



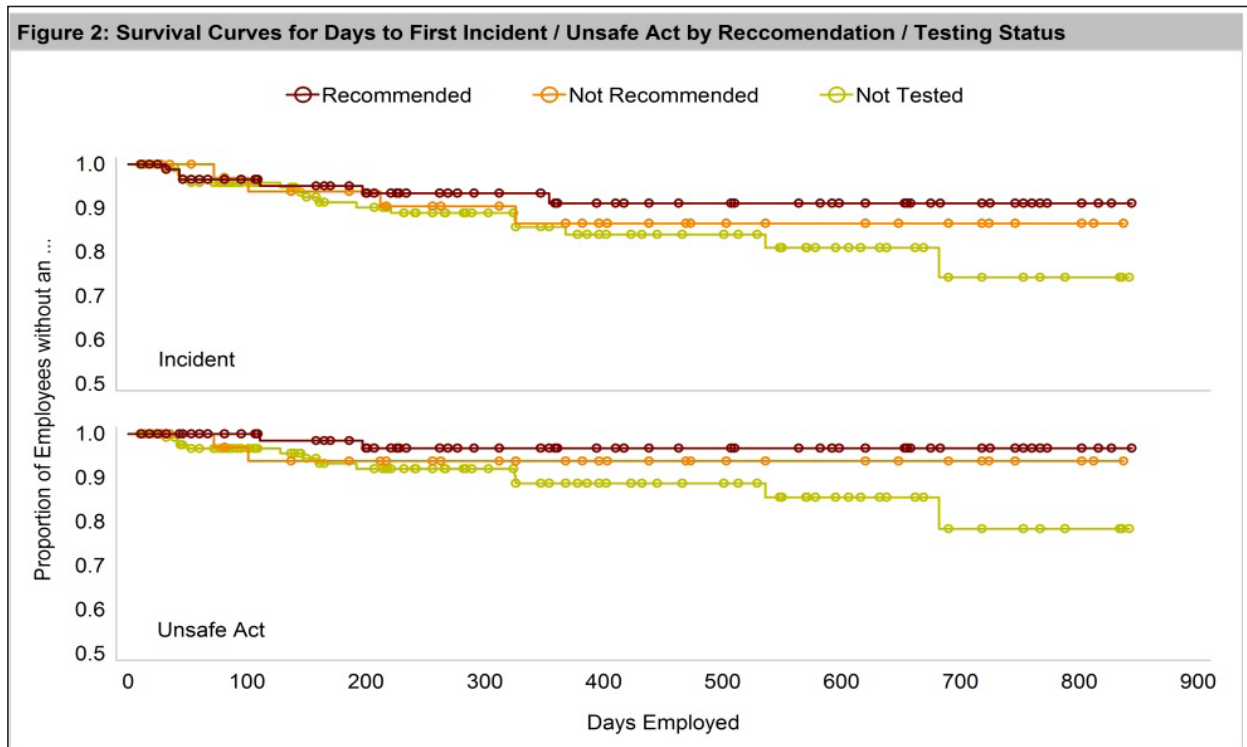
Building Competitive Companies Since 1946

Do You Hire Employees Who are a Safety Risk?



A recent analysis of employee safety incidents at a large chemical company showed that individuals tested and recommended by PSP were four times less likely to be involved in at least one unsafe act than employees who were not tested. The research also revealed that, on average, PSP recommended employees were involved in 43% fewer safety incidents and 82% fewer unsafe acts.¹

When safety incidents and unsafe acts were performed by recommended employees, they were more likely to be early in employment and to drop off continuously thereafter. In contrast, those employees who were not tested continued to be susceptible to safety incidents and unsafe acts for the full two years covered in the study. (See chart below) The data suggests employees susceptible to unsafe acts are not learning safer behaviors at the same rate as the more capable employees recommended through PSP testing.



(Each drop in a line represents an incident or unsafe act while the circles represent an employee who was not involved in an incident or unsafe act from hire date to the end of the observational period.)

¹ A *safety incident* was defined in the study as a collection of conditions and behaviors that resulted in or could have resulted in an employee being injured. An *unsafe act* was defined as an incident that occurred when employees violated protocol (eg. placing themselves in unsafe positions or failing to use protective equipment).

Tested employees involved in at least one incident or unsafe act showed lower scores in **planning, logical reasoning**, and **mechanical aptitude**. There is a strong correlation between planning and logical reasoning. Employees with strong logical problem solving skills have a greater likelihood of recognizing an unsafe situation. These employees tend to think ahead, be less impulsive in their decision making and more likely to ask for help or admit that they lack expertise in a given situation – all skills that help in responding to unsafe situations.

Mechanical aptitude measures an employee's hands-on understanding of tools, equipment and mechanical processes which, in a plant environment, can help employees be alert to potential safety hazards and be better troubleshooters around mechanical equipment. Employees with strong mechanical aptitude are more likely to understand how a given mechanical system may function, anticipate which actions may be helpful, and avoid actions that may lead to additional problems.

THE BENEFITS OF TESTING

PSP's tests have been shown to reduce worker's compensation costs when utilized in a manufacturing facility that had not previously tested employees. In addition to screening for planning, logical reasoning and mechanical aptitude, PSP has found that screening out candidates who tend to be impulsive and less likely to follow rules or workplace procedures helps to reduce incidences of poor performance and potential safety write-ups. PSP also screens out employees who tend to be antagonistic or easily irritated and who have low frustration tolerance for handling job stresses and pressures. When under stress, these employees tend not to think effectively and take greater risks in an effort to reduce their frustration by short-cutting procedures. Naturally, the stronger employees are in these series of competencies, the better their problem solving and decision making will be. This allows them to recognize the consequences of their actions when they make adjustments to pre-established plans or procedures.

Safety is a competency that can involve a number of variables. From conversations with PSP customers and our research on effective employees, we have found that work discipline, planning, attention to detail, collaborative interpersonal skills, a positive attitude, and good frustration tolerance are key aspects of the safety competency. Add to that the importance

of strong mechanical aptitude and good reasoning skills and you have an employee who will be attentive to safety procedures and who will understand the consequences of their actions. They will also demonstrate a quicker learning curve, and better overall decision making.

PRACTICAL IMPLICATIONS FOR SAFETY TRAINING

There are useful safety training implications for helping existing employees become aware of their behavioral tendencies and the implications for safety; after all no employee wants to be injured. Discussing employees' risk perception, and how it may change when they are under pressure, can be part of helping employees increase their safety awareness. Employees also need to be made aware of which skills (whether technical or behavioral) they will need to develop further in order to meet expectations.

Improving employees' mechanical aptitude and understanding of the tools, equipment and mechanical processes that they utilize on an everyday basis can also help them be better troubleshooters and more aware of potential safety hazards. A focus on logical reasoning can help employees avoid the pitfalls of poor decision making. The learning curve for safety training will be effective for employees who have good problem solving/logical reasoning skills. Admittedly, logical reasoning is a challenging training area, however there are several tips that can help employees in this area in a previous PSP publication titled "The Eight Habits of Effective Critical Thinkers." (Please contact PSP if you would like to receive a copy or download a copy from our website with this link: <http://www.pspmetrics.com/newsletters/Spring2005.pdf>) Of course, while training existing employees is important for increasing their safety behaviors, it is much more effective to avoid hiring employees who are safety risks in the first place.

PSP Metrics is a leading provider of pre-employment screening tools for the manufacturing, consumer products, utility and service industries. We adapt applicant screening tools to the information needs and budget of each customer and provide 24-hour turnaround of test results worldwide. We also design tools for employee retention, management development, and succession planning.