### Australian Government

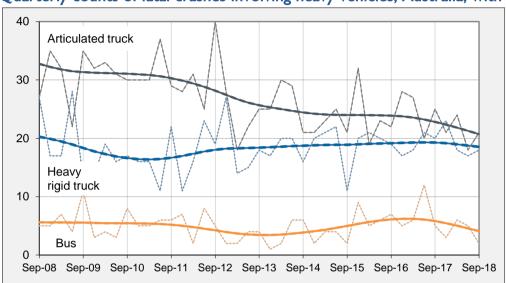
#### Department of Infrastructure, Regional Development and Cities

Bureau of Infrastructure, Transport and Regional Economics

Fatal heavy vehicle crashes Australia quarterly bulletin

Jul - Sep 2018

#### Quarterly counts of fatal crashes involving heavy vehicles, Australia, with trends



#### **Key features**

- During the 12 months to the end of September 2018, 169 people died from 152 fatal crashes involving heavy trucks.
   These included 93 deaths from 84 crashes involving articulated trucks, 86 deaths from 76 crashes involving heavy rigid trucks and 10 deaths from 8 crashes involving both a heavy rigid truck and an articulated truck<sup>a</sup>.
- Fatal crashes involving heavy trucks:
  - decreased by 10.1 per cent compared with the corresponding period one year earlier (from 169 to 152 crashes)
  - decreased by an average of 2.2 per cent per year over the three years to September 2018.
  - Fatal crashes involving articulated trucks:
    - decreased by 16.0 per cent compared with the corresponding period one year earlier (from 100 to 84 crashes)
    - decreased by an average of 1.6 per cent per year over the three years to September 2018.
  - Fatal crashes involving heavy rigid trucks:
    - were unchanged compared with the corresponding period one year earlier (from 76 crashes)
    - increased by an average of 0.3 per cent per year over the three years to September 2018.
- During the 12 months to September 2018, 16 people died in 16 fatal crashes involving buses.
- Fatal crashes involving buses:
  - decreased by 42.9 per cent compared with the corresponding period one year earlier (from 28 to 16 crashes)
  - increased by an average of 9.4 per cent per year over the three years to September 2018.
  - a Figures sum to more than the total because some crashes involved more than one type of heavy vehicle.
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#### **ANNUAL TRENDS**

Table I Fatal crashes

	Articulated Truck	Heavy Rigid	Any heavy		Any heavy vehicle
	involved	Truck involved	truck involved	Bus involved	involved
12 Months ended					
September 2008	143	90	229	19	247
September 2009	124	75	192	27	219
September 2010	126	66	188	18	206
September 2011	126	65	182	22	203
September 2012	124	69	189	22	207
September 2013	93	74	162	12	174
September 2014	105	73	177	15	191
September 2015	90	74	163	12	173
September 2016	96	80	171	27	198
September 2017	100	76	169	28	193
September 2018	84	76	152	16	168
Ave. trend change p.a.(%	6)				
- for last 10 years	-4.6	0.1	-2.8	-1.0	-2.6
- for last 5 years	-1.7	1.0	-1.2	12.5	0.0
- for last 3 years	-1.6	0.3	-2.2	9.4	-1.1

Table 2 Fatalities

	Articulated Truck	Heavy Rigid	Any heavy		Any heavy vehicle
	involved	Truck involved	truck involved	Bus involved	involved
12 Months ended					
September 2008	171	97	264	20	283
September 2009	139	78	210	33	243
September 2010	152	80	226	19	245
September 2011	146	70	207	23	229
September 2012	141	85	222	23	241
September 2013	119	81	195	13	208
September 2014	117	82	198	16	213
September 2015	104	83	186	16	200
September 2016	109	93	194	30	224
September 2017	116	81	188	32	214
September 2018	93	86	169	16	185
Ave. trend change p.a.(%	6)				
- for last 10 years	-5.0	0.3	-3.1	-0.9	-3.0
- for last 5 years	-3.4	1.1	-2.3	11.3	-1.3
- for last 3 years	-2.7	-0.3	-3.1	0.6	-2.8

