



## An Injury Analysis To Determine the Effectiveness Of the IPCS Physical Capability Evaluation (PCE) Program On Injury Claim Costs

### Food Service Company

#### *An Analysis for Food Service and Grocery Divisions*

*The analysis of the injury data clearly demonstrates that the IPCS physical capability assessment program had a dramatic impact on reducing the severity of injuries as measured by total cost of injuries, and average cost per injury. It appears that the IPCS program also impacted the frequency of injury. Reducing the average cost per injury and frequency of injury using the IPCS program resulted in substantial net savings to the Company, which is estimated to be **\$4,770,911.***

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

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 for the Food Service and Grocery Divisions.
  - The Food Service Division utilized the IPCS first beginning in February 2004.
    - It took about 6-months to roll out the program.
  - The Grocery Division started with the IPCS program in October 2006.
- The loss run encompassed the time frame of January 2, 2003 through December 31, 2007.
- The loss run included hire date.
  - Only those hired for Food Service after January 31, 2004 and injured were included in this analysis.

- Only those hired for Grocery after September 30, 2006 and injured were included in this analysis.
- By restricting the analysis to the time frames mentioned in the previous bullet, it was possible to make comparisons based on length of employment. The IPCS process was not implemented instantly for all locations, but instead it was rolled out over a period of time. Thus, it is possible to measure the impact of the IPCS program by assessing those hired who were injured and not IPCS tested to those who were hired, injured and did receive the IPCS physical capability evaluation.
- No return-to-work evaluations were included.

# Results

## Number of IPCS PCE Performed

Food Service: Since the inception of the program on February 2004 through December 2007, IPCS performed 3,886 evaluations with 3,484 (89.7%) recommended for hire.

Grocery: Since the inception of the program on October 2006 through December 2007, IPCS performed 4,108 evaluations with 3,380 (82.3%) recommended for hire.

## Number of Injuries

The first two charts show the frequency of All Injuries and Strains/Sprains for the Grocery and Food Service divisions based on those who took the IPCS test compared to those who did not take the PCE.

Chart 1

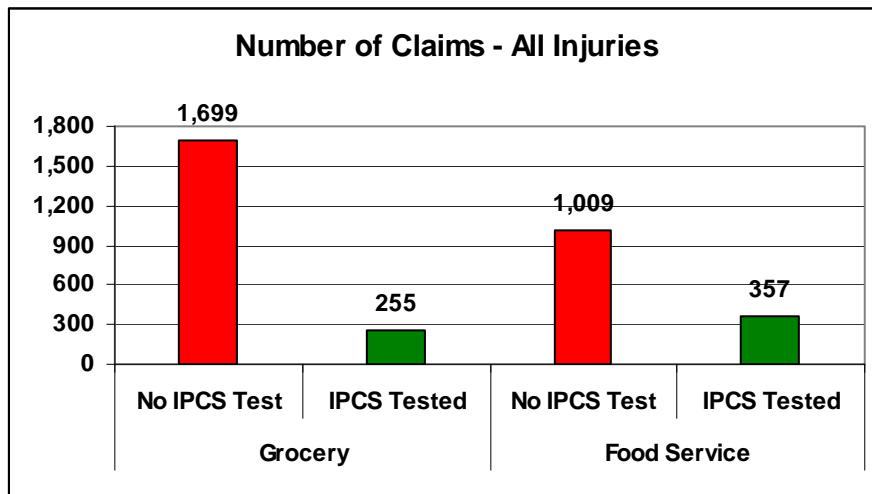
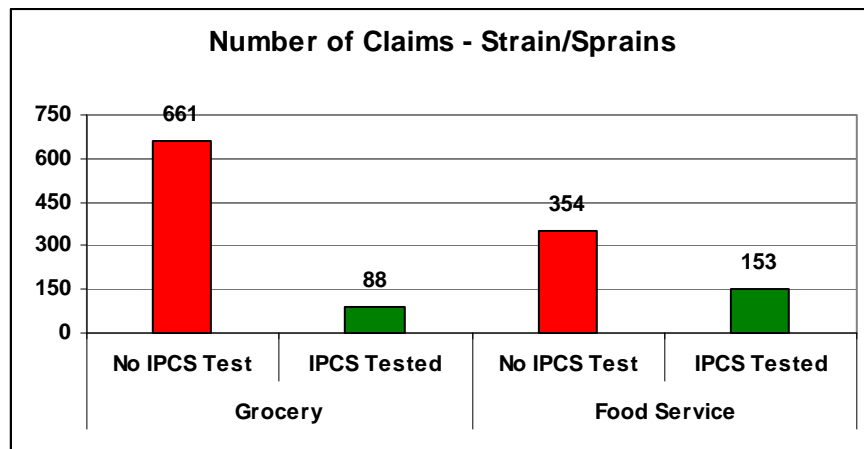


