

MULTI-YEAR ANALYSIS OF CONSTRUCTION LOST-TIME INJURY COSTS

Data on all lost-time injury (LTI) claims registered with Ontario's Workplace Safety and Insurance Board (WSIB) by construction employers for the period of 1998 to 2006 inclusive were extracted to examine the proportion of claims from any given year that incurred costs in a subsequent year (total number of LTI claims between 1998 and 2006 = 53,024). The total costs for those claims in each of the subsequent years were also extracted. The results are shown in Table 1 and in Figure 1.

Percentage of claims with costs in subsequent years

Although it is not a direct measure of severity, the proportion of claims that incur costs in subsequent years indicates whether claims in general are the result of more serious injuries. See Table 1.

Percentage of claims with costs in subsequent years

Previous analysis of some less mature data had suggested that the proportion of claims with costs in subsequent years had not been changing significantly. However, the data presented here show a trend towards an **increase in the proportion of claims that have costs beyond 4 years**. This may be due to several factors.

The overall LTI frequency rate has diminished from 3.48/200,000 hrs in 1998 to 2.10 in 2006. The belief that less serious injuries are easier to prevent than more serious ones appears to be supported, since the more serious injuries represent a larger portion of all LTIs. They are also more likely to have costs in subsequent years.

There has also been speculation that changes in how the WSIB administers LTI claims may have an effect on the proportion of claims that continue to have costs in subsequent years (e.g., reduced frequency of claim review, changes in rehabilitation protocols, and the removal of partial pensions/awards).

Claim costs in subsequent years

The average cost per active claim in each payment year was calculated by dividing the total costs paid for those claims in that year by the number of claims that incurred costs in that year. For example, in the 1998 series for Year 4 (2001 payment year), a total of \$20,599,595 was paid

out for 765 of the 5,282 claims that had occurred in 1998 and that had payments in 2001. This creates an average of \$26,928 in 2001.

On a year-over-year basis, claim costs are influenced by several factors, including general inflation. Some of the observations from the data for this series show that although the average increase in the first year costs is generally consistent with overall inflation, the cost increases in subsequent years vary considerably.

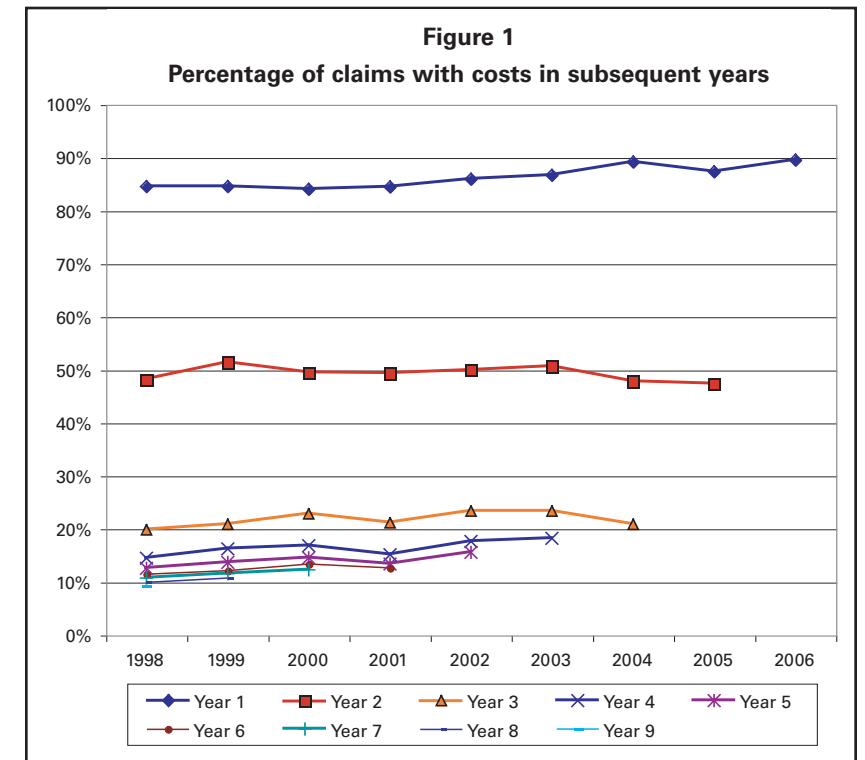
- Year 2, 3, and 4 cost increases appear to be at a much higher rate than inflation.
- Year 5 cost increases are generally consistent with inflation.
- Year 6, 7, and 8 costs appear to be decreasing slightly compared to inflation.

The reasons for this variability are not clear.

Table 1
Percentage of claims with costs in subsequent years

	Year 1*	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
1998	84.60%	48.20%	19.90%	14.50%	12.60%	11.50%	10.80%	10.00%	9.31%
1999	84.60%	51.40%	20.90%	16.30%	13.70%	12.20%	11.60%	10.80%	
2000	84.10%	49.50%	22.90%	16.90%	14.60%	13.40%	12.30%		
2001	84.50%	49.40%	21.20%	15.20%	13.40%	12.70%			
2002	86.00%	50.00%	23.40%	17.70%	15.60%				
2003	86.70%	50.70%	23.40%	18.30%					
2004	89.20%	47.80%	20.90%						
2005	87.40%	47.40%							
2006	89.60%								

*The reason that the percentage of claims having costs in the first year is less than 100% is due primarily to claims that occur in December, but do not show claim costs until January or later in the following year. In addition, there are some claims that may have experienced delays in reporting, or that did not manifest themselves as a lost-time injury until some time after the actual date of the accident.



As shown in other cost data, health care costs have risen dramatically in the last few years. However, the data used in this analysis examined only the total costs incurred, not the type of cost (e.g., medical care vs. wage replacement/long-term disability benefits). Separate analysis of the health care cost and wage replacement cost may be useful. The increased costs in Years 2, 3, and 4 may relate to more intensive medical treatment during this period of disability.

After assessing the effect of inflation on claim costs, it appears that average claim costs are increasing within four years of the accident year, but then declining in years 6, 7, 8, and 9. The precise reasons for this are not clear.

Although this analysis did not examine which kinds of injuries/types of accidents tend to result in multi-year costs, other analyses of high-cost claims have shown them to include primarily those resulting from falls, overexertion, and occupational disease claims.