



## Executive Summary

### Physical Capability Assessment Program Analysis

- One of the nation's largest railroads (RR) elected to implement a new hire physical capability evaluation program in 1999 for select job crafts.
- The program was officially implemented for new hires on September 1, 1999. The following report covers the time period from September 1, 1999 through December 31, 2002. During this period of time, those hired and recommended were tracked for injuries (NH group).
- For comparison purposes, a historical profile for injuries was obtained by reviewing all injuries from January 1, 1997 through April 30, 1999 for those in the same job crafts selected for the new hire program (HIS group).
- The analysis clearly shows that when reviewing all injuries that occurred during the time frames identified above, the NH group's incident rate of injury was 4.6 times less than that of the HIS group.
  - In addition, when focusing on the exertion injuries to the knees, shoulders, and back, the NH group's incident rate of injury was 5.3 times less than the HIS group.
- When comparing the average number of lost work days per injury for all injuries, the NH group had a slightly higher average than the HIS group.
- When comparing the average number of restricted days per injury for all injuries, the NH group's average was 2.6 times less than the HIS group.
- *It appears that the new hire physical capability assessment program has significantly reduced the frequency of all injuries and injuries specifically caused by exertion to the knees, shoulders and back for those individuals representing the crafts participating in this program.*

# Injury Report: Comparing IPCS Tested New Hires vs. Historical New Hires Not IPCS Tested

One of the nation's largest railroads (RR) elected to implement a new hire physical capability evaluation program in 1999. The program was officially implemented for new hires on September 1, 1999. The following report covers the time period from September 1, 1999 through December 31, 2002. During this period of time, those hired and recommended (3,175) were tracked for injuries (this time period represents 1,260 days). For comparison purposes, a historical profile for injuries was obtained by reviewing all injuries from January 1, 1997 through April 30, 1999 for those in the same job crafts selected for the new hire program, which also represents the same length of time or 1,260 days. It should be noted that during this second time period, RR hired 8,894 individuals.

## Incident Rate of Injury

The incident rate of injury for the IPCS tested group was calculated using the number of new hires tested and recommended or 3,175. The Historical group's incident rate was calculated using the number of individuals hired from January 1, 1997 through April 30, 1999 for the same job crafts. The number hired for the Historical group was 8,894.

Chart 1 shows the number of all injuries that occurred for both the Historical and IPCS groups.

