Training Improves Safety and Workforce Turnover and Reduces Costs

Written by: David Clark, Senior Product Marketing Manager, CM Labs

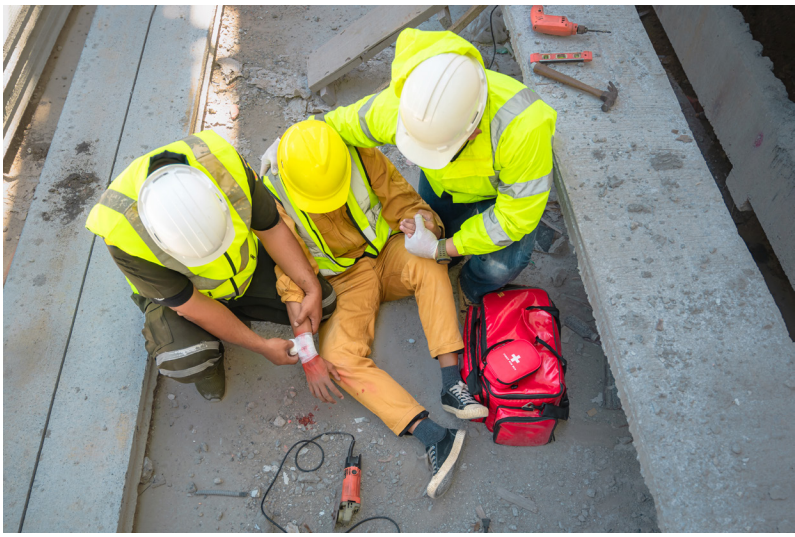
Construction worksite safety violations are costly - not only in terms of OSHA fines, but also in how they impact worker recruitment, turnover, insurance rates, litigation, project over-run penalties, lost contracts, and more.

Next to payroll, workers' compensation insurance is generally a contractor's biggest expense. A single injury claim can result in a substantial rate hike and hundreds of thousands of dollars in medical expenses. Recouping such losses with additional contracts isn't easy for the average construction company.

We avoid [safety violations] by giving people the right knowledge, skill, ability, and the right tools they need to be safe on the job," says Debbie Dickinson, former chief executive officer of Crane Industry Services, a training company that employs Vortex simulators as part of its training curriculum. Dickinson spoke about using innovative technology for workforce development during a panel discussion.

In the paper, "Relationship between Construction Safety and Quality Performance," published in the Journal of Construction Engineering Management, the authors suggest a strong correlation between worksite safety and job quality. Equally, unsafe work habits contribute to errors, rework, missed schedules, and cost overrun.

"Failure to properly shore up trenches is the leading construction-related violation," says Terri Olson, owner of a Colorado-based construction company and Next Gen Equipment Training. "And fines can reach six figures. There was



a case here in Colorado where shoring equipment wasn't used, and the trench collapsed killing two workers. In addition to a substantial OSHA fine the company's owner was criminally prosecuted. That mistake impacted a number of lives and put a company out of business."

According to the National Safety Council, construction companies can save an average of $32,000 for each medically consulted injury they avoid. Similarly, OSHA reports that construction companies can save $4 to $6 in indirect costs for every dollar invested in direct costs by evading an injury in the workplace. Data from the Center for Construction Research & Training, WorkersCompensation.com and Safety & Health Magazine further corroborate the savings and costs associated with workplace health and safety.

Measurable and sustained improvement to safety is only realized through commitment. A growing number of contractors are demonstrating this by establishing and monitoring key metrics for health and safety.

"Utilizing technology to influence safety is the way contractors should be doing [training]," says Dan Belcher, director of strategic partnership at NCCER. "If workers are trained correctly and they follow safety procedures, the construction industry is one of the safest places you can work."

However, according to FMI's 2017 Talent Development Study, 43% of survey participants don't prepare a formal annual training and development budget even though 89% of them face talent shortages.

The above demonstrates that part of the solution to worker recruitment and employee retention is viewing training as a long-term investment, which directly correlates to improved safety and health data. Formal training using simulation tools offers solutions for both objectives: improving safety and solving workforce shortages.

Equipment operation through simulation directly addresses health and safety metrics by reducing injury, while allowing trainers to virtually capture unsafe equipment operation. Built-in performance metrics can track everything from collisions and contacts with powerlines, personnel, vehicles, and other hazards. This provides the succinct, immediate, and objective feedback to avoid such dangers on the physical construction site.

"It's about learning from your mistakes. You can't tell people not to make mistakes because they're not going to learn. You have to be able to learn from mistakes. And the safest way to do it is in a stress-free, controlled environment where you can still understand what the consequences are, but thankfully, not suffer the consequences," says Gary James, a heavy equipment operator and training instructor, who spoke during a webinar on how to use simulation to prepare operators for real worksite challenges.

About the Author

David Clark is a Product Marketing Manager for CM Labs Simulations, Montreal, QC, developer of Vortex training simulators for construction, forestry, and ports applications. The company builds simulation-based solutions to help clients design advanced equipment and prepare for skilled operations. Through its Vortex Studio platform, CM Labs provides capabilities for training simulators, mission rehearsal, virtual prototyping, and testing.

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