



Transport
for NSW

Centre for Road Safety



Fatigued and distracted driver trauma trends

Report

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Contents

Disclaimer.....	2
1 Trends for fatigue related fatal and serious injury crashes since 2008	4
1.1 Fatigue related fatalities and serious injuries since 2008	5
1.2 Percentage of total fatalities and serious injuries which involve fatigue, since 2008.....	6
1.3 Fatigued drivers and riders involved in fatal crashes, 2008 to 2010 v 2014 to 2016, gender x age group.....	6
1.4 Fatigued drivers and riders involved in serious injury crashes, 2008 to 2010 v 2014 to 2015, gender x age group	7
1.5 Fatigue related fatal crashes since 2008, urbanisation	8
1.6 Fatigue related serious injury crashes since 2008, urbanisation	8
1.7 Fatigue related fatal crashes since 2008, road classification	9
1.8 Fatigue related fatal crashes since 2008, type of vehicle	10
1.9 Fatigue related serious injury crashes since 2008, type of vehicle	11
1.10 Percentage of drivers and riders involved in fatal crashes, 2012 to 2016, fatigued v non fatigued, selected factors.....	11
1.11 Percentage of drivers and riders involved in serious injury crashes, 2012 to 2016, fatigued v not fatigued, selected factors.....	12
1.12 Percentage of fatigue related fatal and serious injury crashes, since 2012, day of week	13
14	
1.13 Percentage of drivers and riders involved in serious injury crashes, 2008 to 2016, age group, hour of day.....	14
2 Trends for distracted driving involvements in fatal and serious injury crashes since 2008.....	16
2.1 Fatalities and serious injuries from crashes involving a hand held mobile phone since 2008	16
2.2 Drivers and riders involved in serious casualty crashes with hand held mobile phone, 2008 to 2016	17

1 Trends for fatigue related fatal and serious injury crashes since 2008

The following overview of fatigue involvement in NSW road trauma is limited to the most recent available data. For fatal crashes this covers the calendar years 2008 to 2016p, where the 2016 data are preliminary and subject to change. For serious injury crashes this covers the calendar years 2008 to 2015 – data for the calendar year 2016 data were incomplete at the time of this report and therefore not included. Only the matched serious injury data were used in the analysis as complete data for non-matched serious injuries (along with other crash characteristics) were not available.

A fatigue related crash is a crash involving at least one fatigued motor vehicle.

A vehicle controller is considered to be fatigued if:

The vehicle's controller was described by police as being asleep, drowsy or fatigued.

Or

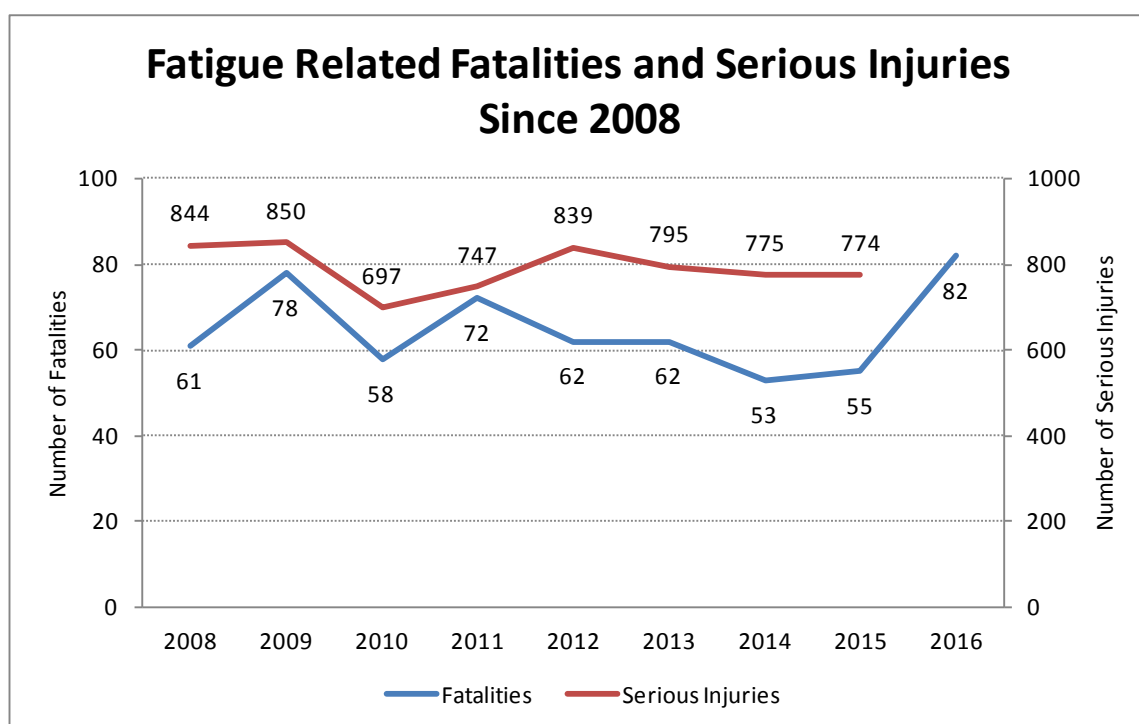
The vehicle performed a manoeuvre which suggested loss of concentration of the controller due to fatigue, that is

- the vehicle travelled onto the incorrect side of a straight road and was involved in a head-on collision (and was not overtaking another vehicle and no other relevant factor was identified); or
- the vehicle ran off a straight road or off the road to the outside of a curve and the vehicle was not directly identified as travelling at excessive speed and there was no other relevant factor identified for the manoeuvre.

1.1 Fatigue related fatalities and serious injuries since 2008

From 2008 to 2016 there were a total of 532 fatal crashes involving fatigue, resulting in 583 fatalities, with fatigue accounting for 17 per cent of all fatalities over this period. Over this period fatigue was alongside alcohol as the second most common behaviour factor involved in fatalities behind speed. However in recent years fatigue has actually displaced alcohol involvement in fatalities as the second leading behaviour factor.

From 2008 to 2015 there were a total of 6,321 serious injuries (matched to a police crash report) from fatigue related crashes, representing 12 per cent of all matched serious injuries over this period.

