



Analysis of Injury Costs Forestry and Logging Accidents 2000 – 2006



**Report prepared for:
FICA - Forest Industry Contractors Association
August 2007**

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Executive Summary

This report summarises the injury claims data recorded by the Accident Compensation Corporation (ACC) for people injured in Forestry and Logging operations in New Zealand (NZ) during the period July 2000 through to June 2006. The ACC injury data refers to numbers and costs of injuries, but it does not include any information about the time worked by different groups or different activities. Therefore the analysis was based largely on percentage changes of incident claim numbers and cost year by year to illustrate trends occurring.

Key findings include:

- The total cost of forestry injury claims (new and ongoing) increased 33% from \$1.64 million in 00/01 to \$2.18 million in 05/06, despite the number of new forestry claims increasing by only 14% during that period.
- The total cost of logging injury claims (new and ongoing) increased 19% from \$4.52 million in 00/01 to \$5.37 million 05/06, despite the number of new claims *decreasing* by 33% during that period.
- Ongoing claims account for 78% of total claims cost in forestry and 79% in logging (average over all years analysed).
- The annual cost of ongoing forestry claims increased 25% from \$1.31 million in 00/01 to \$1.64 million in 05/06. The annual cost of ongoing logging claims increased 30% from \$3.41 million in 00/01 to \$4.44 million in 05/06.
- For forestry, averaged over 5 years, 57% of injured people were back to full fitness with no further claim cost, within 8 weeks. In 2005/2006, this reduced to 52%
- For logging, averaged over 6 years, 61% of injured people were back to full fitness with no further claim cost, within 8 weeks. In 2005/2006, this reduced slightly to 58%, but appears to be trending downwards, similar to forestry.

Introduction

This report summarises the injury claims data recorded by the Accident Compensation Corporation (ACC) for people injured in Forestry and Logging operations in New Zealand (NZ) during the period July 2000 through to June 2006.

The purpose of the report is to identify the trends in injury claims and costs during the 2000 - 2006 period. Whilst some of the information categories that ACC uses are not as detailed as those used within the New Zealand forest industry, this report gives a very useful overall summary of trends within the industry as a whole. The ACC injury data refers to numbers and costs of injuries, but it does not include any information about the time worked by different groups or different activities.

Scope

Injuries Reported to ACC for the period July 2000 to June 2006, broken down by year, for the two levy groups "Forestry" (levy group 150:3010) and "Logging" (Levy Group 150:3020).

Method of Analysis

Relationships between different variables could not be calculated because the ACC data was presented in a way that made this impossible eg. the injury diagnosis data could not be linked to body part, type of injury, gender, etc. Therefore the analysis was based largely on the calculation of percentage changes of incident claim numbers and cost year by year to illustrate trends occurring.

Claim Definitions

(i) Number of new claims. That is, claims for injuries that occurred in that year.

(ii) Cost of new claims. That is, the cost of claims for injuries that occurred in that year.

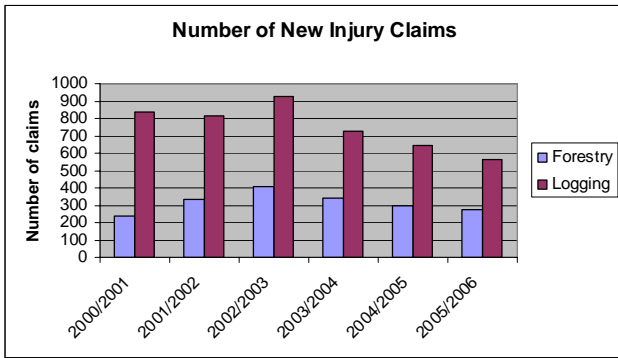
(iii) Number of ongoing claims. That is, injury claims that have occurred in previous years, but are still incurring costs in following years (such as long-term back injuries).

(iv) Cost of ongoing claims. That is, the cost of injuries that occurred in previous years, but are incurring costs in following years.

Results: Overall Industry Summary Data

This first set of results “sets the scene” by describing the total numbers and total cost of forestry and logging injury claims year by year since the year 2000.

