Industrial Physical Capability Services
...DRIVEN BY DATA

An Injury Analysis To Determine the Effectiveness Of the IPCS Physical Capability Evaluation (PCE) Program On Reducing Injuries For National Food Distribution Company *A 23-Month Study*

*The data clearly shows a dramatic difference in number of injuries, total cost of injuries, average cost per claim and cost per location when comparing the Company's "A" locations using the IPCS program to the "A" Locations not using the IPCS program and the Company's "B" locations. It is projected that had the IPCS program been in place for the Non-IPCS "A" sites and "B" sites the overall gross savings realized for the Company would have been **$1,148,078**. When factoring in the cost of the IPCS evaluation for these additional sites, the savings would have been **$832,178**. This represents a 52% reduction in the Actual Cost of Injuries.*

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

- IPCS currently performs PCE at five of the Company's "A" locations.
- The IPCS program began on February 1, 2004.
- Since February 1, 2004 through December 31, 2005, IPCS evaluated 1,005 new hire applicants and 868 (86%) were recommended for hire.
- The analysis consisted of analyzing the injury database for the time period of February 1, 2004 through December 31, 2005 – or 23 months.
- The injury analysis reviewed all injuries that occurred to employees hired during the time period identified so they were matched on length of employment with identical time periods for claim costs.
- The first analysis consists of comparing "A" sites using the IPCS program compared to "A" sites not using the IPCS program.
- The second analysis consists of comparing "A" sites using the IPCS program to the "B" sites. None of the "B" sites were using the IPCS program during the time frame identified.
- The IPCS test is used for those new hire applicants applying for the driver and order selector job classifications.

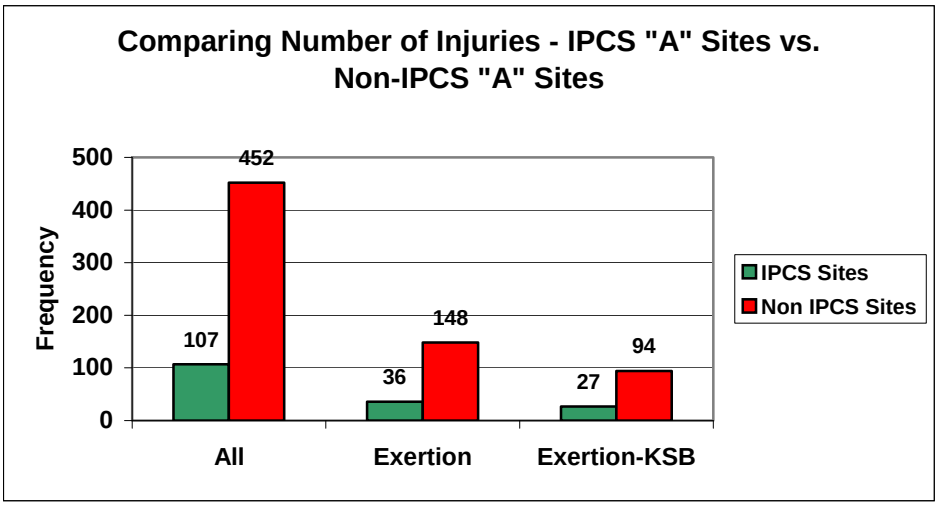
Results

Comparing the IPCS "A" Sites to the "A" Sites Not Using the IPCS Program

Frequency of All Injuries:

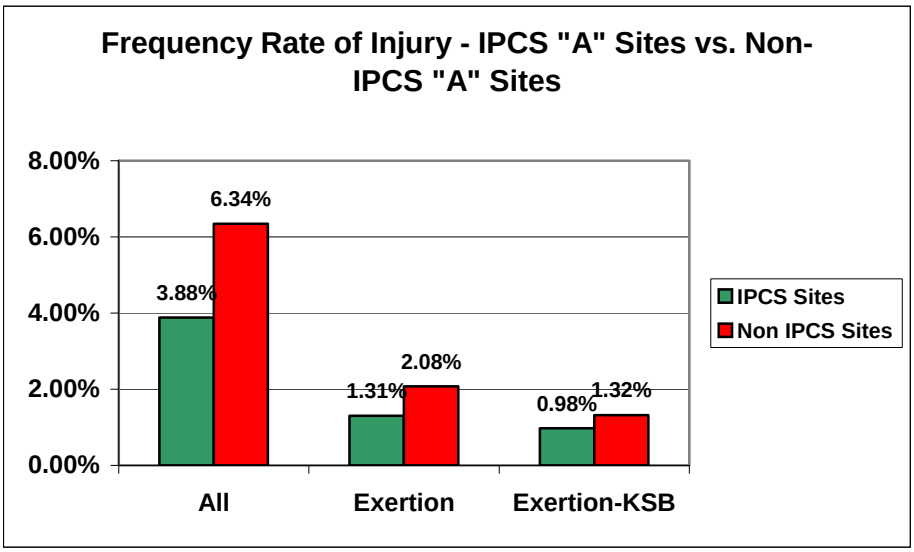
Chart 1 shows the total number of all injuries, exertion injuries and knee-shoulder-back exertion injuries that occurred to those workers hired between February 1, 2004 and December 31, 2005. For each of the three kinds of injuries, those sites that had the IPCS program had fewer injuries.

