**Motor Accidents Authority of New South Wales**

# NSW Motor Accidents Scheme
# CTP Claim Frequency, Injuries and Costs

**Prepared by the Statistics Branch**
**Motor Accidents Authority of NSW**
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# Glossary

**Average Claim Cost**

The average claim cost is a useful measure of overall claim costs, particularly when comparing different groups of claimants, for example those with different injury types or who were injured in different ways. The average is not indicative of what any claimant typically receives. It is simply the total cost divided by the number of claims. It is affected by extreme values.

**Bulk Billing Agreement**

Under the Bulk Billing Agreement, CTP insurers pay the Department of Health for public hospital and road ambulance services in an annual lump sum. Payments made under the Bulk Billing Agreement are separate from the medical and hospital payments recorded against individual claims.

**Incurred Claim Cost**

The incurred claim cost is the ultimate cost of the claim. For finalised claims, it is simply the total amount that was paid. For open claims it is the amount paid to date plus the insurer's estimate of the amount that is yet to be paid. As the incurred cost of open claims includes estimates, it continually changes as insurers revise their estimates. Incurred costs reported here represent a snapshot as at June 1995.

**Injury Severity Score (ISS)**

The Injury Severity Score is an indicator of overall injury severity. It is based on the injury codes attached to each claim. The three most severely injured body regions are identified. Within each of these body regions the highest severity code is found. These three numbers are squared and added. The ISS ranges from 1 to 75. Each claimant, regardless of how many injuries they sustained, has only one ISS.

**Maximum AIS (MAIS)**

The MAIS is an indicator of overall injury severity. It is based on the injury codes supplied for each claim. Each claimant may have several injuries, each with a severity code ranging from 1 through 6. The MAIS is simply the highest of these severity codes. For example, if a claimant had sustained whiplash (severity 1), concussion (severity 2) and a fractured femur (severity 3), their MAIS would be 3. Each claimant, regardless of how many injuries they sustained, has only one MAIS. Note that the MAIS cannot be directly compared with the ISS (see above): an MAIS of 5 is not comparable with an ISS of 5.

**Median Claim Cost**

The median claim cost is the middle value, such that half of the claims received less and half received more. In comparison with the average, the median is a better indicator of the amount typically received by claimants.

**Minor Injury Claim or Minor Claim**

For the purposes of this report, a minor injury claim is one with an MAIS of 1 (see definition of MAIS above). The injuries usually associated with minor injury claims are whiplash, cuts, bruises, abrasions, back strain and joint strains.

**Non-economic Loss**

The Motor Accidents Act 1988 defines non-economic loss as: pain and suffering, loss of amenities of life, loss of expectation of life, and disfigurement.

**Superimposed Inflation**

Superimposed inflation is the term used to describe increases in claims costs beyond what would be expected due to wage inflation. There is evidence that now, six years since the commencement of the NSW Motor Accidents Scheme, superimposed inflation is slowing down after a period of significant growth.

**Whiplash**

Whiplash is also known as acute cervical strain. Whiplash involves injury to the soft tissues of the neck, without obvious fracture or dislocation of the vertebral column. The injury is due to the interaction between a sudden acceleration or deceleration of the body and the inertia of the head.

## Executive Summary

The aim of this paper is to report on CTP claim frequency, and to describe CTP claimants in terms of their propensity to claim, injury type and severity, and claim cost. It is based on Claims Register data covering the period from July 1989 to June 1995 inclusive.

By the end of June 1995 the NSW Motor Accidents Scheme had been operating for six years. Over this period the claim rate per road accident casualty continually increased, particularly in the two years leading up to June 1995. In the first year of the scheme 42% of road accident casualties lodged a CTP claim, but this figure is projected to reach 65% or more for accidents that occurred in 1994/95.

This increase can be partly accounted for by an expected growth in people's awareness of their right to claim and in experience with the legislation. However, the recent acceleration in the claim rate has been of concern. Most of this increase has been attributable to minor claims involving injuries such as superficial skin injury and sprains and strains of the neck, back and joints. Minor claims such as these accounted for 47% of 1989/90 claims but have increased to account for about 55% of 1993/94 claims. The costs associated with these claims have also continued to rise.

Data on claims notified since the commencement of the scheme showed that about 80% of CTP claimants were vehicle occupants - drivers or passengers. These two road user classes had the highest propensity to claim, meaning that the percentage of injured drivers and passengers who lodged a CTP claim was higher than the percentage of other road users such as motorcyclists and pedestrians. In terms of age, the casualties with the highest propensity to claim were those in the 40 to 59 year age group.

The road users who sustained the most serious injuries were non-vehicle occupants: motorcycle riders, pillion passengers, pedestrians and pedal cyclists. These claimants were more likely to sustain brain injury and fractures of the upper and lower limbs.

Pedestrian, motorcycle rider and pillion passenger claims were significantly more costly than other claims. Their median claim cost was around $25,000 and their average claim cost about $70,000 (based on open and finalised claims). For comparison, the median and average cost of vehicle passenger claims was $10,500 and $39,000 respectively.

Although some vehicle occupants did suffer serious injuries, the great majority sustained minor injuries such as whiplash, upper limb joint injury and superficial skin injuries.

The specific injury groups discussed in this report were selected on the basis of frequency, severity, and cost. The following table summarises the frequency and cost of each injury group, showing the percentage of claims that involved each injury type and the median payment on finalised claims.

**Injury Group, Percent of Claims, Median Finalised Cost**

| *Injury Group* | *Percent of Claims* | *Median Finalised Claim Cost in $Thousands* |
|---|---|---|
| Whiplash | 37.0 | 2 |
| Upper limb joint injury | 11.0 | 5 |
| Lower limb joint injury | 11.0 | 6 |
| Lower limb fracture | 10.0 | 26 |
| Upper limb fracture | 7.0 | 14 |
| Mild head injury | 4.0 | 11 |
| Brain injury | 2.0 | 39 |
| Multiple serious injury | 1.0 | 47 |
| Spinal cord injury | 0.2 | 310 |

Note: the injury groups are not mutually exclusive: a claim could belong to more than one group.
Source: MAA Claims Register June 1995

Whiplash was by far the most frequent injury. Upper limb joint and lower limb joint injuries were moderately frequent. The overall costs associated with these injuries were relatively low.

Upper and lower limb fractures were about as frequent as joint injuries, but were much more costly. This was especially true of lower limb fractures with a median finalised cost of $26,000 - more than four times the median cost of lower limb joint injury. Both non-economic and economic loss were significant costs in these cases.

Mild head injury was recorded in 4% of claims and was associated with moderately high claim costs. One of the reasons it was included in this report was the increasing awareness on the part of medical and rehabilitation professionals that mild head injury can have significant short term and, in some cases, long term consequences for the injured person.

Spinal cord injury, brain injury and multiple serious injury (other than brain and spinal cord) were infrequent but very costly. Both brain and spinal cord injury claims have recorded several multi-million dollar settlements, with a maximum to date of $6 million. The largest estimated claim cost is more than $8 million for a claim involving spinal cord injury that has not yet been finalised.

Non-economic loss, economic loss and future care were all areas of extremely high cost in brain and spinal cord injury claims and accounted for the bulk of all payments made on finalised claims. For the other injury groups, the majority of costs were for non-economic loss, economic loss, and legal and investigation costs.

In general, average claim cost increased considerably over time for claims matched according to injury type and time taken to settle. This was due to a number of factors including superimposed inflation.

Both minor and serious injuries emerged as areas of concern.

In the case of minor claims, the increase in both the numbers and costs, coupled with the relatively high percentage of cases receiving non-economic loss payments has prompted legislative reform. This is an attempt to return to the original intention of the Motor Accidents Act, which was to give priority to the severely injured and to restrict the level of non-economic loss compensation paid in respect of relatively minor injuries such as soft tissue injuries. The impact of these changes will be monitored closely.

This report has also shown that that there is potential for the relatively small number of serious injury claims to significantly affect the overall costs of the scheme. Claims involving brain and spinal cord injury, other multiple serious injury and fractures, particularly lower limb fractures, are associated with very high costs, especially in the areas of economic loss, future care and non-economic loss. The only payment category to which any restrictions apply is non-economic loss. There is no limit to the amounts that may be awarded in any other payment category. Factors such as an increase in the road toll, medical advances enabling the survival of people with severe injuries, and community expectations of compensation, may all have far reaching consequences for the costs of personal injury compensation schemes such as the Motor Accidents Scheme.

## Introduction

The Motor Accidents Authority (MAA) administers the New South Wales Motor Accidents Scheme, which commenced operation in July 1989. This is the compulsory third party personal injury insurance scheme for NSW. It provides compensation for people injured in a motor vehicle accident as a result of the fault of another vehicle owner or driver.

The aim of this report is to update and expand upon an earlier profile of CTP claimants[1]. As the Scheme has been in operation for 6 years, data on injuries and claim costs has developed to the point where it is possible to undertake more detailed analysis. This report is based on all claims reported to the Claims Register as at June 1995.

The report falls into three main sections:

1. The first section of this report covers trends in the claim rate, including road user class and age profiles.
2. Section 2 describes the way in which injuries are coded and looks at the overall types and severities of the injuries sustained by CTP claimants.
3. Section 3 contains detailed profiles of selected injury groups and the costs associated with those injuries. These injury types were selected on the basis of high frequency or high cost. This section is only for readers who are interested in detailed information on specific injuries. The main points are presented in the Executive Summary.

In defining the individual injury groups, it is important to note that a claim could fall into more than one injury group. For example, if a claimant had sustained both whiplash and a fractured wrist, their claim would be counted in both the whiplash and the upper limb fracture groups. The majority of claimants have no more than two injuries recorded.

#### Note on Medical and Hospital Payments

Medical and hospital payments reported here do not include the cost of most public hospital and road ambulance services as these are covered separately by what is known as the Bulk Billing Agreement. Under this agreement, CTP insurers pay the Department of Health for public hospital and ambulance services in an annual lump sum.

[1] Statistical information Paper Number 2, *Compulsory Third Party Claimants: Characteristics and Injuries*, Motor Accidents Authority, October 1992.

# SECTION 1: CTP CLAIMS OVERVIEW

## Casualties and the CTP Claim Rate

The claim rate has increased steadily since the commencement of the Motor Accidents Scheme in July 1989. In the first year of the scheme 42% of recorded road casualties claimed. For 1994/95, the sixth year of the scheme, it is estimated that this figure will have increased to well over 60%.

The rate of increase has been greatest in the last two accident years. Recent analysis has shown that most of the increase is due to claims involving relatively minor injuries such as superficial skin injuries and sprains and strains of the neck, back and joints.

Table 1 compares the number of CTP claims with the number of road accident casualties for each accident year. It shows the number of road accident casualties recorded by the RTA[a] and the number of claims lodged to date for each of those years. There are two columns showing the number of claims. The *Claims Lodged to Date* column presents the actual number of claims made so far. The *Estimated Ultimate Claims* column shows the projected ultimate number of claims. This figure is the actual number lodged plus an estimate of the claims that are expected in the future (IBNR or Incurred But Not Reported claims). These two figures have both been expressed as a percentage of the number of casualties. For example, the claim rate to date for 1993/94 is 53.7% but it is estimated that the claim rate for that year will ultimately be 57% as more claims are received.

**Table 1. Road Accident Casualties and CTP Claims**

| Accident Year | Road Casualties | Claims Lodged to Date | As % of Casualties (Actual) | Estimated Ultimate Claims | As % of Casualties (Ultimate) |
|---|---|---|---|---|---|
| 1989/90 | 35,015 | 14,416 | 41.2 | 14,713 | 42.0 |
| 1990/91 | 30,929 | 13,264 | 42.9 | 13,555 | 43.8 |
| 1991/92 | 27,257 | 12,783 | 46.9 | 13,069 | 48.0 |
| 1992/93 | 26,501 | 13,131 | 49.6 | 13,546 | 51.1 |
| 1993/94 | 27,311 | 14,668 | 53.7 | 15,574 | 57.0 |
| 1994/95 | 13,194* | 7,353* | 55.7 | 8,572* | 65.0 |

*July 1994 to December 1994 only
Source: RTA, MAA Claims Register June 1995, Coopers & Lybrand

According to data on attendances for road injury at hospital Emergency Departments[b], the extent of minor injuries in road crashes is underestimated in official statistics as it appears that many people attend hospital for minor road injuries but do not report the injuries to the police. This would suggest that the true claim rate is somewhat lower than that shown in Table 1. However,

there are at least two good reasons for continuing to measure the claim rate against RTA casualty figures:

- RTA figures have a consistent definition of scope.
- Both the RTA data collection and the Claims Register require that the originating accident was reported to the police.

Another way of looking at the claim rate is to compare the number of claims notified at the same stage of development for each accident year, for example, after 5 quarters (15 months). This type of analysis also shows that the increase in claims is quite pronounced, as illustrated by Table 2:

- The cumulative number of claims lodged after five quarters for the 1991/92 accident year was 10,397.
- For 1992/93 11,068 claims were lodged by the fifth quarter, an increase of **6.5%**.
- For 1993/94 this figure was 12,758, an increase of **15.3%** on 1992/93.
- Early data (not shown in the table) indicates that claim numbers for 1994/95 are up by **18.3%** compared with the same period for 1993/94.

**Table 2.**
**Cumulative Number of Claims Notified in the First Five Quarters of Each Accident Year**

| As At: | Accident Year | | | | |
|---|---|---|---|---|---|
| | ***89/90 (5)**** | ***90/91 (4)*** | ***91/92 (3)*** | ***92/93 (2)*** | ***93/94 (1)*** |
| **June 1995** | 10,488 | 10,591 | 10,507 | 11,090 | **12,758** |
| | ***89/90 (4)*** | ***90/91 (3)*** | ***91/92 (2)*** | ***92/93 (1)*** | |
| **June 1994** | 10,469 | 10,571 | 10,488 | **11,068** | |
| | ***89/90 (3)*** | ***90/91 (2)*** | ***91/92 (1)*** | | |
| **June 1993** | 10,443 | 10,526 | **10,397** | | |

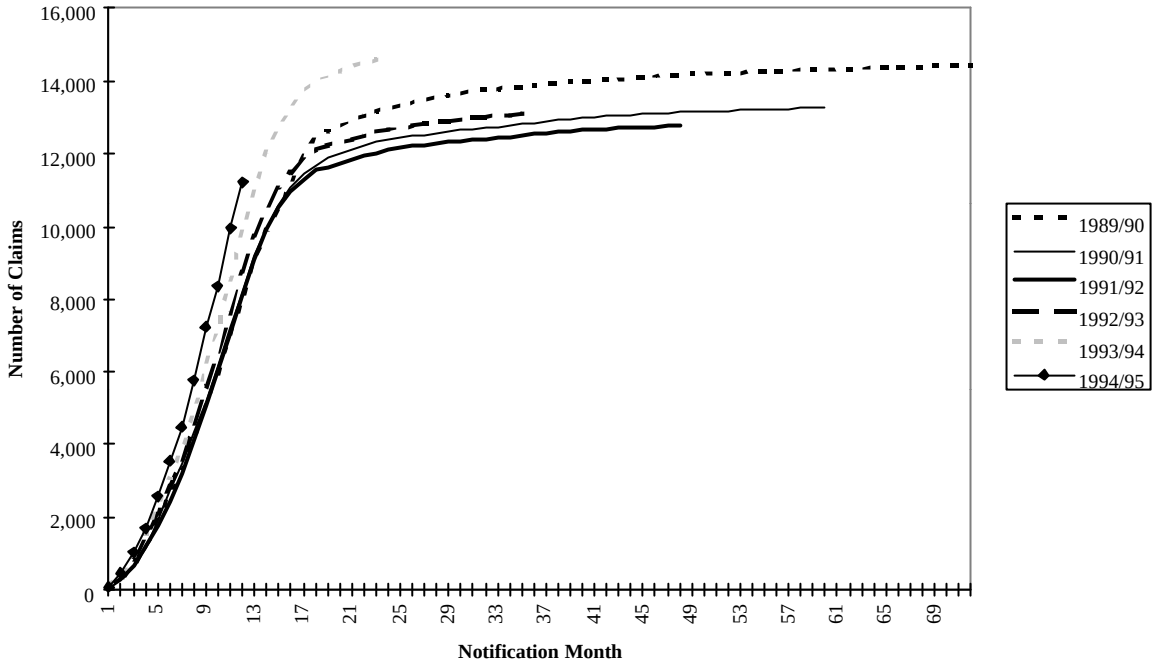
* Number in brackets shows the stage of development of each accident year, in years. For example, 5 years since the end of 89/90.
Source: MAA Claims Register June 1995

Although it is clear that claim numbers have increased significantly, a certain amount of the apparent increase may be due to the effect of claims being lodged more quickly than they were earlier in the scheme. However, it is difficult to isolate precisely how much of the increase is attributable to quicker notification.

Figure 1 illustrates the increase in claim numbers. It is clear that claim numbers for 1993/94 and 1994/95 are significantly higher than for earlier accident years.

As claim numbers have risen, claim costs have also increased. Since the commencement of the Motor Accidents Scheme, there has been a considerable decrease in the percentage of claims estimated at less than $5,000 while the percentage of claims in the $5,000 to $100,000 band has increased significantly. In other words, in addition to a higher claim frequency, there has been a marked upward shift in insurers' estimates of claim costs.

**Figure 1.**
**Cumulative Claims Reported, Accident Year, Notification Month**




Source: MAA Claims Register as at June 1995, all claims.

## Road User Class

Overall, the claim rate per road casualty has increased from 41% to 56% (excluding estimates for claims yet to be lodged). However, the different road user classes vary greatly in their propensity to claim. Table 3 and Figure 2 show the percentage of casualties in each road user class to have claimed each year.

