

NOTIFIED FATALITIES STATISTICAL REPORT

JULY 2007 TO JUNE 2008



Australian Government

Australian Safety and Compensation Council

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SUMMARY

This report provides an analysis of data on work-related fatalities between 1 July 2007 and 30 June 2008 that were notified to OHS jurisdictions under their OHS legislation.

- > In 2007–08 there were 150 notified work-related fatalities — 131 workers and 19 bystanders (Table 1).
- > Most fatalities were of men — 137 in total. There were 10 fatalities of women (including 4 bystanders) and gender was unknown for 3 other fatalities.
- > There were 16 fewer notified worker fatalities in 2007–08 than in 2006–07 (a decrease of 11%).
- > The occupation group Intermediate production and transport workers contributed one-quarter of all notified work-related fatalities (37 fatalities).
- > Four industries accounted for eight out of every ten notified work-related fatalities — 24% of fatalities occurred at a workplace primarily engaged in Construction; 23% in Transport and storage; 18% in Agriculture, forestry and fishing; and 13% in Manufacturing (Table 2).
- > Just over one-quarter (27%) of all notified fatalities of known age were of workers aged 55 years or older. In 2007–08 workers within this age group represented 15% of all employed Australians. This over-representation of older workers has been a consistent feature of work-related fatality notifications in every year since the collection commenced.
- > The most common causes of fatalities were *Vehicle accidents* (44 fatalities); *Being hit by falling objects* (23 fatalities); *Being hit by moving objects* (21 fatalities); *Falls from a height* (16 fatalities); and *Being trapped by moving machinery* (12 fatalities) (Table 4).
- > Among *Vehicle accidents*, 17 fatalities occurred on public roads and 27 occurred elsewhere, including 6 fatalities during air travel (Table 1). Since work-related road traffic fatalities are not notified to some OHS jurisdictions, the counts presented in this report are likely to under-report their occurrence.

Table 1 Notified fatalities in Australia by place of fatality, July 2007 to June 2008

Place of fatality	Worker	Bystander	Total
At worksite	95	11	106
Vehicle accident ^(a) on public road	12	5	17
Vehicle accident ^(a) elsewhere	24	3	27
Total	131	19	150

(a) Includes rollover of mobile mechanical equipment such as tractors, forklifts and construction vehicles.

BACKGROUND INFORMATION

OHS legislation in each Australian state and territory requires work-related deaths to be notified to the state or territory OHS authority. The Australian Safety and Compensation Council (ASCC) began compiling details of these notifications from each OHS authority on 1 July 2003. Notifications cover workers (both employees and self-employed) who suffered a fatal injury at work and bystanders who suffered a fatal injury as a result of work activity. Fatalities that occurred while commuting to or from work, and those resulting from suicide or natural causes (i.e. stroke or heart attack) are not included in this report.

The compilation of notifications at the national level is complicated by differences across jurisdictions in the definition of a work-related death and the coverage of some incidents. In particular:

- > Several jurisdictions do not include work-related deaths caused by vehicle accidents on public roads in their notification systems. These fatalities are instead notified to and investigated by the police.
- > Aircraft crash fatalities are not notified to all OHS jurisdictions. These fatalities are instead notified to the relevant transport authority.

INDUSTRY

Table 2 shows the number of notified work-related fatalities during 2007–08 according to the industry of the workplace and the industry of the workers' employer. The industry of workplace identifies the primary work activity conducted at the site where the incident leading to the fatality occurred.

Workplaces primarily engaged in the Construction industry accounted for the largest number of notified fatalities (36 fatalities). Other high ranking industries were Transport and storage; Agriculture, forestry and fishing; and Manufacturing.

Table 2 also shows the fatality incidence rate for workers (the number of notified worker fatalities per 100 000 workers) by the industry of employment.

In 2007–08, the highest fatality incidence rate occurred among workers employed in the Agriculture, forestry and fishing industry — 6.7 notified worker fatalities per 100 000 workers. Other industries with rates well above the national rate of 1.2 notified worker fatalities per 100 000 workers were Transport and storage (5.0); Electricity, gas and water supply (3.3); Construction (3.2); and Mining (2.7).

