

TAUC State of the Union Construction Industry Forum
December 9, 2015



Safety Management in the Construction Industry: Preliminary Findings

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Dodge Data & Analytics

Dodge Data & Analytics Research

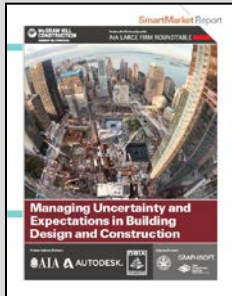
Industry research available for free download
(www.analyticsstore.construction.com)

PRACTICES/PROCESSES

TECHNOLOGY/INNOVATION

SUSTAINABILITY

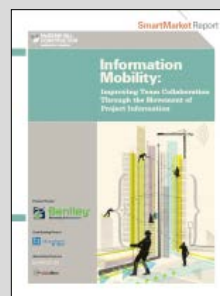
Managing Uncertainty



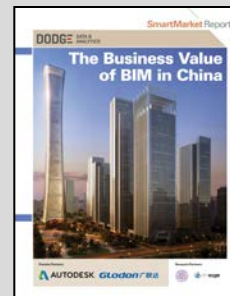
Delivery Systems



Information Mobility



China BIM



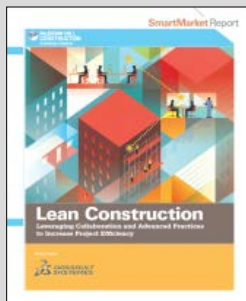
World Green Trends



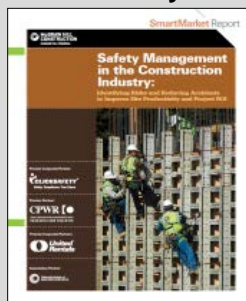
Health



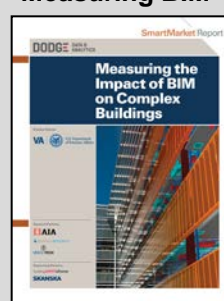
Lean



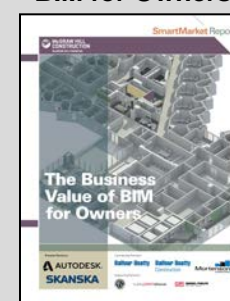
Safety



Measuring BIM



BIM for Owners



Green Homes



Green Schools



First Release of Key Findings of Recently Completed New Study on Safety Management

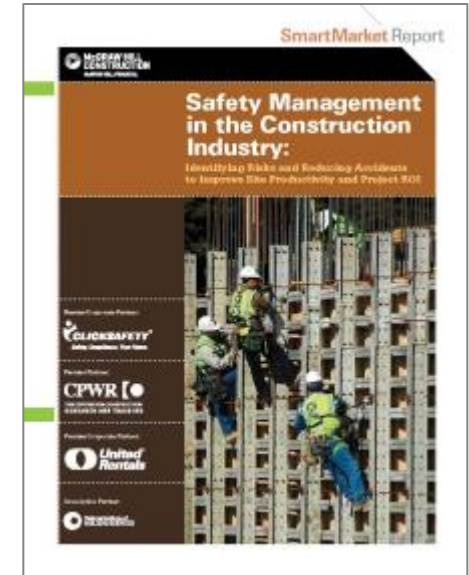
Study of 254 contractors, updating 2012 study published in 2013 *Safety Management in the Construction Industry SmartMarket Report*.

Trending data between 2012 and 2015 studies

- Safety Practices
- Impact of Safety on Business
- Influence Factors
- Safety Training/Education

New data

- Safety and Health Indicators



Agenda

- **Safety Practices**
- Impact of Safety on Business
- Influence Factors
- Safety and Health Indicators
- Safety Training/Education

