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Bureau of Infrastructure, Transport and Regional Economics

STATISTICAL REPORT



bitre  
Safety

**Road trauma Australia  
2017 statistical summary**

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Bureau of Infrastructure, Transport and Regional Economics

## Road trauma Australia 2017 statistical summary

Department of Infrastructure, Regional Development and Cities  
Canberra, Australia

## At a glance

This report is the latest in the BITRE series of annual road crash statistical reports. It presents annual counts of fatalities, fatal crashes, injuries and standardised rates. The focus is on the last ten years.

There were 1,226 road crash deaths in 2017, a decrease of 5.2 per cent from the year before. Over the decade, the trend in the national data showed a reduction of 2.0 per cent per year. During the most recent four years however many jurisdictions have shown increases. (Table 1.1, p. 2).

The 2017 rate of annual deaths per 100,000 population was 4.98. This was a reduction of 6.7 per cent from the year before. Over the decade, all jurisdictions achieved trend reductions at a rate of 2.4 per cent per year or more (Table 3.1 p. 46).

Analysis by age group shows that the population based rates of younger road users (aged less than 40) had the greatest improvement. The rate for those aged 17-25 years however still remains above the overall average. Although the rates for people aged 65-74 years and 75 years and over show a slight decline over the decade, the raw numbers of deaths in these age groups have increased (Table 3.2, p. 48).

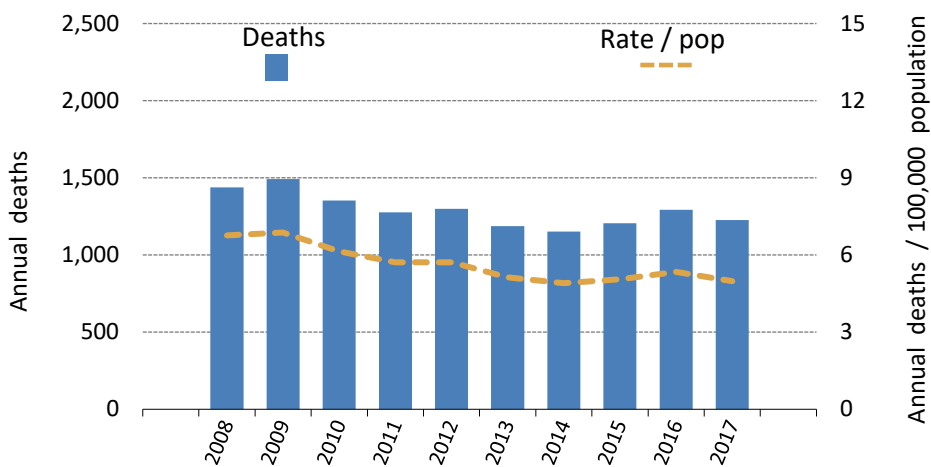
Approximately 45 per cent of all fatal crashes occur in posted speed zones of 100 km/hour or over. Twelve per cent occur in speed zones of 50 km/hour or under. The distribution of fatal crashes into the six speed zone groups presented has not changed appreciably over the decade (Table 2.8, p. 39).

In 2016, major cities accounted for 37 per cent of all fatal crashes, down from 40 per cent in 2008 (Table 2.7, p. 37).

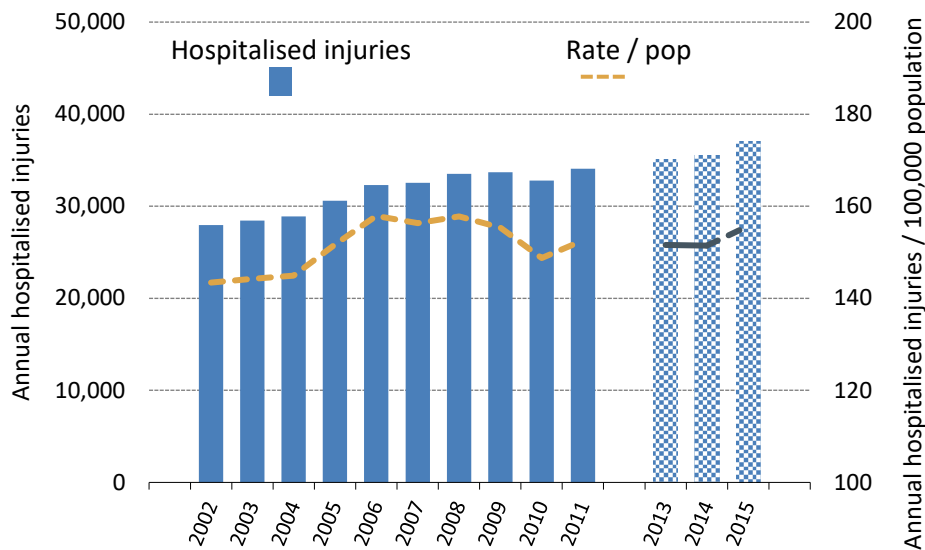
In 2016, Urban areas — major urban and near-urban concentrations of over 10,000 people — accounted for 48 per cent of all fatal crashes and 87 per cent of the population (Table 2.3, p. 32).

During the ten years to 2017, total vehicle registrations increased by 23 per cent. Passenger car registrations increased by 19 per cent, motorcycle registrations increased by 50 per cent and light commercial vehicle registrations increased by 35 per cent (Table 6.4, p. 71).

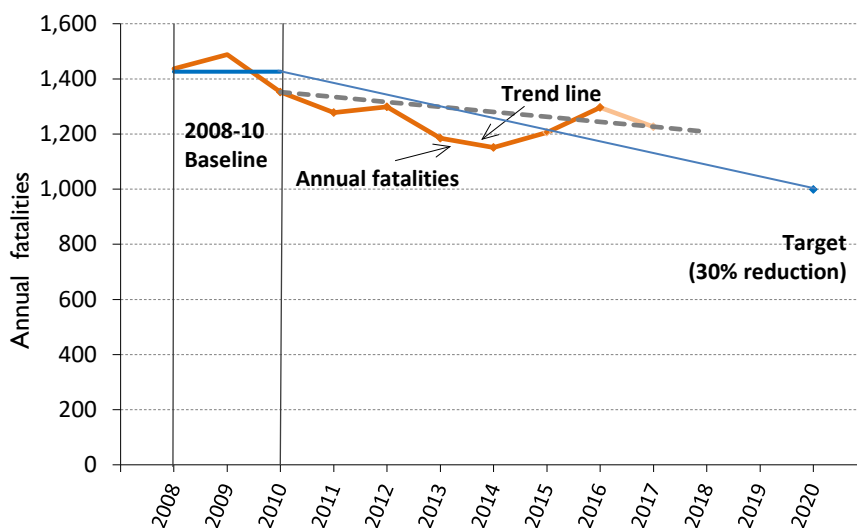
**Annual fatalities and rate per 100,000 population 2008-2017**



**Annual hospitalised injuries and hospitalised injuries per 100,000 population 2002-2015**



**NRSS 2011 - 2020 statistical progress towards fatality target**



## Data Sources

The tables on fatal road crashes presented in this report are based on two databases: the Australian Road Deaths Database (ARDD) and the National Crash Database (NCD).

The Australian Road Deaths Database contains national road crash fatality data comprising basic demographic and crash information. Fatal crashes since 1989 are included and it is updated each month. The current data in spreadsheet format is available at <<https://www.bitre.gov.au>>. For this report, the March 2018 data was used.

The scope of the National Crash Database is national fatal and injury crashes and at present it covers the years 2008 to 2016. It is updated annually.

Due to the timing differences in data receipt and ongoing validation by data providers, there are minor data differences between the two databases.

Non-fatal road traffic crash casualty data (referred to here as 'hospitalised injury') is collated from published reports by the Australian Institute of Health and Welfare (AIHW) and by the National Injury Surveillance Unit (NISU), as well as from unpublished National Hospital Morbidity Database reports compiled by NISU. Refer to AIHW 2008 for information regarding inclusion criteria for traffic crash hospitalised injuries.

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Transport Canberra and City Services Directorate, Australian Capital Territory;  
National Injury Surveillance Unit, Flinders University;  
Australian Institute of Health and Welfare.

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## Section I People

This section presents annual counts of deaths and hospitalised injuries. Classifications include jurisdiction, road user group, age group, gender, common crash type and vehicle type. The data for fatalities covers the decade to 2017, with some tables showing more detail for the years 2008-2016. Hospitalised injuries (national only) are available for the years 2008-2015. A break in this series from 1 July 2012 means that data from 2013 is not comparable with previous years.

### Deaths

- There were 1,226 deaths in 2017— down 5.2 per cent compared to 2016.
- The reduction in deaths over the ten years to 2017 was 14.7 per cent, with an estimated trend annual reduction of 2.0 per cent. All jurisdictions achieved trend reductions of 1.3 per cent per year or more. During the most recent four years however, there have been increases in many jurisdictions (Table I.1, p. 2).
- Over the ten years to 2017, passenger deaths decreased at the fastest rate, with consistent reductions seen also for driver deaths and pedestrian deaths. There was no decreasing trend for either motorcyclists or pedal cyclists (Table I.1, p. 2-3).
- Of the age groups presented, there were increases in deaths over the last decade for the 65-74 age group and the 75 and over age group. In 2017 these two groups accounted for 23.8 per cent of all deaths (up from 16.2 per cent in 2008). There have been consistent reductions for all age groups under 40 years (Table I.2, p. 6).
- Between 2008 and 2016, deaths from crashes *involving* a younger operator (driver or motorcycle rider – aged 17 to 25) decreased by 29.7 per cent. Over the same period, deaths from crashes involving an older operator (aged 65 and over) increased 10.8 per cent (Table I.5, p. 12).
- Approximately half of all deaths are the result of either head-on crashes or single vehicle run-off-road crashes. This proportion has not changed over the four years to 2016 (Table I.8, p. 15).

### Hospitalised injuries

- Between 2013 and 2015 hospitalised injury counts increased by 5.8 per cent. During this period fatalities increased by 1.5 per cent.
- Analysis of hospitalised injuries by age group shows a similar pattern to fatalities: the greatest increases over the 3 years to 2015 were for persons aged 65 years and over (Table I.17, p. 22).

**Table I.1 Deaths by jurisdiction and road user**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
<b>All road users<sup>a</sup></b>									
2008	374	303	328	99	205	39	75	14	1,437
2009	454	290	331	119	191	63	31	12	1,491
2010	405	288	249	118	193	31	50	19	1,353
2011	364	287	269	103	179	24	45	6	1,277
2012	369	282	280	94	183	31	49	12	1,300
2013	333	243	271	98	162	36	37	7	1,187
2014	307	248	223	108	183	33	39	10	1,151
2015	350	252	243	102	160	34	49	15	1,205
2016	380	290	251	86	193	37	45	11	1,293
2017	393	254	247	101	159	36	31	5	1,226
% change 2016-2017	3.4	-12.4	-1.6	17.4	-17.6	-2.7	-31.1	-54.5	-5.2
Ave. trend change p.a. (%)	-1.3	-1.7	-3.1	-1.6	-1.9	-1.7	-3.7	-5.9	-2.0
<b>Drivers</b>									
2008	194	140	141	45	104	19	24	3	670
2009	210	142	155	60	91	29	16	4	707
2010	185	130	114	57	99	16	25	10	636
2011	181	121	108	40	85	13	17	3	568
2012	164	146	125	52	87	14	19	3	610
2013	155	121	136	50	69	13	11	2	557
2014	153	112	106	52	78	18	10	4	533
2015	155	122	117	52	70	17	14	8	555
2016	183	150	106	41	100	17	19	7	623
2017	190	127	101	47	78	18	11	2	574
% change 2016-2017	3.8	-15.3	-4.7	14.6	-22.0	5.9	-42.1	-71.4	-7.9
Ave. trend change p.a. (%)	-1.6	-0.7	-3.3	-1.2	-2.5	-1.8	-6.4	-0.2	-1.9
<b>Passengers</b>									
2008	67	52	78	24	43	11	24	4	303
2009	103	54	68	32	44	21	7	4	333
2010	89	62	50	24	39	5	13	2	284
2011	73	60	73	22	37	3	18	0	286
2012	82	53	58	14	35	5	12	1	260
2013	49	39	56	17	27	5	9	2	204
2014	43	50	52	24	37	9	11	2	228
2015	60	57	47	17	49	3	16	2	251
2016	54	36	38	23	35	6	16	0	208
2017	83	46	52	11	31	4	8	1	236
% change 2016-2017	53.7	27.8	36.8	-52.2	-11.4	-33.3	-50.0	-	13.5
Ave. trend change p.a. (%)	-4.0	-3.1	-5.4	-6.2	-2.2	-9.9	-2.9	-	-4.2

**Table I.1 Deaths by jurisdiction and road user (continued)**

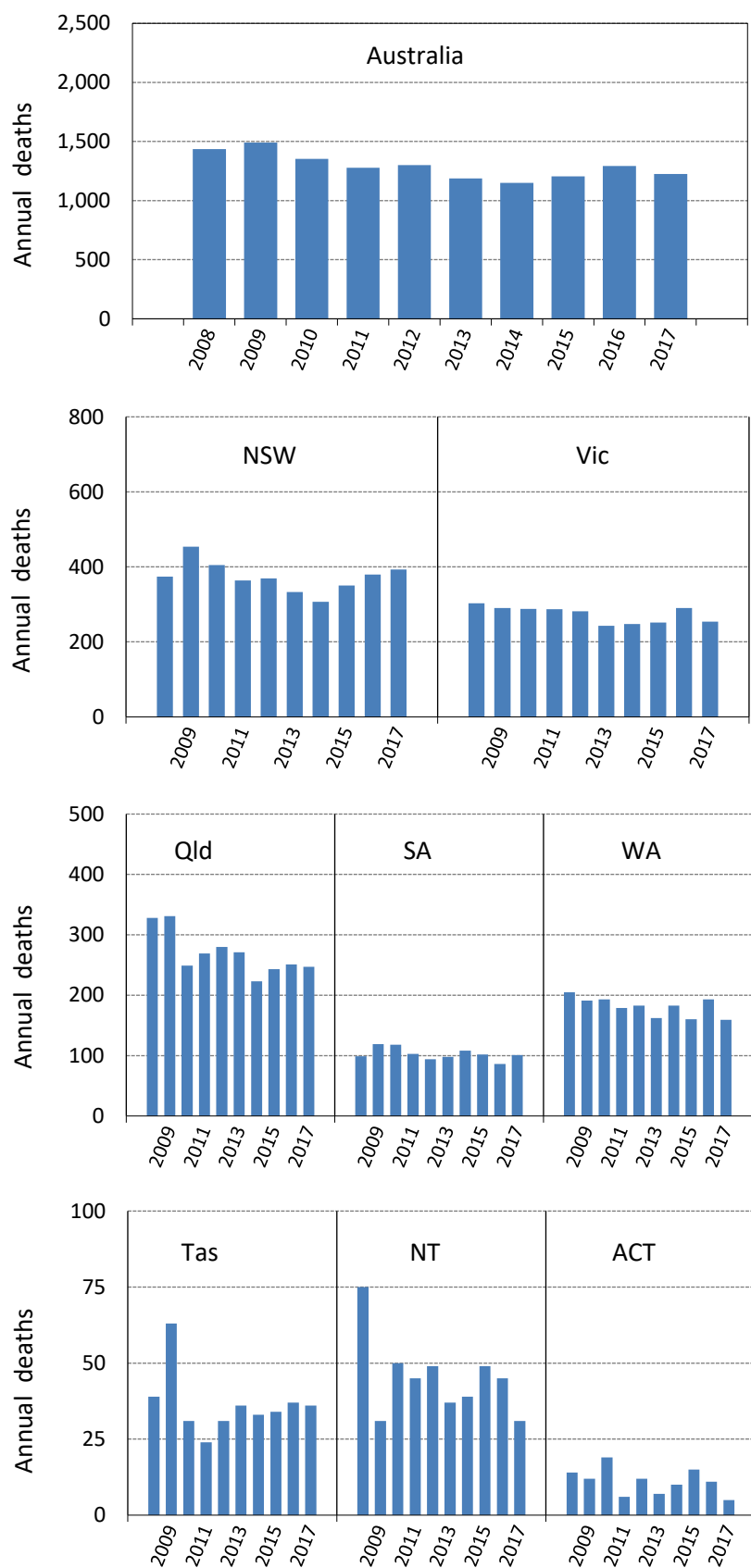
	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
<b>Pedestrians</b>									
2008	49	59	30	12	18	1	17	3	189
2009	59	50	40	10	25	3	7	2	196
2010	59	39	28	16	15	6	7	0	170
2011	49	49	33	17	26	4	8	0	186
2012	55	35	27	9	24	6	10	4	170
2013	44	36	21	13	31	3	9	1	158
2014	41	46	19	17	16	3	8	1	151
2015	61	33	21	18	15	3	11	0	162
2016	71	40	37	9	14	4	6	1	182
2017	54	29	35	17	14	2	9	0	160
<i>% change 2016-2017</i>	-23.9	-27.5	-5.4	88.9	0.0	-50.0	50.0	-100.0	-12.1
<i>Ave. trend change p.a. (%)</i>	1.0	-5.3	-1.5	2.1	-4.5	2.0	-2.8	-	-1.8
<b>Motorcyclists<sup>b</sup></b>									
2008	55	43	72	17	36	8	10	4	245
2009	69	38	60	15	31	8	1	2	224
2010	61	49	50	16	35	3	5	5	224
2011	51	49	45	21	28	3	2	3	202
2012	61	41	60	15	34	5	4	3	223
2013	71	41	45	12	25	11	6	2	213
2014	59	30	37	11	43	3	6	2	191
2015	67	30	54	11	21	10	6	4	203
2016	67	56	62	8	39	10	4	3	249
2017	59	38	50	24	25	11	3	1	211
<i>% change 2016-2017</i>	-11.9	-32.1	-19.4	200.0	-35.9	10.0	-25.0	-66.7	-15.3
<i>Ave. trend change p.a. (%)</i>	0.9	-1.4	-2.1	-3.2	-2.0	7.0	2.1	-7.2	-0.8
<b>Pedal cyclists<sup>b</sup></b>									
2008	8	9	7	1	3	0	0	0	28
2009	13	6	8	2	0	2	0	0	31
2010	11	8	7	5	4	1	0	2	38
2011	10	8	9	3	3	1	0	0	34
2012	7	7	10	3	3	1	1	1	33
2013	14	6	13	5	6	4	2	0	50
2014	11	10	9	4	9	0	1	1	45
2015	7	10	4	4	4	1	0	1	31
2016	5	8	8	5	3	0	0	0	29
2017	7	12	8	2	7	1	0	1	38
<i>% change 2016-2017</i>	40.0	50.0	0.0	-60.0	133.3	-	-	-	31.0
<i>Ave. trend change p.a. (%)</i>	-5.4	3.9	-0.8	8.1	-	-	-	-	1.5

a Drivers, passengers, pedestrians, motorcyclists, pedal cyclists and those with unstated or unknown road user type.

b Includes pillion passengers.

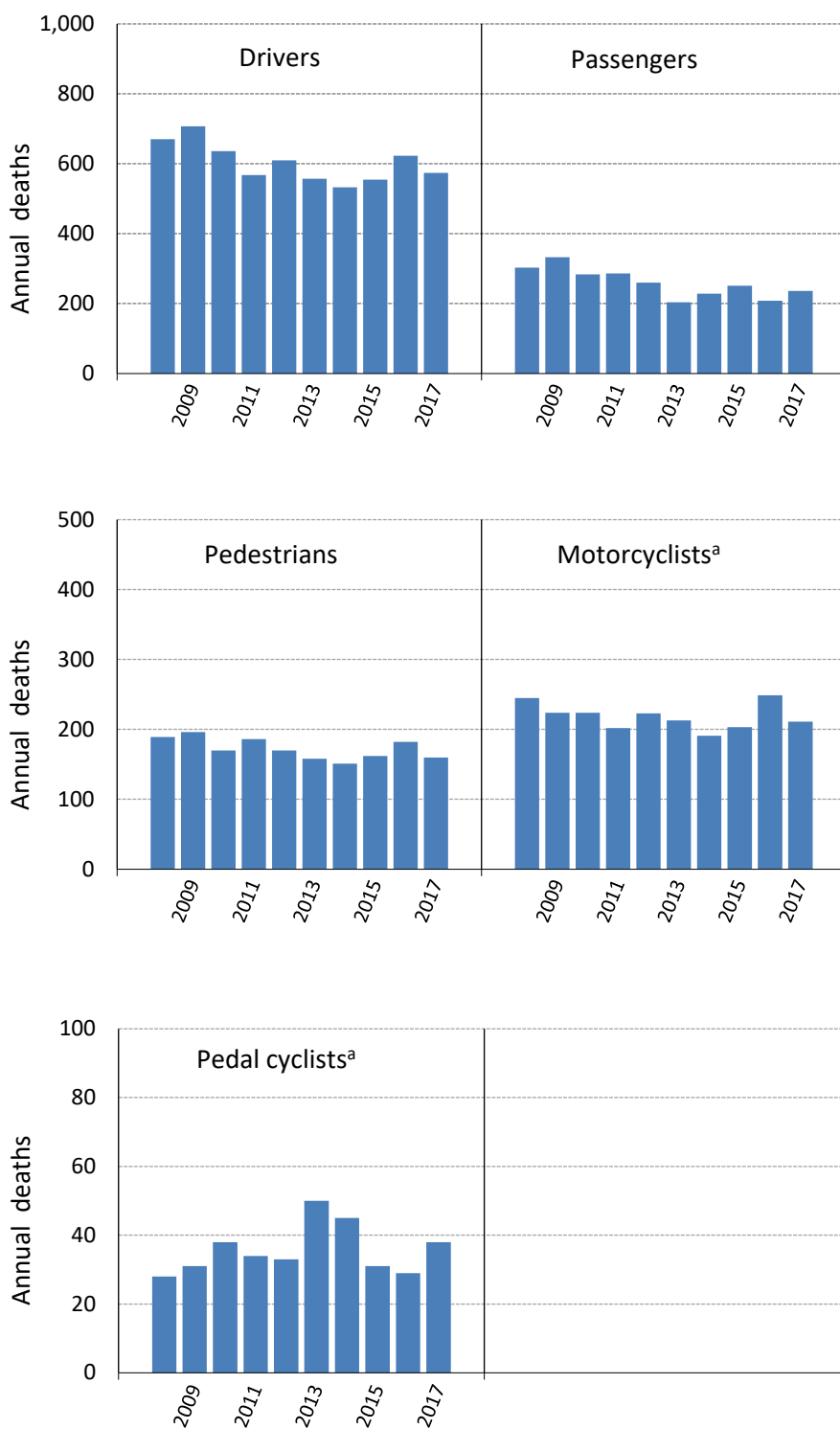
Source BITRE analysis of Australian Road Deaths Database

**Figure I.1 Deaths by jurisdiction**



Source BITRE analysis of Australian Road Deaths Database

**Figure I.2 Deaths by road user group**



<sup>a</sup> Includes pillion passengers.  
Source BITRE analysis of Australian Road Deaths Database

