Building a Safety Culture:

Improving Safety and Health Management in the Construction Industry

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DODGE DATA & ANALYTICS

North America's leading provider of analytics and software-based workflow integration solutions for the construction industry.

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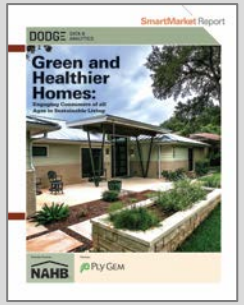
SUSTAINABILITY

Green Homes



World Green Trends

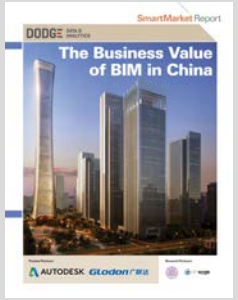
Green Schools

Health

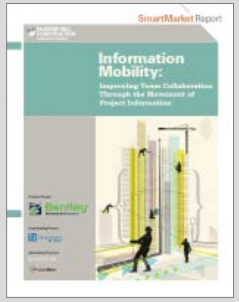
TECHNOLOGY/INNOVATION

Measuring BIM

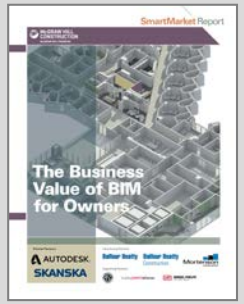
China BIM



Information Mobility



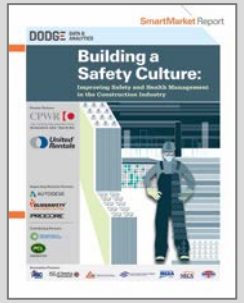
BIM for Owners



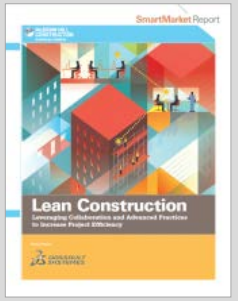
PRACTICES/PROCESSES

Managing Uncertainty

Safety



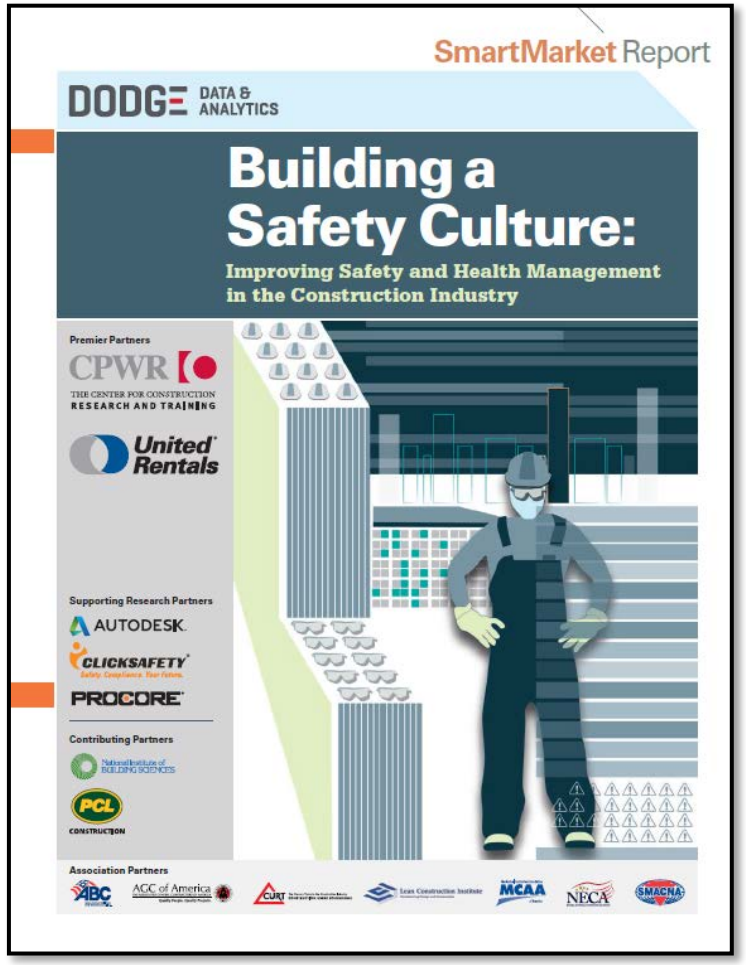
Lean



Delivery Systems

ALH ACCESS, LIFT & HANDLERS CONFERENCE & AWARDS 2017

About the SmartMarket Report



- Study conducted in fall of 2015
- Follow-up to 2012 Safety SMR
- 264 survey respondents:
  - **111 general contractors (44%)**
  - **115 specialty contractors (45%)**
  - **8 design-build contractors (3%)**
  - **19 construction management firms (8%)**
  - **1 engineering firm (.4%)**
- Company size by number of employees:
  - **Less Than 10 (11%)**
  - **10 to 49 (32%)**
  - **50 to 99 (16%)**
  - **100 to 499 (20%)**
  - **500 or More (21%)**

Agenda

Report Highlights

- Safety Culture Spectrum
- Practices
- Business Impact
- Influence Factors
- Training Practices and Communication

Questions

Safety Culture Indicators

33 indicators of a safety culture in seven categories:

- **8** Management commitment
- **4** Safety and health as a fundamental company value
- **3** Accountability on projects
- **6** Worker involvement in jobsite safety
- **3** Supervisory leadership
- **4** Effectiveness of communications
- **5** Company owner involvement

1.Management commitment to safety and health

Use of Practices That Indicate Management Commitment to Safety and Health
(All Respondents)

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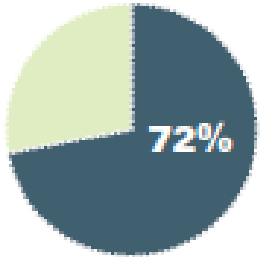
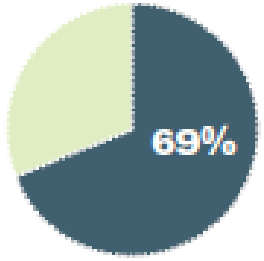
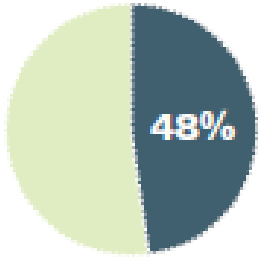
Formal Process for Safety-Related Corrective Action



Safety/Health Is a Key Part of Strategic Planning



Company Has Joint Worker/Management Safety and Health Committee

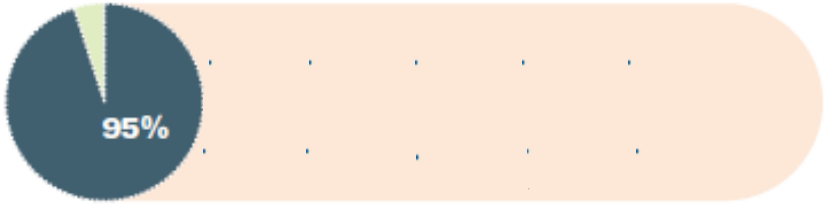


1.Management commitment to safety and health

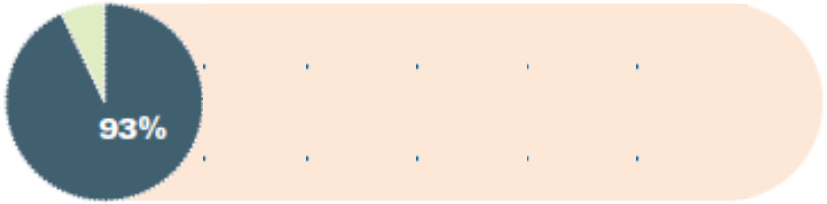
Level of Use of Practices That Indicate Management Commitment to Safety and Health (All Respondents)

Dodge Data & Analytics, 2016

Safety/Health Is a Top Agenda Item at Meetings

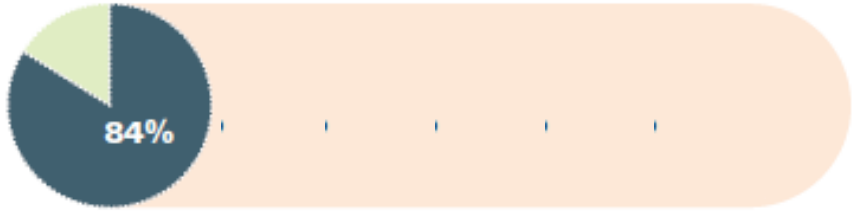


Clearly Defined Health and Safety Expectations

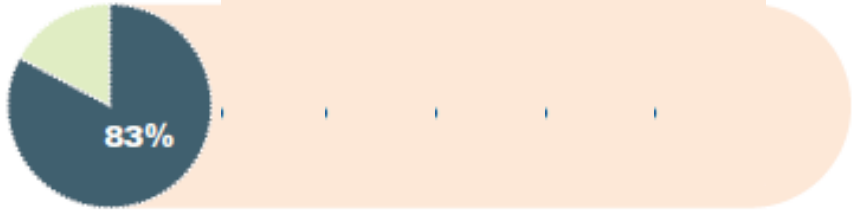


Management Participation in All Safety and Health Meetings on Jobsite

Practice Prevention Through Design



Safety/Health Data Used for Improvement



2. Recognition of safety and health as fundamental company values

Use of Practices That Indicate That Safety and Health Are Fundamental Company Values (All Respondents)

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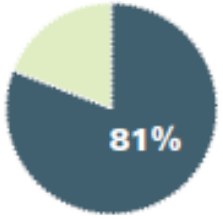
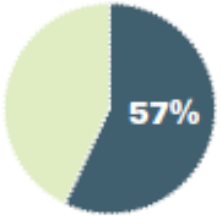
Value Safety and Health at Least as Much as Productivity



Recognize/Reward Safety and Health Participation



Level of Use of Practices That Indicate That Safety and Health Are Fundamental Company Values (All Respondents)

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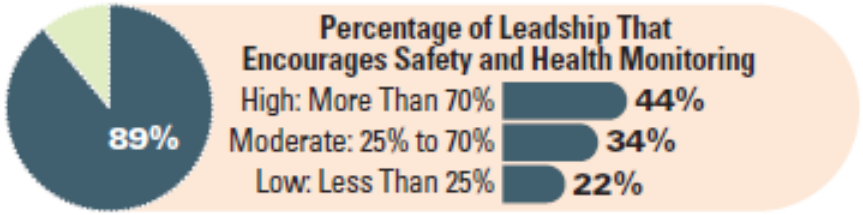
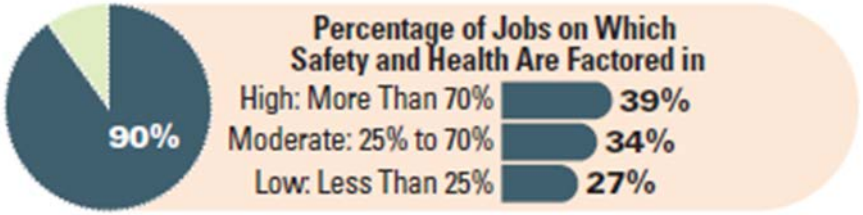
Encourage Safety and Health Mentoring



Factor Safety and Health Into Planning and Bidding



3. Accountability for safety and health on projects

Use of Practices That Create Accountability on Projects for Safety and Health

(All Respondents)

