NCCI Holdings, Inc.

NCCI RESEARCH BRIEF

Summer 2008

by Tony DiDonato and Matt Crotts

Workers Compensation Claim Frequency Down Again in 2007

Overview

The decline in claim frequency for workers compensation injuries has continued into 2007, but the magnitude is much smaller than in the previous two years.

The 2007 drop in claim frequency extends a trend that started in the 1990s. But while claim frequency improved by nearly 7% in each of the previous two years, preliminary results indicate a more modest decline of 2.5% for 2007.

NCCI's latest review of claim frequency[1] and severity shows that, while claim frequency is down, indemnity and medical severities continue to rise.

In the course of updating our annual study to reflect the latest frequency and severity results, a new dimension has been added. Claim frequency changes for permanent total claims, the costliest 1% of lost-time claims, are examined this year.

Key Issues

A key issue facing employers and workers compensation insurers is whether the large declines in claim frequency that began in the 1990s are likely to continue. Virtually every major employment category examined has experienced marked declines. A previous NCCI research report, "An Analysis of Factors Affecting Changes in Manufacturing Incidence Rates" (available on ncci.com) examined factors underlying the long-term decline in frequency since the early 1900s.

Preliminary summary data for Accident Year 2007 reveals continued overall declines in claim frequency and overall increases in indemnity and medical severities. In order to examine these recent broad trends more closely, NCCI compared the latest available statistical plan data for states in which we provide ratemaking services to the same data from four or five years prior, or earlier. Most analyses in this study compare policies that expired in 2006 to policies that expired in either 2002 or 2003.

Key Findings

Key findings of our analysis are:

- Over the last five years, there were significant declines in total lost-time claims frequency for all industries, geographic regions, and employer sizes
- Permanent total claims have increased significantly over the last three years
- The rise in permanent total claims is evident across industries, regions, and payroll sizes
- From 2004 to 2006, the increase in permanent total claims may have increased lost-time indemnity severities by approximately 1.5% per year and lost-time medical severities by approximately 2.5% to 3% per year

[1] Generally, the term "frequency" is used in this report to mean the number of claims per $1 million of wage-adjusted payroll. In a few cases, it means claims per 100 workers per year or claims per $1 million of premium. Exhibits are labeled to indicate which definition is used.

2007 Megatrends

As communicated at NCCI's ***2008 Annual Issues Symposium*** and as noted above, workers compensation claim frequency appears to have fallen again in 2007.

Exhibits 1–3 provide the results of analyses based on aggregate workers compensation data submitted by NCCI-affiliated carriers. The results for Accident Year 2007 are preliminary. While claim frequency continues to drop, Exhibit 1 shows that the 2.5% estimated decline in 2007 is the smallest in the past eight years.

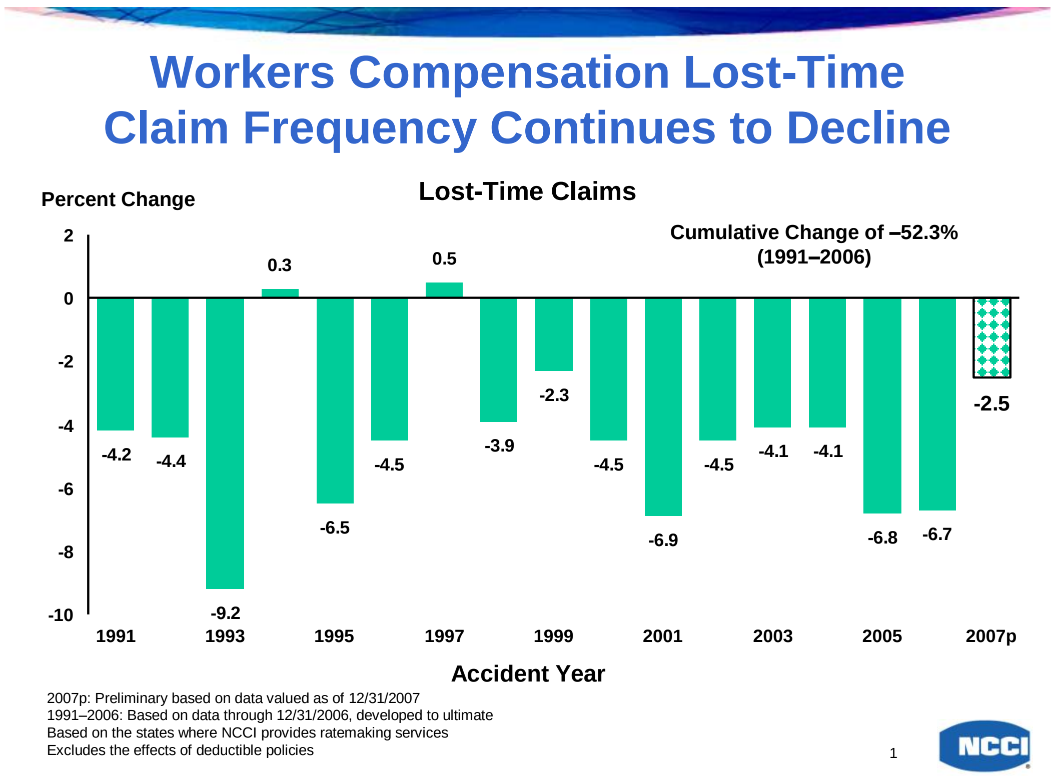
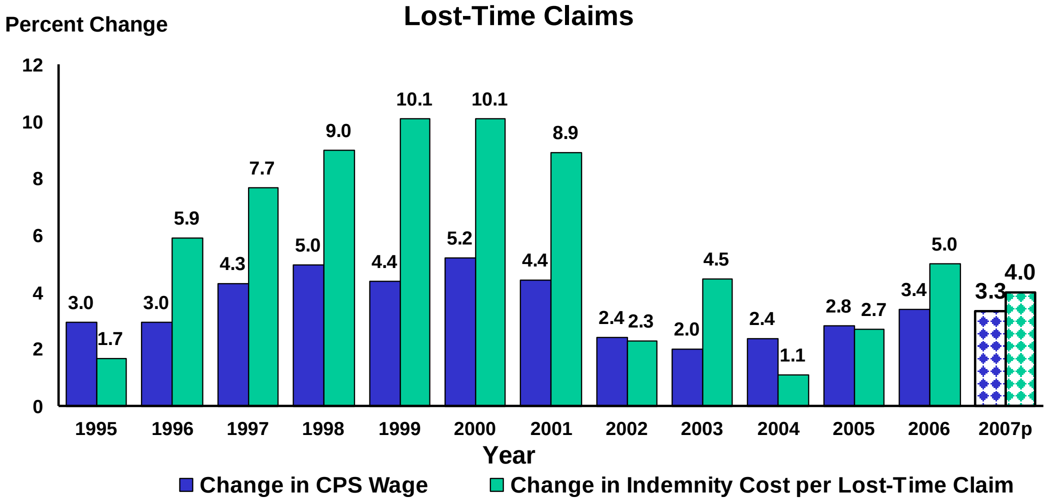


