



Demographic Factors to Consider: Calculating Lifetime Awards on Workers Compensation Claims

Workplace accidents that result in fatality or permanently disabling injury are not only the most personally and emotionally devastating, they also comprise the most expensive workers compensation claims.

In these cases, workers compensation insurance typically provides for a lifetime award to the injured worker or to a surviving spouse as compensation for lost income, and all current and future medical care to the injured worker is covered in full.

While these severe cases represent only about 1.1% of workers compensation injuries that involve compensation for time lost from work, they represent 11.4% of the costs.¹ The comparatively rare nature of these serious events, combined with the length of time over which benefits are paid, makes it difficult to estimate their eventual cost.

More so than for minor workers compensation injuries, claimant demographics such as age and gender typically dictate the cost of workers compensation claims for severe injuries. Also, small differences in the rate of long-term medical inflation can cause large differences in total claim costs.

With some types of severe injuries, modern medical care and consequent confinement may even extend the life expectancy of the injured worker. An injured worker under age 20 may live for nearly a century, and the claim costs, particularly the medical bills, might grow every year.

This leads actuaries attempting to forecast losses from severe claims to ask questions you might not expect, such as:

- Is it reasonable to associate the riskiest work with young males?
- Does it matter where the employee was injured?

- What types of accidents cause more severe injuries?
- Does gender seem to affect attorney involvement and to what extent?

Characteristics of Severe Workers Compensation Claims

Below, we take an up-to-date look at who receives the severe injury awards, beginning with an examination of age and gender of seriously injured workers. The percentage distribution of workers compensation pension claims for injuries from 1997 to 2002 is shown in **Exhibit 1**.

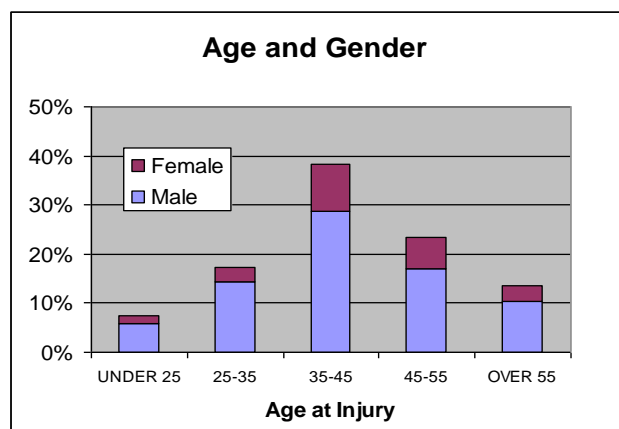


Exhibit 1. Age and gender factors for seriously injured workers

Males dominate here, with higher rates of serious injury than females. In fact, males account for 76% of the most serious claims, which is somewhat higher than their percentage of all lost-time claims (70%).²

¹ Source: 2004 NCCI *Annual Statistical Bulletin*, Exhibits X and XII.

² Source: Sample of claims provided by insurers.

Interestingly, while males dominate serious injury claims, youth does not. The middle working years from 35 to 45 years of age contribute the most injured, and there are more injured over age 55 than under age 25.

As the data for this chart reflects injuries from 1998 to 2002³ it seems likely that, over the near term, baby boomers will push up the 35–45 and 45–55 bars, as compared with the other age groups.

We can also compare the age and gender breakdown for serious workers compensation injuries with that of the full workforce, as shown in **Exhibit 2**.

