Work-related Traumatic Injury Fatalities, Australia

2016

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Forward

The aim of this report is to provide statistics about people who die each year from injuries that arose through work-related activity. This includes fatalities resulting from an injury sustained in the course of a work activity (worker fatalities) and as a result of someone else’s work activity (bystander fatalities).

Earlier reports have included fatalities that occurred while the worker was commuting to or from work (commuter fatalities), however, these fatalities have always been difficult to distinguish from other road fatalities and this report relies heavily on workers’ compensation data. As fewer jurisdictions are now providing compensation coverage for commuting, the integrity of the commuter fatality collection has diminished and has therefore been ceased.

Injury is defined as a condition coded to ‘External causes of morbidity and mortality’ and ‘Injury, poisoning and certain other consequences of external causes’ in the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM).

The scope of this collection includes all persons:

* who were fatally injured, and
* whose injuries resulted from work activity or exposures, and
* whose injuries occurred in an incident that took place in Australian territories or territorial waters.

The report includes all persons who died:

* while working including unpaid volunteers and family workers, persons undertaking work experience and defence force personnel killed within Australian territories or territorial waters or travelling for work (worker fatalities), or
* as a result of someone else’s work activity (bystander fatalities).

The collection specifically excludes those who died:

* of iatrogenic injuries — those where the worker died due to medical intervention
* due to natural causes such as heart attacks and strokes, except where a work-related injury was the direct cause of the heart attack or stroke
* as a result of diseases, such as cancers, and
* by self-inflicted injuries (suicide).

Changes from previous publications may also be evident due to the availability of additional information from finalised coroners reports and additional workers’ compensation claims.

For explanatory notes on the data for this publication, refer to <https://www.safeworkaustralia.gov.au/doc/explanatory-notes-safe-work-australia-datasets>

**With images and text saying:
Work-related traumatic injury fatalities. Key findings in the years from 2003 to 2016.
3414 workers have lost their lives in work-related incidents. On average 20 workers per month die at work.
Worker fatalities in 2016
182 workers were fatally injured at work 8% female and 92% male.
Worker deaths 41% lower than highest number of worker deaths recorded in 2007. 
168 of the 182 fatalities involved male workers.
Fatality rate per 100,000 workers:
2016 = 1.5 fatalities lowest fatality rate in 14 years from 2003-2016
The fatality rate has decreased by 49% from 3.0 in 2007 to 1.5 in 2016.**

Summary of findings

**[The below will be included as infographics]**

In the 14 years from 2003 to 2016, 3414 workers have lost their lives in work-related incidents.

The fatality rate has decreased by 49 per cent from 3.0 fatalities per 100 000 workers in 2007 to 1.5 in 2016.

In 2016, 182 workers were fatally injured at work. This is 41 per cent lower than the highest number of worker deaths recorded in the series (310) in 2007.

The 182 fatalities in 2016 equates to a fatality rate of 1.5 fatalities per 100 000 workers. This is the lowest fatality rate since the series began 14 years ago. The highest fatality rate of 3.0 was recorded in 2004 and 2007.

In 2016, 168 of the 182 fatalities (92 per cent) involved male workers.

Across the 14 years of the series, almost two-thirds of worker fatalities involved vehicles. In 2016, 99 of the 182 fatalities (54 per cent) involved a vehicle.

In 2016, 76 workers (42 per cent) were killed in a vehicle collision, 25 workers (14 per cent) died after falling from height and 17 workers (9 per cent) were killed when they were hit by moving objects.

In 2016, half (50 per cent) of the worker fatalities occurred within the Transport, postal and warehousing and Agriculture, forestry and fishing industries.

Over the period from 2003–16, 59 per cent of bystander fatalities were due to a vehicle collision, with being hit by moving objects accounting for a further 17 per cent.

With images and text saying:
Key findings in the 14 years from 2003 to 2016
2/3 of worker fatalities involved vehicles
59% of bystander fatalities were due to a vehicle collision.
Causes of worker fatalities in 2016:
42% (76 workers) vehicle collision
14% (25 workers) falling from height
9% (17 workers) hit by moving objects
Worker fatalities in 2016
50% of fatalities were in two industries
47 transport, postal and warehousing
44 agriculture, forestry and fishing
99 of 182 fatalities 
54% involved a vehicle.

Section 1  
Worker fatalities

1. Worker fatalities

Figure 1 shows that both the number of fatalities and the fatality rate have been trending downward since 2007. Injuries at work resulted in the deaths of 182 workers in 2016, 29 less than in 2015, and the lowest number since the full collection of data began in 2003. The highest number of work‑related injury fatalities was recorded in 2007 when there were 310 deaths.

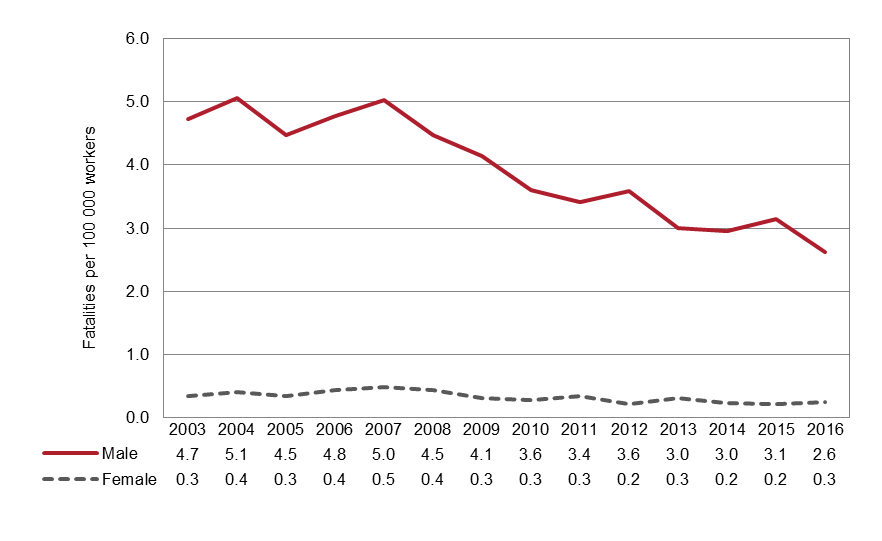
Similarly, the fatality rate was 1.5 fatalities per 100,000 workers in 2016, which is also the lowest since the series began and is around half the rate recorded at the peak in 2007 when there were 3.0 fatalities per 100,000 workers.

Figure Worker fatalities: number of fatalities and fatality rate, 2003 to 2016

1. Worker fatalities by sex

In 2016, 92 per cent (168 of the 182 fatalities) of workers killed were men. Figure 2 shows, however, that the fatality rate for male workers has been declining over the last 10 years, down from 5.0 fatalities per 100,000 workers in 2007 to 2.6 in 2016. Over the same period the fatality rate for female workers has remained relatively constant at or around 0.3 fatalities per 100,000 workers.

Figure Worker fatalities: fatality rate by sex, 2003 to 2016



1. Age

Table 1 shows the distribution of fatalities by age group. This distribution shows that there were fewer fatalities in the youngest and oldest age groups, which reflects the lower workforce participation of these age groups compared with other age groups.

While the number of fatalities in 2016 is the lowest in the series, the age profile was broadly similar to previous years. The exception was the 65 years and over age group, which accounted for a slightly lower proportion of fatalities than other years.

Despite this, while only accounting for 40 per cent of the workforce in 2016, older workers aged 45 and over accounted for the majority (61 per cent) of worker fatalities.

Table Worker fatalities: number by age group, 2003 to 2016

| Year | Less than 25 | 25–34 | 35–44 | 45–54 | 55–64 | 65 and over | Total |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 2003 | 26 | 55 | 61 | 53 | 40 | 24 | 259 |
| 2004 | 28 | 56 | 53 | 62 | 53 | 32 | 284 |
| 2005 | 24 | 55 | 57 | 57 | 41 | 24 | 258 |
| 2006 | 26 | 53 | 72 | 51 | 60 | 22 | 284 |
| 2007 | 36 | 48 | 68 | 68 | 56 | 34 | 310 |
| 2008 | 34 | 46 | 55 | 63 | 50 | 35 | 283 |
| 2009 | 21 | 44 | 44 | 63 | 59 | 27 | 258 |
| 2010 | 18 | 35 | 39 | 51 | 58 | 29 | 230 |
| 2011 | 23 | 21 | 43 | 58 | 42 | 38 | 225 |
| 2012 | 28 | 31 | 47 | 53 | 45 | 27 | 231 |
| 2013 | 18 | 30 | 37 | 44 | 39 | 34 | 202 |
| 2014 | 22 | 33 | 28 | 45 | 38 | 31 | 197 |
| 2015 | 17 | 39 | 28 | 50 | 41 | 36 | 211 |
| 2016 | 14 | 33 | 24 | 41 | 46 | 24 | 182 |
| Total | 335 | 579 | 656 | 759 | 668 | 417 | 3414 |

Figure 3 shows fatality rates have fallen over the past 14 years for all age groups. While the gap between the oldest age group and the younger age groups has narrowed, the fatality rate of the oldest age group remains four to 10 times higher than the younger age groups.

In 2016, fatality rates generally increased with age from 0.8 fatalities per 100,000 workers in those aged under 25 years to 5.3 in workers aged 65 years and over.

Figure Worker fatalities: fatality rate by age group, 2003 to 2016

1. Industry

Figure 4 shows in 2016, the vast majority (69 per cent) of fatalities occurred in three industries. Transport, postal and warehousing (47 fatalities) accounted for more than a quarter of fatalities in 2016, followed closely by Agriculture, forestry and fishing (44 fatalities) and Construction (35 fatalities).

Figure Worker fatalities: proportion by industry of employer, average of last 10 years (2007 to 2016) and 2016

Table 2 below shows that despite accounting for the vast majority of fatalities, the top three industries have recorded relatively substantial falls in the number of fatalities over the last 14 years – Transport, postal and warehousing down 31 per cent, Agriculture, forestry and fishing down 27 per cent and Construction down 19 per cent.

For the complete time series see Appendix A3.

Table Worker fatalities: number by industry of employer, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| Industry of employer | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Transport, postal & warehousing | 68 | 61 | 43 | 47 | 45 | 47 | **26%** | 24% |
| Agriculture, forestry & fishing | 60 | 56 | 55 | 45 | 56 | 44 | **24%** | 24% |
| Construction | 43 | 30 | 22 | 32 | 34 | 35 | **19%** | 15% |
| Administrative & support services | 4 | 6 | 5 | 4 | 8 | 8 | **4%** | 4% |
| Electricity, gas, water & waste services | 5 | 3 | 4 | 5 | 4 | 8 | **4%** | 2% |
| Manufacturing | 20 | 18 | 12 | 17 | 16 | 6 | **3%** | 8% |
| Mining | 11 | 8 | 9 | 11 | 11 | 6 | **3%** | 4% |
| Arts & recreation services | 3 | 5 | 7 | 10 | 7 | 5 | **3%** | 3% |
| Public administration & safety | 9 | 8 | 11 | 6 | 6 | 5 | **3%** | 4% |
| Health care & social assistance | 3 | 2 | 4 | 2 | 3 | 4 | **2%** | 1% |
| Other services | 4 | 3 | 7 | 4 | 8 | 4 | **2%** | 2% |
| Retail trade | 7 | 5 | 8 | 0 | 4 | 4 | **2%** | 2% |
| Education & training | 2 | 4 | .. | 1 | 2 | 2 | **1%** | 1% |
| Rental, hiring & real estate services | 4 | 3 | 3 | 1 | .. | 2 | **1%** | 1% |
| Information media & telecommunications | 1 | 2 | .. | .. | .. | 1 | **1%** | 1% |
| Professional, scientific & technical services | 2 | 8 | 2 | .. | 2 | 1 | **1%** | 2% |
| Accommodation & food services | 5 | 1 | 2 | 6 | 3 | .. | **..** | 1% |
| Financial & insurance services | 1 | .. | .. | .. | .. | .. | **..** | 0% |
| Wholesale trade | 7 | 9 | 8 | 6 | 2 | .. | **..** | 3% |
| Total | 259 | 232 | 202 | 197 | 211 | 182 | 100% | 100% |

Fatality rates, expressed as the number of fatalities per 100,000 workers, are best used when comparing risk across industries. Table 3 shows that in 2016 the Agriculture, forestry and fishing industry recorded the highest fatality rate with 14.0 fatalities per 100,000 workers. While the fatality rate for this industry fell in 2016, down from 18.0 in 2015, it remains almost 10 times the all industries average of 1.5 fatalities per 100,000 workers.