**Table I.2 Deaths by jurisdiction and age group**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
<b>0–16 years</b>									
2008	17	15	20	7	17	4	6	1	87
2009	33	19	27	7	16	4	0	0	106
2010	17	14	16	6	13	2	5	1	74
2011	19	22	29	5	11	1	6	0	93
2012	22	13	15	5	9	2	3	1	70
2013	12	8	24	5	13	1	3	0	66
2014	12	15	13	8	11	4	2	0	65
2015	20	14	8	6	15	0	1	1	65
2016	18	8	8	5	13	4	4	0	60
2017	19	8	6	3	8	2	2	0	48
<i>% change 2016-2017</i>	5.6	0.0	-25.0	-40.0	-38.5	-50.0	-50.0	-	-20.0
<i>Ave. trend change p.a. (%)</i>	-2.6	-7.8	-13.9	-5.1	-4.2	-	-	-	-6.5
<b>17–25 years</b>									
2008	91	80	87	29	59	10	19	2	377
2009	105	66	82	40	43	14	9	3	362
2010	100	74	59	32	48	6	13	4	336
2011	79	72	50	13	48	4	13	1	280
2012	83	65	72	17	38	3	5	1	284
2013	74	39	58	15	30	6	6	2	230
2014	67	49	46	18	42	3	6	4	235
2015	55	49	46	15	36	10	11	3	225
2016	79	50	52	16	50	7	7	4	265
2017	78	50	36	22	31	3	8	2	230
<i>% change 2016-2017</i>	-1.3	0.0	-30.8	37.5	-38.0	-57.1	14.3	-50.0	-13.2
<i>Ave. trend change p.a. (%)</i>	-4.1	-5.8	-7.5	-6.9	-4.0	-7.7	-7.3	3.3	-5.5
<b>26–39 years</b>									
2008	75	67	86	26	54	13	21	3	345
2009	106	62	84	26	54	9	10	4	355
2010	84	63	59	19	51	7	16	6	305
2011	63	52	76	28	39	5	10	2	275
2012	73	61	70	14	58	4	17	3	300
2013	67	46	54	11	43	8	13	1	243
2014	54	57	55	20	39	4	19	3	251
2015	62	54	65	20	40	8	20	3	272
2016	72	64	54	19	56	8	15	2	290
2017	73	51	48	17	28	6	10	2	235
<i>% change 2016-2017</i>	1.4	-20.3	-11.1	-10.5	-50.0	-25.0	-33.3	0.0	-19.0
<i>Ave. trend change p.a. (%)</i>	-3.0	-1.8	-5.4	-4.2	-4.3	-4.2	-0.6	-6.9	-3.5



**Table I.2 Deaths by jurisdiction and age group (continued)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
<b>40–64 years</b>									
<i>2008</i>	115	83	90	24	50	8	22	3	395
<i>2009</i>	129	91	95	34	56	25	10	5	445
<i>2010</i>	125	86	79	43	57	9	13	6	418
<i>2011</i>	131	84	73	35	48	10	14	3	398
<i>2012</i>	106	86	85	31	56	12	20	4	400
<i>2013</i>	104	79	89	38	45	8	10	1	374
<i>2014</i>	97	71	75	33	57	12	12	2	359
<i>2015</i>	115	78	70	33	47	11	15	4	373
<i>2016</i>	118	105	84	21	54	11	15	4	412
<i>2017</i>	125	79	63	28	51	16	10	0	372
<i>% change 2016-2017</i>	5.9	-24.8	-25.0	33.3	-5.6	45.5	-33.3	-100.0	-9.7
<i>Ave. trend change p.a. (%)</i>	-0.7	-0.3	-2.7	-2.0	-0.4	1.0	-2.8	-	-1.2
<b>65–74 years</b>									
<i>2008</i>	32	14	17	5	15	1	2	0	86
<i>2009</i>	33	18	19	2	14	6	2	0	94
<i>2010</i>	35	17	15	9	13	5	3	0	97
<i>2011</i>	21	19	21	5	14	2	1	0	83
<i>2012</i>	35	22	14	7	10	5	2	1	96
<i>2013</i>	33	26	19	9	19	7	5	0	118
<i>2014</i>	33	22	20	15	15	3	0	1	109
<i>2015</i>	47	27	19	10	9	2	2	2	118
<i>2016</i>	40	23	16	9	10	2	3	0	103
<i>2017</i>	45	24	16	13	15	4	1	0	118
<i>% change 2016-2017</i>	12.5	4.3	0.0	44.4	50.0	100.0	-66.7	-	14.6
<i>Ave. trend change p.a. (%)</i>	4.5	5.9	-0.2	15.1	-2.0	1.1	-	-	3.4
<b>≥ 75 years</b>									
<i>2008</i>	44	44	28	8	10	3	5	5	147
<i>2009</i>	48	34	24	10	8	5	0	0	129
<i>2010</i>	43	34	21	9	11	2	0	2	122
<i>2011</i>	51	38	20	17	19	2	1	0	148
<i>2012</i>	49	35	24	20	12	5	2	2	149
<i>2013</i>	43	45	27	20	12	6	0	3	156
<i>2014</i>	43	34	14	14	18	7	0	0	130
<i>2015</i>	51	30	35	18	13	3	0	2	152
<i>2016</i>	53	40	37	16	10	5	1	1	163
<i>2017</i>	53	40	31	18	26	5	0	1	174
<i>% change 2016-2017</i>	0.0	0.0	-16.2	12.5	160.0	0.0	-100.0	0.0	6.7
<i>Ave. trend change p.a. (%)</i>	1.6	-0.3	3.4	8.5	6.8	6.6	-	-	2.4

Source BITRE analysis of Australian Road Deaths Database

**Table I.3 Deaths by road user and age group**

	<i>Drivers</i>	<i>Passengers</i>	<i>Pedestrians</i>	<i>Motor-cyclists<sup>a</sup></i>	<i>Pedal cyclists<sup>a</sup></i>	<i>All road users<sup>b</sup></i>
<b>0–16 years</b>						
2008	6	62	13	2	4	87
2009	8	75	18	3	2	106
2010	4	52	15	2	1	74
2011	4	67	14	5	2	93
2012	7	40	15	6	2	70
2013	4	37	13	4	7	66
2014	3	41	17	2	2	65
2015	2	49	11	3	0	65
2016	4	36	12	6	1	60
2017	2	27	14	3	1	48
<i>% change 2016-2017</i>	-50.0	-25.0	16.7	-50.0	0.0	-20.0
<i>Ave. trend change p.a. (%)</i>	-11.2	-8.4	-2.0	4.6	-	-6.5
<b>17–25 years</b>						
2008	180	99	34	60	3	377
2009	178	114	25	43	2	362
2010	169	80	34	49	4	336
2011	132	77	21	47	3	280
2012	140	73	24	43	3	284
2013	120	52	16	38	4	230
2014	111	58	20	41	3	235
2015	113	64	11	33	4	225
2016	136	56	25	46	1	265
2017	112	57	15	39	6	230
<i>% change 2016-2017</i>	-17.6	1.8	-40.0	-15.2	500.0	-13.2
<i>Ave. trend change p.a. (%)</i>	-5.2	-7.2	-7.9	-3.5	1.0	-5.5
<b>26–39 years</b>						
2008	163	52	34	88	8	345
2009	181	50	42	77	5	355
2010	152	48	30	68	7	305
2011	131	54	32	55	3	275
2012	152	40	29	70	7	300
2013	111	35	21	64	11	243
2014	123	39	23	57	8	251
2015	132	47	27	60	4	272
2016	164	35	26	63	2	290
2017	122	43	19	48	3	235
<i>% change 2016-2017</i>	-25.6	22.9	-26.9	-23.8	50.0	-19.0
<i>Ave. trend change p.a. (%)</i>	-2.7	-3.2	-6.1	-4.4	-8.5	-3.5

**Table I.3 Deaths by road user and age group (continued)**

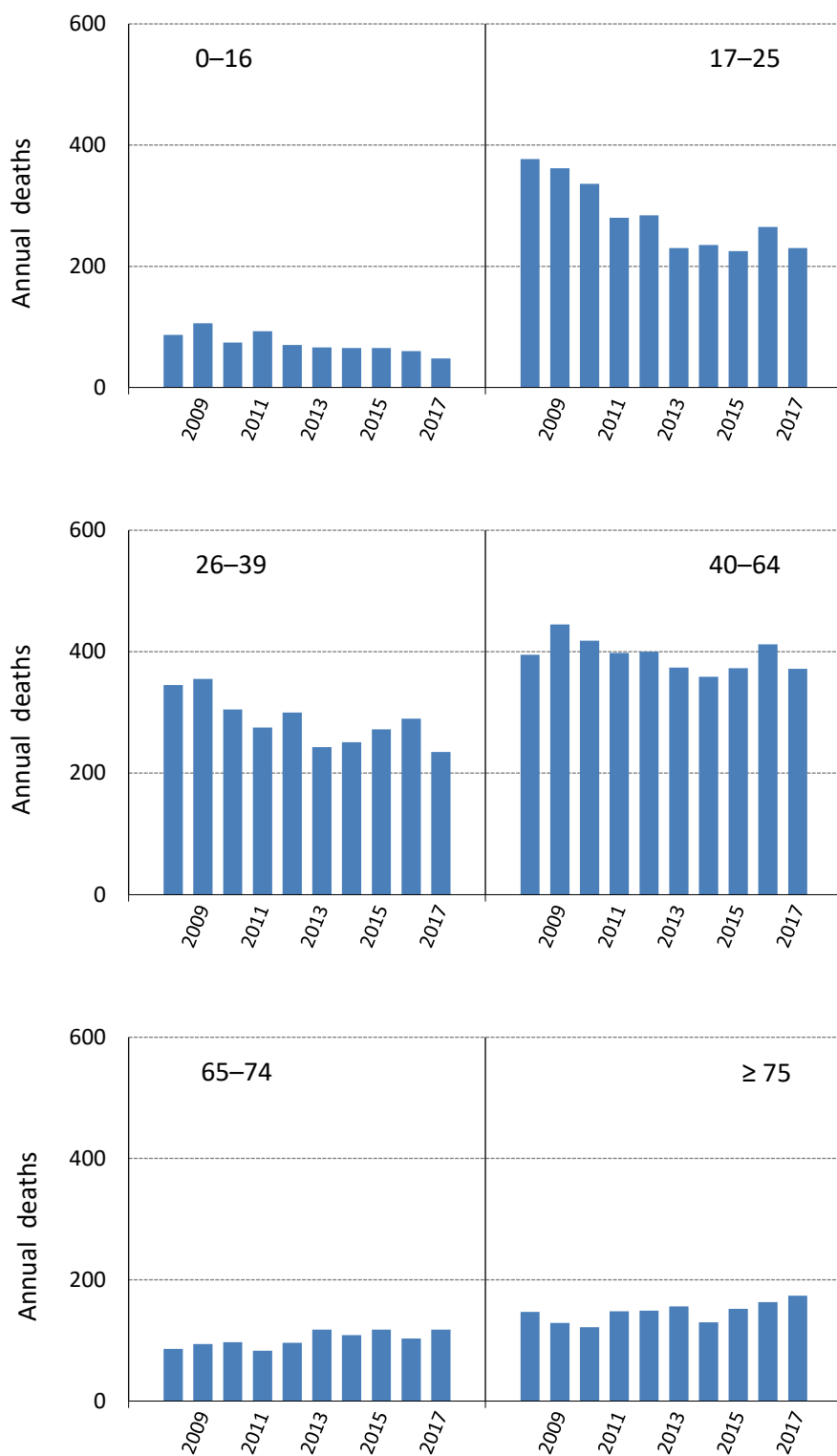
	<i>Drivers</i>	<i>Passengers</i>	<i>Pedestrians</i>	<i>Motor-cyclists<sup>a</sup></i>	<i>Pedal cyclists<sup>a</sup></i>	<i>All road users<sup>b</sup></i>
<b>40–64 years</b>						
2008	204	50	45	88	7	395
2009	230	49	54	98	14	445
2010	213	44	48	95	18	418
2011	197	42	55	85	19	398
2012	199	48	46	95	12	400
2013	190	35	43	84	21	374
2014	171	49	43	79	17	359
2015	175	42	45	95	16	373
2016	191	29	60	119	13	412
2017	178	43	43	91	15	372
<i>% change 2016-2017</i>	-6.8	48.3	-28.3	-23.5	15.4	-9.7
<i>Ave. trend change p.a. (%)</i>	-2.4	-3.1	-0.5	0.8	3.7	-1.2
<b>65–74 years</b>						
2008	43	15	21	6	1	86
2009	47	19	20	2	6	94
2010	40	26	15	10	6	97
2011	41	14	18	6	4	83
2012	41	23	19	8	5	96
2013	54	18	22	17	6	118
2014	65	12	13	8	11	109
2015	58	21	25	11	3	118
2016	47	18	19	11	8	103
2017	47	24	21	19	7	118
<i>% change 2016-2017</i>	0.0	33.3	10.5	72.7	-12.5	14.6
<i>Ave. trend change p.a. (%)</i>	2.7	1.3	0.8	15.9	12.4	3.4
<b>≥ 75 years</b>						
2008	74	25	42	1	5	147
2009	63	26	37	1	2	129
2010	58	33	28	0	2	122
2011	63	32	46	4	3	148
2012	71	35	37	1	4	149
2013	78	27	43	6	1	156
2014	59	28	35	4	4	130
2015	75	28	43	1	4	152
2016	81	34	40	4	4	163
2017	89	34	41	3	4	174
<i>% change 2016-2017</i>	9.9	0.0	2.5	-25.0	0.0	6.7
<i>Ave. trend change p.a. (%)</i>	2.8	1.9	1.1	-	3.6	2.4

a Includes pillion passengers.

b Drivers, passengers, pedestrians, motorcyclists, pedal cyclists and those with unstated or unknown road user type.

Source BITRE analysis of Australian Road Deaths Database

**Figure I.3** Deaths by age group

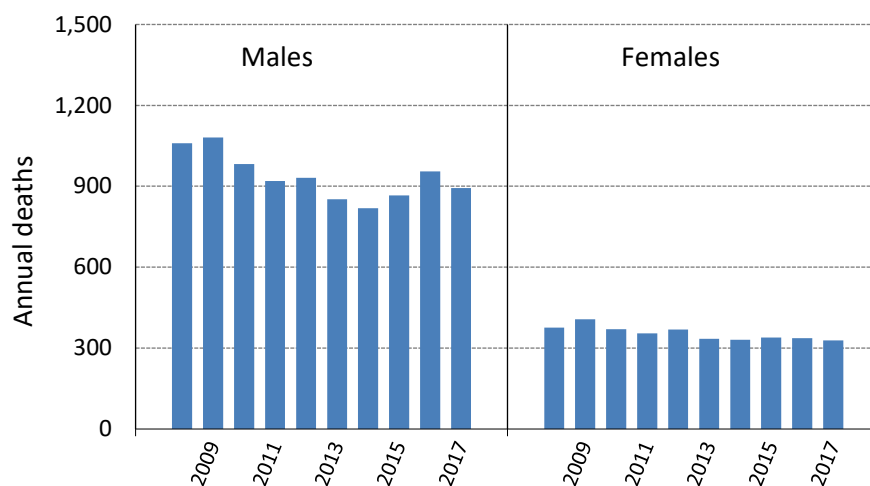


Source BITRE analysis of Australian Road Deaths Database

**Table I.4 Deaths by gender and road user**

	<i>Drivers</i>	<i>Passengers</i>	<i>Pedestrians</i>	<i>Motor-cyclists<sup>a</sup></i>	<i>Pedal cyclists<sup>a</sup></i>	<i>All road users<sup>b</sup></i>
<b>Males</b>						
2008	495	177	133	227	26	1,060
2009	521	182	138	214	26	1,081
2010	470	154	117	207	34	982
2011	422	158	125	187	28	920
2012	459	124	114	203	30	931
2013	393	101	113	200	41	852
2014	387	109	104	178	38	819
2015	423	118	105	188	29	866
2016	475	98	121	233	26	955
2017	435	119	106	198	33	894
<i>% change 2016-2017</i>	-8.4	21.4	-12.4	-15.0	26.9	-6.4
<i>Ave. trend change p.a. (%)</i>	-1.7	-6.2	-2.4	-0.8	1.6	-2.1
<b>Females</b>						
2008	175	125	56	18	2	376
2009	186	148	58	10	5	407
2010	166	129	53	17	4	370
2011	146	126	61	15	6	355
2012	151	136	56	20	3	369
2013	164	102	45	13	9	334
2014	146	118	47	13	7	331
2015	132	133	57	15	2	339
2016	148	109	61	16	3	337
2017	136	116	54	13	5	328
<i>% change 2016-2017</i>	-8.1	6.4	-11.5	-18.8	66.7	-2.7
<i>Ave. trend change p.a. (%)</i>	-2.9	-1.9	-0.4	-0.7	1.7	-2.0
a	Includes pillion passengers.					
b	Total includes not known.					
Source	BITRE analysis of Australian Road Deaths Database					

**Figure I.4 Deaths by gender**



Source BITRE analysis of Australian Road Deaths Database

**Table I.5 Deaths in crashes involving younger or older drivers/  
motorcycle riders**

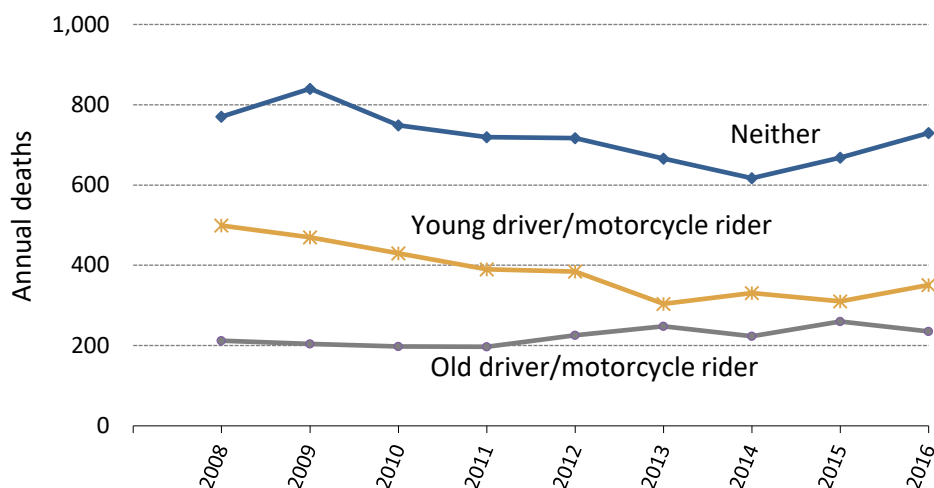
	<i>Involving young driver/motorcycle rider</i>	<i>Involving older driver/motorcycle rider</i>	<i>Neither</i>	<i>Total<sup>a</sup></i>
2008	499	212	770	1,437
2009	470	204	840	1,490
2010	430	198	749	1,351
2011	390	197	719	1,277
2012	384	226	717	1,299
2013	304	248	666	1,185
2014	331	223	617	1,151
2015	310	260	668	1,206
2016	351	235	730	1,296

See glossary for definitions.

a Categories are not mutually exclusive.

Source BITRE analysis of National Crash Database

**Figure I.5 Deaths in crashes involving younger or older drivers/  
motorcycle riders<sup>a</sup>**



a Categories are not mutually exclusive.

Note An 'older driver/motorcycle rider' is a person driving a motor vehicle or operating a motorcycle who is aged 65 years and over.

A 'young driver/motorcycle rider' is a person driving a motor vehicle or operating a motorcycle who is aged between 17 and 25 years inclusive.

Source BITRE analysis of National Crash Database

**Table I.6 Deaths in single vehicle crashes — vehicle type and road user type of killed person<sup>a</sup>**

	<i>Light vehicle<sup>b</sup> Occupant</i>	<i>Heavy Truck Occupant</i>	<i>Bus Occupant</i>	<i>Motor– cyclist<sup>c</sup></i>	<i>Pedal cyclist<sup>c</sup></i>	<i>Total<sup>d</sup></i>
2008	521	29	6	115	6	680
2009	552	35	9	94	6	699
2010	469	21	3	78	7	584
2011	426	24	1	91	8	554
2012	425	25	2	80	7	551
2013	409	11	0	110	11	547
2014	379	23	4	74	10	499
2015	399	23	1	87	7	528
2016	437	21	2	100	10	572

a Crashes involving pedestrian deaths are excluded from Table 1.6 and 1.7.

b Includes passenger car, light commercial vehicle, utility, panel van, cab chassis, goods carrying van, light rigid truck and other not specified vehicle.

c Includes pillion passengers.

d Includes deaths in vehicles not listed (excluding pedestrian deaths).

Source BITRE analysis of National Crash Database

**Table I.7 Deaths in multiple vehicle crashes — vehicle type and road user type of killed person<sup>a</sup>**

	<i>Light vehicle<sup>b</sup> occupant</i>	<i>Heavy Truck occupant</i>	<i>Bus occupant</i>	<i>Motor– cyclist<sup>c</sup></i>	<i>Pedal cyclist<sup>c</sup></i>	<i>Total<sup>d</sup></i>
2008	389	18	0	131	22	566
2009	414	17	1	131	25	595
2010	402	13	0	146	31	595
2011	390	10	1	108	27	538
2012	382	15	6	141	26	575
2013	314	14	0	104	39	476
2014	331	12	1	118	34	502
2015	358	13	3	115	23	516
2016	352	15	1	151	19	542

a Crashes involving pedestrian deaths are excluded from Table 1.6 and 1.7.

b Includes passenger car, light commercial vehicle, utility, panel van, cab chassis, goods carrying van, light rigid truck and other not specified vehicle.

c Includes pillion passengers.

d Includes deaths in vehicles not listed (excluding pedestrian deaths).

Source BITRE analysis of National Crash Database

**Table I.8 Pedestrian deaths — vehicle type involved<sup>a</sup>**

	<i>Light vehicle<sup>b</sup> involved</i>	<i>Heavy Truck involved</i>	<i>Bus involved</i>	<i>Motorcycle involved</i>	<i>Pedal cycle involved</i>	<i>Total<sup>c</sup></i>
2008	143	15	5	4	1	191
2009	153	10	8	2	1	196
2010	145	6	3	1	0	172
2011	126	12	13	5	1	185
2012	128	13	7	1	0	173
2013	127	14	1	1	1	162
2014	118	11	4	2	1	150
2015	136	7	1	1	0	162
2016	156	7	7	1	0	182

a Sub-categories are not mutually exclusive.

b Includes passenger car, light commercial vehicle, utility, panel van, cab chassis, goods carrying van, light rigid truck and other not specified vehicle.

c Includes pedestrian deaths where vehicle type unknown.

