

# COMPENDIUM OF WORKERS' COMPENSATION STATISTICS AUSTRALIA 2006–07

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Australian Government

Australian Safety and Compensation Council

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# Part C

## Compensated fatalities

Preliminary data from 2006–07 has 236 accepted workers' compensation claims for the death of an employee due to work-related causes. However as workers' compensation schemes do not generally cover self-employed workers and workers' compensation claims can only be lodged where there is a dependant to do so, this number is not an accurate count of all work-related deaths in Australia. To address this situation, an analysis of other sources of information on work-related deaths has been undertaken, with results published in the report *Work-related Traumatic Injury Fatalities, Australia* available on the ASCC website. This chapter presents an analysis of the 236 accepted compensation claims for work-related fatalities lodged in 2006–07. Information on fatalities related to journeys to or from work is provided in Part E: Feature article - Journey claims.

### Compensated fatalities by age and gender

The 236 compensated deaths equates to an incidence rate of 2.5 compensated fatalities per 100 000 employees. However, as the 2006–07 data are preliminary, the rate is expected to rise with the finalisation of all claims lodged during 2006–07.

The preliminary data for 2006–07 show that work-related compensated fatalities mainly involved male employees. Of the 236 fatalities, 215 were male employees (91%) and 21 were female employees (9%). Table 18 shows that male employees had a fatality incidence rate almost 9 times that of female employees in 2006–07 and a frequency rate 8 times that of females when expressed as a rate per 100 million hours worked.

**Table 18 Fatalities: number, incidence rate and frequency rate by gender, 2006–07p**

	Number	% of claims	Incidence rate <sup>(a)</sup>	Frequency rate <sup>(b)</sup>
Males	215	91.1	4.4	2.4
Females	21	8.9	0.5	0.3
<b>Total</b>	<b>236</b>	<b>100.0</b>	<b>2.5</b>	<b>1.6</b>

(a) Calculated as a rate per 100 000 employees.

(b) Calculated as a rate per 100 million hours worked.

Table 19 shows how the number, incidence and frequency rates vary by age for the 236 compensated fatalities recorded in 2006–07. The 40–44 years age group recorded the highest number of fatalities (15% of all fatalities). However, the incidence and frequency rates for this age group were not the highest because of the relatively large number of employees in this age group. The highest incidence and frequency rates were recorded by the three oldest age groups: 55–59 years, 60–64 years and 65 years and over.

Table 19 also shows that the fewest compensated fatalities occurred in the youngest age group, in part, due to the smaller number of employees in this age group.

There were 23 fatalities recorded where the employee was aged 65 years and over, however, because relatively few employees continue working beyond 65 years of age, this age group recorded the highest incidence and frequency rates (17 fatalities per 100 000 employees and 12 fatalities per 100 million hours worked respectively), over six times the rate for all age groups.

**Table 19 Fatalities: number, incidence rate and frequency rate by age and gender, 2006–07p**

Age group	Number of fatalities			Incidence rate <sup>(a)</sup>	Frequency rate <sup>(b)</sup>
	Males	Females	Total		
15-19 years	6	2	8	1.1	1.1
20-24 years	14	2	16	1.4	0.9
25-29 years	8	3	11	1.0	0.6
30-34 years	23	1	24	2.3	1.4
35-39 years	25	2	27	2.5	1.5
40-44 years	33	2	35	3.3	1.9
45-49 years	17	4	21	1.9	1.1
50-54 years	17	4	21	2.3	1.3
55-59 years	29	1	30	4.3	2.6
60-64 years	20	0	20	5.7	3.7
65 years & over	23	0	23	16.5	12.0
<b>Total</b>	<b>215</b>	<b>21</b>	<b>236</b>	<b>2.5</b>	<b>1.6</b>

(a) Fatalities per 100 000 employees.

(b) Fatalities per 100 million hours worked.

