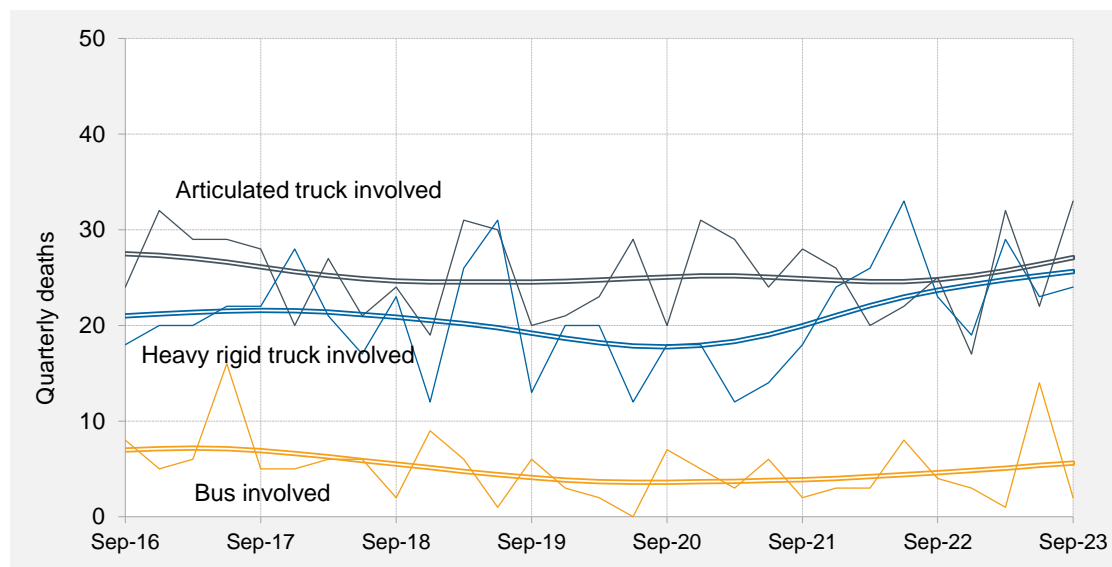




Road deaths in crashes involving heavy vehicles - quarterly bulletin, Jul-Sep 2023

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



Key features

- During the 12 months to the end of September 2023, 190 people died in crashes involving heavy trucks^a. These included 104 deaths in crashes involving articulated trucks and 95 deaths in crashes involving heavy rigid trucks.
- Fatalities in crashes involving heavy trucks:
 - decreased by 2.6 per cent when compared with the corresponding 12-month period one year earlier;
 - increased by an average of 5.7 per cent per year over the three years to September 2023.
- Fatalities in crashes involving articulated trucks:
 - increased by 11.8 per cent when compared with the corresponding period one year earlier;
 - decreased by an average of 3.6 per cent per year over the three years to September 2023.
- Fatalities in crashes involving heavy rigid trucks:
 - decreased by 10.4 per cent when compared with the corresponding period one year earlier;
 - increased by an average of 23.8 per cent per year over the three years to September 2023.
- During the 12 months to September 2023, 20 people died in crashes involving buses.
- Counts of fatalities in crashes involving buses:
 - increased by 11.1 per cent when compared with the corresponding 12-month period one year earlier;
 - increased by an average of 11.8 per cent per year over the three years to September 2023.

^a Figures sum to more than the total because some crashes involved more than one type of heavy vehicle.

ANNUAL TRENDS

Table 1 Deaths

| | <i>Articulated truck involved</i> | <i>Heavy rigid truck involved</i> | <i>Any heavy truck involved^a</i> | <i>Bus involved</i> | <i>All road crash deaths^b</i> |
|---------------------------|---------------------------------------|---------------------------------------|---|-------------------------|--|
| 12 Months ended | | | | | |
| September 2014 | 118 | 82 | 198 | 16 | 1,162 |
| September 2015 | 104 | 81 | 183 | 16 | 1,187 |
| September 2016 | 111 | 88 | 194 | 30 | 1,272 |
| September 2017 | 118 | 84 | 190 | 32 | 1,224 |
| September 2018 | 92 | 89 | 171 | 19 | 1,199 |
| September 2019 | 100 | 82 | 180 | 22 | 1,164 |
| September 2020 | 93 | 70 | 160 | 12 | 1,091 |
| September 2021 | 112 | 62 | 170 | 16 | 1,131 |
| September 2022 | 93 | 106 | 195 | 18 | 1,186 |
| September 2023 | 104 | 95 | 190 | 20 | 1,241 |
| Change last 12 months (%) | 11.8 | -10.4 | -2.6 | 11.1 | 4.6 |
| Ave. trend change p.a.(%) | | | | | |
| - for last 10 years | -1.5 | 0.5 | -0.6 | -1.9 | -0.2 |
| - for last 3 years | -3.6 | 23.8 | 5.7 | 11.8 | 4.8 |

