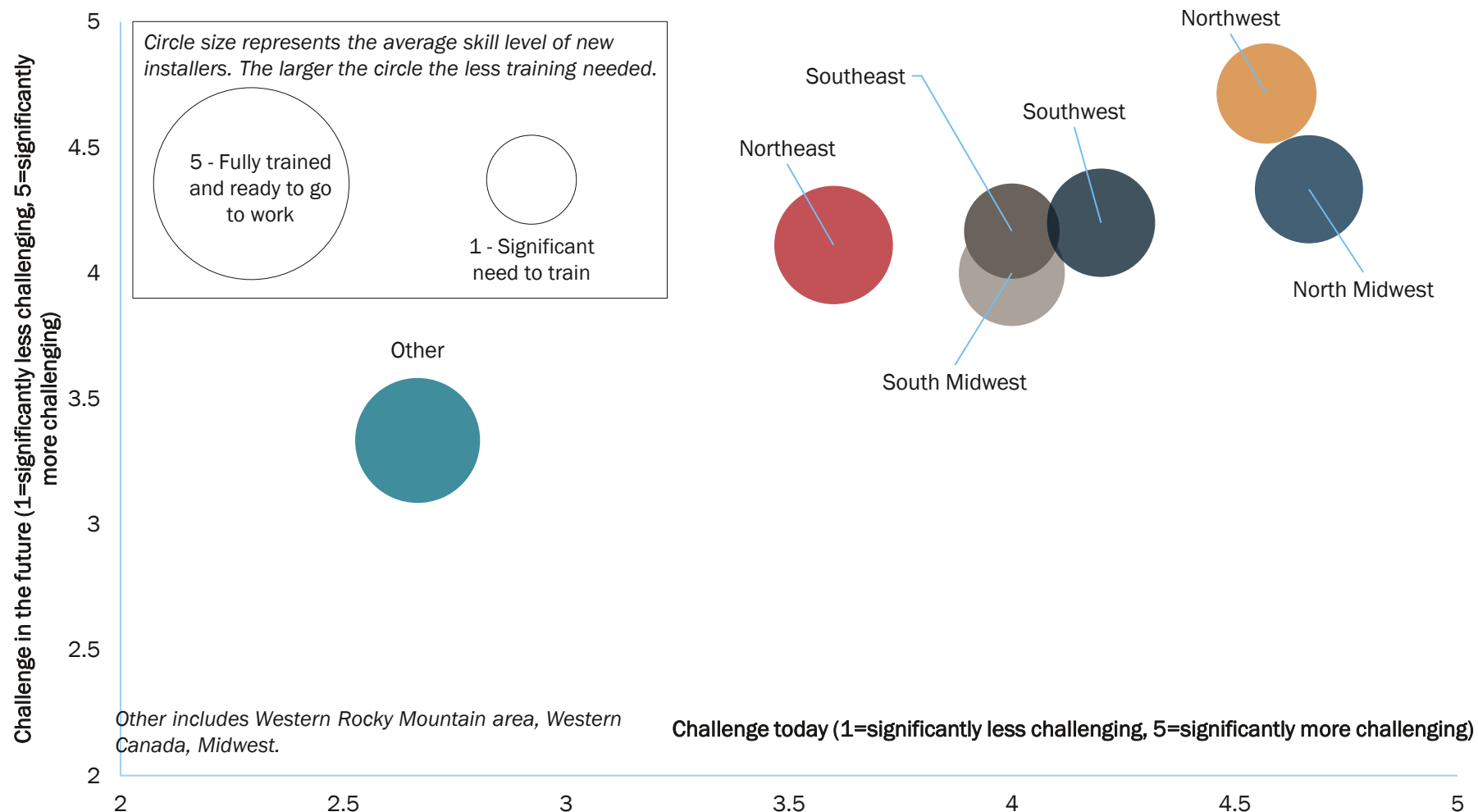


# Along with the challenges in recruiting, developing and retaining installers, training will be highly important for new installers hired.

## Current and future challenge in recruiting, developing and retaining installers by geographic location

Q2, Q3, Q14

Source: ICAA survey





# Capturing the Future's Advantage

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- Now is the time to get ready
- Agree on the facts
- Get your strategy straight
- Find new sources of people
- Cultivate talent—at all levels
- Train leaders
- Make your company a staying place
- Think jungle gym, not just career ladders
- Embrace a technology POV
- Give customers an excuse
- Find a penny



*Man was designed for  
accomplishment, engineered  
for success, and endowed  
with the seeds of greatness.*

~Zig Ziglar



UnshakeableBelief.com

# Presenter

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As FMI's practice leader for business development, Cynthia works with industry organizations to position them to capture market share and grow profitably. She helps construction industry organizations stand out from the competition by discovering their differentiated platform. Working in tandem with project teams to create winning strategies, she has served industry associations, contracting firms and industry suppliers.

With a strong conviction that marketing and business development starts at the top of an organization, Cynthia works with company presidents, sales, marketing and business development executives to help create a strategic vision. Cynthia then works one-on-one with companies to ensure that their strategic vision is translated into a competitive advantage in the marketplace and that the full market benefit is achieved.

Cynthia is a highly rated instructor and speaker. Her presentation style and knowledge of the construction industry make her a sought after speaker for industry events across the country for such programs as **Construction Selling Skills**, **Presentation Skills**, **Competitive Marketing for Contractors**, and **Managing Key Accounts**.

Cynthia holds a bachelor's degree in business administration, with a minor in economics, from Fort Lewis College. She earned her master of business administration degree in finance and marketing from the University of Denver.