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Value & Limitations

By Russell M. Clayton

IN BRIEF

 By better understanding the experience modification rating, OSH professionals can advocate for meaningful metrics that provide vision to an organization. Performance metrics add value to a safety program when a proper balance is maintained between lagging and leading indicators. Watching the right metrics not only directs a company's focus, but also provides real-time perspective on the overall quality of a company's safety culture.

easuring performance is an essential function of safety management. When used correctly, safety metrics can provide great vision to a company's safety program. Some metrics may indicate a need for improved employee training and development. Others may necessitate the creation of an emphasis program or standard operating procedure. A proper assessment of performance indicators can help OSH professionals identify negative trends or areas in the company with declining safety performance.

The variations of data that can be collected are seemingly endless. In any case, OSH professionals should seek to maintain the right balance between lagging and leading indicators. This means that equal consideration should

be allocated to past experiences and current preventive activities. By doing so, management can ensure that efforts are properly distributed to the most value-adding aspects of the business.

Russell M. Clayton, M.S., CSP, is director of safety and health for Sunroc Corp. in Orem, UT. His experience as a safety professional spans several industries including heavy civil construction, mining, manufacturing, transportation and retail. He holds an M.S. in Occupational Safety and Health from Columbia Southern University, and a B.S. in Construction Management from Brigham Young University-Idaho. He is a member of ASSE's Utah Chapter.

A common metric used to measure safety performance is the experience modification rating (EMR). EMR is a workers' compensation calculation insurance companies use to predict a company's potential for future losses. EMR is ultimately calculated by dividing actual losses by expected losses. The rate produced is used to determine insurance premiums. For example, if the average rate in a given industry is 1.0, then a company with an EMR of 0.78 would be given a credit modification, which equates to a reduced insurance premium. In contrast, a company with an EMR greater than 1.0 would be given a debit modification resulting in an increased premium cost.

From the perspective of insurance cost, this metric makes sense. Use of EMR attempts to ensure that an insurer appropriates the right amount of premium to correlate with the amount of coverage that can be expected. Establishing such a prediction requires due consideration of past performance. While not perfect, past performance is an irrefutable baseline metric.

When selecting the core safety metrics that will guide a safety program, an OSH professional should consider EMR benefits and limitations.

Benefits

Traditional safety metrics often fall into two separate categories: cost and quantity. Each category serves its own independent purpose. Metrics that are based on quantity provide insight on incident frequency. Metrics established on accumulated cost demonstrate incident severity. Both of these



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measurements are important. They each point to a company's specific needs. Rarely does a metric couple these two characteristics into a single figure. Fortunately, EMR does just that. Combining frequency and severity of losses suggests that companies should focus on both factors concurrently.

The original intent of EMR was to allow an insurance company to establish a premium. However, its popularity and general acceptance have grown rapidly. Many companies now use EMR as a prequalification for performing work. For example, to be eligible to work on-site at a North American DuPont facility, a service supplier must have an EMR of 0.99 or less (DuPont, 2016). Such a criterion adds value to the safety profession. When managers understand that safety performance has a direct impact on their ability to perform work, a favorable shift in priorities occurs. OSH professionals could benefit from emphasizing this essential correlation.

Another benefit of EMR is the use (in approved states) of the experience rating adjustment (ERA). This adjustment offers a 70% reduction to claim cost for all medical-only claims. This is important to understand because, as Gallagher (2008) explains, "as soon as an indemnity (lost wages) payment is included, the entire medical portion of the claim goes into the experience modification formula." The benefit of only including 30%of the primary and excess losses (of medical-only claims) in the EMR calculation can be significant. The rationale for this adjustment is that National Council on Compensation Insurance (NCCI) wants to provide an incentive for employers to

submit all claims to be processed by the insurer; the adjustment thereby rewards a company's efforts to reduce severity.

