



## Comparing the IPCS Isokinetic Evaluation to Individuals Not Tested for a Major L-T-L Trucking Company

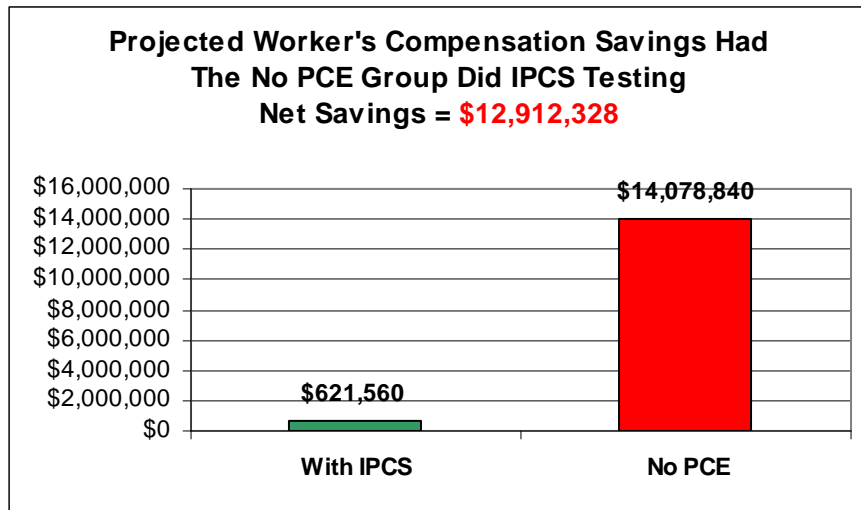
### Executive Summary

*The analysis of the injury data clearly demonstrates that the IPCS physical capability assessment program had a dramatic impact on reducing the frequency and severity of injury as measured by total cost of injuries and average cost per injury in comparison to those individuals not tested by IPCS. The projected savings would have been **\$12,912,328**. An additional benefit showed that those individuals recommended for hire weighed about 50 pounds less than those not recommended. This finding could have significant implications for future health insurance premiums.*

The following comparative study was performed to evaluate the impact of the IPCS new hire physical capability evaluation program on reducing both the frequency and severity of injuries.

- The analysis was completed to answer several questions proposed by the LTL trucking company.
  - During a one-year period, how many of the drivers/dockworkers completed the IPCS (IPCS Group) evaluation compared to those who had no IPCS (No PCE Group) test?
  - How do the two groups compare in terms of frequency of injury?
  - How do the two groups compare in terms of total costs of injuries?
- For the analysis, the injury data was compared to those individuals employed from the July 1, 2003 through June 30, 2004.

The chart below shows the projected savings for the LTL Company if the No PCE group received the IPCS program. The chart reflects the net savings, which takes into account the cost to implement the program.



## Results

### Headcount and Incident Rate of Injury

Chart 1 shows the total number of drivers/dockworkers employed and the total number of injuries that occurred for the No PCE vs. the IPCS groups. The absolute numbers show that the number of injuries for IPCS group was dramatically less in comparison to the No PCE group for all injuries.

