# INQUIRY INTO VULNERABLE ROAD USERS

**Organisation**: Motor Accidents Authority

Name: The Hon Michael Daley MP

**Position**: Minister for Finance

**Telephone**: (02) 9228 5655 **Date Received**: 24/08/2010





# Michael Daley MP

Minister for Police
Minister for Finance

Our Ref: 10/573 Your Ref: STC512

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Mr Geoff Corrigan MP Chair Parliamentary Joint Standing Committee on Road Safety (Staysafe) Parliament of New South Wales Macquarie Street SYDNEY NSW 2000

Dear Mr Corrigan, Le

I refer to your letter concerning the Inquiry into Vulnerable Road Users being conducted by the Parliamentary Joint Standing Committee on Road Safety (Staysafe).

I am pleased to enclose the Motor Accidents Authority's submission addressing the Inquiry's Terms of Reference.

Any enquiries about this matter may be directed to Mr John Dietrich, Manager, Ministerial and Community Assistance at the Motor Accidents Authority, on telephone number 8267 1935 or by e-mail: jdietrich@maa.nsw.gov.au.

Yours sincerely

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# Submission to NSW Staysafe Committee Inquiry into Vulnerable Road Users

**Organisation:** Motor Accidents Authority

Name: Ms Carmel Donnelly Position: General Manager

Date Received:



# Submission to the Inquiry into Vulnerable Road Users

Conducted by the
Parliamentary Joint Standing Committee on
Road Safety (Staysafe)
2010

#### 1 The Motor Accidents Authority of NSW (MAA)

The Motor Accidents Authority (MAA) is the regulator of the Compulsory Third Party (CTP) insurance scheme for New South Wales.

The MAA has a statutory responsibility to provide funding for activities to prevent or minimise injuries from road crashes and for safety education. The lead agency for road safety in New South Wales is the Centre for Road Safety (CRS) at the Roads and Traffic Authority (RTA). The MAA works in partnership with the CSA to develop and contribute to road safety strategies, particularly for those groups that incur the greatest costs to the CTP scheme.

Motorcycle riders and pillions have the highest average cost per claim of all road user categories. Their safety is therefore a key priority for the MAA. The MAA has funding earmarked to support safety initiatives for motorcyclists and is currently considering proposals for safety initiatives in partnership with the CRS. .

The MAA is a contributor, with the RTA, to a program of research by the University of NSW to examine the injury mechanisms that motorcycle riders and pillions are subjected to when they impact a roadside barrier. This work aims to inform the design of roadside safety barriers to help reduce motorcyclist fatalities and serious injuries.

The MAA has also established a partnership with the MCC and funds education projects that are developed in consultation with the CRS. The MAA has set aside \$250,000 for such projects, and current initiatives include the production by the MCC of a series of short films on motorcycle safety, and the reproduction of booklets produced in conjunction with a number of local councils that promote safe road use by motorcyclists. MAA's funding will enable the MCC to distribute these resources more widely.

In addition, the MAA has taken the lead in establishing a cross-jurisdictional working party on motorcycle protective clothing. This working party aims to analyse the costs and benefits, and develop a business case for establishing an Australian safety testing and star-rating consumer information program, to better enable motorcyclists to make informed choices on protective clothing.

The MAA has also funded a body of work that is exploring the acute management (in hospital) of people suffering fractures in road crashes. \$205,000 was provided to fund a pilot study at St Vincent's Hospital to assess the quality of acute care and follow-up of these patients, 23% of whom were motorcyclists. The findings indicated that motorcyclists had a different injury profile to vehicle occupants, and were particularly at risk of poor follow-up. Following this, the MAA has allocated \$390,500 to fund a more extensive study currently running across four Sydney hospitals to trial and evaluate a model of early rehabilitation assessment and follow-up, which is likely to particularly improve the outcomes of motorcyclists who have typically had shorter hospital stays and less access to follow-up services. In addition the MAA has recently recommended for approval a further \$419,300 to trial and evaluate the use of acute rehabilitation teams for people admitted to hospital as a result of a road crash in the South Eastern Sydney Area Health Service.