Chart 1



Since the number of locations representing the IPCS sites (5) versus the Non-IPCS sites (14) is different, it would more appropriate to present the number of injuries relative to headcount annualized for these two groups. Chart 2 shows the frequency of injury. In all cases, the IPCS sites had a lower incident rate of injury.

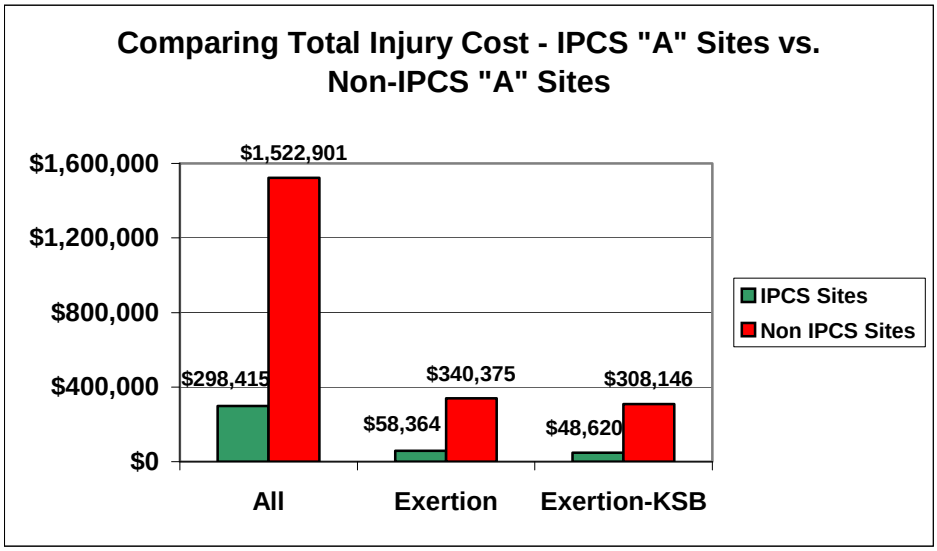
Chart 2



Costs of Injuries:

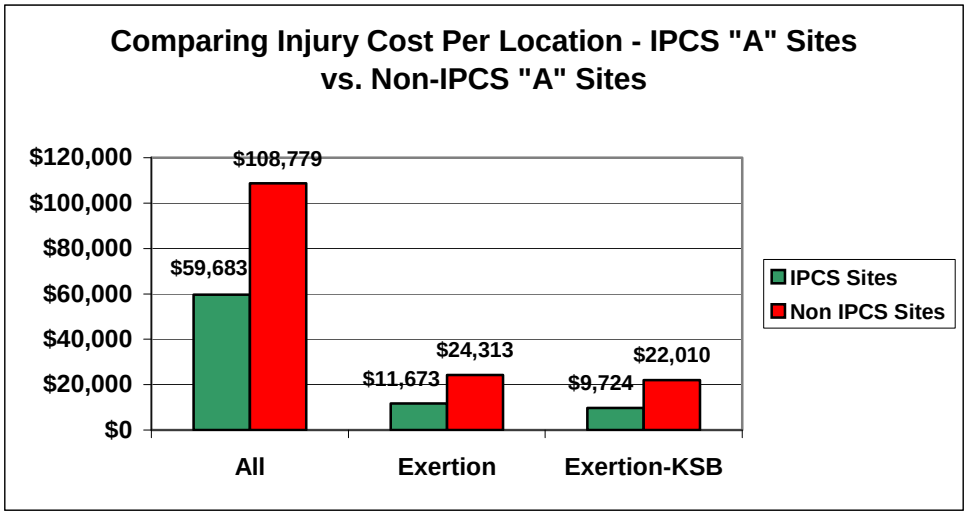
The injury cost data represents the combined cost for BL/MD and PD/LT. BL/MD is bodily injury and medical and PD/LT is property damage and lost time. Chart 3 shows the total cost for all injuries, exertion injuries and knee-shoulder-back exertion injuries for the IPCS “A” sites compared to the Non-IPCS “A” sites. For each of the three injury types, the IPCS sites had lower claim costs compared to the Non-IPCS sites.

