

# Chillicothe Schools, Chillicothe

**Intervention Key Words:** Bus, Air Lumbar Support, Air Operated Service Doors

**Industrial Key Words:** Schools

**Risk Factor(s):** Awkward Posture – Shoulder deviations, Back deviations, High Hand Force- Pinching/Gripping, Repetitive motion

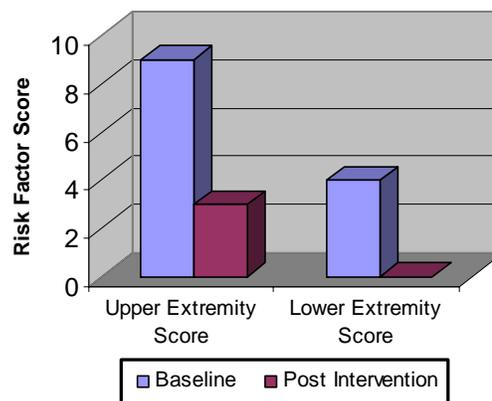
## Situation:

Chillicothe City School System owns a number of antiquated school buses that pose risks for Cumulative Trauma Disorders upon bus drivers. Risk factors include repetitive shoulder extension from opening and closing doors and constant jarring from a lack of seat suspension which can lead to back injuries. These risks are especially evident in the number of complaints drivers have made. When compared to newer buses with newer technologies, injury and pain complaints of drivers of old buses are substantially higher.

## Solution:

Chillicothe Schools analyzed the situation concerning the CTD risk factors and decided to replace one of the older style buses with a new one. The new bus was equipped with an air actuated door and an air suspension drivers seat. The air actuated door is operated by a button located close to the driver. The new suspension seat absorbs most of the jarring from the road and also contains an air operated lumbar support to encourage proper posture and reduce lumbar strain. Total cost for the upgrades to be added to the bus was \$530. The school district received \$398 from SafetyGrant\$ to offset the costs.

## Results:



- CTD Risk Factor scores decreased 77% following the intervention.
- CTD, Restricted Days, Lost Days and Employee Turnover Rates were at 0 the year prior to the intervention and remained at that level for 2 years following.