



The Legislative Impact of How We Manage Safety Program Elements: Leaving No Stone Unturned in Root Cause Analysis

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As I'm navigating through the differences in private and public sector safety, I'm beginning to realize that constraints by any name are still constraints. Be it budgetary constraints or funding constraints, the same basic challenges exist. Despite their existence, we either create or borrow best practices to address our safety program gaps.

The objective of my article is two-fold: 1) continue to draw parallels between private and public sector safety elements 2) take a deep dive into a single safety element, root cause analysis (leaving no stone unturned). I'm going to offer some of the tools I've used in the private sector for many years. My articles are heavily weighted in private sector experiences. Yet, my career mission has been to use the tools in my professional toolbox, to create or sustain safe and efficient workplaces for employees, the public, and our environment.

Let's begin.

The Legislative Session (in Texas)

In the public sector we add in another daunting variable. The legislative session. Once every two years on odd-numbered months our state legislature meets. The legislative session can last for a maximum of 140 days. In that 140 days, we keep our fingers crossed that a special session does not extend the session for another 30 days. The bills passed can and do impact various elements of risk management within our agency. Specifically, insurance, emergency management, and overall funds allocated to safety. Where our funds come from and how they are allocated, will influence direct and indirect cost of our sustaining our safety program.



The Safety Element (root cause analysis)

In this article I've decided to take a non-traditional approach to root cause analysis from a broader perspective. I'm challenging our public sector safety professionals to focus on one or two variables as a root cause tool for incident and program analysis.

Being the root cause analysis gurus for our organizations, we are posed to turn reactive/lagging data into something proactive/leading. Albeit, we often times scurry to find the best model to intelligently define what just happened. We charge in with our intellectual sabre drawn. Ready to answer “why?” Our mission, whether we choose to accept it or not, is to seek out and find the reactive post incident reason why something just happened. Sometimes the proactive answer is a bitter pill to swallow.

I understand no two incidents or programs have all the exact number of variables, but there will be a common thread hidden somewhere in the data. For safety professionals, the data will at some point lead us to a common denominator that will define why our incidents are occurring or why our program is falling short of expectations.

Finding the correct root cause analysis tool

With wrinkled brow, we search deep for all the qualitative and quantitative answers. With the emphasis being on the quantitative rationale versus the qualitative psychological rationale. The sector we work in is also a key driver as to the tools we use for analysis. Let’s face it, the tools we use in private sector such as: failure mode and effects analysis, fault tree, event tree and 5 Why’s are not commonly used in the public sector. In the public sector, the throughput of widgets is not what drives us toward the more complex analysis models. I’ve found 5 Why analysis to be most useful in my public sector world.

Let’s now take a deeper dive, ask some tough questions and...leave no stone unturned.

First Stone (look at a couple of reactive or lagging data points)

Frequency and Severity Rates

Let’s start with a quick, yet tricky question. Which rate warrants shooting a warning flare, frequency or severity? Here’s a tricky example: with all things equal in terms of hours worked, we have \$250,000.00 in worker’s compensation costs on 250 incidents. Or, we have \$250,000.00 in total worker’s compensation costs on 50 incidents. In short, \$1,000 per incident versus \$5,000 per incident. Does one paint a bleaker picture than the other? My answer is they both do! If we choose to believe Herbert -1Heirich’s Pyramid/300-29-1/Triangle, the frequency of incidents ARE a precursor to what will eventually become part of our severity data. Can we extract a behavior correlation out of this data?



The Heinrich 300-29-1 Model

Second Stone

Safety Culture Maturity

Safety maturity cannot be measured with the chronological age of the organization or company. A 50-year-old company could very well have policies and buy-in that match the equilibrium of a toddler taking their first steps. Another fact regarding lack of maturity in established companies, is short of a fatality, it can take years to gain the buy-in needed to build a mature safety culture. A few of many things that in my opinion, make up a mature safety culture:

- Accountability to proactive key performance indicators (KPIs) throughout the/company
 - o Documented time it is taking leadership to implement controls (engineering/design, administration and PPE assessment and implantation)
 - o Near miss reporting
 - o Documented time it is taking to close corrective actions, etc.
- Buy-in throughout the organization

Is there a correlation between the data collected and the maturity of the culture? In my opinion...yes! Especially when more quantitative than qualitative behavioral data analysis is being used to find root cause.

The Tools

- A well devised balanced scorecard
- Heavily weighted leading indicators in the KPIs
- Raising the maturity level of the organization or agency with engagement

Sometimes redesigning, but not totally reinventing the wheel, is not a bad thing. Taking a deeper dive with a new perspective is a win-win proposition. I've decided to only look at two potential stones. Rest assured there are many more. Aggressively leave no stone unturned and along the way, find true root cause of your incidents and program success or mediocracy.

References:

¹ Heinrich, Herbert: Industrial Accident Prevention: A Scientific Approach (1931)



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Cornell Richardson has spent nearly 4 decades in the private sector and 2 years in the public sector as an ambassador for occupational health and safety. Mr. Richardson has served in a broad spectrum of roles in semiconductor and chemical plant manufacturing operations, retail and heavy equipment that include roles as: Director of Health and Safety, Director of Global Safety, facilities operations manager, financial analyst, safety engineer/emergency response team coordinator and Chief Safety Officer. He holds a bachelor's degree in business management from Huston-Tillotson College and an International MBA from National Technological University. He is an Associate Safety Professional and National Safety Council certification holder.

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