Chart 2

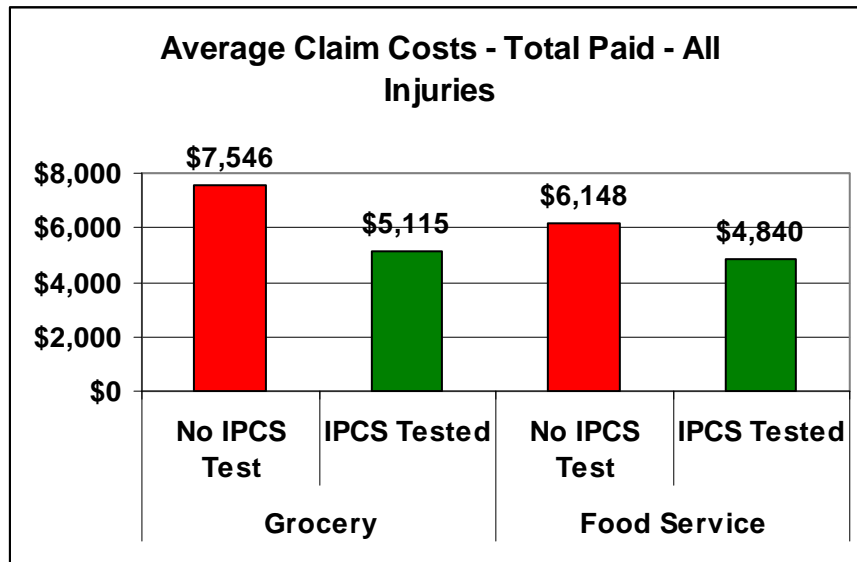


For both the All Injury and Strain/Sprain categories, fewer injuries occurred to those who took the IPCS PCE compared to those who did not. It should be noted that it was not possible to compute the incident rate of injury because the number of teammates employed was not known. The incident rate of injury reflects a more accurate assessment of the effectiveness of the IPCS process. But clearly, there is a substantial difference in the absolute number of injuries between the IPCS Tested compared to the No IPCS Tested group.

Average Claim Cost – Total Paid

Chart 3 shows the average cost per claim for the Total Paid category for All Injuries for Grocery and Food Service teammates who did not take the IPCS PCE (No IPCS Test) compared to those teammates who took the IPCS PCE. The average claim cost for the Grocery Division was 32% less for those teammates who took the IPCS test compared to those who did not. The average claim cost for the Food Service Division was 21% less for those teammates who took the IPCS test compared to those who did not.