The Transport, postal and warehousing industry recorded the second highest fatality rate in 2016 with 7.5 fatalities per 100,000 workers, followed by the Electricity, gas, water and waste services industry (5.8 fatalities per 100,000 workers).

It should be noted, however, that fatality rates are sensitive to the number of workers employed in each industry, and therefore are liable to show volatility in those industries which employ the fewest workers (such as the Electricity, gas, water and waste services industry), even when small variations in the number of fatalities are recorded. Therefore, the actual number of fatalities should also be considered when interpreting the fatality rates for smaller industries.

For the complete time series see Appendix A4.

Table Worker fatalities: fatality rate (fatalities per 100,000 workers) by industry of employer, 2003 and 2012 to 2016 (sorted by 2016 rate)

| Industry of employer | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | 10yr average  (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Agriculture, forestry & fishing | 16.4 | 17.7 | 18.3 | 13.9 | 18.0 | 14.0 | 16.9 |
| Transport, postal & warehousing | 14.6 | 10.9 | 7.2 | 7.9 | 7.4 | 7.5 | 9.5 |
| Electricity, gas, water & waste services | 5.5 | 2.0 | 2.7 | 3.4 | 2.8 | 5.8 | 2.9 |
| Construction | 5.8 | 3.1 | 2.2 | 3.1 | 3.3 | 3.3 | 3.5 |
| Mining | 12.4 | 3.0 | 3.4 | 4.4 | 4.8 | 2.7 | 4.0 |
| Arts & recreation services | 2.1 | 2.4 | 3.4 | 4.8 | 3.1 | 2.2 | 2.9 |
| Administrative & support services | 1.2 | 1.5 | 1.3 | 1.0 | 1.9 | 1.8 | 2.2 |
| Rental, hiring & real estate services | 2.4 | 1.4 | 1.5 | 0.5 | 0.0 | 0.9 | 1.5 |
| Other Services | 0.9 | 0.7 | 1.5 | 0.8 | 1.7 | 0.8 | 1.0 |
| Manufacturing | 1.9 | 1.9 | 1.3 | 1.8 | 1.8 | 0.7 | 2.0 |
| Public administration & safety | 1.6 | 1.1 | 1.5 | 0.8 | 0.8 | 0.7 | 1.2 |
| Information media & telecommunications | 0.4 | 0.9 | 0.0 | 0.0 | 0.0 | 0.5 | 0.6 |
| Retail trade | 0.6 | 0.4 | 0.7 | 0.0 | 0.3 | 0.3 | 0.5 |
| Health care & social assistance | 0.3 | 0.1 | 0.3 | 0.1 | 0.2 | 0.3 | 0.2 |
| Education & training | 0.3 | 0.5 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| Professional, scientific & technical services | 0.3 | 0.9 | 0.2 | 0.0 | 0.2 | 0.1 | 0.4 |
| Wholesale trade | 1.9 | 2.2 | 1.9 | 1.5 | 0.5 | 0.0 | 0.3 |
| Accommodation & food services | 0.8 | 0.1 | 0.3 | 0.8 | 0.4 | 0.0 | 0.1 |
| Financial & insurance services | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| Total | 2.7 | 2.0 | 1.8 | 1.7 | 1.8 | 1.5 | 2.1 |

1. Priority industries

The *Australian Work Health and Safety Strategy 2012–2022* (Australian Strategy) provides a framework to drive improvements in work health and safety (WHS) in Australia. It promotes a collaborative approach between the Commonwealth, state and territory governments, industry and unions and other organisations to achieve the vision of healthy, safe and productive working lives. The Australian Strategy identifies national priority industries and disorders to help direct prevention activities to where they are needed the most.

The following priority industries have high numbers and rates of fatalities and/or injuries or are by their nature hazardous:

* Agriculture
* Road transport
* Manufacturing
* Construction
* Accommodation and food services
* Public administration and safety, and
* Health care and social assistance.

Industries such as Accommodation and food services, Health care and social assistance and Public administration and safety have low fatality rates but are included as priority industries due to high injury rates. For information on serious claims in these industries, refer to the latest [*Australian Workers’ Compensation Statistics*](https://www.safeworkaustralia.gov.au/collection/australian-workers-compensation-statistics) report.

For the purposes of this report, only those priority industries with fatality rates above the all industry rate will be examined in further detail – that is Agriculture, Road transport and Construction. Figure 5 shows that while fatality rates can be volatile over time, they have generally been decreasing for the selected priority industries over the last 14 years, apart from Agriculture where, despite a relatively substantial fall in 2016, the rate has remained at or around 15 fatalities per 100,000 workers for much of the period. Although the Road transport fatality rate has decreased over the period it is still 10 times the all industry rate (14.9 compared with 1.5).

Figure Worker fatalities: fatality rate (fatalities per 100,000 workers) by industry of employer, 2003 to 2016

1. Agriculture

Table 4 shows the number of worker fatalities in the Agriculture industry sub-divisions by age group for the 10 years to 2016. Older workers account for a much greater proportion of fatalities in the Agriculture industry. Over the 10 year period, workers aged 55 and over accounted for the majority (55 per cent) of fatalities in the Agriculture industry. This compares with only a third of fatalities over the same period across all industries.

Within the Agriculture industry, the sheep, beef cattle and grain farming industry accounted for two‑thirds (67 per cent) of fatalities over the 10 year period (279 out of 418). Of these, only 18 per cent were younger workers aged under 35.

Table Worker fatalities: Agriculture industry sub-divisions by age group, 2007 to 2016 (combined)

| Industry sub-division | Under 25 | 25–34 | 35–44 | 45–54 | 55-64 | 65 & over | Total |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sheep, beef cattle & grain farming | 27 | 22 | 24 | 46 | 53 | 107 | 279 |
| Other crop growing | 2 | 3 | 4 | 8 | 2 | 14 | 33 |
| Other livestock farming | 2 | 5 | 2 | 5 | 8 | 6 | 28 |
| Fruit & tree nut growing | 1 | 8 | 2 | 6 | 4 | 6 | 27 |
| Dairy cattle farming | 6 | 2 | 5 | 2 | 6 | 4 | 25 |
| Mushroom & vegetable growing | 3 | 2 | .. | 1 | 5 | 6 | 17 |
| Nursery & floriculture production | 1 | .. | .. | .. | 4 | .. | 5 |
| Poultry farming | .. | .. | 1 | .. | .. | 3 | 4 |
| Agriculture – Total | 42 | 42 | 38 | 68 | 82 | 146 | 418 |

As shown in Table 5 below, more than a quarter (112 or 27 per cent) of the fatalities in the Agriculture industry were due to vehicle collisions over the 10 years to 2016. This was followed by the rollover of non-road vehicles (65 fatalities or 16 per cent) and being hit by moving objects (60 fatalities or 14 per cent).

Table Worker fatalities: Agriculture by mechanism of incident, 2007 to 2016 (combined)

| Mechanism of incident | No. of fatalities | % of fatalities |
| --- | --- | --- |
| Vehicle collision | 112 | 27% |
| Rollover of non-road vehicle | 65 | 16% |
| Being hit by moving objects | 60 | 14% |
| Being hit by falling objects | 35 | 8% |
| Falls from a height | 30 | 7% |
| Being trapped by moving machinery | 26 | 6% |
| Contact with electricity | 19 | 5% |
| Being hit by an animal | 18 | 4% |
| Being trapped between stationary and moving objects | 16 | 4% |
| Other mechanisms | 37 | 9% |
| Total | 418 | 100% |

Over the 10 years to 2016, the majority (71 per cent) of fatalities in the Agriculture industry involved a vehicle. Of these fatalities, 78 involved a tractor, 61 involved a quad bike and 42 involved a ute, car or van. For a further 28 of the fatalities, the deceased worker was killed by a vehicle while on foot.

Table Worker fatalities: Agriculture by vehicle involvement and type of vehicle, 2007 to 2016 (combined)

| Vehicle involvement and type of vehicle | No. of fatalities | % of fatalities |
| --- | --- | --- |
| Vehicle involved | **297** | **71%** |
| Tractor | 78 | 19% |
| Quad bike | 61 | 15% |
| Ute, Car or Van | 42 | 10% |
| Worker on foot | 28 | 7% |
| Aircraft | 24 | 6% |
| Truck | 17 | 4% |
| Motorbike | 15 | 4% |
| Other vehicles | 32 | 8% |
| No vehicle involved | **121** | **29%** |
| Total | 418 | 100% |

1. Road transport

Over the period from 2007 to 2016, there were 439 worker fatalities in the Road transport industry. Of these, the vast majority (92 per cent) occurred in the road freight transport sub-division. The remaining 36 fatalities occurred in the road passenger transport industry, with the majority of these in the taxi and other road transport segment of the industry.

In terms of age breakdown, Table 7 shows that workers aged between 45 and 54 accounted for the largest proportion of fatalities in this industry (123 out of 439), closely followed by workers aged 55 to 64 (114 fatalities) and workers aged 35 to 44 (108 fatalities).

Table Worker fatalities: Road transport industry sub-divisions by age group, 2007 to 2016 (combined)

| Industry sub-divisions | Under 25 | 25-34 | 35-44 | 45-54 | 55-64 | 65 & over | Total |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Road freight transport | 19 | 45 | 104 | 119 | 98 | 18 | 403 |
| Road passenger transport | 1 | 4 | 4 | 4 | 16 | 7 | 36 |
| Taxi and other road transport | .. | 3 | 3 | 1 | 8 | 6 | 21 |
| Urban bus transport (including tramway) | .. | 1 | 1 | 2 | 5 | .. | 9 |
| Interurban and rural bus transport | 1 | .. | .. | 1 | 3 | 1 | 6 |
| Road transport – Total | 20 | 49 | 108 | 123 | 114 | 25 | 439 |

As shown in Table 8 below, the vast majority of fatalities in the Road transport industry over the 10 years to 2016 were due to vehicle collisions – 314 in the road freight transport industry and 24 in the road passenger transport industry. Being hit by moving objects (27 fatalities) was the next highest mechanism for the road freight transport industry, compared with being trapped by moving machinery (5 fatalities) for the road passenger transport industry.

Table Worker fatalities: Road transport industry sub-divisions by mechanism of incident, 2007 to 2016 (combined)

| Industry sub-division Mechanism | No. of fatalities | % of fatalities |
| --- | --- | --- |
| Road freight transport | 403 | 92% |
| Vehicle collision | 314 | 72% |
| Being hit by moving objects | 27 | 6% |
| Being hit by falling objects | 17 | 4% |
| Falls from a height | 11 | 3% |
| Being trapped between stationary and moving objects | 10 | 2% |
| Other mechanisms | **24** | **5%** |
| Road passenger transport | 36 | 8% |
| Vehicle collision | 24 | 5% |
| Being trapped by moving machinery | 5 | 1% |
| Being hit by moving objects | 4 | 1% |
| Being assaulted by a person or persons | 3 | 1% |
| Road Transport - Total | 439 | 100% |

As expected, Table 9 shows that 419 work fatalities (or 95 per cent) in the Road transport industry involved a vehicle, and of these, the majority (338 fatalities) occurred while the victim was driving. A further 45 fatalities occurred while the worker was loading or unloading a vehicles and 14 occurred while the worker was conducting repairs or maintenance on the vehicle.

Table Worker fatalities: Road transport by vehicle involvement and activity of the deceased, 2007 to 2016 (combined)

| Vehicle involvement – Deceased activity | No. of fatalities | % of fatalities |
| --- | --- | --- |
| Vehicle Involved | **419** | **95%** |
| Driving/moving freight/people | 338 | 77% |
| Loading/unloading | 45 | 10% |
| Repair/maintenance | 14 | 3% |
| Entering/exiting vehicle | 3 | 1% |
| Other | 19 | 4% |
| No vehicle involved | **20** | **5%** |
| Total | 439 | 100% |

1. Construction

Over the period from 2007 to 2016, there were 354 worker fatalities in the Construction industry in Australia. Of these fatalities, Table 10 below shows that almost two-thirds (229 fatalities or 65 per cent) occurred in the construction services industry sub-division, of which 56 fatalities occurred in land development and site preparation services, 54 occurred in building installation services and 50 occurred in building structure services. The building construction industry sub-division accounted for 56 worker fatalities over the 10 year period, split relatively evenly between residential and non-residential building construction. The heavy and civil engineering construction industry sub-division accounted for the remaining 56 worker fatalities.

