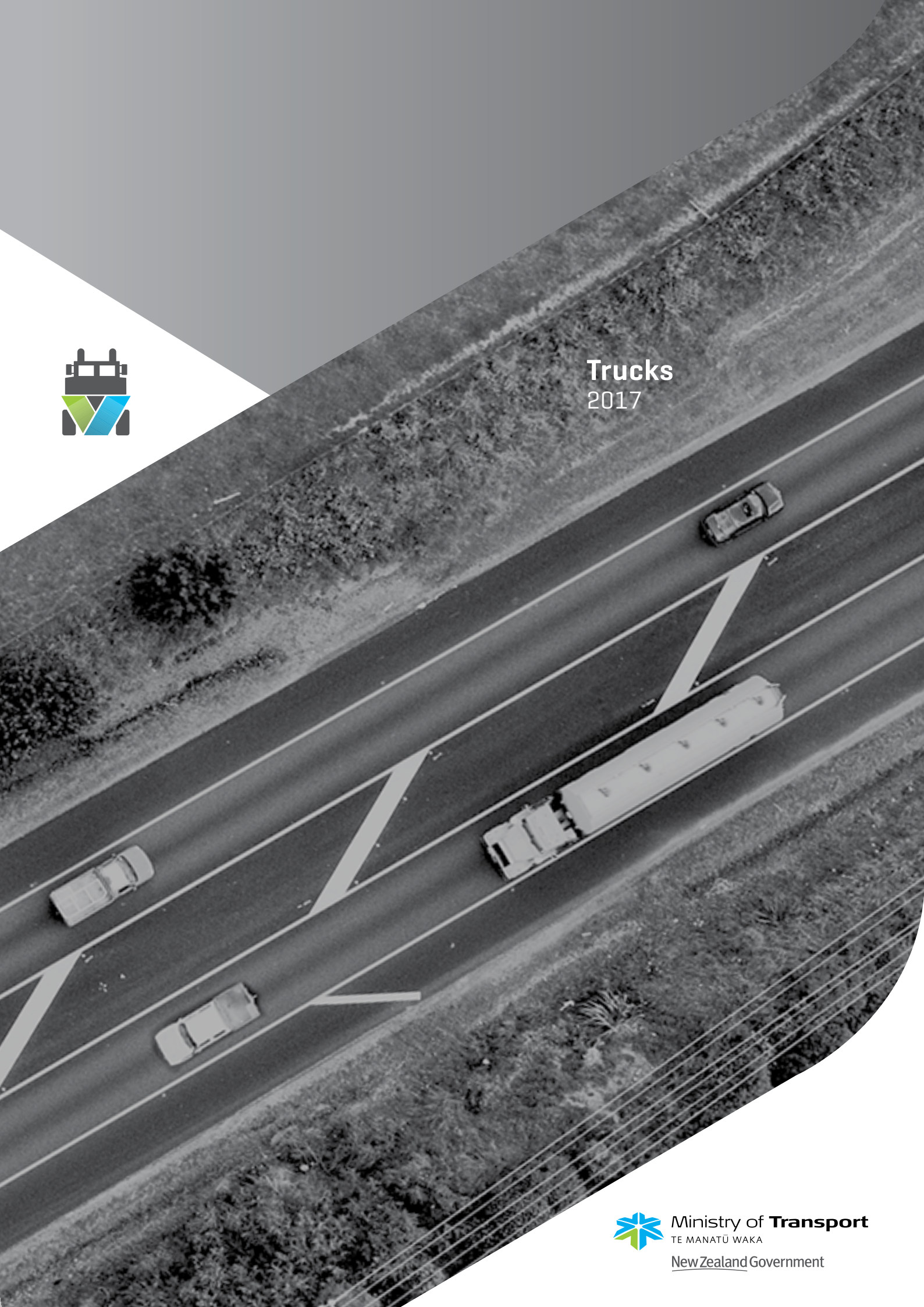




# Trucks

2017



## Disclaimer

All reasonable endeavours are made to ensure the accuracy of the information in this report. However, the information is provided without warranties of any kind including accuracy, completeness, timeliness or fitness for any particular purpose.

The Ministry of Transport excludes liability for any loss, damage or expense, direct or indirect, and however caused, whether through negligence or otherwise, resulting from any person or organisation's use of, or reliance on, the information provided in this report.

