

Press Release



the reliability group

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Multi-Year Study of On-the-job Injuries Identifies Key Predictive Factors

Using a 120 question written survey administered to 4900 respondents in the wood products, petroleum, pharmaceutical, construction, and chemical industries, researchers from the Reliability Group developed a predictive model that forecasts the probability of employee injury based on six predictor variables:

- Near misses
- Job satisfaction
- Job challenge
- Equipment inspections
- Work load
- Degree of autonomy of the work team

Based on the sample data, the model was correct in 86% of the cases. Depending on specific values for the predictor variables, the overall probability of a job-related injury varies from less than one percent (best case) to over 77% (worst case).

"These results demonstrate how risk levels can change dramatically as key predictor variables are changed," remarked Reliability Group president Hank Sarkis. One surprise in the results was the relationship between workload and injuries. "Until recently, workload was never a key predictive factor for injuries" stated Sarkis. "Increased worker responsibilities due to downsizing is most-likely contributing to employee injuries."

"This study has again shown that in spite of the inherent complexity of human-based systems, a scientifically based program can yield positive results" stated Sarkis.