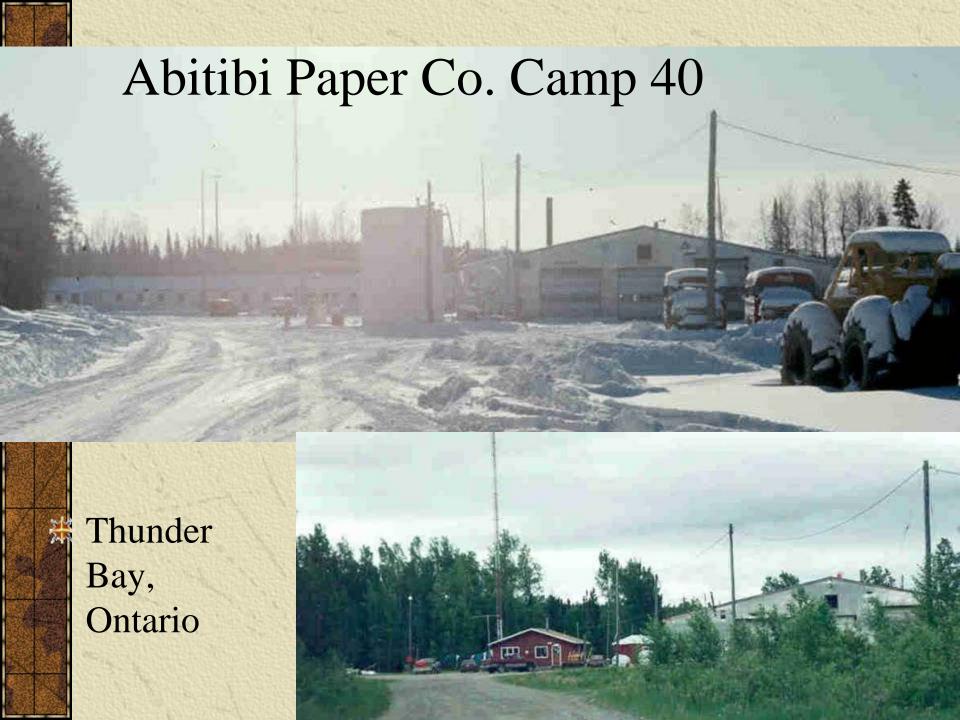


Cornelis F. de Hoop Associate Professor LSU Agricultural Center





- * Accident Statistics
 - Primary industry
 - Secondary industry
 - Logging
- ** Logging OSHA Strategic Partnership Agreement in Louisiana
- * Some recent Research