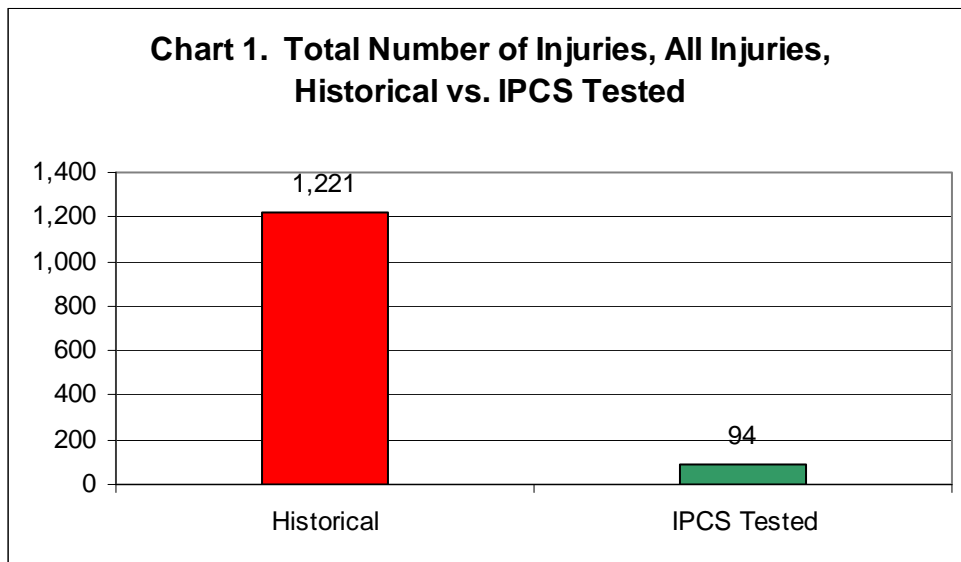
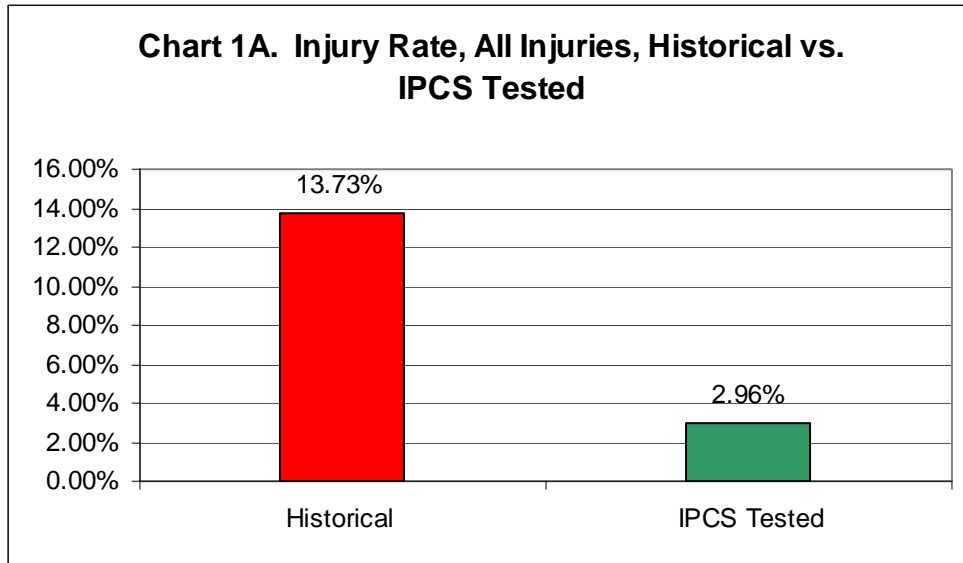


Chart 1A expresses the numbers shown in Chart 1 as a percentage relative to those hired for each group. The incident rate of injury for all injuries for the Historical group was 4.6 times higher than the IPCS tested group (13.73% vs. 2.96%).



If the IPCS incident rate is applied to the Historical group, the number of injuries that would have occurred is 263 versus the 1,221 that did occur.

Chart 2 shows the number of knee, shoulder, and back (KSB) exertion injuries for the Historical and IPCS groups.