Figure 1: Number of new injury claims



The number of new claims per year has been climbing in both levy groups until 2002/3 when there were 409 new forestry claims and 924 new logging claims that year. Claim numbers have steadily reduced since then, down to 274/year for forestry and 560/year for logging in 2005/6. That’s a 33% decrease in forestry and a 39% decrease for logging, in the total number of claims over the last 3 years.

The cost of new injury claims has followed a similar trend to the number of claims. At 2005/6, the cost of new claims/year was about \$545,281 for forestry and \$933,751 for logging. Note that 6 years ago, logging was having 3.5 times the number and 3.4 times the cost of as forestry was having, but this has steadily been reducing to the point where in 2005/6, the number of logging claims was only 2.0 times that of forestry and 1.7 times the cost.

Figure 2: Cost of new claims

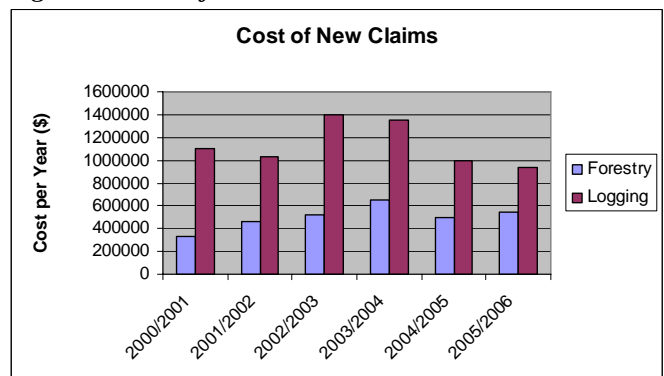
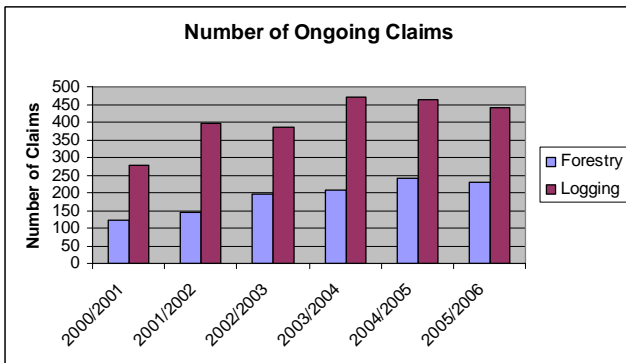


Figure 3: Number of ongoing claims



The picture is not so positive for ‘ongoing’ claims. Figure 3 shows that the number of ongoing claims has been steadily increasing (by 70% for forestry and 69% for logging during the 3 years to 2003/4), and has only started slowly declining in the past two years for logging (a reduction of 6%) and the past year for forestry (a reduction of 5%).

This is saying that until recently, the time to get people back to full fitness after injury was increasing. It is positive to see the recent reductions, but the total number of ongoing claims at 2005/6 is still 87% higher for forestry and 59% higher for logging than 5 years ago.

The cost of ongoing claims follows a similar trend to the number of ongoing claims, with a small decline only occurring in both sectors after the 2003/4 year.