Forest Products Industry

* Primary











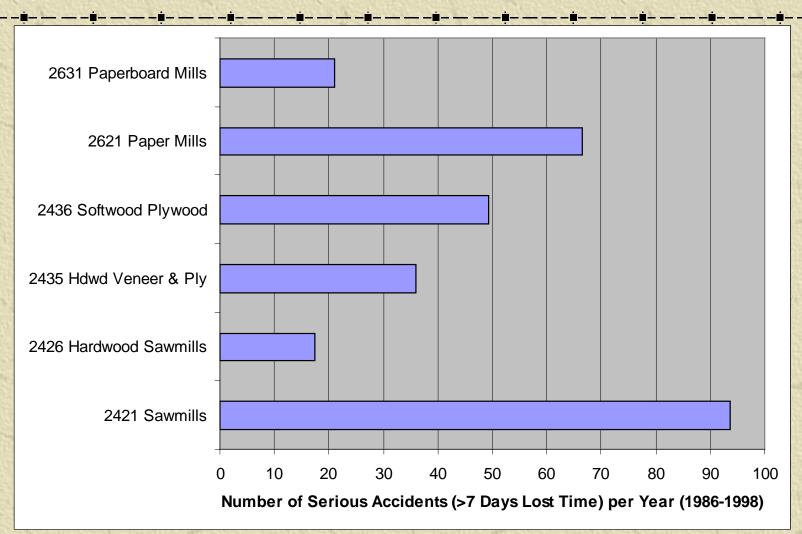
***** Logging

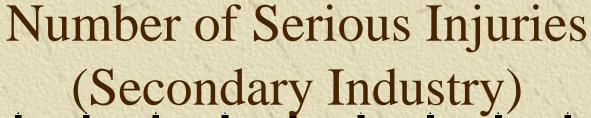


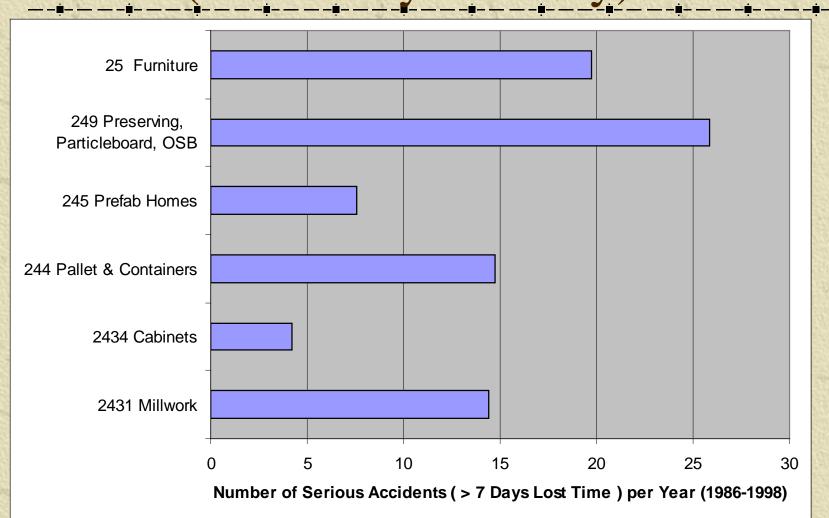




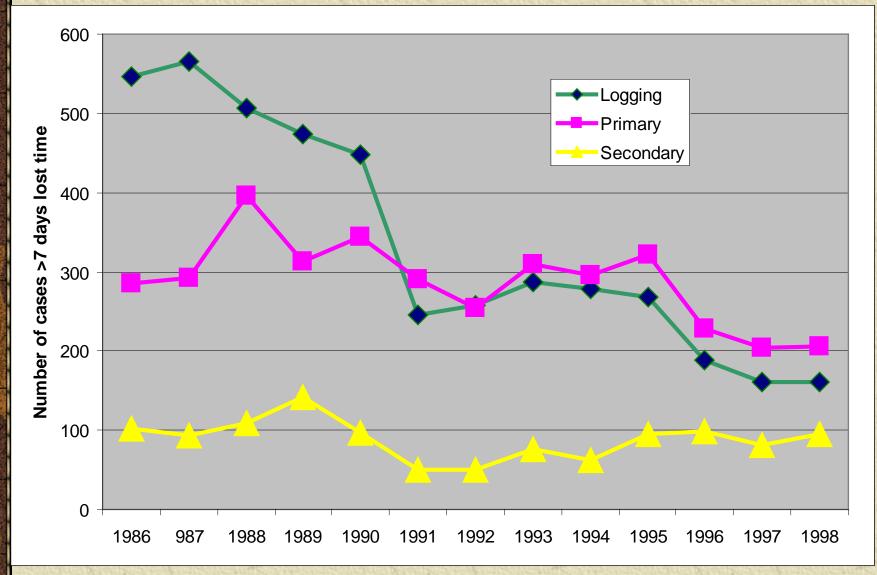
Serious Injuries (Primary Industry)



