

eCompliance

Building A High Participation Safety Culture



INTRODUCTION: BUILDING
A STRONG SAFETY CULTURE

Reducing workplace injuries is intentional. Laws, regulations, training programs and improvements in PPE (personal protective equipment) have made the workplace less dangerous since the 1940s. However, improvements have stalled since the 1990s (Figure 1).¹

Building a strong safety culture is seeing risk where none was seen before, and actively mitigating risks before they become fatal. Last year we sponsored a study where we asked safety leaders about employee participation in safety. 98% of them said participation will improve safety performance.²

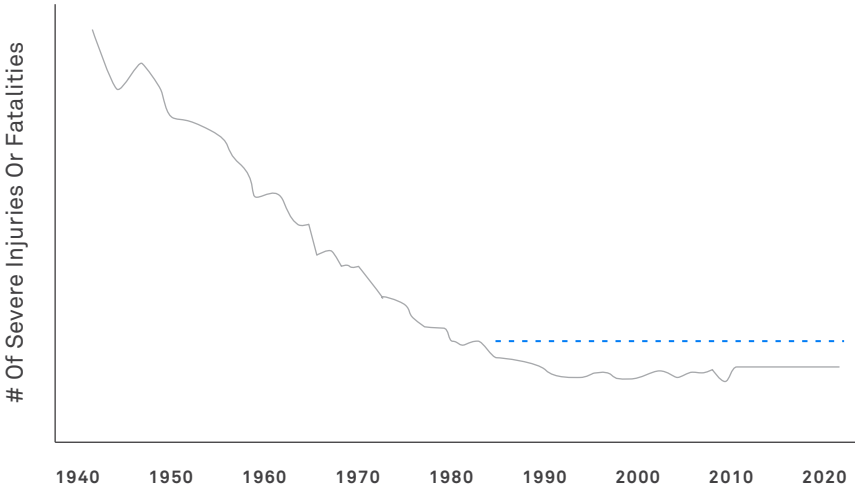
Then we took a deeper dive. Using our big data set of +260 million data points, we selected 40 companies that use our software and studied their safety performance from 2012 to 2017. We found that companies in the top quartile of participation reduced injuries by 71% or 3.5 X the bottom quartile, and incidents by 84% or 2.1 X the bottom quartile.

How did these top quartile companies do it? How did they succeed where so many others have struggled? We spent the next four months conducting qualitative interviews with the companies in our study to answer these questions. We were seeking to understand how safety culture changed over time, the drivers of cultural change and the roadblocks to success.

This paper reveals the findings of our research. First, we discuss the characteristics of a poor safety culture to contrast with a High Participation Safety Culture. Then we define participation in quantitative terms and present novel empirical evidence demonstrating higher participation is a leading indicator of injury reduction.

Next, we draw on our qualitative interviews and distill our findings into five steps on how to build a High Participation Safety Culture.

Figure 1: Severe Injuries & Fatalities



¹ Occupational Safety and Health Administration, www.osha.gov

² EHS Daily Advisor, "Participation Counts: A Look at Participation Based Safety", BLR, Tennessee, 2017

These five steps are intended as a practical roadmap drawn from first-hand experience leading organizational change. It is intended to demystify the change management process and illustrate, step-by-step, how any company can successfully build a High Participation Safety Culture.

WHAT IS A POOR SAFETY CULTURE?

It is helpful to consider what a poor safety culture looks like to contrast it with a High Participation Safety Culture. Answering this is often easier to do in retrospect. For example, most of us would feel uncomfortable getting into a car without wearing a seat belt. Yet it was only in 1983 when wearing seat belts became compulsory for front seat drivers and passengers in the USA.³

Our perception of risk evolves over time, where once routine activities are now unacceptable. People are not consciously being reckless; it takes time for perceptions and norms to change.

Empirical evidence proving child seats saved children's lives in car collisions was available in the early 1970s, but child seats were only required by law across the USA in 1986.⁴ Relying on laws alone is inadequate to control risk. What routine behaviors do we accept today that will be unacceptable tomorrow?