Under the terms of the Creative Commons Attribution 4.0 International (BY) licence, this document, and the information contained within it, can be copied, distributed, adapted and otherwise used provided that –

- ▶ the Ministry of Transport is attributed as the source of the material
- ▶ the material is not misrepresented or distorted through selective use of the material
- ▶ images contained in the material are not copied
- ▶

The terms of the Ministry's [Copyright and disclaimer](#) apply.

## Additional information

Enquires relating to crash statistics may be directed to the Ministry of Transport, PO Box 3175, Wellington, or by email on [info@transport.govt.nz](mailto:info@transport.govt.nz). For more information about road safety, visit the Ministry of Transport website at [www.transport.govt.nz](http://www.transport.govt.nz).

A selection of fact sheets is available via the research section of the Ministry of Transport website.

These include:

### Crash fact sheets

- ▶ Alcohol and drugs
- ▶ Cyclists
- ▶ Diverted attention
- ▶ Fatigue
- ▶ Motorcyclists
- ▶ Overseas drivers
- ▶ Pedestrians
- ▶ Speed
- ▶ Trucks
- ▶ Young drivers

### Travel survey fact sheets

- ▶ Comparing travel modes
- ▶ Cycling
- ▶ Driver travel
- ▶ Motorcycling
- ▶ Public transport
- ▶ Risk on the road
  - ▶ Introduction and mode comparison
  - ▶ Drivers and their passengers
  - ▶ Pedestrians, cyclists and motorcyclists
- ▶ Walking

## Contents

Contents .....	3
Key facts .....	4
Safety levels improving .....	4
Time series .....	5
Who was at fault? .....	6
Types of crash .....	8
Where do crashes happen? .....	9
When do crashes happen?.....	9
Types of truck rig involved in crashes .....	10
Types of road users who die, or are injured, in truck crashes .....	11
Terminology .....	12

## Key facts

In 2016, 75 people died and a further 850 were injured in road crashes involving trucks. This was 23 percent of all deaths and 7 percent of all reported injuries on our roads.

Because of their large mass, trucks tend to be over-represented in serious crashes. Deaths from crashes involving trucks make up around 20 percent of the total road toll (5 year average), while just over 6 percent of the total distance travelled on New Zealand roads is travelled by trucks.

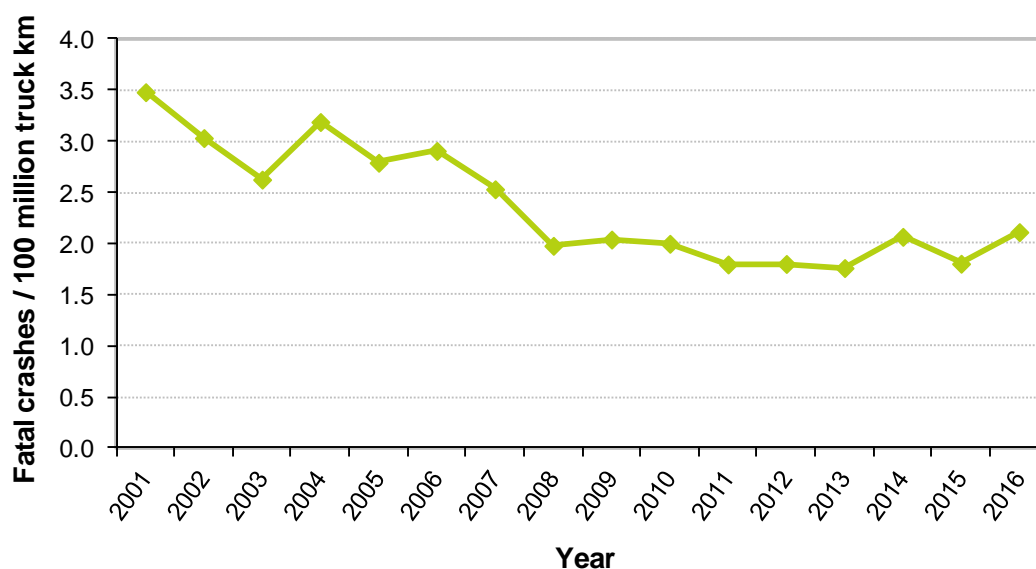
In crashes involving trucks, most of the people who die (87 percent in 2016) are not truck occupants, but the other road users involved. This reflects the fact that, in a collision between a heavy vehicle and a light vehicle or vulnerable road user, there is a much higher probability of death or serious injury than in a collision involving only light vehicles.