In terms of age breakdown, worker fatalities in the Construction industry were much more evenly spread across the different age groups. Over the period, younger workers aged under 35 accounted for almost a third of fatalities, compared with only around a quarter of fatalities across all industries. Older workers, however, still accounted for the majority of fatalities, with 55 per cent of workers killed in the industry being aged 45 or over.

Table Worker fatalities: Construction industry sub-divisions by age group, 2007 to 2016 (combined)

| Industry sub-divisions | Under 25 | 25-34 | 35-44 | 45-54 | 55-64 | 65 & over | Total |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Building construction | **8** | **11** | **8** | **12** | **16** | **14** | 69 |
| Residential building construction | 5 | 5 | 4 | 8 | 6 | 8 | 36 |
| Non-residential building construction | 3 | 6 | 4 | 4 | 10 | 6 | 33 |
| Construction services | **37** | **40** | **25** | **54** | **45** | **28** | 229 |
| Land development & site preparation services | 6 | 4 | 7 | 14 | 17 | 8 | 56 |
| Building installation services | 14 | 15 | 6 | 5 | 10 | 4 | 54 |
| Building structure services | 7 | 9 | 5 | 16 | 11 | 2 | 50 |
| Building completion services | 4 | 4 | 5 | 12 | 5 | 9 | 39 |
| Other construction services | **6** | **8** | **2** | **7** | **2** | **5** | 30 |
| Heavy & civil engineering construction | 8 | 10 | 11 | 11 | 10 | 6 | 56 |
| Construction – Total | 53 | 61 | 44 | 77 | 71 | 48 | 354 |

In terms of mechanism of the fatalities, Table 11 shows that between 2007 and 2016, falls from a height were the main cause of fatalities in both the building construction and construction services industry sub-divisions. By contrast, being hit by moving objects caused the most fatalities in the heavy and civil engineering construction industry sub-division.

Across the three industry sub-divisions, a relatively substantial number of fatalities were also caused by vehicle collisions (57 fatalities or 16 per cent), being hit with falling objects (45 fatalities or 13 per cent) and contact with electricity (39 fatalities or 11 per cent).

Table Worker fatalities: Construction industry sub-divisions by mechanism of incident, 2007 to 2016 (combined)

| Industry sub-division Mechanism | No. of fatalities | % of fatalities |
| --- | --- | --- |
| Building construction | **69** | **19%** |
| Falls from a height | 29 | 8% |
| Being hit by falling objects | 13 | 4% |
| Vehicle collision | 9 | 3% |
| Contact with electricity | 4 | 1% |
| Being hit by moving objects | 4 | 1% |
| Other mechanisms | 10 | 3% |
| Construction services | **229** | **65%** |
| Falls from a height | 63 | 18% |
| Vehicle collision | 38 | 11% |
| Contact with electricity | 35 | 10% |
| Being hit by falling objects | 26 | 7% |
| Being hit by moving objects | 16 | 5% |
| Being trapped between stationary and moving objects | 14 | 4% |
| Being trapped by moving machinery | 12 | 3% |
| Other mechanisms | 25 | 7% |
| Heavy & civil engineering construction | **56** | **16%** |
| Being hit by moving objects | 20 | 6% |
| Vehicle collision | 10 | 3% |
| Being hit by falling objects | 6 | 2% |
| Falls from a height | 4 | 1% |
| Being trapped between stationary and moving objects | 4 | 1% |
| Other mechanisms | 12 | 3% |
| Construction – Total | 354 | 100% |

Across the whole Construction industry, falls from a height caused 96 fatalities (or 27 per cent) over the 10 years to 2016. As shown in Table 12 below, over a third (38 per cent) of these involved falls from a building or other type of structure, and a quarter involved a fall from a ladder.

Table Worker fatalities: Construction industry, falls from a height fatalities by breakdown agency, 2007 to 2016 (combined)

| Breakdown agency | No. of fatalities | % of fatalities |
| --- | --- | --- |
| Buildings and other structures | 36 | 38% |
| Ladders | 24 | 25% |
| Scaffolding and elevated work platforms | 15 | 16% |
| Openings in floors, walls or ceilings | 4 | 4% |
| Other agencies | 17 | 18% |
| Falls from a height – Total | 96 | 100% |

1. Occupation

In 2016, 34 per cent (62 fatalities) of the workers killed were employed as machinery operators and drivers. Labourers accounted for a further 22 per cent (40 fatalities) of fatalities followed by technicians and trades workers (14 per cent – 26 fatalities) and managers (13 per cent – 24 fatalities).

Table 13 below shows, that since both 2003 and over the last five years, all occupations have generally recorded a fall in the number of worker fatalities.

For the complete time series see Appendix A5.

Table Worker fatalities: number by occupation and sub-group, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| Occupation | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Machinery operators and drivers | 86 | 77 | 62 | 67 | 71 | 62 | **34%** | 33% |
| Road and rail drivers | 65 | 61 | 47 | 49 | 46 | 50 | **27%** | 24% |
| Mobile plant operators | 11 | 8 | 6 | 6 | 17 | 8 | **4%** | 4% |
| Machine and stationary plant operators | 7 | 5 | 8 | 12 | 8 | 3 | **2%** | 4% |
| Labourers | 61 | 48 | 41 | 50 | 38 | 40 | **22%** | 20% |
| Farm, forestry and garden workers | 22 | 16 | 11 | 23 | 17 | 15 | **8%** | 8% |
| Construction and mining labourers | 24 | 14 | 8 | 9 | 9 | 11 | **6%** | 5% |
| Technicians and trades workers | 31 | 28 | 29 | 29 | 35 | 26 | **14%** | 16% |
| Construction trades workers | 10 | 11 | 3 | 10 | 11 | 12 | **7%** | 5% |
| Automotive and engineering trades workers | 10 | 4 | 11 | 8 | 9 | 2 | **1%** | 4% |
| Electro-technology and telecommunications trades workers | 9 | 6 | 9 | 7 | 8 | 6 | **3%** | 4% |
| Managers | 40 | 39 | 35 | 19 | 35 | 24 | **13%** | 15% |
| Farmers and farm managers | 31 | 27 | 30 | 16 | 24 | 19 | **10%** | 11% |
| Professionals | 19 | 22 | 12 | 12 | 12 | 14 | **8%** | 8% |
| Design, engineering, science and transport professionals | 17 | 15 | 9 | 10 | 6 | 8 | **4%** | 5% |
| Community and personal service workers | 11 | 9 | 14 | 11 | 10 | 3 | **2%** | 4% |
| Protective service workers | 7 | 7 | 4 | 3 | .. | 3 | **2%** | 2% |
| Sales workers | 7 | 3 | 6 | 2 | 2 | 3 | **2%** | 2% |
| Clerical and administrative workers | 4 | 5 | 1 | 3 | 1 | 1 | **1%** | 1% |
| Total\* | 259 | 231 | 202 | 197 | 211 | 182 | 100% | 100% |

\*Total includes fatalities where occupation is unknown.

In line with the number of fatalities, Table 14 below shows that in 2016, machinery operators and drivers also recorded the highest fatality rate of 8.2 fatalities per 100,000 workers, followed by labourers (3.4 fatalities per 100,000 workers) and managers (1.6 fatalities per 100,000 workers).

For the complete time series see Appendix A6.

Table Worker fatalities: fatality rate by occupation, 2003 and 2012 to 2016 (sorted by rate in 2016)

| Occupation | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Machinery operators and drivers | 13.7 | 10.4 | 8.0 | 8.9 | 9.5 | 8.2 | 10.4 |
| Labourers | 5.6 | 4.2 | 3.6 | 4.4 | 3.4 | 3.4 | 4.1 |
| Managers | 3.5 | 2.7 | 2.4 | 1.3 | 2.3 | 1.6 | 2.4 |
| Technicians and trades workers | 2.2 | 1.7 | 1.7 | 1.7 | 2.0 | 1.5 | 2.2 |
| Professionals | 1.0 | 0.9 | 0.5 | 0.5 | 0.4 | 0.5 | 0.8 |
| Sales workers | 0.7 | 0.3 | 0.6 | 0.2 | 0.2 | 0.3 | 0.4 |
| Community and personal service workers | 1.4 | 0.8 | 1.2 | 1.0 | 0.8 | 0.2 | 0.9 |
| Clerical and administrative workers | 0.3 | 0.3 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 |
| Total | 2.7 | 2.0 | 1.8 | 1.7 | 1.8 | 1.5 | 2.1 |

1. Mechanism of incident

Table 15 below shows that 76 worker fatalities were due to a vehicle collision in 2016. This includes incidents where an occupant of a vehicle is killed following a collision with another vehicle or a stationary object. While the number of fatalities due to this mechanism has fallen substantially over the last 10 years, the proportion of total fatalities (42 per cent) is slightly higher than the 10 year average of 38 per cent.

Falls from a height accounted for the next highest proportion of worker fatalities (14 per cent) in 2016, followed by being hit by moving objects and being hit by falling objects, each accounting for 9 per cent of fatalities.

These top four mechanisms accounted for almost three-quarters of worker fatalities in 2016 (74 per cent).

For the complete time series see Appendix A1.

Table Worker fatalities: number by mechanism of incident, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| Mechanism of incident | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Vehicle collision | 108 | 91 | 68 | 74 | 60 | 76 | **42%** | 38% |
| Falls from a height | 27 | 30 | 26 | 22 | 29 | 25 | **14%** | 12% |
| Being hit by moving objects | 40 | 28 | 24 | 22 | 28 | 17 | **9%** | 11% |
| Being hit by falling objects | 15 | 27 | 25 | 17 | 21 | 17 | **9%** | 10% |
| Being trapped by moving machinery | 6 | 10 | 10 | 11 | 9 | 8 | **4%** | 5% |
| Contact with electricity | 13 | 6 | 8 | 5 | 8 | 7 | **4%** | 4% |
| Drowning | 4 | 3 | 4 | 1 | 5 | 7 | **4%** | 2% |
| Being trapped between stationary and moving objects | 9 | 5 | 7 | 12 | 11 | 4 | **2%** | 4% |
| Being assaulted by a person or persons | 12 | 6 | 6 | 4 | 5 | 4 | **2%** | 2% |
| Rollover of non-road vehicle | 9 | 6 | 15 | 7 | 14 | 3 | **2%** | 4% |
| Contact with hot objects | 1 | 1 | 1 | 4 | 6 | 3 | **2%** | 1% |
| Explosion | 3 | 2 | 1 | 6 | 5 | 2 | **1%** | 1% |
| Being hit by an animal | 1 | 4 | 2 | 1 | 1 | 2 | **1%** | 1% |
| Other mechanisms | 11 | 12 | 5 | 11 | 9 | 7 | **4%** | 5% |
| Grand Total | 259 | 231 | 202 | 197 | 211 | 182 | 100% | 100% |

\* The percentages shown in this table have been rounded to the nearest whole number; therefore the sum of percentage figures for each column may not equal the total.

Table 16 shows that over the 10 years to 2016, vehicle collisions were by far the most common mechanism of fatality for the younger age groups. While vehicle collisions also accounted for the most fatalities for the older age groups as well, older workers were relatively more likely to be killed from being hit by moving objects and falls from a height than younger workers.

Table Worker fatalities: percentage by mechanism of incident and age group, 2007 to 2016 combined

| Mechanism of incident | Under 25 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and over | Total |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Vehicle collision | 40% | 41% | 46% | 41% | 36% | 22% | 38% |
| Falls from a height | 7% | 9% | 8% | 13% | 15% | 17% | 12% |
| Being hit by moving objects | 10% | 8% | 9% | 12% | 13% | 15% | 11% |
| Being hit by falling objects | 9% | 9% | 13% | 7% | 10% | 11% | 10% |
| Being trapped by moving machinery | 7% | 4% | 5% | 4% | 4% | 3% | 5% |
| Rollover of non-road vehicle | 4% | 2% | 2% | 3% | 5% | 12% | 4% |
| Contact with electricity | 9% | 6% | 4% | 4% | 1% | 2% | 4% |
| Being trapped between stationary and moving objects | 3% | 4% | 2% | 3% | 5% | 4% | 4% |
| Other mechanisms | 10% | 16% | 10% | 14% | 11% | 13% | 12% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

\* The percentages shown in this table have been rounded to the nearest whole number; therefore the sum of percentage figures for each column may not equal the total.