Prior to this the MAA was a major contributor to a safety education campaign conducted under the RTA's Motorcyclist and Bicyclist Safety Action Plan (2005). The MAA also provided funding for a bicycle safety seminar (2008) and a study conducted by the Pedestrian Council of Australia (2009) to identify and reduce the risks associated with bicycle couriers.

#### 2 MAA data and analysis

Having regard to the Committee's Terms of Reference, this submission provides the available MAA data relevant to motorcyclists (riders and pillion passengers) and cyclists.

It must be noted that, while the RTA collects data on all accidents, the MAA holds data only in relation to those road users who have been injured in a road accident and who lodge a CTP claim or an Accident Notification Form (ANF) with a CTP insurer. It must be noted that not all accidents or injuries give rise to a notification or CTP claim.

It is also important to note that the CTP scheme is still largely fault based<sup>1</sup>. Until April 2010, a person considered to be at fault in an accident was not entitled to any CTP benefits and the MAA database therefore did not include this group. Since April 2010, those at fault are entitled to limited benefits under the scheme and those who claim these benefits are included in the MAA database from this date.

In relation to cyclists, the data presented relates only to those road crashes where a cyclist was injured and the injured cyclist lodged a CTP claim or accident notification with a CTP insurer.

The data presented is from the current Scheme<sup>2</sup> and claims refer to all notifications of a CTP claim, including full claims and ANFs. The claims data is reported by the year in which the accident occurred. Unless otherwise stated, the reported data is for all claims that have been lodged in relation to accidents that occurred between 5 October 1999 and 30 September 2009, as at March 2010. The data for more recent years is necessarily incomplete, as more claims may still be lodged, and many claims relating to these accidents are not yet finalised.

Available data relevant to motorcyclists is presented below, followed by available data relating to cyclists. The key points evident from MAA data relevant to this inquiry are as follows:

- increasing number of claims by motorcycle riders; but decreasing claim rate for motorcyclists (claims per 1,000 registered motorcycles)
- increasing average and median cost per claim for motorcyclists and pillion passengers
- stable claim numbers for cyclists but an increase in average cost per claim;
- the majority of motorcycle rider and cyclists claims are against a motor car as the vehicle causing the crash:
- the majority of pillion passenger claims are against a motorcycle as the vehicle causing the crash;
- similar age profile for injured motorcyclists and cyclists with the majority aged 25-54 years;
- greater number of injured male motorcycle riders and cyclists than females, but a greater number of injured female pillion passengers;
- greater injury severity of motorcyclists, pillions and cyclists compared to other vehicle occupants, with pillion passengers tending to be the most severely injured with the highest average claim and compensation cost.

The Lifetime Care and Support Authority (LTCSA) provides a separate scheme for those who sustain a catastrophic injury in a motor vehicle accident, regardless of fault. The Lifetime Care and Support (LTCS) scheme commenced for children in October 2006, and for adults in October 2007. Data relating to motorcyclists and cyclists who are participants in the LTCS Scheme are included in this report, with the permission of the LTCSA. The key point evident from the LTCSA data relevant to this enquiry is that motorcycle riders are significantly over represented in the LTCS scheme, and cyclists are also somewhat over represented in the LTCS scheme.

<sup>&</sup>lt;sup>1</sup> From 1 October 2007, the catastrophically injured are offered treatment, rehabilitation and attendant care under the Lifetime Care and Support Scheme. Those participants not at fault may also have a CTP claim.

The current Scheme commenced on 5 October 1999 and is governed by the Motor Accidents Compensation Act (MACA) 1999.

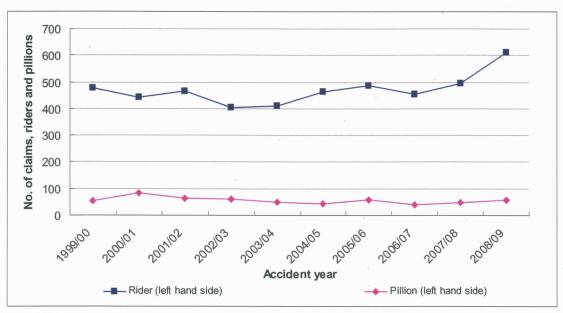
## **Motorcyclists**

#### 3 Number and Rate of Motorcyclist Claims

The Figure 1a below shows the actual number of claims made by injured motorcycle riders and pillion passengers. The numbers of claims made by motorcycle riders and pillion passengers are significantly lower than those made by the occupants of vehicles (that is, drivers and passengers of motor vehicles other than motorcycles). Claims made by vehicle occupants are shown in Figure 1b below with a different scale.

