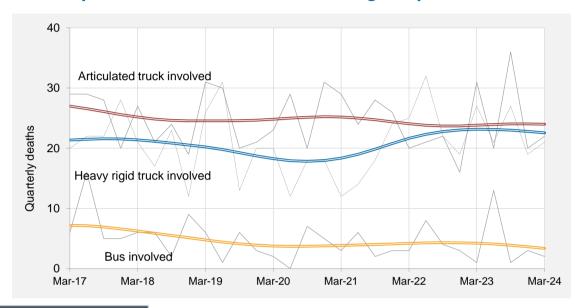
Road deaths in crashes involving heavy vehicles - quarterly bulletin, Jan-Mar 2024

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



#### **Key features**

- During the 12 months to the end of March 2024, 183 people died in crashes involving heavy trucks<sup>a</sup>. There were 98 deaths in crashes involving articulated trucks and 88 deaths in crashes involving heavy rigid trucks.
- Fatalities in crashes involving heavy trucks:
  - increased by 2.2% when compared with the corresponding 12-month period one year earlier;
  - increased by an average of 2.3% per year over the three years to March 2024.
- Fatalities in crashes involving articulated trucks:
  - increased by 8.9% when compared with the corresponding period one year earlier;
  - showed a flat trend of 0.0% per year over the three years to March 2024.
- Fatalities in crashes involving heavy rigid trucks:
  - decreased by 12.0% when compared with the corresponding period one year earlier;
  - increased by an average of 4.2% per year over the three years to March 2024.
- During the 12 months to March 2024, 19 people died in crashes involving buses.
   Fatalities in crashes involving buses:
  - increased by 18.8% when compared with the corresponding period one year earlier;
  - increased by an average of 16.5% per year over the three years to March 2024.
- 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 **Deaths** 

|                           | Articulated    | Heavy rigid truck | Any heavy truck       | Bus      | All road crash      |  |
|---------------------------|----------------|-------------------|-----------------------|----------|---------------------|--|
|                           | truck involved | involved          | involved <sup>a</sup> | involved | deaths <sup>b</sup> |  |
| 12 Months ended           |                |                   |                       |          | _                   |  |
| March 2015                | 112            | 84                | 196                   | 22       | 1,127               |  |
| March 2016                | 108            | 83                | 185                   | 23       | 1,250               |  |
| March 2017                | 115            | 79                | 186                   | 25       | 1,237               |  |
| March 2018                | 104            | 93                | 187                   | 32       | 1,263               |  |
| March 2019                | 95             | 78                | 168                   | 23       | 1,155               |  |
| March 2020                | 94             | 84                | 175                   | 12       | 1,143               |  |
| March 2021                | 109            | 60                | 167                   | 15       | 1,112               |  |
| March 2022                | 98             | 81                | 175                   | 14       | 1,136               |  |
| March 2023                | 90             | 100               | 179                   | 16       | 1,189               |  |
| March 2024                | 98             | 88                | 183                   | 19       | 1,282               |  |
| Change last 12 months (%) | 8.9            | -12.0             | 2.2                   | 18.8     | 7.8                 |  |
| Ave. trend change p.a.(%) |                |                   |                       |          |                     |  |
| - for last 10 years       | -1.9           | 0.4               | -0.9                  | -5.7     | 0.0                 |  |
| - for last 3 years        | 0.0            | 4.2               | 2.3                   | 16.5     | 6.2                 |  |

Table 2 Fatal crashes

|                           | Articulated    | Heavy rigid truck | Any heavy truck       | Bus      | All fatal road       |
|---------------------------|----------------|-------------------|-----------------------|----------|----------------------|
|                           | truck involved | involved          | involved <sup>a</sup> | involved | crashes <sup>c</sup> |
| 12 Months ended           |                |                   |                       |          |                      |
| March 2015                | 94             | 74                | 168                   | 18       | 1,026                |
| March 2016                | 98             | 75                | 169                   | 20       | 1,147                |
| March 2017                | 101            | 72                | 167                   | 24       | 1,153                |
| March 2018                | 90             | 85                | 166                   | 27       | 1,160                |
| March 2019                | 86             | 70                | 152                   | 20       | 1,069                |
| March 2020                | 85             | 77                | 159                   | 11       | 1,057                |
| March 2021                | 92             | 56                | 146                   | 14       | 1,020                |
| March 2022                | 88             | 75                | 159                   | 14       | 1,056                |
| March 2023                | 78             | 88                | 158                   | 16       | 1,107                |
| March 2024                | 79             | 86                | 162                   | 10       | 1,172                |
| Change last 12 months (%) | 1.3            | -2.3              | 2.5                   | -37.5    | 5.9                  |
| Ave. trend change p.a.(%) |                |                   |                       |          |                      |
| - for last 10 years       | -2.3           | 0.9               | -0.8                  | -7.1     | 0.1                  |
| - for last 3 years        | -5.3           | 7.1               | 0.9                   | -15.5    | 5.3                  |

