



2025 CONSTRUCTION INDUSTRY SAFETY CHALLENGES

A Comprehensive View of Factors Shaping Safety Performance

COLLABORATIVE STUDY BY



AMERICAN SOCIETY OF
SAFETY PROFESSIONALS



ABOUT THE STUDY SPONSORS



J. J. KELLER CENTER FOR MARKET INSIGHTS

The J. J. Keller Center for Market Insights is the collaborative research arm of J. J. Keller & Associates, Inc. The center originated in 2019 with a focus on sharing, with the public, trends and insights from an abundance of safety and compliance data gathered by J. J. Keller over decades serving more than 500,000 customers across the United States. Through historical data, new proprietary studies and partnerships with reputable, research-focused third-party organizations, the center publishes ongoing reports to spur discussion and advancements in safe, respectful workplaces, job sites and highways.



AMERICAN SOCIETY OF SAFETY PROFESSIONALS (ASSP)

The American Society of Safety Professionals (ASSP) is a global association for occupational safety and health professionals. With more than 36,000 members, ASSP supports the safety profession through education, standards development, advocacy, and a vibrant professional community. ASSP provides evidence-based guidance to help organizations manage workplace risks, protect people, property, and the environment, and adapt to change. The organization is committed to advancing the safety profession and empowering its members through lifelong learning and career development.

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FOREWORD

This study reflects a shared mission between J. J. Keller & Associates, Inc. and the American Society of Safety Professionals (ASSP) to improve safety in construction. We launched this collaboration to **gain a deeper understanding of the real-world barriers and opportunities impacting safety and compliance in the construction industry**. The findings will support informed dialogue and strategies to protect workers and strengthen safety cultures across trades.

With ASSP's expertise in global standards and research-driven advocacy, and J. J. Keller's data-driven insights, we aim to help address the industry's evolving challenges.

Factors such as **high fatality rates, labor shortages, rising costs, regulatory changes, and climate pressures** make this work timely and essential. Our goal is to use these findings to drive practical improvements in safety cultures and positive outcomes throughout the industry.

Best regards,



RAY CHISHTI

Senior EHS Editor
J. J. Keller & Associates, Inc



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Administrator of Construction Practice Specialty
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SUMMARY OF FINDINGS

This study provides a timely lens into the construction industry's health and safety culture, where **safety is both a foundational imperative and a persistent challenge**. It captures a tipping point between longstanding practices and emerging innovations, highlighting the industry's need to adapt for greater safety, even amid complex pressures.

4 KEY STATE-OF-THE-INDUSTRY INSIGHTS



The Construction Industry Is Committed to Safety Amid Persistent Challenges

Safety and compliance are central priorities for many companies across the industry. However, continuing challenges are complicating progress. These span areas ranging from labor shortages to regulations, safety, training, communication and subcontractor compliance.

- **Labor shortages (38%), rising material costs (35%) and job site safety (32%) were the top three challenges cited by respondents**



Safety & Compliance Training Is Effective But Requires Modernization

While most respondents express confidence in the effectiveness of their current training, these programs rely largely on traditional formats. Respondents desire a future of immersive, personalized and task-specific training methods to meet their safety needs.

- **38% still lack a proactive approach to safety and regulatory compliance**



Advanced Safety Technologies Show Strong Potential, Although Adoption Remains Limited

Respondents are optimistic about the potential in advanced safety technologies, such as those using virtual reality (VR) and artificial intelligence (AI). Yet adoption is hindered by budget constraints, cultural resistance and integration challenges. For now, construction companies are more likely to use basic tools than advanced innovations.

- **20% feel “unsure” to “not at all” confident their safety technology is supported by strong data**



Mental Health Is Gaining Recognition as a Health & Safety Consideration

A growing number of construction companies are incorporating mental health and wellness into their safety programs, though efforts vary in depth and consistency. This signals a positive shift toward more holistic worker well-being, but wider acceptance is still strongly needed.

- **51% take mental health only “somewhat seriously” or “not at all seriously”**

GREATEST SAFETY & COMPLIANCE CHALLENGES

The benchmark study identified **six overarching challenges that construction professionals must overcome** in order to improve safety, health and compliance in the industry.

▲ **Navigating Evolving Regulations and Standards**

Maintaining compliance with evolving OSHA and state regulations is a significant challenge, compounded by the need to interpret and apply standards across different trades and job sites.

▲ **Overcoming the Mindset of “This Is How It’s Always Been Done”**

Resistance sometimes stems from viewing safety protocols as red tape rather than essential protection.

▲ **Communicating Effectively Between Management, Supervisors and Workers**

Effective communication can be hindered by language barriers, fear of speaking up, and inconsistent messages.

▲ **Managing Safety Across Multiple Subcontractors and Trades on Job Sites**

Factors can include contractors not taking ownership of the safety programs and challenges in finding subcontractors who prioritize safety.

▲ **Ensuring Workers Are Well-Informed and Comprehend the Information**

Construction challenges include finding the time for training and defining what constitutes adequate training.