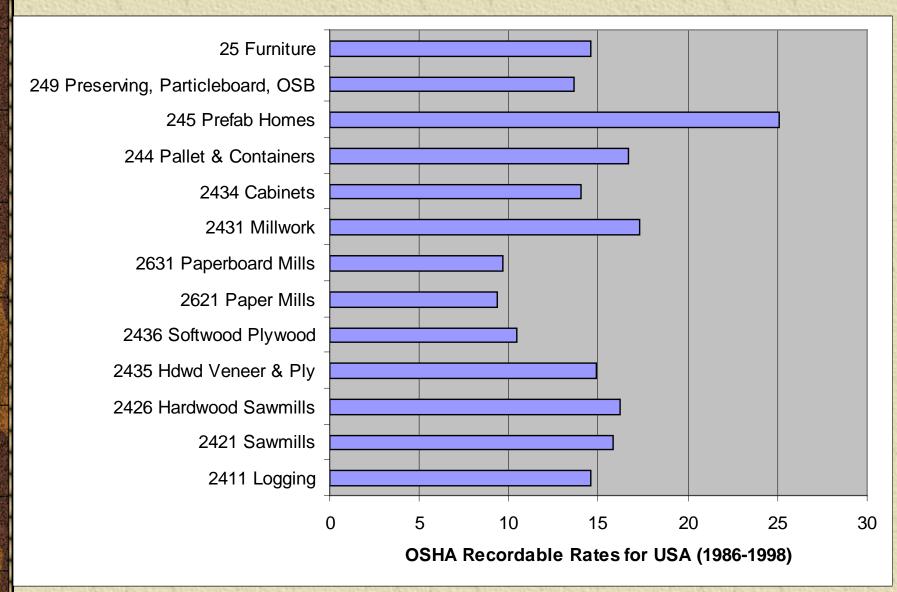




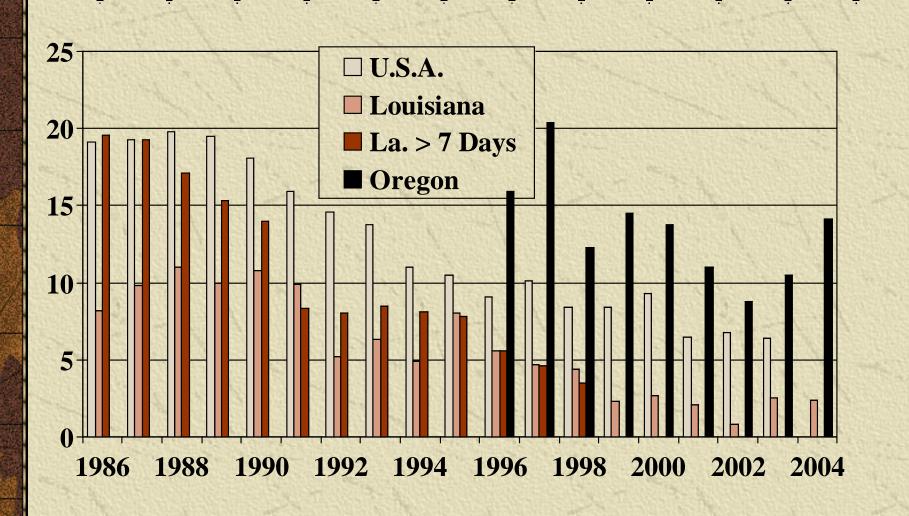
Trends: Number of Accidents



Recordable Accident Rates



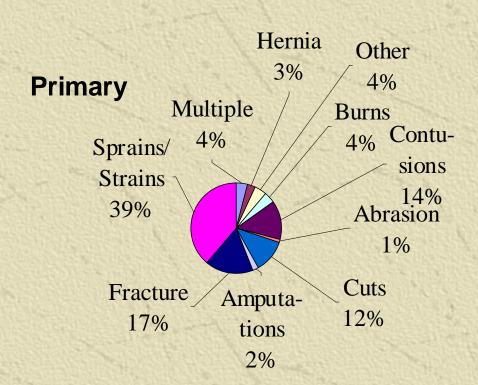
Logging Accident Rates per 100 Employees

