Impacting Behaviors: An Innovative Cost Allocation and Safety Improvement Process Case Study

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All organizations have a desire to minimize the costs of both retained and insured risk. This paper presents an innovative approach that integrates a workers’ compensation cost allocation system with a safety improvement process that focuses on location management structure, key loss drivers, and targeted prevention activities.

A cost of risk allocation (CORA) and safety improvement program (SIP) were developed and implemented at ABC Company four years ago and have been very successful in elevating the organizational conversation on safety and workers’ compensation costs, both human and financial. This dual approach has resulted in increased awareness of operation risk control, reduced workers’ compensation costs and improved employee safety and health programs.

This paper will describe the basic fundamentals of the cost of risk allocation process and the pilot safety improvement process and results at a selected high loss location.

Introduction

Cost of risk allocation (CORA) is the internal mechanism most firms use to distribute (or allocate) their cost of risk among individual sub-units within the organization. Cost of risk is generally defined as the sum of uninsured (i.e., retained) losses and loss adjustment expenses, insurance premiums, risk control expenses, and administrative expenses.

A properly designed and communicated CORA system can assist in minimizing cost of risk by:

- increasing management accountability and awareness of operational risks and safety program performance,
- incenting bottom-line results, and
• indirectly creating a safer workplace for the ABC Company, which reduces employee exposures and injuries.

A well-designed CORA system will not, in and of itself, result in lower cost of risk. It is essential that managers at the individual sub-unit allocation level also be given the appropriate tools and training to ensure safe behavior becomes the norm, not the exception, in day-to-day activities. A properly designed and executed safety improvement program (SIP) will impact behavior, resulting in fewer ABC Company workplace injuries. When a SIP is aligned with a well-designed dynamic CORA system, the result is lower total cost of risk and increased job satisfaction at all levels of the organization.

Cost of Risk Allocation Systems
As insurance premiums have increased and risk management has advanced over the past 25 to 30 years, more companies are choosing a risk finance strategy that is a combination of buying insurance and retaining more risk. The result has been a movement from traditional guaranteed cost programs to high deductible and self-insured programs. In this new world, retained losses become the biggest cost of risk component, accounting for between 60% and 80% of the total cost of risk. Hence, determining ways to reduce retained losses are paramount to reducing total cost of risk.

In order to effectively reduce retained losses, a comprehensive strategy is needed from the highest level to the lowest sub-unit level in the firm. A key component of this strategy is the mechanism through which the lowest sub-unit is charged for its contribution to the total cost of risk. This mechanism is referred to in this paper as a cost of risk allocation system (CORAS). A well-designed CORAS can truly incent and reward appropriate claims prevention and claims mitigation behavior that result in fewer and less expensive claims.

In designing an effective CORAS, the following objectives should be considered:

• Allocating all associated costs, including the ultimate value of estimated claims
• Communication and transparency
• Fair and equitable allocation criteria
• Promote risk control and claims management behavior.

Once the objectives have been defined, there are four critical design principles that need to be considered when building the CORAS:

1. Sufficiency: Properly reflect all costs associated with the current accounting period (FASB #5). In addition, how to treat fixed vs. variable costs.
2. Responsiveness: How many years of history influence sub-unit allocation budget
3. Protective ness: Not exposing a sub-unit to more risk than it would assume on its own (create smaller sub-unit deductibles or define max % departure from budget)
4. Understandability: Easily explained and understood by sub-unit managers

In order to be completely effective, it is essential that the CORAS are designed in a manner that fits within the context of the firm’s culture. As a result, CORA systems run the gamut in
terms of variety. While there is no “one size fits all” approach, there are generalities which encompass most CORA approaches:

- **Prospective vs. Retrospective:** Prospective systems only capture costs that are expected to occur during the allocation period. As such, it is necessary to forecast future losses for a prospective CORAS. In retrospective systems, only known costs are taken into account. As such, claims and related costs that emerge from prior years impact the allocation.