#### ARTICULATED TRUCK INVOLVEMENT

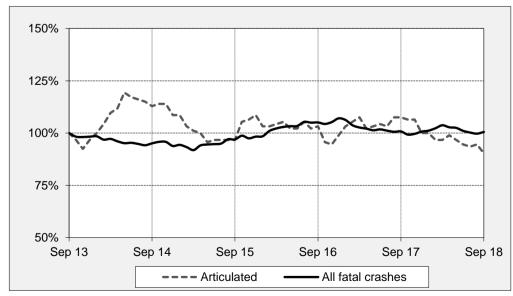
Table 3 Fatal crashes involving articulated trucks by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Calendar Years									
2013	30	13	26	8	8	2	3	0	90
2014	28	25	26	10	6	4	0	2	101
2015	31	21	23	12	11	2	0	1	101
2016	22	20	23	10	9	3	4	1	92
2017	39	20	17	6	9	2	0	0	93
Quarters									
2016									
September	5	8	6	1	1	0	0	1	22
December	6	6	6	3	4	0	3	0	28
2017									
March	11	7	6	2	1	0	0	0	27
June	11	3	3	1	1	1	0	0	20
September	11	6	5	2	1	0	0	0	25
December	6	4	3	1	6	1	0	0	21
2018									
March	8	3	7	3	2	1	0	0	24
June	6	3	5	1	2	1	0	0	18
September	5	3	9	0	3	0	1	0	21
12 Months ended									
September 2017	39	22	20	8	7	1	3	0	100
September 2018	25	13	24	5	13	3	1	0	84
% change	-35.9	-40.9	20.0	-37.5	85.7	200.0	-66.7	-	-16.0
Average annual % change of	over 3 years	a							
12 mths end Sep 2016	•								
to 12 mths end Sep 2018	4.1	-12.6	-1.4	-16.6	11.6	1.2	-	-	-1.6

a Average annual percentage change based on the exponential trend for the last three 12-month periods.

### Index of fatal crashes involving articulated trucks in Australia — five years ended September 2018

Each point shows the number of fatal crashes in the preceding 12 months expressed as a percentage of the corresponding number of fatal crashes in the 12 months to the end of September 2013.



#### ARTICULATED TRUCK INVOLVEMENT

Table 4 Deaths from crashes involving articulated trucks by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Calendar Years									
2013	32	15	35	11	11	2	4	0	110
2014	31	27	32	12	6	5	0	2	115
2015	34	21	28	15	12	3	0	1	114
2016	26	22	25	11	10	5	5	1	105
2017	49	20	19	6	9	2	0	0	105
Quarters									
2016									
September	5	8	7	1	1	0	0	1	23
December	8	6	6	3	5	0	4	0	32
2017									
March	13	7	6	2	1	0	0	0	29
June	16	3	5	1	1	1	0	0	27
September	14	6	5	2	1	0	0	0	28
December	6	4	3	1	6	1	0	0	21
2018									
March	10	3	8	3	2	1	0	0	27
June	6	3	6	1	3	1	0	0	20
September	6	3	10	0	4	0	2	0	25
12 Months ended									
September 2017	51	22	22	8	8	1	4	0	116
September 2018	28	13	27	5	15	3	2	0	93
% change	-45.1	-40.9	22.7	-37.5	87.5	200.0	-50.0	-	-19.8
Average annual % change o	ver 3 vears	a							
12 mths end Sep 2016	,								
to 12 mths end Sep 2018	11.5	-10.7	-9.3	-18.0	4.7	-30.3	-	-	-3.6

a Average annual percentage change based on the exponential trend for the last three 12-month periods.