Chart 3



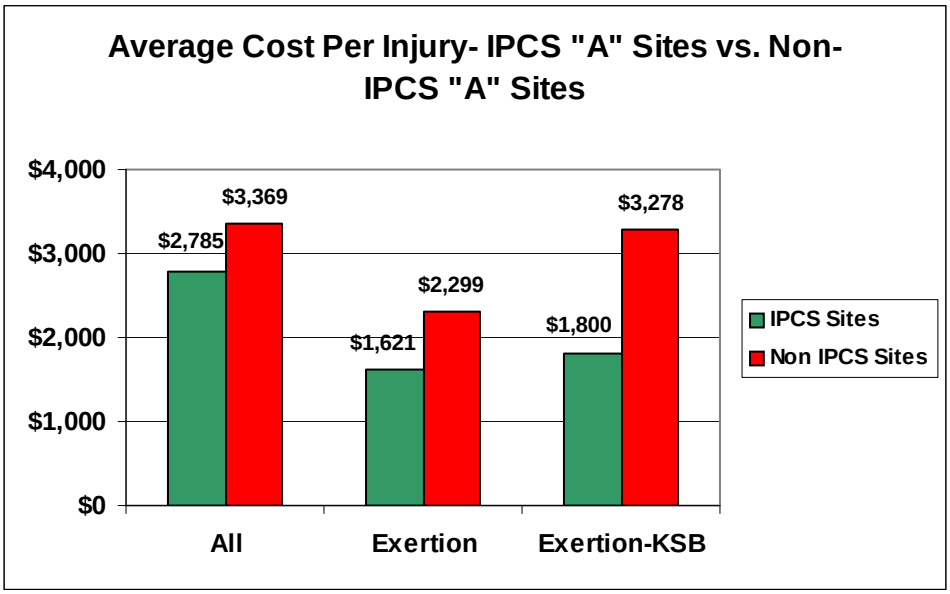
Since the number of locations is different between the IPCS and Non-IPCS groups, a better way to represent the data is to show the injury costs for each location within their respective groups. Chart 4 shows that the average cost for injuries for the IPCS locations was about 50% lower than the average cost for the Non-IPCS locations.

Chart 4



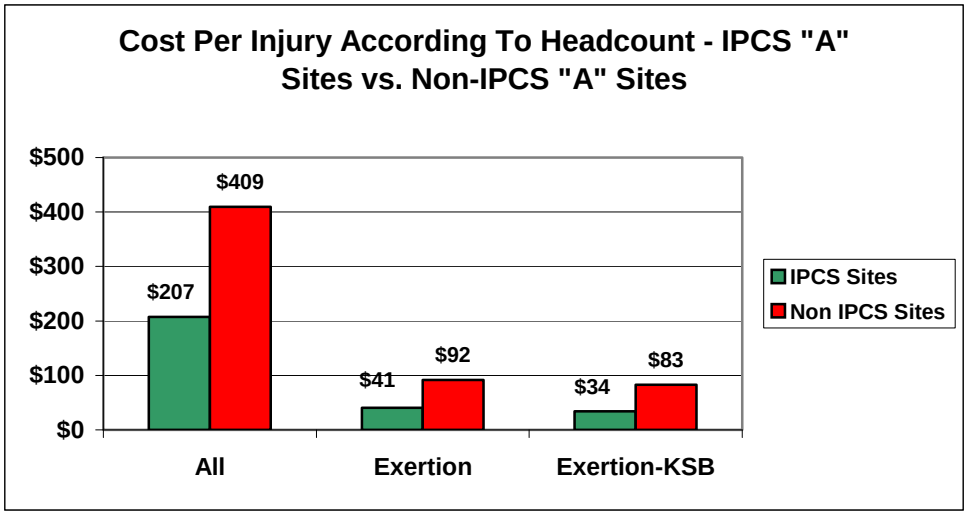
When reviewing the average cost per injury, the IPCS “A” sites average cost was substantially less than the Non-IPCS “A” sites as shown in Chart 5.

Chart 5



When representing the injury cost based on headcount, Chart 6 shows that the cost per injury per worker is significantly less for those workers at the IPCS locations compared to the Non-IPCS locations.

Chart 6

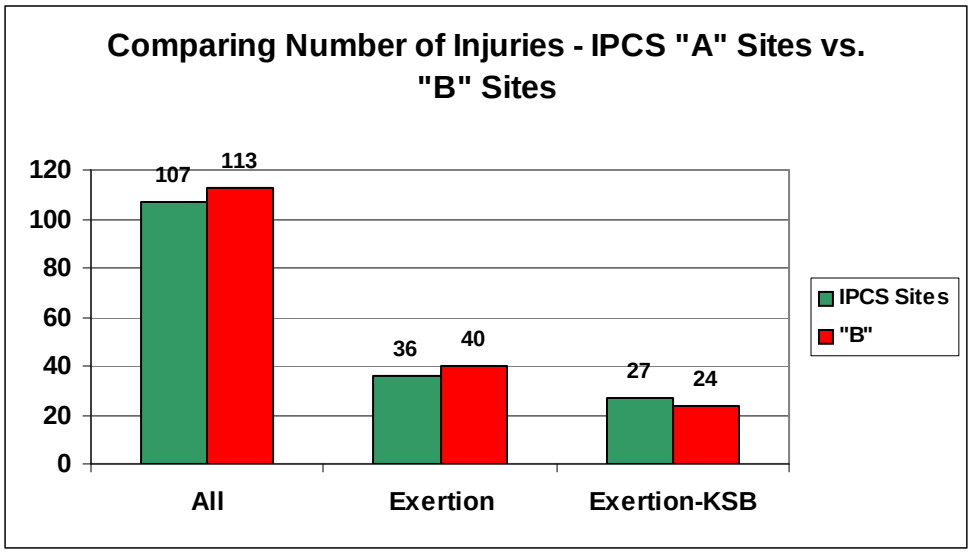


Comparing the IPCS "A" Sites to the "B" Sites Not Using the IPCS Program

Frequency of All Injuries:

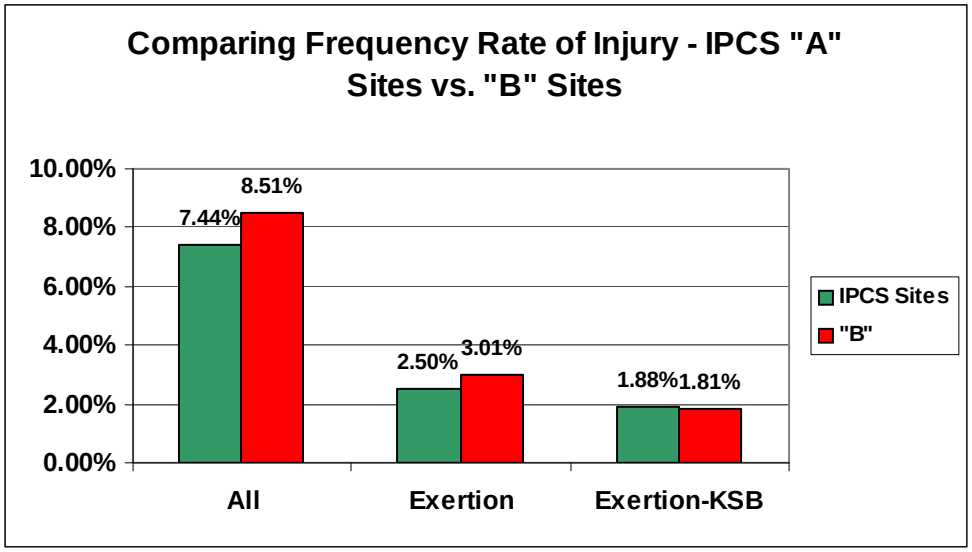
Chart 7 shows the total number of all injuries, exertion injuries and knee-shoulder-back exertion injuries that occurred to those workers hired between February 1, 2004 and December 31, 2005. For each of the three kinds of injuries, the total number of injuries was similar between the IPCS sites and the "B" sites.

Chart 7



Since the number of locations representing the IPCS sites (5) versus the "B" sites (8) is different, it would more appropriate to present the number of injuries relative to headcount for these two groups. Chart 8 shows the frequency of injury. In general, the injury rates were similar between the IPCS sites and the "B" sites for each of the injury groups.

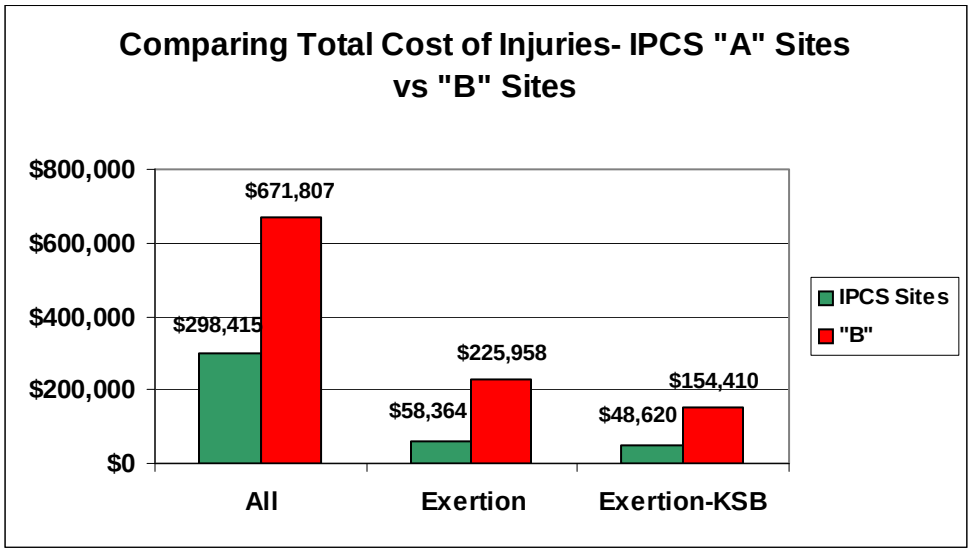
Chart 8



Costs of Injuries:

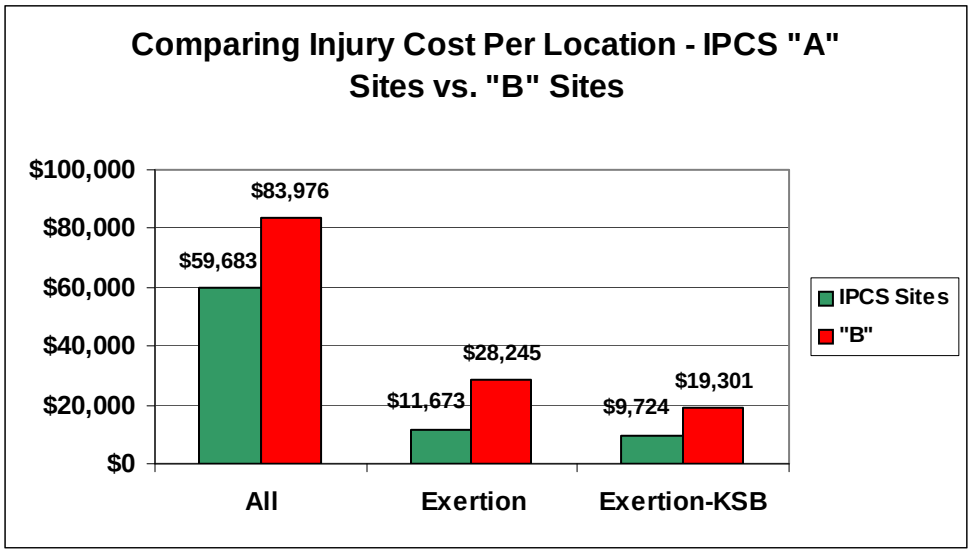
As stated above, the injury cost data represents the combined cost for BL/MD and PD/LT. BL/MD is bodily injury and medical and PD/LT is property damage and lost time. Chart 9 shows the total cost for all injuries, exertion injuries and knee-shoulder-back exertion injuries for the IPCS sites compared to the “B” sites. For each of the three injury types, the IPCS sites had lower claim costs compared to the “B” sites even though the number of injuries and injury rates were similar.

Chart 9



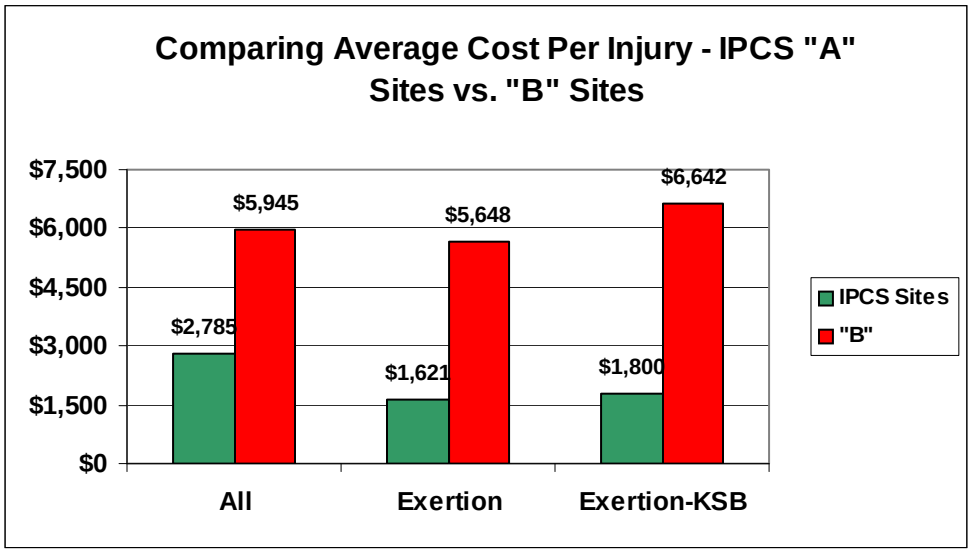
Since the number of locations is different between the IPCS and “B” groups, a better way to represent the data is to show the injury for each location within their respective groups. Chart 10 shows that the average cost for injuries for the IPCS locations was about 50% lower than the average cost for the “B” locations.