This is not to say that the fault lies primarily with the heavy vehicles or their drivers. As shown in a later section, truck drivers have the primary responsibility<sup>1</sup> for only about a third (32 percent) of the fatal crashes in which they are involved.

## Safety levels improving

The number of fatal crashes that involve a truck for every 100 million kilometres driven by trucks has dropped by about a third since the early 2000s. There has been little change since 2008.

**Figure 1: Fatal truck crashes per 100 million kilometres travelled by trucks**



Note: Truck km travelled based on odometer readings at time of WoF

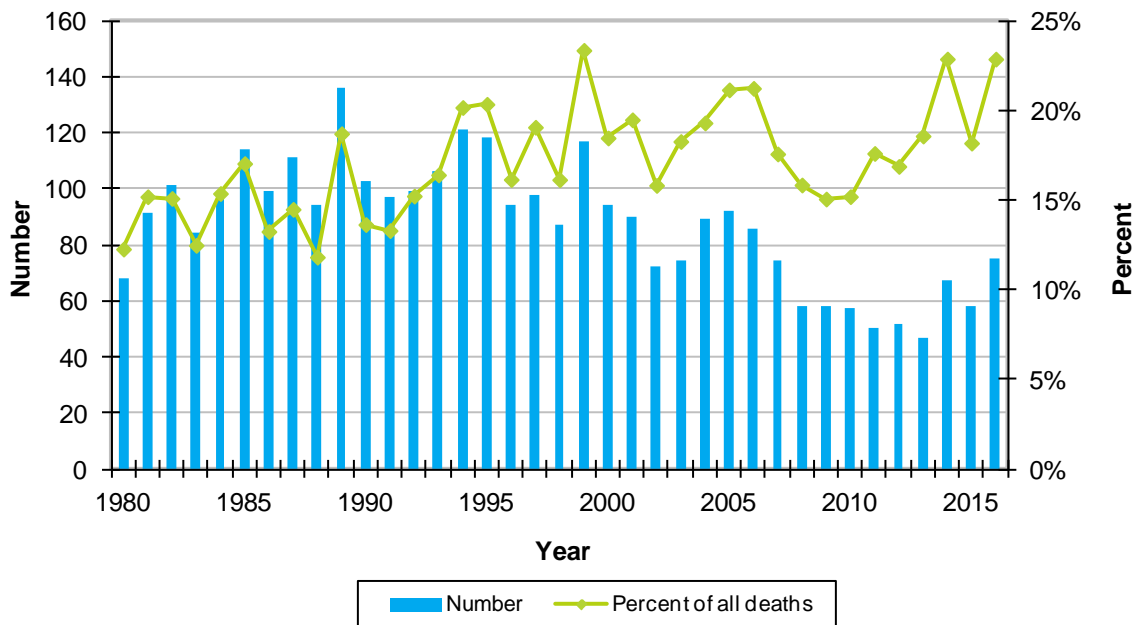
<sup>1</sup> Primary responsibility (fault) for a crash is based on the crash movements and crash cause factors assigned in the Crash Analysis System. It is not based on legal liability or court conviction. Fault/responsibility here only considers driver and rider factors contributing to the crash. There may also be road or system factors that contributed to the crash.

