



## A Four-Year Injury Analysis To Determine the Effectiveness Of the IPCS Physical Capability Evaluation Program On Reducing Exertion Injuries For A Large Food Manufacturer

*The data clearly shows a dramatic difference in the number of injuries, total cost of the injuries and average cost per claim between the IPCS tested plants and the plants that did not do the IPCS test. When calculating the average cost per injury across all employees (injured and non-injured combined), the plants that did not have the IPCS test had an average cost per employee **74** times greater than the IPCS plants. In fact, the cost is less than \$1.50 per employee per month for the IPCS tested group compared to nearly \$94 per employee per month for the Not Tested group.*

*If the plants that did not do the IPCS test had the IPCS program in place, the net savings over a four-year period would have been **\$7,650,585**.*

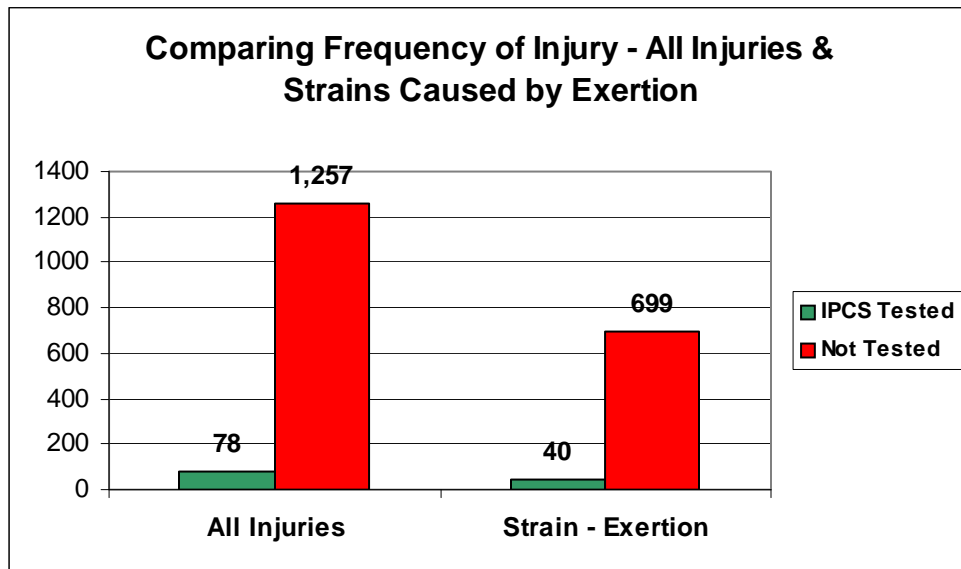
The following comparative study was performed to evaluate the impact of the IPCS new hire physical capability evaluation program on reducing both the frequency and severity of injuries.

- Eighteen plants from the United States were included in this study.
  - Four plants received the IPCS physical capability assessment program (IPCS Group),
  - and 14 plants did not (Not Tested Group).
- All plants performed similar jobs and had similar turn over and thus, hiring needs.
- The total workforce for the 4 IPCS plants is 4,500 and the 14 Other plants is 7,000.
- The time frame for this study was January 1, 2001 through March 31, 2005 (4.25 yrs).
- This report focused only on *strains/sprains caused by exertion to the knees, shoulders, and low back*.
- The cost of injuries (strains caused by exertion) is reported as Total Incurred Cost (Medical, Indemnity, and Reserves) and Total Paid (Medical and Indemnity).