Table 2 Number of notified fatalities by industry, July 2007 to June 2008

Industry	Industry of workplace ^(a)			Industry of employer ^{(a)(b)}	
	Worker	Bystander	Total	Worker	Incidence rate ^(c)
Construction	36	0	36	31	3.2
Transport & storage	26	8	34	25	5.0
Agriculture, forestry & fishing	25	2	27	24	6.7
Manufacturing	18	1	19	16	1.5
Cultural & recreational services	3	4	7	3	1.0
Government administration & defence	3	1	4	5	1.0
Mining	4	0	4	4	2.7
Retail trade	3	1	4	2	0.1
Communication services	2	1	3	3	1.6
Health & community services	2	1	3	2	0.2
Property & business services	3	0	3	9	0.7
Electricity, gas & water supply	2	0	2	3	3.3
Wholesale trade	2	0	2	1	0.2
Personal & other services	1	0	1	1	0.2
Accommodation, cafes & restaurants	0	0	0	1	0.2
Education	0	0	0	0	0
Finance & insurance	0	0	0	0	0
Industry unknown or not applicable	0	0	0	1	na
Private residence	1	0	1	na	na
Total	131	19	150	131	1.2

na denotes 'not applicable'.

(a) *Industry of workplace* identifies the main industry conducted at the workplace where the fatal incident occurred. *Industry of employer* identifies the main industry conducted by the employer of the fatally-injured worker, which will sometimes differ from the *Industry of workplace* — for example, where a worker is employed under a labour hire arrangement to provide services at a workplace. *Industry of workplace* would therefore more accurately reflect the actual work tasks and circumstances associated with a fatal workplace incident.

(b) Industry of employer is not applicable for bystanders.

(c) Fatalities per 100 000 workers. Calculated using annual averages of quarterly data (ABS 6291.0.55.003 *Labour Force, Australia, Detailed – Electronic Delivery. Table 05. Employed persons by state and industry*).

TIME SERIES BY INDUSTRY

Table 3 shows the annual number of notified fatalities of workers according to the industry of the workplace at which the fatal injury occurred for the five financial years from 2003–04. Bystander fatalities have been excluded from this analysis.

Because of the random nature of work-related fatalities and the relatively small numbers involved, the reader should note that percentage shifts between years can vary considerably.

Table 3 shows that over the five year period the number of fatalities notified to the ASCC has varied

between a minimum of 124 workers in 2003–04 to a maximum of 147 in 2006–07. However, the fatality incidence rate, which compares the number of fatalities with the number of workers, is more stable: this measure was 1.3 notified worker fatalities per 100 000 workers in 2003–04 and 2004–05 and 1.4 in 2005–06 and 2006–07. The welcome decrease (11%) from 147 worker fatalities in 2006–07 to 131 in 2007–08 is an encouraging sign. The fatality incidence rate also decreased to a minimum over the five year period of 1.2 notified worker fatalities per 100 000 workers.

Table 3 Notified fatalities of workers by industry of workplace, 2003–04 to 2007–08^(a)

Industry	Year				
	2003–04	2004–05	2005–06	2006–07	2007–08
Construction	25	18	25	28	36
Transport & storage	9	21	18	22	26
Agriculture, forestry & fishing	42	40	33	26	25
Manufacturing	7	6	21	18	18
Mining	11	8	11	13	4
Cultural & recreational services	1	5	0	7	3
Government administration & defence	2	8	6	2	3
Property & business services	0	4	1	1	3
Retail trade	3	2	7	3	3
Communication services	2	0	1	0	2
Electricity, gas & water supply	3	4	3	1	2
Health & community services	1	1	1	0	2
Wholesale trade	1	1	1	3	2
Personal & other services	8	4	5	6	1
Accommodation, cafes & restaurants	1	2	3	4	0
Education	2	1	3	1	0
Finance & insurance	0	0	0	0	0
Industry unknown or not applicable	2	2	2	7	0
Private residence	4	1	3	5	1
Total	124	128	144	147	131
Fatality incidence rate^(b)	1.3	1.3	1.4	1.4	1.2

(a) Excludes bystanders. Industries are ranked on the number of fatalities in 2007–08.

(b) Fatalities per 100 000 workers. Calculated using annual averages of quarterly data for employed people (*ABS 6291.0.55.003 Labour Force, Australia, Detailed – Electronic Delivery. Table 05. Employed persons by state and Industry*).

