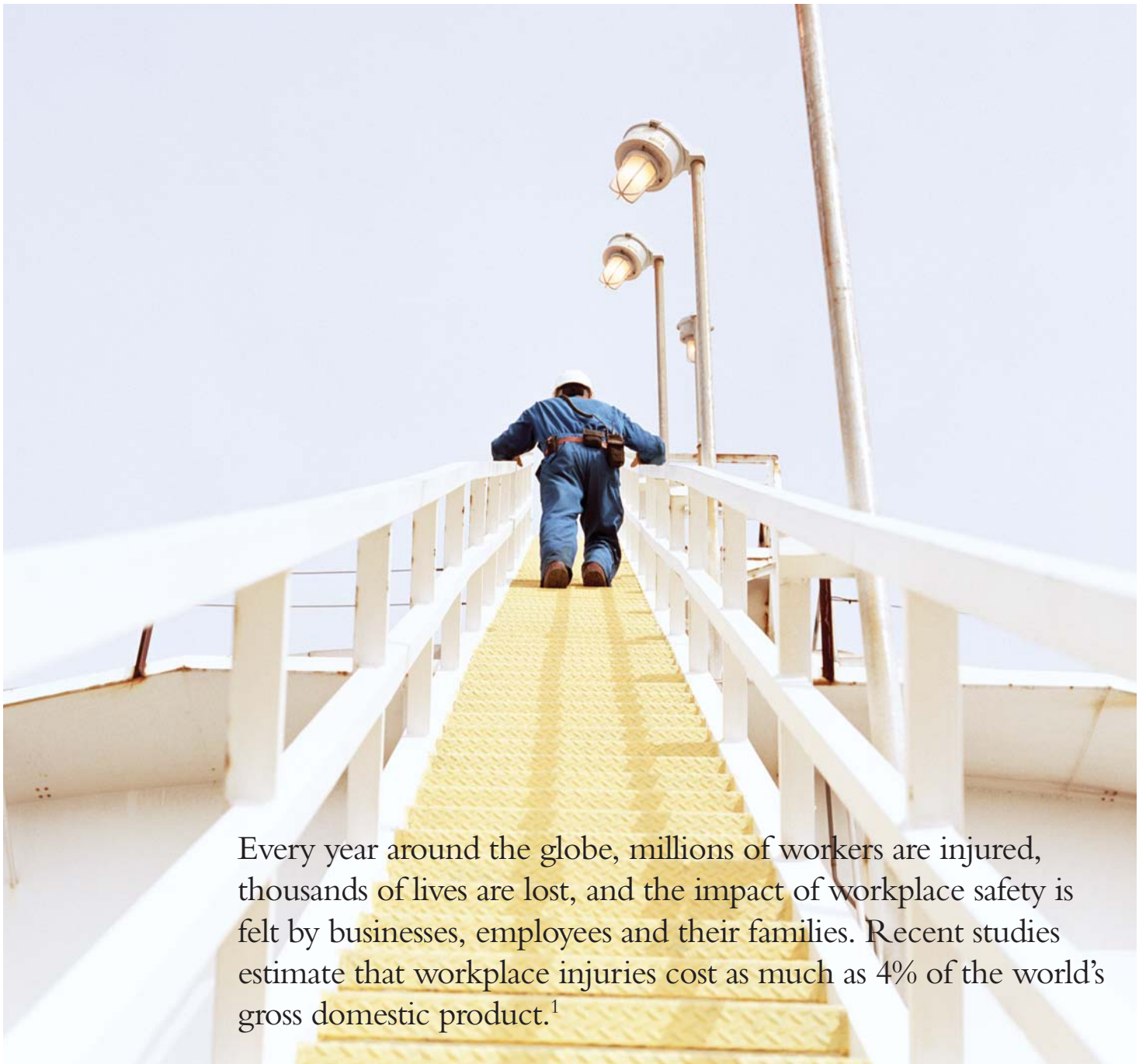# Building a Safer Workplace

Minimize risk, maximize safety.

Towers Watson's research and consulting services lead the way.

TOWERS WATSON

Every year around the globe, millions of workers are injured, thousands of lives are lost, and the impact of workplace safety is felt by businesses, employees and their families. Recent studies estimate that workplace injuries cost as much as 4% of the world's gross domestic product.[1]

It is the responsibility of all employers to take a strong, proactive stance to ensure their employees' safety. Towers Watson partners with the world's largest companies to improve their safety culture, gathering feedback through custom-tailored employee surveys designed to identify potential critical problem areas.

