

After 47 Years Of Dropping TRIR Rates, WHY Are They Now On The Rise?



After 47 years of safer work environments, we're seeing a rise in workplace incidents. OSHA, or the Occupational Safety and Health Administration, was created as a branch of the US Bureau of Labor in 1971 to curb the injury, illness, and fatality rates in the American workplace. Since their inception, we have seen a yearly decrease in workplace incidents, leading to less injured or killed workers. Until NOW!

What is causing the incident increase? Amerisure Insurance provides coverage for commercial and industrial building projects and published the [OSHA 2022 Top 10 Areas of Violations](#). OSHA spends most of their time inspecting these ten areas within companies and construction job sites. The top three areas of inspection are **Fall Protection, Hazard Identification & Communication, and Respiratory Protection**. Compare the inspections report to a [video about 2022 OSHA fines](#), by the National Association of Safety Professionals, describing the highest fines OSHA issued in 2022 for major incidents on a job site or where a company consistently ignored safety requirements. The top fine in 2022, totaling \$1.3M, went to a large New York based building contractor for repeated violations regarding fall protection, even after a fall fatality in 2019. A New Jersey auto parts manufacturer was fined \$1.2M+ for allowing

hazardous conditions to remain in the workplace, even after being cited by OSHA on numerous occasions.

A vinyl floor manufacturer, listed as a severe violator, was fined \$1.2M+ for not training employees on Hazard ID and for multiple hazard violations in the workplace. A worker at the site, only on the job for six weeks, was required to work on his own with a large rotating machine designed to wrap plastic material. The employee's finger was caught in the plastic winding causing his whole body to be engulfed and spun through the equipment until another employee could stop it. The individual was hospitalized and underwent multiple surgeries.

The NASP continued the report with the remaining companies who were fined over \$1M+ each related to fall protection and hazardous conditions that were not mitigated. What's contributing to these incidents, fines, and the rise in Total Recordable Injury Rate (TRIR) across the US workplace?

Why Is The TRIR Rate Rising?

For the first time since 1971, OSHA's TRIR is on the rise. The lowest national average TRIR rate was 2.6, in 2018. In 2022, however, it has now reached 3.1.

What caused the higher incident rate? One factor is that the older generation of highly experienced employees are leaving the workforce en masse, creating an information gap. A December 2022 [article](#) written in the [NYT](#) describes the exodus of Boomers as seen in Figure 1.

A Pew [study](#), released in November 2020, reported the national average for Boomer retirement moved from 2.2M per year to 3.2M during the pandemic. Recent data shows that trend has continued with 3.3M+ retiring in 2021–2022 each.

As the largest generation in US history continues to leave the workforce, employers are trying to fill the empty roles with the next generation of workers. This has led to a significant skills gap in industries where safety and technical skills are needed and required. As Boomers leave, taking their *tribal knowledge* with them, companies are having to put new employees on the shop floor by themselves, in some cases. With fewer inexperienced employees, the result is an uptick in incidents.

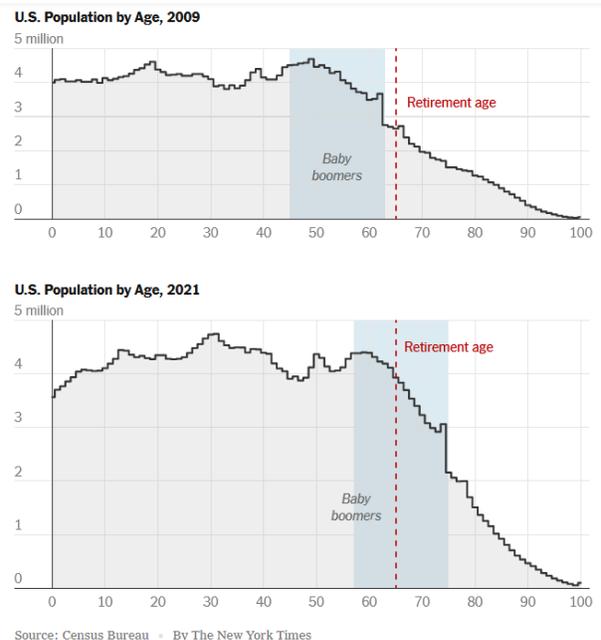


Figure 1.

Training Alone Is No Longer Enough

Training, or knowledge transfer, has been a cornerstone for companies in the US that require safety and technical skills in a variety of frontline job roles.

