



## An Injury Analysis To Determine the Effectiveness Of the IPCS Physical Capability Evaluation (PCE) Program On Reducing Injuries For A Food Distribution Client

### *An Analysis for Local Delivery and CDC*

*The data clearly shows a dramatic difference in total cost of injuries, average cost per claim and cost per location when comparing the Local Delivery & CDC locations using the IPCS program to the Local Delivery & CDC locations not using the IPCS program. It is projected that had the IPCS program been in place for the Non-IPCS sites the overall net savings realized for this IPCS client would have been **\$1,067,494** over a 28-month period.*

The following comparative study was performed to evaluate the impact of the IPCS new hire physical capability evaluation (PCE) program on reducing the severity of injuries.

- IPCS currently performs PCE at six of Local Delivery locations throughout North America.
  - The IPCS program began on February 1, 2004 for the Local Delivery locations.
- IPCS currently performs PCE at one of 8 CDC locations
  - Testing for the CDC started in late 2006.
- Since February 1, 2004 through October 31, 2007, IPCS evaluated 2,625 new hire applicants and 2,232 (85%) were recommended for hire.
- This injury analysis consisted of analyzing the injury database for the time period of July 1, 2005 through October 31, 2007 – or 28-months. *Only those hired after February 1, 2004 but before November 1, 2007 were included in the analysis. Only test data for new hire applicants were used. No return-to-work evaluations were included.*
- The IPCS test is used for those new hire applicants applying for the driver and order selector job classifications.

# Results

## Comparing All Injuries – IPCS Locations versus Locations Not Using IPCS

Frequency of Injury:

The first two charts show the frequency of All Injuries and Strains/Sprains for the Local Delivery (LD) and CDC locations for those sites using the IPCS PCE process compared to those sites not using the IPCS process.

Chart 1

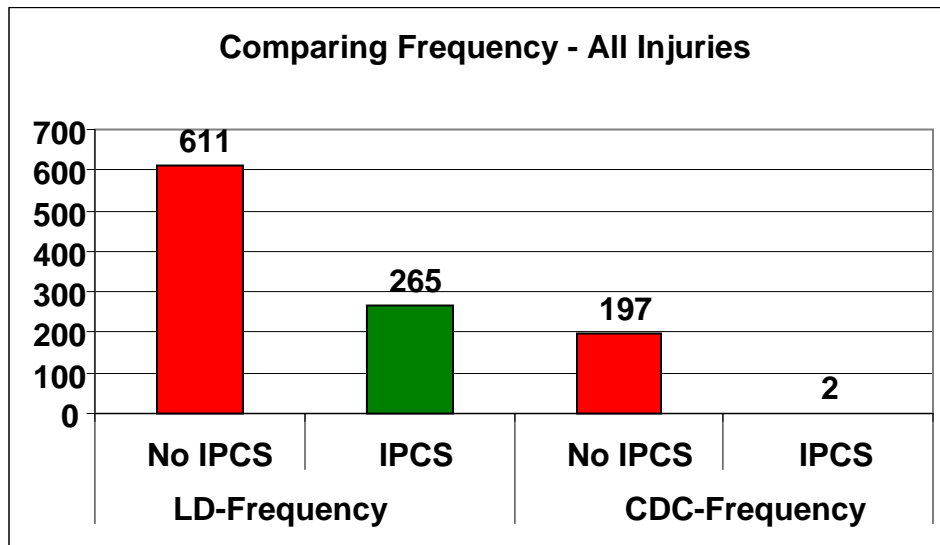
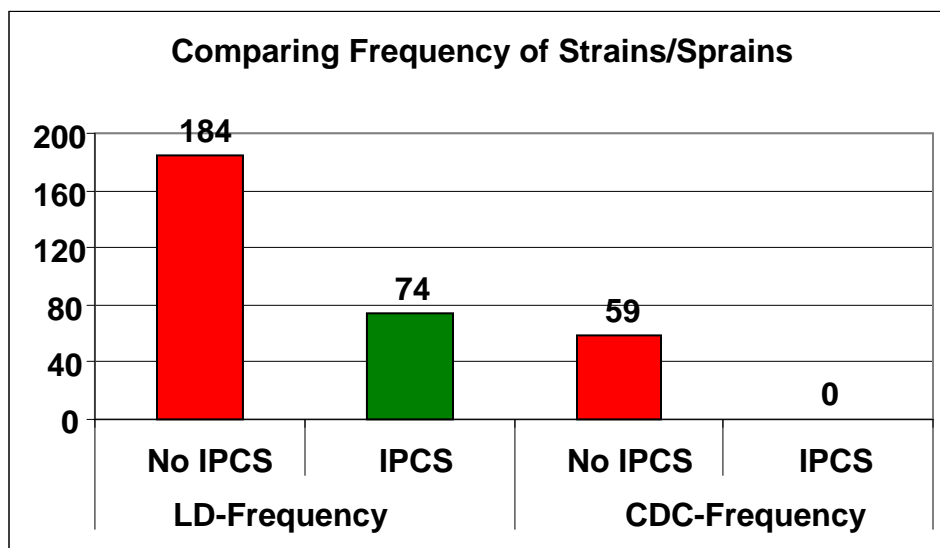


