

STATISTICAL REPORT NOTIFIED FATALITIES

JULY 2005 TO JUNE 2006



Australian Government
Australian Safety and Compensation Council

SUMMARY

This report provides an analysis of data on work-related deaths notified to OHS jurisdictions under their OHS legislation that occurred during the period 1 July 2005 to 30 June 2006.

During this period:

- > There were 157 notified work-related fatalities — 148 workers and 9 bystanders (see Table 1).
- > Most fatalities were of men — 149 in total. There were 8 fatalities of women, comprising 6 workers and 2 bystanders.
- > Just over one-quarter (26%) of all fatalities of known age were 55 years or older, although workers in this age group comprised 14% of the Australian labour force.
- > The occupation group Intermediate production and transport workers contributed 31% of all notified work-related fatalities (49 fatalities).
- > Four industries accounted for almost two-thirds of all notified work-related fatalities — 22% of fatalities occurred at a workplace primarily engaged in Agriculture, forestry and fishing, 17% in Construction, 13% in Manufacturing and 12% in Transport and storage.
- > *Falls from a height* (27 fatalities), *Being hit by moving objects* (24 fatalities), *Vehicle accidents* (21 fatalities), *Being hit by falling objects* (20 fatalities), and *Electrocution* (17 fatalities) were the most prevalent causes of work-related fatalities.
- > Among *Vehicle accidents*, 3 occurred on public roads and 18 occurred either on other types of roads or at other sites (see Table 1). Since work-related road traffic fatalities and work-related aircraft crash fatalities are not notified to some OHS jurisdictions, the figures presented in this report are likely to under-report their occurrence.

Table 1 Notified fatalities — July 2005 to June 2006, Australia

Place of fatality	Worker	Bystander	Total
At workplace	127	9	136
Vehicle accident			
on public road	3	0	3
on other roads/sites	18	0	18
Total	148	9	157

BACKGROUND INFORMATION

OHS legislation in each Australian state and territory requires work-related deaths to be notified to the state or territory OHS authority. Notifications cover workers (both employees and self-employed) and bystanders who suffered a fatal injury at work or as the result of work activity.

The Australian Safety and Compensation Council (ASCC, formerly NOHSC) began collecting details of these notifications from each OHS authority on 1 July 2003, with the aim of providing timely national information on work-related fatalities in Australia. However, the compilation of notifications at the national level is complicated by differences across jurisdictions in the definition of a work-related death. In particular:

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

This report analyses the work-related fatality notifications received for deaths that occurred between 1 July 2005 and 30 June 2006. This analysis examines occupation, industry and age of the workers killed.

Table 2 Number of notified fatalities by industry, July 2005 to June 2006

Industry	Industry of workplace			Industry of employer ^a	
	Worker	Bystander	Total	Worker	Incidence rate ^b
Agriculture, forestry and fishing	35	0	35	32	9.0
Construction	27	0	27	36	4.1
Manufacturing	21	0	21	19	1.8
Transport and storage	18	1	19	16	3.5
Mining	11	0	11	10	7.7
Retail trade	7	0	7	5	0.3
Government administration and defence	6	1	7	9	2.0
Personal and other services	5	0	5	7	1.8
Accommodation, cafes and restaurants	3	1	4	1	0.2
Education	3	1	4	3	0.4
Health & community services	1	3	4	0	0.0
Electricity, gas and water supply	3	0	3	3	3.4
Cultural and recreational services	0	2	2	1	0.4
Wholesale trade	1	0	1	0	0.0
Communication services	1	0	1	1	0.5
Property and business services	1	0	1	4	0.3
Finance and insurance	0	0	0	0	0.0
Industry unknown	2	0	2	1	na
Private residence	3	0	3	na	na
Total	148	9	157	148	1.5

na denotes Not applicable.

a: Industry of employer is not applicable for bystanders.

b: Fatalities per 100 000 workers. Calculated using annual averages of quarterly data (ABS 6291.0.55.001 Labour Force, Australia, Detailed – Electronic Delivery. Table 05. Employed persons by state and Industry).

INDUSTRY

Table 2 shows the number of notified work-related fatalities during 2005–06 according to the industry of the workplace in which the fatality occurred and the industry of the worker's employer. The industry of workplace identifies the main activity of the site at which the incident leading to the fatality occurred.

