



Transport  
for NSW

Centre for Road Safety

# Serious Injuries in NSW 2005 to 2015

Reporting on methodology and results

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- Centre for Health Record Linkage for conducting the record linkage.
- Aboriginal Health & Medical Research Council for supporting the ongoing data linkage project.
- Independent Hospital Pricing Authority for providing the International Classification of Diseases, 10th Revision, Australian Modification (ICD-10-AM) electronic code lists.
- The State Insurance Regulatory Authority (SIRA) and icare (Lifetime Care) for providing data on Compulsory Third Party insurance claims and Lifetime Care participants.
- ACT Health Directorate for providing access to information in the ACT Admitted Patient Care and ACT Emergency Department Information System data collections.

This serious injury research forms part of the routine monitoring activity undertaken by Transport for NSW to improve road safety for the community. It was approved by the following ethics committees –

- Approved by the NSW Population & Health Services Research Ethics Committee on 19th December 2013.
- Approved by the Aboriginal Health & Medical Research Council Ethics Committee on 24th January 2014.
- Approved by the ACT Health Human Research Ethics Committee on 13th November 2013.

## **4 Background**

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### **4.1 The importance of serious injury data**

The NSW Road Safety Strategy 2012-2021 details a reduction in the fatality rate per population and the serious injury rate per population. These targets are based on a 30 per cent reduction in the number of fatalities and serious injuries by 2021 from the 2008 to 2010 three year average baseline. While the fatality data have been routinely collated and reported consistently for many years, there has been an absence of reliable serious injury data until now.

It is critical that both fatality and serious injury data are available in order to influence the direction of the NSW Road Safety Strategy and the progress towards achieving its targets.

### **4.2 Serious injury reporting in NSW**

Until 1997 NSW relied on NSW Police paper based crash reports to collate the serious injury statistics for NSW. However, in that year the Police moved to a computerised system of crash reporting. One consequence of this change was that for the injury severity variable the serious injury category “admitted to hospital” was no longer available.

Several attempts were made over subsequent years to incorporate land transport related hospital admissions data into the crash data. However, differences in the various definitions of the data and difficulties in gaining timely access to the hospital data stalled the development of a regular and reliable serious injury reporting process.

However, in 2012 a commissioned study to identify serious injuries was undertaken using a data linkage process developed and conducted by Transport and Road Safety (TARS) Research, University of NSW. Following the success of this study, work began in 2013 on a project to refine the process and establish a regular data linkage between Police crash records and NSW hospital records.

The Centre for Road Safety has now established a quarterly process of matching crash data with hospital admissions for identification, monitoring and analysis of serious injuries. This report covers the period 2005 to 2015 (calendar years).

## 5 Project Outline

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### 5.1 Aim

The aim of the data linkage project begun in 2013 was to:

- Develop a regular data linkage between the CRS crash data and NSW Health records in order to improve the road safety decision making process by providing a more detailed and timely picture of the outcomes of road traffic crashes particularly in relation to injury severity.
- Use the collective data to enable measurement of key strategic initiatives and provide evidence for both current and future policy and funding programs.
- Enable researchers to identify and track trends in emerging and previously unidentified road safety issues.

### 5.2 Key steps

The key steps in setting up the regular data linkage process included:

- Conducting a study to assess the feasibility and reliability of serious injuries identification and research through data linkage with hospital admissions.
- Approaching the appropriate Ethics committees with an outline of the research project highlighting that it would also involve ongoing updates of the linked data over an extended but defined length of time
- Centre for Road Safety consultation regarding the research questions to be addressed by the linked data and the documentation of these questions
- Liaise with the data custodians and Centre for Health Record Linkage, NSW Health (CHeReL) to refine and formalise the data linkage process
- Formally obtain Ethics approval for the data linkage process and the research questions to be addressed from these data

### 5.3 The health data linkage process

The record linkage brings together information that relates to the same individual, place or event from different data sources. In this way it is possible to identify casualties from road traffic crashes in NSW and their chronological sequence of health events. CRS has implemented a routine quarterly linkage (including historic data from 2005) which includes the following data collections –

- NSW Ministry of Health data collections -
- NSW Admitted Patient Data Collection - This collection records all admitted patient services provided by New South Wales Public Hospitals, Public Psychiatric Hospitals, Public Multi-Purpose Services, Private Hospitals, and Private Day Procedures Centres.
- NSW Emergency Department Data Collection - This collection provides information about patient presentations to the emergency departments of public hospitals in NSW.

- NSW Mortality Data Collection from the NSW Register of Births, Deaths and Marriages – This collection contains mortality information for deaths occurring in NSW.
- State Insurance Regulatory Authority – Includes CTP claim data and icare (Lifetime Care) participant records
- CRS CrashLink crash reporting database – This collection contains road crash records derived from NSW Police reports of road crashes.

The record linkage is conducted in two parts. Firstly, the linkage of person records between the data collections is conducted by the Centre for Health Record Linkage (CHeReL). In bringing together these records, the CHeReL uses strict privacy preserving protocols which ensure the security of the data and confidentiality of the individuals and their related records. This process includes -

- Custodians of the data collections to be linked provide the CHeReL with an encrypted source record number and demographic details for each record in their dataset. Note that clinical data is not provided to the CHeReL.
- The CHeReL links these records using probabilistic matching of the personal identifying information (e.g. name, address, date of birth, gender) to match records between different datasets, and assigns a Project Person Number (PPN) for records that belong to the same person. The CHeReL PPN and the associated source record numbers form the CHeReL Master Linkage Key (MLK). The MLK provides a 'pointer' to records for a person in different datasets. The CHeReL sends each data custodian a list of PPNs and the associated encrypted source record numbers for their database.

Next, the health, SIRA and crash data are linked. The respective data custodians provide input files which include PPNs and approved variables. The CRS project team load the files into a database and then matches all the records from the different datasets for a person using the PPN. The data linkage process also requires a 'crash date' to match records; an agreed approach is to link a hospital record to a crash record if the personal identifying information is probabilistically matched, and the hospital admission was on the same day or the next day after the crash. This avoids linking a hospital record to an unrelated crash. However, this can result in some missed links.

Approved CRS researchers are then able to analyse the de-identified analytical views of matched and unmatched data.

This process ensures that:

- CHeReL staff performing the linkage use demographic variables but do not have access to the clinical information about individuals;
- Data custodians only have access to data within their data collections; and
- Researchers receive data which contains no identifying variables, or variables which provide a link back to the CHeReL MLK.

## 5.4 Serious injuries

Evidence on serious injuries in NSW revolves around three major concepts which are derived from the four main datasets (as illustrated in Figure 5-1).

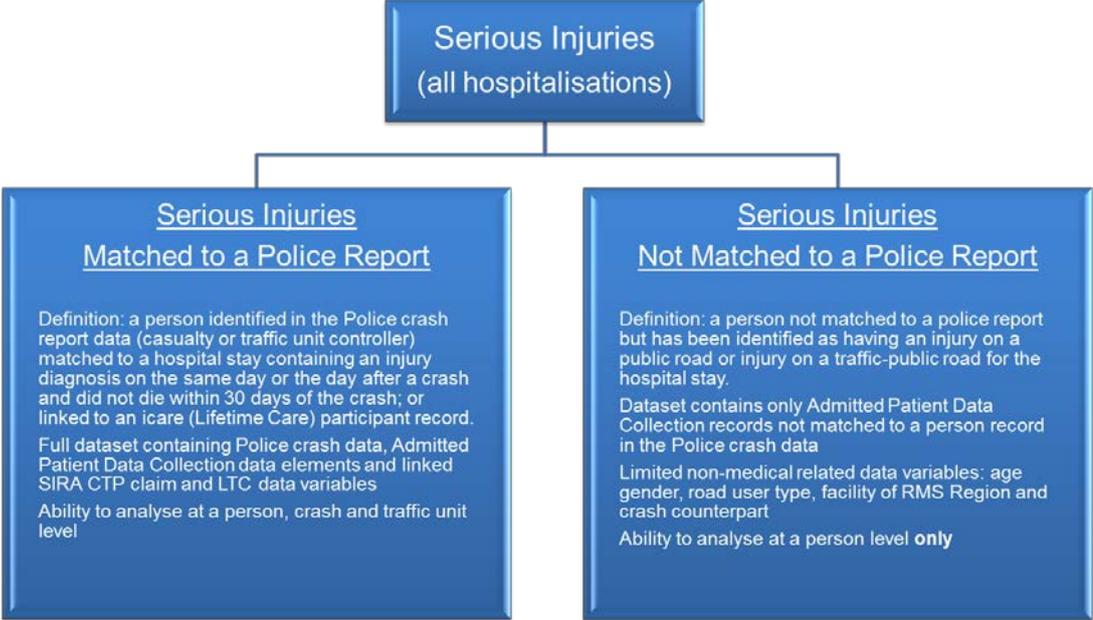


Figure 5-1: Composition of serious injury datasets

At a high level, serious injuries in NSW are considered to be all road related injuries admitted to hospitals, based on hospital admissions records. Whilst there are concerns about quality and completeness of coding the cause of injuries in hospitals, there is still a strong enough reason to use hospital admissions as an indicator for road related serious injuries in NSW.

Of course from the big pool of all hospitalised injuries, only a subset of injuries could be matched to the police crash reports. For the remaining injuries, there is no crash details available which means they are of lesser use in road safety policy and program development but they still help understanding the big picture.

All hospital records are coded to the International Classification of Diseases, 10th Revision, Australian Modification (ICD-10-AM). This standardised coding system has a detailed variable for identifying the cause of the injuries sustained, termed the 'external cause code'. External cause codes V01 – V89 identify hospital admissions resulting from land transport accidents. All hospital records where the person was not matched to a police report were then disaggregated into public road, private road, off-road, unspecified road or missing road categories. CRS reporting is limited to land transport accidents on public roads. Other categories are excluded analysis.

## 5.5 Why some transport related hospital records are not matched to crashes and casualties reported to Police

Research is ongoing with regards to reasons why there are serious injuries not matched to police reports, however some potential reasons have been identified as:

- The crash was not reported to the police at all (i.e. police did not attend the scene of the crash and/or the individuals involved in the crash did not alert the police).
- The crash was reported to the police, however the casualty was not identified (e.g. the casualty had departed from the scene of the crash prior to police attendance).
- Probabilistic data linkage errors - the personal details of the casualty were incomplete or incorrect on either of the CrashLink or hospital records, resulting in a missed linkage.
- The cause of the injury was incorrectly identified on the hospital record as resulting from a public roadway crash.
- The casualty was admitted to hospital more than 1 day after the crash.

This research also found differing levels of non matching with hospital records by class of road user. The possible reasons for this include:

- The personal details of vehicle drivers in crashes are always recorded, thus proportions of car driver serious injuries not matched to police reports are small.
- The personal details of passengers in crashes are only recorded if police identify them as being injured, thus proportions of car passenger serious injuries not matched to police reports are larger than drivers.
- When pedal cyclists are in a collision with a vehicle the crash is often reported (e.g. due to the severity of injuries or for insurance purposes), thus proportions of pedal cyclist serious injuries from vehicle collisions that are not matched to police reports are small.
- When pedal cyclists are in non-collision crashes (e.g. falling from the bike) the crash is often not reported (e.g. the cyclist is unaware it should be reported or it is not considered a road crash incident), thus proportions of pedal cyclist serious injuries from non-collisions that are not matched to police reports are large.
- When motorcyclists are in a collision with a vehicle the crash is often reported (e.g. due to the severity of injuries or for insurance purposes), thus proportions of motorcyclist serious injuries from vehicle collisions that are not matched to police reports are small.
- When motorcyclists are in non-collision crashes (e.g. falling from the motorcycle) the crash is often not reported (e.g. the motorcyclist may not want to involve police, or may not want to report the crash if illegal behaviour was involved), thus proportions of motorcyclist serious injuries from non-collisions that are not matched to police reports are large.

The specific issues identified with probabilistic data linkage and hospital data coding include:

- Probabilistic matching of personal identifying information is performed in a staged process; the number and type of variables that match are assigned scores, then potential matches with scores within certain limits are automatically assigned as matches/non-matches, while those with scores outside the limits undergo clerical review – these procedures minimise data linkage errors, however false positive matches were estimated to be 0.4 per cent, while false negative matches were estimated to be 0.5 per cent.
- Hospital record coding of the external cause of the injury is not perfect – one study of a sample of Australian hospitals indicated that 13 per cent of records identified as public road crash casualties were, in fact, not public road crash casualties.
- Studies of hospital records that linked to CrashLink records indicated that 11 per cent of public road crash casualties identified in CrashLink, were not identified as public road crash casualties on their matched hospital record.
- Compared with using a date limit for a successful match of a hospital record to a CrashLink record as either the same day or one day after the crash date (+1); using up to two days after the crash (+2) increased the number of matches by 1.1 per cent, using up to 5 days (+5) increased matches by 3.6 per cent, while using up to 10 days (+10) increased matches by 7.1 per cent - some of these additional matches may have, in fact, been related to the crash, therefore the data linkage method used of +1 days may under-enumerate the total number of serious injuries matched to police reports (and correspondingly over-enumerate the number of Serious injuries not matched to police reports).

## **5.6 Comparative data linkage (matching) rates**

The overall data linkage (matching) rate is the proportion of all hospital admissions resulting from public roadway crashes that linked to police reports.

The overall linkage rate for NSW from 2005 to 2015 was 55 per cent. This linkage rate is comparable to other studies in Australian jurisdictions and other countries as Figure 5-2 reveals on the next page.

**Figure 5-2: Linkage rates in other studies**

<b>Comparative linkage rates</b>	<b>%</b>
NSW, 2000-2001	56.2%
Western Australia, 1987-1988	64%
New Zealand, 1995	63%
Southern England, 1995-1998	61%
Great Britain, 1999-2009	32%
Hong Kong, 2004	57.5% to 59.9%

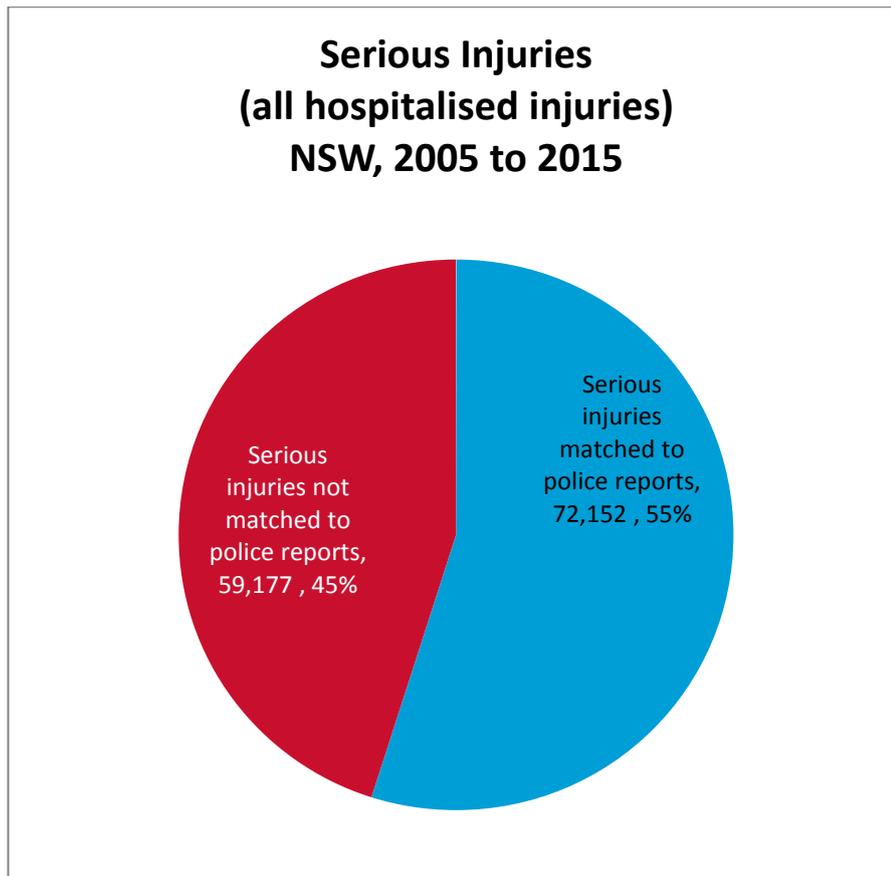
(Source: Presentation to Centre for Road Safety by Transport and Road Safety (TARS) Research, School of Aviation, University of NSW titled "In-depth characteristics of injurious road trauma in NSW, 2001-2011)

## 6 Descriptive Results

### 6.1 Overview

Over the 11 year period 2005 to 2015 there were more than 131,000 persons seriously injured on NSW roads. Over half of these (55 per cent) matched to a person involved in a crash reported to NSW police.

**Figure 6-1: Serious injuries, NSW, 2005 to 2015**

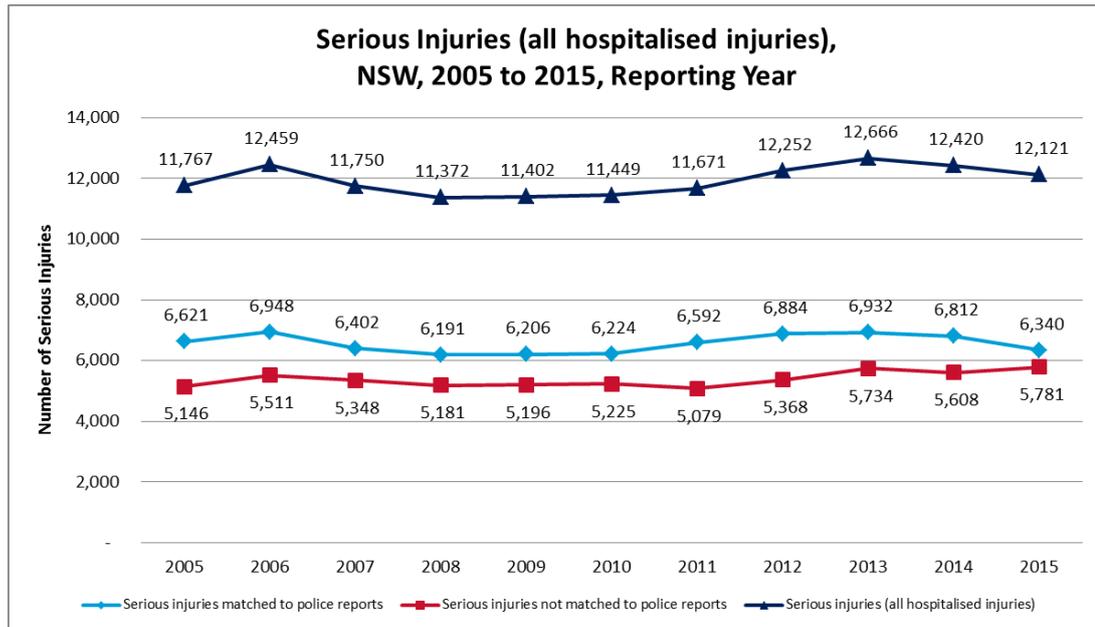


(see Table 1)

After increasing in 2006, serious injuries decreased in 2007 and again in 2008. For the next five years serious injuries gradually increased but fell again in 2014 and 2015.

Over the eleven year period total serious injuries have increased by 3 per cent largely due to a 12 per cent increase in serious injuries not matched to a police report. Serious injuries matched to a police report decreased by 4 per cent over the same period.

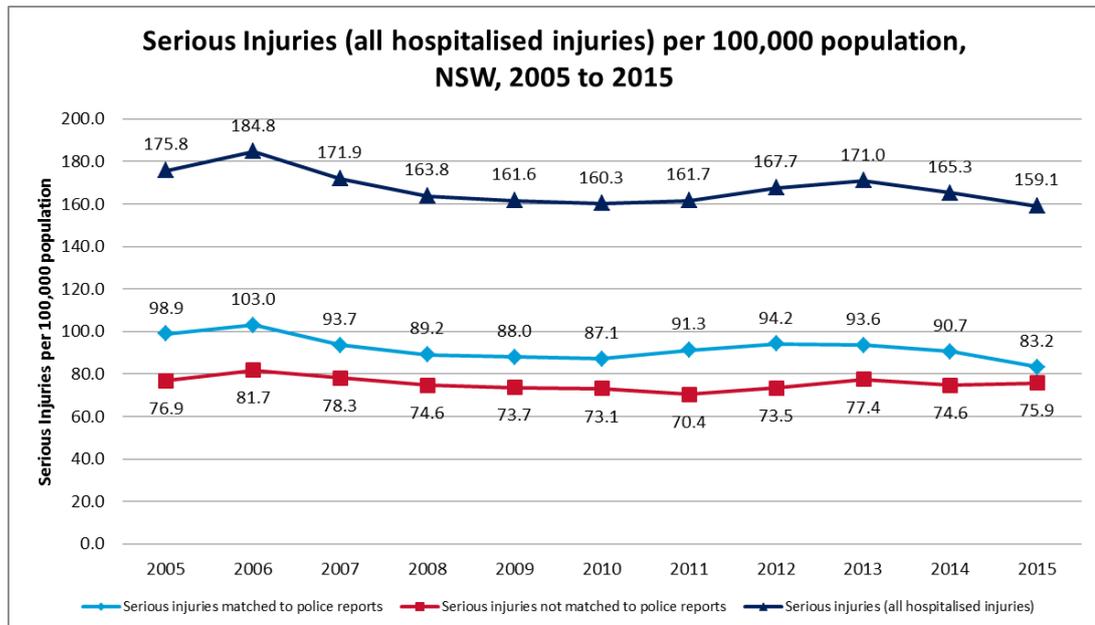
**Figure 6-2: Trends in serious injuries, NSW, 2005 to 2015**



(see Table 2)

Figure 6.3 shows the trend in serious injury rates per 100,000 population for serious injuries matched to police reports, serious injuries not matched to police reports and total serious injuries (all hospitalised injuries). Over the eleven year period there have been rate reductions for both matched and unmatched serious injuries, with matched serious injuries having the largest decrease.

**Figure 6-3: Trends in serious injury rates (per 100,000 population), NSW, 2005 to 2015**



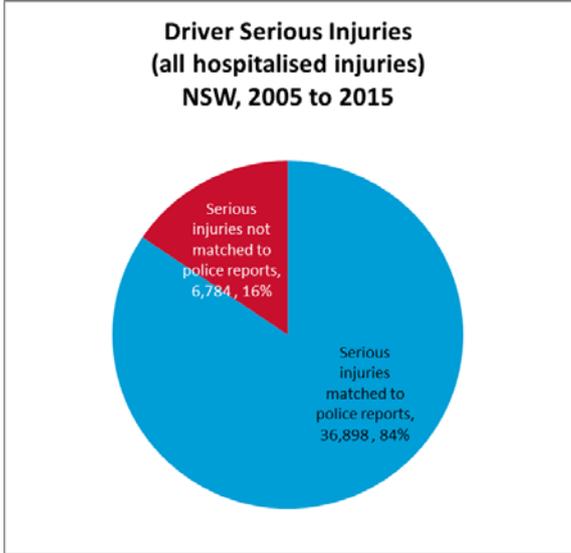
(see Table 3)

6.1.1 Road user type

Drivers

Between 2005 and 2015 there were almost 44,000 drivers seriously injured on NSW roads. The vast majority (84 per cent) of these were matched to a person involved in a crash reported to police.

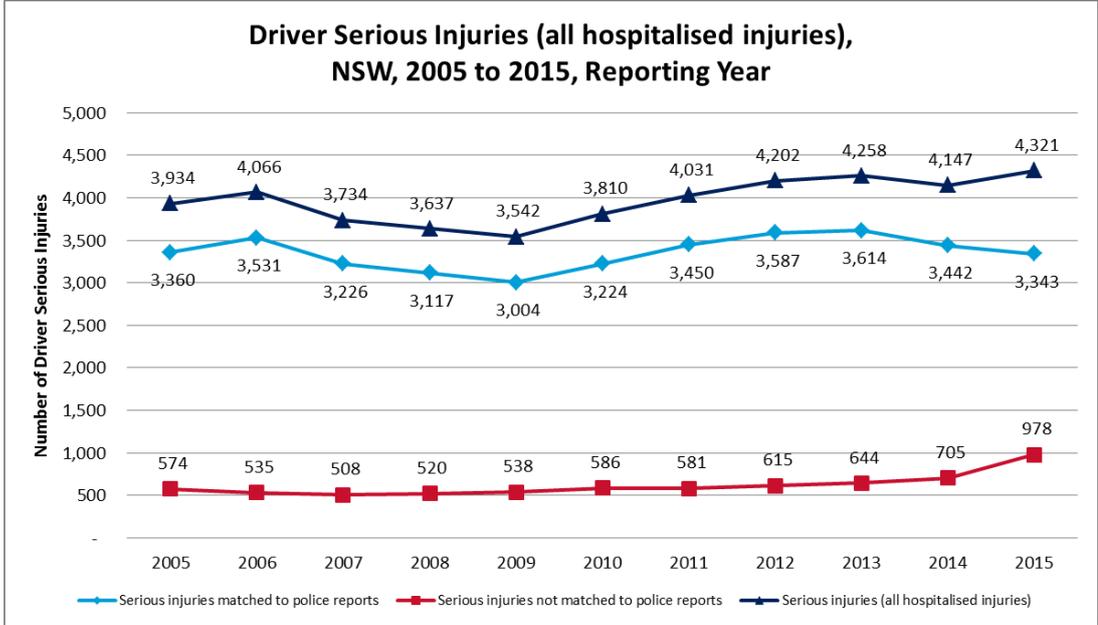
Figure 6-4: Driver serious injuries, NSW, 2005 to 2015



(see Table 4)

Total driver serious injuries decreased between 2006 and 2009 but have since increased. This trend is largely replicated for both the matched and unmatched serious injuries series until 2015 when the number of serious injuries matched to a police report decreased over the last 12 months (by 3 per cent) whilst the number of serious injuries not matched to a police report increased (by 39 per cent).

Figure 6-5: Trends in driver serious injuries, NSW, 2005 to 2015

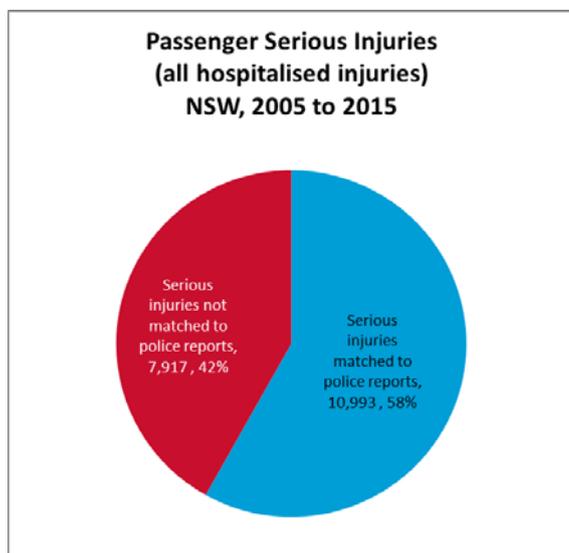


(see Table 5)

## Passengers

Over the 11 year period 2005 and 2015 there were almost 19,000 passengers seriously injured in NSW. The majority (58 per cent) of these were matched to a police report.

