The relationship between employees’ perceptions of safety and organizational culture

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Abstract

Problem: With limited resources to help reduce occupational injuries, companies struggle with how to best focus these resources to achieve the greatest reduction in injuries for the optimal cost. Safety culture has been identified as a critical factor that sets the tone for importance of safety within an organization. Method: An employee safety perception survey was conducted, and injury data were collected over a 45-month period from a large ready-mix concrete producer located in the southwest region of the United States. Results: The results of this preliminary study suggest that the reductions in injuries experienced at the company locations was strongly impacted by the positive employee perceptions on several key factors. Management’s commitment to safety was the factor with the greatest positive perception by employees taking the survey. Discussion: This study was set up as a pilot project and did not utilize an experimental design. That weakness reduces the strength of these findings but adds to the importance of expanding the pilot project with an appropriate experimental design. Summary: Management leadership has been identified, along with several other factors, to influence employee perceptions of the safety management system. Those perceptions, in turn, appear to influence employee decisions that relate to at-risk behaviors and decisions on the job. Impact on Industry: The results suggest that employee perceptions of the safety system are related to management’s commitment to safety, which, in turn, appear to be related to injury rates. Management should focus on how to best leverage these key factors to more positively impact injury rates within their companies. © 2002 National Safety Council and Elsevier Science Ltd. All rights reserved.

Keywords: Occupational safety; Perception; Organizational culture
1. Introduction

During 1998, more than 9 out of 100 workers in the manufacturing sector experienced an injury at work that required medical attention (National Safety Council [NSC], 1999). According to NSC, accidents and their consequences continue to be a major public health concern. Those in the industry have historically focused efforts on reducing injuries through engineering controls and attending to physical conditions of the work environment. Although critically important, many safety professionals recognize that there are other factors that significantly influence the likelihood of injury to employees.

This study was developed with the following objectives in mind:

- To examine the use of an employee perception survey as a predictive tool of successful safety results;
- To identify factors that, when present, suggest a high level of risk-control effectiveness;
- To examine the use of an employee perception survey as an alternative measure of an effective and successful safety program; and
- To identify general factors that influence employee perceptions of a company’s supervisory/management safety process.

The fundamental management process is to allocate available resources to a productive end. The limited resources that managers have to work with are those of time, money, and people. One responsibility of most managers is the safety and health of those employees under their direction. From a practical point of view, management needs to identify how to best allocate resources to ensure the lowest possible number and severity of injuries experienced by employees. In order to conserve resources, managers have to be aware of what resources they do commit to safety and how those resources influence the number and severity of injuries experienced by their employees. Traditional safety management efforts have run the gamut from the inspection era, the OSHA era, to the Accountability and the Human era (Petersen, 1988). More recent data suggest that it is the management system that has the most significant impact on injury rates (Petersen, 2000). Efforts that focus on several key management processes such as OSHA’s Voluntary Protection Plan have demonstrated that systematic management of safety and health processes result in lower injury rates and usually higher productivity. O’Toole (1999), in a study of employee participation at eight manufacturing sites, found that merely providing and encouraging employees to participate in the safety process resulted in lower incidence of OSHA Lost Time Injuries and lower severity rates over time.

2. About the study

This study was conducted using a modified version of the Minnesota Perception Survey, which was originally developed by Bailey and Peterson for the railroad industry. The survey used in this project was developed and validated by Dr. Brooks Carder for use
in a number of different manufacturing industries. The subject company is a mining and construction products company headquartered in Houston, TX. Like many others, this company struggles with its safety efforts and uses OSHA, MSHA, and the DOT compliance as the engines that drive the safety program.

In March 1998, upper management initiated a number of changes to their traditional approach to safety. The management team established a goal to shift the company’s safety culture from one driven by compliance to one driven by doing the right thing to prevent accidents and injuries to employees. Management’s aim was to include safety as a company core value, one that every manager and supervisor was expected to embrace. A key focus of this new emphasis on safety was management’s accountability for safety and their commitment to demonstrating their leadership and support for safety.

By mid-1988, a series of educational sessions were conducted for managers and supervisors to provide them with insights into leadership techniques and to develop their interpersonal communication skills. Those sessions were conducted over a 14-month period and included all production managers. These managers were then held accountable, as part of their performance review, for developing and implementing specific leadership techniques as they relate to safety. Approaches such as behavior modeling, positive feedback, and actively seeking employee input and involvement were areas identified for action.