Top Safety Practices Currently in Use

Used by More than 80% of Respondents



Open Door Policy for Workers to Report Hazards/ Incidents

- Used by 93% in 2015
96% GCs – 90% Trades
- Used by 77% in 2012



Enforce Use of PPE

- Used by 93% in 2015
96% GCs – 90% Trades
- Not asked in 2012



Inspect Construction Equipment Prior to Use

- Used by 89% in 2015
88% GCs – 89% Trades
- Not asked in 2012



Provide Functional PPE

- Used by 87% in 2015
83% GCs – 91% Trades
- Not asked in 2012



Include Jobsite Workers in Safety Process

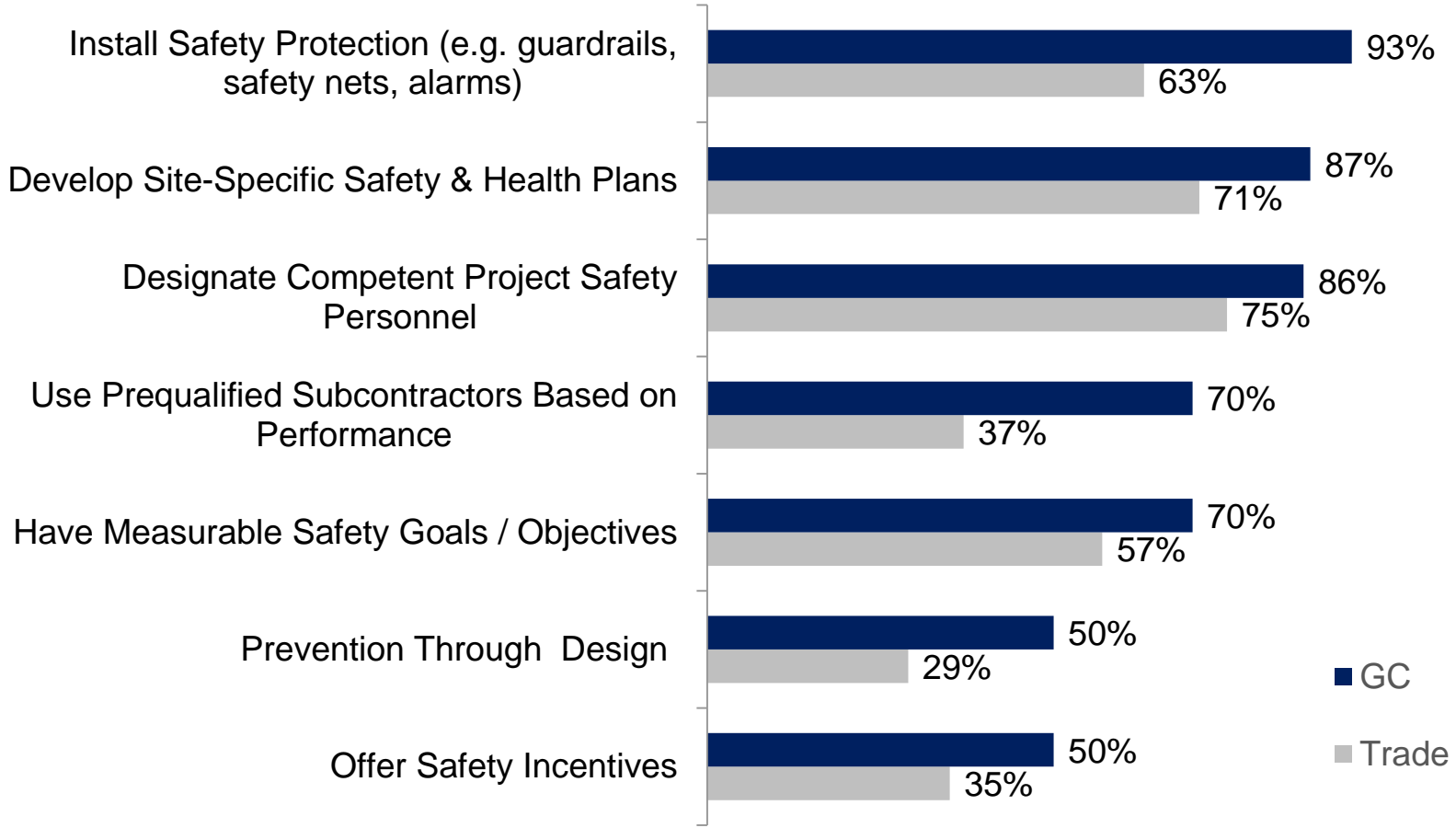
- Used by 85% in 2015
84% GCs – 81% Trades
- Used by 81% in 2012



