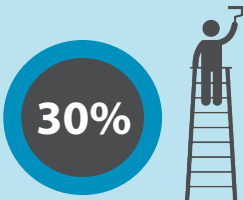


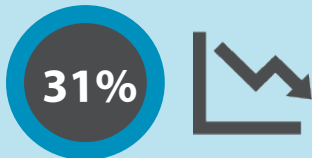
Construction Industry Profile



KEY FACTS



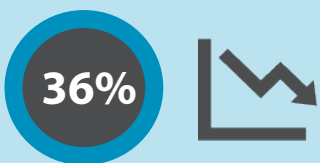
30% of falls injuries were caused by ladders



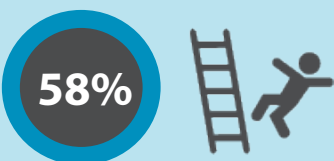
31% decrease in the rate of serious claims in the construction industry between 2001-02 and 2011-12



20% of serious claims were for back injuries



36% decrease in the rate of fatalities between 2002-03 and 2013-14



58% fatalities caused from falls from a height were from roofs and ladders, half of these involved falls of less than 4m

The construction industry comprises work involved with the construction, alteration or demolition of buildings and other structures or the preparation of building sites.

The number of workers in the construction industry has grown by 33% over the last 11 years. Within the construction industry 76% of workers were classed as employees and were covered by workers' compensation schemes.

There have been significant reductions in the numbers and rates of injuries and fatalities in this industry over the last ten years or more. Nevertheless, the construction industry remains a high risk industry.

In 2012-13 the construction industry accounted for 9% of the Australian workforce but 10% of workers' compensation claims for injuries and diseases involving one or more weeks off work. In 2013-14 the construction industry again accounted for 9% of the workforce but accounted for 12% of work-related fatalities.

Around 12 600 workers' compensation claims are accepted from the construction industry each year for injuries and diseases involving one or more weeks off work. In the construction industry this equates to 35 serious claims each day.

In 2012-13 the construction industry had the 4th highest incidence rate of serious claims per 1000 employees and 5th highest fatality rate per 100 000 workers in 2013-14.

Main Causes of Injury		Main Causes of Fatalities	
1 Body Stressing	37%	1 Falls from a height	28%
2 Falls, trips and slips	28%	2 Vehicle incidents	16%
3 Hit by moving objects	14%	3 Contact with electricity	15%



Construction Industry



12 600



The average number of serious claims per year over the last 5 years

6.4 weeks



the typical number of weeks off work for serious claims in 2011-12

11 000



the median compensation payment per serious claim in 2011-12

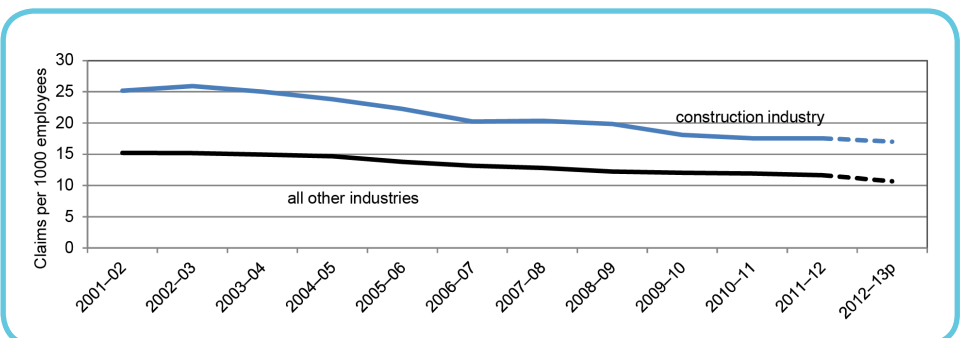
SERIOUS CLAIMS

A serious claim is a workers' compensation claim for an incapacity that results in a total absence from work of one working week or more. The number of serious claims reported in 2012-13 are preliminary (as denoted by the letter 'p') and are likely to increase as more claims are accepted or amended by jurisdictions at a later date.