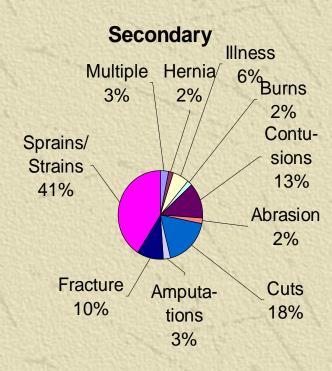




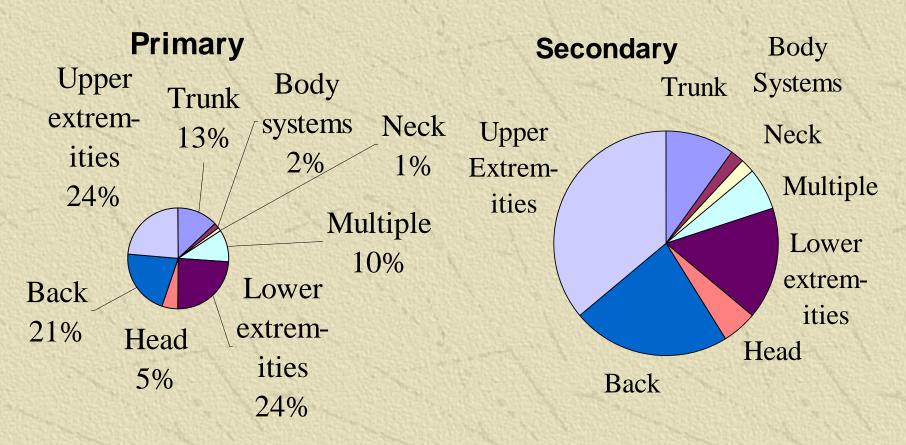
- * Louisiana Dept. of Labor
 - Office of Workers' Compensation
- ** Form 1007, Employer's First Report of Injury
- ** Form 1003, Notice that Compensation Payments Have Been Stopped
- ** Form 1011, Request for Compromise or Lump Sum Payment

Nature of Injury

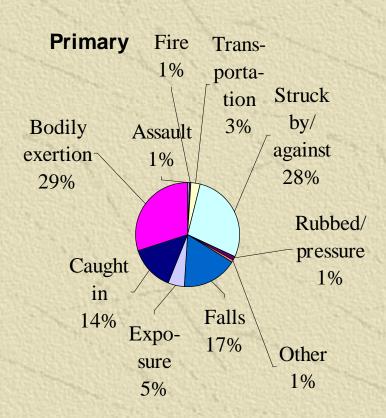




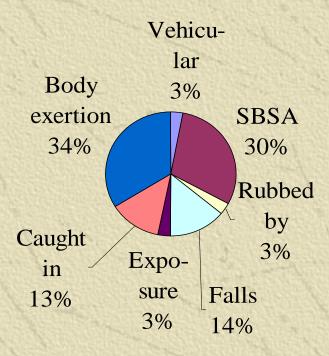
What Gets Hurt?



