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Safety: You Can't Manage What You Can't Measure

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Introduction

The nature of the safety field today has changed dramatically. Most safety departments now have a smaller staff, working longer hours and taking on new responsibilities. Now, more than ever, we must increase efficiency just to keep up with demand. As a consulting firm, we often ask our clients, "What are your goals for your safety and risk programs?" Most answer that the priorities often change depending on the day, week, or month, but one thing always holds true, "We do not want our employees to get hurt, and we want them to go home to their families at the end of the day." With that as a core value, we need to focus our efforts on the activities that are going to get the greatest return on our investment and time.

Many benchmarking tools are available to safety professionals and used throughout the industry to compare to peers, but how reliable is this information? Are you really getting a good benchmark to judge the safety efforts of your team and organization? If you are using OSHA statistics as the sole basis for your benchmarking, without consideration for key risk and claims metrics, you may not be doing your organization any favors, because OSHA statistics only tell part of the story. You need to develop metrics and benchmarks that help you hone in on the areas that need the most attention and are driving your losses. You can't manage what you can't measure.

Today, everything is about risk mitigation, risk assessment, risk containment, and so on. In order for risks to be managed, risks must first be identified. After that, risk reduction and

elimination can be facilitated. Interpreting and segregating information will bring value and enable you to achieve your goal to save your company money. With most large deductible or self-insured retention programs, the losses you prevent equal the money your organization does not need to spend on claims. Obtaining the data that you need can be fairly simple but crunching that data into a useful format can be a challenge.

Loss runs can provide part of the story necessary to make the right decisions, but they can provide you with only one perspective. For example, a loss run may show that the average savings on claims settlement was more than 15%. What the loss run may not show is that a month prior to the closing of a claim, the adjusters were increasing the value so that when the claim closed at the end of the month, it would settle for less than the reserved amount. In total, the claim report shows increases from year to year, but the monthly reports shows great success.

The example above is a case where good analytical review of data can pay off significantly. The analytical process quantifies risk and determines the most cost-effective way to mitigate it. Informed risk mitigation increases confidence in decisions because they are based on scientific analysis, and a specific plan enables verification of improvements and return on investment (ROI). The actuarial analysis puts the loss history on a level playing field and removes questions about inflation and industry changes from the overall question, “Is the program getting better or worse?” Loss mitigation tools are applied after the key loss drivers are identified. Reducing claim frequency and severity will reduce ultimate retained losses, the largest portion of the *total cost of risk* (TCOR), which is the cost for retained losses, insurance premiums and risk management expenses.

We will start the process with the challenges that any company may face. Many concerns that we frequently hear are:

- ”My staff is spread out all over the place.”
- ”Different parts of safety and workers compensation report to different areas.”
- ”We have multiple data sources.”
- ”I need to be able to explain the impact of our risk control efforts to the board.”

The preceding list is by no means all-inclusive. and we understand that you may have different challenges.

What Is Driving My Losses?

Suppose that your workers’ compensation (WC) losses have increased over the last three years. Is that a cause for concern? It depends, since many factors can influence your WC losses, and not all of them are causes for concern. However, until you can measure the factors driving your WC losses, you do not know the answer.

For example, if your total WC losses have increased 3% each year over the last three years, but your company has been expanding and payroll has increased 5% each year: Is that an issue? What if your company has reduced its exposure by closing a location, yet your total WC losses have remained the same over the last year: Is that an issue?

Building the “right” metrics to evaluate your claim costs and claim count is the key in being able to pinpoint where to spend time and effort when trying to reduce claim costs. The first step toward building the right metrics is to put your loss history on a level playing field, which means developing your losses to ultimate value and adjusting them for inflation and industry reforms. Here is where an actuarial analysis adds tremendous value. The actuarial analysis develops the losses to their ultimate value in a process called *loss development*, which consists of predicting the ultimate settlement costs for each historical policy year, including claim count for claims that have occurred but have not been reported.. The actuarial analysis also addresses the additional problem that historical losses and exposures are expressed in dollar costs, which no longer reflect the current cost of medical care or payroll. After adjusting for loss development, losses for older years must be further adjusted for mandated benefit changes and other economic changes in the cost of settling claims.

Making common comparisons, often referred to as comparing “apples to apples,” is also important when evaluating metrics. In order to make common comparisons, changes in exposures should be accounted for in addition to the changes mentioned above. For example, looking at loss rates (losses divided by exposure minus payroll for WC) over time is more meaningful than simply looking at total loss dollars, since changes in payroll have an impact on losses that cannot be influenced by risk control projects. The same is true for frequency (number of claims divided by exposure). Looking at severity (average cost per claim) developed to the ultimate and adjusted for inflation (trended ultimate severity) can provide more accurate information about whether more severe claims have occurred in the past year.