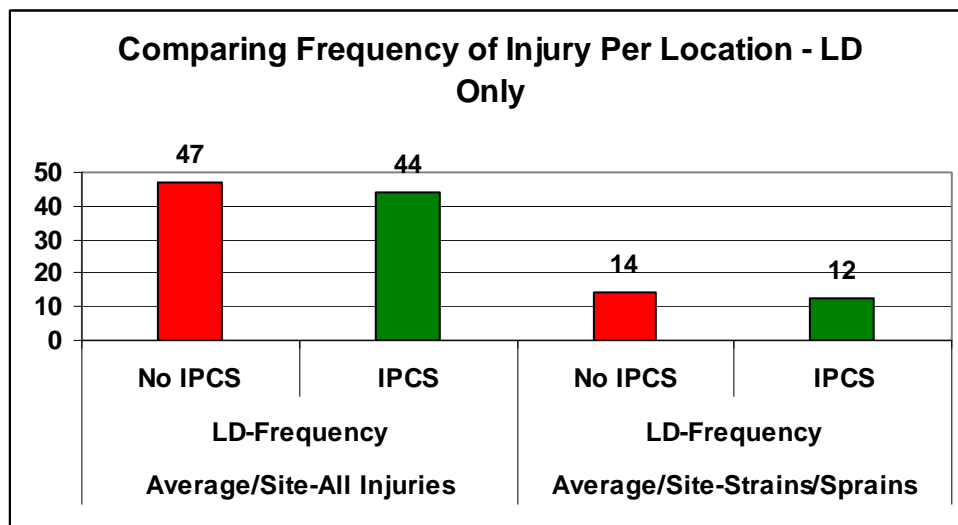
Chart 2



For both the All Injury and Strain/Sprain categories, the IPCS locations had fewer injuries. But since there are fewer IPCS locations using the IPCS, it is more meaningful to show the average number of injuries per location. The next chart shows that number for LD only since there were just two injuries at the CDC using the IPCS process for the All Injury category and zero strain/sprains.

Comparing the average frequency per location between those IPCS PCE sites to those not using the IPCS process, Chart 3 shows that there is a difference for both All Injuries and Strains/Sprains, but the difference is not substantial. As you will see, the most significant difference can be observed with the average cost per claim and average cost per location.