At the level of industry divisions, the number of fatalities is smaller and the variability greater. Nonetheless, over the five years covered by the collection, there was a notable and generally consistent decrease in the number of notified worker fatalities at Agriculture, forestry and fishing workplaces: from 42 fatalities in 2003–04 to 25 in 2007–08. The 4 worker fatalities that occurred at Mining workplaces in 2007–08 is a notable reduction from the 13 fatalities that occurred in 2006–07 and the 11 fatalities that occurred in 2005–06. The number of worker fatalities that occurred at Construction workplaces was consistently high over the five year period: ranging from 18 in 2004–05 to 36 in 2007–08.

The number of notified fatalities of workers at workplaces related to Transport & storage increased over the period: from 9 fatalities in 2003–04 to 26 in 2007–08. However, this increase may be related to improved reporting of work-related fatalities involving vehicle accidents on public roads. Because the police generally investigate vehicle accidents on public roads, many work-related fatalities involving vehicles are not notified to state or territory OHS jurisdictions. However, several national road transport companies have recently moved from state or territory OHS jurisdictions to self-insurance under the Commonwealth OHS jurisdiction, which includes these incidents in its notifications. This change impacts both recent and future reporting of fatalities for workers and bystanders.

OCCUPATION

Figure 1 shows the number of notified work-related fatalities during 2007–08 according to the worker’s occupation at the time the fatal injury was sustained. The occupation group Intermediate production and transport workers contributed one-quarter of all notified work-related fatalities (37 fatalities). This occupation group includes road transport drivers, operators of moving and stationary plant, and machine operators.

Other occupation groups that incurred many fatalities were Labourers and related workers (31 fatalities) and Tradespersons and related workers (29 fatalities). There were also 12 fatalities of Managers and administrators: all were farmers.

AGE

Figure 2 shows the number of notified work-related fatalities during 2007–08 according to the age of the worker or bystander. The fatalities were concentrated within the older working ages — most commonly within the 45-54 years age group (34 worker fatalities) — with fewer fatalities in the youngest and oldest age groups.

The number of fatalities taken in isolation is insufficient to provide a complete understanding of the age profile of work-related fatalities. For example, the 10 fatalities of workers aged 65 years and over compared with any other age group may seem to indicate that older workers had a lower risk of fatality. However, since there are relatively few

Figure 1 Number of notified worker fatalities by known occupation, July 2007 to June 2008