Trends in serious claims

Figure 1 shows the incidence rate of serious claims in the industry has fallen 31% from 27.5 claims per 1000 employees in 2001-02 to 17.5 in 2011-12. However, this rate remains higher than the rate for all industries (12.0) and was the fourth highest of all industries in 2011-12. The preliminary data for 2012-13 indicates a continuing decline (17.0).

Figure 1: Serious claims: incidence rate per 1000 employees in the construction industry and all industries, 2001-02 to 2012-13p



Serious claims in the construction industry by group and class

Within the construction industry, heavy and civil engineering consistently had the highest incidence rate of serious claims while construction services accounted for the largest proportion of serious claims (64%).

Table 1: Serious claims: incidence rates per 1000 employees in the construction industry by industry group and class, 2008-09 to 2012-13p

Industry group	2008-09	2009-10	2010-11	2011-12	%chg ^a	2012-13p
Class						
Building construction	*13.6	*12.1	*13.0	*12.9	-5.1	*12.5
Residential building construction	*12.9	*10.4	*10.9	*11.2	-13.2	*11.3
Non-residential building construction	*14.6	*15.3	*16.6	*15.4	5.5	*14.7
Heavy and civil engineering construction^b	31.8	28.3	28.3	28.9	-9.1	30.8
Construction services	21.0	19.4	18.0	17.9	-14.8	16.8
Land development and site preparation	25.1	24.9	26.0	23.1	-8.0	23.1
Building structure services	27.5	25.1	25.7	21.5	-21.8	19.6
Building installation services	17.4	16.0	14.2	14.3	-17.8	13.6
Building completion services	20.8	20.8	18.3	19.3	-7.2	16.1
Other construction services	22.3	18.9	17.9	20.3	-9.0	20.5
Total construction industry	19.8	18.1	17.6	17.5	-11.6	17.0
Total all industries	12.8	12.4	12.3	12.0	-6.3	11.1

*These data have a relative standard error greater than 25% and should be used with caution.

a) Percentage change from 2008-09 to 2011-12 as preliminary data for 2012-13 are likely to increase as further claims are accepted.

b) No further breakdown of data is available for this industry group.

Construction Industry



Serious claims by occupation

The ten occupations within the construction industry which had the highest number of serious workers' compensation claims are shown in Table 2.

Over the five-years 2008–09 to 2012–13p carpenters & joiners accounted for 13% of serious claims, followed by plumbers (8%) and electricians (7%). These ten occupations represent half of all claims in the construction industry.

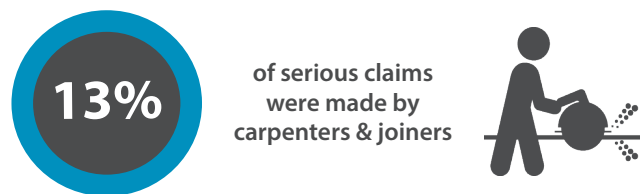


Table 2: Serious claims: percentage of claims in the construction industry by occupation, 2008–09 to 2012–13p combined

Occupation	%
Carpenters & joiners	13%
Plumbers	8%
Electricians	7%
Building & plumbing labourers	6%
Concreters	4%
Structural steel construction workers	4%
Truck drivers	3%
Plasterers	2%
Painting trades workers	2%
Earthmoving plant operators	2%

Table 3: Serious claims: percentage by occupation, mechanism and nature of injury in the construction industry, 2008–09 to 2012–13p combined