**Table 3. Claim Rate*, Road User Class**

| Road User Class | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|
| Driver | 42.6 | 44.2 | 49.7 | 50.9 | 56.0 |
| Passenger | 54.2 | 54.1 | 62.1 | 65.5 | 73.0 |
| Rider | 18.5 | 14.0 | 12.0 | 18.0 | 23.0 |
| Pillion | 28.9 | 31.5 | 21.7 | 33.7 | 39.7 |
| Pedestrian | 40.5 | 40.0 | 44.7 | 45.8 | 45.0 |
| Pedal Cyclist | 19.1 | 21.6 | 23.0 | 21.7 | 24.9 |
| Total** | 42.7 | 43.5 | 49.1 | 51.1 | 55.8 |

* Claims as a percentage of recorded casualties.
** Includes *Unknown*
Source: RTA Statistical Statements and MAA Claims Register June 1995

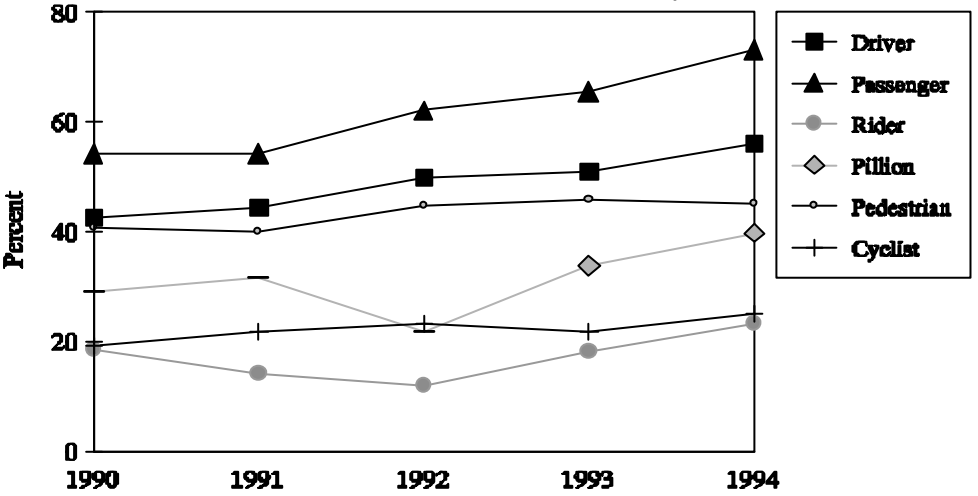
Passengers claimed most often, followed by drivers and pedestrians. These three groups showed a marked increase in 1992, and the claim rate for drivers and passengers has continued to climb.

The claim rate was lowest for motorcyclists, with no more than 23% claiming in any year. Pillion passengers also claimed in lower proportions than might be expected. Their claim rate appears to be increasing, but has fluctuated between 20% and 40% in comparison with 55% to 75% for vehicle passengers.

Unless motorcyclists are more often involved in 'no blame'[2] accidents, it might be expected that vehicle passengers and pillion passengers would be equally eligible to claim. The low claim rate amongst pillion passengers and motorcycle riders may indicate that some people eligible to claim have not done so. It is not known how many motorcycle riders or pillion passengers might be eligible for compensation under the Motor Accidents Scheme or why the claim rate is low for these road users.

In comparison with other road users, motorcyclists are more likely to be seriously injured. The National Injury Surveillance Unit has released figures showing that, of hospitalised road casualties, the proportion of serious or critical injuries was second highest for motorcyclists at 29% (after pedestrians, at 33%). The proportion for vehicle occupants was 24% and for pedal cyclists it was 13%[c].

**Figure 2.**
**Percent of Casualties to Claim Under CTP, Road User Class**




Source: MAA Claims Register June 1995, all claims.

The proportion of pedal cyclists to claim was also low at 20% to 25%. This claim rate calculation is based on cases in which a cyclist's injuries were reported to the police. It has been shown that the number of pedal cyclists injured in crashes is greatly underestimated, partly because many of

[2]A no blame accident is one in which no vehicle owner or driver was at fault and therefore no claim can be made under the Motor Accidents Scheme. Possible examples include tyre blow out, brake failure and sudden and unforeseeable incapacity of the driver (for example, heart attack or loss of consciousness).

the crashes occur off public streets or do not involve a motor vehicle. A study conducted in Western Australia[d] estimated that only 2% of pedal cyclists injured in crashes were reported to the police. Although many of these unreported pedal cyclist casualties would not be eligible for compensation under the NSW Motor Accidents Scheme (because a motor vehicle was not involved), the low reporting rate for pedal cyclists should be noted when interpreting the claim rate figures for cyclists. The true claim rate is probably even lower than 20%.

#### Road User Class and Claim Cost

Table 4 shows the percentage of CTP claims accounted for by each road user class, the percentage of total incurred costs, the average incurred claim cost and the median incurred claim cost.

Vehicle drivers accounted for the greatest proportion of claimants but had the lowest average claim cost, at $27,572 and the lowest median cost, at $7,714. They represented 46% of claimants but only about 34% of claim costs.

Passengers were the second largest group of claimants, representing 36% of claimants and 38% of costs, with an average claim size of $39,040 and median claim size of $10,468.

Pedestrians were the next largest group, accounting for 11% of claims and 19% of total costs. The average cost of pedestrian claims was more than twice that of drivers, at $63,234. The median cost of pedestrian claims was $21,799, almost three times the figure for drivers.

**Table 4. Road User Class, Percent of Claims and Costs**

| Road User Class | Percent of Claims | Percent of Costs | Average Claim Cost $ | Median Claim Cost $ |
|---|---|---|---|---|
| Driver | 45.8 | 33.8 | 27,572 | 7,714 |
| Passenger | 36.3 | 38.0 | 39,040 | 10,468 |
| Rider | 2.7 | 5.2 | 70,948 | 24,000 |
| Pillion | 0.5 | 0.9 | 72,267 | 26,169 |
| Pedestrian | 11.0 | 18.6 | 63,234 | 21,799 |
| Pedal Cyclist | 2.4 | 2.5 | 38,432 | 9,470 |
| Other | 1.2 | 1.0 | | |
| Total* | 100.0 | 100.0 | 37,351 | 10,500 |

Source: MAA Claims Register June 1995, all claims.

Motorcycle riders and pillion passengers represented only a small percentage of claimants (2.7% and 0.5% respectively) but also generated costly claims. Together, they accounted for 6.1% of costs. The average claim cost was $70,948 for riders and $72,267 for pillions. The median claim costs were $24,000 and $26,169 respectively - well over three times the median cost for driver claims.

Cyclists accounted for 2.4% of claims and 2.5% of costs. The average cost of pedal cyclist claims was $38,432 and the median was $9,470. These were the second lowest claim cost figures, after drivers.

Pedestrian, rider and pillion claimants are more likely to sustain serious injuries than vehicle occupants, which explains the higher cost of their claims.

## Liability

When a claim is lodged, the insurance company has to make a decision about liability. The claim may be fully accepted, partially accepted or fully rejected, depending on the results of investigations. The insurer's decision about liability may change over time in the light of new information.

As the Motor Accidents Scheme is fault based, in order to receive compensation an injured person must show that a vehicle owner or driver was at least partially at fault in the accident. In particular, injured drivers who were totally at fault in the accident (for example, in single vehicle crashes) are ineligible for compensation.

It is possible that an injured person may be found partially at fault, that is, they contributed in some way to their own injuries (contributory negligence). For example, a driver may have been speeding, a passenger not wearing a seat belt, or a pedestrian may have crossed against the lights.

#### Road User Class and Liability

Pedestrian claims had the highest proportion of rejection, with 16% fully rejected and 10% involving contributory negligence. A number of road accident studies suggest that pedestrians often take risks when crossing roads[e].

Pedal cyclist claims were rejected in 11% of cases and deemed to involve contributory negligence in 7% of cases.

Motorcycle rider and pillion passenger claims were fully rejected in 8% and 6.5% of cases respectively. Contributory negligence was determined in 6% of claims for both road user classes.

Both driver and passenger claims were rejected in 5% of cases. Driver claims involved contributory negligence in 2% of cases and passengers in 4%.

## Age

Young people represent a much smaller percentage of CTP claimants than they do of road casualties. In other words, they are under-represented amongst CTP claimants. The propensity to claim generally increases with age.

One reason for this is that children and teenagers appear less likely to claim (or have a claim lodged on their behalf) unless their injuries are relatively serious. This is probably because their needs are largely met by the public hospital system and their carers. They are also unlikely to need to claim for loss of earnings. According to a survey of people injured in road accidents

commissioned by the MAA in 1993, reasons for not making a CTP claim when a child or teenager was involved included[f]:

- the injuries were relatively minor and the family was not out of pocket
- there was no economic loss
- the family was waiting to see whether the injury had any long term consequences.

Another reason for the variation in the claim rate is the fact that the Motor Accidents Scheme is fault based. In order to receive compensation, the claimant must show that their injuries were at least partly caused by the fault of another vehicle owner or driver. Young inexperienced drivers are more likely to be at fault, which may deter them from claiming. The claim rate is lowest in the 17 to 20 year age group, the period when most drivers are inexperienced. It is also possible that older road users are more aware of the right to claim.

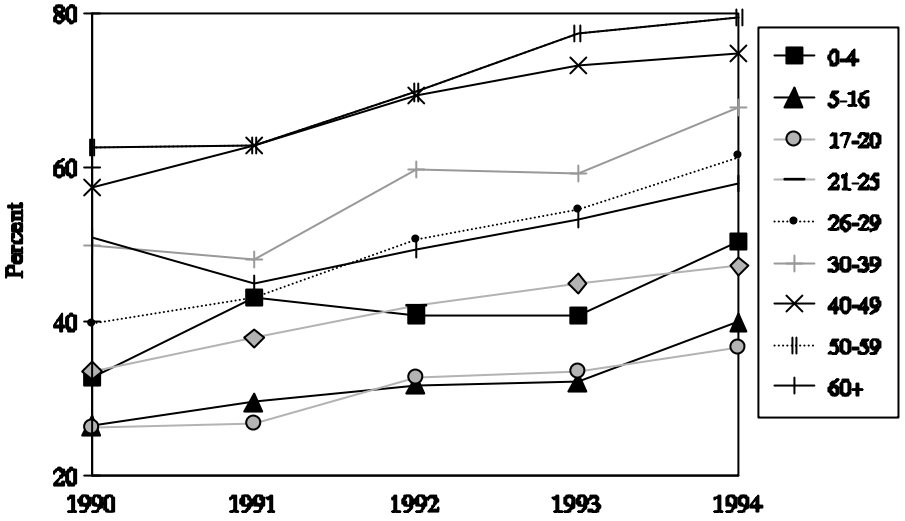
**Table 5. Claim Rate*, Age Group**

| Age Group | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|
| 0 to 4 | 32.6 | 43.0 | 40.9 | 40.8 | 50.4 |
| 5 to 16 | 26.5 | 29.5 | 31.8 | 32.1 | 39.9 |
| 17 to 20 | 26.2 | 26.7 | 32.8 | 33.4 | 36.6 |
| 21 to 25 | 33.6 | 37.8 | 42.1 | 45.0 | 47.1 |
| 26 to 29 | 39.7 | 43.0 | 50.6 | 54.5 | 61.4 |
| 30 to 39 | 49.9 | 48.1 | 59.7 | 59.3 | 67.8 |
| 40 to 49 | 57.3 | 62.9 | 69.3 | 73.1 | 74.8 |
| 50 to 59 | 62.5 | 62.9 | 69.7 | 77.4 | 79.4 |
| 60+ | 51.0 | 45.0 | 49.4 | 53.3 | 57.8 |
| Total** | 42.7 | 43.5 | 49.1 | 51.1 | 55.8 |

* Claims as a percentage of recorded casualties.
** Includes *Unknown*
Source: RTA Statistical Statements and MAA Claims Register June 1995

Table 5 and Figure 3 show the percentage of road casualties in each age group to claim from 1990 to 1994. The claim rate increased in all age groups, but the propensity to claim varied according to age. The claim rate was consistently lowest amongst 5 to 16 and 17 to 20 year olds, ranging from 26% to 40%. The next lowest claim rate was in the 0 to 4 and 21 to 25 year age groups, from about 33% to 50%. The rate then rose with increasing age until the 60 years and over group. The claim rate was highest in the 50 to 59 year age group.

**Figure 3.**
**Percent of Casualties to Claim Under CTP, Age Group**




Sources: RTA Statistical Statements and MAA Claims Register as at June 1995 .

**Age Group and Claim Cost**

Table 6 shows the percentage of CTP claimants in each age group, the percentage of total incurred costs, the average incurred claim size and the median incurred claim size.

**Table 6. Age Group, Percent of Claims and Costs**

| Age Group | Percent of Claims | Percent of Costs | Average Claim Cost $ | Median Claim Cost $ |
|---|---|---|---|---|
| 0 to 4 | 1.5 | 3.2 | 77,931 | 4,145 |
| 5 to 16 | 7.0 | 8.7 | 46,531 | 9,000 |
| 17 to 20 | 10.4 | 12.2 | 43,768 | 10,000 |
| 21 to 25 | 12.5 | 12.8 | 38,361 | 9,656 |
| 26 to 29 | 8.7 | 8.8 | 38,003 | 10,651 |
| 30 to 39 | 18.6 | 19.5 | 39,270 | 12,600 |
| 40 to 49 | 14.9 | 14.5 | 36,364 | 13,305 |
| 50 to 59 | 10.0 | 9.1 | 33,697 | 13,440 |
| 60+ | 11.4 | 8.0 | 26,132 | 10,192 |
| Unknown | 5.0 | 3.1 | | |
| Total | 100.0 | 100.0 | 37,351 | 10,500 |

Source: MAA Claims Register June 1995, all claims.

Apart from a slight increase in the 30 to 39 year age group, the average claim cost decreased with increasing age, while the median showed an increasing trend up to the 50 to 59 year age group. The main reason for this difference was that the younger the age group the more the average was inflated by a small number of very costly claims.

The profile of claim cost by age group is further developed in Figures 4 and 5, showing the first quartile, median, third quartile, average, and maximum claim cost.

**Figure 4.**
**Claim Cost Profile, Age Group**
**1st Quartile, Median, 3rd Quartile and Average**

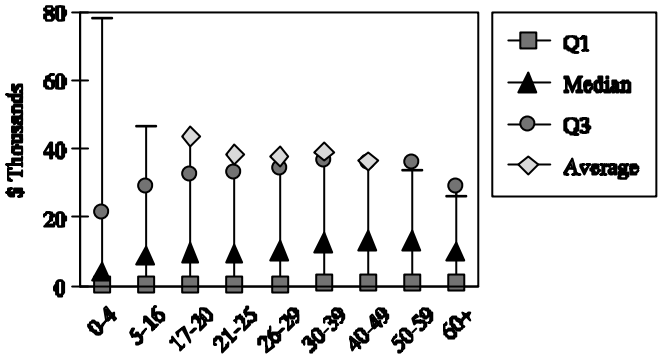
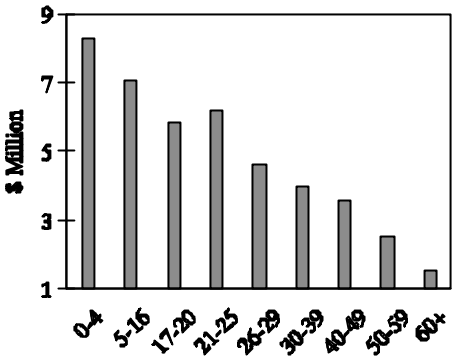



**Figure 5.**
**Maximum Claim Cost, Age Group**




Source: MAA Claims Register as at June 1995

It can be seen that the average followed the same trend as the maximum, decreasing steadily with increasing age. This, and the fact that the median was very low compared with the average, indicates that the average was skewed by a small number of very large claims. This effect was particularly pronounced in the 0 to 4 year age group.

The average and the median became closer as age increased because the range of costs was much narrower in the older age groups, as shown by the smaller values of the maximum claim cost.

The median was higher in the 30 to 59 year age group than amongst younger claimants, indicating that typical claim costs were actually higher for older claimants.

Amongst 0 to 4 year olds, the bulk of claims were actually lower in cost than for any other age groups, but there were a small number of extremely costly claims which had a strong effect on the average. We know that accident casualties in this age group have a relatively low propensity to claim and that the more seriously injured are more likely to claim. It follows, then, that many children and teenagers with minor injuries do not claim, resulting in a higher average claim cost for those that do. In addition, a young person's claim can be more costly than the equivalent adult's claim because of additional time taken to ascertain future needs and, in the case of disabling injuries, the requirement to make more allowance for future care because of longer life expectancy.

# SECTION 2: INJURIES

## Injury Codes

Each claimant on the MAA Claims Register has up to five injuries coded, using the Abbreviated Injury Scale (AIS)[g]. This scale was developed in the United States to be used by crash investigators collecting data on motor vehicle accident injuries. It is now used for a wide variety of epidemiological, outcome evaluation and other injury research studies.

Using the AIS, injuries can be categorised according to body region and injury severity. The main body regions are: external (skin), head, face, neck, chest, abdomen & pelvic contents, spine, upper limb, lower limb. Appendix 1 provides definitions of each body region.

The severity of each injury is expressed as a number from 1 to 6, or 9 for unknown.

1. minor
2. moderate
3. serious
4. severe
5. critical
6. maximum (often but not always unsurvivable)
9. unknown

The number is determined in terms of threat to life. It does not necessarily correspond with the degree of disability that results from an injury.

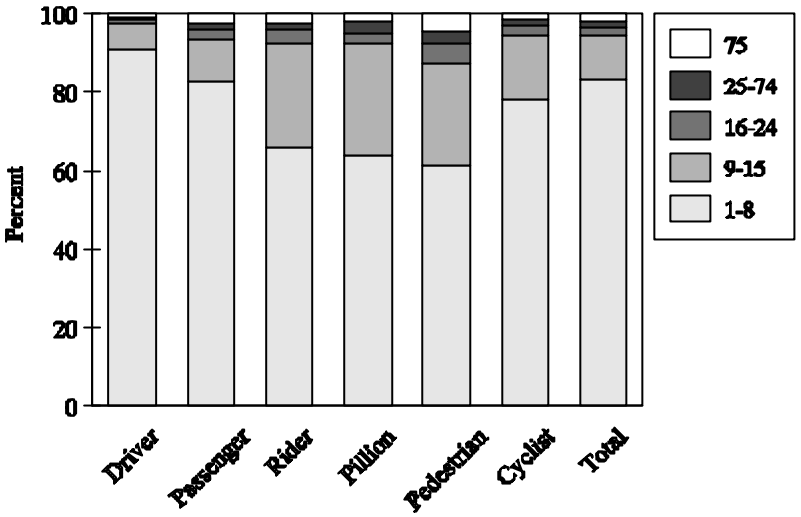
### Measures of Injury Severity

An individual may have sustained many injuries, each with its own AIS code. However, it is often useful to calculate a single measure of overall injury severity. Two such measures are the Injury Severity Score (ISS) and the Maximum AIS (MAIS)[h]. These measures will be referred to in this report.