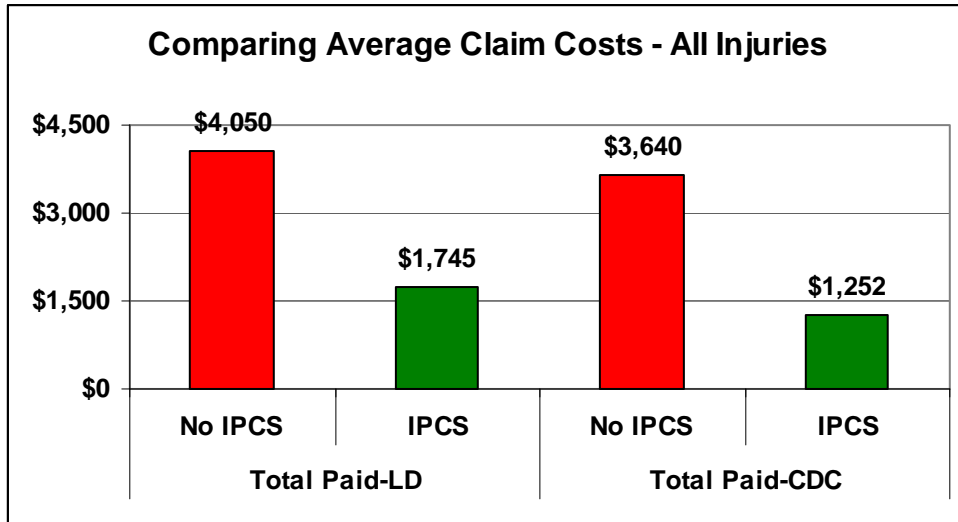
Chart 3



Average Claim Cost – Total Paid – All Injuries:

Chart 4 shows the average cost per claim paid for Total Paid for All Injuries that occurred at the LD and CDC locations not using the IPCS program to the LD and CDC locations using the IPCS program. The average claim cost for the LD locations not using the IPCS PCE is 2.3 times greater than those sites using the IPCS. The average claim cost for those CDC locations not using the IPCS PCE is 2.9 times greater than the one location using the IPCS process.

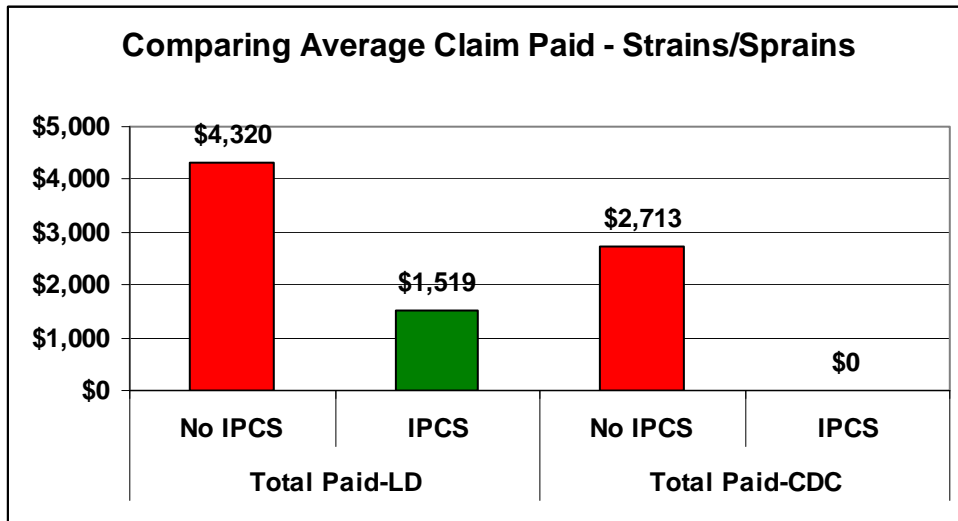
Chart 4



Average Claim Cost – Total Paid – Strains/Sprains:

Chart 5 shows the average cost per claim paid for Total Paid for Strains/Sprains that occurred at the LD and CDC locations not using the IPCS program to the LD and CDC locations using the IPCS program. The average claim cost for the LD locations not using the IPCS PCE is 2.8 times greater than those sites using the IPCS. There were no Strains/Sprains for the one CDC location using the IPCS process.

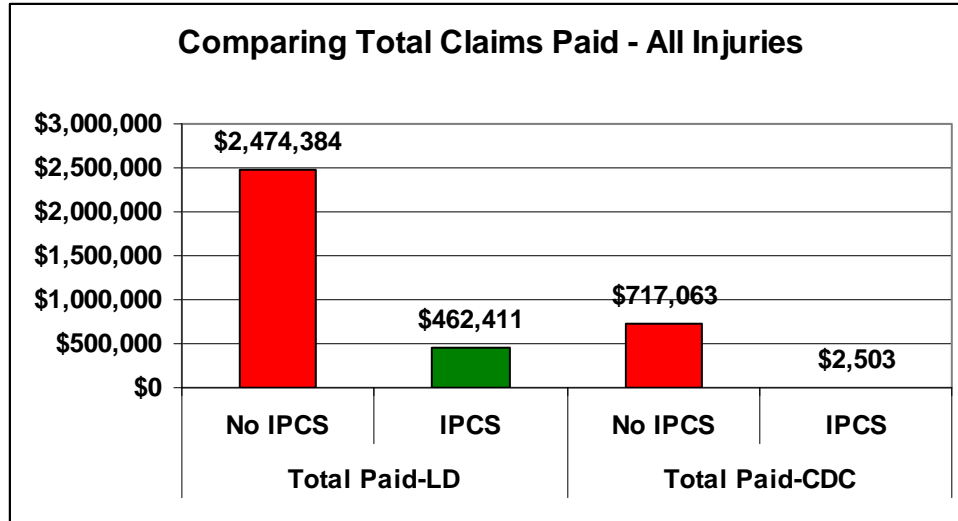
Chart 5



Total Claim Cost – Total Paid – All Injuries:

Chart 6 shows the total costs paid for Total Paid claims for All Injuries injuries that occurred at the LD and CDC locations not using the IPCS program to the LD and CDC locations using the IPCS program. As shown on Chart 6, the dollar amount is substantially greater for those locations not using the IPCS process.

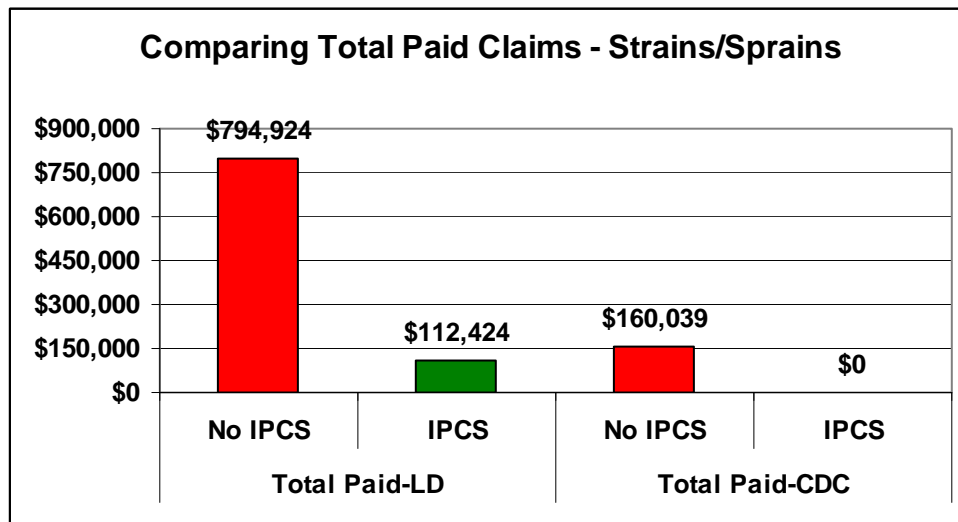
Chart 6



Total Claim Cost – Total Paid – Strains/Sprains:

Chart 7 shows the total costs paid for Total Paid claims for Strains/Sprains injuries that occurred at the LD and CDC locations not using the IPCS program to the LD and CDC locations using the IPCS program. As shown on Chart 7, the dollar amount is substantially greater for those locations not using the IPCS process.