Our experts analyze the data, identify high-risk areas, and help clients develop concrete plans for improved occupational and process safety performance. Our work is focused on using employee insights to prevent costly and potentially deadly accidents before they occur. Employee culture is as much an element of a safe workplace as mandatory training sessions and regulatory policies. Our safety surveys aim to create a safer workplace by taking into account both the environment in which employees work and the culture that drives their daily work experience.

Read on to find out more about our safety research and how you can use employee culture surveys to minimize risk and maximize safety at your workplace.

[1]Takala, Dr. J. , 2005, *Introductory Report: Decent Work — Safe Work,* prepared for XVIIth World Congress on Safety and Health at Work, p.13

Safety and the Bottom Line

According to the International Labour Organization, 4% of the world's gross domestic product is lost each year due to accidents and work-related diseases. The expenditures necessary to cover these costs directly impact the companies responsible. In the U.S. alone, workplace injuries cost businesses $170 billion in annual losses, which equals one-quarter of each dollar of pretax corporate profits.[2]

Further, 4.2 million nonfatal injuries and illnesses were reported in U.S. private industry workplaces in 2005, with more than half of the incidents requiring reduced work activity or days away from work for recovery.[3] The industries most heavily affected by nonfatal workplace injuries are manufacturing, construction, health care and social assistance, retail trade, and leisure and hospitality.

Impact of Safety on Organizational Performance

Both independent research and Towers Watson safety studies demonstrate that a focus on safety can improve organizational performance in multiple areas. In fact, a recent industry survey found that more than 40% of senior financial executives believe that increased productivity is the main benefit of an effective workplace safety program, with more than 60% reporting that each $1 invested in injury prevention returns at least $2.[4]

According to OSHA, a strong safety and health program at a major U.S. manufacturer led to decreased error rates and a 16% reduction in scrapped product. Harvard Business School's Michael Porter has furthered the notion that such savings are typical for companies that aim to improve workplace safety, as a focus on safety and production details leads to improved product design, innovation, higher morale, reduced production costs and stimulation of employee engagement within an organization.[5]

In addition to improved organizational performance, a strong safety orientation is also beneficial for a company's image — both externally (with the public) and internally (with employees and board members). OSHA notes that companies with poor safety and health records can face isolation and boycotts or be required to pay higher salaries to attract employees and higher premiums to conduct business.[6] In contrast, by focusing on enhanced workplace safety, a company can boost its employee engagement and improve its visibility in the community.

Effects of Improved Safety on Organizational Performance

Reduced production costs and greater employee engagement

Improved product design, innovation and higher morale

Increased attention to detail

[2]Torres, K., 2006, OSHA, "Industry Groups Band Together for NAOSH Week," *Occupational Hazards*
[3]Bureau of Labor Statistics — United States Department of Labor, 2006, "Workplace injuries and illnesses in 2005"
[4]Liberty Mutual Insurance Company, 2005, "Despite 6.2% fall in the number of serious workplace injuries, their financial impact on employers remains huge," press release
[5]Occupational Safety & Health Administration (OSHA) — U.S. Department of Labor, 2002, Add value. "To your business. To your workplace. To your life." *Job Safety & Health Quarterly,* 14(1)
[6]OSHA

In the U.S. alone, workplace injuries cost businesses $170 billion in annual losses.

Global workplace safety statistics
- There are approximately 2.2 million work-related deaths annually.[7]
- 160 million new cases of work-related illness develop each year.[8]
- An average of 5% of the global workforce is absent every day due to work-related injuries.[9]
- More than 268 million nonfatal work-related accidents require three or more days off work.[10]

[7] Takala, p.5
[8] World Health Organization, 1999, "The burden of occupational illness — UN agencies sound the alarm," press release
[9] Takala, p.16
[10] World Health Organization/International Labour Organization, 2005, "Number of work-related accidents and illnesses continues to increase — WHO and ILO join in call for prevention strategies," press release

Cultural Elements of a Safe Workplace

Once the links between an organization's cultural elements are understood, key elements can be targeted to improve occupational and process safety performance.

Although many companies take steps to address safety in the workplace, these companies often neglect one of the most important factors in developing a truly safe work environment — the impact of organizational culture.

When organizations take action to improve safety, their efforts typically focus on one of three areas: engineering a safer work environment, providing training to educate employees on physical work conditions and safe work practices, and instituting policies and procedures that require employees to perform their jobs according to regulations.