- **Frequency vs. Severity:** Since costs are ultimately driven by the number of claims, it is common for a CORAS to have a claim frequency component in addition to a claims cost component. Typically, the frequency component will include a fixed-dollar charge per claim. At the sub-unit level, there is more control to prevent a claim from occurring than to actually control the ultimate cost of the claim.

- **Dynamic vs. Static:** It is common for firms to use a static CORAS, that is to say, actual allocation charges equal budgeted allocation charges. While the budgeted amount may change from year to year based on the design principles, the sub-unit has the certainty of no surprise financial impacts during the course of the year. In a dynamic CORAS, actual current-year loss activity influences the actual allocation charges. In this manner, current management is truly held accountable for current year performance.

In all of the above approaches, it is clear to see the importance and need for effective risk control/safety management and injury management programs.

**Safety Improvement Programs**

From culture to compliance to incentives, safety professionals have developed and employed many methods to improve organizational and employee safety performance. Many SIP approaches have good short-term results, sustainability is the challenge. ASSE (.2002) showed a positive correlation between safety investment and SH&E return on investment and ASSE (2007) concluded that implementing a SH&E program can reduce employee injury and illness rates 20 percent and produce a return on investment of $4: $1. As far as programs effectiveness and sustainability, the most important factor by far is the need for management awareness, support and leadership. Top managements attitude towards safety plays a significant role in safety performance (Blair 2013). Management commitment is the foundation of safety (Soule 1993).

The prevalent management systems theory defines operational problems, including employee accidents, as the result of management’s direction and decisions. Only management has the power to make decisions that can affect or change the system (Smith 2011, Deming 1994). An unintended consequence is the safety professional’s inability to directly affect organizational systems without management support. To improve influence and increase safety program support, it is extremely important today’s safety professional is an effective communicator, understands business language and has good management skills (Blair 2004).

Studies support and much has been written about the need for safety professionals to be able to speak in business financial terms, to communicate the cost benefit of proactive safety management, and to influence organizational leadership to elevate and maintain focus on risk control management (Blair 2013, Veltri, 2009, Adams 2003, Blair 2004). Communicating and presenting safety program requirements, budgets, metrics, and results in business terms on multiple levels is critical for gaining top management’s understanding and support.
Without management leadership and support, safety programs and processes will struggle. This was the situation in the case study below. Location managers had overall responsibility for operations and performance, including the safety and workers’ compensation programs and results. However, safety and workers’ compensation program results were not a part of the location managers’ annual performance goals and metrics. The manager at the pilot location for the safety improvement process admittedly took his eye off the safety programs and focused on production when the injury frequency went up in 2010 and 2011. Aon and the ABC Company corporate risk manager discussed the need to develop a cost allocation program to instill location level cost accountability and ownership in risk control – safety and injury management.

The workers’ compensation cost allocation program was instrumental in elevating safety accountability, communications, and program activities at each location and among all location managers during the monthly manager meetings. The pilot activities and results were shared at monthly managers’ meetings. Other ABC Company location managers are asking the corporate risk manager if, and when, they might be able to get the same assistance. They are starting to believe that we’re from corporate and we’re here to help.

Case Study: ABC Company Hardware Corporation

Background
ABC Company operates 14 regional service centers in the U.S. These 14 locations service the 4,300 retailer-owned stores in the U.S., and account for roughly 90 percent of ABC Company’s corporate workers’ compensation (WC) losses.

A CORAS and a SIP were developed and implemented at ABC Company in 2010. This came about as the result of ongoing complaints from the regional service centers (RSC) management about not understanding the tie between their actual allocated “insurance” charges and the claims they were having at their own RSCs. In a number of instances, the RSC would have a good year, only to see their allocated charges increase from the previous year.

Cost Allocation Program
The ABC Company CORAS was designed to meet the following objectives:

- To incent reductions in WC total cost of risk (TCOR) through safety, loss prevention, and claims management efforts
- To make the allocation process transparent to all business units
- To ensure all costs were allocated and that the charges are fair and equitable to each department.

