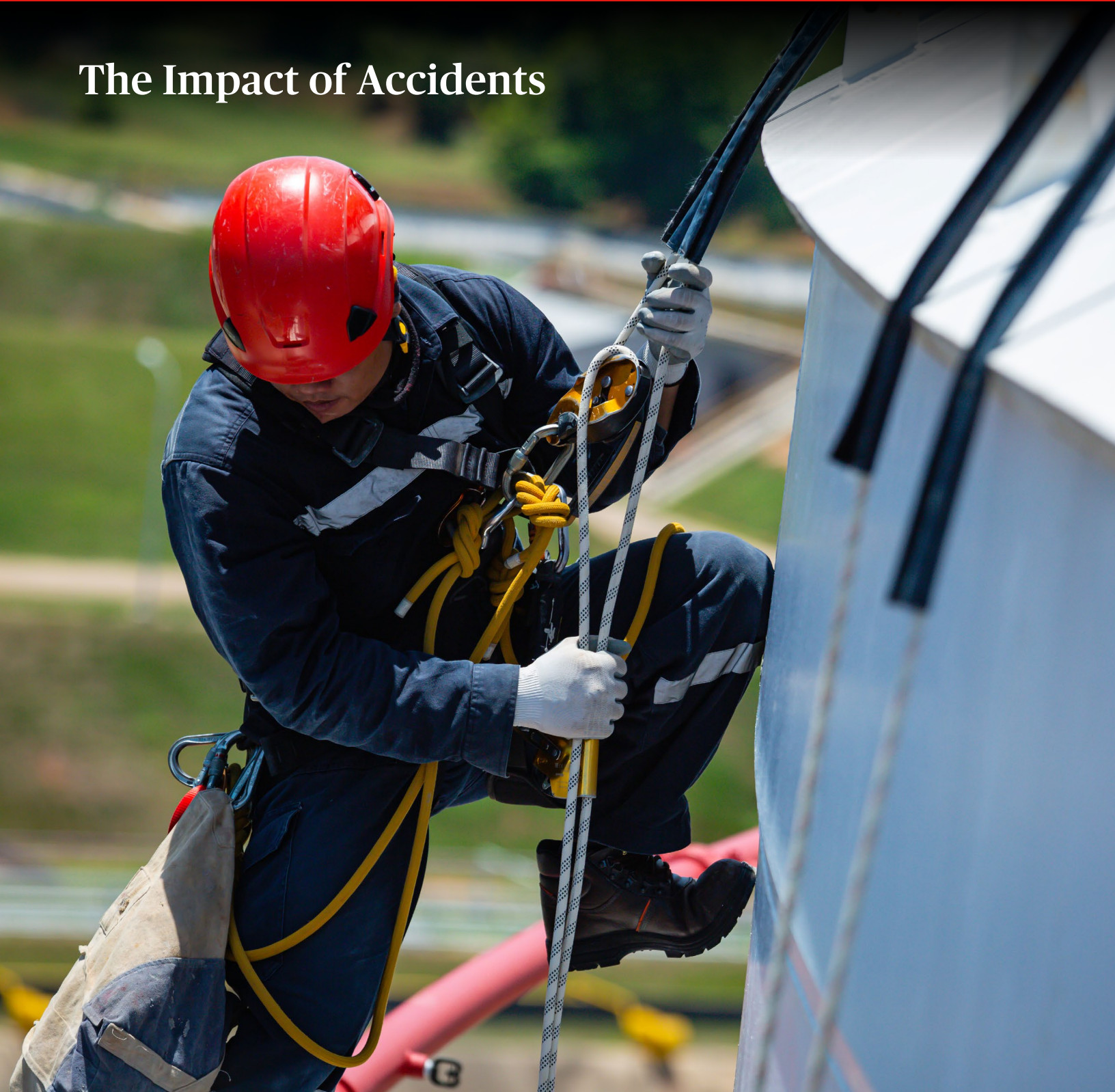


CHUBB®

CONSTRUCTION RISK ENGINEERING

# Construction Resource Guide

## The Impact of Accidents



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# INTRODUCTION

Those who work in the construction industry are fortunate to work in an industry that affords them the opportunity to see the fruits of the labor. They have that rare opportunity to take their children, and perhaps someday even their grandchildren, to see projects they have helped build and show them the impact that those projects have had on society; It is an industry comprised of a special group of people.