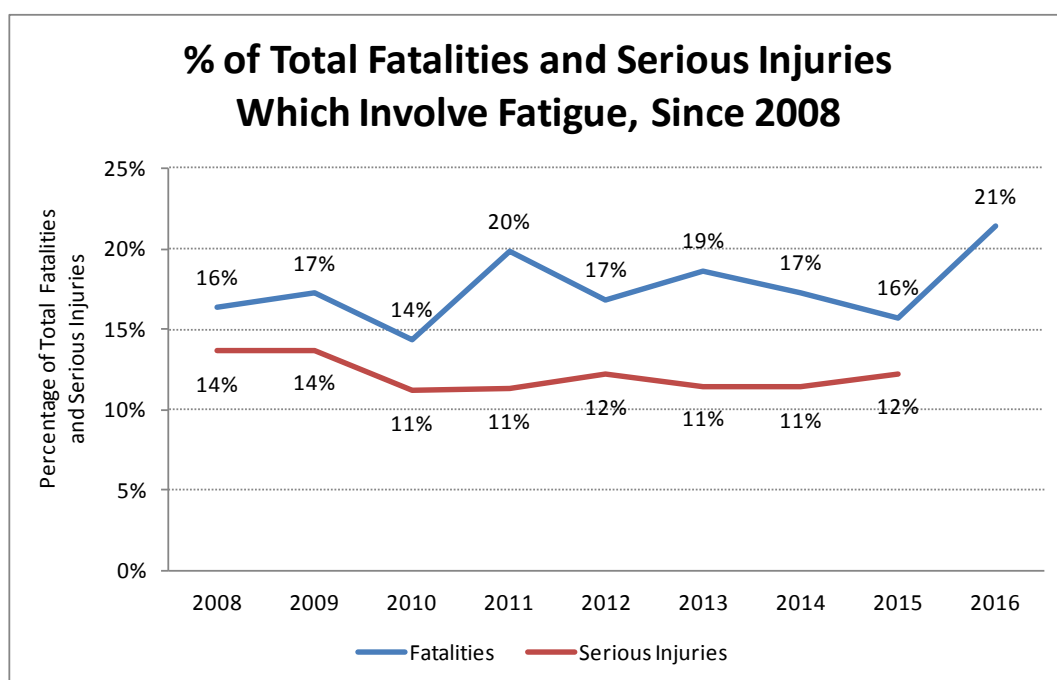


1.2 Percentage of total fatalities and serious injuries which involve fatigue, since 2008

Fatigue related fatalities decreased between 2009 and 2015 but increased by 49 per cent between 2015 and 2016 to reach its highest levels since 2007 (with 87 fatalities). In contrast fatigue related serious injuries have slightly decreased from 844 in 2008 to 774 in 2015.

Compared with the 2008 to 2010 baseline average fatigue related fatalities in 2016 were up by 6 per cent. In contrast, fatigue related serious injuries in 2015 were 3 per cent below the 2008 to 2010 baseline average.

Consequently, the percentage of total serious road trauma which involves fatigue has increased for fatalities, from 16 per cent to 21 per cent, but decreased slightly for serious injuries, from 14 per cent to 12 per cent.

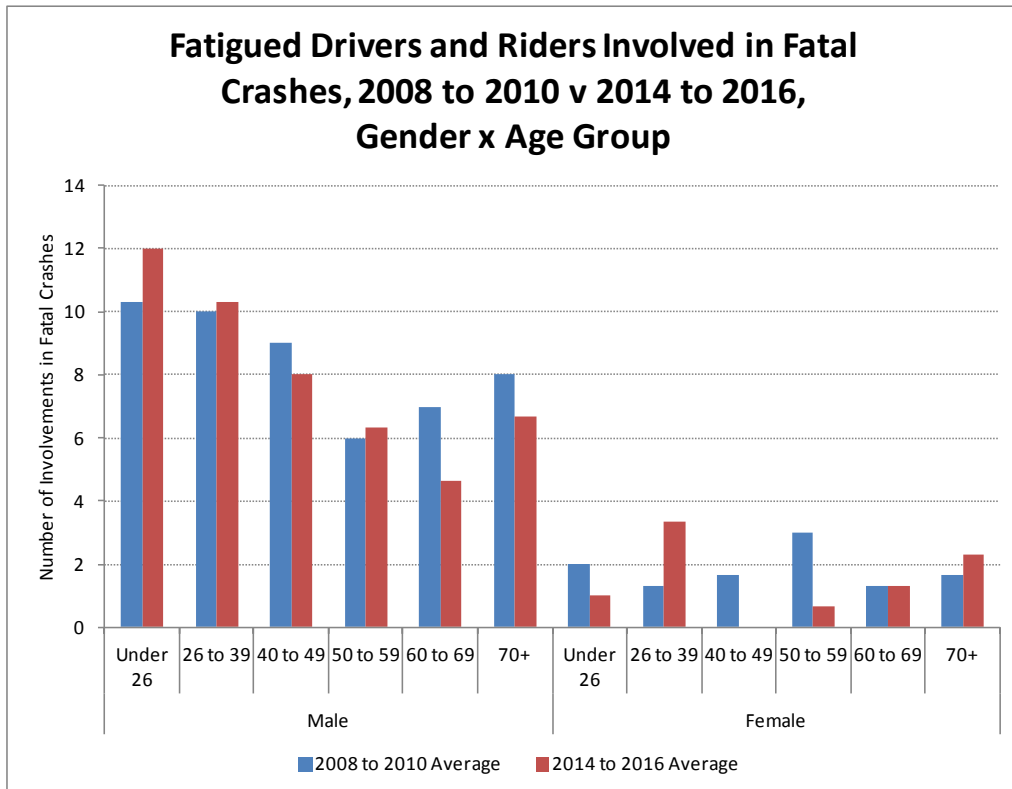


1.3 Fatigued drivers and riders involved in fatal crashes, 2008 to 2010 v 2014 to 2016, gender x age group

The overwhelming majority of fatigued drivers involved in fatal crashes for 2008 to 2016 are males (80 per cent) with males aged under 50 years accounting for 49 per cent of all fatigued drivers involved in fatal crashes. Males aged 60 years or more account for another 20 per cent of all fatigued drivers involved in fatal crashes.