Source BITRE analysis of National Crash Database

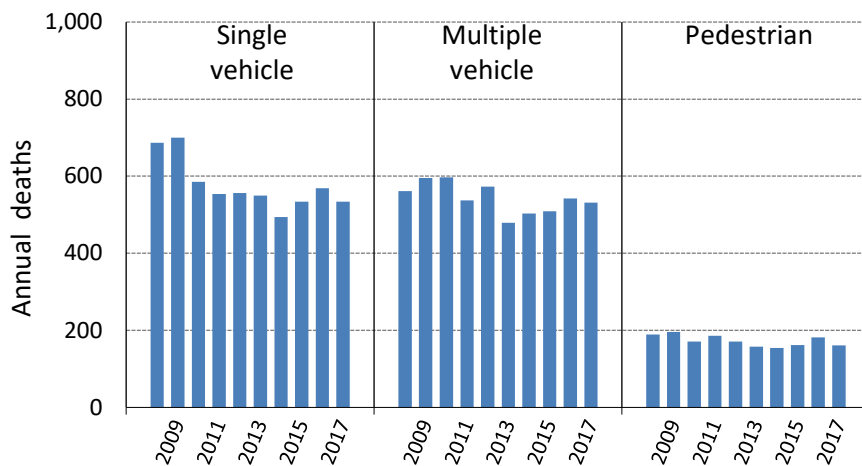
**Table I.9 Deaths by crash type<sup>a</sup>**

	<i>Single vehicle crash</i>	<i>Multiple vehicle crash</i>	<i>Pedestrian crash</i>	<i>Total</i>
2008	687	561	189	1,437
2009	700	595	196	1,491
2010	585	597	171	1,353
2011	554	537	186	1,277
2012	556	573	171	1,300
2013	550	479	158	1,187
2014	494	503	154	1,151
2015	534	509	162	1,205
2016	569	542	182	1,293
2017	534	531	161	1,226
<i>% change 2016-2017</i>	-6.2	-2.0	-11.5	-5.2
<i>Ave. trend change p.a. (%)</i>	-2.7	-1.4	-1.7	-2.0

a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

Source BITRE analysis of Australian Road Deaths Database

**Figure I.6 Deaths by crash type<sup>a</sup>**



a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

Source BITRE analysis of Australian Road Deaths Database

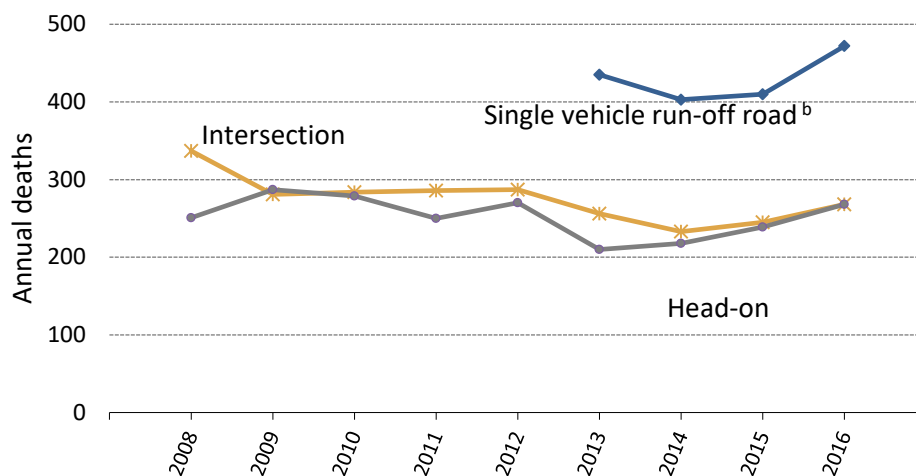


**Table I.10 Deaths from common crash sub-types<sup>a</sup>**

	<i>Intersection</i>	<i>Head-on</i>	<i>Single vehicle run-off road<sup>b</sup></i>	<i>Total<sup>a,c</sup></i>
2008	337	251		1,437
2009	281	287		1,490
2010	284	279		1,351
2011	286	250		1,277
2012	287	270		1,299
2013	256	210	435	1,185
2014	233	218	403	1,151
2015	245	239	410	1,206
2016	268	268	472	1,296

a Categories not mutually exclusive, nor exhaustive.  
 b Full national data available from 2013  
 c Includes all other crash types.  
 Source BITRE analysis of National Crash Database

**Figure I.7 Deaths from common crash sub-types<sup>a</sup>**



a Categories not mutually exclusive, nor exhaustive.  
 b Single vehicle run-off road excludes South Australia.  
 Source BITRE analysis of National Crash Database

**Table I.11** Deaths by restraint use of killed vehicle occupants and by helmet use for riders/pillion passengers

	<i>Restraint used</i>	<i>Not used</i>	<i>Unknown</i>	<i>Total<sup>a</sup></i>
<b>Vehicle occupants</b>				
2008	385	147	133	665
2009	407	171	125	703
2010	383	122	127	632
2011	337	113	121	571
2012	371	97	137	605
2013	330	106	116	552
2014	321	102	110	533
2015	339	122	93	554
2016	408	111	103	622

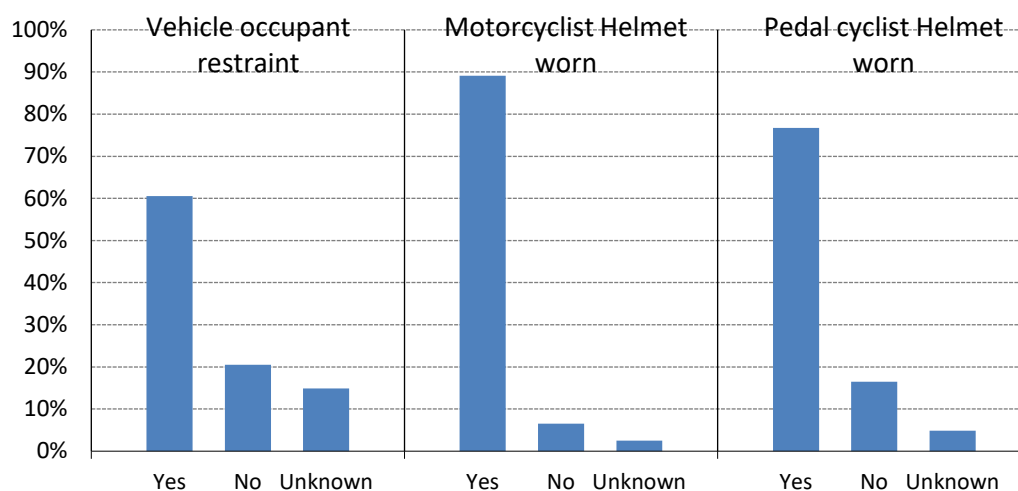
	<i>Helmet used</i>	<i>Not used</i>	<i>Unknown</i>	<i>Total<sup>a</sup></i>
<b>Motorcycle riders</b>				
2008	209	23	14	246
2009	200	14	11	225
2010	199	9	16	224
2011	172	15	11	199
2012	188	14	18	221
2013	186	21	6	214
2014	173	8	5	192
2015	182	13	5	202
2016	220	21	6	251

**Pedal cyclist**

2008	16	10	2	28
2009	23	6	2	31
2010	31	4	3	38
2011	24	10	1	35
2012	22	9	2	33
2013	38	8	4	50
2014	33	9	1	44
2015	24	3	3	30
2016	22	5	1	29

a Includes any non-applicable cases.  
Source BITRE analysis of National Crash Database

**Figure I.8 Safety device wearing rates for killed road users 2014-2016**



Source BITRE analysis of National Crash Database

**Table I.12 The number of deaths – validity of operator's licence (excludes Western Australia)**

	<i>All valid</i>	<i>Any invalid</i>	<i>Unknown and Not applicable</i>	<i>Total</i>
<b>Operators<sup>a</sup></b>				
2008	950	165	99	1,232
2009	1,028	134	122	1,299
2010	901	128	118	1,159
2011	868	111	104	1,098
2012	877	118	106	1,117
2013	808	95	104	1,023
2014	721	95	139	968
2015	774	105	150	1,045
2016	812	119	153	1,101

a 'Operators' includes Drivers and Motorcycle riders.  
Source BITRE analysis of National Crash Database

**Table I.13**      **The number of deaths – Alcohol fail involved**  
**(excludes Victoria and Western Australia)**

	<i>No</i>	<i>Yes</i>	<i>Unknown and Not applicable</i>	<i>Total</i>
<b>Operators<sup>a</sup></b>				
2008	358	256	315	929
2009	427	249	333	1009
2010	417	190	264	871
2011	366	181	264	811
2012	385	156	294	835
2013	380	151	249	780
2014	376	132	212	720
2015	430	138	225	793
2016	443	129	238	810

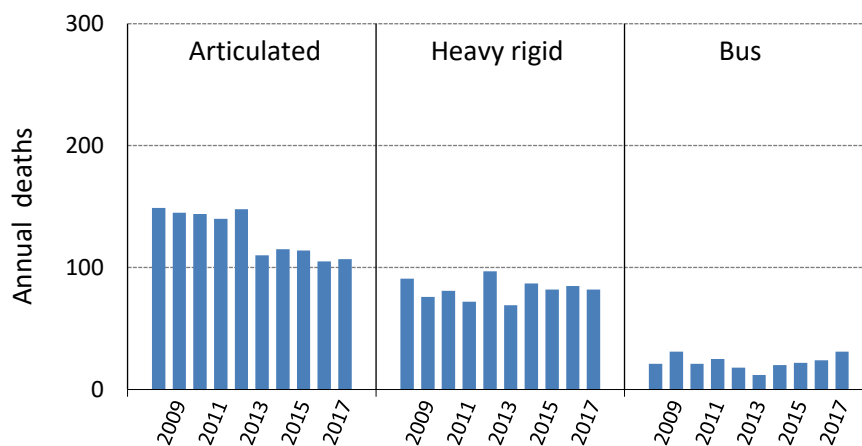
a                      'Operators' should include Drivers and Motorcycle riders.  
Source              BITRE analysis of National Crash Database

**Table I.14** Deaths in crashes involving a heavy vehicle

	<i>Articulated truck involved</i>	<i>Heavy rigid truck involved</i>	<i>Bus involved</i>	<i>No heavy vehicle involved</i>	<i>Total<sup>a</sup></i>
2008	149	91	21	1,178	1,437
2009	145	76	31	1,244	1,491
2010	144	81	21	1,117	1,353
2011	140	72	25	1,045	1,277
2012	148	97	18	1,045	1,300
2013	110	69	12	1,000	1,187
2014	115	87	20	931	1,151
2015	114	82	22	992	1,205
2016	105	85	24	1,088	1,293
2017	107	82	31	955	1,226
<i>% change 2016-2017</i>	1.9	-3.5	29.2	-12.2	-5.2
<i>Ave. trend change p.a.(%)</i>	-4.3	0.1	0.5	-2.3	-2.0

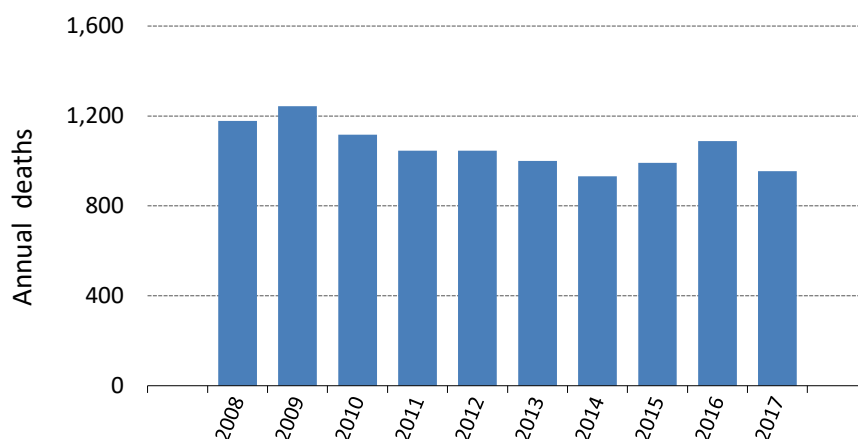
a Columns do not sum to total as some crashes involve more than one type of heavy vehicle.  
Source BITRE analysis of Australian Road Deaths Database

**Figure I.9** Deaths in crashes involving a heavy vehicle



Source BITRE analysis of Australian Road Deaths Database

**Figure I.10** Deaths in crashes not involving heavy vehicles



Source BITRE analysis of Australian Road Deaths Database

**Table I.15 Fatalities by Remoteness Area<sup>a</sup>**

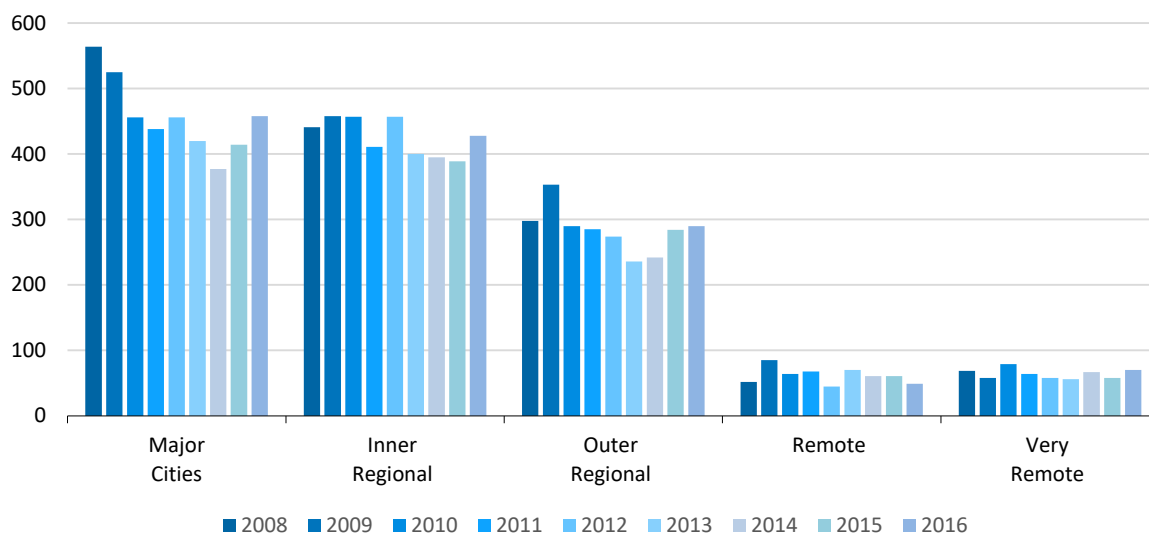
	<i>Major Cities</i>	<i>Inner Regional</i>	<i>Outer Regional</i>	<i>Remote</i>	<i>Very Remote</i>	<i>Total<sup>b</sup></i>
2008	564	441	298	52	69	1,437
2009	525	458	353	85	58	1,490
2010	456	457	290	64	79	1,351
2011	438	411	285	68	64	1,277
2012	456	457	274	45	58	1,299
2013	420	400	236	70	56	1,185
2014	377	395	242	61	67	1,151
2015	414	389	284	61	58	1,206
2016	458	428	290	49	70	1,296

a Remoteness Area have been classified as per Australian Statistical Geography Standard (ASGS).

b Includes undetermined Remoteness Area.

Source BITRE analysis of National Crash Database

**Figure I.11 Fatalities by Remoteness Area**



Source BITRE analysis of National Crash Database

**Table I.16 Fatalities by Urban and Non-Urban area<sup>a</sup>**

	<i>Urban area</i>	<i>Non-urban area</i>	<i>Total<sup>b</sup></i>
2008	761	676	1,437
2009	733	757	1,490
2010	642	709	1,351
2011	572	694	1,277
2012	623	667	1,299
2013	541	641	1,185
2014	518	624	1,151
2015	597	609	1,206
2016	609	686	1,296

a 'Urban' refers to 'Significant Urban Area '(Australian Bureau of Statistics SUA Classification). Significant Urban Areas (SUA) represent aggregations of whole Statistical Area Level 2 (SA2) boundaries and are used to define and contain major urban and near-urban concentrations of over 10,000 people. They include the urban population, any immediately associated populations, and may also incorporate one or more closely associated Urban Centres and Localities and the areas between. They are designed to incorporate any likely growth over the next 20 years. Significant Urban Areas do not cover the whole of Australia, and may cross state or territory boundaries.

b Total includes crashes where location is unknown.

Sources BITRE analysis of National Crash Database

**Table I.17 Hospitalised injuries – by road user and age group**

	<i>Drivers</i>	<i>Passengers</i>	<i>Pedestrians</i>	<i>Motor-cyclists<sup>a</sup></i>	<i>Pedal cyclists<sup>a</sup></i>	<i>All road users<sup>b</sup></i>
<b>All ages</b>						
2008	10,525	5,122	2,737	7,987	5,096	33,524
2009	10,538	5,344	2,770	8,039	5,255	33,692
2010	10,713	5,041	2,833	7,373	5,239	32,775
2011	11,601	5,175	2,760	7,571	5,393	34,082
2012 <sup>c</sup>	-	-	-	-	-	-
2013 <sup>c</sup>	11,550	5,131	2,672	8,022	6,269	35,059
2014 <sup>c</sup>	11,687	5,015	2,562	8,335	6,642	35,552
2015 <sup>c</sup>	12,812	5,275	2,634	8,299	6,718	37,082
<b>0–16 years</b>						
2008	91	987	443	804	1,736	4,255
2009	120	1,035	498	685	1,431	3,924
2010	113	933	488	544	1,205	3,401
2011	73	938	537	501	1,065	3,240
2012 <sup>c</sup>	-	-	-	-	-	-
2013 <sup>c</sup>	68	935	429	508	1,065	3,115
2014 <sup>c</sup>	56	839	398	487	1,100	2,960
2015 <sup>c</sup>	63	993	390	503	1,156	3,188
<b>17–25 years</b>						
2008	2,944	1,578	607	2,182	620	8,466
2009	2,823	1,642	534	2,090	691	8,229
2010	2,779	1,545	546	1,881	725	7,852
2011	2,988	1,511	532	2,043	668	8,098
2012 <sup>c</sup>	-	-	-	-	-	-
2013 <sup>c</sup>	2,828	1,378	495	2,084	778	7,852
2014 <sup>c</sup>	2,760	1,385	431	2,104	763	7,728
2015 <sup>c</sup>	2,973	1,348	447	2,065	748	7,880
<b>26–39 years</b>						
2008	2,758	899	510	2,488	1,092	8,221
2009	2,725	939	543	2,519	1,149	8,297
2010	2,783	841	535	2,267	1,217	8,016
2011	2,962	871	468	2,175	1,314	8,172
2012 <sup>c</sup>	-	-	-	-	-	-
2013 <sup>c</sup>	2,998	930	482	2,268	1,476	8,472
2014 <sup>c</sup>	2,967	877	476	2,412	1,626	8,666
2015 <sup>c</sup>	3,349	957	491	2,321	1,539	8,975



**Table I.17 Hospitalised injuries – by road user and age group (continued)**

	<i>Drivers</i>	<i>Passengers</i>	<i>Pedestrians</i>	<i>Motor-cyclists<sup>a</sup></i>	<i>Pedal cyclists<sup>a</sup></i>	<i>All road users<sup>b</sup></i>
<b>40–64 years</b>						
2008	3,360	943	651	2,341	1,419	9,315
2009	3,420	1,010	635	2,576	1,723	9,854
2010	3,421	988	726	2,491	1,780	9,884
2011	3,824	1,047	632	2,647	2,017	10,667
2012 <sup>c</sup>	-	-	-	-	-	-
2013 <sup>c</sup>	3,773	1,060	658	2,881	2,517	11,351
2014 <sup>c</sup>	3,909	1,053	619	3,032	2,632	11,672
2015 <sup>c</sup>	4,223	1,067	663	3,097	2,731	12,199
<b>≥ 65 years</b>						
2008	1,372	715	526	172	229	3,267
2009	1,450	718	560	169	261	3,388
2010	1,617	734	538	190	312	3,622
2011	1,734	775	591	205	329	3,905
2012 <sup>c</sup>	-	-	-	-	-	-
2013 <sup>c</sup>	1,883	828	608	280	433	4,269
2014 <sup>c</sup>	1,997	861	638	300	521	4,525
2015 <sup>c</sup>	2,204	910	643	313	544	4,840

a Includes pillion passengers.

b Drivers, passengers, pedestrians, motorcyclists, pedal cyclists and those with unstated or unknown road user type.

c 2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. Victoria changed case inclusion criteria to exclude cases cared for solely in Emergency Departments from 1 July 2012. NISU estimates this decreased admitted case counts in Australia by 2000 cases (-5.6 per cent) in 2012-13 compared to 2011-12. The estimated decrease in 2012 was approximately 1000 cases, or -2.8 per cent, with the reduction likely to differ by road user group.

Sources National Injury Surveillance Unit, unpublished, hospitalised injury series.

**Table I.18 Hospitalised injuries – by Remoteness Area<sup>a</sup> of residence**

	<i>Major cities</i>	<i>Inner regional</i>	<i>Outer regional</i>	<i>Remote</i>	<i>Very remote</i>	<i>Total<sup>b</sup></i>
<b>Remoteness Area of residence</b>						
2008	20,185	7,470	4,023	825	508	33,524
2009	20,521	7,252	3,929	818	524	33,692
2010	20,813	6,628	3,521	734	486	32,775
2011	21,898	6,911	3,575	691	461	34,082
2012 <sup>c</sup>	-	-	-	-	-	-
2013 <sup>c</sup>	23,176	6,574	3,425	690	530	35,059
2014 <sup>c</sup>	23,508	6,623	3,522	652	501	35,552
2015 <sup>c</sup>	24,552	6,895	3,612	642	535	37,082

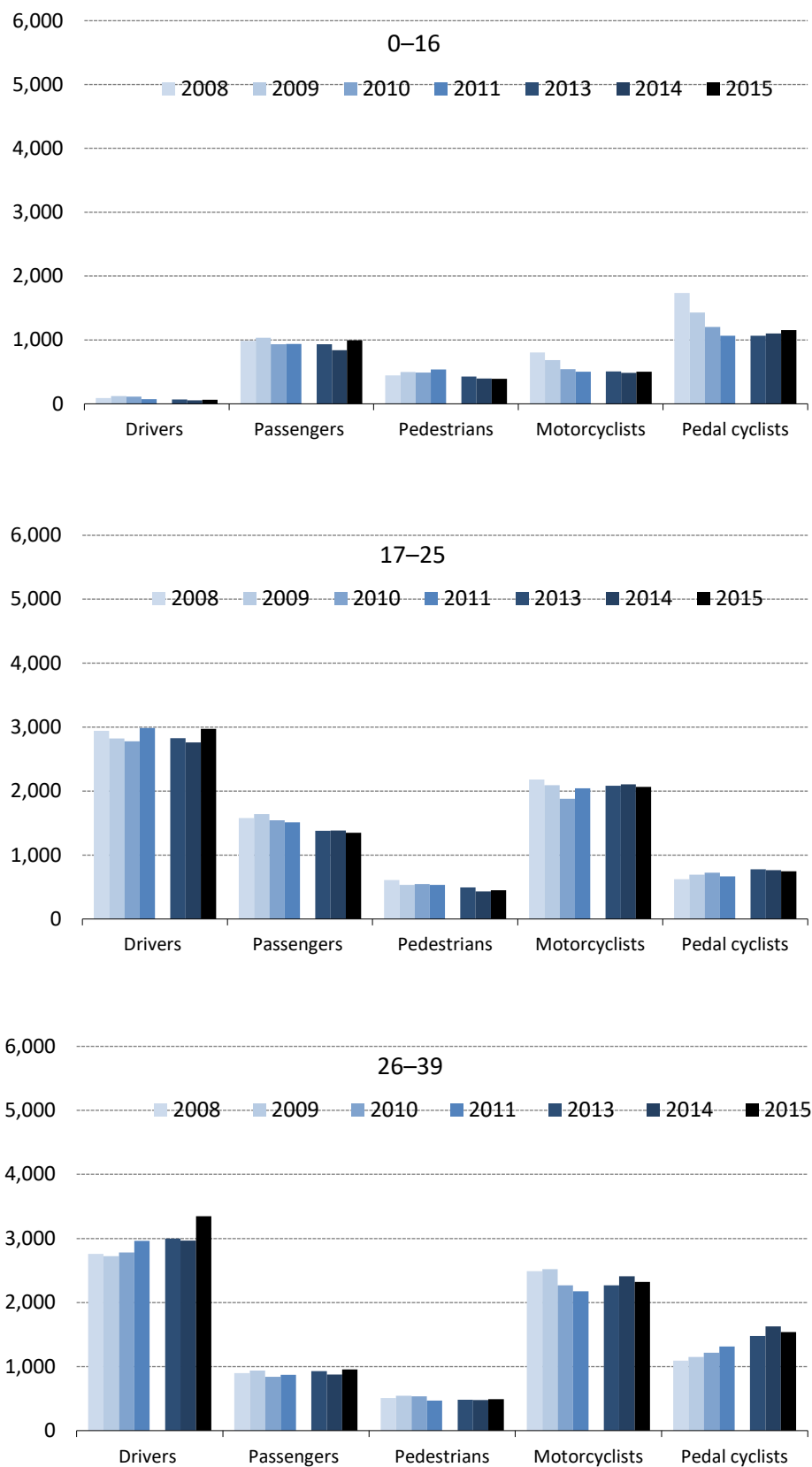
a For an ASGS Remoteness Areas 2016 map, please refer to page 35.

b Includes cases for which the ASGS Remoteness Area of residence is not reported.

c 2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. See note on Table 1.9, p. 17.