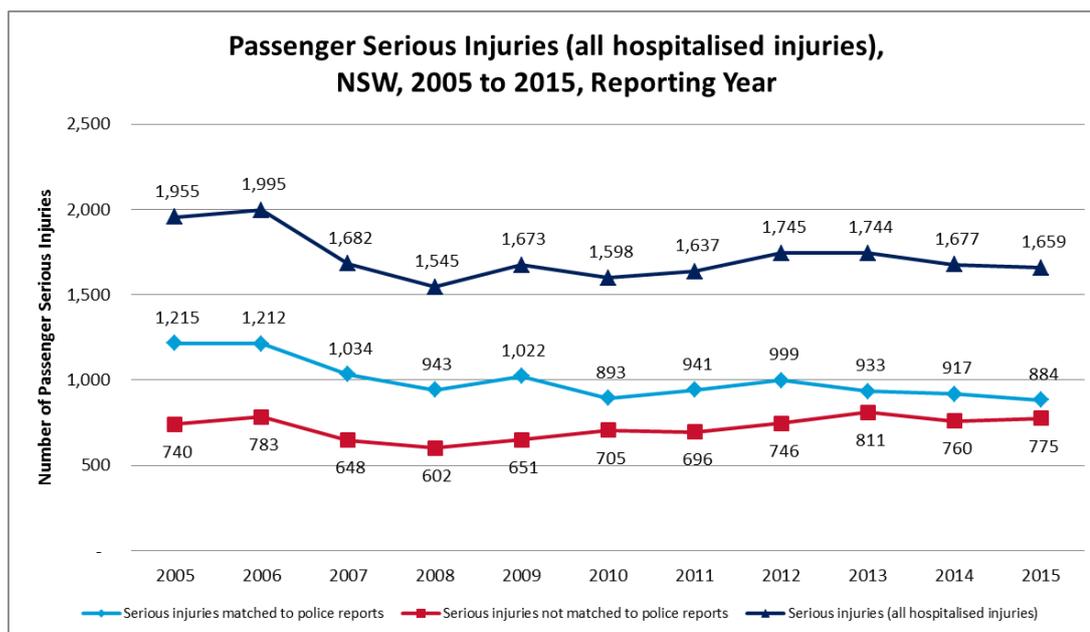
**Figure 6-6: Passenger serious injuries, NSW, 2005 to 2015**



(see Table 6)

Between 2005 and 2015 the total number of passenger serious injuries has decreased by 15 per cent. This is largely due to a 27 per cent decrease in passenger serious injuries matched to police reports offset by a 5 per cent increase in passenger serious injuries not matched to police reports.

**Figure 6-7: Trends in passenger serious injuries, NSW, 2005 to 2015**

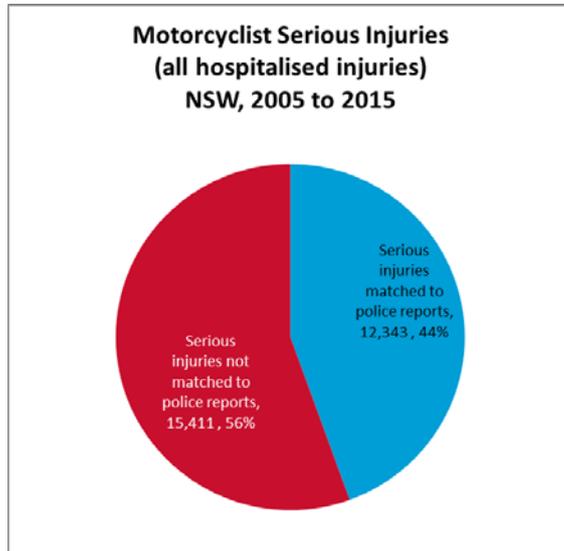


(see Table 7)

## Motorcyclists

Between 2005 and 2015 almost 28,000 motorcyclists were seriously injured on NSW public roads. More than half (56 per cent) of these motorcyclists seriously injured were not matched to a police report.

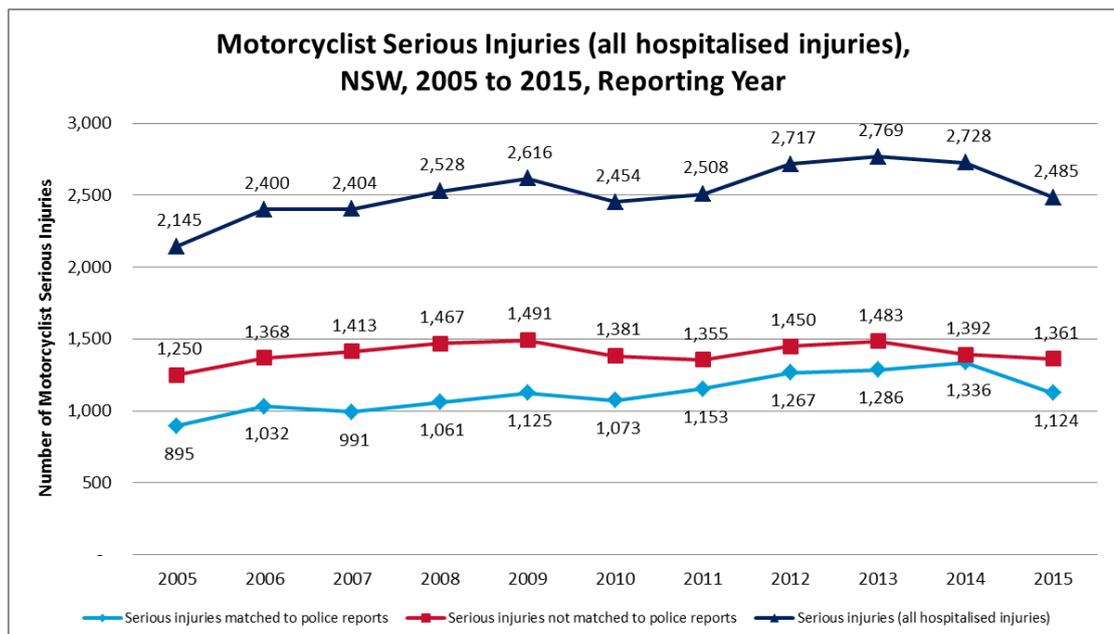
**Figure 6-8: Motorcyclist serious injuries, NSW, 2005 to 2015**



(see Table 8)

Between 2005 and 2014 there has been an overall upward trend in the number of motorcyclists seriously injured. However, between 2014 and 2015 there has been a notable 9 per cent decrease in the total number of motorcyclists seriously injured, largely generated by a decrease in matched serious injuries.

**Figure 6-9: Trends in motorcyclist serious injuries, NSW, 2005 to 2015**

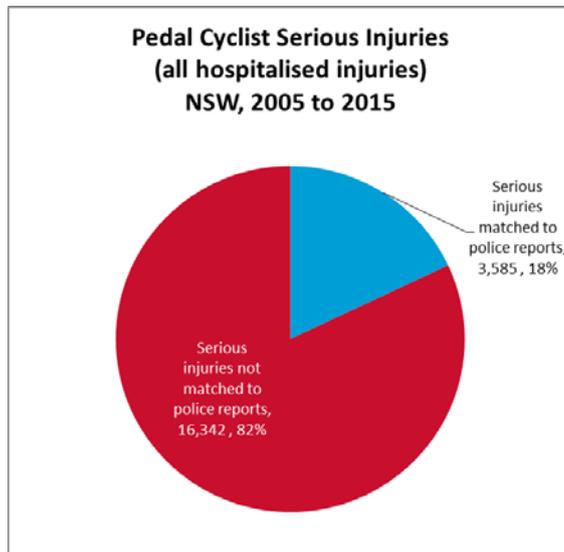


(see Table 9)

## Pedal cyclists

Approximately 20,000 pedal cyclists were seriously injured on public roads in NSW between 2005 and 2015. A substantial majority (82 per cent) of these pedal cyclists admitted to hospital were not matched to a police report.

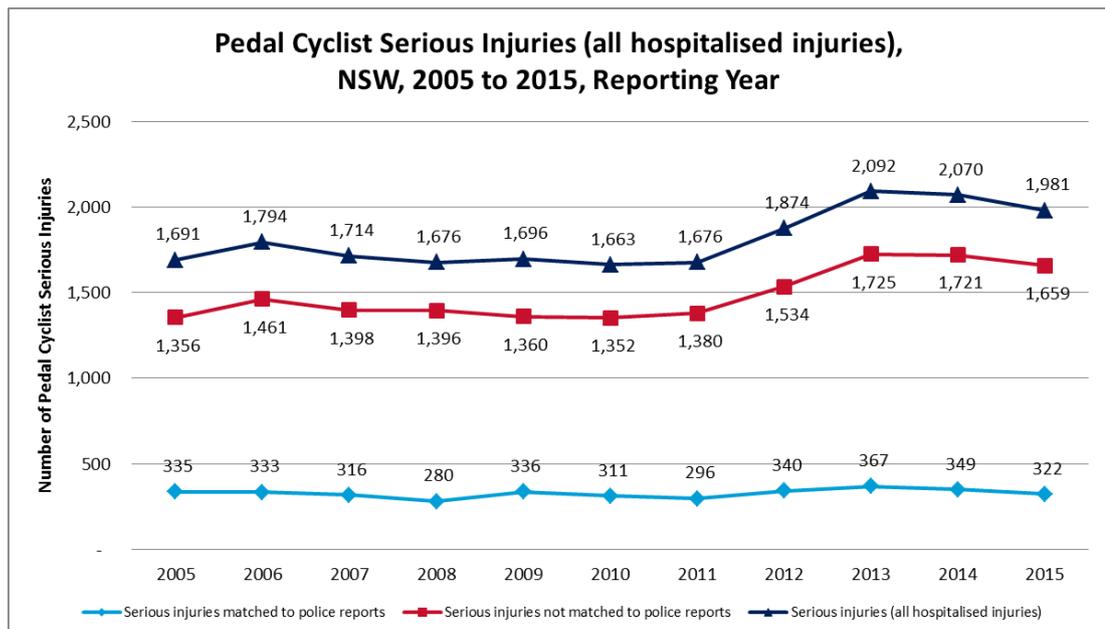
**Figure 6-10: Pedal cyclist serious injuries, NSW, 2005 to 2015**



(see Table 10)

The pedal cyclist serious injury trend was relatively stable between 2006 and 2011 but increased markedly in 2012 and again in 2013. Over the last two years this upward trend has been reversed.

**Figure 6-11: Trends in pedal cyclist serious injuries, NSW, 2005 to 2015**

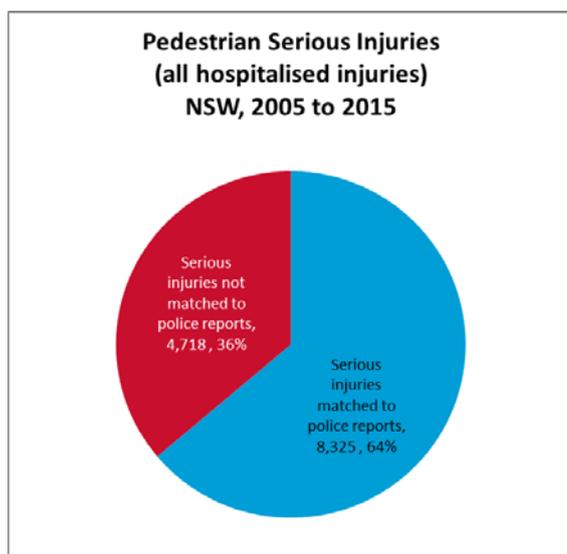


(see Table 11)

## Pedestrians

Just over 13,000 pedestrians were seriously injured on public roads in NSW between 2005 and 2015. Sixty four per cent of these pedestrians admitted to hospital were matched to a police report.

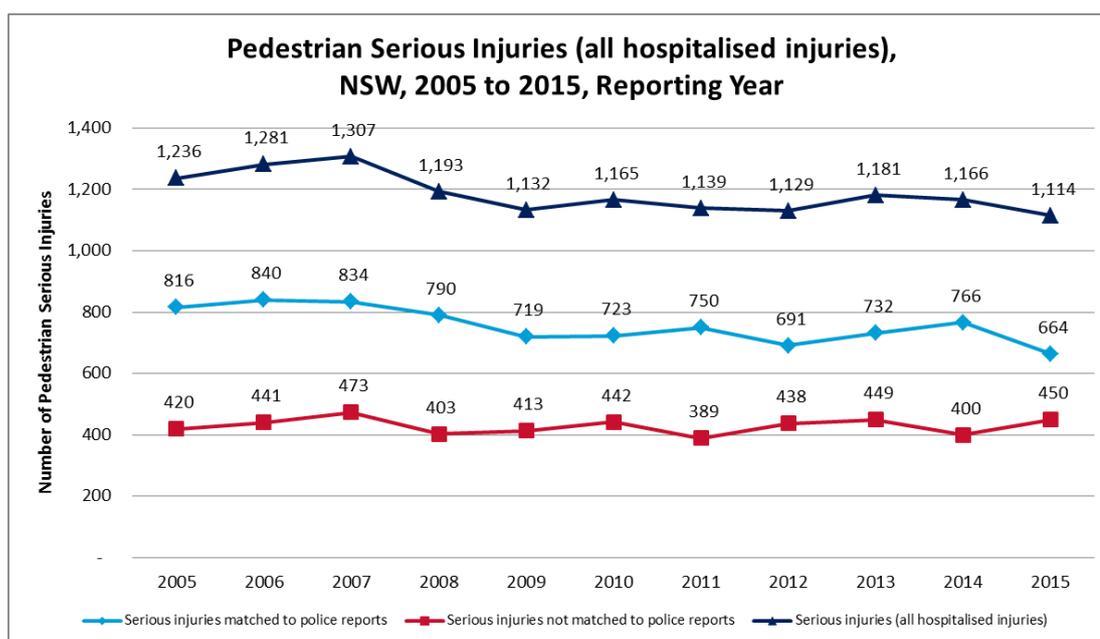
**Figure 6-12: Pedestrian serious injuries, NSW, 2005 to 2015**



(see Table 12)

The total number of pedestrian serious injuries has remained relatively stable between 2009 and 2014. In 2015 total pedestrian serious injuries fell by 4 per cent, due to a 13 per cent reduction in matched serious injuries offset by a 13 per cent increase in unmatched serious injuries.

**Figure 6-13: Trends in pedestrian serious injuries, NSW, 2005 to 2015**



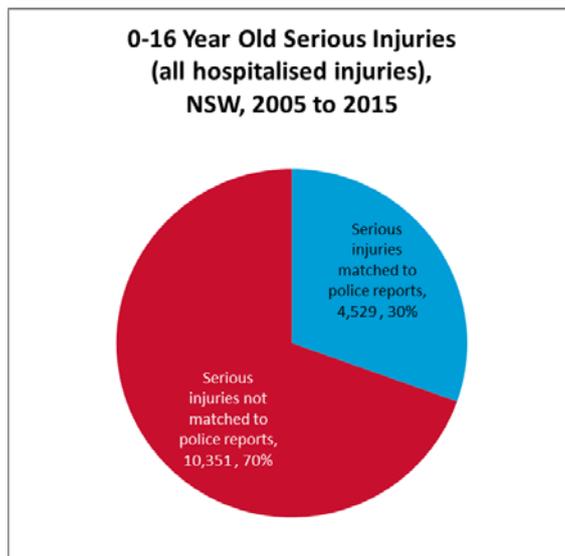
(see Table 13)

## 6.1.2 Age group

### 0-16 years

Almost 15,000 0-16 year olds were seriously injured on NSW roads over the eleven year period from 2005 to 2015. Just 30 per cent of these children were matched to a police report.

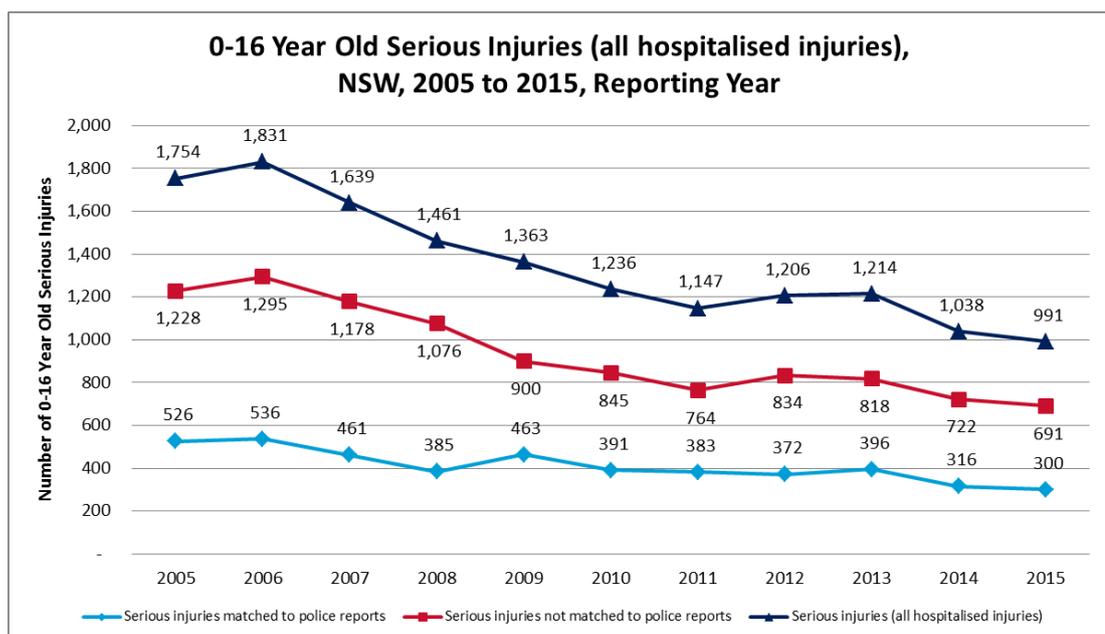
**Figure 6-14: 0-16 year old serious injuries, NSW, 2005 to 2015**



(see Table 14)

Since 2006 the total number of 0-16 year olds seriously injured has almost halved. This downward trend is reflected in both matched and unmatched data.

**Figure 6-15: Trends in 0-16 year old serious injuries, NSW, 2005 to 2015**

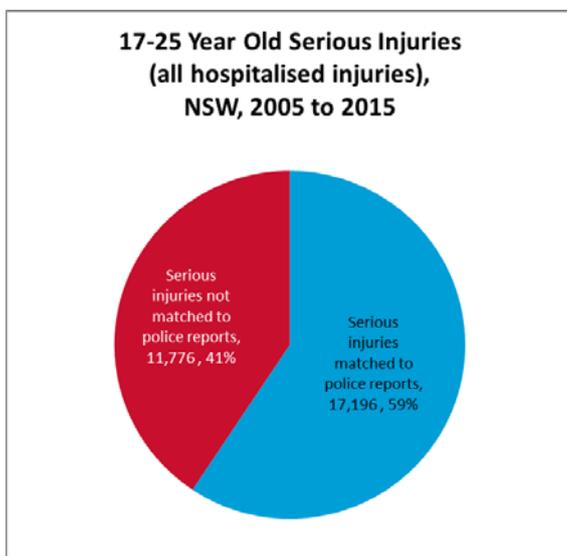


(see Table 15)

## 17-25 years

Almost 29,000 17-25 year olds were seriously injured over the eleven years ending 2015. The majority (59 per cent) of these young adults admitted to hospital were matched to a police report.

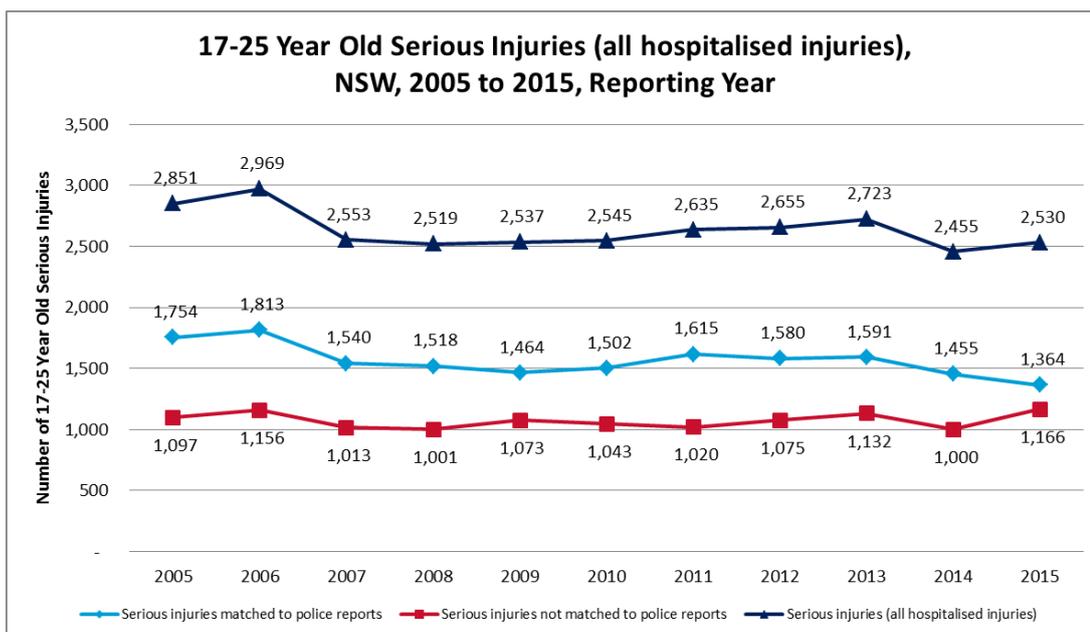
**Figure 6-16: 17-25 year old serious injuries, NSW, 2005 to 2015**



(see Table 16)

Between 2008 and 2013 there has been a gradual increase in serious injuries among 17-25 years olds. In the two subsequent years the number was lower due to a 14 per cent reduction in matched serious injuries.

**Figure 6-17: Trends in 17-25 year old serious injuries, NSW, 2005 to 2015**

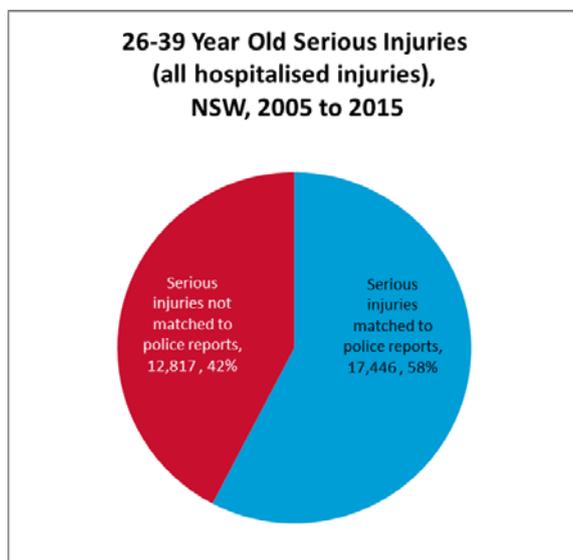


(see Table 17)

## 26-39 years

Over 30,000 26-39 year olds were seriously injured over the eleven years commencing 2005. The majority (58 per cent) of these were matched to a police report.

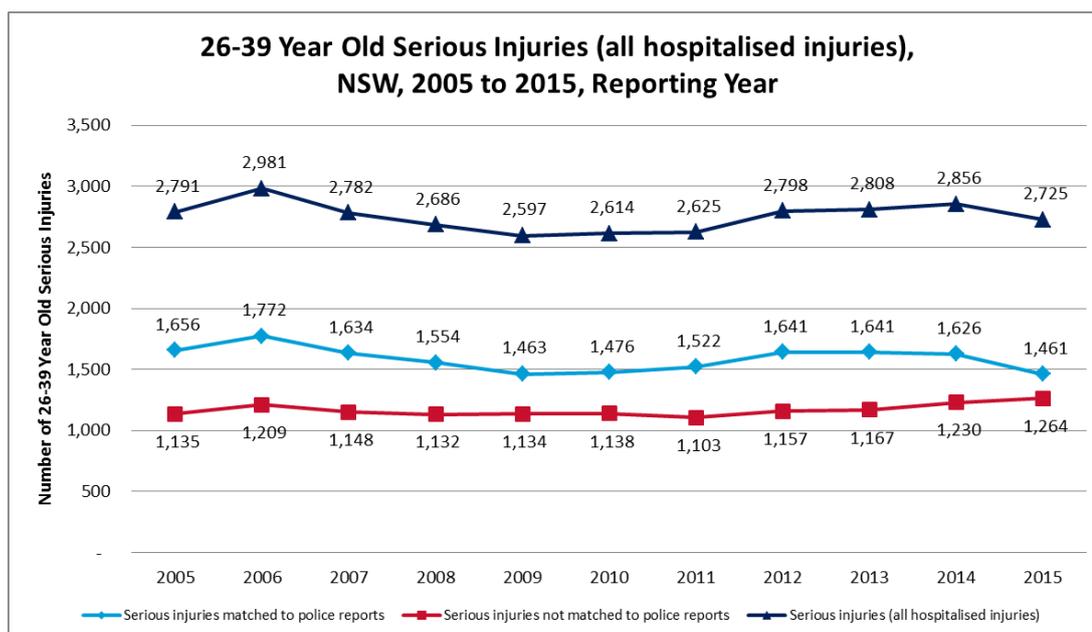
**Figure 6-18: 26-39 year old serious injuries, NSW, 2005 to 2015**



(see Table 18)

Total serious injuries among 26-39 year olds decreased in 2015 after a three year period of stability. Again this reduction was driven by a fall in matched serious injuries which was largely offset by a rise in unmatched serious injuries.

**Figure 6-19: Trends in 26-39 year old serious injuries, NSW, 2005 to 2015**

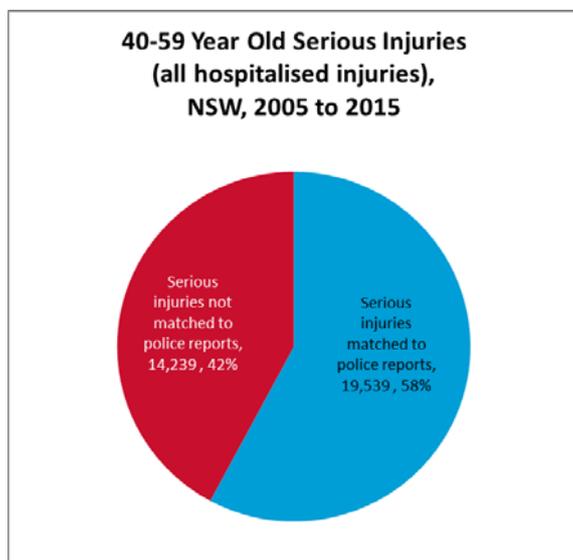


(see Table 19)

## 40-59 years

Over the eleven year period 2005 and 2015 there were almost 34,000 40-59 year old people seriously injured on NSW roads. The majority (58 per cent) of these were matched to a police report.

