

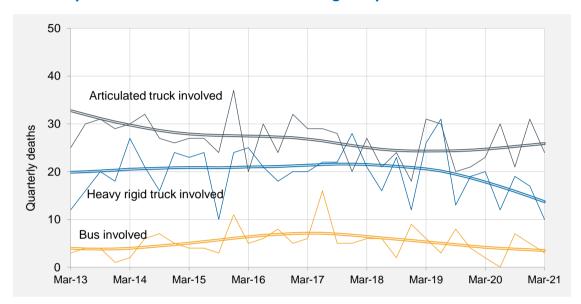
Australian Government

Department of Infrastructure, Transport, Regional Development and Communications
Bureau of Infrastructure and Transport Research Economics

Fatal heavy vehicle crashes Australia quarterly bulletin

Jan – Mar 2021

Quarterly counts of deaths in crashes involving heavy vehicles, Australia, with trends



Key features

- During the 12 months to the end of March 2021, 162 people died in crashes involving heavy trucks. These included 106 deaths in crashes involving articulated trucks and 58 deaths in crashes involving heavy rigid trucks.
- Fatalities in crashes involving heavy trucks:
 - decreased by 6.9 per cent when compared with the corresponding 12-month period one year earlier;
 - decreased by an average of 3.8 per cent per year over the three years to March 2021.
- Fatalities in crashes involving articulated trucks:
 - increased by 12.8 per cent when compared with the corresponding period one year earlier;
 - increased by an average of 0.6 per cent per year over the three years to March 2021.
- Fatalities in crashes involving heavy rigid trucks:
 - decreased by 30.1 per cent compared with the corresponding period one year earlier;
 - decreased by an average of 12.6 per cent per year over the three years to March 2021.
- During the 12 months to March 2021, 15 people died in crashes involving buses.
- Counts of fatalities in crashes involving buses:
 - decreased by 11.8 per cent compared with the corresponding 12-month period one year earlier;
 - decreased by an average of 22.7 per cent per year over the three years to March 2021.

ANNUAL TRENDS

Table I Deaths

-	Articulated Truck	Heavy Rigid	Any heavy	Bus involved	All road crash
	involved	Truck involved	truck involved		deaths ^a
12 Months ended					
March 2012	143	71	208	21	1,278
March 2013	141	87	226	19	1,302
March 2014	120	81	195	11	1,179
March 2015	112	84	196	22	1,129
March 2016	108	83	185	23	1,247
March 2017	115	79	186	25	1,235
March 2018	104	93	187	32	1,263
March 2019	94	77	166	23	1,156
March 2020	94	83	174	17	1,141
March 2021	106	58	162	15	1,128
Change last 12 months (%)) 12.8	-30.1	-6.9	-11.8	-1.1
Ave. trend change p.a.(%)					
- for last 10 years	-4.1	-1.3	-3.0	0.7	-1.1
- for last 3 years	0.6	-12.6	-3.8	-22.7	-3.5

Table 2 Fatal crashes

	Articulated Truck	Heavy Rigid	Any heavy	Bus involved	All fatal road
	involved	Truck involved	truck involved		crashes ^b
12 Months ended					
March 2012	126	58	178	21	1,156
March 2013	116	78	192	17	1,194
March 2014	104	70	168	11	1,089
March 2015	94	74	168	18	1,028
March 2016	98	75	169	20	1,144
March 2017	101	72	167	24	1,151
March 2018	90	85	166	27	1,160
March 2019	85	69	150	20	1,070
March 2020	85	76	158	16	1,057
March 2021	89	54	141	14	1,036
Change last 12 months (%	6) 4.7	-28.9	-10.8	-12.5	-2.0
Ave. trend change p.a.(%))				
- for last 10 years	-3.8	-0.3	-2.4	0.2	-0.9
- for last 3 years	-0.3	-11.9	-4.3	-19.7	-3.5

a All deaths, whether or not crash involved a heavy vehicle.

b All fatal road crashes, whether or not involving a heavy vehicle.

ARTICULATED TRUCK INVOLVEMENT

Table 3 Quarterly counts of deaths in crashes involving articulated trucks

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Quarter ended									
Jun-18	6	4	6	1	3	1	0	0	21
Sep-18	6	3	9	0	4	0	2	0	24
Dec-18	4	4	6	2	2	0	0	0	18
<i>Mar-19</i>	8	9	4	7	2	1	0	0	31
Jun-19	6	5	5	7	6	1	0	0	30
Sep-19	6	2	7	2	1	1	0	1	20
Dec-19	3	6	2	7	2	1	0	0	21
Mar-20	6	8	6	1	1	1	0	0	23
Jun-20	11	8	9	1	0	1	0	0	30
Sep-20	9	0	7	2	3	0	0	0	21
Dec-20	2	7	14	1	6	0	1	0	31
Mar-21	5	2	12	3	2	0	0	0	24

Figure I Quarterly counts of deaths in crashes involving articulated trucks, with trend