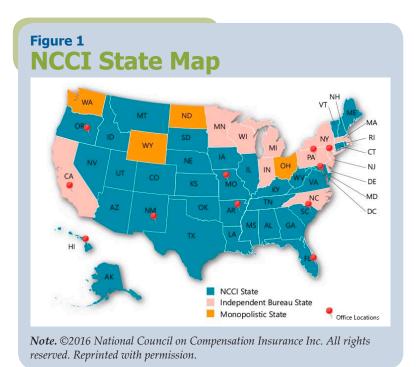
Limitations

EMR hinges on the premise that a company's past performance is compared to similar companies in the same industry. As the leading provider of workers' compensation information in the U.S., NCCI created and maintains a comprehensive classification system. However, even with hundreds of class codes, the system will never find a perfect match for any given company. NCCI (2014) recognizes this limitation. On the impossibility of identifying exact matches, it explains:

Under the current NCCI system, each classification groups together employers that have similar exposures to losses so that the overall cost of the system is distributed fairly among employers. . . . [1]t is the business of the employer (the insured) within a state that is classified and not the separate employments, occupations or operations of individual employees within the business. . . . Each classification includes all of the various kinds of labor typically found in a business.

This approach may have sufficed a few years ago, but circumstances have changed. These days, it is a generous assumption to suggest that two different manufacturers are the same merely because they both manufacture products.

Manufacturing processes are constantly evolving and automation is increasingly being introduced into the workplace. Experts predict workplace auto-



mation is on the rise. According to Gartner (as cited in Elkins, 2015), "one-third of jobs will be replaced by software, robots and smart machines by 2025."

How we work will change gradually over time. Companies will not advance technologically at an equal rate. McKinsey (as cited in Schulz, 2013), an international consulting firm, says "the costs of factory automation relative to human labor have already dropped to nearly half of what they were in 1990."

It is also important to consider large corporations that operate in several states. NCCI calculates expected and actuary totals for each state, then combines the data into a corporate-wide EMR. This is sufficient providing the company does not have operations in California, Delaware, Michigan, New Jersey, Pennsylvania, North Dakota, Ohio, Washington or Wyoming. If a company performs business in any of those states, it is subject to each state's differing plans and calculation criteria.

In other words, an EMR in Colorado will mean something slightly different from an EMR from Wyoming. (This includes considerations of statesponsored surcharge factors and assigned risk adjustment ratings that vary by state.) Further limitations exist in New York, Minnesota and Wisconsin. In fact, 18 states do not approve of ERA programs. Herein lies the limitation. The NCCI EMR offers an interstate rating that is only standardized for a portion of the country (Figure 1 for reference). Companies that do business outside of the U.S. face additional limitations.

Another limitation is that "an employer with a policy that renews on Jan. 1, 2015, will generally have an experience rating that uses the loss experience that occurred during policies that were effective [in 2011, 2012 and 2013]" (NCCI, 2015). This effectively means that losses incurred approximately 4 years ago are still reflected in the current EMR. Think of all

that can happen in 4 years. Executive management may change, priorities may change, processes and procedures may change. Entire organizations may even change the type of work they perform. In many respects, a company can look and act differently today as compared to 4 years ago. Knowing the current condition of a company is imperative to success. Relying on old data is much like driving forward down a road while looking backward.

Another much-touted feature of EMR is that it focuses on claim frequency rather than severity. The primary purpose of this focus is predictability. Remember that the principal objective of EMR is to predict future performance. The ability to predict is greatly diminished when the data include an extreme outlier.

[The rating] recognizes that the cost of a specific accident . . . is statistically less predictable than the fact that the accident occurred. . . . [V]ery large losses [or shock losses as they are sometimes referred to] are less likely to occur and are seen as more fortuitous than smaller claims. In fact, very large losses are so infrequent that including the entire portion of the claim beyond a certain level in the experience period reduces the predictive ability of the plan [emphasis added]. (NCCI, 2015)

The end result of such a calculation is that companies that have several small claims (no matter how inconsequential) may look much worse than companies with only a few claims (even if they were all fatalities). Such an approach may fail to consider serious weaknesses that led to such significant losses in the first place.