Figure 4: Cost of ongoing claims

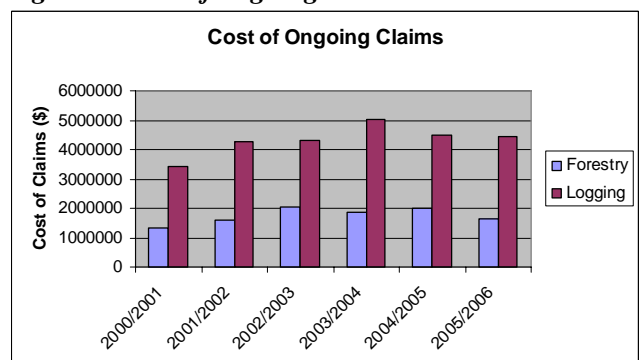


Figure 5: Total Injury Cost – Forestry and Logging

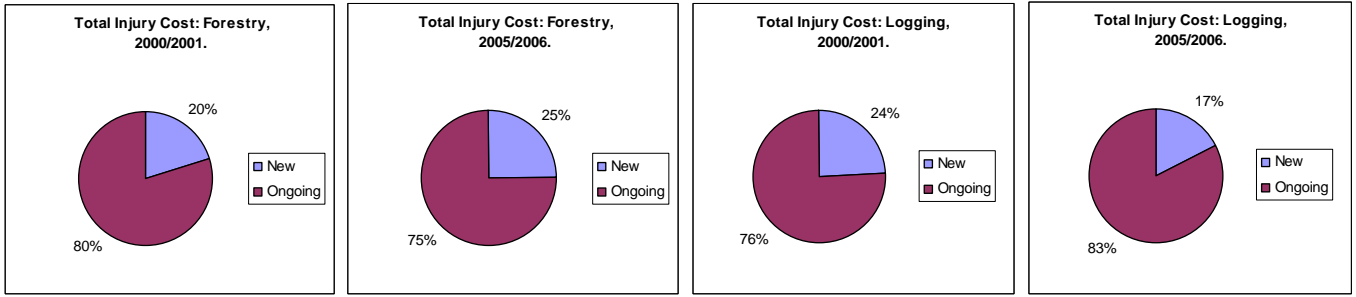
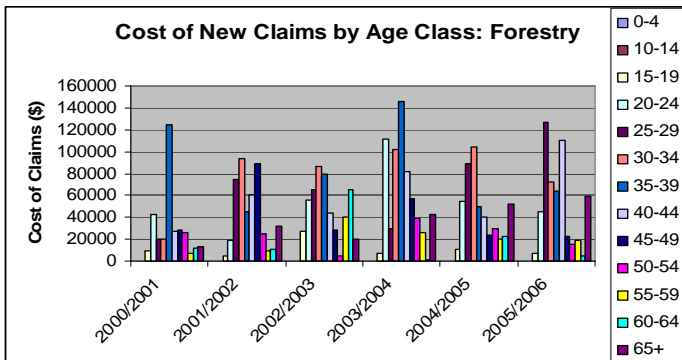


Figure 5 illustrates the significant proportion of ongoing claims compared to new claims in 2000/2001 compared to 2000/2006. This is a critical finding and further re-enforces the need for industry to not only put significant effort in reducing injury severity, but also focusing on getting injured people back to full fitness as fast as practicable. It is pleasing to note that in 2008 both ACC and FICA will be targeting initiatives to reduce long term claims costs.

Figure 6: Cost of new claims by age - Forestry



Noticeable trends in the cost of new forestry claims are the increase in cost of new claims year by year for the oldest age class (65+, where the cost has increased by 340% since 2000/2001, from \$13,418 To \$59,258) the 25-29 year class (528% increase from \$20,116 to \$126,391) and the 40-44 class (304% increase from \$27,171 to \$109,892).

Figure 7 shows that the 40-44 age class is the biggest contributor to ongoing claims cost in forestry: over \$1,041,454 in 2002/2003 and still over half a million dollars for every year since.