1. Worker fatalities due to vehicle collisions

Table 17 shows in 2016, of the 76 workers who died in a vehicle collision, over half (59 per cent) involved single vehicle incidents and just under half of these involved heavy vehicles (20 fatalities). A further 14 fatalities were as a result of single light vehicle incidents and 9 involved aircraft.

The remaining 31 fatalities in 2016 due to a vehicle collision, involved a multi-vehicle incident. One third of these involved two heavy vehicles and another third involved two light vehicles.

Table Worker fatalities due to vehicle collision: number by breakdown agency, 2003 and 2012 to 2016

| Type of collision | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007- 2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Single vehicle incident | **66** | **54** | **42** | **51** | **35** | **45** | **59%** | 64% |
| Heavy vehicle | 27 | 27 | 18 | 24 | 17 | 20 | **26%** | 30% |
| Aircraft | 22 | 14 | 10 | 9 | 5 | 7 | **9%** | 13% |
| Light vehicle | 9 | 7 | 5 | 9 | 6 | 14 | **18%** | 13% |
| Motorbike | 1 | 1 | 2 | 3 | .. | .. | **..** | 2% |
| Quad bike | .. | 2 | 4 | 5 | 5 | .. | **..** | 3% |
| Agriculture vehicle | 4 |  | 2 |  |  | 2 | **3%** | 1% |
| Watercraft | 1 | 2 | .. | 1 | .. | .. | **..** | 1% |
| Other single vehicle | 2 | 1 | 1 | .. | 2 | 2 | **3%** | 1% |
| Multi vehicle incident | **42** | **37** | **26** | **23** | **25** | **31** | **41%** | 36% |
| Occupant in light vehicle killed in collision with a heavy vehicle | 10 | 13 | 7 | 4 | 7 | 5 | **7%** | 9% |
| Two heavy vehicles | 16 | 11 | 7 | 8 | 6 | 10 | **13%** | 11% |
| Two light vehicles | 9 | 8 | 3 | 4 | 7 | 9 | **12%** | 7% |
| Occupant in a heavy vehicle killed in collision with light vehicle | 1 | 3 | 4 | 3 | 2 | 4 | **5%** | 4% |
| Other multi-vehicle collision | 6 | 2 | 5 | 4 | 3 | 3 | **4%** | 6% |
| Total – Vehicle collision | 108 | 91 | 68 | 74 | 60 | 76 | 100% | 100% |

\* The percentages shown in this table have been rounded to the nearest whole number; therefore the sum of percentage figures for each column may not equal the total.

1. Worker fatalities due to being hit by moving objects

In 2016, 17 workers were killed as a result of being hit by moving objects. This number has more than halved since 2003.

As shown in Table 18, while 59 per cent of fatalities were caused by mobile plant and transport, this proportion is considerably lower than the average over the last 10 years of 73 per cent. In contrast to previous years where being hit by a heavy or light vehicle was the most common cause of death, in 2016 being hit by self-propelled plant and tractors or other agricultural vehicles accounted for the most fatalities.

Table Worker fatalities due to being hit by moving objects: number by breakdown agency, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| Breakdown agency | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mobile plant and transport | **26** | **25** | **16** | **17** | **18** | **10** | **59%** | 73% |
| Trucks, semi-trailers, lorries | 6 | 7 | 5 | 5 | 3 | 2 | **12%** | 21% |
| Cars, station wagons, vans, utilities | 7 | 2 | 5 | 2 | 3 | .. | **..** | 15% |
| Self-propelled plant | 6 | 5 | 3 | 2 | 6 | 4 | **24%** | 13% |
| Tractors, agricultural or otherwise | 4 | 4 | 1 | 5 | 3 | 3 | **18%** | 10% |
| Other mobile plant or transport | 3 | 7 | 2 | 3 | 3 | 1 | **6%** | 12% |
| Machinery and (mainly) fixed plant | **4** | **2** | **5** | **1** | **3** | **2** | **12%** | 8% |
| Powered equipment, tools and appliances | **5** | **1** | **..** | **..** | **3** | **2** | **12%** | 6% |
| Materials and substances | **2** | **..** | **..** | **..** | **..** | **1** | **6%** | 1% |
| Animal, human and biological agencies | **..** | **..** | **..** | **1** | **1** | **1** | **6%** | 1% |
| Non-powered hand tools, appliances and equipment | **2** | **..** | **2** | **2** | **1** | **..** | **..** | 6% |
| Environmental agencies | **1** | **..** |  | **1** | **2** | **..** | **..** | 3% |
| Chemicals and chemical products | **..** | **..** | **1** | **..** | **..** | **..** | **..** | 1% |
| Total – Being hit by moving objects | 40 | 28 | 24 | 22 | 28 | 17 | 100% | 100% |

1. Worker fatalities due to falls from a height

In 2016, 25 workers died as a result of a fall from a height. As shown in Table 19, the number of workers dying as a result of this mechanism has not improved to any great extent over the last 14 years.

Over the 10 years to 2016, falls from a height most commonly involved falls from a ladder (17 per cent), roof (15 per cent of fatalities), horses, donkeys and mules (8 per cent), trucks, semi-trailers and lorries (7 per cent) and elevated work platforms (6 per cent).

Table Worker fatalities due to falls from a height: number by breakdown agency, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| Breakdown agency | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Non-powered hand tools, appliances and equipment | **5** | **3** | **4** | **4** | **7** | **10** | **40%** | 27% |
| Ladders | 3 | 1 | 3 | 2 | 3 | 6 | **24%** | 17% |
| Scaffolding | 1 | 1 | .. | .. | 2 | 2 | **8%** | 6% |
| Environmental agencies | **14** | **18** | **7** | **10** | **12** | **9** | **36%** | 37% |
| Roof | 9 | 8 | 2 | 5 | 6 | 4 | **16%** | 15% |
| Buildings under construction or demolition | 3 | 2 | .. | .. | 1 | .. | **..** | 3% |
| Internal building structures | .. | 2 | .. | 1 | .. | .. | **..** | 2% |
| Openings in floors, walls or ceilings | .. | 1 | .. | 1 | 1 | 2 | **8%** | 3% |
| Mobile plant and transport | **2** | **5** | **7** | **2** | **5** | **3** | **12%** | 15% |
| Trucks, semi-trailers, lorries | 2 | 2 | 3 | .. | 3 | 1 | **4%** | 7% |
| Motorised water craft | .. | .. | 1 | .. | .. | .. | **..** | 2% |
| Machinery and (mainly) fixed plant | **3** | **4** | **3** | **3** | **2** | **1** | **4%** | 11% |
| Elevating work platforms | 1 | 1 | 1 | .. | 2 | .. | **..** | 6% |
| Animal, human and biological agencies | **3** | **..** | **5** | **3** | **3** | **1** | **4%** | 9% |
| Horses, donkeys, mules | 3 | .. | 4 | 3 | 3 | 1 | **4%** | 8% |
| Total – Falls from a height | 27 | 30 | 26 | 22 | 29 | 25 | 100% | 100% |

\* The sum of the number of fatalities and percentage figures for each column may not equal the total due to rounding and the inclusion of selected subcategories in some breakdown agencies. The total also includes fatalities where the breakdown agency was unknown.

1. Worker fatalities due to being hit by falling objects

In 2016, 17 workers died due to being hit by falling objects, which amounted to 9 per cent of all worker fatalities.

Table 20 provides more detail on the object (agency) which hit the worker. Over the last 10 years, 16 per cent of fatalities occurred as a result of a worker being hit by falling vegetation. This was followed by trucks, semi-trailers and lorries and forklift trucks which each accounted for 7 per cent worker fatalities due to this mechanism.

Table Worker fatalities due to being hit by falling objects: number by breakdown agency, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| Breakdown agency | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Environmental agencies | **6** | **7** | **8** | **6** | **3** | **6** | **35%** | 26% |
| Vegetation | 3 | 5 | 6 | 2 | 2 | 3 | **18%** | 16% |
| Buildings and other structures | 3 | 1 | 2 | 3 | .. | 1 | **6%** | 6% |
| Materials and substances | **3** | **3** | **5** | **3** | **5** | **5** | **29%** | 15% |
| Ferrous and non-ferrous metal | .. | 2 | 3 | 3 | .. | 2 | **12%** | 6% |
| Sawn or dressed timber | .. | .. | .. | .. | 2 | 1 | **6%** | 4% |
| Mobile plant and transport | **3** | **8** | **6** | **4** | **10** | **3** | **18%** | 25% |
| Tractors, agricultural or otherwise | 2 | .. | 1 | .. | 1 | 1 | **6%** | 3% |
| Trucks, semi-trailers, lorries | .. | 2 | 4 | 3 | 1 | 2 | **12%** | 7% |
| Machinery and (mainly) fixed plant | **1** | **6** | **2** | **2** | **1** | **3** | **18%** | 19% |
| Forklift trucks | .. | 1 | .. | 1 | .. | 1 | **6%** | 7% |
| Cranes | 1 | 3 | 1 | .. | .. | 1 | **6%** | 5% |
| Non-powered hand tools, appliances and equipment | **1** | **3** | **3** | **2** | **2** | **..** | **..** | 13% |
| Storage equipment | .. | 1 | 2 | .. | 1 | .. | **..** | 4% |
| Total – Being hit by falling objects | 15 | 27 | 25 | 17 | 21 | 17 | 100% | 100% |

Note: Only selected agency subgroups are included. Therefore the number of fatalities in the selected subcategories will not add to the category total. The percentage figures are also rounded to the nearest whole number.

1. Worker fatalities by breakdown agency

The breakdown agency identifies the object, substance or circumstance principally involved at the point at which things started to go wrong.

Table 21 shows that the breakdown agency of mobile plant and transport accounted for 55 per cent of fatalities in 2016, and 58 per cent of fatalities over the 10 years to 2016. Within this group, trucks, semi-trailers or lorries was the biggest contributor accounting for 23 per cent of all worker fatalities in 2016. This was followed by cars, station wagons, vans or utilities at 12 per cent.

For the complete time series see Appendix A2.

Table Worker fatalities: number and proportion by selected breakdown agencies\*, 2003 and 2012 to 2016 (selected years, sorted by 2016 fatalities)

| Breakdown agency | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mobile plant and transport | **161** | **143** | **121** | **115** | **113** | **101** | **55%** | 58% |
| Road transport | 99 | 91 | 70 | 72 | 65 | 67 | **37%** | 36% |
| Trucks, semi-trailers, lorries | 58 | 54 | 41 | 50 | 43 | 42 | **23%** | 22% |
| Cars, station wagons, vans, utilities | 38 | 36 | 22 | 20 | 22 | 21 | **12%** | 12% |
| Other mobile plant | 20 | 12 | 17 | 14 | 14 | 12 | **7%** | 7% |
| Tractors, agricultural or otherwise | 13 | 6 | 13 | 10 | 6 | 10 | **5%** | 4% |
| Air transport | 24 | 14 | 10 | 9 | 4 | 6 | **3%** | 4% |
| Self-propelled plant | 8 | 13 | 6 | 10 | 14 | 9 | **5%** | 5% |
| Other transport | 3 | 4 | 12 | 6 | 7 | 2 | **1%** | 3% |
| Water transport | 4 | 4 | 4 | 1 | 5 | 1 | **1%** | 1% |
| Environmental agencies | **29** | **32** | **18** | **27** | **34** | **31** | **17%** | 14% |
| Machinery and (mainly) fixed plant | **23** | **23** | **24** | **21** | **18** | **14** | **8%** | 10% |
| Conveyors and lifting plant | 13 | 12 | 17 | 12 | 9 | 6 | **3%** | 5% |
| Electrical installation | 6 | 3 | 6 | 2 | 5 | 5 | **3%** | 2% |
| Non-powered hand tools, appliances and equipment | **13** | **8** | **14** | **13** | **18** | **12** | **7%** | 6% |
| Ladders, mobile ramps and stairways, and scaffolding | 4 | 2 | 4 | 4 | 6 | 8 | **4%** | 2% |
| Animal, human and biological agencies | **15** | **10** | **12** | **9** | **12** | **10** | **5%** | 5% |
| Live four-legged animals | 4 | 5 | 7 | 5 | 4 | 6 | **3%** | 3% |
| Human agencies | 10 | 3 | 4 | 3 | 8 | 3 | **2%** | 2% |
| Materials and substances | **7** | **7** | **7** | **7** | **9** | **7** | **4%** | 4% |
| Powered equipment, tools and appliances | **8** | **6** | **4** | **2** | **6** | **3** | **2%** | 2% |
| Chemicals and chemical products | **2** | **2** | **2** | **3** | **1** | **1** | **1%** | 1% |
| Total | 259 | 231 | 202 | 197 | 211 | 182 | 100% | 100% |

Note: Only selected breakdown agency subgroups and classes are included. Therefore the number of fatalities in the selected subcategories will not add to the category total. The percentage figures are also rounded to the nearest whole number.

