



Transport  
for NSW

Centre for Road Safety



# Heavy vehicle trauma trends

## Report

## Disclaimer

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# Contents

Disclaimer.....	2
1 Heavy vehicle fatalities and serious injuries since 2008 .....	4
1.1 Fatal and serious injury crashes involving a heavy vehicle, 2008 to 2016... 4	4
1.2 Fatalities and serious injuries from crashes involving a heavy vehicle, 2008 to 2016 .....	5
1.3 Heavy vehicle registrations NSW as at 30 June 2008 to 2016.....	6
1.4 Percentage distribution of fatalities and serious injuries from crashes involving a heavy vehicle since 2008, road user x vehicle category .....	6
1.5 Heavy vehicle drivers involved in fatal crashes 2008 to 2010 v 2014 to 2016, gender x age group.....	7
1.6 Heavy vehicle drivers involved in serious injury crashes 2008 to 2010 v 2014 to 2015, gender x age group.....	8
1.7 Fatal crashes involving a heavy vehicle 2008 to 2016, urbanisation .....	8
1.8 Serious injury crashes involving a heavy vehicle 2008 to 2016, urbanisation.....	10
1.9 Fatal crashes involving a heavy vehicle 2008 to 2016, road classification	10
1.10 Serious injury crashes involving a heavy vehicle 2008 to 2016, road classification .....	11
1.11 Heavy vehicle drivers involved in fatal crashes, 2008 to 2016, type of heavy vehicle.....	12
1.12 Percentage of fatal and serious injury crashes involving a heavy vehicle 2008 to 2016, day of week.....	13
1.13 Percentage of fatal and serious injury crashes involving a heavy vehicle 2008 to 2016, hour of day .....	13
1.14 Heavy vehicle fatal and serious injury crashes since 2012, road user movement.....	14
1.15 Heavy vehicle fatal and serious injury crashes since 2012, road user movement, percentage of two vehicle crashes with heavy vehicle as key vehicle .....	15
1.16 Percentage of heavy vehicle drivers involved in fatal and serious injury crashes since 2012, selected factors .....	15

# 1 Heavy vehicle fatalities and serious injuries since 2008

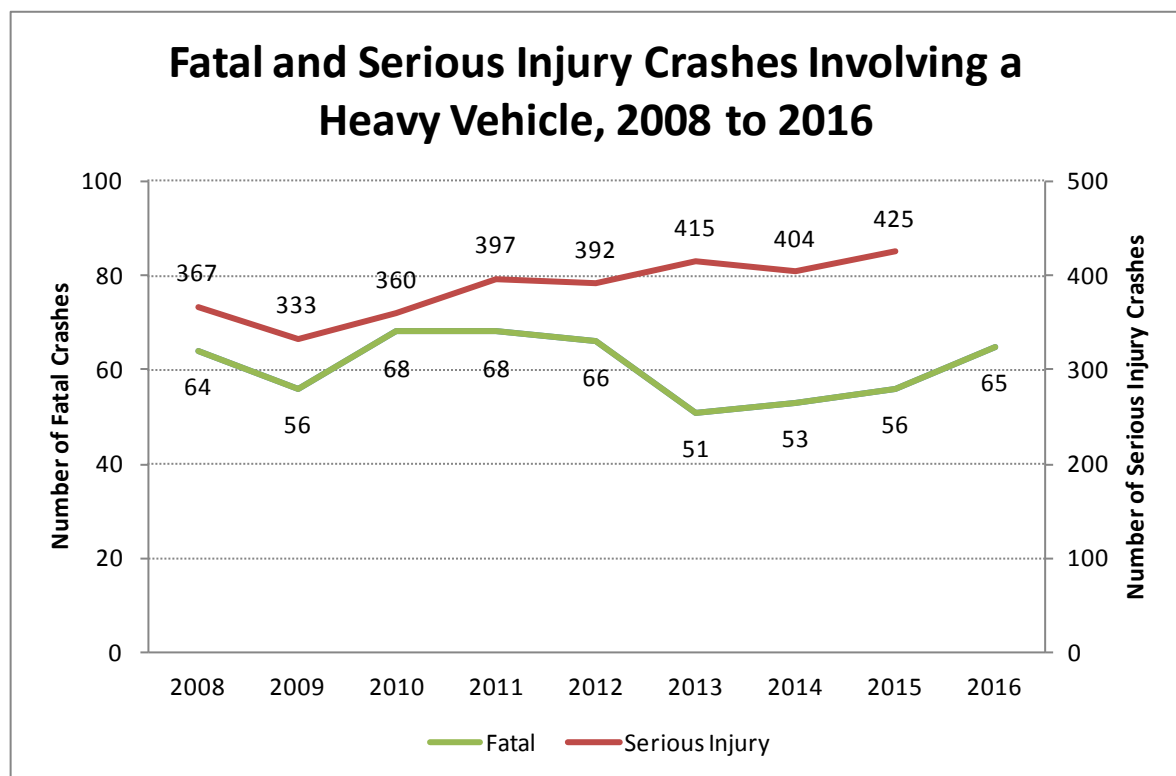
The following overview of heavy vehicle involvement in NSW road trauma is limited to the most recent available data. For fatal crashes this covers the calendar years 2008 to 2016p, where the 2016 data are preliminary and subject to change. For serious injury crashes this covers the calendar years 2008 to 2015 – data for the calendar year 2016 data were incomplete at the time of this report and therefore not included.

A heavy vehicle crash is a crash involving at least one heavy vehicle where a heavy vehicle is defined as an articulated truck, or a rigid truck or bus with a tare weight of 4.5 tonnes or more.

A fatal crash is a road traffic crash which results in at least one person dying within 30 days of the crash as a result of injuries from the crash. A serious injury crash is a road traffic crash which involved at least one person admitted to hospital (and matched to a person in a Police crash report), but there were no fatalities from the crash.