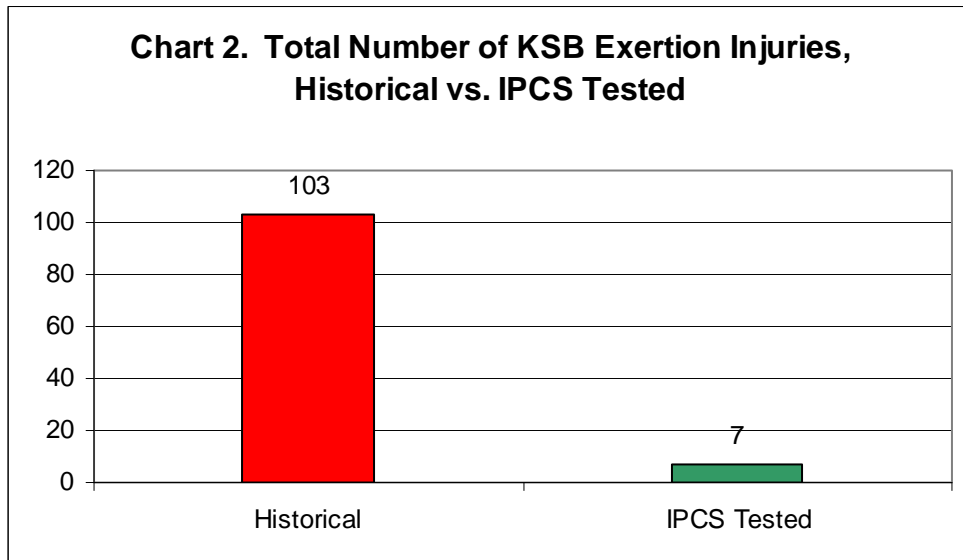
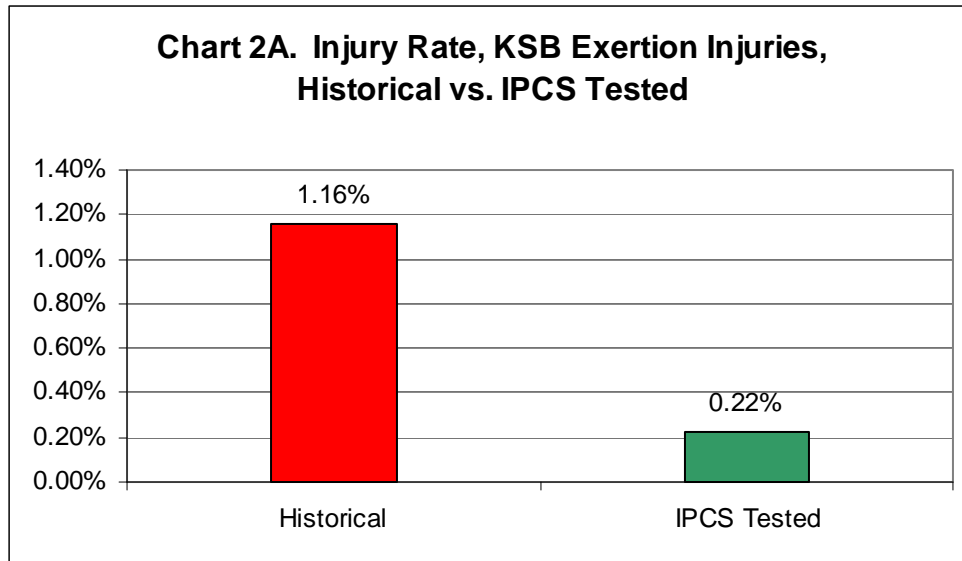


Chart 2A shows the incident rate of injury for the Historical and IPCS groups based on the numbers expressed in Chart 2. The incident rate for both groups is low (which is good); however, the Historical group's incident rate was 5.3 times greater than the IPCS group (1.16% vs. 0.22%)



Again, if the injury rate for the IPCS group was applied to the Historical group, the number of knee, shoulder, and back injuries would have been 20 instead of the 103.

### Lost Work Days

Chart 3 shows the total lost workdays for all injuries for the Historical and IPCS groups.

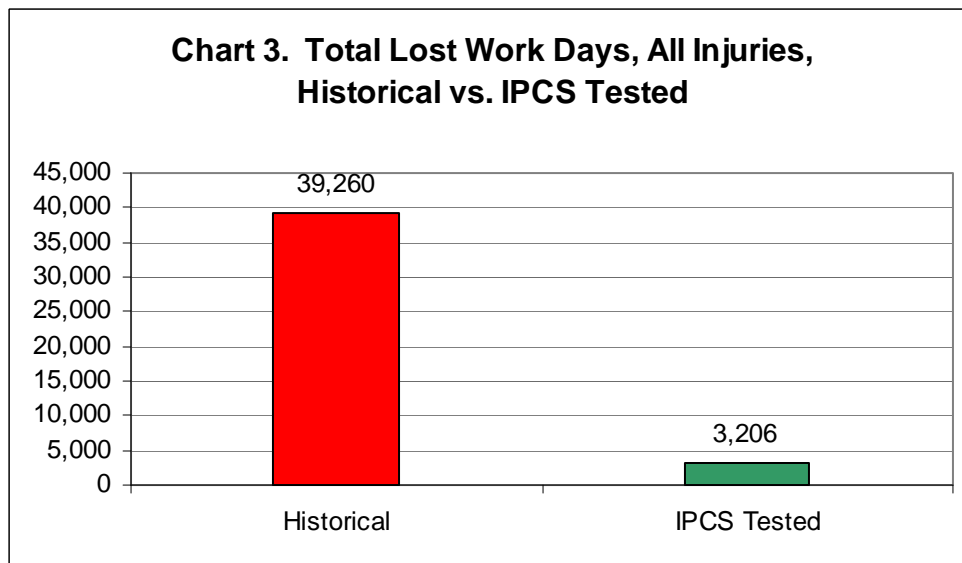


Chart 4 shows the average lost days per injury for all injuries for each the Historical and IPCS groups. The averages are nearly identical with the Historical group averaging 32 lost days per injury and the IPCS group averaging 34 days. The average for the IPCS group is surprisingly high, but can be explained by five injuries that each had lost days over 250 days with the highest as 483 days. With the number of injuries relative low (94) for the IPCS group, the mean or average is more influenced by these five serious injuries.