Designate Project Safety Personnel

- Used by 81% in 2015
86% GCs – 75% Trades
- Used by 72% in 2012

Safety Practices Used by More GCs Than Trades



Most Effective Safety Practices



24%

Enforce Use of PPE



13%

**Conduct JHA (Job Hazard Analysis) /
JSA (Job Safety Analysis) Before
Construction Begins**



11%

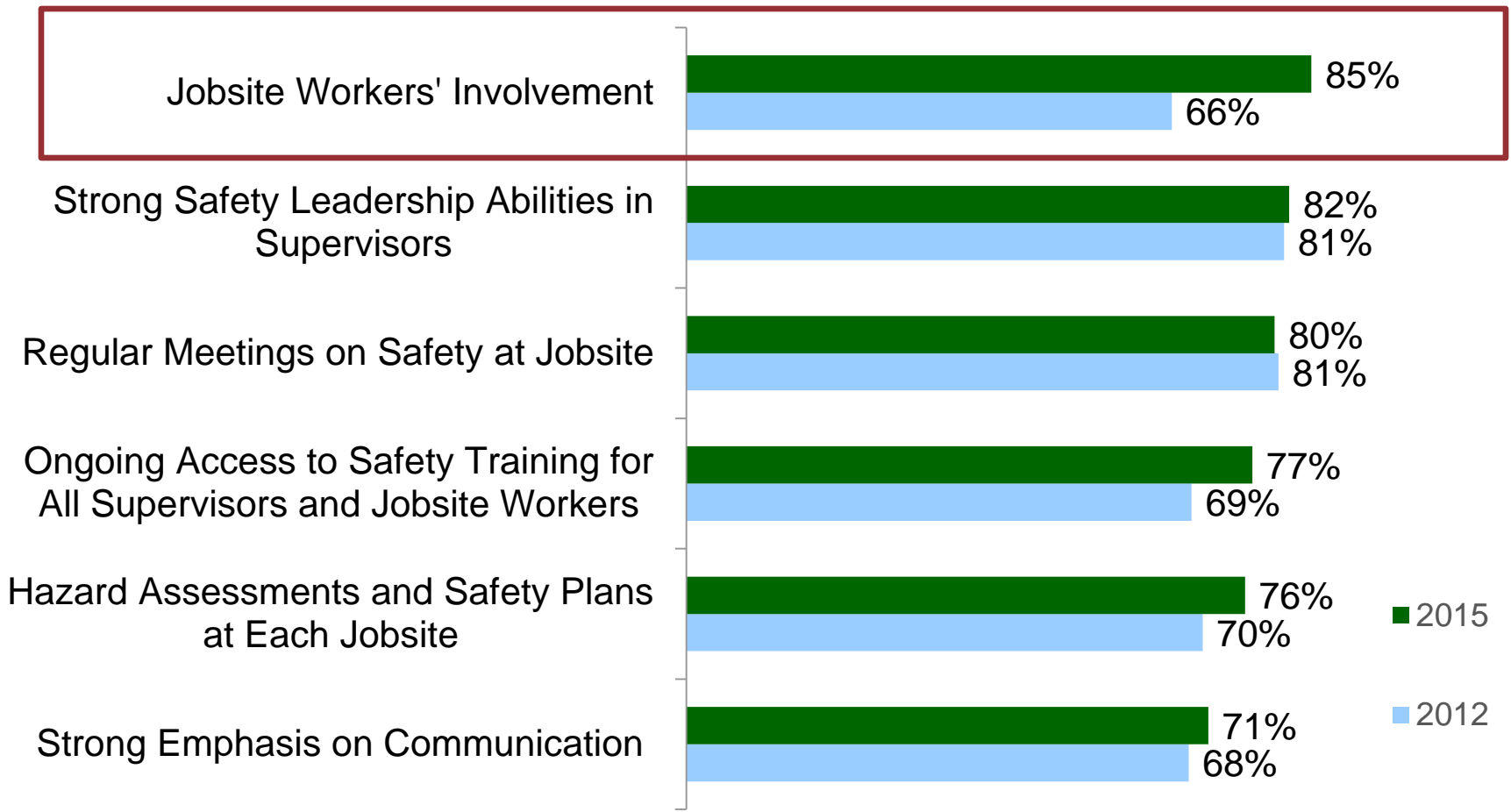
Provide Functional PPE



10%

**Include Jobsite Workers in the
Safety Process**