Table 5 Deaths from crashes involving articulated trucks by State/Territory and road user — 12 months ended September 2018

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Drivers <sup>a</sup>	18	9	21	4	9	3	0	0	64
Passengers <sup>a</sup>	6	2	3	0	4	0	0	0	15
Pedestrians	3	0	1	0	0	0	0	0	4
Motorcyclists <sup>b</sup>	0	2	1	0	1	0	0	0	4
Pedal cyclists <sup>b</sup>	1	0	1	1	1	0	0	0	4
All road users <sup>c</sup>	28	13	27	5	15	3	2	0	93

a Includes drivers/passengers of light and heavy vehicles.

Table 6 Deaths from crashes involving articulated trucks by State/Territory and crash type — 12 months ended September 2018

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Single vehicle crashes	4	1	4	0	2	1	2	0	14
Multiple vehicle crashes	21	12	22	5	13	2	0	0	75
Pedestrian crashes	3	0	1	0	0	0	0	0	4
All crash types	28	13	27	5	15	3	2	0	93

b Includes pillion passengers.

c Includes road users not separately specified.

#### **HEAVY RIGID TRUCK INVOLVEMENT**

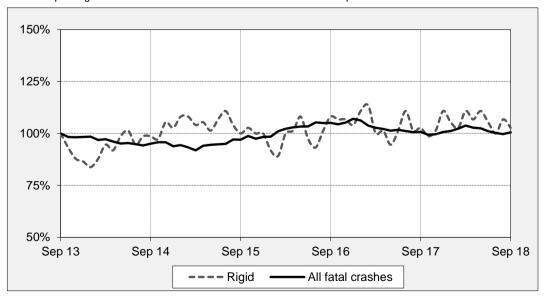
Table 7 Fatal crashes involving heavy rigid trucks by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Calendar Years									
2013	22	12	11	4	15	0	0	0	64
2014	21	23	9	10	10	3	0	0	76
2015	22	18	16	2	10	5	1	0	74
2016	30	16	12	5	10	4	0	0	77
2017	29	19	11	5	13	5	0	0	82
Quarters									
2016									
September	6	3	3	2	5	0	0	0	19
December	6	5	4	1	1	0	0	0	17
2017									
March	8	4	2	1	2	1	0	0	18
June	7	3	6	1	3	1	0	0	21
September	8	5	2	1	3	1	0	0	20
December	6	7	1	2	5	2	0	0	23
2018									
March	7	2	5	1	1	2	0	0	18
June	5	4	4	2	1	1	0	0	17
September	9	0	4	1	2	1	0	1	18
12 Months ended									
September 2017	29	17	14	4	9	3	0	0	76
September 2018	27	13	14	6	9	6	0	1	76
% change	-6.9	-23.5	0.0	50.0	0.0	100.0	-	-	0.0
Average annual % change ove	r 3 years <sup>a</sup>								
12 mths end Sep 2016									
to 12 mths end Sep 2018	7.8	-13.4	5.5	0.0	-5.0	14.9	-	-	0.3

a Average annual percentage change based on the exponential trend for the last three 12-month periods.

### Index of fatal crashes involving heavy rigid trucks in Australia — five years ended September 2018

Each point shows the number of fatal crashes in the preceding 12 months expressed as a percentage of the corresponding number of fatal crashes in the 12 months to the end of September 2013.



#### **HEAVY RIGID TRUCK INVOLVEMENT**

Table 8 Deaths from crashes involving heavy rigid trucks by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Calendar Years									_
2013	24	13	13	4	15	0	0	0	69
2014	21	29	9	15	11	3	0	0	88
2015	25	20	17	3	11	5	1	0	82
2016	32	18	13	8	11	6	0	0	88
2017	33	20	11	5	14	5	0	0	88
Quarters									
2016									
September	7	3	3	2	5	0	0	0	20
December	7	5	4	1	1	0	0	0	18
2017									
March	9	4	2	1	2	1	0	0	19
June	7	3	6	1	4	1	0	0	22
September	10	5	2	1	3	1	0	0	22
December	7	8	1	2	5	2	0	0	25
2018									
March	10	2	6	1	1	2	0	0	22
June	5	4	4	2	1	1	0	0	17
September	10	0	7	1	2	1	0	1	22
12 Months ended									
September 2017	33	17	14	4	10	3	0	0	81
September 2018	32	14	18	6	9	6	0	1	86
% change	-3.0	-17.6	28.6	50.0	-10.0	100.0	-	-	6.2
Average annual % change o	ver 3 years	s <sup>a</sup>							
12 mths end Sep 2016	-								
to 12 mths end Sep 2018	13.5	-12.5	0.0	-16.8	-6.5	19.6	-	_	-2.1

