guide construction managers in the implementation of optimal work schedules that would minimize the risks and cost of safety and health to workers, employers, and the public. The results may also suggest appropriate public policy interventions, tailored to construction and industries experiencing similar consequences, to produce work schedules that might help reduce the risk of injuries and illnesses.

E2.3

Title: Ontario Construction Industry Fatalities –1992 to 2002
Author: Zaichkowski J

From 1992 to 2002, the Ontario Construction Industry experienced 195 fatalities. During this period, the number of workers increased from 269,000 in 1992 to 354,000 in 2002. Over this same period, the Fatality Frequency rate fluctuated between 4.5 and 8.4 (averaging 6.05) per 100,000 workers per year.

In order to track trends in construction fatalities, the Construction Safety Association of Ontario (CSAO) maintains a fatality causal database. For each fatality, causal data fields are populated including accident type, work surface, age, occupation and project type. Main sources of data are CSAO field staff, Ontario Ministry of Labour (MoL), Ontario Workplace Safety and Insurance Board (WSIB) and the Ontario Coroners Office.

The following are some of the statistics derived from this database:

The 4 largest Categories/Groups of fatal accidents were; falls to a different level 40%, struck by vehicles and equipment 19.5%, struck by falling, overturning or collapsing materials or equipment 18% and electrocution 15.4%.

The Low-Rise Residential sector was responsible for 34% of all fatalities. Of these 45% resulted from falls, 21% were electrocutions and 18% were struck by falling, collapsing or overturning materials or equipment.

In the Low-Rise Residential sector, the use of ladders accounts for 30% of that sector's fatalities. Half of these were falls from ladders and half were electrocutions caused by ladders contacting overhead power lines.

This presentation will provide an in-depth analysis of the breakdown and trends of the causal data for these 195 fatalities, including trade, sector, project type, work surface and accident types. Finally, this presentation will examine intervention strategies initiated by the MoL, WSIB and CSAO.

E2.4

Title: Injury and Payment Rates for Different Injury Mechanisms among Types of Construction Work
Authors: Glazner JE, Bondy J, Lezotte DC, Guarini K, LIpscomb HJ

Background: To calculate injury and payment rates for specific types of injuries suffered by workers doing different types of construction work, we analyzed 3683 reports for injuries occurring during the construction of Denver International Airport (DIA).

Methods: A database including workers' compensation (WC) claims and payroll for the 32,081 construction workers who built DIA was linked with data from injury reports. Based on a manual review of narrative text describing the incident, each injury was assigned a single "mechanism of injury event" (MOIE), which refers to the initial energy exchange leading to injury (e.g., the "slip/trip" leading to a fall was coded rather than "fall."). Linking these data sources allowed us to analyze rates of mechanisms of injury events for each type of work. For types of work with at least 100,000 hours of payroll, we calculated injury rates per 200,000 hours worked for each MOIE.

Selected Results: Analysis of injuries for the type of work with the highest WC payment rate, driving/trucking at $19.60 per $100 payroll, revealed that the payment rate for slips/trips ($6.48) was higher than that for motor vehicle/heavy equipment injuries ($5.98). This suggests that prevention efforts for drivers on construction sites may also have to focus on risks for injuries occurring while drivers are not driving.

Workers doing another type of work, glass installation, with the fifth highest overall payment rate, were almost equally likely to experience straining motion and slip/trip MOIEs (9.62 and 8.71 per 200,000 hours, respectively). The payment rates for slips/trips, however, were much higher at $13.95 per $100 than for straining motion ($3.83). This indicates that slips/trips, while less frequent, are more serious injuries for this group of workers. Such information could reorder prevention priorities.

NOIRS 2003 ABSTRACTS

Although the abstracts in this publication were proofread to eliminate obvious errors in spelling, punctuation, and grammar, they were neither edited nor officially cleared by the National Institute for Occupational Safety and Health (NIOSH). Therefore, NIOSH is not responsible for the content, internal consistency, or editorial quality of the abstracts. That responsibility lies solely with the individual authors. Any use of company names and products throughout this publication does not imply endorsement by NIOSH, the Centers for Disease Control and Prevention, the Public Health Service, or the Department of Health and Human Services.