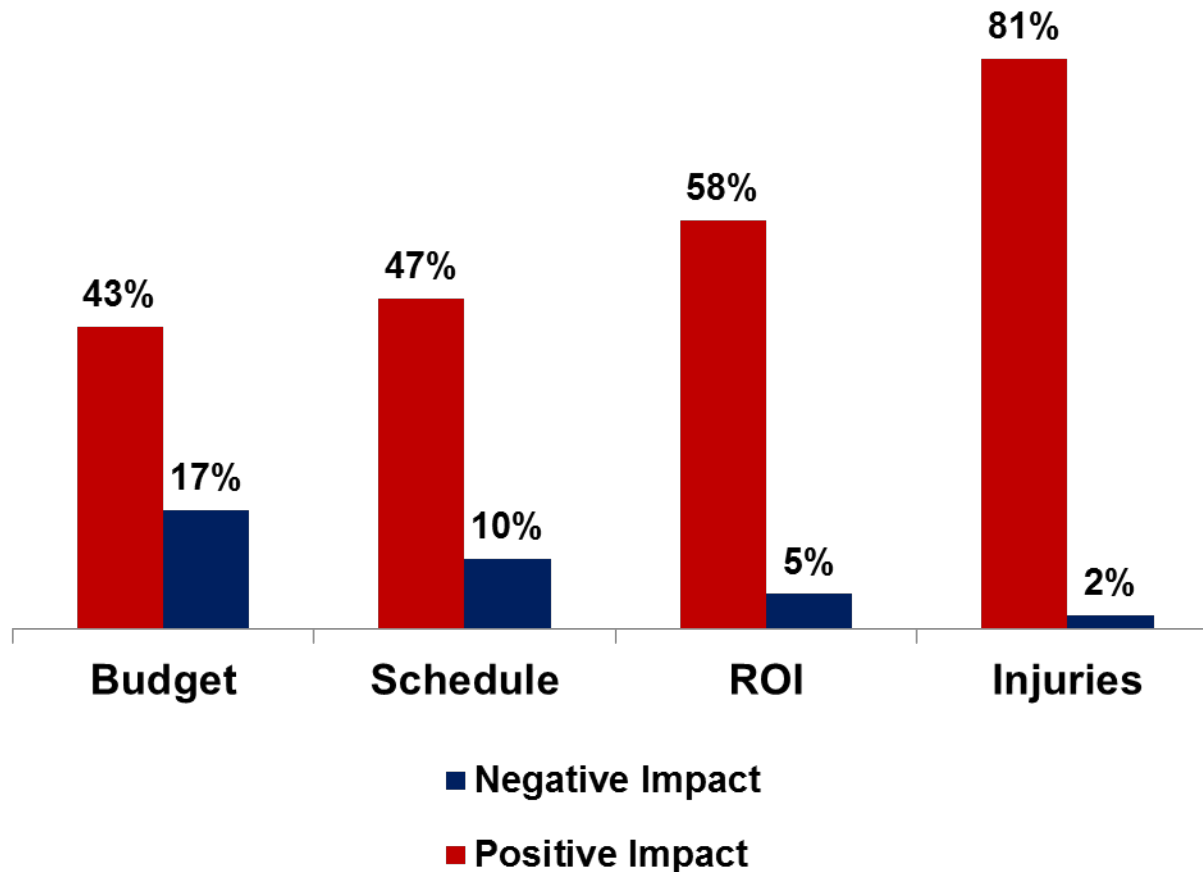
Aspects of a World-Class Safety Program



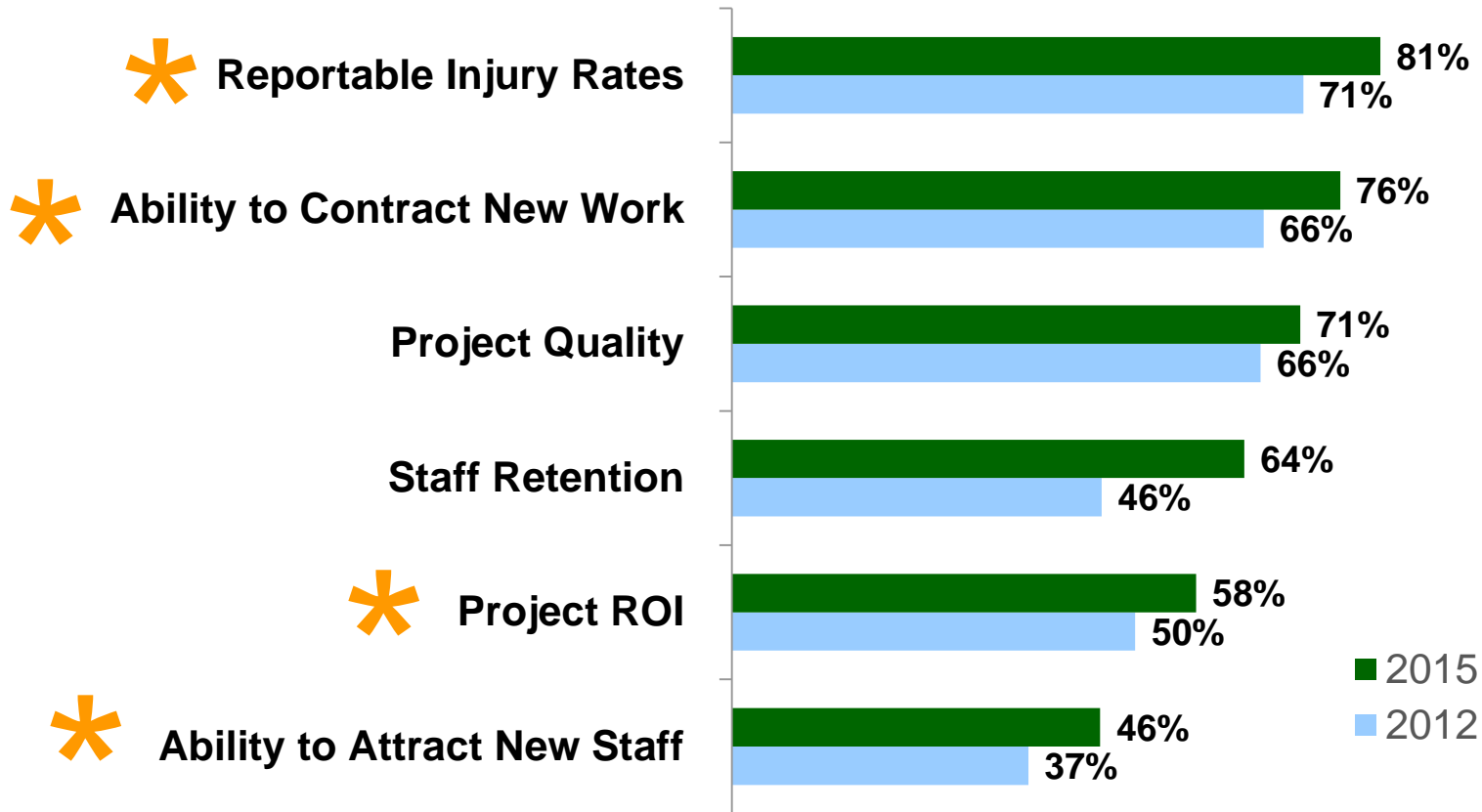
Agenda

- Safety Practices
- **Impact of Safety on Business**
- Influence Factors
- Safety and Health Indicators
- Safety Training/Education

Safety Has a Positive Impact on Key Business Factors



More Contractors Reporting Many Positive Business Outcomes Due to Safety Than in 2012