## Time series

**Table 1: Deaths and injuries in crashes involving trucks (1980–2016)**

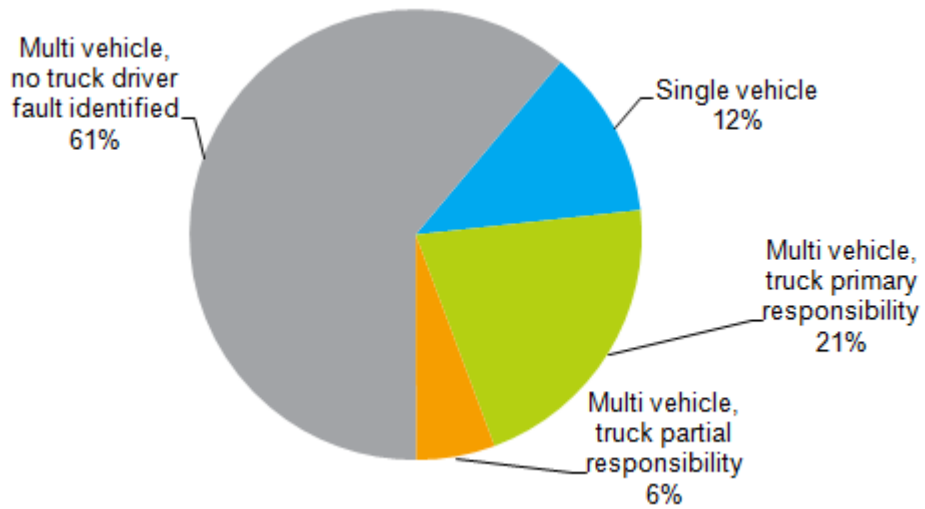
Year	Deaths				Injuries			
	Truck occupants	Other road users	Total	% of road toll	Truck occupants	Other road users	Total	% of road injuries
1980	15	53	68	12%	190	693	883	6%
1981	16	75	91	15%	186	712	898	6%
1982	12	89	101	15%	246	670	916	6%
1983	4	80	84	12%	203	675	878	5%
1984	13	86	99	15%	237	820	1,057	6%
1985	15	99	114	17%	271	905	1,176	6%
1986	15	84	99	13%	274	903	1,177	6%
1987	16	95	111	14%	309	859	1,168	6%
1988	11	83	94	12%	307	786	1,093	6%
1989	14	122	136	19%	272	795	1,067	6%
1990	7	96	103	14%	280	893	1,173	7%
1991	15	82	97	13%	291	681	972	6%
1992	6	93	99	15%	258	736	994	6%
1993	12	94	106	16%	297	783	1,080	7%
1994	24	97	121	20%	331	851	1,182	7%
1995	13	105	118	20%	380	890	1,270	8%
1996	26	68	94	16%	359	784	1,143	8%
1997	12	86	98	19%	308	720	1,028	8%
1998	11	76	87	16%	282	702	984	8%
1999	17	100	117	23%	288	637	925	8%
2000	16	78	94	18%	241	519	760	7%
2001	13	77	90	19%	284	634	918	7%
2002	13	59	72	16%	337	687	1,024	7%
2003	16	58	74	18%	349	650	999	7%
2004	19	70	89	19%	401	724	1,125	8%
2005	21	71	92	21%	367	766	1,133	8%
2006	15	71	86	21%	375	766	1,141	8%
2007	10	64	74	18%	396	780	1,176	7%
2008	7	51	58	16%	373	788	1,161	8%
2009	7	51	58	15%	279	615	894	6%
2010	16	41	57	15%	278	593	871	6%
2011	12	38	50	18%	247	646	893	7%
2012	10	42	52	17%	246	534	780	6%
2013	7	40	47	19%	241	506	747	6%
2014	13	54	67	23%	246	526	772	7%
2015	10	48	58	18%	226	582	808	7%
2016	10	65	75	23%	274	576	850	7%