**Chart 1**

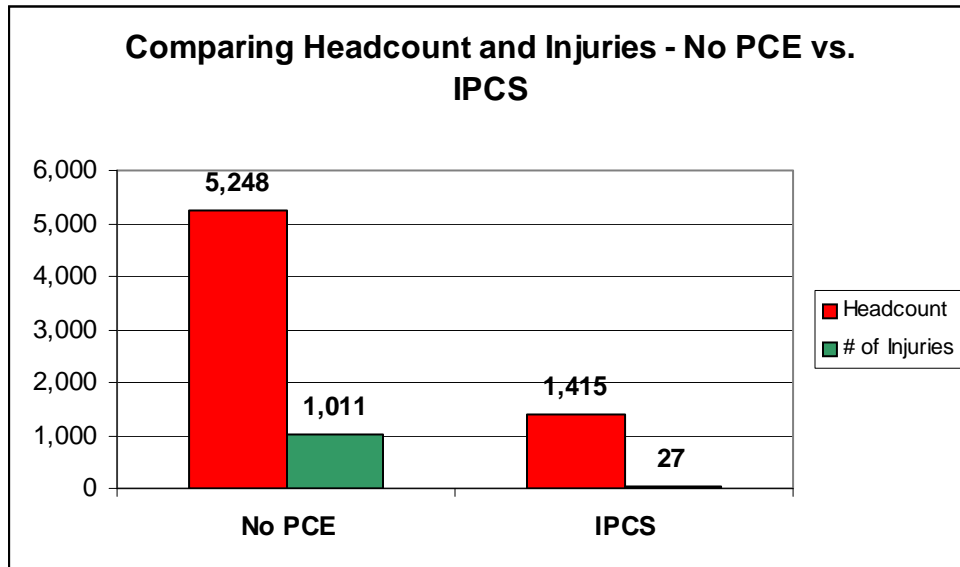
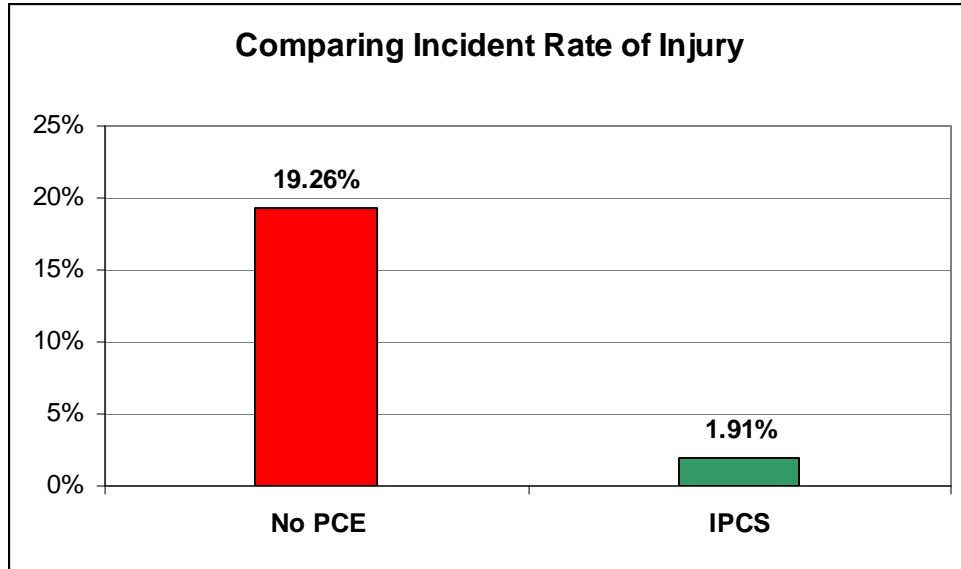


Chart 2 shows the incident rate of injury based on the number of injuries relative to number of employees for each group shown in Chart 1. The data clearly shows a dramatic difference in the incident rate of injury between those tested with IPCS program compared to those not tested. The rate of injury was 10 times greater for the No PCE group.