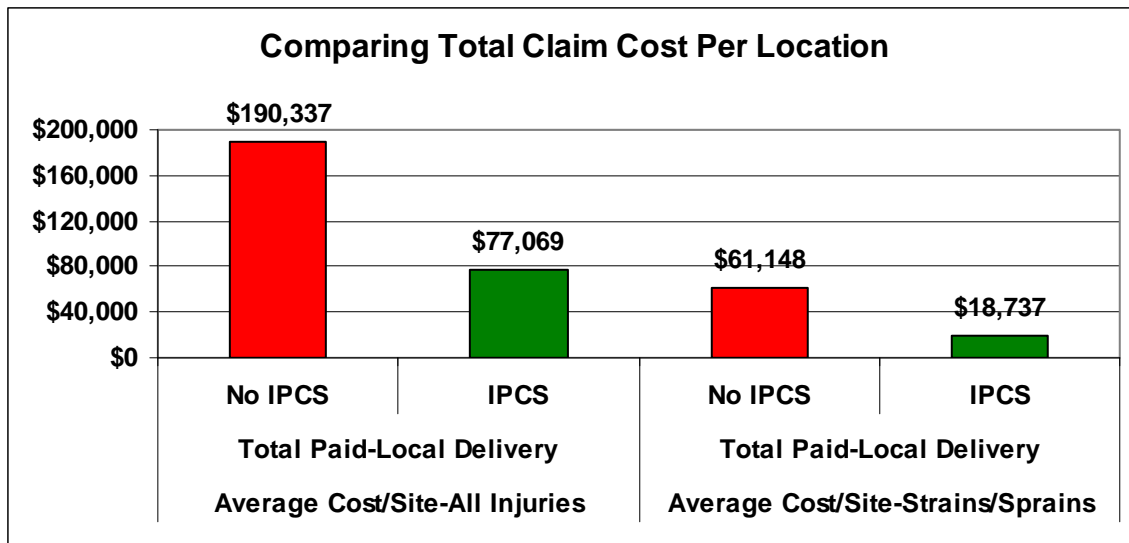
Chart 7



Total Claim Cost and Average Claim Cost – Total Paid:

A more meaningful cost comparison, since there are a different number of sites using the IPCS process compared to those not using the IPCS process, is to compare the average cost per location for All Injuries and Strains/Sprains. Chart 8 shows that comparison for the LD locations only since only one CDC is using the IPCS process. As can be observed, those sites not using the IPCS process are paying 2.5 times more for All Injuries and 3.3 times more for Strains/Sprains.

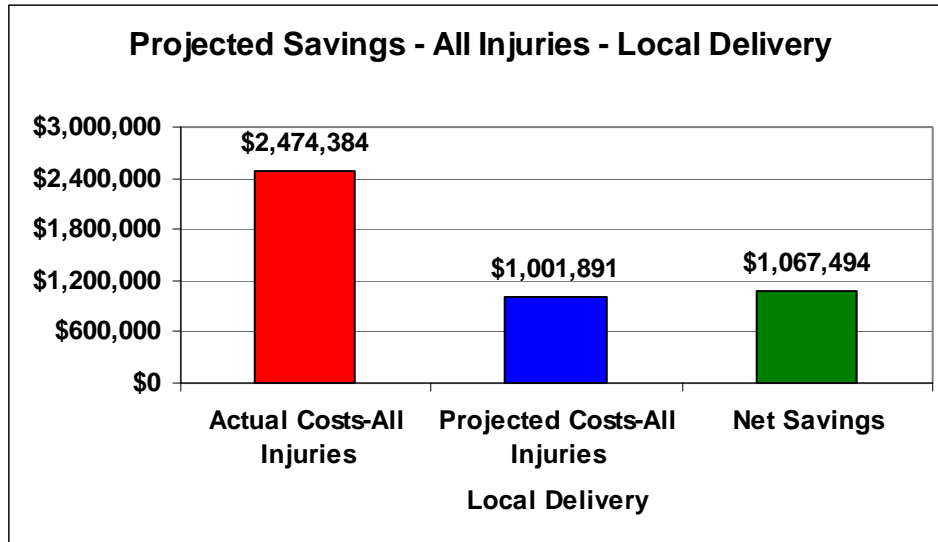
Chart 8



## Projected Savings – Local Delivery

To project the potential savings at the Local Delivery locations not using the IPCS program, the IPCS average cost per location for All Injuries was multiplied times the locations not using the IPCS process (13). Specifically, Chart 9 shows the Total Paid sum would have been \$1,001,891 instead of the Actual Costs for All Injuries of \$2,474,384. This represents a potential net savings of **\$1,067,494**. Net savings takes into consideration the added cost to do the IPCS evaluations at the other 13 Local Delivery locations, which is approximately \$450,000.