a Average annual percentage change based on the exponential trend for the last three 12-month periods.

Table 9 Deaths from crashes involving heavy rigid trucks by State/Territory and road user — 12 months ended September 2018

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Drivers <sup>a</sup>	17	7	11	4	8	5	0	0	52
Passengers <sup>a</sup>	6	2	3	0	1	0	0	1	13
Pedestrians	4	2	1	1	0	0	0	0	8
Motorcyclists <sup>b</sup>	4	1	3	0	0	0	0	0	8
Pedal cyclists <sup>b</sup>	1	2	0	1	0	1	0	0	5
All road users c	32	14	18	6	9	6	0	1	86

a Includes drivers/passengers of light and heavy vehicles.

Tabel 10 Deaths from crashes involving heavy rigid trucks by State/Territory and crash type — 12 months ended September 2018

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Single vehicle crashes	2	0	2	1	3	2	0	0	10
Multiple vehicle crashes	26	12	15	4	6	4	0	1	68
Pedestrian crashes	4	2	1	1	0	0	0	0	8
All crash types	32	14	18	6	9	6	0	1	86

b Includes pillion passengers.

c Includes road users not separately specified.

#### **BUS INVOLVEMENT**

Table 11 Fatal crashes involving buses by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Calendar Years									
2013	2	3	5	0	0	0	1	0	11
2014	6	3	1	1	4	0	0	1	16
2015	5	6	2	1	2	1	1	1	19
2016	10	2	3	3	3	1	1	0	23
2017	6	6	8	0	3	1	2	0	26
Quarters									
2016									
September	4	0	0	0	1	1	1	0	7
December	1	1	1	2	0	0	0	0	5
2017									
March	2	0	4	0	0	0	0	0	6
June	4	2	3	0	1	1	1	0	12
September	0	3	1	0	1	0	0	0	5
December	0	1	0	0	1	0	1	0	3
2018									
March	3	1	1	0	1	0	0	0	6
June	2	1	2	0	0	0	0	0	5
September	1	1	0	0	0	0	0	0	2
12 Months ended									
September 2017	7	6	9	2	2	1	1	0	28
September 2018	6	4	3	0	2	0	1	0	16
% change	-14.3	-33.3	-66.7	-100.0	0.0	-100.0	0.0	-	-42.9
Average annual % change or	ver 3 vears <sup>a</sup>								
12 mths end Sep 2016	or o years								
to 12 mths end Sep 2018	9.0	25.4	-	-	-17.4	-	-	-	9.4

a Average annual percentage change based on the exponential trend for the last three 12-month periods.

## Index of fatal crashes involving buses in Australia — five years ended September 2018

Each point shows the number of fatal crashes in the preceding 12 months expressed as a percentage of the corresponding number of fatal crashes in the 12 months to the end of September 2013.