Safety professionals can impact severity as well as occurrence of claims. Not all risk can be removed but most can be controlled or eliminated. Breaking loss rate into frequency and severity allows you to determine if increased claim costs were due to either frequency issues (we are having too many accidents), which can be controlled with pre-loss initiatives, or severity issues (each accident is costing too much), which can be controlled with pre- and post-loss initiatives.

Further, these metrics can be divided into many data subsets to help pinpoint where the major issues are coming from. For example, frequency by location would help determine locations where resources would be most effective. Frequency by employee tenure could help decide if new employee training or refresher courses would be most effective.

Normalized metrics (i.e., developed, tended and adjusted for exposures) can also be used for benchmarking. If your frequency has declined over the last three years, does that mean that you are “best in class?” Benchmarking is a powerful way of comparing your results to your competitors and allows you to gain an advantage.

How Do You Correct the Problem?

“Houston, we have a problem.” What do we do about it? Now the data helps us identify areas for improvement. We can divide the data by state, business unit, location, or department to determine the problem area and then develop a plan to fix the problem. If our deeper dive into the data reveals that ergonomic losses are an issue, we need to look at the workstations that are driving those losses. Could the workstations be the cause of the problems? Can the workstations be

redesigned to better accommodate the employees in the facility and reduce these types of injuries?

Are claims a result of manual materials handling? Can we use equipment to do the task? Can the materials be broken up into smaller packages to reduce the weight of the loads? Do the loads have to be handled at all?

Are claims a result of lacerations? Why are there sharp edges? Can the hazard be engineered out? Does our personal protective equipment (PPE) provide the best protection? Should we use cane mesh sleeves and gloves to reduce exposure to hands and arms?

There are other areas that need to be addressed to when it comes to claims reduction techniques. Some of the most common include:

Hiring: Are we hiring the right candidate for the job, and can they meet the job description's essential physical job demands? A very important part of any safety program is hiring the right person for the job, so that they can perform the task required.

Training: Employee training should be enhanced for the job task so employees can see the risks facing them and how to mitigate their risk exposure. Training plays a vital role from the very first day of employment, as well as when an employee is moved into a new task. Poor training, rather than customized job task-specific, risk-based training, leads to misunderstandings and injured employees.

Return to Work (RTW): The data is useful for finding job tasks that fit an injured worker's limitations by comparing physical job demands to job restrictions. Getting an employee back to work as soon as possible helps in healing, keeps the employee focused on their recovery, and reduces the overall cost of claims. Job restrictions must be met and adhered to by supervisors and the employee until the employee is given a full release.

Comfort: The data is a baseline for ensuring that mitigation efforts are utilized as planned if someone is having discomfort in a job task. Employee complaints about pain when performing a job task should be addressed immediately. Far too often, no action is taken, and the problem progresses in to a full-blown claim, which could have been mitigated at an earlier stage.

Claims Defense: The data helps reveal initially, based on risk score, how likely a claim allegedly linked to a job task is to actually being a work-related claim. Suspect claims should be defended, but the cost of litigation, liberal review boards, and other issues can make defense difficult and costly. Risk scoring and loss development can help determine which claims are worth defending and which are cheaper to settle.

Performance Expectations: Total risk scores of sites or departments can be compared and goals can be developed to drive improvement and enhance performance reviews. Peer pressure can be a good tool for motivating supervisors to take ownership of their areas and employees. Dashboards with vital statistics for each department can help drive expectations. However, you must drive the process with leading indicators, not with desired outcomes. If you want zero accidents, you will get zero accidents; the supervisors

will just not report them and pressure employees not to report them until it gets so bad that they have to report them. Some leading indicators that drive performance include safety meetings, tool-box talks, behavior-based observations and feedback, training for the employees, and stretch-and-flex programs.