Exhibit 1. Lost-Time Claim Frequency Continues to Decline

Offsetting the drop in claim frequency is the increased cost of a claim. Exhibits 2 and 3 reveal the continued increase in the indemnity and medical costs of a claim, respectively. Still, the annual increases in average indemnity costs per claim have tapered off significantly in the last six years. While indemnity severity rose by an average 8.6% between 1996 and 2001, the average annual increase since then has been 3.3%. This includes an NCCI-estimated increase of 4.0% for 2007. In part, this easing in the growth of indemnity severity reflects the limited growth in wages during and following the recession of 2001.

WC Indemnity Severity Outpacing Wage Inflation in 2007



Indemnity severity 2007p: Preliminary based on data valued as of 12/31/2007
Indemnity severity 1995–2006: Based on data through 12/31/2006, developed to ultimate
Based on the states where NCCI provides ratemaking services, excludes the effects of deductible policies
Source: CPS Wage—All states (Current Population Survey), Economy.com;
Accident year indemnity severity—NCCI states, NCCI

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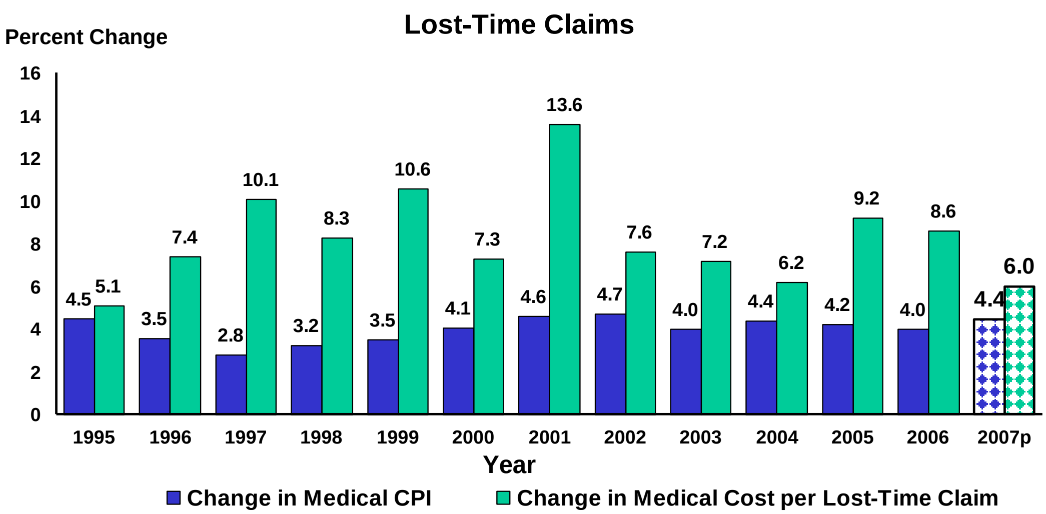
Exhibit 2. Average Indemnity Costs on Lost-Time Claims

WC Medical Severity Still Growing Faster Than the Medical CPI



Medical severity 2007p: Preliminary based on data valued as of 12/31/2007
Medical severity 1995–2006: Based on data through 12/31/2006, developed to ultimate
Based on the states where NCCI provides ratemaking services, excludes the effects of deductible policies
Source: Medical CPI—All states, Economy.com; Accident year medical severity—NCCI states, NCCI

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Exhibit 3. Average Medical Costs on Lost-Time Claims

While increases in average medical costs per claim remain substantial, the estimated increase for 2007 of 6.0% is the lowest since 1995. In addition to medical price inflation, increases in the utilization of medical services are a significant driver of these increases.