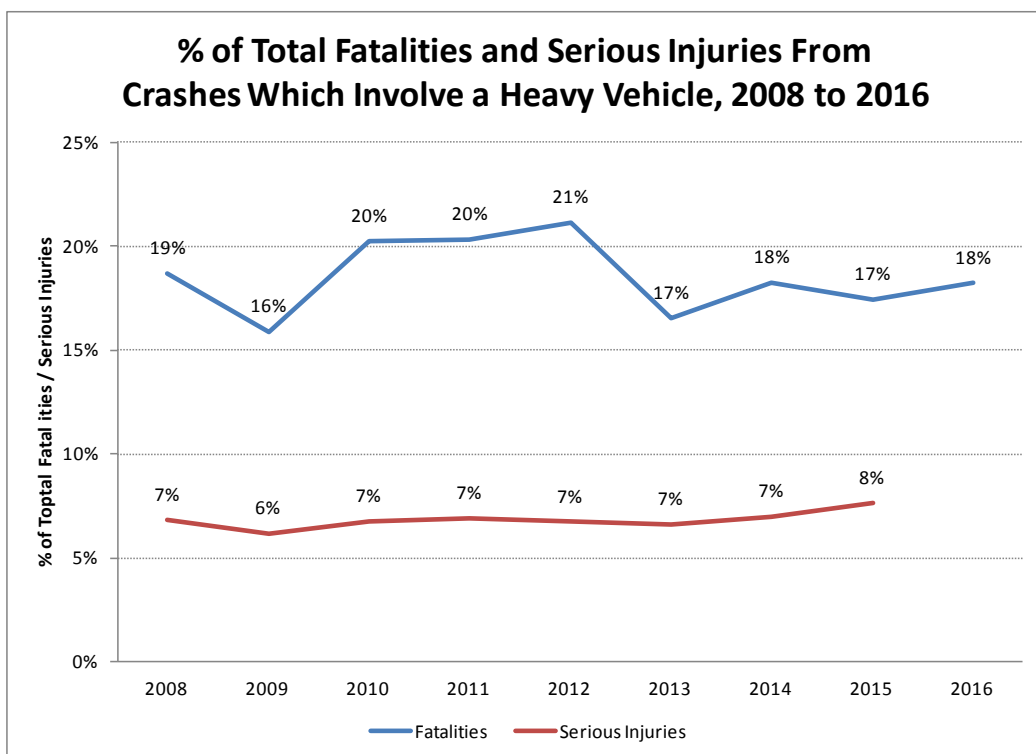
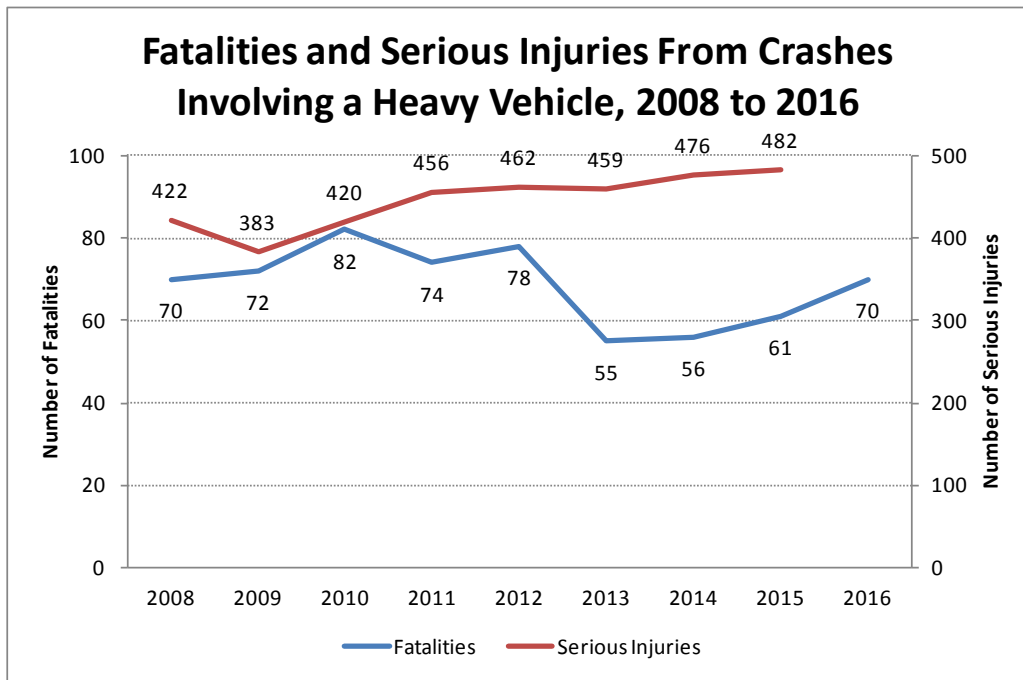
## 1.1 Fatal and serious injury crashes involving a heavy vehicle, 2008 to 2016

From 2008 to 2016 there were a total of 547 fatal crashes involving a heavy vehicle, resulting in 618 fatalities. From 2008 to 2015 there were a total of 3,093 serious injury crashes involving a heavy vehicle, resulting in a total of 3,560 serious injuries.



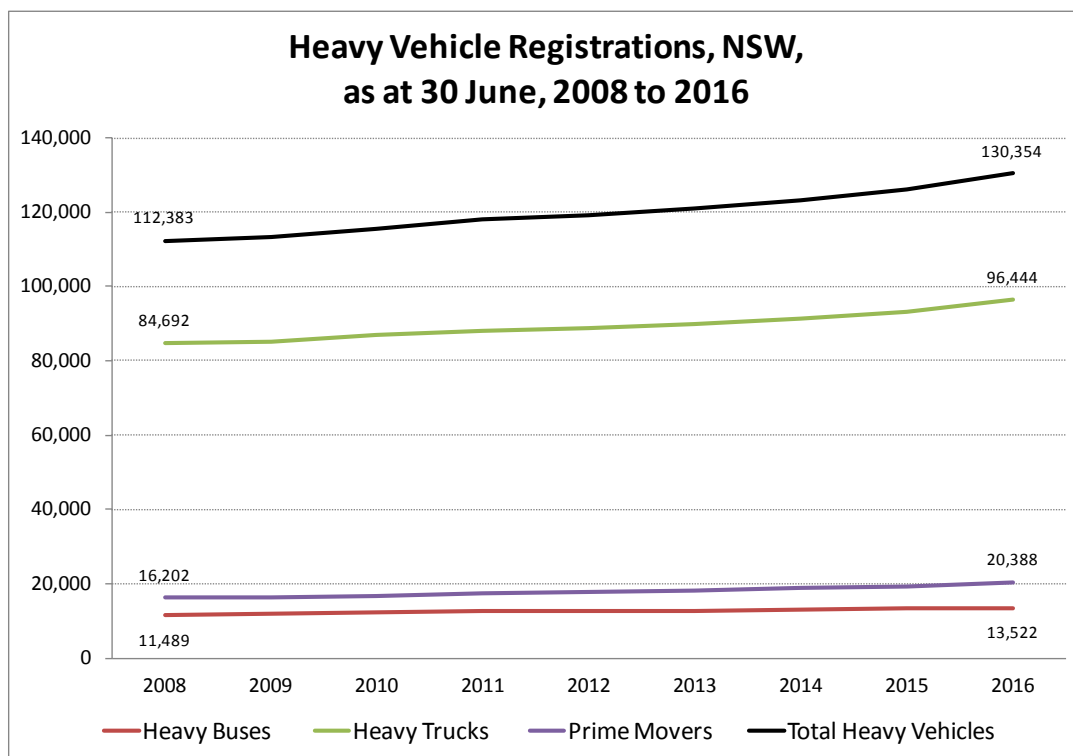
## 1.2 Fatalities and serious injuries from crashes involving a heavy vehicle, 2008 to 2016