For motorcycle riders the actual number of claims per year has increased, with an average annual rate of change of 3% per year. For pillion passengers the numbers have remained more stable, showing an average annual rate of increase of only 1% per year. For the vehicle occupants the actual number of claims has decreased, with an average annual rate of change of 7% per year.

Figure 1a: Number of claims, motorcycle riders and pillion passengers (all notifications)



Source: MAA

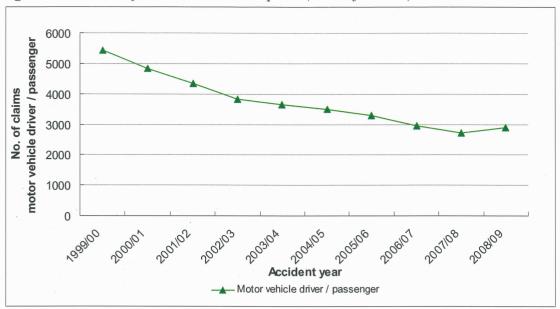


Figure 1b: Number of claims, vehicle occupants (all notifications)

Source: MAA Includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

When claim numbers are expressed as a proportion of the number of registered vehicles, an indication of the rate of claiming can be derived. Claim rate is the number of claims made by injured motorcyclists or pillion passengers, per 1,000 registered motorcycles. Figure 2 and Table 1 below illustrate claim rates by comparing data for motorcycle riders, pillion passengers and vehicle occupants (drivers and passengers of motor vehicles other than motorcycles).

This shows that, although the actual number of claims by motorcycle riders has been increasing, the claim rate has decreased significantly, from 9.7 per 1,000 registered motorcycles in 1999/00 to 3.7 per 1,000 registered motorcycles in 2008/09. For pillion passengers the claim rate has also decreased, from 1.1 per 1,000 to 0.4 per 1,000 registered motorcycles over the same period, which is similar to the decrease in the claim rate for vehicle occupants, from 1.5 per 1,000 registered motor vehicles (other than motorcycles) to 0.7 per 1,000. The rate of claiming by motorcycle riders has remained significantly higher than for vehicle occupants or pillions.

12

Rider

Pillion

Motor vehicle driver / passenger

Accident year

Accident year

Figure 2: Claim rates, motorcycle riders, pillion passengers and vehicle occupants (all notifications)

Source: MAA 'Vehicle occupants' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

*Table 1: Claim rates, motorcycle riders, pillion passengers and vehicle occupants (all notifications)* 

Rate per 1,000 registered vehicles Motor vehicle **Accident** driver / year Rider Pillion passenger 1999/00 9.7 1.1 1.5 2000/01 6.6 1.3 1.3 2001/02 5.2 0.7 1.1 2002/03 4.0 0.6 1.0 2003/04 3.9 0.5 0.9 2004/05 4.0 0.4 8.0 2005/06 4.0 0.5 8.0 2006/07 3.4 0.3 0.7 2007/08 3.4 0.3 0.6 2008/09 3.7 0.4 0.7

Source: MAA 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

#### 4 Average and Median Motorcyclist Claim Costs

\$0

Average<sup>3</sup> and median claim costs are estimated using the total cost for finalised claims and expected total cost for open claims. Data related to accidents that occurred more recently than 2007/08 has been excluded, as claim payment data is incomplete after this period and likely to increase.