▲ **Addressing Construction- and Trade-Specific Workplace Hazards**

Examples of hazards specific to construction and trades include falls, weather, confined spaces, and exposure to hazardous materials among many others.

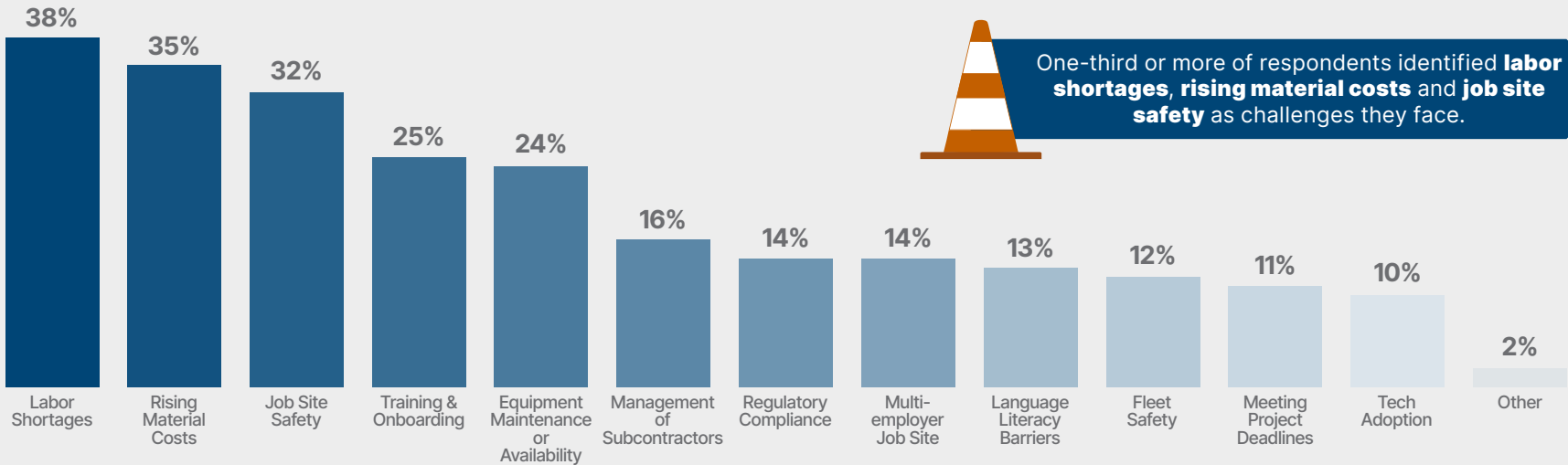


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EXPERT INSIGHT:
Handling Labor Shortages

Labor shortages can pressure workers to cut corners. Cross-training crews and using smart scheduling tools help cover labor gaps without risking safety. Safe job sites are productive job sites — preventing incidents protects both your budget and your schedule.

TOP CHALLENGES FACING CONSTRUCTION COMPANIES





GREATEST UNMET SAFETY & COMPLIANCE NEEDS

Construction professionals surveyed in this study expressed concern over **persistent gaps that continue to hinder safety progress** across the industry:

INDUSTRY-SPECIFIC TRAINING

The construction industry needs engaging, accessible training that resonates with differing learning styles and jobs/roles. This includes training solutions that are tailored to specific industries and languages.

AFFORDABLE SAFETY EQUIPMENT/PPE

Access to safety equipment such as PPE is often hampered by budget constraints. Affordability should not compromise compliance with applicable PPE standards.

SAFETY DATA MANAGEMENT

There's a need for technology that can integrate various aspects of safety and provide real-time updates. Ideally, these would be modular and adaptable across diverse fields.

COMPLIANCE ACROSS THE COMPANY

Inconsistent processes across the company and departments lead to compliance issues and penalties. Centralized systems are needed to manage safety data and improve compliance.

WORKFORCE ENGAGEMENT

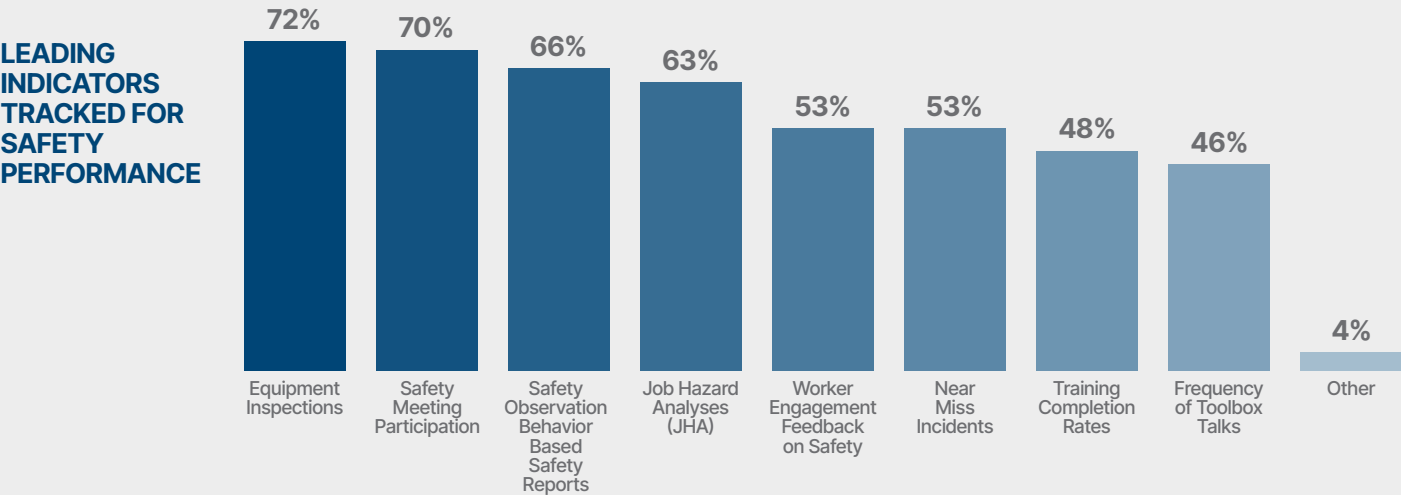
Engaging workers and subcontractors in safety is a significant concern. There's a need to develop safety cultures that extend beyond meeting minimum compliance requirements.