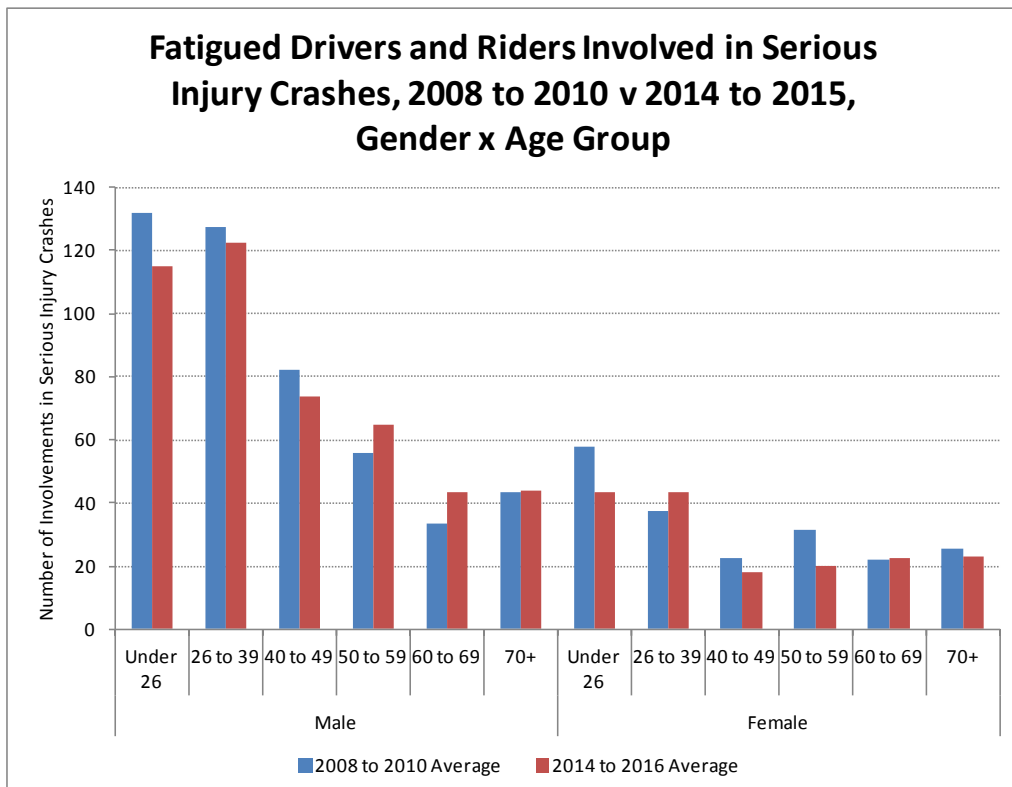
Similarly a significant majority of fatigued drivers involved in serious injury crashes for 2008 to 2015 are males (71 per cent) with males aged under 50 years accounting for 51 per cent of all fatigued drivers involved in serious injury crashes.

The following chart showing the demographic distribution of fatigued drivers involved in fatal crashes show some improvement amongst males aged under 26 years. However, there have been increases amongst males aged 60 years or more and amongst females aged 26 to 39 years (though this result is based on small numbers).



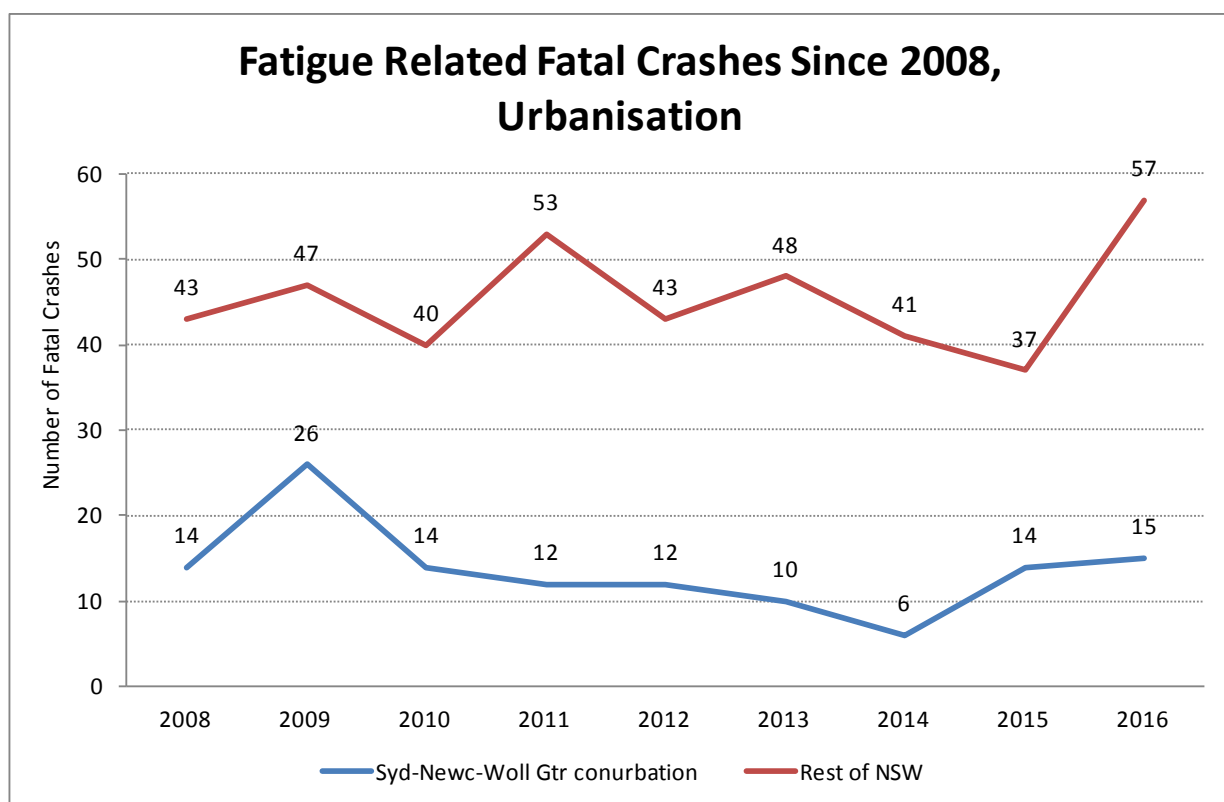
1.4 Fatigued drivers and riders involved in serious injury crashes, 2008 to 2010 v 2014 to 2015, gender x age group

For fatigued drivers involved in serious injury crashes the largest decreases have been amongst males and females aged under 26 years and males aged 50 to 69 years.



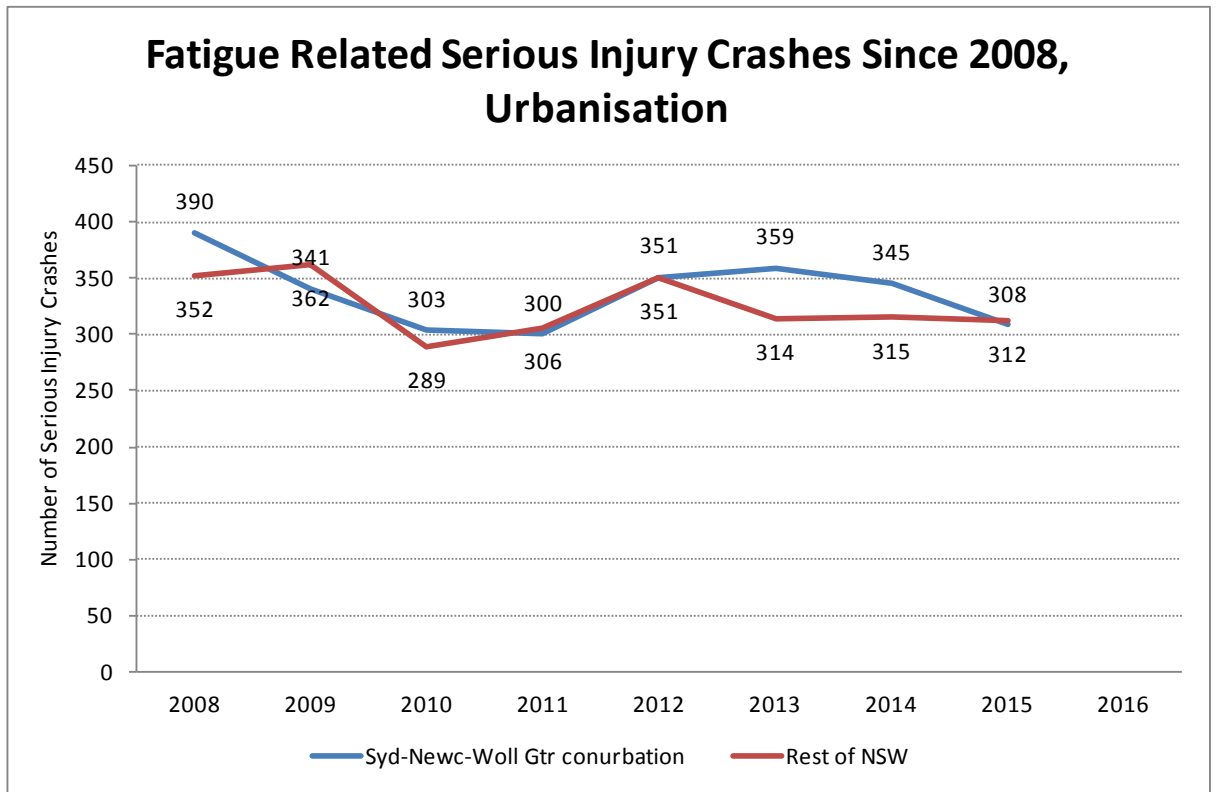
1.5 Fatigue related fatal crashes since 2008, urbanisation