## Frequency of Injuries

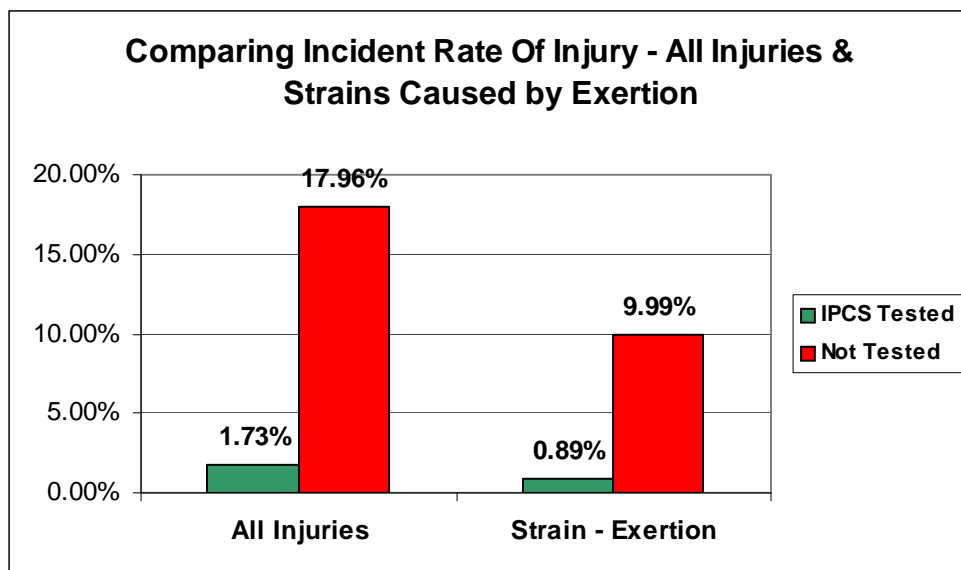
The first two charts show the frequency and incident rate of injury for all types of injuries and strain/sprain injuries caused by exertion for the knees, shoulders and back. Chart 1 shows frequency of injuries that occurred for the IPCS Plants versus the Other Plants. The differences between the two groups are substantial for both categories – All and Sprains/Exertion. To better understand these differences, the incident rate of injury based a total employment of 4,500 employees for the IPCS Plants and 7,000 for the Other Plants is shown on Chart 2.

**Chart 1**



It is clear from Chart 2 that the incident rate of injury for the Not Tested Group is more than 8 times greater than the IPCS Tested Group for both the All Injuries and Strains – Exertion categories.

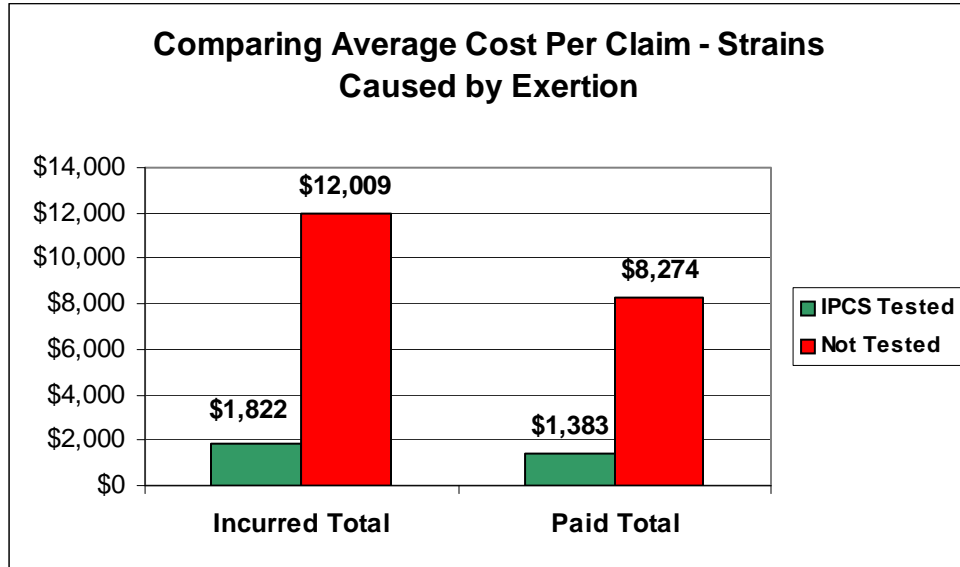
**Chart 2**



Costs of Injuries

Chart 3 shows the average cost of a Paid Total and Incurred Total claim for a strain/sprain caused by exertion for the knees, shoulders and low back for each Group.