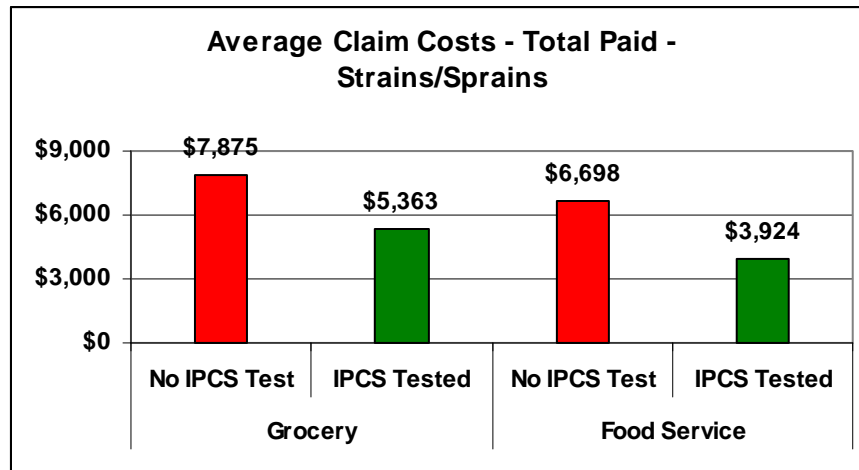
Chart 3



Average Claim Cost – Total Paid – Strains/Sprains

Chart 4 shows the average cost per claim for the Total Paid category for Strains and Sprains for Grocery and Food Service teammates who did not take the IPCS PCE (No IPCS Test) compared to those teammates who took the IPCS PCE. The average claim cost for the Grocery Division was 32% less for those teammates who took the IPCS test compared to those who did not. The average claim cost for strains and sprains for the Food Service Division was 41% less for those teammates who took the IPCS test compared to those who did not.

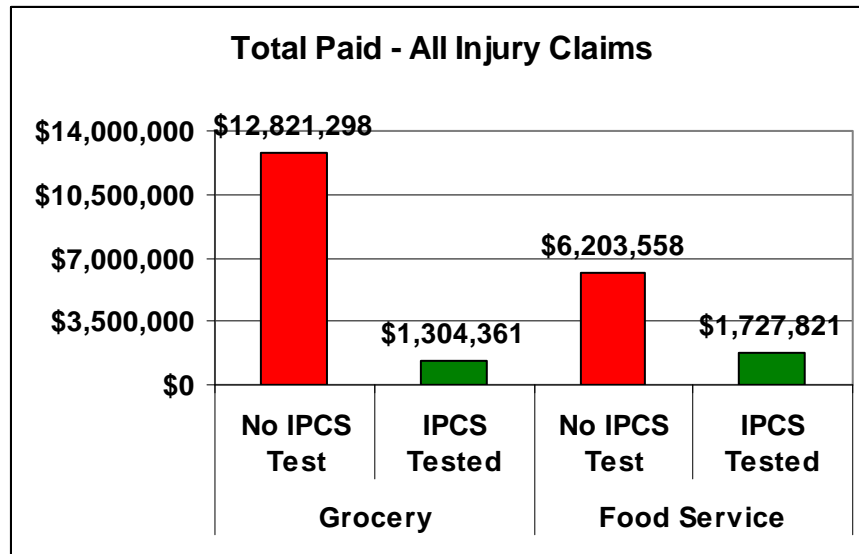
Chart 4



Sum of Claims – Total Paid – All Injuries

Chart 5 shows the sum of the claims for the Total Paid category for All Injuries for Grocery and Food Service teammates who did not take the IPCS PCE (No IPCS Test) compared to those teammates who took the IPCS PCE. The sum of claims for the Grocery Division was 53% less for those teammates who took the IPCS test compared to those who did not. The average claim cost for the Food Service Division was 73% less for those teammates who took the IPCS test compared to those who did not.