Whilst the overall number of fatalities has been trending downwards in NSW, the trend for heavy vehicle involved fatalities has been relatively unchanged. Heavy vehicle involved fatalities as a percentage of all fatalities have ranged between 16 per cent and 21 per cent, with 18 per cent of all fatalities in 2016 involving a heavy vehicle. Heavy vehicle crashes accounted for around 7 per cent of all serious injuries from 2008 to 2015.



### 1.3 Heavy vehicle registrations NSW as at 30 June 2008 to 2016

Heavy vehicle registrations in NSW between 2008 and 2016 have been growing at around the same rate of increase for all registered motor vehicles. Heavy vehicle registrations increased by 16 per cent over this period against a 21 per cent increase in all motor vehicle registrations. Consequently heavy vehicles represent around 2.4 per cent of all motor vehicles registered in NSW (though interstate registered heavy vehicles are not included in the registration statistics).

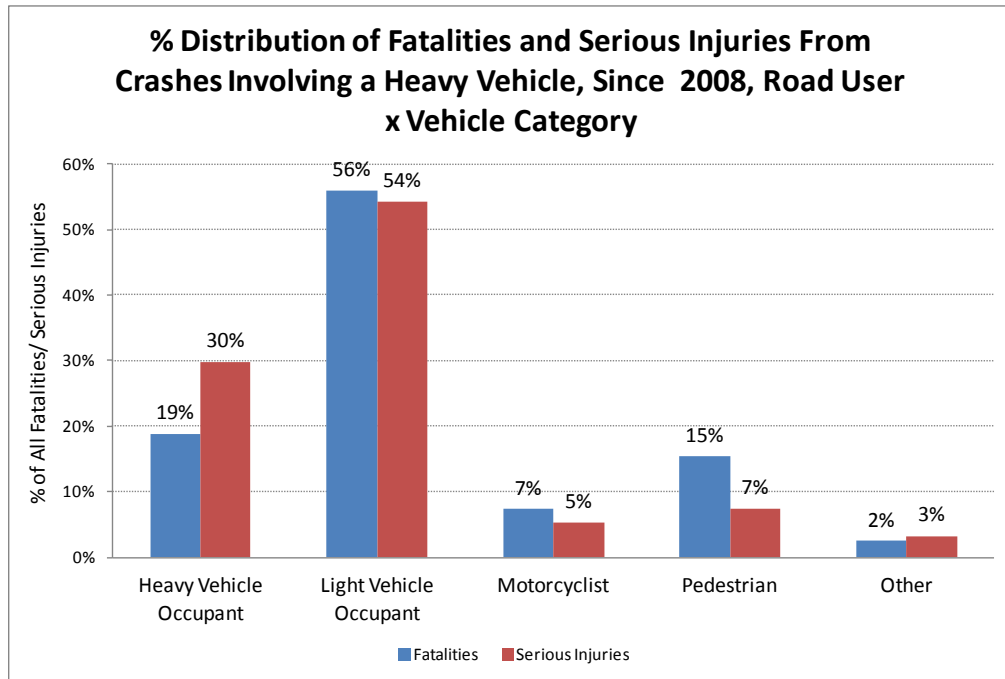


### 1.4 Percentage distribution of fatalities and serious injuries from crashes involving a heavy vehicle since 2008, road user x vehicle category

Given heavy vehicles represent less than 3 per cent of all registered motor vehicles in NSW, around 7 per cent of all motor vehicle travel in NSW, heavy vehicles are clearly over-represented in fatality and serious road trauma in NSW. This may be more to do with the size and mass of these vehicles and the high speed rural roads they travel that would contribute somewhat towards more severe crash outcomes when involved in a crash.

However, the crash statistics do show that the trauma from heavy vehicle crashes is largely borne by other road users, particularly occupants of other light passenger vehicles and amongst vulnerable road user fatalities.

Only 20 per cent of fatalities and 30 per cent of serious injuries from heavy vehicle serious casualty crashes are heavy vehicle occupants. Over half of fatalities and serious injuries are occupants of other light vehicles and 22 per cent of fatalities are pedestrians or motorcyclists.