TRACKING SAFETY PERFORMANCE

Overall, a strong concern for safety is clearly present in the construction industry. According to the study, **96% of respondents actively track leading indicators for safety performance.** The most commonly tracked leading indicators are equipment inspections (77%) and participation in safety meetings (70%).

The 4% of respondents who indicated they don't use leading indicators do not perceive value in doing so.



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EXPERT INSIGHT:
Using Leading Indicators Effectively

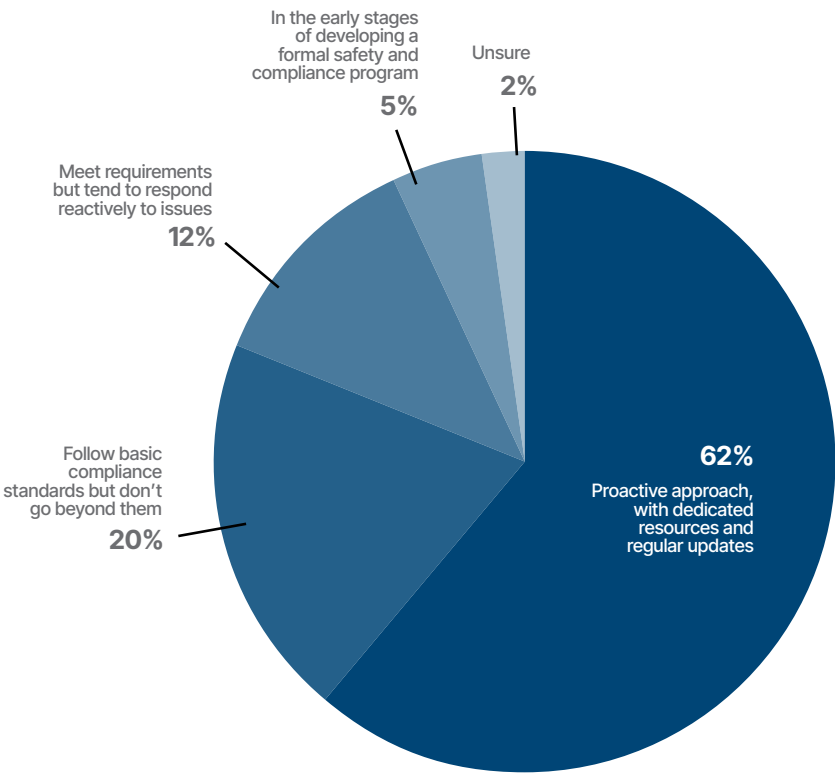
Leading indicators work best when paired with feedback and follow-up. Employers should review safety data in real-time with crews so that adjustments can happen quickly. Additionally, companies that link data to recognition programs are experiencing stronger engagement and safer job site cultures.

APPROACHES TO SAFETY PERFORMANCE

Nearly two-thirds of study respondents reported using a **proactive approach to safety and regulatory compliance**, with dedicated resources and regular updates. This sounds promising, but it also means that **one-third of respondents are not yet operating proactively**. These organizations typically meet basic compliance requirements but tend to respond reactively to safety and compliance issues.

Additionally, 5% of respondents are simply in the early stages of establishing a formal safety and compliance program.

APPROACH TO SAFETY & COMPLIANCE PROGRAMS



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EXPERT INSIGHT: *Moving from Reactive to Proactive Safety*

Organizations moving from reactive to proactive safety are gaining long-term efficiency. Employers should embed compliance into their daily routines, not treating it as an add-on. Use digital platforms to keep programs current and transparent across teams.