## Compensated fatalities by industry

Table 20 shows that in 2006–07, the Construction industry recorded the highest number of fatalities in any industry (50 fatalities, 21% of all compensated fatalities). The second highest number of fatalities occurred in the Transport and storage industry (45 fatalities), followed by the Manufacturing industry (36 fatalities) and the Property and business services industry (15 fatalities).

**Table 20 Fatalities: number, incidence rate and frequency rate by industry (ranked on incidence rate), 2006–07p**

Industry	Number of fatalities			Incidence rate <sup>(a)</sup>	Frequency rate <sup>(b)</sup>
	Males	Females	Total		
Transport & storage	44	1	45	10.8	5.7
Construction	50	0	50	7.8	4.1
Agriculture, forestry & fishing	12	2	14	7.7	4.2
Mining	7	0	7	5.4	2.4
Manufacturing	34	2	36	3.7	2.0
Personal & other services	10	1	11	3.3	2.2
Government administration & defence	6	5	11	2.3	1.4
Wholesale trade	8	1	9	2.1	1.1
Cultural & recreational services	5	0	5	1.9	1.5
Communication services	2	1	3	1.8	1.0
Property & business services	13	2	15	1.3	0.7
Accommodation, cafes & restaurants	5	1	6	1.2	0.9
Retail trade	10	2	12	0.9	0.7
Education	3	1	4	0.6	0.4
Finance & insurance	1	1	2	0.5	0.3
Health & community services	4	1	5	0.5	0.3
Electricity, gas & water supply	0	0	0	0.0	0.0
Industry not stated	1	0	1		
<b>Total</b>	<b>215</b>	<b>21</b>	<b>236</b>	<b>2.5</b>	<b>1.6</b>

(a) Fatalities per 100 000 employees.

(b) Fatalities per 100 million hours worked.

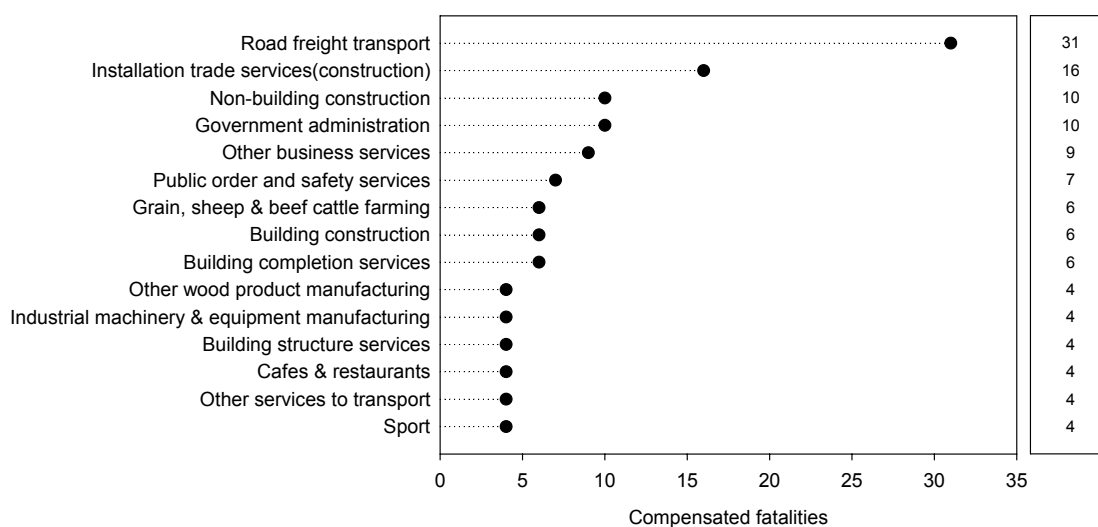
When the number of fatalities is expressed as an incidence rate, the Transport and storage industry recorded the highest rate of 11 fatalities per 100 000 employees, over four times the rate for all industries of 2.5 fatalities per 100 000 employees. While the Agriculture, forestry and fishing industry recorded the fifth highest number of fatalities, the lower number of employees resulted in this industry recording the third highest incidence rate (8 fatalities per 100 000 employees). The Construction industry recorded the second highest incidence rate (8).