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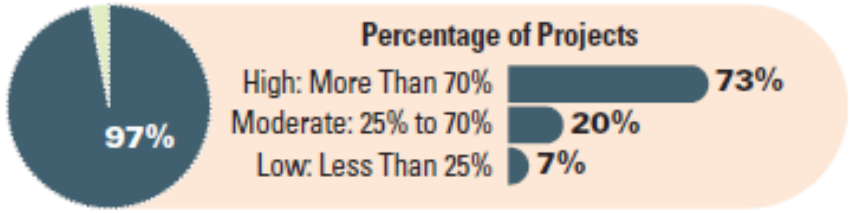
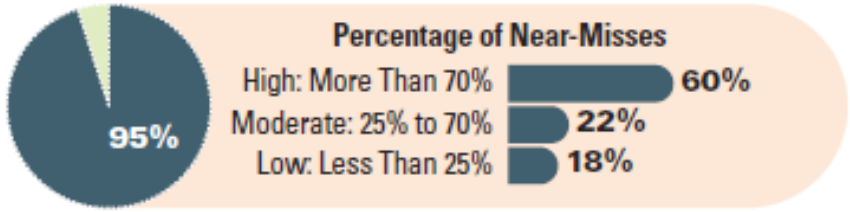
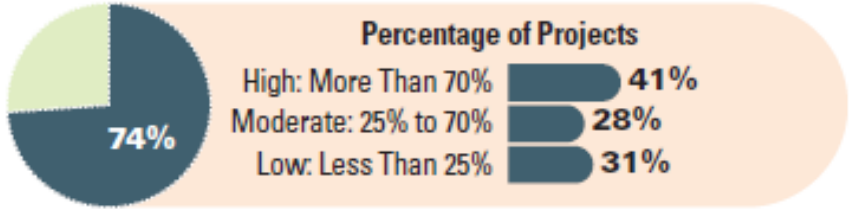
Hold Everyone Accountable for Safety



Near-Misses Taken Seriously and Investigated



Use External Safety and Health Audits

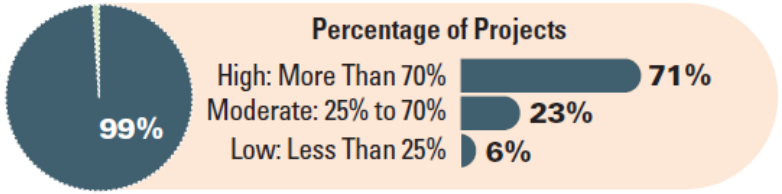


4. Worker involvement in jobsite safety and health

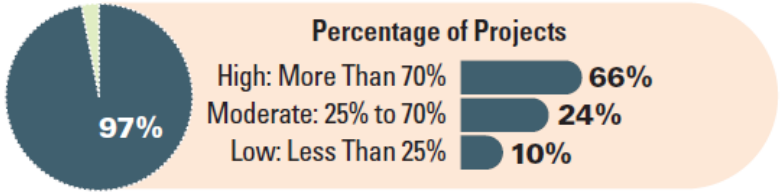
Indicators of Worker Involvement in Jobsite Safety and Health (All Respondents)

Dodge Data & Analytics, 2016

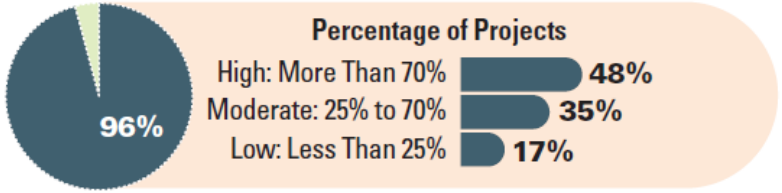
Workers Encouraged to Report Unsafe Conditions



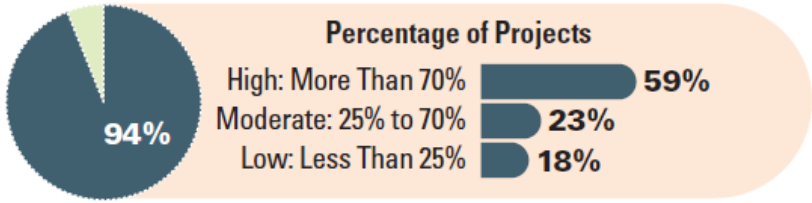
Workers Encouraged to Report Near-Misses



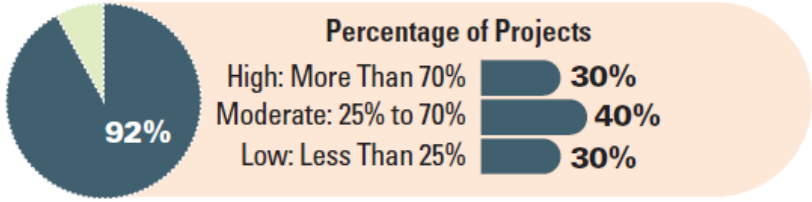
Workers Asked for Input on Site Safety and Health Conditions



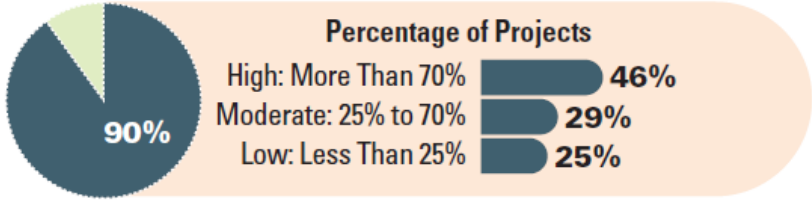
Workers Given Stop-Work Authority



Workers Involved in Safety and Health Planning



Workers Involved in Job-Hazard Analyses



5. Supervisory safety and health leadership

Use of Practices That Demonstrate Supervisory Leadership on Safety and Health (All Respondents)

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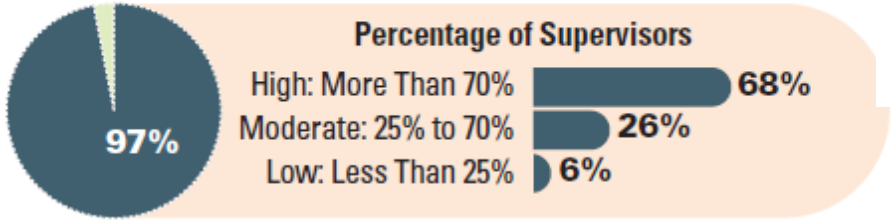
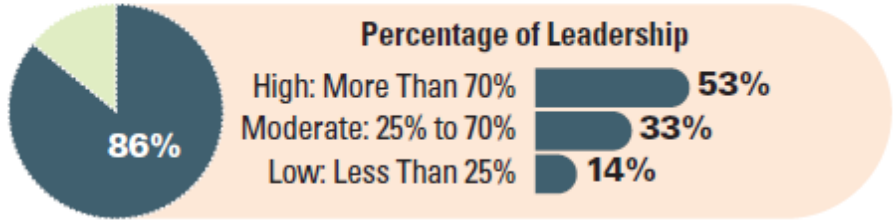
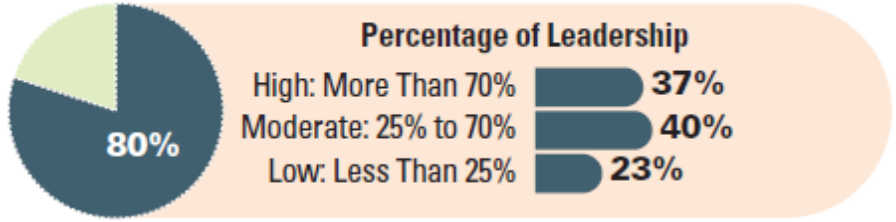
Supervisors Lead by Example



Subcontractors Monitored on Safety Practices



Subcontractors Mentored on Safety Practices

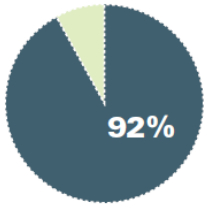


6. Effectiveness of company communications

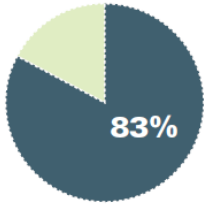
Communication Practices That Are Indicators of a Safety Culture (All Respondents)

Dodge Data & Analytics, 2016

Safety and Health Policies Communicated Clearly to All Employees



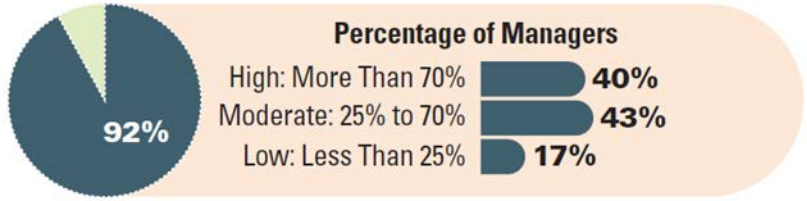
Safety and Health Policies Communicated Consistently



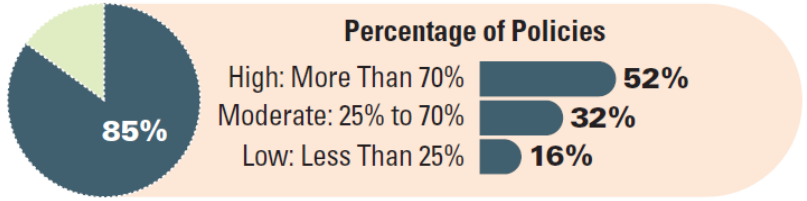
Type and Degree of Communication About Safety and Health (All Respondents)

Dodge Data & Analytics, 2016

Managers Regularly Engage With Workers One-on-One



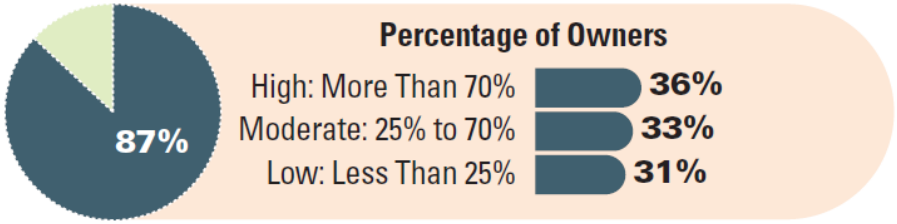
Safety and Health Policies Coordinated With All Subcontractors



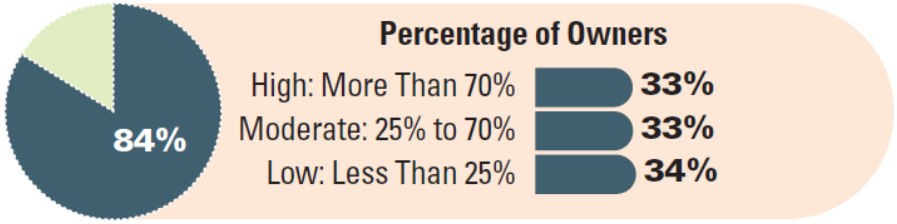
7. Owner involvement in safety and health

Indicators of Owner Involvement in Safety and Health Measures on Projects
(All Respondents)
Dodge Data & Analytics, 2016

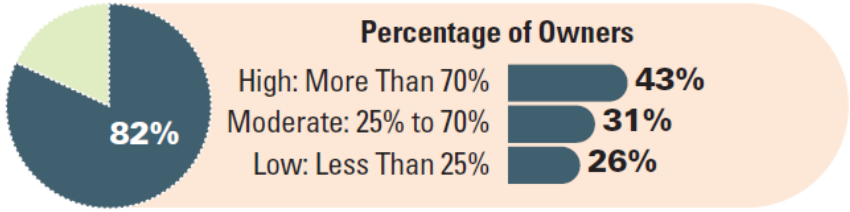
Owners Monitor Onsite Safety and Health Performance