Construction workers are often stereo typed, and portrayed in a negative light in the movies and tv shows. The reality is, the vast majority of construction workers are family oriented, hardworking and parotitic individuals who want to provide for their families, and who take pride in their craft and the important role their work plays in society.

Unfortunately the construction industry remains one of the most dangerous industries in which to work in the US. In 2022, according to the Bureau of Labor Statistics, 1056 construction workers died from on-the job accidents in this country<sup>1</sup>.

To put that in perspective, that is roughly the equivalent of five airline crashes. Think of all the attention garnered, rightfully so, when a plane accident or near miss occurs. It's typically the leading story on the nightly news and becomes the cover page of the following day's newspaper. But when a construction worker dies on a project site, it typically doesn't garner the same level of attention, yet 1056 construction workers killed in a year is a serious and important issue that deserves attention.

## THE NUMBERS

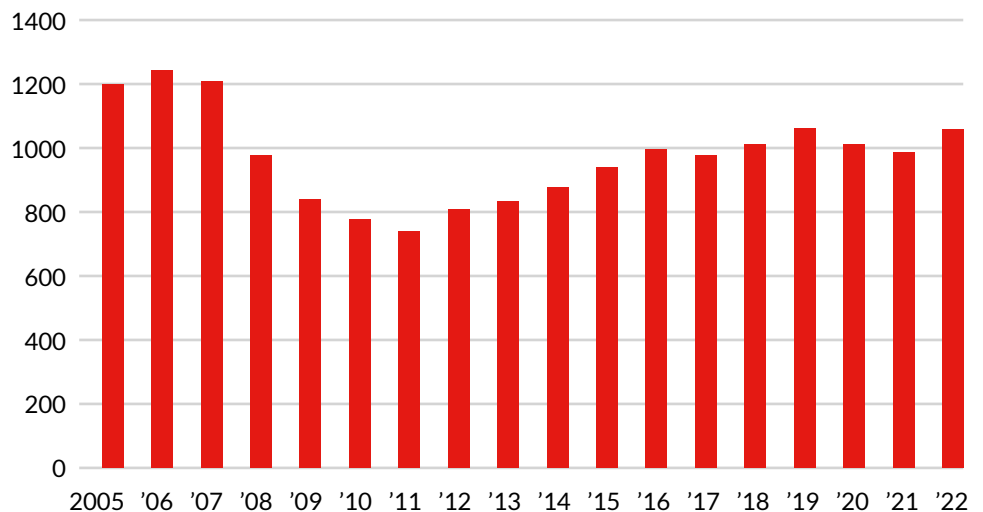
Historically, the Construction Industry represents approximately 5% of the private US workforce but based on the 2022 BLS data<sup>1</sup>, Construction accounted for 19.2% (1056/5486) of all fatal injuries in the workplace. Approximately one in five of all fatalities in private industry occurred in construction<sup>1</sup>.

As noted in the chart below<sup>2</sup>, construction fatalities have not seen any significant decreases since 2005 and remain high. You will note a dip in number of fatalities in 2008-2011, but you need to consider the construction economic environment during that time frame. As the construction economy picked up in 2012, note the increase in number of fatalities.

According to the BLS, in 2022, 3.7 worker fatalities per 100,000 Full-Time workers was the average for all US industries.<sup>3</sup> Workers in construction and extraction occupations had the second most fatalities (1,056) in 2022 compared to other occupation groups. The Construction fatality rate in 2022 was 13.0 per 100,000 FTE<sup>1</sup>. Why does the construction industry have such a disproportionate number of fatalities as compared to all other industries in the United States?