A poor safety culture may also reinforce unsafe behaviors. We have all heard the examples of the site foreman standing in a trench without a hard-hat while an excavator operates overhead; the new employee told not to get the proper tool from the shed because it will take too much time; the new employee mocked in the locker room for wearing full PPE; or the CEO mocking a new speed limit sign by backing over it with their truck (true story).

Does management view safety as a cost to be avoided? Do workers view safety as an inconvenience? When safety is a punchline, you have a poor culture.



³ www.saferroads.org/advice/drivers/seatbelts

⁴ Bae, Yung, "Child Passenger Safety Laws in the USA", Soc Sci Med 2014

HIGH PARTICIPATION SAFETY CULTURE IS A STRONG SAFETY CULTURE

98% of safety professionals believe participation improves safety performance. We define safety performance as the reduction in workplace injuries and incidents over time. Participation is often defined as all the safety activities performed by a company. Sophisticated companies have narrowed this definition and identified specific indicators they focus on to improve safety performance.

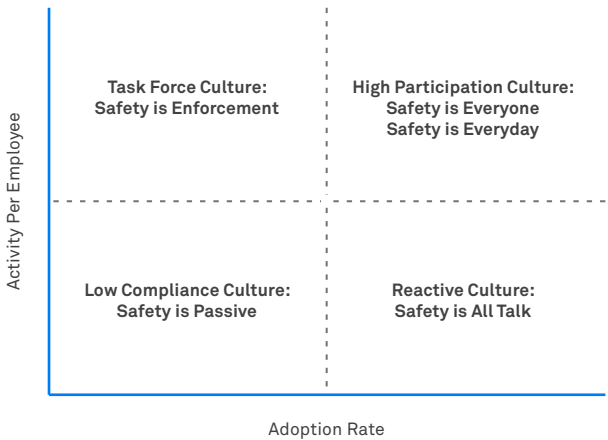
A consistent definition, however, is essential to perform a statistical study over time and across companies. Active participation is intentional; it is actively mitigating risk for the company. It is a key differentiator in this definition and can include: hazard identification and reporting, completing corrective actions and leading safety meetings.

Passive activities, on the other hand, are omitted, such as attending a safety meeting, since they are often job requirements and employees may be forced to participate. While passive activities contribute to a safe workplace, they do not differentiate strong safety cultures from weak ones.

Using our big data set, we looked for patterns among customers who had greatly improved safety performance and those that did not. Our findings led us to define participation along two axes (Figure 2):

Adoption Rate is calculated by measuring the number of employees who are actively mitigating risk, divided by the total number of employees of a company; Activity per Employee is the number of activities these employees complete in a given period of time.

Figure 2: Safety Culture Framework



We plotted our customers along these axes and found many of them demonstrated some improvement in safety performance. Those companies with high participation, however, far outperformed their peers. We define four types of safety cultures:

—LOW COMPLIANCE CULTURE

Low adoption rates and low levels of safety activities. Companies here are likely in low-risk environments such as retail. There is a basic amount of employee safety training required by law that is completed.

—REACTIVE CULTURE

High adoption rates and low levels of safety activities. In many cases, businesses here are temporarily reacting to a safety incident. For example, someone trips in an office and the entire company conducts a housekeeping exercise.

—TASK FORCE CULTURE

Low adoption rates and high levels of safety activities. Here, the safety team is specialized and relatively large. Often, the safety team is perceived as the ‘safety-cops’ on-site to hand out warnings and tickets.

—HIGH PARTICIPATION CULTURE

High adoption rates and many activities per employee. In a High Participation Safety Culture, safety leadership extends beyond the safety department and is exhibited by all employees, including front-line workers. There is a high velocity of activity, where the business is frequently seeking out risk and eliminating it.

PARTICIPATION & SAFETY PERFORMANCE: A QUANTITATIVE STUDY

We applied this definition of participation to the 40 companies in our study, ranked them by quartile and analyzed the change in injuries and incidents between 2012 to 2017.

