

<http://www.behavioral-safety.com/b-safe-management-solutions/our-approach/safety-culture-profiling>

<http://aubreydaniels.com/pmezine/what-behavior-based-safety-look-history-and-its-connection-science>

## The Business Case

Implementing proven Behavioral Safety processes in your company can dramatically reduce the number of lost-time and minor injuries and their associated costs which detract from your bottom-line.

The costs of workplace injuries are considerable: For example, in 2004, OSHA estimated the **direct** costs of a lost-time injury to be \$28,000. **Indirect** costs are usually estimated to be 10 times the direct costs. This means just one Lost-time injury is estimated to cost some \$308,000, all of which comes straight off 'bottom-line' profits! If your company's profit margin is 10%, you can expect to have to earn some \$3 million dollars just to pay for one lost-time injury! Not controlling your injury rates in the current economic climate is sheer madness.

The costs of recordable injuries can also be considerable, especially as you can expect around 30 minor injuries for every lost-time injury. The **direct** cost for each recordable injury is estimated to cost approximately \$8,066, plus a multiple of 10 for **indirect** costs (\$80,660) means one recordable injury costs around \$88,726.



If the ratio of 1 lost-time injury to 30 recordable injuries holds, as accident triangles suggest, then the total direct/indirect costs for ONE Lost-time Injury and 30 recordable injuries[\$308,000 (LTI) + \$2,661,780 (30 Recordable injuries)] are in the region of \$3 million!!

## Behavioral Safety and Return on Investment

Although Behavioral Safety has an astonishingly successful track record, it has been proven that some Behavioral Safety processes are more effective than others (*Professional Safety, Feb, 2009*).

Building on this scientific research, we have calculated the Return on Investment of common Behavioral Safety process designs. The table below reveals it is possible to gain about \$1.7 Million dollars per 200,000 hrs worked (Average of 100 people, working for a year) for an optimally designed and executed Behavioral Safety process, versus a loss of about \$2 million dollars per 200,000 hrs worked, for a poorly designed and executed process.

No of Studies	Setting	Observation Focus	Contact Rate	No. Of Feedback Channels	\$ RoI
4	Static	Work Group	Daily	3-4	1,695,394
2	Static	Work Group	Daily	1-2	62,371
1	Static	Work Group	2-3 p.w.	3-4	33,598
1	Static	1 on 1	2-3 p.w.	3-4	232,996
4	Static	1 on 1	2-3 p.w.	1-2	142,050
2	Static	1 on 1	1 x p.w.	1-2	(2,034,133)
2	Dynamic	Work Group	Daily	1-2	125,772
2	Dynamic	Work Group	1 x p.w.	1-2	(2,317)
4	Dynamic	Outcomes	Daily	1-2	49,935
1	Dynamic	Outcomes	2-3 p.w.	1-2	340
1	Dynamic	1 on 1	Daily	3-4	(10,453)

We are proud to say, that our **B-Safe®** process reflects best practice with RoI in the \$1.7 million range. **Contact us** to maximize your Return on Investment.

## B-Safe®

### Our Approach

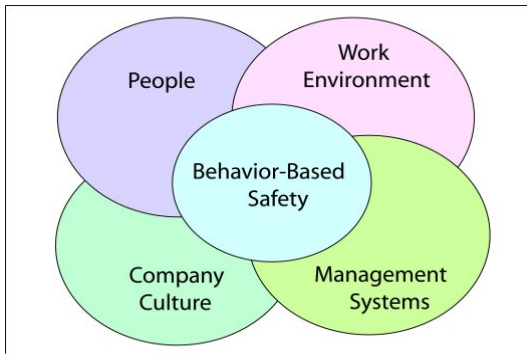
Many companies spend significant time and effort improving safety by addressing hardware issues and installing traditional safety management systems. While these methods produce positive initial results, a plateau of accidents typically remains. Although these accidents are often attributed to employee carelessness or poor safety attitudes, most are triggered by deeply ingrained unsafe behaviors.

B-Safe Management Solutions and its behavioral safety programs comprehensively address this problem by looking deeper into actual causes and creating systems and procedures that change attitudes and behaviors.