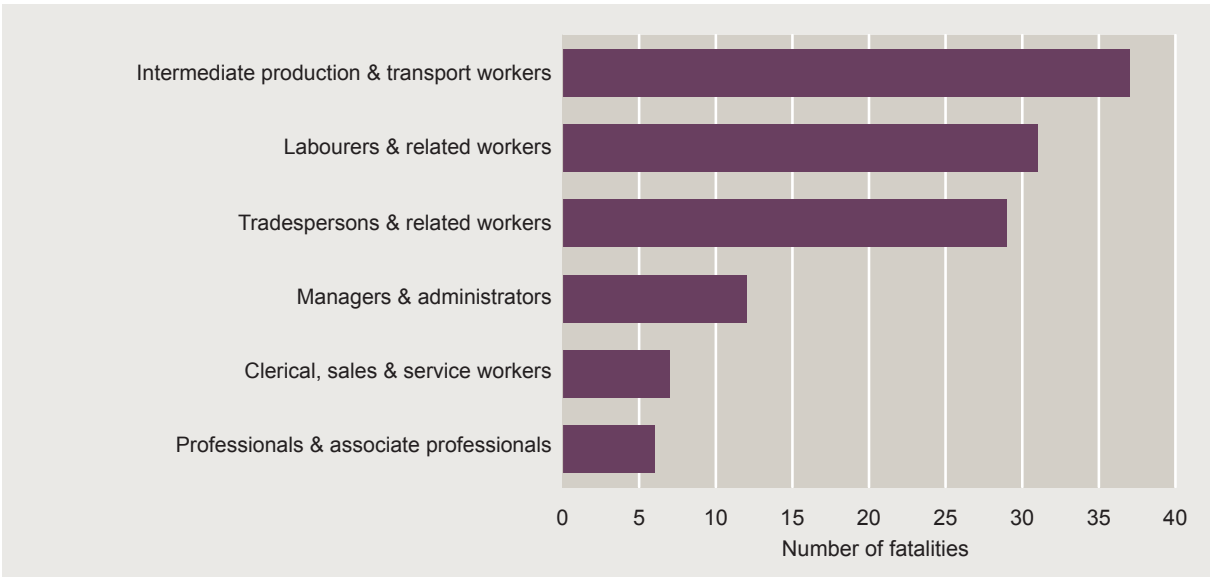
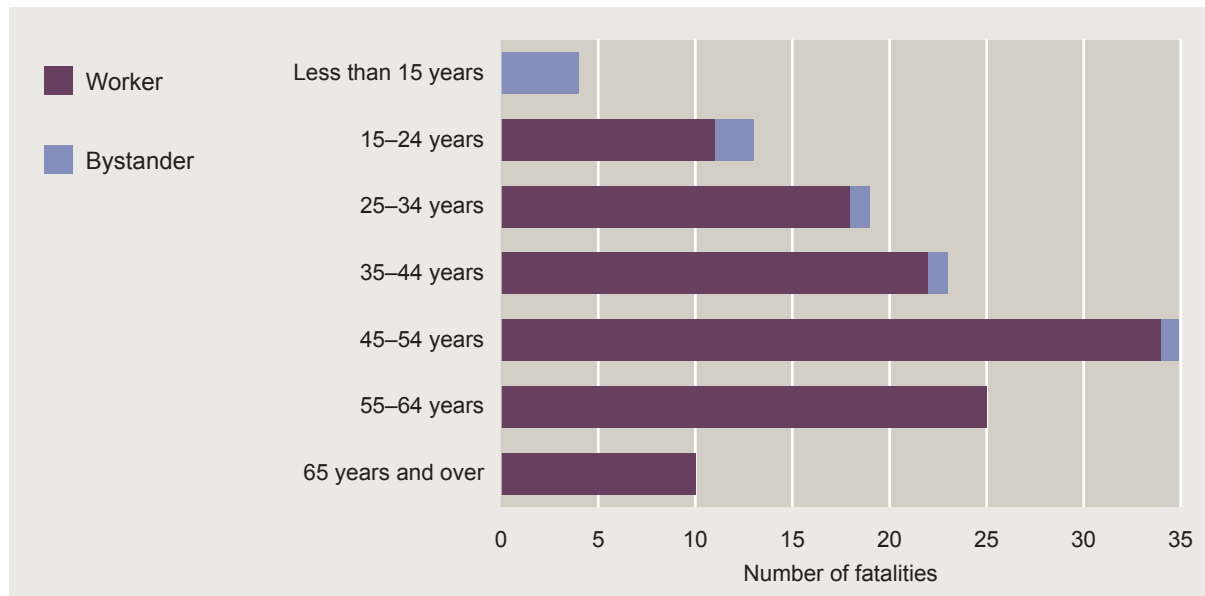


Figure 2 Number of notified fatalities by known age, July 2007 to June 2008



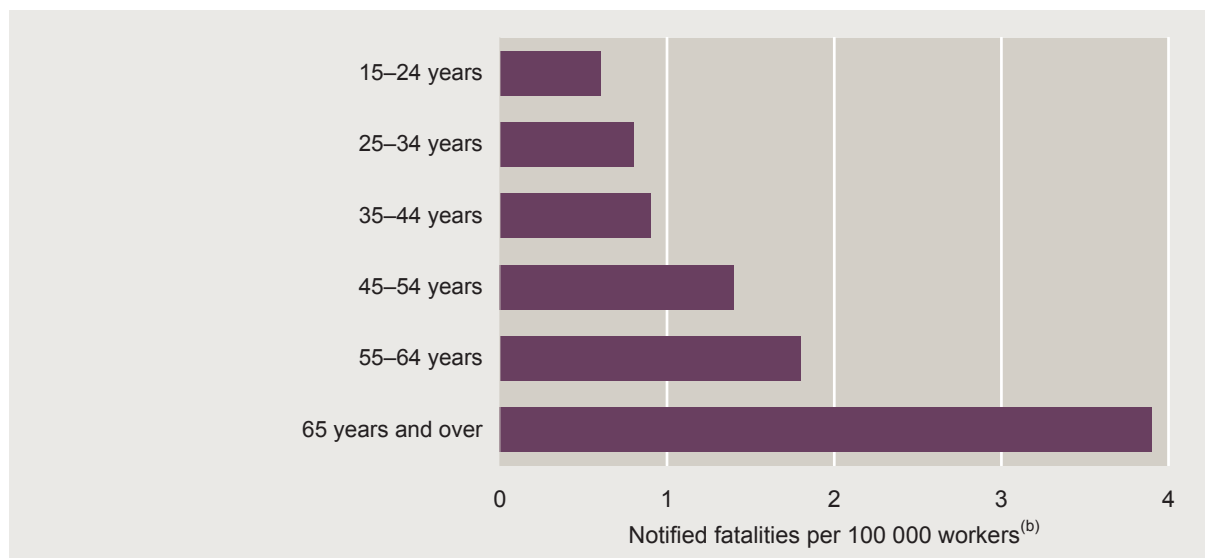
people working when they are aged 65 years and over, the 10 fatalities actually represented a higher risk of work-related fatality.