The typical Adoption Rate and Activity per Employee is illustrated in Figure 3. As expected, these metrics increase by quartile. Companies in the top quartile have a typical Adoption Rate of 66% & 183 Activities per Employee. Assuming 200 work days per year, this is nearly one activity per employee per day.

Figure 3: Participation By Quartile

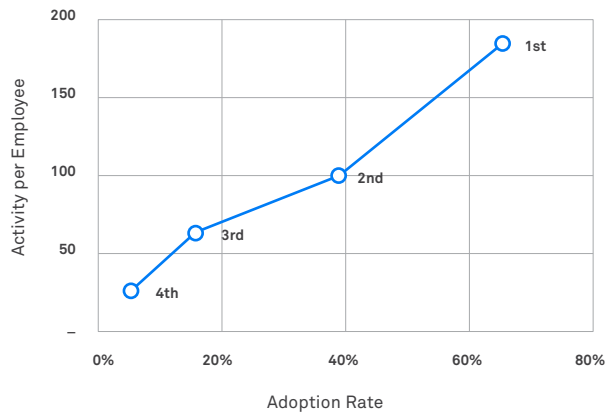


Figure 4: Injury Reduction By Quartile

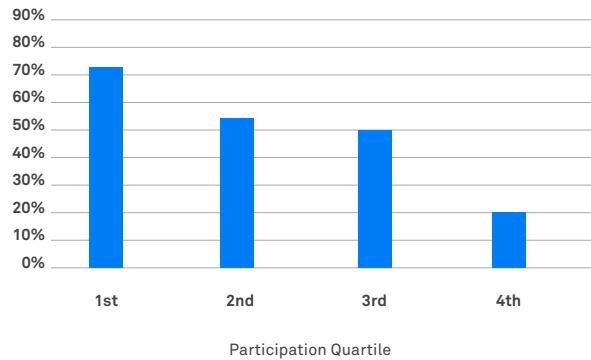


Figure 5: Incident Reduction By Quartile

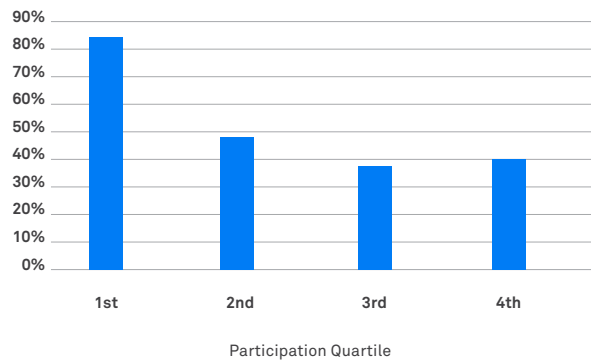


Figure 3 illustrates how building a High Participation Safety Culture is a journey. Companies do not suddenly get every employee to actively and intentionally participate in safety. High participation companies go through a series of intentional steps, in particular order, which we discuss later in this paper.

Reductions in injuries by participation quartile are presented in Figure 4. We found the top quartile reduced injuries by 71%, while companies in the bottom quartile reduced injuries by 20%, a difference of 3.5x.

Reductions in incidents by participation quartile are presented in Figure 5. We found that the top quartile reduced incidents by 84%, while companies in the bottom quartile reduced incidents by 40%, a difference of 2x.

The results presented validate what EHS professionals already know: increasing worker participation improves safety performance. The quantification of this improvement is novel, and the performance gap between high and low participation is significant. Participation, therefore, is a leading indicator of safety performance.

FIVE STEPS TO A STRONG SAFETY CULTURE

A strong safety culture exists when the organization believes safe work is more productive work.

Contrary to the stereotype that safety is administrative and decreases production, a Goldman Sachs JBWere study found companies that actively manage employee health and safety outperform companies that do not.⁵

Our study found that the companies with a High Participation Safety Culture believe their safety record helps them increase revenue, improve quality and protect margins. For example, an energy services company in the Canadian Oil Sands reported that between 2014- 2018, when oil prices crashed, they maintained steady volumes and margins thanks to their strong safety record.