Table 2 Fatal crashes

| | <i>Articulated truck involved</i> | <i>Heavy rigid truck involved</i> | <i>Any heavy truck involved^a</i> | <i>Bus involved</i> | <i>All fatal road crashes^c</i> |
|---------------------------|---------------------------------------|---------------------------------------|---|-------------------------|---|
| 12 Months ended | | | | | |
| September 2014 | 106 | 73 | 177 | 15 | 1,065 |
| September 2015 | 90 | 72 | 160 | 12 | 1,085 |
| September 2016 | 98 | 76 | 171 | 27 | 1,177 |
| September 2017 | 101 | 80 | 171 | 28 | 1,132 |
| September 2018 | 83 | 79 | 154 | 18 | 1,111 |
| September 2019 | 92 | 73 | 163 | 18 | 1,081 |
| September 2020 | 79 | 66 | 142 | 11 | 988 |
| September 2021 | 100 | 58 | 154 | 16 | 1,048 |
| September 2022 | 83 | 97 | 176 | 18 | 1,112 |
| September 2023 | 86 | 87 | 167 | 11 | 1,143 |
| Change last 12 months (%) | 3.6 | -10.3 | -5.1 | -38.9 | 2.8 |
| Ave. trend change p.a.(%) | | | | | |
| - for last 10 years | -1.8 | 1.0 | -0.5 | -3.2 | -0.1 |
| - for last 3 years | -7.3 | 22.5 | 4.1 | -17.1 | 4.4 |

a Figures sum to more than the total because some crashes involved more than one type of heavy vehicle.

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

c 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 | | | | | | | | | |
| December-20 | 2 | 7 | 14 | 1 | 6 | 0 | 1 | 0 | 31 |
| March-21 | 5 | 5 | 14 | 3 | 2 | 0 | 0 | 0 | 29 |
| June-21 | 6 | 2 | 8 | 2 | 5 | 1 | 0 | 0 | 24 |
| September-21 | 9 | 5 | 10 | 1 | 1 | 2 | 0 | 0 | 28 |
| December-21 | 7 | 6 | 8 | 4 | 0 | 0 | 1 | 0 | 26 |
| March-22 | 6 | 2 | 9 | 0 | 1 | 0 | 2 | 0 | 20 |
| June-22 | 5 | 2 | 9 | 2 | 4 | 0 | 0 | 0 | 22 |
| September-22 | 3 | 9 | 6 | 3 | 2 | 0 | 2 | 0 | 25 |
| December-22 | 5 | 4 | 5 | 1 | 2 | 0 | 0 | 0 | 17 |
| March-23 | 11 | 5 | 8 | 3 | 2 | 2 | 1 | 0 | 32 |
| June-23 | 4 | 9 | 4 | 2 | 2 | 1 | 0 | 0 | 22 |
| September-23 | 11 | 2 | 13 | 1 | 0 | 0 | 6 | 0 | 33 |

Figure 1 Quarterly counts of deaths in crashes involving articulated trucks, with trend