ABC Company’s goals were to reduce the annual WC budget year over year, and to drive the WC experience modification factor from 1.05 to 0.80 in five years.

ABC Company’s CORAS differs for corporate exposures vs. RSC exposures. Since the vast majority of ABC Company’s losses are coming from the RSCs, ABC Company’s corporate locations were given a static fixed premium, based on NCCI loss rates by state by class code. For the RSCs, a prospective dynamic frequency/severity method is used.
Each RSC is given a budget based on their most recent two years of payroll and loss history. The budget is determined not only for TCOR but also for claim counts. The TCOR budget is broken down into first year incurred loss, incurred but not reported loss (IBNR), and fixed expenses. The RSCs are expected to control their claim counts and, hence, their first year incurred loss. These two items account for the dynamic portion of the CORAS. RSC management and corporate operations management are provided the budgets for each RSC. An example budget is shown on Exhibit 1. Note that the budgets break down the claim counts and first year incurred losses by quarter for monitoring purposes.

### Exhibit 1. ABC Company Pilot Location CORAS Budget

During the year, each RSC is charged monthly, based on the budget. Each quarter the RSC is provided a report to measure activity vs. budget. At the end of the year, each RSC is credited or charged additional, based on their performance relative to budget. In this manner, each RSC manager is not only responsible but is accountable for claims incurred during the year. The RSC manager is rewarded/punished accordingly.
Operations management is also provided summary reports so they can determine at a glance which RSCs are performing well and which ones need improvement. An example management report is shown on Exhibit 2.

### Exhibit 2. CORAS Management Report

**Safety Improvement Program**

Beyond allocating workers’ compensation costs, the ABC Company plan also instituted a “pilot” safety improvement program (SIP) at a selected high-loss location. The SIP included a location-specific workers’ compensation claim analysis, an integrated safety and injury management (pre- and post-loss) program audit, followed by implementation of a structure safety management...
process (SMP), which included defined management and program responsibilities, targeted peer coaching, initial training, quarterly assistance visits, and metric reports.

The workers’ compensation claim analysis reviewed the previous five (5) policy years to identify loss drivers and injury trends, and compare to safety program efforts and gaps. Top frequency and severity issues at ABC Company centered on ergonomics, slip/falls, and driver-related claims. These three areas would be the basis for the peer safety coaching.

An integrated safety and injury management benchmark assessment was conducted, using a format that focused on management leadership and support, safety program roles, documentation and training records, and claims/injury management practices. The audit form uses green, yellow, and red scoring indicators: green is compliant; yellow needs minor improvements; and red needs development or much improvement, as shown in Exhibit 3. The goal of the assessment is to identify the locations current safety management framework, programs, activities, and metrics.

<table>
<thead>
<tr>
<th>SECTION II - Safety / Injury Prevention Programs</th>
<th>Current Practice</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best Practice - Safety Management Plan</strong></td>
<td></td>
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<tr>
<td>12. There is a written Safety Management Plan (SMP, AWAIR, APP) that describes the following:</td>
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<tr>
<td>Management &amp; Employee involvement</td>
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<tr>
<td>Hazard Identification and control methods</td>
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<td></td>
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<tr>
<td>Communication and training methods</td>
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<td></td>
</tr>
<tr>
<td>Incident Investigation &amp; Corrective Action process</td>
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<td></td>
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<tr>
<td>Policy enforcement defined</td>
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<tr>
<td>Annual review and update documented</td>
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<tr>
<td><strong>Exhibit 3. Safety Program Audit Tool</strong></td>
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<td><strong>Current Practice</strong></td>
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<td></td>
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<tr>
<td>Meets/ Exceeds</td>
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<td></td>
</tr>
<tr>
<td>Partially in Place</td>
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<td></td>
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<tr>
<td>Minimal</td>
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<tr>
<td>There is a safety program manual that contains all the written safety and compliance programs; however there is not a overall written safety management plan in place that describes how safety is managed at the RSC.</td>
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</tbody>
</table>

An integrated safety and injury management benchmark assessment was conducted, using a format that focused on management leadership and support, safety program roles, documentation and training records, and claims/injury management practices. The audit form uses green, yellow, and red scoring indicators: green is compliant; yellow needs minor improvements; and red needs development or much improvement, as shown in Exhibit 3. The goal of the assessment is to identify the locations current safety management framework, programs, activities, and metrics.

