> FACT SHEET

Government of South Australia
Department of Planning, Transport and Infrastructure

July 2013

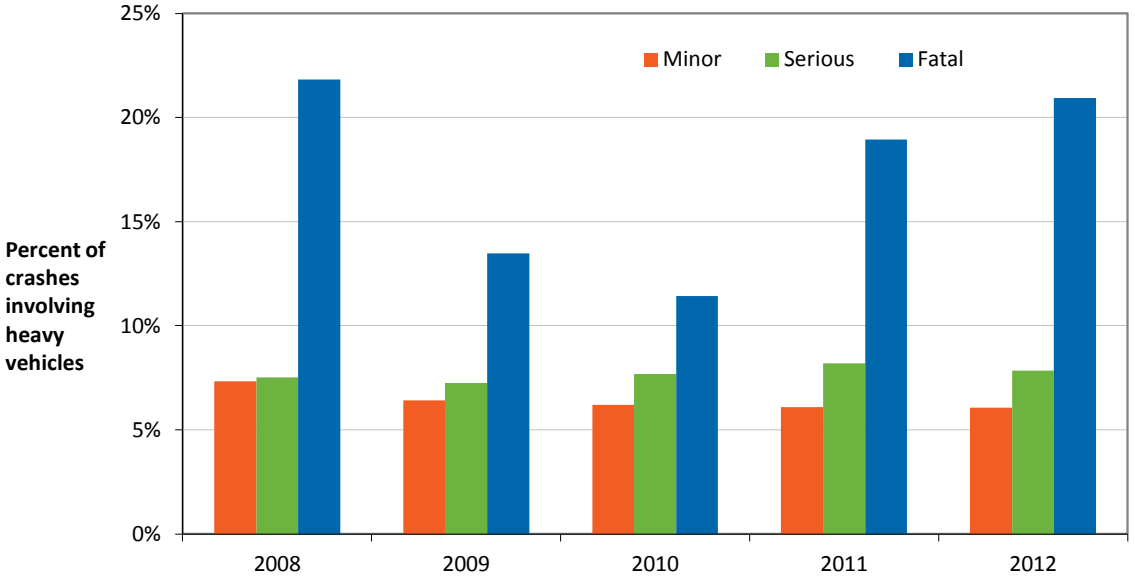
HEAVY VEHICLE DRIVERS

INVOLVED IN ROAD CRASHES IN SOUTH AUSTRALIA

Heavy vehicles[1] travel more than 1.3 billion kilometres per year in South Australia. They represent 8% of the kilometres travelled in the State[2] and are involved on average (2008 -2012) in 17% of fatal crashes and 8% of serious injury crashes. Fatal and serious crashes involving heavy vehicles are estimated to cost over $100 million per year.

The mass and rigidity of heavy vehicles can contribute to the severity of crashes especially if another vehicle collides with them. Figure 1 shows that heavy vehicles are accurately represented in minor and serious injury crashes, they are however over-represented in fatal crashes. Table 1 shows the number of fatal and serious injury crashes involving heavy vehicles.

Figure 1: Percent of heavy vehicle crashes as a representative of all crashes, South Australia, 2008-2012



[1] Heavy vehicle includes the following types: Rigid truck, Semi Trailer, Bus, B Double & Other defined motor vehicle over 4.5 tonnes
[2] Data sourced from Australian Bureau of Statistics 'Survey of Motor Vehicle Use', 12 months ended 30 June 2012, Cat. No. 9208.0. Includes vehicles exceeding 3.5 GVM.