#### Injury Severity Score (ISS)

The ISS takes into account the different body regions affected and the severity of injury to each region. In order to calculate it, the three most severely injured body regions are identified. Within each of these body regions the highest severity code is found (1 through 6). These three numbers are squared and added. If there are less than three body regions involved then only that number of severity codes will be used. The ISS may have a minimum value of 1 and a maximum of 75. A person with any injury of severity 6 (maximum) automatically receives an ISS of 75.

**Figure 6.**
**Road User Class and Injury Severity Score**



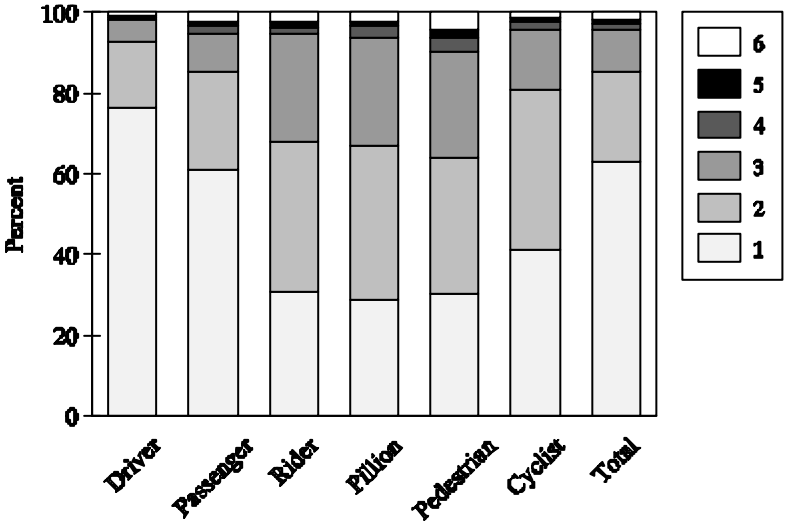

Source: MAA Claims Register as at June 1995, all claims.

Figure 6 shows the distribution of ISS for each road user class. Claims where the ISS was unknown were excluded (about 18% of total claims). Pedestrian claimants had the highest ISS, followed by motorcycle riders and pillion passengers. Drivers had the lowest ISS.

#### Maximum AIS (MAIS)

The MAIS is simply the highest severity code. For example, if a claimant had sustained whiplash (severity 1), concussion (severity 2) and a fractured femur (severity 3), the MAIS would be 3. For the purposes of this report, a claim with an MAIS of 1 is considered a minor injury claim.

**Figure 7.**
**Road User Class and Maximum AIS (MAIS)**




Source: MAA Claims Register as at June 1995, all claims.
Total includes Unknown Road User Class

Figure 7 shows the distribution of MAIS for each road user class. The 18% of claims for which MAIS was unknown were excluded. In total, 51% of claims were minor injury claims (MAIS 1).

Again, the figure illustrates the fact that pedestrians, pillion passengers and motorcycle riders were more severely injured than other road users, with a high proportion in the MAIS 2 and MAIS 3 categories. Pedestrians had the highest percentage of claims in the MAIS 4 through 6 categories. The great majority of drivers had an MAIS of 1.

Although the MAIS and the ISS are related, they cannot be directly compared with each other: an MAIS of 5 is not comparable with an ISS of 5. Refer to the Glossary for more information.

## Injury Distribution

Some parts of the body were injured more often than others. Table 7 shows the frequency of injury according to body region. It is based on a count of injuries, not claimants, and excludes fatalities.

**Table 7.**
**Affected Body Region**

| Body Region | Percent of Injuries |
|---|---|
| Skin | 18.2 |
| Head | 5.6 |
| Face or Neck* | 2.9 |
| Chest or Abdomen | 11.1 |
| Spine | 32.4 |
| Upper Limb | 12.4 |
| Lower Limb | 17.4 |
| Total | 100.0 |

* Almost all facial injuries.
Source: MAA Claims Register June 1995, all claims.

Spinal injuries were the most common, accounting for almost a third of all recorded injuries. The next most frequently affected body part was the skin (18% of injuries), followed by lower limb injuries (17%) and upper limb injuries (12%). Eleven percent of injuries were to the chest or abdomen, 6% were to the head, and 3% to the face. The number of neck injuries (excluding the spine) was negligible.

Tables 8 through 10 present a further breakdown of spinal, head and limb injuries, showing the main injury types within each of these body regions.

### Spinal Injuries

**Table 8. Types of Spinal Injury**

| Type of Injury | Percent of Spinal Injuries |
|---|---|
| Whiplash | 63.5 |
| Thoracic strain* | 8.0 |
| Lumbar strain** | 20.7 |
| Fractured or dislocated vertebra | 5.9 |
| Cord contusion or nerve root injury | 1.8 |
| Paraplegia or quadriplegia | 0.4 |
| Total | 100.0 |

* Middle back. ** Lower back.
Source: MAA Claims Register June 1995

Table 8 relates to spinal injuries. The majority were acute cervical strain (whiplash) or strains of the middle or lower back. Six percent of spinal injuries were fractures or dislocations of the vertebral column. Permanent spinal cord injury - paraplegia and quadriplegia - accounted for less than half a percent of all spinal injuries.

#### Head Injuries

The different types of head injury are shown in Table 9.

**Table 9. Types of Head Injury**

| Type of Injury | Percent of Head Injuries |
|---|---|
| Headache, dizziness | 21.0 |
| Concussion | 42.4 |
| Brain injury | 23.7 |
| Skull fracture | 10.8 |
| Other | 2.1 |
| Total | 100.0 |

Source: MAA Claims Register June 1995

Just over 20% of head injuries were minor, involving headache or dizziness, but no loss of consciousness. These correspond to an AIS severity of 1.

The majority (42%) were coded as concussion, with either brief loss of consciousness or a transitory decrease in the level of consciousness. This degree of injury corresponds to an AIS severity of 2.

Almost one quarter of head injuries involved brain injury likely to require rehabilitation of some kind. These injuries range from AIS severity 3 through 6.

Eleven percent of injuries to the head were skull fractures. Head injuries in the *Other* category include cranial nerve injuries and penetrating injuries. These accounted for 2% of head injuries.

#### Limb Injuries

Table 10 presents a breakdown of the types of limb injuries sustained. Upper and lower limbs are shown separately and combined.

**Table 10. Types of Limb Injury**

| Type of Injury | Percent of Upper Limb Injuries | Percent of Lower Limb Injuries | Percent of All Limb Injuries |
|---|---|---|---|
| Joint injury | 55.7 | 39.7 | 46.3 |
| Simple fracture | 32.4 | 27.2 | 29.4 |
| Complex fracture | 6.8 | 17.3 | 12.9 |
| Muscle, tendon, ligament | 3.1 | 3.7 | 3.4 |
| Crush or amputation | 0.9 | 0.8 | 0.9 |
| Other | 1.1 | 11.3* | 7.1 |
| Total | 100.0 | 100.0 | 100.0 |

* Mainly unspecified soft tissue injuries.
Source: MAA Claims Register June 1995

Looking at upper and lower limbs together, the majority of limb injuries were sprains and strains of joints (46%), followed by simple fractures (29%) and complex fractures (13%). Complex fractures are compound (open), displaced, or comminuted fractures.

Muscle, tendon or ligament injuries were less common, accounting for 3% of limb injuries. Crush and amputation injuries were also infrequent (0.9%).

In comparison with upper limbs, lower limb injuries more often involved complex fractures (17.3% versus 6.8%). Joint injuries accounted for a greater percentage of upper limb injuries (55.7% versus 39.7%).

#### Other Injuries

Most chest and abdominal injuries were what is known as 'seat belt' injury, usually superficial bruising or abrasions caused by the seat belt during the impact of the crash. Bruised or fractured ribs were another common chest injury. About 13% of chest injuries and 14% of abdominal injuries were serious.[3]

The great majority of facial injuries were fractures. Eye injuries were the next most common facial injury.

## Summary

Pedestrians, pillion passengers and motorcycle riders were the most severely injured road users. Drivers sustained the highest proportion of minor (AIS severity 1) injuries.

The body region most often injured was the spine. One-third of all injuries recorded were to the spine. The bulk of these were soft tissue strain injuries. Eighteen percent of injuries affected the skin, for example, cuts, abrasions and bruises. Seventeen percent of injuries were to the lower limbs and 12% to the upper limbs. Limb injuries were predominantly joint sprains or strains, or fractures. Eleven percent of injuries involved the chest or abdomen, 6% were to the head and 3% to the face.

[3]Defined as having an AIS severity of 3 or more.

## Minor Injury Claims

The next section of this report, which covers individual injury groups, mainly concentrates on serious injuries. However, as about 50% of claims are for relatively minor injuries (MAIS 1) this segment provides a brief overview of these claims and their impact on the Motor Accidents Scheme.[4]

### Injury Profile

As at June 1995 there were 40,814 minor injury claims (MAIS 1), representing 51.3% of all claims reported to date. Of all the injuries recorded in these minor claims, the most common were whiplash (30%), cuts, bruises and abrasions of the skin (17%), middle or lower back strain (13%), upper limb joint injuries (8%), lower limb joint injuries (7%), and seat belt injury (5%).

Whiplash, upper limb joint and lower limb joint injury are discussed in more detail in Section 3.

Note that because of the way in which the Abbreviated Injury Scale assigns severity scores, these injuries were defined as minor in terms of threat to life. This does not necessarily mean that they might not have a significant impact on the injured person.

### Claim and Claimant Characteristics

Fifty-five percent of MAIS 1 claimants were injured as vehicle drivers. This was relatively high in comparison with claims of MAIS 2 or above, in which drivers accounted for 36% of claimants. Passengers represented 35% of MAIS 1 claimants, pedestrians 6%, pedal cyclists 1.6% and motorcycle riders and pillions combined also accounted for 1.6%.

### Impact of Minor Injury Claims on the Motor Accidents Scheme

Table 11 shows the percentage of claims and the percentage of costs accounted for by MAIS 1 claims. In total, they accounted for 51% of claims and 26% of total incurred claim costs.

The table shows a continuing increase in the percentage of claims and the percentage of costs accounted for by minor injury claims. In relative terms, the percentage of costs has increased by a greater proportion than the percentage of claims.

[4] This updates information provided in a previous report produced by the MAA: *The Incidence and Cost of Minor Claims,* March 1995.

**Table 11.**
**Minor Claims, Percent of Claims and Costs**

| | *MAIS 1 Claims* | |
|---|---|---|
| ***Accident Year*** | ***Percent of Claims*** | ***Percent of Costs*** |
| 1989/90 | 46.7 | 20.3 |
| 1990/91 | 50.3 | 23.0 |
| 1991/92 | 53.2 | 25.7 |
| 1992/93 | 53.9 | 28.4 |
| 1993/94 | 54.4 | 28.9 |
| Total* | 51.0 | 26.0 |

* Includes 1994/95. This year is not shown separately as injury data
is not yet sufficiently developed.
Source: MAA Claims Register June 1995.

## Payment Types

The total amount paid on finalised MAIS 1 claims as at June 1995 was $297 million. In terms of the breakdown of this amount across the various payment categories, non-economic loss accounted for 45% of all payments; economic loss 20%; legal and investigation 19% and medical and hospital 11%.

The overall median payment on finalised MAIS 1 claims was $1,422. The highest median payment was for non-economic loss, at $10,000, and the second highest was for economic loss at $1,300.

Medical and hospital payments were the most frequently incurred costs, having been received by 72% of claimants with minor injury. Sixty-nine percent of MAIS 1 claims incurred legal and investigation costs, 37% received non-economic loss payments and 33% received economic loss payments.

In summary, minor injury claims currently account for about half of all CTP claims, having steadily increased from 47% of 1989/90 claims to 54% of 1993/94 claims. The cost of these claims has also continued to increase from 20% of 1989/90 incurred costs to an estimated 29% of 1993/94 incurred costs. Of the total amount paid on finalised minor injury claims, 45% was for non-economic loss. As it was the original intention of the Motor Accidents Act to give priority to the severely injured and to restrict non-economic loss compensation for relatively minor injuries such as soft tissue injuries, this finding is of concern, and has prompted legislative reform.

# SECTION 3: SPECIFIC INJURY GROUPS

## Whiplash

### Injury Profile

Whiplash is the single most frequently recorded injury amongst CTP claimants in NSW. Out of all claims reported as at June 1995, a total of 29,093 claims (37%) involved whiplash. This equates to between 5,000 and 6,000 claims per year[5].

About 13% of claims involved whiplash alone, unaccompanied by any other injuries. Where whiplash was accompanied by other injuries, the majority were sprains or strains of the back or limbs. However, in a small number of cases, whiplash was coded in conjunction with relatively serious injuries such as brain injury.

Of all claimants with whiplash:

- 35% had no other injury recorded
- 29% had recorded back strain other than whiplash
- 15% had an upper limb joint sprain or strain
- 10% had a lower limb joint sprain or strain
- 2% had an upper limb fracture
- 1.3% had a lower limb fracture
- 3.4% had concussion
- 0.3% had brain injury.

### Claim and Claimant Characteristics

In comparison with other claimants, those with whiplash were more concentrated in the 30 to 59 year age bracket. They were predominantly female (63% female compared with 47% of non-whiplash claimants). Most claimants with whiplash were injured as drivers (63%) or vehicle passengers (33%).

Of all claims involving whiplash, 63% were finalised, in contrast with 59% of all non-whiplash claims. Where whiplash was the only injury recorded, 69% were finalised.

In comparison with other claims, a smaller proportion of whiplash claims had had liability rejected (4% versus 8%) or had been judged to involve contributory negligence. Conversely, liability had been accepted in a higher percentage of whiplash cases (40% versus 30%). A smaller proportion

[5]Based on estimated annual claim numbers of between 14,000 and 16,000.

of whiplash claims remained undetermined with respect to liability (18% versus 24%). This is shown in Table 12.

**Table 12.**
**Liability[6], Whiplash Claims**

| *Liability* | *Whiplash* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 3.8 | 8.1 |
| Contributory Negligence | 1.9 | 4.6 |
| Accepted | 40.4 | 30.0 |
| Not Rejected | 35.6 | 32.2 |
| Under Review | 0.7 | 0.7 |
| Not Determined | 17.6 | 24.3 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

## Impact of Whiplash Claims on the Motor Accidents Scheme

Table 13 shows the percentage of claims and the percentage of costs accounted for by whiplash claims. The same information is presented for whiplash only claims, which are a subset of the whiplash claims.

In total, claims involving whiplash accounted for 37% of claims and 22% of the total incurred cost of the scheme. Claims in which whiplash was the only injury recorded accounted for 13% of claims and 5% of total incurred costs.

[6] This data item was expanded in October 1994 to allow more precise coding. Prior to this the three categories available were *Rejected, Not Rejected* and *Contributory Negligence*. From October 1994 onwards the categories are: *Accepted, Rejected, Contributory Negligence, Under Review* & *Not Determined*. At this stage some claims are still coded according to the earlier system.

**Table 13.**
**Whiplash, Percent of Claims and Costs**

| | *Whiplash Claims* | | *Whiplash Only Claims* | |
|---|---|---|---|---|
| ***Accident Year*** | ***Percent of Claims*** | ***Percent of Costs*** | ***Percent of Claims*** | ***Percent of Costs*** |
| 1989/90 | 37.2 | 20.9 | 12.4 | 4.0 |
| 1990/91 | 36.8 | 21.6 | 13.7 | 4.9 |
| 1991/92 | 37.6 | 23.0 | 14.0 | 4.8 |
| 1992/93 | 37.5 | 23.7 | 12.7 | 4.8 |
| 1993/94 | 37.9 | 23.9 | 12.4 | 4.9 |
| Total* | 36.6 | 22.0 | 12.7 | 4.7 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.
Source: MAA Claims Register June 1995.

## Claim Cost

The ultimate cost of a claim is not known until it has been finalised. In order to look at the claim costs associated with whiplash, finalised cases were grouped according to the time taken to settle them. The time taken to reach settlement is closely linked with the severity, complexity, and, therefore, the cost of claims. As at June 1995, 18,312 whiplash claims had been finalised (63%).

For each finalised claim, the lapsed time between claim notification and date of last payment[7] was calculated and expressed in years (up to 1 year, between 1 and 2 years, and so on).

Table 14 shows the average payment made on finalised whiplash claims by year of accident and time taken to make the final payment. Note that the more recent the accident year, the fewer years there are in which claims can have been finalised.

Five percent of finalised whiplash claims had no payment transactions recorded and therefore no date of last payment. These were excluded.

**Table 14.**
**Average Payment, Finalised Whiplash Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 1,291 | 1,250 | 2,137 | 3,602 | 6,017 | 3,082 |
| 1-2 years | 5,152 | 7,046 | 13,984 | 21,463 | 21,769 | 13,493 |
| 2-3 years | 17,981 | 25,372 | 36,035 | 40,196 | | 27,937 |
| 3-4 years | 31,157 | 42,833 | 49,910 | | | 37,587 |
| 4-5 years | 46,020 | 54,278 | | | | 47,988 |
| 5-6 years | 47,189 | | | | | 47,189 |

* Includes 1994/95.
Source: MAA Claims Register June 1995

As would be expected, claim size increased significantly with time taken to finalise. This highlights the fact that claims involving the same injuries can vary greatly in severity and complexity, depending on the individual circumstances of the claimant and any accompanying injuries sustained.