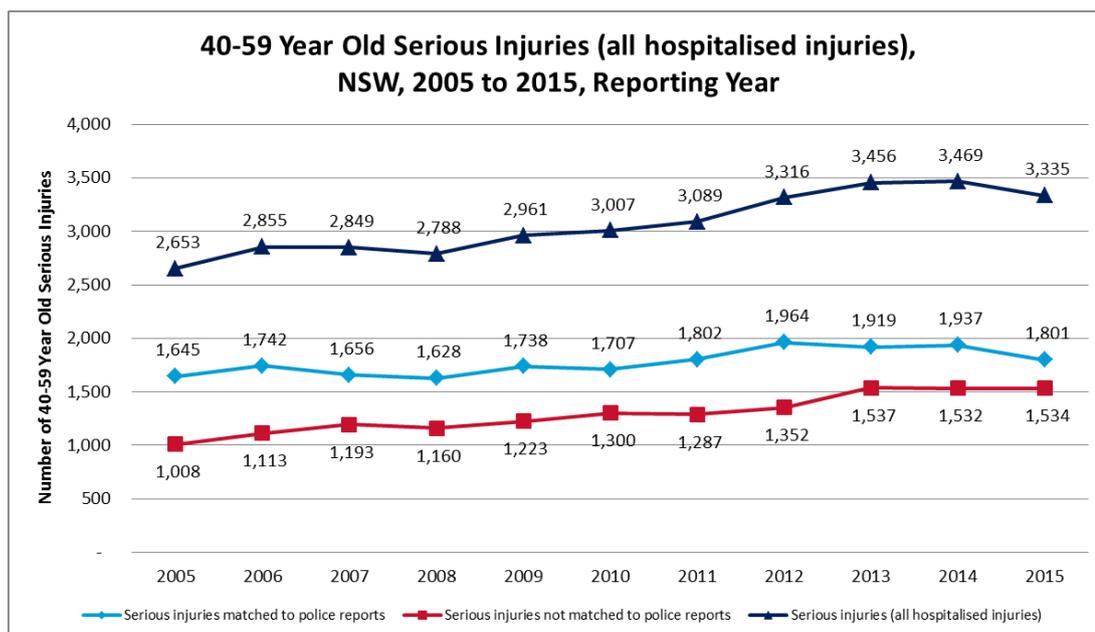
**Figure 6-20: 40-59 year old serious injuries, NSW, 2005 to 2015**



(see Table 20)

Total serious injuries among 40-59 year olds fell in 2015 after steady increases over the preceding six years. This trend reversal was due to a decrease in matched serious injuries.

**Figure 6-21: Trends in 40-59 year old serious injuries, NSW, 2005 to 2015**

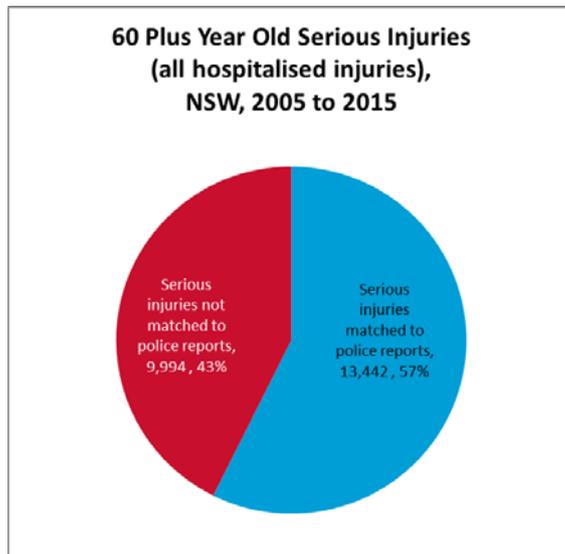


(see Table 21)

## 60 plus years

Over the eleven year period 2005 and 2015 there were over 23,000 60 plus year olds seriously injured in NSW. The majority (57 per cent) of these were matched to a police report.

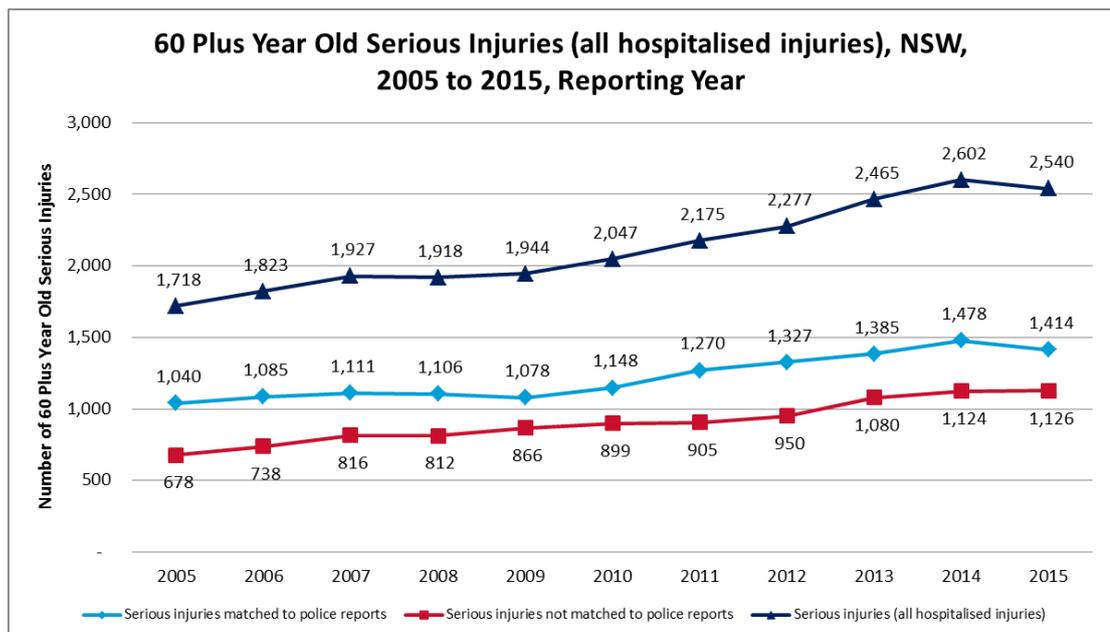
**Figure 6-22: 60 plus year old serious injuries, NSW, 2005 to 2015**



(see Table 22)

For 60 plus year olds there has been a consistent upward trend in total serious injuries between 2005 and 2014. In 2015 this trend was reversed brought about by a reduction in matched serious injuries.

**Figure 6-23: Trends in 60 plus year old serious injuries, NSW, 2005 to 2015**



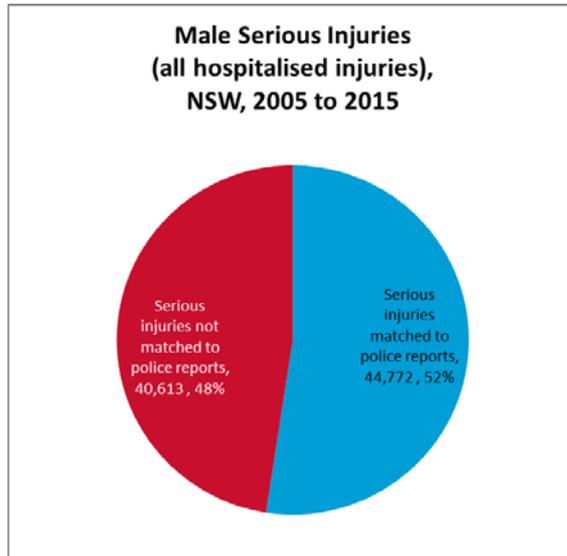
(see Table 23)

### 6.1.3 Gender

#### Males

There were over 85,000 males seriously injured in road crashes on NSW public roads between 2005 and 2015. Over half (52 per cent) were matched to a police report.

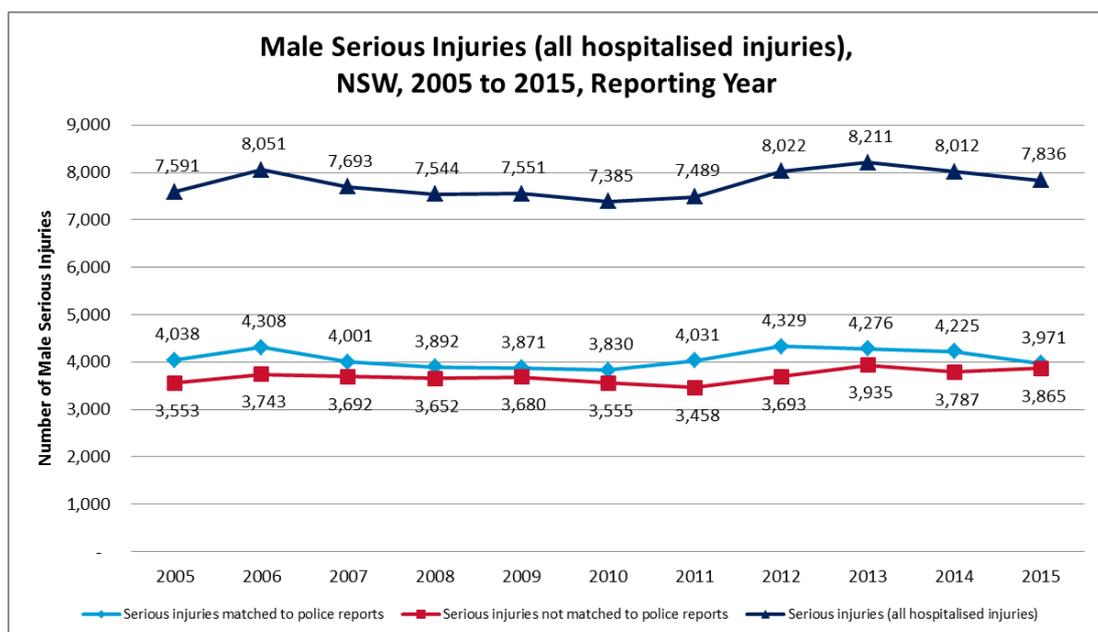
**Figure 6-24: Male serious injuries, NSW, 2005 to 2015**



(see Table 24)

Over the 5 year period 2007 to 2011 the number of males seriously injured remained relatively stable before rising in 2012 and 2013. Over the last two years male serious injuries have fallen.

**Figure 6-25: Trends in male serious injuries, NSW, 2005 to 2015**

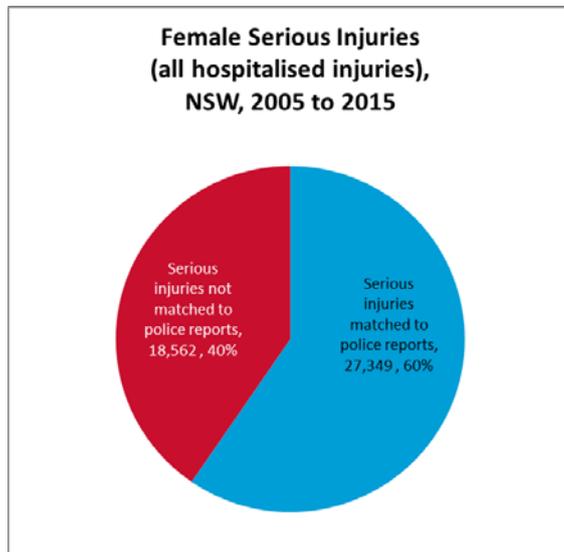


(see Table 25)

## Females

There were almost 46,000 females seriously injured in road crashes on NSW public roads between 2005 and 2015. The majority (60 per cent) were matched to a police report.

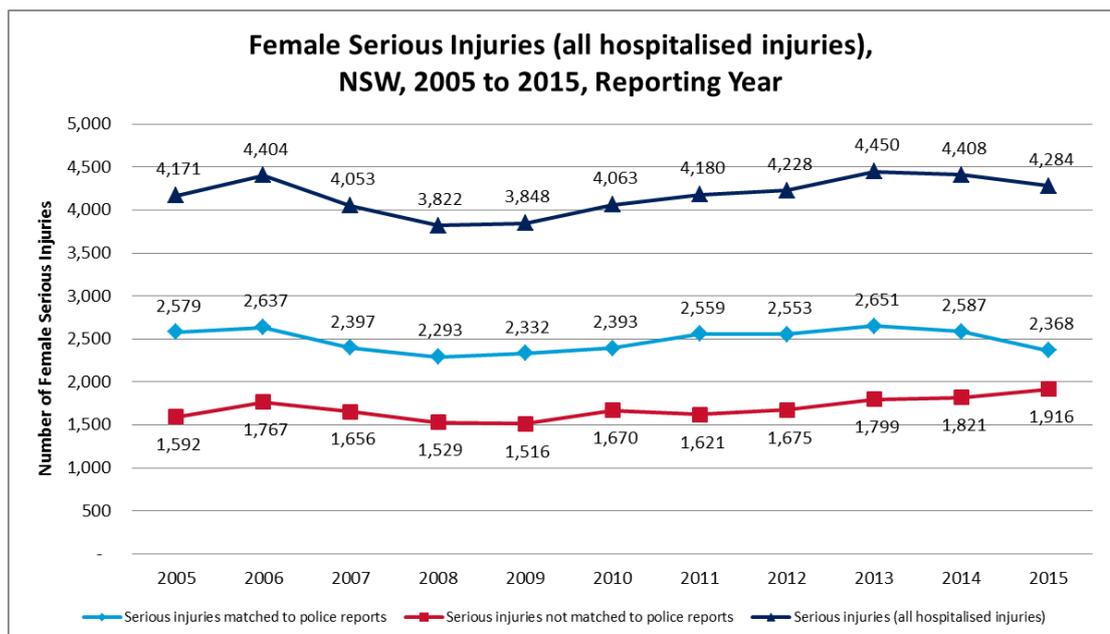
**Figure 6-26: Female serious injuries, NSW, 2005 to 2015**



(see Table 26)

For five consecutive years between 2008 and 2013 the number of female serious injuries increased. This trend was reversed over the following two years.

**Figure 6-27: Trends in female serious injuries, NSW, 2005 to 2015**



(see Table 27)

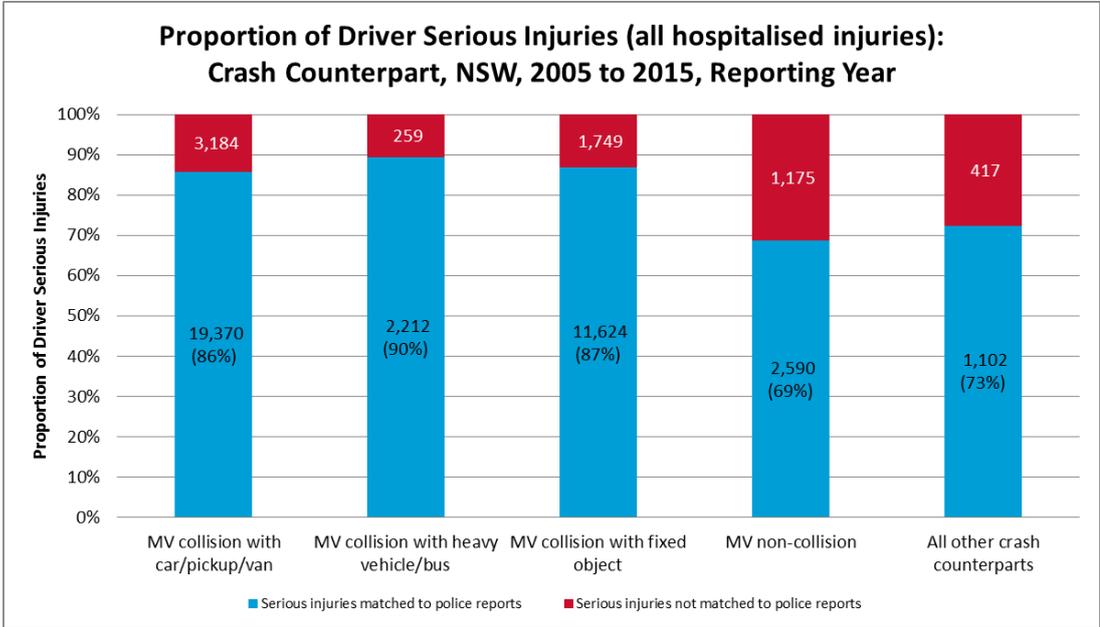
### 6.1.4 Road user type by crash counterpart

The crash counterpart variable is derived from hospital records and police data and is a means of describing the crash type and the vehicles involved in the crash for each serious injury. For unmatched serious injuries it is derived from the diagnostic codes in the hospital data. For matched serious injuries it is derived from a combination of variables in the police data (first impact type, role in the first impact, road user group, traffic unit type).

#### Drivers

The overall proportion of drivers seriously injured in crashes matched to a police report was 84 per cent. For drivers involved in non-collision crashes, this rate was slightly lower at 69 per cent.

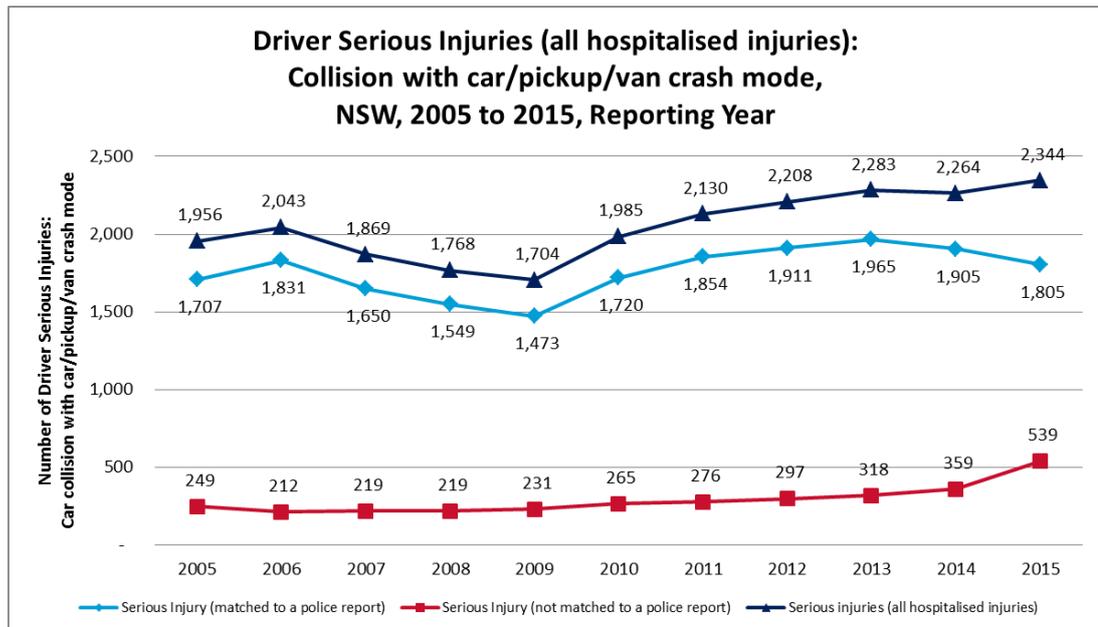
Figure 6-28: Driver serious injuries by crash counterpart, NSW, 2005 to 2015



(see Table 28)

For the 'collision with car/pickup/van' crash mode, there was a downward trend in driver serious injuries from 2006 to 2009. However total driver serious injuries increased from 2010 to 2015 such that total driver serious injuries are now up by 20 per cent on the their 2005 level.

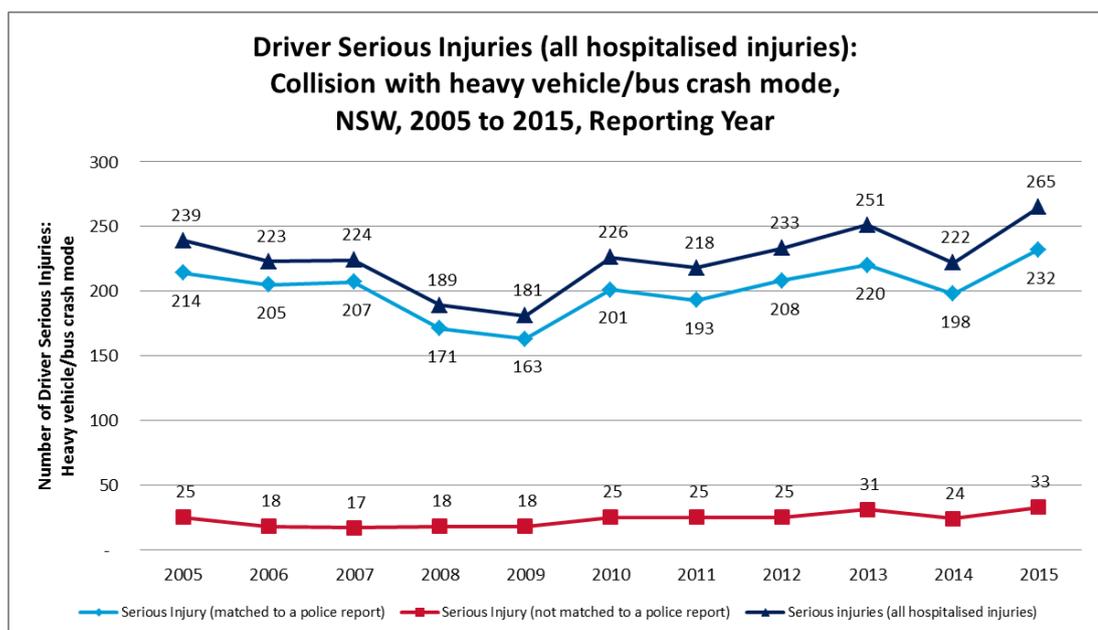
**Figure 6-29: Trends in driver serious injuries arising from a collision with a car/pickup/van, NSW, 2005 to 2015**



(see Table 29)

For the 'collision with heavy vehicle/bus crash' mode, the trend in driver serious injuries has been rising since 2009.

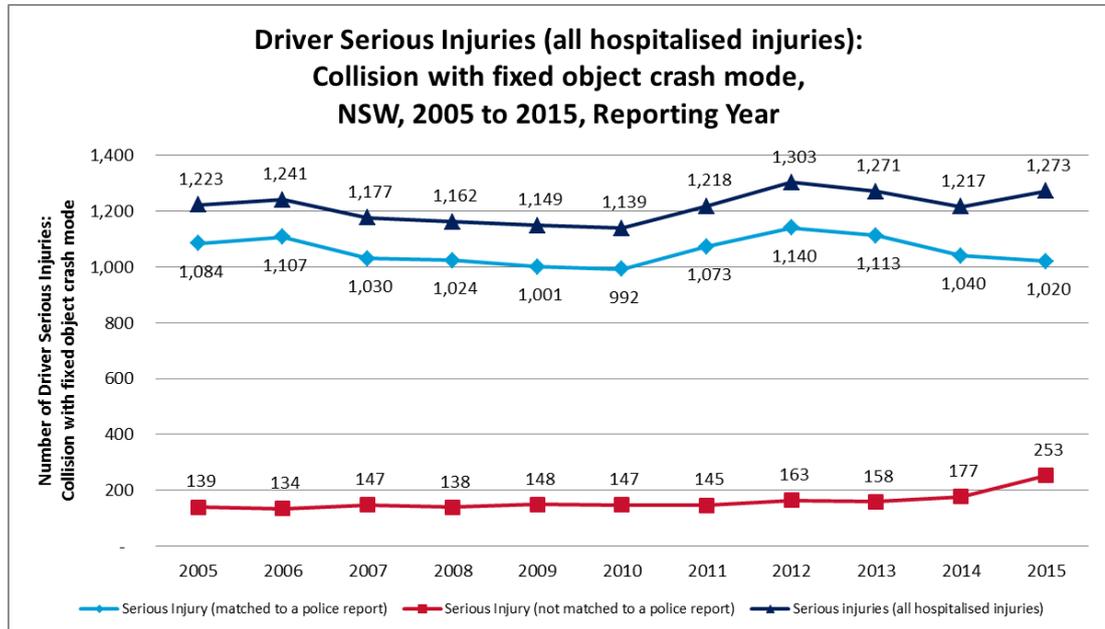
**Figure 6-30: Trends in driver serious injuries arising from a collision with a heavy vehicle/bus, NSW, 2005 to 2015**



(see Table 30)

Between 2006 and 2010 the number driver serious injuries with a 'collision with fixed object' crash mode has trended down but has risen over the following years.

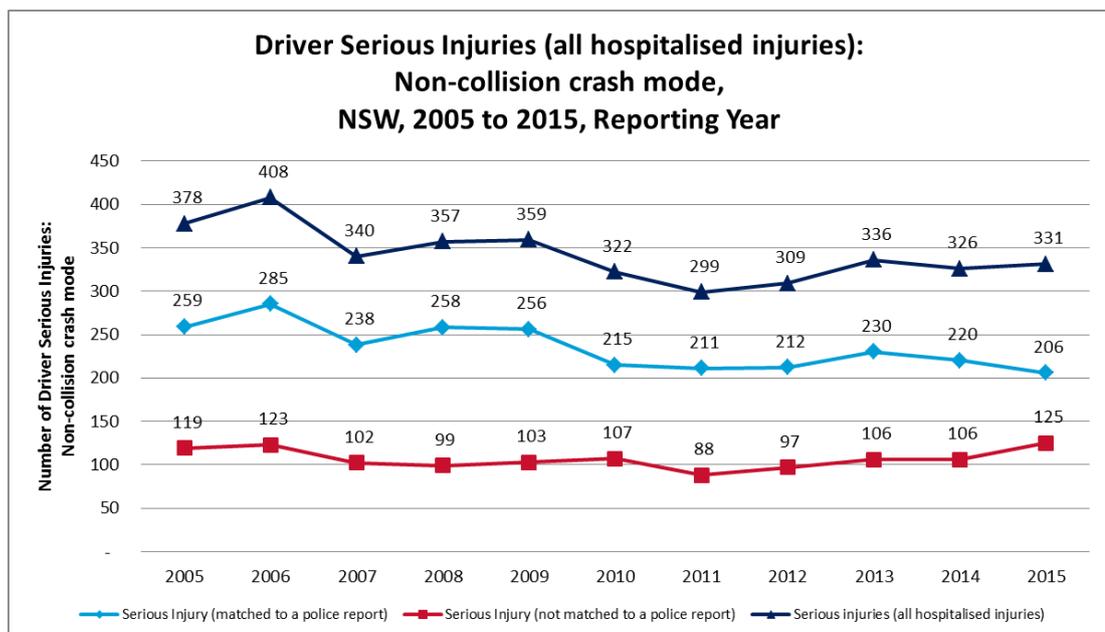
**Figure 6-31: Trends in driver serious injuries arising from a collision with a fixed object, NSW, 2005 to 2015**



(see Table 31)

For the 'non-collision' crash mode, there has been a downward trend in driver serious injuries since 2006, before increasing in 2011.

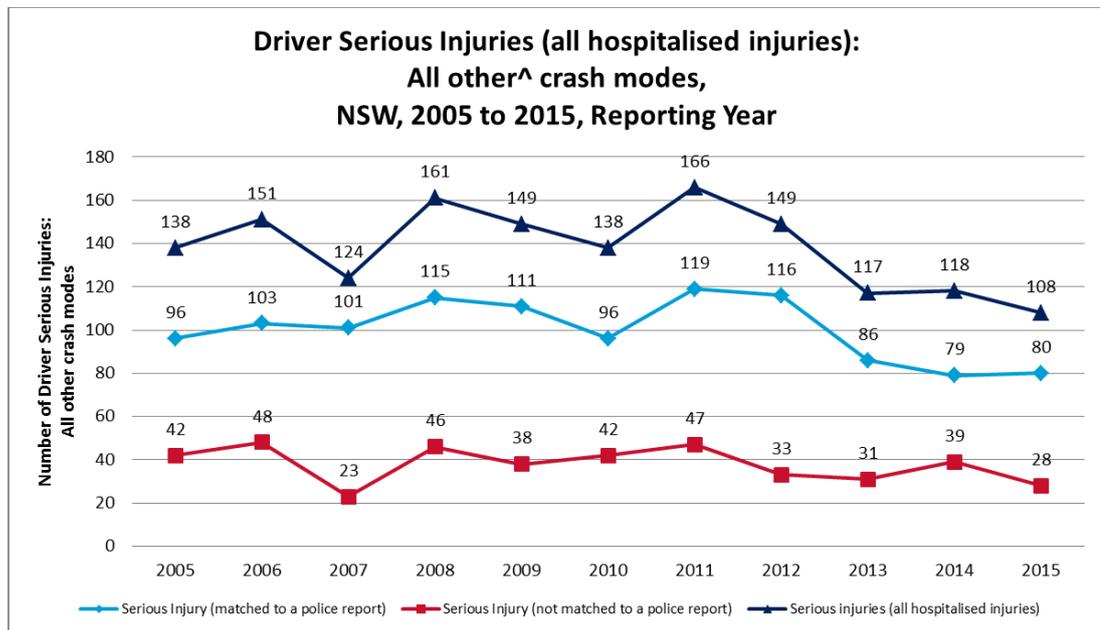
**Figure 6-32: Trends in driver serious injuries arising from a non-collision crash, NSW, 2005 to 2015**



(see Table 32)

Driver serious injuries for the 'all other' crash mode have decreased since 2011.