Another limitation of EMR involves its use of payroll data as a quantifier. Workers' compensation premiums are directly influenced by total payroll expended. This direct correlation means that if a company has a higher payroll, it will also have a higher insurance premium. By having a higher premium, a company is then assigned a higher ceiling of expected losses, meaning that a higher allowance exists for injuries within the EMR calculation. Payroll comparisons among companies can be subjective in nature. Higher payroll does not always reflect more employees or greater exposure. Additionally, not all companies function on equal compensation. Pay structures are influenced by myriad factors such as union versus nonunion workforces, federal- versus state-funded jobs and labor markets as a whole.

Throughout the EMR determination, employee negligence is not considered. This is understandable given that "the basic principle underlying workers' compensation programs was that the benefits would be provided to injured workers without regard to fault [emphasis added] and, in return, employers would face limited liability" (Clayton, 2004). Therefore, a company can do everything right and still suffer great losses due to employee misconduct. These losses (regardless of fault) have a negative effect on a company's calculated expected losses. This represents a limitation in that it may misrepresent a company's potential for future losses.

Workers' compensation losses are capped at a state-approved accident limitation amount. This means that only a portion of the actual claim cost is rated. For example, if a state's accident limitation is \$300,000, then no costs above that amount will be included in the actuary loss amounts. In addition to that limitation, EMR employs a split rating system, wherein primary losses are weighted more heavily than excess losses. Primary losses are "individual losses up to \$15,500. . . . The amount in excess of \$15,500 is known as excess loss" (NCCI, 2015). These caps and limitations can create a false sense of security for executive managers who speak the language of money. If a company experiences a \$3 million loss, the loss would not be represented as such because the rating is protected by the split rating system.

The goal of this article is not to encourage abandoning the use of EMR. Such an objective would be unwise and misguided: Insurance ratings have an important role in the OSH profession. Rather, the author suggests that to effect positive change within an organization, OSH professionals must begin to better understand the metrics we use, and how they are affected and defined by other variables.

Actions Can Influence EMR

Careful analysis of the EMR shows that companies are not without recourse. A company can positively influence its rating. Among the most significant claims that hurt an EMR are those that necessitate indemnity payments. These payments are a replacement of lost wages for an injured worker who can no longer work as a result of an incident. The more serious the incident, the more likely that a claim will include an indemnity reserve.

According to Utterback, Meyers and Wurzelbacher (2014), "indemnity payments to the [injured] worker who misses work for greater than the minimum waiting period are provided tax free." The minimum waiting period is a statute established by each state. This means that there is a period granted during which companies should do everything possible to help injured employees to return to work.

It is recommended that companies have formal return-to-work programs wherein they offer light-duty options. OSH professionals should maintain close communication with medical professionals to convey the organization's commitment to helping the worker return to work as soon as possible. These efforts can have a significant effect not only on the EMR, but also on the welfare of the injured employee.

Another way to positively affect EMR is to reduce the organization's employee turnover.

Statistics show a good portion of workers' compensation claims are due to new employees who have been on the job for [fewer] than 90 days. . . . Therefore, a positive correlation exists between a high employee turnover rate and a high workers' compensation claim frequency. (Staff One, 2016)

To the extent possible, employers should continually develop and engage the workforce, treating workers as the most valuable asset to the organization. Reducing employee turnover can reduce injury claims and lower a company's EMR.

Conclusion

When thinking about the workplace, OSH professionals should consider several questions: Does the employer truly understand the meaning of the EMR? Does the company understand its purpose and ultimate effect on an insurance premium? Do company executives consider only the EMR and, if so, do they understand its limitations?

The real condition of a company's safety culture extends far beyond the information provided in the EMR. Leading indicators work to provide a new perspective. Their use represents forward thinking and is on the rise. Some popular metrics in this category are safety training, safety audits, pretask planning, root-cause analysis and employee perception surveys. These activities can be measured and quantified, and are proactive efforts to achieve a superior safety culture.

As OSH professionals better understand the metrics used, we will make better decisions that elevate safety for companies and individuals alike. Our judgment is only as good as our understanding. **PS**

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