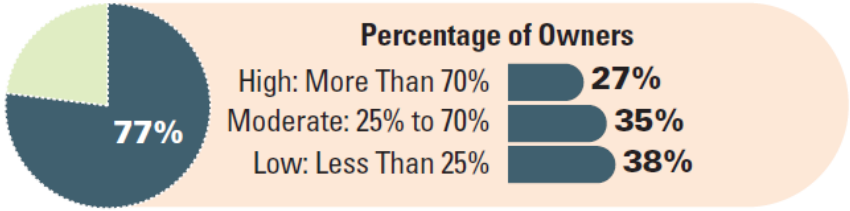
Owners Participate in Safety and Health Activities



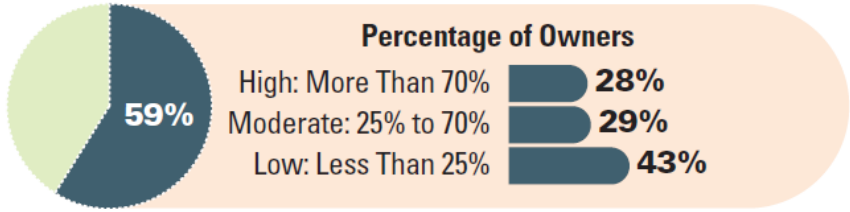
Owners Support Safety and Health Audits



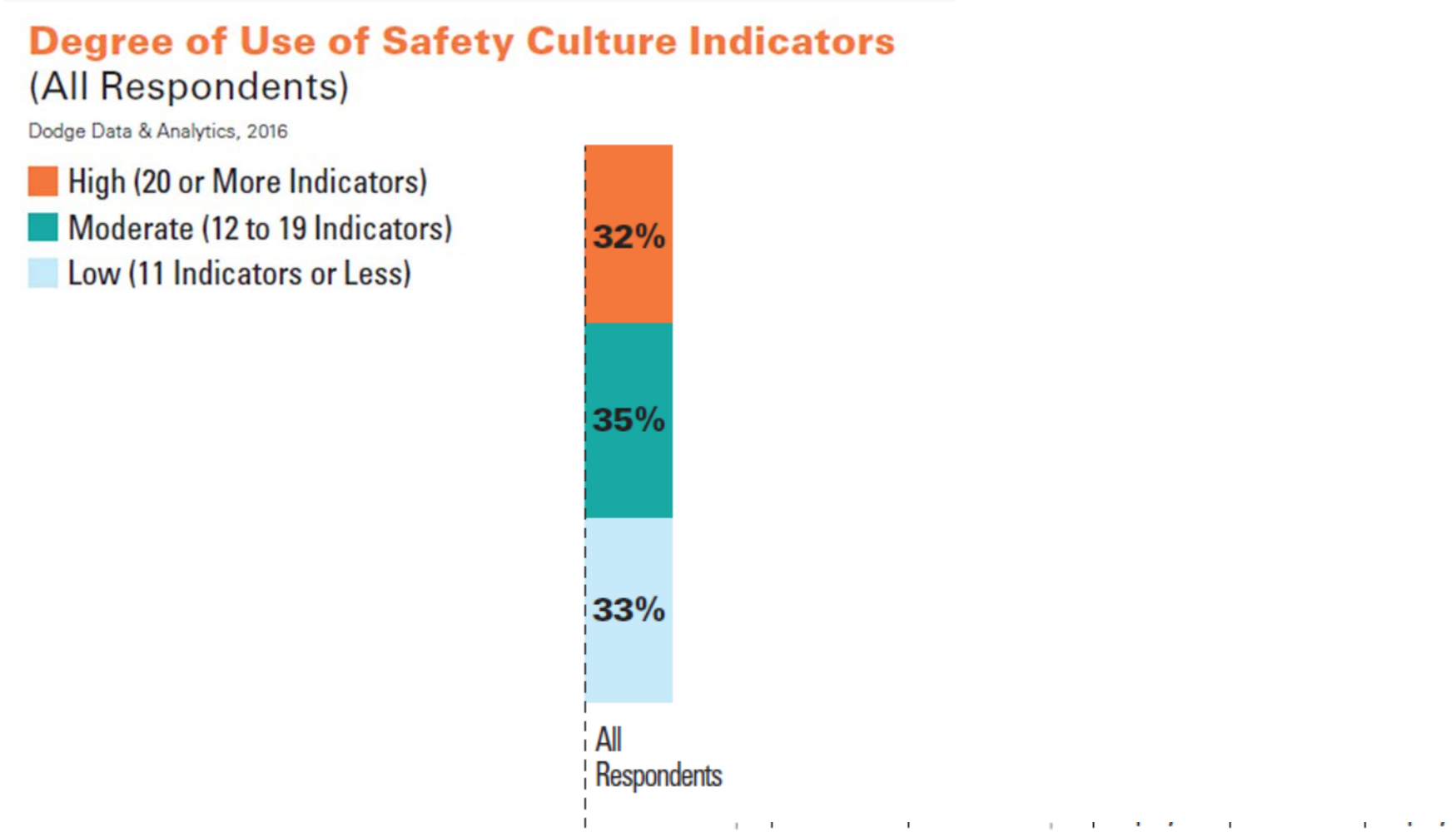
Owners Require Safety and Health Precertification of All Bidders



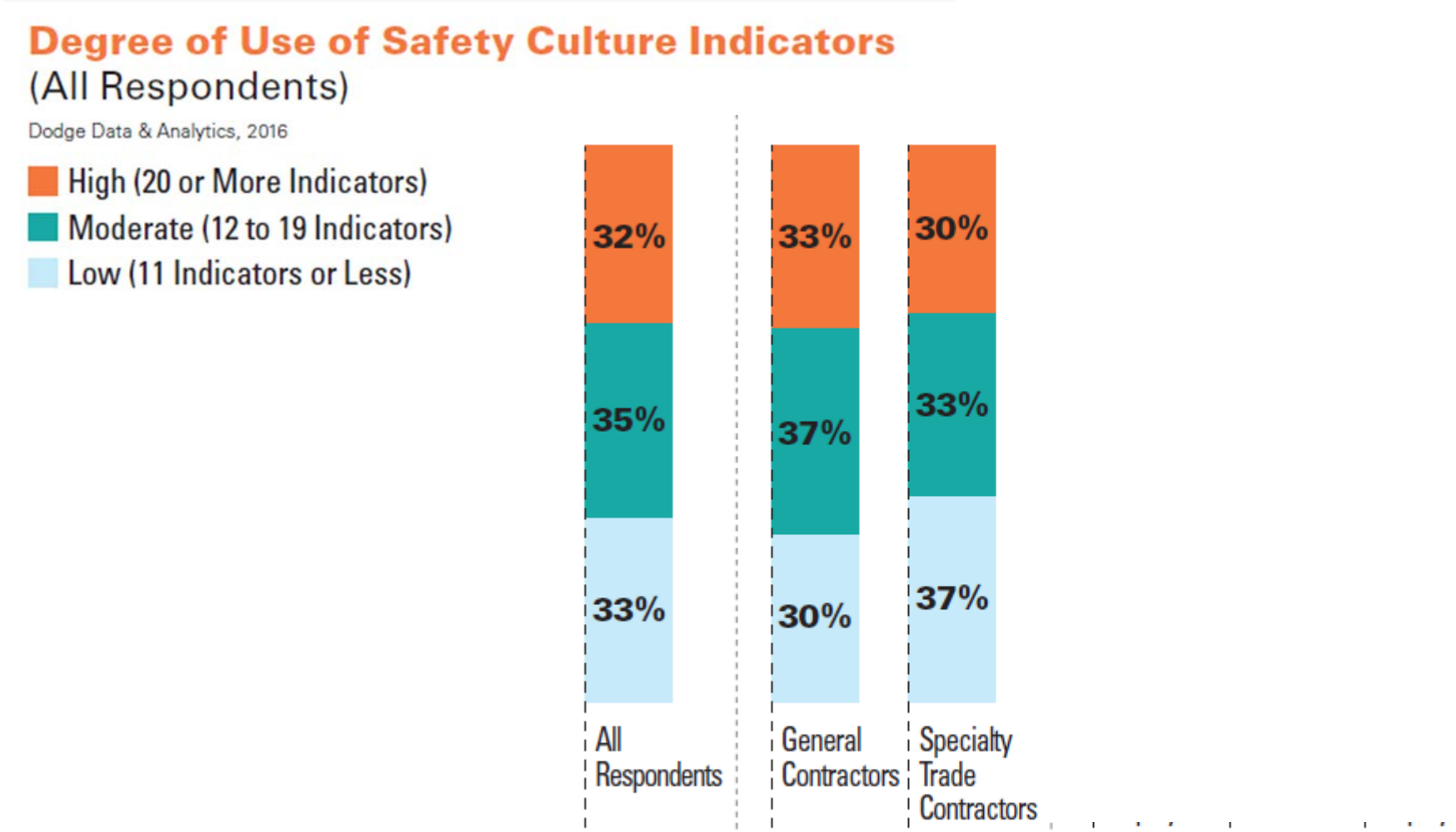
Owners Provide Incentives for Safety and Health Performance