### Construction Fatalities

- 2005 - 1,192
- 2006 - 1,239
- 2007 - 1,204
- 2008 - 975
- 2009 - 834
- 2010 - 774
- 2011 - 738
- 2012 - 806 (increase 9%)
- 2013 - 828 (increase 3%)
- 2014 - 874 (increase 6%)
- 2015 - 937 (increase 7%)
- 2016 - 991 (increase 6%)
- 2017 - 971 (decrease 2%)
- 2018 - 1,008 (increase 4%)
- 2019 - 1,061 (increase 5%)
- 2020 - 1,008 (decrease 5%)
- 2021 - 986 (decrease 2%)
- 2022 - 1,056 (increase 7%)

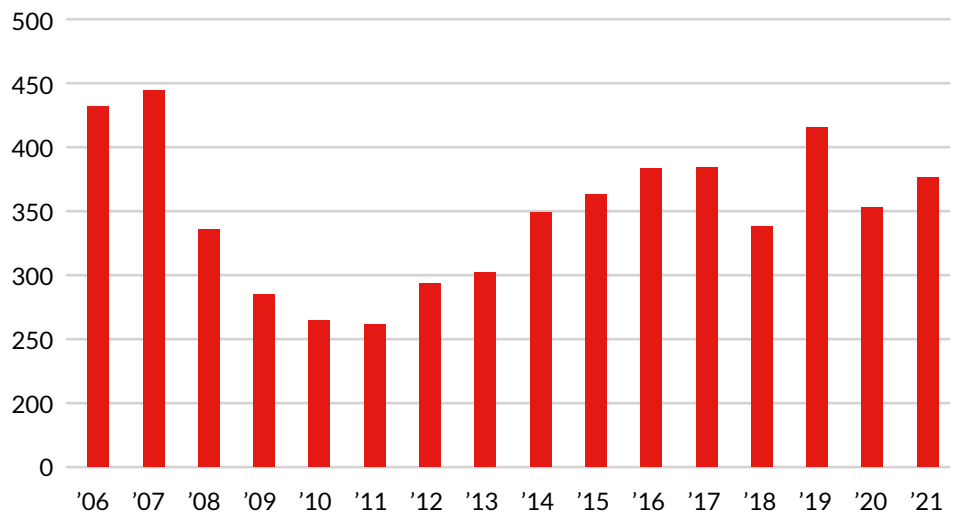


## FALLS IN CONSTRUCTION

Falls remain the largest driver of worker fatalities in the construction industry. In 2021, a total of 379 workers suffered fall-related fatalities at the job site,<sup>4</sup> a 7% increase from 2020<sup>4</sup>. Despite the advancements in worker training and availability of personal fall arrest systems (PFAS) and fall protection equipment over the years, fall-related fatalities continue to remain level over the past 10 years, as noted in the chart below.

### Construction Fatalities Resulting From Falls

- 2006 - 433
- 2007 - 447
- 2008 - 336
- 2009 - 283
- 2010 - 264
- 2011 - 262
- 2012 - 294 (increase 12%)
- 2013 - 302 (increase 3%)
- 2014 - 349 (increase 16%)
- 2015 - 364 (increase 4%)
- 2016 - 384 (increase 5%)
- 2017 - 389 (increase 1%)
- 2018 - 340 (decrease 12%)
- 2019 - 418 (increase 23%)
- 2020 - 353 (decrease 15%)
- 2021 - 379 (increase 7%)



## THE GOOD NEWS

The good news regarding construction safety is that overall, the construction industry has seen a dramatic reduction in the annual recordable accidents in the industry per 100 workers as measured by the BLS. In 2022, the BLS reported the recordable incident rate for construction was 2.4 per 100 full-time workers: down from the 2.8 incident rate of 2019.<sup>5</sup> The chart below shows the vast improvement over the past decades in recordable incident rates.