Chart 10



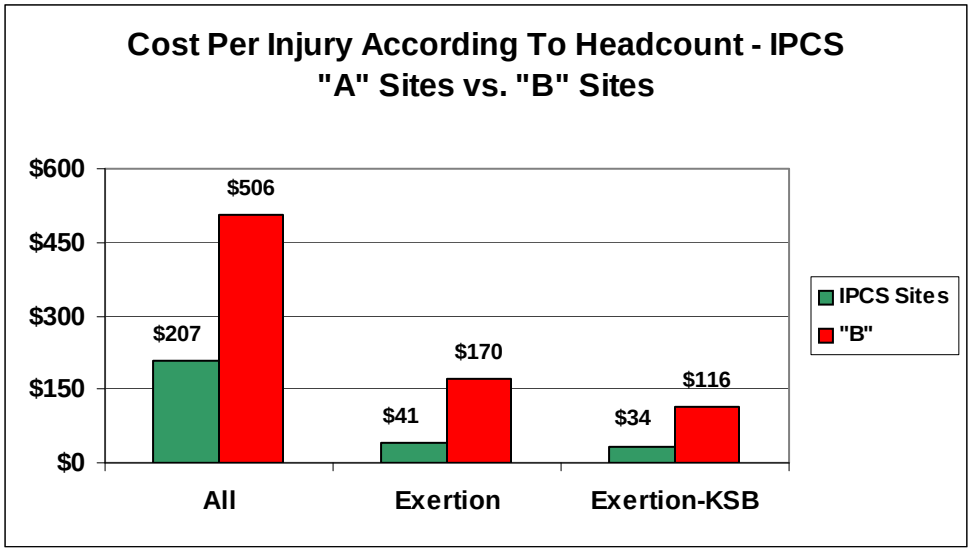
When reviewing the average cost per injury, the IPCS sites average cost was substantially less than the “B” sites as shown in Chart 11. Even though the number of injuries and rate of injury were similar between the two groups, the IPCS locations average cost per injury substantially less especially for the two Exertion groups. The average cost for a Knee-Shoulder-Back injury is nearly 4 times less for the IPCS group compared to the “B” group.

Chart 11



When representing the injury cost based on headcount, Chart 12 shows that the cost per injury per worker is significantly less for those workers at the IPCS locations compared to the “B” locations.

Chart 12



Projected Savings

Using the cost per employee injury data from Charts 6 and 12 for the IPCS Sites and for All injuries, it is projected that had the IPCS program been in place for the Non-IPCS “A” sites and “B” sites the overall gross savings realized for the Company would have been $1,148,078 ($751,667 + $396,411 from Charts 13 and 14, respectively) When factoring in the cost of the IPCS evaluation for these additional sites, the savings would have been $832,178. It is estimated that an additional 3,510 evaluations would have been completed for the Non-IPCS “A” and “B” locations at a cost of $315,900.

Chart 13 and 14 show the projected net savings for each Division – “A” and “B”. The Actual Cost represents what was spent for the injuries as shown on Charts 3 and 9, respectively. The Projected Costs was calculated by multiplying the cost per injury per worker (Chart 6) for the IPCS site and for All Injuries ($207) times the total headcount for each Non-IPCS “A” Sites and “B” Sites. The savings results from subtracting the Actual Cost from the Projected Costs.

Chart 13

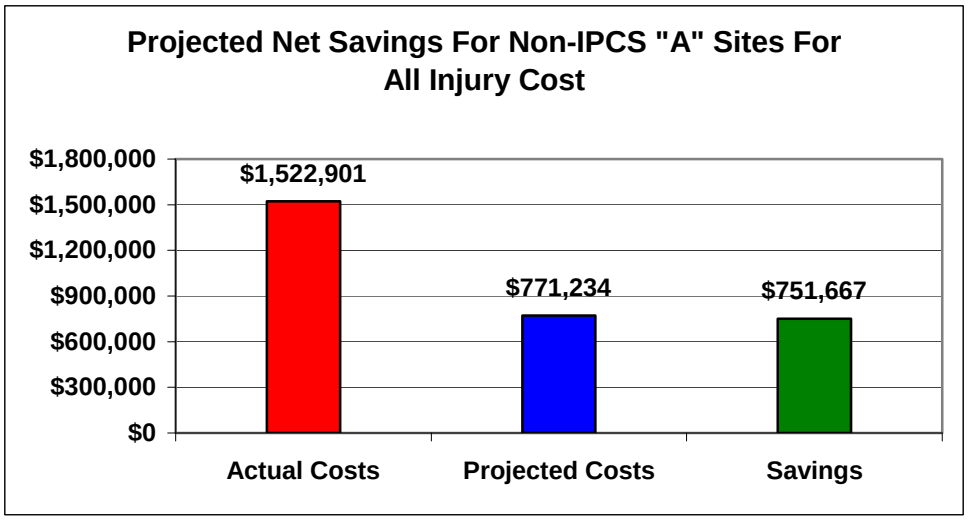
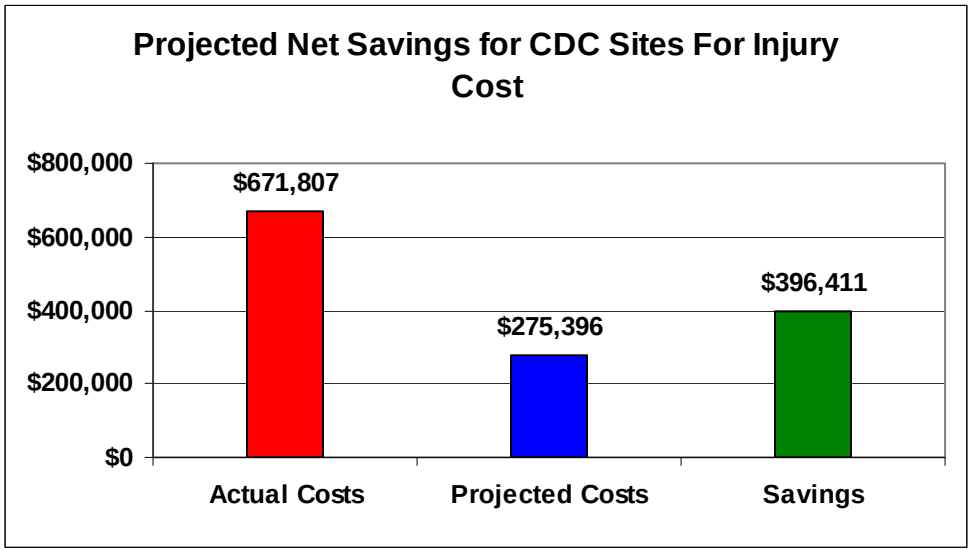