The average cost tended to increase with each additional year taken to finalise. Overall, the average cost for whiplash claims finalised within one year was $3,082. This increased to $13,493

[7]The date of last payment was used in preference to the date of finalisation of the claim. Using the date of last payment avoided issues arising from the different definitions of *finalised* and administrative use of finalisation date among the fourteen insurers.

where settlement occurred between 1 and 2 years and was $27,937 where the claim was settled after 2 to 3 years. The average cost of claims that took between 4 and 5 years to finalise was $47,988. The average was slightly lower at $47,189 for claims in the 5 to 6 year category.

However, it can also be seen that the average claim size increased with accident year, even for claims that took the same amount of time to settle. For example, 1990/91 whiplash claims which took 1 to 2 years to finalise had an average payment of $7,046, while 1991/92 claims which took 1 to 2 years to settle had an average payment of $13,984. For 1992/93 the average was even higher at $21,463. This pattern can be observed for most accident years.

This type of increase is due to a number of factors including:

- Initial inexperience with the scheme may have led to lower settlements in the earlier years.
- Insurers' assessments have increased to come into line with the awards being made by judges and arbitrators[i].
- Average weekly earnings (to which estimates of economic and non-economic loss compensation payments are linked) have increased 18% in the last five years[j].
- Superimposed inflation is present because of a variety of factors.

As shown in Table 15, the same increasing trend can be observed in whiplash only claims, although the average claim size was lower. Seven percent of these finalised claims were excluded as there were no payment transactions recorded.

**Table 15.**
**Average Payment, Finalised Whiplash Only Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 970 | 1,049 | 1,514 | 2,331 | 3,898 | 2,109 |
| 1-2 years | 3,860 | 5,093 | 8,919 | 14,223 | 16,416 | 8,910 |
| 2-3 years | 11,195 | 19,855 | 24,772 | 27,994 | | 19,391 |
| 3-4 years | 25,115 | 28,313 | 45,343 | | | 29,186 |
| 4-5 years | 38,384 | 50,902 | | | | 41,268 |
| 5-6 years | 44,498 | | | | | 44,498 |

* Includes 1994/95.
Source: MAA Claims Register June 1995

## Payment Types

The total amount paid on finalised whiplash claims as at June 1995 was $273 million. Table 16 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of finalised claims that received payments of each type.

The highest median payment was for non-economic loss, at $12,040, and the second highest was for economic loss at $1,891. The next in order of size was payment to insurers outside the NSW CTP scheme (for example, Workers Compensation insurers), with a median cost of $1,163. The median legal and investigation payment was $1,084, followed by long term and home care (probably for short term domestic assistance) at $1,000 and medical and hospital at $784.

Medical and hospital payments were the most frequently made payments, having been received by 77% of claimants with whiplash. Seventy-two percent of claims incurred legal and investigation payments, 42% received non-economic loss payments and 37% received economic loss payments.

**Table 16.**
**Payment Types, Finalised Whiplash Claims**

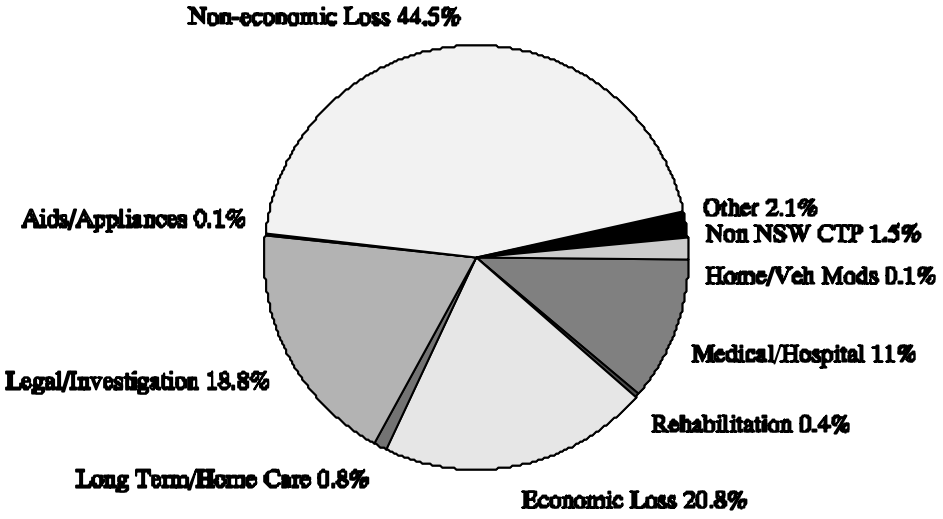
| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital[8] | 11.0 | 784 | 77.1 |
| Rehabilitation | 0.4 | 42 | 14.0 |
| Economic Loss | 20.8 | 1,891 | 36.6 |
| Home & Vehicle Modifications | < 0.1 | 300 | 0.5 |
| Long Term & Home Care | 0.8 | 1,000 | 5.0 |
| Aids & Appliances | < 0.1 | 107 | 1.4 |
| Non-economic Loss | 44.5 | 12,040 | 41.7 |
| Legal & Investigation | 18.8 | 1,081 | 71.9 |
| Other | 2.1 | 372 | 20.1 |
| Non-NSW CTP | 1.5 | 1,163 | 4.6 |
| Total | 100.0 | 2,146 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

In terms of the percentage of the total accounted for by each category, non-economic loss accounted for 45% of all payments; economic loss 21%; legal and investigation 19% and medical and hospital 11%. This is illustrated in Figure 8.

[8]Excludes payments made by insurers to the Department of Health under the Bulk Billing Agreement.

**Figure 8. Payment Distribution, Finalised Whiplash Claims**




Source: MAA Claims Register June 1995

## Summary

Whiplash is the most frequently recorded injury amongst CTP claimants, occurring in 37% of claims. It is often accompanied by other back strains and joint sprains or strains. In 13% of claims it is the only injury recorded.

Whiplash claims, particularly whiplash only claims, were finalised a little more quickly than other claims. Liability was accepted more often and rejected less often in claims involving whiplash.

Overall, claims involving whiplash accounted for 37% of claims and 22% of total incurred scheme costs. Whiplash only claims accounted for 13% of claims and almost 5% of total incurred scheme costs.

The average payment for whiplash claims increased significantly with the time taken to settle the claim. Those that were settled within one year had an average claim size of $3,000. For whiplash claims settled in 1 to 2 years, the average claim size was $13,500. Those settled in 2 to 3 years had an average cost of $27,900. The increasing trend continued with each additional year taken to finalise. At present the maximum time possible to have taken to finalise is 5 to 6 years and whiplash claims in this category had an average of $47,200.

It is also apparent that average claim size has increased as the scheme has developed. Of claims that took the same amount of time to settle, those from recent accident years had a considerably higher average payment than those from early accident years.

The payments most often made were medical and hospital, legal and investigation, non-economic loss and economic loss. The payment categories that accounted for the highest percentage of total payments were non-economic loss, economic loss and legal and investigation.

Multiple factors operate to determine the cost of claims. Factors such as the severity of the injury and the resulting degree of impairment directly affect the speed of finalisation and the cost of the claim. In addition, the development of the scheme itself is partly responsible for the increase in average claim cost. This report does not attempt to isolate the impact of any individual factor on the increasing cost of whiplash claims.

# Mild Head Injury

The following claims were defined as involving mild head injury (concussion): the claimant had a head injury such that the most severe head injury recorded was of AIS severity 2, and the injury code indicated that there had been some loss of consciousness but no neurological deficit.

## Injury Profile

Mild head injury was recorded in 3,090 cases (3.9% of claims).

There was a tendency for mild head injury and limb injuries to occur together. In comparison with its incidence amongst claims in general, the incidence of limb fractures and joint injuries was relatively high amongst claimants with mild head injury. For example, 10% of all claimants sustained a lower limb fracture, but the corresponding figure for claimants with mild head injury was 17%.

Of all claimants with mild head injury:

- 32% had whiplash
- 17% had a lower limb fracture
- 16% had a lower limb joint sprain or strain
- 15% had an upper limb joint sprain or strain
- 14% had recorded back strain other than whiplash
- 12% had an upper limb fracture
- 0.4% had spinal cord injury.

## Claim and Claimant Characteristics

In comparison with other claimants, those with mild head injury were more often injured as pedal cyclists (4%), pedestrians (18%), or motorcyclists (4%, including pillions). The fact that these road users are more vulnerable to injury than vehicle occupants may also explain why limb injury was relatively common amongst these claimants.

Forty percent of claimants with mild head injury were under 26 years in contrast with 31% of claimants without mild head injury. In particular, a high percentage were aged between 5 and 16 years (11% versus 7% of other claimants). Fifty-four percent were male as against 46% of other claimants.

Sixty percent of claims involving mild head injury were finalised. This was the same proportion as for other claims.

Liability was rejected in a higher proportion of mild head injury claims (10% versus 6% of other claims). Contributory negligence was a factor in 8% of mild head injury claims in

**Table 17.**
**Liability, Mild Head Injury Claims**

| *Liability* | *Mild Head Injury* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 9.6 | 6.4 |
| Contributory Negligence | 7.9 | 3.5 |
| Accepted | 39.3 | 33.6 |
| Not Rejected | 28.3 | 33.7 |
| Under Review | 1.1 | 0.7 |
| Not Determined | 13.8 | 22.2 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

contrast with 3.5% of other claims. Liability had been accepted in a slightly higher percentage of mild head injury cases (39% versus 34%). However, if claims in the *Accepted* category were added to claims in the *Not Rejected* category, the percentages were almost the same for mild head injury and other claims at about 67%. A smaller proportion of mild head injury claims remained undetermined with respect to liability (14% versus 22%).

## Impact of Mild Head Injury Claims on the Motor Accidents Scheme

**Table 18.**
**Mild Head Injury, Percent of Claims and Costs**

| | *Mild Head Injury Claims* | |
|---|---|---|
| *Accident Year* | *Percent of Claims* | *Percent of Costs* |
| 1989/90 | 4.7 | 7.1 |
| 1990/91 | 4.7 | 8.6 |
| 1991/92 | 4.2 | 6.6 |
| 1992/93 | 3.9 | 5.6 |
| 1993/94 | 3.6 | 3.9 |
| Total* | 3.9 | 5.8 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.
Source: MAA Claims Register June 1995

In total, claims involving mild head injury accounted for 4% of claims and 6% of the total incurred cost of the scheme. Table 18 shows the percentage of claims and the percentage of costs accounted for each year by mild head injury claims. The percentage of claims involving mild head injury has decreased slightly over time, from 5% to 4%.

## Claim Cost

As at June 1995, 1,830 mild head injury claims had been finalised (60%). Table 19 shows the average payment made on these finalised claims according to year of accident and time taken to make the final payment.

Three percent of finalised mild head injury claims had no payment transactions recorded and therefore no date of last payment. These were excluded.

**Table 19.**
**Average Payment, Finalised Mild Head Injury Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 1,943 | 1,875 | 4,076 | 5,989 | 11,004 | 4,850 |
| 1-2 years | 9,765 | 15,708 | 30,543 | 42,502 | 26,249 | 26,295 |
| 2-3 years | 57,140 | 43,492 | 62,900 | 76,021 | | 55,857 |
| 3-4 years | 69,147 | 97,341 | 61,145 | | | 79,269 |
| 4-5 years | 77,640 | ** | | | | 77,392 |
| 5-6 years | ** | | | | | ** |

* Includes 1994/95.
** Less than 20 claims.
Source: MAA Claims Register June 1995

Claim size increased significantly with time taken to finalise, again highlighting the wide range of severity and complexity of individual claims. The difference in claim size was particularly marked between those finalised within one year and those that took between 1 and 2 years - an increase from $4,850 to $26,295, more than 500%. Claims that took 2 to 3 years to settle had an average cost of $55,857, which was more than twice the size of claims settled in 1 to 2 years. After that, the increase in claim size was less dramatic with each additional year taken to settle.

The trend of increasing costs for claims that took the same amount of time to finalise was observable for claims finalised in less than 1 year, 1 to 2 years and 2 to 3 years. For example, 1989/90 mild head injury claims which took 1 to 2 years to finalise had an average payment of $9,765, while 1990/91 claims which took 1 to 2 years to settle had an average payment of $15,708. For 1991/92 the average cost of these claims had further increased to $30,543, and for 1992/93 claims it was $42,502. A similar trend was present for claims finalised in less than 1 year and in 2 to 3 years. There was no clear trend for claims that took longer to finalise, possibly due to the effects of too few claims in some cells and the effect of outlying values on the average.

## Payment Types

The total amount paid on finalised claims involving mild head injury as at June 1995 was $66 million. Table 20 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of finalised mild head injury claims that received payments of each type.

**Table 20.**
**Payment Types, Finalised Mild Head Injury Claims**

| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital | 9.3 | 1,330 | 77.3 |
| Rehabilitation | 0.8 | 87 | 15.5 |
| Economic Loss | 22.6 | 5,000 | 40.1 |
| Home & Vehicle Modifications | 0.3 | 327 | 1.5 |
| Long Term & Home Care | 1.8 | 2,920 | 6.2 |
| Aids & Appliances | 0.1 | 244 | 2.7 |
| Non-economic Loss | 44.1 | 18,750 | 56.4 |
| Legal & Investigation | 14.6 | 2,722 | 83.1 |
| Other | 4.9 | 467 | 23.9 |
| Non-NSW CTP | 1.6 | 3,884 | 3.8 |
| Total | 100.0 | 10,517 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

The highest median payment was for non-economic loss, at $18,750, and the second highest was for economic loss at $5,000. The next in order of size was payment to insurers outside the NSW CTP scheme (for example, Workers Compensation insurers), with a median cost of $3,884. The median payment for long term and home care was $2,920, followed by legal and investigation at $2,722 and medical and hospital at $1,330.

Legal and investigation payments were the most frequently occurring payments, having been incurred in 83% of claims involving mild head injury. Medical and hospital payments were made in 77% of cases, 56% of claimants received compensation for non-economic loss, and 40% received economic loss payments.

As Figure 9 illustrates, non-economic loss accounted for 44% of all payments, economic loss accounted for 23%, legal and investigation 15%, and medical and hospital 9%.

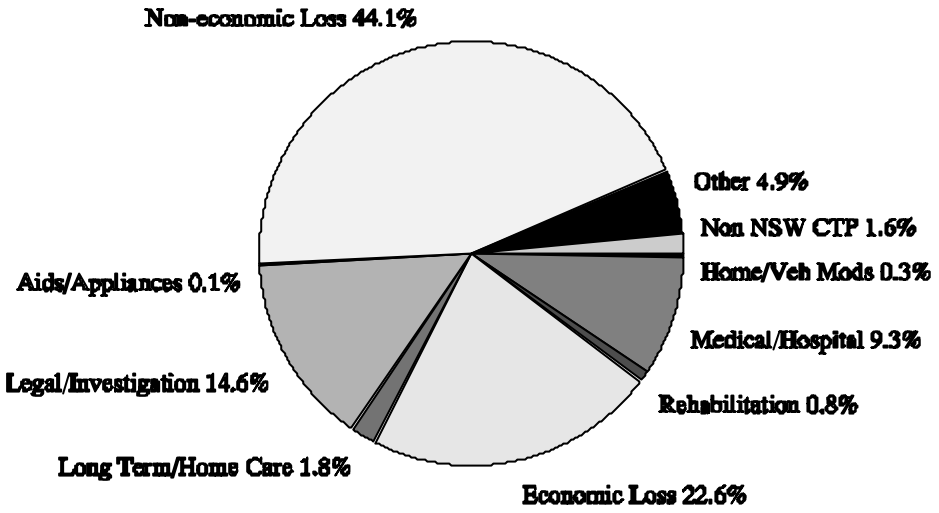
## Summary

Claimants with mild head injury were more likely to have been injured as pedal cyclists, pedestrians, motorcycle riders or pillion passengers. Mild head injury was often accompanied by limb injuries.

A liability status of *Rejected* or *Contributory Negligence* was more common amongst these claims. In comparison with other claims, liability had been accepted in a similar proportion of cases, while a smaller percentage remained undetermined with respect to liability.

Overall, claims involving mild head injury accounted for 4% of claims and 6% of total incurred scheme costs.

**Figure 9. Payment Distribution, Finalised Mild Head Injury Claims**




Source: MAA Claims Register June 1995

The average cost of mild head injury claims increased significantly with the time taken to settle the claim. The increase was particularly marked between claims settled within one year and those settled in 1 to 2 years. Claims that settled within one year had an average claim size of about $4,800. For those claims settled in 1 to 2 years, the average claim size was about $26,300. Claims settled in 2 to 3 years had an average cost of about $56,000, while the average cost for those finalised in 3 to 4 years was almost $80,000.

Average claim size has increased as the scheme has developed. Of claims that took the same amount of time to settle, those from recent accident years had a much higher average payment than those from early accident years.

The payments most often made were legal and investigation, medical and hospital, non-economic loss and economic loss. The payment categories that accounted for the highest percentage of total payments were non-economic loss, economic loss, legal and investigation, and medical and hospital.

## Brain Injury

Claimants with brain injury were defined as those with at least one head injury with an AIS severity of 3, 4, 5, or 6.[9] Examples include injury to the brain or brainstem resulting in contusion, haemorrhage, laceration or compression.

### Injury Profile

Brain injury was recorded in 1,446 claims (1.8%). It was often accompanied by limb fractures, especially lower limb fractures. In comparison with its incidence amongst claims in general, the incidence of limb fractures was relatively high amongst claimants with brain injury. While 10% of all claimants sustained a lower limb fracture and 7% sustained an upper limb fracture, the corresponding figures for claimants with brain injury were 29% and 18% respectively.

Although the numbers were very small, the incidence of spinal cord injury amongst brain injured claimants was higher than amongst claimants in general (1% as against 0.2%).

Of all claimants with brain injury:

- 29% had a lower limb fracture
- 18% had an upper limb fracture
- 7% had a lower limb joint sprain or strain
- 6% had an upper limb joint sprain or strain
- 6% had whiplash
- 3% had recorded back strain other than whiplash
- 1% had spinal cord injury.