**Figure 6-33: Trends in driver serious injuries arising from all other<sup>1</sup> crash modes, NSW, 2005 to 2015**



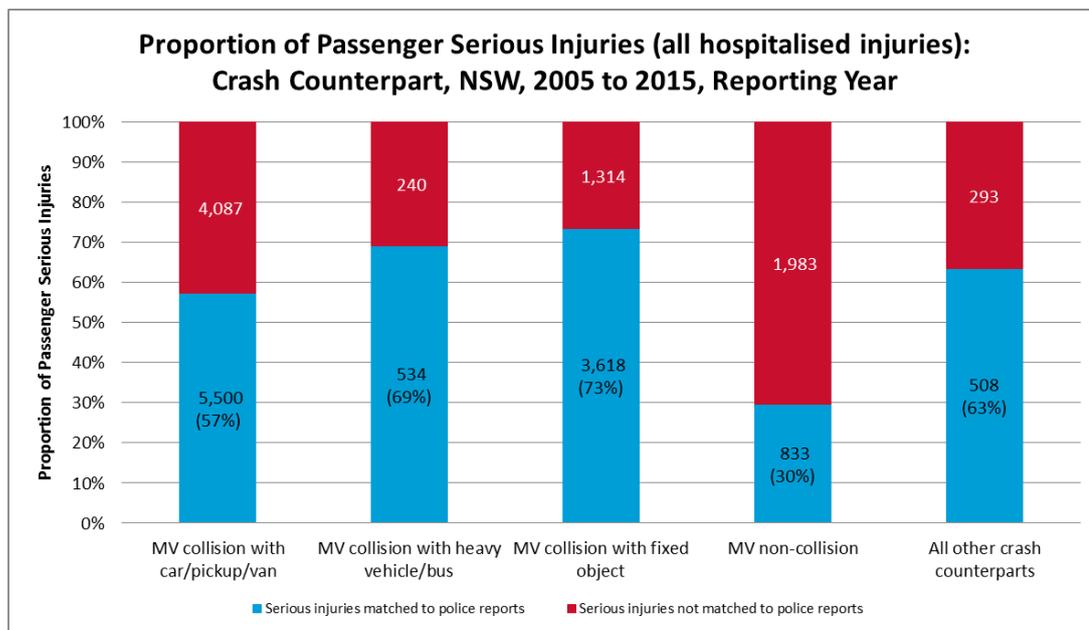
(see Table 33)

<sup>1</sup> ^ includes collisions with pedestrian/animal, pedal cycle, two/three wheeled vehicle, railway train/vehicle, other non-motor vehicle and other unspecified crash modes.

## Passengers

The majority of passengers seriously injured that were involved in collisions with another car/pickup truck or van, collisions with a fixed object and other/unspecified collisions were matched to a police report. The exception was those involved in a non-collision (30 per cent).

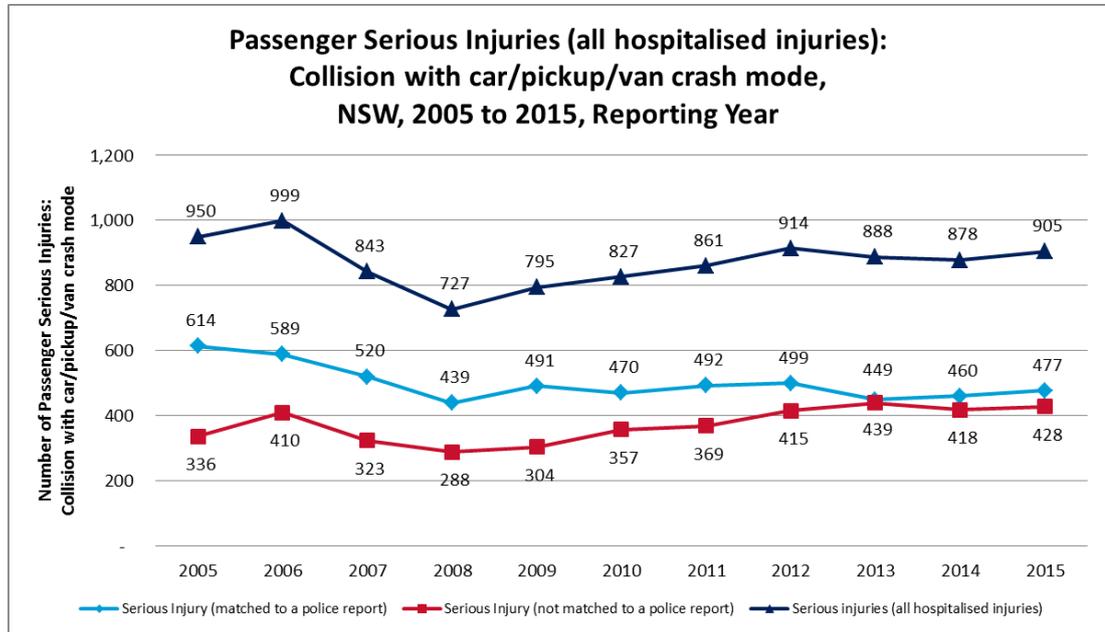
**Figure 6-34: Passenger serious injuries by crash counterpart, NSW, 2005 to 2015**



(see Table 34)

For the 'collision with car/pickup/van' crash mode, there was a downward trend in passenger serious injuries from 2006 to 2008. Since 2008 this trend has increased.

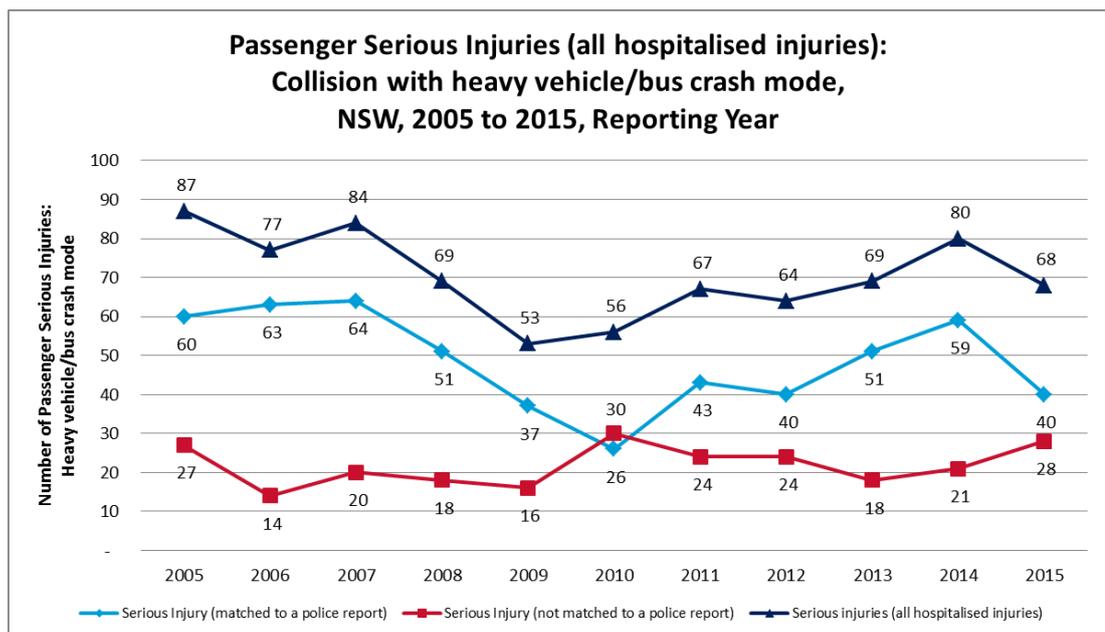
**Figure 6-35: Trends in passenger serious injuries arising from a collision with a car/pickup/van, NSW, 2005 to 2015**



(see Table 35)

Passenger serious injuries for the 'heavy vehicle/bus' crash mode rose between the years 2009 to 2014, but fell in 2015.

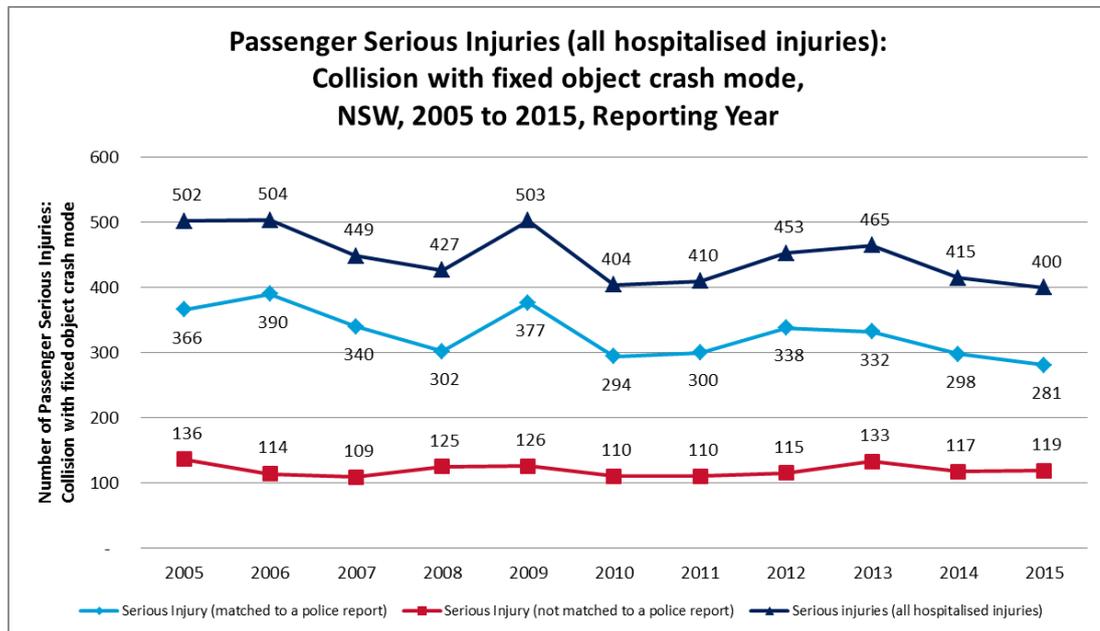
**Figure 6-36: Trends in passenger serious injuries arising from a collision with a heavy vehicle/bus, NSW, 2005 to 2015**



(see Table 36)

The number of passenger serious injuries from collisions with a fixed object have fallen by 20 per cent over the period 2005 to 2015

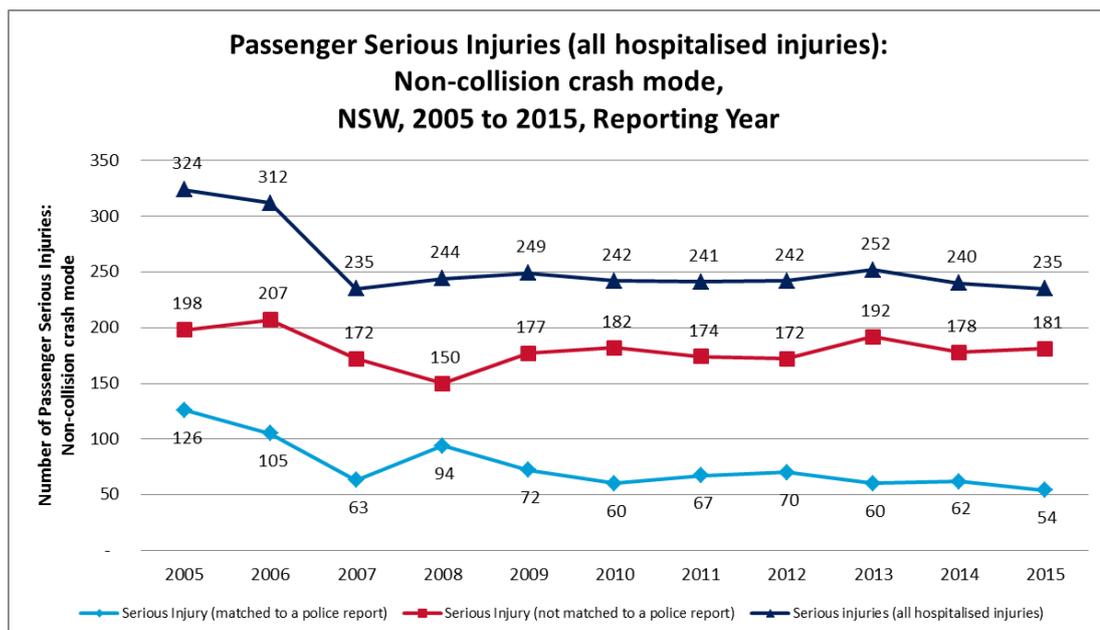
**Figure 6-37: Trends in passenger serious injuries arising from a collision with a fixed object, NSW, 2005 to 2015**



(see Table 37)

For the 'non-collision' crash mode, the total number of passenger serious injuries has been largely unchanged of the eight year period 2007 to 2015. However the serious injuries matched to a police report increased by 20 per cent which was almost offset a 43 per cent fall in unmatched serious injuries.

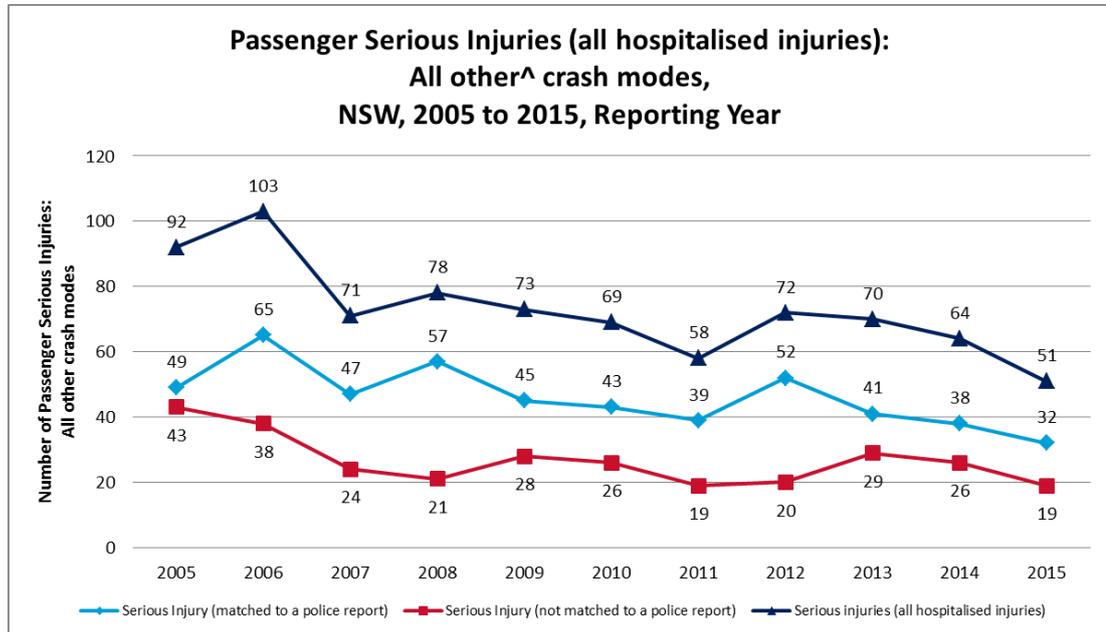
**Figure 6-38: Trends in passenger serious injuries arising from a non-collision crash, NSW, 2005 to 2015**



(see Table 38)

Passenger serious injuries for the 'all other' crash mode have seen an overall downward trend from 2006 to 2015.

**Figure 6-39: Trends in passenger serious injuries arising from all other<sup>2</sup> crash modes, NSW, 2005 to 2015**



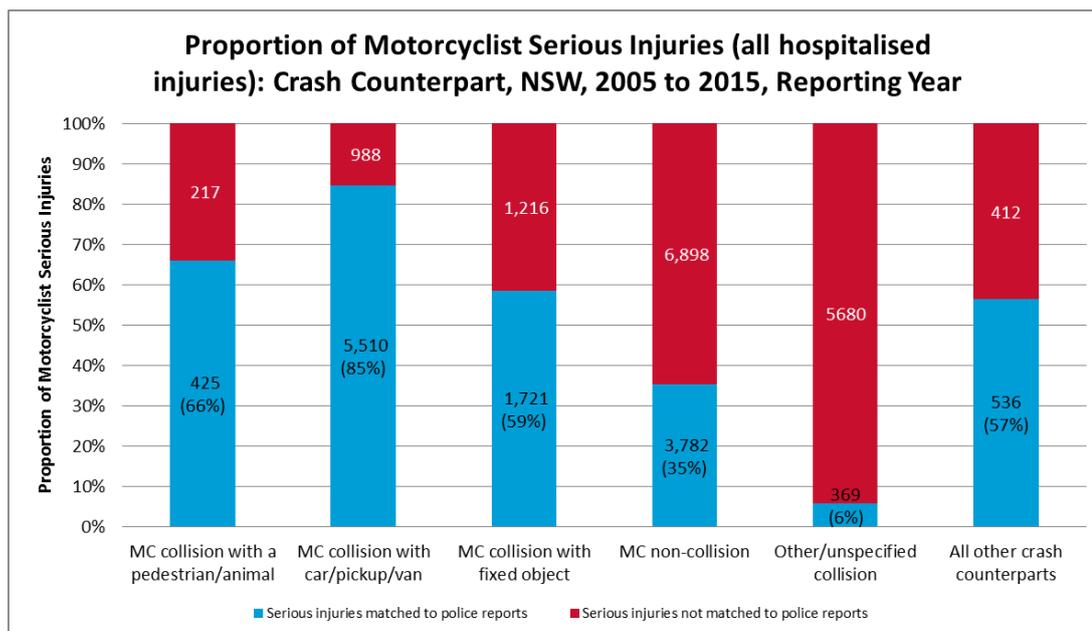
(see Table 39)

<sup>2</sup> ^ includes collisions with pedestrian/animal, pedal cycle, two/three wheeled vehicle, railway train/vehicle, other non-motor vehicle and other unspecified crash modes.

## Motorcyclists

The majority (85 per cent) of motorcyclists seriously injured in a motorcycle collision with a car/pickup/van were matched to a police report. The respective figures for motorcyclists seriously injured in a motorcycle collision with a fixed object, for motorcyclists seriously injured in a motorcycle non-collision and for motorcyclists seriously injured in a motorcycle other/unspecified crash were 59 per cent, 35 per cent and 6 per cent.

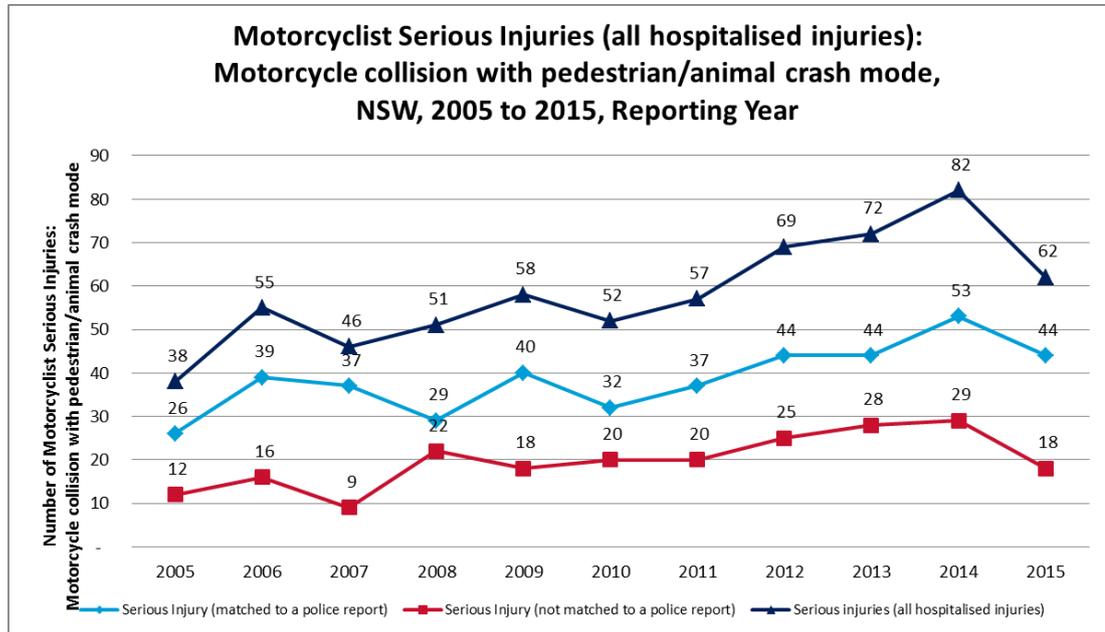
**Figure 6-40: Motorcyclist serious injuries by crash counterpart, NSW, 2005 to 2015**



(see Table 40)

For the 'motorcycle collision with pedestrian/animal' crash mode there was an upward trend in motorcyclist serious injuries from 2005 to 2014. In 2015 this number dropped.

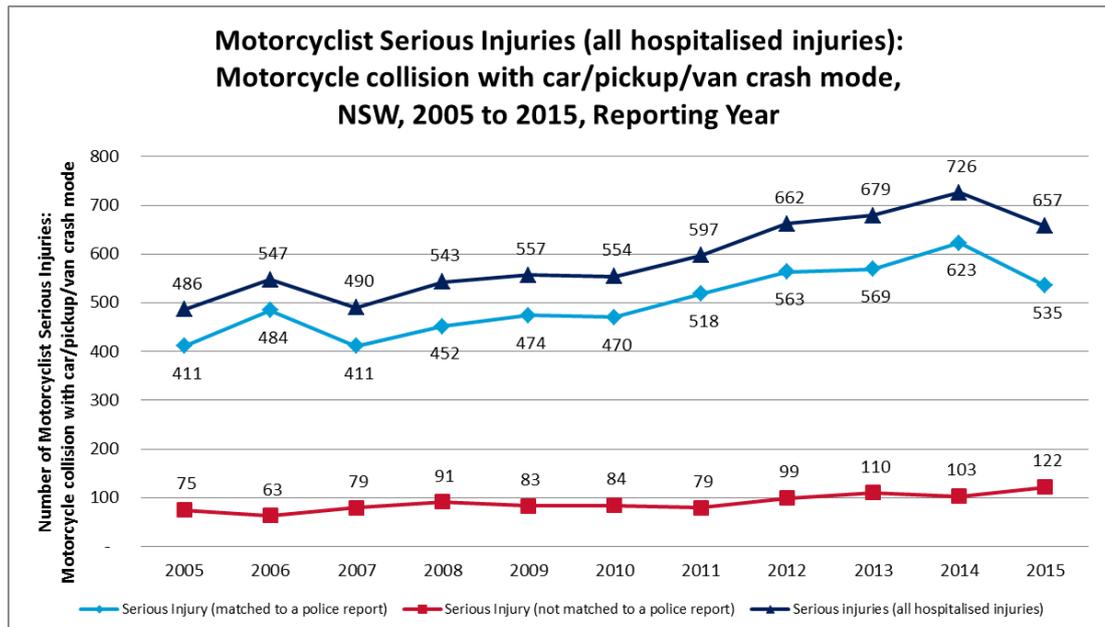
**Figure 6-41: Trends in motorcyclist serious injuries arising from a motorcycle collision with a pedestrian/animal, NSW, 2005 to 2015**



(see Table 41)

For the 'motorcycle collision with car/pickup/van' crash mode, there was an upward trend in motorcyclist serious injuries from 2007 to 2014 followed by a notable decrease in 2015. This was largely driven by the corresponding trends in motorcyclist seriously injuries matched to police reports over the same period.

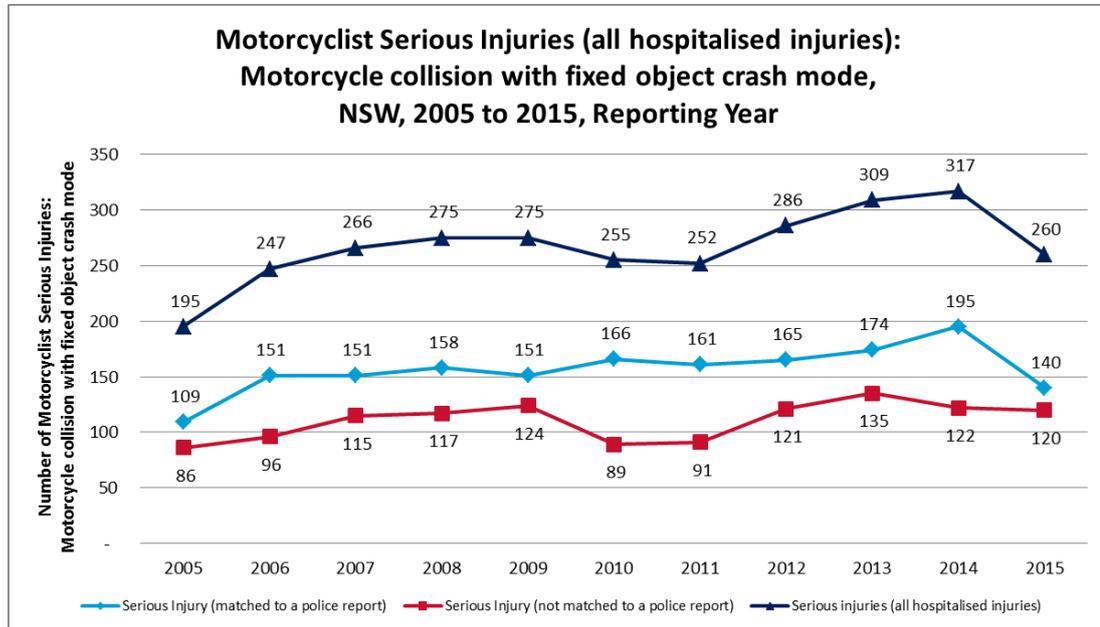
**Figure 6-42: Trends in motorcyclist serious injuries arising from a motorcycle collision with a car/pickup/van, NSW, 2005 to 2015**



(see Table 42)

Between 2011 and 2014 there was an increase in motorcyclist serious injuries involving a collision with a fixed object but in 2015 the number dropped noticeably. This was largely due to a reduction in matched serious injuries.