### B-Safe®

The B-Safe®, an award-winning proprietary method developed by company founder and industry pioneer Dr. Dominic Cooper, lies at the center of the intersections of employees, management systems, the working environment and the company's overall culture. B-Safe® helps to bring these four elements into alignment and function smoothly to dramatically improve your safety performance. Associated benefits include efficiency savings, increased reliability and integrity of plant & equipment, and reductions in insurance premiums.

Contact us to discuss your company's specific needs and how we can apply the B-Safe® Process to improve safety in your specific workplace environment.



### What Makes B-Safe® Different?

We design and customize each Behavioral Safety process to suit each client. We recognize a 'one-size-fits-all' approach does not work, simply because each client is different and has different needs.

### The B-Safe® Approach

To ensure maximum injury reduction, we focus on the core elements of Behavior-Based Safety within a flexible integrated framework to provide an appropriate customizable solution to suit each client's needs.

### Typical B-Safe®

#### Features

The reason B-Safe® is so effective at injury reduction is our Behavior-Based process is uniquely different from, and more flexible than, most.



*From the outset, we set the scene by:*

1. Obtaining the 'buy-in' of everyone concerned at the very beginning of the process
2. Creating a genuine 'safety partnership' between hourly wage-roll employees and management, backed up by corporate KPI's
3. Involving everyone, 'whenever and wherever' we can

*We optimize the Observation process by:*

1. Developing focused observation checklists
2. Restricting the number of behaviors on a checklist

3. Seeking everyone's approval for the behaviors on the observation checklists
4. Harnessing group dynamics by monitoring teams, not individuals

*We increase everyone's motivation by:*

1. Encouraging workgroups to set their own improvement targets
2. Providing multiple channels for feedback about performance
3. Publicizing Successes

*We ensure sustainability by:*

1. Integrating the process with the company's safety management systems'
2. Setting targets for and monitoring the completion of 'corrective actions'
3. Monitoring trends in the data
4. Regularly refreshing the process
5. Holding regular sustainability reviews

**B-Safe® involves employees by:**

1. Seeking their support and suggestions at the outset
2. Recruiting employees into the project team
3. Seeking employee agreement on behavioral measurement tools
4. Recruiting and training employees as observers
5. Allowing employees to decide their own safety improvement targets
6. Regularly providing all employees with detailed feedback on performance and seeking their views on the appropriate corrective actions
7. Regularly asking how much support they receive from the project team and managerial levels

### **B-Safe® Observation Checklists**

#### *Observation Checklists*

Many organizations use 'Observation Cards' purchased 'off-the-shelf' that tend to be too broad to really impact the incident rate. Although they can help to involve everyone in safety, often they are 'missing the target'. The ever increasing number of cards 'turned in' somehow never seems to correspond with ever-reducing incident rates. B-Safe® avoids this by developing meaningful observation checklists that:

1. Target incident causing behaviors
2. Contain very specific behaviors
3. Are derived from incident reports
4. Are agreed upon by all concerned

### **B-Safe® Observations**

In line with best practice, B-Safe® primarily uses a team based approach as we seek to help workgroups redefine their 'safety norms'. Recognizing this may not always be appropriate in dynamic environments or with lone workers, we also customize the observation approach to suit the circumstances, which may also include monitoring outcomes, using 1-on-1, peer-to-peer and self-management approaches.

## Management Support

Managers have a huge part to play in determining the success or otherwise of any behavioral safety process. Research shows that managerial support influences the safety behavior of employees, with figures ranging from 35 percent to 51 percent. Clearly, high levels of managerial support are essential. Most other behavior-based safety vendors cater to this aspect separately, if at all.

## Safety Partnership

B-Safe® is concerned to develop a genuine 'safety partnership' between management and employees. Managers cannot bring about good safety performance on their own: They rely on their employees, for example, reporting potential or actual incidents, following procedures, working safely, etc. Likewise, employees cannot improve safety on their own either: They rely on management, for example, to release the necessary resources to complete corrective actions, set safety policies, etc.

## Safety Leadership

An integral component of B-Safe®, we work with all levels of management to help them develop 'safety leadership' checklists, containing agreed upon safety support behaviors (e.g. discussed safety with someone this week), to support the B-Safe® behavior-based safety process 'at the coal-face'. Managers complete these every week, with the scores entered into **e-Spectat®** our online behavioral safety software to provide performance feedback.