Figure 7: Cost of ongoing claims by age - Forestry

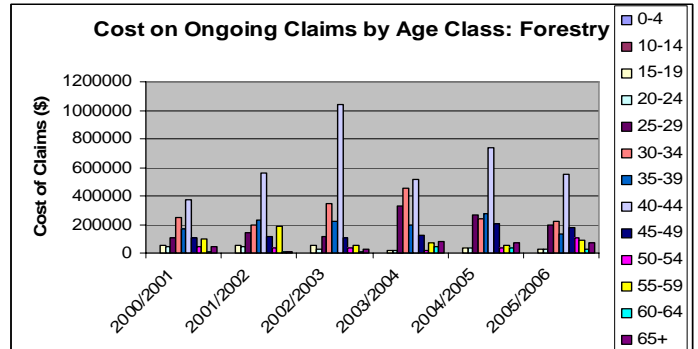
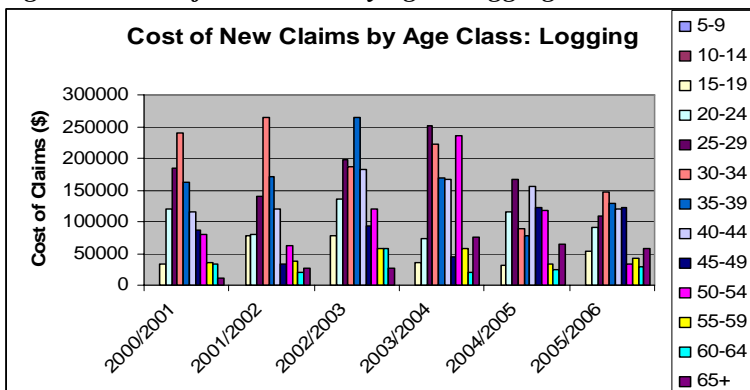
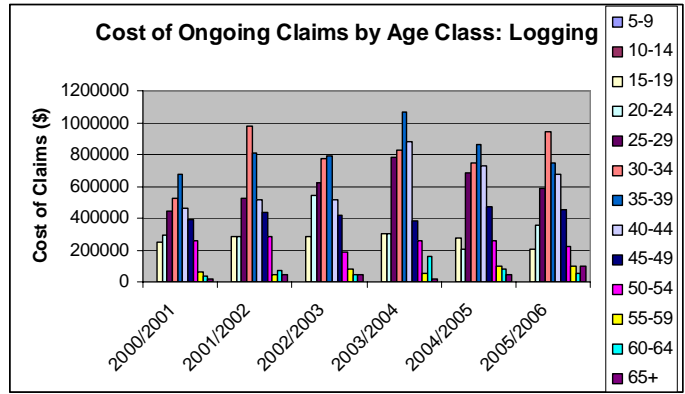


Figure 8: Cost of new claims by age - Logging



The most noticeable trend here is reduction in the cost of new claims in the 30 to 34 age class, of 39% (from \$240,495 to \$147,156) since 2000/2001. There was a large sample size here (between 85 and 153 claims in this age group over these years), so this trend is significant.

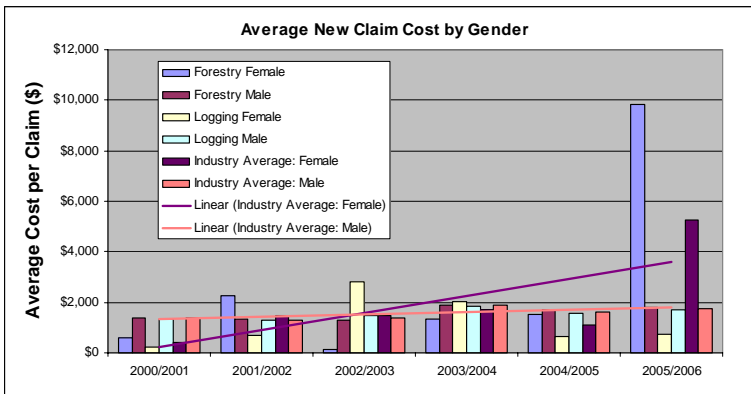
Figure 9: Cost of ongoing claims by age - Logging



The cost of claims by age class in logging appears to be remaining consistent year by year. The main groups accounting for the majority of claims costs were the 25 – 29, 30 – 34, 35 – 39 and 25 – 44 age groups. Given that these age classes effectively cover the majority of age demographic working in the sector, this is not unexpected.

Gender of Injured Persons

Figure 10: Average new claim cost by gender



A key trend is the increase in the average claim cost for logging females between 2000/1 and 2002/3, of 1051% (from \$244 to \$2828), but then steadily reducing again, to an average of \$718 per claim in 2005/6.

In 2005/6, the average new claim cost for forestry females increased to almost \$9847 per claim (sample size of 5 claims in that year, so not a “one-off”), up from \$1542 the previous year, and \$604 back in 2001. We cannot identify from the ACC data what these injuries were, but this area warrants

further investigation. The high-cost of these new claims have pushed up the industry average female claim cost by 382% in 2005/6 (sample size of 15 female claims) from the previous 2004/5 year, and 1145% compared to the 2000/1 costs.