Although these efforts can sometimes be effective, they do not provide a complete solution. A critical missing element in most company safety plans is a failure to account for the substantial impact of organizational culture. Empirical and practical evidence indicate that culture both directly and indirectly influences safety performance. Once the links between an organization's cultural elements are understood, key elements can be targeted to improve occupational and process safety performance.

Towers Watson has identified three cultural elements that consistently show a relationship with safety metrics tracked in organizations today:

Supervision — Worksites where employees report favorable supervisor-employee relations also report a lower frequency of on-the-job injuries. In particular, employees at these sites are more likely to report that their supervisors are receptive or responsive to suggestions for change, give them recognition for work done well and are perceived to be competent in the technical aspects of the job.

Empowerment — According to our research, work environments with lower rates of work-related injuries are associated with employee cultures that give workers the information and authority they need to perform at a high level, and workers are encouraged to develop innovative solutions to work-related problems.

Teamwork — Our research also demonstrates that the promotion of cooperation and teamwork is associated with overall improved safety performance, and is particularly beneficial in work environments where employees perceive heavier-than-average workloads.

Putting the Pieces Together to Create a Safer Work Environment
Three Specific Dimensions Are Revealed as Key Drivers of Safety Outcomes:
1. Supervision   2. Empowerment   3. Teamwork
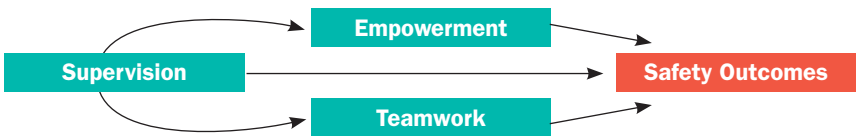
Towers Watson Safety Studies

To understand how company culture impacts occupational and process safety performance, Towers Watson has conducted extensive research independently and in partnership with our clients. The following case studies examine common cultural traits in OSHA–recognized VPP worksites, the link between employee opinion data and documented injury rates, and how workplace incidents can be impacted by cultural factors.
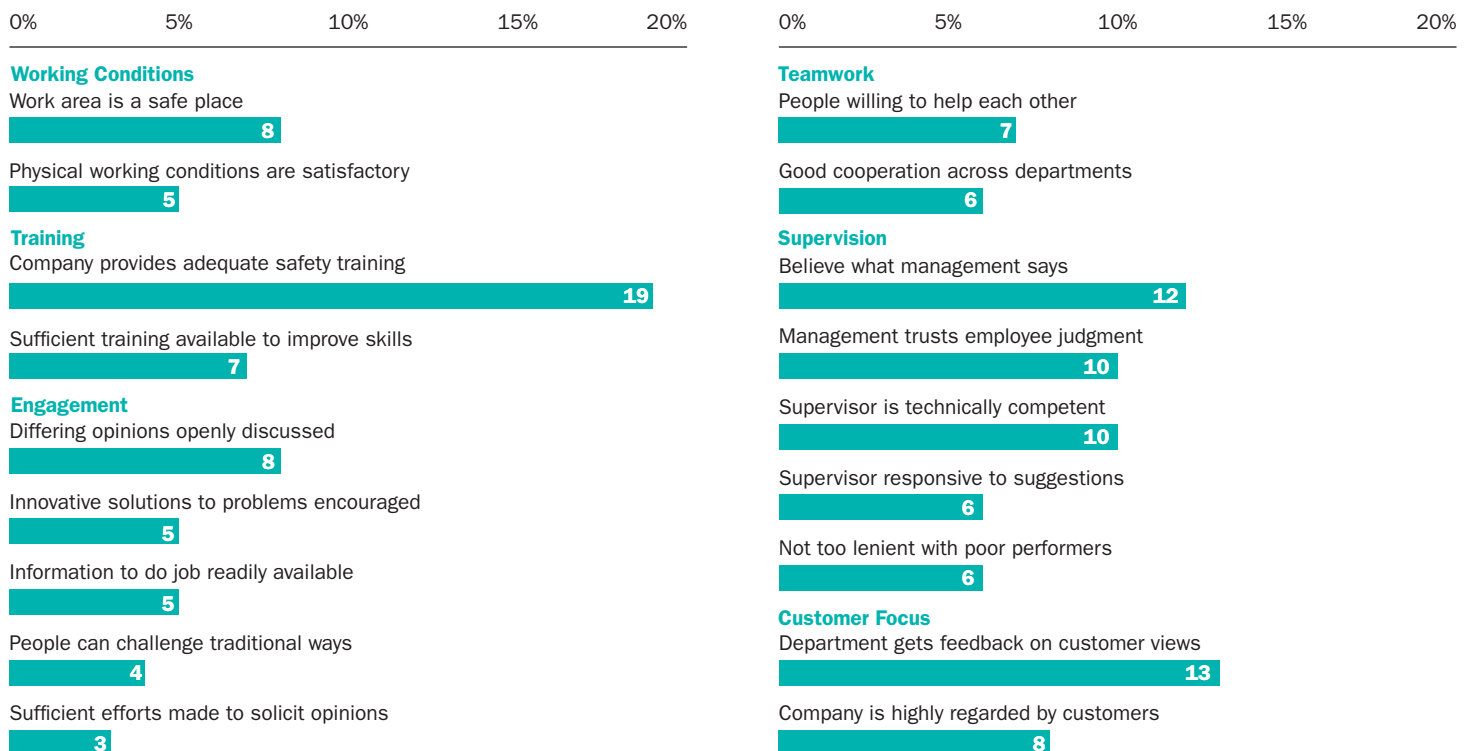
Case Study I