We can also teach people 'Safety Leadership' skills using our **PEER®** system. This involves observations, coaching & feedback, the results of which are entered directly into our online '**PEER® software**' by the 'Safety Leaders'. The software ensures that appropriate feedback can be provided and trends of underlying issues that are causing problems can be identified.

## Management Systems

**Management systems** are deliberately designed to influence people's behavior. These include the overall safety management system, containing policies, procedures, risk assessments, JSA's, Permit-To-Work (PTW) systems, etc. Although these systems are audited to assess their efficiency on an annual basis, there are often gaps in the design of the system, or parts do not function as intended. In turn, people behave unsafely to overcome the problems caused by these system failures.

B-Safe® helps to identify and address these system failures to help improve the overall functioning of the systems, which in turn helps to improve safety performance. B-Safe® has two specific routes for discovering management system factors guiding 'unsafe behavior'.

The first uses Applied Behavior Analysis when developing observation checklists. The actions arising from this route are recorded and entered into a corrective action database by the project team.

The second is from observations: B-Safe® observers often discover issues that need correcting to help make their workplace safer. The actions arising from this route are recorded on their observation checklists, which are then entered into a corrective action database by the project team. B-Safe® uses a Corrective Action Rate to help ensure all actions identified by both routes are tracked through to completion.

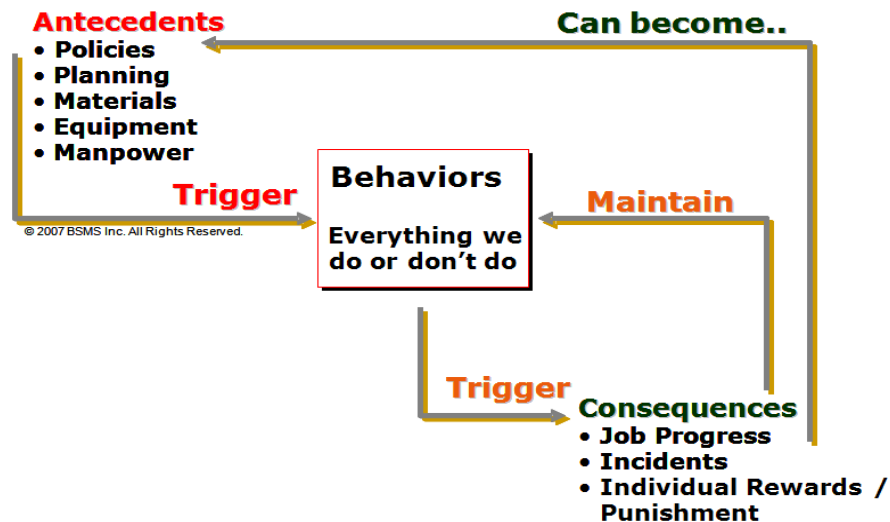
# Safety Behavior

The dilemma of safety is that people often find unsafe behavior is 'rewarding' in some way (e.g. they get the job done quicker, they are more comfortable not wearing PPE, etc), whereas 'Safe behavior' is often punishing (e.g. wearing the supplied PPE is uncomfortable, jobs take longer, etc).

The Antecedent-Behavior-Consequence diagram shows that 'Safety Behavior' is affected by the availability and quality of policies, job plans, materials, equipment and manpower as these trigger people's behavior 'on the job'. For example, if the right equipment was missing at the job site, people will get innovative and either use 'home made' equipment, or take 'short-cuts' just to get the job done. In other words, behave unsafely.

Behaviors are the 'ingredient' that pulls everything together to lead to job completion. If a job goes well despite people behaving unsafely, their 'unsafe' behavior would be rewarded and repeated in the future. If it goes badly, with unwanted injuries, people would find the unsafe behavior punishing. Often, however, people do not get hurt when behaving unsafely, which reinforces the very behaviors most likely to hurt them.

This is a difficult behavioral pattern to break, but we are very successful at improving safety behavior in a wide range of sectors, countries and cultures.