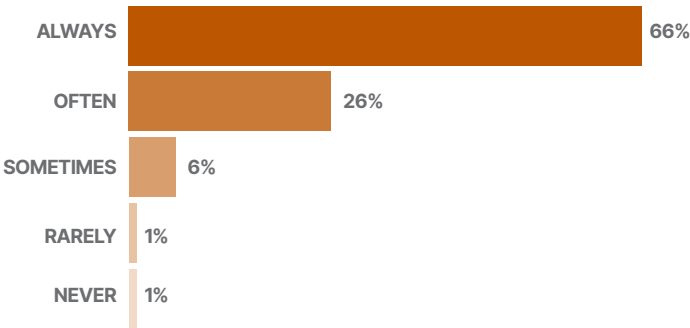
IMPACT OF SAFETY & COMPLIANCE PRACTICES

	Significant/Moderate Impact	Minimal impact	No Impact
Pre-task planning/daily safety huddles	84%	13%	3%
Regular job-site audits or inspections	83%	16%	2%
Internal safety committees or meetings	81%	16%	3%
Scheduled compliance reviews	79%	18%	3%
Job hazard analyses (JHA)	79%	18%	3%
Emergency drills or preparedness exercises	77%	18%	5%
Worker-led safety suggestions or innovations	75%	21%	5%
Subcontractor onboarding with compliance focus	71%	23%	7%

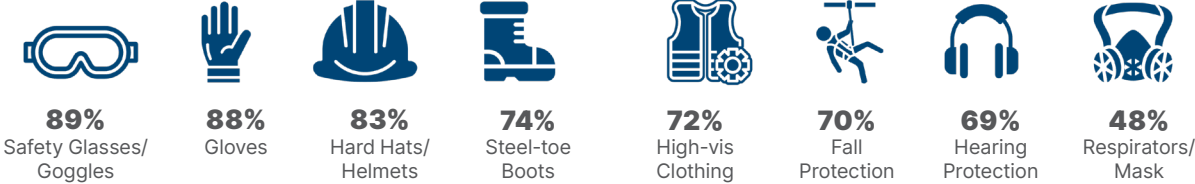
PPE SAFETY PRACTICES

The study data suggests a growing commitment to the use of personal protective equipment (PPE) on job sites, with **92% of respondents reporting that PPE is always or often used on job sites**. The most commonly used PPE items are safety glass/goggles (89%), gloves (88%) and hardhats/helmets (83%).

FREQUENCY OF PPE USE

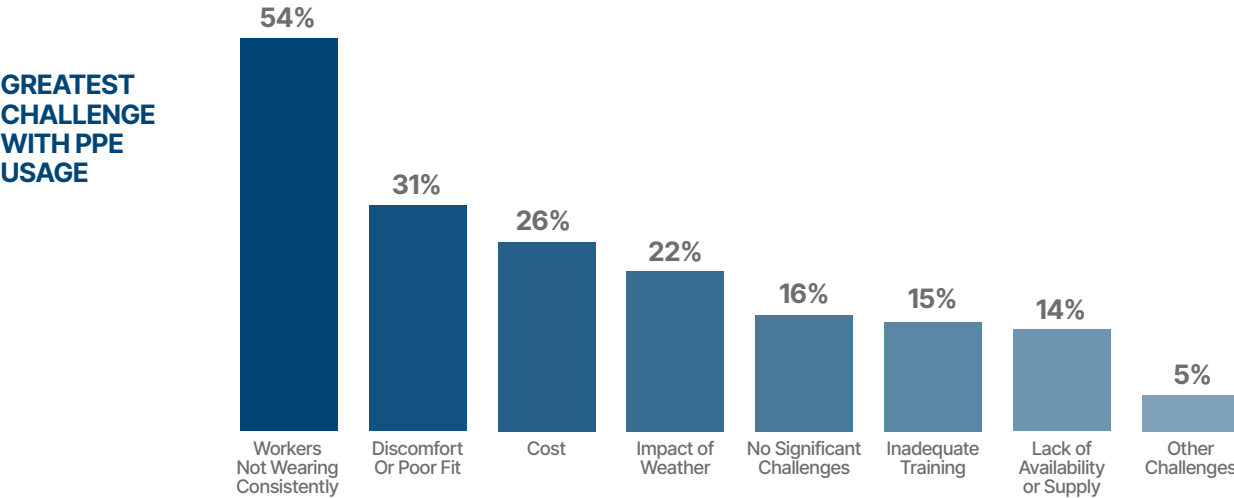


PPE MOST COMMONLY USED



CHALLENGES WITH PPE USAGE

The greatest challenge to PPE practices is inconsistent wear by workers, reported by **54% of respondents**. Other challenges include discomfort or poor fit (31%), cost (26%), and weather-related issues such as having PPE that is suited for heat (22%). Less frequently cited challenges included inadequate training on PPE use (15%) and supply shortages (14%).



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EXPERT INSIGHT: Improving PPE Usage

Inconsistent PPE use is often a cultural issue, not a supply issue. Involving workers in choosing PPE improves comfort and compliance. Smart PPE and wearables enhance accountability, while regular feedback from workers on the fit and comfort of these items fosters buy-in and promotes their everyday use.