Table 1: Fatal and serious crashes involving heavy vehicles, South Australia, 2008-2012

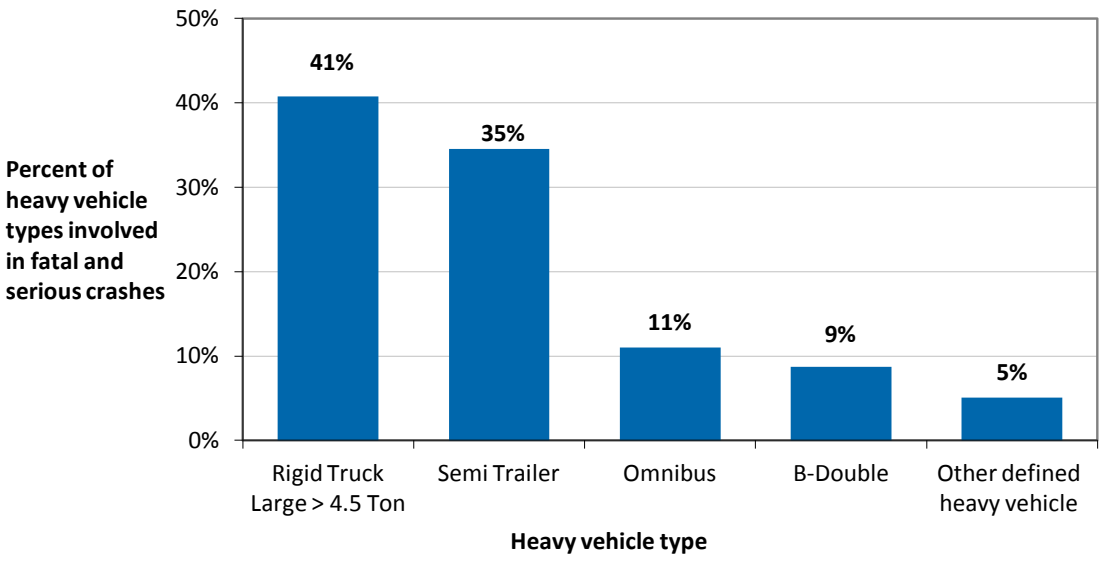
Year	Fatal	Serious Injury	Total
2008	19	75	**94**
2009	14	66	**80**
2010	12	68	**80**
2011	18	64	**82**
2012	18	50	**68**
5yr Avg	**16**	**65**	**81**

Crash types

The most common type of serious casualty crash involving heavy vehicles during 2008-12 was right angle crashes (20%). Head on collisions represented 16% of crashes, rear end 14%, rollovers 12% and side swipe 11%.

The majority of heavy vehicles involved in serious casualty crashes, outlined in figure 2, are rigid trucks larger than 4.5 tonne representing 41% of the total number of heavy vehicles involved in serious casualty crashes. Other defined heavy vehicle includes vehicles such as, but not limited to; fire trucks, garbage trucks, animal transporter vehicles and drilling rigs all over 4.5 tonnes.

Figure 2: Types of heavy vehicles involved in fatal and serious crashes, South Australia 2008–2012



Responsible

For the five years from 2008 to 2012, there were 81 fatal crashes involving heavy vehicles of which 86 percent involved a light vehicle, pedestrian or cyclist. The heavy vehicle driver was deemed responsible in just 24 percent of these crashes.

Location of crashes

Over the past 5 years (2008 – 2012) midblock crashes (crashes not at in intersection) accounted for 60% of serious casualty crashes involving at least one heavy vehicle, roads in which midblock crashes most frequently occurred on are

- Dukes Highway – 19 serious casualty crashes
- Sturt Highway – 16 serious casualty crashes
- Port Augusta to Port Wakefield Road – 12 serious casualty crashes
- South East Highway – 8 serious casualty crashes
- Eyre Highway – 8 serious casualty crashes

Alcohol and Drugs

Most driver and rider fatalities and a proportion of serious injuries are tested for either or both alcohol and drugs. Even in a serious crash, truck drivers may only receive minor or no injuries, and as a result, may not be tested for alcohol or drugs. While alcohol is a factor in 29% of all driver and rider fatalities in South Australia there have been only two heavy vehicle driver fatalities with an illegal BAC in the last 5 years. Similarly for drugs, although 22% of fatally injured drivers or riders test positive to an illegal drug, there were no heavy vehicle driver fatalities that tested positive to an illegal drug (both results are from a total of 12 heavy vehicle driver fatalities tested).