Workplaces primarily engaged in the Agriculture, forestry and fishing industry accounted for the largest number of notified work-related fatalities (35 fatalities). Other high ranking industries were Construction (27 fatalities), Manufacturing (21 fatalities), Transport and storage (19 fatalities), and Mining (11 fatalities).

Cross-comparison (not tabulated in this report) indicates a number of large differences between the industry in which the work-related fatality occurred and the industry of the worker's employer. In particular:

- > Of the 35 workers fatally injured in an environment primarily related to the Agriculture, forestry and fishing industry, 28 actually worked in that industry.
- > Of the 19 workers fatally injured in an environment primarily related to the Transport and storage industry, 12 actually worked in that industry.

> Of the 36 fatalities of workers employed in the Construction industry, 24 resulted from injuries at workplaces primarily related to that industry.

The relative likelihood of an employee sustaining a work-related fatality in different industries can be compared using fatality incidence rates (the number of notified work-related fatalities per 100 000 workers — see Table 2).

In 2005–06, the highest fatality incidence rate occurred among employees in the Agriculture, forestry and fishing industry — 9.0 notified work-related fatalities per 100 000 workers. Other high rates occurred among employees in Mining (7.7 fatalities per 100 000 workers), Construction (4.1 fatalities per 100 000 workers), Transport and storage (3.5 fatalities per 100 000 workers), and Electricity, gas and water supply (3.4 fatalities per 100 000 workers). All of these incidence rates were well above the national incidence rate of 1.5 notified work-related fatalities per 100 000 workers.

A total of 9 bystander fatalities occurred in 2005–06. These fatalities are defined as deaths of members of the public, such as visitors to a workplace or persons, including children, who die as a consequence of another person’s work activity. These fatalities occurred at workplaces primarily

engaged in: Health and community services (3 fatalities); Cultural and recreational services (2 fatalities); and Transport and storage, Government administration and defence, Accommodation, cafes and restaurants, and Education (1 fatality each).

OCCUPATION

Figure 1 shows the number of notified work-related fatalities during 2005–06 according to the worker’s occupation at the time that the fatal injury was sustained. The occupation group Intermediate production and transport workers contributed 31% of all notified work-related fatalities (49 fatalities). This occupation group includes road transport drivers, mobile and stationary plant operators and machine operators.

Other common occupation groups across the fatalities were Tradespersons and related workers (41 work-related fatalities), Labourers and related workers (25 fatalities), and Managers and administrators (16 work-related fatalities, most of whom were farmers). Eight of the fatalities among Managers and administrators were of people aged 55 years and over, and all but one of these were farmers.