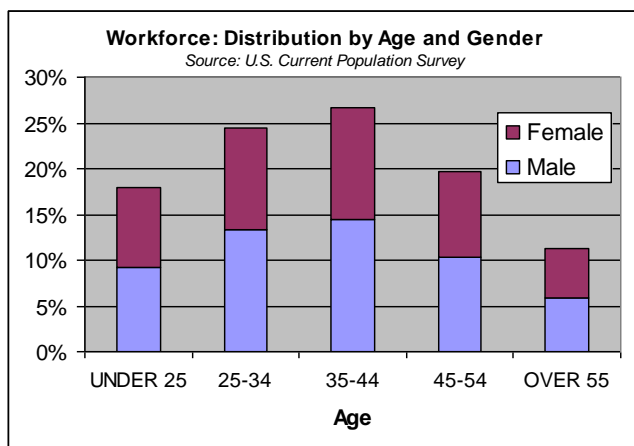


Exhibit 2. Total workforce age and gender breakdown

The total workforce shows a high percentage of females, with more than 50% of all workers over age 35. Males over 35 represent a disproportionate share of serious injuries relative to their representation in the workforce. Males age 35–44 constitute about 15% of the workforce, but almost 30% of the serious injuries. For any cohort of workers, the ratio between the cohort's proportion of

serious injuries to its proportion of the workforce compares the injury rate of the cohort to the overall rate. **Exhibit 3** shows striking differences among workers by gender and age, with middle-aged and older men being the most at risk of serious injury and young women the least.

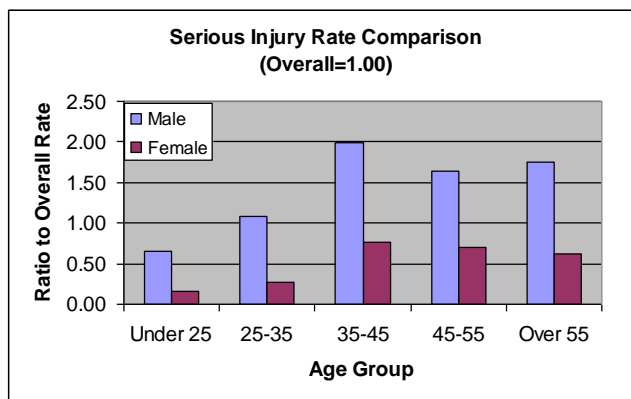


Exhibit 3. Rates of serious injury compared by age and gender

State Distribution of Severe Injuries

While it is instructive to look at serious workers compensation injuries throughout the country, it is important to appreciate that state law specifies how workers compensation benefits apply. This makes the jurisdiction in which a severe injury occurs another important demographic to consider.

The following is based on workers compensation experience from states for which NCCI is the rating bureau. **Exhibit 4** shows the percentage of all workers compensation claims across these NCCI states from injuries occurring from 1998 through 2002.⁴ Not surprisingly, because of their size, Florida accounts for the most at about 14% and Illinois is second at about 9%.

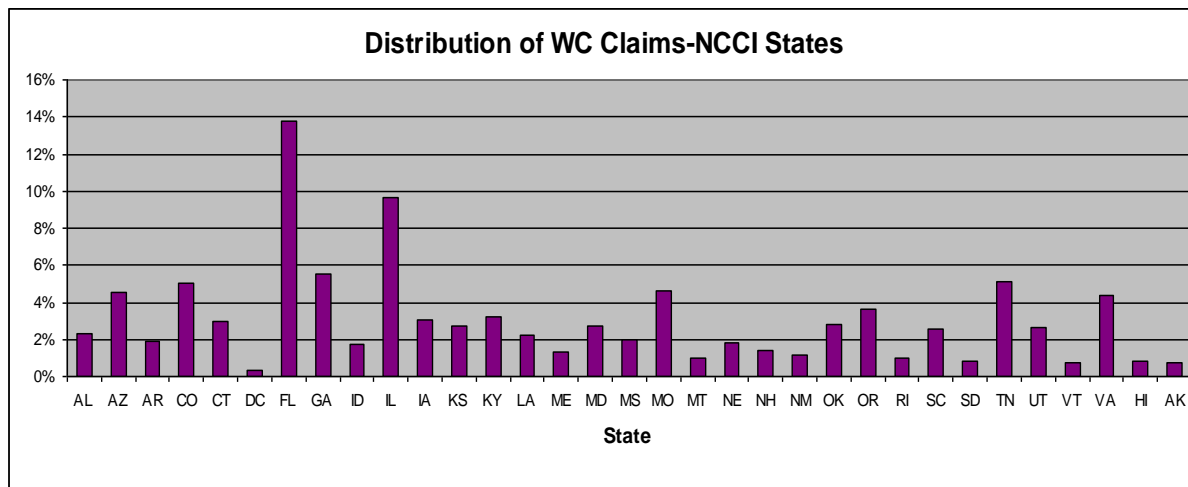


Exhibit 4. Percentage of all workers compensation claims across NCCI states

³ Source: Sample of claims provided by insurers.