Seatbelts

For the 5 year period 2008 – 2012, 31% of heavy vehicle drivers killed or seriously injured were not wearing a seatbelt at the time of the crash. This is well above the average of all drivers where about 10% of light vehicle drivers killed or seriously injured were not wearing a seatbelt.

Fatigue

Fatigue is a known contributing factor to road crashes but the number of crashes in which fatigue plays a part is often difficult to accurately determine.

There is no universal definition of fatigue and it is difficult to objectively measure the degree of driver fatigue following a crash. However the Australian Transport Bureau[3] (ATSB) constructed an operational definition of a fatigue-related crash. The definition is based on a set of well-researched selection criteria and uses crash characteristics routinely collected by different traffic authorities.

[3] Definition is from the ATSB Road Safety Research Report OR 23 'Fatigue-related crashes: An analysis of fatigue related crashes on Australian roads using an operational definition of fatigue'

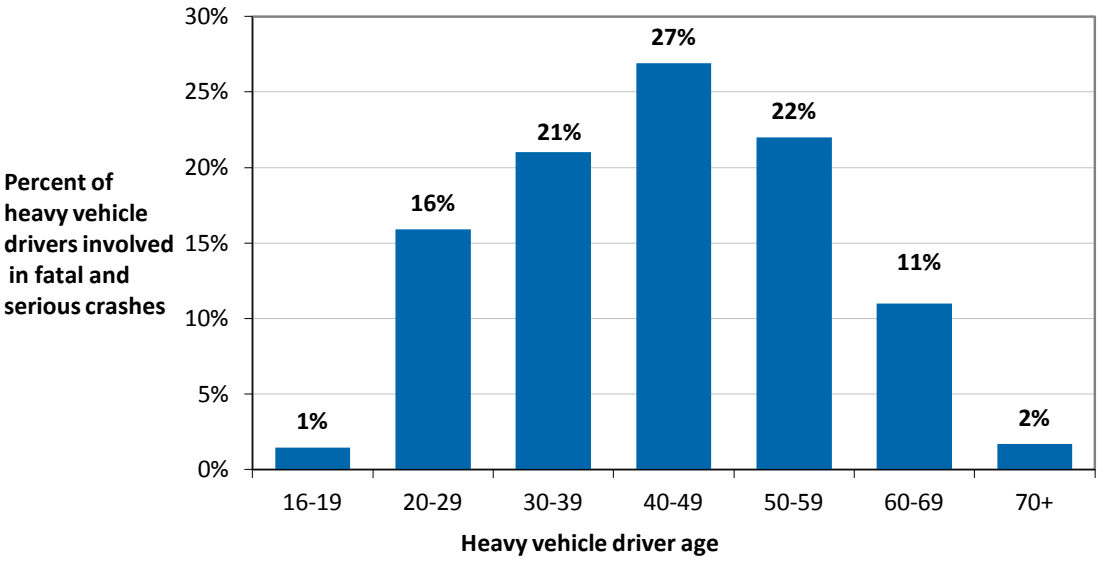
Using the ATSB definition it was found that 17% of fatal crashes involving heavy vehicles in SA were due to fatigue (14 fatal crashes). Five fatal crashes were single vehicle and the remaining nine involved another vehicle. The heavy vehicle driver was deemed responsible in six of the 14 of these fatal crashes.

Nationally ATSB found that a third of articulated truck crashes involved driver fatigue, more than double the proportion of non-articulated truck crashes that involved driver fatigue over the same period. Nearly 80% of the fatigue-related articulated truck crashes involved more than one vehicle and 62% occurred during the day time hours of 6am-6pm. Again it wasn't necessarily the truck driver that was fatigued; in fact where it could be identified which driver was fatigued in a two car collision, more than two thirds were drivers of passenger cars.