Exhibit 3. Safety Program Audit Tool

Once the loss analysis and the safety program assessment are completed, the structural and program gaps are identified, recommendations are reviewed and discussed, and an action plan developed and incorporated into the formal safety management process that will be developed and implemented. The pilot safety management program included a defined management framework, defined monthly activities, and peer-to-peer safety coaching on the top areas of injury.

The final framework included the management champion, department managers, a workers’ compensation coordinator, a safety program coordinator, a safety committee chair, a
management/employee safety committee, and special emphasis coordinators (SECs) who conducted five (5) minute peer-to-peer safety coaching. The special emphasis coordinators were selected because of both performance and interest in getting involved in the safety program. The SECs were trained in ergonomics/strain prevention, hazard awareness/slip, trip, fall prevention, and driver safety, and were expected to conduct one coaching session each week.

The pilot safety management structure was outlined in a written maturity report that includes an executive summary, a status to goals, and a safety management program outline. Exhibit 4 provides an example of the safety champion’s responsibilities. Each position had measurable activities to complete and document monthly. For example, the management champion was responsible for ensuring all coordinators are assigned and actively completing their activities, for reviewing and signing all investigation reports, for conducting a formal monthly inspection, and for participating in quarterly claim reviews. Research shows that the two activities that most impact safety performance are having management leaders monitor the workforce and provide immediate responses: positive, corrective, or disciplinary (Blair 2013). The safety program coordinator was responsible for reviewing one written safety programs each month, conducting initial safety training, ensure the safety committee is active and effective, conduct monthly inspection with management champion, etc. The workers’ compensation coordinator was responsible for initial training on claim reporting, injury management, and return to work. The safety committee chair was responsible for the monthly meeting, producing an agenda and meeting minutes, reviewing safety monthly inspections results, and maintaining a safety corrective action log.

<table>
<thead>
<tr>
<th>Goal or Survey Assessment</th>
<th>AV1</th>
<th>AV2</th>
<th>AV3</th>
<th>AV4</th>
<th>Comment</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Assistance Visit</td>
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<tr>
<td>Management Champion</td>
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<tr>
<td>SMP is implemented and communicated to associates</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>All safety coordinators are assigned and safety committee active</td>
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<tr>
<td>Ensure annual safety goals and metrics are developed and tracked monthly</td>
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<tr>
<td>Ensures Accident/Injury Review Team developed; sign off on all reports</td>
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<td></td>
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<tr>
<td>Reviews all claims over $5,000</td>
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<tr>
<td>Discusses safety at all staff meetings</td>
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**Exhibit 4. Maturity Report: Safety Management Champion Responsibilities**

Assistance visits were conducted quarterly to help coach the management team and ensure continual progress. Each visit included a meeting with the management champion and all coordinators, a review of the past quarters’ safety activity documentation (new hire and monthly training records, safety inspection forms, safety committee minutes, investigation reports, safety action log), and assist with any targeted activities or training. Assistance visits were scheduled to coincide with safety committee meeting dates, so committee meeting dynamics could be evaluated and any committee training conducted. Like the initial benchmark audit, the
management champion, safety coordinators, the committee and coaches were given green, yellow, or red scores in relation to monthly activity completion and documentation.