Chart 14

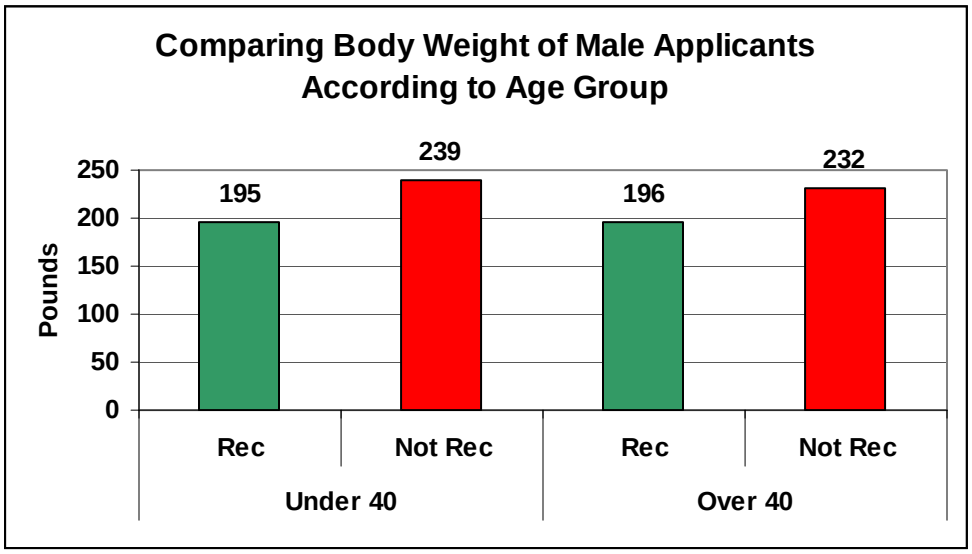


Added Health Benefit

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 15 shows the body weight of males tested for the Company who were not recommended weighed 44 pounds more than the males recommended for the age group Under 40 years and the not recommended weighed 36 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 to small to compute any statistics.

Chart 15

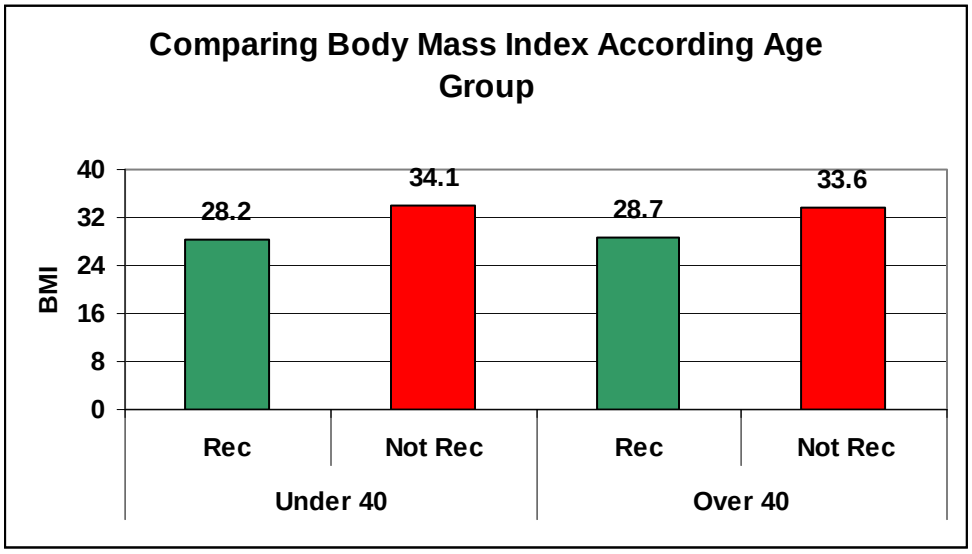


Body Mass Index

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.