### Claim and Claimant Characteristics

Claimants with brain injury were very often injured as pedestrians. Thirty-seven percent of brain injured claimants were pedestrians, in contrast with 11% of other claimants. The percentage of brain injured claimants who were pillion passengers (1%) or pedal cyclists (3.5%) was a little higher than that observed for claimants who did not sustain brain injury. Fifty-five percent of claimants with brain injury were vehicle drivers or passengers, in contrast with 83% of non-brain injured claimants.

Claimants with brain injury were generally young and male. Almost 40% were under 21 years of age, in contrast with 19% of other claimants. Sixty-four percent were male.

[9]The codes for *Dead on Arrival* and *Died in Hospital* were excluded. These are merely administrative codes even though they are included in the Head section of the coding manual.

In comparison with other claims, significantly fewer brain injury claims were finalised: 43% versus 61%. In 43% of brain injury claims, court proceedings had been commenced. The corresponding percentage for other claims was 20%.

As Table 21 shows, liability was rejected or partially rejected in a significantly higher proportion of brain injury claims: 17% had been rejected and 13% were judged to involve contributory negligence. The percentage in which liability had been accepted was similar for brain injury and other claims. However, a smaller percentage was in the *Not Rejected* category.

**Table 21.**
**Liability, Brain Injury Claims**

| *Liability* | *Brain Injury* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 17.4 | 6.4 |
| Contributory Negligence | 12.6 | 3.6 |
| Accepted | 32.5 | 34.5 |
| Not Rejected | 18.0 | 34.5 |
| Under Review | 0.8 | 0.7 |
| Not Determined | 18.8 | 20.3 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

The relatively high percentage of brain injury claims to have been rejected may be related to at least two factors:

- It has been shown that pedestrian claims had the highest rate of rejection, and brain injury had a particularly high incidence amongst pedestrians.
- It is likely that in the case of severe injury such as this, an injured person is more likely to make a claim even if the possibility of liability being rejected is high.

## Impact of Brain Injury Claims on the Motor Accidents Scheme

In total, claims involving brain injury accounted for about 2% of claims and 18% of the total incurred cost of the scheme. Table 22 shows the percentage of claims and the percentage of costs accounted for each year by brain injury claims.

**Table 22.**
**Brain Injury, Percent of Claims and Costs**

| | *Brain Injury Claims* | |
|---|---|---|
| *Accident Year* | *Percent of Claims* | *Percent of Costs* |
| 1989/90 | 2.9 | 23.4 |
| 1990/91 | 2.1 | 19.0 |
| 1991/92 | 1.8 | 21.1 |
| 1992/93 | 1.8 | 16.6 |
| 1993/94 | 1.4 | 16.7 |
| Total* | 1.8 | 17.9 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.
Source: MAA Claims Register June 1995

The percentage of claims involving brain injury was high in 1989/90 at 3% but was fairly steady at about 2% for the next three accident years. The percentage for 1993/94 was lower, at 1.4%. However, as serious injuries such as brain injury take the longest time to code, it is possible that the incidence of brain injury in 1993/94 may ultimately be similar to the previous years if claims that have been incurred in that year are yet to be coded as involving brain injury.

The percentage of costs accounted for by brain injury claims generally remained between nine

and ten times the percentage of claims that they represented.

## Claim Cost

In June 1995, 622 (43%) of brain injury claims were finalised. Table 23 shows the average cost of these finalised claims according to the year of accident and the time taken to make the final payment. No payment transactions were recorded in 2.6% of finalised brain injury claims. These were excluded.

**Table 23.**
**Average Payment, Finalised Brain Injury Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 2,396 | 2,687 | ** | ** | ** | 9,075 |
| 1-2 years | 13,352 | 76,448 | 77,878 | 154,905 | ** | 86,892 |
| 2-3 years | 167,559 | 228,702 | 111,685 | ** | | 164,175 |
| 3-4 years | 189,275 | 348,651 | ** | | | 281,115 |
| 4-5 years | 309,768 | ** | | | | 311,566 |
| 5-6 years | 1,003,760 | | | | | 1,003,760 |

* Includes 1994/95.
** Less than 20 claims.
Source: MAA Claims Register June 1995

The average claim size varied enormously, ranging from a minimum of around $2,400 up to about $1 million. This reflects individual differences in levels of impairment resulting from brain injury. In comparison with other injury groups, claimants with brain injury are less homogeneous, and the presence of limb fractures may have been an additional complicating factor in some cases. Another factor causing variation in claim size may have been reduction of the amount awarded if liability was partially rejected.

As has been observed for other finalised claims, the average cost increased significantly with time taken to finalise. In particular, there was a marked difference between claims finalised within one year and those that took between 1 and 2 years - an almost tenfold increase from $9,075 to $86,892. Brain injury claims that took 2 to 3 years to settle had an average cost of $164,175, which was almost twice the average for claims settled in 1 to 2 years. All claims that took more than two years to finalise had an average cost well above $100,000.

There was some evidence of increasing average claim costs in claims that finalised in 1 to 2 years. The trend was not as clear for claims that took longer to finalise due to the effects of individual claims and small numbers in some cells.

## Payment Types

As at June 1995 a total of $111 million had been paid on finalised brain injury claims. Table 24 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of finalised brain injury claims that received payments of each type.

The highest median payment was for non-economic loss, at $40,645, and the second highest was $30,000 for economic loss. The third highest was payment to insurers outside the NSW CTP scheme (for example, Workers Compensation insurers), with a median cost of $20,115. The median payment for long term and home care was $14,000, followed by legal and investigation at $6,980 and medical and hospital at $3,428.

Legal and investigation payments were the most often incurred, having been paid in 90% of brain injury claims. Medical and hospital payments were made in 77% of cases. Non-economic loss payments were made to 66% of claimants with brain injury, and 48% received economic loss payments.

**Table 24.**
**Payment Types, Finalised Brain Injury Claims**

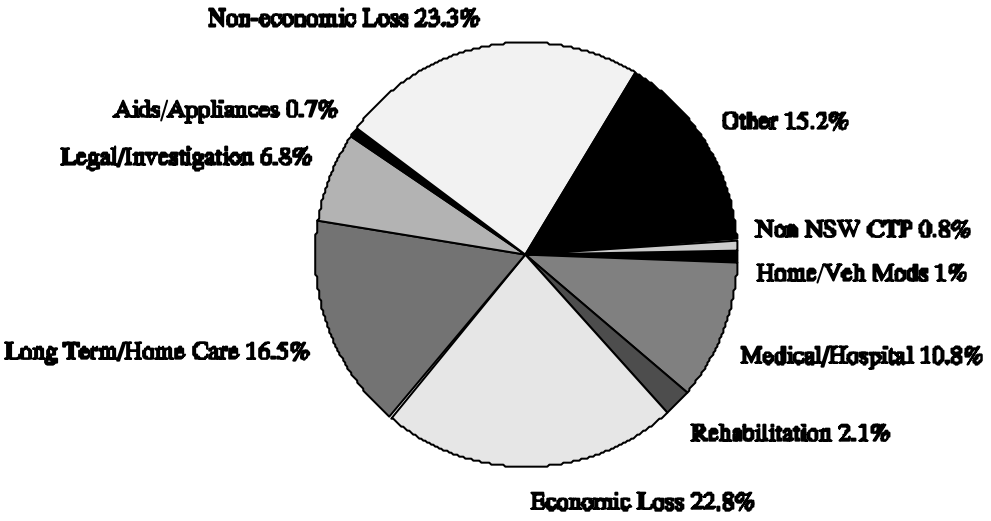
| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital | 10.8 | 3,428 | 76.9 |
| Rehabilitation | 2.1 | 738 | 29.7 |
| Economic Loss | 22.8 | 30,000 | 47.6 |
| Home & Vehicle Modifications | 1.0 | 1,766 | 4.2 |
| Long Term & Home Care | 16.5 | 14,000 | 14.8 |
| Aids & Appliances | 0.7 | 583 | 8.8 |
| Non-economic Loss | 23.3 | 40,645 | 65.6 |
| Legal & Investigation | 6.8 | 6,980 | 89.7 |
| Other | 15.2 | 2,946 | 32.0 |
| Non-NSW CTP | 0.8 | 20,115 | 3.2 |
| Total | 100.0 | 39,183 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

As Figure 10 illustrates, non-economic loss accounted for 23% of all payments, economic loss accounted for 23% and long term care 17%. Fifteen percent of payments were allocated to the *Other* category and were probably amounts awarded as a lump sum at the time of settlement rather than being allocated to specific categories.

In comparison with less severe injury groups, *Long term care* and *Other* payments represented a significant proportion of the total cost of brain injury claims.

**Figure 10. Payment Distribution, Finalised Brain Injury Claims**




Source: MAA Claims Register June 1995

Rehabilitation payments were surprisingly low, both in terms of the total amount paid and the number of claims that incurred costs of this kind. In total, 30% of brain injured claimants were recorded as having rehabilitation costs paid, and these payments accounted for only 2% of total expenditure. One possible explanation for this is that many claimants would have received rehabilitation in the public hospital setting, possibly in conjunction with ongoing medical treatment, and it is likely that all of these costs, including the rehabilitation component, have been coded to the medical and hospital category.

## Summary

Brain injury was reported in 1.8% of claims and accounted for 18% of total incurred costs. It was often accompanied by limb fractures, especially lower limb fractures.

Claimants with brain injury were very often injured as pedestrians, and a relatively high percentage were pillion passengers or pedal cyclists. These claimants were often young and about two-thirds were male.

Liability was rejected in 17% of cases and contributory negligence was a factor in 13% of brain injury claims.

Looked at according to accident year and year of finalisation, the average cost of finalised brain injury claims varied greatly, ranging from $2,400 to over $1 million. Average claim cost increased significantly with each additional year taken to finalise. This increase was particularly marked between claims finalised within one year and those settled in 1 to 2 years. Claims that took over two years to settle had an average cost well over $100,000.

The payments most often made were legal and investigation, medical and hospital, non-economic loss and economic loss. The payment types that accounted for the highest proportion of total costs were non-economic loss, economic loss, and long term and home care.

# Spinal Cord Injury

Spinal cord injury was defined as injury to the spine with an AIS severity of 4, 5, or 6. These are all injuries resulting in partial or complete paraplegia or quadriplegia.

## Injury Profile

**Table 25.**
**Level and Degree of Spinal Cord Injury**

| | *Degree of Deficit* | | |
|---|---|---|---|
| | *Percent* | | |
| ***Level of Injury*** | ***Complete*** | ***Incomplete*** | ***Total*** |
| Cervical | 31.5 | 17.0 | 48.5 |
| Thoracic | 24.0 | 7.0 | 31.0 |
| Lumbar | 8.0 | 12.5 | 20.5 |
| Total | 63.5 | 36.5 | 100.0 |

Source: MAA Claims Register June 1995

Spinal cord injury was recorded in 159 claims (0.2%). As Table 25 shows, almost half of the claimants with spinal cord injury sustained quadriplegia (injury at the cervical spine level). In 64% of cases the injury code indicated complete paralysis.

In comparison with the incidence amongst claims in general, head injuries were reported more often in claims involving spinal cord injury - 9% were reported as having brain injury and 8% had mild head injury. The incidence of upper limb fractures was also relatively high amongst claimants with spinal cord injury (15% versus 7%).

## Claim and Claimant Characteristics

Claimants with spinal cord injury were predominantly injured as vehicle passengers (57%). The percentage injured as motorcycle riders or passengers was relatively high compared with claimants who did not sustain spinal cord injury (8% versus 3%).

Twenty-one percent of claimants with spinal cord injury were vehicle drivers, 13% were pedestrians and 1% were pedal cyclists.

Claimants with spinal cord injury were generally young, and 64% were male. Fifty-seven percent of claimants with spinal cord injury were under the age of 30, in contrast with 40% of other claimants. In particular, a relatively high percentage were under five years (4.4% versus 1.5%). This difference may be partly due to the tendency for claims to be lodged more often on behalf of young children if the injuries are serious.

In comparison with other claims, fewer spinal cord injury claims were finalised: 43% in contrast with 61%. In 40% of spinal cord injury claims court proceedings had commenced. The corresponding figure for other claims was 20%.

**Table 26.**
**Liability, Spinal Cord Injury Claims**

| *Liability* | *Spinal Cord Injury* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 18.6 | 6.6 |
| Contributory Negligence | 13.5 | 3.7 |
| Accepted | 24.4 | 34.5 |
| Not Rejected | 20.5 | 34.2 |
| Under Review | 0.6 | 0.7 |
| Not Determined | 22.4 | 20.3 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

As Table 26 shows, liability was rejected or involved contributory negligence in a significantly higher proportion of spinal cord injury claims: 19% were rejected and 14% partially rejected. It is likely that this high level of rejection reflects the greater propensity amongst the severely injured to lodge a claim. Liability was accepted or not rejected in a smaller percentage of spinal cord injury cases. The proportion of claims in which liability was not determined was similar for spinal cord injury and other claims.

## Impact of Spinal Cord Injury Claims on the Motor Accidents Scheme

In total, claims involving spinal cord injury accounted for about 0.2% of claims and 7% of the total incurred cost of the scheme. In other words, the percentage of costs accounted for by these claims was 35 times greater than the percentage of claims that they represented.

As the number of spinal cord injury claims was very small and the estimates can take a long time to develop, data on the percentage of claims and percentage of incurred cost by accident year was not considered reliable.

## Claim Cost

In June 1995, 68 spinal cord injury claims were finalised (43%). This number was too small for meaningful analysis of average claim size by accident year or time taken to settle.

A total of $56 million had been paid on the 68 finalised spinal cord injury claims. The average claim cost was $815,000 and the median was $310,000. The actual range of claim costs was very large, reflecting wide variation in individual claims. The maximum claim cost recorded to date for spinal cord injury was almost $6 million.

## Payment Types

Of the $56 million paid on finalised spinal cord injury claims, Table 27 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.

- The percentage of claims that received payments of each type.

**Table 27.**
**Payment Types, Finalised Spinal Cord Injury Claims**

| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital | 4.7 | 9,640 | 79.4 |
| Rehabilitation | 3.1 | 8,025 | 55.9 |
| Economic Loss | 18.7 | 200,000 | 61.8 |
| Home & Vehicle Modifications | 1.2 | 17,216 | 26.5 |
| Long Term & Home Care | 17.0 | 80,000 | 42.7 |
| Aids & Appliances | 1.5 | 10,640 | 41.2 |
| Non-economic Loss | 13.5 | 182,500 | 70.6 |
| Legal & Investigation | 5.2 | 29,288 | 83.8 |
| Other | 34.7 | 34,752 | 55.9 |
| Non-NSW CTP | 0.4 | ** | 4.4 |
| Total | 100.0 | 309,822 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
** Number of claims in cell too small for median to be meaningful.
Source: MAA Claims Register June 1995

The highest median payment was $200,000 for economic loss, the second highest was $182,500 for non-economic loss, and the third highest was long term and home care, with a median cost of $80,000. The median payment in the Other category was $34,752, followed by $29,288 for legal and investigation, and $17,216 for home and vehicle modifications.

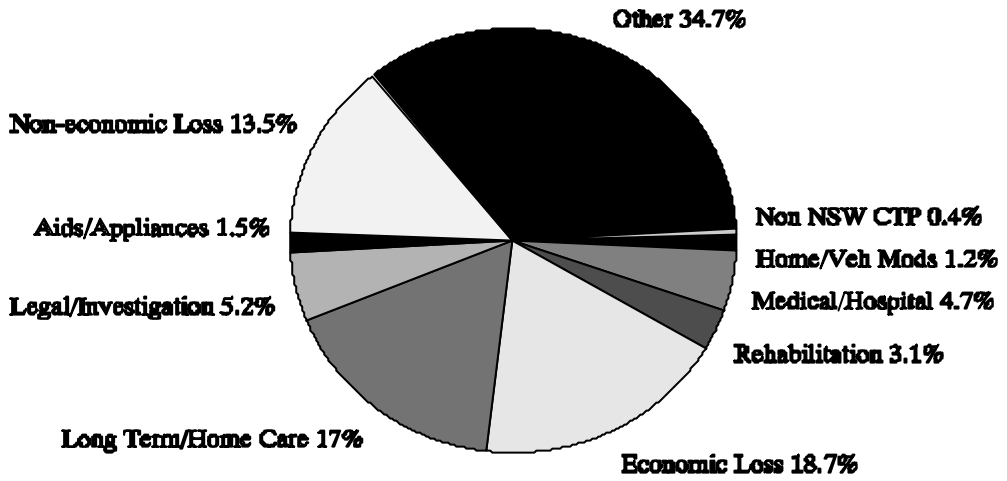
Although the median payments for medical, hospital and rehabilitation were extremely high in comparison with all other injury groups, amongst spinal cord injury claims they were the categories with the lowest median costs ($9,640 and $8,025 respectively).

Legal and investigation payments were the most often incurred, having been paid in 84% of spinal cord injury claims. Medical and hospital payments were made in 79% of cases. Non-economic loss payments were made to 71% of claimants, and 62% received economic loss payments. Rehabilitation payments were recorded in 56% of claims.

As shown in Figure 11, payments in the *Other* category accounted for the largest proportion of costs (35%), mainly due to a small number of claims with extremely large payments in this category. These were usually lump sums paid at settlement that were not allocated to individual categories.

Economic loss payments accounted for 19% of payments. Long term and home care was a significant component, accounting for 17% of costs. Non-economic loss represented 17.5% of costs.

**Figure 11. Payment Distribution, Finalised Spinal Cord Injury Claims**




Source: MAA Claims Register June 1995

## Summary

Spinal cord injury was reported in 0.2% of claims and accounted for 7% of total incurred costs. Almost half of these claimants sustained quadriplegia.

Eighty percent of claimants with spinal cord injury were vehicle occupants - 60% passengers and 20% drivers. Thirteen percent were injured as pedestrians. Almost 60% of these claimants were under the age of 30 at the time of injury, and 64% were male.