OSHA VPP-Recognized Sites

In an effort to promote safety, many organizations look to become a part of the OSHA Voluntary Protection Program (VPP), developed to promote effective worksite-based safety and health. Acceptance into VPP is OSHA's official recognition of the outstanding efforts of employers and employees that have achieved exemplary occupational safety and health records. OSHA statistics show that companies participating in the VPP average 54% fewer injuries and illnesses and 60% to 80% lower lost-workday rates than other companies in their industries. The VPP Participants' Association estimates that these sites have saved more than $1 billion since 1982.[11]

Towers Watson studied 16 manufacturing sites across seven companies (a total of 3,159 employees), all of which received official recognition from OSHA's VPP. Numerous factors distinguish these work cultures from other manufacturing groups responding to the same employee opinion surveys.

Cultural Differentiators: A Cross-Company Study

Work Sites Recognized by OSHA for Their Health and Safety Records Excel in Specific Areas

Left column (0%–20%)	Value	Right column (0%–20%)	Value
Working Conditions		**Teamwork**	
Work area is a safe place	8	People willing to help each other	7
Physical working conditions are satisfactory	5	Good cooperation across departments	6
Training		**Supervision**	
Company provides adequate safety training	19	Believe what management says	12
Sufficient training available to improve skills	7	Management trusts employee judgment	10
Engagement		Supervisor is technically competent	10
Differing opinions openly discussed	8	Supervisor responsive to suggestions	6
Innovative solutions to problems encouraged	5	Not too lenient with poor performers	6
Information to do job readily available	5	**Customer Focus**	
People can challenge traditional ways	4	Department gets feedback on customer views	13
Sufficient efforts made to solicit opinions	3	Company is highly regarded by customers	8

[11]OSHA

Specifically, employees working at sites recognized for safety excellence were significantly more favorable than other manufacturing employees when asked:

- If their area was a safe place to work
- If the physical working conditions were satisfactory
- If the company provided adequate safety training
- If employees received sufficient training to improve their skills

Additional analyses uncovered four elements of organizational culture that differentiated the two groups:

- Empowerment
- Supervision
- Teamwork
- Customer focus

When responding to questions on each of these topics, employees working at VPP-recognized sites were significantly more favorabe than employees working in other manufacturing jobs.
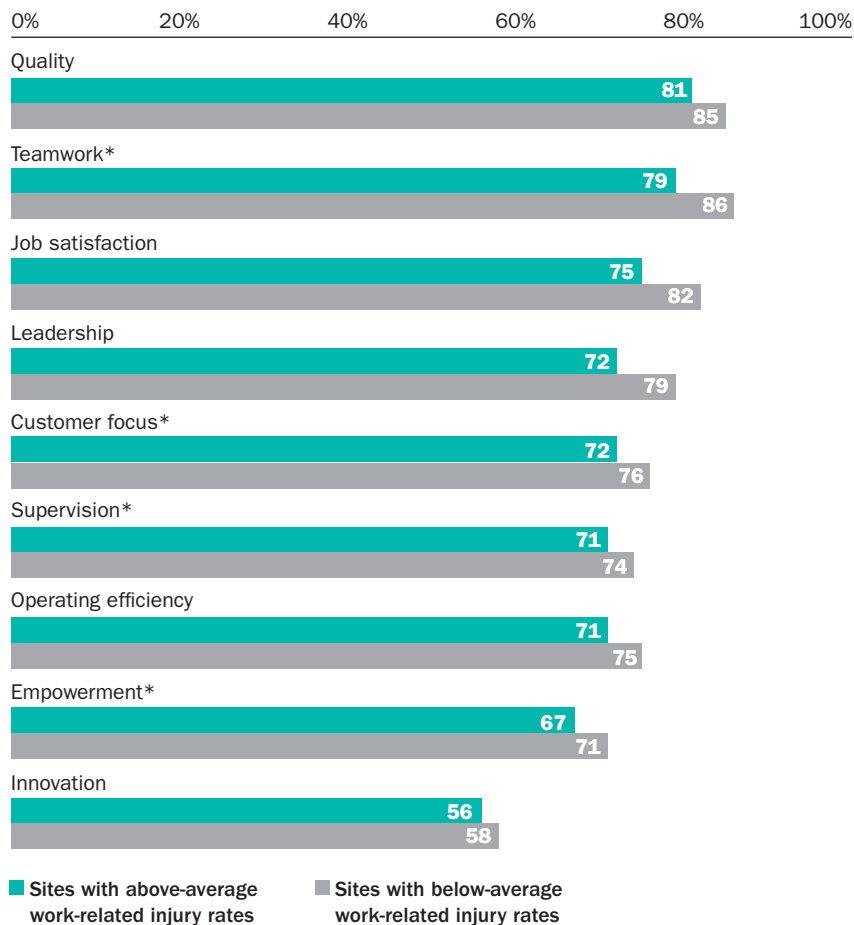
Case Study II

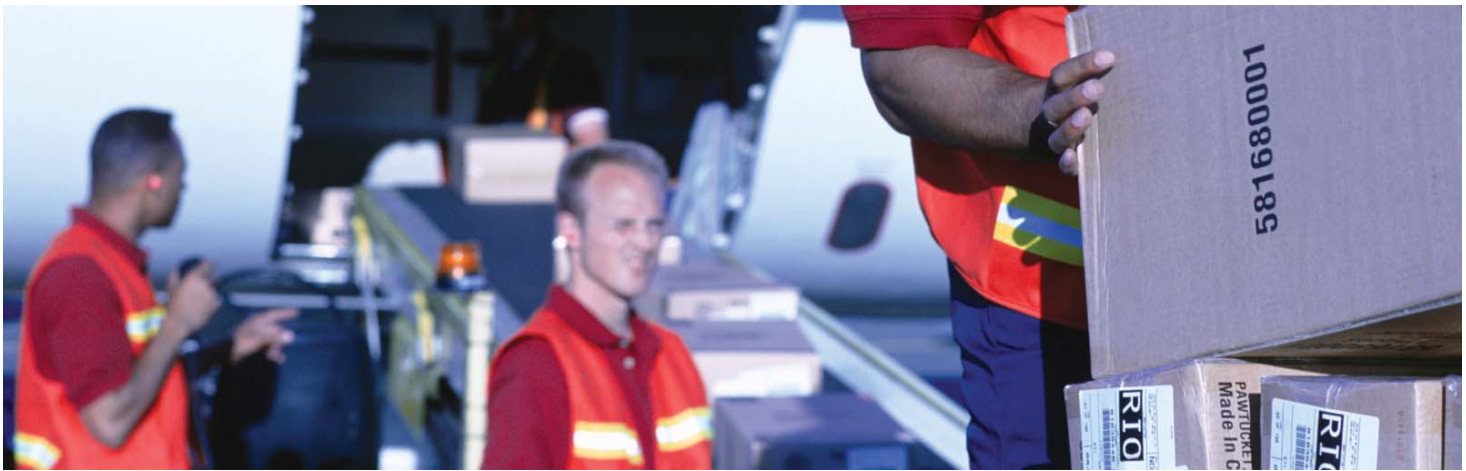### A North American Automotive Glass Replacement Company

We conducted research at a North American automotive glass replacement company to improve the company's understanding of the relationship between data collected in their annual employee opinion survey and documented rates of work-related injuries. To investigate, we used employee opinion data collected from 53 locations and documented injury rates from those same locations one year later.