**Chart 2**

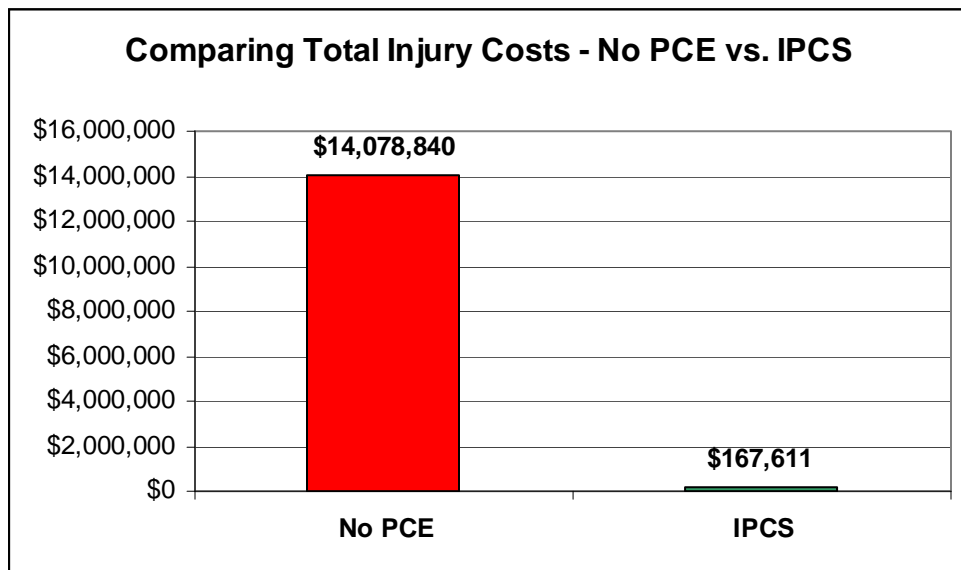


Total Medical Costs

Chart 3 compares the Total Costs (including reserves) for all injuries for the IPCS Test group versus the No PCE Group.

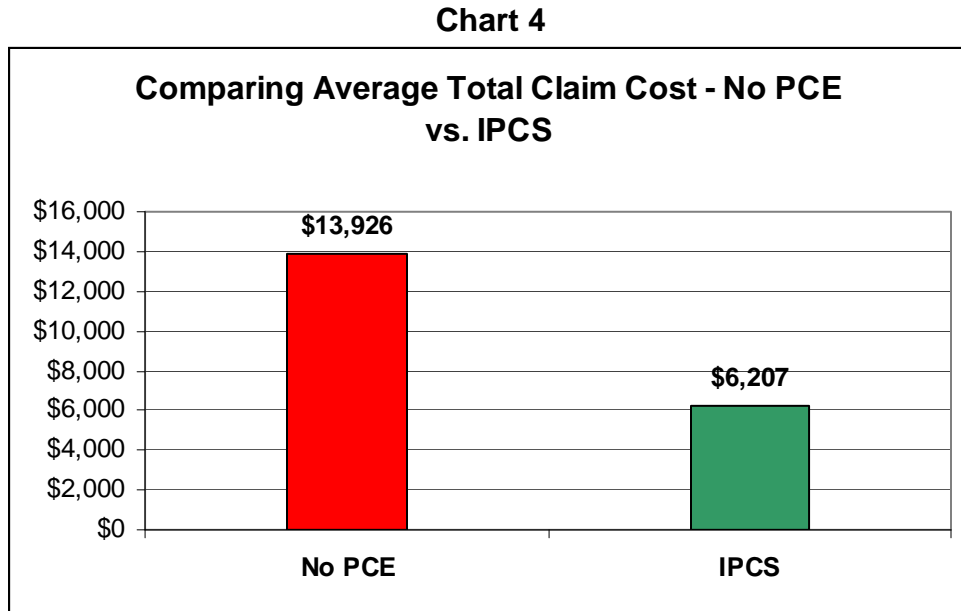
As shown, the total costs for the No PCE group was nearly 84 times greater than the IPCS tested group.

**Chart 3**



### Average Total Cost Per Injury

The average cost per claim for total costs is shown on Chart 4. The chart shows that average cost per claim for the No PCE group was more than two times that of the IPCS group.