### The Construction Industry Has Improved

#### Total Recordable Accidents in Construction per 100 Workers

1991 - 12.8	1999 - 8.4	2007 - 5.4	2015 - 3.5
1992 - 12.9	2000 - 8.2	2008 - 4.7	2016 - 3.2
1993 - 12.0	2001 - 7.8	2009 - 4.3	2017 - 3.1
1994 - 11.5	2002 - 7.1	2010 - 4.0	2018 - 3.0
1995 - 10.4	2003 - 6.8	2011 - 3.9	2019 - 2.8
1996 - 9.7	2004 - 6.4	2012 - 3.7	2020 - 2.5
1997 - 9.3	2005 - 6.3	2013 - 3.8	2021 - 2.5
1998 - 8.7	2006 - 5.9	2014 - 3.6	2022 - 2.4

These strong improvements in accident reduction are attributed primarily to the increase in attention and commitment that construction companies have placed on safety. Construction firms have invested heavily in understanding and enhancing their safety culture by staffing their organizations with corporate safety directors and safety managers, investing in safety training for their workers, pre-planning safety efforts, requiring subcontractor pre-qualification and management, as well as setting annual goals and maintaining accountability. Clearly, strides have been made but **Much More Can Be Done.**



# ACCIDENT IMPACTS

Accidents have a tremendous impact on the overall success of a construction project, both to morale and from an economic standpoint:

- **Injury or death to the worker.**
- **Emotional and Financial Impact to Injured Worker's dependents.** Serious physical injury to or death of a worker can have significant emotional and financial implications on the worker's family. Such injury may prevent the worker from continuing to perform their craft and/or provide for their family as well as prevent or limit the injured worker from enjoying physical activities with their children and loved ones. Should the accident result in death, the devastation to loved ones, which may include his/her inability to experience the joys of parenthood, will result.
- **Loss of Production.** You often hear "safety slows us down and impacts the construction schedule". The reality is that safety does not slow down a project: accidents slow down the project through loss of production to address the accident scene, work stop orders by governing agencies investigating the accident, field management time spent on accident investigation, down time due to damaged equipment resulting from accidents, and potential litigation.
- **OSHA Inspections.** Accidents on construction projects increase the likelihood of generating an inspection by OSHA. All employers are required to notify OSHA when an employee fatality has occurred, or an employee suffers a work-related hospitalization, amputation, or loss of an eye. Inspections could result in citations being issued to the company along with significant monetary fines.
- **Civil Suits.** Accidents also increase the possibility of injured workers filing lawsuits against the owner and contractor due to an alleged unsafe workplace or insufficient training. Lawsuits can also arise if the construction accident involved a member of the public in addition to property damage and/or loss of business by those impacted by the accident.
- **Media Attention.** Information concerning construction accidents may be reported to or posted on social media platforms, potentially drawing unwanted attention to an already difficult situation.
- **Negative Public Perception.** Construction accidents have the potential to create a crisis management event for the company. If the company is not prepared to effectively handle the media and respond to the crisis in a professional manner, the company's reputation and how it is perceived by the public may be adversely impacted.
- **Increased Insurance Cost.** The construction industry is a business where competitive pricing plays a major role in successfully winning a project. Insurance cost is a critical component of any construction bid and could impact the competitiveness of the bidder. The accident record of a construction company plays a significant role in that company's experience modification rate (EMR) and insurance cost. Poor safety record can result in higher insurance cost, which in turn impacts the company's competitive edge.