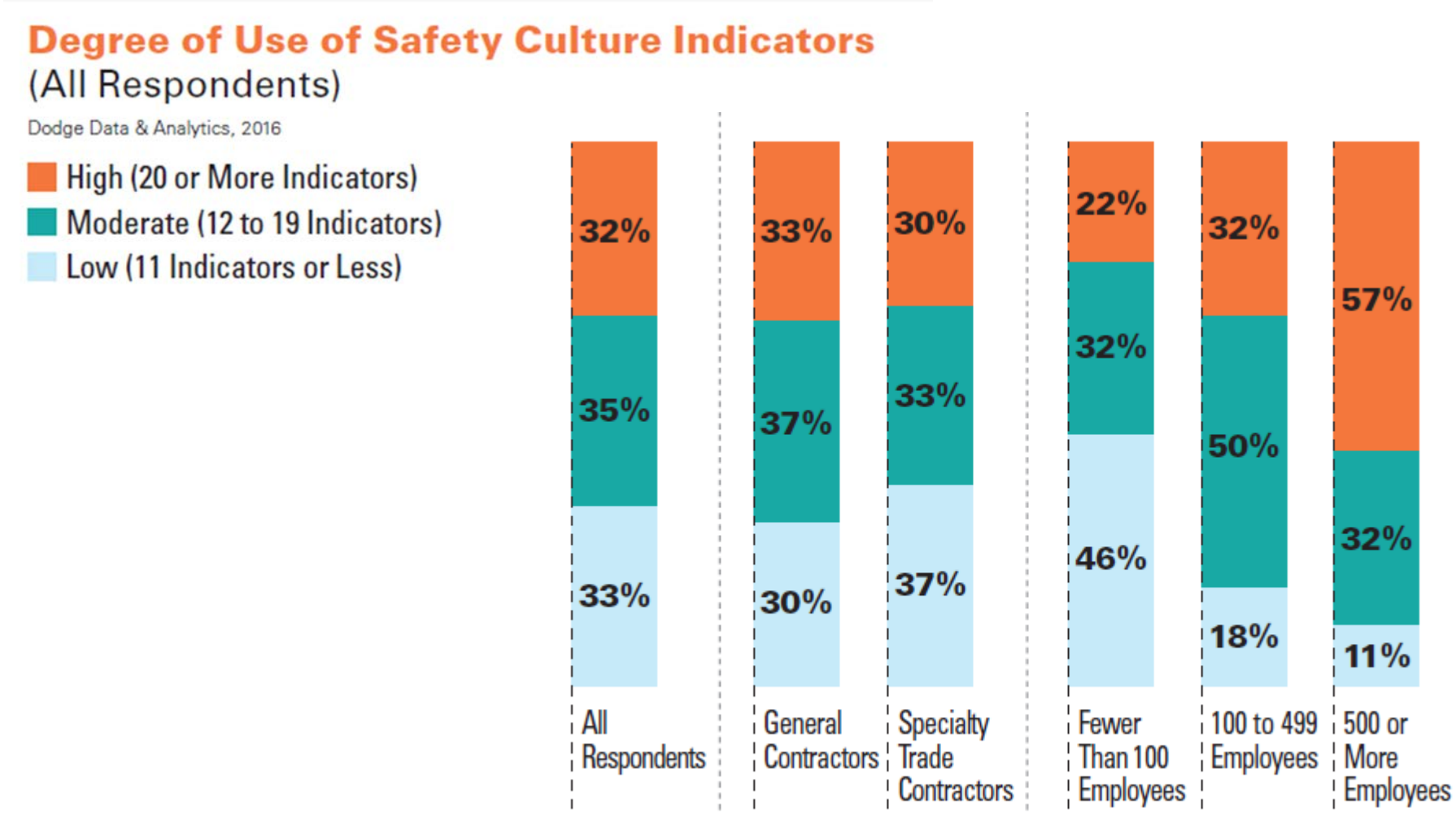
Safety Culture Spectrum



Safety Culture Spectrum



Safety Culture Spectrum



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Report Highlights

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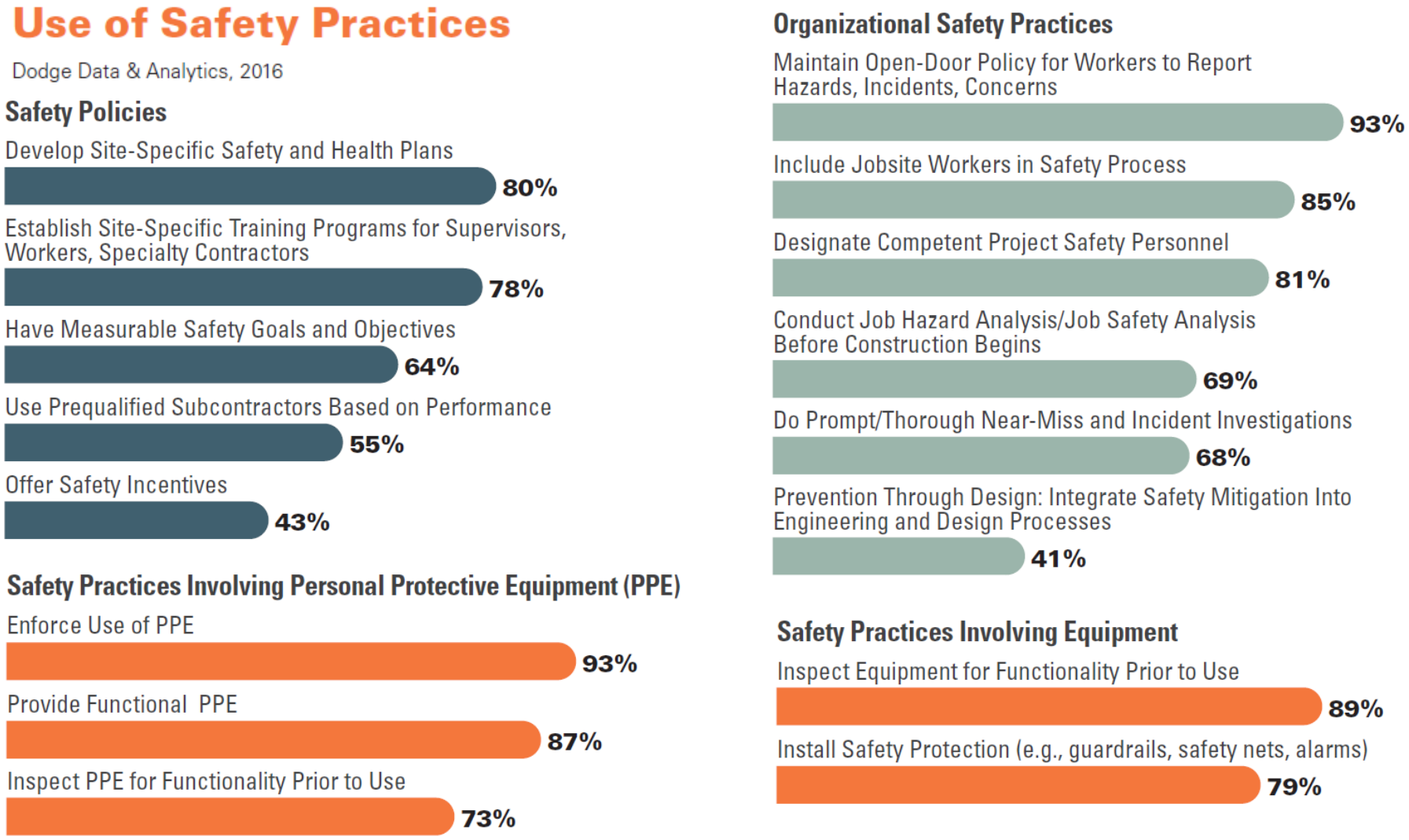
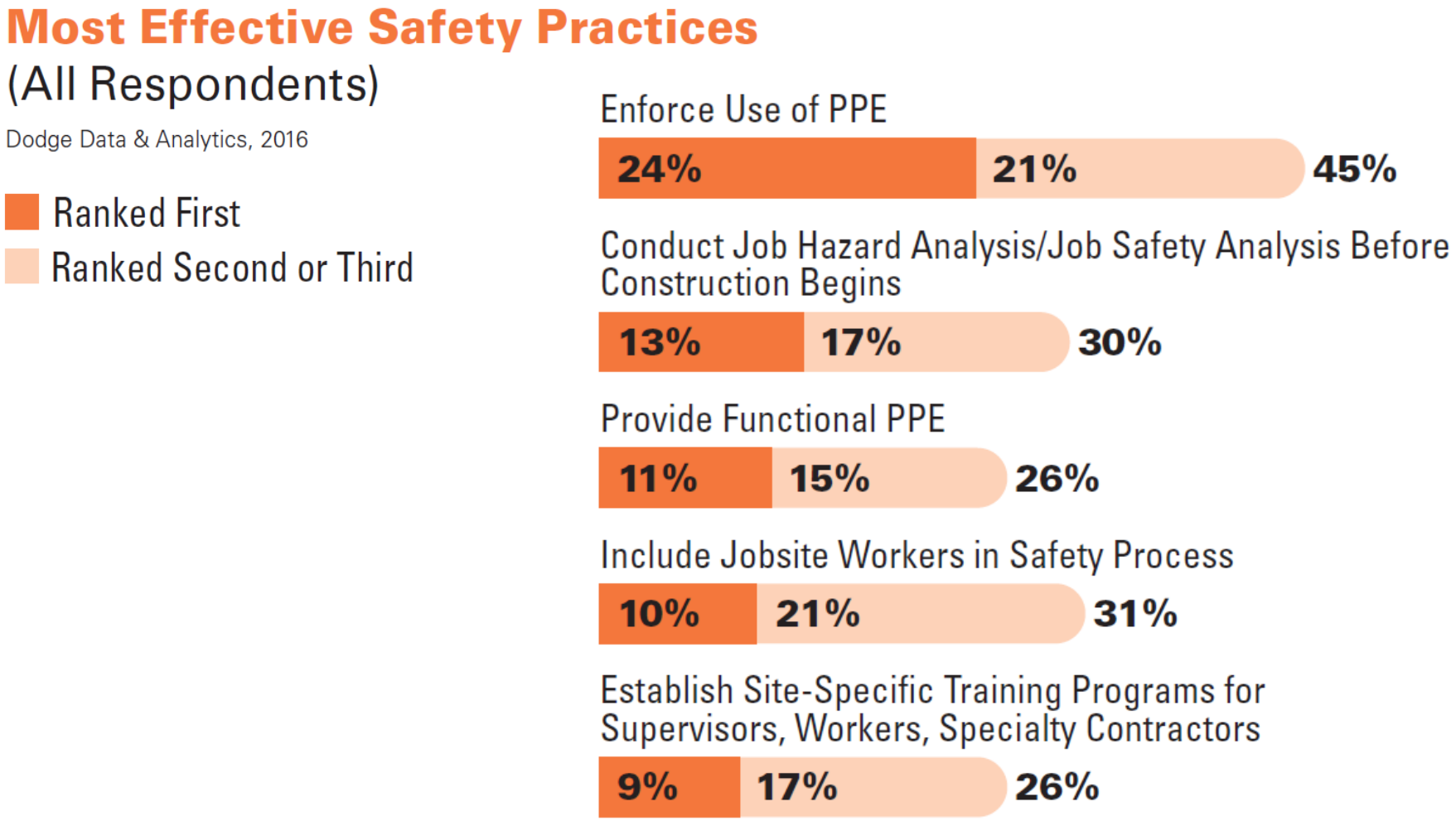
- **Practices**
- Business Impact
- Influence Factors
- Training Practices and Communication

Questions

Practices Used on Projects to Promote Safety

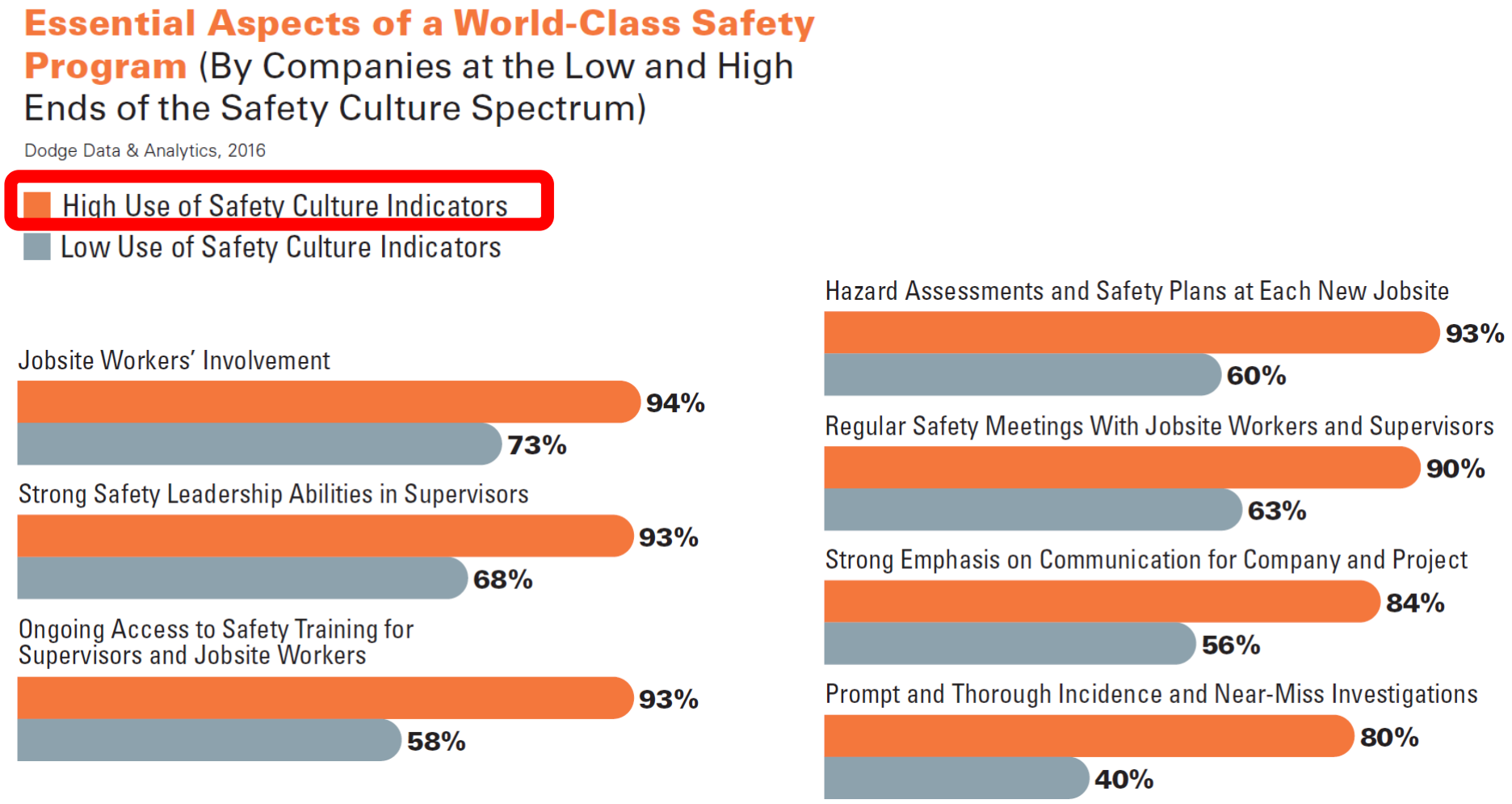


Most Effective Safety Practices



Aspects of a World-Class Safety Program

Aspects of a World-Class Safety Program (2015)