The company recognized that employees’ attitudes and perceptions help to drive behavior, so the training and educational sessions were focused to influence those attitudes and perceptions. At the conclusion of each session, the participants were assigned three objectives. The first objective was to be aware of the example that they set for their employees. The participant was to be able to report to their superior a different example of how they set the correct safety example. The second objective required each supervisor and manager to provide, on a weekly basis, positive feedback to an employee about a specific safety issue or procedure that was observed. The third objective addressed another factor felt to be critical to changing the safety culture, that of employee participation in the safety process. After completing the training sessions, the participants were to engage their employees in a Job Safety Analysis (JSA) process. One JSA was to be completed by each supervisor and manager each month.

As part of the company’s long-range plan, an Employee Safety Perception survey was presented to all employees during January 2000. It was felt that a perception survey could add information about the safety management system from the perspective of employees at all levels. In addition, management believed that it needed a benchmark against which to measure future improvements to the system. If changes to the management system actually impact injury rates, then it is logical to conclude that it should positively impact the way employees perceive management and its commitment to safety. In other words, will employees perceive managers as “walking the talk” of safety leadership?

Additionally, the subject company’s management intends to conduct a follow-up survey in 3 years to measure progress against the baseline survey results. Prior to this future survey, a quasi-experimental design will be employed to allow for inferential data analysis and to control for various biases that can influence the results (Campbell & Stanley, 1966).
3. Literature review

The American Heritage Dictionary defines “culture” as “the totality of socially transmitted behavior patterns, arts, beliefs, institutions, and all other products of human work and thought characteristic of a community or population.” More specifically then, corporate culture is a pattern of beliefs and assumptions shared by members of the organization that operates unconsciously and that defines in a basic, taken-for-granted fashion an organization’s view of itself and its environment (Schein, 1986). Safety culture is often seen as a subset of organizational culture, where the beliefs and values refer specifically to matters of health and safety (Clarke, 1999).

One way to make the safety culture more visible is through the use of employee perception surveys, which have been valuable tools for detecting differences in employee attitudes concerning several management practices. These tools have also been applied to the safety field for measuring safety program effectiveness. In an early study, Zohar (1980) used an employee questionnaire to identify the relative importance of specific safety factors in 20 industrial organizations in Israel.

In another study, Bailey (1989) used the Minnesota Safety Perception Survey to identify factors that positively contributed to injury reduction within the railroad industry. Both the original study and its ongoing follow-up, which include other industries (Bailey, 1997), showed that in plants that had low injury rates, the employees’ perception of management commitment to safety was highly positive. On the other hand, in plants where injury rates were high, the employees’ perception of management commitment to safety was low and the major focus of management’s safety efforts was on OSHA compliance with limited employee involvement practices.

Employees’ perceptions of management’s commitment to safety, of fellow employees’ participation in safety, and of the effectiveness of education and training efforts on the part of management have demonstrated a positive impact on safety outcomes. The literature suggests that employees’ perceptions of these factors influence their likelihood to comply with safety and health policies and rules (Bailey, 1997).

Simonds and Shafari-Sahrai (1977) analyzed the relationship between injury frequency rates and factors thought to influence injury rates, such as management involvement in the safety effort, workforce characteristics, and physical conditions. They gathered data on the management system of companies, some with high injury rates and others with low injury rates. In studying these matched pairs of companies, the researchers found that in companies where top management is involved in safety, there were lower injury frequency rates.

In a similar study, Cohen (1977) examined critical determinants of a successful industrial safety program. Cohen found that at firms determined to have successful safety programs (i.e., firms that experienced low injury rates), certain common factors were present, including a strong management commitment to safety as reflected by management’s knowledge of the problems, their convictions that high safety standards were attainable and their demonstrated work toward those ends. In addition, Cohen identified extensive formal and informal contacts between workers and management on safety issues and a well-established safety training process as factors contributing to low accident rates. In a follow-up study, Smith, Cohen, Cohen, & Cleveland (1978), found that management’s commitment to the safety process was an important factor at low injury rate plants.
In the past, industry has concentrated its efforts on reducing injuries by focusing on physical conditions such as the guarding of equipment or other factors that exposed employees to energy sources (Heinrich, 1959; Kohn, Friend, & Winterberger, 1996). Industry has also focused on addressing primarily those issues that OSHA regulates and is likely to check during an inspection at a facility (Smith, 1979; Weil, 1994).