### A SENSE OF URGENCY

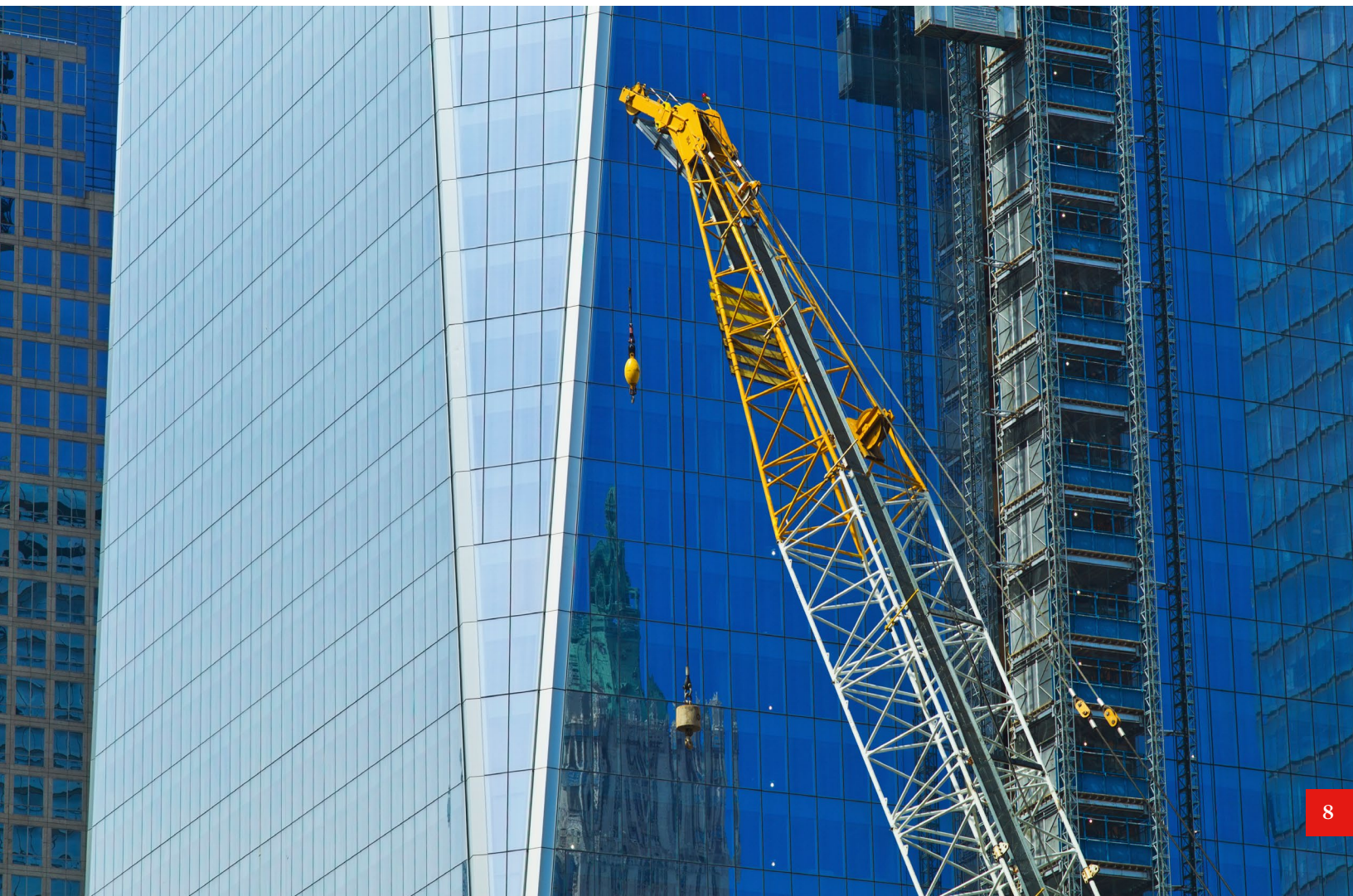
Some construction companies still do not view safety on the same level as production. For some, schedule and production remain the main drivers and focus of the project. Successful construction companies understand that production and safety are intertwined, and those companies understand you cannot compromise one for the other.

**But for some construction companies, management may rationalize that their accident costs:**

- Are no higher than their competitors;
- Are covered by insurance;
- Are the normal cost of doing business; and
- Cost less than implementing safety measures

This type of thinking and approach to safety management is dangerous and places those companies in a disadvantage to their more safety minded counterparts. Construction companies that take a proactive rather than reactive approach to safety and who understand that safety is an integral component of the overall project delivery approach are far better off.

A sense of urgency is needed by all in the construction industry if we are to continue to make positive changes in our collective efforts to continue to drive these numbers down and find new ways to improve the safety culture.