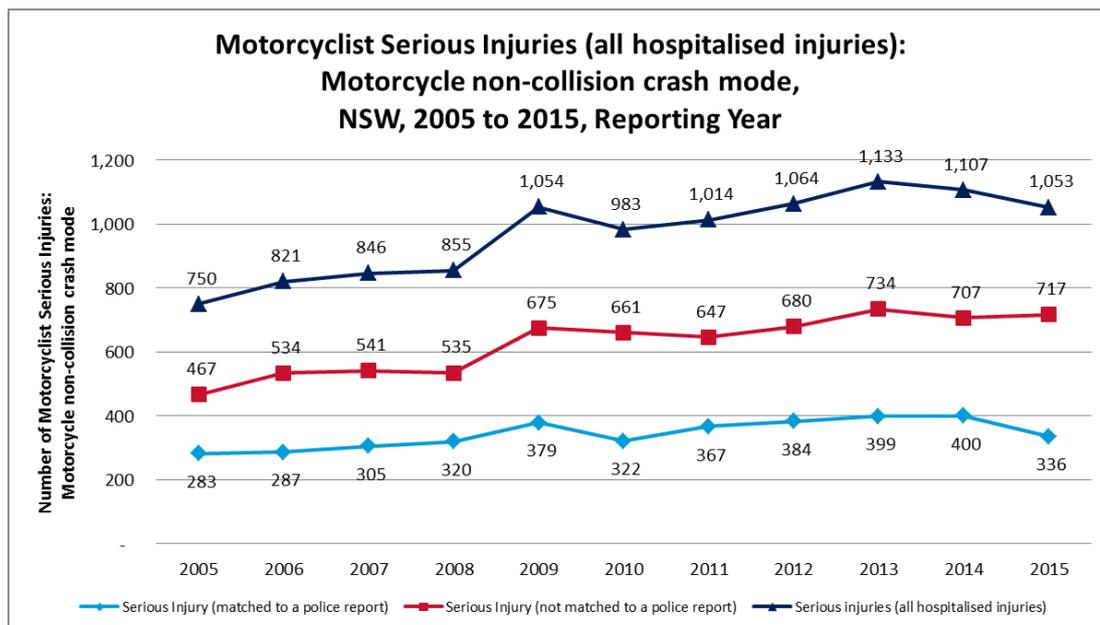
**Figure 6-43: Trends in motorcyclist serious injuries arising from a motorcycle collision with a fixed object, NSW, 2005 to 2015**



(see Table 43)

For the 'motorcycle non-collision' crash mode, there was a general upward trend in motorcyclist serious injuries from 2005 to 2015.

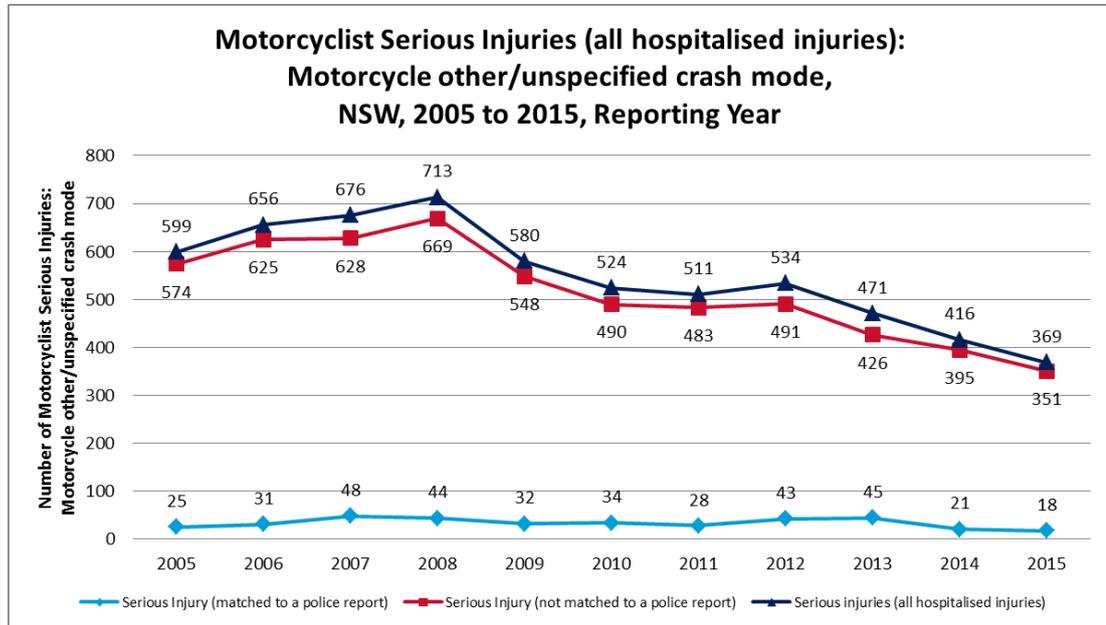
**Figure 6-44: Trends in motorcyclist serious injuries arising from a motorcycle non-collision crash, NSW, 2005 to 2015**



(see Table 44)

For the 'motorcycle other/unspecified' crash mode, there was a downward trend in motorcyclist serious injuries since 2008.

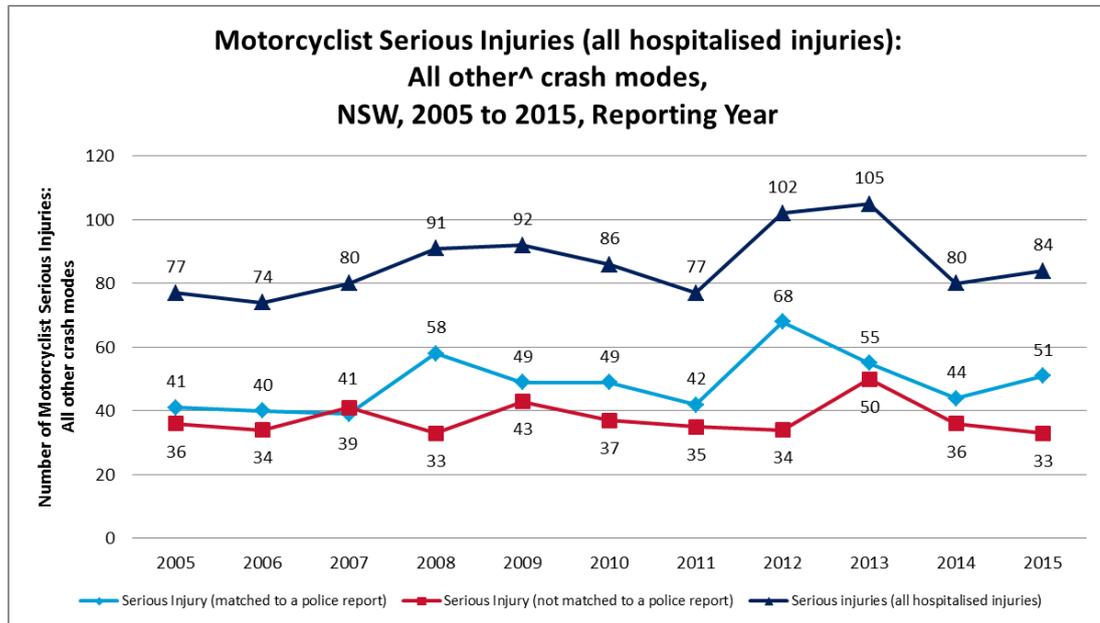
**Figure 6-45: Trends in motorcyclist serious injuries arising from a motorcycle collision with other or unspecified details, NSW, 2005 to 2015**



(see Table 45)

For the motorcycle 'all other' crash mode, there has been little change year on year with the exception of 2012 and 2013.

**Figure 6-46: Trends in motorcyclist serious injuries arising from all other<sup>3</sup> crash modes, NSW, 2005 to 2015**



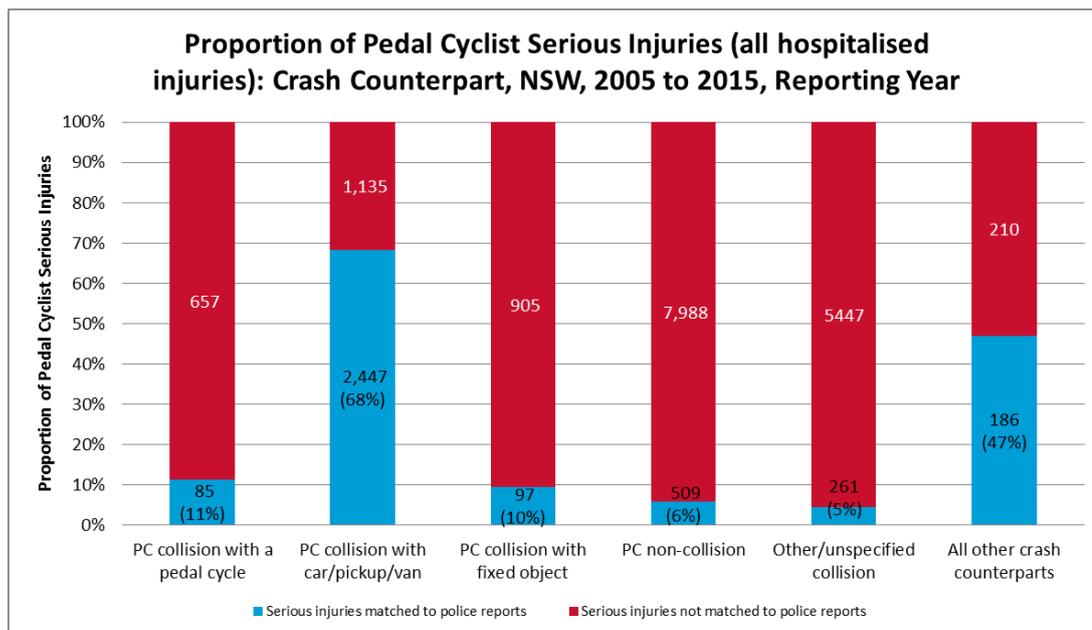
(see Table 46)

<sup>3</sup> ^ includes collisions with two/three wheeled vehicle, heavy vehicle/bus, railway train/vehicle, other non-motor vehicle

## Pedal cyclists

The majority (68 per cent) of pedal cyclists seriously injured in a pedal cycle collision with a car/pickup/van were matched to a police report. The respective figures for the percentage of pedal cyclists seriously injured matched to a police report in a pedal cycle collision with a pedal cycle, a fixed object, involved in a non-collision and for pedal cyclists seriously injured in a pedal cycle other/unspecified crash were only 11 per cent, 10 per cent, 6 per cent and 5 per cent.

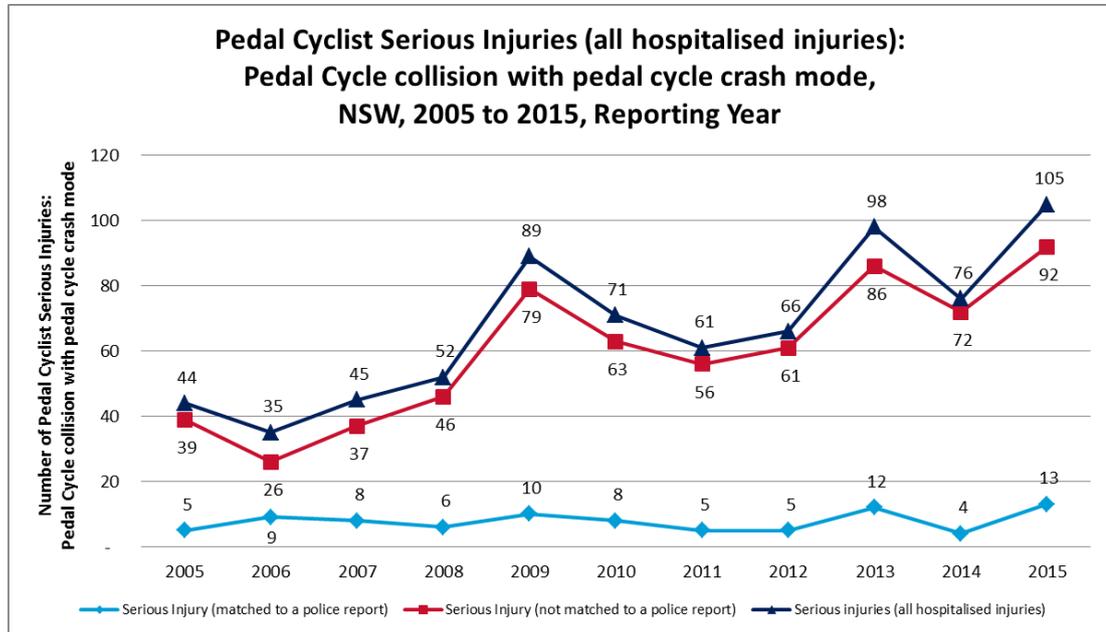
**Figure 6-47: Pedal cyclist serious injuries by crash counterpart, NSW, 2005 to 2015**



(see Table 47)

Since 2005 there has been an upward trend in pedal cyclist serious injuries for the 'collision with pedal cycle crash' mode.

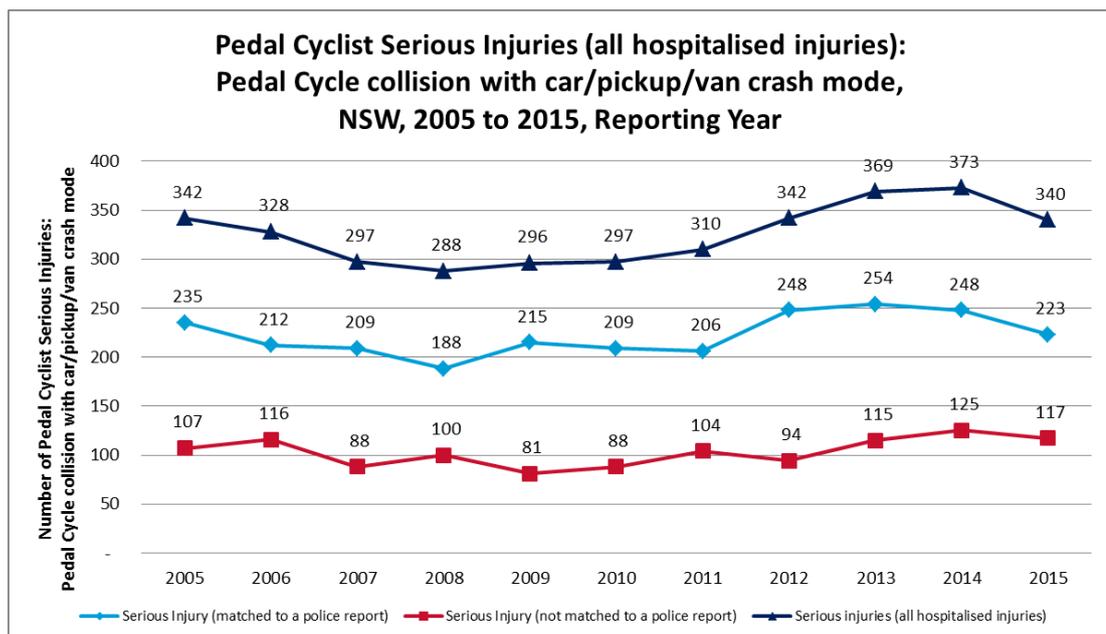
**Figure 6-48: Trends in pedal cyclist serious injuries arising from a pedal cycle collision with a pedal cycle, NSW, 2005 to 2015**



(see Table 48)

There was an upward trend in pedal cyclist serious injuries for the 'collision with car/pickup/van crash' mode from 2008 to 2014. In 2015 this trend was reversed.

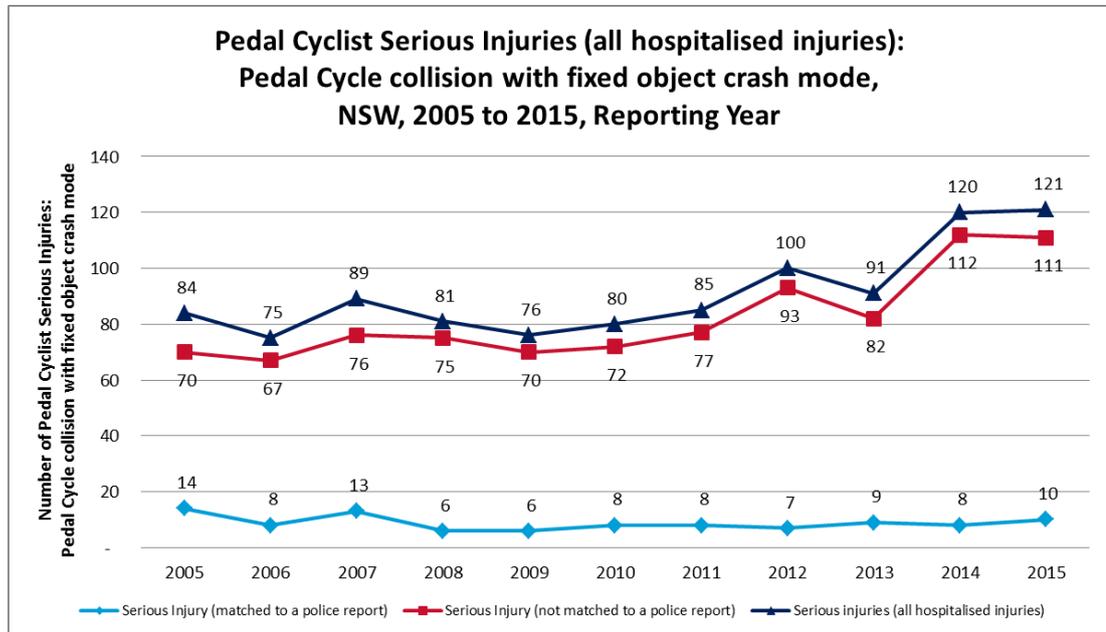
**Figure 6-49: Trends in pedal cyclist serious injuries arising from a pedal cycle collision with a car/pickup/van, NSW, 2005 to 2015**



(see Table 49)

There has been a general upward trend in pedal cyclist serious injuries for the 'collision with fixed object crash' mode since 2009.

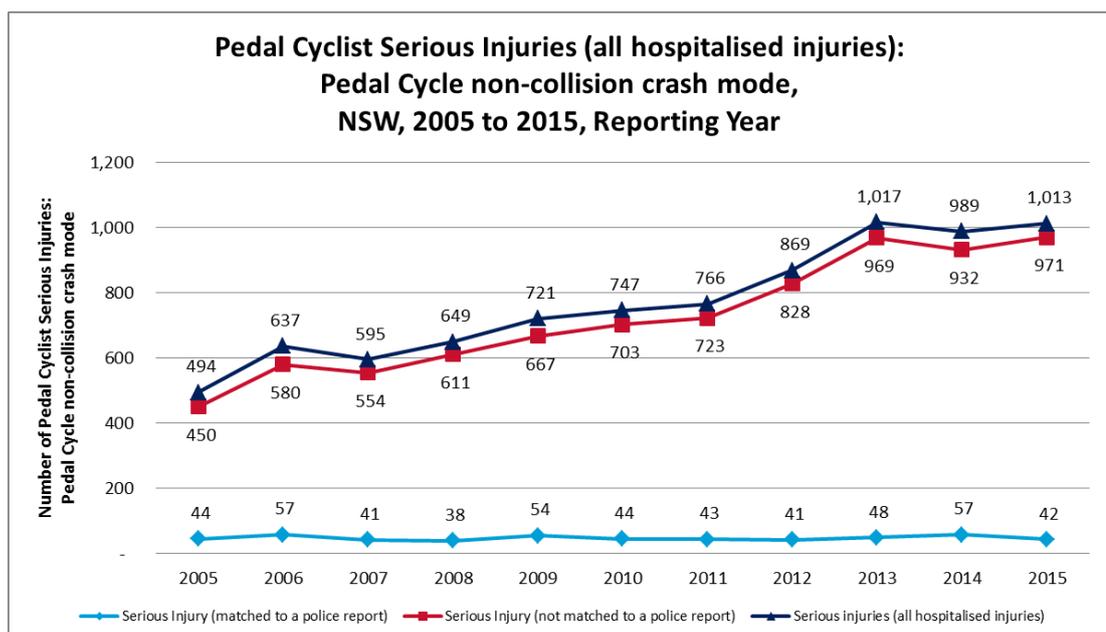
**Figure 6-50: Trends in pedal cyclist serious injuries arising from a pedal cycle collision with a fixed object, NSW, 2005 to 2015**



(see Table 50)

There has been a strong upward trend in pedal cycle serious injuries for the non-collision crash mode.

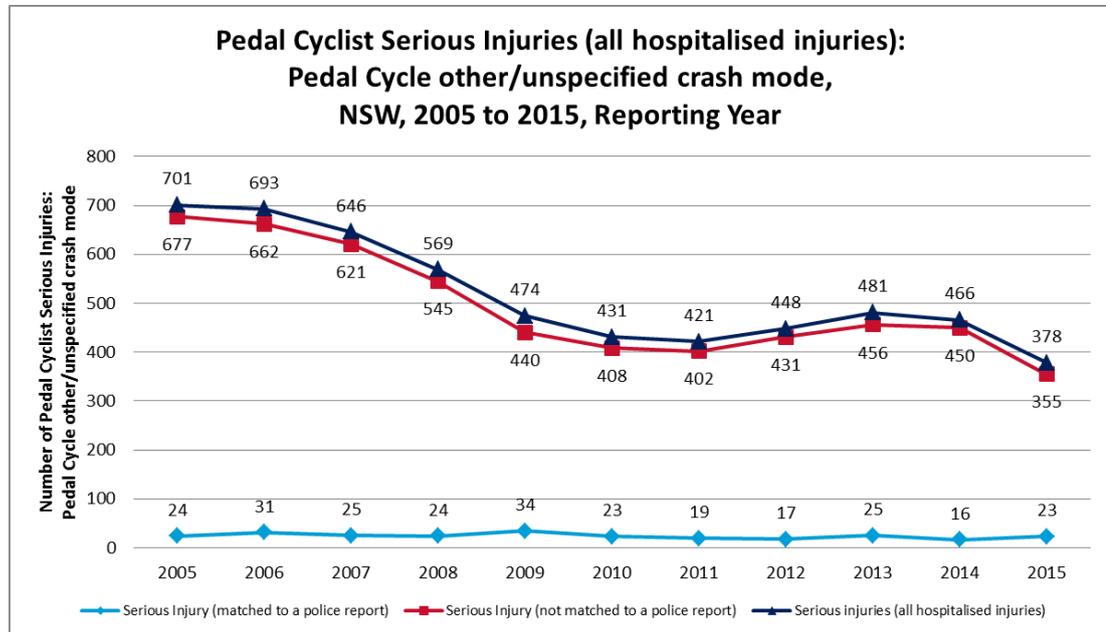
**Figure 6-51: Trends in pedal cyclist serious injuries arising from a pedal cycle non-collision crash, NSW, 2005 to 2015**



(see Table 51)

There has been a general downward trend in pedal cyclist serious injuries for the 'other/unspecified' crash mode.

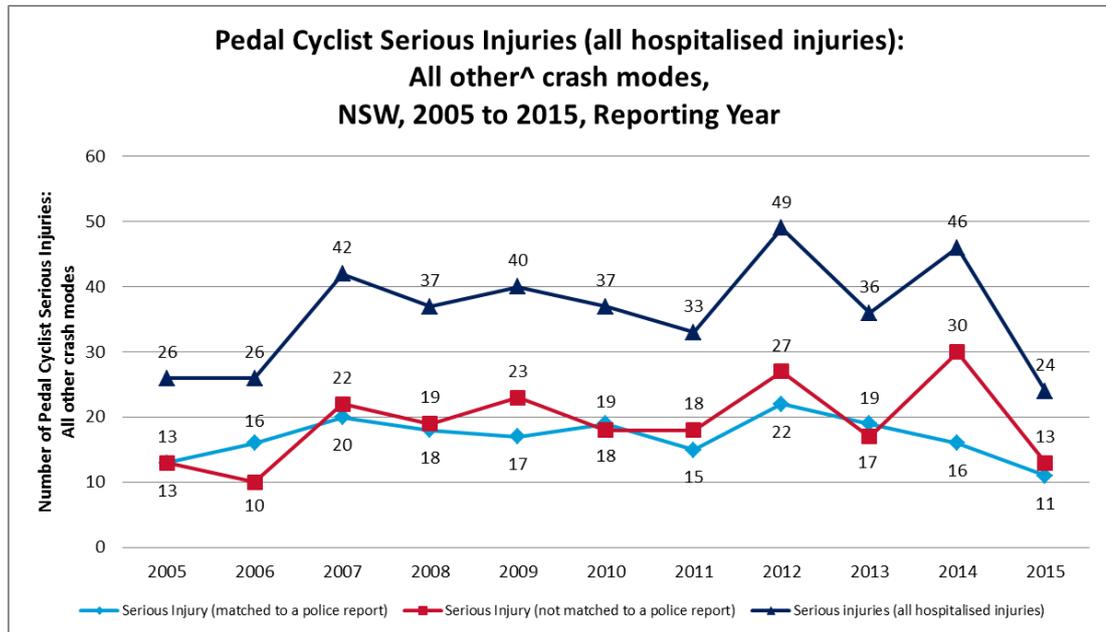
**Figure 6-52: Trends in pedal cyclist serious injuries arising from a pedal cycle collision with other or unspecified details, NSW, 2005 to 2015**



(see Table 52)

Between 2005 and 2015, the trend in pedal cycle serious injuries for the 'all other' crash mode has oscillated over the years.

**Figure 6-53: Trends in pedal cyclist serious injuries arising from all other<sup>4</sup> crash modes, NSW, 2005 to 2015**



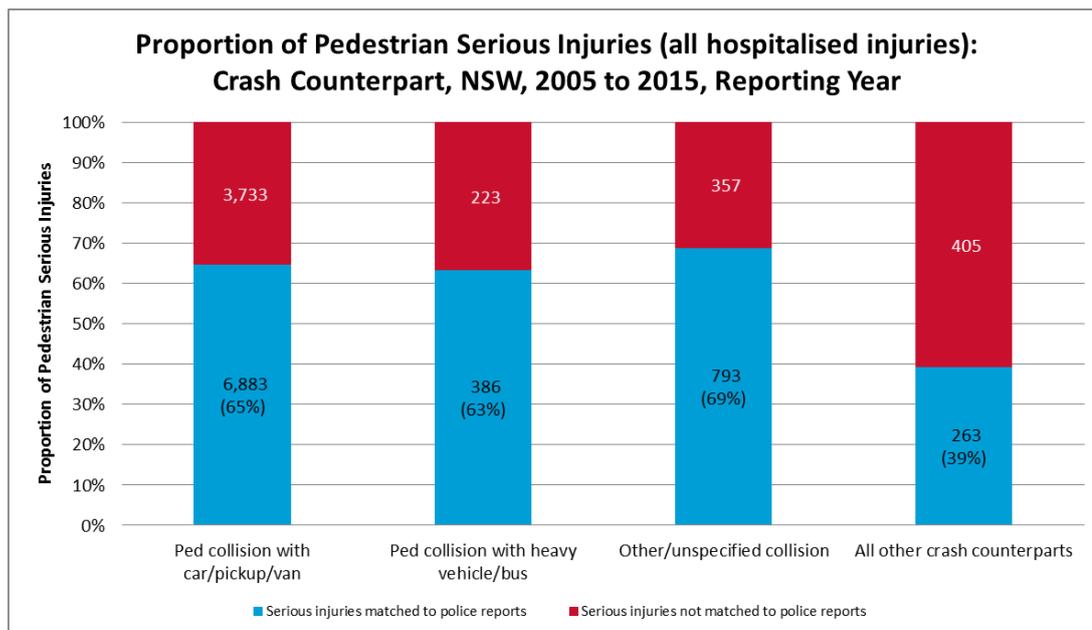
(see Table 53)

<sup>4</sup> ^ includes collisions with pedestrian/animal, two/three wheeled vehicle, heavy vehicle/bus, railway train/vehicle, other non-motor vehicle

## Pedestrians

The majority (65 per cent) of pedestrians seriously injured in a pedestrian collision with a car/pickup/van were matched to a police report. The respective figures for pedestrians seriously injured in a pedestrian collision with a heavy vehicle/bus, for pedestrians seriously injured in a pedestrian other/unspecified crash and for pedestrians seriously injured in a pedestrian 'all other crash counterparts' mode were 63 per cent, 69 per cent and 39 per cent.