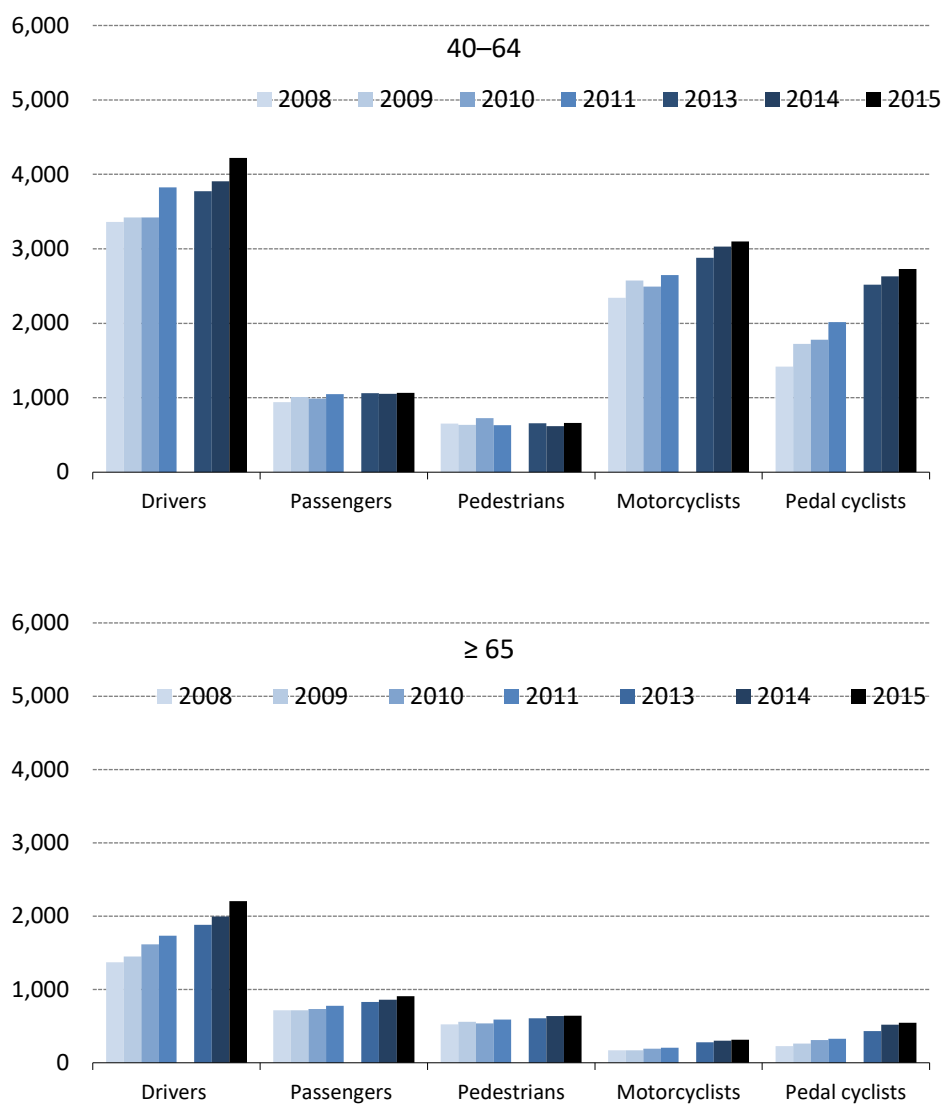
Sources National Injury Surveillance Unit, unpublished, hospitalised injury series.

**Figure 1.12** Hospitalised injuries – by road user<sup>a</sup> and age group



<sup>a</sup> 'Motorcyclists' and 'Pedal cyclists' include pillion passengers.

**Figure I.12** Hospitalised injuries – by road user<sup>a</sup> and age group (continued)



<sup>a</sup> 'Motorcyclists' and 'Pedal cyclists' include pillion passengers.  
 note It is not possible to presents 2012 calendar year data as it is not directly comparable with previous years due to a break in the hospitalised injury series on 1 July 2012.  
 See note on Table 1.9, p. 17.  
 Sources National Injury Surveillance Unit, unpublished, hospitalised injury series.

**Table 1.19 Hospitalised injuries – by counterpart**

<b>Injured person</b>	<i>Counterpart in collision</i>								<b>Total<sup>b</sup></b>
	<i>Car, pick-up truck or van</i>	<i>2- or 3-wheeled motor vehicle</i>	<i>Pedal cycle</i>	<i>Pedestrian or animal</i>	<i>Heavy transport vehicle or bus</i>	<i>Train</i>	<i>Fixed or stationary object</i>	<i>Non-collision transport accident<sup>a</sup></i>	
<b>Vehicle occupant<sup>c</sup></b>									
2008	7,414	25	5	147	701	22	4,118	3,286	16,840
2009	7,370	34	9	151	681	18	4,246	3,394	16,886
2010	7,776	32	3	111	713	8	3,997	3,146	16,790
2011	8,538	30	0	141	816	29	4,010	3,244	17,746
2012 <sup>e</sup>	-	-	-	-	-	-	-	-	-
2013 <sup>e</sup>	8,307	33	11	168	827	12	3,939	3,345	17,560
2014 <sup>e</sup>	8,566	36	12	125	799	14	3,947	3,174	17,503
2015 <sup>e</sup>	9,401	28	5	141	846	24	4,203	3,448	18,927
<b>Motorcyclist</b>									
2008	1,824	154	6	140	84	1	711	2,893	7,987
2009	1,775	173	5	148	77	3	732	3,193	8,039
2010	1,651	111	8	128	71	0	670	3,051	7,373
2011	1,812	135	8	140	89	0	654	3,046	7,571
2012 <sup>e</sup>	-	-	-	-	-	-	-	-	-
2013 <sup>e</sup>	1,998	134	6	178	84	0	751	3,280	8,022
2014 <sup>e</sup>	2,075	132	10	215	80	0	756	3,449	8,335
2015 <sup>e</sup>	2,130	175	7	188	88	1	750	3,414	8,299
<b>Pedal cyclist</b>									
2008	1,080	10	169	18	64	5	224	1,912	5,096
2009	1,162	13	233	42	62	2	258	2,175	5,255
2010	1,189	5	242	40	55	2	252	2,308	5,239
2011	1,240	16	235	41	53	0	274	2,354	5,393
2012 <sup>e</sup>	-	-	-	-	-	-	-	-	-
2013 <sup>e</sup>	1,388	14	358	64	64	0	295	2,790	6,269
2014 <sup>e</sup>	1,414	14	294	74	65	0	361	3,012	6,642
2015 <sup>e</sup>	1,456	15	354	70	47	0	350	3,005	6,718
<b>Pedestrian</b>									
2008	2,371	51	45	6	113	13	0	0	2,737
2009	2,419	58	35	9	140	19	0	0	2,770
2010	2,482	53	46	7	120	24	0	0	2,833
2011	2,441	64	34	13	114	12	0	0	2,760
2012 <sup>e</sup>	-	-	-	-	-	-	-	-	-
2013 <sup>e</sup>	2,332	52	57	16	133	10	0	0	2,672
2014 <sup>e</sup>	2,213	62	50	9	132	10	0	0	2,562
2015 <sup>e</sup>	2,336	50	53	7	93	6	0	0	2,634

**Table I.19 Hospitalised injuries – by counterpart (continued)**

<i>Injured person</i>	<i>Counterpart in collision</i>								<i>Total<sup>b</sup></i>
	<i>Car, pick-up truck or van</i>	<i>2- or 3-wheeled motor vehicle</i>	<i>Pedal cycle</i>	<i>Pedestrian or animal</i>	<i>Heavy transport vehicle or bus</i>	<i>Train</i>	<i>Fixed or stationary object</i>	<i>Non-collision transport accident<sup>a</sup></i>	
<b><i>Other<sup>d</sup></i></b>									
2008	7	1	0	0	0	0	1	5	140
2009	3	0	0	0	0	0	0	8	93
2010	7	1	1	0	0	1	1	4	90
2011	9	0	0	0	0	0	0	9	93
2012 <sup>e</sup>	-	-	-	-	-	-	-	-	-
2013 <sup>e</sup>	9	0	0	0	0	0	0	9	65
2014 <sup>e</sup>	9	0	0	1	3	0	3	11	69
2015 <sup>e</sup>	7	0	0	0	0	1	0	6	70
<b><i>Unknown</i></b>									
2008	0	0	0	0	0	0	0	83	724
2009	0	0	0	0	0	0	0	93	649
2010	0	0	0	0	0	0	0	91	450
2011	0	0	0	0	0	0	0	129	512
2012 <sup>e</sup>	-	-	-	-	-	-	-	-	-
2013 <sup>e</sup>	0	0	0	0	0	0	0	99	449
2014 <sup>e</sup>	0	0	0	0	0	0	0	104	441
2015 <sup>e</sup>	0	0	0	0	0	0	0	84	434
<b><i>Total</i></b>									
2008	12,696	241	225	311	962	41	5,054	8,179	33,524
2009	12,729	278	282	350	960	42	5,236	8,863	33,692
2010	13,105	202	300	286	959	35	4,920	8,600	32,775
2011	14,040	246	280	342	1,072	44	4,939	8,782	34,082
2012 <sup>e</sup>	-	-	-	-	-	-	-	-	-
2013 <sup>e</sup>	14,034	233	432	434	1,108	25	4,985	9,523	35,059
2014 <sup>e</sup>	14,277	244	366	424	1,079	24	5,067	9,750	35,552
2015 <sup>e</sup>	15,330	268	419	406	1,074	32	5,303	9,957	37,082

a Includes non-collision accidents such as overturning, falling or being thrown from a vehicle.  
b Total includes cases where the counterpart is 'other non-motor vehicle' or unspecified.  
c 'Vehicle occupant' includes occupants of cars, pick-up trucks/vans, heavy transport vehicles or buses.  
d 'Other' includes occupants of special all-terrain vehicles, three-wheeled motor vehicles, trams/trains, agricultural or construction vehicles or animal drawn vehicles.  
e 2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. See note on Table 1.9, p. 17.

Sources National Injury Surveillance Unit, unpublished, hospitalised injury series.

**Table 1.20 Hospitalised injuries and high threat to life**

	<i>Hospitalised injury</i>	<i>High threat to life</i>	
		<i>Counts</i>	<i>Proportion</i>
2008	33,524	8,543	25.5
2009	33,692	8,895	26.4
2010	32,775	8,456	25.8
2011	34,082	8,925	26.2
2012 <sup>a</sup>	-	-	-
2013 <sup>a</sup>	35,059	9,207	26.3
2014 <sup>a</sup>	35,552	9,003	25.3
2015 <sup>a</sup>	37,082	9,292	25.1

a 2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. See note on Table 1.9, p. 17.

Note 'High threat to life' hospitalised injury cases are a subset of all serious injury cases. See Glossary for more information.

Sources National Injury Surveillance Unit, unpublished, hospitalised injury series.

**Table 1.21 Hospitalised injuries and high threat to life – by road user**

	<i>Car occupants</i>		<i>Motorcyclists</i>		<i>Pedal cyclists</i>		<i>Pedestrians</i>	
	<i>Hospitalised injury</i>	<i>High threat to life</i>	<i>Hospitalised injury</i>	<i>High threat to life</i>	<i>Hospitalised injury</i>	<i>High threat to life</i>	<i>Hospitalised injury</i>	<i>High threat to life</i>
2008	16,840	4,625	7,987	1,905	5,096	889	2,737	963
2009	16,886	4,827	8,039	1,943	5,255	1,031	2,770	978
2010	16,790	4,457	7,373	1,814	5,239	1,098	2,833	990
2011	17,746	4,799	7,571	1,886	5,393	1,144	2,760	980
2012 <sup>a</sup>	-	-	-	-	-	-	-	-
2013 <sup>a</sup>	17,560	4,562	8,022	2,080	6,269	1,467	2,672	989
2014 <sup>a</sup>	17,503	4,402	8,335	2,088	6,642	1,501	2,562	920
2015 <sup>a</sup>	17,922	4,347	8,299	2,160	6,718	1,514	2,634	905

a 2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. See note on Table 1.9, p. 17.

Note 'High threat to life' hospitalised injury cases are a subset of all serious injury cases. See Glossary for more information.

Sources National Injury Surveillance Unit, unpublished, hospitalised injury series.

## Section 2 Crashes

This chapter presents annual counts of fatal crashes. Classifications include jurisdiction, crash type, road type, remoteness region, speed limit and time-of-day.

- In 2017, there were 1,131 fatal crashes — down 5.7 per cent compared to 2016.
- Annual counts for major types of fatal crash (single vehicle, multiple vehicle or pedestrian) have increased in the last three years, but decreased over the ten years to 2017 (Table 2.1, p. 30).
- Fatal multiple-vehicle crashes are 3.1 times more likely to occur during daytime (6am to 6pm) than during night-time. Single-vehicle and pedestrian fatal crashes have similar distributions between day and night (Table 2.4, p. 33).
- More fatal crashes occur on a weekday compared to a weekend (Table 2.5, p. 34). However, taking into account the number of days, single-vehicle crashes are over-represented at the weekend (1.4: 1) and multiple vehicle crashes are over-represented on weekdays (1.3: 1).
- Approximately 45 per cent of fatal crashes occur in posted speed zones of 100 km/hour or more. Twelve per cent occur in speed zones of 50 km/hour or under. The distribution of fatal crashes in the six speed zone groups presented has not changed appreciably over the decade (Table 2.8, p. 38).
- Major cities accounted for 37 per cent of all fatal crashes in 2016 — down from 40 per cent in 2008 (Table 2.7, p. 37).

**Table 2.1 Fatal crashes by jurisdiction and crash type<sup>a</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
<b>All crashes</b>									
<i>2008</i>	353	278	294	87	185	37	67	14	1,315
<i>2009</i>	409	268	296	104	176	52	31	11	1,347
<i>2010</i>	365	260	236	105	176	29	46	16	1,233
<i>2011</i>	336	259	227	95	167	23	38	6	1,151
<i>2012</i>	336	261	255	86	171	29	40	12	1,190
<i>2013</i>	316	225	246	90	149	35	33	7	1,101
<i>2014</i>	285	223	199	96	173	31	34	10	1,051
<i>2015</i>	326	231	219	96	141	32	42	14	1,101
<i>2016</i>	356	275	238	76	170	33	40	11	1,199
<i>2017</i>	355	236	228	94	151	35	27	5	1,131
<i>% change 2016-2017</i>	-0.3	-14.2	-4.2	23.7	-11.2	6.1	-32.5	-54.5	-5.7
<i>Ave. trend change p.a. (%)</i>	-1.2	-1.5	-2.8	-1.1	-1.9	-1.3	-4.4	-5.3	-1.9
<b>Single vehicle crashes</b>									
<i>2008</i>	163	115	143	40	101	24	42	5	633
<i>2009</i>	191	109	140	59	99	26	18	7	649
<i>2010</i>	145	101	110	47	95	11	32	3	544
<i>2011</i>	142	109	91	38	92	8	20	4	504
<i>2012</i>	136	111	108	40	90	10	20	5	520
<i>2013</i>	147	82	129	43	74	17	19	4	515
<i>2014</i>	116	79	100	41	94	13	17	4	464
<i>2015</i>	125	89	119	41	76	16	22	4	492
<i>2016</i>	141	106	105	34	99	13	27	5	530
<i>2017</i>	155	94	99	41	78	15	16	2	500
<i>% change 2016-2017</i>	9.9	-11.3	-5.7	20.6	-21.2	15.4	-40.7	-60.0	-5.7
<i>Ave. trend change p.a. (%)</i>	-2.3	-2.3	-2.7	-2.4	-2.1	-3.1	-4.9	-5.5	-2.6
<b>Multiple vehicle crashes</b>									
<i>2008</i>	141	104	122	35	66	12	8	6	494
<i>2009</i>	159	109	119	36	55	23	6	2	509
<i>2010</i>	162	120	98	42	66	12	7	13	520
<i>2011</i>	145	102	103	40	50	11	10	2	463
<i>2012</i>	147	115	120	37	57	13	11	3	503
<i>2013</i>	125	107	96	34	45	15	6	2	430
<i>2014</i>	129	99	80	38	63	15	9	5	438
<i>2015</i>	140	109	80	37	50	13	9	10	448
<i>2016</i>	144	129	96	34	57	16	7	5	488
<i>2017</i>	147	113	94	36	59	18	3	3	473
<i>% change 2016-2017</i>	2.1	-12.4	-2.1	5.9	3.5	12.5	-57.1	-40.0	-3.1
<i>Ave. trend change p.a. (%)</i>	-0.9	0.8	-3.5	-0.6	-1.0	1.6	-4.4	0.7	-1.1



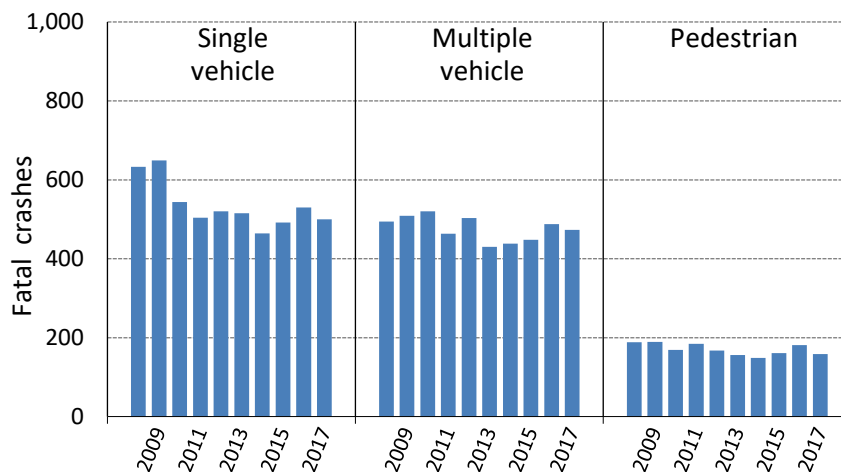
**Table 2.1 Fatal crashes by jurisdiction and crash type<sup>a</sup> (continued)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
<b>Pedestrian crashes</b>									
2008	49	59	29	12	18	1	17	3	188
2009	59	50	37	9	22	3	7	2	189
2010	58	39	28	16	15	6	7	0	169
2011	49	48	33	17	25	4	8	0	184
2012	53	35	27	9	24	6	9	4	167
2013	44	36	21	13	30	3	8	1	156
2014	40	45	19	17	16	3	8	1	149
2015	61	33	20	18	15	3	11	0	161
2016	71	40	37	8	14	4	6	1	181
2017	53	29	35	17	14	2	8	0	158
% change 2016-2017	-25.4	-27.5	-5.4	112.5	0.0	-50.0	33.3	-100.0	-12.7
Ave. trend change p.a. (%)	0.9	-5.3	-1.1	2.0	-3.9	2.0	-3.4	-	-1.7

a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

Source BITRE analysis of Australian Road Deaths Database

**Figure 2.1 Counts of fatal crashes by crash type<sup>a</sup>**



a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

Source BITRE analysis of Australian Road Deaths Database

**Table 2.2 Fatal crashes by Remoteness Area<sup>a</sup>**

	<i>Major<sup>c</sup> Cities</i>	<i>Inner Regional</i>	<i>Outer Regional</i>	<i>Remote</i>	<i>Very Remote</i>	<i>Total<sup>b</sup></i>
2008	526	395	278	46	60	1,315
2009	491	411	308	76	51	1,346
2010	425	405	268	61	67	1,231
2011	414	366	245	62	53	1,151
2012	428	417	248	37	51	1,190
2013	400	367	213	65	51	1,099
2014	364	350	218	56	54	1,051
2015	386	361	249	54	52	1,102
2016	441	402	256	43	60	1,203

a Remoteness Areas have been classified as per Australian Statistical Geography Standard (ASGS). Refer Figure 2.4.

b Includes undetermined Remoteness Areas.

c Excludes Darwin and Hobart.

Source BITRE analysis of National Crash Database

**Table 2.3 Fatal crashes by Urban and Non-Urban area<sup>a</sup>**

	<i>Urban area</i>	<i>Non-urban area</i>	<i>Total<sup>b</sup></i>
2008	700	615	1,315
2009	682	664	1,346
2010	603	628	1,231
2011	534	606	1,151
2012	587	594	1,190
2013	518	578	1,099
2014	498	544	1,051
2015	553	549	1,102
2016	580	622	1,203

a 'Urban' refers to 'Significant Urban Area' (Australian Bureau of Statistics SUA Classification). Significant Urban Areas (SUA) represent aggregations of whole Statistical Area Level 2 (SA2) boundaries and are used to define and contain major urban and near-urban concentrations of over 10,000 people. They include the urban population, any immediately associated populations, and may also incorporate one or more closely associated Urban Centres and Localities and the areas between. They are designed to incorporate any likely growth over the next 20 years. Significant Urban Areas do not cover the whole of Australia, and may cross state or territory boundaries.

b Total includes crashes where location is unknown.