Nonuniform changes in claim frequency by size of claim, discussed in prior studies, have also contributed to the severity increases for both indemnity and medical in older years. To some degree, nonuniform changes in claim frequency by size of claim also might be related to changes in utilization patterns. Our most recent studies have indicated that all claim sizes appear to be sharing equally in the claim frequency improvement over the last several years, with the exception of permanent total claims.

The reduction in claim frequency continues to be a major bright spot for workers compensation. Injury rates have dropped by more than 50% since 1991—great news for workers, employers, and their insurers.

Claim Frequency by Industry

In order to further analyze the claim frequency results, NCCI used the ***Statistical Plan for Workers Compensation and Employers Liability Insurance*** data in states for which NCCI provides ratemaking services. Policies expiring in 2002 were compared to policies expiring in 2006.

In Exhibit 4, we explore claim frequency by industry groupings. From this exhibit, it is evident that all major industry groups have shared in the claim frequency decline over the time period studied. The decline ranges from 14% to 20%.

What is also apparent is that industry groups experience significantly different levels of claim frequency, when measured against payroll. The most notable example is office and clerical, where the number of claims per $1 million of wage-adjusted payroll is much lower than that in any of the other industries. It probably comes as no surprise that an office environment would generally experience fewer claims per payroll dollar, or per worker, than industries such as contracting or manufacturing. Our 2006 study showed that the difference between industries is substantially reduced when claim frequency is measured against premium, rather than payroll, since premium charges are generally lower in low-frequency industries.

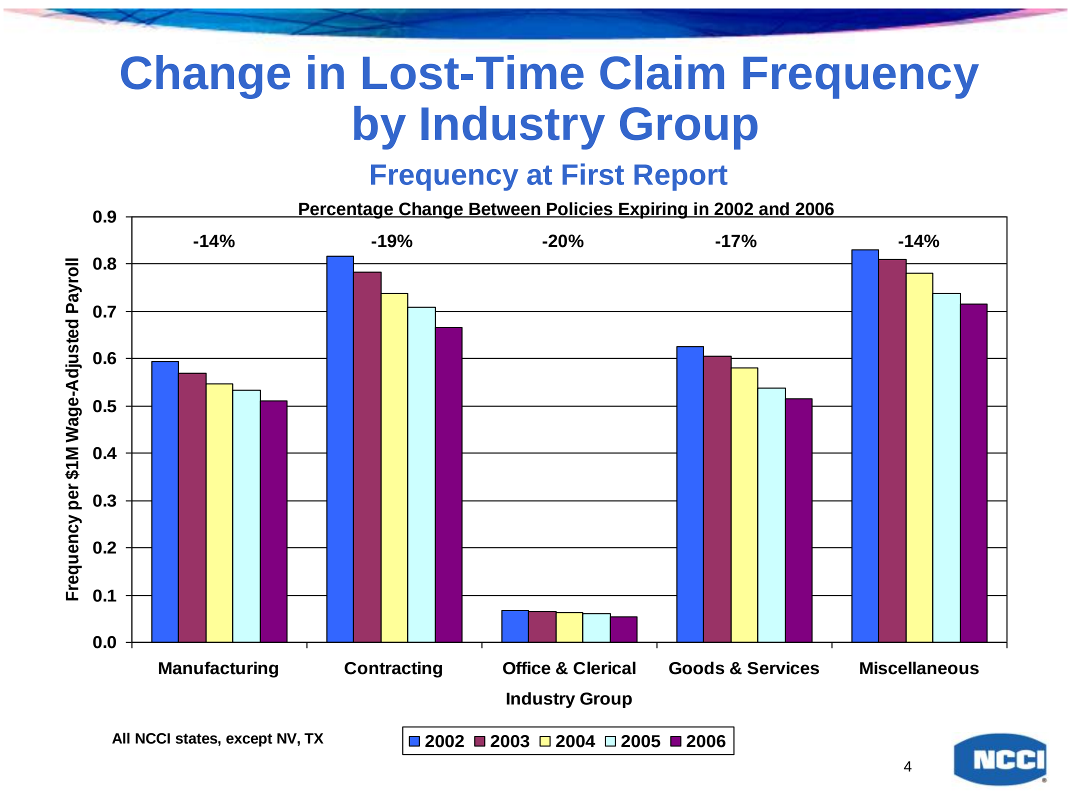

Exhibit 4. Lost-Time Claim Frequency by Industry Group

Geographic Regions

While there are some differences by region, Exhibit 5 shows that all areas of the country have experienced substantial declines in lost-time claim frequency. While the West region is now showing the smallest decline during the latest five years, it had the largest decline in our 2005 study.