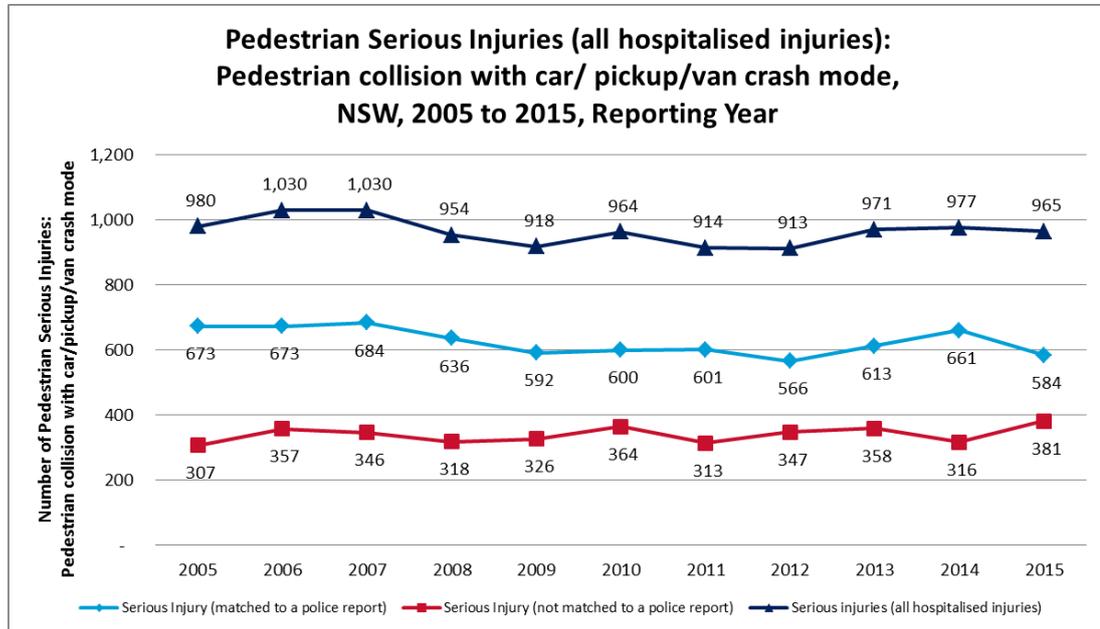
Figure 6-54: Pedestrian serious injuries by crash counterpart, NSW, 2005 to 2015



(see Table 54)

Pedestrian serious injuries with a 'collision with car/pickup/van' crash counterpart mode have remained fairly steady over the last three years.

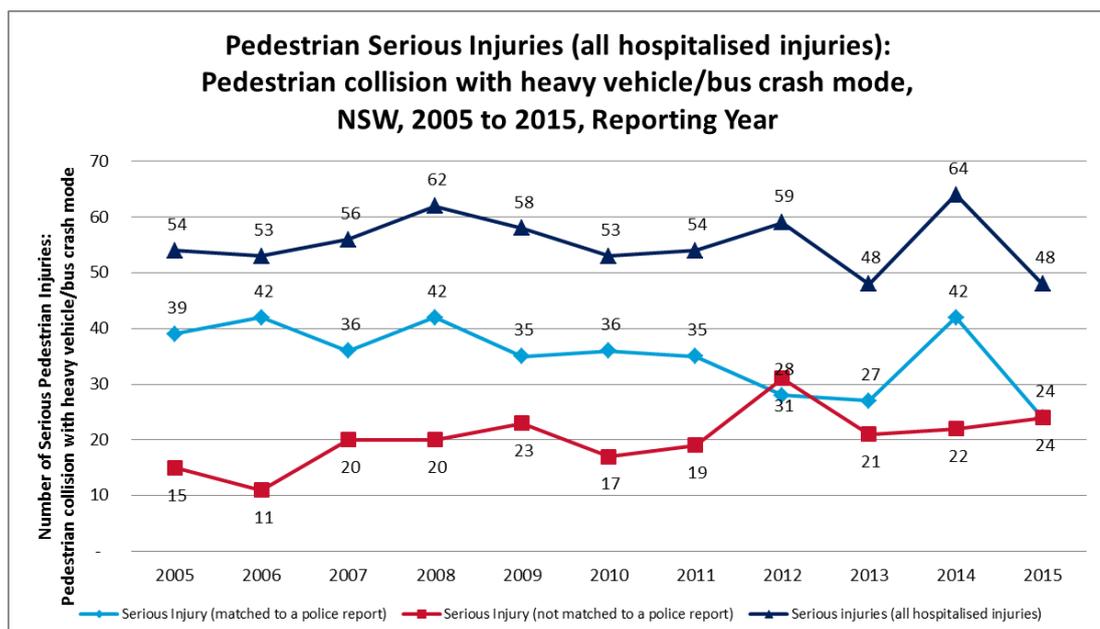
**Figure 6-55: Trends in pedestrian serious injuries arising from a pedestrian collision with a car/pickup/van, NSW, 2005 to 2015**



(see Table 55)

Pedestrian serious injuries with a 'heavy vehicle/bus' crash counterpart mode have showed a slight overall downward trend since 2008, although there is some volatility due to low numbers.

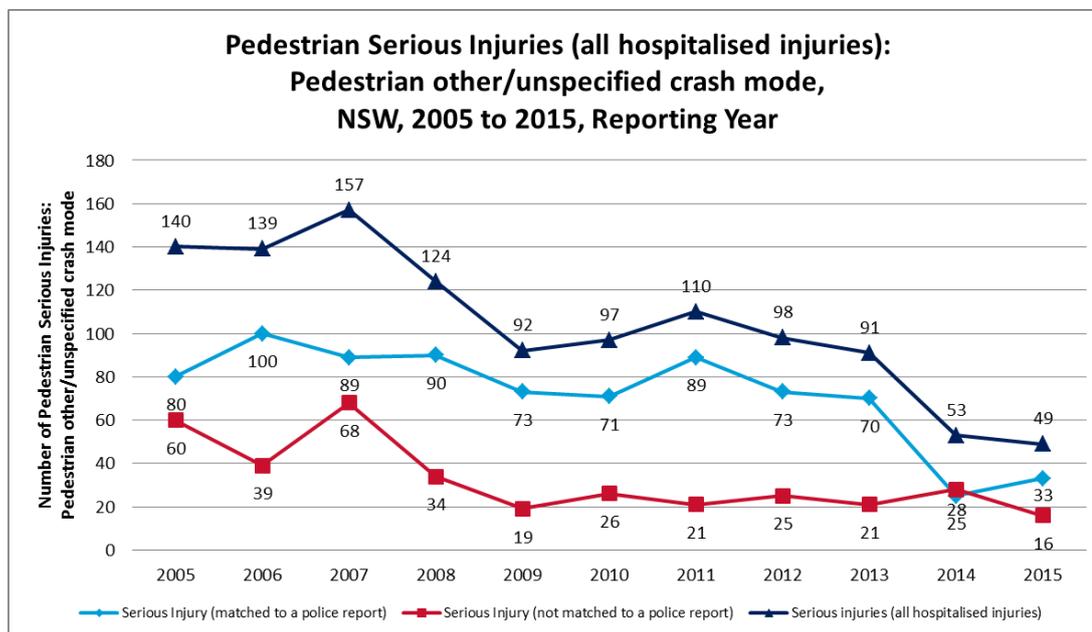
**Figure 6-56: Trends in pedestrian serious injuries arising from a pedestrian collision with a heavy vehicle/bus, NSW, 2005 to 2015**



(see Table 56)

For the 'other/unspecified' crash counterpart mode, pedestrian serious injuries have decreased sharply since 2007.

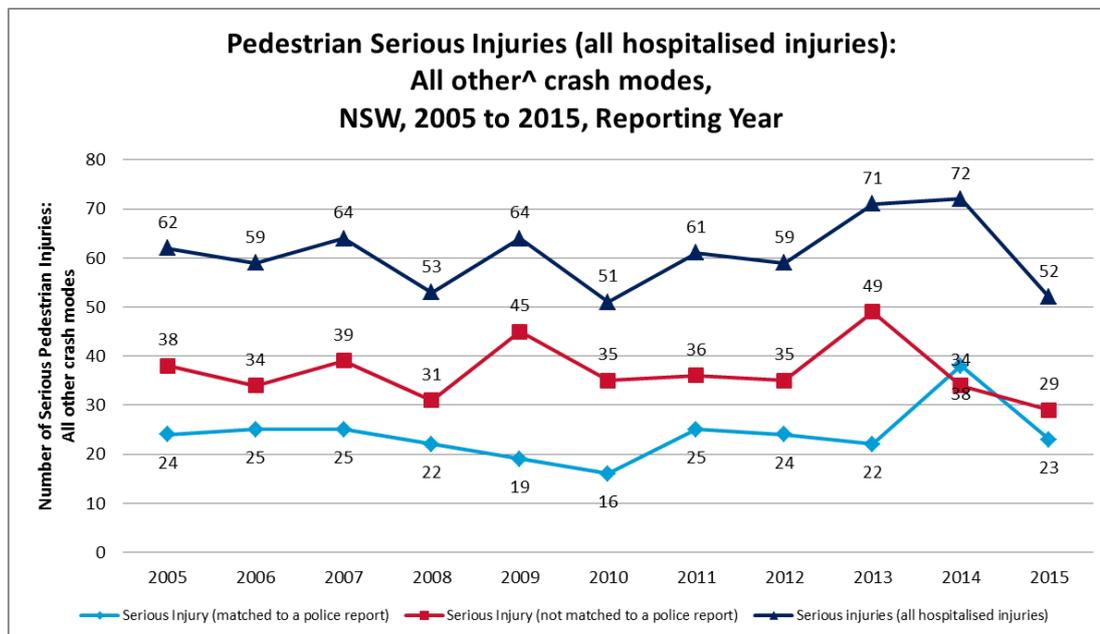
**Figure 6-57: Trends in pedestrian serious injuries arising from a pedestrian collision with other or unspecified details, NSW, 2005 to 2015**



(see Table 57)

For the 'all other' crash counterpart mode, pedestrian serious injuries increased between 2010 and 2014 but fell in 2015.

**Figure 6-58: Trends in pedestrian serious injuries arising from all other<sup>5</sup> crash modes, NSW, 2005 to 2015**



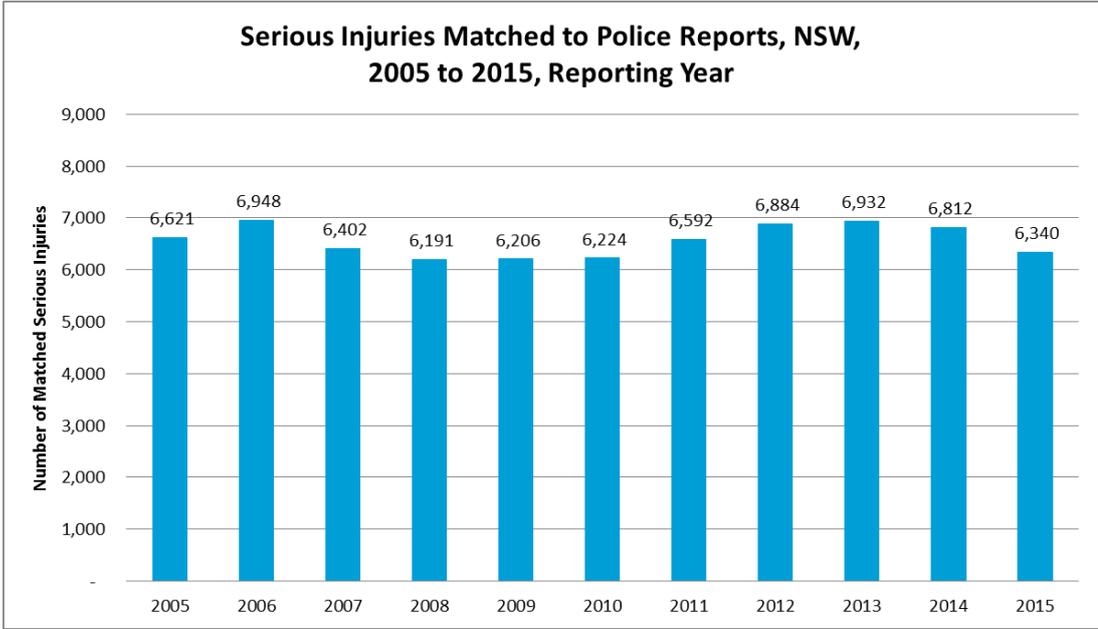
(see Table 58)

<sup>5</sup> ^ includes collisions with pedal cycle, two/three wheeled vehicle, railway train/vehicle, other non-motor vehicle

## 6.2 Serious injuries matched to a police report trends

For the eleven year period 2005 to 2015 there were more than 72,000 persons seriously injured (matched to a police report) on NSW roads. Over the last two years the number of matched serious injuries has decreased, reversing the upward trend of the previous three years.

Figure 6-59: Trend in serious injuries matched to police reports, NSW, 2005 to 2015

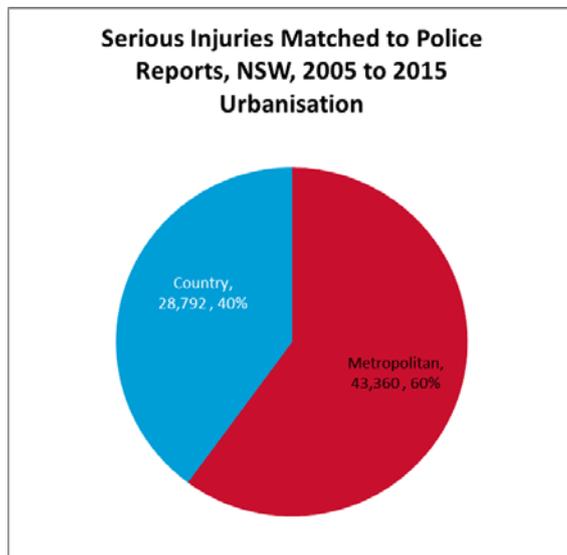


(see Table 59)

## 6.2.1 Urbanisation

The majority of matched serious injuries (60 per cent) occurred in the metropolitan areas of NSW.

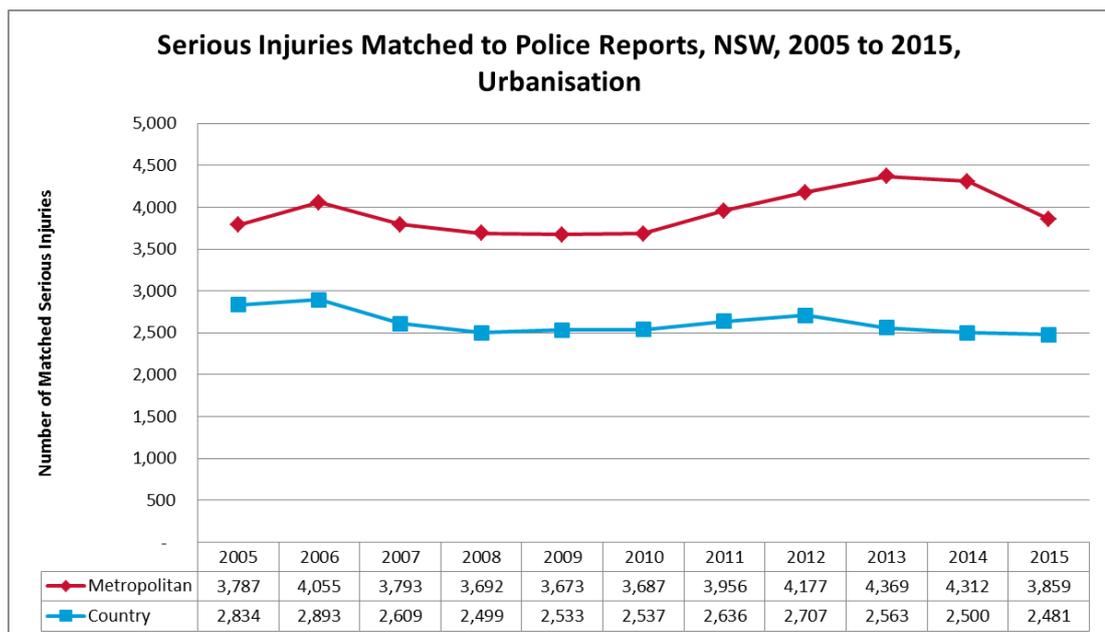
**Figure 6-60: Serious injuries matched to police reports, urbanisation, NSW, 2005 to 2015**



(see Table 60)

After a period of relative stability between 2007 and 2010, matched serious injuries in metropolitan and country areas began to increase before declining over recent years. The rise and subsequent fall has been more pronounced in metropolitan areas compared to country areas.

**Figure 6-61: Trends in serious injuries matched to police reports, urbanisation, NSW, 2005 to 2015**

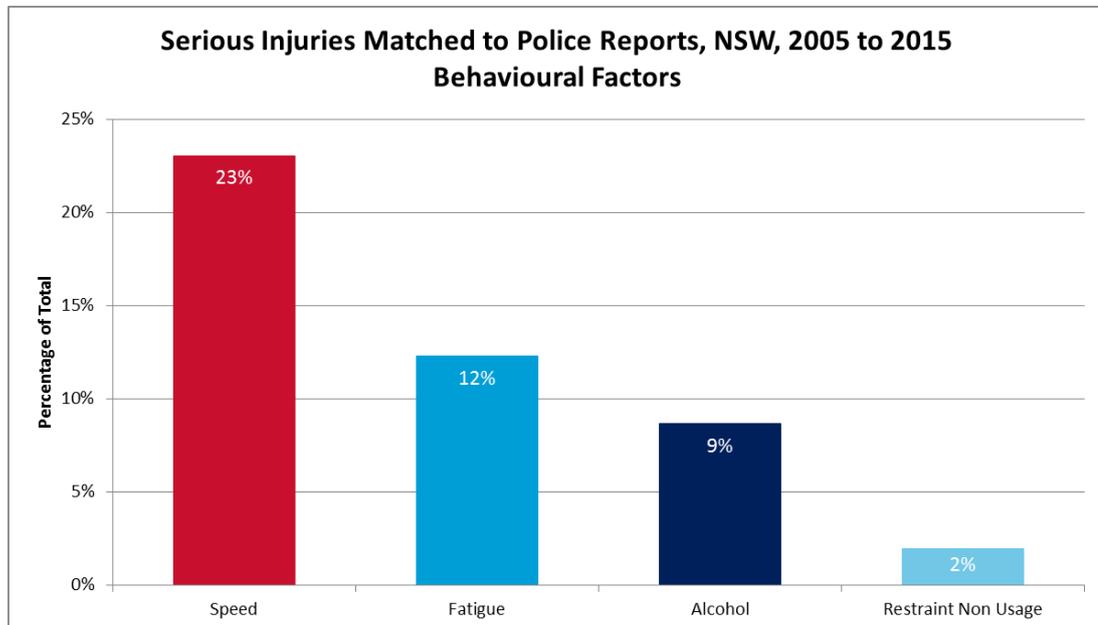


(see Table 61)

## 6.2.2 Behavioural factors

Excessive / inappropriate speed is the leading behavioural factor involved in matched serious injuries (23 per cent), followed by driver fatigue (12 per cent) and then illegal alcohol (9 per cent) over the eleven year period 2005 to 2015.

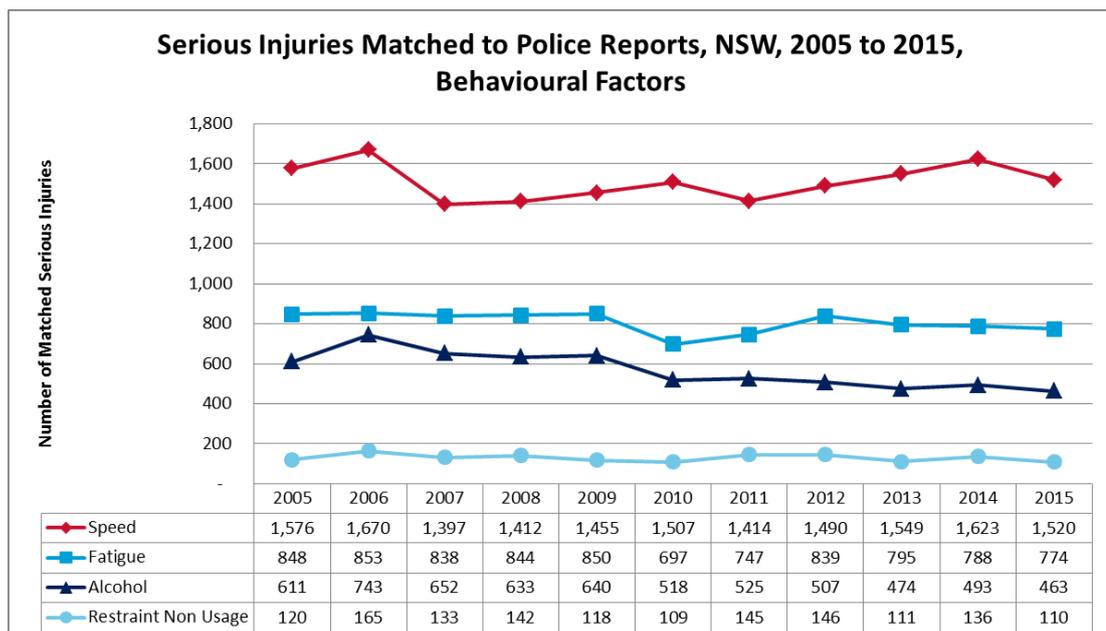
**Figure 6-62: Serious injuries matched to police reports by behavioural factors involved, NSW, 2005 to 2015**



(see Table 62)

Over the eleven year period 2005 to 2015, fatigue and illegal alcohol involvement in matched serious injuries have been trending downwards whilst the trend in speed related linked serious injuries has been relatively flat.

**Figure 6-63: Trends in serious injuries matched to police reports, behavioural factors involved, NSW, 2005 to 2015**

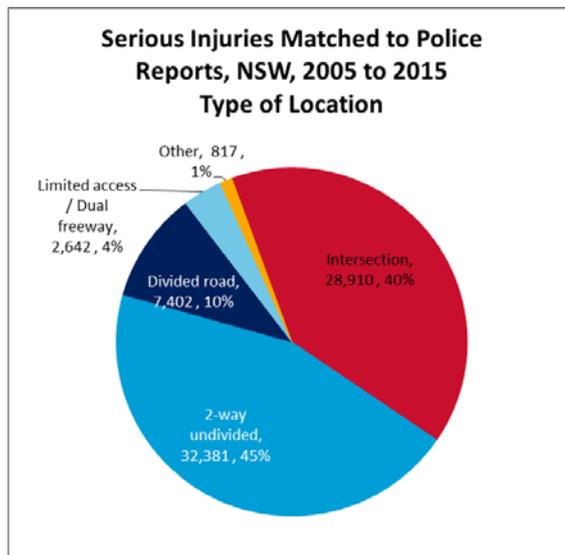


(see Table 63)

### 6.2.3 Type of location

The two most common types of crash locations for linked serious injuries are 2-way undivided roads (45 per cent) and intersections (40 per cent).

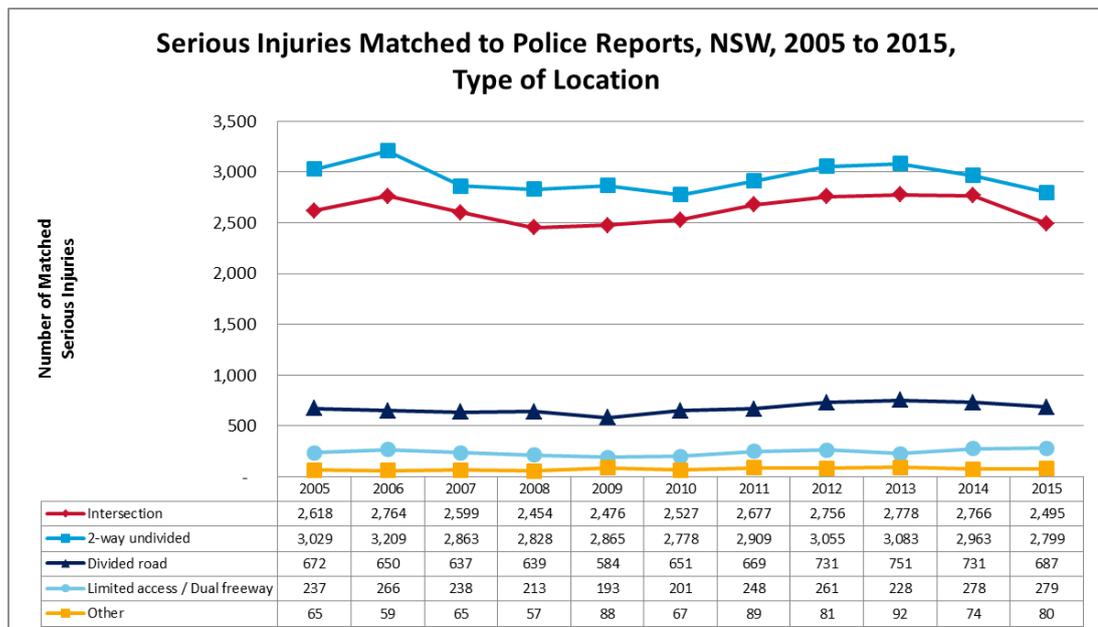
**Figure 6-64: Serious injuries matched to police reports, type of location, NSW, 2005 to 2015**



(see Table 64)

The trend pattern over the eleven year period 2005 to 2015 has been similar for the two main crash types (2-way undivided roads and intersections).

**Figure 6-65: Trends in serious injuries matched to police reports, type of location, NSW, 2005 to 2015**

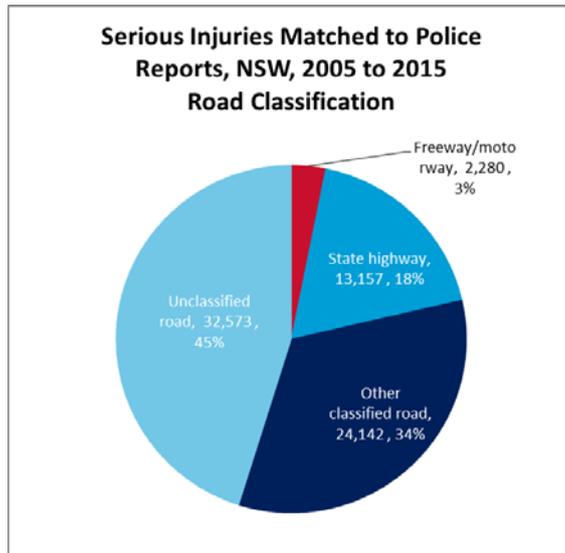


(see Table 65)

## 6.2.4 Road classification

Around one in every five matched serious injuries occurred on a freeway/motorway or State highway. However, the majority of matched serious injuries either occurred on an unclassified (local) road (45 per cent) or other (lower order) classified road (34 per cent).