As the majority of fatalities involved male employees, the pattern for male employees by industry is similar to the national pattern described above. The highest number of compensated male fatalities (50) occurred in the Construction industry followed by the Transport and storage industry (44) and the Manufacturing industry (34).

The highest number of female compensated fatalities (5) occurred in the Government, administration and defence industry. This was followed by 2 female fatalities each in the Manufacturing, Property and business services, Agriculture, forestry and fishing and the Retail trade industries.

Figure 16 shows the industry sub-categories in which the highest numbers of compensated fatalities occurred in 2006–07. Together, the fifteen industry sub-categories shown accounted for half of all fatalities. At this level of detail, the highest number of fatalities (31 fatalities, 13% of all fatalities) involved employees in the Road freight transport sub-category and mainly involved vehicle accidents. The second highest number of fatalities (16 fatalities, 7% of all fatalities) involved employees in the Installation trade services industry (which includes plumbing and draining works, as well as electrical wiring or fitting in buildings). Equal third highest number of fatalities (10 fatalities each — 4% of all fatalities) occurred in the Government administration and Non-building construction sub-categories.

**Figure 16 Fatalities: fifteen highest industry sub-categories, 2006–07p**



## Compensated fatality claims by industry over time

In the analysis of trends, data from the most recent year are not used for comparison as these data are preliminary data and are likely to increase. It should also be noted that data for early years can also be revised as claims data in this publication are based on the date the claim was first lodged and there can be many years between a claim being lodged for ill health and the eventual death of the employee.

Table 21 shows that over the period 2000–01 to 2005–06, the number of fatalities in Australia decreased 21% — from 320 deaths down to 254. The decrease was also reflected in the overall incidence rate reducing from 4.0 compensated fatalities per 100 000 employees to 2.8.

**Table 21 Fatalities: number and incidence rate by industry by year**

Industry	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06
<b>Number of fatalities</b>						
Agriculture, forestry & fishing	29	27	27	28	31	24
Mining	18	10	12	8	6	14
Manufacturing	45	40	33	32	38	40
Electricity, gas & water supply	2	4	2	3	3	9
Construction	48	48	48	51	45	38
Wholesale trade	15	12	13	18	9	6
Retail trade	13	11	10	10	12	13
Accommodation, cafes & restaurants	6	5	5	12	9	4
Transport & storage	57	58	68	47	48	47
Communication services	2	4	5	3	3	3
Finance & insurance	7	4	3	2	1	1
Property & business services	19	21	21	17	14	28
Government administration & defence	15	19	21	14	11	5
Education	9	6	10	5	5	4
Health & community services	8	18	8	6	5	4
Cultural & recreational services	9	4	7	4	5	2
Personal & other services	16	15	9	11	9	9
Industry not stated	2	2	0	0	1	3
<b>Total fatalities</b>	<b>320</b>	<b>308</b>	<b>302</b>	<b>271</b>	<b>255</b>	<b>254</b>
<b>Incidence rate (fatalities per 100 000 employees)</b>						
Agriculture, forestry & fishing	14.3	12.4	14.7	14.8	16.6	13.2
Mining	24.0	13.1	14.5	8.8	6.0	11.4
Manufacturing	4.3	4.1	3.3	3.3	3.9	4.2
Electricity, gas & water supply	3.0	6.0	2.7	4.0	4.0	10.6
Construction	11.1	11.1	10.7	10.2	8.3	6.7
Wholesale trade	3.8	3.1	3.3	4.5	2.3	1.5
Retail trade	1.1	0.9	0.8	0.8	0.9	1.0
Accommodation, cafes & restaurants	1.3	1.1	1.1	2.6	1.8	0.8
Transport & storage	15.9	16.6	19.5	12.5	12.1	11.6
Communication services	1.3	2.9	3.6	2.1	2.1	1.9
Finance & insurance	2.2	1.2	0.9	0.6	0.3	0.3
Property & business services	1.9	2.1	2.1	1.6	1.3	2.5
Government administration & defence	3.9	4.6	4.9	3.2	2.4	1.1
Education	1.4	0.9	1.5	0.7	0.7	0.6
Health & community services	0.9	2.0	0.9	0.6	0.5	0.4
Cultural & recreational services	4.3	1.8	3.1	1.8	2.0	0.8
Personal & other services	5.7	5.1	2.9	3.6	2.8	2.8
<b>All fatalities</b>	<b>4.0</b>	<b>3.8</b>	<b>3.6</b>	<b>3.2</b>	<b>2.9</b>	<b>2.8</b>