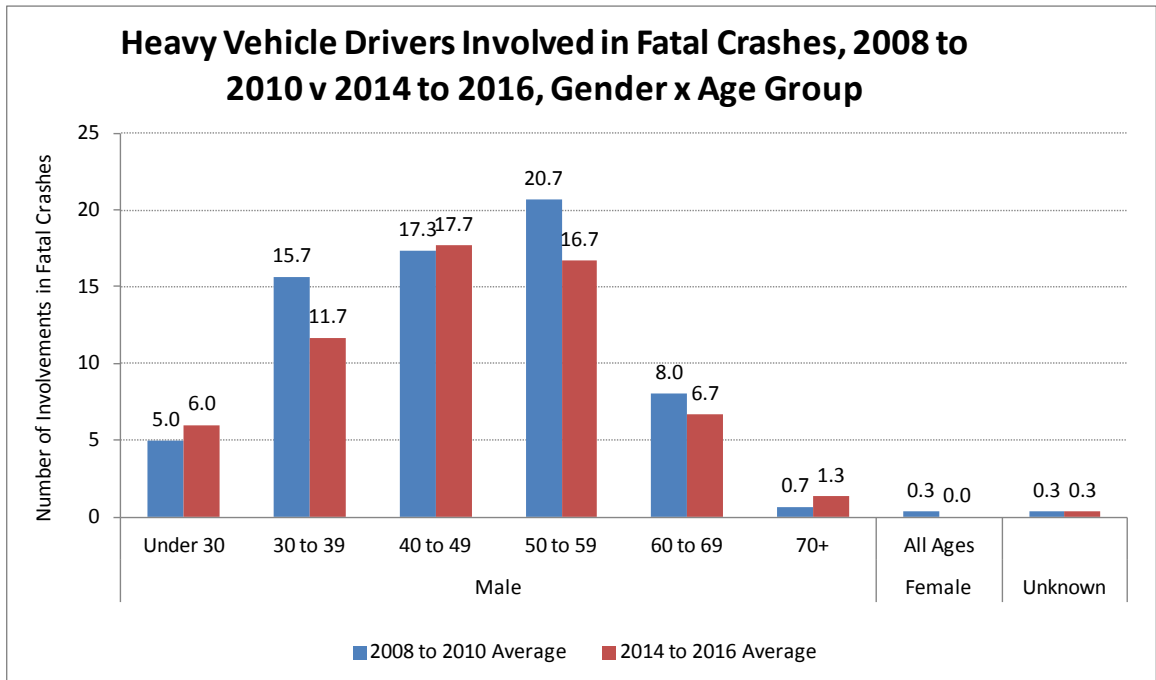


## 1.5 Heavy vehicle drivers involved in fatal crashes 2008 to 2010 v 2014 to 2016, gender x age group

The overwhelming majority of heavy vehicle drivers involved in fatal crashes for 2008 to 2016 are males (99 per cent) with males aged 30 to 59 years accounting for 75 per cent of all heavy vehicle drivers involved in fatal crashes.

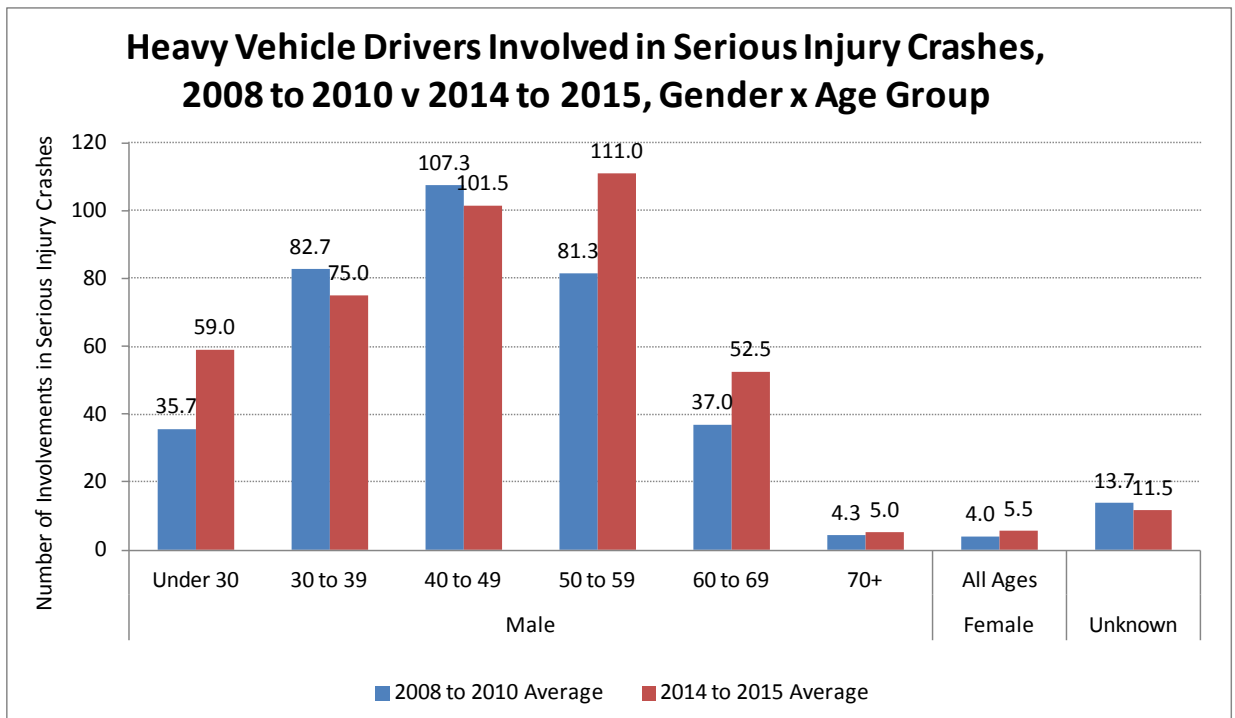
Similarly a significant majority of heavy vehicle drivers involved in serious injury crashes for 2008 to 2015 are males (99 per cent) with males aged 30 to 59 years again accounting for 75 per cent of all heavy vehicle drivers involved in serious injury crashes.

The following chart showing the demographic distribution of heavy vehicle drivers involved in fatal crashes show some improvement from 2008 to 2010 baseline to 2014 to 2016 levels amongst males aged 30 to 39 years and 50 to 59 years.



## 1.6 Heavy vehicle drivers involved in serious injury crashes 2008 to 2010 v 2014 to 2015, gender x age group

Amongst heavy vehicle drivers involved in serious injury crashes there have been some improvements for males aged 30 to 49 years but there have been increases for younger and older male driver age groups.



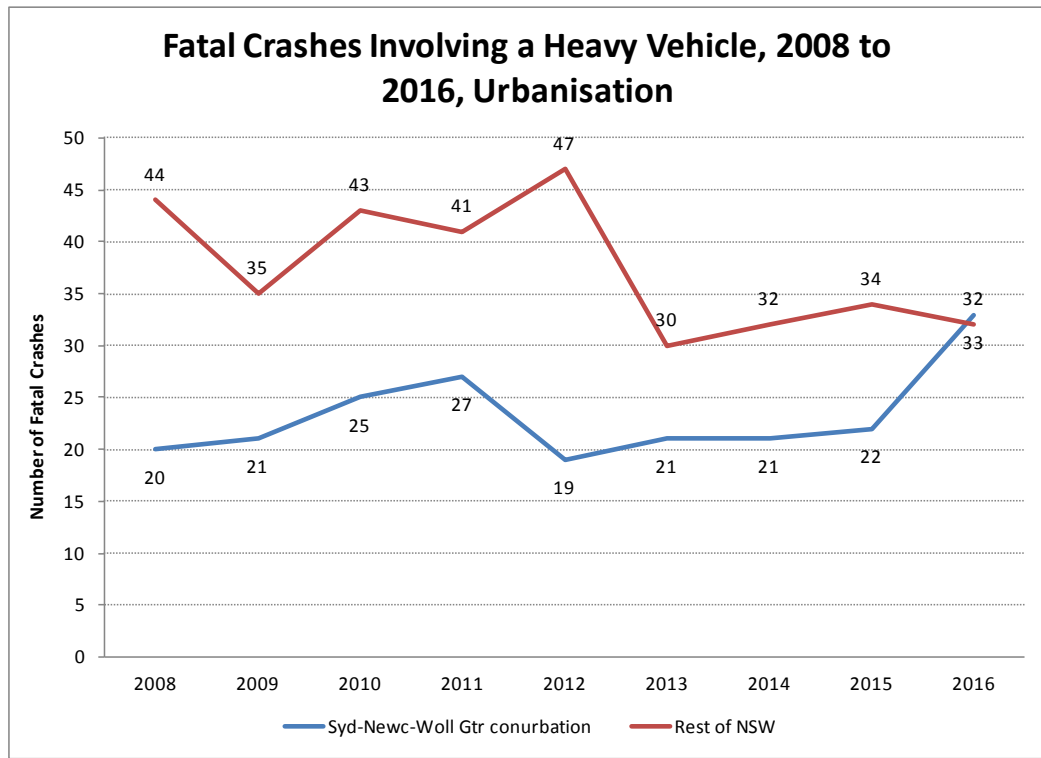
## 1.7 Fatal crashes involving a heavy vehicle 2008 to 2016, urbanisation