OSHA, in turn, has traditionally emphasized engineering controls and prescriptive regulations as solutions to the problem of reducing hazards in the workplace. Historically, OSHA has relied on a coercive approach through the use of citations and fines to motivate employers to comply with the regulations (Goetsch, 1996). However, in a speech to the Illinois Safety Council, Charles Jeffers (1998), Assistant Secretary of Labor, reported that OSHA has attempted to shift and improve its role through expansion of consultation programs and initiatives, such as the Voluntary Protection Program (VPP) and the previously launched Cooperative Compliance Program (CCP).

This literature suggests that there is a connection between management’s approach to safety, the employees’ perception of management, and accident/injury rates. In addition, it has been suggested that management’s commitment and leadership with safety issues is a significant determinant in obtaining necessary employee commitment to safety. This study is an attempt to expand our understanding of that connection.

4. Theoretical assumptions

The findings of this observational study are based on a comparison of data from written surveys and several in-person interviews. Several key theoretical principles have been applied to the findings.

1. Accidents are defects in the system and are not simply a result of the carelessness or errors of individuals. To reduce these defects, the system must be analyzed to discover areas for improvement.

2. The attitudes and perceptions of the employees reveal the vision and values that drive their decision-making process. Management’s ability to communicate positive values and expectations is critical to ensuring that workers will make their decisions with safety as a proper priority.

3. Building an “improvement culture” requires a commitment to learning and change. These are most likely to happen in an environment where fear is minimized. A positive climate is created by recognizing those employees who actively attempt to contribute to improving the work processes to reduce the likelihood of accidents. A positive safety climate is supported by:

   (a) treating accident incidents as system problems, not opportunities to fix blame and
   (b) treating employees as thinking, knowledgeable, and important players whose opinions and suggestions are solicited and frequently acted upon.

4. In any complex system, there exist leverage points. These are areas in which changing the system will yield maximum changes in system performance. The objective of this assessment is to help management identify these leverage points.
(5) It is understood that all parts of a system are interrelated; however, findings from this assessment are limited to the safety system.

5. Methods

A 41-item safety perception survey was distributed to all employees, including plant office employees. Each item presented the employee with a choice of responding either “yes” or “no.” From the combined responses, a percent positive response rate was computed for each question by dividing the total number of positive responses by the total responses. It consists of those questions and factors that prior research has shown to be valid indicators of the state of the management system. The results are compared to normative data from previously administered surveys from other industrial companies, which are contained in a database of more than 50,000 surveys.

Once aggregated, the data can be examined at a number of different levels in an attempt to identify external factors that might influence the company’s safety results. From the demographic data, the following independent variables were examined for their potential influence on the safety results: (a) Location, (b) Business Group, (c) Job Categories, (d) Company Length of Service, and (e) Age.

A total of 3116 surveys were distributed during safety meetings, where employees had an opportunity to complete the survey on a voluntary basis during work time. A total of 1414 surveys were returned, for a response rate of 45.3%. According to an expert at NSC, had the approach been followed as prescribed, a response rate of 80%–90% would have been expected (K. Kolosh, personal communication, February 6, 2001).

After the survey was completed, the author had the opportunity to investigate the lower-than-expected response rates at a number of the company’s locations. Information gathered as part of informal conversations with managers throughout the company suggest that some locations did not follow the instructions for distributing the survey as part of monthly safety meetings in January 1999. Apparently, at these locations, managers or supervisors handed the surveys out to employees at the beginning or end of a shift and requested that the employees fill them out and return them to the office. There was little or no follow-up with employees who failed to return a completed survey. According to Kolosh, given those

<table>
<thead>
<tr>
<th>Company locations</th>
<th>Total surveys received</th>
<th>Percent by location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dallas-Fort Worth/N. Texas</td>
<td>394</td>
<td>45.7</td>
</tr>
<tr>
<td>Houston/S. Texas</td>
<td>349</td>
<td>49.6</td>
</tr>
<tr>
<td>East and West Texas</td>
<td>147</td>
<td>33.6</td>
</tr>
<tr>
<td>Phoenix</td>
<td>191</td>
<td>46.1</td>
</tr>
<tr>
<td>Las Vegas</td>
<td>27</td>
<td>27.3</td>
</tr>
<tr>
<td>Salt Lake City</td>
<td>90</td>
<td>28.7</td>
</tr>
<tr>
<td>Arkansas</td>
<td>137</td>
<td>32.9</td>
</tr>
<tr>
<td>San Diego</td>
<td>79</td>
<td>26.1</td>
</tr>
<tr>
<td>Total</td>
<td>1414</td>
<td>45.3</td>
</tr>
</tbody>
</table>
circumstances, a response rate of 20%–30% would normally be expected. Although the response rate was lower than expected, there appears to be no systematic bias introduced, as the distribution phenomenon appeared to be somewhat random and uniform throughout the company. Most of the locations had a response rate that reflected the overall average response rate, with no locations below a 26% response rate or above a 50% response rate. Table 1 shows the percent response by company geographical groupings.