(a) percentage change from 2000–01 to 2005–06

While Table 21 shows that fatality incidence rates improved in most industries over the period 2000–01 to 2005–06, four industries continued to record considerably higher rates than the national rate. While the national rate in 2005–06 was 2.8 fatalities per 100 000 employees, Agriculture, forestry and fishing recorded 13 fatalities per 100 000 employees; Transport and storage recorded 12; Mining, 11; and Construction 7. Of these industries, the Mining industry improved the most over this time period, more than halving its incidence rate from 24 fatalities per 100 000 employees in 2000–01 to 11 in 2005–06.

While the Electricity, gas and water supply industry recorded a large increase in the number of fatalities (from 2 to 9) and subsequently its incidence rate (from 3 fatalities per 100 000 employees to 10) over the period 2000–01 to 2005–06, this industry has so far recorded no fatalities in the preliminary data for 2006–07 (Table 9). Similarly, the Property and business services industry recorded a high number of fatalities in 2005–06 (28 deaths) compared to previous years but has returned to a similar number of deaths (15) in 2005–06. This highlights the volatility of the fatalities data and how movements over specific periods should be treated with caution.

## Compensated fatalities by occupation

Table 22 shows the number of compensated fatality claims recorded in each major occupation group in 2006–07. Intermediate production and transport workers accounted for 30% of compensated fatalities in 2006–07 (71 fatalities). This group also recorded the highest incidence and frequency rates: both about three times the respective rate for all compensated fatalities. Within this group, three quarters of fatalities (54) involved Road and rail transport drivers.

The second highest number of fatalities, 53, was recorded by Tradesperson and related workers representing 22% of all compensated fatalities. This group includes mechanical engineering, automotive, electrical, food and skilled agricultural workers (14 fatalities were identified as Electrical and electronics tradespersons and 12 as Construction tradespersons, of which 8 were carpenters). This occupation group recorded the third highest incidence rate.

There were 45 fatalities involving employees who worked as Labourers and related workers which resulted in the second highest incidence rate of all occupation groups (5.6 fatalities per 100 000 employees), more than twice the national rate.

**Table 22 Fatalities: number, incidence rate and frequency rate by occupation (ranked on incidence rate), 2006–07p**

Occupation	Males	Females	Total	Incidence rate <sup>(a)</sup>	Frequency rate <sup>(b)</sup>
Intermediate production & transport workers	69	2	71	8.8	4.9
Labourers & related workers	40	5	45	5.6	4.0
Tradesperson & related workers	53	0	53	5.4	2.8
Managers & administrators	10	3	13	2.1	1.0
Associate professionals	11	3	14	1.2	0.7
Professionals	18	2	20	1.1	0.6
Intermediate clerical, sales & service workers	8	5	13	0.7	0.5
Elementary clerical, sales & service workers	6	1	7	0.7	0.6
Advanced clerical & service workers	0	0	0	0.0	0.0
<b>Total fatalities</b>	<b>215</b>	<b>21</b>	<b>236</b>	<b>2.5</b>	<b>1.6</b>

(a) Fatalities per 100 000 employees.