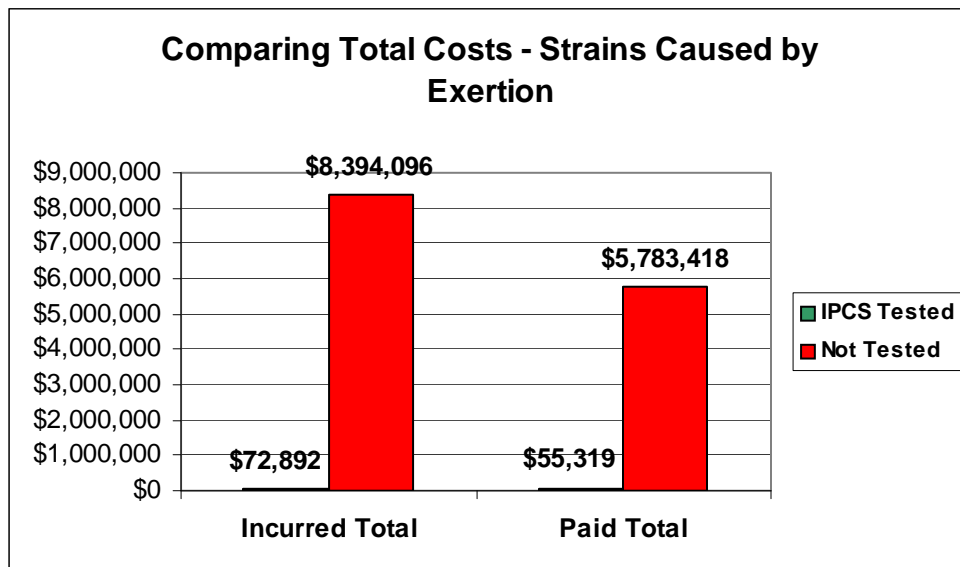
**Chart 3**



The average cost of an Incurred Total Claim for the Not Tested Group is 6.5 times greater than for the IPCS Tested Group and nearly 6 times greater for the average Paid Total claim (Chart 3).

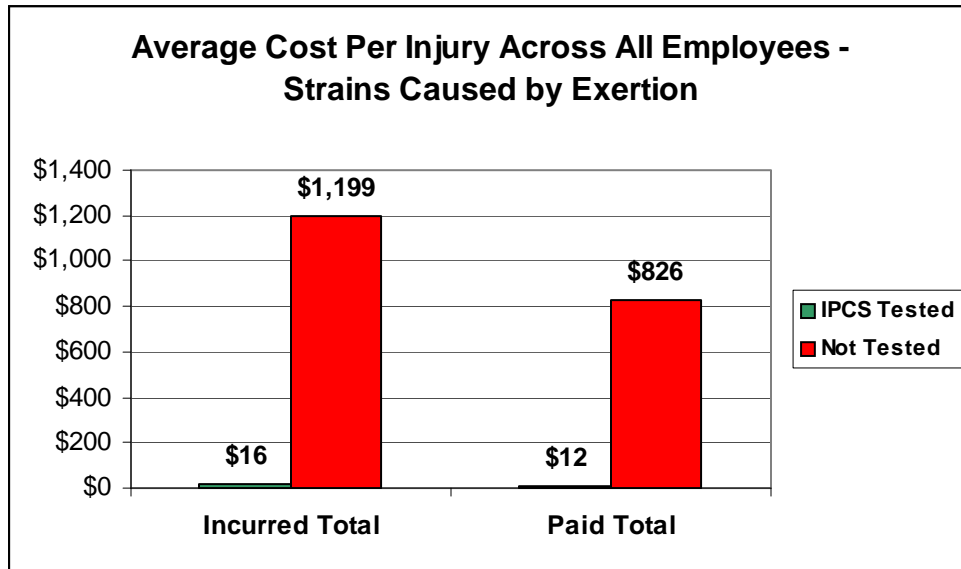
Chart 4 shows the total amount for the Incurred Total and Paid Total claims for the IPCS Tested and Not Tested Groups for the knees, shoulders and low back. The Not Tested Group's Paid Total is nearly 115 times greater than the IPCS Tested Group. The Not Tested Group's Incurred Total is nearly 105 times greater than the IPCS Tested Group.