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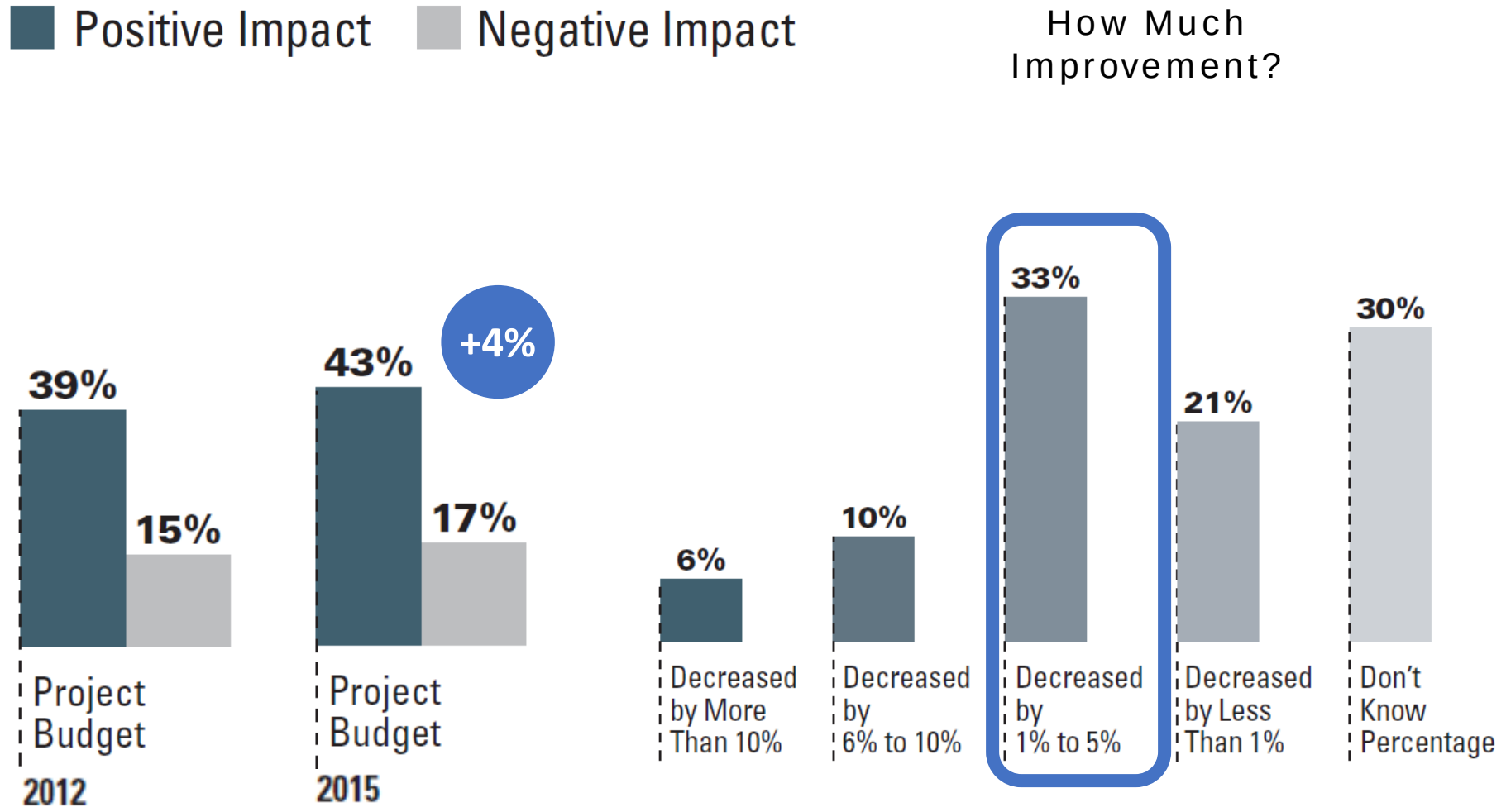
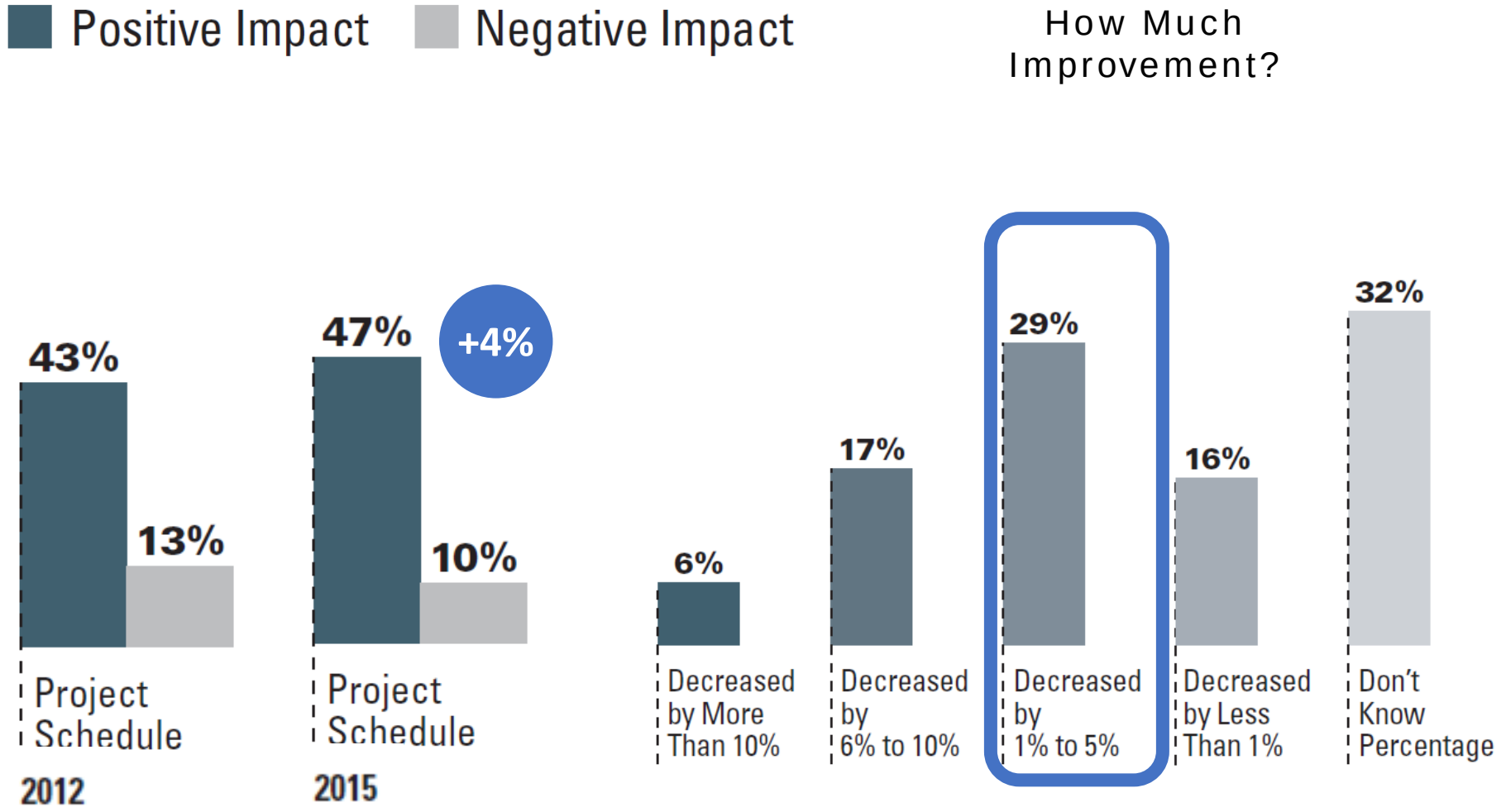
Business Impact: Budget
(2012 and 2015)



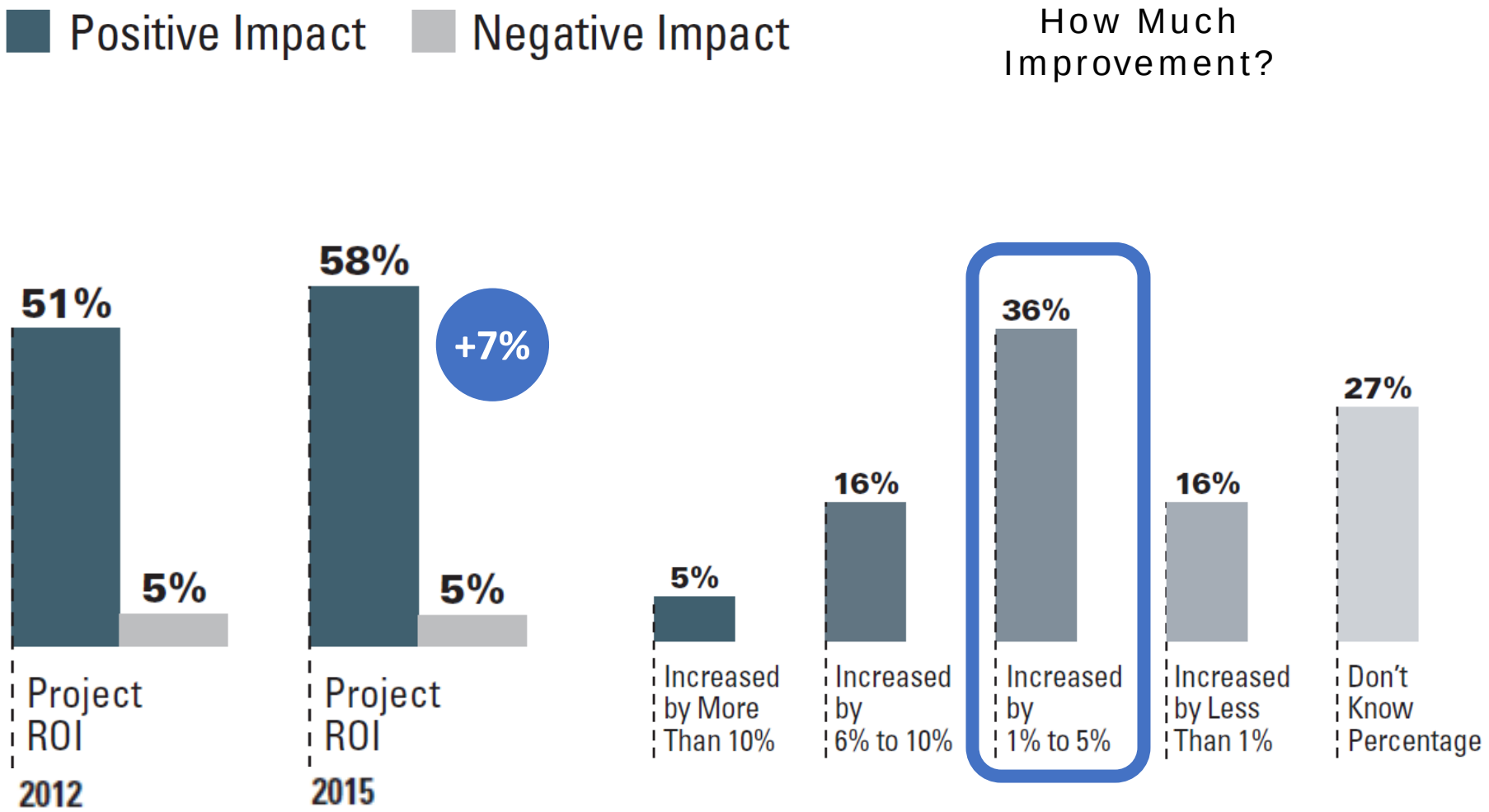
(Does not include "Neutral Impact")