Type of Accident

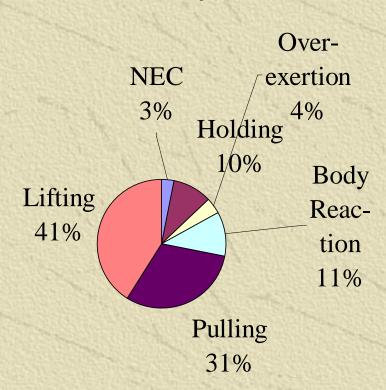


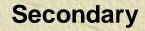
Secondary

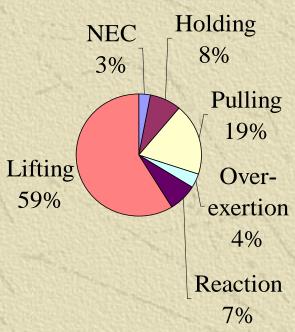


Exertion

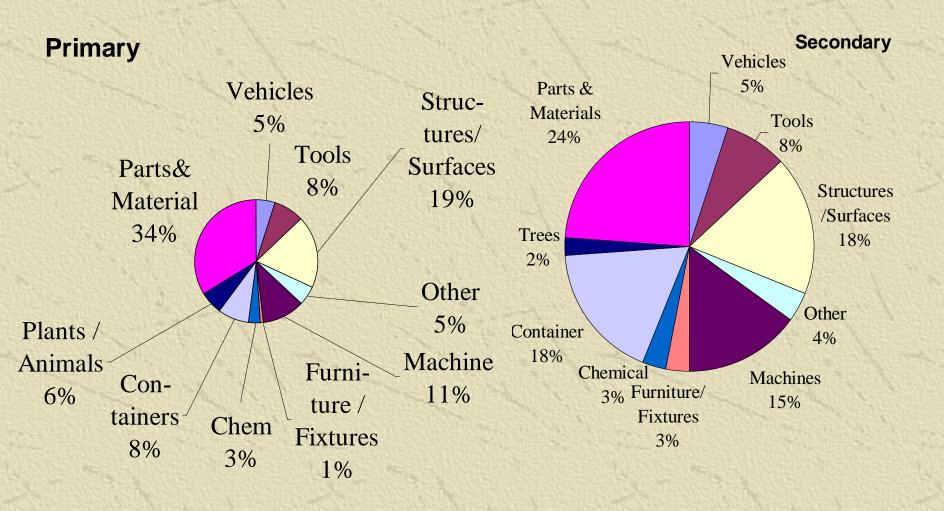
Primary



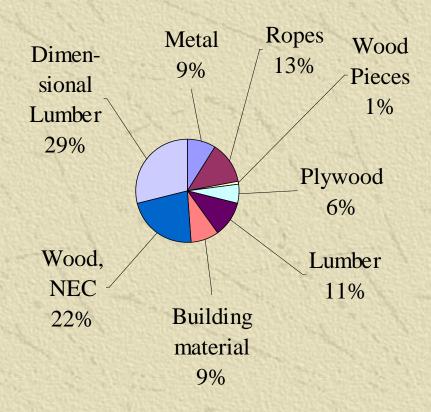




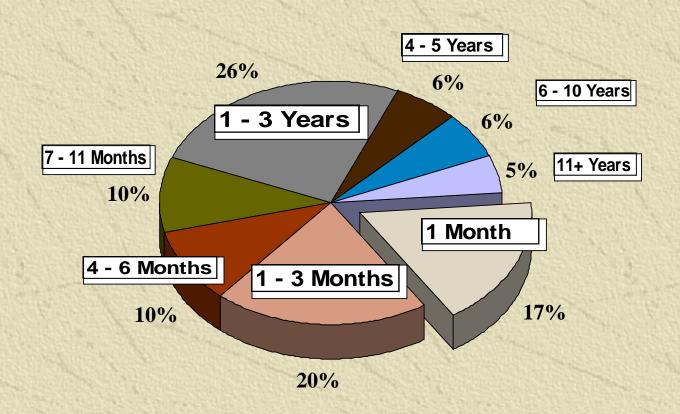
Source of Injury



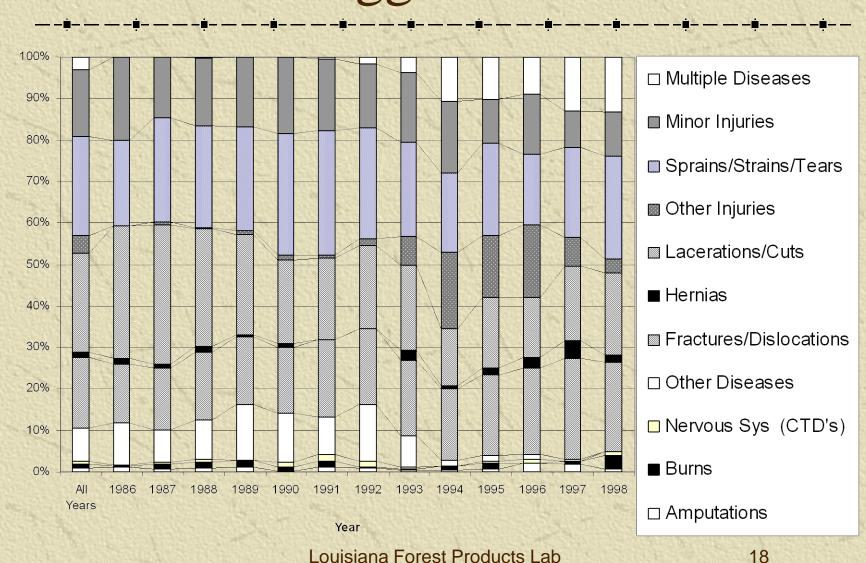
Parts & Materials (Secondary Industry)



Seniority of Logger



Nature of Injury Louisiana Loggers