To compare differences in the risk of fatality between workers in each age group, the number of notified worker fatalities in each age group can be expressed as a rate against the number of workers in that age group (Figure 3). These rates show that work-related fatalities were more likely to occur

among older workers. The rates for workers aged 55–64 years and 65 years and over were 1.8 and 3.9 respectively per 100 000 workers, compared with a rate of 0.6 and 0.8 fatalities per 100 000 workers for workers aged 15–24 years and 25–34 years respectively.

The high fatality rates observed among the oldest age groups were strongly influenced by the age profile of fatalities at workplaces related to

Figure 3 Incidence rate of worker notified fatalities by known age, July 2007 to June 2008^(a)



(a) Excludes bystanders.

(b) incidence rates are calculated using annual averages of monthly figures for employed people (ABS 6291.0.55.001 Labour Force, Australia, Detailed – Electronic Delivery. Table 01. Labour force status by social marital status, age and sex).

Agriculture, forestry and fishing. Fatalities at these workplaces were skewed towards the older age groups, with almost half (11 fatalities out of 25 of known age) involving workers aged 55 years and over. This pattern corresponds with the relatively older age profile of people employed in Agriculture, forestry and fishing: in 2007–08 34% of workers in the industry were aged 55 years and over compared with 15% in all industries in Australia.

BYSTANDERS

A total of 19 bystander fatalities occurred in 2007–08. These fatalities are defined as deaths of members of the public, such as passers-by or visitors to workplaces — including children — who die as a consequence of another person’s work activity.

Table 2 indicates that in 2007–08 bystander fatalities most commonly occurred at workplaces that were primarily engaged in Transport and storage (8 fatalities); Cultural and recreational services (4 fatalities); and Agriculture, forestry and fishing (2 fatalities).

Notably, the bystander fatalities for 2007–08 included 4 children under 15 years of age (Figure 2). This figure emphasises the dangers of allowing children on to worksites and around work equipment.

Of the 4 child fatalities, 2 occurred at workplaces related to Agriculture, forestry and fishing.

CAUSE OF FATALITY

Detailed information about how the fatal injury was sustained is used to assign various descriptive codes. The Mechanism code identifies the overall action, exposure or event that best describes the circumstances that resulted in the fatality; and the Breakdown agency code identifies the object, substance or circumstance that was principally involved in, or most closely associated with, the point at which things started to go wrong and which ultimately led to the fatality. Mechanism and Breakdown agency are presented together in Table 4.

Table 4 shows that the most common mechanism of fatality was *Vehicle accidents*, responsible for 44 fatalities. Other common mechanisms were *Being hit by falling objects* (23 fatalities); *Being hit by moving objects* (21 fatalities); *Falls from a height* (16 fatalities); and *Being trapped by moving machinery* (12 fatalities).