Business Impact: Schedule
(2012 and 2015)



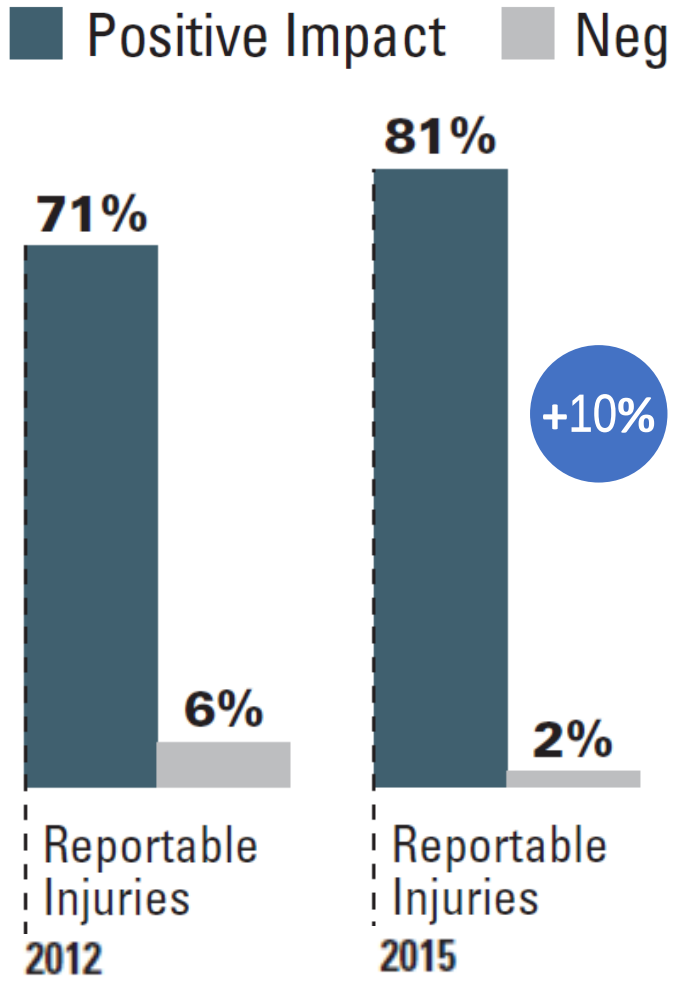
(Does not include "Neutral Impact")

Business Impact: Project ROI
(2012 and 2015)

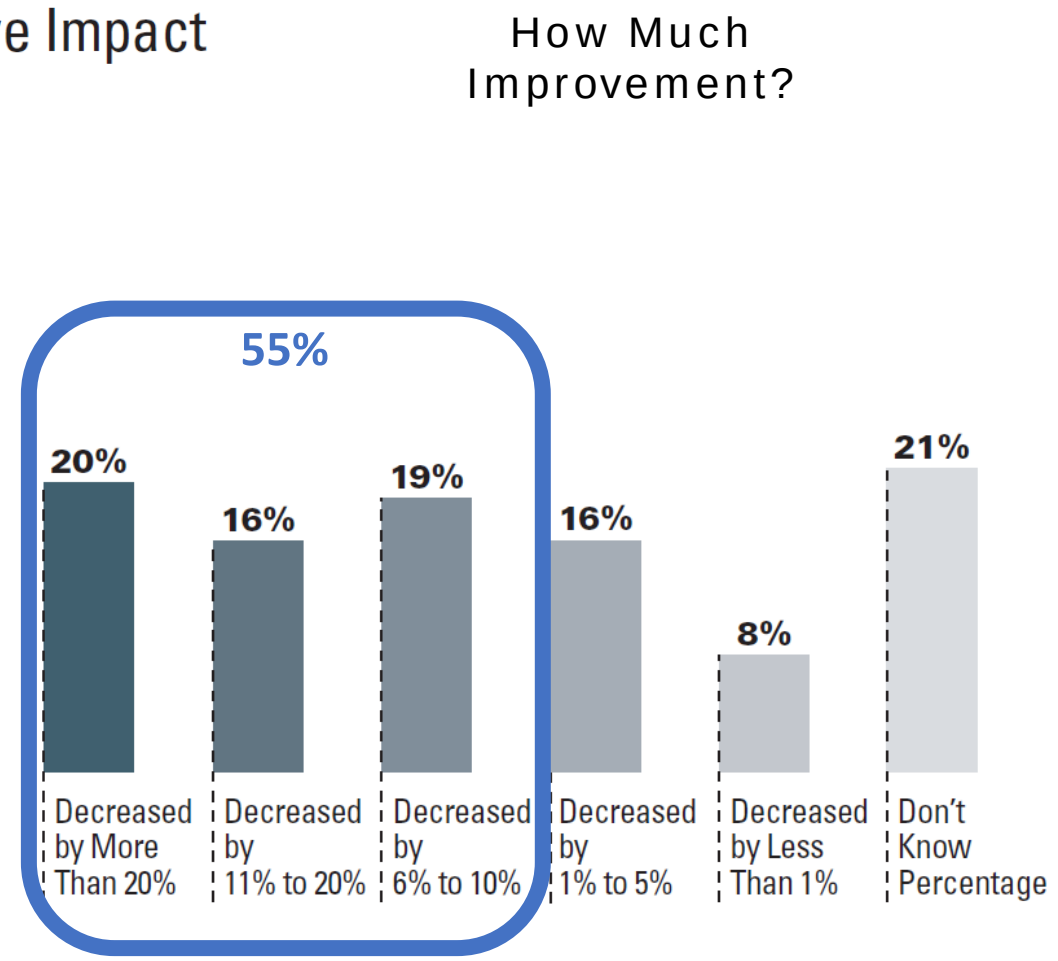


(Does not include "Neutral Impact")

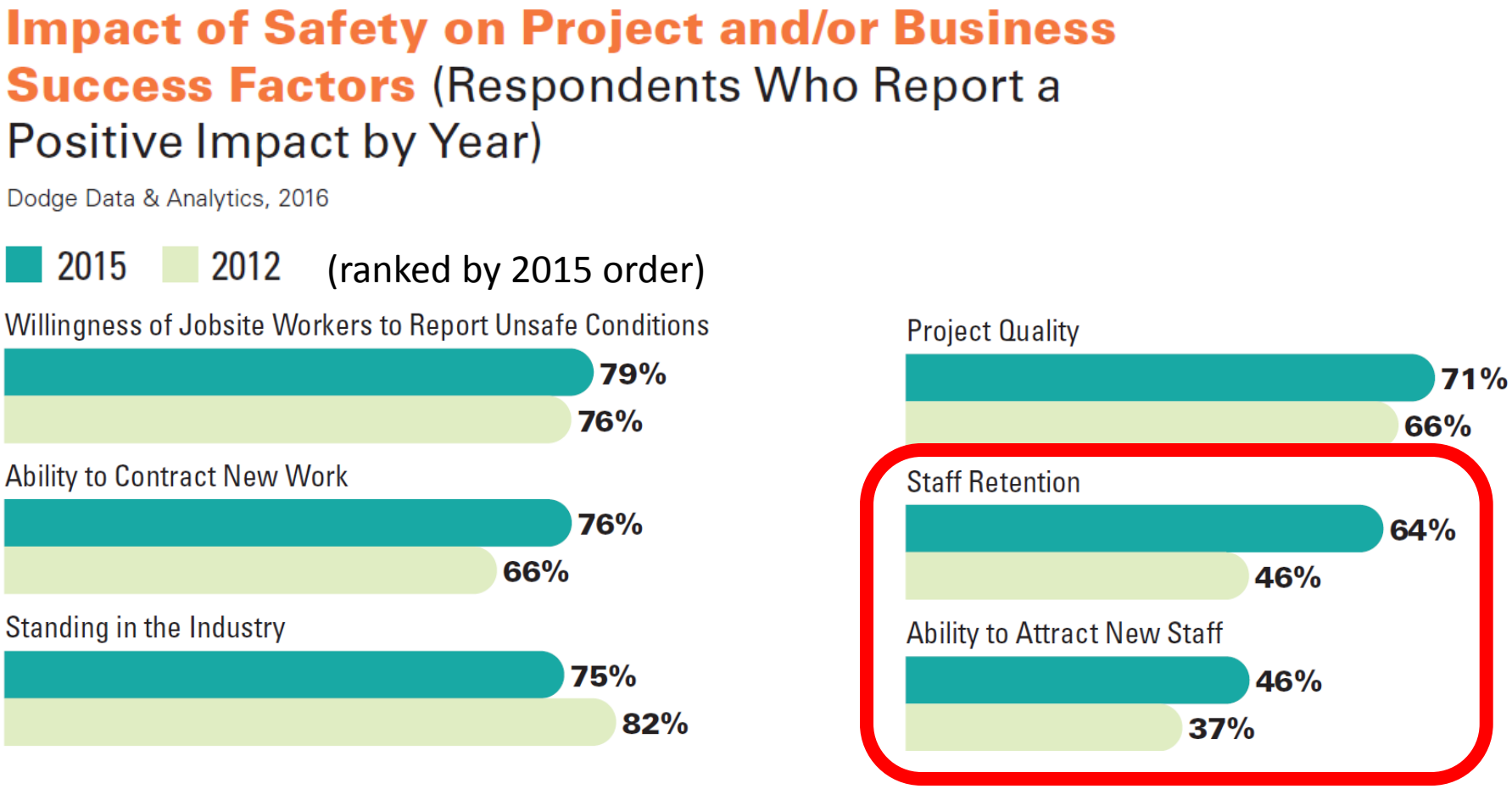
Business Impact: Reportable Incidents
(2012 and 2015)



(Does not include "Neutral Impact")



Impact of Safety Practices on Project/Business Success Factors (Among Positive Respondents)