Over the 2008 to 2016 period the majority of heavy vehicle fatal crashes occurred outside the Sydney, Newcastle and Wollongong Greater Conurbation (SNW)



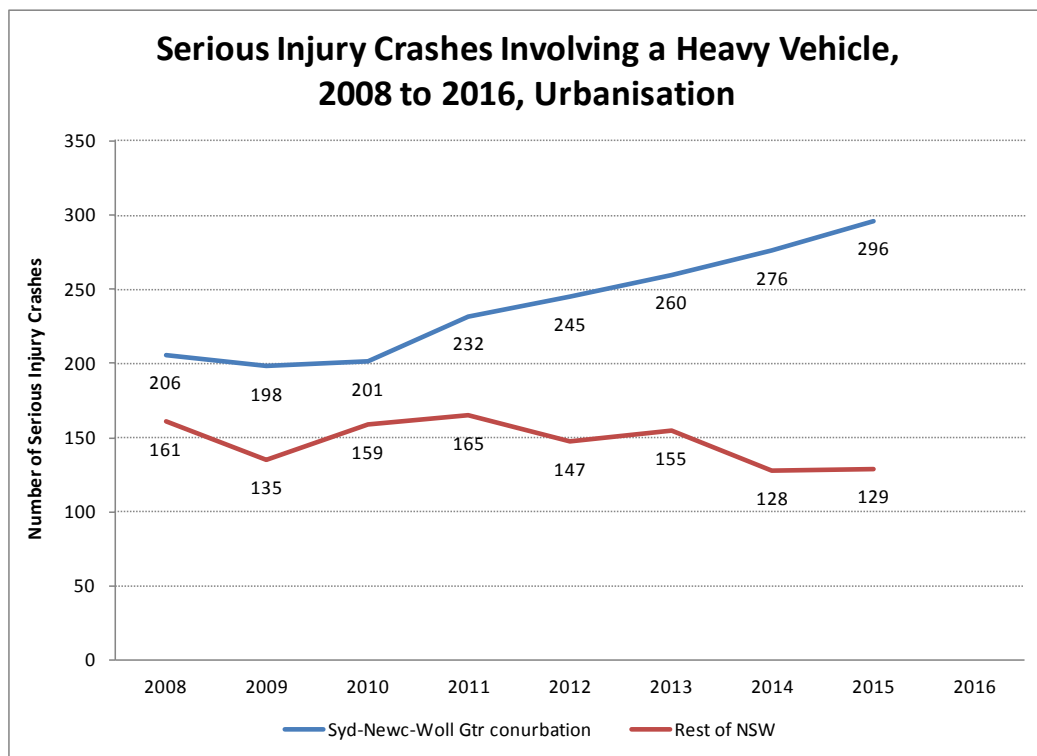
Conurbation). There has been a decreasing trend for the rest of the State area since 2008.

There has been an increase in fatal crashes in the SNW Conurbation in 2016 – now just ahead of the rest of the State.



## 1.8 Serious injury crashes involving a heavy vehicle 2008 to 2016, urbanisation

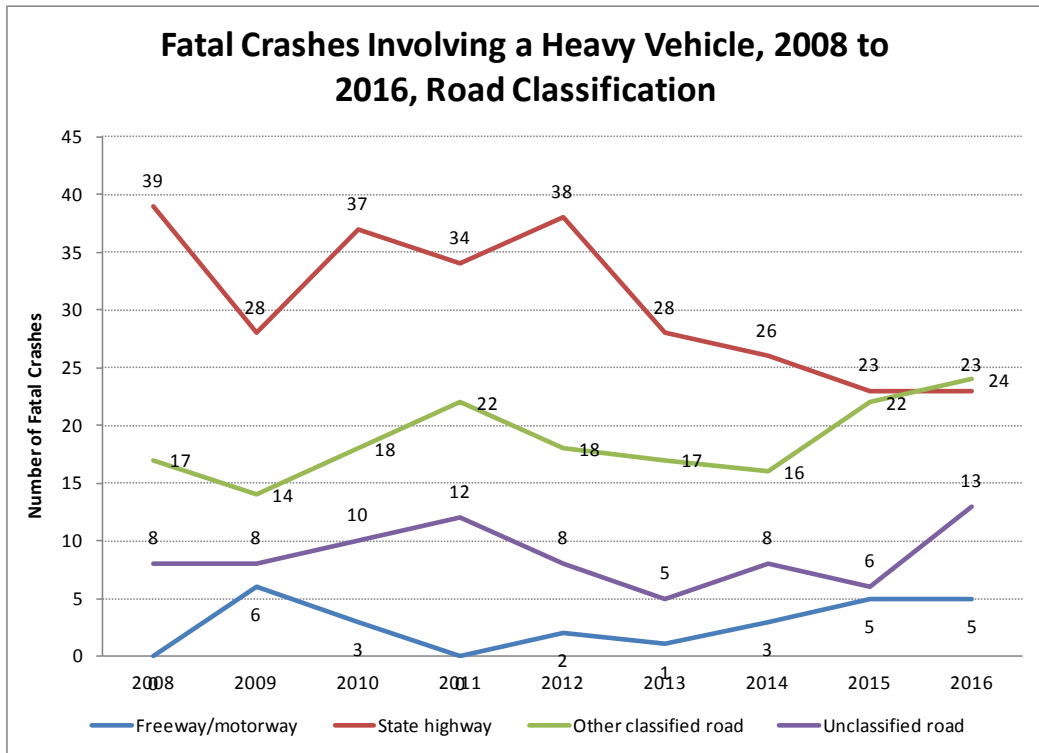
For serious injury crashes the majority occur in the SNW Conurbation which has been trending upwards since 2010 whilst there has been a slight decrease in the rest of the State.