Ethnicity of Injured Persons

The cost of new claims by Maori per year increased more sharply than that for Europeans between 2000/2001 and 2003/2004, but then it dropped more steeply the following year. The cost of new claims is increasing again, with increases in the past year being: European 10%, Maori 6%, Other Ethnicities 443% (sample size 24 claims for other ethnicities, so a significant trend, requiring close observation in the future).

Figure 11: Cost of new claims by ethnicity - Forestry

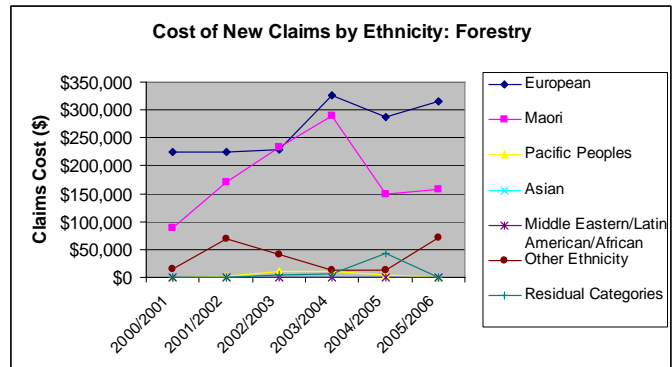


Figure 12: Cost of new claims by ethnicity - Logging

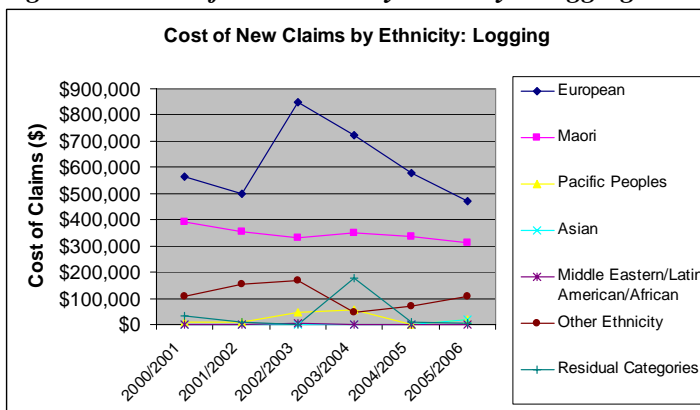
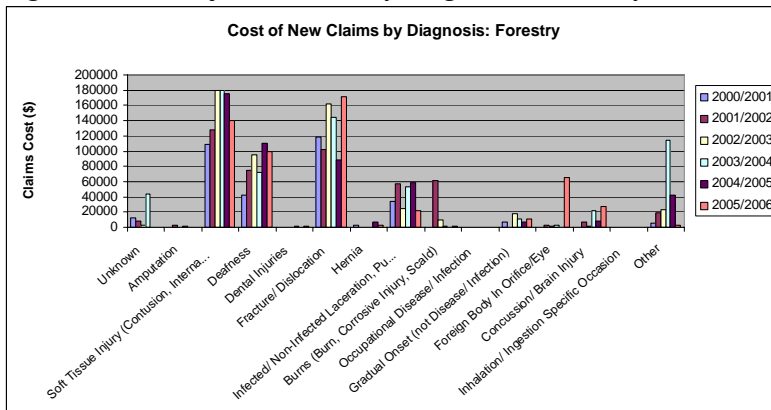


Figure 12 shows the cost of new claims for the two largest groups steadily dropping since 2003 (a drop of 45% for European and 5% for Maori. However note that the cost of new claims for “other ethnicities” has been climbing since 2004, with a 146% increase over the two years on a sample size of 40 claims as at 2005/2006. This trend needs close future observation

Type of Injuries (Diagnosis)