6. Results

To analyze the safety survey responses, the totals for each question were compared and the percent of “positive” responses was computed. This was accomplished by simply adding the number of “yes” responses for each question and dividing by the total responses for that question. For example, Question 1 had a total of 1375 responses, of which 1232 were positive (yes), to equal a 90.8% positive response rate for this question. Each of the questions on the survey has a positive answer, which indicates the existence of some aspect of a good safety system. The positive answer on most, but not all questions, is “yes.” The questions reflect different aspects of the management system.

Extensive data sets are used to show these questions are “valid” measures of the safety system. This means that sites or organizations with higher injury rates will have fewer positive scores on the survey questions.

In order to better understand the meaning of the results from this survey, a series of factor analyses had been previously conducted on the data from the normative data set. A factor analysis is a statistical analysis designed to discover groups of questions that correlate with each other. The statistical analysis is combined with an analysis of question content to arrive at a set of factors. This survey was determined to measure seven factors. The factor analysis was conducted on two samples. The first was 6306 surveys received from one company in 1994. The second was a smaller number of cases from another company in the same year. The model was developed on the larger data set and then was tested on the smaller data set.

The variance explained by the factors is shown in Table 2.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Name</th>
<th>Percent of variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Management’s Commitment to Safety</td>
<td>11.94</td>
</tr>
<tr>
<td>2</td>
<td>Education and Knowledge</td>
<td>5.62</td>
</tr>
<tr>
<td>3</td>
<td>Safety Supervisory Process</td>
<td>9.72</td>
</tr>
<tr>
<td>4</td>
<td>Employee Involvement and Commitment</td>
<td>5.48</td>
</tr>
<tr>
<td>5</td>
<td>Drugs and Alcohol</td>
<td>3.04</td>
</tr>
<tr>
<td>6</td>
<td>Emergency Response</td>
<td>7.59</td>
</tr>
<tr>
<td>7</td>
<td>Off-the-Job Safety</td>
<td>3.89</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>47.26</td>
</tr>
</tbody>
</table>
included in the representation of a factor ranged from .78 to .28. Table 3 shows the loadings for Factor 1.

The authors of the survey carried out this process by developing a model using both statistics and content. If a question had a relatively high loading on more than one factor, they assigned it to a factor based on its content matching the other questions in the factor.

Four of the factors do not differ significantly from several other measurement tools currently used in business and industry. Surveys developed and used by NSC, Safety Performance Solutions, and Core Media report to measure similar, if not identical factors.

**Factor 1** represents the employees’ perception of safety leadership on the part of management. The questions relate to concrete efforts on the part of management to actively demonstrate support and involvement in the safety effort. This factor includes recognition for safety efforts and for involving the employees in the establishment of safety goals, which is in itself a form of recognition.

Sample question related to Factor 1: Have your company’s efforts encouraged you to work more safely?

**Factor 2** relates to Education and Knowledge. The questions cover a variety of aspects of training and communication about safety, but also include knowledge, such as understanding hazards.

Sample question related to Factor 2: Are employees adequately informed about the results of their exposure monitoring?

**Factor 3** relates to the safety supervisory process or safety process assurance. These questions relate to issues about how regulations, rules, and procedures are enforced, and how standards are communicated.
Sample question related to Factor 3: Are employees checked on a routine basis to see whether they are doing their job safely?

*Factor 4* represents Employee Involvement and Commitment. The commitment aspect is expressed in questions about whether “coworkers support the safety program,” and whether “employees caution other employees about unsafe practices.”

Sample question related to Factor 4: Do your coworkers support the company’s safety program?

*Factor 5* deals with Drugs and Alcohol, and how effectively the company is able to deal with these potential problems. A “no” answer to these series of questions is actually the “positive” response.