Chart 5

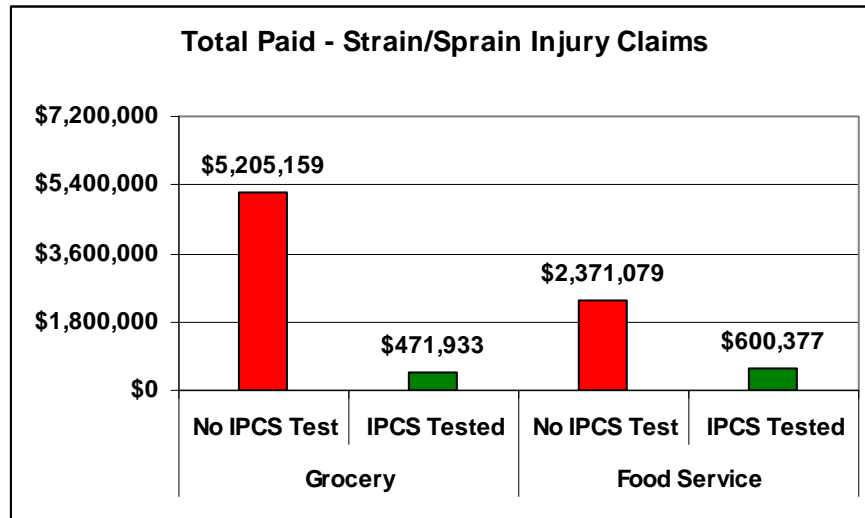


Sum of Claims – Total Paid – Strains/Sprains

Chart 6 shows the sum of the claims for the Total Paid category for Strains and Sprains for Grocery and Food Service teammates who did not take the IPCS PCE (No IPCS Test) compared to those teammates who took the IPCS PCE. The sum of claims for the Grocery Division was

91% less for those teammates who took the IPCS test compared to those who did not. The average claim cost for strains and sprains the Food Service Division was 75% less for those teammates who took the IPCS test compared to those who did not.

Chart 6



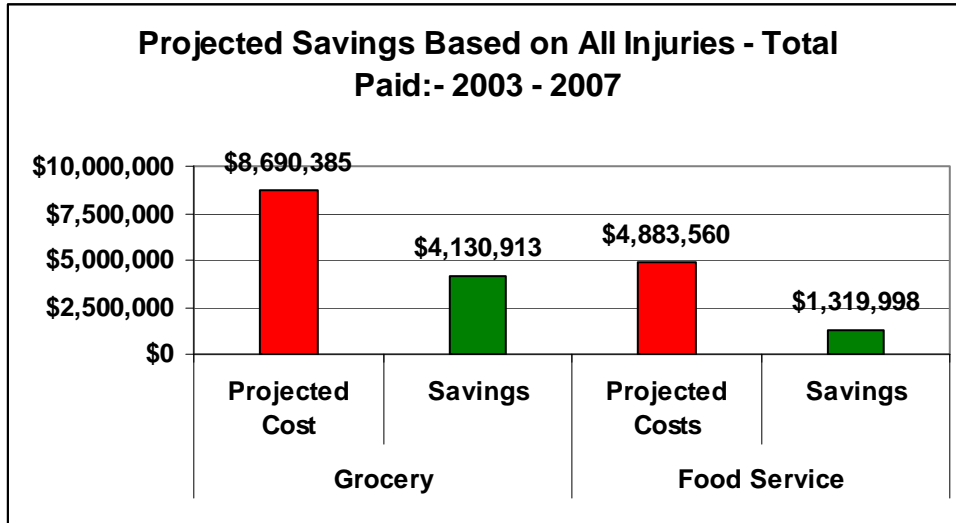
Projected Savings

To project the potential savings for the Grocery Division and the Food Service Division, the IPCS average cost per claim for All Injuries was multiplied times the number of injuries that actually occurred for the Not Tested Group. That sum was then subtracted from the Actual Total Paid Claims, which yielded the Projected Savings. The Projected Costs for the Grocery Division is \$8,690,385 instead of the \$12,821,298, which resulted in a savings of \$4,130,913 as shown in Chart 7. The Projected Costs for the Food Service Division is \$4,883,560 instead of the \$6,203,558, which resulted in a savings of \$1,319,998. The estimated combined savings between the two divisions is **\$5,450,911**.

