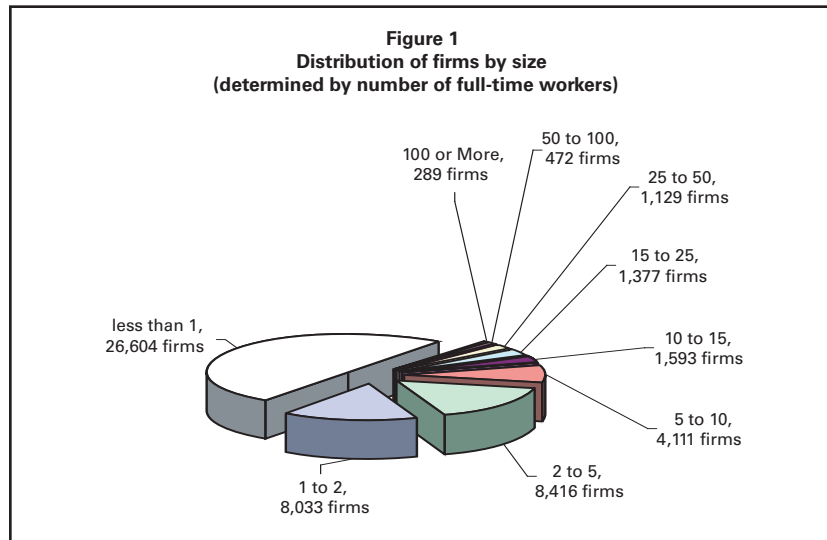
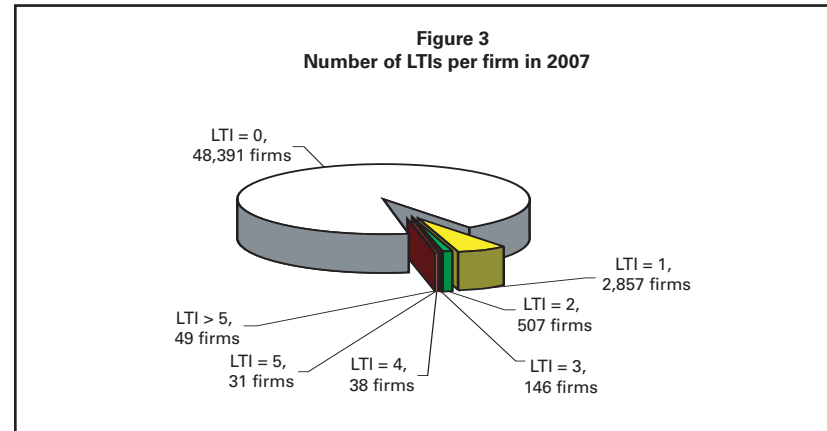
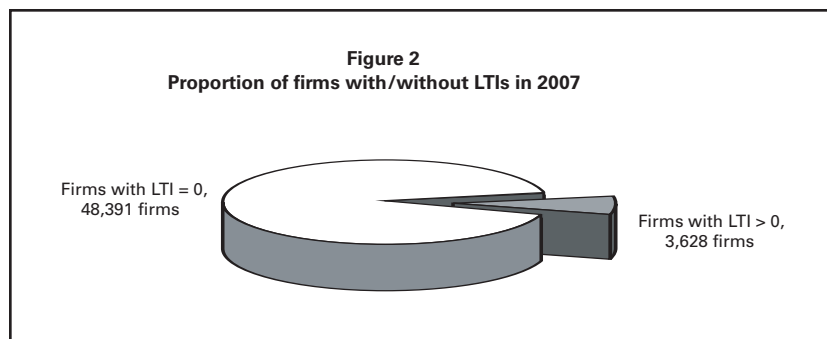


INCIDENCE PATTERNS OF LOST-TIME INJURIES WITHIN A LARGE POPULATION OF CONSTRUCTION COMPANIES

Ontario's construction industry consists of over 50,000 employers, ranging from very large to very small firms (see Figure 1). The Lost-Time Injury (LTI) experience and Insured Hours Worked for this large population were examined to discern multi-year incidence patterns over an eight-year period.



The analysis shows that contrary to popular belief, very few construction firms incur an LTI in any given year (see Figure 2). Furthermore, among those firms that incur an LTI, very few incur multiple LTIs (see Figure 3). Even among the largest firms, relatively few experience multiple LTIs and many have LTI frequency rates well below the industry average.