Sources BITRE analysis of National Crash Database

**Table 2.4 Fatal crashes by crash type<sup>a</sup> and time of day**

	<i>Single</i>		<i>Multiple</i>		<i>Pedestrian</i>		<i>All<sup>b</sup></i>	
	<i>Night-time</i>	<i>Day-time<sup>c</sup></i>	<i>Night-time</i>	<i>Day-time</i>	<i>Night-time</i>	<i>Day-time</i>	<i>Night-time</i>	<i>Day-time</i>
2008	344	289	145	349	105	83	594	721
2009	335	314	132	377	103	86	570	777
2010	261	283	143	377	102	67	506	727
2011	240	264	129	334	80	104	449	702
2012	240	280	116	387	81	86	437	753
2013	236	279	102	328	69	87	407	694
2014	210	254	108	330	70	79	388	663
2015	222	270	121	327	81	80	424	677
2016	268	262	131	357	87	94	486	713
2017	223	277	115	358	72	86	410	721
% change 2016-2017	-16.8	5.7	-12.2	0.3	-17.2	-8.5	-15.6	1.1
Ave. trend change p.a. (%)	-4.0	-1.2	-2.2	-0.6	-3.7	0.6	-3.5	-0.7

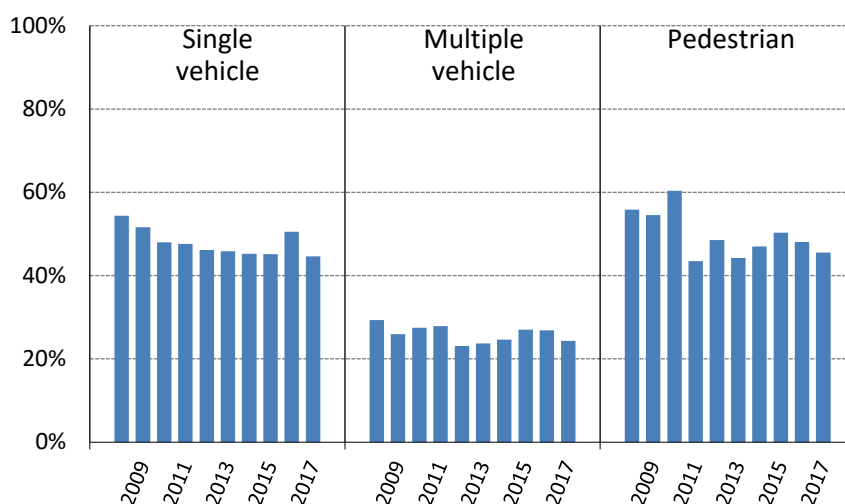
a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

b Excludes crashes with time not recorded.

c 'Daytime' refers to the period 6am to 5:59 pm each day.

Source BITRE analysis of Australian Road Deaths Database

**Figure 2.2 Proportion of fatal crashes occurring during night-time<sup>a,b,c</sup>**



a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

b Excludes crashes with time not recorded.

c 'Daytime' refers to the period 6am to 5:59 pm each day.

Source BITRE analysis of Australian Road Deaths Database

**Table 2.5 Fatal crashes by crash type<sup>a</sup> and day of week**

	<i>Single</i>		<i>Multiple</i>		<i>Pedestrian</i>		<i>All<sup>c</sup></i>	
	<i>Week- end<sup>b</sup></i>	<i>Week- day</i>	<i>Week- end</i>	<i>Week- day</i>	<i>Week- end</i>	<i>Week- day</i>	<i>Week- end</i>	<i>Week- day</i>
2008	323	310	159	335	72	116	554	761
2009	306	343	152	357	61	128	519	828
2010	275	269	174	346	70	99	519	714
2011	257	247	152	311	68	116	477	674
2012	228	292	161	342	54	113	443	747
2013	256	259	140	290	51	105	447	654
2014	196	268	141	297	57	92	394	657
2015	227	265	146	302	51	110	424	677
2016	261	269	154	334	66	115	481	718
2017	219	281	139	334	59	99	417	714
<i>% change 2016-2017</i>	-16.1	4.5	-9.7	0.0	-10.6	-13.9	-13.3	-0.6
<i>Ave. trend change p.a. (%)</i>	-3.7	-1.5	-1.4	-0.9	-2.0	-1.5	-2.8	-1.2

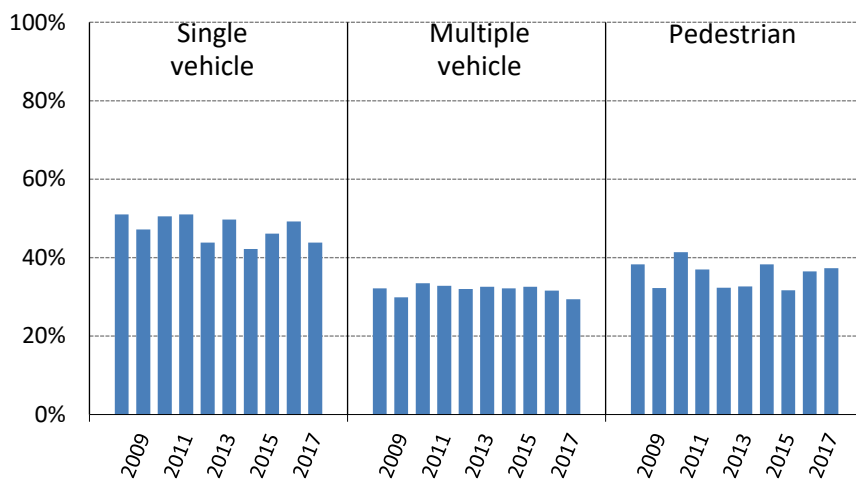
a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

b 'Weekend' refers to the period 6pm Friday to 5:59am Monday.

c Excludes crashes with time not recorded.

Source BITRE analysis of Australian Road Deaths Database

**Figure 2.3 Proportion of fatal crashes occurring during weekend<sup>a,b,c</sup>**



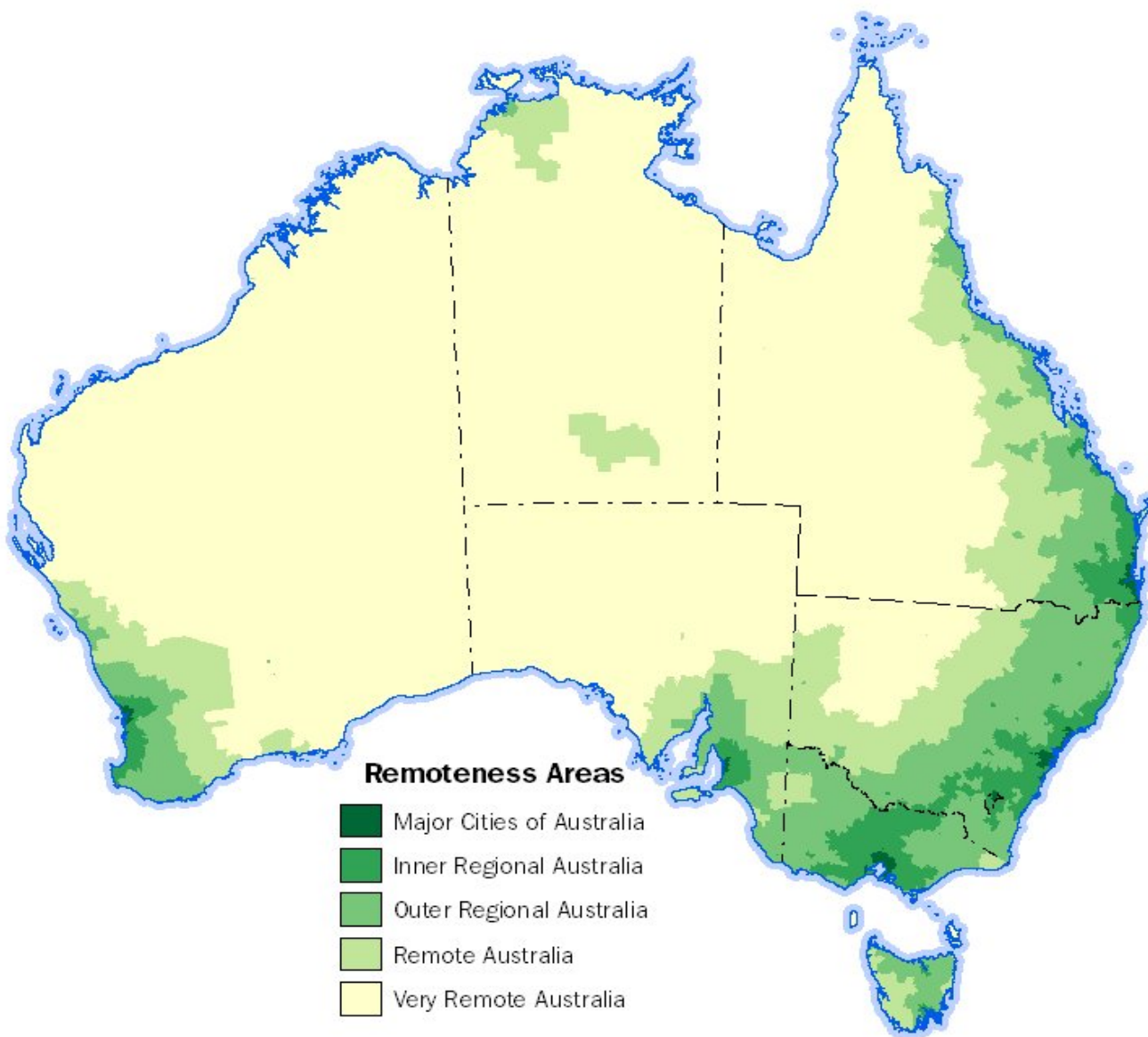
a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

b 'Weekend' refers to the period 6pm Friday to 5:59am Monday.

c Excludes crashes with time not recorded.

Source BITRE analysis of Australian Road Deaths Database

**Figure 2.4** ASGS<sup>a</sup> Remoteness Areas 2016 and selected cities and towns



a Source ASGS: Australian Statistical Geography Standard  
Australian Bureau of Statistics 2018a

**Table 2.6 Fatal crashes by Remoteness Area and weekly time block 2014-2016**

Crash time of week		Major Cities	Regional <sup>b</sup>	Remote <sup>c</sup>	All <sup>d</sup>
Monday	Morning	27	47	7	81
	Midday	55	83	9	148
	Evening	58	76	7	141
	Night	26	30	3	59
Tuesday	Morning	28	31	2	61
	Midday	36	68	11	116
	Evening	68	77	17	162
	Night	16	35	8	59
Wednesday	Morning	32	40	5	77
	Midday	44	85	12	141
	Evening	73	72	15	160
	Night	22	42	10	74
Thursday	Morning	32	44	6	82
	Midday	43	82	14	139
	Evening	59	81	18	158
	Night	35	43	9	88
Friday	Morning	29	41	12	82
	Midday	45	76	16	138
	Evening	76	101	19	197
	Night	51	74	15	142
Saturday	Morning	40	49	6	95
	Midday	46	86	12	144
	Evening	57	101	24	183
	Night	47	70	19	136
Sunday	Morning	26	55	5	86
	Midday	47	113	16	176
	Evening	47	106	16	171
	Night	26	26	5	57

**Morning** 3am to 8:59am      **Midday** 9am to 2:59pm      **Evening** 3pm to 8:59pm      **Night** 9pm to 2:59am

a A crash in which a pedestrian dies is classified as a pedestrian crash. All other crashes are classified by whether there are one or more moving vehicles involved.

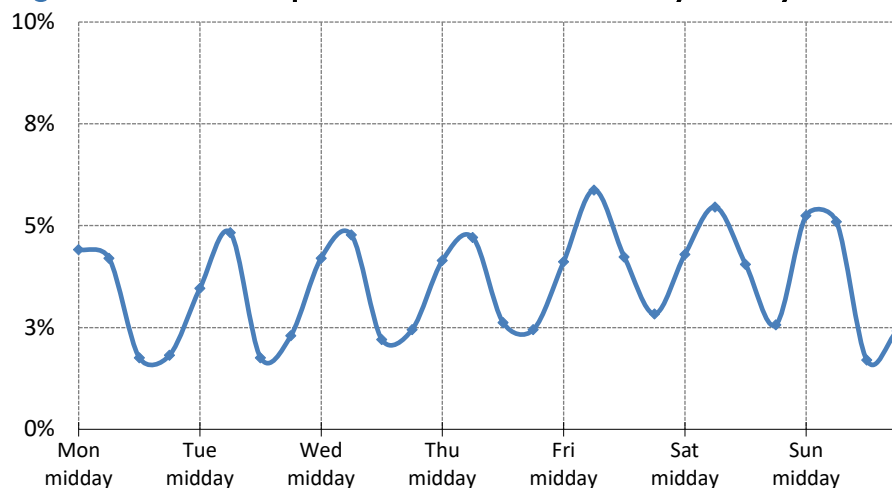
b Regional includes 'Inner Regional' and 'Outer Regional'.

c Remote includes 'Remote' and 'Very Remote'.

d Excludes crashes with unrecorded time.

Source BITRE analysis of National Crash Database

**Figure 2.5 Proportion of all fatal crashes by weekly time block**



Source BITRE analysis of National Crash Database

**Table 2.7 Fatal crashes by speed zone and Remoteness Area**

	40 km/h	50 km/h	60 km/h	70-90 km/h	100 km/h	≥110 km/h	Australia <sup>a</sup>
<b>Major Cities</b>							
2008	4	91	186	175	46	9	526
2009	3	102	172	153	35	12	491
2010	2	69	164	135	30	10	425
2011	6	98	140	124	34	5	414
2012	7	75	168	132	26	10	428
2013	4	90	142	114	28	12	400
2014	8	73	128	111	30	3	364
2015	8	80	142	104	26	10	386
2016	9	88	153	147	29	7	441
<b>Inner &amp; Outer Regional</b>							
2008	1	37	73	126	344	85	673
2009	1	52	67	129	361	104	719
2010	2	37	57	119	353	98	673
2011	6	42	36	106	330	86	611
2012	7	47	74	130	312	87	665
2013	5	33	48	128	299	62	580
2014	3	36	49	108	288	80	568
2015	7	29	63	126	290	86	610
2016	4	41	54	142	321	89	658
<b>Remote &amp; Very Remote</b>							
2008	1	9	8	9	28	49	106
2009	0	6	7	12	38	63	127
2010	0	8	8	20	36	56	128
2011	1	5	4	8	35	61	115
2012	1	5	7	9	20	45	88
2013	1	7	8	8	44	46	116
2014	0	7	5	12	34	49	110
2015	0	2	15	12	30	44	106
2016	2	2	5	4	17	72	103

a Includes crashes where speed limit is unknown or where the posted speed limit is 30km/hr or less.  
Source BITRE analysis of National Crash Database

**Table 2.8 Fatal crashes by speed zone and jurisdiction<sup>a</sup>**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT <sup>b</sup>	Australia
<b>Speed zone 40 km/h</b>									
2008	0	1	3	1	0	1	2	0	8
2009	2	0	1	0	0	1	0	0	4
2010	1	1	1	0	1	1	0	0	5
2011	4	5	2	0	1	0	1	1	14
2012	5	4	2	1	1	3	0	0	16
2013	2	3	3	0	1	2	1	0	12
2014	4	2	5	0	3	0	0	1	15
2015	2	6	4	0	1	2	0	0	15
2016	9	1	2	1	0	1	1	1	16
2017	9	5	5	3	1	0	0	0	23
% change 2016-2017	0.0	400.0	150.0	200.0	-	-100.0	-100.0	-100.0	43.8
Ave. trend change p.a. (%)	-	-	12.6	-	-	-	-	-	16.1
<b>Speed zone 50 km/h</b>									
2008	62	24	19	5	24	4	2	5	145
2009	64	29	33	11	20	4	0	0	161
2010	42	26	19	9	14	2	1	3	116
2011	65	30	15	14	18	3	1	1	147
2012	59	21	18	9	19	1	2	3	132
2013	52	15	18	20	20	5	0	1	131
2014	46	16	20	7	15	5	2	0	111
2015	51	20	15	11	11	5	0	0	113
2016	61	22	14	13	16	4	1	2	133
2017	59	12	28	16	24	6	1	0	146
% change 2016-2017	-3.3	-45.5	100.0	23.1	50.0	50.0	0.0	-100.0	9.8
Ave. trend change p.a. (%)	-0.6	-6.8	-1.7	7.1	-2.0	7.1	-	-	-1.4
<b>Speed zone 60 km/h</b>									
2008	63	56	87	19	21	3	12	6	267
2009	74	47	70	19	21	6	3	2	242
2010	66	45	52	27	32	1	7	6	236
2011	41	44	51	17	22	1	5	0	181
2012	61	54	76	17	32	1	5	2	248
2013	51	44	49	17	28	3	7	3	202
2014	59	33	37	24	28	2	4	5	192
2015	67	37	62	25	19	0	7	5	222
2016	55	65	59	9	21	2	3	1	215
2017	50	42	48	22	24	7	3	1	197
% change 2016-2017	-9.1	-35.4	-18.6	144.4	14.3	-	0.0	0.0	-8.4
Ave. trend change p.a. (%)	-1.9	-1.4	-4.2	-2.0	-0.5	-	-7.5	-	-2.3



**Table 2.8 Fatal crashes by speed zone and jurisdiction<sup>a</sup> (continued)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT <sup>b</sup>	Australia
<b>Speed zone 70–90 km/h</b>									
2008	92	71	57	19	56	6	15	3	319
2009	90	59	68	23	44	7	9	7	307
2010	96	57	51	17	35	8	14	5	283
2011	70	58	44	18	33	5	9	2	239
2012	73	64	54	22	42	7	10	4	276
2013	82	53	53	12	36	7	5	3	251
2014	63	54	44	7	44	4	11	2	229
2015	78	51	42	12	40	7	12	7	249
2016	93	68	55	18	40	9	4	3	290
2017	78	30	62	16	34	9	8	1	238
% change 2016-2017	-16.1	-55.9	12.7	-11.1	-15.0	0.0	100.0	-66.7	-17.9
Ave. trend change p.a. (%)	-1.5	-4.6	-1.0	-5.0	-2.3	2.5	-7.1	-8.4	-2.3
<b>Speed zone 100 km/h</b>									
2008	114	116	121	27	14	15	11	0	418
2009	144	124	106	21	12	27	4	1	439
2010	146	119	98	26	14	14	6	2	425
2011	134	109	111	21	13	10	3	2	403
2012	113	107	96	17	7	13	5	2	360
2013	108	94	110	24	11	17	4	0	368
2014	96	112	87	32	14	10	3	2	356
2015	105	104	85	18	10	15	7	2	346
2016	114	106	101	17	9	14	5	4	370
2017	121	92	75	17	10	11	4	2	332
% change 2016-2017	6.1	-13.2	-25.7	0.0	11.1	-21.4	-20.0	-50.0	-10.3
Ave. trend change p.a. (%)	-2.3	-2.3	-3.5	-3.5	-3.6	-4.0	-4.2	-	-2.8
<b>Speed zone ≥ 110 km/h</b>									
2008	22	8	5	16	65	8	19	0	143
2009	34	7	16	30	71	7	15	0	180
2010	13	11	13	26	79	3	18	0	163
2011	21	9	3	24	71	4	19	0	151
2012	23	9	9	20	57	4	17	0	139
2013	20	12	12	15	48	1	16	0	124
2014	17	6	5	25	60	7	14	0	134
2015	22	10	7	28	57	2	15	0	141
2016	24	12	7	18	80	3	24	0	168
2017	38	8	9	17	53	2	10	0	137
% change 2016-2017	58.3	-33.3	28.6	-5.6	-33.8	-33.3	-58.3	-	-18.5
Ave. trend change p.a. (%)	2.7	1.4	-1.1	-1.7	-2.0	-11.5	-2.6	-	-1.2

a Excludes crashes with unrecorded posted speed limit.

b Prior to 2008, speed zone for ACT crashes was not provided.

Source BITRE analysis of Australian Road Deaths Database

**Table 2.9** Fatal crashes by common crash sub-types<sup>a,b</sup>

	<i>Intersection</i>	<i>Head-on</i>	<i>Single vehicle run-off road<sup>c</sup></i>	<i>Total<sup>d</sup></i>
2008	316	203		1,315
2009	262	231		1,346
2010	263	224		1,231
2011	259	209		1,151
2012	269	219		1,190
2013	237	182	406	1,099
2014	214	183	382	1,051
2015	233	201	379	1,102
2016	251	232	439	1,203

a Categories not mutually exclusive.



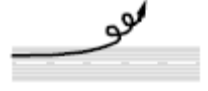



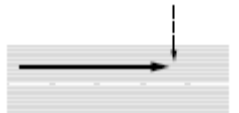
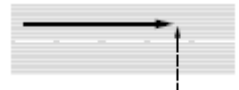


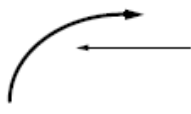

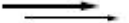
b This is not the total of three individual heavy vehicle counts. The categories are not mutually exclusive.

c Full national data available from 2013

d Includes all other crash types.

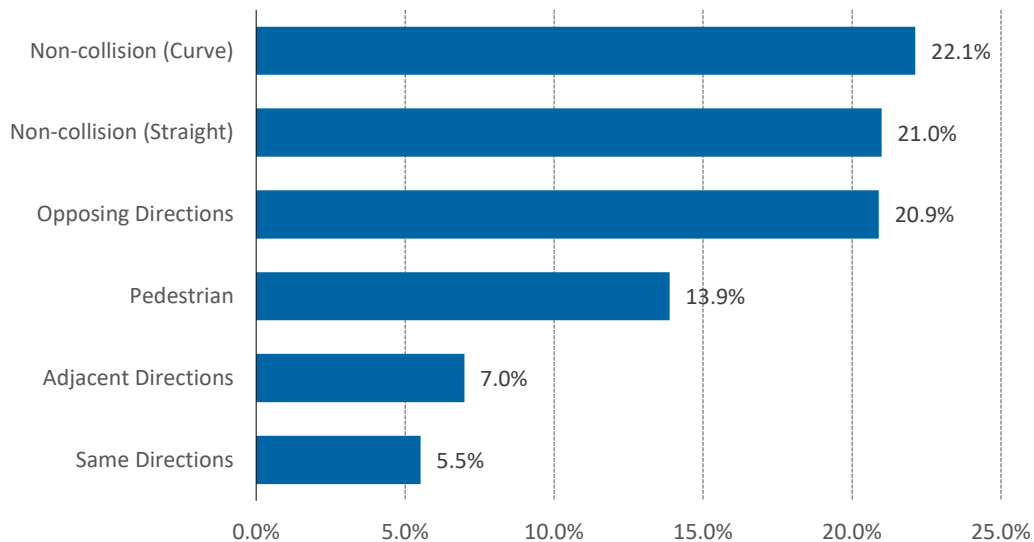
Source BITRE analysis of National Crash Database

**Figure 2.6** Common crash type (sub-groups) for fatal crashes 2014–2016

<b>Main Crash Type</b>	<b>Sub-group</b>		
<b>Non-collision (Curve)</b>	 or Non-collision (Curve) - Off Car/way at left bend	 or Non-collision (Curve) - Off Car/way at right bend	
<b>Non-collision (Straight)</b>	 Non-collision (Straight) - Off Left	 Non-collision (Straight) - Off Right	
<b>Opposing directions</b>	 Opposing directions Head on	 Opposing directions Right thru	
<b>Pedestrian</b>	 Pedestrian Near side	 Pedestrian Far side	 Pedestrian Play/Work
<b>Adjacent directions</b>	 Adjacent directions Cross traffic	 Adjacent directions Right Near	
<b>Same direction</b>	 Same direction Rear end	 Same direction Side Swipe	

Source Austroads 2009

**Figure 2.7 Common crash type (main groups) for fatal crashes 2014-2016**



Source Austroads 2009; BITRE analysis of National Crash Database

**Table 2.10 Common crash type (sub-groups) for fatal crashes 2014-2016**

<b>Crash type (Main)</b>	<b>Total %</b>	<b>Crash type (Sub-group)</b>	<b>%</b>
<b>Non-collision (Curve)</b>	22.2	<i>Off carriageway at right bend</i>	10.8
		<i>Off carriageway at left bend</i>	8.4
		<i>Other</i>	3.0
<b>Non-collision (Straight)</b>	21.0	<i>Off left</i>	9.4
		<i>Off right</i>	8.2
		<i>Other</i>	3.4
<b>Opposing directions</b>	20.9	<i>Head on</i>	17.5
		<i>Right thru</i>	3.2
<b>Pedestrian</b>	13.9	<i>Nearside</i>	4.4
		<i>Farside</i>	3.3
		<i>Play/Work</i>	2.2
		<i>Other</i>	4.0
<b>Adjacent directions</b>	7.0	<i>Cross traffic</i>	3.5
		<i>Right near</i>	2.5
		<i>Other</i>	1.0
<b>Same directions</b>	5.5	<i>Rear-end</i>	3.8
		<i>Side-swipe</i>	1.3
		<i>Other</i>	0.4

Note The data in Figure 2.5 and Table 2.5 are based on state and territory Road User Movement (RUM) and DCA Definitions for Coding Accidents (DCA) codes. Data from each jurisdiction has been collated into a national system using the diagrams in (Austroads 2009). In these coding systems there are 10 main crash type groups; within each main group there are several sub-groups.