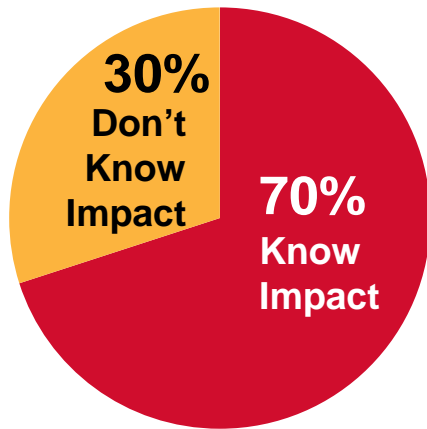


* Reported by significantly more GCs than Trades

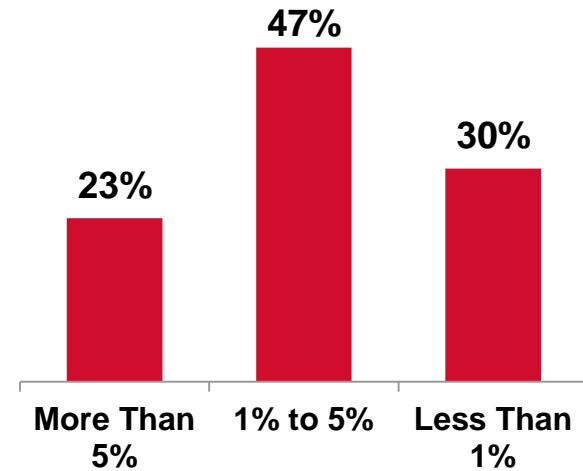
Impact of Safety Practices

BUDGET

Believe Safety Has a Positive Impact on Project Budget



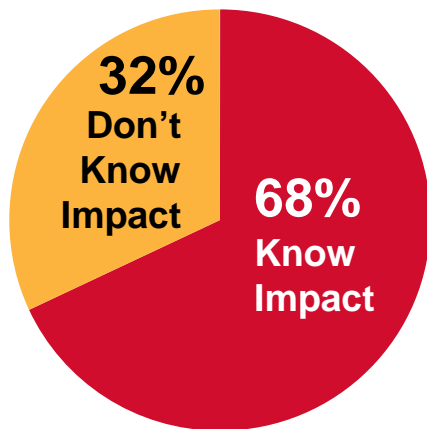
Level of Impact Reported



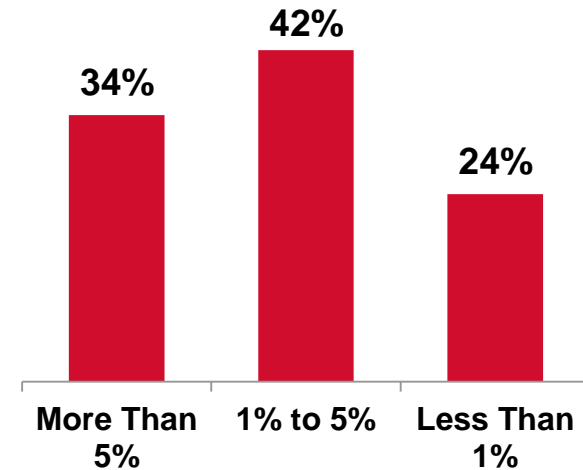
Impact of Safety Practices

SCHEDULE

Believe Safety Has a Positive Impact on Project Schedule



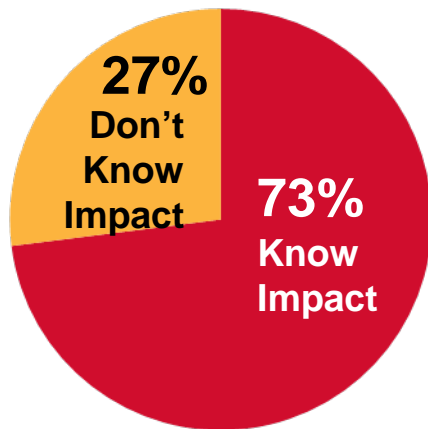
Level of Impact Reported



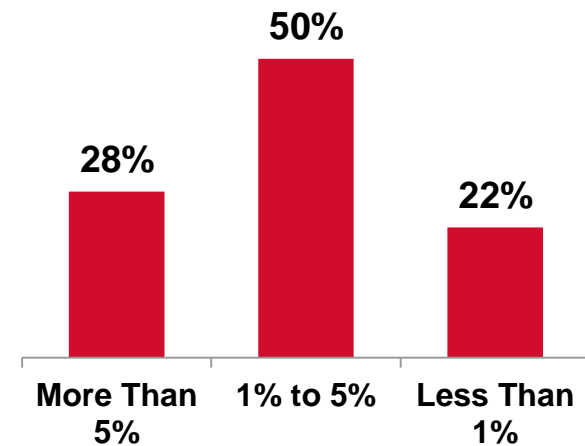
Impact of Safety Practices

PROJECT ROI

Believe Safety Has a Positive Impact on Project ROI



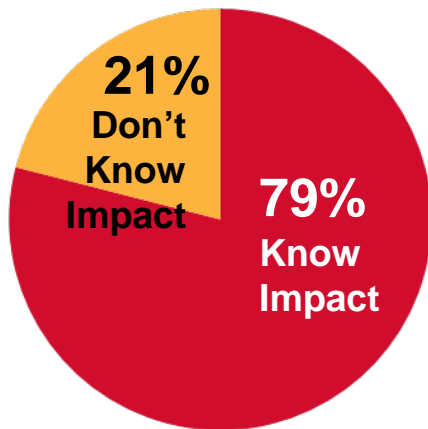
Level of Impact Reported



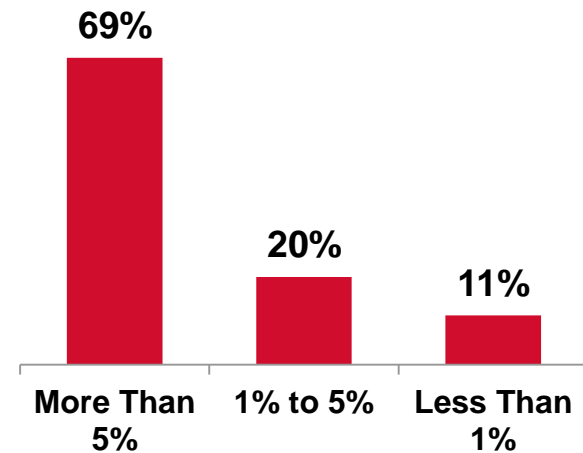
Impact of Safety Practices

INJURY RATES

Believe Safety Has a Positive Impact on Injury Rates



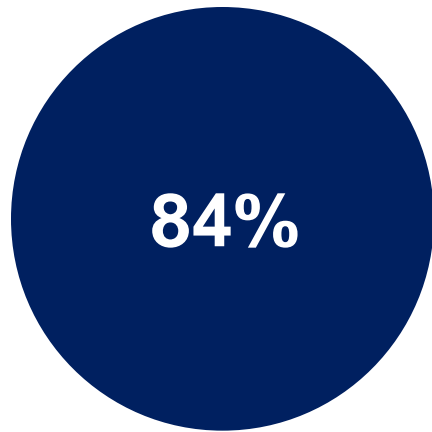
Level of Impact Reported



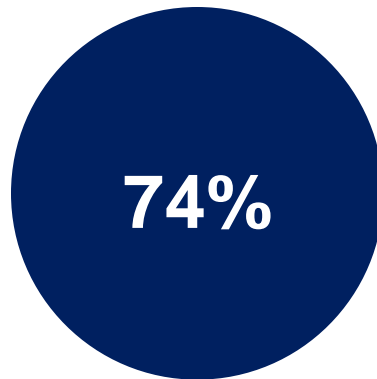
Agenda

- Safety Practices
- Impact of Safety on Business
- **Influence Factors**
- Safety and Health Indicators
- Safety Training/Education

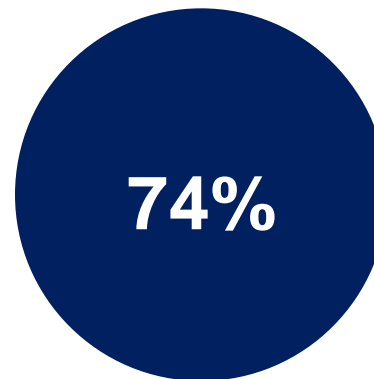
Top Factors Influencing Adoption of Current Safety Practices