**Figure 2: Deaths in crashes involving trucks**



**Who was at fault?**

**Figure 3: Truck driver fault in fatal crashes (2012–2016)**

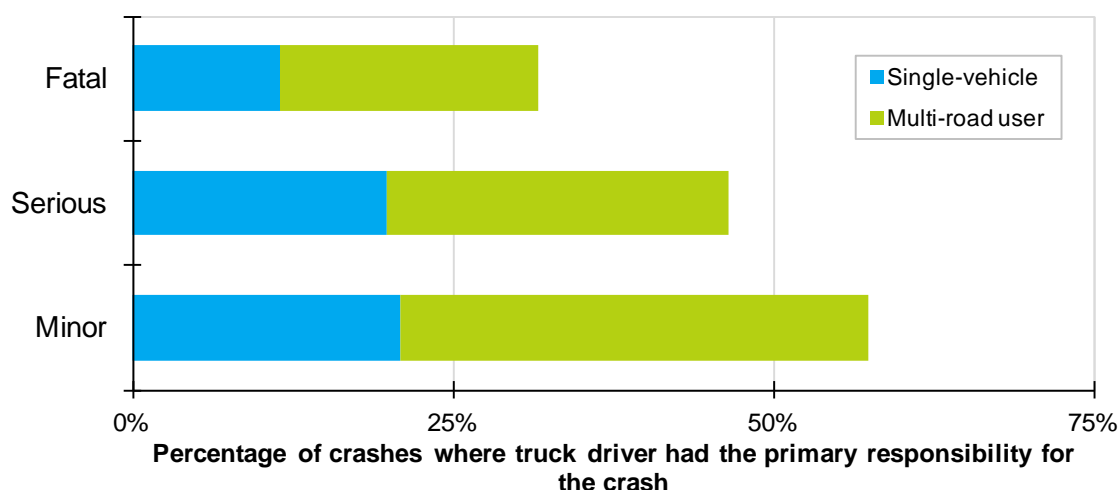


**Note:** In this section a ‘single-vehicle’ crash is a crash in which there was only one truck, and no other road users were involved. A ‘multi-vehicle’ or ‘multi-road user’ crash involves a truck and at least one other road user.

**Table 2: Truck crashes (2012–2016)**

Crash severity		Single vehicle truck crashes	Crashes involving another road user		
			Truck primary responsibility	Truck partial responsibility	No truck fault
<b>Fatal</b>	Number	30	52	14	151
	<i>Percent of fatal truck crashes</i>	12%	20%	5%	58%
<b>Injury</b>	Number	631	1,044	116	1,150
	<i>Percent of injury truck crashes</i>	21%	34%	4%	38%

**Figure 4: Percentage of truck crashes in which a truck driver had the primary responsibility for the crash (2012–2016)**



The more serious the crash, the less likely it is for the truck driver to have the primary responsibility for the crash. The truck driver had the primary responsibility for about a third (32 percent) of fatal crashes, compared with over half (57 percent) of minor injury crashes.

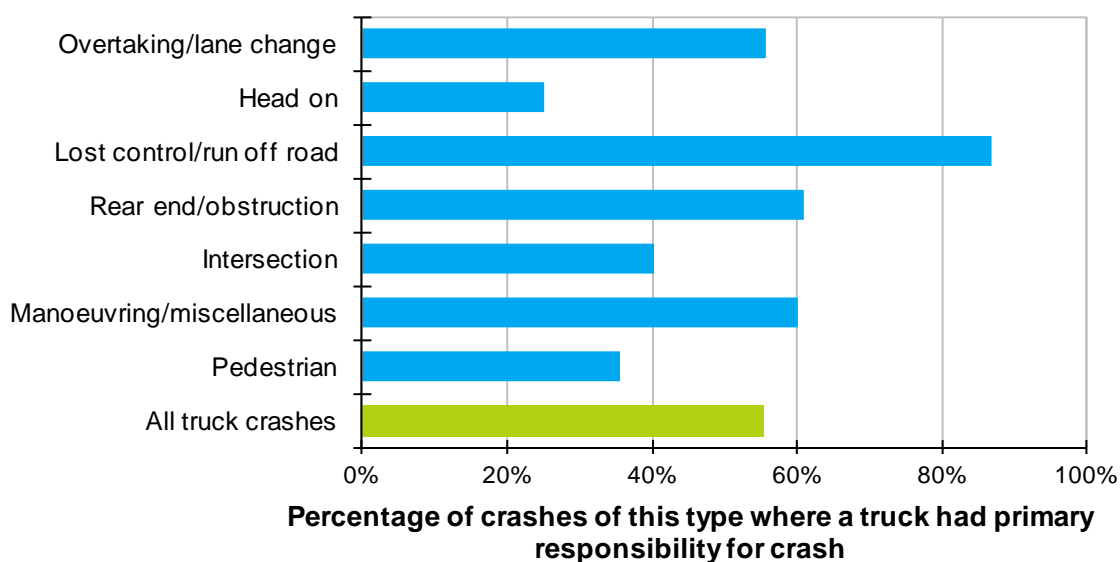
For fatal crashes that involved a truck and another road user, the truck driver had the primary responsibility for about one-quarter (24 percent) of the crashes. For minor injury crashes this figure was 48 percent.