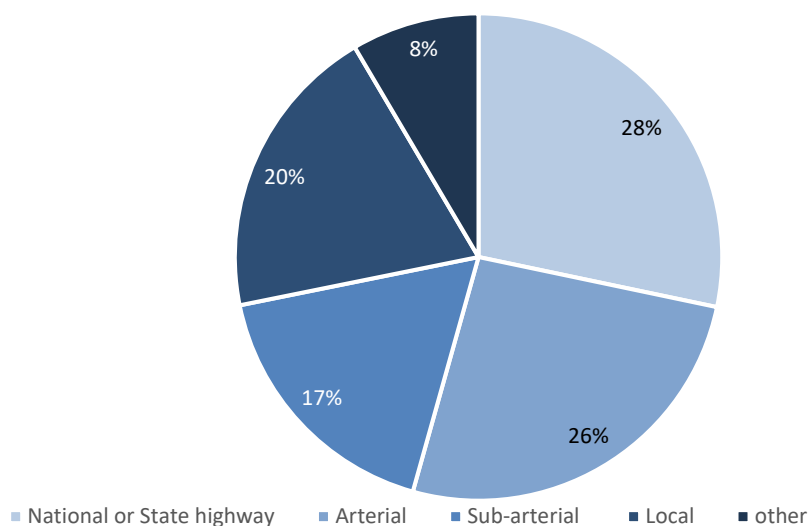
Source Not shown in this table are 'On path', 'Miscellaneous' and 'Unknown' crash types, which together account for 6% of the total. Austroads 2009; BITRE analysis of National Crash Database

**Table 2.11 Fatal crashes by road type**

	<i>National or State highway</i>	<i>Arterial</i>	<i>Sub-arterial</i>	<i>Local</i>	<i>Other<sup>a</sup></i>	<i>Total<sup>b</sup></i>
2008	377	307	235	257	119	1,315
2009	393	344	183	280	130	1,346
2010	379	300	194	234	113	1,231
2011	357	268	202	222	87	1,151
2012	360	281	203	235	97	1,190
2013	349	237	169	230	105	1,099
2014	301	269	179	213	81	1,051
2015	313	286	184	214	104	1,102
2016	330	315	220	233	101	1,203

a Includes Collector road, Access road, Path and Busway.  
 b Includes crashes with undetermined and Not applicable road type.  
 Source BITRE analysis of National Crash Database

**Figure 2.8 Fatal crashes by road type 2014-2016**



Source BITRE analysis of National Crash Database

[BITRE](#) • Road trauma Australia 2017 statistical summary

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## SECTION 3 Rates

This section presents rates for fatalities and hospitalised injuries standardised by population, vehicle kilometres travelled (VKT) and vehicle registrations. Comparisons are included for jurisdictions, age groups and gender. In general, rates are composed of fatalities during the calendar year divided by the exposure measure at the mid-point of the year.

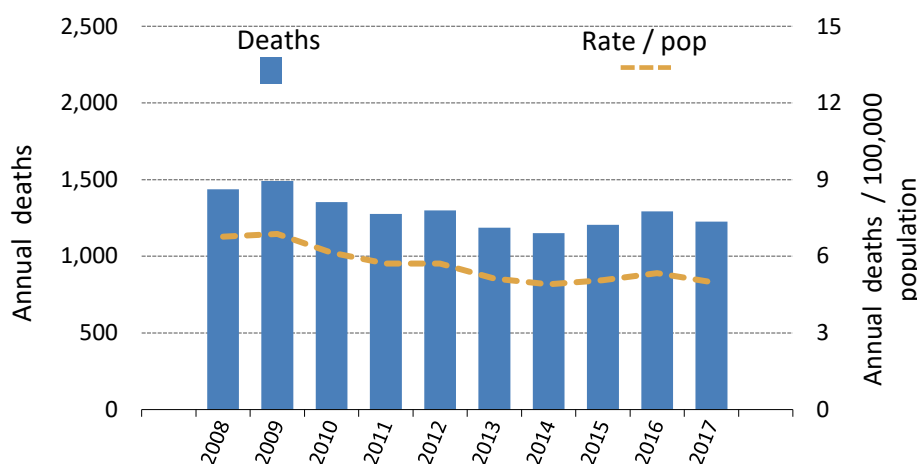
- In 2017 the number of road crash deaths per 100,000 population was 4.98 (down 6.7 per cent on 2016). This rate has declined over the last decade by a total of 26.3 per cent, with an estimated trend reduction of 3.6 per cent per year (Table 3.1, p. 46).
- All jurisdictions achieved substantial reductions in the population rate over the decade. Large reductions occurred in Victoria, Queensland and Western Australia. (Table 3.1, p. 46 and Figure 3.2, p. 47).
- Over the ten years to 2017 by age group:
  - the greatest improvement in the rate per 100,000 population was for people under 40.
  - the rate for people aged 40-64 years has remained similar to the population average.
  - rates for people aged 17-25 years and for people aged 65 years and over are above the national average.
  - rates for males are significantly higher than females for all age groups (Table 3.2, p. 48).
- The annual rate per estimated vehicle kilometres travelled has reduced over the decade by 25.2 per cent, similar to the decline in the overall population rate (Table 3.3, p. 49).
- Population, registration and vehicle kilometres travelled based rates for annual hospitalised injuries are available only to 2015. A break in the hospitalised injuries series on 1 July 2012 means that annual data from 2013 is not comparable to previous years.
- From 2013 to 2015, rate of hospitalised injuries per 100,000 population increased by 2.7 per cent to 155.7 (Table 3.7, p. 52).
- In 2015 the rate of hospitalised injuries per 100,000 people was 31 times the rate for fatalities. (Table 3.7, p. 52, and Table 3.1, p. 46).

**Table 3.1 Annual fatalities per 100,000 population by jurisdiction**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
2008	5.4	5.8	7.8	6.2	9.4	7.8	34.1	4.0	6.8
2009	6.4	5.4	7.6	7.4	8.5	12.5	13.7	3.4	6.9
2010	5.7	5.3	5.7	7.3	8.4	6.1	21.8	5.3	6.1
2011	5.0	5.2	6.0	6.3	7.6	4.7	19.5	1.6	5.7
2012	5.1	5.0	6.1	5.7	7.5	6.1	20.8	3.2	5.7
2013	4.5	4.2	5.8	5.9	6.5	7.0	15.3	1.8	5.1
2014	4.1	4.2	4.7	6.4	7.3	6.4	16.1	2.6	4.9
2015	4.6	4.2	5.1	6.0	6.3	6.6	20.0	3.8	5.1
2016	4.9	4.7	5.2	5.0	7.6	7.1	18.3	2.7	5.3
2017	5.0	4.0	5.0	5.9	6.2	6.9	12.5	1.2	5.0
% change 2016-2017	1.7	-14.5	-3.3	16.7	-18.2	-3.6	-31.6	-55.5	-6.7
Ave. trend change p.a. (%)	-2.6	-3.7	-4.7	-2.5	-3.8	-2.1	-4.9	-7.6	-3.6

Sources BITRE analysis of Australian Road Deaths Database; Australian Bureau of Statistics 2018

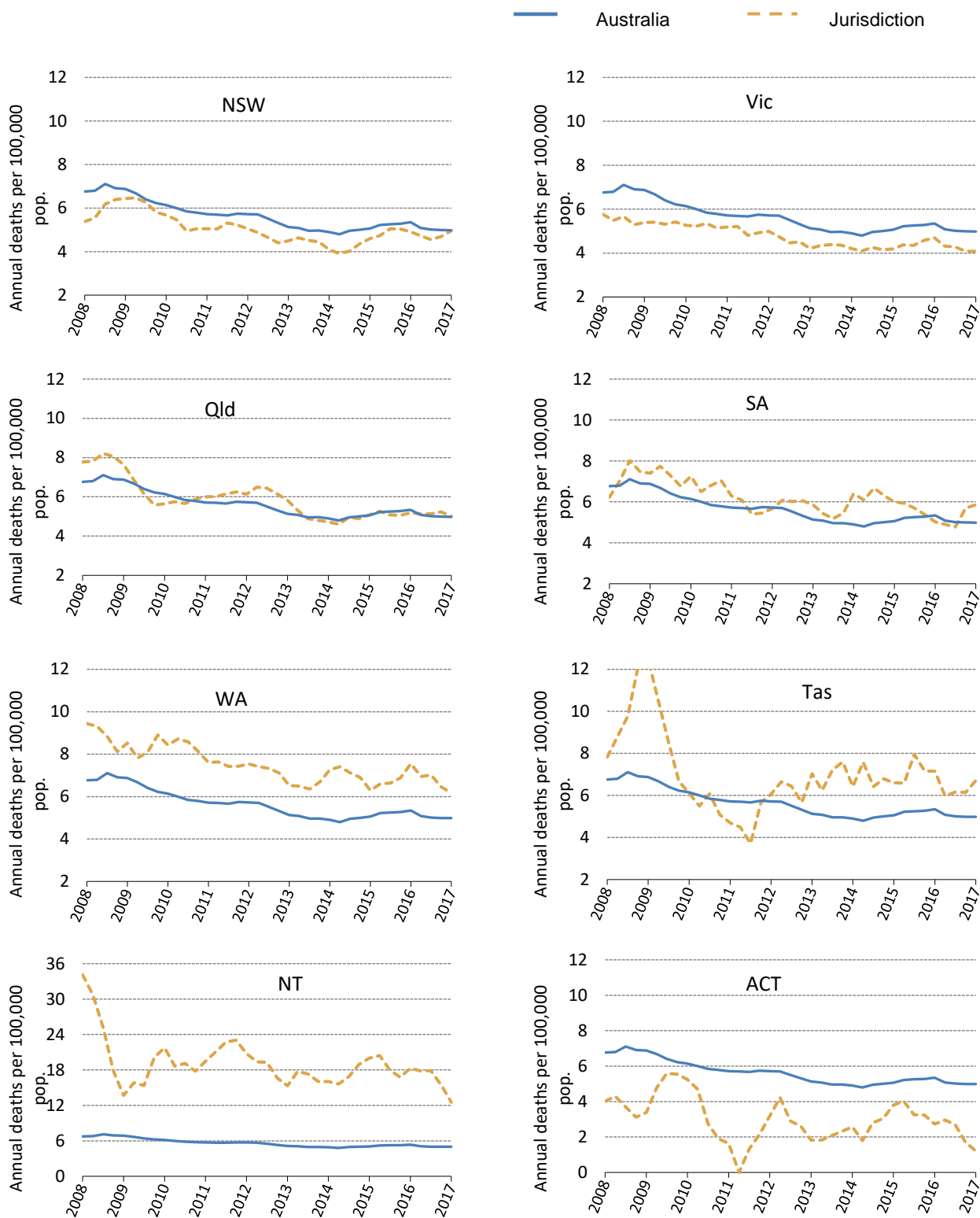
**Figure 3.1 Annual fatalities and fatalities per 100,000 population**



Sources BITRE analysis of Australian Road Deaths Database; Australian Bureau of Statistics 2018b



**Figure 3.2 Annual fatalities per 100,000 population by jurisdiction**



Sources BITRE analysis of Australian Road Deaths Database; Australian Bureau of Statistics 2018b

**Table 3.2 Annual fatalities per 100,000 population by gender and age group**

	<i>0–16 years</i>	<i>17–25 years</i>	<i>26–39 years</i>	<i>40–64 years</i>	<i>65–74 years</i>	<i>≥ 75 years</i>	<i>All deaths<sup>a</sup></i>
<b>Males</b>							
2008	2.3	21.4	13.1	8.6	6.6	16.0	10.0
2009	2.3	19.2	13.0	9.2	8.3	14.9	10.0
2010	2.0	17.8	10.6	8.9	7.7	11.9	9.0
2011	2.2	14.5	9.7	8.4	6.1	15.6	8.3
2012	1.4	14.6	10.6	8.1	6.9	14.7	8.2
2013	1.5	11.6	8.0	7.8	8.9	14.9	7.4
2014	1.2	12.1	8.2	7.4	7.4	11.1	7.0
2015	1.4	11.3	9.0	7.6	7.8	13.3	7.3
2016	1.5	13.4	9.3	8.5	6.4	15.4	8.0
2017	1.1	11.8	7.4	7.5	8.0	14.1	7.3
<i>% change 2016-2017</i>	-25.9	-12.1	-19.8	-11.7	25.0	-8.4	-7.9
<i>Ave. trend change p.a. (%)</i>	-7.7	-6.4	-5.4	-1.8	0.6	-0.8	-3.6
<b>Females</b>							
2008	1.3	5.9	3.2	3.0	5.0	7.7	3.5
2009	2.0	6.2	3.3	3.6	3.9	5.8	3.7
2010	1.0	5.7	3.2	3.0	4.4	6.7	3.3
2011	1.5	5.1	2.7	2.8	3.8	6.8	3.2
2012	1.4	5.1	2.7	2.9	3.9	7.2	3.2
2013	1.2	4.2	2.6	2.4	3.8	7.5	2.9
2014	1.4	3.9	2.6	2.3	3.9	6.7	2.8
2015	1.1	3.8	2.5	2.4	4.0	7.2	2.8
2016	0.8	4.4	2.7	2.5	3.5	6.3	2.8
2017	0.7	3.4	2.0	2.3	3.0	7.8	2.6
<i>% change 2016-2017</i>	-6.3	-21.5	-26.3	-7.2	-13.9	23.1	-4.3
<i>Ave. trend change p.a. (%)</i>	-7.3	-6.1	-4.2	-4.1	-3.5	0.6	-3.6
<b>Persons<sup>b</sup></b>							
2008	1.9	13.9	8.1	5.8	5.8	11.1	6.8
2009	2.2	12.9	8.2	6.4	6.1	9.6	6.9
2010	1.6	11.9	6.9	5.9	6.0	8.9	6.1
2011	1.9	9.9	6.2	5.5	4.9	10.5	5.7
2012	1.4	9.9	6.7	5.5	5.4	10.4	5.7
2013	1.3	8.0	5.3	5.1	6.3	10.6	5.1
2014	1.3	8.1	5.4	4.8	5.6	8.6	4.9
2015	1.3	7.7	5.7	5.0	5.9	9.8	5.1
2016	1.2	9.0	6.0	5.4	4.9	10.3	5.3
2017	0.9	7.7	4.7	4.9	5.5	10.6	5.0
<i>% change 2016-2017</i>	-20.9	-14.3	-21.0	-10.5	10.9	3.4	-6.7
<i>Ave. trend change p.a. (%)</i>	-7.7	-6.4	-5.2	-2.4	-0.9	0.0	-3.6

a Includes those with unknown or unstated age.

b Includes those with unknown or unstated gender.

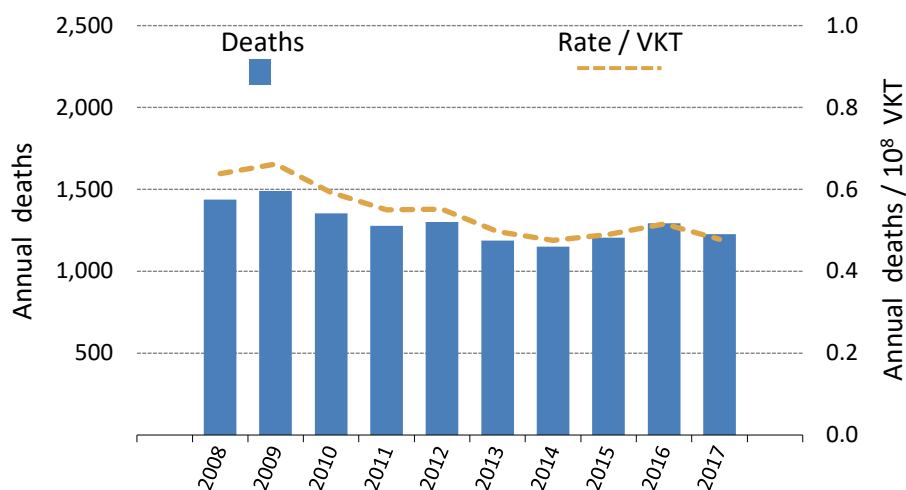
Sources BITRE analysis of Australian Road Deaths Database; Australian Bureau of Statistics 2018b

**Table 3.3 Annual fatalities per 100 million vehicle kilometres travelled (VKT)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
2008	0.6	0.5	0.7	0.6	0.8	0.7	3.8	0.4	0.6
2009	0.7	0.5	0.7	0.7	0.8	1.2	1.5	0.3	0.7
2010	0.6	0.5	0.5	0.7	0.8	0.6	2.4	0.5	0.6
2011	0.5	0.5	0.5	0.6	0.7	0.5	2.2	0.2	0.6
2012	0.5	0.5	0.6	0.6	0.7	0.6	2.4	0.3	0.6
2013	0.5	0.4	0.5	0.6	0.6	0.7	1.8	0.2	0.5
2014	0.4	0.4	0.4	0.6	0.7	0.6	1.8	0.3	0.5
2015	0.5	0.4	0.5	0.6	0.6	0.6	2.3	0.4	0.5
2016	0.5	0.4	0.5	0.5	0.7	0.7	2.1	0.3	0.5
2017	0.5	0.4	0.5	0.6	0.6	0.7	1.4	0.1	0.5
% change 2016-2017	0.9	-14.7	-3.7	15.5	-19.1	-3.6	-32.0	-55.6	-7.3
Ave. trend change p.a. (%)	-2.7	-3.3	-4.5	-2.5	-3.7	-2.0	-4.5	-7.2	-3.5

Sources BITRE analysis of Australian Road Deaths Database; BITRE unpublished VKT estimates

**Figure 3.3 Annual fatalities and fatalities per 100 million vehicle kilometres travelled (VKT)**



Sources BITRE analysis of Australian Road Deaths Database; BITRE unpublished VKT estimates

**Table 3.4** Fatalities by Remoteness Area per 100,000 population

	<i>Major Cities</i>	<i>Inner Regional</i>	<i>Outer Regional</i>	<i>Remote</i>	<i>Very Remote</i>	<i>Australia</i>
2008	3.8	11.2	15.5	17.7	34.8	6.8
2009	3.4	11.5	18.1	28.6	28.6	6.9
2010	2.9	11.3	14.7	21.4	38.2	6.1
2011	2.8	10.0	14.4	22.6	30.4	5.7
2012	2.8	11.0	13.7	14.8	27.3	5.7
2013	2.6	9.5	11.7	23.0	26.3	5.1
2014	2.3	9.3	11.9	20.2	32.0	4.9
2015	2.4	9.1	13.9	20.5	28.3	5.1
2016	2.6	9.9	14.2	16.7	34.6	5.4

Source Australian Bureau of Statistics 2018c; BITRE analysis of National Crash Database

**Table 3.5 Annual vehicle occupant fatalities per 10,000 registered motor vehicles<sup>a</sup> by jurisdiction**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
<b>Deaths of a vehicle occupant per 10,000 registered motor vehicles</b>									
2008	0.6	0.5	0.7	0.6	0.9	0.8	4.1	0.3	0.7
2009	0.7	0.5	0.7	0.8	0.8	1.3	1.9	0.3	0.7
2010	0.6	0.5	0.5	0.7	0.8	0.5	3.0	0.5	0.6
2011	0.6	0.5	0.6	0.5	0.7	0.4	2.7	0.1	0.5
2012	0.5	0.5	0.6	0.5	0.7	0.5	2.3	0.2	0.5
2013	0.4	0.4	0.6	0.5	0.5	0.4	1.4	0.2	0.5
2014	0.4	0.4	0.5	0.6	0.6	0.6	1.5	0.2	0.5
2015	0.4	0.4	0.5	0.5	0.6	0.5	2.0	0.4	0.5
2016	0.5	0.4	0.4	0.5	0.7	0.5	2.3	0.3	0.5
2017	0.5	0.4	0.4	0.4	0.5	0.5	1.3	0.1	0.5
<i>% change 2016-2017</i>	12.5	-9.3	3.8	-10.8	-19.7	-6.7	-45.0	-58.2	-4.6
<i>Ave. trend change p.a. (%)</i>	-4.3	-3.4	-6.1	-4.2	-4.9	-5.9	-7.6	-6.5	-4.7

a Includes cars, trucks, LCVs and buses.

Sources BITRE analysis of Australian Road Deaths Database; Australian Bureau of Statistics 2017

**Table 3.6 Annual fatalities of motorcyclists per 10,000 registered motorcycles by jurisdiction**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
<b>Deaths of motorcyclists<sup>a</sup> per 10 000 registered motorcycles</b>									
2008	3.7	3.2	5.2	4.3	4.7	6.5	20.3	3.9	4.3
2009	4.2	2.6	4.0	3.4	3.6	6.0	1.8	1.8	3.6
2010	3.5	3.1	3.2	3.4	3.7	2.1	8.4	4.1	3.4
2011	2.8	3.1	2.9	4.4	2.8	2.0	3.4	2.5	3.0
2012	3.2	2.5	3.6	3.1	3.2	3.0	6.6	2.3	3.1
2013	3.6	2.4	2.6	2.4	2.2	6.3	9.0	1.5	2.9
2014	2.8	1.7	2.0	2.1	3.5	1.7	8.7	1.5	2.4
2015	3.0	1.7	2.9	2.1	1.7	5.4	8.4	3.1	2.5
2016	2.9	3.0	3.2	1.5	3.0	5.2	5.8	2.3	3.0
2017	2.5	2.0	2.5	4.4	2.0	5.6	4.5	0.8	2.5
<i>% change 2016-2017</i>	-15.2	-33.6	-22.3	196.3	-35.5	6.2	-21.3	-66.9	-17.3
<i>Ave. trend change p.a. (%)</i>	-4.1	-4.6	-5.8	-6.1	-7.4	1.6	-1.4	-9.4	-5.0

a Includes motor cycle pillion passengers.