Sample question for Factor 5: Are employees who are using drugs or alcohol on the job able to work undetected?

*Factor 6* addresses Emergency Response. Plants with a high degree of agreement by employees have been found to have lower accident rates.

Sample question for Factor 6: Have you been properly trained to respond to an emergency situation in your work area?

*Factor 7* measures Off-the-Job Safety. These questions have been validated such that facilities with better employee evaluations of off-the-job safety efforts have lower accident rates. Secondarily, this factor measures the effort that management has put into generalizing safety in the employees’ lives.

Sample question for Factor 7: Is off-the-job safety a part of your company’s safety program?

These factors are helpful as diagnostic tools for setting priorities for improvement. One way to accomplish this is to take the scores for each factor and compare them to the existing norms. Table 3 provides insight into fundamental areas of strength and weakness in the subject company’s management of safety.

The results presented by factor in Table 4 show the percent positive responses for each factor aggregated for all the subject company’s employees who completed and returned the survey. The table also gives the difference between the subject company’s responses and the normative data from previously administered surveys. A “plus” difference between the subject company’s data and the norm indicates that the subject company’s results are better.
than the norm and suggests that the subject company adequately addresses the safety system issue. Differences of 10% or more in either direction indicate a statistically significant difference as determined by the use of $2 \times 2$ chi-square tables.

Overall, the subject company has results above the normative data set, which means that employees’ perceptions are higher than those of other groups of employees that have participated in the survey. The area of significant strength is Factor 3, the employees’ perception of the Safety Supervisory Process. This result is not particularly surprising given the historical compliance driven safety process of this company. This suggests reasonable and fair rule enforcement and good communication about the consequences of rule infractions.

Factor 1, Management’s Commitment to Safety, and Factor 2, Education and Knowledge, are positive, but not significantly. These are the areas in which the company’s efforts are matched well with employees’ perceptions and correlate with the normative database. Although these results are expected given the current accident rates, these are areas of opportunity for improvement in the safety management system.

Factor 1’s positive difference is supported by employees’ responses to questions that deal directly with management involving the employee in safety efforts that affect his/her job. Within Factor 1, the weakest employee perception is of management’s safety leadership. These results are supported by similar responses during interviews with employees. On several occasions, during face-to-face interviews, employees expressed concern or skepticism over management’s long term commitment to safety.

Factor 2’s positive difference is largely supported by those questions that address the training supervisors receive and by contacts concerning safety rules and regulations. On the negative side, questions related to communicating operational safety issues and exposure monitoring were perceived as weak by employees. These responses, when combined with those from Factor 1 above, give a reasonably clear picture that the employees have a positive perception of the safety management process, but with areas identified for management to address.

Factor 4, Employee Involvement and Commitment, is negative relative to the norm, but the difference is not statistically significant. One of the questions asks about employees’ involvement in the safety inspection process influenced the result of this factor ($-12.3\%$ from the norm). In the past, the company has not typically included employees in the safety process.

### Table 4
Comparison of pioneer’s results to normative data set

<table>
<thead>
<tr>
<th>Factor</th>
<th>Subject</th>
<th>Pioneer % positive</th>
<th>Pioneer vs. NORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Management Commitment to Safety</td>
<td>80.7</td>
<td>+5.4</td>
</tr>
<tr>
<td>2</td>
<td>Education and Knowledge</td>
<td>81.3</td>
<td>+1.0</td>
</tr>
<tr>
<td>3</td>
<td>Safety Supervisory Process</td>
<td>78.4</td>
<td>+13.6</td>
</tr>
<tr>
<td>4</td>
<td>Employee Involvement and Commitment</td>
<td>84.6</td>
<td>-3.1</td>
</tr>
<tr>
<td>5</td>
<td>Drugs and Alcohol</td>
<td>78.4</td>
<td>-14.5</td>
</tr>
<tr>
<td>6</td>
<td>Emergency Response</td>
<td>64.0</td>
<td>-16.3</td>
</tr>
<tr>
<td>7</td>
<td>Off-the-Job Safety</td>
<td>59.1</td>
<td>-9.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>79.0</td>
<td>+9.0</td>
</tr>
</tbody>
</table>
It is also apparent that employees are aware of the drug and alcohol policy (Factor 5) currently in effect as suggested by their positive responses to a question that specifically queried their awareness of the company’s policy in this area (14.6 vs. norm). However, there appears to be clear perceptions that this program is not yet effective as evidenced by employees’ response to a question that asks, “Are employees using drugs or alcohol able to work without detection.” The employees’ response suggests they are aware that fellow employees use drugs and alcohol during work without getting caught (−12.8 vs. the norm). With this question, a “no” response is actually the positive response. The subject company’s Drug and Alcohol policy had been in effect for only one year at the time of the survey.