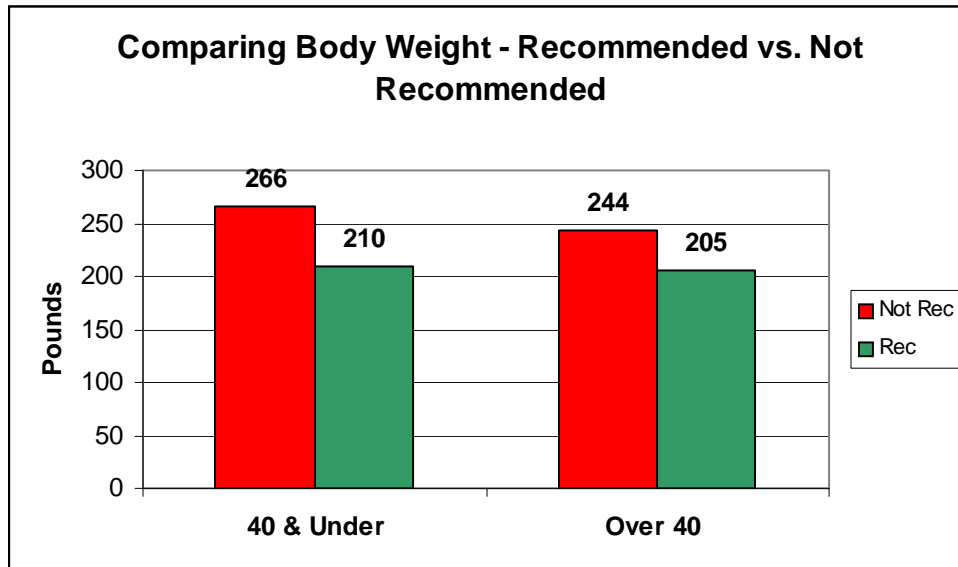


### Added Health Benefit

The obese employee costs a company not only more money in direct costs but much more in terms of indirect costs – loss of productivity, added training and replacement costs and so on. Because of obesity, the available pool of healthy and fit workers to perform physically demanding jobs is rapidly shrinking. When IPCS performs a new hire evaluation, body weight is a factor when determining whether a new hire applicant is recommended or not recommended for hire.

Chart 5 shows the body weight of individuals who were not recommended and are 40 years old and younger weigh 56 pounds more than their counterparts who are recommended. The difference between the not recommended and recommended groups for the over 40-age group is 39 pounds - the not recommended group weighed 39 pounds more than the recommended group. What is alarming about these results is that one would expect the older group to weigh more than the younger group. *This data supports the national trend that the younger workforce is becoming more obese at a faster rate than the older workforce. The implications for these findings in terms of future health insurance premiums and work related injuries and illnesses are profound.*