Figure 1 Number of notified fatalities by occupation, July 2005 to June 2006

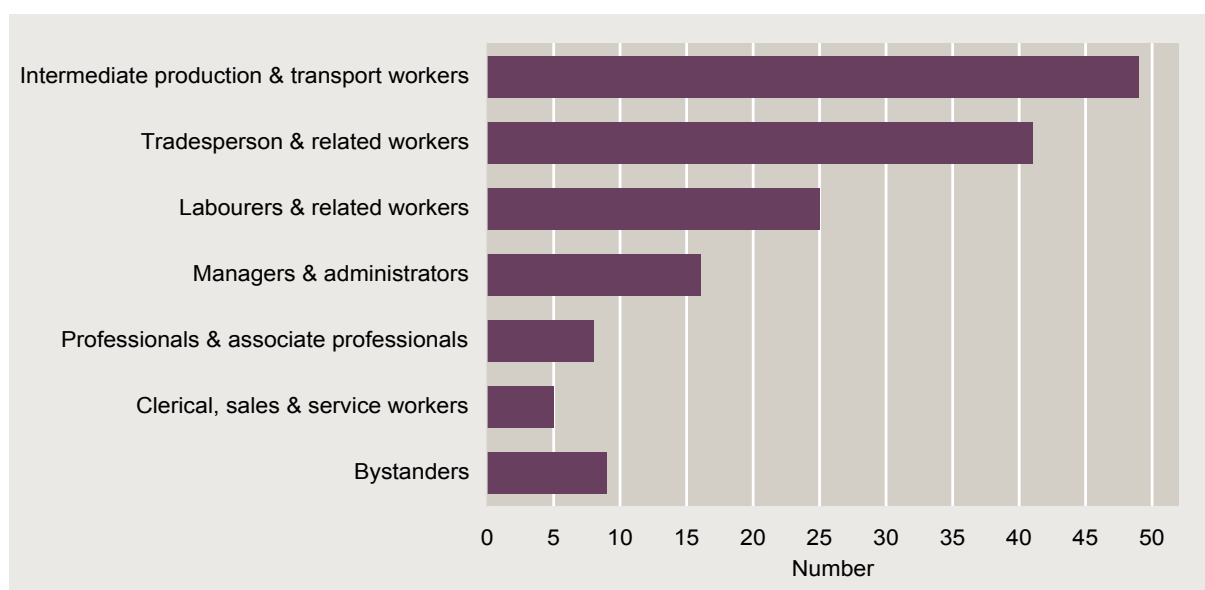
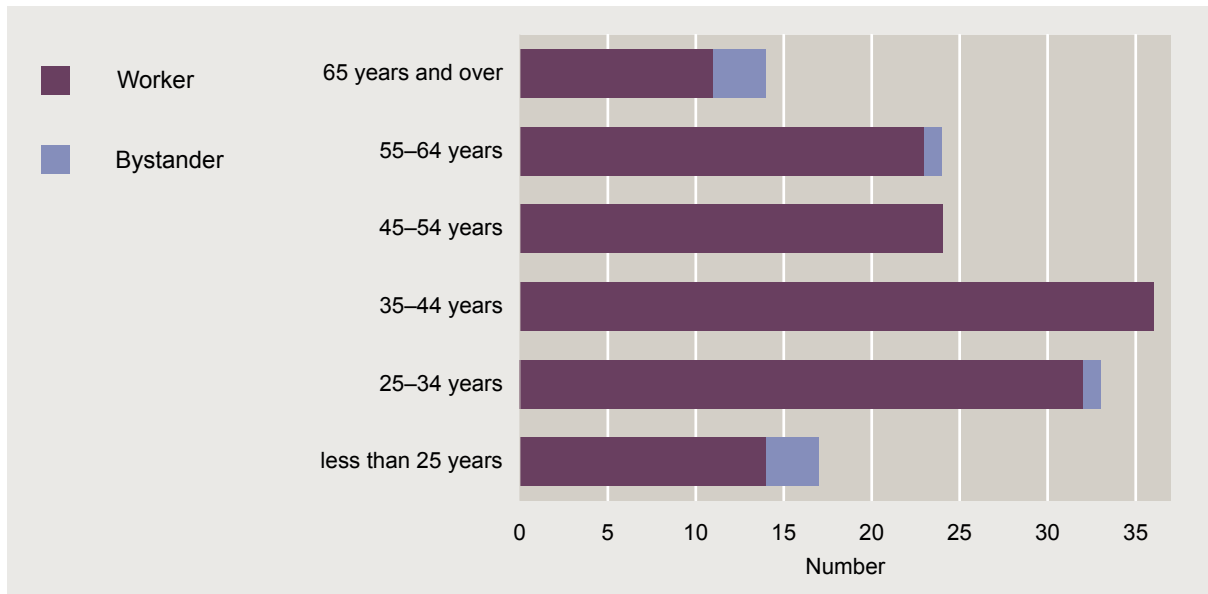