The average claim costs shown in Figure 3a have been adjusted for inflation. In 1999/00 the average cost of claims made by motorcycle riders was \$178,700 compared to \$235,100 in 2006/07. For pillion passengers over the same period the average claim cost was \$148,900 in 1999/2000 and \$282,700 in 2006/07, and for other vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle) the average claim cost was \$77,000 in 1999/2000 and \$116,100 in 2006/07. As would be expected, the average claim costs for motorcycle riders and pillions are consistently higher than for vehicle occupants. Figure 3a below shows a 4% average annual increase in average claim cost for motorcycle riders, as compared to a 10% increase for pillion passengers and a 6% increase for other vehicle occupants over an eight year period.

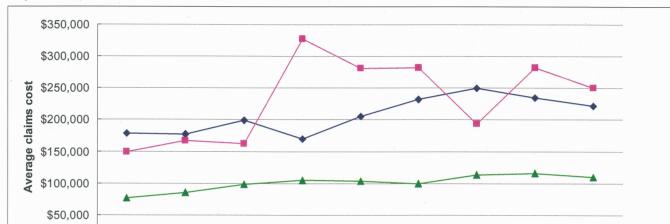


Figure 3a: Average claims cost, motorcycle riders, pillion passengers and vehicle occupants (all notifications)

Source: MAA Average costs shown have been adjusted for inflation to March 2009. 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

Pillion

Accident year

The average claim cost is more likely to be affected by unusually large or small claims, and this volatility in average claim cost is particularly apparent for pillion passengers in the graph above, where the number of claims per year is small but the cost of claims can be very high.

Analysing the median cost can provide a better indication of trends as it is less affected by outliers. The median claim cost is the midpoint in the range of costs recorded for each group. Therefore 50% of the claims in each category had a higher total cost than the median cost, and 50% had a lower cost. Figure 3b shows that the median costs, adjusted for inflation. In 1999/00 the median cost for claims by motorcycle riders was \$19,200 and this had increased to \$58,600 in 2006/07. For pillion passengers the median cost was \$28,600 in 1999/00 and this had increased significantly, to \$161,800 by 2006/07. For vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle) the median cost was significantly lower, \$6,500 in 1999/00 increasing to \$16,600 by 2006/07. This data shows a 17% increase in

Rider

2007108

Motor vehicle driver / passenger

<sup>&</sup>lt;sup>3</sup> Average and median claim costs have been adjusted for inflation at 31 March 2009 values.

average annual median claim cost for motorcycle riders, a 28% increase for pillion passengers and a 14% increase for other vehicle occupants over an eight year period.

The uncharacteristically large median claims cost for pillion passengers in the years ending September 2007 and 2008 need to be interpreted with caution as there are a higher proportion of claims yet to be finalised in those years.

\$180,000 \$140,000 \$120,000 \$80,000 \$60,000 \$20,000 \$20,000 \$0 Rider Pillion Motor vehicle driver / passenger

Figure 3b: Median claims cost, motorcycle riders, pillion passengers and vehicle occupants (all notifications)

Source: MAA Median costs shown have been adjusted for inflation to March 2009. 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

#### 5 Claims by Motorcycle Riders and Pillion Passengers

Of the claims lodged by injured motorcyclists, ,72% of motorcycle riders and 30% of pillion passengers claimed against a motor car as the vehicle at fault in the accident. Only 4% of motorcycle riders claim against another motorcycle as the vehicle at fault, whereas 58% of injured pillion passengers claim against a motorcycle as the vehicle at fault., and 52% of these are claims against a larger motorcycle with an engine larger than 300cc.

To September 2008 there had been 775 claims made by an injured party against a motorcycle rider as the party at fault in the accident. The largest proportions of these were claims made by injured pillion passengers (38%). As outlined already, pillion passenger claims are on average the most expensive claims in the CTP scheme. 21% of claims against motorcycles are made by other motorcycle riders. Claims made by injured vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle) account for 16% of claims against motorcycles. while 13% of claims against motorcycles are made by injured pedestrians, for which the cost of claims is also relatively high.

#### 6 Motorcyclist Claims by Age

The proportion of claims made by people in the 16 - 24 age group is similar for injured motorcyclists and vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle), as shown in Figure 4 below. However, in the 25-54 age groups there are a greater proportion of injured motorcyclists as compared to vehicle occupants. Conversely this decreases in the >55 age group. There are also a number of younger pillion passengers injured in the 0-15 age groups.