Figure 13: Cost of new claims by diagnosis - Forestry



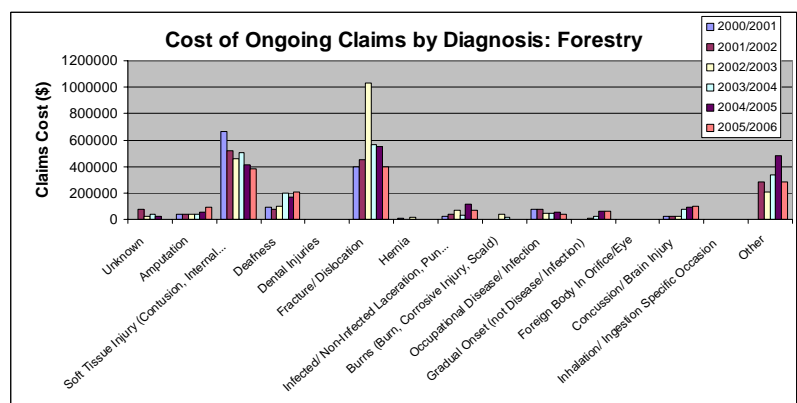
When we look at the claim cost of new injuries, fractures are costing the industry almost as much as soft tissue injuries and deafness is costing as much as cuts/puncture wounds! In the 3 years since 2002/2003, there has been a 22% reduction in new claim costs for sprains/strains, and a 59% reduction for cuts/puncture wounds. New claim costs for fractures have increased by 44% over the past 5 years. New claim costs for deafness have increased by 139% over the past 5 years.

Over the past 5 years: the ongoing costs for soft tissue claims have decreased by 42%, ongoing costs for fractures have remained static, but ongoing costs for deafness have increased by 120%.

Claim costs for new logging injuries and for ongoing logging injuries are also similar to forestry. In the 3 years since 2002/2003, there has been a 27% reduction in new claim costs for sprains/strains, but a negligible reduction for cuts/puncture wounds.

New claim costs for fractures have decreased by 16% over the past 5 years. New claim costs for deafness have increased by 133% over the past 5 years. Over the past 5 years, the ongoing costs for soft tissue claims have increased by 26%, ongoing costs for fractures have increased by 20%, and ongoing costs for deafness have increased by 163%.

Figure 14: Cost of ongoing claims by diagnosis - Forestry



Body Parts Being Injured

(i) Forestry: Cost of New Claims

- Over the last 4 years, the cost of new ear injuries (likely to relate to deafness) has increased by 182%, and was \$99,272 for the 2005/2006 year.
- The cost of new back/spinal injuries decreased by 80% between 2001/2002 and 2004/2005. However the following year (2005/2006), they climbed 233% (from 35 claims), costing \$61,931 in that year.
- The cost of new eye injuries jumped from \$353 (from 6 claims) in 2004/2005, to \$65,686 in 2005/2006 (from 18 claims)
- Last year, the cost of new hip, upper leg and thigh injuries jumped from \$7,235 to \$85,374, after declining during the previous two years.
- The cost of new shoulder injuries has declined by 62% in the last two years.
- The body parts appearing to incur the largest costs (for new injuries) are ears, hip/upper-leg/thigh, knees, eyes and ankles.

Unfortunately, there appears to be no identifiable pattern occurring over the 6 years that can help us predict which body parts may be injured more than others, with the exception of ear injuries where there has been a reasonably consistent increase.

(ii) Forestry: Cost of Ongoing Claims

- A decrease in ongoing costs for back and spinal injuries of 63% since 2003/2004.
- A steady increase in ongoing costs for ear injuries, 151% increase over 5 years, with the 2005/2006 annual cost being \$192,569.
- Slow but steady increases in ongoing costs for the following, over most years: head, face, hand/wrist, neck.

(iii) Logging: Cost of New Claims

- Very similar to forestry, with a consistent climb in the cost of new ear injury claims (244% increase over 5 years). Just a slight fall during the last year.
- A 79% decrease in the cost of new back/spinal claims since 2002/2003.
- Extreme fluctuation in cost of lower leg injuries, escalating by 165% during the past year despite declines in the previous two years.
- A 50% decline in the cost of new knee injuries over the past 3 years.