Extra Caution



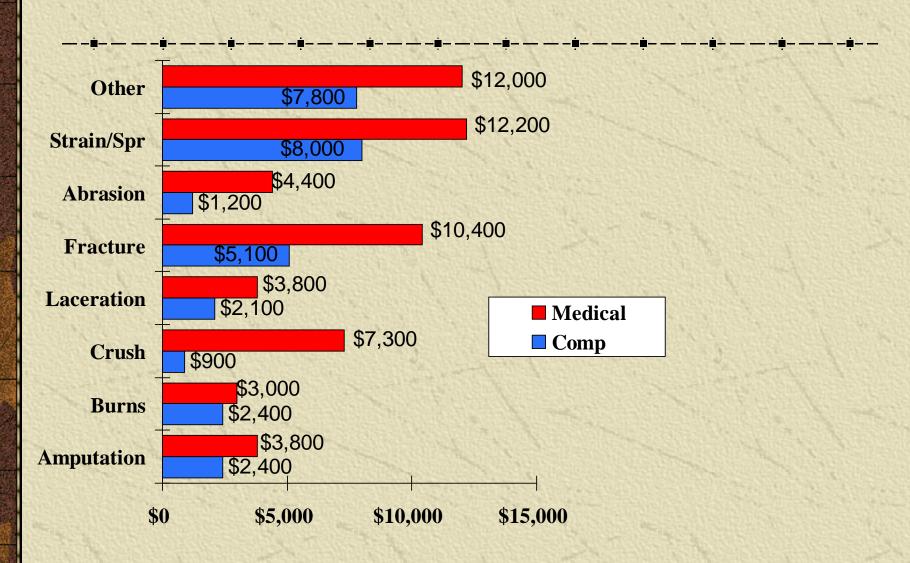
- ***** Unusual Situations
- ***** Maintenance

Costs

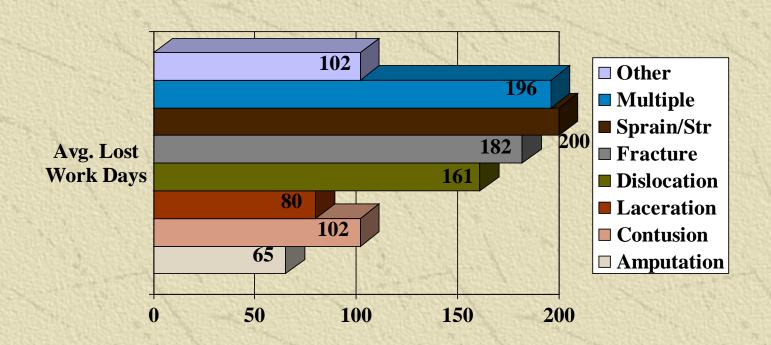


Louisiana Forest Products Lab

Cost by Nature of Injury



Lost Workdays by Nature of Injury





- ** Newest workers have the most injuries.
 - New worker training is very important.
- ** Fractures & Strains/Sprains = most common
- ** Fractures & Strains/Sprains = most expensive & longest recovery time.