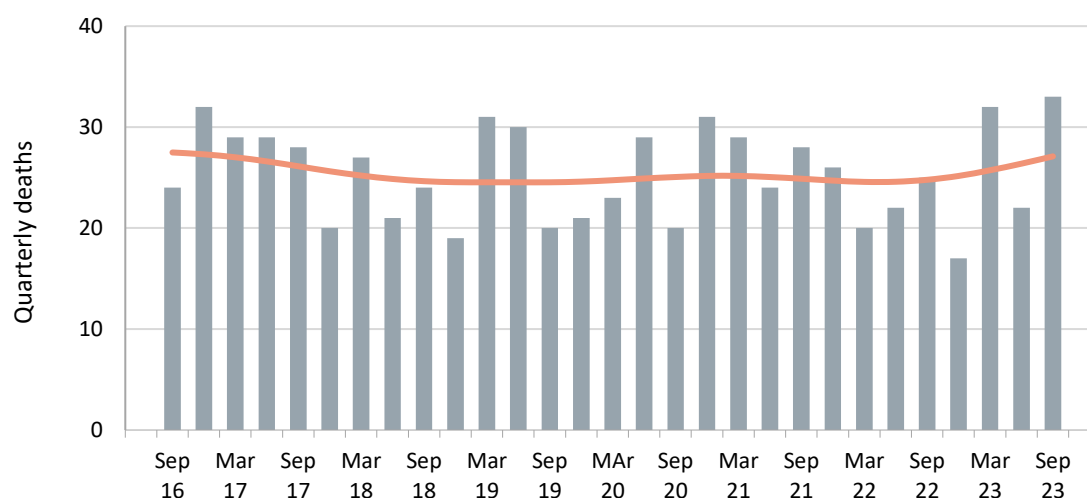


Table 4 Annual counts of deaths in crashes involving articulated trucks

| | NSW | Vic | Qld | SA | WA | Tas | NT | ACT | Australia |
|----------------------------------|------|-----|-------|-------|-------|-----|-------|-----|-----------|
| 12 Months ended | | | | | | | | | |
| September 2019 | 24 | 20 | 22 | 18 | 12 | 3 | 0 | 1 | 100 |
| September 2020 | 29 | 22 | 23 | 10 | 6 | 3 | 0 | 0 | 93 |
| September 2021 | 22 | 19 | 46 | 7 | 14 | 3 | 1 | 0 | 112 |
| September 2022 | 21 | 19 | 32 | 9 | 7 | 0 | 5 | 0 | 93 |
| September 2023 | 31 | 20 | 30 | 7 | 6 | 3 | 7 | 0 | 104 |
| Change last 12 months | 47.6 | 5.3 | -6.3 | -22.2 | -14.3 | - | 40.0 | 0.0 | 11.8 |
| Ave. trend change p.a.(%) | 18.7 | 2.6 | -19.2 | 0.0 | -34.5 | - | 164.6 | - | -3.6 |

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 | | | | | | | | | |
| December-20 | 8 | 3 | 3 | 1 | 3 | 0 | 0 | 0 | 18 |
| March-21 | 4 | 3 | 3 | 0 | 1 | 1 | 0 | 0 | 12 |
| June-21 | 6 | 4 | 1 | 0 | 1 | 1 | 1 | 0 | 14 |
| September-21 | 4 | 3 | 3 | 3 | 4 | 1 | 0 | 0 | 18 |
| December-21 | 12 | 8 | 2 | 0 | 2 | 0 | 0 | 0 | 24 |
| March-22 | 9 | 4 | 7 | 2 | 2 | 2 | 0 | 0 | 26 |
| June-22 | 7 | 8 | 5 | 2 | 9 | 2 | 0 | 0 | 33 |
| September-22 | 2 | 5 | 7 | 1 | 6 | 1 | 1 | 0 | 23 |
| December-22 | 3 | 2 | 5 | 0 | 6 | 3 | 0 | 0 | 19 |
| March-23 | 6 | 7 | 10 | 0 | 4 | 2 | 0 | 0 | 29 |
| June-23 | 5 | 5 | 8 | 1 | 3 | 1 | 0 | 0 | 23 |
| September-23 | 10 | 1 | 6 | 2 | 5 | 0 | 0 | 0 | 24 |