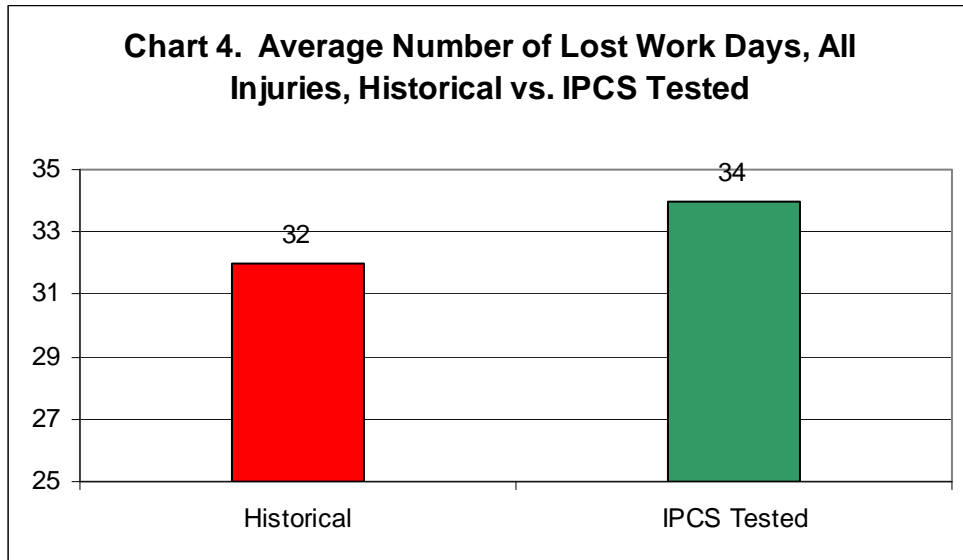


Chart 5 shows the total number of lost workdays for knee, shoulder and back exertion injuries only for the Historical and IPCS groups.