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

All deaths, whether or not crash involved a heavy vehicle.
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 <b>Au</b> | stralia |
|---------------|-----|-----|-----|----|----|-----|----|---------------|---------|
| Quarter ended |     |     |     |    |    |     |    |               |         |
| 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   | 1  | 4  | 0   | 0  | 0             | 21      |
| September-22  | 3   | 9   | 6   | 0  | 2  | 0   | 2  | 0             | 22      |
| December-22   | 5   | 4   | 5   | 0  | 2  | 0   | 0  | 0             | 16      |
| March-23      | 11  | 6   | 8   | 1  | 2  | 2   | 1  | 0             | 31      |
| June-23       | 4   | 10  | 3   | 0  | 2  | 1   | 0  | 0             | 20      |
| September-23  | 10  | 6   | 13  | 1  | 0  | 0   | 6  | 0             | 36      |
| December-23   | 6   | 12  | 1   | 0  | 1  | 0   | 0  | 0             | 20      |
| March-24      | 13  | 3   | 6   | 0  | 0  | 0   | 0  | 0             | 22      |

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

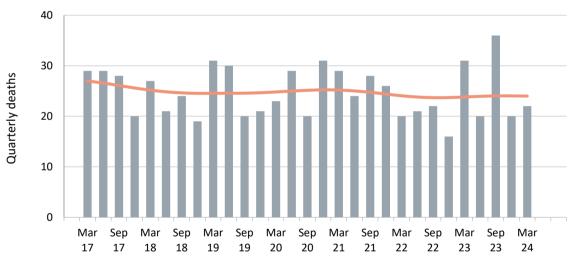


Table 4 Annual counts of deaths in crashes involving articulated trucks

|   | NSW  | Vic  | Qld   | SA    | WA    | Tas   | NT    | ACT A | ustralia |
|---|------|------|-------|-------|-------|-------|-------|-------|----------|
| 12 Months ended   |      |      |       |       |       |       |       |       |          |
| March 2020  | 21   | 21   | 20    | 17    | 10    | 4     | 0     | 1     | 94       |
| March 2021  | 27   | 20   | 43    | 6     | 11    | 1     | 1     | 0     | 109      |
| March 2022  | 28   | 15   | 35    | 7     | 7     | 3     | 3     | 0     | 98       |
| March 2023  | 24   | 21   | 28    | 2     | 10    | 2     | 3     | 0     | 90       |
| March 2024  | 33   | 31   | 23    | 1     | 3     | 1     | 6     | 0     | 98       |
| Change last 12 months (%)                                 | 37.5 | 47.6 | -17.9 | -50.0 | -70.0 | -50.0 | 100.0 | 0.0   | 8.9      |
| Ave. trend change p.a.(%) - for last 3 years <sup>a</sup> | 8.6  | 43.8 | -18.9 | -62.2 | -34.5 | -42.3 | 41.4  | -     | 0.0      |

a Average annual percentage change based on the exponential trend for the last three 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 |     |     |     |    |    |     |    |     |           |
| 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   | 1  | 2  | 2   | 0  | 0   | 25        |
| June-22       | 7   | 8   | 5   | 1  | 9  | 2   | 0  | 0   | 32        |
| September-22  | 2   | 5   | 7   | 0  | 6  | 1   | 1  | 0   | 22        |
| December-22   | 3   | 2   | 5   | 0  | 6  | 3   | 0  | 0   | 19        |
| March-23      | 4   | 7   | 10  | 0  | 4  | 2   | 0  | 0   | 27        |
| June-23       | 4   | 5   | 8   | 0  | 3  | 1   | 0  | 0   | 21        |
| September-23  | 10  | 4   | 7   | 1  | 4  | 0   | 1  | 0   | 27        |
| December-23   | 9   | 3   | 1   | 0  | 6  | 0   | 0  | 0   | 19        |
| March-24      | 6   | 4   | 2   | 0  | 9  | 0   | 0  | 0   | 21        |