Court proceedings had commenced in 40% of cases. Liability was an issue in a high proportion of cases. In 19% of claims liability was rejected and in 14% contributory negligence was judged to be a factor.

As at June 1995, a total of $56 million had been paid on finalised spinal cord injury claims. The cost of individual claims varied greatly, ranging up to almost $6 million.

The payments most often made were legal and investigation, medical and hospital, non-economic loss and economic loss. The payment types that accounted for the highest proportion of total costs were unallocated lump sums made at settlement (Other), economic loss, long term and home care, and non-economic loss. Two categories had very high median payments: economic loss ($200,000) and non-economic loss ($182,500).

## Limb Injury

For the purposes of this report only the two most common types of limb injuries were considered: fractures and joint injuries (mostly sprains and strains). Almost 90% of limb injuries were of this type.

Limb injuries were categorised in the following way: upper limb versus lower, and fracture versus joint injury. This resulted in four possible injury groups, each of which will be considered separately:

- upper limb joint injury
- upper limb fracture
- lower limb joint injury
- lower limb fracture.

These groups overlapped to a certain extent because claimants may have sustained more than one limb injury. In looking at combinations of limb injuries, certain patterns emerged.

There was a strong tendency for lower limb fractures and upper limb fractures to occur together. There was a moderate tendency for lower limb joint and upper limb joint injuries to occur together. There was a slight tendency for the following pairs of injury types to occur together:

- lower limb joint injury and lower limb fracture
- lower limb joint injury and upper limb fracture.

The opposite was true of upper limb joint injuries and lower limb fractures: this was a relatively infrequent combination.

## Upper Limb Fracture

Upper limb injuries included the shoulders, arms, hands and fingers. Fracture of the upper limb was recorded in 5,673 cases, or 7% of claims.

### Injury Profile

In comparison with other claimants, those with upper limb fractures had a lower incidence of whiplash or other back strain, and a higher incidence of head injury and lower limb injury.

Of all claimants with an upper limb fracture:

- 22% had a lower limb fracture
- 13% had a lower limb joint injury
- 13% had an upper limb joint injury
- 10% had whiplash
- 7% had mild head injury
- 5% had brain injury
- 4% had recorded back strain other than whiplash
- 0.4% had spinal cord injury.

### Claim and Claimant Characteristics

Vehicle passengers accounted for 37% of claimants with upper limb fracture, and drivers accounted for 26%. Twenty percent were injured as pedestrians, 9% were motorcycle riders, 1% pillion passengers and 6% were pedal cyclists. In comparison with claimants who did not sustain upper limb fracture, the percentage of riders, pillions, pedestrians and pedal cyclists was higher.

**Table 28.**
**Liability, Upper Limb Fracture Claims**

| *Liability* | *Upper Limb Fracture* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 9.8 | 6.4 |
| Contributory Negligence | 8.5 | 3.3 |
| Accepted | 32.6 | 34.6 |
| Not Rejected | 29.5 | 34.5 |
| Under Review | 1.0 | 0.7 |
| Not Determined | 18.5 | 20.4 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

A slightly higher percentage were between 5 and 25 years of age (35% as against 30%). The percentage aged 60 years or more was also higher in comparison with other claimants (16% versus 11%). Fifty-nine percent of claimants with upper limb fractures were male, in contrast with 46% of other claimants.

In comparison with other claims, the percentage rejected or involving contributory negligence was higher in upper limb fracture claims.

Sixty percent of upper limb fracture claims

were finalised, the same proportion as other claims.

## Impact of Upper Limb Fracture Claims on the Motor Accidents Scheme

**Table 29.**
**Upper Limb Fracture, Percent of Claims and Costs**

| | *Upper Limb Fracture Claims* | |
|---|---|---|
| ***Accident Year*** | ***Percent of Claims*** | ***Percent of Costs*** |
| 1989/90 | 7.7 | 14.0 |
| 1990/91 | 8.4 | 15.4 |
| 1991/92 | 7.7 | 12.7 |
| 1992/93 | 7.4 | 14.7 |
| 1993/94 | 6.2 | 13.2 |
| Total* | 7.1 | 13.4 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.
Source: MAA Claims Register June 1995

In total, claims involving an upper limb fracture represented 7% of claims and 13% of the total incurred cost of the scheme. Table 29 shows the percentage of claims and percentage of total incurred costs accounted for by all upper limb injury claims each year.

## Claim Cost

As at June 1995, 3,413 upper limb fracture claims were finalised (60%). Table 30 shows the average payment made on these finalised claims according to year of accident and time taken to make the final payment.

**Table 30.**
**Average Payment, Finalised Upper Limb Fracture Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 1,922 | 2,837 | 5,616 | 9,173 | 14,572 | 6,778 |
| 1-2 years | 27,188 | 41,020 | 34,306 | 44,242 | 37,607 | 37,652 |
| 2-3 years | 45,969 | 51,854 | 62,853 | 85,561 | | 56,820 |
| 3-4 years | 66,712 | 81,452 | 124,898 | | | 78,713 |
| 4-5 years | 93,600 | 131,096 | | | | 103,599 |
| 5-6 years | 114,215 | | | | | 114,215 |

* Includes 1994/95.
Source: MAA Claims Register June 1995

Claim size increased significantly with time taken to finalise. As for many other injury groups, the difference in claim size was particularly marked between those finalised within one year and those that took between 1 and 2 years - an increase of over 500% from $6,778 to $37,652. Claims that took 2 to 3 years to settle had an average cost of $56,820. Average claim size continued to increase with each additional year taken to settle.

There was evidence of increasing average claim costs in most settlement groups. For example, 1989/90 claims which took 2 to 3 years to finalise had an average payment of $45,969, while 1990/91 claims which took 2 to 3 years to settle had an average payment of $51,854. For 1991/92 the average cost of these claims increased to $62,853, and for 1992/93 claims it was $85,561.

## Payment Types

A total of $139 million had been paid on finalised upper limb fracture claims. Table 31 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of claims that received payments of each type.

The highest median payment was $19,873 for non-economic loss. The second highest was $5,578 for economic loss, followed by $4,928 for payments to insurers outside the NSW CTP scheme. The median payment for legal and investigation was $2,738, followed by $2,000 for long term and home care.

**Table 31.**
**Payment Types, Finalised Upper Limb Fracture Claims**

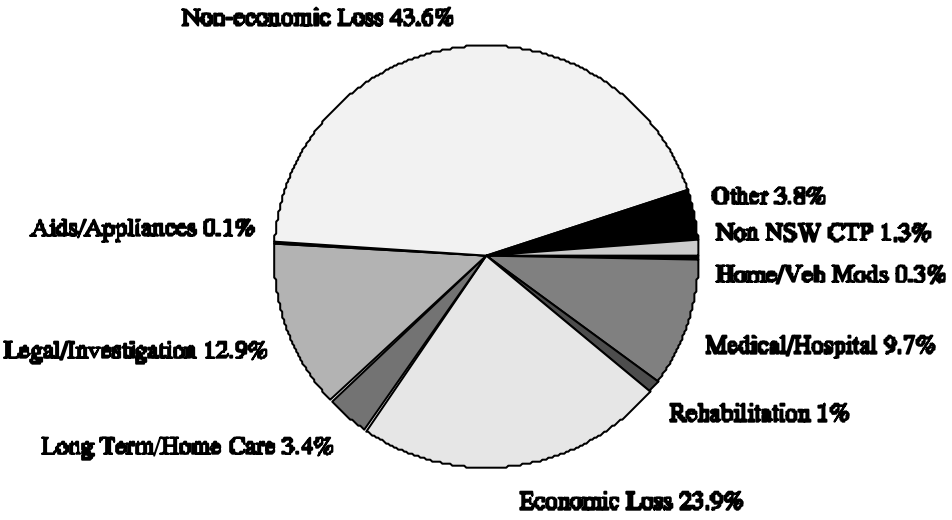
| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital | 9.7 | 1,699 | 74.8 |
| Rehabilitation | 1.0 | 93 | 15.9 |
| Economic Loss | 23.9 | 5,578 | 42.7 |
| Home & Vehicle Modifications | 0.3 | 717 | 1.7 |
| Long Term & Home Care | 3.4 | 2,000 | 6.8 |
| Aids & Appliances | 0.1 | 272 | 2.5 |
| Non-economic Loss | 43.6 | 19,873 | 59.8 |
| Legal & Investigation | 12.9 | 2,738 | 83.4 |
| Other | 3.8 | 510 | 24.4 |
| Non-NSW CTP | 1.3 | 4,928 | 4.1 |
| Total | 100.0 | 14,230 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

Legal and investigation payments were the most often incurred, having been paid in 83% of upper limb fracture claims. Medical and hospital payments were made in 75% of cases, and non-economic loss in 60% of cases. Forty-three percent of claimants received economic loss payments.

Figure 12 shows the payment distribution across the various categories. Non-economic loss accounted for the greatest percentage of payments (44%). Economic loss represented 24% of payments, legal and investigation 13%, and medical and hospital 10%.

**Figure 12.**
**Payment Distribution, Finalised Upper Limb Fracture Claims**




Source: MAA Claims Register June 1995

## Summary

An upper limb fracture was reported in 7% of claims. These claims accounted for 13% of total incurred costs.

Vehicle occupants represented 63% of these claimants - 37% passengers and 26% drivers. Twenty percent were injured as pedestrians and 10% as motorcyclists.

In comparison with other claimants, those with an upper limb fracture were a little more likely to be under 25 years or over 60 years. Almost 60% were male.

In 10% of upper limb fracture claims liability had been rejected and in 8.5% of cases contributory negligence was a factor.

As at June 1995, a total of $139 million had been paid on finalised upper limb fracture claims. The average claim cost ranged from $6,778 for claims finalised within one year up to $114,215 for those that took between 5 and 6 years to settle. It is also apparent that average claim size has increased as the scheme has developed. Of claims that took the same amount of time to settle, those from recent accident years had a considerably higher average payment than those from early accident years.

## Upper Limb Joint Injury

A joint injury of the upper limb was recorded in 8,910 claims (11%). These injuries include sprains, strains or dislocations of joints such as the shoulder, elbow or wrist.

### Injury Profile

In comparison with other claimants, those with upper limb joint injuries had a higher incidence of whiplash, back strain, mild head injury, lower limb joint injuries and upper limb fractures. The incidence of brain injury and lower limb fracture was lower.

Of all claimants with an upper limb joint injury:

- 49% had whiplash
- 21% had back strain other than whiplash
- 21% had a lower limb joint injury
- 9% had an upper limb fracture
- 6% had a lower limb fracture
- 5% had mild head injury
- 1% had brain injury

### Claim and Claimant Characteristics

The percentage of claimants with upper limb joint injury in each road user class was very similar to claims in general, except that the percentage of motorcycle riders and pedal cyclists was slightly higher. Vehicle drivers accounted for 46%, passengers 35%, motorcycle riders or pillions 4%, pedestrians 10% and pedal cyclists 4%.

Claimants with upper limb joint injury were slightly older than claimants in general. Sixty-two percent were aged over 30 years in comparison with 54% of other claimants. The percentage of females was the same as for claims in general at 53%. The percentage finalised was also the same, at 60%.

In comparison with other claims, the percentage rejected or involving contributory negligence was similar for upper limb joint injury claims. A slightly higher percentage had been accepted, as shown in Table 32.

**Table 32.**
**Liability, Upper Limb Joint Injury Claims**

| *Liability* | *Upper Limb Joint Injury* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 6.0 | 6.7 |
| Contributory Negligence | 4.0 | 3.7 |
| Accepted | 40.5 | 33.7 |
| Not Rejected | 31.1 | 34.6 |
| Under Review | 0.9 | 0.7 |
| Not Determined | 17.5 | 20.6 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

## Impact of Upper Limb Joint Injury Claims on the Motor Accidents Scheme

**Table 33.**
**Upper Limb Joint Injury,**
**Percent of Claims and Costs**

| | *Upper Limb Joint Injury Claims* | |
|---|---|---|
| ***Accident Year*** | ***Percent of Claims*** | ***Percent of Costs*** |
| 1989/90 | 10.5 | 8.5 |
| 1990/91 | 10.4 | 8.3 |
| 1991/92 | 11.8 | 10.3 |
| 1992/93 | 12.1 | 11.0 |
| 1993/94 | 12.7 | 10.8 |
| Total* | 11.2 | 9.4 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.

In total, claims involving an upper limb joint injury accounted for 11% of claims and 9% total incurred costs. As Table 33 shows, the percentage of claims and costs represented by these claims has increased as the scheme has progressed.

## Claim Cost

At June 1995, 5,309 upper limb joint injury claims were finalised. Table 34 shows the average payment made on these finalised claims according to year of accident and time taken to make the final payment.

**Table 34.**
**Average Payment, Finalised Upper Limb Joint Injury Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 1,539 | 1,560 | 3,532 | 4,438 | 8,557 | 4,279 |
| 1-2 years | 9,468 | 15,873 | 18,359 | 26,835 | 27,113 | 19,615 |
| 2-3 years | 23,018 | 33,200 | 50,169 | 49,396 | | 38,052 |
| 3-4 years | 39,052 | 51,220 | 50,727 | | | 45,190 |
| 4-5 years | 60,088 | 51,191 | | | | 58,146 |
| 5-6 years | 41,541 | | | | | 41,541 |

* Includes 1994/95.
Source: MAA Claims Register June 1995

Overall, the average claim size of upper limb joint injury claims was higher than whiplash claims and lower than mild head injury claims. In comparison with upper limb fracture claims, the range of average claim cost was smaller. The highest average cost was about $60,000 in contrast with a

maximum of about $130,000 for upper limb fractures. As for other injury groups, claim size increased with time taken to finalise, and the difference in claim size was particularly marked between those finalised within one year and those that took between 1 and 2 years.

There was evidence of increased average claim costs in most settlement periods. For example, claims which took between 1 and 2 years to settle increased in average cost from $9,468 to $27,113.

## Payment Types

A total of $109 million had been paid on finalised upper limb joint injury claims. Table 35 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of claims that received payments of each type.

**Table 35.**
**Payment Types, Finalised Upper Limb Joint Injury Claims**

| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital | 10.3 | 1,000 | 76.3 |
| Rehabilitation | 0.4 | 49 | 13.8 |
| Economic Loss | 21.9 | 3,000 | 37.6 |
| Home & Vehicle Modifications | < 0.1 | 250 | 0.7 |
| Long Term & Home Care | 0.6 | 1,069 | 3.8 |
| Aids & Appliances | < 0.1 | 213 | 1.6 |
| Non-economic Loss | 46.2 | 14,150 | 50.0 |
| Legal & Investigation | 16.8 | 1,559 | 77.7 |
| Other | 2.4 | 380 | 23.0 |
| Non-NSW CTP | 1.3 | 2,288 | 4.1 |
| Total | 100.0 | 4,750 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

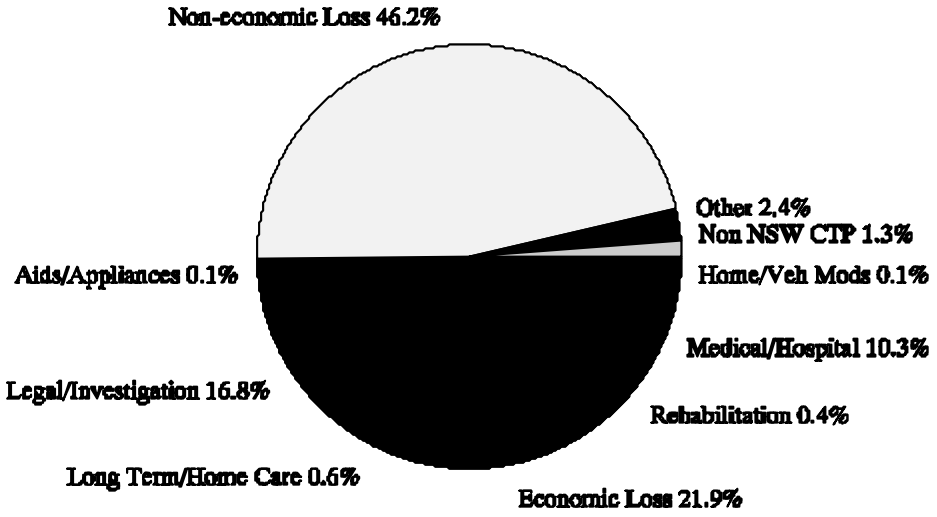
The highest median payment was $14,150 for non-economic loss. The second highest was $3,000 for economic loss, followed by $2,288 for payments to insurers outside the NSW CTP scheme. The median payment for legal and investigation was $1,559, followed by $1,069 for long term and home care and $1,000 for medical and hospital payments.

The majority of claims incurred costs for legal and investigation, and medical and hospital - 78% and 76% respectively. Half received non-economic loss payments, and 38% received

compensation for economic loss. In comparison with upper limb fracture claims, fewer claimants received payments for long term and home care, non-economic loss, or economic loss.

Figure 13 shows the payment distribution across the various categories. Non-economic loss accounted for 46% of payments, economic loss 22%, legal and investigation 17%, and medical and hospital accounted for 10%.

**Figure 13.**
**Payment Distribution, Finalised Upper Limb Joint Injury Claims**




Source: MAA Claims Register June 1995

## Summary

An upper limb joint injury was reported in 11% of claims. These claims accounted for 9% of total incurred costs.

In comparison with other claims, there was a higher incidence of whiplash or other back strain, mild head injury, lower limb joint injury and upper limb fracture.

Vehicle occupants represented 81% of these claimants - 46% drivers and 35% passengers. Ten percent were injured as pedestrians, 4% as pedal cyclists and 4% as motorcyclists.

In comparison with other claimants, those with an upper limb joint injury were more often over 30 years of age. Fifty-three percent were female.

Liability had been rejected in 6% of cases and in 4% contributory negligence was a factor.

As at June 1995, a total of $109 million had been paid on these claims. Overall, the average claim cost was higher than for whiplash claims and lower than for mild head injury claims. As for other injury groups, average claim size increased with each additional year taken to finalise. There was also evidence of increasing average claim cost within groups of claims that took the same amount of time to settle.