Occupation	Mechanism of injury				Total	
	Nature of injury	Body Stressing	Falls, trips & slips	Hit by moving object		Other mechanisms
Carpenters & joiners		29%	29%	23%	18%	100%
Traumatic joint/muscle injury or strain		54%	35%	5%	6%	100%
Wounds, lacerations or amputations		1%	13%	47%	39%	100%
Fractures		2%	58%	28%	11%	100%
Musculoskeletal & connective tissue		69%	20%	3%	8%	100%
Plumbers		33%	32%	16%	19%	100%
Traumatic joint/muscle injury or strain		52%	35%	5%	8%	100%
Wounds, lacerations or amputations		2%	20%	35%	44%	100%
Fractures		4%	61%	23%	13%	100%
Musculoskeletal & connective tissue		71%	21%	3%	5%	100%
Electricians		35%	34%	14%	17%	100%
Traumatic joint/muscle injury or strain		52%	36%	4%	9%	100%
Wounds, lacerations or amputations		1%	20%	36%	43%	100%
Fractures		4%	62%	22%	12%	100%
Musculoskeletal & connective tissue		69%	20%	3%	8%	100%
Building and plumbing labourers		37%	28%	20%	14%	100%
Traumatic joint/muscle injury or strain		57%	29%	8%	6%	100%
Wounds, lacerations or amputations		1%	19%	45%	34%	100%
Fractures		3%	46%	37%	15%	100%
Musculoskeletal & connective tissue		76%	15%	1%	7%	100%
Concreters		46%	26%	15%	13%	100%
Traumatic joint/muscle injury or strain		61%	27%	5%	7%	100%
Wounds, lacerations or amputations		2%	19%	44%	36%	100%
Fractures		3%	46%	33%	18%	100%
Musculoskeletal & connective tissue		78%	15%	1%	6%	100%

Construction Industry



Serious claims by mechanism of injury

Body stressing was the most common mechanism of injury over the 5 years 2008–09 to 2012–13p accounting for 37% of serious claims in the construction industry. Almost half (47%) of the serious claims for body stressing were the result of muscular stress while lifting, carrying, or putting down objects. Falls, trips and slips of a person was the second most common mechanism of injury representing 28% of serious claims, most caused by falls on the same level.

Table 4: Serious claims: number and percentage by mechanism in the construction industry and all industries, 2008–09 to 2012–13p combined

Mechanism of injury	Construction		All industries	
Sub-group of Mechanism of injury	Number	%	Number	%
Body stressing	23 340	37%	261 505	42%
<i>Muscular stress while lifting, carrying, or putting down objects</i>	10 950	47%	110 415	42%
<i>Muscular stress while handling objects other than lifting, carrying or putting down</i>	8 475	36%	97 990	37%
Falls, trips and slips of a person	17 660	28%	135 570	22%
<i>Falls on the same level</i>	8 145	46%	86 200	64%
<i>Falls from a height</i>	7 800	44%	38 845	29%
Being hit by moving objects	10 660	17%	88 965	14%
<i>Being hit by moving objects</i>	4 695	44%	28 375	32%
<i>Being hit by falling objects</i>	3 050	29%	20 730	23%
Hitting objects with a part of the body	6 310	10%	43 080	7%
<i>Hitting moving objects</i>	3 325	53%	20 535	48%
<i>Hitting stationary objects</i>	2 945	47%	22 125	51%
Other mechanisms	5 260	8%	89 445	14%
Total serious claims	63 230	100%	618 565	100%

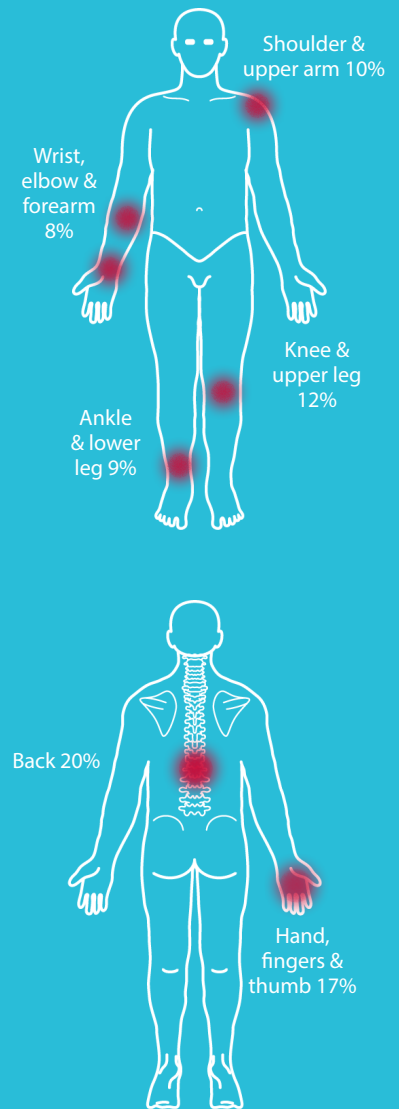


Figure 2: Serious claims: percentage by bodily location in the construction industry, 2008–09 to 2012–13p combined