Case Study: Automotive Glass Replacement

Sites With Higher Rates of Work-Related Injuries Are Less Favorable Across a Wide Range of Topics

Topic	Sites with above-average work-related injury rates	Sites with below-average work-related injury rates
Quality	81	85
Teamwork*	79	86
Job satisfaction	75	82
Leadership	72	79
Customer focus*	72	76
Supervision*	71	74
Operating efficiency	71	75
Empowerment*	67	71
Innovation	56	58

■ Sites with above-average work-related injury rates
■ Sites with below-average work-related injury rates

*Also OSHA VPP differentiators

Our analysis revealed that a number of cultural elements were significantly related to documented rates of work-related injuries. Particularly noteworthy is that locations where employees were significantly more favorable about leadership, teamwork, customer focus, job satisfaction, quality, supervision, operating efficiency, empowerment and innovation were also locations with less frequent rates of documented work-related injuries.

As a result of the research, the organization was well positioned to take action focused on improving parts of its business that directly influence safety.

Case Study III

A Global Petrochemical Company

Results of a Towers Watson study that linked employee opinions with the incidence of workplace accidents give further support to our research with the VPP-recognized sites. In particular, teamwork and empowerment were revealed to be significant predictors of safety outcomes.

The analysis for this organization involved employee opinion data from 37 sites and actual safety data from the same 37 sites collected one year later.

Our analysis found that the incidence of accident-related workday interruptions was higher at sites where respondents perceived higher workloads. Importantly, however, employee perceptions around teamwork were found to moderate the impact of perceived workload on accident-related interruptions to the workday:

- Under conditions of below-average teamwork, greater workload was associated with a 62% higher rate of safety incidents.
- In contrast, under conditions of above-average teamwork, even high-workload sites experienced only moderate rates of safety incidents. This suggests that teamwork is an important factor in mitigating the effects of heavy workloads on safety performance.

Further analysis revealed a negative relationship between incidences of accident-related absences from work and employee empowerment. In general, the incidence of accident-related absence was almost 74% lower at sites where workers reported higher levels of empowerment.

Towers Watson research also identified exemplary sites within the organization, i.e., sites with low levels of safety-related accidents and strong levels of teamwork and empowerment. These sites were targeted for follow-up studies aimed at identifying and disseminating information about best practices that could impact safety at worksites.

Case Study: Global Petrochemical Company

Sites Where Employees Have Higher Levels of Empowerment Have Fewer Accident-Related Absences From Work Than Sites Where Employees Are Less Favorable on Feelings of Empowerment

0%	10%	20%	30%	40%

Accident-related absences from work

35

9

■ Below-average employee empowerment   ■ Above-average employee empowerment
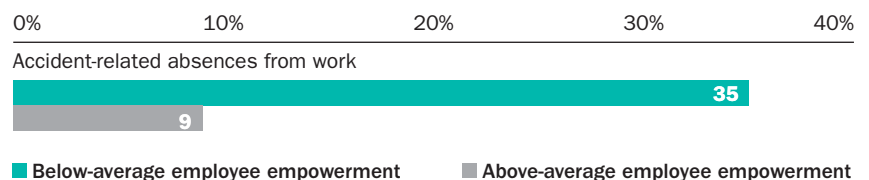
Final Conclusive Evidence

In a fourth case study from a global petro-chemical company, with data from 30,346 employees across 163 units, a structural model testing the links between safety performance and three common predictors of safety outcomes was tested and validated. The results provide support for a model in which effective supervisory practices, employee empowerment and promotion of teamwork directly impact safety performance.

Creating a safer workplace requires an understanding of the unique cultural drivers of safety at your company. Our safety surveys help you understand these factors, drive significant improvement and prevent future risks.

Summary

While safety training, proper equipment maintenance, and implementation of safety policies and procedures will continue to be important for safety-conscious organizations, Towers Watson research shows that the impact of organizational culture on workplace safety is an equally significant factor in the development of a safe workplace.

By focusing on improved employee-supervisor relations, empowering employees by giving them sufficient authority to excel at their jobs, and recognizing cooperation and teamwork among coworkers, an organization can create a safer workplace.

Let Towers Watson help you build a safer workplace. Visit us online at www.towerswatson.com.

About Towers Watson

Towers Watson is a leading global professional services company that helps organizations improve performance through effective people, risk and financial management. With 14,000 associates around the world, we offer solutions in the areas of employee benefits, talent management, rewards, and risk and capital management.

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