⁴ Source: **Workers Compensation Statistical Plan** data reported to NCCI.

Exhibit 5 shows how serious injuries are distributed by jurisdiction over the same 1998–2002 time frame.⁵ Florida is again the largest contributor, here accounting

for over a quarter of the claims. Illinois is again second largest, but it is more in line with its share of all workers compensation claims, at around 9%.

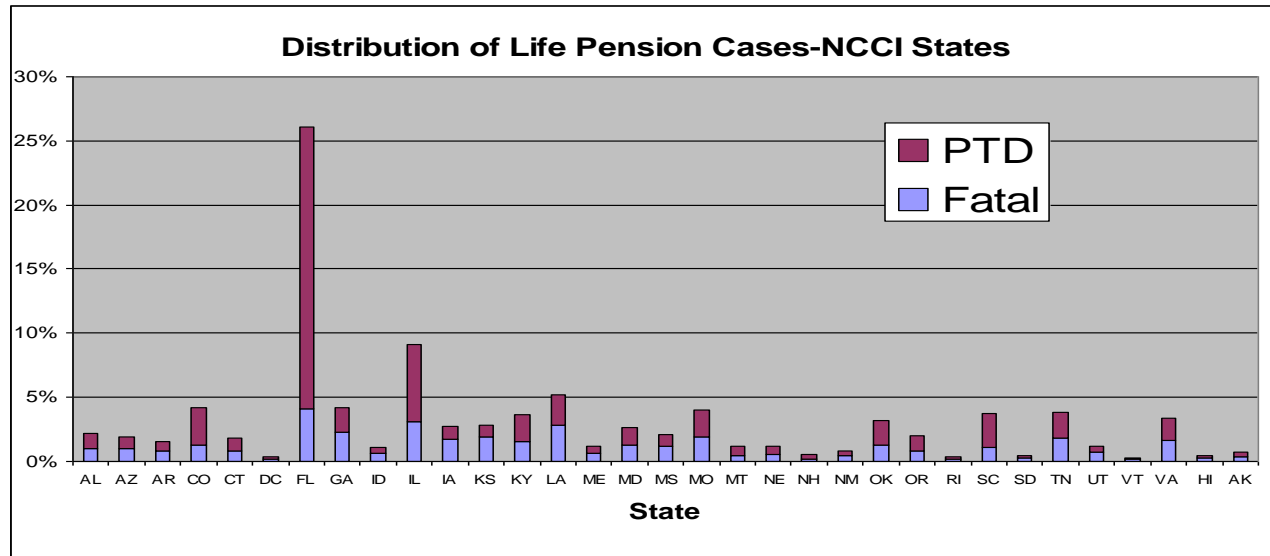


Exhibit 5. Serious injury distribution by jurisdiction

Florida stands out as a particular case of interest, having a disproportionately high incidence of permanent total disability (PTD) claims; the Florida incidence of PTD claims per worker is 3.8 times higher than countrywide.⁶

Other states have more generous workers compensation benefits than Florida for permanent partial injuries (PPD—injuries that involve permanent disability but do not totally preclude the worker from working). This may provide an added incentive for injured Floridians to seek PTD rather than PPD benefits—and may also cause sympathetic administrative law judges to award more generous PTD benefits.