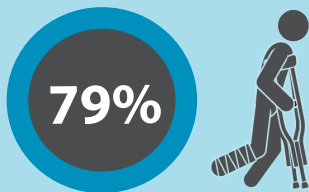
Serious claims by location of injury

Over the five years 2008–09 to 2012–13p three-quarters of serious injuries for which workers' compensation was awarded in the construction industry were for locations indicated in Figure 2. Injuries to the back and to the hand, fingers & thumb accounted for more than one-third of compensated injuries in this industry.

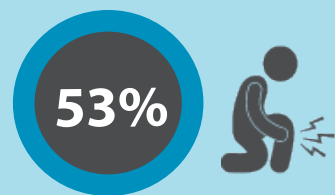
Construction Industry



20%
of serious claims were for injuries to the back



79%
of all serious claims were for injuries



53%
of injuries were traumatic joint/ligament & muscle/tendon injury



Serious claims by nature of injury or disease

Injuries accounted for around three-quarters of all serious claims compensated in the construction industry over the five years 2008–09 to 2012–13p—more than half were traumatic joint/ligament and muscle/tendon injuries. Musculoskeletal disorders accounted for a further 12% of serious claims and diseases 7%. There were less than five claims for asbestosis and no claims for mesothelioma recorded for diseases over this period: this may be because claims were lodged with the NSW Dust Diseases Board or compensation may have been sought through other means.

Table 5: Serious claims: number and percentage by nature of injury or disease in the construction industry and all industries, 2008–09 to 2012–13p combined

Nature of injury or disease	Construction		All industries	
	Number	%	Number	%
Injuries	50 955	79%	457 975	74%
<i>Traumatic joint/ligament & muscle/tendon injury</i>	26 800	53%	282 050	62%
<i>Wounds, lacerations, amputations & internal organ damage</i>	13 220	26%	93 675	20%
<i>Fractures</i>	8 160	16%	55 340	12%
<i>Burns</i>	735	1%	9 460	2%
<i>Other injuries</i>	2 040	4%	17 450	4%
Musculoskeletal disorders	7 720	12%	88 545	14%
Diseases	4 540	7%	72 045	12%
<i>Digestive system diseases (e.g. hernias, ulcers & gastritis)</i>	2 295	51%	15 035	21%
<i>Mental disorders (e.g. anxiety, depression, post-traumatic stress disorders)</i>	855	19%	38 730	54%
<i>Nervous system & sense organ diseases (carpal tunnel syndrome, deafness)</i>	560	12%	7 245	10%
<i>Skin & subcutaneous tissue diseases (contact dermatitis, eczema)</i>	430	9%	3 455	5%
<i>Other diseases</i>	400	9%	7 580	11%
Total serious claims	63 230	100%	618 565	100%

Total includes claims not coded to the categories shown above.