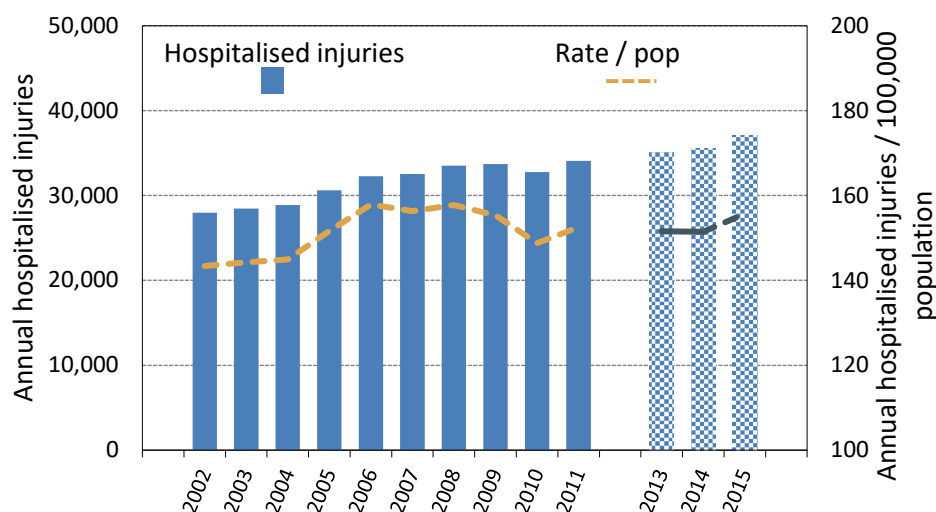
Sources BITRE analysis of Australian Road Deaths Database; Australian Bureau of Statistics 2017

**Table 3.7 Annual hospitalised injuries per 100,000 population, 100 million vehicle kilometre travelled (VKT) and 10,000 registered motor vehicles**

	<i>per 100,000 population<sup>a</sup></i>	<i>per 100 million VKT<sup>b</sup></i>	<i>per 10,000 registered motor vehicles</i>
2002	143.4	13.8	21.8
2003	144.2	13.6	21.6
2004	144.9	13.3	21.3
2005	151.6	13.9	22.0
2006	157.9	14.8	22.5
2007	156.3	14.7	22.0
2008	157.8	14.9	21.9
2009	155.3	15.0	21.5
2010	148.8	14.3	20.4
2011	152.6	14.7	20.8
2012 <sup>c</sup>	-	-	-
2013 <sup>c</sup>	151.6	14.7	20.4
2014 <sup>c</sup>	151.4	14.7	20.2
2015 <sup>c</sup>	155.7	15.1	20.6

a Population is at June each year.  
 b VKT are for the 12 months ended June.  
 c 2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. See note on Table 1.9, p. 17.  
 Sources Australian Bureau of Statistics 2017; Australian Bureau of Statistics 2016; BITRE unpublished; National Injury Surveillance Unit, unpublished, hospitalised injury series.

**Figure 3.4 Annual hospitalised injuries and hospitalised injuries per 100,000 population<sup>a</sup>**



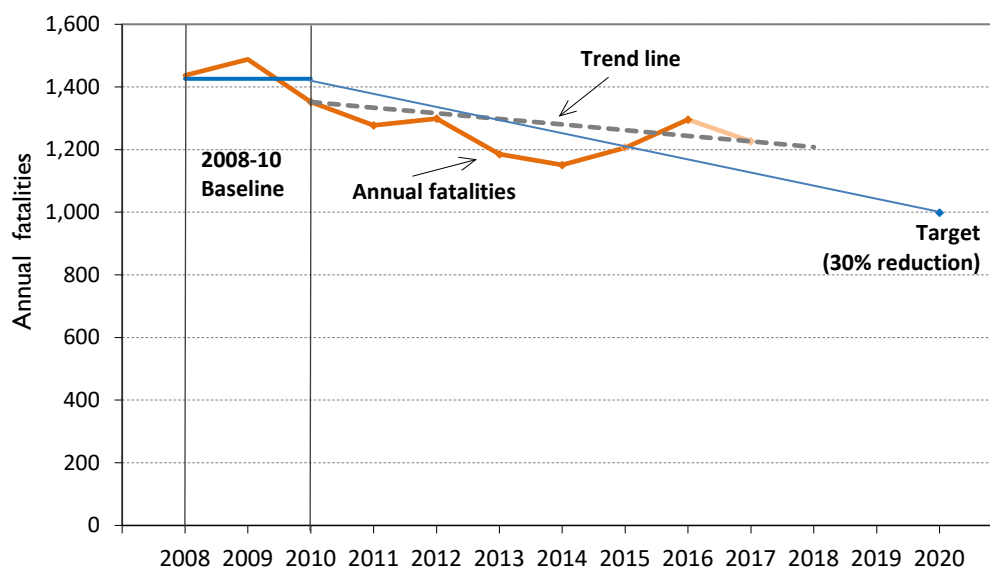
a Population is at June each year.  
 Note It is not possible to presents 2012 calendar year data as it is not directly comparable with previous years due to a break in the hospitalised injury series on 1 July 2012. See note on Table 1.9, p. 17.  
 Sources Australian Bureau of Statistics 2018b; National Injury Surveillance Unit, unpublished, hospitalised injury series

## SECTION 4 National Road Safety Strategy 2011–2020 statistical progress

The National Road Safety Strategy 2011–2020 lists a number of statistics that will be used to monitor progress against the targets within each of the Strategy’s four cornerstones (Safe Roads, Safe Speeds, Safe Vehicles and Safe People). These statistics were first published by the Transport and Infrastructure Council in November 2013. The present chapter updates these statistics to 2017.

Further detail is available at [www.roadsafety.gov.au](http://www.roadsafety.gov.au).

**Figure 4.1** NRSS 2011–2020 statistical progress towards fatality target



Sources: The 2008-10 baseline is sourced on the National Crash Database. Annual fatality data (to 2017) is sourced on the Australian Road Deaths Database.

**Table 4.1** National Road Safety Strategy (NRSS) statistical progress  
– High level outcome measures

<i>Measure</i>	<i>Baseline (2008-2010)<sup>a</sup></i>	<i>2016<sup>b</sup></i>	<i>% Change baseline – 2016</i>
<i>Number of deaths resulting from road crashes</i>	1,426	1,296	-9.1%
<i>Number of road crashes resulting in deaths</i>	1,297	1,203	-7.3%
<i>Number of deaths per 100,000 population</i>	6.6	5.4	-18.7%
<i>Number of deaths per 100 million vehicle kilometres travelled</i>	0.63	0.52	-18.0%
<i>Number of deaths per 10,000 registered vehicles</i>	0.91	0.70	-22.5%

a Average annual number during the three-year period 2008 to 2010.

b Uses data from the National Crash Database.

Sources Australian Bureau of Statistics 2018b; Australian Bureau of Statistics 2017; BITRE unpublished VKT estimates; National Crash Database

**Table 4.2** National Road Safety Strategy (NRSS) statistical progress  
– Safety performance indicators

<i>Measure</i>	<i>Baseline (2008-2010)<sup>a</sup></i>	<i>2016<sup>b</sup></i>	<i>% Change baseline – 2016</i>
<b>Safe roads</b>			
<i>Number of deaths from head-on crashes</i>	271	268	-1.2%
<i>Number of deaths from single-vehicle crashes</i>	651	572	-12.1%
<i>Number of deaths from intersection crashes</i>	301	268	-11.0%
<i>Number of deaths from crashes on metropolitan roads</i>	490	452	-7.8%
<i>Number of deaths from crashes on regional roads</i>	787	720	-8.5%
<i>Number of deaths from crashes on remote roads</i>	137	123	-10.4%

**Safe speeds**

*Number of deaths from crashes where speed was a contributory factor* *Data not available*

*Mean free speeds at designated sites across the network* *Data not available*

*Percentage of vehicles speeding by vehicle type and offence category* *Data not available*

**Safe vehicles<sup>c</sup>**

*Average age of the Australian vehicle fleet (years)* 10.0      10.1      0.0

*- Average age of passenger vehicles* 9.7      9.8      0.0

*Percentage of new vehicles sold with a 5-star ANCAP rating* 56%  
(2010)      88%      57.1%

*Percentage of new vehicles sold with key safety features* *Data not available*



**Table 4.2 National Road Safety Strategy (NRSS) statistical progress  
– Safety performance indicators (continued)**

<i>Measure</i>	<i>Baseline (2008-2010)<sup>a</sup></i>	<i>2016<sup>b</sup></i>	<i>% Change baseline – 2016</i>
<b>Safe people – responsible road use</b>			
<i>Number of young driver and motorcycle rider deaths (aged 17-25 years)</i>	223	179	-19.6%
<i>Number of deaths from crashes involving a young driver or motorcycle rider (aged 17-25 years)</i>	470	351	-25.3%
<i>Number of older driver and motorcycle rider deaths (aged 65+ years)</i>	114	143	+25.8%
<i>Number of deaths from crashes involving an older driver or motorcycle rider (aged 65+ years)</i>	208	235	+12.8%
<i>Number of motorcyclist<sup>d</sup> deaths</i>	232	251	+8.3%
<i>Number of bicyclist<sup>d</sup> deaths</i>	32	29	-10.3%
<i>Number of pedestrian deaths</i>	186	182	-2.3%
<i>Number of deaths from crashes involving a heavy vehicle</i>	254	210	-17.2%
<b>Safe people – irresponsible road use<sup>e</sup></b>			
<i>Number of drivers and motorcycle riders killed with a blood alcohol concentration (BAC) above the legal limit<sup>f</sup></i>	149	94	-36.9%
<i>Number of deaths from crashes involving a driver or motorcycle rider with a blood alcohol concentration (BAC) above the legal limit<sup>f</sup></i>	214	128	-40.2%
<i>Number of deaths from crashes involving an unlicensed driver or motorcycle rider<sup>g</sup></i>	143	120	-15.9%
<i>Number of vehicle occupants killed who were not wearing a restraint</i>	215	156	-27.6%
	<b>2010<sup>h</sup></b>	<b>2016</b>	
<i>Number of drivers and motorcycle riders killed who had an illegal drug in their system<sup>i</sup></i>	53	73	
<i>Number of deaths from crashes involving a driver or motorcycle rider who had an illegal drug in their system</i>	84	114	

- a Average annual number during the three-year period 2008 to 2010.  
b Uses data from the National Crash Database.  
c From Roadsafety.gov.au.  
d Includes pillion passengers.  
e Fatality counts for each of the following indicators are lower-bound estimates – due to a substantial number of cases with unknown values.  
f Excludes data from Victoria and from Western Australia.  
g Excludes data from Western Australia.  
h Excludes data from ACT  
i Excludes data from Victoria, Queensland and Western Australia. Data was not collected before 2010.  
Source BITRE analysis of National Crash Database; ANCAP

[BITRE](#) • Road trauma Australia 2017 statistical summary

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## SECTION 5 Historical series

This section presents a collection of longer time series of annual fatalities, crashes and rates.

- Over the last 30 years, annual fatalities have decreased by 57.5 per cent.
- By jurisdiction, the reductions over 30 years range from 31 per cent in Western Australia to 84 per cent in the Australian Capital Territory (Table 5.1, p. 58).
- By road user group over 30 years, the largest reductions were for pedestrians (down 71 per cent), passengers (down 70 per cent), and pedal cyclists (down 56 per cent) (Table 5.2, p. 59).
- Over 25 years reductions the largest reductions were for people under 40 (down by 59 per cent). For people aged 40 years and over the reduction was six per cent (Table 5.3, p. 60).

**Table 5.1** Deaths by jurisdiction 1988–2017

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
1988	1,037	701	539	223	230	75	51	31	2,887
1989	959	776	428	222	242	80	61	32	2,800
1990	797	548	399	226	196	71	68	26	2,331
1991	663	503	395	184	207	77	67	17	2,113
1992	649	396	416	165	200	74	54	20	1,974
1993	581	435	396	218	209	58	44	12	1,953
1994	646	377	418	159	211	59	41	17	1,928
1995	620	418	456	181	209	57	61	15	2,017
1996	581	417	385	181	247	64	72	23	1,970
1997	576	377	360	148	197	32	60	17	1,767
<i>Ave. trend change p.a. (%)</i>	-6.0	-7.0	-2.1	-3.8	-0.5	-6.7	0.2	-6.4	-4.7
1998	556	390	279	168	223	48	69	22	1,755
1999	577	383	314	151	218	53	49	19	1,764
2000	603	407	317	166	212	43	51	18	1,817
2001	524	444	324	153	165	61	50	16	1,737
2002	561	397	322	154	179	37	55	10	1,715
2003	539	330	310	157	180	41	53	11	1,621
2004	510	343	311	139	178	58	35	9	1,583
2005	508	346	330	148	163	51	55	26	1,627
2006	496	337	335	117	200	55	45	13	1,598
2007	435	332	360	124	235	45	58	14	1,603
<i>Ave. trend change p.a. (%)</i>	-2.5	-2.5	1.7	-3.2	-0.7	0.3	-1.7	-3.9	-1.4
2008	374	303	328	99	205	39	75	14	1,437
2009	454	290	331	119	191	63	31	12	1,491
2010	405	288	249	118	193	31	50	19	1,353
2011	364	287	269	103	179	24	45	6	1,277
2012	369	282	280	94	183	31	49	12	1,300
2013	333	243	271	98	162	36	37	7	1,187
2014	307	248	223	108	183	33	39	10	1,151
2015	350	252	243	102	160	34	49	15	1,205
2016	380	290	251	86	193	37	45	11	1,293
2017	393	254	247	101	159	36	31	5	1,226
<i>Ave. trend change p.a. (%)</i>	-1.3	-1.7	-3.1	-1.6	-1.9	-1.7	-3.7	-5.9	-2.0

Source BITRE analysis of Australian Road Deaths Database

**Table 5.2 Deaths by road user 1988–2017**

	<i>Drivers</i>	<i>Passengers</i>	<i>Pedestrians</i>	<i>Motor-cyclists<sup>a</sup></i>	<i>Pedal cyclists<sup>a</sup></i>	<i>All road users<sup>b</sup></i>
1988	1,144	776	548	323	87	2,887
1989	1,122	780	501	299	98	2,800
1990	935	634	420	262	80	2,331
1991	910	554	343	248	58	2,113
1992	815	570	350	197	41	1,974
1993	859	513	331	203	45	1,953
1994	809	501	367	190	59	1,928
1995	874	491	398	204	48	2,017
1996	869	499	351	193	57	1,970
1997	776	431	328	177	52	1,767
<i>Ave. trend change p.a. (%)</i>	-3.5	-5.9	-4.3	-6.2	-6.4	-4.7
1998	741	468	318	181	44	1,755
1999	820	428	299	176	40	1,764
2000	852	450	287	191	31	1,817
2001	776	407	290	216	46	1,737
2002	785	422	249	224	34	1,715
2003	747	420	232	188	26	1,621
2004	760	362	220	195	43	1,583
2005	775	347	226	233	41	1,627
2006	757	336	228	238	39	1,598
2007	785	336	204	237	41	1,603
<i>Ave. trend change p.a. (%)</i>	-0.4	-3.8	-4.7	3.1	0.1	-1.4
2008	670	303	189	245	28	1,437
2009	707	333	196	224	31	1,491
2010	636	284	170	224	38	1,353
2011	568	286	186	202	34	1,277
2012	610	260	170	223	33	1,300
2013	557	204	158	213	50	1,187
2014	533	228	151	191	45	1,151
2015	555	251	162	203	31	1,205
2016	623	208	182	249	29	1,293
2017	574	236	160	211	38	1,226
<i>Ave. trend change p.a. (%)</i>	-1.9	-4.2	-1.8	-0.8	1.5	-2.0

a Includes pillion passengers.

b Drivers, passengers, pedestrians, motorcyclists, pedal cyclists and those with unstated or unknown road user type.

Source BITRE analysis of Australian Road Deaths Database

**Table 5.3 Deaths by age group 1988–2017**

	0-16 years	17-25 years	26-39 years	40-64 years <sup>a</sup>	65-74 years <sup>a</sup>	≥ 75 years <sup>a</sup>	All deaths <sup>b</sup>
1988	293	957	642	-	-	-	2,887
1989	296	911	667	541	189	187	2,800
1990	238	749	522	468	170	181	2,331
1991	198	646	489	418	182	176	2,113
1992	191	600	467	391	163	155	1,974
1993	178	592	479	407	140	154	1,953
1994	184	543	431	407	188	175	1,928
1995	177	596	486	420	157	177	2,017
1996	190	554	449	451	140	183	1,970
1997	164	512	413	380	137	150	1,767
<i>Ave. trend change p.a. (%)</i>	-3.5	-4.1	-2.4	-1.0	-3.1	-0.7	-2.6
1998	167	459	397	420	132	168	1,755
1999	147	473	443	389	137	166	1,764
2000	157	487	457	422	127	167	1,817
2001	136	450	410	446	127	168	1,737
2002	129	445	444	434	105	157	1,715
2003	148	412	373	418	107	159	1,621
2004	112	429	353	433	100	155	1,583
2005	110	426	414	408	112	154	1,627
2006	118	435	393	424	98	129	1,598
2007	101	392	412	451	101	145	1,603
<i>Ave. trend change p.a. (%)</i>	-4.9	-1.7	-1.0	0.6	-3.6	-2.2	-1.4
2008	87	377	345	395	86	147	1,437
2009	106	362	355	445	94	129	1,491
2010	74	336	305	418	97	122	1,353
2011	93	280	275	398	83	148	1,277
2012	70	284	300	400	96	149	1,300
2013	66	230	243	374	118	156	1,187
2014	65	235	251	359	109	130	1,151
2015	65	225	272	373	118	152	1,205
2016	60	265	290	412	103	163	1,293
2017	48	230	235	372	118	174	1,226
<i>Ave. trend change p.a. (%)</i>	-6.5	-5.5	-3.5	-1.2	3.4	2.4	-2.0

a Due to changes in age groups, data prior to 1989 is not available.

b Includes those with unstated or unknown age.

Source BITRE analysis of Australian Road Deaths Database

**Table 5.4 Hospitalised injuries 2001–2015**

	<i>Australia</i>
2001	27,482
2002	27,958
2003	28,446
2004	28,886
2005	30,597
2006	32,288
2007	32,552
2008	33,524
2009	33,692
2010	32,775
2011	34,082
2012 <sup>a</sup>	-
2013 <sup>a</sup>	35,059
2014 <sup>a</sup>	35,552
2015 <sup>a</sup>	37,082

a 2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. See note on Table 1.9, p. 17.

Sources National Injury Surveillance Unit, unpublished, hospitalised injury series.

**Table 5.5 Annual fatalities per 100,000 population by jurisdiction 1988–2017**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
1988	18.2	16.4	19.7	15.9	15.0	16.6	32.1	11.4	17.5
1989	16.6	18.0	15.1	15.6	15.3	17.6	37.8	11.6	16.7
1990	13.7	12.5	13.8	15.8	12.2	15.4	41.5	9.2	13.7
1991	11.2	11.4	13.3	12.7	12.7	16.5	40.5	5.9	12.2
1992	10.9	8.9	13.8	11.3	12.1	15.7	32.0	6.8	11.3
1993	9.7	9.7	12.8	14.9	12.4	12.3	25.6	4.0	11.1
1994	10.7	8.4	13.2	10.9	12.4	12.5	23.4	5.6	10.8
1995	10.2	9.3	14.1	12.4	12.0	12.0	34.0	4.9	11.2
1996	9.4	9.2	11.7	12.3	14.0	13.5	39.0	7.4	10.8
1997	9.2	8.3	10.7	10.0	11.0	6.7	31.6	5.5	9.6
<i>Ave. trend change p.a. (%)</i>	-6.9	-7.7	-4.3	-4.3	-2.1	-7.2	-1.7	-7.9	-5.8
1998	8.8	8.5	8.2	11.3	12.2	10.1	35.8	7.1	9.4
1999	9.1	8.2	9.1	10.1	11.8	11.2	25.0	6.0	9.4
2000	9.4	8.7	9.0	11.1	11.3	9.1	25.6	5.7	9.5
2001	8.0	9.3	9.1	10.2	8.7	12.9	24.8	5.0	9.0
2002	8.5	8.2	8.8	10.2	9.3	7.8	27.2	3.1	8.8
2003	8.1	6.8	8.3	10.3	9.2	8.6	26.3	3.4	8.2
2004	7.7	7.0	8.1	9.1	9.0	12.0	17.3	2.7	7.9
2005	7.6	6.9	8.4	9.6	8.1	10.5	26.7	7.8	8.1
2006	7.4	6.7	8.4	7.5	9.8	11.2	21.5	3.9	7.8
2007	6.4	6.4	8.8	7.9	11.2	9.1	27.1	4.1	7.7
<i>Ave. trend change p.a. (%)</i>	-3.3	-3.6	-0.4	-3.8	-2.2	-0.2	-2.7	-4.8	-2.6
2008	5.4	5.8	7.8	6.2	9.4	7.8	34.1	4.0	6.8
2009	6.4	5.4	7.6	7.4	8.5	12.5	13.7	3.4	6.9
2010	5.7	5.3	5.7	7.3	8.4	6.1	21.8	5.3	6.1
2011	5.0	5.2	6.0	6.3	7.6	4.7	19.5	1.6	5.7
2012	5.1	5.0	6.1	5.7	7.5	6.1	20.8	3.2	5.7
2013	4.5	4.2	5.8	5.9	6.5	7.0	15.3	1.8	5.1
2014	4.1	4.2	4.7	6.4	7.3	6.4	16.1	2.6	4.9
2015	4.6	4.2	5.1	6.0	6.3	6.6	20.0	3.8	5.1
2016	4.9	4.7	5.2	5.0	7.6	7.1	18.3	2.7	5.3
2017	5.0	4.1	5.0	5.9	6.2	6.7	12.5	1.2	5.0
<i>Ave. trend change p.a. (%)</i>	-2.6	-3.6	-4.7	-2.5	-3.8	-2.3	-4.9	-7.6	-3.6

Sources BITRE analysis of Australian Road Deaths Database; Australian Bureau of Statistics 2018b



