

# Conference on Falls From Commercial Vehicles

Liberty Mutual Research Institute for  
Safety  
July, 2008  
1.5 days

## Agenda

### The Problem - Data Analysis

Loss Data  
Task Based Loss Analysis  
  Entering and Exiting Cab  
  Accessing Catwalk  
  Accessing a Trailer  
  Walking around Tractor /  
  Trailer

### Liberty Mutual Perspective

Tribology  
Anthropometry  
Three Points of Contact  
Footwear

### OEM Perspective

FMCSA Requirements  
Aerodynamics  
In-Cab Ergonomics

### Researcher Perspective

### Roundtable Discussion

Current Control Strategies  
Existing Design Constraints /  
Opportunities

### Fantasy Design Brainstorm & Workshop

## Participants

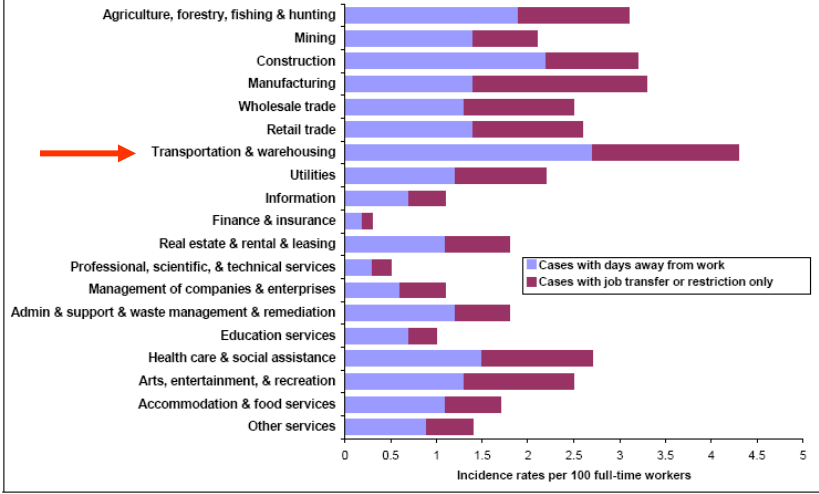
Oldcastle <b>Chief Industries</b> U.S. Xpress <b>Summitt Trucking</b> LSG/Sky Chefs <b>Superior Bulk</b> Novelis <b>Pride Transport</b> Land Span <b>Bonsal American</b> Assoc. Wholesalers <b>Herzig Hauling</b>	Stock Building Supply <b>UPS</b> Wal-Mart <b>Daimler Trucks NA</b> UMTRI <b>Wilson Trucking</b> Schneider National <b>NIOSH</b> <b>ATRI</b> Wolseley	WA State L&I Sharp <b>White Rose</b> Penske Truck <b>Black Horse Carriers</b> Dominion Ryder <b>Assoc. Grocers of NE</b> Volvo Trucks NA <b>Mohawk Industries</b>	Swift Transportation <b>Coca-Cola</b> Kraft Foods <b>Navistar</b> PGT Trucking <b>Texas Disposal Systems</b> Hartt Transportation <b>LaFarge NA</b> Allied Building Prod. <b>Univ. of Waterloo</b>
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## LMRS Then and Now



## BLS Workplace Injuries and Illnesses in 2006

Chart 2. Incidence rates for cases with days away from work, job transfer, or restriction by case type and industry sector, 2006



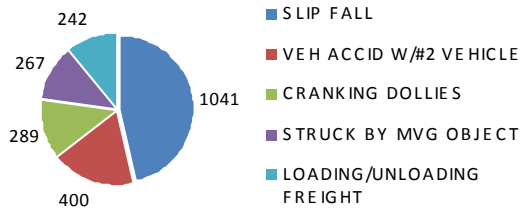
October 17, 2007

## Schneider National Inc.

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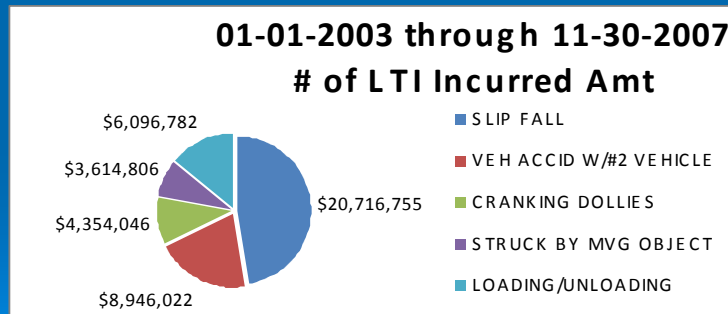
01-01-2003 through 11-30-2007

# of LTI Clms



# Schneider National Inc.

Used with Permission



## Attendee Comments

- "On the question whether drivers' ingress/egress behaviors can be changed, I am not optimistic."
- "Some drivers will always choose the wrong way to get out the cab because they prefer to move under visual guidance."
- "Hearing from OEM's that we do have options will cause me to be more involved in truck spec process."
- "We (now) address the topic with more frequency in driver training."
- "We are accumulating evidence that the design of the hardware influences the tactics that drivers choose. So training to use three points of contact may be more effective if the system better supports drivers' behavior."
- "I think we need some coordinated effort among researchers, OEMs and carriers to tackle the various safety related issues. This meeting is a very good example."

## Attendee Comments (Cont'd)

- **“We have increased our awareness training and observation of drivers at terminals and customer facilities.”**
- **“We will be using the subject material for additional training and supplying our fleet buying team the information to make informed decisions on future purchases with respect to vehicle access systems.”**
- **“Understanding why the best systems perform well, and generalizing that information into design specifications and assessment tools, may get us a long way without radical (i.e., expensive) changes.”**

## Conclusions

- **Dramatic lack of standardization of access / egress systems.**
- **Access / egress systems design doesn't encourage trained behaviors.**
- **Designers not aware of extent of problem.**
- **Users not aware they can spec improvements.**
- **Changes in access / egress systems may drive even more lawsuits.**
- **It's a human factors problem.**
- **Presented to Freightliner design engineering staff, September, 2008.**

## Recommendations

- **ANB Synthesis Report on Current State of Falls From Commercial Vehicles Research**
- **ANB 70 Recommendation that ATRI Initiate Falls From Commercial Vehicles Research**
  - Don Osterberg, Schneider, is Research Committee Director
- **ANB 70 Driver Health & Welfare Subcommittee Include Driver & Worker Injury in its Scope**