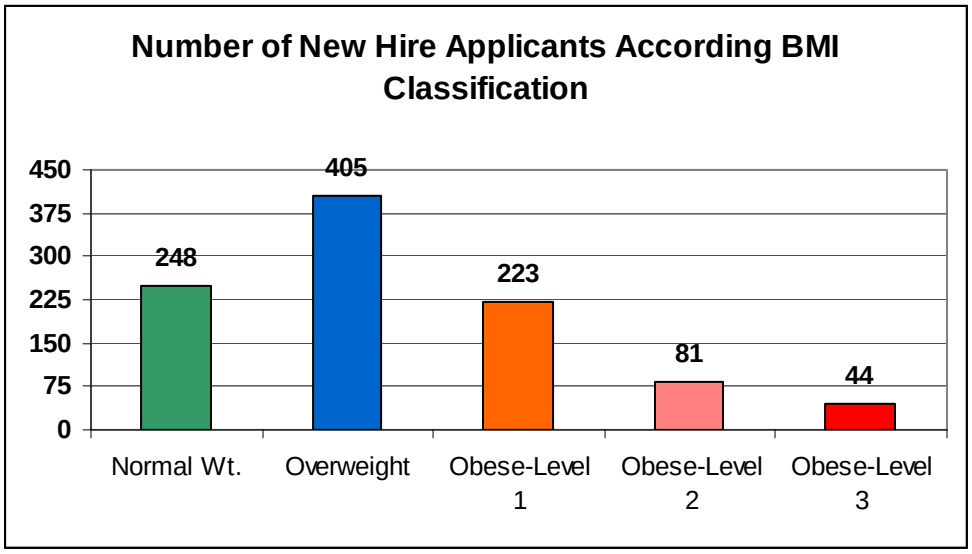
Chart 16 clearly shows that the males tested by IPCS and not recommended have a BMI, which puts them in the obese category.

Chart 16



The next chart shows the number of new hire applicants from February 1, 2004 through December 31, 2005 who were categorized according to the various BMI classifications. Of the 1,005 applicants, 348 of the applicants were obese or 34.6 percent.

Chart 17



In addition to the savings due to the reduction in the frequency and severity of injury, the obesity related savings is $154,368 as shown in Chart 18. This calculation is based on reviewing the BMI results of those not recommended and applying the following cost savings:

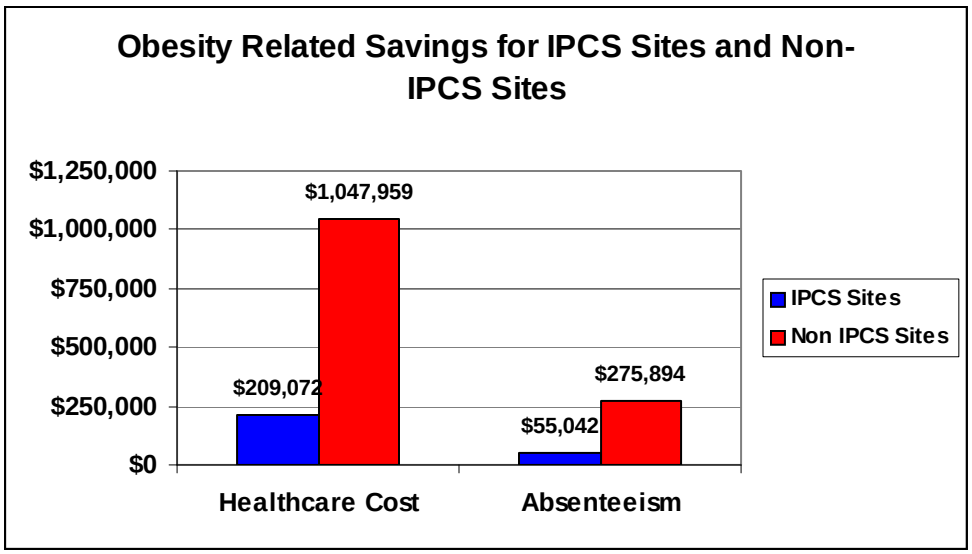
- Current research clearly shows the obese worker cost a company $1,432 more per year in added healthcare costs. Since 12.8% of new hire applicants had BMI's 30 or higher and were not recommended, the savings would be $209,072 (146 X $1,432) at the IPCS locations.

- 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 $55,042 at the IPCS locations.

- Using the same obesity percentage of 12.8 for those not recommended at the Non-IPCS "A" and "B" locations, another 452 individuals would not have been hired at a Healthcare and Abseenteeism savings of **$819,097**.

- Thus, the total Health Related Savings is **$1,053,625**.

Chart 18



Conclusion

The analysis of the injury data clearly demonstrates that the IPCS physical capability assessment program had a dramatic impact on reducing both the frequency and severity of injury as measured by incident rate, total cost of injuries and average cost per injury in comparison to those sites not using the IPCS program. The combination of reducing the frequency of injury and 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.

Therefore, the total savings that the Company could have realized during the 23-month time frame had the IPCS program been in place for the other "A" locations and "B" locations represents a return-on-investment of nearly **$4 for every $1 invested**.