Figure 2 Number of notified fatalities by age, July 2005 to June 2006



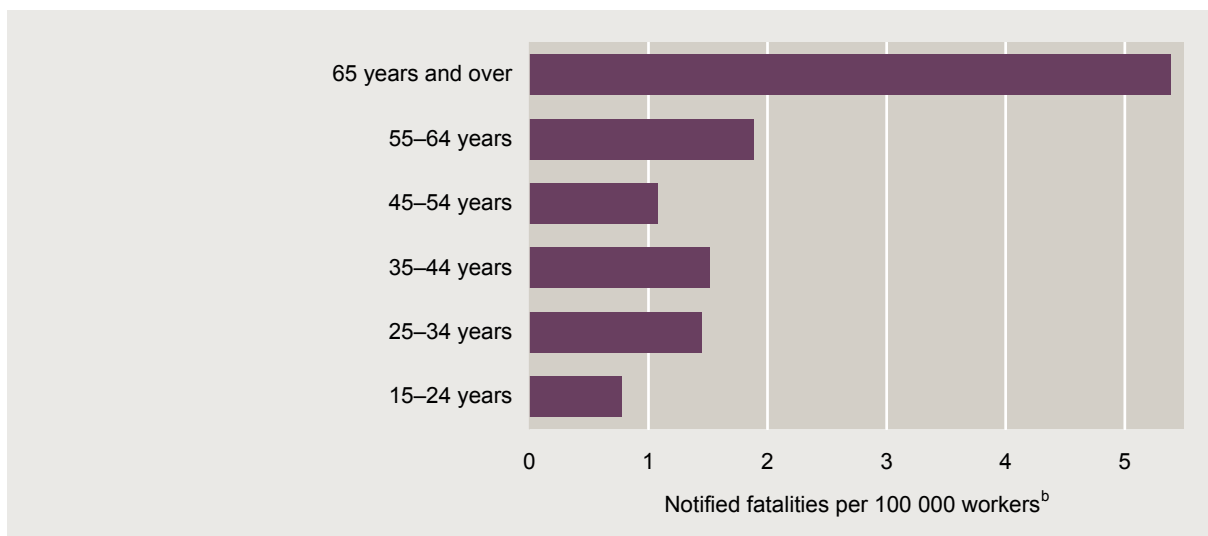
AGE

Figure 2 shows the number of notified work-related fatalities during 2005–06 according to the age of the worker or bystander. Fatalities were concentrated within the main working ages — most commonly the 35–44 age group (36 fatalities) — and there were fewer fatalities of young workers aged less than 25 years and older workers aged 65 years and over.

The number of fatalities taken in isolation is insufficient to provide a complete understanding

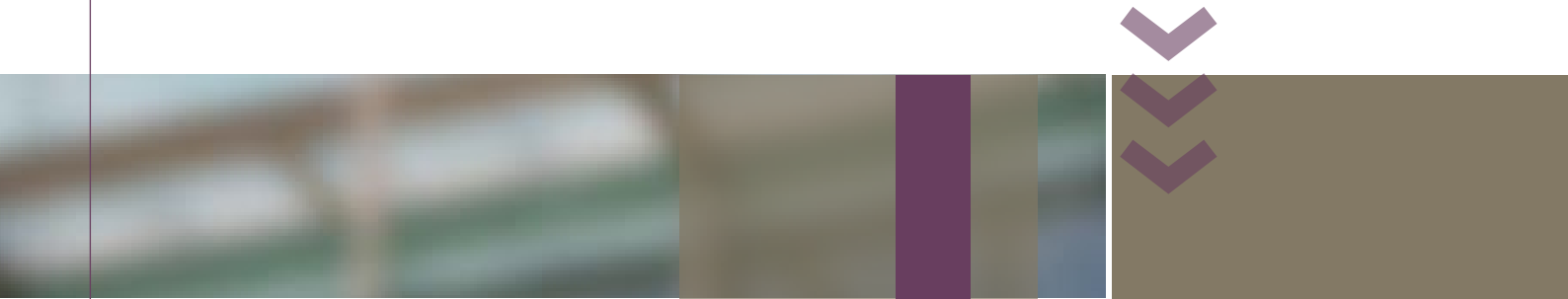
of the age profile of work-related fatalities. For example, the 11 fatalities of workers aged 65 years and over compared with the 36 fatalities of workers aged 35–44 years may seem to indicate that older workers had a lower risk of fatality. However, since there are relatively few people working when they are aged 65 years and over, the 11 fatalities actually represented a higher risk of work-related fatality.

Figure 3 Incidence rate of worker^a notified fatalities by age, July 2005 to June 2006



a: Excludes bystanders.

b: The number of workers used in calculating incidence rates are annual averages of monthly figures (ABS 6291.0.55.001 *Labour Force, Australia, Detailed – Electronic Delivery. Table 01. Labour force status by social marital status, age and sex*).



To compare differences in the risk of fatality between workers in each age group, the number of notified work-related fatalities in each age group can be expressed as a rate against the number of workers in that age group (see Figure 3). These incidence 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 1.9 and 5.4 respectively per 100 000 workers. In contrast, the youngest workers — those aged 15 to 24 years — experienced the lowest rate of 0.8 fatalities per 100 000 workers.

The high fatality rates observed among the oldest age groups, 55–64 years and 65 years and over, were strongly influenced by the fatalities that occurred at workplaces related to Agriculture, forestry and fishing. The fatalities at these workplaces were skewed towards the older age groups, with about one-third (34%, 12 fatalities) involving workers aged 55 years and over. Overall, fatalities at these workplaces contributed 5 of the 23 fatalities of workers aged 55–64 years and 7 of the 11 fatalities of workers aged 65 years and over.