Some of their customers even single sourced them for projects during this period. For the customers of this services company, a strong safety record means reliable service and a competent workforce that completes the job on-time and on-budget.

How do you achieve a High Participation Safety Culture? Through our study, we identified patterns and key success factors in companies that successfully arrived here, and distilled our findings into the five steps presented below:

STEP 1: CEO COMMITMENT

Every person responsible for safety knows that the CEO must be committed. Without CEO commitment, it is impossible to have a High Participation Safety Culture.

⁵ Goldman Sachs JBWere, "Valuation Links in Workplace Health and Safety Data", Goldman Sachs JBWere, 2007

A committed CEO believes that improving employee health and safety is a strategic priority and will deliberately invest time and money to achieve this objective.

Many CEOs promote their commitment to safety, but their actions demonstrate the contrary. To build a High Participation Safety Culture, the CEO's commitment must be genuine. Uncommitted CEOs are hiding no secrets from their safety leaders or their employees. The entire organization knows the CEO chooses production over safety.

While CEO commitment might be obvious, our study found two catalysts that occur to awaken the CEO to the dangers surrounding his/her employees.

The first is a safety incident that happens close to the CEO, such as inside their company, to one of their peers or to one of their friends or family. When the impact of tragedy is felt personally, the CEO becomes sensitive to risks surrounding them. Imagine the classic 1932 photograph of steelworkers taking lunch cantilevered off the 69th floor of Rockefeller Plaza.⁶

It is striking precisely because it is casual and life-threatening. For the CEO, it is as if they are looking at the steelworkers atop Rockefeller Plaza feeling nothing; and then suddenly feeling an urgent responsibility to protect their lives.

The second catalyst is economic. This happens when the CEO recognizes that a poor safety record will hurt their bottom line, or a stronger safety record



will help them generate more income. The emotional reaction felt by the CEO agitates for change. The CEO must trust their instinct and act quickly to demonstrate their commitment.

STEP 2: RISE OF THE SAFETY LEADER

The single most common demonstration of early safety commitment is the rise of the safety leader. Across all our interviews, we found the promotion of the safety leader to the strategy table alongside Sales, Operations and Finance is a key success factor.

The safety leader in this context has a strong change-management skill-set and an ability to communicate with the C-Suite. They can build a business case for safety, demonstrate ROI and persuade executives.

⁶ Charles Clyde Ebbets, "Lunch atop a Skyscraper", 1932

If such a leader exists in the organization, they are promoted. If not, they are recruited. Critically, the safety leader believes front-line worker participation is preferable to a team of safety administrators.

Their authority is derived not from a large team or a large budget, but from the CEO who makes a public commitment to safety and empowers the safety leader to create organizational change.

STEP 3: GET EMPLOYEE BUY-IN

With leadership aligned and resources committed, the organization is ready to convince employees to buy into the new safety norms. This step is difficult because we are attempting to change belief systems. This takes energy, commitment and perseverance.

We found this is where most companies get stuck along their safety culture journey. Habits are hard to break, especially when they span generations and form traditions.

The desire to fit in and be accepted by our peers can become an obstacle to a strong safety culture, especially among younger impressionable employees working alongside an older generation with bad habits. Therefore, our first objective is to get buy-in from the older generation.

We found the most successful communication strategies recognize two things. First, that the older generation is motivated to do a good job and provide for their families, expressed through hard work and loyal tenures.

Second, a good safety record creates job security. While some safety leaders may fear a cynical response by associating safety with financial performance ('they don't care about me, they just care about the bottom line'), we found transparency about the economic benefits of safety is effective.