## Types of crash

**Table 3: Type of crash by speed limit area and crash severity (2012–2016)**

Movement type	Speed limit area				All truck crashes			
	Open road		Urban (70km/h or less)		Fatal		Injury	
	Fatal	Injury	Fatal	Injury	Number	%	Number	%
Overtaking/ lane change	16	185	1	99	17	7%	284	9%
Head on	94	255	5	97	99	38%	352	12%
Lost control/ run off road	26	550	4	147	30	12%	697	23%
Rear end/ obstruction	12	351	6	310	18	7%	661	22%
Intersection	31	290	15	443	46	18%	733	24%
Manoeuvring/ miscellaneous	19	92	4	112	23	9%	204	7%
Pedestrian	14	16	12	112	26	10%	128	4%
<b>Total</b>	<b>212</b>	<b>1,739</b>	<b>47</b>	<b>1,320</b>	<b>259</b>	<b>100%</b>	<b>3,059</b>	<b>100%</b>

**Figure 5: Percentage of truck crashes where the truck driver has the primary responsibility for the crash (2012–2016)**





## Where do crashes happen?

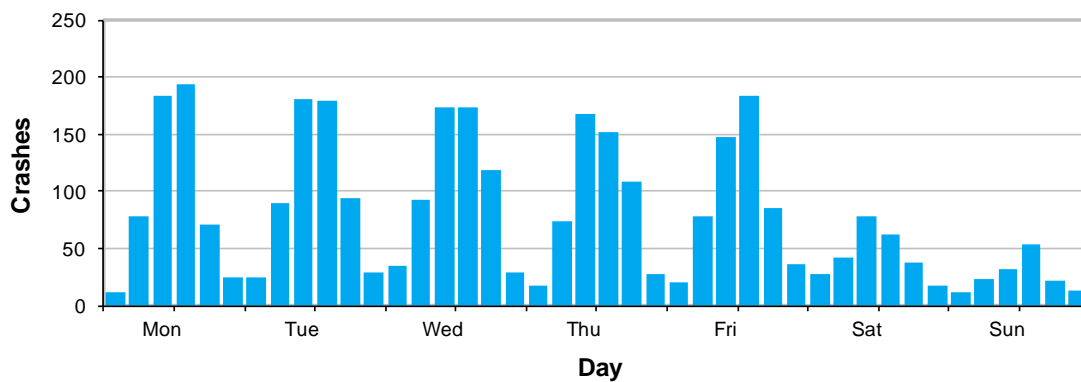
**Figure 6: Urban roads (speed limit of 70km/h or less) and open roads (2012–2016)**

Type of road	Fatal crashes	Injury crashes	Total crashes
Urban	47	1,320	1,367
Open road	212	1,739	1,951
Total	259	3,059	3,318

Eighty-two percent of fatal truck crashes and 57 percent of injury crashes occur on the open road.

## When do crashes happen?

**Figure 7: Fatal and injury crashes (2012–2016)**

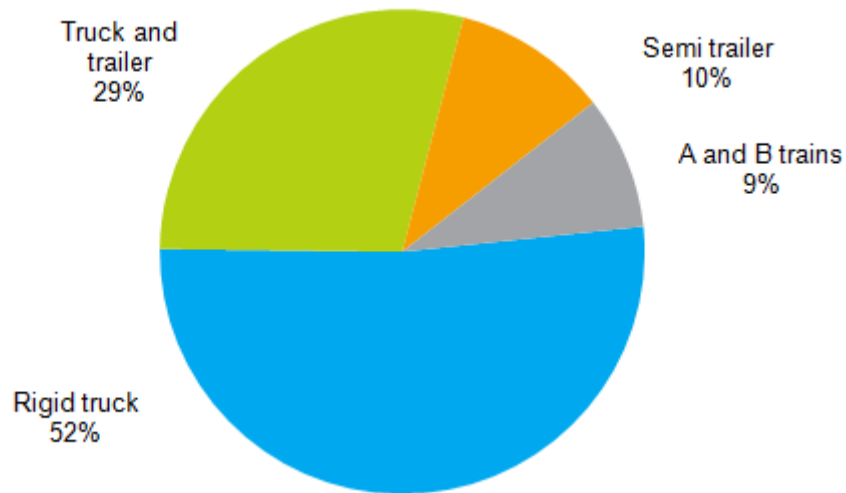


**Note:** Crashes in 4 hour blocks beginning 00:00 Monday

The peak times for truck accidents are during the main working hours between 8am and 4pm on weekdays.

## Types of truck rig involved in crashes

Figure 8: Trucks involved in fatal crashes (2012–2016)



**Note:** A Train: A towing vehicle with a semi-trailer followed by a full trailer.  
B Train: A towing vehicle with two semi-trailers attached.