**Chart 4**



Since the two groups represent a different number of employees (4,500 for IPCS Tested vs. 7,000 for Not Tested), another way to look at the data is to determine the average cost per claim across all employees. Chart 5 shows the average cost per claim of an injury paid per employee. The Not Tested Group's average cost per injury across all employees was 74 times greater than the IPCS Tested Group for Incurred Total and 67 times greater for Paid Total. **In fact, the cost is less than \$1.50 per employee per month for the IPCS Tested group compared to nearly \$94 per employee per month for the Not Tested group.**

**Chart 5**



Frequency and Cost of Injuries by Body Part

Chart 6 shows the frequency of injuries for each group according to body part. In all instances the IPCS group had substantially fewer strains/sprains caused by exertion when compared to the Not Tested Group. The most dramatic differences occurred with the back and shoulder categories.

**Chart 6**

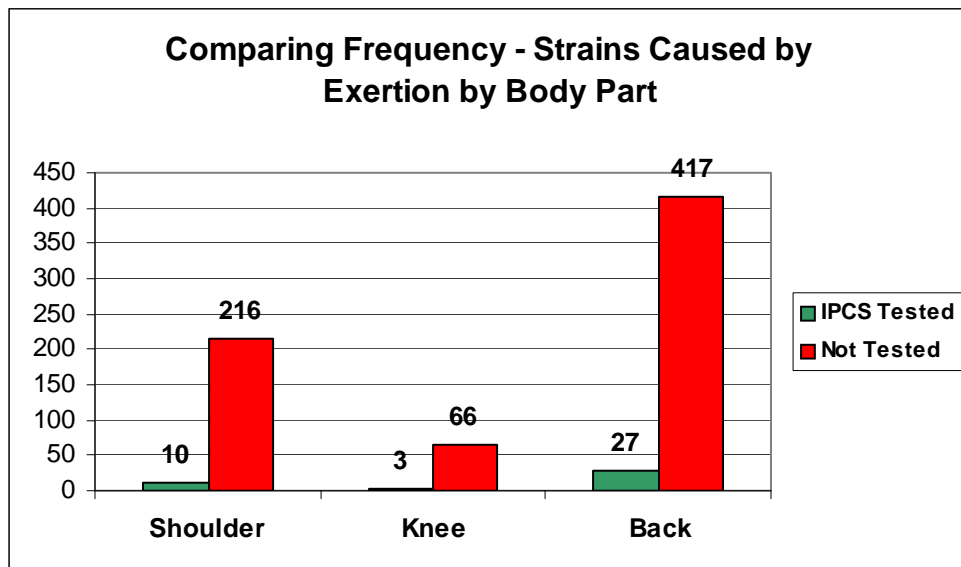


Chart 7 shows the average cost of a Incurred Total claim for each group according to body part. In each instance, the average cost per claim for the Not Tested Group was substantially greater than the IPCS Tested Group.