Chart 5

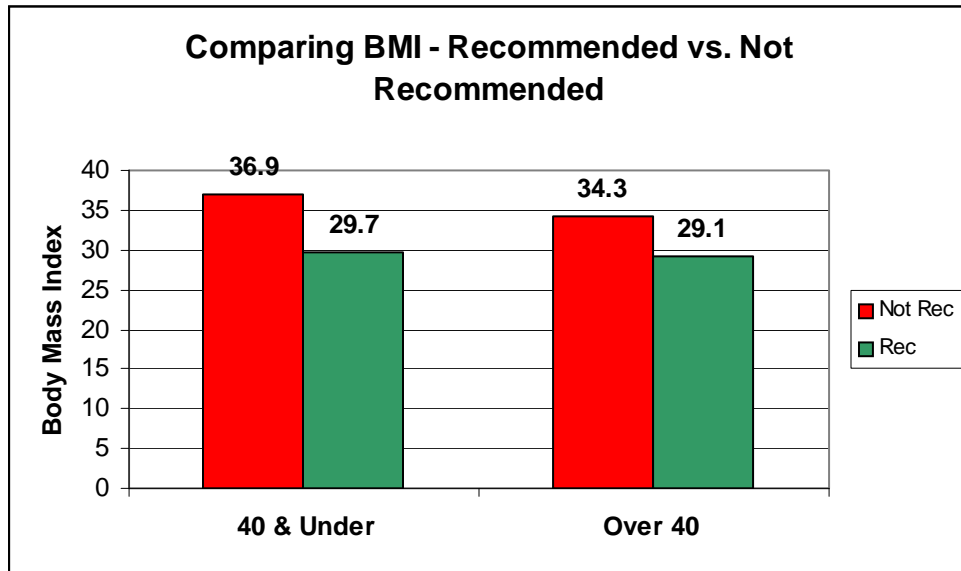


### Body Mass Index

Body mass index (BMI) has been used for many years in research to determine obesity, but recently it has gained in popularity with the consumer because of so much emphasis on obesity. Many web sites have BMI calculators so individuals can determine their BMI scores. Usually scores of less than 25 are considered healthy. A BMI of 25 or greater but less than 30 is considered overweight. A BMI score of 30 or higher is considered obese and 40 and greater is morbidly obese. BMI uses both height and weight in its calculation.

Chart 6 clearly shows that those individuals tested by IPCS and not recommended for both age groups have BMI's in the obese range. As shown on Chart 5, the younger age group has a higher BMI (36.9 vs. 34.3). The two recommended age groups have BMI's less than 30 but greater than 25 (overweight category). Again, the younger recommended age group has a higher BMI (29.7 vs. 29.1).

Chart 6



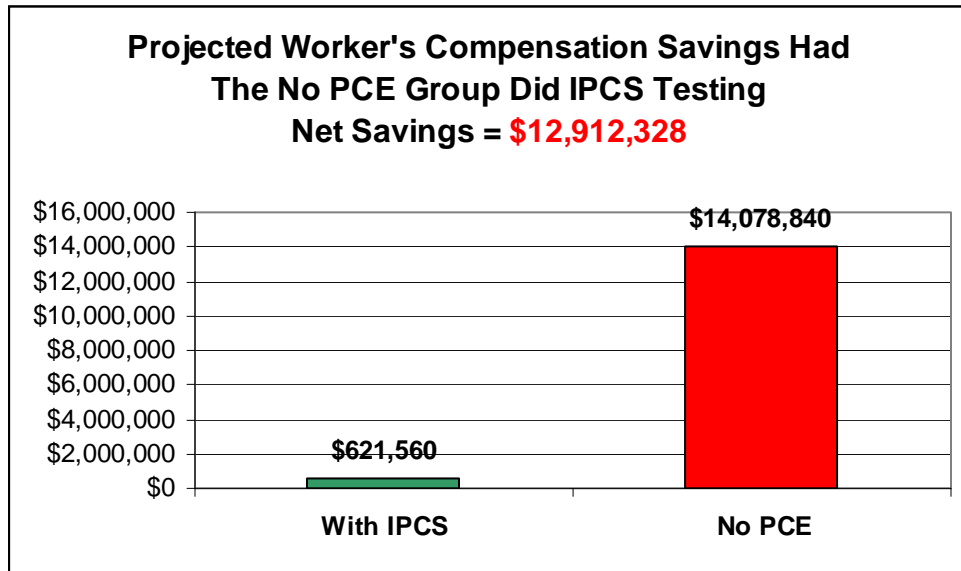
## Conclusion

*If the IPCS program had been in place during the 12-month period, the net savings minus the cost of the program would have been **\$12,912,328**.*

### Projected Savings

To calculate the projected savings for the 12-month time frame identified, the average cost per injury for all injuries for the IPCS group (\$6,207) was multiplied times the incident rate of injury for the IPCS group (1.91%) times the headcount for the No PCE group (5,248). This calculation equaled the Projected Worker's Compensation Costs of \$621,560 for all injuries for the No PCE Group had the IPCS program been in place for the No PCE group. In addition to the projected costs, the cost to implement the IPCS program, which was calculated by using the cost of the IPCS test times the number of the headcount for the No PCE plus 18% to account for those not recommended for hire. Thus, the total projected cost was equal to \$1,166,512.

The total savings would have **\$12,912,328**.



Because the IPCS program selects a more fit and physically capable individual, other savings will occur involving increased productivity, decrease absenteeism and other health related savings.

The results of this case study clearly demonstrates the impact of the IPCS technology on reducing the frequency of injury and severity of all injuries compared to individuals not IPCS tested.