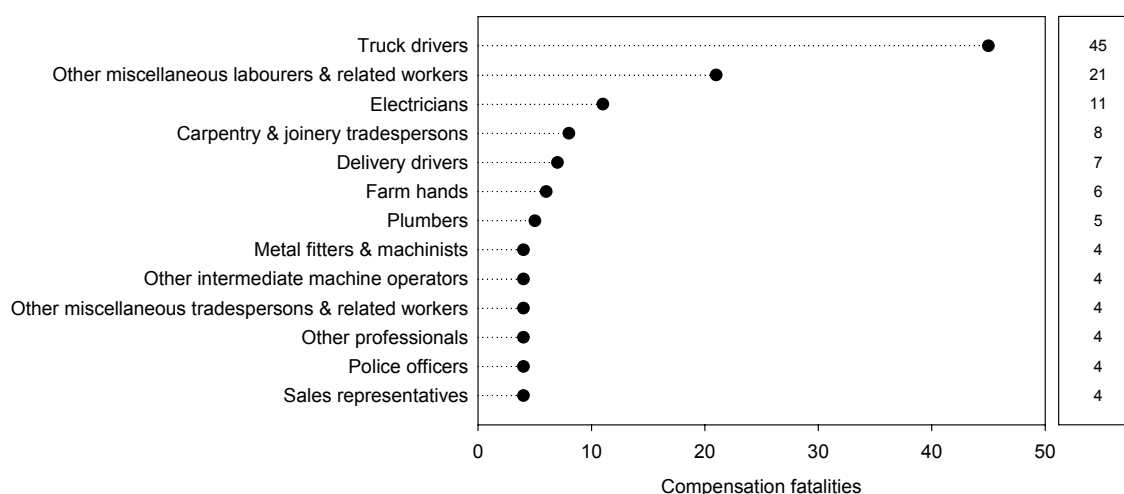
(b) Fatalities per 100 million hours worked.

As the majority of fatalities involved male employees, the pattern for male employees by occupation is similar to the national pattern described above. About three-quarters (76%) of the males who sustained a fatal work-related injury or disease were employed as either Intermediate production and transport workers (69 male fatalities); Tradespersons and related workers (53 male fatalities); or Labourers and related workers (40 male fatalities). The equal highest number of female fatalities (5) occurred among Intermediate clerical, sales and service workers and Labourers and related workers. This was followed by an equal high number of female fatalities (3) occurring among Manager and administrator workers and Associate professional workers.

Figure 17 provides occupation data at a more detailed level with the thirteen groups shown together accounting for 54% of all compensated fatalities in 2006–07p. This figure shows that Truck drivers recorded the highest number of fatalities (45 fatalities) accounting for 19% of all compensated fatalities. There were also 7 fatalities recorded among Delivery drivers indicating that driving is associated with a high level of fatality with 31 of the Truck driver deaths and 5 of the Delivery driver deaths due to vehicle accidents.

The second highest number of fatalities, 21 deaths, occurred amongst Other miscellaneous labourers and related workers. This group is used where sufficient information has not been provided to more accurately classify the employee's occupation into one of the other labourer categories. Of this group, 8 died from asbestos related diseases, 4 from vehicle accidents and 4 from being hit by a falling object.

**Figure 17 Compensated fatalities: thirteen highest detailed occupation groups, 2006–07p**



## Compensated fatality claims over time by occupation

In the analysis of trends, data of the most recent year, 2006–07 are not used for comparison as these preliminary data are likely to change. Table 23 shows that over the period 2000–01 to 2005–06, the fatality frequency rate decreased 29% from 2.4 fatalities per 100 million hours worked down to 1.7. Frequency rates have been chosen for this analysis as this measure takes into account differences in hours worked across the occupation categories.