Chart 7

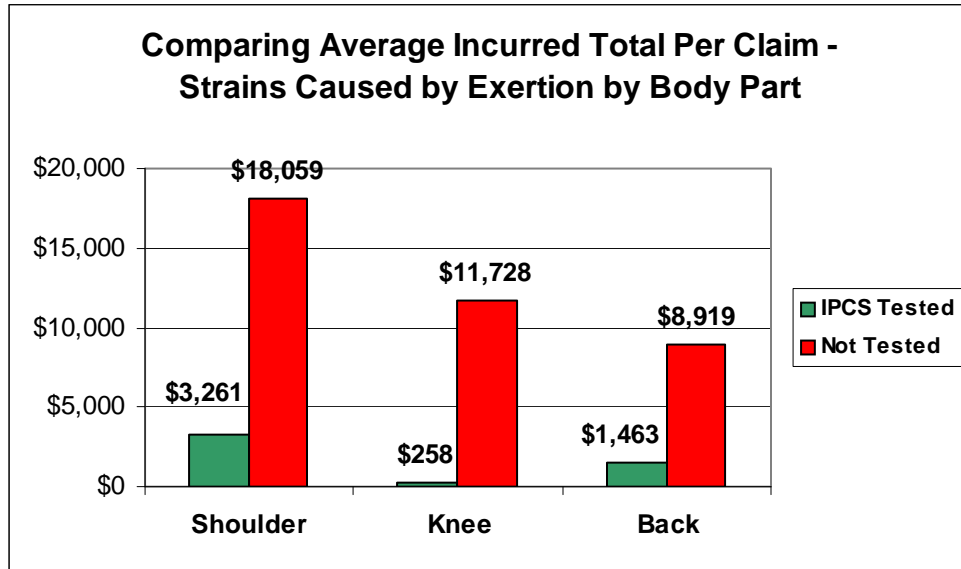
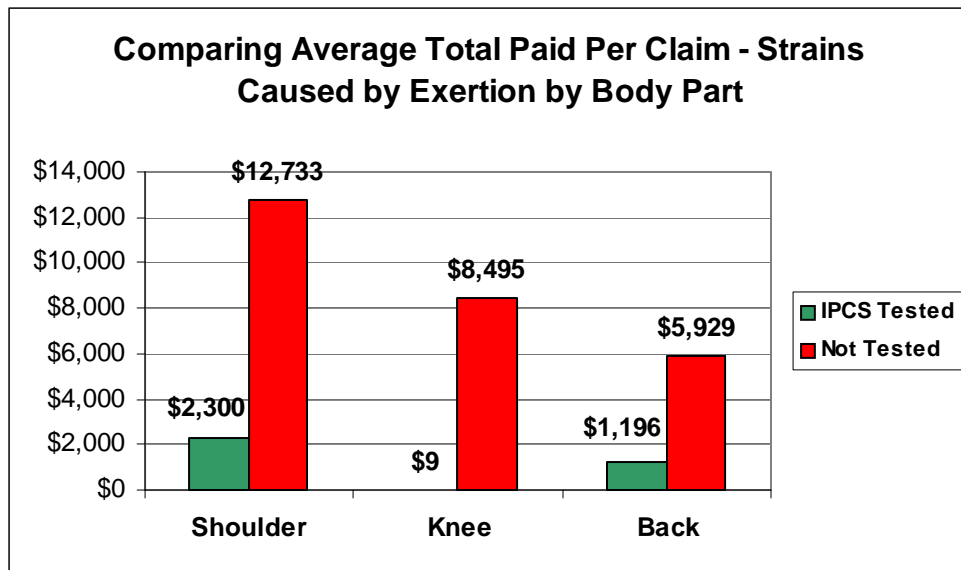


Chart 8 shows the average cost of an Total Paid claim for each group according to body part. In all instances, the average cost per claim is substantially greater for the Not Tested Group in comparison to the IPCS Tested Group.