Conclusions (cont'd)

** The rate of serious accidents is decreasing, but the injuries are getting more serious.



Conclusions (cont'd)

* Truck drivers get hurt a lot, too.



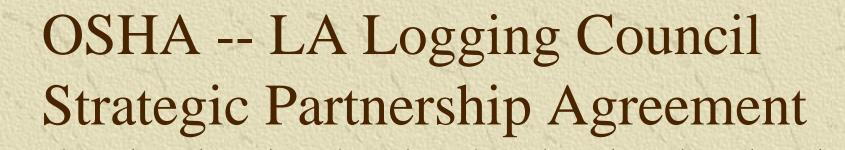
Cooperation – Award from the Assistant Secretary of Labor for OSHA

- ***** US Gov't
- * State Gov't
- ***** Industry
- ***** Association
- * Academia



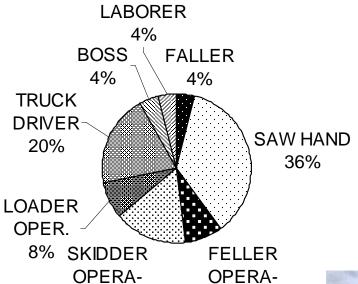
FATALITIES Louisiana Logging

- * 1999-2000 8 deaths
- **≈** 2001 − 1 death
- **≈** 2002 − 1 death
- **≈** 2003 − 3 deaths
- **≈** 2004 − 1 death
- **≈** 2005 − 3 deaths



- ≈ 2004 242 logging companies signed up.
- * 82% reported no accidents.

OCCUPATION 2004



TOR

8%

TOR

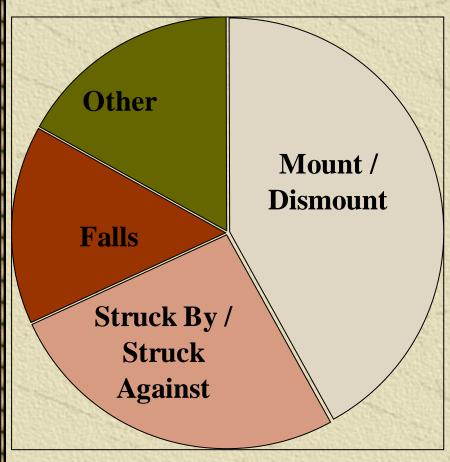
16%

Occupation





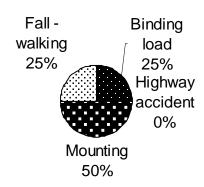
Event 1998-1999



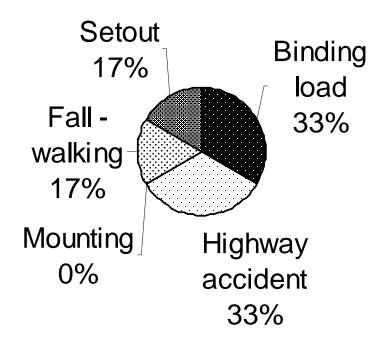


Falls:
Mostly Mounting &
Dismounting

Event - Truck Drivers Only - 2003



Event - Truck Drivers Only - 2004



Summary from Strategic Partnership

- * Repair & Maintenance
- Uncommon tasks -- Repair, grab saw.
- * Age
- * Improvement in mounting/dismounting equipment.
- * Load binders
- * Highway Accidents