1. Worker fatalities and the involvement of vehicles

Over the 10 year period from 2007 to 2016, 1484 (64 per cent) worker fatalities involved vehicles. Of these, just over a half (748 fatalities) occurred on a public road.

Table Worker fatalities by vehicle involvement: number by public road status and mechanism of incident, 2007 to 2016 combined (sorted by vehicle involved fatalities)

| Mechanism of fatality | Vehicle involved: On a public road | Vehicle involved: Not on a public road | Vehicle involved: Total | No vehicle involved | Total |
| --- | --- | --- | --- | --- | --- |
| Vehicle collision | 661 | 229 | 890 | .. | 890 |
| Being hit by moving objects | 61 | 133 | 194 | 73 | 267 |
| Rollover of non-road vehicle | 8 | 94 | 102 | .. | 102 |
| Being hit by falling objects | 2 | 74 | 76 | 149 | 225 |
| Being trapped by moving machinery | 3 | 53 | 56 | 52 | 108 |
| Being trapped between stationary and moving objects | 6 | 48 | 54 | 32 | 86 |
| Falls from a height | 2 | 46 | 48 | 224 | 272 |
| Other mechanisms | 5 | 59 | 64 | 315 | 379 |
| Total | 748 | 736 | 1484 | 845 | 2329 |

Table 23 shows that the vast majority (88 per cent) of worker fatalities involving vehicles on public roads were the result of a vehicle collision. This was followed by being hit by moving objects which accounted for a further 8 per cent of fatalities.

By contrast, less than a third (31 per cent) of fatalities involving a vehicle not on a public road were due to a vehicle collision. A further 18 per cent were caused by being hit by a moving object and 13 per cent due to the rollover of a non-road vehicle.

Table Worker fatalities by vehicle involvement: percentage by public road status and mechanism of incident, 2007 to 2016 combined (sorted by vehicle involved fatalities)

| Mechanism of fatality | Vehicle involved: On a public road | Vehicle involved: Not on a public road | Vehicle involved: Total | No vehicle involved | Total |
| --- | --- | --- | --- | --- | --- |
| Vehicle collision | 88% | 31% | 60% | .. | 38% |
| Being hit by moving objects | 8% | 18% | 13% | 9% | 11% |
| Rollover of non-road vehicle | 1% | 13% | 7% | .. | 4% |
| Being hit by falling objects | 0% | 10% | 5% | 18% | 10% |
| Being trapped by moving machinery | 0% | 7% | 4% | 6% | 5% |
| Being trapped between stationary and moving objects | 1% | 7% | 4% | 4% | 4% |
| Falls from a height | 0% | 6% | 3% | 27% | 12% |
| Other mechanisms | 1% | 8% | 4% | 37% | 16% |
| Total | 100% | 100% | 100% | 100% | 100% |

1. Worker fatalities by State/Territory

Table 24 shows that in 2016, 53 workers were killed in New South Wales, 45 in Queensland, 31 in Victoria, 21 in South Australia and 20 in Western Australia.

The most populous states have accounted for the majority of fatalities over the last 10 years. New South Wales accounted for 29 per cent of the worker fatalities over the period, followed by Queensland (25 per cent) and Victoria (19 per cent).

Table Worker fatalities: number by State/Territory of death, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| State/Territory | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| New South Wales | 85 | 83 | 54 | 58 | 62 | 53 | **29%** | 29% |
| Queensland | 57 | 57 | 54 | 50 | 51 | 45 | **25%** | 25% |
| Victoria | 54 | 35 | 33 | 42 | 38 | 31 | **17%** | 19% |
| South Australia | 13 | 13 | 15 | 10 | 10 | 21 | **12%** | 6% |
| Western Australia | 28 | 25 | 33 | 25 | 43 | 20 | **11%** | 14% |
| Tasmania | 17 | 6 | 8 | 8 | 6 | 6 | **3%** | 4% |
| Northern Territory | 4 | 9 | 4 | 4 | 1 | 5 | **3%** | 3% |
| Australian Capital Territory | 1 | 3 | 1 | .. | .. | 1 | **1%** | 0% |
| Total | 259 | 231 | 202 | 197 | 211 | 182 | 100% | 100% |

Table 25 shows that for the majority of the states and territories, the fatality rate was lower in 2016 than the average of the last 10 years. The South Australia fatality rate was higher than its 10 year average, while the Australian Capital Territory fatality rate was in line with its 10 year average.

Similar to industries, fatality rates are sensitive to the number of workers employed in each state or territory, and therefore are liable to show volatility in the smaller jurisdictions which employ the fewest workers, even when small variations in the number of fatalities are recorded. Accordingly, the actual number of fatalities should also be considered when interpreting the fatality rates for smaller jurisdictions.

Table Worker fatalities: fatality rate by State/Territory of death, 2003 and 2012 to 2016

| State/Territory | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- |
| New South Wales | 2.7 | 2.4 | 1.5 | 1.6 | 1.7 | 1.4 | 1.9 |
| Queensland | 3.2 | 2.5 | 2.4 | 2.2 | 2.2 | 1.9 | 2.6 |
| Victoria | 2.3 | 1.3 | 1.2 | 1.5 | 1.3 | 1.0 | 1.6 |
| South Australia | 1.8 | 1.6 | 1.9 | 1.2 | 1.2 | 2.6 | 1.9 |
| Western Australia | 2.9 | 1.9 | 2.5 | 1.9 | 3.2 | 1.5 | 2.6 |
| Tasmania | 8.2 | 2.6 | 3.5 | 3.4 | 2.5 | 2.5 | 3.6 |
| Northern Territory | 4.1 | 7.1 | 3.1 | 3.0 | 0.8 | 3.8 | 4.9 |
| Australian Capital Territory | 0.6 | 1.4 | 0.5 | 0.0 | 0.0 | 0.5 | 0.5 |
| Total | 2.7 | 2.0 | 1.8 | 1.7 | 1.8 | 1.5 | 2.1 |

1. Worker fatalities by State/Territory and industry

Table 26 and Table 27 show the industries which had the highest numbers of fatalities in each state or territory over the 10 years from 2007 to 2016. In line with the national average, Transport, postal and warehousing and Agriculture, forestry and fishing account for most worker fatalities across all the states and territories.

Tasmania and the Northern Territory had a considerably higher proportion of fatalities in the Agriculture, forestry and fishing industry (40 per cent and 38 per cent respectively).

Table Worker fatalities: number by State/Territory of death and the industries with the highest number of fatalities, 2007 to 2016 combined

| Industry | New South Wales | Queensland | Victoria | Western Australia | South Australia | Tasmania | Northern Territory | Total\* (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Agriculture, forestry and fishing | 141 | 143 | 113 | 60 | 40 | 34 | 23 | 554 |
| Transport, postal and warehousing | 169 | 146 | 105 | 75 | 32 | 11 | 14 | 553 |
| Construction | 100 | 99 | 70 | 40 | 26 | 11 | 5 | 354 |
| Manufacturing | 62 | 42 | 34 | 38 | 7 | 6 | 1 | 190 |
| Administrative and support services | 23 | 21 | 20 | 12 | 6 | 1 | 2 | 85 |
| Mining | 15 | 19 | 7 | 32 | 8 | 3 | 1 | 85 |
| Public administration and safety | 22 | 20 | 17 | 8 | 6 | 6 | 2 | 82 |
| Wholesale trade | 24 | 15 | 10 | 6 | 5 | .. | 1 | 61 |
| Arts and recreation services | 20 | 23 | 4 | 6 | 3 | .. | 2 | 59 |
| Retail trade | 23 | 10 | 10 | 6 | 3 | 4 | 2 | 58 |
| Other industries | 68 | 53 | 52 | 39 | 15 | 9 | 8 | 248 |
| Total | 667 | 591 | 442 | 322 | 151 | 85 | 61 | 2329 |

\* The Australian Capital Territory was not included separately due to the low numbers involved, however, the total includes the Australian Capital Territory.

Table Worker fatalities: proportion by State/Territory of death and the industries with the highest number of fatalities, 2007 to 2016 combined

| Industry | New South Wales | Queensland | Victoria | Western Australia | South Australia | Tasmania | Northern Territory | Total\* (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Agriculture, forestry and fishing | 21% | 24% | 26% | 19% | 26% | 40% | 38% | 24% |
| Transport, postal and warehousing | 25% | 25% | 24% | 23% | 21% | 13% | 23% | 24% |
| Construction | 15% | 17% | 16% | 12% | 17% | 13% | 8% | 15% |
| Manufacturing | 9% | 7% | 8% | 12% | 5% | 7% | 2% | 8% |
| Administrative and support services | 3% | 4% | 5% | 4% | 4% | 1% | 3% | 4% |
| Mining | 2% | 3% | 2% | 10% | 5% | 4% | 2% | 4% |
| Public administration and safety | 3% | 3% | 4% | 2% | 4% | 7% | 3% | 4% |
| Wholesale trade | 4% | 3% | 2% | 2% | 3% | 0% | 2% | 3% |
| Arts and recreation services | 3% | 4% | 1% | 2% | 2% | 0% | 3% | 3% |
| Retail trade | 3% | 2% | 2% | 2% | 2% | 5% | 3% | 2% |
| Other industries | 10% | 9% | 12% | 12% | 10% | 11% | 13% | 11% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

\* The Australian Capital Territory was not included separately due to the low numbers involved, however, the total includes the Australian Capital Territory.

Note: The percentages shown in this table have been rounded to the nearest whole number, therefore the sum of percentage figures for each column may not equal the total.

Section 2  
Bystander fatalities

1. Bystander fatalities by age group

The actions of a worker or a fault in a workplace resulted in the deaths of 52 members of the public in 2016, including seven children aged 14 and under. This total number of bystander fatalities in 2016 is the equal lowest number over the 14 years of the series.

Table 28 shows over the last 10 years, the oldest (65 years and over) and youngest (14 and under) age groups accounted for the highest proportion of bystander fatalities, 23 per cent and 16 per cent respectively.

Table Bystander fatalities: number and proportion by age group, 2003 and 2012 to 2016

| Age group | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 & under | 8 | 6 | 11 | 12 | 7 | 7 | **13%** | 16% |
| 15-24 | 8 | 4 | 7 | 12 | 3 | 4 | **8%** | 12% |
| 25-34 | 9 | 8 | 12 | 7 | 7 | 6 | **12%** | 13% |
| 35-44 | 4 | 7 | 6 | 6 | 6 | 10 | **19%** | 12% |
| 45-54 | 10 | 8 | 9 | 7 | 8 | 5 | **10%** | 12% |
| 55-64 | 10 | 7 | 10 | 10 | 10 | 7 | **13%** | 12% |
| 65 & over | 8 | 22 | 11 | 18 | 11 | 13 | **25%** | 23% |
| Total | 57 | 62 | 66 | 72 | 52 | 52 | 100% | 100% |

1. Bystander fatalities by mechanism of incident

Table 29 shows over the 10 year period from 2007 to 2016, 59 per cent of the bystander fatalities were due to a vehicle collision, with being hit by moving objects accounting for a further 16 per cent.

Falls from a height accounted for 6 per cent of bystander fatalities over the period, and drowning 5 per cent. The majority of the deaths from drowning were of children aged 14 years and under.