Construction Industry



young workers twice as likely as older workers to have injuries to their hands

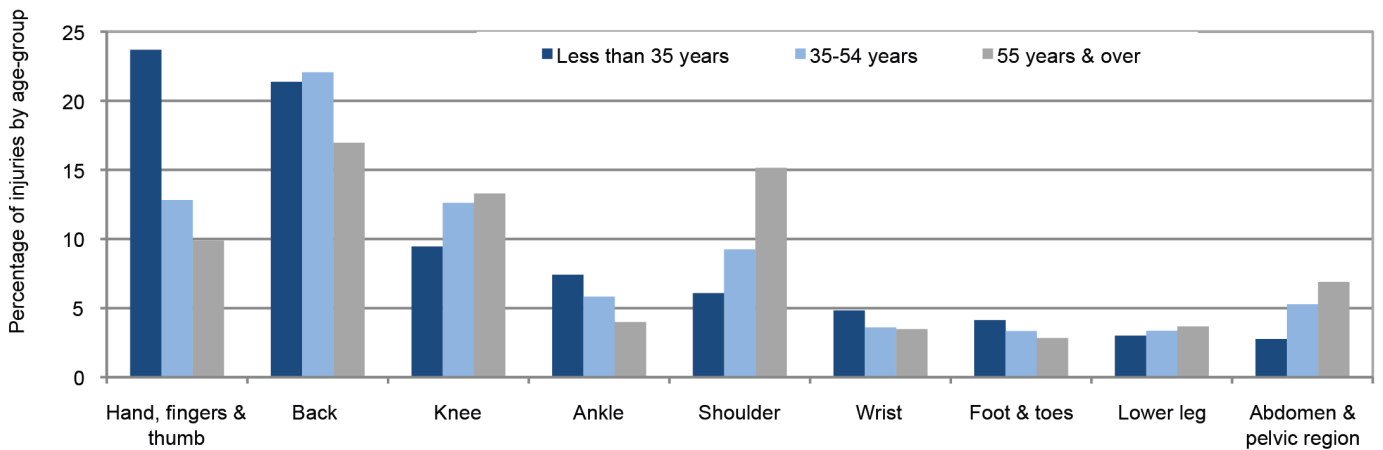
Serious claims by location of injury and age

Younger workers were more likely than older workers to incur injuries to their hand, fingers & thumb, ankle, wrist, and foot & toes. Older workers had a much higher proportion of injuries to the shoulder than younger workers.

The back was the most common location of injury for workers in both the 35–54 years and 55 years and over age groups—it accounted for more serious claims than any other part of the body.

The proportion of injuries that affected the shoulder, knee, lower leg and abdomen & pelvic region all increased with age.

Figure 3: Serious claims: percentage by location of injury and age in the construction industry, 2008–09 to 2012–13p combined

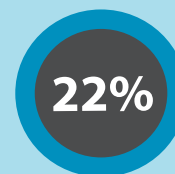


Shoulder



oldest workers most likely to have shoulder injuries than younger workers

Back



injuries to the back was the most common injury for workers aged 35-54 years

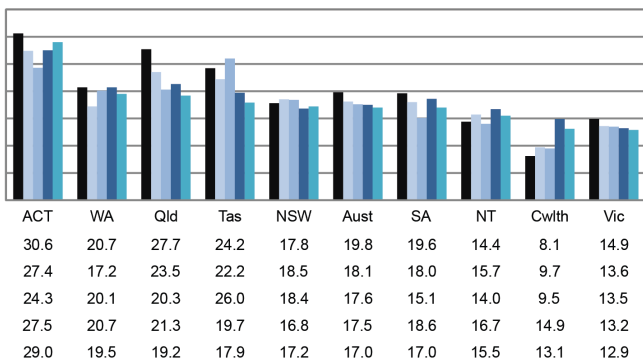
Construction Industry



Incidence rate of serious claims by jurisdiction

In 2012–13p the Australian Capital Territory recorded the highest incidence rate of serious claims with 29.0 claims per 1000 workers while Victoria had the lowest with 12.9. Tasmania recorded the largest decrease of any jurisdiction with a 26% decrease over the five year period.

Figure 4: Serious claims: incidence rates by jurisdiction in the construction industry, 2008–09 to 2012–13p



FATALITIES

Unlike serious claims where the most recently reported data is preliminary (and the number of claims are likely to increase as more claims are accepted for compensation), the fatalities data are more stable. Only persons who die from injuries sustained while they are working are included in this report—it does not include deaths attributable to disease and other natural causes. It is possible that some fatalities, particularly those related to traffic incidents, may be missed because of the way these deaths are coded.

Over the 12 years from 2002–03 to 2013–14, 417 construction workers died from injuries sustained at work. This was 14% of all fatalities of Australian workers during this period. The total number of deaths equates to 2.24 fatalities per 100 000 workers, which is 34% higher than the national rate of 1.67.