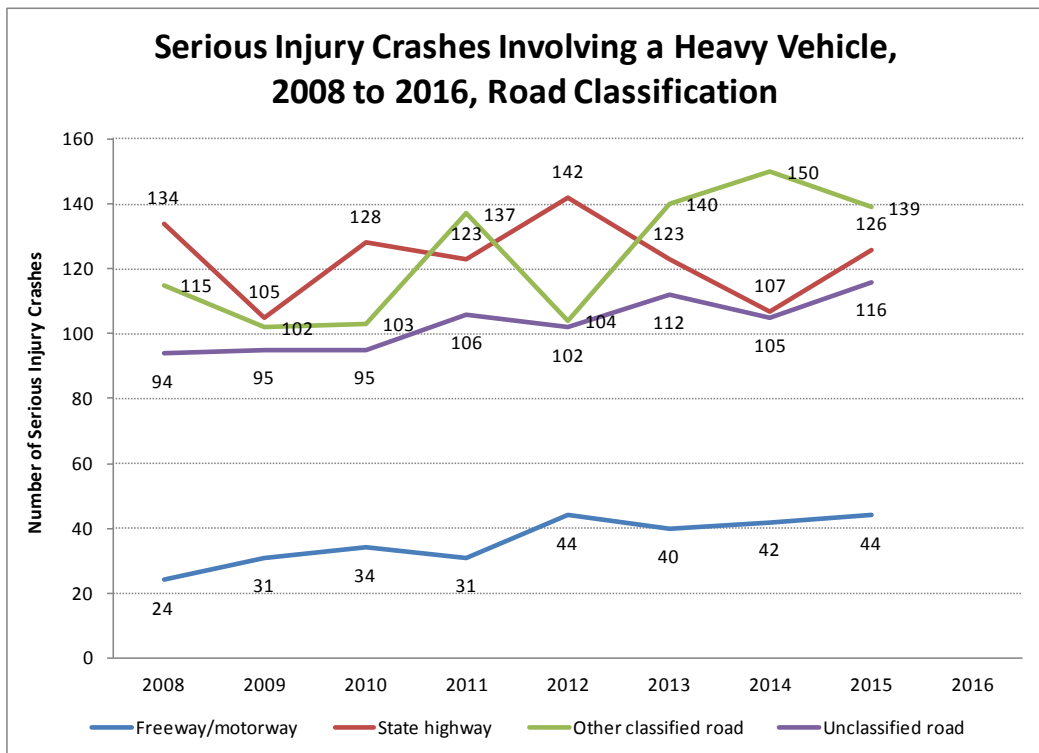
## 1.9 Fatal crashes involving a heavy vehicle 2008 to 2016, road classification

Over the 2008 to 2016 period the majority of heavy vehicle fatal crashes occurred on State Highways. There has been a decreasing trend for State Highways since 2008. Of some concern has been an increase in heavy vehicle fatal crashes on other (lower order) classified roads since 2009 and the increase on unclassified (local) roads in 2016.

Heavy vehicle serious injury crashes are fairly evenly distributed across State Highways and other classified roads with unclassified roads coming in a close third place.



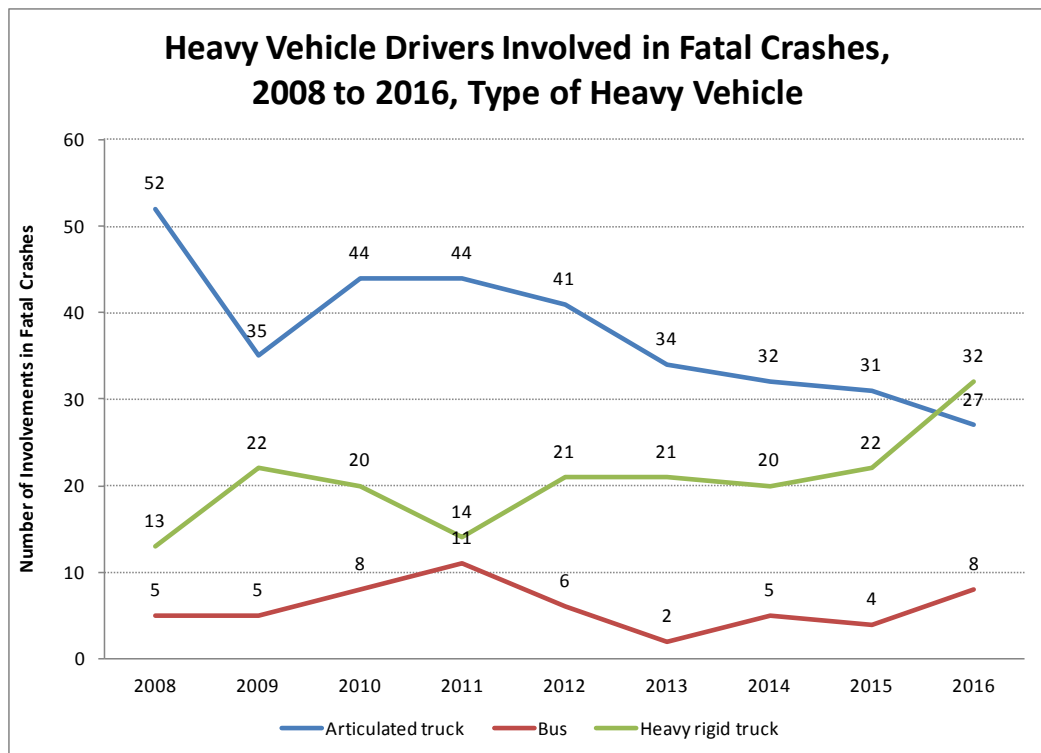
## 1.10 Serious injury crashes involving a heavy vehicle 2008 to 2016, road classification