The majority of fatal crashes involving fatigue occur in the country areas of NSW (that is, outside the Sydney Newcastle and Wollongong Greater Conurbation). From 2009 to 2014 there was an unchanged trend in the country areas but the 2016 result seem to represent a setback. Though smaller numbers are involved, the trend for fatigue related fatal crashes in the Sydney Newcastle and Wollongong Greater Conurbation decreased between 2009 and 2014 but increased in 2015 and 2016.



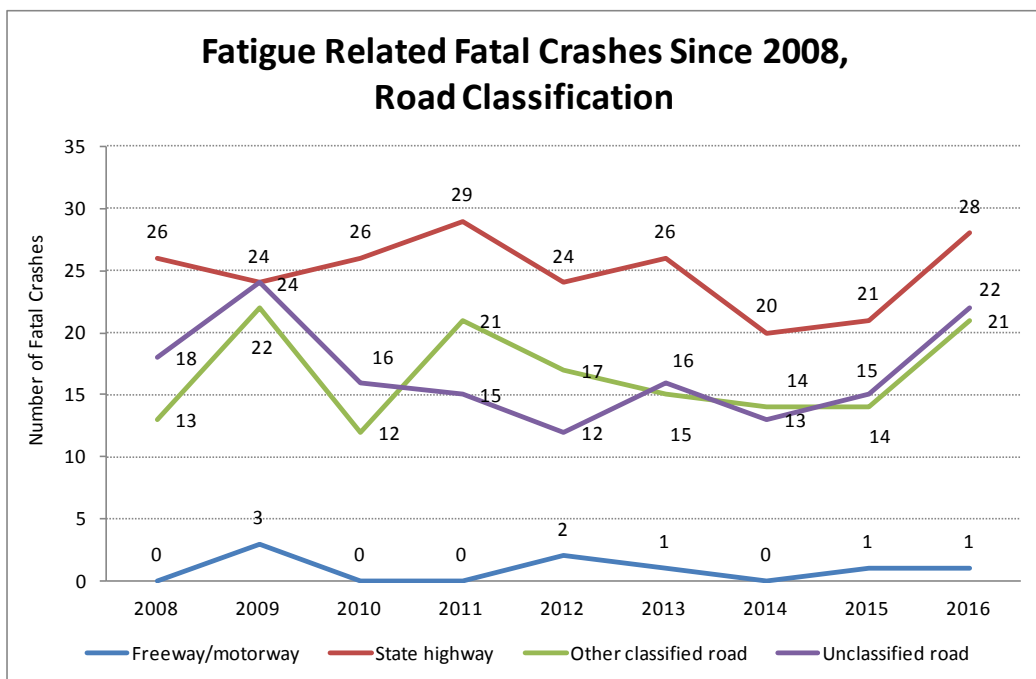
1.6 Fatigue related serious injury crashes since 2008, urbanisation

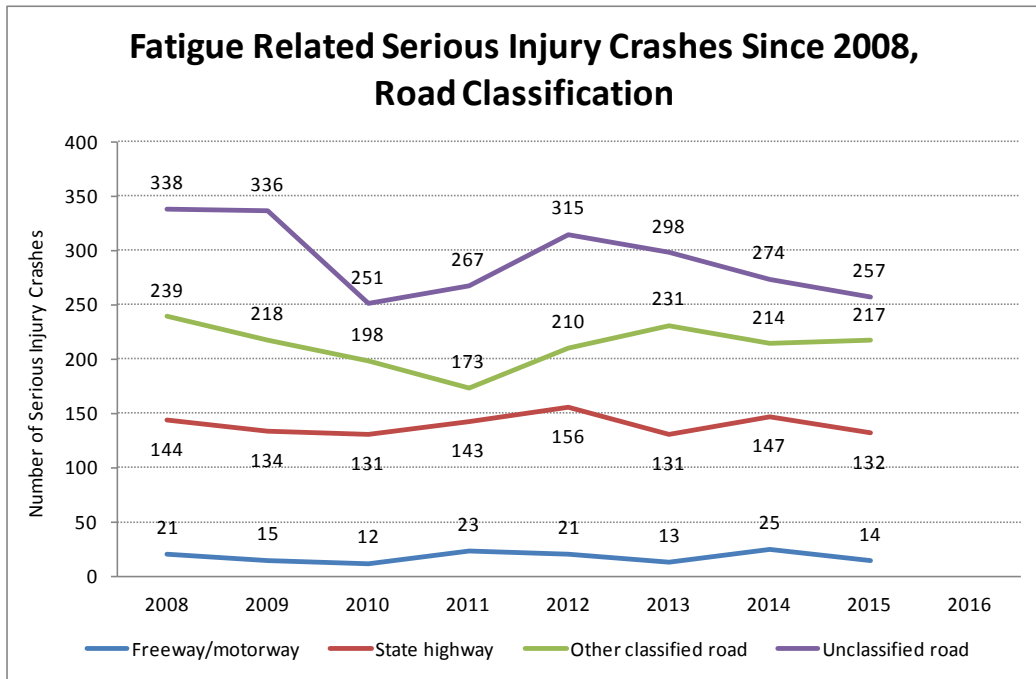
Fatigue related serious injury crashes are more evenly split between the Sydney Newcastle and Wollongong Greater Conurbation and the rest of the State. The decreasing trend in fatigue related serious injury crashes over the period 2008 to 2015 was experienced in the Sydney Newcastle and Wollongong Greater Conurbation and the rest of the State.