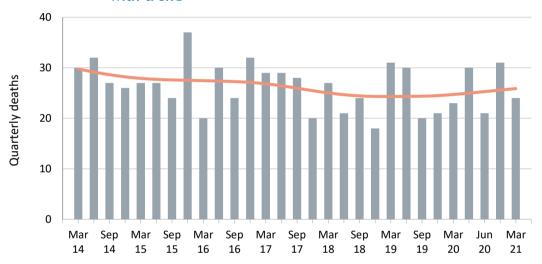


Table 4 Annual counts of deaths in crashes involving articulated trucks

-	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
12 Months ended									
March 2017	35	26	26	10	8	5	4	1	115
March 2018	46	16	21	7	11	3	0	0	104
March 2019	24	20	25	10	11	2	2	0	94
March 2020	21	21	20	17	10	4	0	1	94
March 2021	27	17	42	7	11	1	1	0	106
Change last 12 months (%)	28.6	-19.0	110.0	-58.8	10.0	-75.0	-	-	12.8
Average annual %	-15.9	2.3	20.4	5.4	-0.9	-22.9	-	-	0.6
change over 3 years ^a									

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

HEAVY RIGID TRUCK INVOLVEMENT

Table 5 Quarterly counts of deaths in crashes involving heavy rigid trucks

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Quarter ended									
Jun-18	5	4	4	2	1	0	0	0	16
Sep-18	9	2	7	1	2	1	0	1	23
Dec-18	5	2	3	1	1	0	0	0	12
<i>Mar-19</i>	12	6	5	1	1	1	0	0	26
Jun-19	14	9	4	0	4	0	0	0	31
Sep-19	2	3	3	2	2	0	1	0	13
Dec-19	6	6	4	2	1	0	0	0	19
Mar-20	11	4	3	0	2	0	0	0	20
Jun-20	4	3	3	0	2	0	0	0	12
Sep-20	7	2	2	4	3	1	0	0	19
Dec-20	8	3	2	1	3	0	0	0	17
Mar-21	4	1	3	0	1	1	0	0	10

Figure 2 Quarterly counts of deaths in crashes involving heavy rigid trucks, with trend

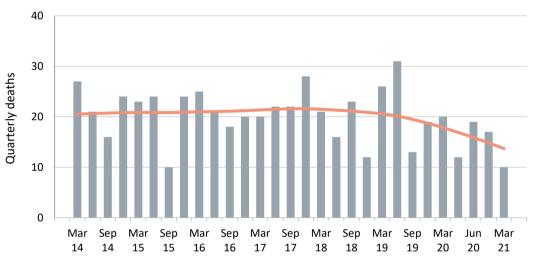


Table 6 Annual counts of deaths in crashes involving heavy rigid trucks

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
12 Months ended									
March 2017	32	16	12	8	10	1	0	0	79
March 2018	35	18	15	5	15	5	0	0	93
March 2019	31	14	19	5	5	2	0	1	77
March 2020	33	22	14	4	9	0	1	0	83
March 2021	23	9	10	5	9	2	0	0	58
Change last 12 months (%)	-30.3	-59.1	-28.6	25.0	0.0	-	-100.0	0.0	-30.1
Average annual % change over 3 years a	-11.3	-15.0	-14.1	-2.2	-9.0	-	-	-	-12.6

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

Table 7 Quarterly counts of deaths in crashes involving buses

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
Quarter ended									
Jun-18	2	2	2	0	0	0	0	0	6
Sep-18	1	1	0	0	0	0	0	0	2
Dec-18	1	1	2	0	3	1	0	1	9
Mar-19	4	0	0	2	0	0	0	0	6
Jun-19	1	2	0	0	0	0	0	0	3
Sep-19	2	3	0	0	3	0	0	0	8
Dec-19	3	1	0	0	0	0	0	0	4
Mar-20	0	0	0	1	0	1	0	0	2
Jun-20	0	0	0	0	0	0	0	0	0
Sep-20	3	0	2	0	0	2	0	0	7
Dec-20	1	1	1	1	1	0	0	0	5
Mar-21	0	0	1	2	0	0	0	0	3

Figure 3 Quarterly counts of deaths in crashes involving buses, with trend

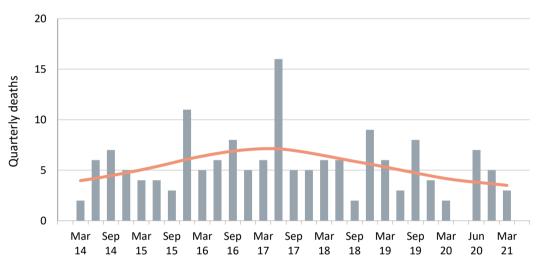


Table 8 Annual counts of deaths in crashes involving buses

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
12 Months ended									
March 2017	10	2	6	2	2	1	2	0	25
March 2018	7	11	7	0	4	1	2	0	32
March 2019	8	4	4	2	3	1	0	1	23
March 2020	6	6	0	1	3	1	0	0	17
March 2021	4	1	4	3	1	2	0	0	15
Change last 12 months (%)	-33.3	-83.3	-	200.0	-66.7	100.0	0.0	0.0	-11.8
Average annual %	-17.9	-49.3	-	-	-34.0	23.1	-	-	-22.7
change over 3 years ^a									

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

APPENDIX

Glossary Note. 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 Tare weight (i.e. unladen weight) of the motor vehicle plus its maximum carrying capacity

(GVM) 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 with a value of 40 for the smoothing parameter.

The application R (package pracma) is used.

Data Sources The data presented here are obtained from the following sources:

• Transport for New South Wales;

- Department of Transport, Victoria;
- 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;
- Transport Canberra and City 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 For further information about data in this bulletin, contact:

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