Table 23 also shows that fatality frequency rates decreased in all occupation categories except Tradespersons and related workers which increased 7%. This category accounted for the second highest number of fatalities of all categories. The lowest number of fatalities recorded by this category was in 2000–01 when 49 fatalities were recorded. This rose to a high of 68 in 2002–03 before falling to 55 in 2005–06. This category had the third highest frequency rate, nearly twice the rate for all occupation categories in 2005–06.

Intermediate production and transport workers has consistently recorded the highest fatality frequency rate since 2000–01. In 2005–06, the frequency rate for this category (5.3 fatalities per 100 million hours worked) was over three times the rate for all occupation categories. While this category recorded a 30% decrease in frequency rates over the period from 2000–01 to 2005–06, this decrease is one of the smallest of all occupation categories.

The largest percentage fall on frequency rates (57%) was recorded by the Intermediate clerical, sales and service workers category, though this category has one of the smallest numbers of fatalities accounting for 3% of all fatalities in 2005–06.

**Table 23 Fatalities: number and frequency rate by occupation by year**

Occupation	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06
<b>Number of fatalities</b>						
Managers & administrators	14	14	23	15	10	13
Professionals	28	35	26	12	22	29
Associate professionals	30	16	20	14	19	19
Tradespersons & related workers	49	64	68	61	62	55
Advanced clerical & service workers	2	2	5	2	1	3
Intermediate clerical, sales & service workers	17	8	6	13	3	8
Intermediate production & transport workers	97	93	77	77	85	73
Elementary clerical, sales & service workers	9	8	12	9	5	6
Labourers & related workers	72	65	64	67	48	48
Occupation not stated	2	3	1	1	0	0
<b>Total fatalities</b>	<b>320</b>	<b>308</b>	<b>302</b>	<b>271</b>	<b>255</b>	<b>254</b>
<b>Frequency rate (fatalities per 100 million hours worked)</b>						
Managers & administrators	1.5	1.3	2.2	1.4	0.8	1.0
Professionals	1.0	1.2	0.9	0.4	0.7	0.9
Associate professionals	1.7	0.9	1.1	0.8	1.0	1.0
Tradespersons & related workers	2.9	3.8	4.0	3.4	3.4	3.1
Advanced clerical & service workers	0.4	0.4	1.0	0.4	0.2	0.6
Intermediate clerical, sales & service workers	0.7	0.3	0.2	0.5	0.1	0.3
Intermediate production & transport workers	7.6	7.1	5.8	5.8	6.2	5.3
Elementary clerical, sales & service workers	0.9	0.8	1.1	0.8	0.4	0.5
Labourers & related workers	6.3	5.9	5.7	6.0	4.2	4.4
<b>All fatalities</b>	<b>2.4</b>	<b>2.3</b>	<b>2.2</b>	<b>1.9</b>	<b>1.8</b>	<b>1.7</b>

\*\* percentage change figures over time are not shown due to the low number of fatalities in this occupation category  
(a) percentage change from 2000–01 to 2005–06

## Compensated fatalities by nature of injury or disease

The *Nature of injury or disease* classification is used to categorise the most serious injury or disease sustained by the employee. Figure 18 shows that of the 236 compensated fatalities in 2006–07p, 170 (72%) were caused by an injury and 66 (28%) were the result of a disease caused by work-related exposure to a hazardous substance or other agent.