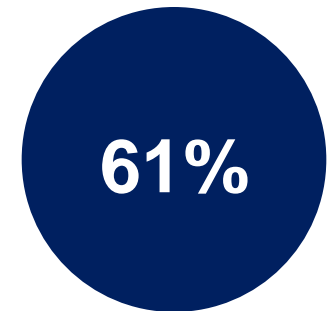
Concerns
About Worker
Health &
Safety



Liability
Concerns



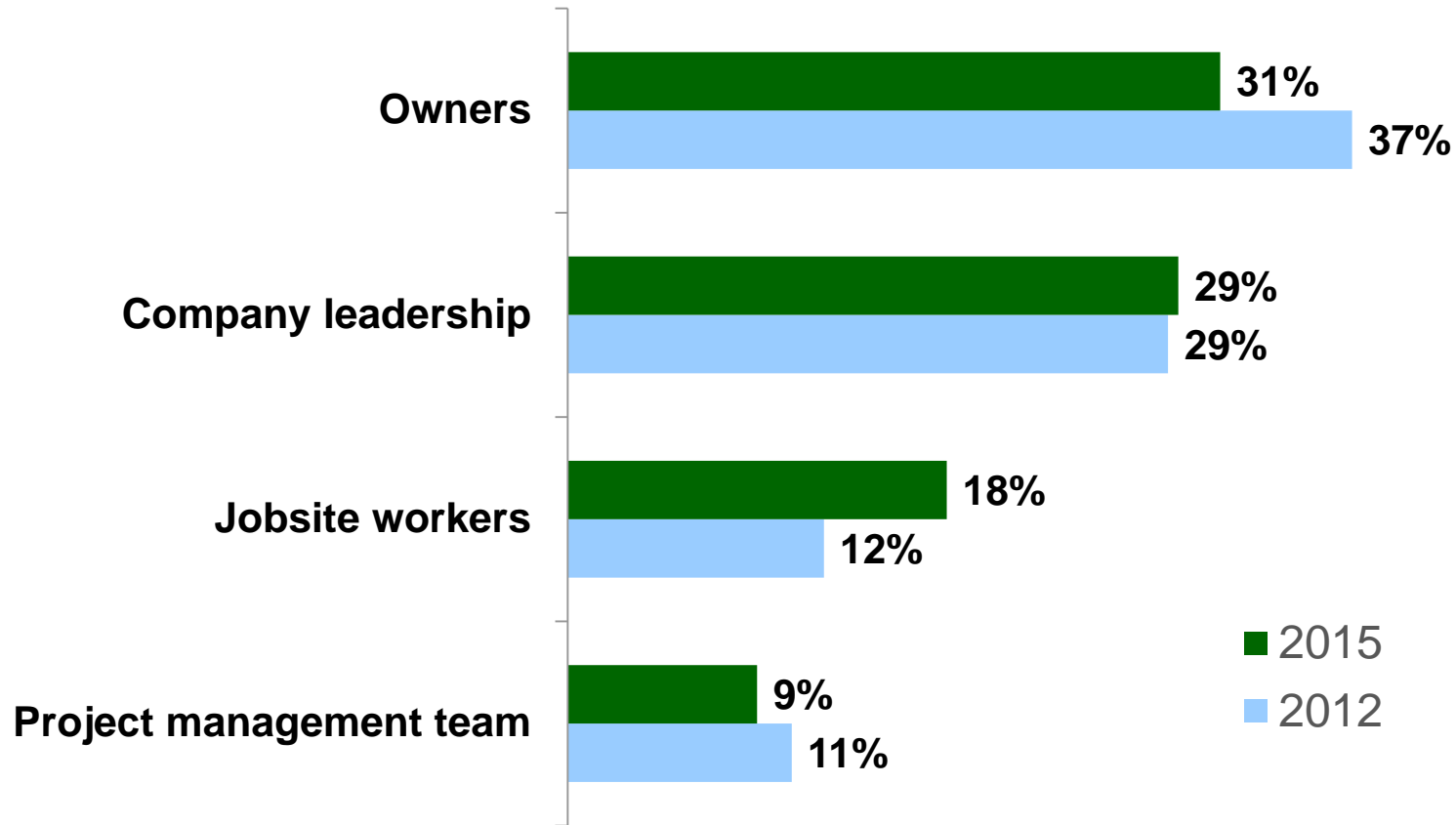
* Insurance
Costs



Avoid
Potential
Business
Disruptions

* Insurance costs are also the top factor that could encourage more investment in safety practices in the future.

Increased Recognition of the Influence of **Jobsite Workers** on Safety



Agenda

- Safety Practices
- Impact of Safety on Business
- Influence Factors
- **Safety and Health Indicators**
- Safety Training/Education

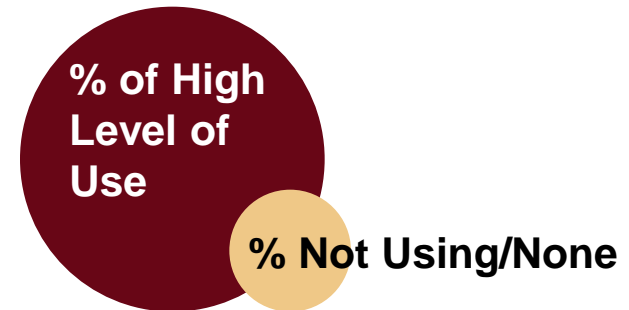
Health and Safety Indicators

Two Types of Questions Used (depending on most appropriate):

Select All That are Implemented/ or Practiced by Their Company

- Bulleted list providing % of respondents who select each item

Indicate Level of Use: High, Medium, Low, None



Responses by Category

- Three or Less: All Options Shown
- More than Three: Most Frequently and Least Frequently Used Are Shown

Commitment to Health and Safety Demonstrated by Management

Implemented

Frequently Implemented

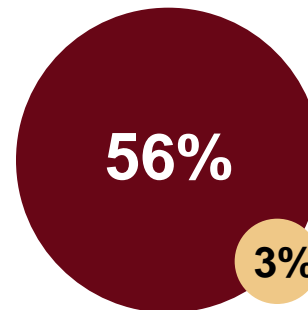
- Formal Process for Safety-Related Correction Action: 72%
- Safety & Health Are Key Part of Strategic Planning: 69%

Moderately Implemented

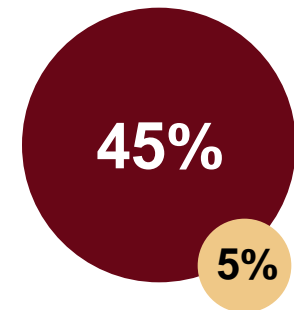
- Joint Worker/Management Safety and Health Meetings: 48%

■ High Frequency (70% or more) ■ Not Using/None

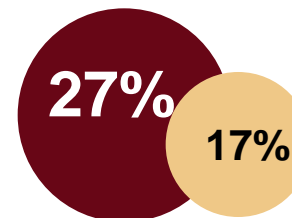
Clearly Defined Health and Safety Expectations