Chart 9



## Projected Savings - CDC

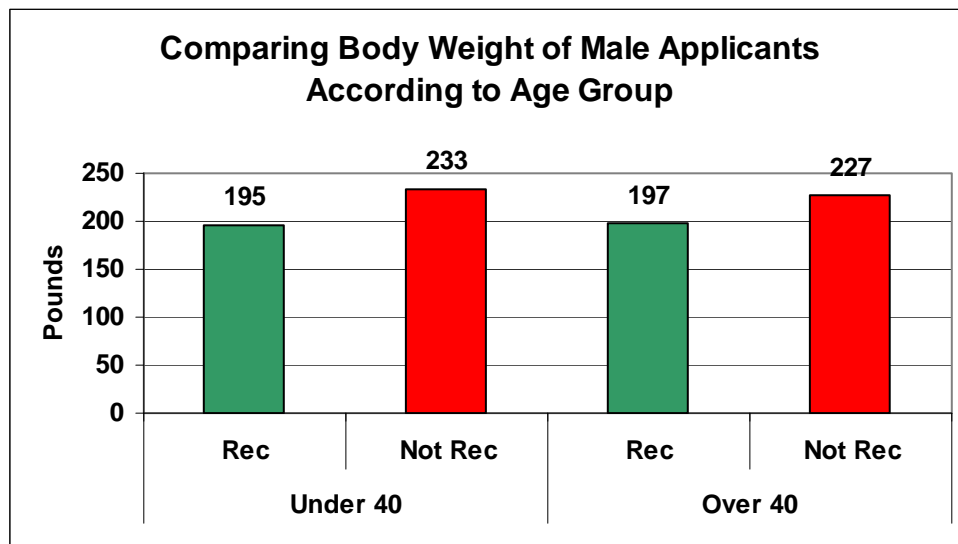
Although the IPCS PCE shows a significant difference in the average claim cost for All Injuries and Strains/Sprains, it is difficult to project a savings since only one site is using the IPCS process and that only two injuries occurred to IPCS tested individuals. With other sites joining the program and more time involved (CDC started in late 2006), a more conclusive projected savings could be made. At this time, it is safe to say that the trend shows a potential significant cost savings as a result of the IPCS process.

## Added Health Benefit

The obese employee costs a company not only more money in direct healthcare 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 10 shows the body weight of males tested for LD who were not recommended weighed 38 pounds more than the males recommended for the age group Under 40 years and the not recommended weighed 30 pounds more than those males not recommended for the Over 40 age group. This data supports recent trends that show the younger worker has a greater prevalence in obesity than the older worker. The number of females evaluated was too small to compute any statistics.

Chart 10

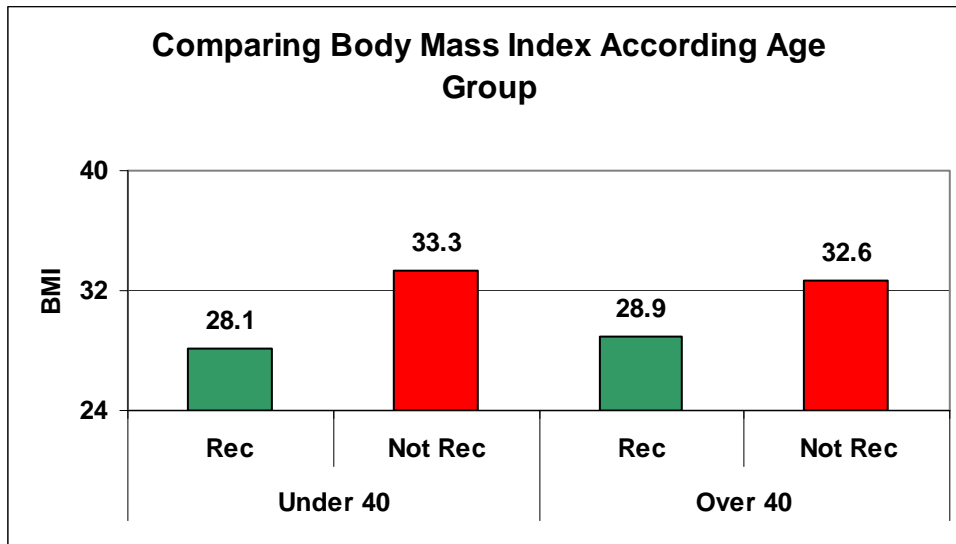


### Body Mass Index

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.