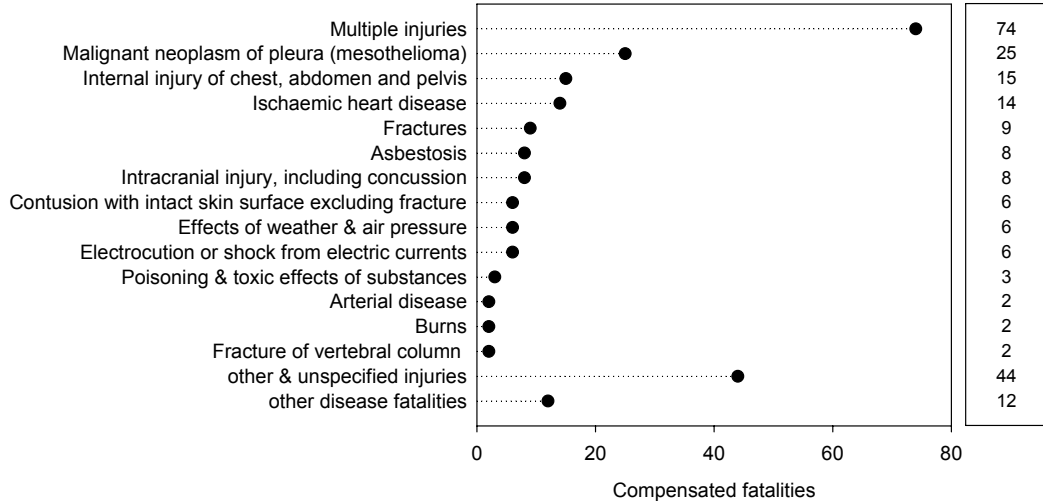
The most common category was *Multiple injuries* which accounted for 74 fatalities (31% of all compensated fatality claims). This category is used when no principal injury could be identified as the cause of death. The second most common category of injury, with 15 fatalities, was *Internal injury of chest, abdomen and pelvis*. There were 44 fatalities where the nature of injury was not identified.

There were 25 compensated fatalities in 2006–07p due to *Mesothelioma (malignant neoplasm of the pleura)* and 8 fatalities due to the related *Asbestosis*. However, it is known that workers' compensation data does not provide an accurate measure of the incidence of these diseases in the community. More information on these diseases can be found in the report *Mesothelioma in Australia, March 2008*, available from the ASCC website.

The most common *Nature of injury or disease* recorded for male employees was *Multiple injuries* which accounted for 67 fatalities followed by *Malignant neoplasms of the pleura (mesothelioma)* which accounted for a further 25 male fatalities. For female employees, 7 of the 21 fatalities were due to *Multiple injuries*.

While fatalities from disease accounted for 61 (26%) of the 236 compensated fatalities in 2006–07, more than half (35 fatalities) of these involved employees aged 55 years and over. A greater proportion of disease-related fatalities is expected in the older age groups compared with the younger age groups because of the greater length of exposure by older employees to work-related conditions and the long latency period of some work-related diseases.

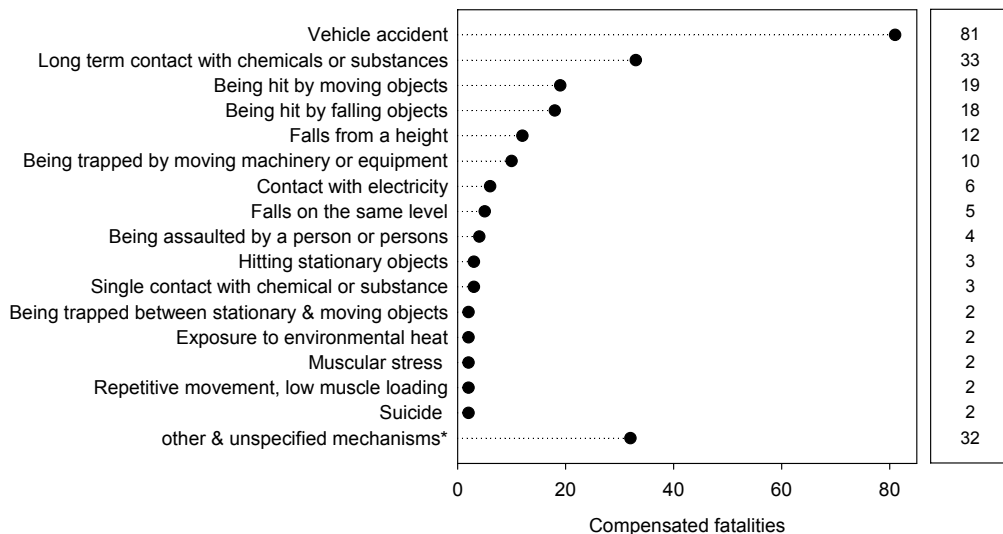
**Figure 18 Fatalities: number by nature of injury or disease, 2006–07p**