Non-economic loss accounted for the bulk of costs (46%), followed by economic loss (22%), legal and investigation (17%), and medical and hospital payments (10%). Half the claimants with upper limb joint injury received compensation for non-economic loss and 38% received payment for economic loss.

## Lower Limb Fracture

Lower limb injuries included the pelvis, legs, ankles, feet and toes. A lower limb fracture was recorded in 7,536 cases, or 9.5% of claims.

### Injury Profile

In comparison with other claimants, those with lower limb fractures had a much lower incidence of whiplash or other back strain, and a higher incidence of head injury, lower limb joint injury and upper limb fractures.

Of all claimants with a lower limb fracture:

- 16% had an upper limb fracture
- 14% had a lower limb joint injury
- 7% had mild head injury
- 6% had brain injury
- 5% had whiplash
- 3% had back strain other than whiplash
- 0.2% had spinal cord injury.

### Claim and Claimant Characteristics

In comparison with other claimants, those with lower limb fractures were often injured as pedestrians, motorcycle riders or pillions, and pedal cyclists. Pedestrians accounted for the highest percentage of claimants with a lower limb fracture - 37%. Vehicle passengers represented 27% and vehicle drivers 23%. Eight percent were injured as motorcycle riders, 2% as pillions, and 4% as pedal cyclists.

The young and the elderly were more likely to sustain lower limb fractures. One quarter were under 21 years of age, in contrast with 18% of other claimants. Seventeen percent of claimants with lower limb fracture were aged 60 years or more as against 11% of other claimants. Fifty-nine percent of claimants with lower limb fractures were male, in contrast with 45% of other claimants. The proportion of males was greater in every age group except for the 60 years and over group, in which females accounted for the majority.

**Table 36.**
**Liability, Lower Limb Fracture Claims**

| *Liability* | *Lower Limb Fracture* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 13.3 | 6.0 |
| Contributory Negligence | 10.1 | 3.0 |
| Accepted | 30.5 | 34.9 |
| Not Rejected | 27.3 | 34.9 |
| Under Review | 1.0 | 0.7 |
| Not Determined | 17.8 | 20.5 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

As shown in Table 36, in comparison with other claims, the percentage rejected or involving contributory negligence was significantly higher in lower limb fracture claims: 13% had been rejected and 10%

involved contributory negligence. Only 6% of other claims had been rejected and 3% involved contributory negligence. Conversely, a smaller percentage of lower limb fracture claims had been accepted or not rejected (58% versus 70%).

A slightly smaller proportion of claims involving lower limb fracture were finalised: 57% versus 61% of claims not involving this injury.

## Impact of Lower Limb Fracture Claims on the Motor Accidents Scheme

Claims involving lower limb fracture were costly. In total, they represented 10% of claims but about one quarter of the total incurred cost of the scheme. Table 37 shows the percentage of claims and percentage of total incurred costs accounted for by these claims each year.

**Table 37.**
**Lower Limb Fracture, Percent of Claims and Costs**

| | *Lower Limb Fracture Claims* | |
|---|---|---|
| ***Accident Year*** | ***Percent of Claims*** | ***Percent of Costs*** |
| 1989/90 | 12.1 | 28.1 |
| 1990/91 | 10.9 | 26.3 |
| 1991/92 | 10.2 | 24.1 |
| 1992/93 | 9.5 | 25.6 |
| 1993/94 | 7.9 | 21.8 |
| Total* | 9.5 | 23.9 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.
Source: MAA Claims Register June 1995

The percentage of claims accounted for by lower limb fracture has decreased each year and, to a lesser extent, the percentage of costs accounted for by these claims has also decreased. This may reflect the overall downward trend in the number of serious road accident injuries recorded by the RTA over the past six years. However, it is known that serious injury claims take the longest time to code. Therefore it is possible that the incidence of lower limb fracture, particularly for 1993/94, may ultimately be somewhat higher when the final injury codes have been assigned.

## Claim Cost

As at June 1995, 4,306 lower limb fracture claims were finalised (57%). Table 38 shows the average payment made on these finalised claims according to year of accident and time taken to make the final payment.

Claim size increased significantly with time taken to finalise. Again, the difference in claim size was particularly marked between those finalised within one year and those that took between 1 and 2 years - an increase from $9,290 to $39,769. Claims that took 2 to 3 years to settle had an average cost of $73,569. Average claim size continued to increase with each additional year taken to settle, reaching a maximum of $139,127 for claims that took between 5 and 6 years to finalise.

There was clear evidence of increased average claim costs. For each group of claims that took the same amount of time to settle, the average claim size increased significantly as the scheme developed. For example, looking at claims that finalised within one year, the average claim cost increased steadily with each successive accident year, moving from $2,318 for 1989/90 claims up to $20,678 for 1993/94 claims.

**Table 38.**
**Average Payment, Finalised Lower Limb Fracture Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 2,138 | 4,281 | 10,305 | 11,705 | 20,678 | 9,290 |
| 1-2 years | 22,003 | 28,616 | 43,929 | 55,303 | 56,605 | 39,769 |
| 2-3 years | 56,281 | 73,810 | 88,694 | 90,246 | | 73,569 |
| 3-4 years | 89,012 | 112,837 | 120,010 | | | 100,463 |
| 4-5 years | 127,299 | 128,499 | | | | 127,562 |
| 5-6 years | 139,127 | | | | | 139,127 |

* Includes 1994/95.
Source: MAA Claims Register June 1995

Of all the limb injury groups, claims involving lower limb fractures were the most costly. After spinal cord injury and brain injury, lower limb fractures were associated with higher average costs than any other injury group examined in this report.

## Payment Types

A total of $240 million had been paid on finalised claims involving lower limb fracture. Table 39 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of claims that received payments of each type.

The highest median payment was $25,900 for non-economic loss, followed by $12,000 for economic loss and $9,709 for payments to insurers outside the NSW CTP scheme. The median payment for legal and investigation was $4,191, followed by $3,000 for long term and home care and $2,804 for medical and hospital expenses.

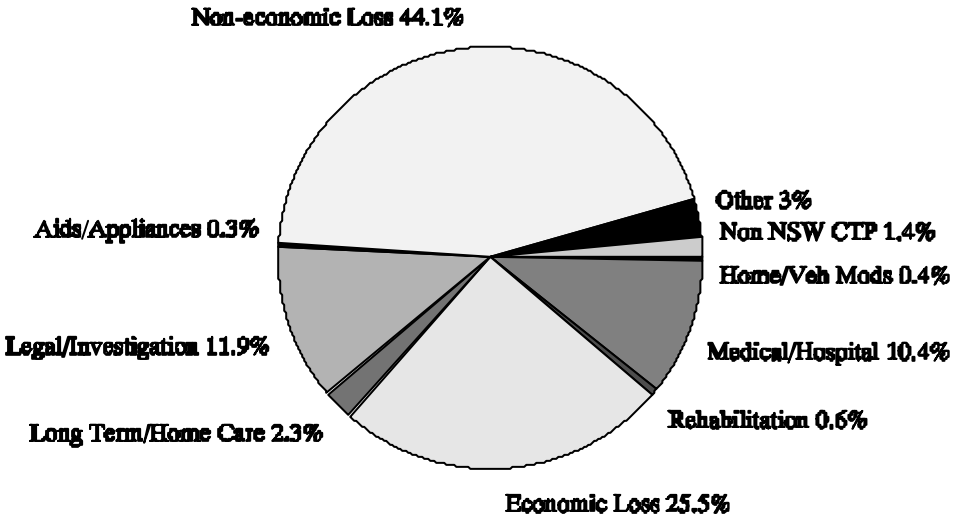
Legal and investigation payments were incurred in 88% of cases. Medical and hospital payments were made in 76% of claims, and non-economic loss in 66% of cases. Forty-three percent of claimants received economic loss payments.

**Table 39.**
**Payment Types, Finalised Lower Limb Fracture Claims**

| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital | 10.4 | 2,804 | 76.0 |
| Rehabilitation | 0.6 | 144 | 17.9 |
| Economic Loss | 25.5 | 12,000 | 42.9 |
| Home & Vehicle Modifications | 0.4 | 420 | 2.1 |
| Long Term & Home Care | 2.3 | 3,000 | 9.7 |
| Aids & Appliances | 0.3 | 245 | 5.0 |
| Non-economic Loss | 44.1 | 25,900 | 66.3 |
| Legal & Investigation | 11.9 | 4,191 | 88.0 |
| Other | 3.0 | 677 | 27.5 |
| Non-NSW CTP | 1.4 | 9,709 | 4.0 |
| Total | 100.0 | 25,876 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

**Figure 14.**
**Payment Distribution, Finalised Lower Limb Fracture Claims**




Source: MAA Claims Register June 1995

As shown in Figure 14, non-economic loss accounted for the greatest percentage of payments (44%). Economic loss represented 26% of payments, legal and investigation 12%, and medical and hospital 10%.

## Summary

Ten percent of claims involved a fracture of the lower limb. These claims accounted for 24% of total incurred costs. Claimants with lower limb fractures were more likely than other claimants to have sustained a head injury, lower limb joint injury or upper limb fracture.

In comparison with other claimants, those with lower limb fractures were more often injured as pedestrians, motorcycle riders or pillion passengers and pedal cyclists. Pedestrians accounted for 37% of these claimants.

Claimants with lower limb fractures tended to be either quite young (under 21 years) or elderly (over 60 years). The young were mostly male while the elderly were mainly female.

In 13% of lower limb fracture claims liability had been rejected and in 10% of cases contributory negligence was a factor. These percentages were considerably higher than those observed for other claims.

As at June 1995, a total of $240 million had been paid on finalised lower limb fracture claims. Lower limb fractures were associated with higher costs than any other type of limb injury examined in this report. The average claim cost ranged from $9,290 for claims finalised within one year up to $139,127 for those that took between 5 and 6 years to settle. There was also clear evidence of increasing costs, with claims relating to recent accident years receiving much higher payments on average than comparable claims from earlier accident years.

Non-economic loss accounted for 44% of all payments made, and economic loss 26%. In 88% of claims, legal and investigation costs were incurred. Medical and hospital payments were made in 76% of these claims, and non-economic loss in 66% of cases. Forty-three percent received compensation for economic loss.

## Lower Limb Joint Injury

A joint injury of the lower limb was recorded in 8,642 claims (11%). These injuries included sprains, strains or dislocations of joints such as the hip, knee or ankle.

### Injury Profile

In comparison with other claimants, those with lower limb joint injuries had a lower incidence of brain injury and spinal cord injury, and a slightly lower incidence of whiplash. The incidence of upper limb joint injury was much higher, and the incidence of mild head injury, back strain, lower limb fractures and upper limb fractures was somewhat higher.

Of all claimants with a lower limb joint injury:

- 33% had whiplash
- 22% had a upper limb joint injury
- 17% had back strain other than whiplash
- 12% had a lower limb fracture
- 9% had an upper limb fracture
- 6% had mild head injury
- 1% had brain injury
- 0.1% had spinal cord injury.

### Claim and Claimant Characteristics

Claimants with lower limb joint injuries were most often injured as vehicle drivers or passengers (43% and 31% respectively). However, the proportion in each of the following road user classes was higher than for other claims: motorcycle riders (6%), pillion passengers (1%), pedal cyclists (4%) or pedestrians (15%).

Age distribution was similar to that of claims in general, except that those with lower limb joint injury had a slightly higher percentage in the 17 to 25 year age group. Fifty percent of claimants with lower limb joint injuries were male.

**Table 40.**
**Liability, Lower Limb Joint Injury Claims**

| *Liability* | *Lower Limb Joint Injury* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 6.3 | 6.7 |
| Contributory Negligence | 4.7 | 3.6 |
| Accepted | 40.2 | 33.8 |
| Not Rejected | 30.8 | 34.6 |
| Under Review | 0.7 | 0.7 |
| Not Determined | 17.3 | 20.6 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

As Table 40 shows, the percentage of lower limb joint injury claims rejected or involving contributory negligence was only slightly higher than for other claims: 6% had been rejected and 5% involved contributory negligence. The percentage with liability accepted was also slightly higher, 40% as against 34%.

The percentage of lower limb joint injury claims finalised was 61%, which was the same as for other claims.

## Impact of Lower Limb Joint Injury Claims on the Motor Accidents Scheme

Claims involving lower limb joint injury represented 11% of claims and 11% of the total incurred cost of the scheme. Table 41 shows the percentage of claims and percentage of total incurred costs accounted for by these claims each year.

**Table 41.**
**Lower Limb Joint Injury, Percent of Claims & Costs**

| | *Lower Limb Joint Injury Claims* | |
|---|---|---|
| ***Accident Year*** | ***Percent of Claims*** | ***Percent of Costs*** |
| 1989/90 | 11.0 | 10.8 |
| 1990/91 | 11.4 | 11.5 |
| 1991/92 | 11.3 | 12.1 |
| 1992/93 | 11.6 | 12.5 |
| 1993/94 | 10.7 | 10.3 |
| Total* | 10.9 | 11.0 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.
Source: MAA Claims Register June 1995

The percentage of claims involving lower limb joint injury showed little variation over the years. Up until 1992/93 there was a slight increasing trend in the percentage of costs accounted for by these claims. It is possible that the percentage of costs accounted for by these claims in 1993/94 may also increase somewhat as estimates develop further.

## Claim Cost

As at June 1995, 5,225 lower limb joint injury claims were finalised (61%). Table 42 shows the average payment made on these finalised claims according to year of accident and time taken to make the final payment.

Average claim size increased significantly with each additional year taken to settle, reaching a maximum of $70,238 for claims that took between 5 and 6 years to finalise. Again, the difference in claim size was greatest between those finalised within one year and those that took between 1 and 2 years - an increase from $4,027 to $21,394.

As for many other injury groups, superimposed inflation was evident. For each group of claims that settled within the same time period, the average claim size increased significantly as the scheme developed. For example, looking at claims that finalised within one year, the average claim cost increased with each successive accident year, ranging from $1,540 for 1989/90 claims up to $7,621 for 1993/94 claims.

**Table 42.**
**Average Payment, Finalised Lower Limb Joint Injury Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 1,540 | 1,693 | 3,392 | 4,691 | 7,621 | 4,027 |
| 1-2 years | 14,052 | 13,621 | 18,847 | 31,517 | 31,050 | 21,394 |
| 2-3 years | 33,395 | 38,892 | 48,029 | 56,300 | | 42,066 |
| 3-4 years | 44,105 | 52,812 | 58,552 | | | 49,199 |
| 4-5 years | 69,141 | 69,276 | | | | 69,180 |
| 5-6 years | 70,238 | | | | | 70,238 |

* Includes 1994/95.
Source: MAA Claims Register June 1995

## Payment Types

A total of $125 million had been paid on finalised claims involving lower limb joint injuries. Table 43 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of claims that received payments of each type.

**Table 43.**
**Payment Types, Finalised Lower Limb Joint Injury Claims**

| ***Payment Type*** | ***Percent of Total Payments*** | ***Median Payment $*** | ***% of Claims to Receive Payment**** |
|---|---|---|---|
| Medical/Hospital | 10.7 | 1,005 | 75.2 |
| Rehabilitation | 0.3 | 48 | 12.9 |
| Economic Loss | 21.7 | 3,269 | 40.1 |
| Home & Vehicle Modifications | 0.1 | 328 | 0.8 |
| Long Term & Home Care | 1.0 | 1,784 | 5.3 |
| Aids & Appliances | 0.1 | 169 | 2.3 |
| Non-economic Loss | 46.4 | 14,500 | 51.8 |
| Legal & Investigation | 15.8 | 1,882 | 78.4 |
| Other | 2.8 | 416 | 22.7 |
| Non-NSW CTP | 1.0 | 2,267 | 4.2 |
| Total | 100.0 | 5,634 | |

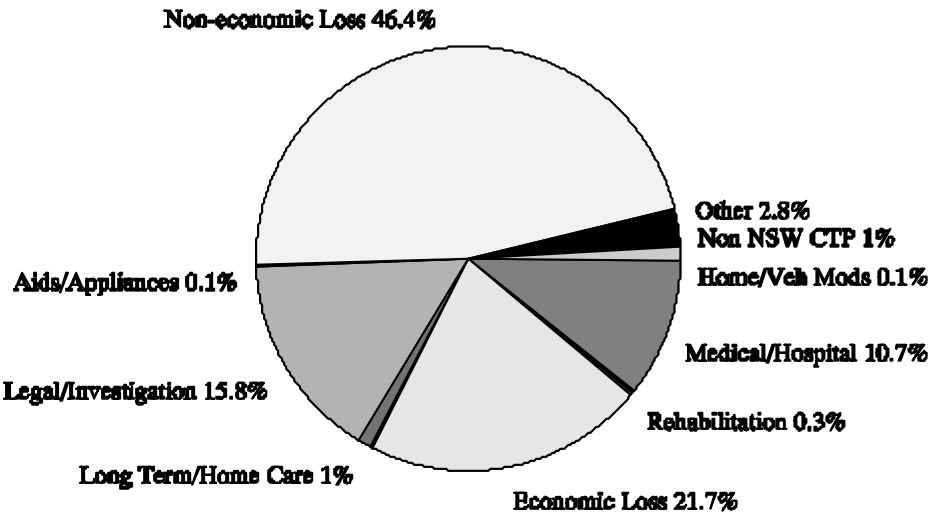
* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

Median payments were considerably smaller than those associated with lower limb fractures. The highest median payment was $14,500 for non-economic loss, followed by $3,269 for economic loss and $2,267 for payments to insurers outside the NSW CTP scheme. The median payment for legal and investigation was $1,882, followed by $1,784 for long term and home care and $1,005 for medical and hospital expenses.

Legal and investigation payments were made in 78% of cases. Medical and hospital costs were paid in 75% of claims, and non-economic loss payments made in 52% of cases. Forty percent of claimants with lower limb joint injury received economic loss payments.

As shown in Figure 15, non-economic loss accounted for the greatest percentage of payments (46%). Economic loss represented 22% of payments, legal and investigation 16%, and medical and hospital 11%.