Consider the following communication:

**A good job is a safe job.
You can best provide for your
family by ensuring your safety
at work and the safety of your
colleagues. A strong safety
record helps us win contracts,
reduce costs and increase
profitability. Safe work
improves the bottom line
and creates job security
for everyone.**

With older generation buy-in, our attention shifts to onboarding and initiating younger workers. Younger workers tend to mimic the behavior of co-workers they respect. Furthermore, they tend to respect someone who demonstrates a genuine concern for worker safety.⁷

Therefore, an orientation strategy that elevates the safe worker is usually enough to ensure younger employees work safely. In addition to communication, we identified two tactics that demonstrate early safety commitment: a branded safety initiative and a visible safety symbol.

A branded safety initiative can be a simple slogan and/or a logo. A recognizable and often repeated brand is a powerful way to build awareness, especially when it is included in every email signature, letterhead and slide-deck.

A visible symbol further builds awareness. In the best circumstances, it creates a tribe of safety believers. For example, one company we interviewed initiated a back-in parking program.

The CEO's truck, backed-in at the front of the building every morning, was a powerful symbol of the new safety culture and it was quickly adopted company-wide. Shared rituals create unity among employees and promote a higher sense of community and purpose.⁸

STEP 4: SAFETY REFLEX

Once you have employee buy-in, they will begin to look for ways to actively mitigate risk. Employees may begin to identify hazards, inspect equipment, and conduct field-level risk assessments. With change management beginning to take effect, management must be highly responsive to employee suggestions.

This is a sensitive time and progress can be easily unwound. Employees are looking for consistent leadership to demonstrate commitment. Managers are coaches, leading by example and tuning into the specific needs of their team.

Imagine: an employee identifies a hazard and reports it to their supervisor for corrective action. This scenario can unfold in two ways, with contrasting outcomes. In the first scenario, the corrective action is created immediately and resolved quickly.

The employee believes the safety initiative is a priority and feels they did a good job by contributing to a company goal. They are more likely to contribute in the future and speak positively with their peers about safety.

The second scenario is illustrated by a company in our study who was unprepared to manage the increased workload from the new safety initiative. Hazards identified were being sent in faster than the administrators could review them, and the paperwork piled up.

⁷ SAIF Corporation, "Young Workers, Smart Strategies" Date Unknown

⁸ Hobson, Nicholas, "The Psychology of Rituals", Personality and Social Psychology Review 1-25, 2017 http://faculty.chicagobooth.edu/jane.risen/research/ritual_review%20copy.pdf

Suddenly, the hazard reporting stopped. While this company was able to recover and ultimately reported zero injuries and incidents in 2017, their initiative was stalled until they could re-work their processes. This illustrates how building a High Participation Safety Culture takes persistent leadership.

When a roadblock is encountered, it is important to revisit steps one to three and ensure leadership is strong. Pilot one initiative in one location and focus on responsive execution. Managers require discipline to prioritize safety and time to adjust to the new responsibilities.

The coordination between people and departments needs to evolve to triage risk, prioritize actions and communicate to front-line staff. Quick response time is essential to maintain momentum.

STEP 5: SAFETY VELOCITY

With our systems and processes in place, we are ready to scale our initiative and drive for participation. The goal is daily safety activities for all employees. Our research confirms this is a marathon.

Some companies in our study were able to achieve top quartile participation scores in 12 months, while others have been working towards it for years. There are many strategies for increasing adoption rates and activities over time, and many of these are context specific. Some companies start with a limited geography and others by job-profile.

Safety velocity is about empowering your employees to identify and communicate risk as often as they can. As the program scales, so does the demand on leadership. It requires diligence to ensure the previous steps remain in place while also extending the program's reach.

Many companies who realize early success stall because leaders fail to continuously demonstrate commitment, or the safety leader leaves the company, or management gets distracted with another initiative.

The most successful companies in our study report simple and regular efforts by management to maintain visibility with front-line workers, such as plant tours where the executive arrives in full PPE and takes time to speak with workers about safety. Eventually, safety is embedded in the culture of a company.