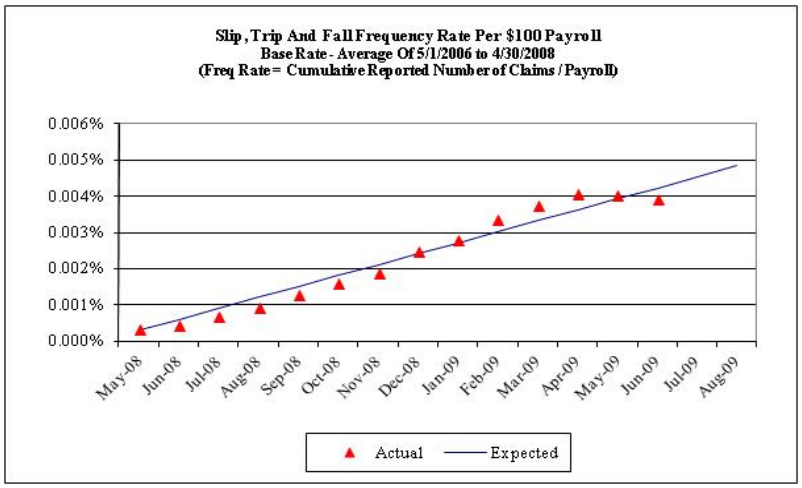
How Do You Know It's Working?

Once a solution has been identified and put into action, the next question is inevitably, "How do I know it's working?" This is a fair question, given the amount of time and resources a implementing a solution can take.

At the start of the risk mitigation program, an actuarial analysis can be prepared that is specific to the risks expected to be impacted. The analysis will assume that losses will continue to develop as they have in the past. In other words, it will look at the losses and exposure as if nothing is being done to change them. This analysis serves as the baseline. This baseline is used to estimate the expected losses for the project period. As an illustration, we will consider an example of a previous program implemented for a service company.

Before the project starts, an estimate of the expected savings from the mitigation activities should be determined. The company identified overexertion and slip/trip/falls as the leading loss drivers, and implemented a plan to reduce the identified target losses in their two largest states. It was expected that it would take 16 months to fully implement the program. Once the program was fully implemented, a conservative estimate of a 10% reduction to the number of claims in that period was expected.

One factor that can significantly impact the results, which would be out of the control of the risk management team, is total payroll or head count (representing the exposure). If the exposure is reduced significantly during the project period, the number of claims could be lower without any influence from risk-control projects. Alternatively, if the exposure increases, the number of claims could increase, despite an effective risk-control program. An alternative way of looking at the number of claims is to calculate the frequency or total number of claims as a ratio to the exposure, which controls for changes in the exposure base. One could also look at the loss rate or total losses as a ratio to the exposure, which captures the severity of each claim as well as the total number of claims, while still controlling for changes in exposure.



The first step in monitoring progress was to prepare an actuarial projection for each cause of loss and each state. Since the number of claims was the desired target, the frequency rate is the metric for monitoring progress. It was assumed that losses would emerge uniformly during the project period.

The baseline, or expected result, was set as a 10% reduction from the projected number of claims for the period. In the illustration, if a monthly data point falls on the line, that means the claim count is occurring at the rate planned to hit the end goal, while data points above the line mean there are too many claims occurring to meet/exceed the goal; data points below the line reflects claim counts occurring less than planned, and the goal will exceed if this continues.

Each month, the actual frequency was compared to the expected frequency. Since the expected frequency assumed losses would be uniformly distributed and any seasonality would not be reflected, it was anticipated that there would be deviations above and below the baseline. The monthly check allowed the team to monitor the results and make adjustments along the way as needed if the deviations proved material. Other external factors, such as regulatory changes, inflation, and changes in operations, could impact the results and should be considered in the analysis.

Summary

Now more than ever, it is important to focus your safety efforts on the areas that need the most attention. With reduced staff, smaller budgets, and management wanting results, you as the safety practitioner need to use your time wisely and get the best results possible, by following some of the techniques discussed. With the help of an internal or external actuary, you can focus your efforts, increase performance, and focus on the areas with the biggest ROI. Actuaries can help prepare the ROI with credible claims-based information that links to metrics that risk managers, treasurers, CFOs and other executives resonate with. You cannot manage your safety efforts if you cannot measure safety performance. Most organizations do a really good job of measuring where they have been, but do not develop a plan to change paths and increase safety performance in relation to claims performance. Develop a plan to benchmark your organization against your peers, create an action plan for improvement, and work your plan. The process may take some time, but stay on task and work the plan. Your safety efforts will pay off for your organization, especially when you measure your goals and objectives in the same way that productivity and quality are measured. Most organizations can tell you exactly where they are from a quality and productivity standpoint at any given time. Shift your safety process to do the same. Remember that you cannot manage what you do not measure. Create a dashboard to measure performance on a weekly, monthly, and annual basis with some of the metrics discussed, and your managers and employees will know exactly where they are at any given time from more than an OSHA metric perspective.