# IMPROVING SAFETY PERFORMANCE & BUILDING A STRONG SAFETY CULTURE

- **Upper Management Commitment:** It begins with 100% buy-in and commitment by those in senior leadership of the company who believe Safety Is a Core Value within the organization and who set the standard for safety and monitor its progress. This buy-in and commitment must transcend the entire organization from senior management to field management.
- **Production & Safety Are One in the Same:** The entire organization must understand that production and safety go hand in hand. The same effort and attention that goes into value engineering and planning the project to meet budget and schedule goals must include all safety aspects associated with the project as well.
- **Safety is Everyone's Responsibility:** The responsibility for safety within an organization and on the project site should not be the sole responsibility of the Safety Director or Safety Managers. The responsibility of safety lies with every layer of management within the company. At the project site, the Project Manager, Project Superintendent, Field Superintendents and Foreman, along with the site Safety Manager, must be actively engaged on a daily basis regarding safety.  
  
No longer acceptable are statements such as "Superintendents are too busy coordinating and managing the construction activities to be involved in safety". The safety of the project and its subcontractors is the responsibility of the Superintendent running the project. It must be understood that safety is of equal importance to schedule and production. Safety must be clearly identified and stated in the job description of all management personnel.
- **Senior Management Engagement:** To demonstrate safety is a core value within the organization, senior management involvement with safety should be displayed on a regular basis at the project site. At a minimum, Project Executives should conduct monthly site safety walk throughs of the project site. These specific monthly walkthroughs should not focus on production or schedule but solely to observe the safety culture and performance of the project. It gives the Project Executive the opportunity to clearly focus on the exposures associated with the work and safety measures in place to address those exposures.
- **Build a Safety Culture:** Strong organizations understand that their employees are their most valuable asset and should strive to build a safety culture where all workers are treated and made to feel as they are part of the family. Get to know the workers.
- **Safety Goals:** Organizations should establish aggressive yet realistic safety and performance goals they aspire to achieve on an annual basis. Goals should be monitored to measure progress and reviewed throughout the year.
- **Worker Engagement & Empowerment:** Who knows the work environment and safety concerns better than the workers who are actually doing the work? Solicit input and feedback from workers regarding safety matters and incorporate that feedback into the planning and execution. Encourage workers to look out for one another and to speak up if they observe or have safety concerns without fear of retribution.
- **Pre-Job Safety Planning:** Any successful endeavor is one where detail and careful thought has been effectively incorporated into the process. Strong safety cultures evolve when you proactively break down the construction activities to identify potential exposures that could result in accidents. Those exposures should then be addressed to determine necessary controls to eliminate or mitigate them. Pre-Task Planning (PTP) should be completed by trade Foreman and discussed with their crews daily to review work activity taking place that day and all necessary safety measures. All PTP's should be submitted to the GC/CM and ideally, GC/CM superintendents should attend and participate in those reviews when possible.
- **Safety/Production Meetings:** All project production/Foreman meetings should incorporate safety in the discussions. A two week look ahead, where trade contractors discuss upcoming operations, should require completion and submissions of detailed Job Hazard Analysis' to the GC/CM prior to start of work.
- **New Employee Orientation:** Most accidents that occur on a construction site directly involve a worker therefore effective and meaningful employee orientation is a crucial component of any successful safety culture when preventing injuries. The employee orientation should be detailed and provide an overview

## The Impact of Accidents

of the project, as well as emphasize and articulate the company values and that it cares for their safety and health. An in-depth review of the safety expectations and review of safety policies and procedures must be addressed and explained. This step is a crucial opportunity for the project to instill in each worker, before they enter the site, the project safety expectations, the importance of working safely, the need to look out for one another, and above all else, the goal of returning to their families at the end of the workday safely.

- **Subcontractor Selection & Management:** Trade contractors play a pivotal role on any construction project. It is essential that detailed pre-qualification of subcontractors that includes a review of their safety culture and past performance takes place. Clear and concise safety expectations and requirements must be outlined in contracts and safety performance must be monitored to ensure implementation and execution of safety requirements are in place.
- **Safety Committees:** Organizations should establish safety committees comprised of representatives from executive management, field management and safety that meet on a regular basis to review safety performance, recent accidents, accident trends, subcontractor concerns, goals, and enhancement opportunities. Consideration should be given to including labor representation in the safety committee, who can provide insight from the worker's perspective.
- **Substance Abuse Testing:** Addiction does not define the character or integrity of an individual, it is an affliction that unfortunately affects many. The construction industry is not immune to addiction.