Safety/Health Is Top Agenda Item at All Meetings



Health/Safety Data Used for Improvement



Safety & Health Are a Fundamental Company Value

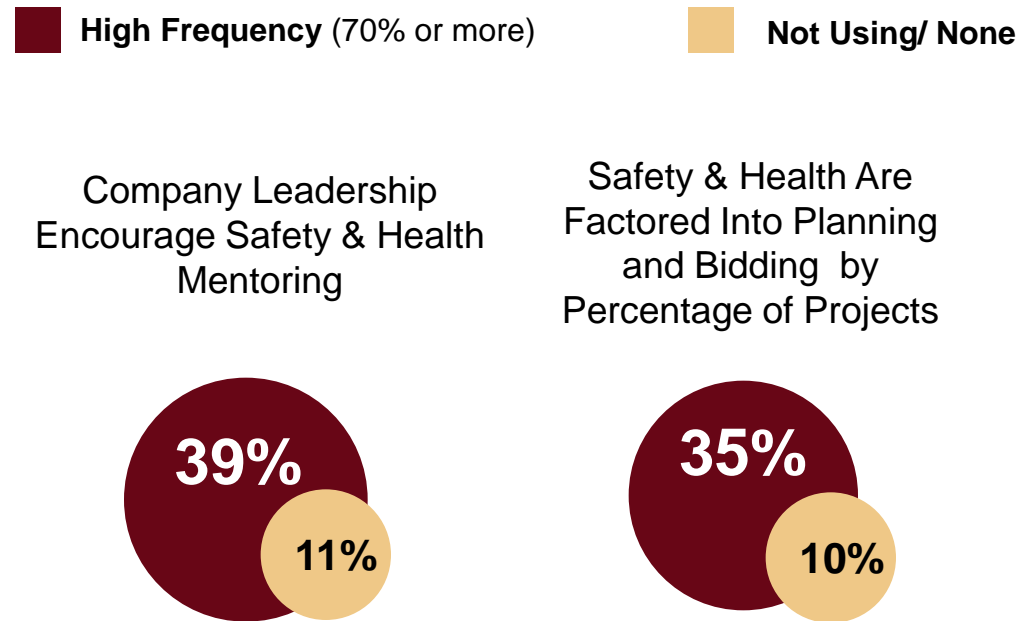
Implemented

Frequently Implemented

- Company Values Safety and Health At Least as Much as Productivity: 81%

Moderately Implemented

- Company Recognizes/Rewards Safety and Health Participation: 57%



Safety & Health Communications

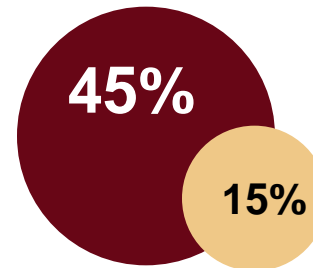
Implemented

Frequently Implemented

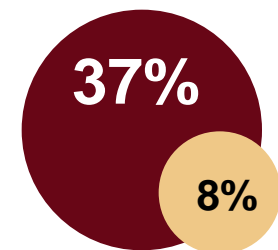
- Safety and Health Policies Are Frequently Communicated to All Employees: 92%
- Safety and Health Policies Are Communicated Consistently: 83%

■ High Frequency (70% or more) ■ Not Using/ None

Safety & Health Policies
Are Coordinated With
Subcontractors
(By Percentage of Policies)



Managers Regularly Engage
With Workers One-on-One
(By Percentage of Managers)

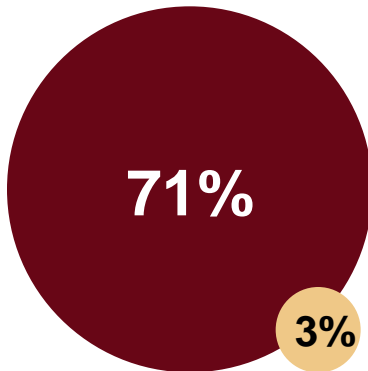


Safety and Health Accountability

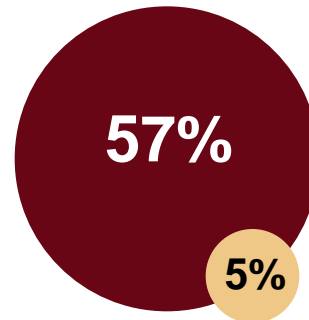
 **High Frequency** (70% or more)

 **Not Using/ None**

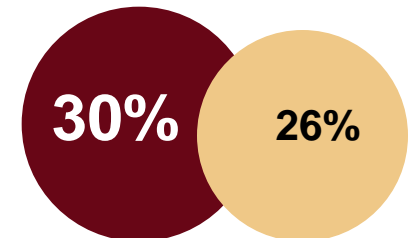
Everyone is Held Accountable
for Safety
(By Percentage of Projects)



Near Misses Taken Seriously
and Investigated
(By Percentage of Near Misses)



External Health/Safety
Audits Used
(By Percentage of Projects)

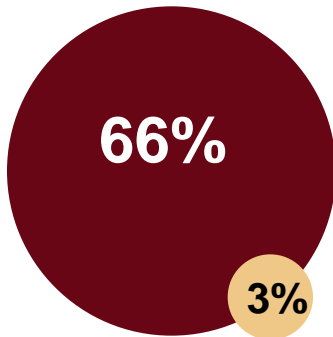


Leadership By Supervisors

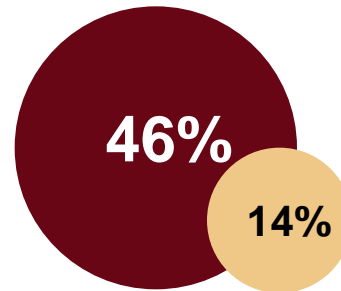
 **High Frequency** (70% or more)

 **Not Using/ None**

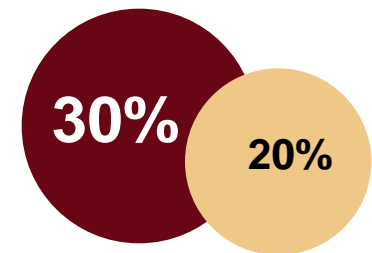
Supervisors Lead by Example
(By Percentage of Supervisors)



Monitor Subcontractors on
Safety Practices
(By Percentage of Supervisors)



Mentor Subcontractors on
Safety Practices
(By Percentage of Supervisors)

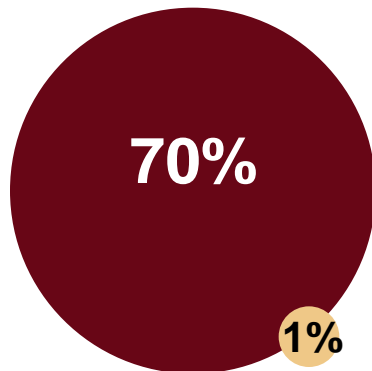


Jobsite Worker Involvement

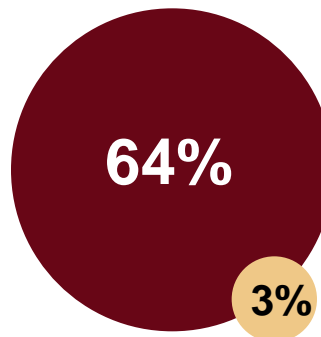
 **High Frequency** (70% or more)

 **Not Using/ None**

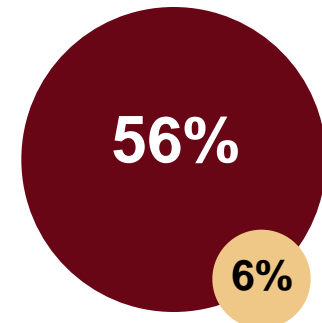
Workers Encouraged to Report
Unsafe Conditions
(By Percentage of Projects)