This pattern corresponds with the relatively older age profile of people employed in Agriculture, forestry and fishing: in 2006 the median age of workers in the industry was 46 compared with 39 for all workers.

CAUSE OF FATALITY

For each notified fatality, narrative information is used as the basis for various descriptive codes about the circumstances under which the fatal injury was sustained. 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.

The category *Falls from a height* was the most prevalent mechanism of fatality and was responsible for 27 notified work-related fatalities

(see Table 3). Other common mechanisms were *Being hit by moving objects* (24 fatalities), *Vehicle accidents* (21 fatalities), *Being hit by falling objects* (20 fatalities) and *Contact with electricity* (17 fatalities).

Mobile plant and transport was the most prevalent breakdown agency, being involved in 54 of the 157 fatalities (see Table 3). Figure 4 provides more specific information about the sub-categories of breakdown agency involved in these 54 fatalities. The sub-category *Road transport* was involved in 43% of these cases (23 fatalities), the majority (17) of which involved trucks. A further 22% of cases (12 fatalities) involved *Other mobile plant*, which included 8 deaths from incidents involving tractors and one death involving a tractor-drawn trailer. Another 13% of cases (7 fatalities) involved *Self-propelled plant*, which included 2 deaths involving self-propelled harvesters, 2 involving excavators and 2 involving front-end loaders.

The second most common breakdown agency was *Environmental agencies* (36 fatalities), with the majority of these cases involving *Buildings and other structures* (13 fatalities), *Vegetation* (9 fatalities) and *Holes in the ground* (4 fatalities).

Other common breakdown agencies were *Machinery and fixed plant* (22 fatalities); and *Non-powered hand tools, appliances and equipment* (13 fatalities).

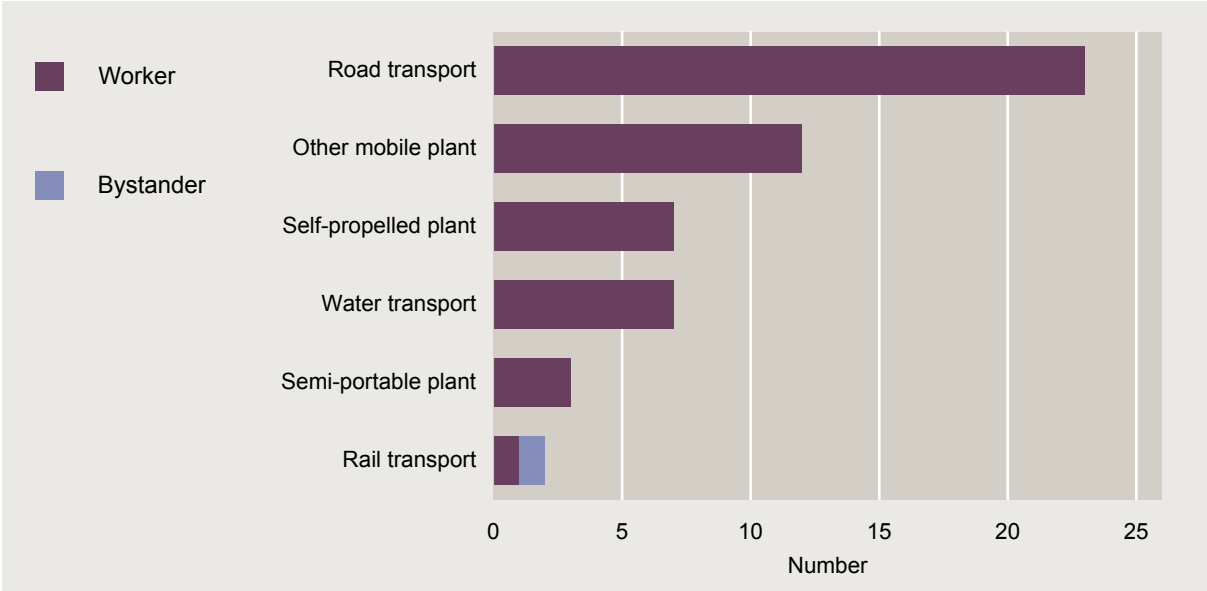
Some common associations between the mechanism and breakdown agency of fatalities are indicated in Table 3.

There were 14 fatalities where *Falls from a height* were associated with the breakdown agency *Environmental agencies*. In 7 of these cases the sub-agency was *Building and other structures*.