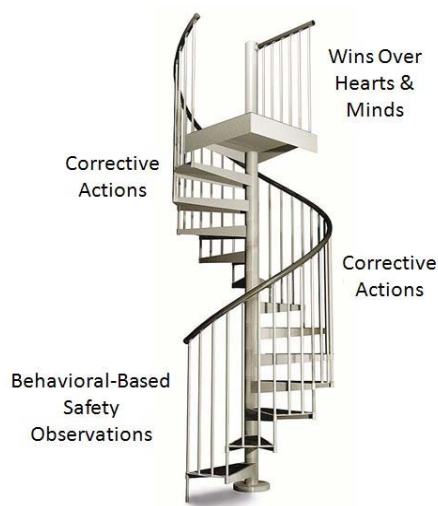


## B-Safe®

B-Safe® is our fully flexible IOSH award-winning Behavioral Safety approach that helps companies to promote desired safety behaviors, while simultaneously reducing the frequency of unsafe behaviors and injuries. With an enviable track record of success over the last two decades, B-Safe® has helped many companies to reduce unwanted incidents to Zero. Again, the scores obtained from B-Safe® can be used to help determine a company's Safety Culture Profile®

## Hearts and Minds

Winning over people's 'Hearts & Minds' to the safety cause can be difficult. There has to be a consistency of purpose, focus and execution in continually striving to improve safety. In other words, strong 'Safety Leadership' creates and maintains positive safety perceptions among the entire workforce. **In turn, this motivates people to behave safely, so that a collective commitment to 'safe working' becomes the norm.**



People's safety values, beliefs and attitudes are entirely dependent upon experiencing an effective Safety Management System and other people's safety behavior. This is because one negative outweighs ten positives. If just one 'critical' corrective action is not completed, or a manager ignores someone behaving unsafely, people believe the company is not entirely serious about improving safety. In turn, this de-motivates people to work safely.

To discover people's views about the effectiveness of safety in their company, BSMS Inc uses scientifically validated safety surveys. The results are used to help determine an organization's overall 'safety culture profile' and point the way forward to 'world-class' safety performance.

We also conduct [1] 'Safety Culture Planning' Exercises to identify perceived safety needs; and, [2] 'Safety Leadership Workshops' to sharpen people's leadership skills to facilitate a company's journey to world-class safety performance.

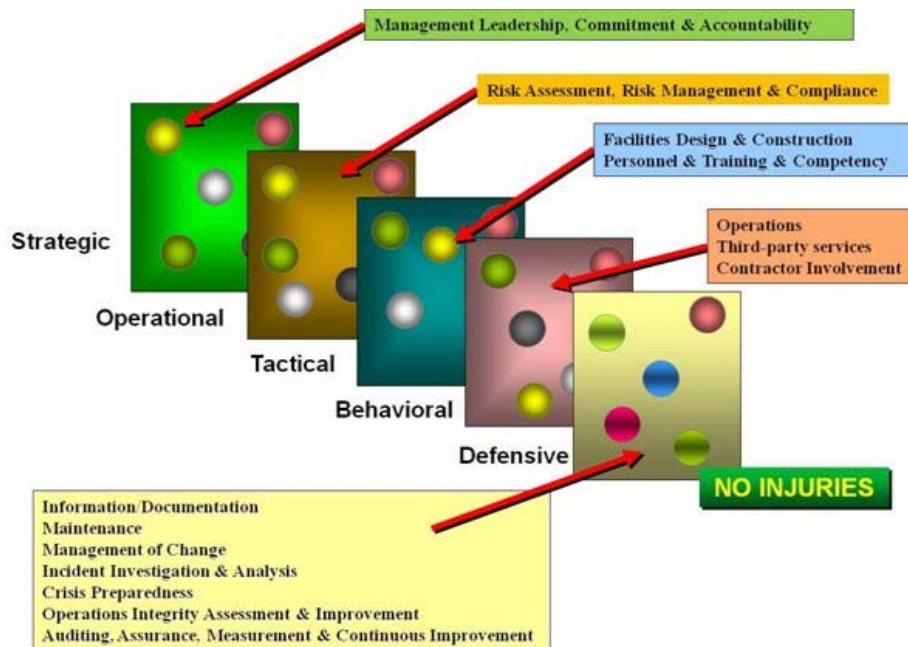


# Safety Management Systems

Safety Management Systems are deliberately designed to provide guidelines on how to behave safely in particular circumstances. **How well each element is developed, managed and reinforced affects approximately 80 percent of people's daily safety behavior.** It makes good commercial sense, therefore, to optimize your company's Safety Management System.