## Compensated fatalities by mechanism of injury or disease

The *Mechanism of injury or disease* classification is used to describe the action, exposure or event that was the direct cause of the injury or disease. Figure 19 shows that over one-third (34%, 81 deaths) of fatalities in 2006–07 were due to *Vehicle accident with Long term contact with chemicals or substances* accounting for a further 14% of fatalities (33 deaths). Of the 19 fatalities that involved *Being hit by moving objects*, 6 involved cars and trucks while the remainder were due to a variety of moving machinery and objects. Similarly there was no common item involved in the 18 fatalities that occurred due to *Being hit by falling objects*. There were however, 13 deaths where the mechanism was not identified and a further 13 where multiple mechanisms were the cause. These have been included in the *other and unspecified mechanisms* category.

**Figure 19 Fatalities: number by mechanism of injury or disease, 2006–07p**



\* other and unspecified mechanisms is not a formal *Mechanism of injury or disease* classification. It includes multiple mechanisms, unspecified mechanisms and single incidents resulting in a fatality.

Table 24 shows the mechanisms with highest number of fatalities over the past six years. While the total number of fatalities fell by 21% over this period, consistent improvement across all mechanisms has not occurred. The data for *Vehicle accident* indicates a slight improvement in the number of fatalities from the high of 98 deaths in 2000–01 to 84 in 2005–06, though this is not as low as the 76 deaths recorded in 2001–02 or the 81 recorded in 2003–04. Similar fluctuation in numbers occurred with *Long term contact with chemicals or substances* which started and ended the period with the same number of fatalities (35), but had substantially higher numbers in the intervening years. Of note is that while Figure 19 shows that *Being trapped by moving machinery or equipment* recorded 10 fatalities in 2006–07, the sixth highest cause of fatalities in that year, Table 24 shows that this mechanism does not usually account for so many fatalities in one year and hence data from a single year should not be taken to represent the pattern for all years.

**Table 24 Fatalities: number of fatalities by selected mechanism of injury or disease by year**

Mechanism	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06
Vehicle accident	98	76	93	81	89	84
Long term contact with chemicals or substances	35	48	56	54	51	35
Being hit by moving objects	21	23	18	22	13	22
Being hit by falling objects	15	20	13	6	18	18
Falls from a height	16	20	16	24	9	17
Contact with electricity	9	4	11	6	9	13
Being trapped by moving machinery or equipment	4	8	8	5	3	2

## Compensated fatalities by breakdown agency

*Breakdown agency* refers to 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 most serious injury or disease. Figure 20 shows the most common breakdown agency for compensated fatality claims in 2006–07p was *Mobile plant and transport*. The 96 fatalities attributed to this agency accounted for more than a third (41%) of all compensated fatality claims. Of these 96 fatalities, 75 involved *Road transport*: mostly comprising *Cars, station wagons, vans, utilities* (37 fatalities) and *Trucks, semi-trailers, lorries* (37 fatalities).

Of the 48 fatalities involving *Materials and substances*, 33 involved asbestos. The third highest number of fatalities (24) involved *Machinery and (mainly) fixed plant*. Within this group *Conveyors and lifting plant* accounted for 12 fatalities and *Electrical installation* 6 fatalities.

**Figure 20 Fatalities: number by breakdown agency of injury or disease, 2006–07p**