1.7 Fatigue related fatal crashes since 2008, road classification

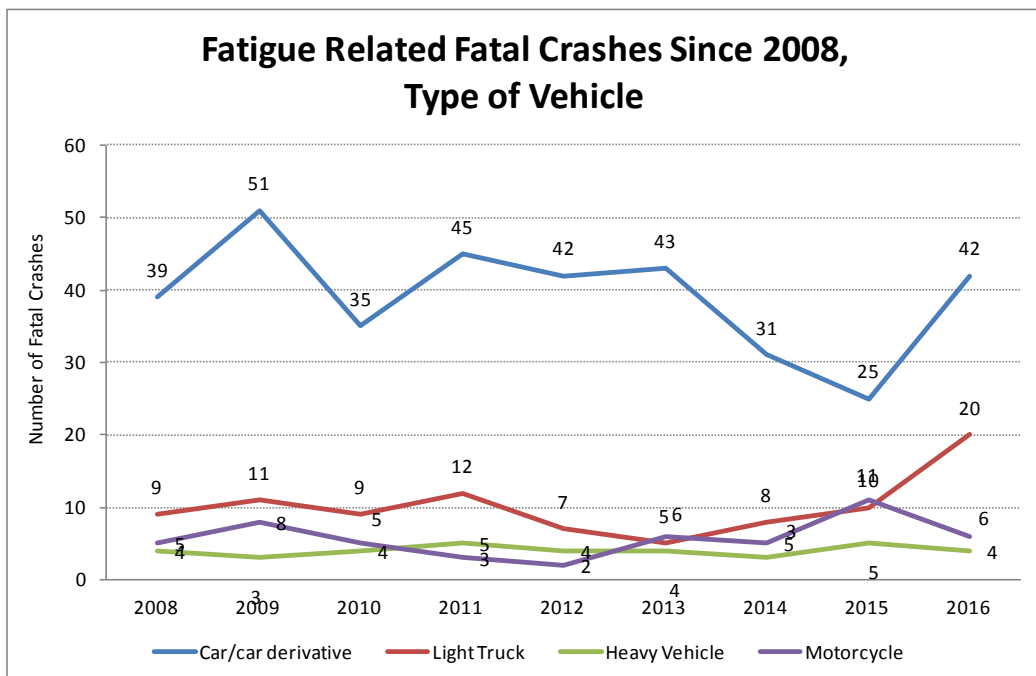
The largest percentages of fatigue related fatal crashes tended to occur on State Highways, indicating that fatigue is over-represented on fatal crashes on State Highways. In contrast, fatigue related serious injury crashes predominate on unclassified (local) roads and other (lower order) classified roads. The increase in fatigue related fatal crashes in 2016 was across all road classifications (with the exception of freeways).



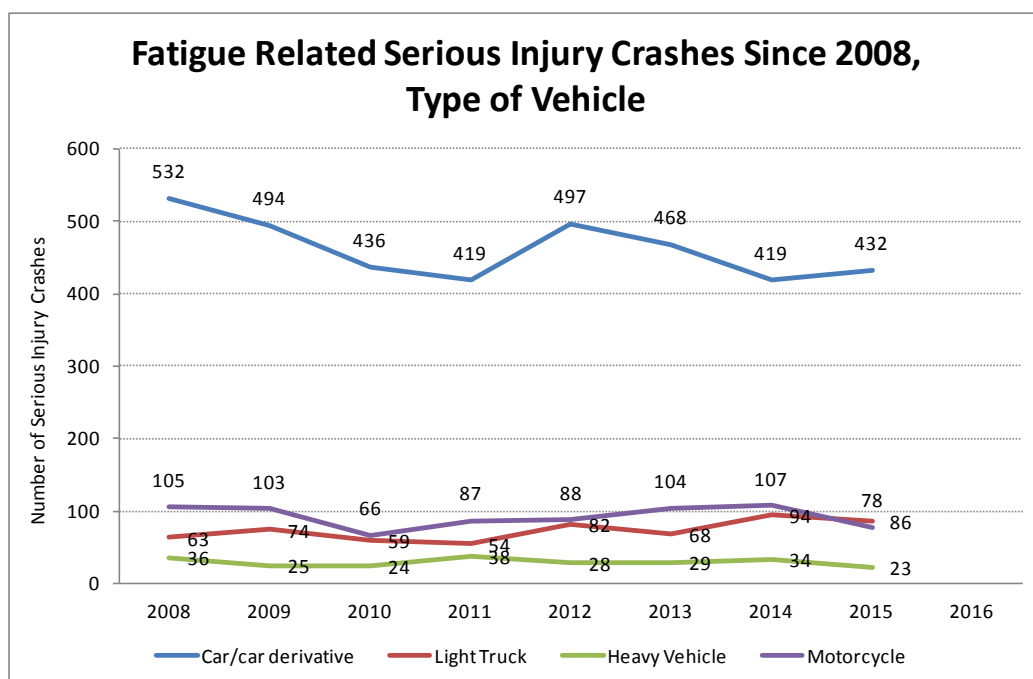


1.8 Fatigue related fatal crashes since 2008, type of vehicle

There were decreasing involvements of fatigued car / car derivative drivers involved in fatal crashes from 2009 to 2015 but there was an increase in 2016. Fatigued light truck drivers involved in serious injury crashes also increased between 2015 and 2016. Note there were relatively few fatigued heavy vehicle drivers involved in fatal or serious injury crashes over the period since 2008.