Table Bystander fatalities: number by mechanism of incident, 2003 and 2012 to 2016 (sorted by 2016 fatalities)

| Mechanism of fatality | 2003 | 2012 | 2013 | 2014 | 2015 | 2016 | % of 2016 | 10yr average (2007-2016) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Vehicle incident | 38 | 41 | 42 | 42 | 30 | 24 | **46%** | 59% |
| Being hit by moving objects | 7 | 12 | 8 | 10 | 9 | 12 | **23%** | 16% |
| Drowning | 1 | .. | .. | 5 | 5 | 7 | **13%** | 5% |
| Being trapped by moving machinery | 1 | .. | 1 | .. | .. | 4 | **8%** | 1% |
| Being hit by falling objects | 2 | 3 | 6 | 3 | 2 | 3 | **6%** | 5% |
| Falls from a height | 2 | 5 | 4 | 6 | 3 | 1 | **2%** | 6% |
| Other mechanisms | 6 | 1 | 5 | 6 | 3 | 1 | **2%** | 8% |
| Grand Total | 57 | 62 | 66 | 72 | 52 | 52 | 100% | 100% |

Section 3  
Glossary

1. Glossary

## Being hit by moving objects

Part of the Mechanism classification used to describe the action of an object hitting a person. This includes pedestrians hit by vehicles as well as being hit by other moving equipment or objects.

## Breakdown agency

A part of the TOOCS classification which identified the object, substance or circumstance principally involved at the point at which things started to go wrong.

## Bystander fatality

The death of a person who dies from injuries sustained as a result of another person’s work activity and who was not engaged in a work activity of their own at the time of the injury. A traffic incident death is only classified as a bystander fatality when attributable to someone else’s work activity. Typically, this means the driver of a work vehicle is at fault. Cases where fault could not be determined with sufficient confidence are excluded.

## Contributing family workers

A person who works without pay in an economic enterprise operated by a relative.

## Employed person

The denominators used in calculating fatality rates in this report are based on ABS estimates of Employed persons, as defined in Labour force, Australia (ABS cat no 6202.0). This population includes Employees (who work for an employer); self-employed persons (regardless of whether they employ others or not); and those who work without pay for a family business or farm. It excludes persons whose only work is voluntary.

## Employee

A person who works for a public or private employer and receives remuneration in wages, salary, a retainer fee from their employer while working on a commission basis, tips, piece-rates, or payment in kind; or a person who operates his or her own incorporated enterprise with or without hiring employees.

## Fatality rate

The number killed as a result of work-related injury expressed as a per-capita rate against the population at risk of work-related injury. In this report the rate is expressed as the number of fatalities per 100,000 Employed persons: for brevity this is usually expressed as ‘fatalities per 100,000 workers’. See Paragraph 4 of the Explanatory notes for further details.

## Industry

A grouping of businesses that carry out similar economic activities. Fatalities data in this publication have been coded to the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 (ABS cat. no. 1292.0) and unless specified are shown at the industry division level.

## Injury

A condition coded to ‘External causes of morbidity and mortality’ and ‘Injury, poisoning and certain other consequences of external causes’ in the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM).

## Job

A set of tasks designed to be performed by one person for an employer (including self-employment) in return for payment or profit.

## Mechanism of incident

The action, exposure or event that best describes the circumstances that resulted in the most serious injury.

## Non-public road incident

An incident involving a vehicle that occurred at a worksite, on a private road or a public area that is not a public road. These incidents include plane crashes and incidents involving watercraft as well as vehicle crashes on farming properties.

## Occupation

A set of jobs with similar sets of tasks. Fatalities data in this publication have been coded to the Australian and New Zealand Standard Classification of Occupations (ANZSCO) (ABS cat. no. 1220.0) First edition and unless specified are shown at the major group level.

## Public road incident

A collision on a public road between any vehicle or self-propelled plant and anything else including a pedestrian. Incidents involving vehicles at worksites or on private roads are excluded. Public road incidents can be due to a Vehicle collision or being hit by a vehicle (which is included in the Mechanism of Being hit by moving objects). Vehicles that are caught in bush fires or hit by falling trees while on public roads are not classed as public road incidents as they do not involve a collision.

## Rollover of non-road vehicle

Part of the Mechanism classification used to identify when a vehicle that is not normally a road vehicle overturns. This includes tractors and quad bikes being used on farm properties.

## Self-employed

Includes both owner managers and employers. An owner manager is a person who works in his/her own business, with or without employees, whether or not the business is of limited liability. An employer is a person who operates his/her own unincorporated economic enterprise or engages independently in a profession or trade, and hires one or more employees.

## Type of occurrence classification system (TOOCS)

A suite of four classifications to code the way an injury occurred, comprising the Nature of injury/disease classification, the Bodily location of injury/disease classification, Mechanism of incident classification, and the Agency of injury/disease classification. Version 3.1 is used for coding the data presented in this report. Fatalities are only coded by Mechanism and Agency.

## Vehicle collision

Part of the Mechanism of incident classification that identifies fatalities that occurred due to a vehicle crash and where the occupant of the vehicle was killed. In the classification, this category is called Vehicle Incident but has been renamed to assist with reader understanding. Vehicle collisions that occur on public roads are further classified as a public road incidents and do not include people hit by a vehicle, which are coded to Being hit by moving objects. Vehicles not only include cars and trucks but also include other motorised equipment such as aircraft, boats, loaders, tractors and quad bikes.

## Volunteer

Persons who undertake voluntary work through or for an organisation or group are included in the worker counts where that organisation or group is a business enterprise. It does not include sporting organisations or caring activities.

## Worker fatality

The death of a person who dies from injuries sustained while at work, including those workers whose injury was caused by another’s work activity. Workers include employees, self-employed persons, volunteers and contributing family workers.

Section 4  
Appendices

Appendix A1: Worker fatalities: number by mechanism of incident, 2003 to 2016 (sorted by total fatalities)

| Mechanism of incident | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Total |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Vehicle incident | 108 | 121 | 103 | 124 | 129 | 121 | 112 | 80 | 79 | 91 | 68 | 74 | 60 | 76 | 1346 |
| Being hit by moving objects | 40 | 37 | 29 | 32 | 38 | 32 | 31 | 28 | 19 | 28 | 24 | 22 | 28 | 17 | 405 |
| Falls from a height | 27 | 25 | 26 | 39 | 32 | 30 | 29 | 27 | 22 | 30 | 26 | 22 | 29 | 25 | 389 |
| Being hit by falling objects | 15 | 21 | 25 | 25 | 24 | 23 | 15 | 29 | 27 | 27 | 25 | 17 | 21 | 17 | 311 |
| Contact with electricity | 13 | 16 | 13 | 18 | 13 | 9 | 13 | 10 | 10 | 6 | 8 | 5 | 8 | 7 | 149 |
| Being trapped by moving machinery | 6 | 9 | 11 | 7 | 11 | 13 | 11 | 12 | 13 | 10 | 10 | 11 | 9 | 8 | 141 |
| Rollover of non-road vehicle | 9 | 13 | 11 | 6 | 12 | 11 | 12 | 11 | 11 | 6 | 15 | 7 | 14 | 3 | 141 |
| Being trapped between stationary and moving objects | 9 | 13 | 12 | 12 | 11 | 8 | 7 | 8 | 13 | 5 | 7 | 12 | 11 | 4 | 132 |
| Being assaulted by a person or persons | 12 | 9 | 7 | 5 | 8 | 3 | 4 | 4 | 3 | 6 | 6 | 4 | 5 | 4 | 80 |
| Drowning | 4 | 3 | 2 | 2 | 5 | 9 | 8 | 2 | 3 | 3 | 4 | 1 | 5 | 7 | 58 |
| Explosion | 3 | 1 | 2 | 1 | 1 | 7 | 1 | 3 | 5 | 2 | 1 | 6 | 5 | 2 | 40 |
| Being hit by an animal | 1 | 3 | 2 | 1 | 2 | 3 | 2 | 3 | 6 | 4 | 2 | 1 | 1 | 2 | 33 |
| Contact with hot objects | 1 |  | 2 | 1 | 7 | 3 | .. | 1 | 3 | 1 | 1 | 4 | 6 | 3 | 33 |
| Falls on the same level | 3 | 5 | 1 | 1 | 4 | 4 | 2 | 2 | .. | 4 | .. | 1 | 1 | .. | 28 |
| Slide or cave-in | 1 | 2 | 4 | 3 | 1 | .. | 1 | 1 | 2 | 1 | .. | 5 | 1 | 1 | 23 |
| Exposure to environmental heat | 1 | 1 | .. | 1 | 3 | .. | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 19 |
| Single contact with chemical or substance | 3 | .. | .. | 1 | 3 | 1 | 1 | 2 | 2 | 2 | .. | 2 | .. | .. | 17 |
| Being bitten by an animal | 1 | 1 | 3 | 2 | .. | .. | .. | 1 | 2 | 2 | .. | 1 | .. | 1 | 14 |
| Hitting stationary objects | .. | 1 | 1 | .. | 1 | .. | 1 | 2 | 1 | 2 | 2 | .. | 2 | .. | 13 |
| Hitting moving objects | .. | 1 | 3 | .. | 3 | 3 | 1 | .. | .. | .. | .. | .. | .. | 1 | 12 |
| Insect and spider bites and stings | .. | 1 | .. | .. | 2 | 3 | 1 | 1 | .. | .. | 1 | .. | .. | .. | 9 |
| Being hit by a person accidentally | .. | .. | .. | .. | .. | .. | 2 | 2 | 2 | .. | .. | .. | .. | .. | 6 |
| Exposure to other & unspecified environmental factors | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | 2 | 1 | 5 |
| Other and multiple mechanisms of injury | 1 | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | 4 |
| Other variations in pressure | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 |
| Unspecified mechanisms of injury | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Contact with poisonous parts of plant or marine life | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Exposure to environmental cold | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 |
| Total | 259 | 284 | 258 | 284 | 310 | 283 | 258 | 230 | 225 | 231 | 202 | 197 | 211 | 182 | 3414 |

Appendix A2: Worker fatalities: number by breakdown agency, 2003 to 2016 (sorted by total fatalities)