Florida's acceptance of federal disability guidelines for social security as eligibility for PTD is another factor often cited as contributing to the high incidence of PTD cases. Acceptance of federal disability guidelines is atypical among the states. In fact, in October 2003, these guidelines were removed from the Florida workers compensation statute. It will be interesting to see if this change will affect the incidence of PTD claims in Florida.

Cause of Severe Injuries

Exhibit 6 compares the causes of the most severe injuries with the causes of all workers compensation injuries that involve compensation for time lost from work.

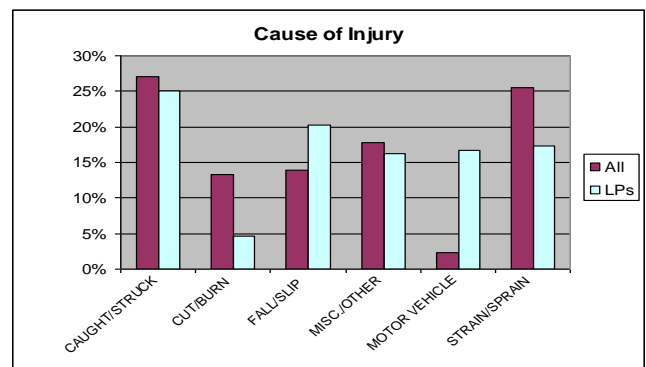


Exhibit 6. Cause of injury comparison—lost-time claims vs. life pension (LP) claims

The most notable difference in the distribution of causes of injury is for car and truck accidents, which represent only about 2% of workers compensation lost-time claims but over 15% of the most severe ones.

As might be expected, cuts and burns represent 13% of lost-time injuries but less than 5% of the most severe. Being caught or struck by machinery is the biggest cause of serious injuries, and of lost-time injuries generally.

⁵ Source: *Workers Compensation Statistical Plan* data reported to NCCI.

⁶ Source: 2004 NCCI *Annual Statistical Bulletin*, Exhibit XII.

Attorney Involvement in Severe Injury Cases

As any workers compensation market participant can attest, even though workers compensation insurance is “no fault” in spirit, it is not immune from the growing litigiousness of our society.

Looking at attorney involvement in relation to gender of the claimant, as shown in **Exhibit 7**, we see that women are somewhat more likely to seek the assistance of a lawyer across all lost-time claims and for the LP claims. But both genders are about three times as likely to use a legal representative for these most serious claims as they are for lost-time claims generally. (Note: Only injuries from 1999 are included in this exhibit to allow for the fact that some time may pass from the date of injury until a claimant attorney becomes involved in a case.)

Conclusion

The data and exhibits illustrate just a few of the considerations that actuaries should incorporate today into their estimates for the number and nature of severe workers compensation injuries to occur next year—and for how the bills on those claims will come due over the next century. No single demographic cited here has an overwhelming ability to sway projections. But taken together, these observations might well cause a reconsideration of estimates for future workers compensation insurance costs for workers suffering fatalities or disabling injuries in the workplace.

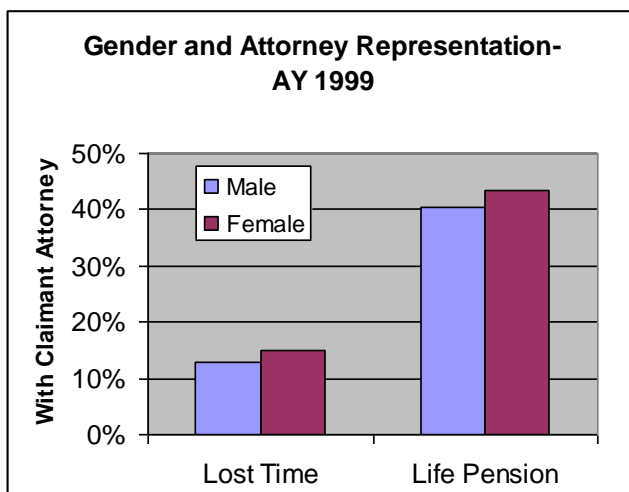


Exhibit 7. Gender and attorney representation for serious workers compensation injuries

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