1.9 Fatigue related serious injury crashes since 2008, type of vehicle

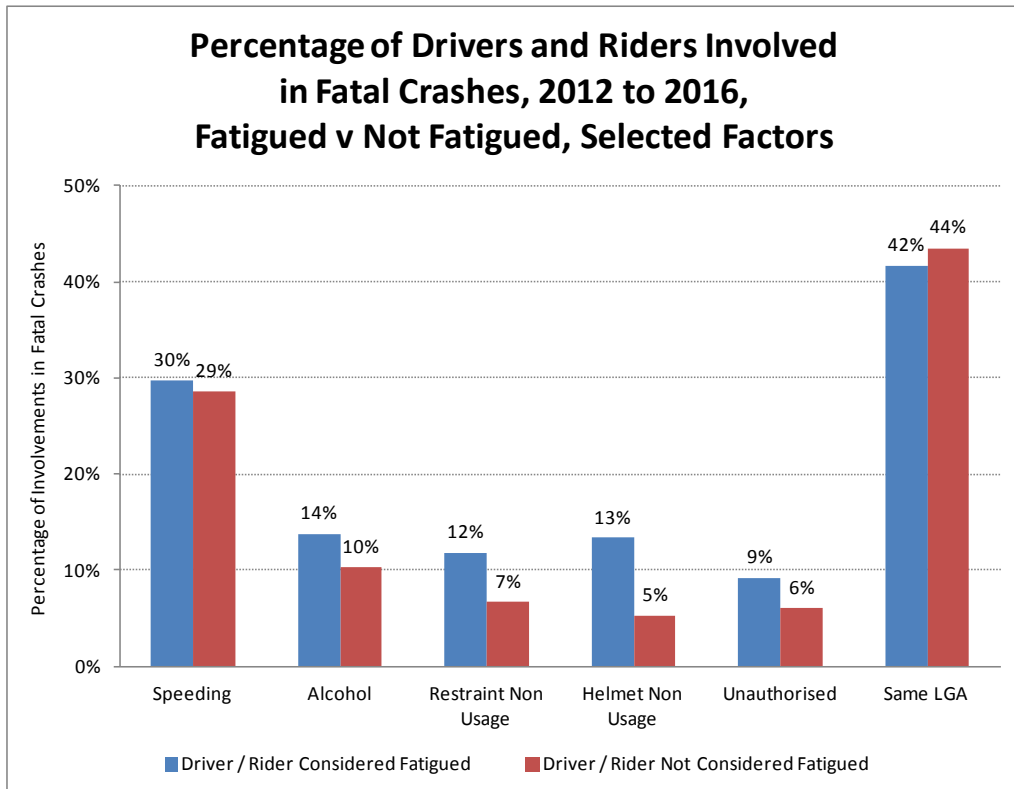


1.10 Percentage of drivers and riders involved in fatal crashes, 2012 to 2016, fatigued v non fatigued, selected factors

A comparison of the prevalence of behavioural factors for fatigued drivers involved in fatal crashes with that for non fatigued drivers involved in fatal crashes suggests that fatigued

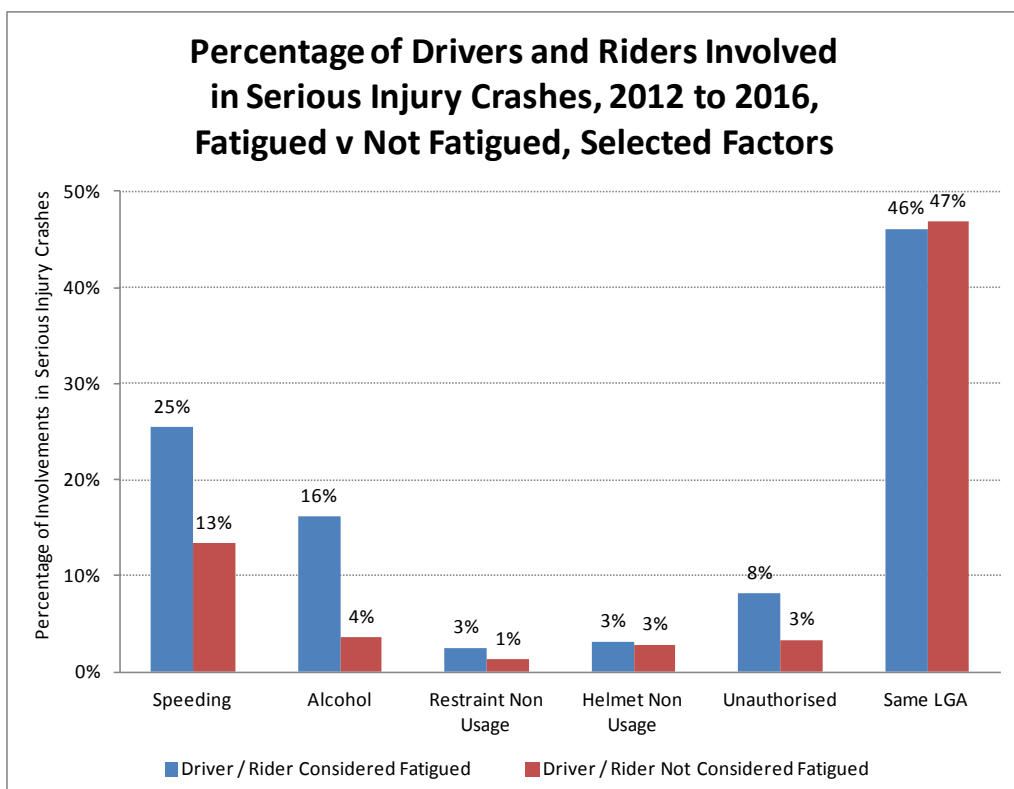
behaviour is associated with elevated levels for a few other selected behaviour factors.

For example, around 14 per cent of all fatigue involvements in fatal crashes involved illegal alcohol whilst only 10 per cent of all non fatigued driver involvements in fatal crashes involved illegal alcohol. Restraint non usage, helmet non usage and unauthorised driving were also mildly over-represented amongst fatigue involvements in fatal crashes.



1.11 Percentage of drivers and riders involved in serious injury crashes, 2012 to 2016, fatigued v not fatigued, selected factors

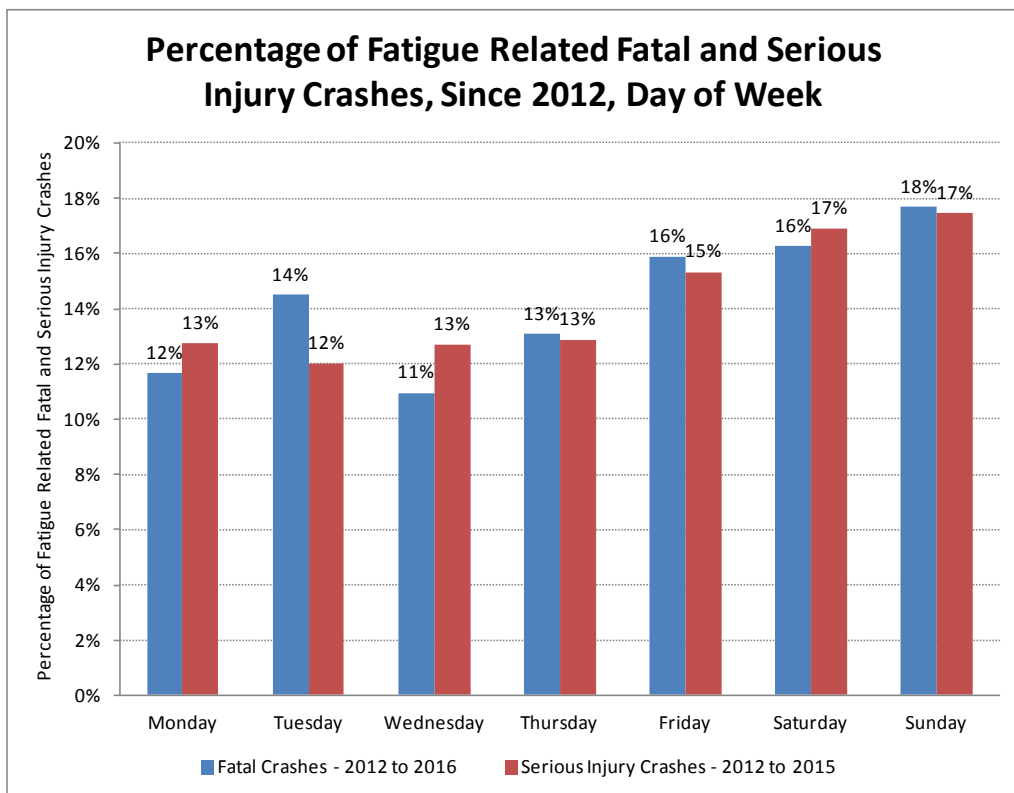
These over-representations did not necessarily appear amongst serious injury crash fatigue involvements. Amongst fatigued drivers involved in serious injury crashes those also with speeding, illegal alcohol and unauthorised driving were over-represented when compared with those drivers not considered to be fatigued.

