Physical Abilities Testing Cost-Benefit Summary

Based on Injury Experience at Auto Manufacturing Plant

Executive Summary

In December, 2005, a North American auto manufacturer added BTE's post offer physical abilities testing (PAT) program to its hourly hiring process to ensure that job candidates possess the necessary physical capabilities to safely perform the job duties for which they were being hired. BTE developed the employer-specific test protocol through a process of data collection, physical demands analysis, sample population testing, and validation to ensure a reliable, non-discriminatory method for screening job candidates. The test protocol includes a total of 17 different tests covering a wide range of physical demand requirements. Using BTE's proprietary test equipment, candidates were tested for dynamic lifts, various strength tests for push, pull, hand grip, pinch, and thumb press, plus positional tolerance tests with a time-motion component. Candidates with certain medical conditions were screened out based on personal health safety criteria. The PAT was first implemented at a high volume assembly plant with an initial pass rate of 81%.

Test Summary for 2005-2007

Number of Candidates Tested:	3,128
Number Passed:	2,540 (81%)
Number Failed:	588 (19%)

Musculoskeletal Recordable Injuries 2006-2007:

	Incidence Rate	# Cases	Injury Cost *	% Injured
New Hires who received PAT **	0.6	44	$1,364,395	3.9%
Established & Transferred Employees	2.6	191	$3,017,800	8.3%

* Based on National Safety Council estimate of $15,800 per OSHA case

** New Hire Injury Cost = Injury cost and PAT costs combined

Total Cost of Injuries and Cost Avoided:

	Cost
1. Established & Transferred Employees (8% of population were injured)	$3,017,800
2. New Hires who received PAT (3.9% of population were injured)	$1,364,395
3. Cost Savings	$1,653,405
4. Additional Cost if 8% of 588 fails were hired and later injured	$743,232
Total Cost Avoidance: Sum of (3) cost savings due to less injuries among New Hires and (4) cost avoided by not hiring candidates who failed the test.	**$2,396,637**