Regularly measuring and communicating the value of your safety program to all levels of the organization is good insulation against executive turnover and competing priorities. Continuously demonstrating the positive impacts of a High Participation Safety Culture ensures consistent focus and support. The adage is true: what gets measured gets done.

CONCLUSION

A High Participation Safety Culture leads to fewer workplace injuries and incidents, and improved financial performance. Companies in the top quartile of participation have significantly better safety performance compared to their peers.

The first three steps in building a High Participation Safety Culture are all about leadership. The final two steps are about putting in place the people, process and tools to achieve a High Participation Safety Culture and maintaining it over time. None of these steps can be skipped or progress will be unwound.

A CEO on-site without PPE, a vocal supervisor telling everyone that safety is a waste of time and delayed response times to worker suggestions for safety improvements will all unwind your progress.

In a High Participation Safety Culture, front-line workers and supervisors are frequently exchanging information and working together to eliminate risk; a healthy sign of a well-functioning team. It also has far more capacity to identify and eliminate risk. Broad adoption rates expand coverage, meaning fewer sites, if any, are working without safety leadership.

Broad adoption also benefits from many more people looking for risk, each with their own unique perspectives and experiences.

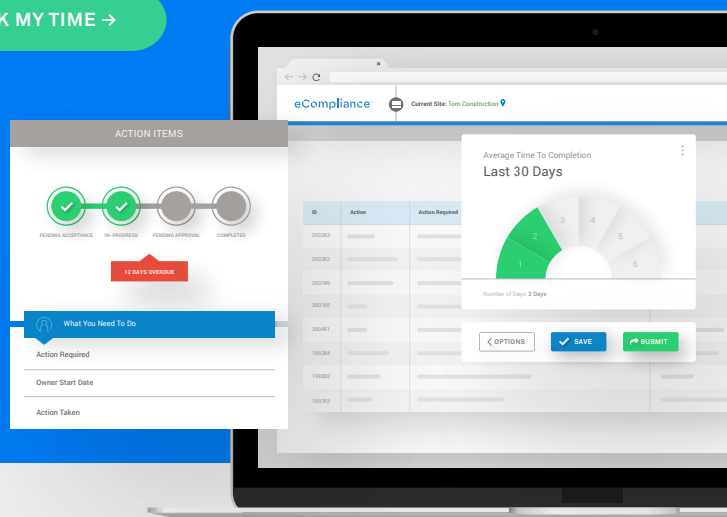
The findings of our study are just the beginning of our research. As our big data set grows to over 1 billion data points, we will continue exploring the question of how top quartile companies build a High Participation Safety Culture. This research is helping us achieve our mission: eliminate 1 Million workplace incidents by 2020.

Companies with a High Participation Safety Culture stand out among their peers and are leading the way to a safer future. When your children go to work for the first time, they have a much higher probability of coming home if they work in a High Participation Safety Culture.

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About eCompliance

eCompliance Safety Software is the leader for improving worker participation in safety. The eCompliance mobile app connects workers with head office, creating a two-way conversation so safety leaders can make faster, fact-based decisions, and executives gain an unrivaled view of safety risk across their company.

With the mission to eliminate 1 Million incidents, eCompliance is the fastest growing safety software company in the world with hundreds of client success stories.

TRUSTED BY THE WORLD'S SAFEST COMPANIES



About The Authors

Calvin Benchimol spent 9 years working with Lafarge, a construction materials company, in the Aggregates product line. Over this time, Calvin helped transform the safety culture of a mining and manufacturing environment, as a front-line operations manager.

Josh LeBrun is the President and COO of eCompliance. He is considered a thought leader on the business value of safety management and participation-based safety. Prior to joining eCompliance, Josh was on the board of a containerized shipping company where he learned the challenges of measuring safety risk in complex industries.

About The Study

The research in Building A High Participation Safety Culture was derived from 40 eCompliance customers through in-person interviews and surveys across a variety of industries. The data and findings were analyzed and written by Calvin Benchimol, Senior Advisor at eCompliance. The raw data was collected by Niklas Ostersmith from Stanford University.