<table>
<thead>
<tr>
<th>Department Manager</th>
<th>AV1</th>
<th>Comments</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>New employee safety training is conducted</td>
<td></td>
<td>Review records</td>
<td></td>
</tr>
<tr>
<td>New employee 30,60 day follow-up up is documented</td>
<td></td>
<td>New hire follow up process conducted</td>
<td></td>
</tr>
<tr>
<td>Safety discussed at start up meetings.</td>
<td></td>
<td>Daily start up meetings</td>
<td></td>
</tr>
<tr>
<td>Safety inspection conducted</td>
<td></td>
<td>No documentation on weekly inspection as outline in safety plan.</td>
<td></td>
</tr>
<tr>
<td>Safety rules Enforcement</td>
<td></td>
<td>Supervisors not visible enough to effectively monitor rule</td>
<td></td>
</tr>
<tr>
<td>Investigation form completed incidents</td>
<td></td>
<td>Proper forms completed for all recent incidents</td>
<td></td>
</tr>
<tr>
<td>Contacts injured employees</td>
<td></td>
<td>No lost work day cases; injured EE’s have all returned to work</td>
<td></td>
</tr>
</tbody>
</table>

**Exhibit 5. Maturity Report: Completed Department Manger Section**

Quarterly maturity reports were produced following each scheduled assistance visit. The maturity report was reviewed with the ABC Company corporate and location management team to ensure staff and program scores were accurate, identified gaps were discussed, and action plans developed.

The maturity report also included a status-to-goals page that documented safety activities and OSHA recordable and workers’ compensation claim results, as shown in Exhibit 6. These items were also scored with green, yellow, and red, as compared to industry average rates and the internal CORAS goals.
Exhibit 6. Maturity Report: Status to Goals Page

A year-end annual meeting was conducted with ABC Company to review the final maturity report, the current structure, the activities and improvements completed to date; assess the overall results and effectiveness; and recalibrate and set new safety goals and activities for the next year.

The pilot safety improvement program was a three-year plan. The design was to implement the safety management structure and conduct quarterly assistant visits the first year, and semiannual assistance visits the second year. If, after two years, the safety framework was
embedded in the location management system and safety activities and documentation were being properly completed, the corporate visits would continue annually, unless requested otherwise.

Pilot Results
The ABC Company is now in the 5th year of the CORAS process. The CORAS and SIP have elevated awareness and safety focus at all RSCs, as the other 13 locations were watching the pilot program and results very closely. Results to date have been excellent and are highlighted below:

- In spite of ongoing medical and wage inflation driving up claims costs, annual WC TCOR budget has declined almost 20%, from $5.5mm to $4.5mm.
- Likewise, the WC claim count budget has declined over 20% from 206 to 163.
- The WC experience modification factor dropped from 1.05 to 0.83.

Operationally, the cost allocation programs created tremendous awareness of workers’ compensation program costs, as well as the corporations overall total cost of risk. The workers’ compensation and safety programs have become key topics at the operation manager’s meeting and are getting equal time with production and quality issues.

From a safety culture standpoint, the new found safety awareness has opened the communications lines between corporate safety and the RSCs. Following the pilot audit and safety management program rollout, the corporate safety department developed new written safety program templates and scheduled monthly safety program webinars to help assist RSC managers with improving the safety programs across the country. Today RSC managers are reaching out to corporate safety where in the past there was avoidance.

Specifically regarding the SIP pilot location, results were excellent until the management champion left the company and the leadership, support, and accountability systems went void. Exhibit 7 below shows excellent pilot results in 2012.

Exhibit 7. SIP Pilot Location Results
Results in Q1 of 2013 were also very good. However, the RSC manager who was extremely engaged in the SIP pilot program left the company in April 2013. During leadership transition, safety activities and focus on the pilot location diminished. While the pilot RSC claim frequency is still much improved from 5 years ago, 2013 claims and costs took a step backward.

**Conclusion**

As companies continue the risk financing strategy of retaining more risk or self-insuring, the importance of risk control management (preventing and controlling retained risk) becomes a key to organizational excellence and profitability. Utilizing an integrated workers’ compensation cost of risk allocation system with a targeted safety improvement process that focuses on location management structure, key loss drivers, and targeted prevention activities, has proven to be a successful approach to gaining management awareness, leadership and direct involvement in the safety programs, activities, and performance results. The results of the pilot SIP also showed that management leadership and support at the location level is critical to implementing an effective and sustainable risk control management program.

**Bibliography**