The data were further analyzed to examine the proportion of firms that incur LTIs in multiple years. The data on LTIs and Insured Hours Worked were extracted for all firms that reported an LTI between 1998 and 2002. The cohort of injury-incurring firms from each year was followed for four additional years to observe which ones incurred more injuries.

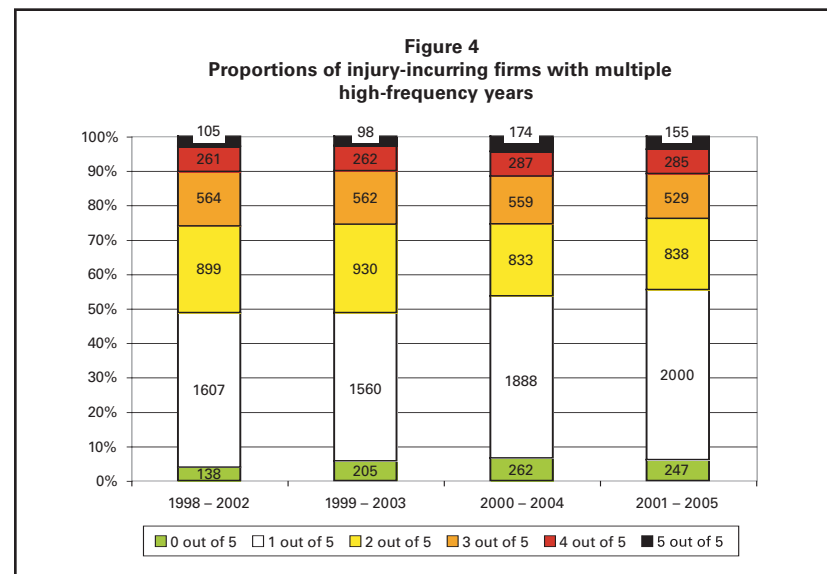


Figure 4 shows the proportion of firms that incur higher than average LTI rates in multiple years. Approximately 3% of the injury-incurring

construction firms (or 0.021% of all construction firms) experience higher-than-average LTI rates in five consecutive years. Most construction firms that incur an LTI in any given year are likely not to incur a second one for several more years.

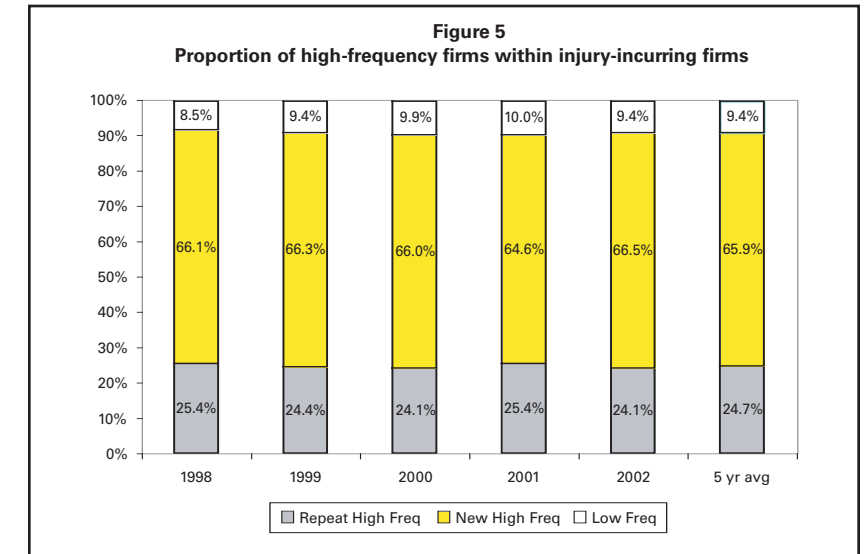


Figure 5 shows the year-to-year carryover of injury-incurring firms. The cohort of injury-incurring firms in each of the years examined consists primarily of firms that did not have an LTI in the prior year. These same cohorts of injury-incurring firms are unlikely to have another LTI in the next year. This pattern is very consistent within the various multi-year cohorts examined in this study.

These findings have an impact on targeting company-level interventions. Regulatory agencies and prevention organizations can focus high-intensity interventions on a relatively small population of firms that consistently have worse-than-average LTI rates. This will allow organizations to maximize the effectiveness of their limited resources.

A more time-sensitive approach is needed for the large number of companies that incur a single LTI. These companies are not likely to incur another one for several years. In these cases, a conventional public health approach can be integrated with a more focused intervention strategy.