| Breakdown agency | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Total |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mobile plant & transport | 161 | 180 | 151 | 172 | 192 | 184 | 167 | 135 | 133 | 143 | 121 | 115 | 113 | 101 | 2068 |
| Road transport | 99 | 114 | 100 | 112 | 139 | 115 | 110 | 86 | 72 | 91 | 70 | 72 | 65 | 67 | 1312 |
| Trucks, semi-trailers, lorries | 58 | 72 | 50 | 66 | 76 | 67 | 65 | 49 | 47 | 54 | 41 | 50 | 43 | 42 | 780 |
| Cars, station wagons etc. | 38 | 36 | 42 | 43 | 54 | 36 | 41 | 35 | 22 | 36 | 22 | 20 | 22 | 21 | 468 |
| Air transport | 24 | 12 | 15 | 21 | 11 | 19 | 11 | 14 | 21 | 14 | 10 | 9 | 4 | 6 | 191 |
| Industrial aircraft | 9 | 7 | 4 | 11 | 7 | 13 | 11 | 13 | 10 | 12 | 9 | 3 | 4 | 4 | 117 |
| Passenger aircraft | 15 | 4 | 11 | 10 | 4 | 6 | .. | 1 | 10 | 2 | 1 | 6 | .. | 2 | 72 |
| Self-propelled plant | 8 | 12 | 10 | 10 | 11 | 14 | 11 | 8 | 9 | 13 | 6 | 10 | 14 | 9 | 145 |
| Front-end loaders, log handling plant etc. |  | 5 | 5 | 4 | 5 | 4 | 1 | 1 | 2 | 6 | 2 | 3 | 4 | 3 | 45 |
| Excavators, backhoes, other plant | 3 | 3 | 1 | 2 | 2 | 1 | 3 | 3 | 4 | 3 | 1 | 2 | 4 | 4 | 36 |
| Graders, dozers, snowploughs etc. | 3 | 1 | 2 | 2 | 1 | 5 | 1 | 2 | 1 | .. | 1 | 2 | 3 | .. | 24 |
| Other mobile plant | 20 | 23 | 16 | 15 | 14 | 15 | 15 | 16 | 13 | 12 | 17 | 14 | 14 | 12 | 216 |
| Tractors, agricultural or otherwise | 13 | 22 | 13 | 13 | 7 | 11 | 13 | 13 | 9 | 6 | 13 | 10 | 6 | 10 | 159 |
| Water transport | 4 | 9 | 6 | 4 | 4 | 11 | 9 | 4 | 4 | 4 | 4 | 1 | 5 | 1 | 70 |
| Other transport | 3 | 4 | 3 | 3 | 4 | 8 | 7 | 1 | 11 | 4 | 12 | 6 | 7 | 2 | 75 |
| All terrain vehicle (atv) | 3 | 4 | 3 | 2 | 4 | 8 | 6 | 1 | 11 | 4 | 12 | 6 | 7 | 2 | 73 |
| Machinery & (mainly) fixed plant | 23 | 27 | 32 | 30 | 29 | 29 | 31 | 25 | 32 | 23 | 24 | 21 | 18 | 14 | 358 |
| Conveyors and lifting plant | 13 | 10 | 20 | 18 | 18 | 17 | 16 | 14 | 22 | 12 | 17 | 12 | 9 | 6 | 204 |
| Forklift trucks | 4 | 4 | 6 | 9 | 5 | 8 | 3 | 8 | 4 | 2 | 6 | 5 | 4 | 1 | 69 |
| Power hoists | 2 | 3 | 3 | 1 | 9 | 6 | 6 | 4 | 8 | 3 | 4 | 3 | 2 | 2 | 56 |
| Cranes | 5 | 1 | 7 | 4 | 3 | 2 | 5 | .. | 7 | 4 | 6 | 2 | 1 | 1 | 48 |
| Electrical installation | 6 | 6 | 6 | 5 | 4 | 5 | 11 | 5 | 4 | 3 | 6 | 2 | 5 | 5 | 73 |
| Environmental agencies | 29 | 28 | 27 | 29 | 28 | 20 | 25 | 20 | 21 | 32 | 18 | 27 | 34 | 31 | 369 |
| Buildings and other structures | 16 | 12 | 9 | 14 | 7 | 8 | 10 | 6 | 4 | 12 | 5 | 8 | 8 | 7 | 126 |
| Vegetation | 3 | 6 | 11 | 5 | 6 | 3 | 3 | 6 | 6 | 6 | 7 | 2 | 5 | 7 | 76 |
| Non-powered hand tools, appliances & equipment | 13 | 17 | 11 | 20 | 24 | 22 | 13 | 23 | 8 | 8 | 14 | 13 | 18 | 12 | 216 |
| Ladders, mobile ramps and scaffolding | 4 | 3 | 5 | 7 | 13 | 9 | 7 | 11 | 7 | 2 | 4 | 4 | 6 | 8 | 90 |
| Ladders | 3 | 3 | 3 | 5 | 10 | 4 | 4 | 9 | 6 | 1 | 3 | 3 | 3 | 6 | 63 |
| Scaffolding | 1 | .. | 2 | .. | 3 | 5 | 3 | 2 | 1 | 1 | 1 | .. | 2 | 2 | 23 |
| Animal, human & biological agencies | 15 | 15 | 14 | 14 | 14 | 12 | 9 | 11 | 13 | 10 | 12 | 9 | 12 | 10 | 170 |
| Live four-legged animals | 4 | 6 | 6 | 6 | 6 | 5 | 4 | 7 | 7 | 5 | 7 | 5 | 4 | 6 | 78 |
| Horses, donkeys, mules | 3 | 3 | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 1 | 4 | 5 | 3 | 2 | 46 |
| Cows, steers, cattle, buffalo | 1 | 2 | .. | 1 | 1 | 2 | 1 | 3 | 3 | 3 | 2 | .. | .. | 2 | 21 |
| Human agencies | 10 | 7 | 6 | 5 | 6 | 4 | 4 | 2 | 4 | 3 | 4 | 3 | 8 | 3 | 69 |
| Other person | 8 | 6 | 5 | 5 | 6 | 3 | 4 | 2 | 4 | 3 | 4 | 3 | 4 | 3 | 60 |
| Powered equipment, tools & appliances | 8 | 7 | 6 | 12 | 10 | 8 | 8 | 10 | 7 | 6 | 4 | 2 | 6 | 3 | 97 |
| Materials & substances | 7 | 10 | 13 | 4 | 8 | 6 | 5 | 2 | 8 | 7 | 7 | 7 | 9 | 7 | 100 |
| Chemicals & chemical products | 2 | .. | 4 | 3 | 3 | 2 | .. | 4 | 3 | 2 | 2 | 3 | 1 | 1 | 30 |
| Total | 259 | 284 | 258 | 284 | 310 | 283 | 258 | 230 | 225 | 231 | 202 | 197 | 211 | 182 | 3414 |

Appendix A3: Worker fatalities: number by industry of employer, 2003 to 2016 (sorted by total fatalities)

| Industry of employer | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Total |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Transport, postal & warehousing | 68 | 66 | 55 | 62 | 83 | 71 | 64 | 45 | 48 | 60 | 43 | 47 | 45 | 47 | 804 |
| Road transport | 45 | 50 | 41 | 52 | 62 | 52 | 56 | 33 | 29 | 51 | 36 | 40 | 40 | 40 | 627 |
| Road freight transport | 40 | 47 | 37 | 47 | 58 | 50 | 51 | 32 | 25 | 44 | 33 | 37 | 39 | 34 | 574 |
| Agriculture, forestry & fishing | 60 | 77 | 62 | 46 | 52 | 69 | 62 | 55 | 60 | 56 | 55 | 45 | 56 | 44 | 799 |
| Agriculture | 46 | 54 | 44 | 35 | 40 | 45 | 45 | 46 | 46 | 38 | 43 | 40 | 44 | 31 | 597 |
| Construction | 43 | 35 | 30 | 43 | 45 | 38 | 36 | 41 | 41 | 30 | 22 | 32 | 34 | 35 | 505 |
| Manufacturing | 20 | 23 | 23 | 29 | 25 | 30 | 23 | 21 | 22 | 18 | 12 | 17 | 16 | 6 | 285 |
| Mininga | 11 | 11 | 9 | 15 | 7 | 12 | 10 | 5 | 6 | 8 | 9 | 11 | 11 | 6 | 131 |
| Public administration & safety | 9 | 11 | 14 | 13 | 13 | 4 | 11 | 7 | 11 | 8 | 11 | 6 | 6 | 5 | 129 |
| Administrative & support services | 4 | 9 | 12 | 8 | 12 | 10 | 12 | 12 | 8 | 6 | 5 | 4 | 8 | 8 | 118 |
| Wholesale trade | 7 | 10 | 11 | 8 | 8 | 11 | 4 | 10 | 3 | 9 | 8 | 6 | 2 | .. | 97 |
| Retail trade | 7 | 5 | 7 | 10 | 17 | 6 | 5 | 7 | 2 | 5 | 8 | .. | 4 | 4 | 87 |
| Arts & recreation services | 3 | 5 | 6 | 5 | 10 | 3 | 1 | 5 | 6 | 5 | 7 | 10 | 7 | 5 | 78 |
| Other services | 4 | 7 | 10 | 7 | 4 | 7 | 4 | 2 | 4 | 3 | 7 | 4 | 8 | 4 | 75 |
| Electricity, gas, water & waste services | 5 | 8 | 6 | 8 | 4 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 4 | 8 | 67 |
| Professional, scientific & technical services | 2 | 6 | 2 | 6 | 7 | 5 | 4 | 4 | 2 | 8 | 2 | .. | 2 | 1 | 51 |
| Rental, hiring & real estate services | 4 | 2 | 6 | 4 | 10 | 4 | 2 | 4 | 2 | 3 | 3 | 1 | .. | 2 | 47 |
| Accommodation & food services | 5 | 4 | .. | 8 | 6 | 2 | 3 | 2 | 1 | 1 | 2 | 6 | 3 | .. | 43 |
| Health care & social assistance | 3 | 3 | 3 | 2 | .. | 2 | 6 | 4 | 2 | 2 | 4 | 2 | 3 | 4 | 40 |
| Education & training | 2 | 1 | 2 | 8 | 4 | 2 | 2 | 2 | 2 | 4 | .. | 1 | 2 | 2 | 34 |
| Information media & telecommunications | 1 | 1 | .. | 1 | 3 | .. | 1 | 3 | 3 | 2 | .. | .. | .. | 1 | 16 |
| Financial & insurance services | 1 | .. | .. | 1 | .. | 3 | 3 | .. | .. | .. | .. | .. | .. | .. | 8 |
| Total | 259 | 284 | 258 | 284 | 310 | 283 | 258 | 230 | 225 | 231 | 202 | 197 | 211 | 182 | 3414 |

a Mining fatalities include those that occur in coal and metal ore mining, oil and gas extraction, sand and gravel quarrying, exploration and support services.

Appendix A4: Worker fatalities: fatality rate (fatalities per 100,000 workers) by industry of employer, 2003 to 2016 (sorted by total fatality rates)\*

| Industry of employer | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Total |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Agriculture, forestry & fishing | 16.4 | 21.6 | 17.6 | 13.4 | 15.0 | 20.0 | 17.8 | 15.5 | 19.0 | 17.7 | 18.3 | 13.9 | 18.0 | 14.0 | 17.0 |
| Agriculture | 14.5 | 17.5 | 14.6 | 11.7 | 13.3 | 15.1 | 14.6 | 14.8 | 16.8 | 13.8 | 16.5 | 14.3 | 16.2 | 11.6 | 14.7 |
| Transport, postal & warehousing | 14.6 | 13.7 | 11.1 | 12.4 | 15.5 | 12.5 | 11.0 | 7.7 | 8.3 | 10.9 | 7.3 | 7.9 | 7.4 | 7.5 | 10.4 |
| Road transport | 20.2 | 22.4 | 19.5 | 23.2 | 26.4 | 22.1 | 23.4 | 14.8 | 12.7 | 23.1 | 15.3 | 16.6 | 15.7 | 14.9 | 19.2 |
| Road freight transport | 26.1 | 32.0 | 27.3 | 32.0 | 38.0 | 29.1 | 30.0 | 19.6 | 15.6 | 29.0 | 20.0 | 21.6 | 21.2 | 18.1 | 25.4 |
| Mininga | 12.4 | 11.0 | 7.6 | 11.4 | 5.1 | 7.3 | 6.1 | 2.7 | 2.7 | 3.0 | 3.4 | 4.3 | 4.8 | 2.7 | 5.1 |
| Electricity, gas, water and waste services | 5.5 | 8.8 | 6.0 | 7.6 | 3.8 | 3.3 | 3.8 | 0.7 | 1.4 | 2.0 | 2.7 | 3.4 | 2.8 | 5.8 | 3.8 |
| Construction | 5.8 | 4.4 | 3.6 | 4.8 | 4.8 | 3.9 | 3.7 | 4.1 | 4.0 | 3.1 | 2.2 | 3.1 | 3.3 | 3.3 | 3.8 |
| Arts & recreation services | 2.1 | 3.2 | 3.5 | 2.9 | 5.2 | 1.6 | 0.5 | 2.6 | 2.9 | 2.4 | 3.4 | 4.9 | 3.1 | 2.2 | 2.9 |
| Administrative & support services | 1.2 | 2.7 | 3.4 | 2.3 | 3.4 | 2.9 | 3.4 | 3.1 | 2.0 | 1.5 | 1.3 | 1.0 | 1.9 | 1.8 | 2.3 |
| Manufacturing | 1.9 | 2.2 | 2.3 | 2.9 | 2.4 | 2.9 | 2.3 | 2.1 | 2.3 | 1.9 | 1.3 | 1.8 | 1.8 | 0.7 | 2.1 |
| Wholesale trade | 1.9 | 2.6 | 3.0 | 2.0 | 2.1 | 2.7 | 1.0 | 2.4 | 0.7 | 2.2 | 1.9 | 1.5 | 0.5 | .. | 1.8 |
| Rental, hiring & real estate services | 2.4 | 1.1 | 3.4 | 2.1 | 5.0 | 2.0 | 1.1 | 2.1 | 1.0 | 1.4 | 1.5 | 0.5 | .. | 0.9 | 1.7 |
| Public administration & safety | 1.6 | 1.9 | 2.3 | 2.1 | 2.0 | 0.6 | 1.6 | 1.0 | 1.5 | 1.1 | 1.5 | 0.8 | 0.8 | 0.7 | 1.4 |
| Other services | 0.9 | 1.7 | 2.5 | 1.7 | 0.9 | 1.5 | 0.9 | 0.4 | 0.9 | 0.7 | 1.5 | 0.8 | 1.7 | 0.8 | 1.2 |
| Retail trade | 0.6 | 0.5 | 0.6 | 0.9 | 1.4 | 0.5 | 0.4 | 0.6 | 0.2 | 0.4 | 0.7 | .. | 0.3 | 0.3 | 0.5 |
| Information media & telecommunications | 0.4 | 0.5 | .. | 0.4 | 1.2 | .. | 0.5 | 1.4 | 1.5 | 0.9 | .. | .. | .. | 0.5 | 0.5 |
| Professional, scientific & technical services | 0.3 | 1.0 | 0.3 | 0.8 | 0.9 | 0.6 | 0.5 | 0.5 | 0.2 | 0.9 | 0.2 | .. | 0.2 | 0.1 | 0.4 |
| Accommodation & food services | 0.8 | 0.6 | .. | 1.2 | 0.9 | 0.3 | 0.4 | 0.3 | 0.1 | 0.1 | 0.3 | 0.8 | 0.4 | .. | 0.4 |
| Education & training | 0.3 | 0.1 | 0.3 | 1.1 | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5 | .. | 0.1 | 0.2 | 0.2 | 0.3 |
| Health care & Social assistance | 0.3 | 0.3 | 0.3 | 0.2 | .. | 0.2 | 0.5 | 0.3 | 0.2 | 0.1 | 0.3 | 0.1 | 0.2 | 0.3 | 0.2 |
| Financial & insurance services | 0.3 | .. | .. | 0.3 | .. | 0.7 | 0.8 | .. | .. | .. | .. | .. | .. | .. | 0.1 |
| Total | 2.7 | 2.9 | 2.6 | 2.8 | 2.9 | 2.6 | 2.4 | 2.0 | 2.0 | 2.0 | 1.8 | 1.7 | 1.8 | 1.5 | 2.2 |