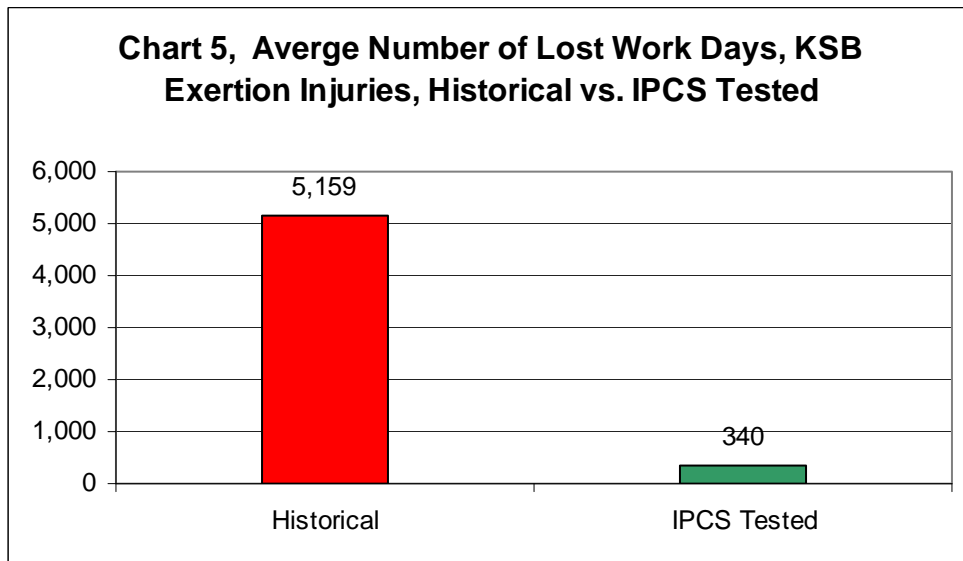
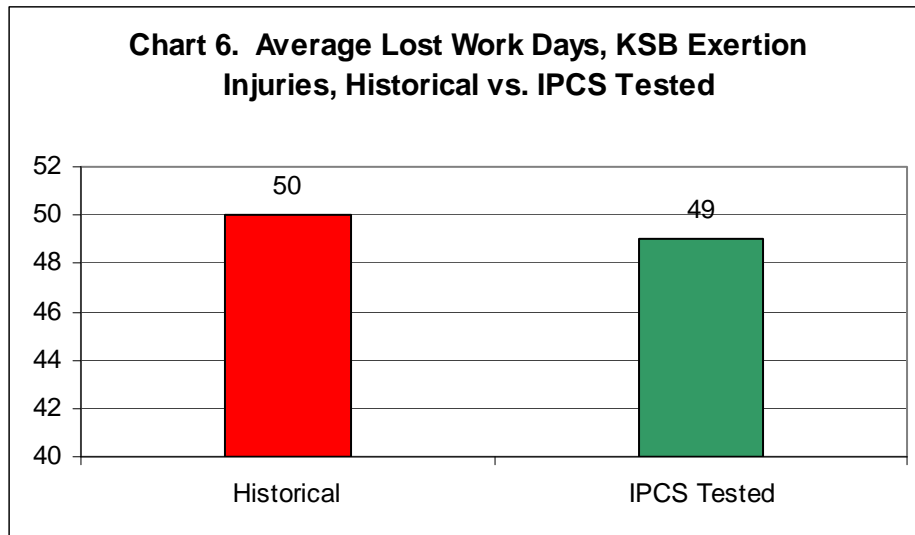


Chart 6 shows the average number of lost workdays for knee, shoulder and back exertion injuries for the Historical and ICPS groups. The average number of lost days for the Historical group is 50 and for the ICPS group is 49. Again, the average for the ICPS group is high because of one injury that resulted in 267 lost workdays that did occur each involving over 250 lost days and because of the low number of injuries (7).



It should be noted that of the other 6 ICPS tested lost workday injuries, four injuries had 0 lost workdays and one injury had 29 and the other 44 lost workdays (the average of these 6 injuries was 12.2 days).

### Restricted Days

Chart 7 shows the number of restricted days for Historical and ICPS groups for all injuries.

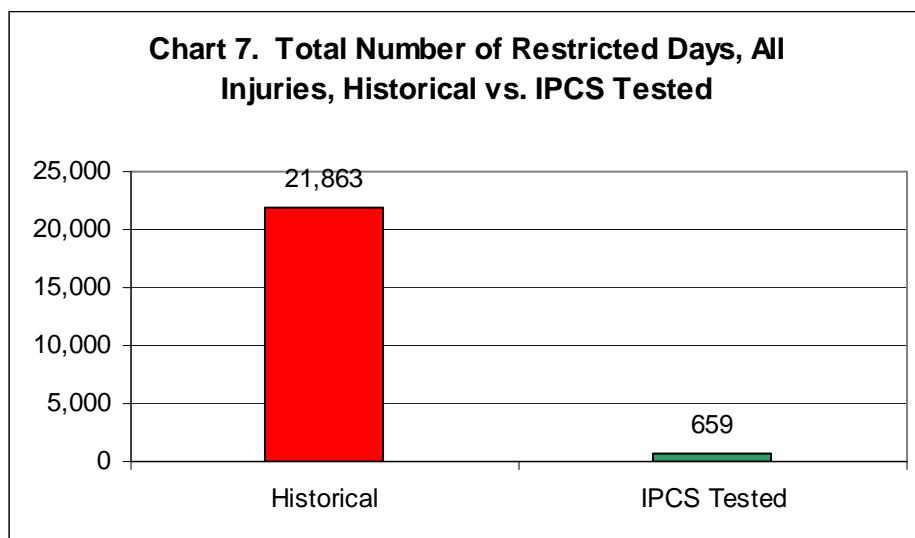


Chart 8 shows the average number of restricted days for all injuries for the Historical and IPCS groups. The Historical groups average is about 2.6 times greater than the IPCS group (18 days vs. 7 days).