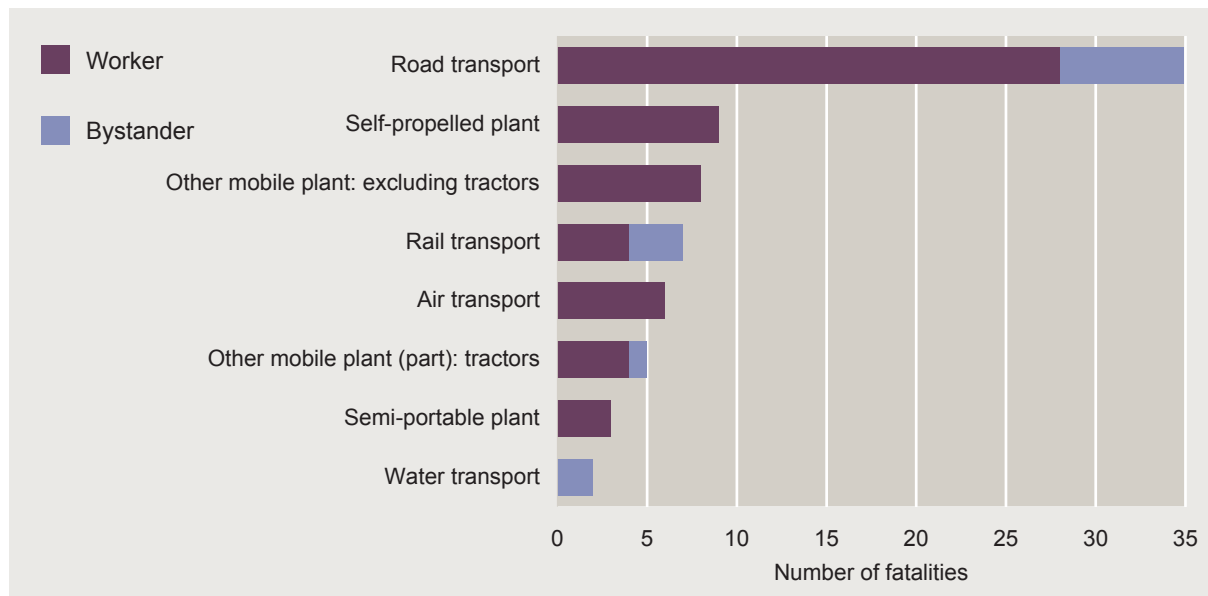
Table 4 also shows that the most common breakdown agency was *Mobile plant and transport*, being involved in 75 of the 150 fatalities. Figure 4 provides more specific information about the sub-categories of breakdown agency involved in these 75 fatalities. Notably, *Road transport* was involved in almost half of the fatalities (35 fatalities, including 7 bystanders) — of these, 21 involved

Table 4 Number of notified fatalities by mechanism and breakdown agency, July 2007 to June 2008

Mechanism of fatality	Breakdown agency of fatality						
	Mobile plant and transport	Machinery and fixed plant	Non-powered equipment	Environmental agencies	Materials and substances	Other agency or agency not stated	All agencies
Vehicle accidents ^(a)	38	4	0	1	1	0	44
Being hit by falling objects	5	5	5	4	3	1	23
Being hit by moving objects	16	3	1	0	0	1	21
Falls from a height	2	2	7	5	0	0	16
Being trapped by moving machinery	5	7	0	0	0	0	12
Drowning/immersion	4	0	0	4	0	1	9
Contact with electricity	1	3	0	0	0	1	5
Other mechanism of fatality	4	3	2	1	3	7	20
All mechanisms	75	27	15	15	7	11	150

(a) Includes rollovers of mobile mechanical equipment such as tractors, forklifts and construction vehicles.

Figure 4 Notified fatalities for the breakdown agency Mobile plant and transport, July 2007 to June 2008



trucks. The other main causes of *Mobile plant and transport* related fatalities were *Self-propelled plant*, accounting for 12% of fatalities (9 out of 75 fatalities): these included 3 fatalities involving front-end loaders and 3 involving road rollers. Tractors were involved in 7% of the fatalities (4 workers and 1 bystander) and 11% involved other categories of the sub-agency *Other mobile plant: excluding tractors*.

Table 4 shows that the second most common breakdown agency was *Machinery and fixed plant*. This agency was involved in 27 fatalities, of which 15 involved *Conveyors and lifting plant* and 3 involved *Electrical installation*.

Non-powered hand tools, appliances and equipment were involved in 15 fatalities, including 8 that involved *Ladders, mobile ramps and stairways, and scaffolding*. There were 3 deaths that involved *Storage equipment*.