There were 13 fatalities where *Vehicle accidents* were associated with *Mobile plant and transport* and 5 fatalities where *Vehicle accidents* were associated with *Machinery and fixed plant*. In an additional 18 fatalities — predominantly of pedestrians — the mechanism *Being hit by moving objects* was associated with *Mobile plant and transport*.



Figure 4 Notified fatalities for the breakdown agency Mobile plant and transport, July 2005 to June 2006



There were 14 fatalities where *Being hit by falling objects* was associated with *Environmental agencies*: 8 of these cases involved the sub-agency *Vegetation*, which includes falling trees and branches.

There were 10 fatalities where *Contact with electricity* was associated with *Machinery and fixed plant*: 8 of these cases involved the sub-agency *Electrical installation*.

Table 3 Number of notified fatalities by mechanism and breakdown agency, July 2005 to June 2006

Mechanism of fatality	Breakdown agency of fatality						
	Mobile plant and transport	Environmental agencies	Machinery and fixed plant	Non-powered equipment	Materials and substances	Other agency or agency not stated	All agencies
Falls from a height	2	14	1	5	1	4	27
Being hit by moving objects	18	0	0	2	2	2	24
Vehicle accidents	13	0	5	1	1	1	21
Being hit by falling objects	1	14	1	1	2	1	20
Contact with electricity	3	0	10	0	2	2	17
Being trapped between stationary & moving objects	6	2	4	2	1	0	15
Drowning/immersion	7	2	0	0	0	0	9
Other mechanism of fatality	4	4	1	2	1	12	24
All mechanisms	54	36	22	13	10	22	157

SUMMARY OF NOTIFICATION NARRATIVES

Falls from a height

Falls from a height (27 deaths) contributed more notified work-related fatalities during 2005–06 than any other type of incident. Almost half of these cases (13 deaths) involved workers in the Construction industry, and included:

- > 4 deaths that involved falls through or from roofs
- > 2 deaths that involved falls from balconies, and
- > 2 deaths that involved falls from ladders and scaffolding.

The deaths from falls not involving construction workers (14 deaths) included:

- > 3 deaths that involved falls into underground structures, mine pits and holes in the ground
- > 3 deaths involving falls from patient lifting devices or stretchers, and
- > 2 deaths that involved falls from trucks.

Vehicle accidents

Although the notified fatalities collection is known to understate fatalities from work-related vehicle accidents, the 21 deaths that were reported still represented a significant contribution to notified fatalities during 2005–06. These included:

- > 7 deaths from accidents involving heavy trucks — 3 of these in road crashes, 2 as a result of semi-trailers tipping over during unloading, and 2 in other incidents on private property
- > 4 deaths from aircraft crashes, and
- > 3 deaths from vehicle accidents on rural properties — involving respectively a tractor, an all-terrain vehicle and a motor cycle.

Pedestrians struck by vehicles

There were 16 deaths of pedestrian workers and bystanders struck by vehicles. These included:

- > 6 deaths on rural properties of workers struck by unattended vehicles, 5 of which involved tractors or devices towed by tractors
- > 3 deaths of workers struck by trucks and construction vehicles during road works, and

- > 2 deaths (a worker and a bystander) involving collision with trains.

Workers struck by other moving objects

There were also 8 fatalities involving workers struck by other types of moving objects. Of these:

- > 3 involved explosions, and
- > 2 involved mishaps during the repair of heavy vehicle tyres.

Tree felling operations

The dangers in tree felling operations are highlighted in the notified fatalities collection: there were 7 work-related fatalities involving workers struck by a falling tree or branch during tree felling.

Workers struck by falling objects other than trees

There were 13 fatalities involving workers struck by falling objects other than trees or branches. These deaths included:

- > 3 deaths of workers struck by rock falls during trenching operations and mining, and
- > 3 deaths of workers struck by heavy objects while unloading trucks.

Electrocution

The hazards of power lines and electrical equipment are also evident with 17 work-related fatalities caused by electrocution. These deaths included:

- > 5 deaths from contact with overhead power lines or associated equipment — 2 of these from contact between large vehicles and overhead lines on rural properties
- > 4 deaths caused by accidental damage to low-tension power cables, either in workshops or during building work at established residential premises, and
- > 3 deaths during repair work on electrical equipment or electricity distribution equipment.

INQUIRES

For further information regarding the contents of this publication contact:

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