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

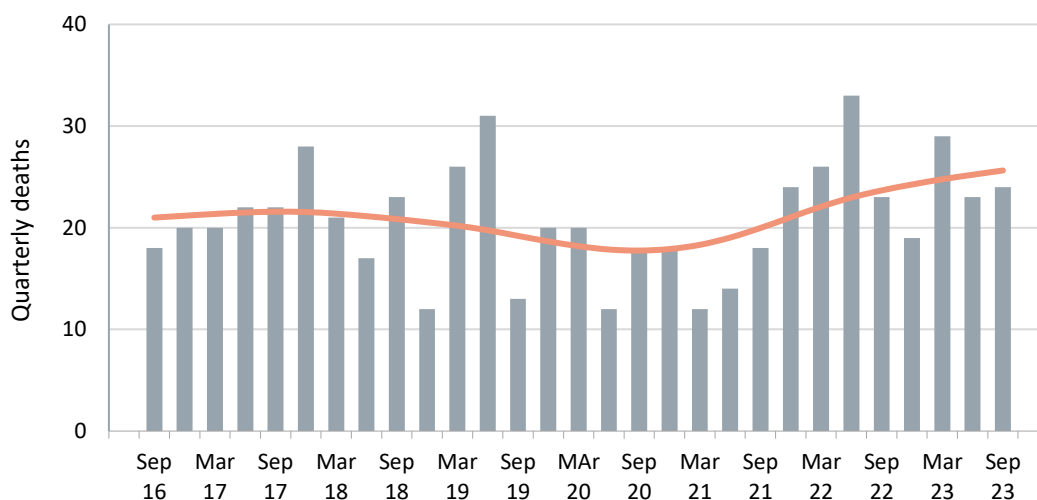


Table 6 Annual counts of deaths in crashes involving heavy rigid trucks

| | NSW | Vic | Qld | SA | WA | Tas | NT | ACT | Australia |
|---------------------------------|-------|-------|------|-------|------|------|--------|-----|-----------|
| 12 Months ended | | | | | | | | | |
| September 2019 | 33 | 20 | 15 | 4 | 8 | 1 | 1 | 0 | 82 |
| September 2020 | 27 | 15 | 12 | 6 | 9 | 1 | 0 | 0 | 70 |
| September 2021 | 22 | 13 | 10 | 4 | 9 | 3 | 1 | 0 | 62 |
| September 2022 | 30 | 25 | 21 | 5 | 19 | 5 | 1 | 0 | 106 |
| September 2023 | 24 | 15 | 29 | 3 | 18 | 6 | 0 | 0 | 95 |
| Change last 12 months (%) | -20.0 | -40.0 | 38.1 | -40.0 | -5.3 | 20.0 | -100.0 | - | -10.4 |
| Ave. trend change p.a.(%) | 4.4 | 7.4 | 70.3 | -13.4 | 41.4 | 41.4 | - | - | 23.8 |
| - for last 3 years ^a | | | | | | | | | |

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

BUS INVOLVEMENT

Table 7 Quarterly counts of deaths in crashes involving buses

| | NSW | Vic | Qld | SA | WA | Tas | NT | ACT | Australia |
|----------------------|-----|-----|-----|----|----|-----|----|-----|-----------|
| Quarter ended | | | | | | | | | |
| December-20 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 5 |
| March-21 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 3 |
| June-21 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 6 |
| September-21 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| December-21 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 |
| March-22 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| June-22 | 3 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 8 |
| September-22 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 4 |
| December-22 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| March-23 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| June-23 | 12 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 14 |
| September-23 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |

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

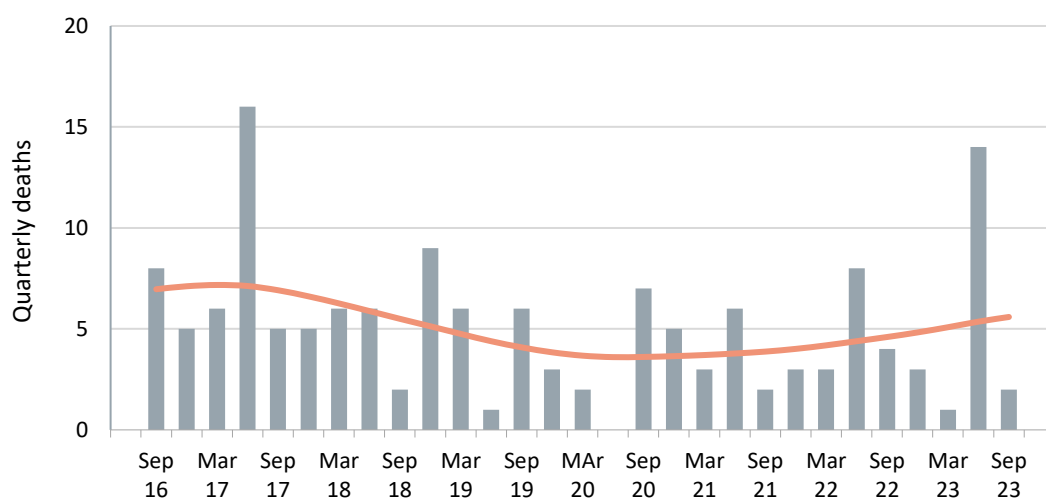


Table 8 Annual counts of deaths in crashes involving buses

| | NSW | Vic | Qld | SA | WA | Tas | NT | ACT | Australia |
|---------------------------------|-------|--------|-------|----|--------|-----|-------|-----|-----------|
| 12 Months ended | | | | | | | | | |
| September 2019 | 8 | 2 | 2 | 2 | 6 | 1 | 0 | 1 | 22 |
| September 2020 | 6 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 12 |
| September 2021 | 3 | 2 | 4 | 4 | 3 | 0 | 0 | 0 | 16 |
| September 2022 | 8 | 1 | 4 | 0 | 3 | 0 | 2 | 0 | 18 |
| September 2023 | 16 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 20 |
| Change last 12 months (%) | 100.0 | -100.0 | -75.0 | - | -100.0 | 0.0 | -50.0 | 0.0 | 11.1 |
| Ave. trend change p.a.(%) | 130.9 | - | -50.0 | - | - | - | - | - | 11.8 |
| - for last 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 (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 three data points. 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 80 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 >

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