

## COMPANY SIZE AND INJURY FREQUENCY IN ONTARIO CONSTRUCTION



D. J. McVittie, Construction Safety Association of Ontario

### Injuries 1988-1993: Large firms, low frequency

The Construction Safety Association of Ontario (CSAO) studied the effects of company size on lost-time injury (LTI) rates in Ontario for the period 1988-1993 inclusive.

The data showed a clear inverse relationship between the frequency of LTIs and the size of the construction company.

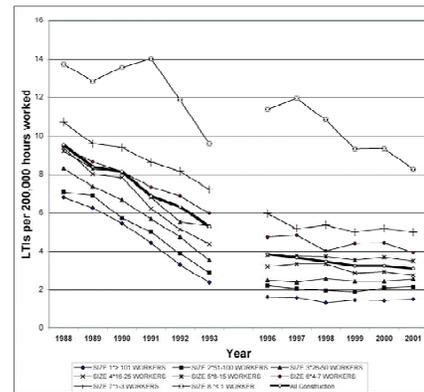
Analyzing the trends demonstrated that the largest construction companies were not only performing better in terms of LTI rates, but they were *improving* their performance at a faster rate than the smaller firms.

### Injuries 1996-2001: Small firms got better faster

CSAO went on to analyze more recent data (for 1996-2001 inclusive). The relationship between company size and LTI rate is consistent with the previous period: larger firms still had the lowest LTI frequencies.

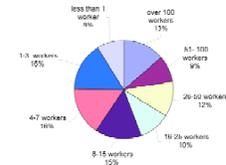
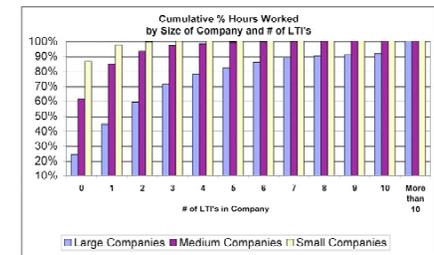
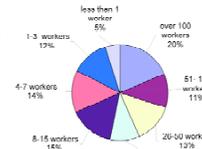
A difference, however, showed up in rate of improvement. In 1996-2001, smaller companies had a faster rate of improvement than the larger firms.

### Injuries by size of company (LTIs per 200,000 hrs worked)



Company size	Average annual rate of LTI frequency change	
	1996-2001	1988-1993
More than 100 full-time equivalent (FTE) workers	1.35%	10.86%
51 to 100 FTE workers	0.32%	9.86%
26 to 50 FTE workers	-0.36%	9.61%
16 to 25 FTE workers	2.29%	8.9%
8 to 15 FTE workers	1.37%	7.04%
4 to 7 FTE workers	2.78%	6.12%
1 to 3 FTE workers	2.75%	5.44%
Less than 1 FTE worker	4.59%	5.05%
All construction	3.16%	7.42%

### Distribution of hours worked 1988-1993

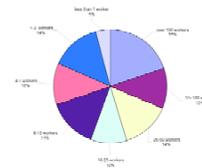


### Distribution of lost-time injuries 1988-1993

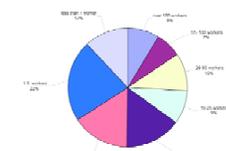
### Firms with injuries—now the exception

Further analysis showed that most firms have no LTIs in any given year. Even with the largest employers (those employing more than 100 full-time equivalent workers), 32 of 144 (22%) had no LTIs in any given year.

### Distribution of hours worked 1996-2001



Data on insured hours worked shows that approximately 58% of all construction work performed during the period studied took place without an LTI. If we include firms with only one LTI, the percentage of work done with one or no LTIs is 76%.



### Distribution of lost-time injuries 1996-2001

The belief that injuries are “common and expected” in construction needs to be challenged. The reality is that most firms operate without an LTI in a given year. Firms that incur multiple LTIs in a year are the exception. The industry needs to recognize that injuries have become *abnormal*.