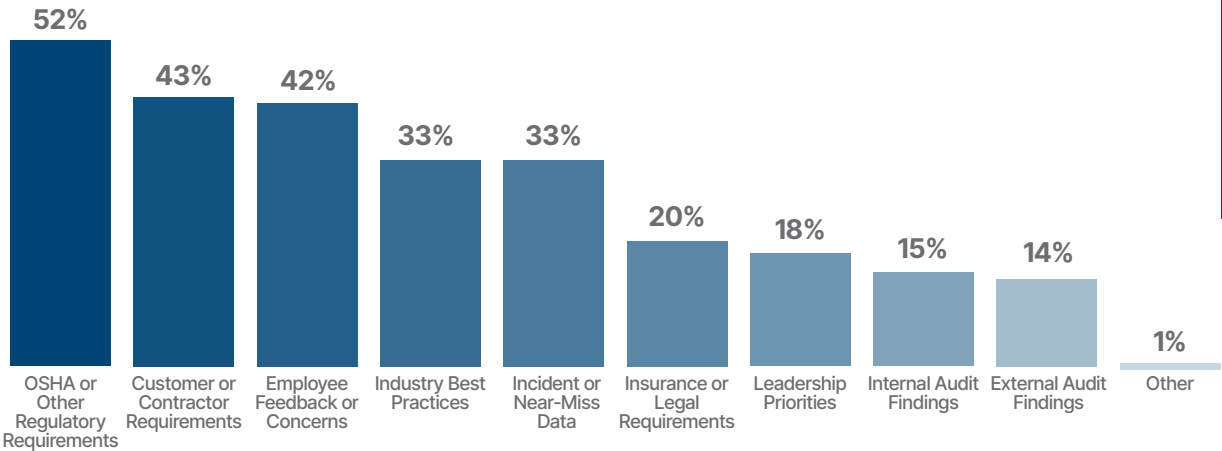
SAFETY & COMPLIANCE TRAINING

Training programs in the construction industry are shaped by a range of factors. Key among them are **regulatory requirements such as OSHA standards** (52%), followed by **customer or contractor requirements** (43%) and **worker feedback or concerns** (42%).

While these drivers form the foundation of many training initiatives, a comprehensive training program also aligns with voluntary national consensus standards, and incorporates insights from industry trends, lessons learned from past safety incidents, and insurance or legal considerations.

Regarding training formats, **on-the-job** (68%) and **in-person** training (67%) were the most often used for delivering safety and compliance training among respondents.

KEY FACTORS SHAPING MY TRAINING PROGRAM TOPICS

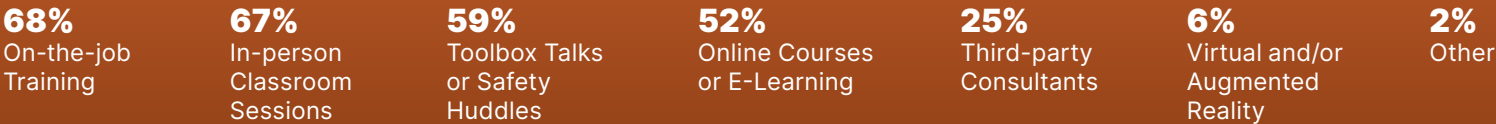


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EXPERT INSIGHT: *Blended Training Methods*

Effective training combines methods to fit different learning styles. Employers should blend in-person and online learning with hands-on practice. Virtual reality and mobile apps have also become increasingly popular training formats, helping workers connect with safety concepts in practical and engaging ways.

FORMATS USED FOR SAFETY & COMPLIANCE TRAINING



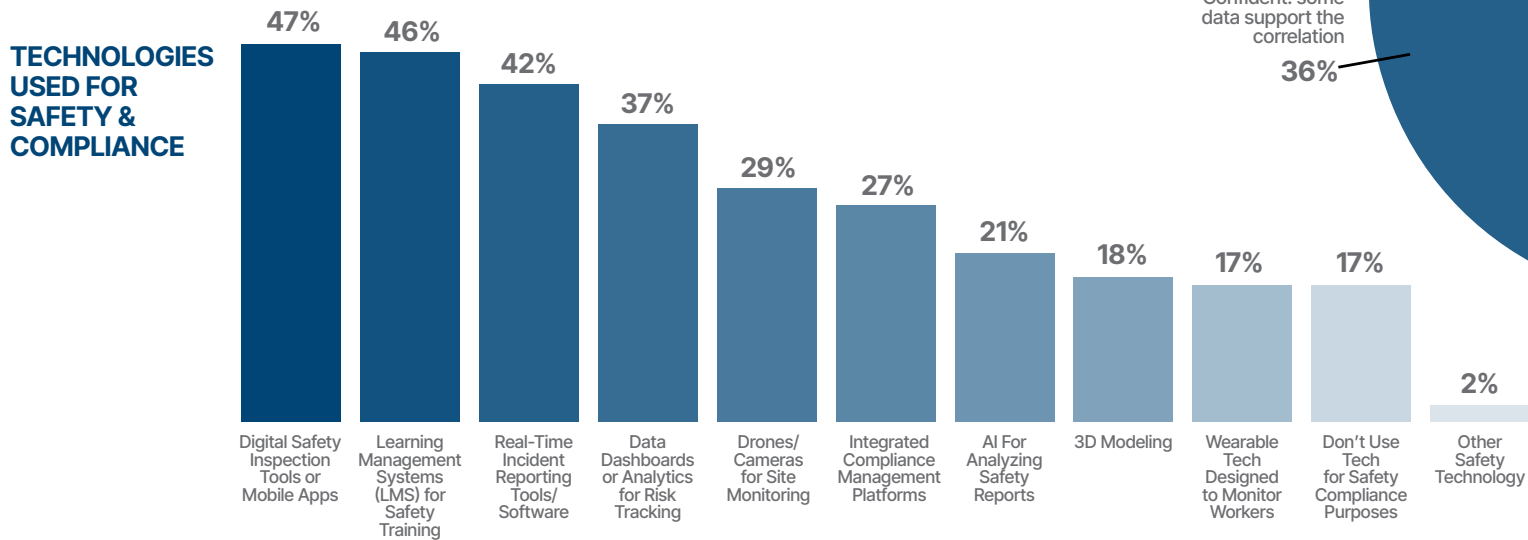
48% OF RESPONDENTS
were only “**somewhat confident**” to “**not confident at all**” that their current training prepares employees to perform the job safely and in compliance with regulations