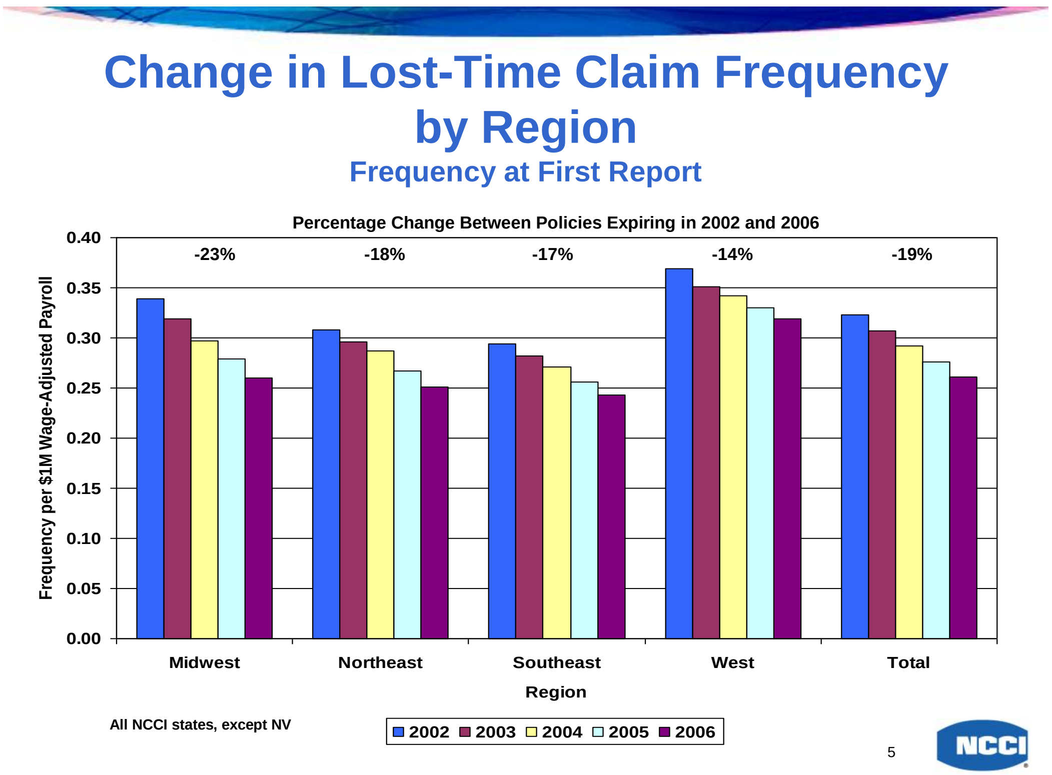

Exhibit 5. Lost-Time Frequency by Region

Size of Employer

Lost-time claim frequency by employer payroll size is examined in Exhibit 6. There is a significant difference in average frequency by employer size, which may be due to differences in occupational mix. However, all employer sizes experienced substantial improvements in workplace injuries over the time period studied. This is consistent with findings by the Bureau of Labor Statistics.

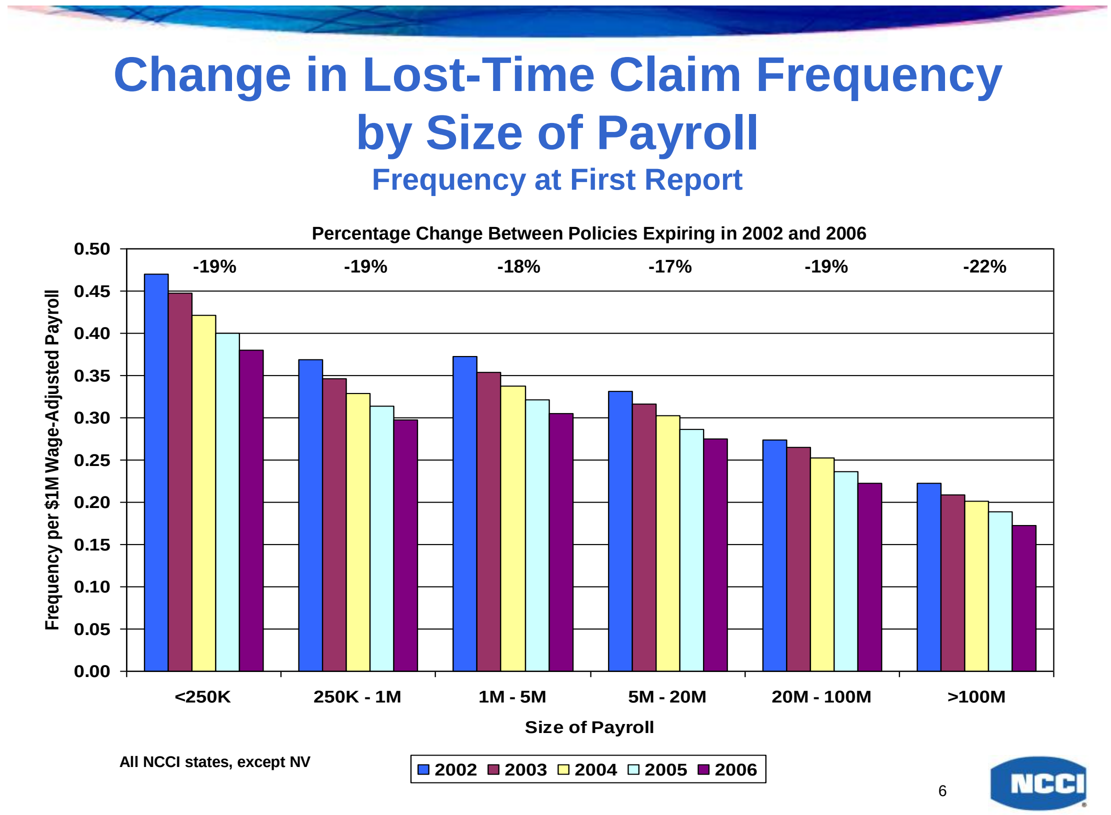

Exhibit 6. Lost-Time Claim Frequency by Size of Employer

Claim Frequency Results by Injury Type

NCCI has also updated prior analyses that examined claim frequency by injury type. Exhibit 7 demonstrates that, while three of the four major lost-time injury types have declined, permanent total claims have experienced increased frequency over the past three years. Although permanent total claims generally make up less than 1% of lost-time claims, they are the most costly claims, accounting for approximately 10% of lost-time costs.