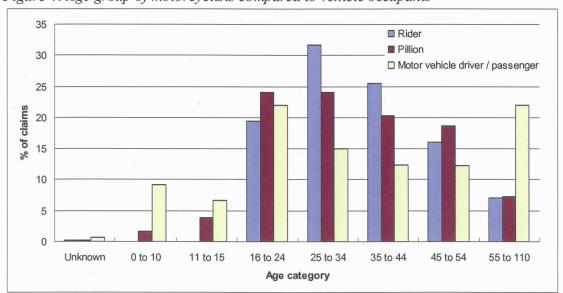


Figure 4: Age group of motorcyclists compared to vehicle occupants

Source: MAA 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

#### 7 Motorcyclist Claims by Gender

92% of motorcycle riders who make a CTP claim are male, but females make up 77% of pillion passengers making a claim. This is in contrast to other vehicle occupants where the proportion of males is 34%.

#### 8 Motorcyclist Claims by Injury Profile

The injury profile is measured using the Maximum Injury Severity Score or MAIS. This is derived from an injury coding system, the Abbreviated Injury Scale (AIS) used to code all injured people in the Scheme. The MAIS is an indication of severity according to threat to life at the time of the injury. For example, a minor injury could be a skin laceration or soft tissue injury whereas a severe injury could be major artery laceration or an extensive skull fracture.

The injury profile in Figure 5 below shows that moderate to severe injuries are sustained by 60% of motorcycle riders and 64% of pillion passengers, as compared to only 28% of vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle).

In contrast minor injuries are sustained by 51% of vehicle occupants and only 27% of motorcycle riders and 24% pillion passengers. Overall motorcycle riders have injuries of a greater severity than vehicle drivers and passengers, and pillion passengers have even greater severity of injuries than motorcycle riders.

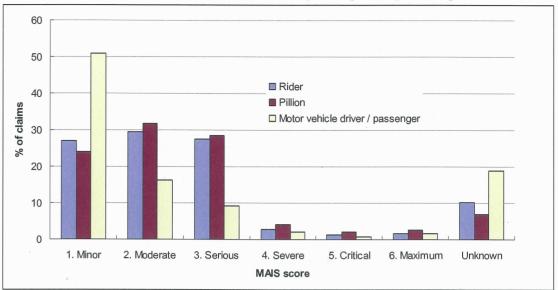


Figure 5: Injury profile of motorcycle riders and pillion passengers compared to vehicle occupants

Source: MAA 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

#### 9 Motorcyclist Claims associated with Fatalities

Since 1999 the average number of claims related to motorcycle rider fatalities per year has been 10.6 and this has been stable. The average number of claims related to fatalities for pillion passengers has been 2.0 per year. A test for trend is not possible for pillion passengers due to low numbers. In comparison the average number of claims related to vehicle occupant fatalities (drivers and passengers of any motor vehicle other than a motorcycle). is 78.1 per year. It should be noted that not all motor vehicle fatalities result in a CTP claim. The RTA collects data on all motor vehicle fatalities. The data reported here relates to people who lodged a CTP claim in relation to their injuries and subsequently died, or a claim for compensation lodged by the relatives of someone killed in a motor vehicle accident.

### **Cyclists**

#### 10 Number of Cyclist Claims

Figure 6 illustrates the actual number of claims lodged by injured cyclists per year since 1999. In general, claim numbers for cyclists have remained stable at an average of 321.0 claims per annum while for vehicle occupants, as shown in Figure 1b above, the number of claims per year has been decreasing with an average annual rate of change of 7% per year.

It is not possible to explore the 'rate' of claiming by cyclists as, unlike registered vehicles, there is no data available to indicate the number of cyclists using the roads.