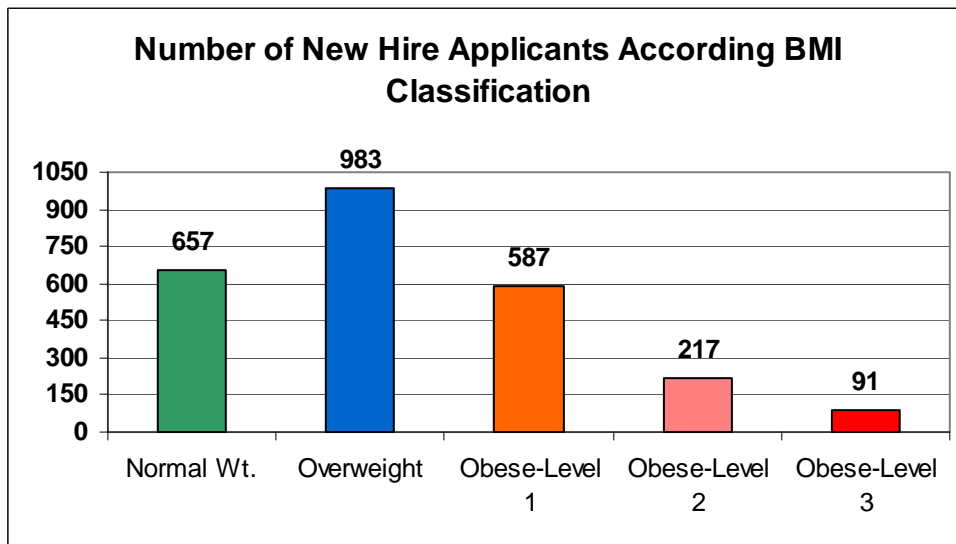
Chart 11 clearly shows that the BMI for males tested by IPCS and not recommended puts them in the obese category.

Chart 11



The next chart shows the number of new hire applicants who were categorized according to the various BMI classifications. Of the 2,625 applicants, 895 of the applicants were obese or 35.2 percent.

Chart 12

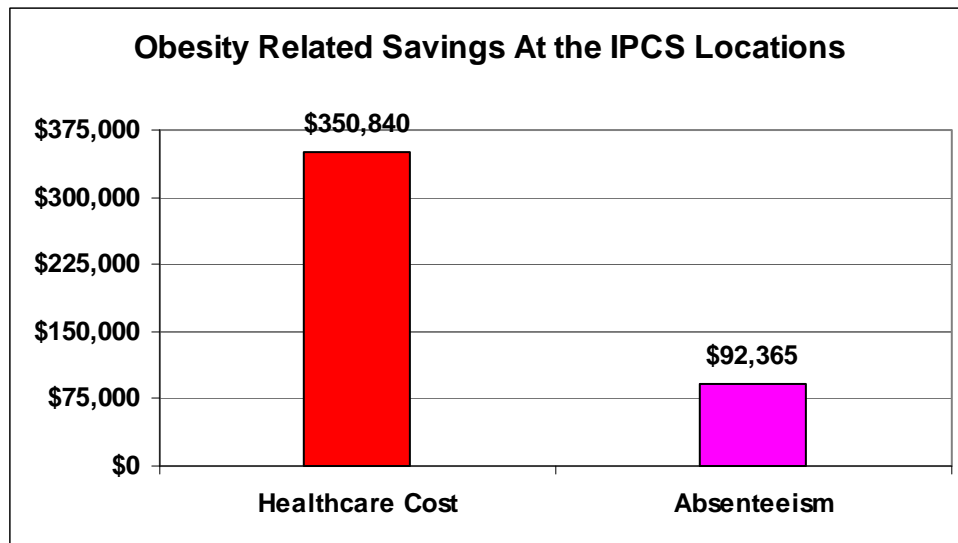


In addition to the savings due to the reduction in the frequency and severity of injury, the obesity related savings is \$443,205 as shown in Chart 13. This calculation is based on reviewing the BMI results of those not recommended and applying the following cost savings:

- Current research clearly shows the obese worker cost a company \$1,432 more per year in added healthcare costs. Since 9.6% of new hire applicants had BMI's 30 or higher and were not recommended, the savings would be \$350,840 (245 X \$1,432) at the IPCS locations.

- Current research clearly shows the obese worker cost a company \$377 more per year in absenteeism and presenteeism cost compared to that of the normal weight and overweight worker. This would result in another savings of \$92,365 at the IPCS locations.
- Thus, the total Health Related Savings is **\$443,205**.

Chart 13



## Conclusion

The analysis of the injury data clearly demonstrates that the IPCS physical capability assessment program had a dramatic impact on reducing the severity of injury as measured by total cost of injuries, average cost per injury and average cost per location in comparison to those sites not using the IPCS program. Reducing the average cost per injury resulted in greater savings and return-on-investment for the Company's locations using the IPCS program.

Further, The IPCS program is contributing to the Company's effort to control healthcare costs by recommending healthier individuals, which in the long run will bring added cost benefits to the company.