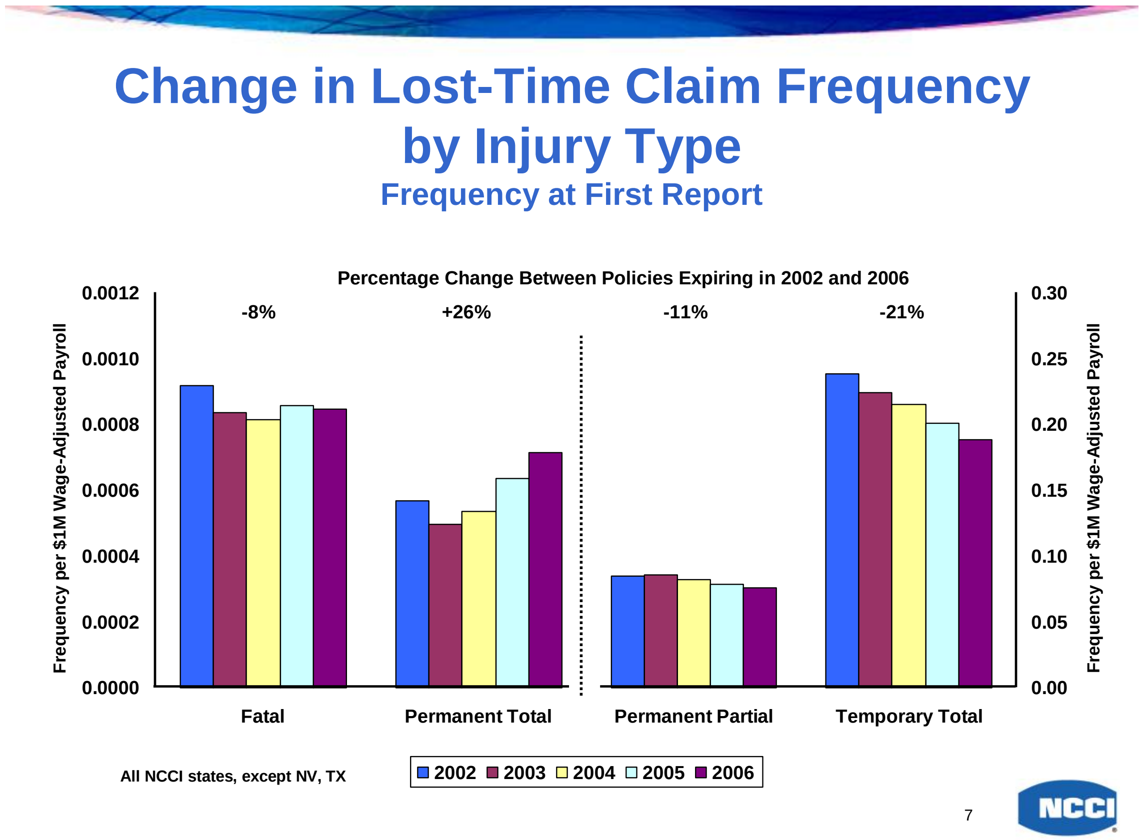

Exhibit 7. Claim Frequency by Injury Type

Drilling Down on Increases in Permanent Total Claims

In order to see whether the increase in permanent total claims is an isolated or a widespread phenomenon, the analyses by industry, geographic region, and size of employer were repeated. This time, though, the analyses focused only on permanent total claims and only on the latest four-year period showing the increase. The results are shown in Exhibits 8–10.

From these exhibits, it is obvious that the increase in permanent total claims is not being driven by any particular market segment. All major industries, geographic regions, and employer sizes have experienced an increase.

