



# BUSINESS OUTCOMES

## INDUSTRY:

Manufacturer of Wire & Cable Products

## SOLUTION:

EZ App<sup>®</sup>, SecureFit<sup>®</sup>, Select Assessment<sup>®</sup> for Manufacturing & Production Exercise

## Manufacturing Company Improves Performance and Safety with Comprehensive Process

*Authors: Luye Chang, Ph.D., Amie Lawrence, Ph.D. & Mei-Chuan Kung, Ph.D.*

### The Situation

A leading manufacturer of residential, commercial and industrial utility electrical wire & cable products was interested in improving the quality of their workforce and reducing safety incidents. They decided to tackle this situation from all angles and they started with the hiring process. Hires who possess the right characteristics are more likely to be productive and safe from the start. Select International was brought in to help this organization identify the key success factors for their manufacturing and distribution positions and then build a thorough and comprehensive selection process for identifying the best candidates.

### The Solution

After talking with job incumbents and key leaders within the organization, a clear set of job relevant competencies were identified. Some competencies were related to underlying personality characteristics and others were related to physical capabilities.

1. **EZ App<sup>®</sup>/SecureFit<sup>®</sup>:** To capture traditional application information and previous work experience, an online application was developed with built in screening/knock-out questions. Those who passed the application were immediately directed to an online screening assessment which measures some underlying risk factors that are valuable in predicting turnover and safety incidents.
2. **Select Assessment<sup>®</sup> for Manufacturing (SAM):** Candidates who progressed were then asked to complete a comprehensive online competency-based assessment that has been widely proven to predict work performance in manufacturing settings.
3. **Production Exercise:** Because many of their workers would leave the job due to the physical requirements needed and/or the pace at which employees are expected to work, this organization was particularly interested in building a step into the hiring process that would simulate these requirements. This exercise gives candidates a realistic, simulated experience of the job and assesses their ability to perform the job duties from a physical and work pace perspective.

### Outcomes

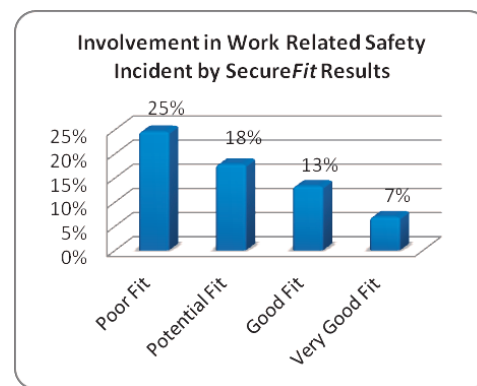
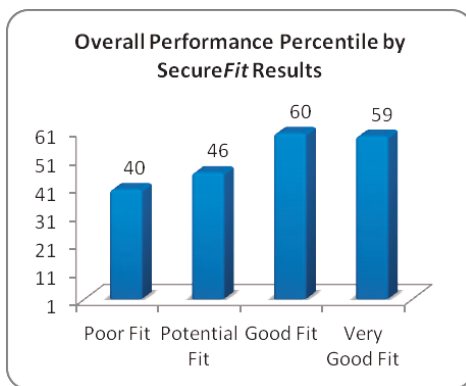
To evaluate the effectiveness of the selection process, a concurrent validation study was conducted to determine the relationship between the assessment tools and key organizational outcomes. A group of current employees completed the assessment and supervisors provided job performance ratings and safety incidents on the same individuals. The assessment scores were compared to the key outcomes variables and the results show strong evidence that each step in the selection process provides value in predicting performance and safety-related outcomes.



## EZ App/SecureFit

Accurate and valid assessment tools show that higher scores on the assessment also lead to desirable scores on the outcome variable (e.g., higher test scorers also have high job performance ratings). SecureFit results were compared to job performance and safety incidents with great results. The SecureFit assessment places individuals into one of four categories based on their assessment scores: Very Good Fit, Good Fit, Potential Fit and Poor Fit. Employees whose scores placed them in the Very Good Fit and Good Fit categories of SecureFit were higher performers – above average performers (~60<sup>th</sup> percentile). Poor Fit and Potential Fit employees were rated as below average performers (below 50<sup>th</sup> percentile). These results show that when used for hiring, this organization will greatly increase their chances of hiring strong performers by screening out Poor and Potential Fit candidates.

The safety history of the employees involved in the validation study was also examined. Employees who were categorized as Poor Fit by the assessment were **3.5 times more likely** than those in the Very Good Fit category to have been involved in a safety incident.



## SAM

SAM provides a measurement of the key competencies related to performance in manufacturing and distribution positions. This organization used SAM to assess individuals in operator, warehouse and maintenance positions. Individuals who scored high on SAM were clearly above average overall performers and those who scored low were clearly below average. While a strong relationship existed for all positions, the maintenance group, in particular, showed that employees who scored in the bottom 10% on SAM were in the 17th percentile on performance ratings.

## Production Exercise

After observing employees performing the target positions, key activities and job tasks were identified that are integral to effective job performance. In partnership with Select, a production exercise was developed comprising three different tasks: coil winding, spool rolling and wire threading. The validation study was conducted across many facilities within this organization. The results showed that top performers on the production simulation tasks were consistently rated higher in performance.

Individuals who can perform well in all aspects of the selection process are consistently shown to be safer and more productive.