ADVANCED TECHNOLOGY USE FOR SAFETY & COMPLIANCE

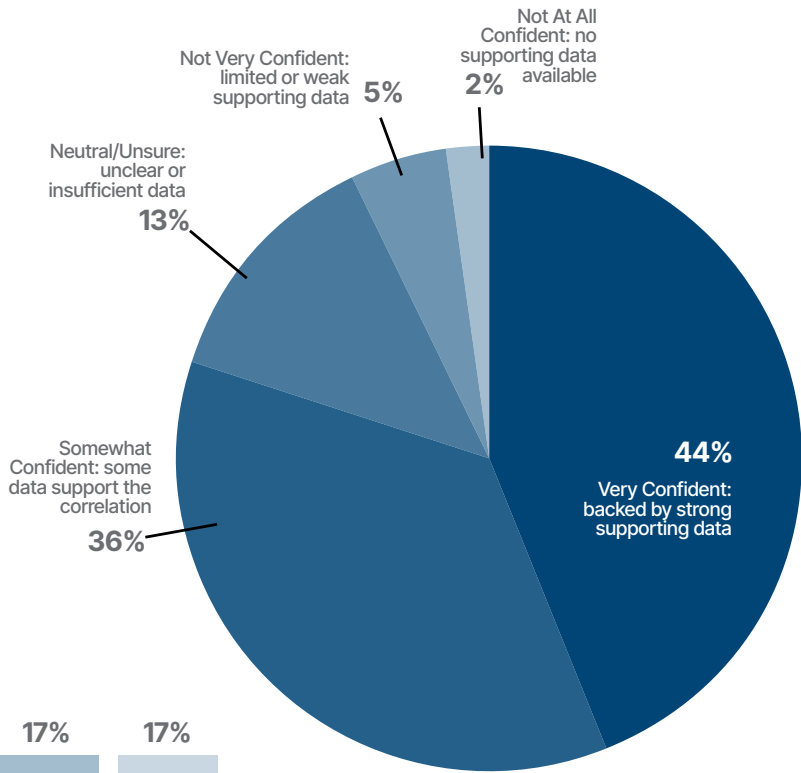
Respondents are hopeful about the potential in advanced technologies, such as those using virtual reality, augmented reality and AI for safety and compliance. Some safety-focused technologies, including **digital safety inspection tools, mobile apps, Learning Management Systems (LMS), incident reporting software, and data dashboards or analytics**, are seeing higher adoption by those in the construction industry. Other advanced tools, such as drones, 3D modeling and wearables, are only used moderately.

Notably, **56% of respondents reported they were only “somewhat confident” to “not at all confident” the technology they currently use supports compliance and reduces risk.**

Budget constraints were reported by respondents (53%) as the top barrier to technology adoption. Resistance to change by staff (36%) and challenges with integrating new technologies with existing systems (31%) were each cited by about a third of respondents.