It is felt that the actual savings is even greater since only the reduction in the average claim cost was taken into consideration. The overall reduction in the incident rate of injury would have resulted in a greater savings, but the reduction in the incident rate could not be calculated as explained under Number of Injuries.

It is estimated that the cost of the physical capability evaluations for the time period identified was about \$680,000. Thus, the net savings for the Company is estimated to be **\$4,770,911**.

Chart 7

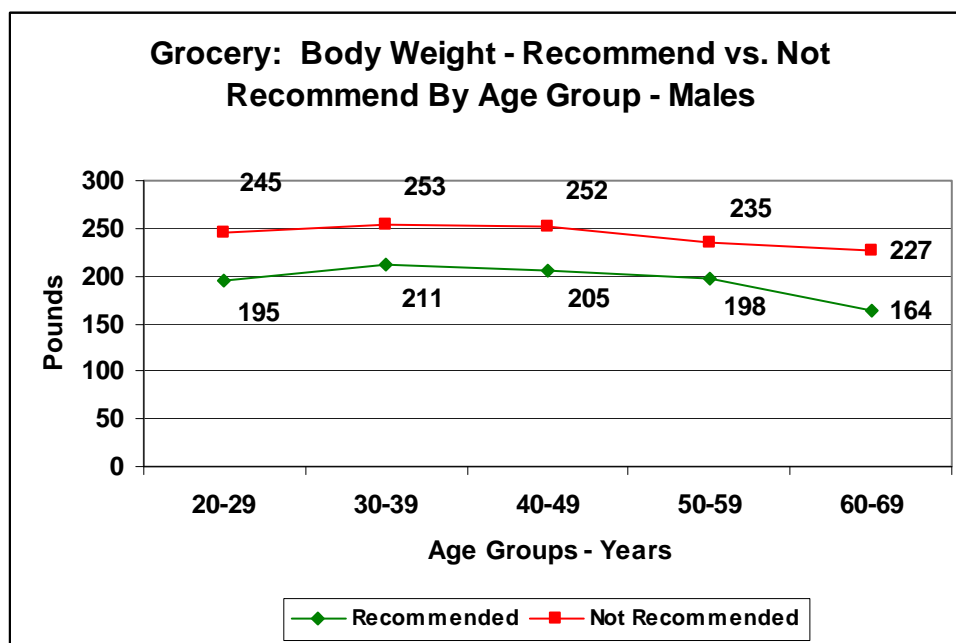


## Added Health Benefit

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 8 shows the body weight of males tested for Grocery who were not recommended compared to those who were recommended by age group. The data shows that the younger applicants weigh more on average than those in the older age groups. This data supports recent trends that show the younger worker has a greater prevalence for obesity than the older worker.