**Table 5.6 Fatal crashes by jurisdiction 1988–2017**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
1988	912	627	483	206	199	68	46	31	2,572
1989	784	681	376	201	214	68	57	26	2,407
1990	702	492	347	187	181	63	54	24	2,050
1991	585	435	359	166	187	66	60	16	1,874
1992	576	365	363	142	171	59	42	18	1,736
1993	518	381	357	191	191	47	41	11	1,737
1994	552	345	364	143	195	52	36	15	1,702
1995	563	371	408	163	194	53	56	14	1,822
1996	538	382	338	162	220	53	58	17	1,768
1997	525	346	321	123	184	29	56	17	1,601
<i>Ave. trend change p.a. (%)</i>	-5.3	-6.7	-2.2	-4.1	0.0	-6.6	0.3	-6.9	-4.3
1998	491	348	257	152	199	47	59	20	1,573
1999	506	345	273	132	189	47	44	17	1,553
2000	543	373	275	151	184	38	48	16	1,628
2001	486	404	296	137	151	52	43	15	1,584
2002	501	361	283	138	159	35	40	8	1,525
2003	483	294	284	136	155	39	44	10	1,445
2004	458	312	289	128	162	52	34	9	1,444
2005	459	314	296	127	151	49	51	25	1,472
2006	449	309	313	104	181	43	41	12	1,452
2007	405	289	338	107	214	39	47	14	1,453
<i>Ave. trend change p.a. (%)</i>	-2.2	-2.6	2.3	-3.5	-0.3	-0.6	-1.7	-2.8	-1.2
2008	353	278	294	87	185	37	67	14	1,315
2009	409	268	296	104	176	52	31	11	1,347
2010	365	260	236	105	176	29	46	16	1,233
2011	336	259	227	95	167	23	38	6	1,151
2012	336	261	255	86	171	29	40	12	1,190
2013	316	225	246	90	149	35	33	7	1,101
2014	285	223	199	96	173	31	34	10	1,051
2015	326	231	219	96	141	32	42	14	1,101
2016	356	275	238	76	170	33	40	11	1,199
2017	355	236	228	94	151	35	27	5	1,131
<i>Ave. trend change p.a. (%)</i>	-1.2	-1.5	-2.8	-1.1	-1.9	-1.3	-4.4	-5.3	-1.9

Source BITRE analysis of Australian Road Deaths Database

**Table 5.7 Fatal crashes by crash type 1988–2017**

	<i>Single vehicle crashes</i>	<i>Multiple vehicle crashes</i>	<i>Pedestrian crashes</i>	<i>All crashes</i>
1988	-	-	-	-
1989	877	1,032	498	2,407
1990	792	843	415	2,050
1991	767	769	338	1,874
1992	660	732	344	1,736
1993	725	684	328	1,737
1994	652	687	363	1,702
1995	714	717	391	1,822
1996	709	711	348	1,768
1997	641	640	320	1,601
<i>Ave. trend change p.a. (%)</i>	-2.1	-2.8	-1.4	-2.2
1998	637	623	313	1,573
1999	584	671	298	1,553
2000	676	665	287	1,628
2001	648	646	290	1,584
2002	685	594	246	1,525
2003	634	584	227	1,445
2004	637	589	218	1,444
2005	654	594	224	1,472
2006	679	552	221	1,452
2007	683	567	203	1,453
<i>Ave. trend change p.a. (%)</i>	0.8	-1.8	-4.8	-1.2
2008	633	494	188	1,315
2009	649	509	189	1,347
2010	544	520	169	1,233
2011	504	463	184	1,151
2012	520	503	167	1,190
2013	515	430	156	1,101
2014	464	438	149	1,051
2015	492	448	161	1,101
2016	530	488	181	1,199
2017	500	473	158	1,131
<i>Ave. trend change p.a. (%)</i>	-2.6	-1.1	-1.7	-1.9

Source BITRE analysis of Australian Road Deaths Database

**Table 5.8 Fatal crashes by speed limit 1989–2017**

	40 km/h	50 km/h	60 km/h	70-90 km/h	100 km/h	≥110 km/h	Australia <sup>a</sup>
1988	-	-	-	-	-	-	-
1989	5	3	1033	268	825	231	2,407
1990	4	0	822	290	697	199	2,050
1991	3	1	715	253	668	209	1,874
1992	2	1	654	251	613	175	1,736
1993	3	1	668	214	601	205	1,737
1994	6	2	627	255	575	211	1,702
1995	9	4	634	306	623	224	1,822
1996	9	3	640	312	543	240	1,768
1997	3	0	554	261	552	210	1,601
<i>Ave. trend change p.a. (%)</i>							
1998	5	3	517	315	498	208	1,573
1999	5	15	490	334	484	203	1,553
2000	8	53	467	347	520	201	1,628
2001	11	55	451	301	503	204	1,584
2002	6	102	339	342	512	203	1,525
2003	8	132	316	323	484	161	1,445
2004	16	142	311	311	485	154	1,444
2005	7	155	290	312	501	170	1,472
2006	13	150	297	329	474	162	1,452
2007	14	150	269	313	484	184	1,453
<i>Ave. trend change p.a. (%)</i>							
2008	8	145	267	319	418	143	1,315
2009	4	161	242	307	439	180	1,347
2010	5	116	236	283	425	163	1,233
2011	14	147	181	239	403	151	1,151
2012	16	132	248	276	360	139	1,190
2013	12	131	202	251	368	124	1,101
2014	15	111	192	229	356	134	1,051
2015	15	113	222	249	346	141	1,101
2016	16	133	215	290	370	168	1,199
2017	23	146	197	238	332	137	1,131

*Ave. trend change p.a. (%)*

a Includes crashes where speed limit is unknown or where the posted speed limit is 30km/hr or less.  
Source BITRE analysis of Australian Road Deaths Database

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## SECTION 6 Exposure series

This section presents a collection of longer time series of exposure data.

- Over the ten years to 2017, Australia's population increased by 15.8 per cent. Increases ranged from 4.7 per cent in Tasmania to 20.3 per cent in Victoria (Table 6.1, p. 68).
- Over the last 30 years, Australia's population increased by 48.8 per cent. The largest increases were in Queensland and Western Australia (up 79.9 per cent and 67.8 per cent respectively).
- Over the ten years to 2017, the population of people aged 40 years and over increased by 18.6 per cent. For people aged under 40 years, the increase was 13.4 per cent (Table 6.2, p. 69).
- Over the last 30 years, the population of people aged 40 years and over increased by 87.3 per cent. For people aged under 40 the increase was 26.3 per cent
- Over the ten years to 2017, the number of registered vehicles increased by 22.8 per cent. The largest increases were motorcycle registrations (up 49.6 per cent) and light commercial vehicle registrations (up 34.6 per cent). Passenger car registrations increased by only 19.3 per cent (Table 6.4, p. 71) .

**Table 6.1**      **Population (000s) by jurisdiction 1988–2017 (June)<sup>a</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
1988	5,707	4,263	2,740	1,405	1,535	451	159	272	16,532
1989	5,776	4,320	2,828	1,419	1,578	455	161	276	16,814
1990	5,834	4,379	2,899	1,432	1,613	462	164	282	17,065
1991	5,899	4,420	2,961	1,446	1,636	467	165	289	17,284
1992	5,958	4,450	3,023	1,455	1,659	470	169	295	17,479
1993	5,995	4,463	3,096	1,459	1,679	472	172	300	17,635
1994	6,045	4,473	3,167	1,463	1,705	473	175	302	17,805
1995	6,106	4,498	3,237	1,465	1,736	475	180	306	18,005
1996	6,176	4,535	3,303	1,469	1,768	476	185	310	18,225
1997	6,246	4,569	3,355	1,476	1,798	475	190	311	18,423
<i>Ave. trend change p.a. (%)</i>	1.0	0.7	2.3	0.5	1.7	0.6	1.9	1.5	1.2
1998	6,306	4,607	3,404	1,483	1,826	473	193	312	18,608
1999	6,375	4,652	3,454	1,491	1,854	473	196	314	18,812
2000	6,447	4,704	3,509	1,498	1,879	473	199	317	19,029
2001	6,530	4,764	3,571	1,503	1,906	474	202	322	19,275
2002	6,581	4,818	3,653	1,512	1,929	474	202	325	19,495
2003	6,621	4,874	3,743	1,520	1,953	479	202	327	19,721
2004	6,651	4,927	3,830	1,528	1,980	483	203	329	19,933
2005	6,693	4,989	3,918	1,539	2,011	486	206	331	20,177
2006	6,743	5,061	4,008	1,553	2,051	489	209	335	20,451
2007	6,834	5,154	4,111	1,571	2,106	493	214	343	20,828
<i>Ave. trend change p.a. (%)</i>	0.8	1.2	2.2	0.6	1.5	0.5	0.9	1.0	1.2
2008	6,943	5,256	4,220	1,589	2,172	499	220	348	21,249
2009	7,054	5,372	4,329	1,609	2,240	504	226	355	21,692
2010	7,144	5,461	4,405	1,627	2,291	509	230	362	22,032
2011	7,219	5,538	4,477	1,640	2,353	511	231	368	22,340
2012	7,304	5,651	4,569	1,657	2,426	512	236	377	22,733
2013	7,404	5,773	4,653	1,671	2,487	512	242	383	23,128
2014	7,508	5,895	4,720	1,687	2,518	514	243	389	23,476
2015	7,616	6,022	4,778	1,701	2,541	515	245	396	23,816
2016	7,733	6,173	4,845	1,713	2,556	518	246	403	24,191
2017	7,862	6,322	4,929	1,724	2,575	522	247	412	24,598
<i>Ave. trend change p.a. (%)</i>	1.4	2.0	1.7	0.9	2.0	0.4	1.3	1.9	1.6

a      Australian total includes other territories.

Source      Australian Bureau of Statistics 2018b

**Table 6.2 Population (000s) by age group 1988–2017 (June)<sup>a</sup>**

	<i>0-16 years</i>	<i>17-25 years</i>	<i>26-39 years</i>	<i>40-64 years</i>	<i>65-74 years</i>	<i>≥ 75 years</i>	<i>All</i>
1988	4,263	2,448	3,726	4,304	1,102	690	16,532
1989	4,269	2,484	3,799	4,416	1,128	719	16,814
1990	4,284	2,501	3,859	4,527	1,151	743	17,065
1991	4,302	2,512	3,886	4,633	1,182	769	17,284
1992	4,318	2,511	3,918	4,730	1,209	793	17,479
1993	4,331	2,499	3,925	4,827	1,237	816	17,635
1994	4,349	2,485	3,936	4,935	1,264	835	17,805
1995	4,376	2,468	3,966	5,052	1,277	866	18,005
1996	4,404	2,453	3,997	5,179	1,289	903	18,225
1997	4,423	2,402	4,040	5,321	1,294	943	18,423
<i>Ave. trend change p.a. (%)</i>	0.4	-0.2	0.8	2.3	1.9	3.4	1.2
1998	4,437	2,356	4,067	5,469	1,297	982	18,608
1999	4,455	2,334	4,082	5,619	1,300	1,022	18,812
2000	4,473	2,334	4,084	5,774	1,302	1,062	19,029
2001	4,497	2,354	4,073	5,931	1,312	1,107	19,275
2002	4,503	2,389	4,061	6,077	1,325	1,141	19,495
2003	4,508	2,434	4,048	6,219	1,337	1,175	19,721
2004	4,516	2,473	4,039	6,347	1,353	1,205	19,933
2005	4,536	2,514	4,050	6,466	1,374	1,238	20,177
2006	4,565	2,563	4,080	6,579	1,397	1,267	20,451
2007	4,612	2,634	4,148	6,697	1,441	1,296	20,828
<i>Ave. trend change p.a. (%)</i>	0.4	1.3	0.1	2.3	1.1	3.1	1.2
2008	4,667	2,720	4,235	6,821	1,485	1,320	21,249
2009	4,726	2,800	4,334	6,941	1,546	1,344	21,692
2010	4,771	2,824	4,395	7,055	1,613	1,373	22,032
2011	4,805	2,825	4,437	7,185	1,682	1,406	22,340
2012	4,873	2,855	4,510	7,281	1,777	1,437	22,733
2013	4,946	2,887	4,595	7,370	1,859	1,471	23,128
2014	5,008	2,912	4,667	7,446	1,932	1,510	23,476
2015	5,072	2,934	4,751	7,505	2,007	1,548	23,816
2016	5,148	2,955	4,855	7,561	2,083	1,589	24,191
2017	5,209	2,993	4,979	7,625	2,152	1,640	24,598
<i>Ave. trend change p.a. (%)</i>	1.2	0.9	1.7	1.2	4.3	2.4	1.6

<sup>a</sup> Includes those with unstated or unknown age.  
Source Australian Bureau of Statistics 2018b

**Table 6.3**      **Population (000s) by Remoteness Area 2006–2017 (June)<sup>a</sup>**

	<i>Major Cities</i>	<i>Inner Regional</i>	<i>Outer Regional</i>	<i>Remote</i>	<i>Very Remote</i>	<i>Australia</i>
2006	14,566	3,876	1,901	291	194	20,828
2008	14,896	3,935	1,926	294	198	21,249
2009	15,241	3,999	1,952	297	203	21,692
2010	15,502	4,055	1,968	299	207	22,032
2011	15,745	4,103	1,981	301	210	22,340
2012	16,070	4,156	2,001	303	212	22,742
2013	16,399	4,209	2,020	305	213	23,146
2014	16,706	4,256	2,031	302	210	23,504
2015	17,012	4,298	2,038	298	205	23,851
2016	17,332	4,341	2,042	294	202	24,211
2017	17,672	4,386	2,047	292	201	24,599
<i>Ave. trend change p.a. (%)</i>	1.8	1.2	0.7	0.1	0.3	1.6

a      Australian total includes other territories.  
Source      Australian Bureau of Statistics 2018b



**Table 6.4 Motor vehicles on register by vehicle type 1988–2017**

	<i>Passenger vehicle</i>	<i>Light commercial vehicle</i>	<i>Motorcycle</i>	<i>Heavy rigid truck</i>	<i>Articulated truck</i>	<i>Bus</i>	<i>Total</i>
1988	7,243,600	1,204,900	323,300	576,200	51,200	92,800	9,544,400
1989	7,442,200	1,246,700	316,600	600,800	51,300	96,200	9,806,100
1990	7,672,300	1,280,400	304,000	618,000	50,800	99,200	10,080,600
1991	7,734,100	1,438,000	284,600	334,900	51,100	49,400	9,934,100
1992	7,913,200	1,510,300	292,400	379,100	50,700	52,700	10,246,900
1993	8,050,000	1,548,700	291,700	388,500	51,000	54,900	10,431,500
1994	8,208,800	1,632,700	291,800	407,800	53,200	57,400	10,699,200
1995	8,628,806	1,527,212	296,628	337,421	58,322	52,170	10,947,530
1996	8,989,100	1,601,600	303,900	268,198	58,352	58,800	11,401,100
1997	9,206,200	1,632,200	313,100	270,281	59,300	61,100	11,664,393
1998	9,526,700	1,686,400	328,800	275,566	62,300	64,100	12,066,857
1999	9,686,300	1,721,200	333,800	273,554	63,300	65,900	12,268,579
2000	-	-	-	-	-	-	-
2001	9,835,884	1,769,583	350,930	267,263	62,597	67,572	12,476,767
2002	10,101,441	1,819,993	370,982	267,222	63,905	70,196	12,821,961
2003	10,365,941	1,879,755	377,271	270,194	64,261	70,122	13,162,959
2004	10,629,401	1,952,500	396,300	274,400	66,300	71,300	13,533,100
2005	10,896,410	2,030,254	421,923	279,752	69,723	72,620	13,920,105
2006	11,188,880	2,114,333	463,057	288,094	71,680	75,375	14,358,684
2007	11,466,560	2,190,131	512,428	294,922	74,452	77,562	14,780,210
2008	11,803,536	2,288,216	567,569	305,184	79,132	80,581	15,296,542
2009	12,023,098	2,371,082	624,090	310,939	81,217	84,413	15,674,436
2010	12,269,305	2,460,568	660,107	315,435	82,436	86,367	16,061,098
2011	12,474,044	2,530,630	678,790	318,223	85,965	87,883	16,368,383
2012	12,714,235	2,617,799	709,288	322,115	87,995	90,599	16,741,644
2013	13,000,021	2,717,673	744,732	325,998	90,904	93,034	17,180,596
2014	13,297,260	2,824,052	780,174	329,464	93,853	94,131	17,633,493
2015	13,549,449	2,907,006	807,215	331,699	94,975	95,149	18,007,767
2016	13,815,107	2,985,592	828,965	334,812	96,185	96,582	18,387,136
2017	14,078,606	3,079,590	849,296	341,178	98,108	96,930	18,781,204
<i>Ave. trend change p.a. (%)</i>	2.0	3.4	4.4	1.2	2.5	2.0	2.3

Note During 1995 and 1996, the State/Territory jurisdictions introduced the National Heavy Vehicle Registrations Scheme. Using data from this scheme resulted in improved accuracy for counts of registrations of articulated and rigid trucks but its introduction caused some fluctuations in the data for the period 1991 through 1996.

Source Australian Bureau of Statistics 2017

**Table 6.5**      **Vehicle kilometres travelled (VKT) 1988–2017**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
<i>1988</i>	48.6	40.9	25.7	12.9	15.4	4.0	1.4	2.4	151.3
<i>1989</i>	50.4	43.0	27.3	13.3	16.2	4.1	1.4	2.5	158.3
<i>1990</i>	51.5	44.0	28.2	13.5	16.6	4.3	1.4	2.6	162.2
<i>1991</i>	50.9	43.5	28.5	13.3	16.5	4.3	1.4	2.7	161.1
<i>1992</i>	51.8	44.2	29.7	13.4	16.7	4.3	1.5	2.8	164.5
<i>1993</i>	53.4	45.1	31.3	13.7	17.3	4.5	1.5	2.9	169.6
<i>1994</i>	54.8	46.1	32.6	13.8	18.1	4.6	1.5	2.9	174.3
<i>1995</i>	56.7	47.4	34.3	14.0	19.2	4.7	1.6	3.0	181.0
<i>1996</i>	57.4	48.4	35.5	14.1	19.7	4.8	1.7	3.1	184.7
<i>1997</i>	57.8	49.4	36.1	14.2	20.0	4.8	1.7	3.1	187.1
<i>Ave. trend change p.a</i>	2.0	1.9	3.9	0.9	2.9	2.2	2.4	2.8	2.3
<i>1998</i>	58.9	49.9	37.0	14.4	20.4	4.8	1.8	3.1	190.2
<i>1999</i>	60.2	51.1	37.9	14.8	20.9	4.8	1.8	3.2	194.6
<i>2000</i>	61.7	51.7	39.0	15.3	21.2	4.8	1.8	3.2	198.7
<i>2001</i>	61.5	51.1	39.1	15.2	21.0	4.7	1.8	3.2	197.5
<i>2002</i>	62.8	52.9	40.6	15.5	21.5	4.8	1.8	3.3	203.2
<i>2003</i>	64.0	54.5	42.0	16.0	22.1	5.0	1.8	3.4	208.8
<i>2004</i>	66.7	56.7	44.6	16.3	23.1	5.2	1.9	3.5	218.0
<i>2005</i>	67.2	56.8	45.3	16.1	23.5	5.2	1.9	3.5	219.5
<i>2006</i>	66.5	56.1	45.6	15.9	23.4	5.1	1.9	3.5	217.9
<i>2007</i>	67.3	56.7	47.0	16.1	24.1	5.3	1.9	3.5	222.0
<i>Ave. trend change p.a</i>	1.6	1.6	2.8	1.2	1.9	1.3	0.9	1.6	1.8
<i>2008</i>	67.9	57.6	48.2	15.9	24.5	5.3	2.0	3.6	225.0
<i>2009</i>	68.0	57.3	48.1	15.9	25.1	5.3	2.0	3.6	225.3
<i>2010</i>	69.0	58.5	48.8	16.1	25.2	5.2	2.0	3.6	228.5
<i>2011</i>	70.4	59.8	49.2	16.1	25.7	5.3	2.1	3.7	232.2
<i>2012</i>	71.1	60.9	50.0	16.2	26.3	5.3	2.1	3.8	235.6
<i>2013</i>	72.1	61.7	51.0	16.3	26.8	5.3	2.1	3.8	239.1
<i>2014</i>	72.9	62.6	51.5	16.6	27.2	5.3	2.1	3.8	242.1
<i>2015</i>	74.1	63.7	52.3	16.8	27.7	5.3	2.1	3.9	246.0
<i>2016</i>	75.7	64.9	53.5	17.1	28.2	5.4	2.1	4.0	250.8
<i>2017</i>	77.5	66.7	54.6	17.4	28.8	5.4	2.2	4.0	256.6
<i>Ave. trend change p.a</i>	1.5	1.7	1.4	1.0	1.8	0.3	0.9	1.4	1.5

Sources      BITRE analysis of Australian Road Deaths Database; BITRE unpublished VKT estimates

## Glossary

The following definitions are general explanations only. The precise definitions vary across the organisations that provide the source data. These differences may result in minor inconsistencies between jurisdictions for some variables.

Road deaths from recent months are preliminary and subject to revision.

<i>Articulated truck</i>	A motor vehicle primarily for load carrying, consisting of a prime mover that has no significant load carrying area but with a turntable device which can be linked to one or more trailers.
<i>BAC</i>	Blood alcohol concentration (BAC) refers to the amount of alcohol present in the bloodstream.
<i>Bus</i>	A motor vehicle constructed for the carriage of passengers which has at least 10 seats, including the driver's seat.
<i>Counterpart</i>	The other vehicle or object that collides with the mode of transport of an injured person.
<i>Crash</i>	Any apparently unpremeditated event reported to police, or other relevant authority, and resulting in death, injury or property damage attributable to the movement of a road vehicle on a public road.
<i>Fatal crash</i>	A crash for which there is at least one death.
<i>Fatal crash involving heavy vehicles</i>	Fatal road traffic crashes in which one or more heavy vehicles were involved (articulated truck, heavy rigid truck or bus).
<i>Gross Vehicle Mass (GVM)</i>	Tare weight (i.e. unladen weight) of the motor vehicle plus its maximum carrying capacity excluding trailers.
<i>Heavy rigid truck</i>	A motor vehicle of GVM greater than 4.5 tonnes constructed with a load carrying area. Includes a rigid truck with a tow bar, draw bar or other non-articulated coupling on the rear of the vehicle.
<i>High threat to life injury</i>	'High threat to life' hospitalised injury cases are a subset of all hospitalised injury cases, referred to also as 'life-threatening' injuries. They are selected on the basis of having an ICD Injury severity Score (ICISS) of less than 0.941. See Australian Institute of Health and Welfare 2016 for definition and discussion.
<i>Hospitalised injury</i>	A person admitted to hospital from a crash occurring 'in traffic'. Traffic excludes off-road and unknown location.
<i>Older driver/motorcycle rider</i>	A person driving a motor vehicle or riding a motorcycle (excluding passengers) aged 65 years and over.

*Road death or fatality* A person who dies within 30 days of a crash as a result of injuries received in that crash.

*Trend estimation* In this report, the figures for the 'average trend change p.a.(%)' are calculated by fitting an exponential trend line to the last ten data points. The Excel function LOGEST performs the fit. The resulting trend line represents a constant annual percent change over the period. Notes: (i) The occurrence of a *zero* in the original series precludes trend estimation by this method; (ii) When fitted to a series containing small numbers, the result may not be a reliable indicator of a stable trend.

*Young driver/motorcycle rider* A person driving a motor vehicle or riding a motorcycle (excluding passengers) aged between 17 and 25 years inclusive.

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