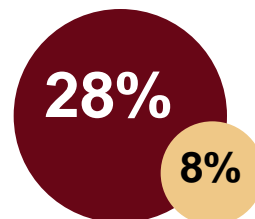
Workers Encouraged to Report
Near Misses
(By Percentage of Projects)



Workers Given Stop Work
Authority
(By Percentage of Projects)



Workers Involved in Safety &
Health Planning
(By Percentage of Projects)

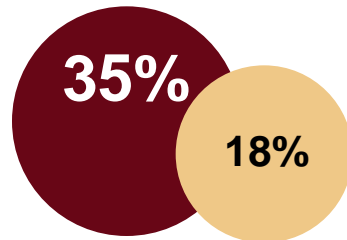


Owner/Client Involvement in Safety

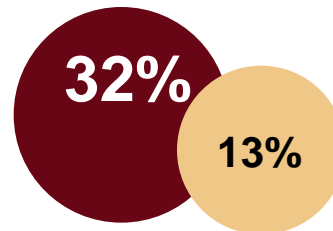
■ High Frequency (70% or more)

■ Not Using/ None

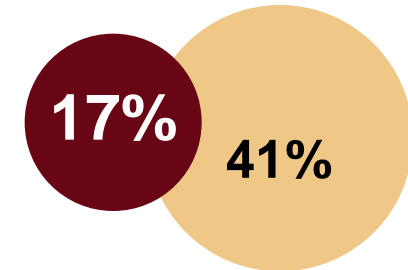
Owners Support Safety & Health Audits
(By Percentage of Owners)



Owner Monitors Safety & Health Performance
(By Percentage of Owners)



Owners Provide Incentives for Safety & Health
(By Percentage of Owners)

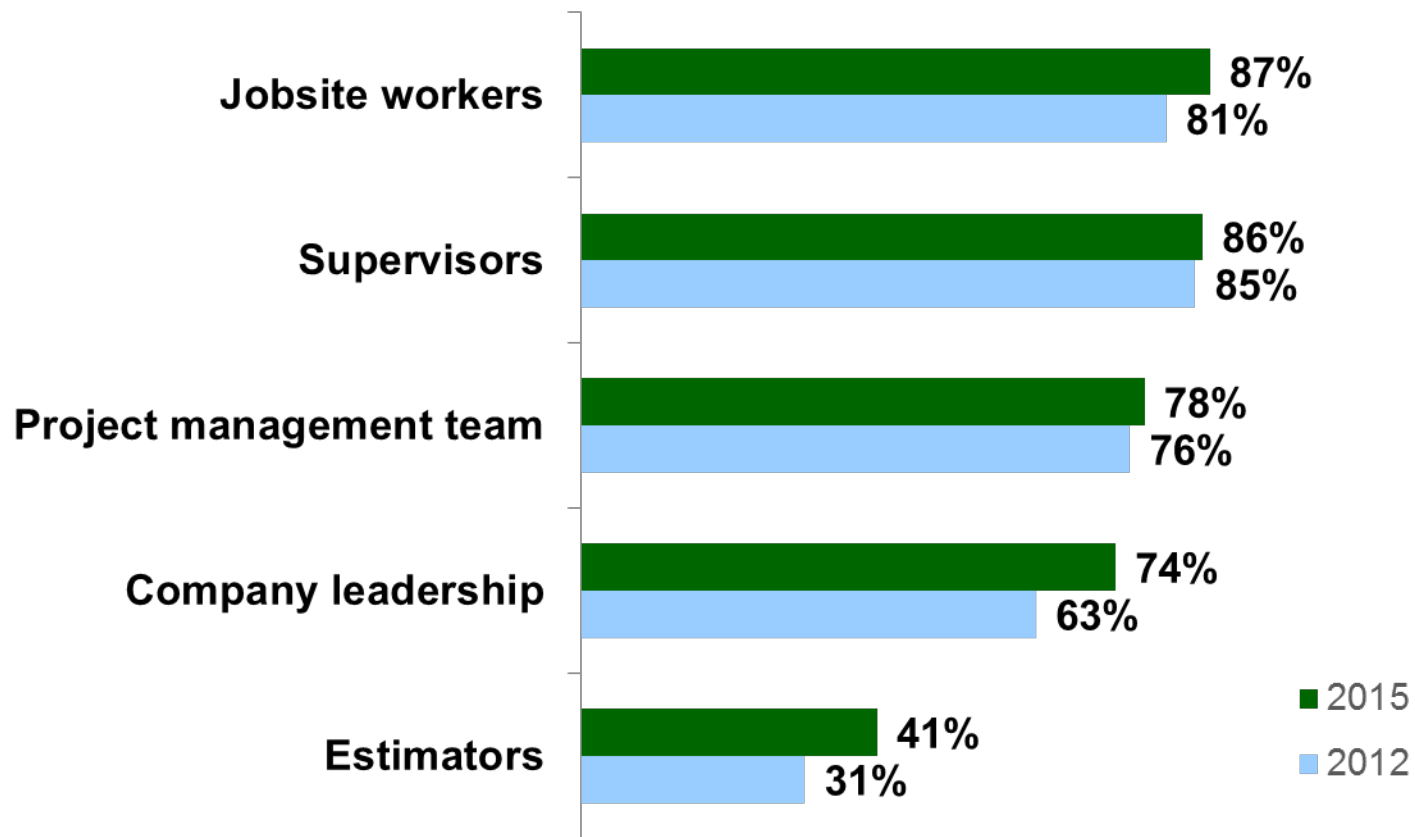


Agenda

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- **Safety Training/Education**

Recognition of Value of Safety Training Continues to Grow, Especially for Company Leadership

Safety Training Has a Positive/Highly Positive Influence





Conclusions

Conclusions

- ▶ Recognition of the financial value of safety investments continues to strengthen in the industry
- ▶ Importance of jobsite worker engagement for successful safety programs is becoming more widely recognized.
- ▶ GCS engage in more safety practices than trade contractors and are more likely to experience benefits from safety
- ▶ The more that safety indicators involve direct action, the less likely they are to see wide use by a high percentage of contractors
 - Widely used indicators include supervisors leading by example and everyone being held accountable for safety.
 - Less frequently used indicators include owners providing incentives, use of external health & safety audits and mentoring subcontractors on health & safety.