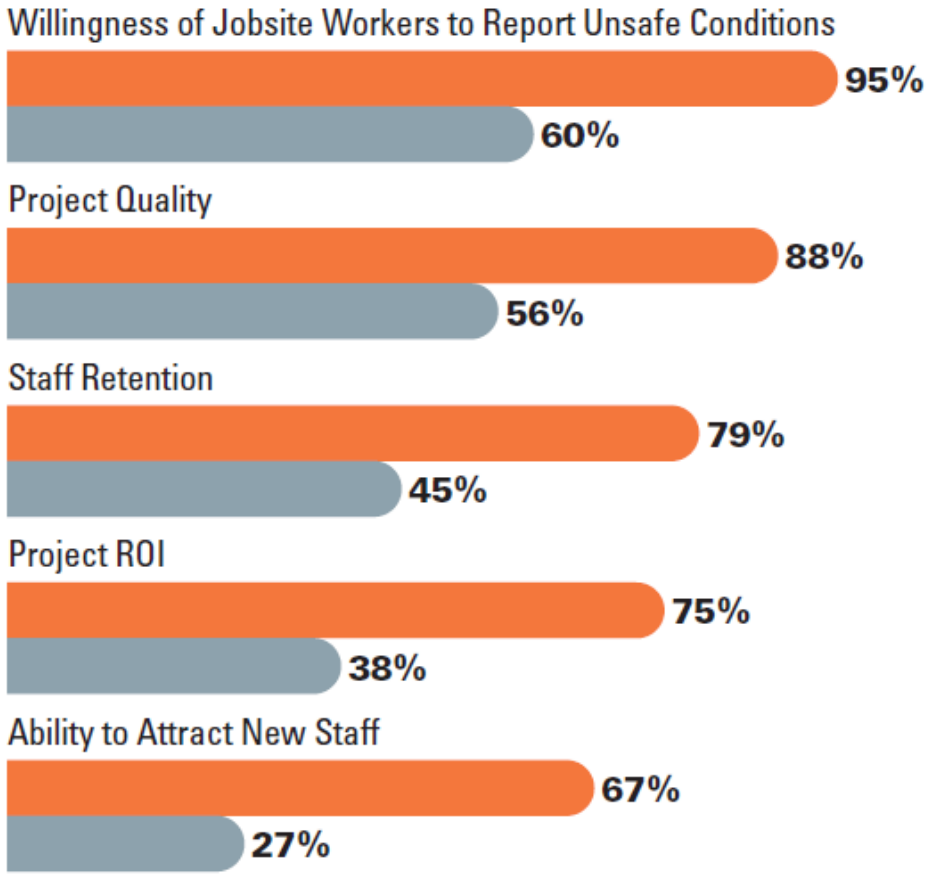
Top 5 Success Factors Most Impacted by Safety Culture Spectrum

Positive Impact of Safety on Contractor Success Factors (Factors With the Greatest Difference in Percentage Reporting Positive Impact Across the Safety Culture Spectrum)

Dodge Data & Analytics, 2016

- High Use of Safety Culture Indicators
- Low Use of Safety Culture Indicators

(ranked by High group)



Agenda

Report Highlights

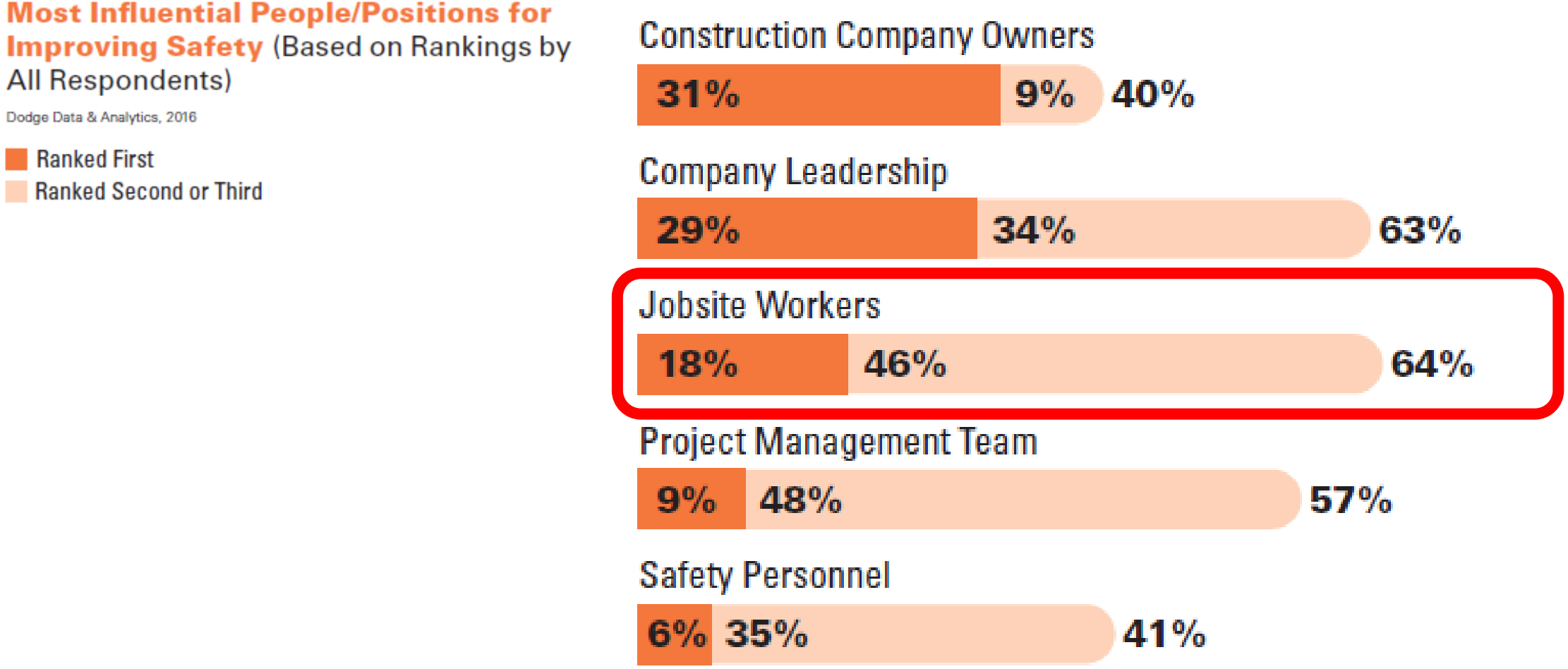
- Safety Culture Spectrum
- Practices
- Business Impact
- Influence Factors
- Training Practices and Communication

Questions

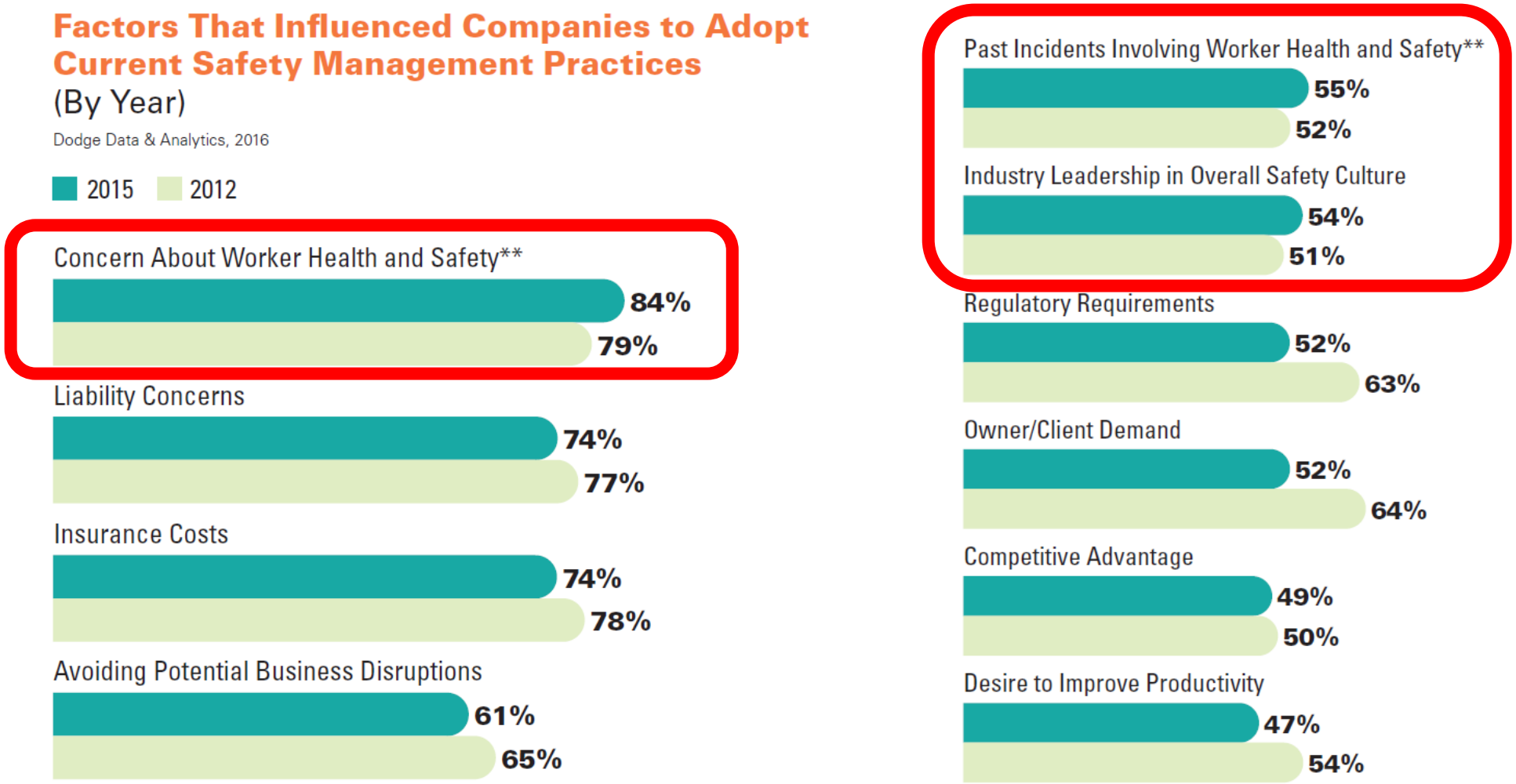
Most Influential People/Positions for Improving Safety

Most Influential People/Positions for Improving Safety (Based on Rankings by All Respondents)

Dodge Data & Analytics, 2016



Factors That Drove Adoption of Current Safety Management Practices



** In 2012, the phrase "Health and Well-Being" was used rather than "Health and Safety."

Agenda

Report Highlights

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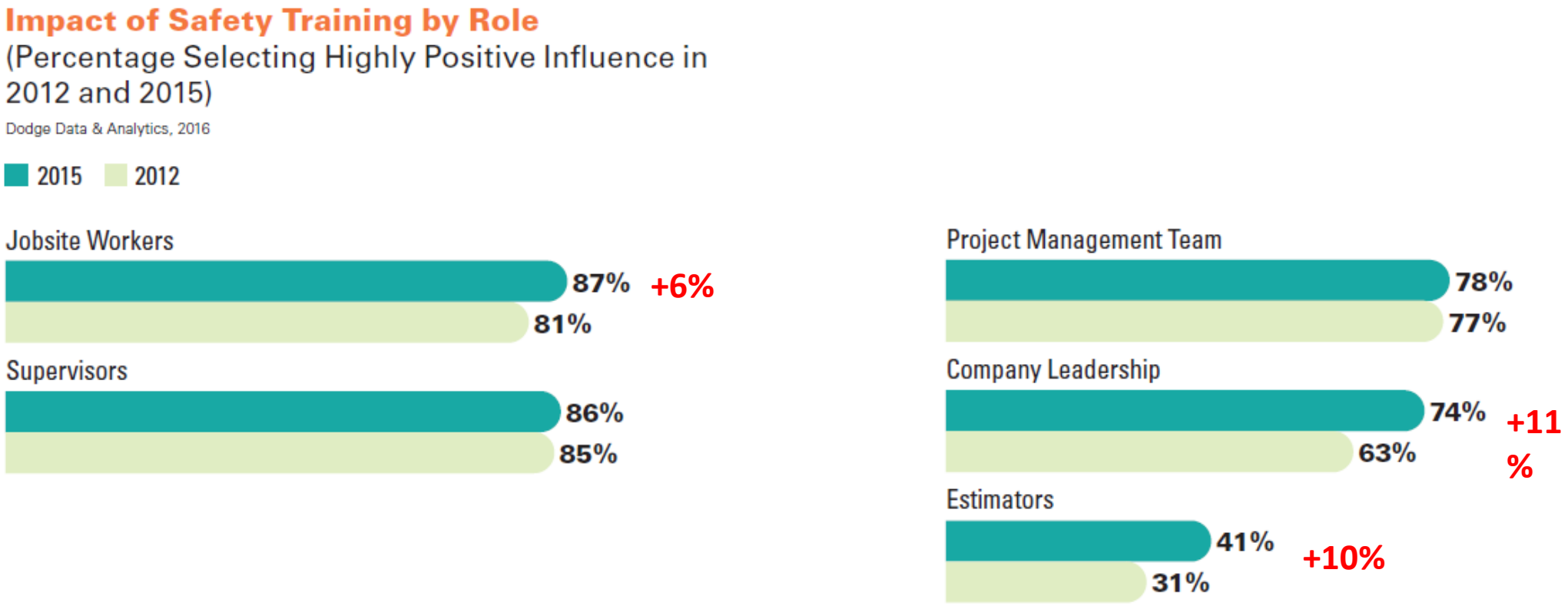
Impact of Safety Training by Role