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

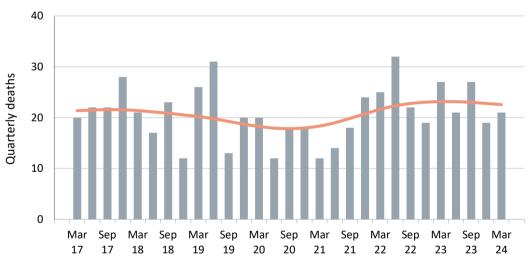


Table 6 Annual counts of deaths in crashes involving heavy rigid trucks

|   | NSW  | Vic   | Qld   | SA    | WA    | Tas   | NT  | ACT | Australia |
|---|------|-------|-------|-------|-------|-------|-----|-----|-----------|
| 12 Months ended   |      |       |       |       |       |       |     |     |           |
| March 2020  | 33   | 22    | 14    | 4     | 10    | 0     | 1   | 0   | 84        |
| March 2021  | 22   | 11    | 11    | 5     | 9     | 2     | 0   | 0   | 60        |
| March 2022  | 31   | 19    | 13    | 4     | 9     | 4     | 1   | 0   | 81        |
| March 2023  | 16   | 22    | 27    | 1     | 25    | 8     | 1   | 0   | 100       |
| March 2024  | 29   | 16    | 18    | 1     | 22    | 1     | 1   | 0   | 88        |
| Change last 12 months (%)                                 | 81.3 | -27.3 | -33.3 | 0.0   | -12.0 | -87.5 | 0.0 | 0.0 | -12.0     |
| Ave. trend change p.a.(%) - for last 3 years <sup>a</sup> | -3.3 | -8.2  | 17.7  | -50.0 | 56.3  | -50.0 | 0.0 | -   | 4.2       |

a Average annual percentage change based on the exponential trend for the last three 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 |     |     |     |    |    |     |    |     |           |
| 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   | 0  | 0  | 0   | 0  | 0   | 13        |
| September-23  | 1   | 0   | 0   | 0  | 0  | 0   | 0  | 0   | 1         |
| December-23   | 1   | 0   | 2   | 0  | 0  | 0   | 0  | 0   | 3         |
| March-24      | 1   | 0   | 1   | 0  | 0  | 0   | 0  | 0   | 2         |

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

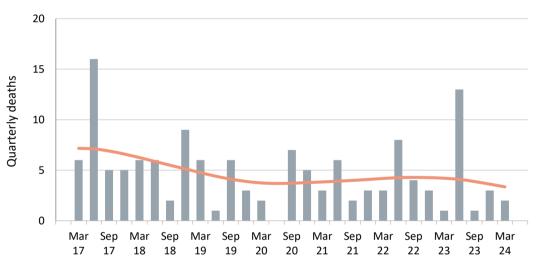


Table 8 Annual counts of deaths in crashes involving buses

|   | NSW  | Vic    | Qld  | SA  | WA     | Tas | NT     | ACT | Australia |
|---|------|--------|------|-----|--------|-----|--------|-----|-----------|
| 12 Months ended   |      |        |      |     |        |     |        |     |           |
| March 2020  | 6    | 1      | 0    | 1   | 3      | 1   | 0      | 0   | 12        |
| March 2021  | 4    | 1      | 4    | 3   | 1      | 2   | 0      | 0   | 15        |
| March 2022  | 5    | 1      | 3    | 1   | 3      | 0   | 1      | 0   | 14        |
| March 2023  | 8    | 1      | 3    | 0   | 2      | 0   | 2      | 0   | 16        |
| March 2024  | 15   | 0      | 4    | 0   | 0      | 0   | 0      | 0   | 19        |
| Change last 12 months (%)                                 | 87.5 | -100.0 | 33.3 | 0.0 | -100.0 | 0.0 | -100.0 | 0.0 | 18.8      |
| Ave. trend change p.a.(%) - for last 3 years <sup>a</sup> | 73.2 | -      | 15.5 | -   | -      | -   | -      | -   | 16.5      |

a Average annual percentage change based on the exponential trend for the last three 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 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 >

Inquiries For further information about data in this bulletin, contact:

Bureau of Infrastructure and Transport Research Economics (BITRE)

Email: roadsafetystatistics@infrastructure.gov.au

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

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