Table 4: Heavy combination rigs as a percentage of all trucks involved in crashes, by crash severity and road type (2012–2016)

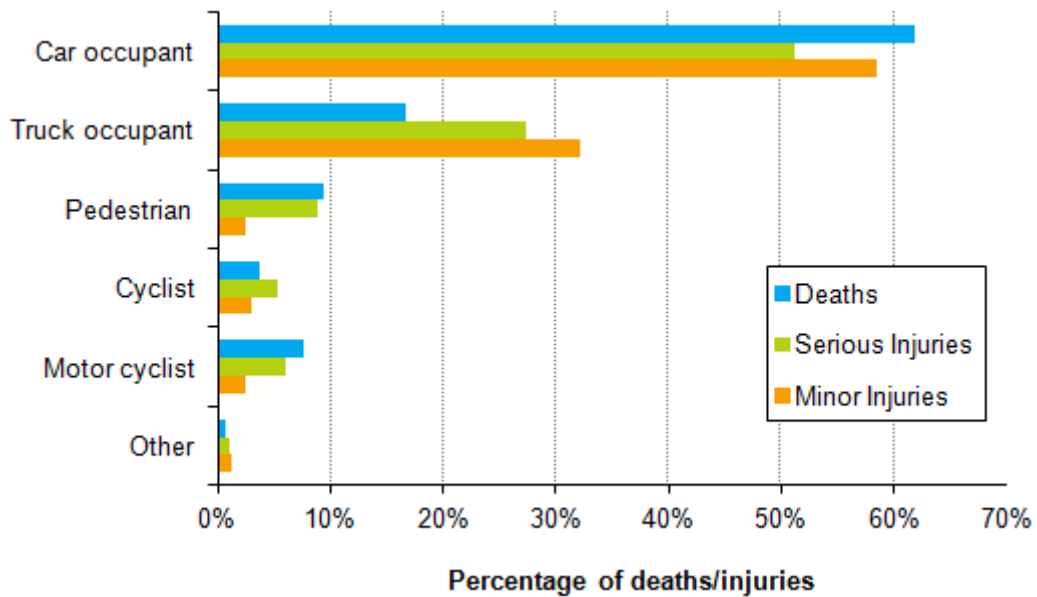
Type of road	Fatal crashes	Serious injury crashes	Minor injury crashes
Urban	43%	20%	15%
Open road	49%	36%	34%
Total	48%	31%	26%

**Note:** Combinations include: truck and trailer; semi-trailer; and A or B train.

The bigger combination rigs feature more in open road crashes than urban crashes. For all areas, the bigger rigs feature more in fatal crashes than injury crashes.

## Types of road users who die, or are injured, in truck crashes

Figure 9: Types of road users who die or are injured in truck crashes, by injury severity (2012–2016)



Fewer than one in five deaths in truck crashes are truck drivers or passengers. Sixty-two percent are car or van drivers or passengers. The other 21 percent are the less well-protected road users — pedestrians (9 percent), motorcyclists (8 percent) and cyclists (4 percent). For non-fatal injuries from truck crashes, the pattern changes to: 57 percent car occupants; 31 percent truck occupants; and 12 percent for other road users.

Most of the truck occupant casualties from road crashes (82 percent of the deaths and 63 percent of the injuries) die, or are injured, in crashes that involve only trucks.

In collisions that involve only one car and one truck, 98 percent of the deaths, 89 percent of the serious injuries and 83 percent of the minor injuries are car occupants. These numbers reflect the fact that, in collisions between large vehicles and small vehicles (or unprotected road users), the occupants of the smaller vehicles are more likely to be seriously injured than the occupants of the larger vehicles.

## **Terminology**

**Fatal injuries:** injuries that result in death within 30 days of the crash.

**Serious injuries:** fractures, concussions, internal injuries, crushings, severe cuts and lacerations, severe general shock necessitating medical treatment and any other injury involving removal to and detention in hospital.

**Minor injuries:** injuries of a minor nature such as sprains and bruises.

**Social cost:** a measure of the total cost of road crashes to the nation. It includes: loss of life and life quality; loss of productivity; and medical, legal, court, and property damage costs.

**Trucks:** includes light trucks.

**Vulnerable road users:** road users not inside motor vehicles such as pedestrians, cyclists and motorcyclists.

**Crash fault/responsibility:** Primary responsibility (at-fault) for a crash is based on the crash movements and crash cause factors assigned in the Crash Analysis System. It is not based on legal liability or court conviction. Fault/responsibility here only considers driver and rider factors contributing to the crash. There may also be road or system factors that contributed to the crash.