Simple or complex, the structure of most safety management systems, cover the topics presented in the diagram. These include

1. Safety leadership, commitment and accountability at the 'Strategic level' (**i.e Policy**);
2. Risk Assessment, Risk Management & Compliance at the 'Operational Level' (**i.e. Organizing for Safety**);
3. Facility's Design & Construction, personnel training & competency at the 'tactical Level' (**i.e. Planning**);
4. Operations, third-party nationals & contractor involvement at the 'Behavioral Level' (**i.e. Measuring Performance**);
5. Information documentation, maintenance, incident reporting & analyses, operations integrity assessment & improvement, auditing, etc. (**i.e. Reviewing Performance**).



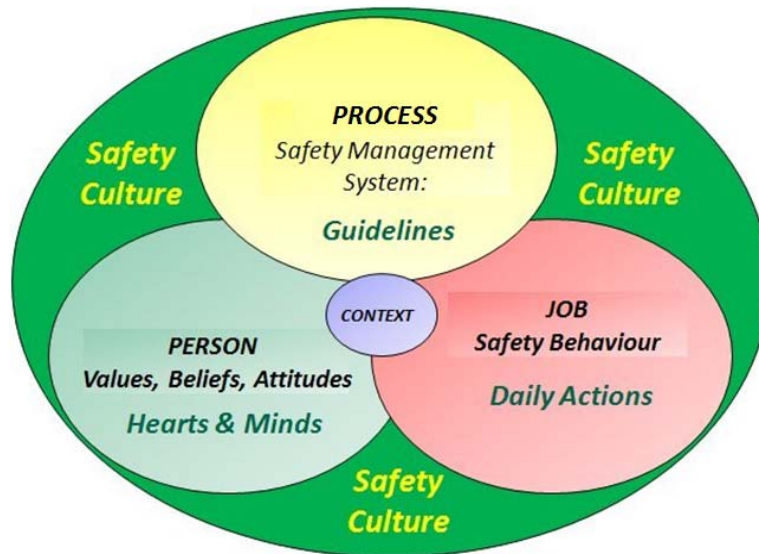
BSMS Inc uses the schematic as the base for assessing the effectiveness of Safety Management Systems using audits based on British Health & Safety Executive documents HS(G) 65 and HS(G) 48. Assessments are converted into 'risk-weighted' scores, using our 'Safety Culture Profiling®' method.

## Safety Culture Profiling®

Safety Culture is a complex topic, and most companies do not understand their cultures well enough to succeed with safety culture changes and the challenges this can create. Our professional services are based



on our unique, integrated Safety Culture Profiling method that focuses on the interactions between Safety Management Systems, Safety Behavior and people's Hearts & Minds, which together forge a company's Safety Culture.



Despite excellent managerial systems, people may still not behave in expected ways because of their attitude, belief and value systems. Conversely, people may take safety seriously, but still behave unexpectedly to overcome challenges presented by system malfunctions. Taking these inter-relationships into account, our Safety Culture Profiling method can tell you if your Safety Culture is 'World Class (i.e. Low Risk)', Good (i.e. Medium Risk), or Poor (i.e. High Risk).

You may already have a view of your likely Risk-Rating based on current Incident Rate trends, but you won't really know unless your Safety Culture has been *fully* assessed. Many companies rely on the sole use of Safety Perception Surveys, but often the results of these are misaligned with Safety Management System Audit results and/or Behavioral Safety scores. This can be seen in the profile below, which indicates actual Safety Behaviors are lagging behind people's perceptions and the results of an **SMS audit**.

<i>Accident Causation Level</i>	<i>System Audit</i>	<i>Safety Perceptions</i>	<i>Safety Behaviours</i>	<i>Risk Rating</i>
<b>Strategic</b> (Executive decision- Makers)	58%	61%	35%	Medium
<b>Operational</b> (Line Management)	74%	52%	31%	Medium
<b>Tactical</b> (Support Functions)	62%	62%	39%	Medium
<b>Behavioral</b> (On the job)	71%	61%	42%	Medium
<b>Defensive</b> (Risk Controls)	78%	64%	43%	Medium
<b>Total</b>	71%	60%	38%	
Average Score = 56%				

BSMS Inc have the practical and academic experience to help you holistically assess your Safety Culture to arrive at tailored solutions. In partnership with clients, we create sustainable, long-term results by using best 'management of change' practices, developing milestones and measurable Key Performance Indicators