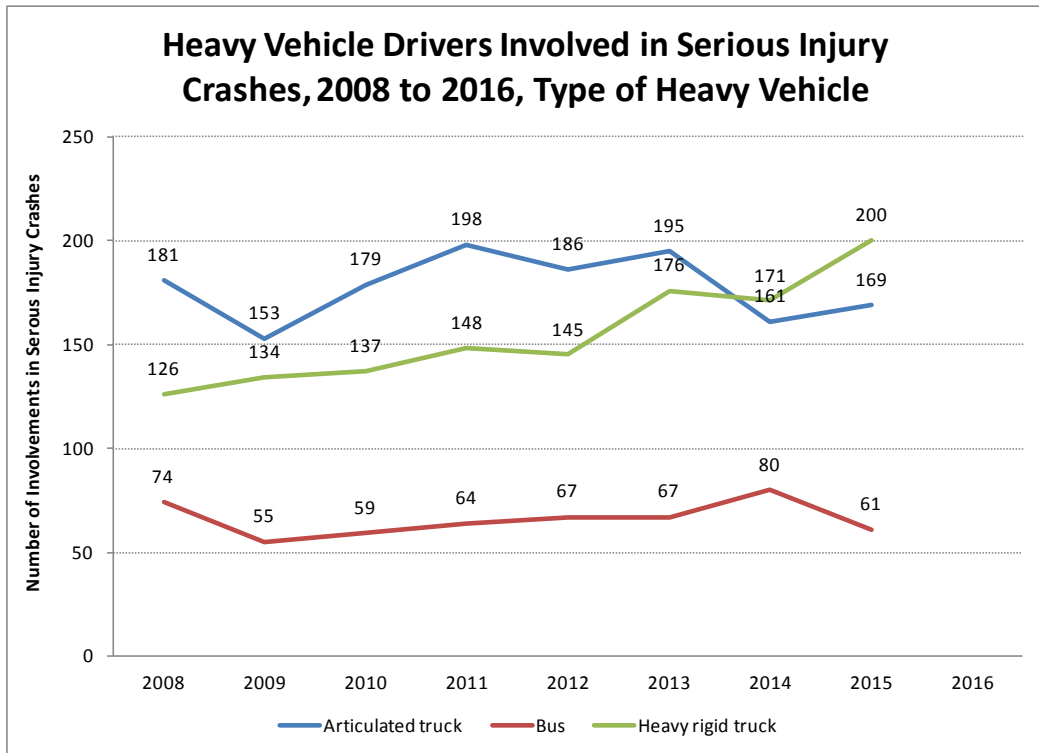


## 1.11 Heavy vehicle drivers involved in fatal crashes, 2008 to 2016, type of heavy vehicle

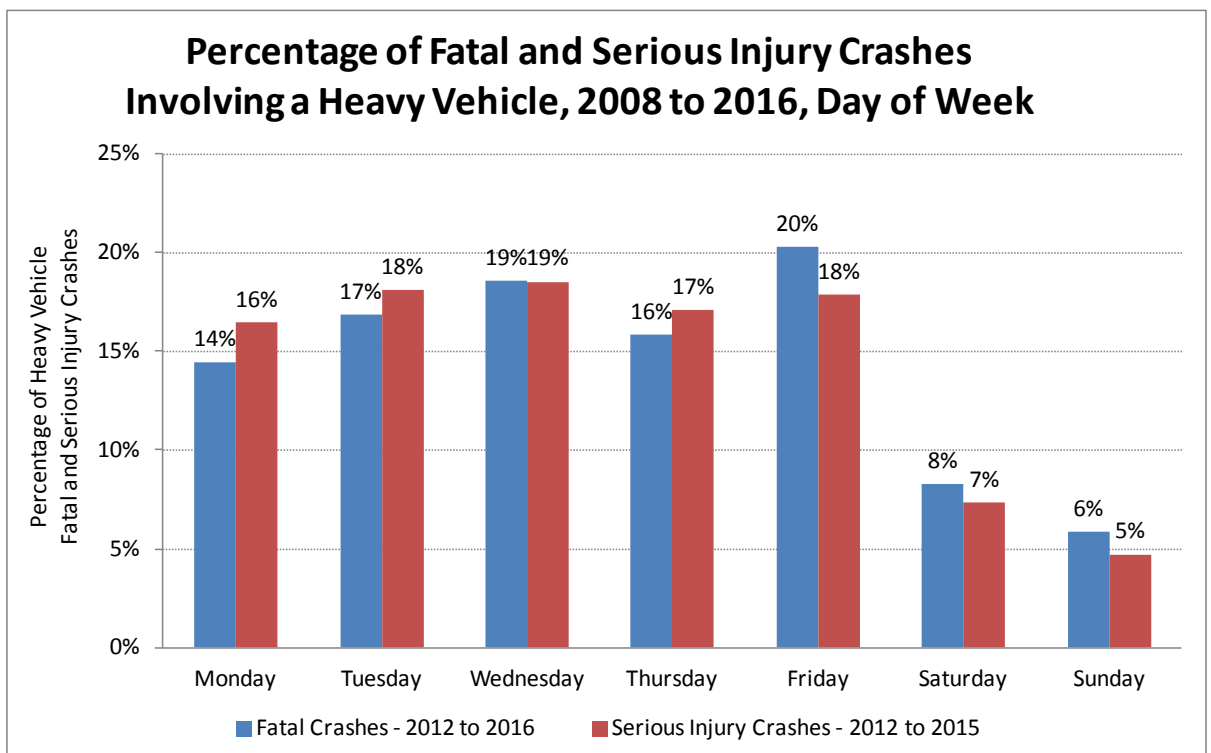
In terms of the type of heavy vehicle involved in fatal crashes there has been a decreasing trend for articulated trucks offset by an increasing trend for heavy rigid trucks. Note that heavy rigid trucks do include truck and dog combinations – a set-up which is commonly used in the metropolitan areas.

Similarly for heavy vehicles involved in serious injury crashes, heavy rigid trucks have trended upwards whilst articulated trucks have been relatively level. As a result heavy rigid trucks are now the leading type of heavy vehicle involved in a serious injury crash.