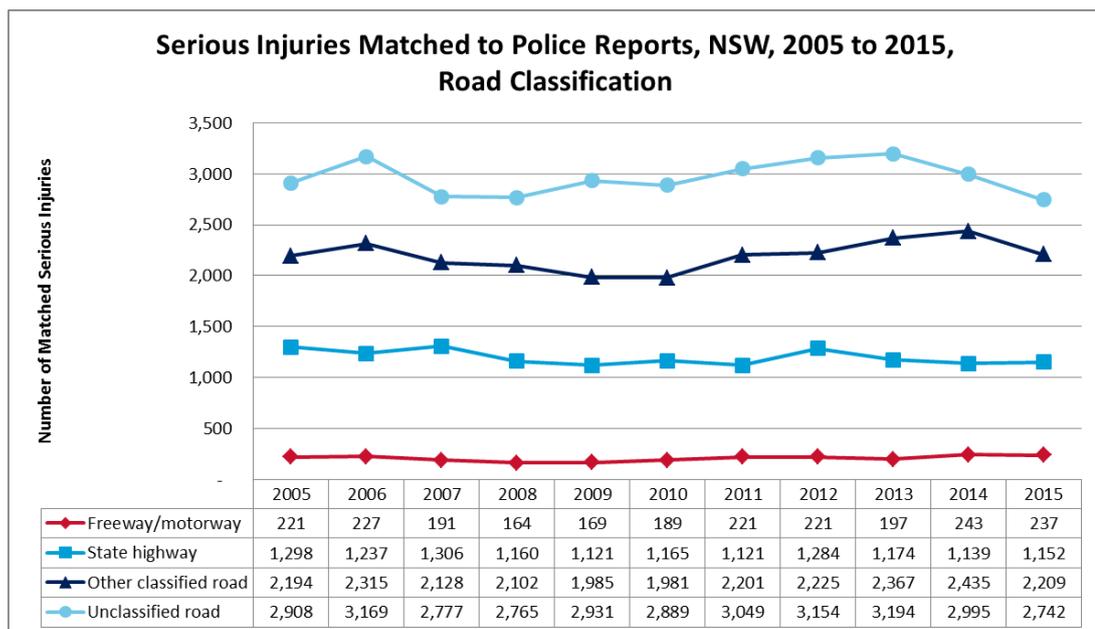
**Figure 6-66 Serious injuries matched to police reports, road classification, NSW, 2005 to 2015**



(see Table 66)

Most of the decrease in matched serious injuries over the last couple years has been driven by a fall in serious injuries on unclassified (local) roads and other (lower order) classified roads.

**Figure 6-67: Trends in serious injuries matched to police reports, road classification, NSW, 2005 to 2015**

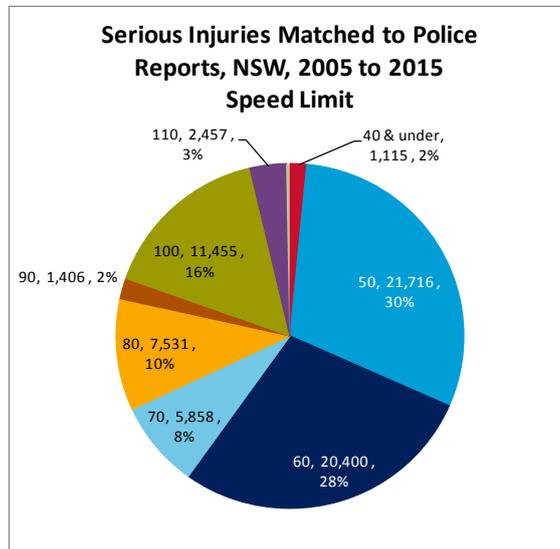


(see Table 67)

## 6.2.5 Speed limit

The majority of matched serious injuries (60 per cent) occurred on roads with a posted speed limit of 60 km/h or less, with close to one-third (30 per cent) occurring on roads with a posted speed limit of 50km/h or less.

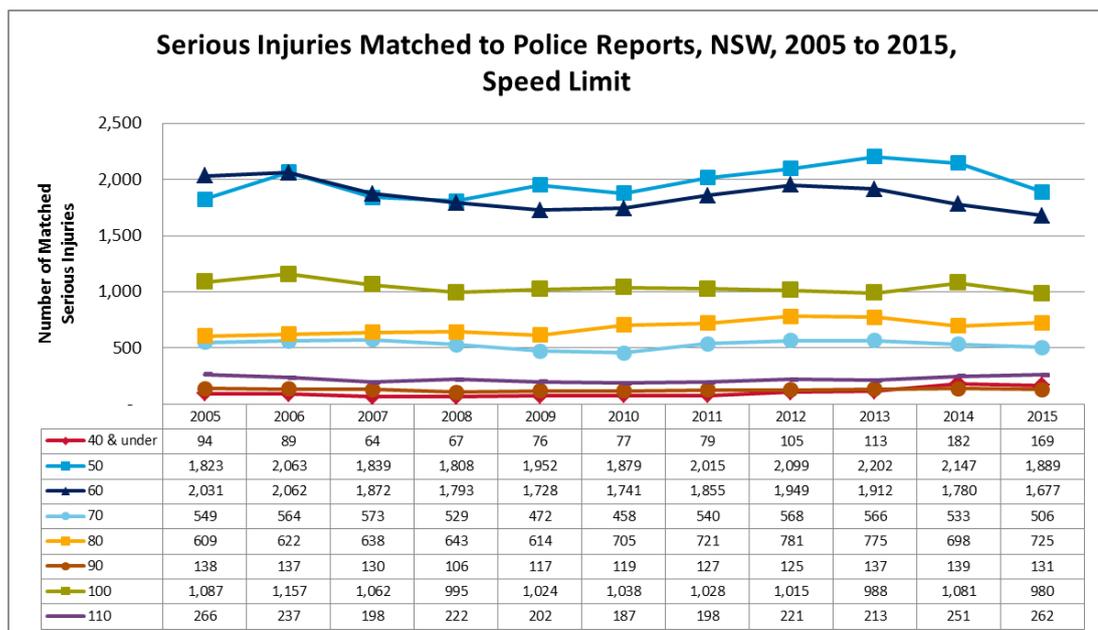
**Figure 6-68: Serious injuries matched to police reports, speed limit, NSW, 2005 to 2015**



(see Table 68)

The majority of the decrease in matched serious injuries in 2014 and 2015 can be attributed to a reduction in serious injuries on roads with a posted speed limit of 50 km/h or 60 km/h.

**Figure 6-69: Trends in serious injuries matched to police reports, speed limit, NSW, 2005 to 2015**

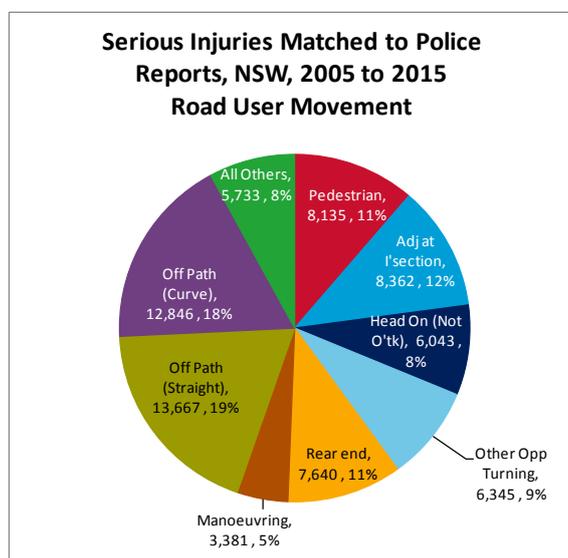


(see Table 69)

## 6.2.6 Crash type (Road User Movement)

The two most common crash types for matched serious injuries are off path on straight (19 per cent) and off path on curve (18 per cent).

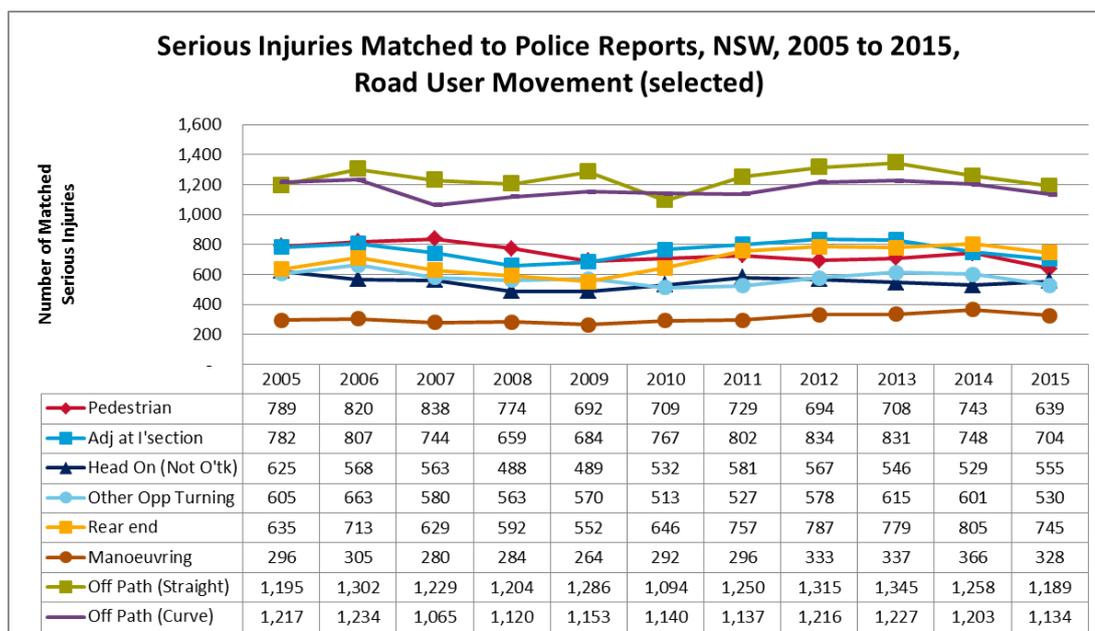
**Figure 6-70: Serious injuries matched to police reports, road user movement, NSW, 2005 to 2015**



(see Table 70)

The gains made in the last two years can be largely attributable to reductions in off path on straight, off path on curve and adjacent at intersection crashes.

**Figure 6-71: Trends in serious injuries matched to police reports, road user movement (selected), NSW, 2005 to 2015**

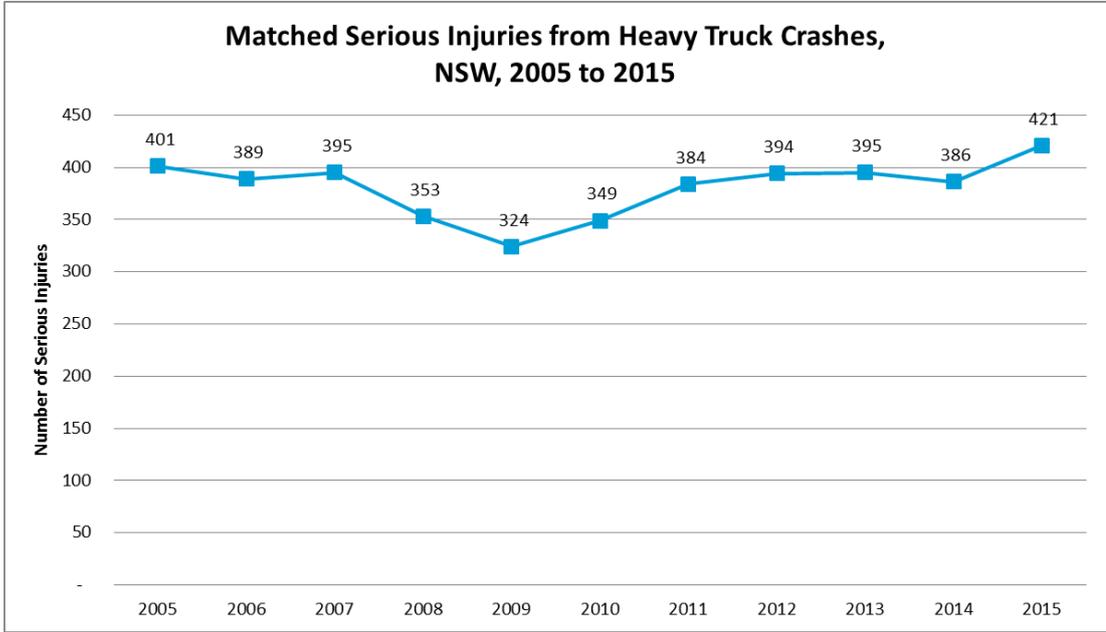


(see Table 71)

**6.2.7 Heavy Truck Crashes**

The number of matched serious injuries arising from heavy truck crashes fell between 2005 and 2009 but has risen steadily over the subsequent years.

**Figure 6-72: Trend in matched serious injuries from heavy truck crashes, NSW, 2005 to 2015**

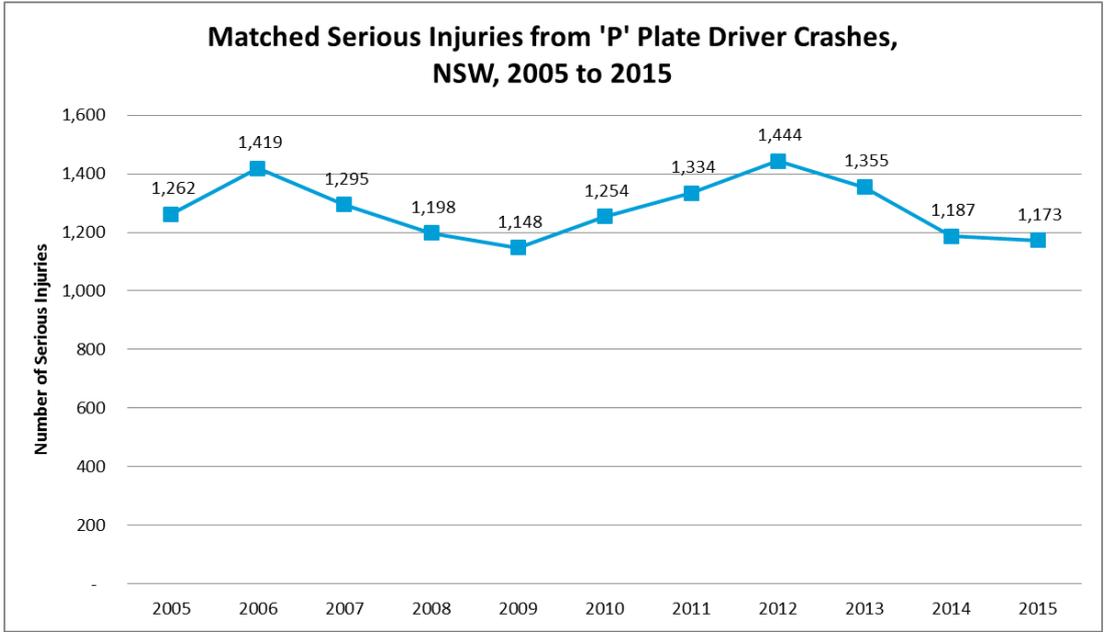


(see Table 72)

**6.2.8 'P' Plate Driver Crashes**

The upward trend in the number of matched serious injuries from P-plate driver crashes between 2009 and 2012 has reversed over the last three years.

**Figure 6-73: Trend in matched serious injuries from P-plate driver crashes, NSW, 2005 to 2015**

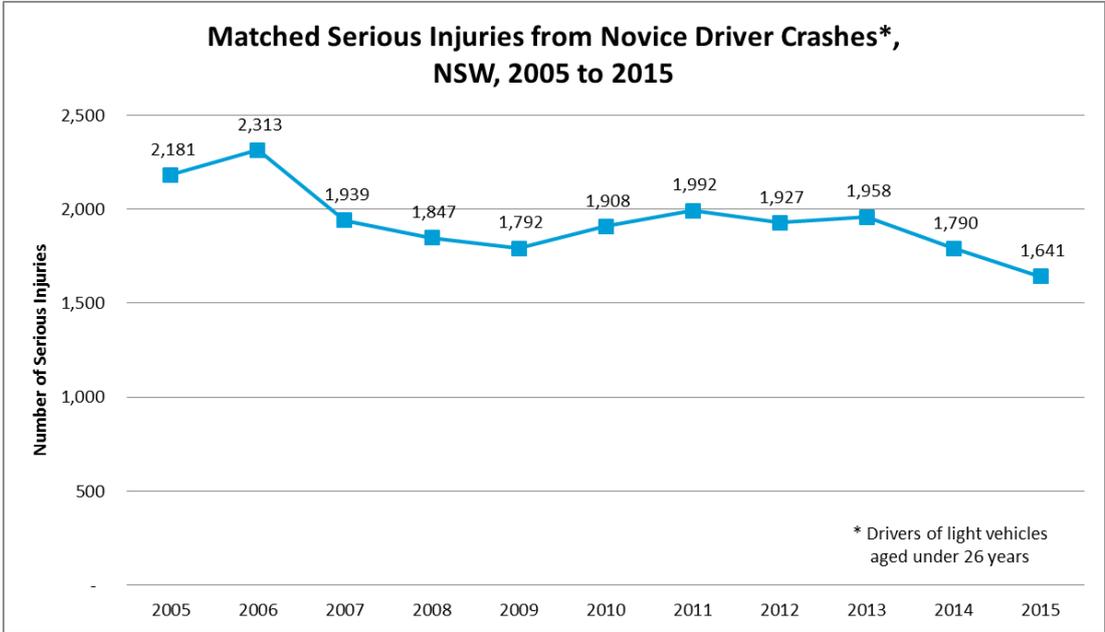


(see Table 73)

**6.2.9 Novice Driver Crashes**

Over the last ten years there has been an overall downward trend in the number of matched serious injuries arising from crashes involving a novice driver<sup>6</sup>.

**Figure 6-74: Trend in matched serious injuries from novice driver crashes, NSW, 2005 to 2015**



(see Table 74)

<sup>6</sup> Drivers of light vehicles aged under 26 years.

## 7 Conclusion

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With this work into linking crash, hospital and CTP records, NSW has the ability to delve into an incredibly rich serious injury data and hence gain a better understanding of road trauma in NSW.

The characteristics of fatal crashes are well known. This report has extended our knowledge of road trauma focusing on serious injuries, including those hospitalised injuries matched to a police report and those not matched to a police report.

Notable findings presented in the report are:

- Over 131,000 people have been seriously injured (all hospitalised injuries) on public roads in NSW over the eleven year period 2005 to 2015.
- Forty five per cent of persons seriously injured (hospitalised) were not matched to a police crash record. While the proportion of serious injuries matching to police reports was high among drivers (84 per cent), pedestrians (64 per cent) and passengers (58 per cent), the rate was considerably lower among motorcyclists (44 per cent) and pedal cyclists (18 per cent).
- Some potential reasons for motorcyclists and pedal cyclists not matching have been identified as:
  - When motorcyclists are in non-collision crashes (e.g. falling from the motorcycle) the crash is often not reported (e.g. the motorcyclist may not want to involve police, or may not want to report the crash if illegal behaviour was involved)
  - When pedal cyclists are in non-collision crashes (e.g. falling from the bike) the crash is often not reported (e.g. the cyclist is unaware it should be reported or it is not considered a road crash incident).
- Total serious injuries have increased by 3 per cent over the eleven year period
  - Serious injuries not matched to a police report increased by 12 per cent
  - However, serious injuries matched to a police report decreased by 4 per cent.
- The rise in total serious injuries can be largely attributed to an increase among:
  - **Motorcyclists** (up 16 per cent from 2,145 in 2005 to 2,485 in 2015) -
    - There were increases in both matched (up 26 per cent) and unmatched motorcyclist serious injuries (up 9 per cent)
    - Those involved in collisions with a fixed object (up 33 per cent), non-collision crashes (up 40 per cent) and collisions with a car/pickup/van (up 35 per cent).
  - **Pedal cyclists** (up 17 per cent from 1,691 in 2005 to 1,981 in 2015) -
    - The increase in total pedal cyclist serious injuries was mainly driven by a 22 per cent increase in unmatched pedal cyclist serious injuries
    - Those involved in non-collisions (up by 105 per cent).
  - **Drivers** (up 10 per cent from 3,934 in 2005 to 4,321 in 2015) -

- The increase in total driver serious injuries was mainly driven by a 70 per cent increase in unmatched driver serious injuries
  - Those involved in collisions with another car, pickup truck or van (up by 20 per cent).
- The fall in matched serious injuries over the last two years can be largely attributed to decreases from:
  - Metropolitan areas
  - Unclassified and other (lower order) classified roads
  - Roads with a posted speed limit of 50 km/h and 60 km/h
  - Novice driver crashes.

The availability of serious injury data will have implications for the delivery of future initiatives under-pinning the NSW road safety strategy.

## 8 Glossary

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<i>APDC</i>	NSW Admitted Patient Data Collection – This collection records all admitted patient services provided by NSW Public Hospitals, Public Psychiatric Hospitals, Public Multi-Purpose Services, Private Hospitals and Private Day Procedures Centres.
<i>Car</i>	Includes sedan, station wagon, utility (based on car design), panel van (based on car design), coupe, hatchback, sports car, passenger van and four wheel drive passenger vehicle.
<i>Car Occupant</i>	Any person who is in, on, boarding, entering, alighting or falling from a car at the time of the crash, provided a portion of the person is in/on the car.
<i>Casualty</i>	Any person killed or injured as a result of a crash.
<i>CHeReL</i>	Centre for Health Record Linkage - links multiple sources of health related data and maintains a record linkage system that protects privacy.
<i>Controller</i>	A person occupying the controlling position of a road vehicle.
<i>Crash</i>	Any apparently unpremeditated event reported to the police and resulting in death, injury or property damage attributable to the movement of a road vehicle on a road.
<i>CrashLink</i>	CrashLink is a suite of systems processes and resources that provide quality crash data analysis and reporting. The primary source of crash data is NSW Police.
<i>CTP</i>	Compulsory Third Party
<i>Driver</i>	A controller of a motor vehicle other than a motorcycle.
<i>Fatality</i>	A person who dies within 30 days of a crash as a result of injuries received in that crash.
<i>ICD</i>	International Classification of Diseases, 10 <sup>th</sup> Revision, Australian Modification. This code list is used by NSW Hospitals (APDC) for translating the narrative descriptions of diseases, injuries and external causes of injuries contained in medical records into alphanumeric codes.
<i>Injured</i>	A person who is injured as a result of a crash according to NSW Police, and who does not die as a result of those injuries within 30 days of the crash.
<i>Motor vehicle</i>	Any road vehicle which is mechanically or electrically powered but not operated on rails.
<i>Motorcycle</i>	Any mechanically or electrically propelled two or three-wheeled machine with or without side-car. Includes solo motorcycle, motorcycle with sidecar, motor scooter, mini-bike, three-wheeled special mobility vehicle and moped (motorised 'pedal cycle').
<i>Motorcyclist</i>	A person occupying the controlling position of a motorcycle or a person on but not controlling a motorcycle.
<i>Occupant</i>	Any person who is in, on, boarding, entering, alighting or falling from a road vehicle at the time of the crash, provided a portion of the person is in/on the road vehicle.

<i>Passenger</i>	Any person, other than the controller, who is in, on, boarding, entering, alighting or falling from a road vehicle at the time of the crash, provided a portion of the person is in/on the road vehicle.
<i>Pedal cycle</i>	Any two or three-wheeled device operated solely by pedals and propelled by human power except toy vehicles or other pedestrian conveyances. Includes bicycles with side-car, trailer or training wheels attached.
<i>Pedal cyclist</i>	A person occupying the controlling position of a pedal cycle or a person on but not controlling a pedal cycle.
<i>Pedestrian</i>	Any person who is <u>not</u> in, on, boarding, entering, alighting or falling from a road vehicle at the time of the crash.
<i>Serious injury (all hospitalised injuries)</i>	The total of serious injuries derived from hospital admissions who either were matched to police reports or not matched to police reports.
<i>Serious injuries matched to police reports</i>	A person identified in the Police crash report data (casualty or traffic unit controller) matched to a hospital stay containing an injury diagnosis on the same day or the day after a crash and did not die within 30 days of the crash; or linked to an icare (Lifetime Care) participant record.
<i>Serious injuries not matched to police reports</i>	A person not matched to a police report but has been identified as having an injury on a public road or injury on a traffic-public road for the hospital stay.
<i>Serious injury crash</i>	A non-fatal crash for which at least one person is seriously injured.
<i>SIRA</i>	State Insurance Regulatory Authority
<i>Urbanisation</i>	The urbanisation of the area where the crash occurred.