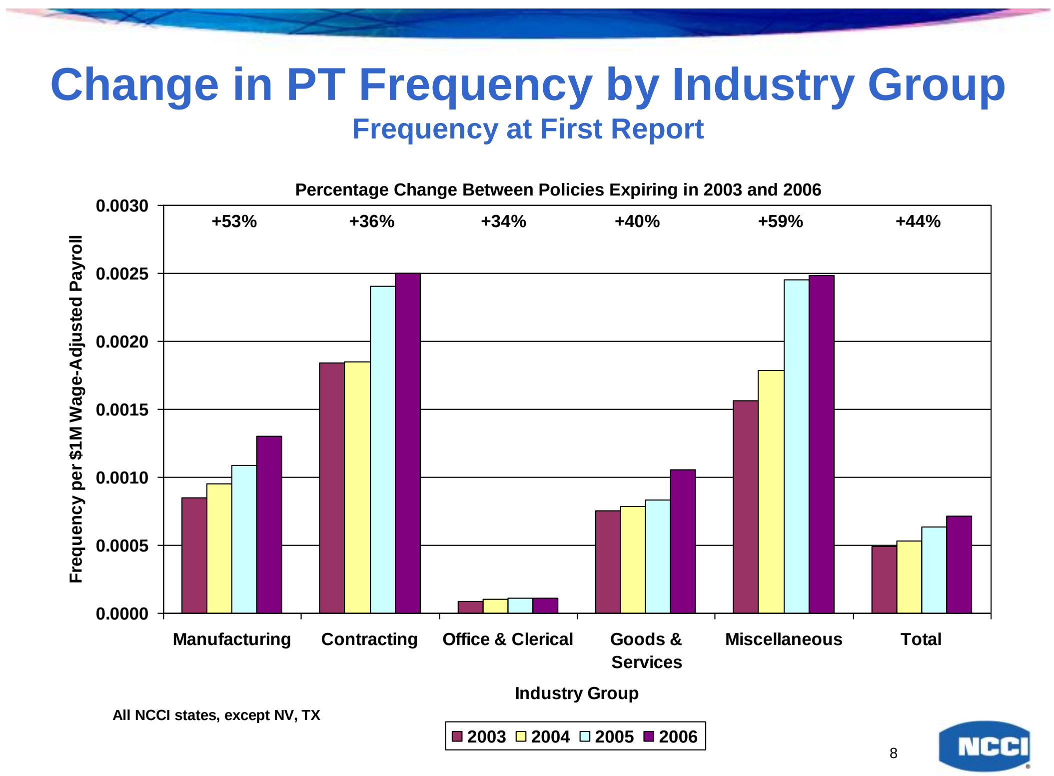

Exhibit 8. Permanent Total Claim Frequency by Industry Group

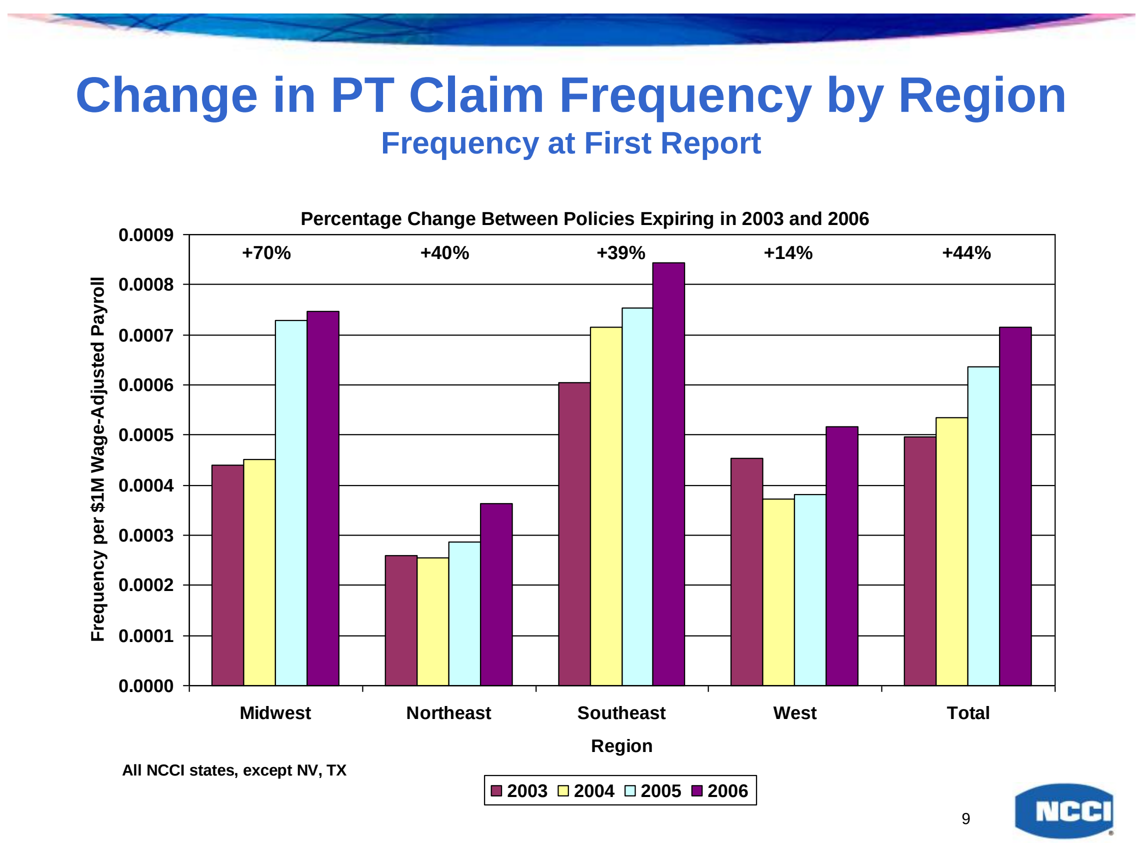

Exhibit 9. Permanent Total Claim Frequency by Region

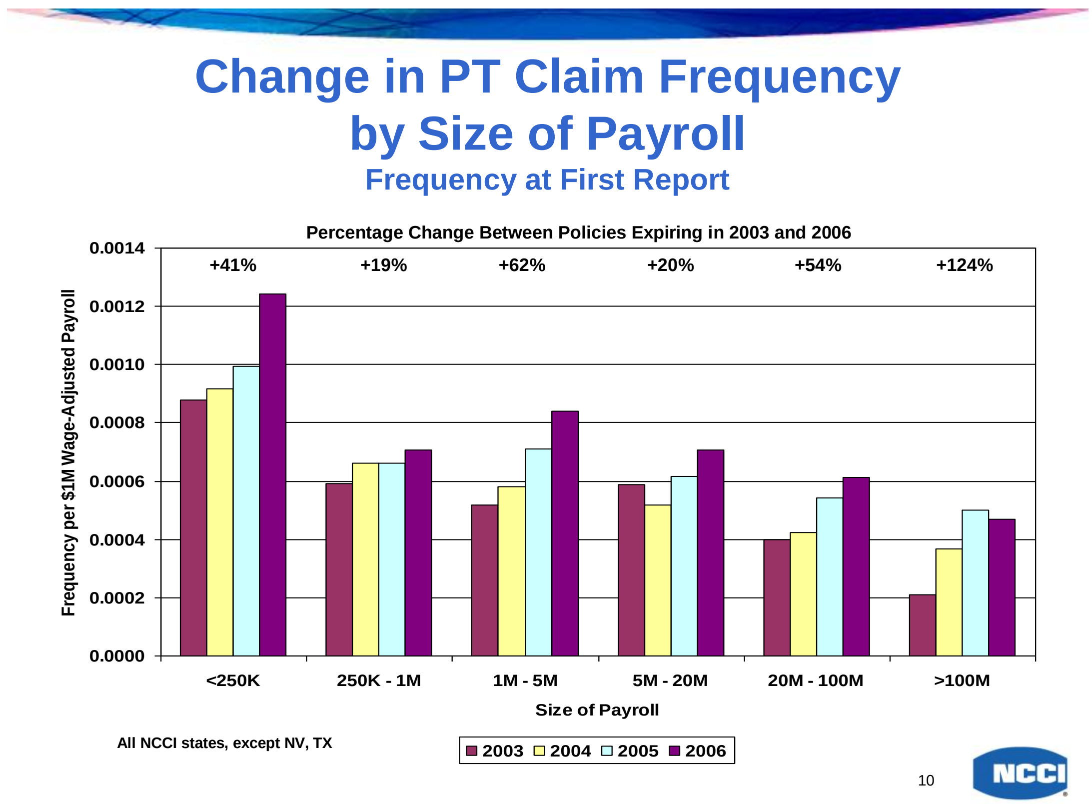

Exhibit 10. Permanent Total Claim Frequency by Size of Employer

The Impact of Increasing Permanent Total Claims on Costs

Because permanent total claims are the most costly, the substantial increase in these claims has driven up average lost-time claims costs. By measuring the relative increase in permanent total claims and accounting for their proportion of costs, it is possible to estimate the impact that their increase has had on indemnity and medical severities.

Exhibit 11 repeats a portion of the information from Exhibit 2, showing the actual 2002–2007 indemnity increases. In addition, though, it provides the estimated indemnity increases over that time period prior to (or excluding) the relative increase in permanent total claims. Between 2004 and 2006, the increase in permanent total claims has added approximately 1.5% per year to annual indemnity costs. Information on permanent total claims for the latter half of 2006 and for 2007 is not yet available.