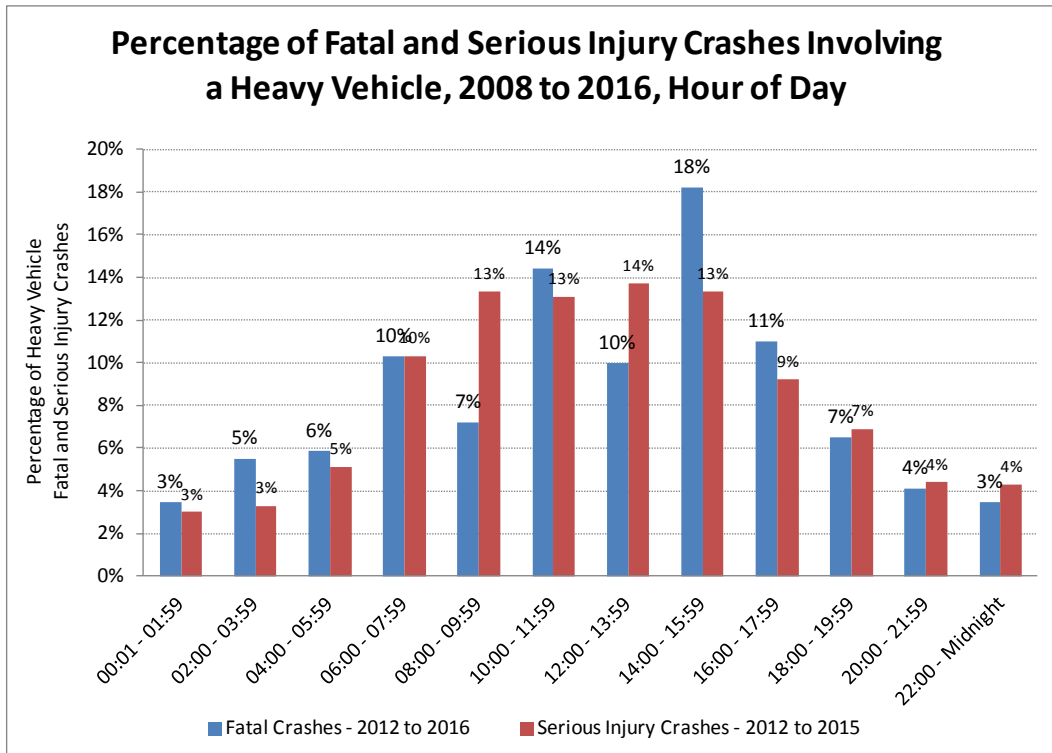


### 1.12 Percentage of fatal and serious injury crashes involving a heavy vehicle 2008 to 2016, day of week



### 1.13 Percentage of fatal and serious injury crashes involving a heavy vehicle 2008 to 2016, hour of day

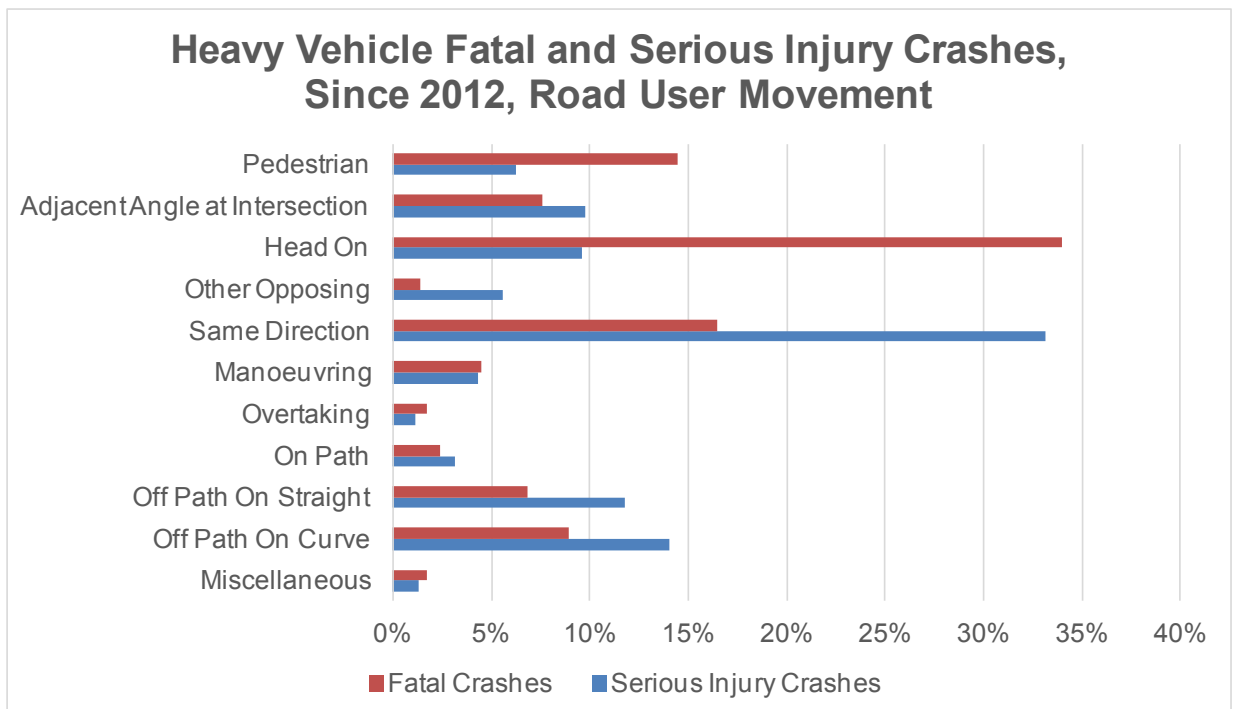
Heavy vehicle fatal and serious injury crashes typically occur between 8am and 4pm.



#### 1.14 Heavy vehicle fatal and serious injury crashes since 2012, road user movement

In terms of the Road User Movements for heavy vehicle crashes, around one third of fatal crashes involve a head on impact followed by two vehicle same direction and pedestrian impacts.

In contrast heavy vehicle serious injury crashes commonly involve two vehicle same direction impacts (around one-third) followed by single vehicle off path on straight or on curve crashes.



### 1.15 Heavy vehicle fatal and serious injury crashes since 2012, road user movement, percentage of two vehicle crashes with heavy vehicle as key vehicle

For most multi-vehicle crash RUM codes the heavy vehicle is not usually considered the key vehicle (using the road user movements, the key vehicle is the vehicle deemed to have largely contributed to the crash occurring though this does not necessarily indicate fault).

Heavy vehicle drivers were the slight majority of key vehicle in other opposing crashes (turning crashes) and same direction crashes (rear end and lane change and sideswipe crashes). For other two vehicle crashes the other vehicle was usually the key vehicle.

### 1.16 Percentage of heavy vehicle drivers involved in fatal and serious injury crashes since 2012, selected factors

The presence of behaviour factors for heavy vehicle drivers involved in crashes is relatively low, especially compared with car / car derivative and light truck drivers.

These relatively low levels for each behaviour factor are generally at similar levels for both fatal and serious injury crashes.