CONFIDENCE MY TECHNOLOGY IS SUPPORTED BY STRONG DATA



BARRIERS TO ADOPTING NEW TECHNOLOGY FOR SAFETY & COMPLIANCE



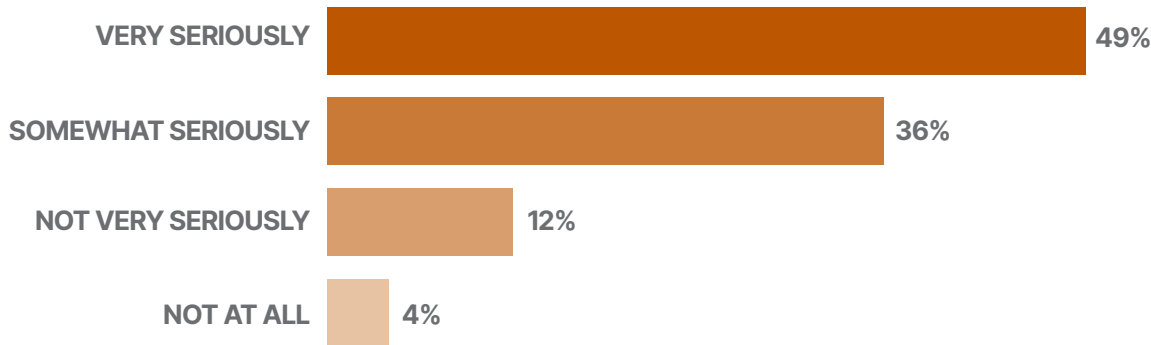


MENTAL HEALTH & WELLNESS

Nearly one-half (49%) of respondents in the study work for construction companies or trades that view mental health and wellness as a core part of worker well-being. These companies regularly address mental health through policies, programs or leadership messages. While this sounds promising, **over half of construction companies still do not view mental health as core to employee well-being.**

A smaller segment of respondents (16%) work for companies where mental health is not discussed, prioritized or seen as a concern at all.

HOW MY COMPANY VIEWS THE IMPORTANCE OF MENTAL HEALTH & WELLNESS



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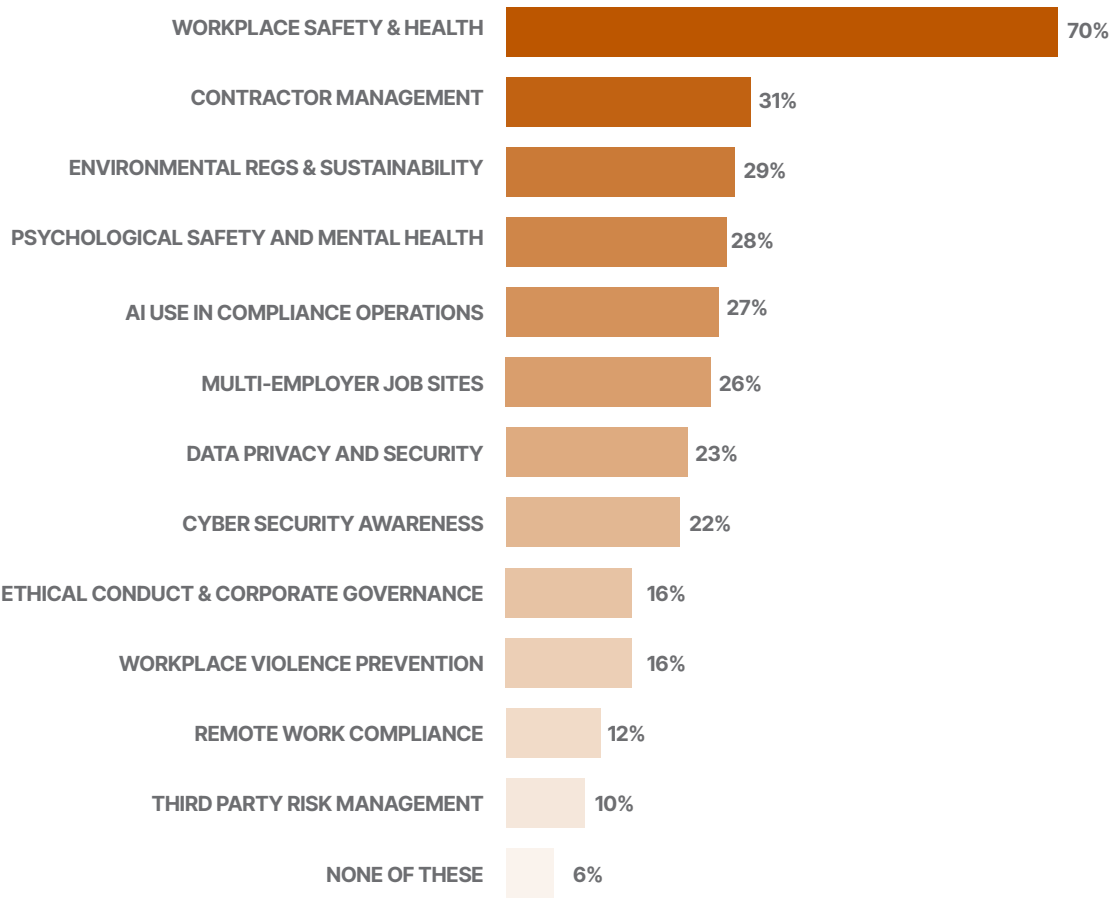
EXPERT INSIGHT: *Addressing Worker Well-Being*

Construction workers face some of the nation’s highest rates of substance abuse, suicide, and stress-related injuries. When companies fail to prioritize mental health as a core aspect of workers’ well-being, these risks escalate, impacting safety, productivity, and retention—making proactive support essential.

PRIORITIES FOR CONSTRUCTION COMPANIES & RELATED TRADES

We asked respondents about their top organizational priorities for the next 18 months. **Workplace safety and health** was by far the most critical focus area (selected by 70% of respondents). This was followed by a broad range of other priorities reflecting a holistic view of risk management.