Environmental agencies were involved in 15 fatalities. These fatalities mainly involved *Outdoor environment* (including 5 that involved *Buildings or other structures*, and 4 that involved *Weather and water*).

Common associations between the mechanism and breakdown agency of fatalities are apparent in Table 4.

There were 38 fatalities where the mechanism *Vehicle accidents* was associated with the breakdown agency *Mobile plant and transport*. There were also 16 fatalities — predominantly of pedestrians — where the mechanism *Being hit by moving objects* was associated with *Mobile plant and transport*.

There were 7 fatalities where the mechanism *Falls from a height* was associated with the breakdown agency *Non-powered handtools, appliances and equipment*. For 6 of these fatalities the sub-agency was *Ladders, mobile ramps and stairways, and scaffolding*.

There were 7 fatalities where *Being trapped by moving machinery* was associated with *Machinery and fixed plant* and another 5 were associated with *Mobile plant and transport*.

SUMMARY OF NOTIFICATION NARRATIVES

Vehicle accidents

In 2007–08, there were 44 work-related notifiable fatalities (including 8 bystanders) involving a vehicle accident. Although vehicle accidents are known to be under-reported — because they are generally investigated by the police rather than OHS authorities — these incidents still represented 29% of all fatality notifications in 2007–08. They included:

- > 12 deaths (including 4 bystanders) caused by vehicle accidents involving trucks or semi-trailers (most of these were associated with the Transport and storage industry). Most of the deaths (10) occurred on public roads while 1 occurred at a mine site and 1 at a construction site
- > 7 deaths (including 1 bystander) involved vehicles other than trucks on public roads
- > 7 workers died because of a vehicle accident on a rural property (3 involved tractors —2 of which were due to rollovers; 2 involved rollovers of quad bikes; and 2 involved other farm vehicles)
- > 6 deaths were due to aircraft accidents: 3 involved helicopters undertaking rural activities, 2 involved light aircraft, and
- > 4 workers died while driving and using forklift trucks.

Pedestrians struck by vehicles

There were 15 fatalities (including 1 adult and 2 child bystanders) caused by a moving vehicle striking the person. They included:

- > 5 workers died at road works sites: 3 when struck by slow-moving heavy mobile plant, and 2 when struck by passing traffic
- > 4 railway track maintenance workers died when they were struck by trains, and
- > 3 bystanders died when struck by a vehicle, 2 were children on rural properties.

Workers struck by other moving objects

There were 6 fatalities caused when the worker was struck by a moving object other than a vehicle. Of these:

- > 2 workers died when they lost control of high pressure hoses.

Being struck by falling objects

There were 23 fatalities (including 3 bystanders) caused by falling objects. These were caused by a wide variety of objects and circumstances, but those with broadly similar circumstances are described under the following groupings:

- > 5 workers died when they were struck by a falling object while loading or unloading trucks
- > 3 construction workers died when struck by falling steel formwork or props
- > 3 farm workers died while undertaking repairs under agricultural equipment that then fell on them
- > 3 workers died while lifting or moving materials, and 2 died (one a bystander) when warehouse shelving collapsed causing objects to fall, and
- > 2 workers died when they were struck by falling branches while undertaking tree felling work.

Falls from a height

There were 16 fatalities of workers that fell from a height.

Over half (9) of the workers fell while employed at a construction workplace. Of these:

- > 3 workers died when they fell from a building (2 from the roof)
- > 3 workers died when they fell from scaffolding, and
- > 2 workers died when they fell from ladders.

The other 7 fatalities occurred at workplaces other than construction. Of these:

- > 2 workers died when they fell from elevating platforms, and
- > the remaining 5 deaths involved falls from various structures, including 1 from a ladder.

Being trapped by moving machinery

There were 12 fatalities caused by the worker becoming trapped or entangled in moving machinery. Of these:

- > 4 rural workers died while using agricultural machinery (2 of these deaths were due to entanglement with the power take-off shaft of a tractor)
- > 2 workers died while attending to machinery which re-started while they were still inside, and
- > 2 deaths involved elevating work platforms.

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For further information regarding the contents of this publication contact:

The Data & Analysis Section

Office of the Australian Safety and Compensation Council

Department of Education, Employment and Workplace Relations

(02) 6121 9152