Age of driver

The age of the drivers involved in heavy vehicle serious casualty crashes are generally older than those for passenger vehicles. This is likely to reflect that there are a greater number of heavy vehicle drivers in the older age groups. The National Transport Commission suggest that most transport operators and insurers give preference to older more experienced heavy vehicle drivers[4]. The following table is an overview of the age of heavy vehicle drivers involved in the last 5 years.

Figure 3 – Age of heavy vehicle drivers involved in fatal and serious crashes, South Australia, 2008-2012



[4] National Road Transport Commission (1999). *Potential for Fast-Tracking Heavy Vehicle Drivers*, Melbourne, January 1999.

Speed

Vehicle travel speeds affect both the risk of crash involvement and the severity of any crashes that happen, including crashes caused by factors other than speed.

A national study of heavy vehicles and speeding has shown that a high proportion of heavy vehicles exceed sign posted speed limits on both open rural and urban roads[5]. A paper on speed and heavy vehicle safety estimated a 29% reduction in heavy vehicle crashes if all heavy vehicles complied with speed limits[6].

The following tables contains data collected from rural Culway sites in South Australia, it shows the proportion of heavy vehicles exceeding the speed limit for 2006 and 2012[7]. Since 2006, the proportion of heavy vehicles speeding in all brackets has decreased apart from road trains where the level of speeding less than 5km/h has increased, the overall speeding has however decreased.

Table 2 – Degree of speeding from SA sites, 2006

Proportion of Sample Speeding				
Excess Speed (km/h)	**Rigid**	**Articulated**	**B-Double**	**Road Train**
≤ 5km/h	8%	45%	54%	34%
6-15km/h	3%	5%	6%	46%
> 15km/h	0%	0%	0%	3%
Total speeding	**11%**	**51%**	**61%**	**84%**

Table 3 – Degree of speeding from SA sites, 2012

Proportion of Sample Speeding				
Excess Speed (km/h)	**Rigid**	**Articulated**	**B-Double**	**Road Train**
≤ 5km/h	7%	35%	43%	40%
6-15km/h	2%	3%	2%	14%
> 15km/h	0%	0%	0%	1%
Total speeding	**9%**	**38%**	**44%**	**55%**

[5] National Transport Commission, Australia (2005). *Heavy vehicle speed compliance: Review of Regulatory Approaches, discussion paper*, Melbourne, October 2005.
[6] Brooks, C. (2002). *Speed and Heavy Vehicle Safety*. Papers for the NRTC/ATSB National Heavy Vehicle Safety Seminar, Melbourne, October 2002.
[7] 2006/2012 Culway speed distribution data from Road Asset Management Section, RAMS, DPTI

Definitions of police reported casualty types:

Casualty Crash - A crash where *at least one* fatality, serious injury *or* minor injury occurs.

Casualty – A fatality, serious injury or minor injury.

Fatal Crash - A crash for which there is *at least one* fatality.

Fatality - A person who dies within 30 days of a crash as a result of injuries sustained in that crash.

Serious Casualty Crash - A crash where *at least one* fatality or serious injury occurs

Serious Casualty – A fatality or serious injury.

Serious Injury Crash - A non-fatal crash in which *at least one* person is seriously injured.

Serious Injury - A person who sustains injuries and is admitted to hospital as a result of a road crash and who does not die as a result of those injuries within 30 days of the crash.

Minor Injury Crash - A crash for *at least one* person sustains injury but no person is admitted to hospital or dies within 30 days of the crash.

Minor Injury – A person who sustains injuries requiring medical treatment, either by a doctor or in a hospital, as a result of a road crash and who does not die as a result of those injuries with 30 days of the crash.

Data sources

The data presented in this report was obtained from the Department of Planning, Transport and Infrastructure Road Crash Database. The information was compiled from police reported road casualty crashes only.

Enquiries

For further information about data in this report, contact:

Safer People, Department of Planning, Transport and Infrastructure

GPO Box 1533

Adelaide SA 5001

Email: DPTI.enquiriesadministrator@sa.gov.au

Internet : http://www.dpti.sa.gov.au/towardszerotogether