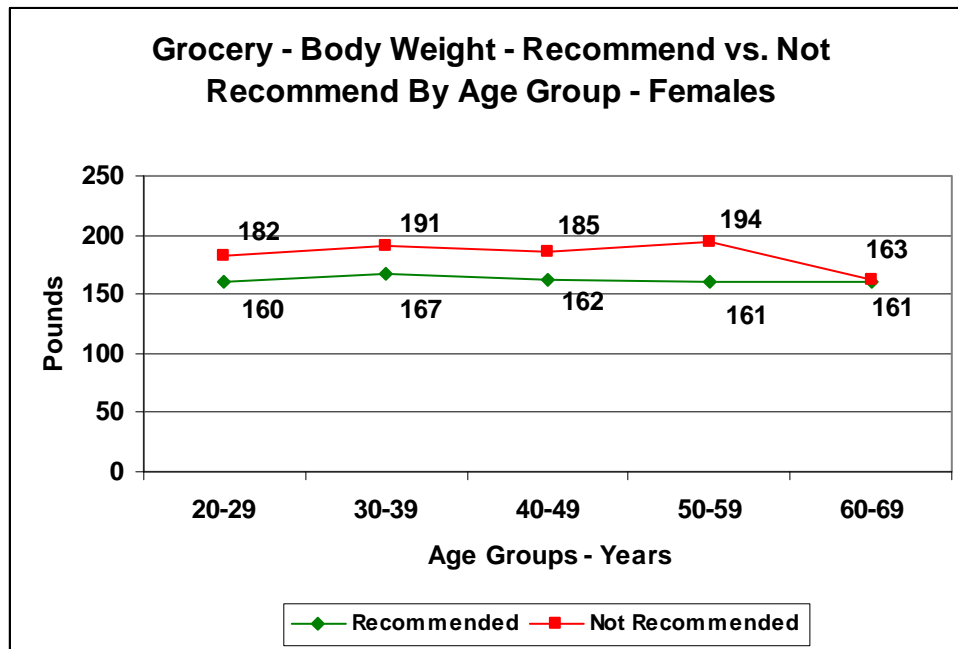
Chart 8



The results for the males for Food Service were very similar to that of the Grocery data.

Chart 9 shows the body weight of females tested for Grocery who were not recommended compared to those who were recommended by age group. The data shows that the new hire applicants across all age groups who were not recommended consistently weigh more than those who were not recommended with the exception of the oldest age group. The number of females evaluated was too small to compute any statistics for the Food Service Division.

Chart 9



### 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.

The next two charts (Chart 10 and 11) shows the percentage of new hire applicants that were recommended compared to those not recommended by body mass index (BMI) category for the Grocery and Food Service Divisions. A BMI of 40 or more is considered morbidly obese. The research is clear that morbidly obese workers have twice as many workers' comp claims with 13 times more lost work days and injury claims that cost about 7 times more. Charts 12 and 13 show that only a small percentage of the morbidly obese applicants were recommended for hire.

Chart 10

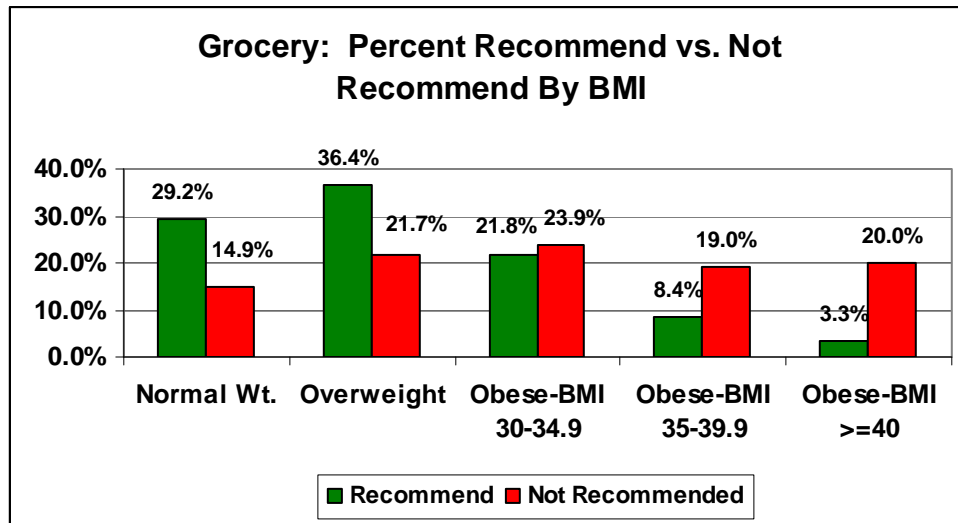
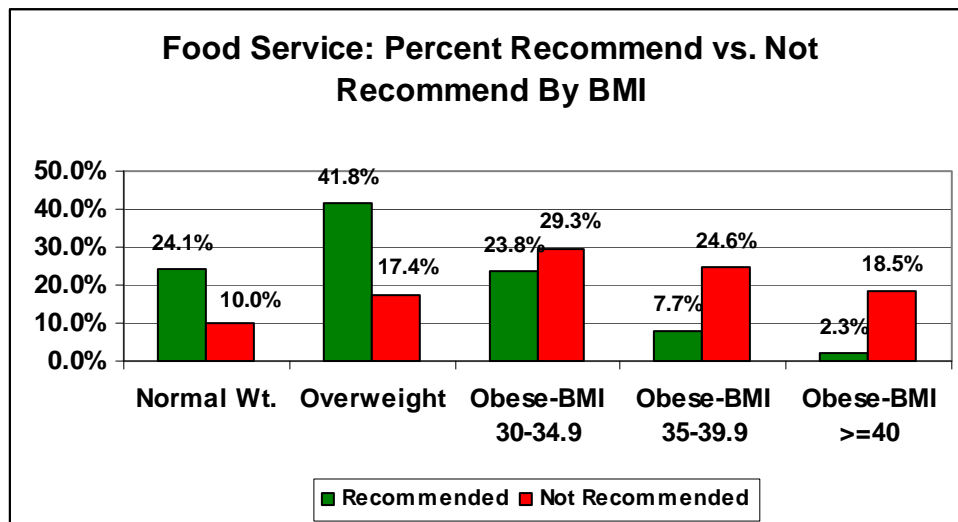