Factor 6, Emergency Response, and Factor 7, Off-the-Job Safety, were strongly negative compared to the norm, with the difference for Factor 6 achieving statistical significance (P < .05). This area should be addressed both from a safety management perspective, as well as from a loss control and regulatory compliance perspective. The result from Factor 7 is not completely unexpected as the subject company only recently began to place any emphasis on safety awareness away from work.

The analysis is also supported by the observations and perceptions of a number of employees who, in private interviews with the principal investigator, were asked to describe the way the safety system functioned. The interview questions tended to be “open-ended,” but were derived from principles of safety management and many years of experience. These interviews proved to be helpful, adding a degree of robustness to the survey process. The results of these interviews suggest that employees perceive a positive change in management’s approach to safety but are not yet convinced that this change is both meaningful and lasting. Fig. 1, a statistical control chart, shows the subject company’s Lost Workday Case Incident Rate for 45 months, starting in July 1996. The lost workday
rate was neither increasing nor decreasing before the change in management’s approach \( r(5) = 0.47, P > .10 \). After the change in management focus, there is a statistically significant downward trend \( r(35) = -0.58, P < .001 \).

The downward trend in the LTI rates starting shortly after the management change suggests that this change has had an impact on safety performance. Although not utilizing an experimental design, this data set shows a statistically significant decrease in the injury rates with the only intervention being that of the change to the management system. Other potentially confounding factors such as turnover, business volumes, seasonality, although not experimentally controlled, appear to be constant across the period.

### 7. Conclusions and recommendations

Due to the absence of an experimental design at this point of the study, it is not possible to infer with statistical certainty that the company’s safety culture had a positive impact on safety outcomes (injury rates). There are, however, a number of observations and recommendations that can be made from the existing work.

In general, over the past 2 years, there has been a statistically significant reduction in the OSHA Lost Time Injury Rate at the subject company. It appears from the data that the most significant factor linked to the reduction in the injury rates is the change in upper management’s approach and the emphasis on safety leadership and commitment to safety that began in 1998. As part of that approach, upper management initiated a series of educational programs to assist lower level managers addresses key management practices. In addition, all managers were held accountable for not only the safety results as it related to injury rates, but also for what actions or processes they put into place to impact those results. Failure to meet these minimum standards resulted in an adverse impact on bonus opportunities and personal performance evaluations. The second of which directly influenced their annual compensation.

Some might suggest that upper management merely put pressure on the rest of the organization to under report OSHA Lost Time Injuries. However, examination of the company’s Workers’ Compensation records indicates a reduction in the total claims and total payout over the same period, suggesting that there was a true reduction in the frequency rate of injuries.

This conclusion is also supported by both a series of personal interviews over a 12-month period and the Employee Safety Perception survey. Previous research suggests that employees’ positive perception of management’s commitment to safety can result in reduced incidents that lead to injury (Bailey, 1989; Clarke, 1999; Cohen, 1977).

The results of this preliminary study suggest that where management’s commitment to safety is clearly demonstrated through action, employees’ perceptions of the safety management process have been positively influenced. Along with that change in perception, there appears to be a strong causal relationship with a reduction of injury rates.

Experienced managers admit how difficult it is to change perceptions and attitudes. These same managers also often recognize that an employee’s attitude or perceptions are highly predictive of his/her behavior in a given situation, such as compliance with safety rules or standard safety practices.
This preliminary study examined the relationship between management’s approach to safety, which largely defines the safety culture, and employees’ perceptions (attitudes) of how important safety is to the company. The purpose of this study is not to suggest that management needs to manipulate employees’ perceptions in order to achieve good safety results. Rather, the study proposed that there is a connection between management’s approach to safety and employees’ perception (attitude) of how important safety is to the management team.

As a result of this survey, the subject company is developing plans for further altering their safety management system to include a process to more directly involve drivers in the safety process. After those initiatives have been in place for 18–24 months, the company plans to conduct another Employee Safety Perception Survey using an appropriate quasi-experimental design to be able to attribute changes in the safety management system to both employee perceptions, as well as changes to injury rates over time.

References