**Figure 15.**
**Payment Distribution, Finalised Lower Limb Joint Injury Claims**




Source: MAA Claims Register June 1995

## Summary

Claims involving a lower limb joint injury accounted for 11% of claims and 11% of total incurred costs. This injury was often associated with whiplash, other back strain or upper limb joint injury.

In comparison with other claimants, those with lower limb joint injuries were relatively more likely to have been injured as motorcycle riders or pillion passengers, pedal cyclists, or pedestrians. However, the majority were injured as vehicle drivers or passengers.
Fifty percent of claimants with a lower limb joint injury were male. Age distribution was similar to that of claimants in general, except that a slightly higher percentage were in the 17 to 25 year age group.

Liability had been rejected in 6% of cases and in 5% contributory negligence was a factor. These percentages were very similar to those observed in other claims.

As at June 1995, $125 million had been paid on finalised lower limb joint injury claims. The average claim cost of finalised claims of this injury type ranged from $4,027 for claims finalised within one year up to $70,238 for those that took between 5 and 6 years to settle. There was also evidence of increasing average claim costs, with claims relating to recent accident years receiving much higher payments on average than comparable claims from earlier accident years.

Non-economic loss accounted for the majority of all payments made (46%), and economic loss accounted for 22% of payments. The type of payment most often incurred was legal and investigation, which was paid in 78% of claims. Medical and hospital payments were made in 75% of claims, and non-economic loss payments were paid in 52% of cases. Forty percent received economic loss payments.

# Multiple Injury

This section provides information about claimants who sustained serious injuries other than brain and spinal cord injury. Claimants with serious multiple injury were defined as those with:

- injury to three or more different regions of the body
- an Injury Severity Score of 16 or more
- no brain or spinal cord injury (according to the definitions of brain and spinal cord injury adopted in this report).

To a certain extent, claimants in this group may have overlapped with several other injury groups included in this report. However, the characteristic that they shared was the involvement of multiple body regions and relatively severe injuries.

## Injury Profile

Multiple injury was recorded in 734 claims (1% of all claims). The most common injuries were fractures of the limbs, fractured ribs, lung injury, injury to the internal organs of the chest and abdominal cavity and vertebral fractures or dislocations.

## Claim and Claimant Characteristics

In comparison with other claimants, those with multiple trauma were more often injured as motorcycle riders or pillion passengers, pedestrians or vehicle passengers. Drivers accounted for 22% of claimants with multiple injury, passengers 51%, pedestrians 18%, motorcycle riders 4%, pillions 1% and pedal cyclists 2%.

The incidence of multiple injury was noticeably higher amongst claimants aged 60 years or over and somewhat higher amongst 17 to 20 year olds. The proportion of claimants with multiple trauma who were aged 60 years or more was 20% in contrast with only 11% of other claimants. Thirteen percent of claimants with multiple injury were in the 17 to 20 year age group in comparison with 10% of other claimants.

**Table 44.**
**Liability, Multiple Injury Claims**

| *Liability* | *Multiple Injury* | *Other* |
|---|---|---|
| | *Percent* | |
| Rejected | 11.7 | 6.5 |
| Contributory Negligence | 9.9 | 3.6 |
| Accepted | 35.3 | 33.8 |
| Not Rejected | 24.7 | 33.6 |
| Under Review | 1.8 | 0.7 |
| Not Determined | 16.7 | 21.9 |
| Total | 100.0 | 100.0 |

Source: MAA Claims Register June 1995

Table 44 shows the liability status of claims with and without multiple trauma. Liability was rejected or partially rejected in a significantly higher proportion of multiple injury claims: 12% had been rejected and 10% were judged to involve contributory negligence. The percentage

in which liability had been accepted was similar for multiple injury and other claims. However, a smaller percentage of multiple injury claims were in the *Not Rejected* category. The road users with multiple injuries whose claims were most often rejected were (in descending order) pedal cyclists, pedestrians, motorcycle riders and drivers.

The proportion finalised was only slightly less for multiple injury claims: 58% versus 61% of other claims. In 34% of multiple injury claims court proceedings had commenced, in contrast with 20% of other claims.

## Impact of Multiple Injury Claims on the Motor Accidents Scheme

In total, claims involving multiple injury accounted for about 1% of claims and 3% of the total incurred cost of the scheme. Table 45 shows the percentage of claims and the percentage of costs accounted for each year by these claims.

**Table 45.**
**Multiple Injury, Percent of Claims and Costs**

| | *Multiple Injury Claims* | |
|---|---|---|
| ***Accident Year*** | ***Percent of Claims*** | ***Percent of Costs*** |
| 1989/90 | 1.4 | 3.8 |
| 1990/91 | 1.2 | 4.0 |
| 1991/92 | 0.9 | 2.3 |
| 1992/93 | 0.9 | 3.5 |
| 1993/94 | 0.7 | 1.8 |
| Total* | 0.9 | 2.9 |

* Includes 1994/95. This year is not shown separately as injury data is not yet sufficiently developed.
Source: MAA Claims Register June 1995

The percentage of claims involving multiple injury decreased somewhat from 1.4% in 1989/90 to 0.9% in 1991/92 and 1992/93. The percentage for 1993/94 was lower, at 0.7%. However, as serious injuries take the longest time to code, it is possible that there are still some cases of multiple injury from 1993/94 that have not yet been fully coded. The percentage of costs accounted for by multiple injury claims ranged from 2% to 4%.

## Claim Cost

In June 1995, 422 (58%) of multiple injury claims were finalised. Table 46 shows the average cost of these finalised claims according to the year of accident and the time taken to make the final payment.

The average claim size ranged from a minimum of around $1,500 up to about $180,000. This reflects individual differences in the level of losses and impairments, as well as the effect of reduction of the amount awarded if liability was partially rejected.

As has been observed for other finalised claims, the average cost increased significantly with time taken to finalise. In particular, there was a marked increase from $7,688 for claims finalised within

one year to $50,509 for those that took between 1 and 2 years. Multiple injury claims that took 2 to 3 years to settle had an average cost of $104,298, which was about twice the average for claims settled in 1 to 2 years. Average claim size continued to increase with each additional year taken to finalise.

Very few of these claims were finalised within one year, so most cells in that row did not contain enough claims to produce meaningful averages. There was evidence of increasing average costs in claims that were finalised in 1 to 2 years. There was no clear trend for multiple injury claims that took longer to finalise.

**Table 46.**
**Average Payment, Finalised Multiple Injury Claims**

| | *Average Payment in $* | | | | | |
|---|---|---|---|---|---|---|
| | *Accident Year* | | | | | |
| ***Time to Settle*** | ***1989/90*** | ***1990/91*** | ***1991/92*** | ***1992/93*** | ***1993/94*** | ***Total**** |
| Up to 1 year | 1,456 | ** | ** | ** | ** | 7,688 |
| 1-2 years | 21,494 | 42,328 | 48,002 | 72,979 | ** | 50,509 |
| 2-3 years | 114,117 | 83,006 | 120,655 | ** | | 104,298 |
| 3-4 years | 146,096 | 130,768 | ** | | | 134,900 |
| 4-5 years | 178,611 | ** | | | | 176,327 |
| 5-6 years | ** | | | | | ** |

* Includes 1994/95.
** Less than 20 claims in cell.
Source: MAA Claims Register June 1995

## Payment Types

As at June 1995 a total of $34.8 million had been paid on finalised multiple injury claims. Table 47 shows:

- The percentage of this amount allocated to the various payment categories.
- The median size of the payment, where payments of a particular type were made.
- The percentage of finalised multiple injury claims that received payments of each type.

The highest median payment was for non-economic loss, at $37,091, followed by $25,000 for economic loss. The third highest was payment to insurers outside the NSW CTP scheme (for example, Workers Compensation insurers), with a median cost of $16,948. The median payment for legal and investigation was $6,826, followed by medical and hospital at $4,378. The median payment for long term and home care was $3,500.

Legal and investigation payments were the most often incurred, having been paid in 91% of multiple injury claims. Medical and hospital payments were made in 81% of cases. Non-

economic loss payments were made to 73% of claimants with multiple injury, and 44% received economic loss payments.

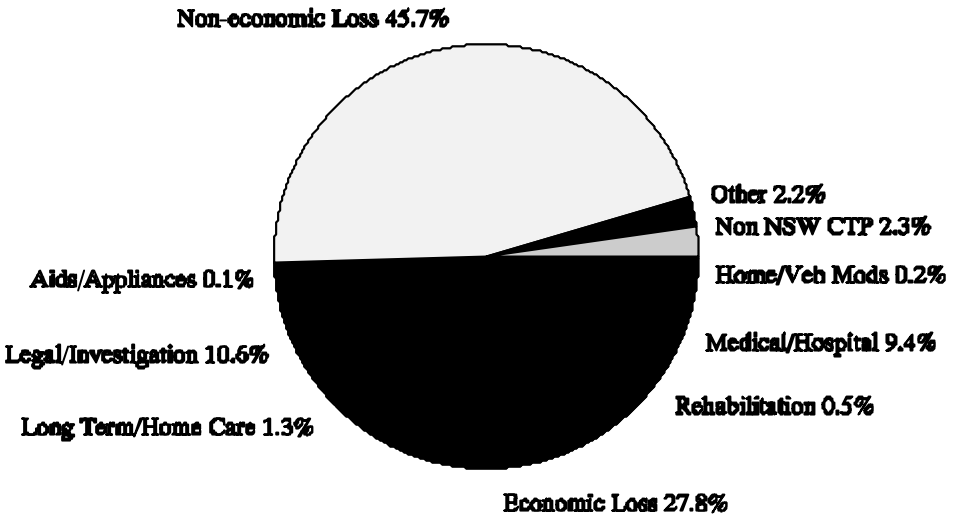
**Table 47.**
**Payment Types, Finalised Multiple Injury Claims**

| *Payment Type* | *Percent of Total Payments* | *Median Payment $* | *% of Claims to Receive Payment** |
|---|---|---|---|
| Medical/Hospital | 9.4 | 4,378 | 81.0 |
| Rehabilitation | 0.5 | 205 | 22.8 |
| Economic Loss | 27.8 | 25,000 | 43.8 |
| Home & Vehicle Modifications | 0.2 | 580 | 5.0 |
| Long Term & Home Care | 1.3 | 3,500 | 6.6 |
| Aids & Appliances | 0.1 | 346 | 6.9 |
| Non-economic Loss | 45.7 | 37,091 | 73.0 |
| Legal & Investigation | 10.6 | 6,826 | 90.8 |
| Other | 2.2 | 600 | 35.3 |
| Non-NSW CTP | 2.3 | 16,948 | 4.3 |
| Total | 100.0 | 47,070 | |

* Percentages cannot be added together as claims may have received payments in more than one category.
Source: MAA Claims Register June 1995

Figure 16 illustrates the distribution of the total payments across payment categories. Non-economic loss accounted for 46% of all payments and economic loss 28%. Legal and investigation accounted for 11% of costs and 9% of payments were allocated to medical and hospital costs.

**Figure 16. Payment Distribution, Finalised Multiple Injury Claims**




Source: MAA Claims Register June 1995

Rehabilitation payments were lower than would be expected, both in terms of the total amount paid and the number of claims that incurred costs of this kind. In total, 23% of claimants with multiple injury were recorded as having rehabilitation costs paid, and these accounted for less than 1% of total expenditure. As was noted earlier, it is possible that many claimants would have received rehabilitation in the public hospital setting, perhaps in conjunction with ongoing medical treatment. These costs, including the rehabilitation component, may have been allocated to the medical and hospital category, or may have been covered by the Bulk Billing Agreement.

## Summary

Multiple injury was defined as injury to three or more different body regions with an Injury Severity Score of 16 or more. Brain and spinal cord injury cases were excluded from this group as they have been covered in other sections of the report.

Multiple injury was reported in 1% of claims and accounted for 3% of total incurred costs.

Claimants with multiple injury were more likely than other claimants to have been injured as motorcycle riders, pillion passengers, pedestrians or vehicle passengers. They were also more likely to have been over 59 years of age, or between 17 and 20 years.

Liability was rejected in 12% of cases and contributory negligence was a factor in 10% of multiple injury claims. The road users whose claims were most often rejected were pedal cyclists, pedestrians, motorcycle riders and drivers.

Looked at according to accident year and year of finalisation, the average cost of finalised multiple injury claims ranged from $1,500 to about $180,000. Average claim cost increased significantly with each additional year taken to finalise. This increase was particularly marked between claims finalised within one year and those settled in 1 to 2 years.

The payments most often made were legal and investigation, medical and hospital, non-economic loss and economic loss. The payment types that accounted for the highest proportion of total costs were non-economic loss, economic loss, legal and investigation, and medical and hospital.

# Comparisons Between Injury Groups

## Road User Class

Although the majority of CTP claimants were vehicle occupants (82%), certain injuries were particularly associated with non-vehicle occupants (pedestrians, motorcycle riders, pillion passengers and pedal cyclists). Non-vehicle occupants accounted for a relatively high proportion (40% to 50%) of claimants who sustained brain injury or fractures of the upper or lower limbs.

In general, serious injuries were more likely to have been sustained by non-vehicle occupants. The only exception to this was that, in addition to motorcycle riders and pillions, vehicle passengers accounted for a relatively high percentage of claimants with spinal cord injury.

Of the injuries examined in this report, whiplash and upper limb joint injury were most often sustained by vehicle occupants.

## Incidence and Cost

In descending order, the incidence of the injury types examined in this report was as follows:

| | Percent of Claims |
|---|---|
| Whiplash | 37 |
| Upper limb joint injury | 11 |
| Lower limb joint injury | 11 |
| Lower limb fracture | 10 |
| Upper limb fracture | 7 |
| Mild head injury | 4 |
| Brain injury | 2 |
| Multiple serious injury[10] | 1 |
| Spinal cord injury | 0.2 |

Note: the injury groups are not mutually exclusive: a claim could belong to more than one group.

By far the most costly claims were those involving spinal cord injury, with a median finalised claim cost of $310,000. The second highest median cost was $47,000 for multiple injury claims. Table 48 lists the injury groups according to the median payment on finalised cases. For comparison, the median payment is also provided for all finalised claims to date.

[10] Other than brain or spinal cord injury.

**Table 48.**
**Median Finalised Claim Payment in Thousands**

| *Injury Group* | *Median Finalised Claim Cost in $Thousands* |
|---|---|
| Spinal cord injury | 310 |
| Multiple serious injury | 47 |
| Brain injury | 39 |
| Lower limb fracture | 26 |
| Upper limb fracture | 14 |
| Mild head injury | 11 |
| Lower limb joint injury | 6 |
| Upper limb joint injury | 5 |
| Whiplash | 2 |
| All finalised claims | 2 |

Source: MAA Claims Register June 1995

## Payment Types

Spinal cord injury claims recorded the highest median payment in every category except for payments to insurers outside the NSW CTP scheme, for which brain injury claims recorded the highest median payment. Brain injury claims had the second highest payment in every category except for medical and hospital treatment, for which multiple injury claims recorded the highest median payment.

After spinal cord injury, brain injury and multiple injury, the highest median economic loss payment was for lower limb fractures, at $12,000.

Whiplash claims had the lowest median payment in every category except home and vehicle modifications, for which upper limb joint injury claims had the lowest median cost.

**Table 49.**
**Percentage of Finalised Claims With Non-Economic Loss Payment**

| *Injury Group* | *Percent* |
|---|---|
| Multiple serious injury | 73.0 |
| Spinal cord injury | 70.6 |
| Lower limb fracture | 66.3 |
| Brain injury | 65.6 |
| Upper limb fracture | 59.8 |
| Mild head injury | 56.4 |
| Lower limb joint injury | 51.8 |
| Upper limb joint injury | 50.0 |
| Whiplash | 41.7 |

Source: MAA Claims Register June 1995

Table 49 summarises the percentage of finalised claims in the various injury groups to have received non-economic loss payments. Of claims finalised to date, non-economic loss payments were most often made in cases involving multiple injury, spinal cord injury and lower limb fracture. Even for whiplash, the injury group with the lowest percentage of claims receiving payments for non-economic loss, the proportion appeared relatively high, at 42%. A number of other relatively minor injuries such as joint injury claims received non-economic loss payments in about 50% of cases.

The original intention of the Motor Accidents Act was to give priority to the severely injured and to restrict the level of non-economic loss compensation paid in respect of relatively minor injuries such as soft tissue injuries. Recent concern about increasing cost pressures within the Motor Accidents Scheme has prompted legislative reform aimed at restricting non-economic loss payments in cases of minor injury. The impact of these changes will be monitored closely.

In addition to current concerns about the cost of minor claims, this report has also shown that that there is potential for the relatively small number of serious injury claims to significantly affect the overall costs of the scheme. Claims involving brain and spinal cord injury, other multiple serious injury and fractures, particularly lower limb fractures, are associated with very high costs, especially in the areas of economic loss, future care and non-economic loss. The only payment category to which any restrictions apply is non-economic loss. There is no limit to the amounts that may be awarded in any other payment category. Factors such as an increase in the road toll, medical advances enabling the survival of people with severe injuries, and community expectations of compensation, may all have far reaching consequences for the costs of personal injury compensation schemes such as the Motor Accidents Scheme.

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## Appendix 1 Definitions of Body Regions

| | |
|---|---|
| **Skin** | The skin on any part of the body. Does not include any underlying structures. |
| **Head** | The skull and the brain, including the cranial nerves. |
| **Face** | The ears, eyes, nose, mouth, tongue, teeth and facial bones. |
| **Neck** | The larynx and the nerves and blood vessels of the throat. |
| **Chest** | The rib cage, blood vessels of the chest, the lungs, heart and other organs of the chest. |
| **Abdomen** | The abdominal blood vessels, the gastrointestinal tract, reproductive and other abdominal or pelvic organs. |
| **Spine** | The vertebral column and the spinal cord. |
| **Upper limb** | The arms, hands and shoulder girdle. |
| **Lower limb** | The legs, feet and bony pelvis. |