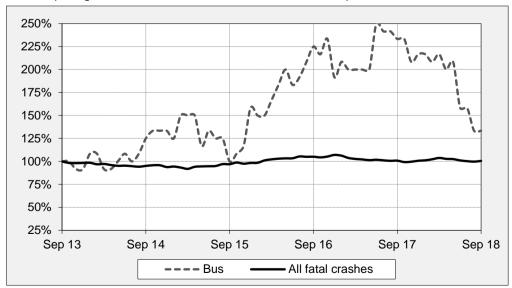


Table 12 Deaths from crashes involving buses by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Calendar Years									_
2013	2	3	6	0	0	0	1	0	12
2014	6	4	1	1	7	0	0	1	20
2015	5	7	2	1	2	1	3	1	22
2016	10	2	3	3	3	1	2	0	24
2017	6	8	10	0	3	1	2	0	30
Quarters									
2016									
September	4	0	0	0	1	1	2	0	8
December	1	1	1	2	0	0	0	0	5
2017									
March	2	0	4	0	0	0	0	0	6
June	4	4	5	0	1	1	1	0	16
September	0	3	1	0	1	0	0	0	5
December	0	1	0	0	1	0	1	0	3
2018									
March	3	1	1	0	1	0	0	0	6
June	2	1	2	0	0	0	0	0	5
September	1	1	0	0	0	0	0	0	2
12 Months ended									
September 2017	7	8	11	2	2	1	1	0	32
September 2018	6	4	3	0	2	0	1	0	16
% change	-14.3	-50.0	-72.7	-100.0	0.0	-100.0	0.0	-	-50.0
Average annual % change o	ver 3 years	а							
12 mths end Sep 2016									
to 12 mths end Sep 2018	6.2	24.7	66.1	-	-15.0	-	-	-	6.4

a Average annual percentage change based on the exponential trend for the last three 12-month periods.

Table 13 Deaths from crashes involving buses by State/Territory by road user – 12 months ended September 2018

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Drivers <sup>a</sup>	2	0	2	0	0	0	0	0	4
Passengers <sup>a</sup>	0	0	0	0	0	0	0	0	0
Pedestrians	3	3	1	0	1	0	1	0	9
Motorcyclists <sup>b</sup>	1	1	0	0	0	0	0	0	2
Pedal cyclists <sup>b</sup>	0	0	0	0	1	0	0	0	1
All road users <sup>c</sup>	6	4	3	0	2	0	1	0	16

a Includes drivers/passengers of light and heavy vehicles.

Table 14 Deaths from crashes involving buses by State/Territory by crash type - - 12 months ended September 2018

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Single vehicle crashes	0	0	0	0	0	0	0	0	0
Multiple vehicle crashes	3	1	2	0	1	0	0	0	7
Pedestrian crashes	3	3	1	0	1	0	1	0	9
All crash types	6	4	3	0	2	0	1	0	16

b Includes pillion passengers.

c Includes road users not separately specified.

#### **APPENDIX**

Glossary

<u>Note.</u> 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.

Articulated truck

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.

Heavy rigid truck

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.

Gross Vehicle Mass (GVM) Tare weight (i.e. unladen weight) of the motor vehicle plus its maximum carrying capacity excluding trailers.

Bus

A motor vehicle constructed for the carriage of passengers which has at least 10 seats, including the driver's seat.

Crash

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.

Road Death or Fatality

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

Fatal crash

A crash for which there is at least one death.

#### Preliminary data

Data for recent months are preliminary and subject to revision.

# Estimation of three year trends

In this bulletin, the figures for the 'Average annual per cent change over 3 years' are calculated by fitting an exponential trend line to the last four data points (years 0 to 3). The Excel function LOGEST performs the fit. The resulting trend line represents a constant annual percent change over the period. (Note: when fitted to a series containing small numbers, this may not be a reliable indicator of a stable trend.)

#### Smooth trend lines

Whittaker-Henderson smoothers are used with value of 80 for the smoothing parameter. The application R (package pracma) can be used for such trend lines.

#### **Data Sources**

The data presented here are obtained from the following sources:

- Transport for New South Wales
- VicRoads
- Queensland Department of Transport and Main Roads
- Department of Planning, Transport and Infrastructure South Australia
- Western Australian Police
- Department of State Growth, Tasmania
- Department of Transport, Northern Territory
- Territory and Municipal Services Directorate, Australian Capital Territory

An online version of the database used to produce this bulletin is available from:

< http://www.bitre.gov.au/statistics/safety/fatal\_road\_crash\_database.aspx >

#### Inquiries

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