Employees of the construction industry, mostly blue-collar workers, have nearly twice the rate of substance abuse as the national average. Around 15% of all construction workers in the United States have a substance abuse disorder compared to 8.6% of the general population of adults, according to data from the National Survey on Drug Use conducted by the Substance Abuse and Mental Health Administration. Other statistics from this study pertaining to construction workers include:<sup>6</sup>

- 11.6% of construction workers reported illicit drug use within the past month
- 14.3% of construction workers were diagnosed with a substance use disorder in the past year, more than 1 ½ times the average of all full-time workers surveyed
- 2.3% have a marijuana use disorder

The construction industry has been particularly affected by the opioid epidemic, and workers in this field are among the most susceptible to opioid abuse. About 1.3% of construction workers have an opioid use disorder, almost twice the national average according to a report from the National Safety Council.<sup>6</sup>

A strong safety culture should include substance abuse testing along with resources to assist workers in overcoming this affliction.

- **Mental Health Awareness:** According to a 2021 Centers for Disease Control study, the overall 2021 suicide rate per 100,000 in the U.S. civilian noninstitutionalized working population was 32.0 among males and 8.0 among females. Suicides in the construction industry are an elevated Industry Group with males at 56.0 and females at 10.4 as compared to the overall population<sup>7</sup>.  
Mental health issues are not typical focus areas within construction companies. The “tough guy” image of construction workers creates a stigma for the individual to seek help, leaving the individual and their families to suffer in silence. Construction organizations should take a more proactive approach to this serious health issue impacting many in this industry.
- **Accountability:** What gets measured gets done. It is not enough to have written procedures and policies regarding safety. For these procedures and policies to have substantial and measurable impact, construction companies must Walk the Talk. There needs to be accountability in place for all members of the construction organization regarding implementation and execution of safety procedures and policies necessary to ensure a strong safety culture is realized.

- 12% have an alcohol use disorder compared to 7.5% nationally
- 16.5% of construction workers reported heavy alcohol consumption within the past month, nearly twice the average of all full-time workers surveyed

## CLOSING

The construction industry is renowned as one of the most crucial sectors in this nation. The skilled individuals who have dedicated themselves to this noble profession rightfully deserve an industry that prioritizes their safety and well-being. It is imperative that the construction industry actively incorporates and strengthens a proactive safety culture at each project site, thereby highlighting its commitment to these invaluable workers. Any deficiency in cultivating an effective safety culture can result in significant repercussions, such as severe accidents, which could seriously hamper the overall success of construction firms.

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### References:

1. <https://www.bls.gov/news.release/cfoi.nr0.htm> – Census of Fatal Occupational Injuries Summary, 2022
2. U.S. Bureau of labor Statistics – Census of Fatal Occupational Injuries 2005 – 2022
3. <https://www.bls.gov/opub/ted/2023/fatal-work-injuries-up-in-2022.htm> - TED: The Economics Daily
4. U.S. Bureau of labor Statistics – Census of Fatal Occupational Injuries 2006 – 2021
5. U.S. Bureau of labor Statistics – Incidence rates of nonfatal occupational injuries and illnesses by industry and case types, 1991 – 2022
6. <https://americanaddictioncenters.org/workforce-addiction/blue-collar/construction-workers> – Construction Workers & Addiction: Statistics, Recovery & Treatment, Bush, D.M., & Lipari, R.N. (2015). Substance Use and Substance Use Disorder by Industry, National Safety Council. (2017). A Substance Use Cost Calculator for Employer.
7. <https://www.cdc.gov/mmwr/volumes/72/wr/mm7250a2.htm> – Suicide Rates by Industry and Occupation – National Vital Statistics System, United States, 2021; Weekly / December 15, 2023 / 72(50);1346–1350

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