Remember being introduced to the concept of addition in school? $1+1=2$. At the time, math didn't seem real simple, but with homework and testing, we learned how to add, became competent, and moved on to more challenging concepts. The same applies to the workplace—just because we provide training one time

to new workers, doesn't mean they have the full competence to carry out the required tasks. It takes time and hands on experiences to help them learn and encode the skills they need to be safe and reliable as a worker.



In the workplace, companies generally provide safety training, as required by OSHA, in a variety of forms (CBT, classroom, etc.) When it comes to technical training, most companies conduct on the job (OJT) training by a trusted worker or supervisor in the workplace.

Training has worked in the past due to a large capacity of highly experienced and competent workers on the frontline. When new hires showed up, the experienced workers ensured the operations weren't interrupted by the new hires on the job, until eventually they were approved to work unsupervised. Having a large contingency of highly skilled workers on the frontline of operations, was a safety net of sorts to help prevent or preempt workplace injuries, etc. A global company in the US, with high hazard operations, had a major incident where an explosion killed 15 people, due to operations technicians not knowing what was happening inside the system process. Rather than blaming the workers and adding more training, the company worked with Industrial Occupational Psychologist professors at MIT to make a plan moving forward. One issue they pinpointed was how rapidly the Boomer generation was leaving and the skills gap they left in the workplace, not allowing knowledge transfer to take place. They engaged the company's frontline workers and supervisors from a variety of sites to get their input on what would help them the most.

The company, along with the MIT leads, developed workshops led by those who had worked in an operational frontline job. They enacted real life scenarios, to facilitate discussions where the team cross learned from each other. Then they followed up at the worksites with *coaches* who had worked in the same type jobs. The coaches came alongside the workers and supervisors to help them build on their safety and technical skills. Today, they continue to see great success with learning teams as they continually look to build capacity to *fail safe* in their operations.

In the US, we must move beyond exclusively training new employees. Training is critical, but it's only the first step in helping assure the safety of our next generation workforce. The majority of industrialized nations moved to competency management systems over 30+ years ago. Their

safety stats are light years ahead of the US, related to lesser injuries, illnesses, and fatality rate. In 2016, we published a [paper](#) on the US Safety Regulation changes taking place, comparing the US and the UK safety rates in 2012–2013. During that time, 4,437 more workers lost their lives on the job site in the US than in the UK.

It's Time to Start Talking About How to Help Our Next Generation Workforce

Companies in the US need to capture the *tribal knowledge* from those retiring or leaving their company and put it into a structured Competency Management System (CMS).

NASA experienced tragedies before they developed a competency management system. The US had serious nuclear incidents before the US Nuclear Regulatory Commission put a competency management system in place. After many plane crashes, the FAA now has a competency assessment program for its workforce, especially pilots, so they can land a plane on water with zero injuries. The US Nursing Association has competency standards and qualified assessors in place for all levels of nurses to assure competence. Yet, most industries in America, exclusively train a new hire and expect them to be fully prepared in 60 to 90 days.

Investing in the competency of the frontline workforce allows employers to identify the Safety and Technical knowledge and skills an employee needs to perform their job. It also aligns them with the business operations and strategies. Without a strong program, employees may be floundering in their positions for years, causing them to be in over their heads. This can lead to serious problems including incidents and fines and is tied to this phenomenon being called the "[Great Resignation](#)."

When you invest in a competency management program that coincides with your training program the benefits include:

- It provides a structured and efficient way to capture the *tribal knowledge* from the current workforce for the next generation employees to use.
- Competency is assessed by a Qualified Assessor using standards, rather than someone's opinion.
- Assessed skill gaps promotes productivity and efficiency, allowing on-time training and coaching to close gaps.
- Employees develop competent skills faster.
- Human error is reduced when higher levels of competency allow better decision making.
- Managers distinguish and invest in their future potential frontline leaders.
- Cultivating a desirable work environment. One of the top three criteria our next generation looks for in a company is an employer who will invest in skills development.
- HR can hire the best candidates possible using clearly defined skills to question and even test potential employees.
- Employees feel a greater sense of value and can see potential career growth as they develop their personal competence, resulting in longer retention time.

Is your company's TRIR rate rising? Are you still only training your employees? If your training program isn't keeping your TRIR down, consider looking at investing into a competency program for the safety and technical skills of your next generation employees.

Look for our second article, *What Does it Take to Develop a Competency Program*, on the widening skills gaps between generations in the American workplace and one solution other first world nations have found successful for their frontline workforce.

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