## 9 Data Tables

**Table 1: Number and proportion of serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

Serious Injury Category	Number	Proportion
Serious injuries matched to police reports	72,152	55%
Serious injuries not matched to police reports	59,177	45%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>131,329</b>	<b>100%</b>

**Table 2: Number of serious injuries, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	6,621	5,146	11,767
2006	6,948	5,511	12,459
2007	6,402	5,348	11,750
2008	6,191	5,181	11,372
2009	6,206	5,196	11,402
2010	6,224	5,225	11,449
2011	6,592	5,079	11,671
2012	6,884	5,368	12,252
2013	6,932	5,734	12,666
2014	6,812	5,608	12,420
2015	6,340	5,781	12,121

**Table 3: Rate of serious injuries (per 100,000 population), reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	98.9	76.9	175.8
2006	103.0	81.7	184.8
2007	93.7	78.3	171.9
2008	89.2	74.6	163.8
2009	88.0	73.7	161.6
2010	87.1	73.1	160.3
2011	91.3	70.4	161.7
2012	94.2	73.5	167.7
2013	93.6	77.4	171.0
2014	90.7	74.6	165.3
2015	83.2	75.9	159.1

**Table 4: Number and proportion of driver serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	36,898	84%
Serious injuries not matched to police reports	6,784	16%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>43,682</b>	<b>100%</b>

**Table 5: Number of driver serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	3,360	574	3,934
2006	3,531	535	4,066
2007	3,226	508	3,734
2008	3,117	520	3,637
2009	3,004	538	3,542
2010	3,224	586	3,810
2011	3,450	581	4,031
2012	3,587	615	4,202
2013	3,614	644	4,258
2014	3,442	705	4,147
2015	3,343	978	4,321

**Table 6: Number and proportion of passenger serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	10,993	58%
Serious injuries not matched to police reports	7,917	42%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>18,910</b>	<b>100%</b>

**Table 7: Number of passenger serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	1,215	740	1,955
2006	1,212	783	1,995
2007	1,034	648	1,682
2008	943	602	1,545
2009	1,022	651	1,673
2010	893	705	1,598
2011	941	696	1,637
2012	999	746	1,745
2013	933	811	1,744
2014	917	760	1,677
2015	884	775	1,659

**Table 8: Number and proportion of motorcyclist serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	12,343	44%
Serious injuries not matched to police reports	15,411	56%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>27,754</b>	<b>100%</b>

**Table 9: Number of motorcyclist serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	895	1,250	2,145
2006	1,032	1,368	2,400
2007	991	1,413	2,404
2008	1,061	1,467	2,528
2009	1,125	1,491	2,616
2010	1,073	1,381	2,454
2011	1,153	1,355	2,508
2012	1,267	1,450	2,717
2013	1,286	1,483	2,769
2014	1,336	1,392	2,728
2015	1,124	1,361	2,485

**Table 10: Number and proportion of pedal cyclist serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	3,585	18%
Serious injuries not matched to police reports	16,342	82%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>19,927</b>	<b>100%</b>

**Table 11: Number of pedal cyclist serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	335	1,356	1,691
2006	333	1,461	1,794
2007	316	1,398	1,714
2008	280	1,396	1,676
2009	336	1,360	1,696
2010	311	1,352	1,663
2011	296	1,380	1,676
2012	340	1,534	1,874
2013	367	1,725	2,092
2014	349	1,721	2,070
2015	322	1,659	1,981

**Table 12: Number and proportion of pedestrian serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	8,325	64%
Serious injuries not matched to police reports	4,718	36%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>13,043</b>	<b>100%</b>

**Table 13: Number of pedestrian serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	816	420	1,236
2006	840	441	1,281
2007	834	473	1,307
2008	790	403	1,193
2009	719	413	1,132
2010	723	442	1,165
2011	750	389	1,139
2012	691	438	1,129
2013	732	449	1,181
2014	766	400	1,166
2015	664	450	1,114

**Table 14: Number and proportion of 0-16 year old serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	4,529	30%
Serious injuries not matched to police reports	10,351	70%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>14,880</b>	<b>100%</b>

**Table 15: Number of 0-16 year old serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	526	1,228	1,754
2006	536	1,295	1,831
2007	461	1,178	1,639
2008	385	1,076	1,461
2009	463	900	1,363
2010	391	845	1,236
2011	383	764	1,147
2012	372	834	1,206
2013	396	818	1,214
2014	316	722	1,038
2015	300	691	991

**Table 16: Number and proportion of 17-25 year old serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	17,196	59%
Serious injuries not matched to police reports	11,776	41%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>28,972</b>	<b>100%</b>

**Table 17: Number of 17-25 year old serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	1,754	1,097	2,851
2006	1,813	1,156	2,969
2007	1,540	1,013	2,553
2008	1,518	1,001	2,519
2009	1,464	1,073	2,537
2010	1,502	1,043	2,545
2011	1,615	1,020	2,635
2012	1,580	1,075	2,655
2013	1,591	1,132	2,723
2014	1,455	1,000	2,455
2015	1,364	1,166	2,530

**Table 18: Number and proportion of 26-39 year old serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	17,446	58%
Serious injuries not matched to police reports	12,817	42%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>30,263</b>	<b>100%</b>

**Table 19: Number of 26-39 year old serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	1,656	1,135	2,791
2006	1,772	1,209	2,981
2007	1,634	1,148	2,782
2008	1,554	1,132	2,686
2009	1,463	1,134	2,597
2010	1,476	1,138	2,614
2011	1,522	1,103	2,625
2012	1,641	1,157	2,798
2013	1,641	1,167	2,808
2014	1,626	1,230	2,856
2015	1,461	1,264	2,725

**Table 20: Number and proportion of 40-59 year old serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	19,539	58%
Serious injuries not matched to police reports	14,239	42%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>33,778</b>	<b>100%</b>

**Table 21: Number of 40-59 year old serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	1,645	1,008	2,653
2006	1,742	1,113	2,855
2007	1,656	1,193	2,849
2008	1,628	1,160	2,788
2009	1,738	1,223	2,961
2010	1,707	1,300	3,007
2011	1,802	1,287	3,089
2012	1,964	1,352	3,316
2013	1,919	1,537	3,456
2014	1,937	1,532	3,469
2015	1,801	1,534	3,335

**Table 22: Number and proportion of 60 plus year old serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	13,442	57%
Serious injuries not matched to police reports	9,994	43%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>23,436</b>	<b>100%</b>

**Table 23: Number of 60 plus year old serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	1040	678	1718
2006	1085	738	1823
2007	1111	816	1927
2008	1106	812	1918
2009	1078	865	1944
2010	1148	899	2047
2011	1270	905	2175
2012	1327	950	2277
2013	1385	1,080	2465
2014	1478	1,124	2602
2015	1414	1,126	2540

**Table 24: Number and proportion of male serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	44,772	52%
Serious injuries not matched to police reports	40,613	48%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>85,385</b>	<b>100%</b>

**Table 25: Number of male serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	4,038	3,553	7,591
2006	4,308	3,743	8,051
2007	4,001	3,692	7,693
2008	3,892	3,652	7,544
2009	3,871	3,680	7,551
2010	3,830	3,555	7,385
2011	4,031	3,458	7,489
2012	4,329	3,693	8,022
2013	4,276	3,935	8,211
2014	4,225	3,787	8,012
2015	3,971	3,865	7,836

**Table 26: Number and proportion of female serious injuries (all hospitalised injuries), NSW, 2005 to 2015**

<b>Serious Injury Category</b>	<b>Number</b>	<b>Proportion</b>
Serious injuries matched to police reports	27,349	60%
Serious injuries not matched to police reports	18,562	40%
<b>Total Serious Injuries (all hospitalised injuries)</b>	<b>45,911</b>	<b>100%</b>

**Table 27: Number of female serious injuries, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	2,579	1,592	4,171
2006	2,637	1,767	4,404
2007	2,397	1,656	4,053
2008	2,293	1,529	3,822
2009	2,332	1,516	3,848
2010	2,393	1,670	4,063
2011	2,559	1,621	4,180
2012	2,553	1,675	4,228
2013	2,651	1,799	4,450
2014	2,587	1,821	4,408
2015	2,368	1,916	4,284

**Table 28: Number and proportion of driver serious injuries (all hospitalised injuries) by crash counterpart, NSW, 2005 to 2015**

Crash Counterpart and Serious Injury Category		Number	Proportion
Motor vehicle collision with a car / pickup truck / van	Serious injuries matched to police reports	19,370	86%
	Serious injuries not matched to police reports	3,184	14%
	Total Serious Injuries (all hospitalised injuries)	22,554	100%
Motor vehicle collision with a heavy vehicle / bus	Serious injuries matched to police reports	2,212	90%
	Serious injuries not matched to police reports	259	10%
	Total Serious Injuries (all hospitalised injuries)	2,471	100%
Motor vehicle collision with fixed object	Serious injuries matched to police reports	11,624	87%
	Serious injuries not matched to police reports	1,749	13%
	Total Serious Injuries (all hospitalised injuries)	13,373	100%
Motor vehicle non-collision	Serious injuries matched to police reports	2,590	69%
	Serious injuries not matched to police reports	1,175	31%
	Total Serious Injuries (all hospitalised injuries)	3,765	100%
All other / unspecified counterparts	Serious injuries matched to police reports	1,102	73%
	Serious injuries not matched to police reports	417	27%
	Total Serious Injuries (all hospitalised injuries)	1,519	100%

**Table 29: Number of driver serious injuries (all hospitalised injuries) arising from a collision with a car/pickup/van, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	1,707	249	1,956
2006	1,831	212	2,043
2007	1,650	219	1,869
2008	1,549	219	1,768
2009	1,473	231	1,704
2010	1,720	265	1,985
2011	1,854	276	2,130
2012	1,911	297	2,208
2013	1,965	318	2,283
2014	1,905	359	2,264
2015	1,805	539	2,344

**Table 30: Number of driver serious injuries (all hospitalised injuries) arising a collision with a heavy vehicle/bus, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	214	25	239
2006	205	18	223
2007	207	17	224
2008	171	18	189
2009	163	18	181
2010	201	25	226
2011	193	25	218
2012	208	25	233
2013	220	31	251
2014	198	24	222
2015	232	33	265

**Table 31: Number of driver serious injuries (all hospitalised injuries) arising from a collision with a fixed object, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	1,084	139	1,223
2006	1,107	134	1,241
2007	1,030	147	1,177
2008	1,024	138	1,162
2009	1,001	148	1,149
2010	992	147	1,139
2011	1,073	145	1,218
2012	1,140	163	1,303
2013	1,113	158	1,271
2014	1,040	177	1,217
2015	1,020	253	1,273

**Table 32: Number of driver serious injuries (all hospitalised injuries) arising from a non-collision, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	259	119	378
2006	285	123	408
2007	238	102	340
2008	258	99	357
2009	256	103	359
2010	215	107	322
2011	211	88	299
2012	212	97	309
2013	230	106	336
2014	220	106	326
2015	206	125	331

**Table 33: Number of driver serious injuries (all hospitalised injuries) arising from all other crash modes, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	96	42	138
2006	103	48	151
2007	101	23	124
2008	115	46	161
2009	111	38	149
2010	96	42	138
2011	119	47	166
2012	116	33	149
2013	86	31	117
2014	79	39	118
2015	80	28	108

**Table 34: Number and proportion of passenger serious injuries (all hospitalised injuries) by crash counterpart, NSW, 2005 to 2015**

Crash Counterpart and Serious Injury Category		Number	Proportion
Motor vehicle collision with a car / pickup truck / van	Serious injuries matched to police reports	5,500	57%
	Serious injuries not matched to police reports	4,087	43%
	Total Serious Injuries (all hospitalised injuries)	9,587	100%
Motor vehicle collision with a heavy vehicle / bus	Serious injuries matched to police reports	534	69%
	Serious injuries not matched to police reports	240	31%
	Total Serious Injuries (all hospitalised injuries)	774	100%
Motor vehicle collision with fixed object	Serious injuries matched to police reports	3,618	73%
	Serious injuries not matched to police reports	1,314	27%
	Total Serious Injuries (all hospitalised injuries)	4,932	100%
Motor vehicle non-collision	Serious injuries matched to police reports	833	30%
	Serious injuries not matched to police reports	1,983	70%
	Total Serious Injuries (all hospitalised injuries)	2,816	100%
All other / unspecified counterparts	Serious injuries matched to police reports	508	63%
	Serious injuries not matched to police reports	293	37%
	Total Serious Injuries (all hospitalised injuries)	801	100%

**Table 35: Number of passenger serious injuries (all hospitalised injuries) arising from a collision with a car/pickup/van, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	614	336	950
2006	589	410	999
2007	520	323	843
2008	439	288	727
2009	491	304	795
2010	470	357	827
2011	492	369	861
2012	499	415	914
2013	449	439	888
2014	460	418	878
2015	477	428	905

**Table 36: Number of passenger serious injuries (all hospitalised injuries) arising a collision with a heavy vehicle/bus, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	60	27	87
2006	63	14	77
2007	64	20	84
2008	51	18	69
2009	37	16	53
2010	26	30	56
2011	43	24	67
2012	40	24	64
2013	51	18	69
2014	59	21	80
2015	40	28	68

**Table 37: Number of passenger serious injuries (all hospitalised injuries) arising from a collision with a fixed object, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	366	136	502
2006	390	114	504
2007	340	109	449
2008	302	125	427
2009	377	126	503
2010	294	110	404
2011	300	110	410
2012	338	115	453
2013	332	133	465
2014	298	117	415
2015	281	119	400

**Table 38: Number of passenger serious injuries (all hospitalised injuries) arising from a non-collision, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	126	198	324
2006	105	207	312
2007	63	172	235
2008	94	150	244
2009	72	177	249
2010	60	182	242
2011	67	174	241
2012	70	172	242
2013	60	192	252
2014	62	178	240
2015	54	181	235

**Table 39: Number of passenger serious injuries (all hospitalised injuries) arising from all other crash modes, reporting year, category**

<b>Year</b>	<b>Serious injuries matched to police reports</b>	<b>Serious injuries not matched to police reports</b>	<b>Total Serious Injuries (all hospitalised injuries)</b>
2005	49	43	92
2006	65	38	103
2007	47	24	71
2008	57	21	78
2009	45	28	73
2010	43	26	69
2011	39	19	58
2012	52	20	72
2013	41	29	70
2014	38	26	64
2015	32	19	51

**Table 40: Number and proportion of motorcyclist serious injuries (all hospitalised injuries) by crash counterpart, NSW, 2005 to 2015**

Crash Counterpart and Serious Injury Category		Number	Proportion
Motorcyclist collision with a pedestrian/animal	Serious injuries matched to police reports	425	66%
	Serious injuries not matched to police reports	217	34%
	Total Serious Injuries (all hospitalised injuries)	642	100%
Motorcyclist collision with a car / pickup truck / van	Serious injuries matched to police reports	5,510	85%
	Serious injuries not matched to police reports	988	15%
	Total Serious Injuries (all hospitalised injuries)	6,498	100%
Motorcyclist collision with fixed object	Serious injuries matched to police reports	1,721	59%
	Serious injuries not matched to police reports	1,216	41%
	Total Serious Injuries (all hospitalised injuries)	2,937	100%
Motorcyclist non-collision	Serious injuries matched to police reports	3,782	35%
	Serious injuries not matched to police reports	6,898	65%
	Total Serious Injuries (all hospitalised injuries)	10,680	100%
Motorcyclist other / unspecified	Serious injuries matched to police reports	369	6%
	Serious injuries not matched to police reports	5,680	94%
	Total Serious Injuries (all hospitalised injuries)	6,049	100%
All other crash counterparts	Serious injuries matched to police reports	536	57%
	Serious injuries not matched to police reports	412	43%
	Total Serious Injuries (all hospitalised injuries)	948	100%

**Table 41: Number of motorcyclist serious injuries (all hospitalised injuries) arising from a motorcycle collision with pedestrian/animal, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	26	12	38
2006	39	16	55
2007	37	9	46
2008	29	22	51
2009	40	18	58
2010	32	20	52
2011	37	20	57
2012	44	25	69
2013	44	28	72
2014	53	29	82
2015	44	18	62

**Table 42: Number of motorcyclist serious injuries (all hospitalised injuries) arising from a motorcycle collision with a car/pickup/van, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	411	75	486
2006	484	63	547
2007	411	79	490
2008	452	91	543
2009	474	83	557
2010	470	84	554
2011	518	79	597
2012	563	99	662
2013	569	110	679
2014	623	103	726
2015	535	122	657

**Table 43: Number of motorcyclist serious injuries (all hospitalised injuries) arising from a motorcycle collision with a fixed object, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	109	86	195
2006	151	96	247
2007	151	115	266
2008	158	117	275
2009	151	124	275
2010	166	89	255
2011	161	91	252
2012	165	121	286
2013	174	135	309
2014	195	122	317
2015	140	120	260

**Table 44: Number of motorcyclist serious injuries (all hospitalised injuries) arising from a motorcycle non-collision, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	283	467	750
2006	287	534	821
2007	305	541	846
2008	320	535	855
2009	379	675	1,054
2010	322	661	983
2011	367	647	1,014
2012	384	680	1,064
2013	399	734	1,133
2014	400	707	1,107
2015	336	717	1,053

**Table 45: Number of motorcyclist serious injuries (all hospitalised injuries) arising a motorcycle collision with other or unspecified details, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	25	574	599
2006	31	625	656
2007	48	628	676
2008	44	669	713
2009	32	548	580
2010	34	490	524
2011	28	483	511
2012	43	491	534
2013	45	426	471
2014	21	395	416
2015	18	351	369

**Table 46: Number of motorcyclist serious injuries (all hospitalised injuries) arising from all other crash modes, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	41	36	77
2006	40	34	74
2007	39	41	80
2008	58	33	91
2009	49	43	92
2010	49	37	86
2011	42	35	77
2012	68	34	102
2013	55	50	105
2014	44	36	80
2015	51	33	84

**Table 47: Number and proportion of pedal cyclist serious injuries (all hospitalised injuries) by crash counterpart, NSW, 2005 to 2015**

Crash Counterpart and Serious Injury Category		Number	Proportion
Pedal cyclist collision with a pedal cycle	Serious injuries matched to police reports	85	11%
	Serious injuries not matched to police reports	657	89%
Total Serious Injuries (all hospitalised injuries)		742	100%
Pedal cyclist collision with a car / pickup truck / van	Serious injuries matched to police reports	2,447	68%
	Serious injuries not matched to police reports	1,135	32%
Total Serious Injuries (all hospitalised injuries)		3,582	100%
Pedal cyclist collision with fixed object	Serious injuries matched to police reports	97	10%
	Serious injuries not matched to police reports	905	90%
Total Serious Injuries (all hospitalised injuries)		1,002	100%
Pedal cyclist non-collision	Serious injuries matched to police reports	509	6%
	Serious injuries not matched to police reports	7,988	94%
Total Serious Injuries (all hospitalised injuries)		8,497	100%
Pedal cyclist other / unspecified	Serious injuries matched to police reports	261	5%
	Serious injuries not matched to police reports	5,447	95%
Total Serious Injuries (all hospitalised injuries)		5,708	100%
All other crash counterparts	Serious injuries matched to police reports	186	47%
	Serious injuries not matched to police reports	210	53%
Total Serious Injuries (all hospitalised injuries)		396	100%

**Table 48: Number of pedal cyclist serious injuries (all hospitalised injuries) arising from a pedal cycle collision with a pedal cycle, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	5	39	44
2006	9	26	35
2007	8	37	45
2008	6	46	52
2009	10	79	89
2010	8	63	71
2011	5	56	61
2012	5	61	66
2013	12	86	98
2014	4	72	76
2015	13	92	105

**Table 49: Number of pedal cyclist serious injuries (all hospitalised injuries) arising from a pedal cycle collision with a car/pickup/van, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	235	107	342
2006	212	116	328
2007	209	88	297
2008	188	100	288
2009	215	81	296
2010	209	88	297
2011	206	104	310
2012	248	94	342
2013	254	115	369
2014	248	125	373
2015	223	117	340

**Table 50: Number of pedal cyclist serious injuries (all hospitalised injuries) arising from a pedal cycle collision with a fixed object, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	14	70	84
2006	8	67	75
2007	13	76	89
2008	6	75	81
2009	6	70	76
2010	8	72	80
2011	8	77	85
2012	7	93	100
2013	9	82	91
2014	8	112	120
2015	10	111	121

**Table 51: Number of pedal cyclist serious injuries (all hospitalised injuries) arising from a pedal cycle non-collision, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	44	450	494
2006	57	580	637
2007	41	554	595
2008	38	611	649
2009	54	667	721
2010	44	703	747
2011	43	723	766
2012	41	828	869
2013	48	969	1,017
2014	57	932	989
2015	42	971	1,013

**Table 52: Number of pedal cyclist serious injuries (all hospitalised injuries) arising a pedal cycle collision with other or unspecified details, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	24	677	701
2006	31	662	693
2007	25	621	646
2008	24	545	569
2009	34	440	474
2010	23	408	431
2011	19	402	421
2012	17	431	448
2013	25	456	481
2014	16	450	466
2015	23	355	378

**Table 53: Number of pedal cyclist serious injuries (all hospitalised injuries) arising from all other crash modes, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	13	13	26
2006	16	10	26
2007	20	22	42
2008	18	19	37
2009	17	23	40
2010	19	18	37
2011	15	18	33
2012	22	27	49
2013	19	17	36
2014	16	30	46
2015	11	13	24

**Table 54: Number and proportion of pedestrian serious injuries (all hospitalised injuries) by crash counterpart, NSW, 2005 to 2015**

Crash Counterpart and Serious Injury Category		Number	Proportion
Pedestrian collision with a car / pickup truck / van	Serious injuries matched to police reports	6,883	65%
	Serious injuries not matched to police reports	3,733	35%
Total Serious Injuries (all hospitalised injuries)		10,616	100%
Pedestrian collision with heavy vehicle / bus	Serious injuries matched to police reports	386	63%
	Serious injuries not matched to police reports	223	37%
Total Serious Injuries (all hospitalised injuries)		609	100%
Pedal cyclist other / unspecified	Serious injuries matched to police reports	793	69%
	Serious injuries not matched to police reports	357	31%
Total Serious Injuries (all hospitalised injuries)		1,150	100%
All other crash counterparts	Serious injuries matched to police reports	263	39%
	Serious injuries not matched to police reports	405	61%
Total Serious Injuries (all hospitalised injuries)		668	100%

**Table 55: Number of pedestrian serious injuries (all hospitalised injuries) arising from a pedestrian collision with a car/pickup/van, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	673	307	980
2006	673	357	1,030
2007	684	346	1,030
2008	636	318	954
2009	592	326	918
2010	600	364	964
2011	601	313	914
2012	566	347	913
2013	613	358	971
2014	661	316	977
2015	584	381	965

**Table 56: Number of pedestrian serious injuries (all hospitalised injuries) arising from a pedestrian collision with a heavy truck/bus, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	39	15	54
2006	42	11	53
2007	36	20	56
2008	42	20	62
2009	35	23	58
2010	36	17	53
2011	35	19	54
2012	28	31	59
2013	27	21	48
2014	42	22	64
2015	24	24	48

**Table 57: Number of pedestrian serious injuries (all hospitalised injuries) arising from a pedestrian collision with other or unspecified details, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	80	60	140
2006	100	39	139
2007	89	68	157
2008	90	34	124
2009	73	19	92
2010	71	26	97
2011	89	21	110
2012	73	25	98
2013	70	21	91
2014	25	28	53
2015	33	16	49

**Table 58: Number of pedestrian serious injuries (all hospitalised injuries) arising from all other crash modes, reporting year, category**

Year	Serious injuries matched to police reports	Serious injuries not matched to police reports	Total Serious Injuries (all hospitalised injuries)
2005	24	38	62
2006	25	34	59
2007	25	39	64
2008	22	31	53
2009	19	45	64
2010	16	35	51
2011	25	36	61
2012	24	35	59
2013	22	49	71
2014	38	34	72
2015	23	29	52

**Table 59: Number of serious injuries matched to a police report, reporting year**

Year	Serious injuries matched to police reports
2005	6,621
2006	6,948
2007	6,402
2008	6,191
2009	6,206
2010	6,224
2011	6,592
2012	6,884
2013	6,932
2014	6,812
2015	6,340

**Table 60: Number and proportion of serious injuries matched to a police report, urbanisation, NSW, 2005 to 2015**

Serious injuries matched to police reports	Number	Proportion
Metropolitan	43,360	60%
Country	28,792	40%
Total matched serious injuries	72,152	100%

**Table 61: Number of serious injuries matched to a police report, reporting year, urbanisation**

Year	Metropolitan	Country
2005	3,787	2,834
2006	4,055	2,893
2007	3,793	2,609
2008	3,692	2,499
2009	3,673	2,533
2010	3,687	2,537
2011	3,956	2,636
2012	4,177	2,707
2013	4,369	2,563
2014	4,312	2,500
2015	3,859	2,481

**Table 62: Proportion of serious injuries matched to a police report, behavioural factor involvement**

	Speed	Fatigue	Alcohol	Restraint Non Usage
Percent	23%	12%	9%	2%

**Table 63: Number of serious injuries matched to a police report, reporting year, behavioural factor involved**

Year	Speed	Fatigue	Alcohol	Restraint Non Usage
2005	1,576	848	611	120
2006	1,670	853	743	165
2007	1,397	838	652	133
2008	1,412	844	633	142
2009	1,455	850	640	118
2010	1,507	697	518	109
2011	1,414	747	525	145
2012	1,490	839	507	146
2013	1,549	795	474	111
2014	1,623	788	493	136
2015	1,520	774	463	110

**Table 64: Number and proportion of serious injuries matched to a police report, type of location, NSW, 2005 to 2015**

Serious injuries matched to police reports	Number	Proportion
Intersection	28,910	40%
2-way undivided	32,381	45%
Divided road	7,402	10%
Limited access / Dual freeway	2,642	4%
Other	817	1%
Total matched serious injuries	72,152	100%

**Table 65: Number of serious injuries matched to a police report, reporting year, type of location**

Year	Intersection	2-way undivided	Divided road	Limited access / Dual freeway	Other
2005	2,618	3,029	672	237	65
2006	2,764	3,209	650	266	59
2007	2,599	2,863	637	238	65
2008	2,454	2,828	639	213	57
2009	2,476	2,865	584	193	88
2010	2,527	2,778	651	201	67
2011	2,677	2,909	669	248	89
2012	2,756	3,055	731	261	81
2013	2,778	3,083	751	228	92
2014	2,766	2,963	731	278	74
2015	2,495	2,799	687	279	80

**Table 66: Number and proportion of serious injuries matched to a police report, road classification, NSW, 2005 to 2015**

<b>Serious injuries matched to police reports</b>	<b>Number</b>	<b>Proportion</b>
Freeway/motorway	2,280	3%
State highway	13,157	18%
Other classified road	24,142	33%
Unclassified road	32,573	45%
<b>Total matched serious injuries</b>	<b>72,152</b>	<b>100%</b>

**Table 67: Number of serious injuries matched to a police report, reporting year, road classification**

<b>Year</b>	<b>Freeway/motorway</b>	<b>State highway</b>	<b>Other classified road</b>	<b>Unclassified road</b>
2005	221	1,298	2,194	2,908
2006	227	1,237	2,315	3,169
2007	191	1,306	2,128	2,777
2008	164	1,160	2,102	2,765
2009	169	1,121	1,985	2,931
2010	189	1,165	1,981	2,889
2011	221	1,121	2,201	3,049
2012	221	1,284	2,225	3,154
2013	197	1,174	2,367	3,194
2014	243	1,139	2,435	2,995
2015	237	1,152	2,209	2,742

**Table 68: Number and proportion of serious injuries matched to a police report, speed limit, NSW, 2005 to 2015**

Speed limit	Number	Proportion
40 & under	1,115	2%
50	21,716	30%
60	20,400	28%
70	5,858	8%
80	7,531	10%
90	1,406	2%
100	11,455	16%
110	2,457	3%
Unknown	214	< 1%
<b>Total matched serious injuries</b>	<b>72,152</b>	<b>100%</b>

**Table 69: Number of serious injuries matched to a police report, reporting year, speed limit**

Year	40 and under	50	60	70	80	90	100	110	u/k
2005	94	1,823	2,031	549	609	138	1,087	266	24
2006	89	2,063	2,062	564	622	137	1,157	237	17
2007	64	1,839	1,872	573	638	130	1,062	198	26
2008	67	1,808	1,793	529	643	106	995	222	28
2009	76	1,952	1,728	472	614	117	1,024	202	21
2010	77	1,879	1,741	458	705	119	1,038	187	20
2011	79	2,015	1,855	540	721	127	1,028	198	29
2012	105	2,099	1,949	568	781	125	1,015	221	21
2013	113	2,202	1,912	566	775	137	988	213	26
2014	182	2,147	1,780	533	698	139	1,081	251	1
2015	169	1,889	1,677	506	725	131	980	262	1

**Table 70: Number and proportion of serious injuries matched to a police report, road user movement, NSW, 2005 to 2015**

Serious injuries matched to police reports	Number	Proportion
Pedestrian	8,135	11%
Adjacent at intersection	8,362	12%
Head On (Not Overtaking)	6,043	8%
Other Opposing Turning	6,345	9%
Rear end	7,640	11%
Manoeuvring	3,381	5%
Off Path (Straight)	13,667	19%
Off Path (Curve)	12,846	18%
All Others	5,733	8%
Total matched serious injuries	72,152	100%

**Table 71: Number of serious injuries matched to a police report, reporting year, road user movement (selected)**

Year	Pedestrian	Adjacent at intersection	Head On (Not Overtaking)	Other Opposing Turning	Rear end	Manoeuvring	Off Path (Straight)	Off Path (Curve)
2005	789	782	625	605	635	296	1,195	1,217
2006	820	807	568	663	713	305	1,302	1,234
2007	838	744	563	580	629	280	1,229	1,065
2008	774	659	488	563	592	284	1,204	1,120
2009	692	684	489	570	552	264	1,286	1,153
2010	709	767	532	513	646	292	1,094	1,140
2011	729	802	581	527	757	296	1,250	1,137
2012	694	834	567	578	787	333	1,315	1,216
2013	708	831	546	615	779	337	1,345	1,227
2014	743	748	529	601	805	366	1,258	1,203
2015	639	704	555	530	745	328	1,189	1,134

**Table 72: Number of matched serious injuries from heavy truck crashes, reporting year**

<b>Year</b>	<b>Number</b>
2005	401
2006	389
2007	395
2008	353
2009	324
2010	349
2011	384
2012	394
2013	395
2014	386
2015	421

**Table 73: Number of matched serious injuries from 'P' plate driver crashes, reporting year**

<b>Year</b>	<b>Number</b>
2005	1,262
2006	1,419
2007	1,295
2008	1,198
2009	1,148
2010	1,254
2011	1,334
2012	1,444
2013	1,355
2014	1,187
2015	1,173

**Table 74: Number of matched serious injuries from novice driver crashes, reporting year**

<b>Year</b>	<b>Number</b>
2005	2,181
2006	2,313
2007	1,939
2008	1,847
2009	1,792
2010	1,908
2011	1,992
2012	1,927
2013	1,958
2014	1,790
2015	1,641