Safety Training Availability and Requirements

Safety Training Availability and Requirements

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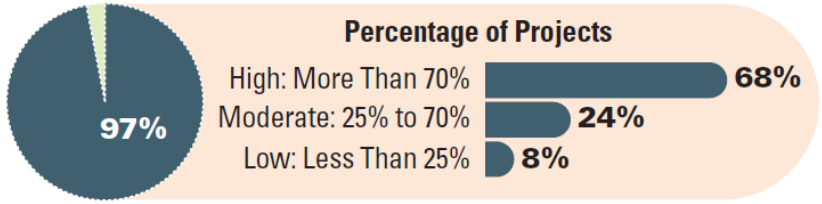
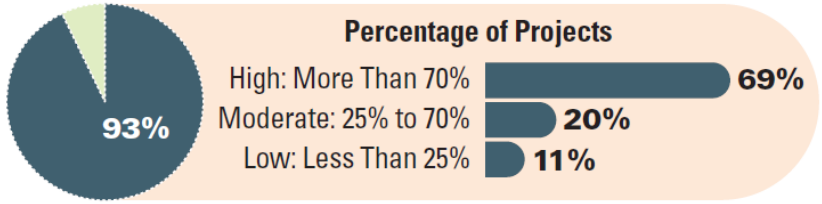
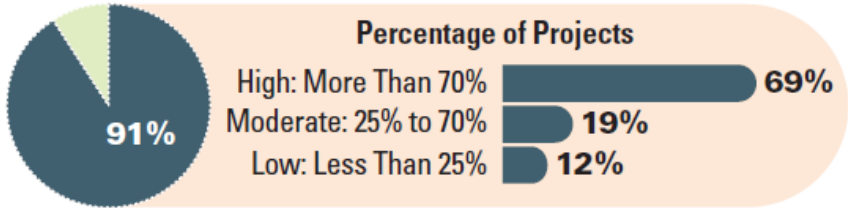
Safety and Health Training Provided for Supervisors and Jobsite Workers



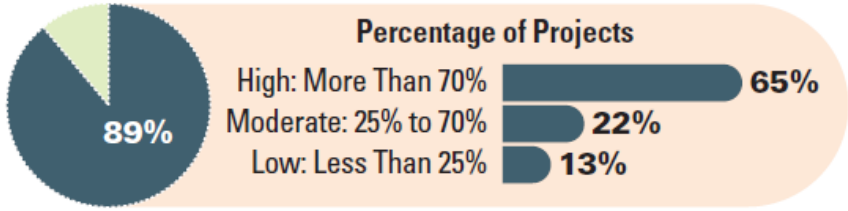
All Employees Receive Orientation Training When Starting Work on a New Site



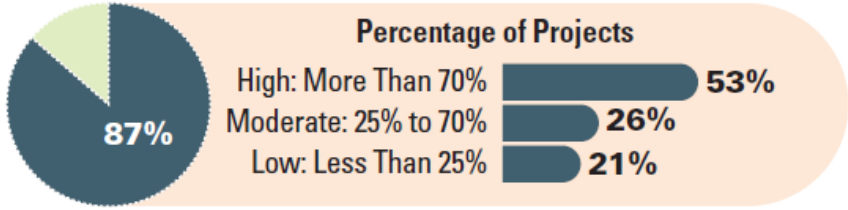
Supervisors Required to Have Basic Safety and Health Training



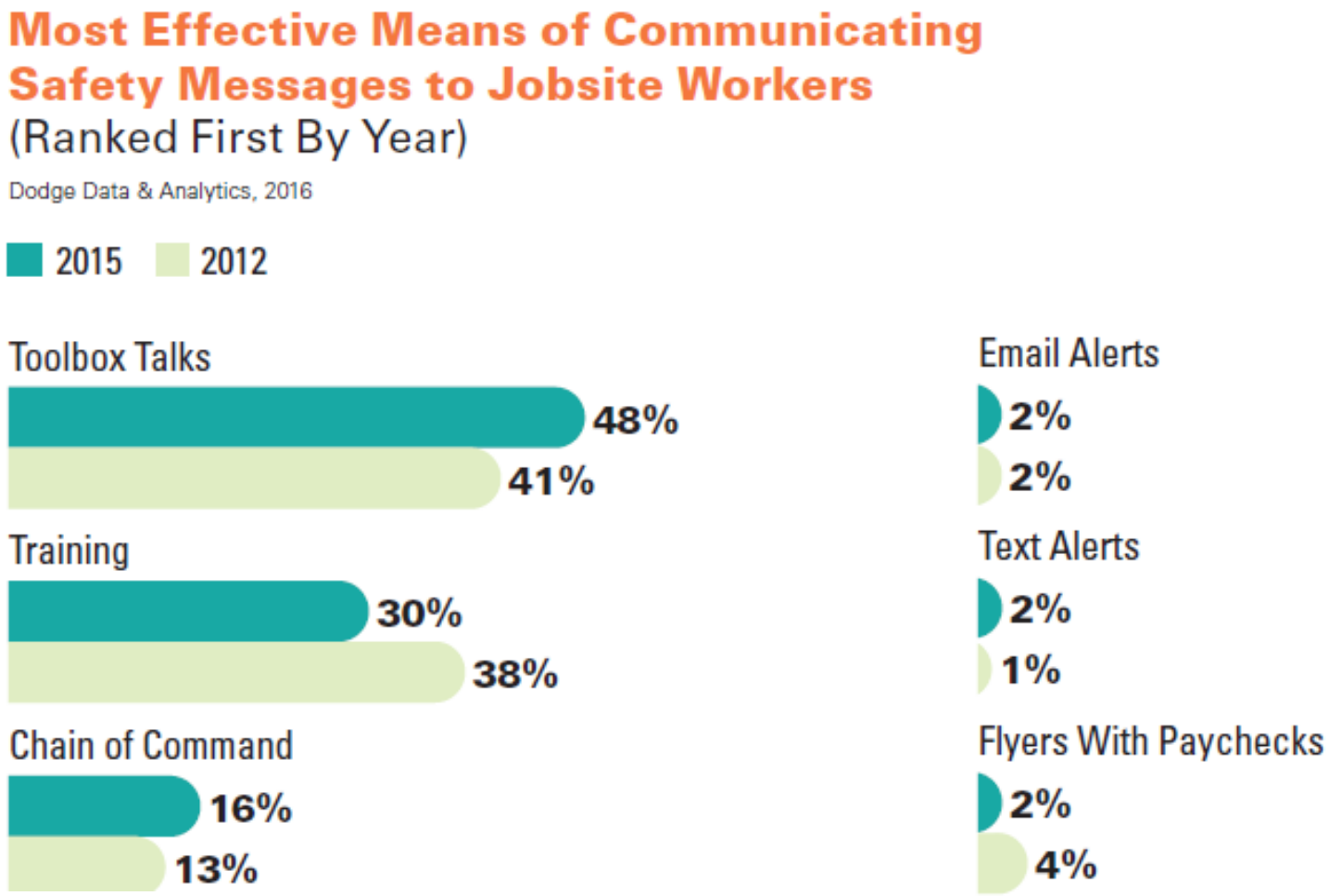
Supervisors Required to Have Safety and Health Leadership Training



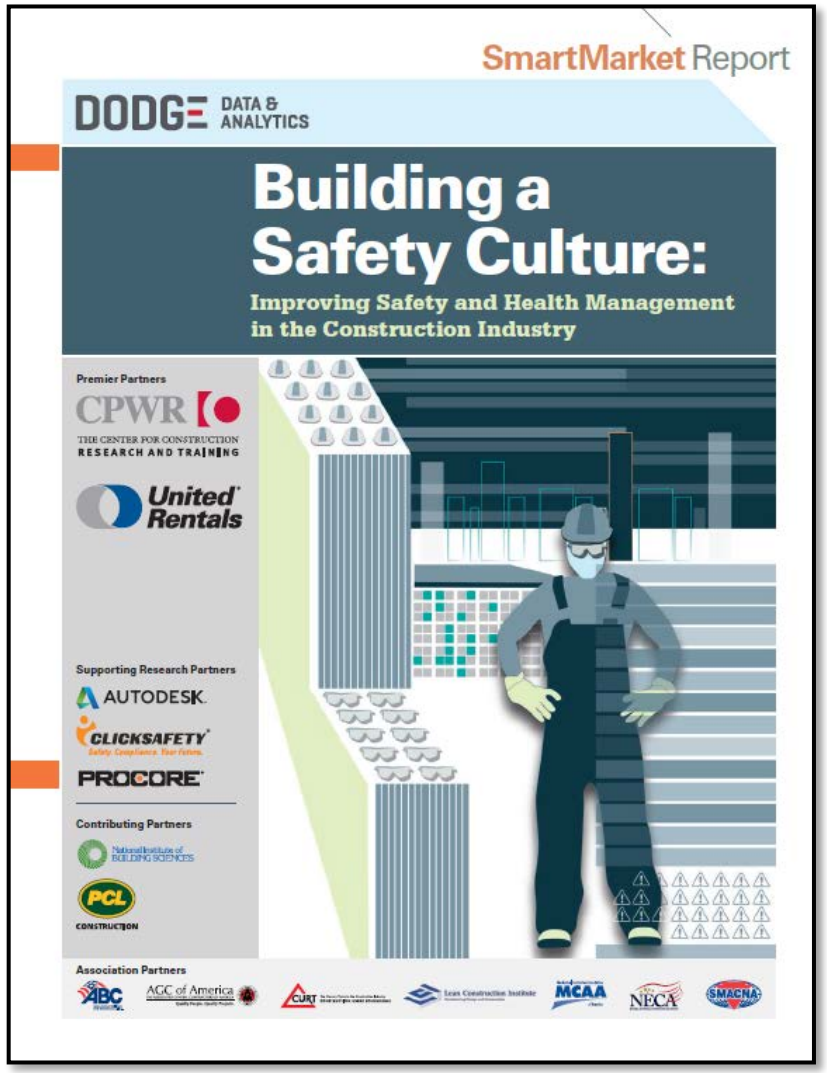
All Jobsite Workers Required to Have Basic Safety and Health Training



Communicating Safety Messages to Jobsite Workers



Building a Safety Culture:
Improving Safety and Health Management in the Construction Industry



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Dodge Data & Analytics

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