a Mining fatalities include those that occur in coal and metal ore mining, oil and gas extraction, sand and gravel quarrying, exploration and support services.  
\* Movements in fatality rates in industries with 5 or fewer fatalities each year should be viewed with caution.

Appendix A5: Worker fatalities: number by occupation, 2003 to 2016 (sorted by total fatalities)

| Occupation | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Total |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Machinery operators and drivers | 86 | 91 | 76 | 89 | 112 | 94 | 95 | 65 | 61 | 77 | 62 | 67 | 71 | 62 | 1108 |
| Road and rail drivers | 65 | 71 | 55 | 69 | 82 | 67 | 72 | 48 | 46 | 61 | 47 | 49 | 46 | 50 | 828 |
| Mobile plant operators | 11 | 8 | 8 | 10 | 17 | 9 | 12 | 8 | 7 | 8 | 6 | 6 | 17 | 8 | 135 |
| Machine and stationary plant operators | 7 | 8 | 11 | 9 | 7 | 15 | 9 | 7 | 8 | 5 | 8 | 12 | 8 | 3 | 117 |
| Labourers | 61 | 60 | 42 | 52 | 56 | 65 | 40 | 51 | 41 | 48 | 41 | 50 | 38 | 40 | 685 |
| Farm, forestry and garden workers | 22 | 26 | 15 | 13 | 16 | 33 | 12 | 22 | 16 | 16 | 11 | 23 | 17 | 15 | 257 |
| Other labourers | 10 | 18 | 9 | 14 | 15 | 13 | 10 | 14 | 7 | 9 | 19 | 17 | 9 | 13 | 177 |
| Construction and mining labourers | 24 | 10 | 12 | 14 | 13 | 15 | 11 | 11 | 12 | 14 | 8 | 9 | 9 | 11 | 173 |
| Managers | 40 | 48 | 50 | 42 | 38 | 34 | 43 | 34 | 41 | 39 | 35 | 19 | 35 | 24 | 522 |
| Farmers and farm managers | 31 | 35 | 35 | 27 | 27 | 24 | 32 | 27 | 35 | 27 | 30 | 16 | 24 | 19 | 389 |
| Technicians and trades workers | 31 | 49 | 43 | 53 | 55 | 46 | 37 | 40 | 43 | 28 | 29 | 29 | 35 | 26 | 544 |
| Construction trades workers | 10 | 13 | 6 | 15 | 17 | 11 | 13 | 12 | 8 | 11 | 3 | 10 | 11 | 12 | 152 |
| Automotive and engineering trades workers | 10 | 15 | 13 | 12 | 13 | 16 | 10 | 10 | 11 | 4 | 11 | 8 | 9 | 2 | 144 |
| Electro-technology and telecommunications trades workers | 9 | 11 | 13 | 11 | 13 | 9 | 6 | 8 | 14 | 6 | 9 | 7 | 8 | 6 | 130 |
| Skilled animal and horticultural workers | .. | 4 | 6 | 6 | 7 | 1 | 2 | 3 | 4 | 1 | 3 | 3 | 2 | 5 | 47 |
| Professionals | 19 | 15 | 24 | 25 | 24 | 21 | 20 | 24 | 25 | 22 | 12 | 12 | 12 | 14 | 269 |
| Design, engineering, science and transport professionals | 17 | 12 | 19 | 17 | 12 | 16 | 13 | 13 | 19 | 15 | 9 | 10 | 6 | 8 | 186 |
| Legal, social and welfare professionals | .. | 1 | 1 | 1 | .. | 2 | .. | 2 | .. | 1 | 2 | .. | .. | 3 | 13 |
| Community and personal service workers | 11 | 16 | 12 | 14 | 10 | 8 | 14 | 9 | 10 | 9 | 14 | 11 | 10 | 3 | 151 |
| Protective service workers | 7 | 6 | 8 | 7 | 5 | 3 | 8 | 5 | 3 | 7 | 4 | 3 | .. | 3 | 69 |
| Sales workers | 7 | 4 | 5 | 7 | 10 | 7 | 4 | 5 | 1 | 3 | 6 | 2 | 2 | 3 | 66 |
| Clerical and administrative workers | 4 | 1 | 6 | 2 | 5 | 8 | 5 | 2 | 3 | 5 | 1 | 3 | 1 | 1 | 47 |
| Total | 259 | 284 | 258 | 284 | 310 | 283 | 258 | 230 | 225 | 231 | 202 | 197 | 211 | 182 | 3414 |

Note: Only selected occupation sub-major classifications are included. Therefore the number of fatalities in the selected sub-major classifications will not add to the category total.   
\*The total number of fatalities and percentage figures for each column shown in this table will not equal the total due to rounding and the inclusion of selected subdivisions and groups within an industry division.

Appendix A6: Worker fatalities: fatality rate by occupation, 2003 to 2016 (sorted by 2016 fatality rates)

| Occupation | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Machinery operators and drivers | 13.7 | 14.2 | 11.9 | 13.5 | 15.7 | 13.1 | 13.8 | 9.2 | 8.2 | 10.4 | 8.0 | 8.9 | 9.5 | 8.2 |
| Road and rail drivers | 24.9 | 26.2 | 20.7 | 25.2 | 28.6 | 23.2 | 25.0 | 16.7 | 14.8 | 20.4 | 14.6 | 15.4 | 14.3 | 14.6 |
| Mobile plant operators | 9.3 | 6.5 | 6.5 | 8.0 | 12.2 | 6.6 | 9.1 | 5.6 | 5.0 | 5.4 | 4.4 | 4.3 | 13.1 | 6.5 |
| Machine and stationary plant operators | 4.0 | 4.8 | 6.9 | 5.5 | 4.1 | 8.5 | 5.7 | 4.3 | 4.7 | 2.9 | 4.4 | 7.3 | 5.0 | 1.9 |
| Labourers | 5.6 | 5.5 | 3.8 | 4.6 | 4.9 | 5.6 | 3.5 | 4.5 | 3.6 | 4.2 | 3.6 | 4.4 | 3.4 | 3.4 |
| Farm, forestry and garden workers | 15.8 | 20.6 | 13.2 | 10.8 | 13.8 | 31.4 | 11.1 | 18.3 | 13.7 | 14.7 | 11.0 | 20.0 | 14.6 | 12.4 |
| Other labourers | 5.1 | 9.2 | 4.3 | 6.0 | 6.3 | 5.3 | 4.2 | 6.0 | 3.1 | 3.9 | 8.3 | 7.8 | 4.4 | 5.9 |
| Construction and mining labourers | 17.8 | 7.0 | 8.4 | 9.5 | 7.8 | 9.0 | 6.8 | 7.0 | 7.1 | 8.8 | 5.2 | 5.7 | 5.7 | 6.6 |
| Managers | 3.5 | 4.1 | 4.0 | 3.3 | 2.8 | 2.5 | 3.1 | 2.3 | 2.9 | 2.7 | 2.4 | 1.3 | 2.3 | 1.6 |
| Farmers and farm managers | 15.7 | 18.1 | 17.7 | 14.1 | 13.7 | 12.3 | 15.9 | 13.6 | 20.8 | 16.0 | 19.1 | 9.1 | 14.4 | 12.2 |
| Technicians and trades workers | 2.2 | 3.4 | 2.9 | 3.5 | 3.5 | 2.8 | 2.3 | 2.5 | 2.6 | 1.7 | 1.7 | 1.7 | 2.0 | 1.5 |
| Construction trades workers | 3.3 | 4.1 | 1.8 | 4.4 | 5.0 | 2.9 | 3.7 | 3.3 | 2.1 | 3.2 | 0.8 | 2.8 | 3.0 | 3.2 |
| Automotive and engineering trades workers | 3.0 | 4.4 | 3.8 | 3.4 | 3.7 | 4.4 | 2.8 | 2.8 | 3.1 | 1.1 | 3.0 | 2.1 | 2.3 | 0.6 |
| Electro technology and telecommunications trades workers | 4.6 | 6.2 | 7.0 | 5.6 | 6.1 | 4.2 | 2.8 | 3.4 | 6.4 | 2.6 | 4.0 | 3.0 | 3.3 | 2.5 |
| Skilled animal and Horticultural Workers | 0.0 | 4.0 | 5.9 | 5.2 | 6.1 | 0.9 | 1.9 | 2.8 | 3.4 | 0.8 | 2.5 | 2.3 | 1.7 | 4.1 |
| Professionals | 1.0 | 0.8 | 1.2 | 1.2 | 1.1 | 0.9 | 0.9 | 1.0 | 1.0 | 0.9 | 0.5 | 0.5 | 0.4 | 0.5 |
| Design, Engineering, Science and Transport Professionals | 6.9 | 4.6 | 6.5 | 5.6 | 3.9 | 4.7 | 3.8 | 3.6 | 5.0 | 3.9 | 2.3 | 2.6 | 1.6 | 2.1 |
| Legal, Social and Welfare Professionals | 0.0 | 0.8 | 0.7 | 0.7 | 0.0 | 1.2 | 0.0 | 1.1 | 0.0 | 0.5 | 1.0 | 0.0 | 0.0 | 1.4 |
| Community and Personal Service Workers | 1.4 | 2.0 | 1.4 | 1.6 | 1.1 | 0.9 | 1.4 | 0.9 | 0.9 | 0.8 | 1.2 | 1.0 | 0.8 | 0.2 |
| Protective Service Workers | 5.9 | 5.2 | 6.5 | 5.7 | 4.1 | 2.4 | 6.1 | 3.9 | 2.2 | 5.1 | 2.7 | 2.0 | 0.0 | 2.1 |
| Sales Workers | 0.7 | 0.4 | 0.5 | 0.7 | 1.0 | 0.7 | 0.4 | 0.5 | 0.1 | 0.3 | 0.6 | 0.2 | 0.2 | 0.3 |
| Clerical and Administrative Workers | 0.3 | 0.1 | 0.4 | 0.1 | 0.3 | 0.5 | 0.3 | 0.1 | 0.2 | 0.3 | 0.1 | 0.2 | 0.1 | 0.1 |
| Total | 2.8 | 3.0 | 2.6 | 2.8 | 3.0 | 2.6 | 2.4 | 2.1 | 2.0 | 2.0 | 1.8 | 1.7 | 1.8 | 1.5 |

Note: Movements in fatality rates in occupations with 5 or fewer fatalities each year should be viewed with caution.   
\* Occupation not known is included in total.