COMPANY'S TOP PRIORITIES FOR THE NEXT 18 MONTHS



FUTURE OUTLOOK FOR SAFETY & COMPLIANCE

This study has provided a timely lens into the construction industry's current safety & compliance culture, where both are foundational imperatives and persistent challenges. Yet it also offers **insights for turning obstacles into meaningful progress.**

- 1

INTEGRATION OF AI
AI will become central to safety management, shifting from reactive measures to predictive, real-time risk prevention. It will also enhance training through adaptive learning modules tailored to individual needs.
- 2

A SHIFT TOWARD DIGITIZATION & AUTOMATION
Safety processes are moving to automated, digital-first systems, replacing manual reporting with mobile apps and electronic tracking. This streamlines tasks like inspections and reporting, reducing administrative burdens and boosting efficiency.
- 3

UPDATES TO OSHA STANDARDS & REGULATORY REQUIREMENTS
As technology advances, OSHA has yet to issue AI-specific standards, though this area continues to evolve. Employers remain responsible for assessing and controlling emerging risks, and must stay proactive to ensure compliance and protect their workforce.
- 4

ADVANCED TRAINING METHODS
Safety training is evolving into immersive experiences using VR to simulate high-risk scenarios. Combined with AI-driven modules, these tools promise to create personalized learning paths for better retention and safer practices.
- 5

IMPROVED SAFETY EQUIPMENT & WEARABLE TECHNOLOGY
Next-generation PPE will include sensors that monitor vital signs and chemical exposure, sending real-time alerts for immediate intervention. This continuous monitoring improves protection and provides data for proactive risk management.

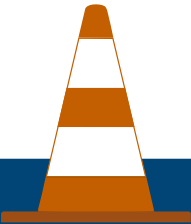
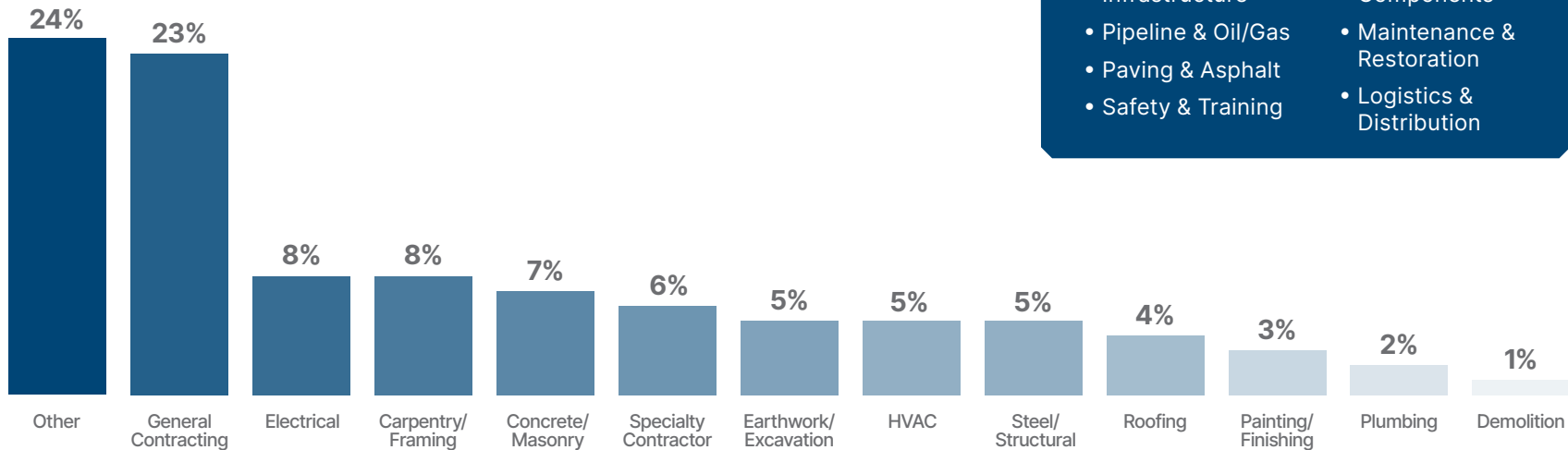
RESPONDENT DEMOGRAPHICS

Of all respondents to this survey, General Contracting was the single most represented trade (23%), followed by Electrical (8%) and Carpentry/Framing (8%).

The survey was fielded from June 25, 2025, through July 10, 2025, with 719 individuals responding.

Respondents included a mix of J. J. Keller customers and ASSP members, in addition to those who responded via links to the survey posted in several industry publications and on social media.

RESPONDENT TRADES



24% OF RESPONDENTS

reported their primary trade as “Other.”
The listed trades falling under that category include:

- Construction Management/ Distribution
- Manufacturing
- Utilities & Infrastructure
- Pipeline & Oil/Gas
- Paving & Asphalt
- Safety & Training
- Consulting & Inspection
- Fencing & Installation
- Electrical & Components
- Maintenance & Restoration
- Logistics & Distribution

For questions or additional information on construction industry safety & compliance, see our websites or contact us.



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