(iv) Logging: Cost of Ongoing Claims

- A 17% reduction in the cost of ongoing back/spinal injuries since 2001/2002, but still the biggest single ongoing cost, with an annual cost of \$924,446 in 2005/2006.
- Consistent increase in the ongoing cost of head injuries: 62% increase over 5 years, with an annual cost in 2005/2006 of \$446,093.
- Consistent increase in the cost of abdominal and pelvic injuries: 168% increase over 5 years, with an annual cost in 2005/2006 of \$233,828.
- Ongoing costs of ankle and face injuries also creeping up, with 5-year increases of 600% and 563% respectively. Total costs of \$131,372 and \$121,155 respectively for the 2005/2006 year, so this trend is worrying.

Duration of Injury Claims

For forestry, averaged over 6 years, 57% of injured people were back to full fitness with no further claim cost, within 8 weeks. In 2005/2006, this reduced to 52% and appears to be trending further downwards. This means that the minor injuries are being treated more effectively, but there is no difference in treatment time for the more serious ones.

For logging, averaged over 6 years, 61% of injured people were back to full fitness with no further claim cost, within 8 weeks. In 2005/2006, this reduced slightly to 58%, but appears to be trending downwards, similar to forestry.

Summary of Key Findings

General

- The total cost of forestry injury claims (new and ongoing) increased 33% from \$1.64 million in 00/01 to \$2.18 million in 05/06, despite the number of new forestry claims increasing by only 14% during that period.
- The total cost of logging injury claims (new and ongoing) increased 19% from \$4.52 million in 00/01 to \$5.37 million 05/06, despite the number of new claims *decreasing* by 33% during that period.
- Ongoing claims account for 78% of total claims cost in forestry and 79% in logging (average over all years analysed).
- The annual cost of ongoing forestry claims increased 25% from \$1.31 million in 00/01 to \$1.64 million in 05/06. The annual cost of ongoing logging claims increased 30% from \$3.41 million in 00/01 to \$4.44 million in 05/06.

Age of Injured Persons

- Most forestry injuries were occurring to people in the 35-39 age class, followed by the 30 to 34 class.
- Most logging injuries were occurring between ages 25 and 34.
- The ongoing claims cost was also highest in the injuries incurred in these classes.

Gender of Injured Persons

- Average cost *per claim* of male v/s female claims has been similar up until 05/06, when the average cost per claim of forestry females increased markedly.

Ethnicity

- Percentage increases in forestry new claims costs in the past year, by ethnicity, were: European 10%, Maori 6%, Other Ethnicities 443%
- In logging, European and Maori claims decreased by 45% and 5% respectively, but claims by “Other Ethnicities” increased by 146% (small sample size, but the trend requires watching).

Diagnosis

- Forestry: New Claim Costs. In the 3 years since 2002/2003, there has been a 22% reduction in new claim costs for sprains/strains, and a 59% reduction for cuts/puncture wounds. New claim costs for fractures have increased by 44% over the past 5 years. New claim costs for deafness have increased by 139% over the past 5 years.
- Logging: New Claim Costs. In the 3 years since 2002/2003, there has been a 27% reduction in new claim costs for sprains/strains, but a negligible reduction for cuts/puncture wounds. New claim costs for fractures have decreased by 16% over the past 5 years. New claim costs for deafness have increased by 133% over the past 5 years.
- Forestry: Ongoing Claim Costs. Over the past 5 years: the ongoing costs for soft tissue claims have decreased by 42%, ongoing costs for fractures have remained static, but ongoing costs for deafness have increased by 120%.
- Logging: Ongoing Claim Costs. Over the past 5 years: the ongoing costs for soft tissue claims have increased by 26%, ongoing costs for fractures have increased by 20%, and ongoing costs for deafness have increased by 163%.

Duration of Injuries v/s Cost of Claims

- For forestry, averaged over 5 years, 57% of injured people were back to full fitness with no further claim cost, within 8 weeks. In 2005/2006, this reduced to 52%
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