Partnership Summary, Cont'd

- * PPE
- Workspace
- ***** Communication







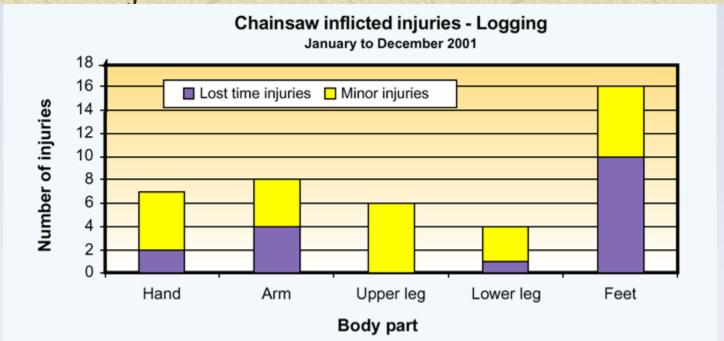


- Training, Training,Training
- Safety Meetings
- Safety Inspections & Improvements
- Defensive Driving





Foot Injuries – New Zealand



In the year January to December 2001 there was a large increase in the number of lost time and minor injuries due to chainsaw lacerations. Most were lacerations to the feet while trimming. Protective leg wear continues to do its job in preventing lacerations to the legs - there was only one lost time chainsaw cut to the legs. There were nine chainsaw cuts to the legs which were minor and many near misses reported where the chaps or pants were cut but no injury resulted. There were also many near miss events reported to the silviculture ARS, where protective chaps or pants prevented injury.



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COHFE Contacts:

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Research in New Zealand



Sabaton









Research in New Zealand

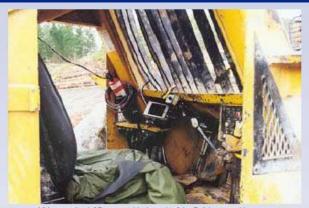
* Rear Vision Camera



190 tonne dump truck with video reversing camera and 6000 tonne dragline in the background

Rear Vision in Bell Loggers - Improving Productivity

The versatile Bell Logger commonly works in close proximity to skid workers and other machines. Mirrors have had limited success in providing rear vision for the operator because they get damaged or covered in mud in the demanding operational conditions. A closed circuit video system has been trialed as an effective means of providing operator rear vision and increasing the safety of workers in close proximity to the machine.



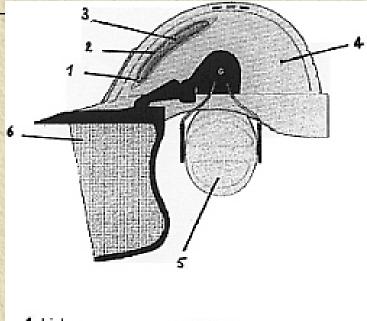
Video monitor LCD mounted in the cab of the Bell Logger with camera



Video still image from rear-view video monitor in cab of Bell Logger.

Research in Germany





- 1. Lining
- 2. Insulation
- 3. Cooling element
- 4. Helmet
- 5. Ear protection
- 6. Visor

Research at Auburn (USFS)

- ***** Chain Shot
- * Flung Tooth

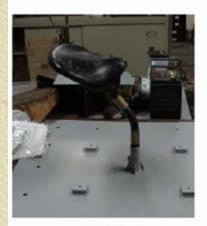


ERGONOMICS





Ergonomics



(a) Seat A



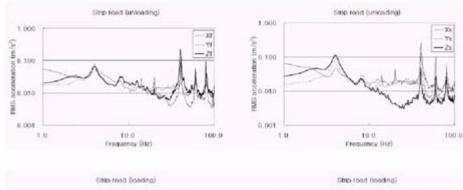


(b) Seat B





gure 5 Experimental setup for measuring whole-body vibrati



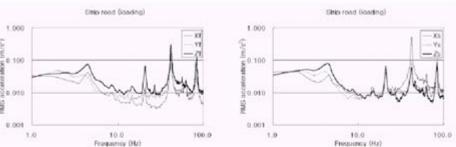


Figure 7 6-axis vibrations level on strip road.



- * New Technology
- ***** Better Products
- * Acceptance by the Industry

****BUT IT'S WORTHLESS IF**YOU DON'T USE IT!



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- ** Baton Rouge, LA 70803
- ***** (225) 578-4242
- * cdehoop @ lsu.edu