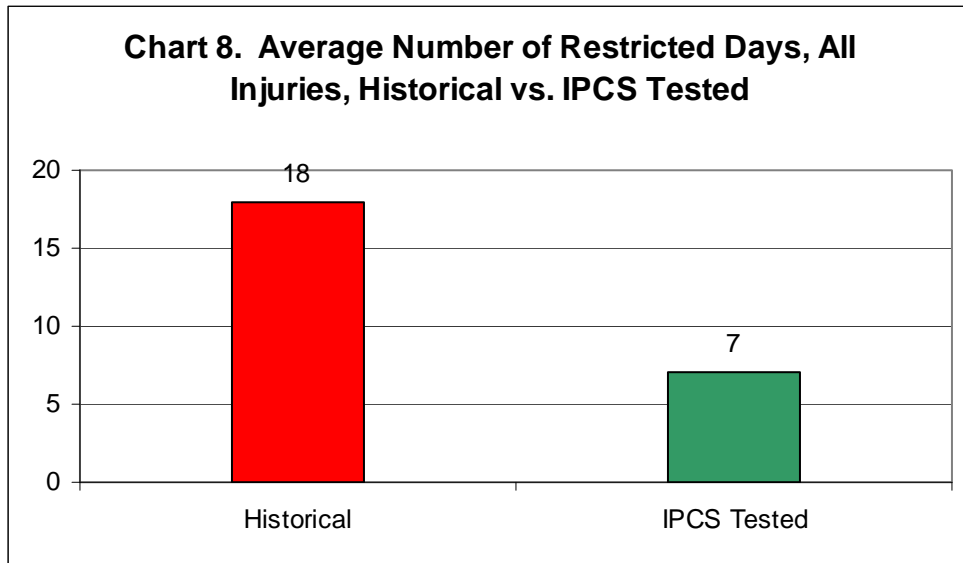
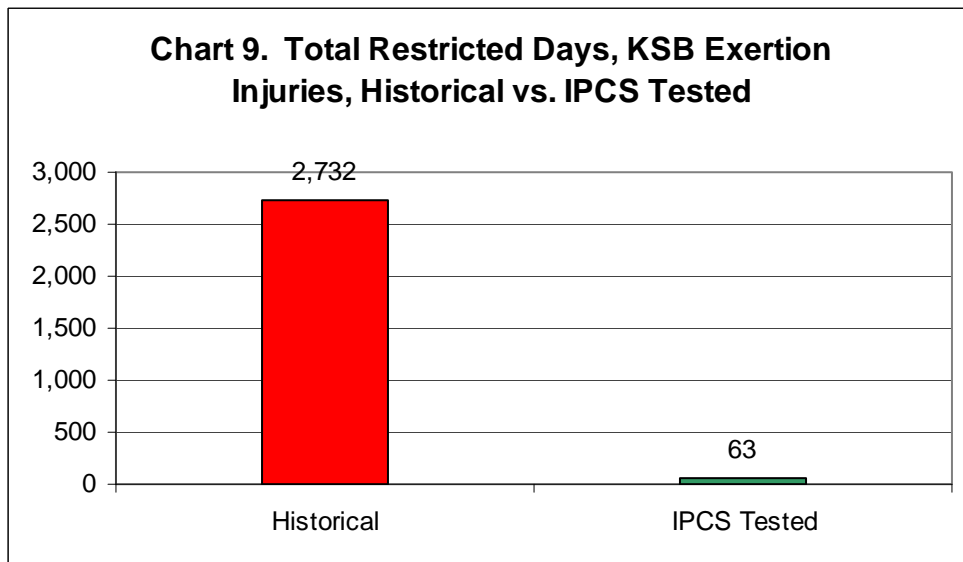


Chart 9 shows the total number of restricted days for knee, shoulder and back exertion injuries for the Historical and IPCS groups.



The average number of restricted days for knee, shoulder and back exertion injuries for the Historical and IPCS groups are shown in Chart 10. The average number of restricted days per injury was 3.9 times greater for the Historical group (27 days vs. 7 days).