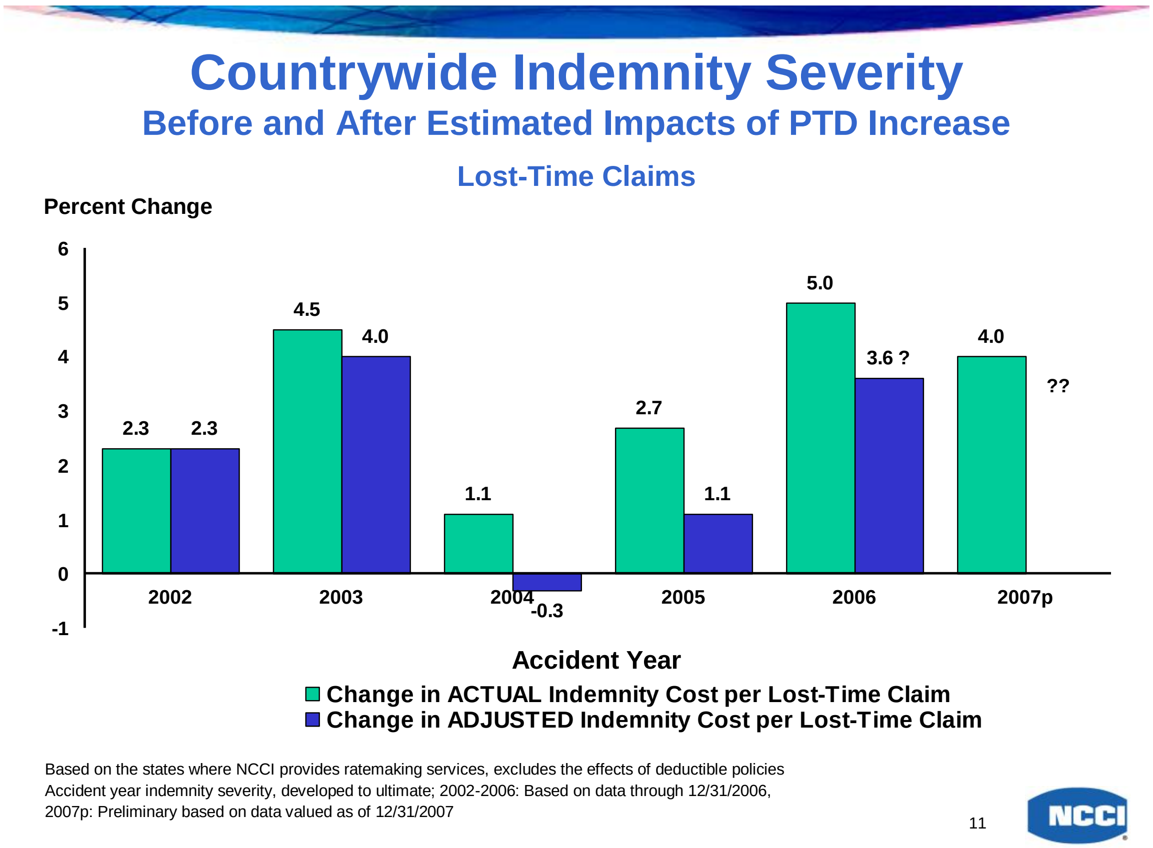

Exhibit 11. Impact of Increasing Permanent Total Claims on Indemnity Severity

A similar analysis can be performed on medical costs. Exhibit 12 starts with information from Exhibit 3, showing the actual 2002–2007 medical increases, and adds the estimated medical increases over that time period prior to (or excluding) the relative increase in permanent total claims. Between 2004 and 2006, the increase in permanent total claims has added approximately 2.5% to 3% per year to annual medical costs.

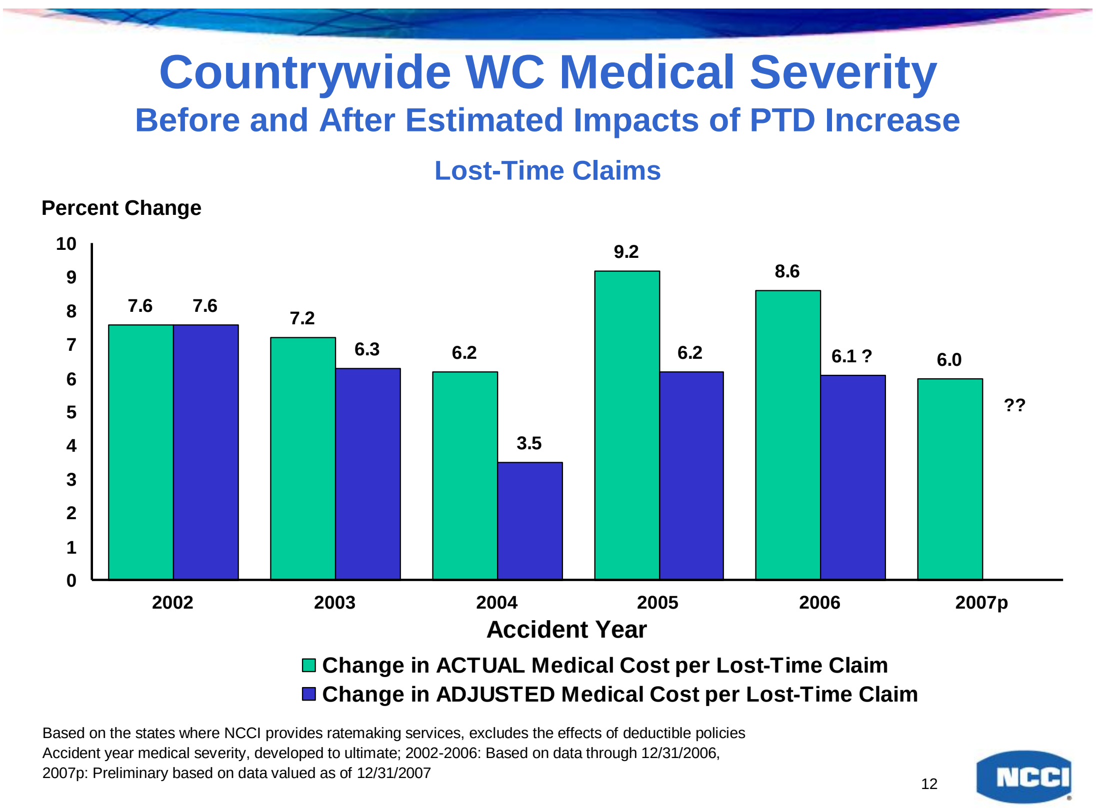

Exhibit 12. Impact of Increasing Permanent Total Claims on Lost-Time Medical Severity

What's Driving the Claim Frequency Trend?

As previously reported, NCCI believes that key drivers of claim frequency include:

- Global competition and advances in automation, technology, and production, such as the following:
  - Increased use of robotics
  - Increased use of modular design and construction techniques
  - Increased use of power-assisted processes
  - Advances in ergonomic design
  - Proliferation of cordless tools
- The business cycle (e.g., economic expansions can result in hiring less-experienced workers)
- Demographics (older workers tend to have fewer workplace injuries)
- More and better job training
- Continued emphasis on workplace safety
- Improved fraud deterrents

Looking Forward

NCCI will continue to closely monitor the critical area of claim frequency. New research will be posted to ncci.com as it becomes available