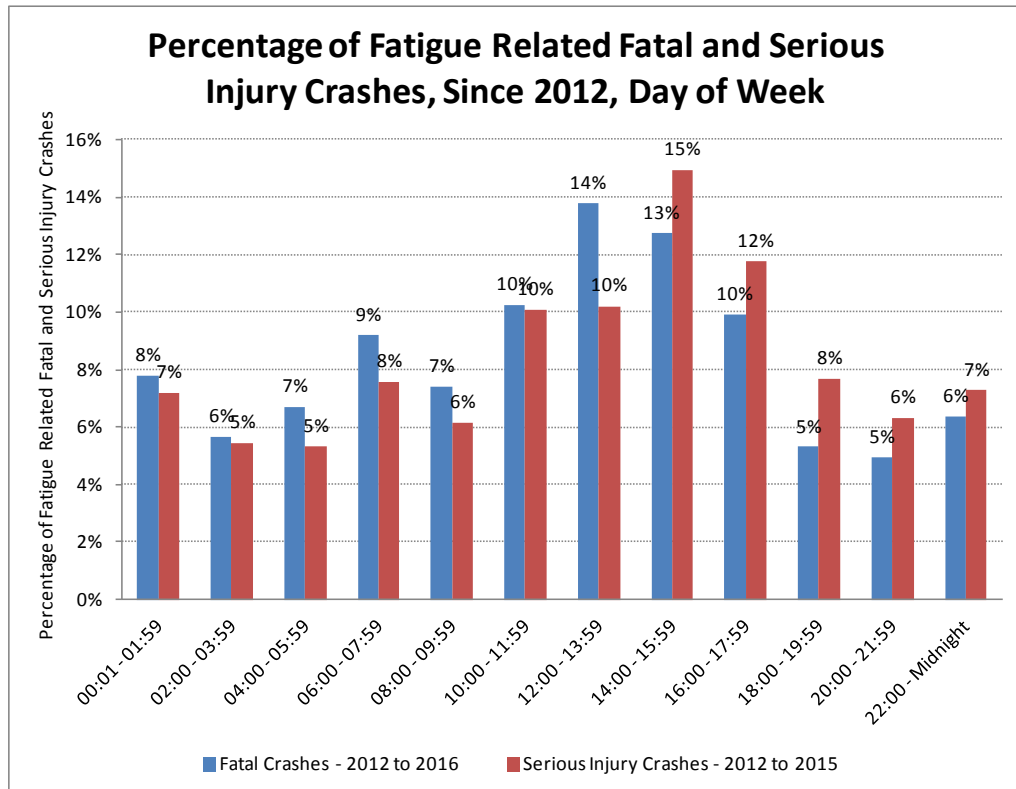


Note that these results do not take into account the differing demographic profile of fatigued motor vehicle controllers involved in fatal crashes. Standardising the results by age and gender only slightly reduces the strength of the over-representation of these risk taking behaviours for fatigued drivers involved in fatal and serious injury crashes.

1.12 Percentage of fatigue related fatal and serious injury crashes, since 2012, day of week

The incidence of fatigue related fatal and serious injury crashes increases on Friday and across the weekend. More than one-third of all fatigue related fatal and serious injury crashes occurred on the weekend.



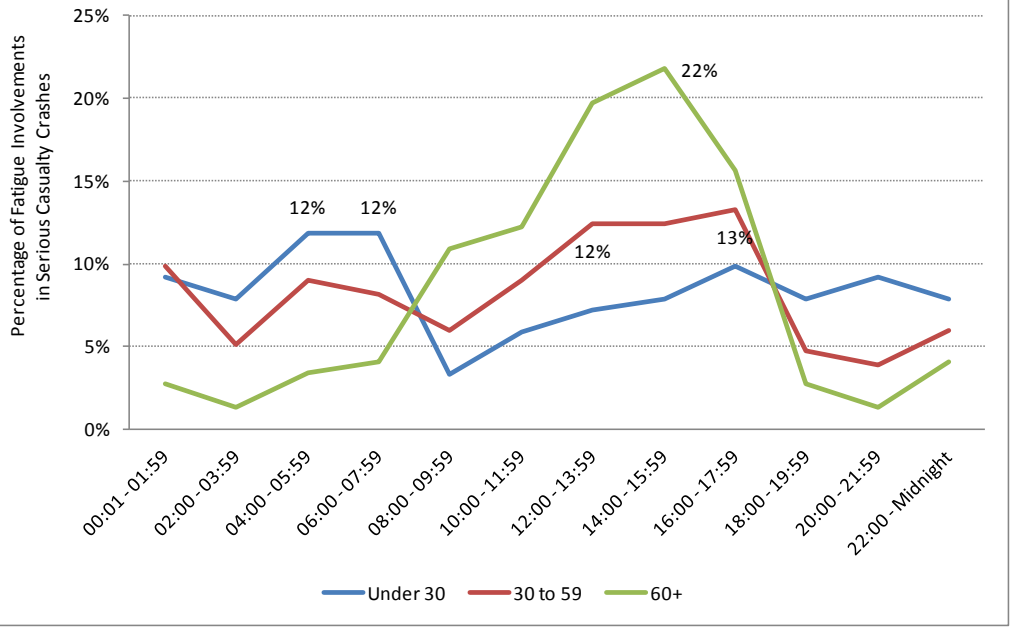


1.13 Percentage of drivers and riders involved in serious injury crashes, 2008 to 2016, age group, hour of day

The incidence of fatigue related fatal and serious injury crashes is generally highest between 10 am and 6 pm whilst fatigue related serious injury crashes appear to be over-represented during the afternoon / late evening hours (4 pm to midnight).

However, there are very different patterns for hour of day by the age of the fatigued driver. Amongst fatigued drivers aged 60 years or more there was a peak between midday and 6 pm whilst for fatigued drivers aged under 30 years the peak occurred in the morning hours.