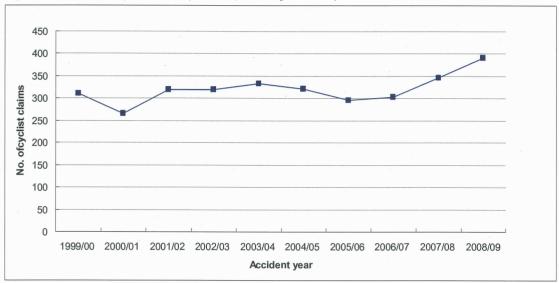


Figure 6: Number of claims, cyclists (all notifications)

Source: MAA

## 11 Average and Median Cyclist Claim Costs

Average and median claims costs for cyclists are calculated according to the same methodology as for motorcyclists, and adjusted for inflation (see section 4). As shown in Figure 7 below, the average cost of a cyclist claim in 1999/00 was \$79,800 compared to \$156,000 in 2006/07. This is a 10% annual average increase in average cost per claim, compared to a 6% increase for vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle). Again the average costs show some volatility due to the small number of claims per year.

The median cost for cyclist claims is a little higher than for vehicle occupants, and these costs have been increasing at a similar rate. The median cost in 1999/00 was \$9,600 for cyclists compared to \$6,500 for vehicle occupants, and this increased to a median cost of \$19,500 for cyclists in 2006/07, compared to \$16,600 for vehicle occupants.

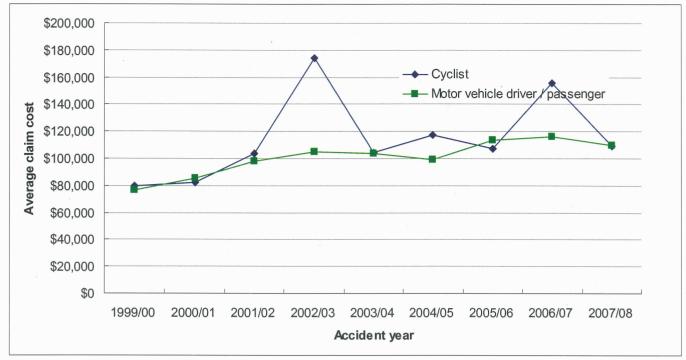


Figure 7: Average claim costs, cyclist and vehicle occupants (all notifications)

Source: MAA Average costs shown have been adjusted for inflation to March 2010. 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

#### 12 Claims by Cyclists

Of the cyclists injured in road crashes who lodge a CTP claim, 71% claim against a motor car as at fault in the accident.

#### 13 Cyclist Claims by Age

The age profile of injured cyclists shown in Figure 8 below indicates a greater proportion of injured cyclists in the 25-54 age groups as compared to vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle). There are also a number of younger cyclists injured in the 0-15 age groups, which is similar to the profile for pillion passengers.

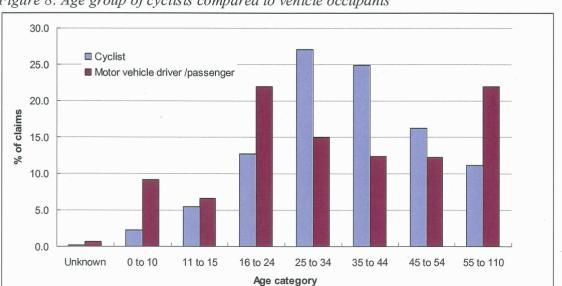


Figure 8: Age group of cyclists compared to vehicle occupants

Source: MAA 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

#### 14 Cyclist Claims by Gender

As with motorcyclists, a higher proportion of CTP claims are made by male cyclists (81%). For vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle) 34% of those making a claim are male.

#### 15 Cyclist Claims by Injury Profile

The injury profile for cyclists is calculated using the same methodology and injury coding system as for motorcyclists (see section 8) and uses the MAIS. It shows that moderate to severe injuries are sustained by 52% of cyclists as compared to 28% for vehicle occupants (drivers and passengers of any motor vehicle other than a motorcycle). In contrast, minor injuries are sustained by 51% of vehicle occupants and only 34% of cyclists. Overall cyclists have injuries of a greater severity than average but are somewhat less severely injured on average than motorcycle riders and pillion passengers.