Chart 8

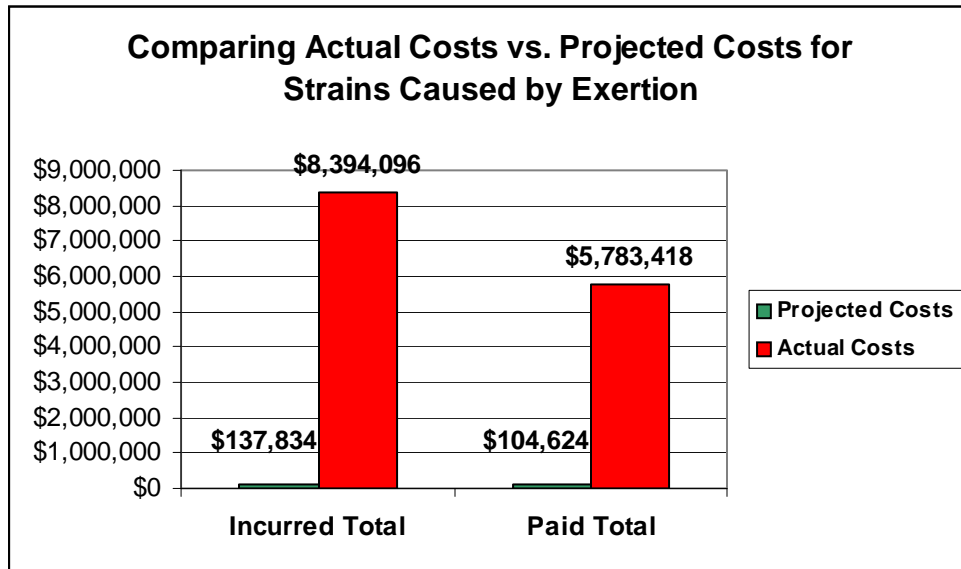


## Projected Savings

Since the total number of employees for each group is different, one can still estimate the cost savings by applying the incident rate of injury for the IPCS Tested Group (0.89%) to the Not Tested Group. The outcome of that calculation would be multiplied times the average cost of claim for Incurred Total and Total Paid minus the cost of the test (\$90 x 4,500 estimated new hire tests).

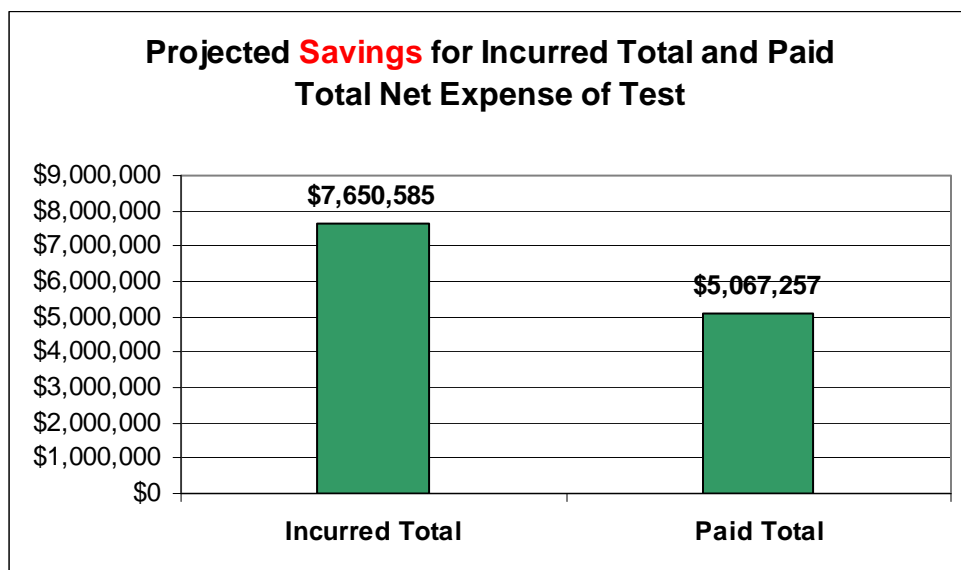
Chart 9 shows the Projected Costs compared to the Actual Costs for the Not Tested Group had the IPCS program been in place at the Not Tested Group plants.

Chart 9



Thus the savings would be the difference between the Actual Costs and Projected Costs minus the cost of the new hire testing. Chart 10 shows that the savings for the Incurred Cost would have been **\$7,650,585** and for the Total Paid the savings would have been **\$5,067,257**.

Chart 10



## Conclusion

The analysis of the injury data for this company clearly demonstrates that the IPCS physical capability assessment program had a dramatic impact on reducing both the frequency and severity of strain/sprains caused by exertion. The results represent an extended period of time for more than 4 years.