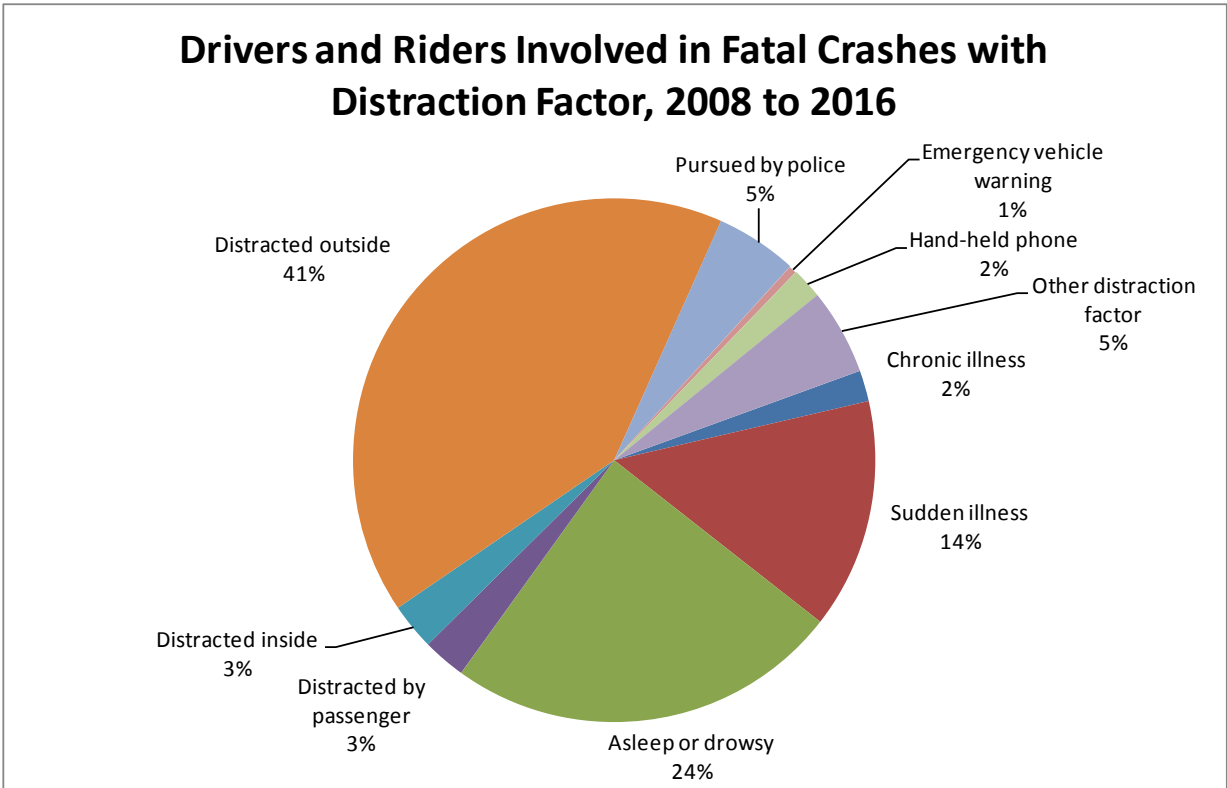
Percentage of Drivers and Riders Involved in Serious Injury Crashes, 2008 to 2016, Age Group, Hour of Day



2 Trends for distracted driving involvements in fatal and serious injury crashes since 2008

Distraction factors are coded from the information contained in Police crash reports. However, only 9 per cent of all driver involvements in fatal crashes between 2008 and 2016 involved an identified distraction factor.

The breakdown of the distraction factors for those drivers involved in fatal crashes is shown below. The largest category is “distracted by something outside the vehicle” with 41 per cent. This category includes situations such as view obscured by parked vehicle / congested traffic and vision reduced due to rising / setting sun. The second most common category for distraction was “asleep or drowsy” – this distraction factor is one of the triggers for identifying a fatigued driver.

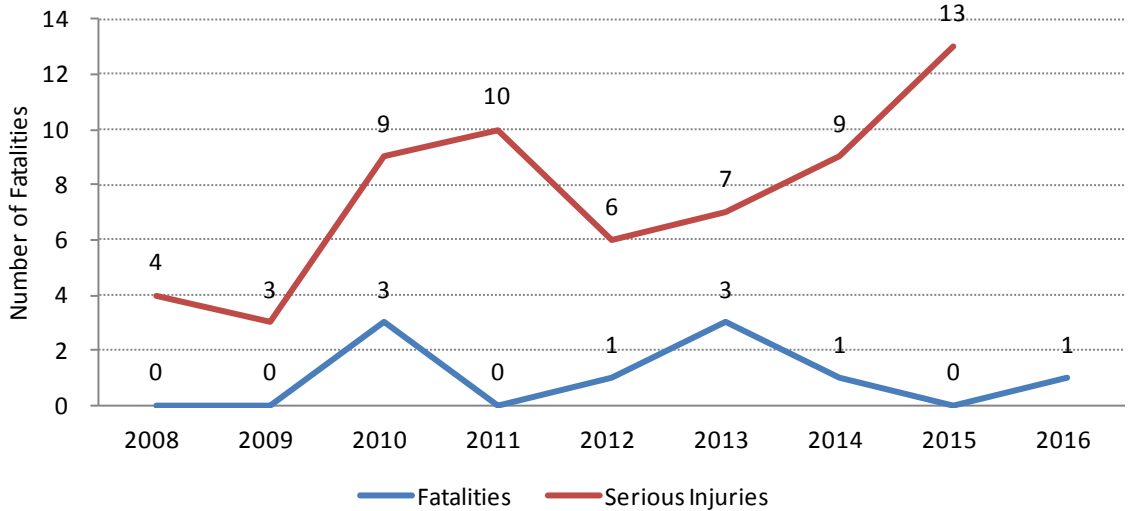


2.1 Fatalities and serious injuries from crashes involving a hand held mobile phone since 2008

Significantly, distraction arising from using a hand held phone accounts for only 2 per cent of all those drivers with some form of distraction coded for the driver. It is worth noting that mobile phone usage is considered to be under-reported in serious casualty crash data. There are several possible reasons for this – absence of reliable witnesses in single vehicle crashes, strong disincentive for self admission etc.

However, although the number of involvements is very small, there appears to be an increasing trend for mobile phone usage amongst drivers involved in serious injury crashes.

Fatalities and Serious Injuries From Crashes Involving a Hand Held Mobile Phone, Since 2008



2.2 Drivers and riders involved in serious casualty crashes with hand held mobile phone, 2008 to 2016

Of the 63 involvements in serious casualty crashes since 2008 with mobile phone usage present for the driver or rider, 41 per cent were aged under 26 years and 34 per cent were aged 26 to 39 years. Across all ages males outnumber females by around three to two.

Drivers and Riders Involved in Serious Casualty Crashes with Hand Held Mobile Phone , 2008 to 2016