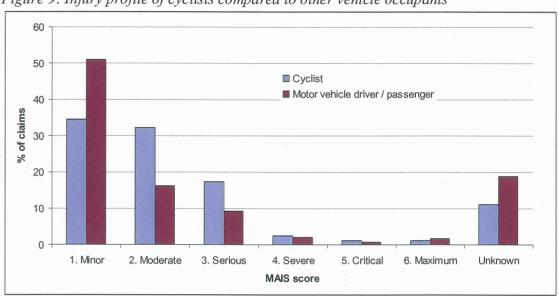


Figure 9: Injury profile of cyclists compared to other vehicle occupants

Source: MAA 'Motor Vehicle driver/passenger' includes all notifications by drivers and passengers of any motor vehicle other than a motorcycle

#### 16 Cyclist Claims associated with Fatalities

The average number of claims relating to cyclist fatalities per year is 4.8, as compared to 78.1 per year for vehicle occupants. However, MAA data is not comprehensive as it only includes fatalities associated with a CTP claim.

# 17 Lifetime Care and Support Scheme Participants<sup>4</sup>

Since October 2007, adults who sustain a catastrophic injury in a motor vehicle accident receive treatment and care through the Lifetime Care and Support Authority (LTCSA), regardless of fault. (This scheme commenced for children in October 2006). To date there are 399 participants in the scheme, 48 of these being children. Table 2 and Figure 10 below show the proportion of motorcyclists, pillion passengers and cyclists in the LTCS scheme, to July 2010.

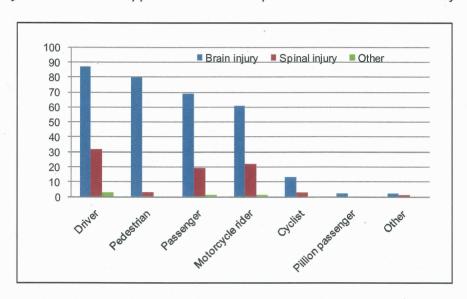
<sup>&</sup>lt;sup>4</sup> Data in this section is reproduced with the permission of the Lifetime Care and Support Authority

Table 2: Lifetime Care and Support Scheme Participants - Role in accident and injury category

Role in Accident	Brain injury	% 5	Spinal injury	%	Other	%
Driver	87	27.7%	32	40.0%	3	60.0%
Pedestrian	80	25.5%	3	3.8%	0	0.0%
Passenger	69	22.0%	19	23.8%	, 1º	20.0%
Motorcycle rider	61	19.4%	22	27.5%	1	20.0%
Cyclist	13	4.1%	3	3.8%	0	0.0%
Pillion passenger	2	0.6%	0	0.0%	0	0.0%
Other	2	0.6%	1	1.3%	0	0.0%
All	314	100.0%	80	100.0%	5	100.0%

<sup>2</sup> participants with both spinal and brain injuries grouped in to spinal injuries

Figure 10: Lifetime Care and Support Scheme Participants - Role in accident and injury category



In total, there are 84 motorcycle riders in the LTCS scheme, which is 21% of the current LTCS scheme participants to date. This is significantly higher than the representation of motorcycle riders in the CTP scheme generally. MAA data to 30/6/10 indicates that, since the scheme commenced in 1999, motorcycle riders have accounted for 4.4% of the full CTP claims lodged with CTP insurers and 1.7% of the ANFs, which is equivalent to 3.9% of all CTP claim notifications over that period.

To date the LTCS Scheme includes only 2 pillion passengers, representing 0.5% of total participants. This is comparable with MAA data which indicates that pillion passengers account for 0.4% of all claim notifications to 30/6/10.

56 of the 84 motorcycle riders in the LTCS Scheme (67%) were injured in single vehicle accidents and would therefore not have been eligible for any benefits prior to the introduction of the LTCS scheme.

For cyclists the numbers are also low, but current data suggests that it this group may be somewhat over-represented in the LTCS Scheme. Currently there are 16 cyclists in the LTCS scheme, which is 4% of the current LTCS scheme participants to date. MAA data indicates that cyclists account for 2.8% of the full claims lodged with CTP insurers, or 2.6% of all claim notifications to 30/6/10

## 18 Further information

The MAA would be pleased to provide further information if required by the Committee.

Contact: John Dietrich (02) 8267 1935