Chart 11

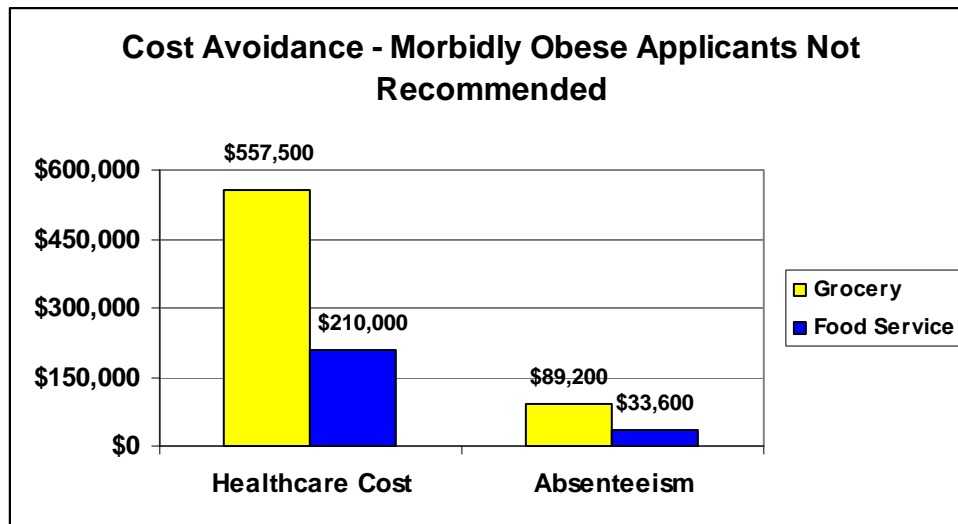


In addition to the savings due to the reduction in the frequency and severity of injury, the obesity related savings is \$767,500 and \$122,800, respectively for Grocery and Food Service, as shown in Chart 12. This calculation is based on reviewing the BMI results of those not recommended and applying the following cost savings only to the morbidly obese applicant not recommended:

- Current research clearly shows the morbidly obese worker cost a company \$2,500 more per year in added healthcare costs. Since 223 new hire morbidly obese Grocery applicants were not recommended, the savings would be \$557,500 (223 X \$2,500) and for the Food Service Division, 84 were not recommended who were morbidly obese; thus saving the company an additional \$210,000 (84 X \$2,500).

- Current research clearly shows the obese worker cost a company \$400 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 \$89,200 and \$33,600, respectively, for the Grocery and Food Service Divisions.
- Thus, the total Health Related Savings for the Company is estimated to be **\$890,300**.

Chart 12



## 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, and average cost per injury. It appears that the IPCS program also impacted the frequency of injury too. Reducing the average cost per injury and frequency of injury using the IPCS program resulted in substantial savings to the Company.

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