Table 6: Worker fatalities: number by mechanism and breakdown agency, 2002–03 to 2013–14 combined

Mechanism	Number
Breakdown agency	
Falls from a height	117
<i>Of these, 54 involved falls from buildings & other structures (most were caused by falls from roofs), 28 involved ladders and 12 involved scaffolding.</i>	
Vehicle incidents	68
<i>In 35 of the incidents the worker was in a car and 19 were in a truck.</i>	
Contact with electricity	63
<i>Most of these fatalities were caused during electrical installation. Of these, 20 involved distribution lines - low tension and 7 control apparatus.</i>	
Being hit by falling objects	49
<i>Objects falling from buildings and other structures accounted for 9 fatalities while cranes and excavators, backhoes & other digging plant accounted for 5 fatalities each.</i>	
Being hit by moving objects	49
<i>Of these, 20 involved cars and trucks</i>	
Other mechanisms	71
Total construction fatalities	417



deaths caused by contact with electricity



of fatalities were caused by vehicle collisions

Construction Industry



28%

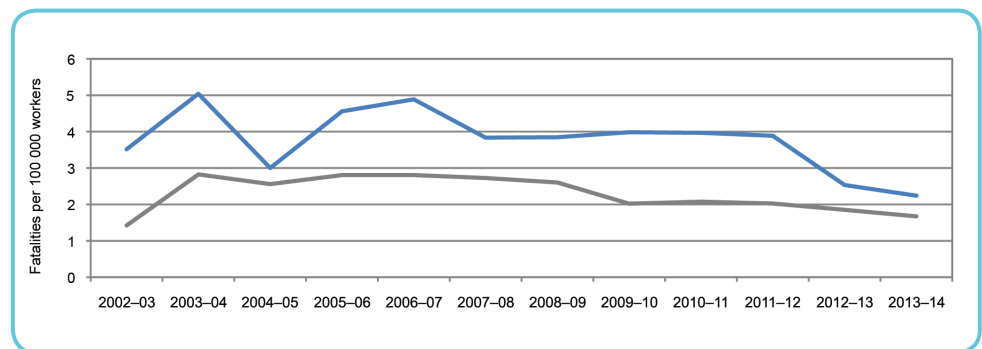
of fatalities in Australia were caused by a fall from height



Trends in fatalities

Over the 12-years from 2002–03 to 2013–14 there was a 36% decrease in the rate of fatalities in the construction industry compared with a 41% decrease nationally.

Figure 5: Worker fatalities: incidence rates in the construction industry and all industries, 2002–03 to 2013–14



Fatalities by jurisdiction and mechanism of incident

Table 7 shows the breakdown by state and the mechanism of the incident resulting in death. Falls from a height was the most common cause of death nationally, as well as in New South Wales, Victoria, Queensland and Western Australia. In Tasmania vehicle collisions were the most common mechanism causing death.

Table 7: Worker fatalities: percentage by mechanism of incident and jurisdiction, 2002–03 to 2013–14 combined

Mechanism of incident	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Falls from a height	37%	29%	21%	21%	25%	21%	28%
Vehicle collision	15%	19%	17%	10%	14%	29%	16%
Contact with electricity	16%	11%	18%	14%	11%	7%	15%
Being hit by moving objects	12%	11%	12%	17%	4%	14%	12%
Being hit by falling objects	7%	12%	13%	21%	14%	21%	12%
Other mechanisms	13%	18%	18%	17%	32%	7%	17%
Total	100%	100%	100%	100%	100%	100%	100%

Data are not shown for the Northern Territory and the Australian Capital Territory because of the small numbers involved.



Falls from a height accounted for 28% of fatalities overall in the construction industry over the 12-year period 2002–03 to 2013–14. In the industry group classes of the construction industry, falls from a height was the mechanism responsible for the most fatalities in house construction, non-residential building construction, painting & decoration services, plumbing services and roofing services (see table 8).

Construction Industry



Figure 6: Worker fatalities: number by occupation, 2002–03 to 2013–14 combined

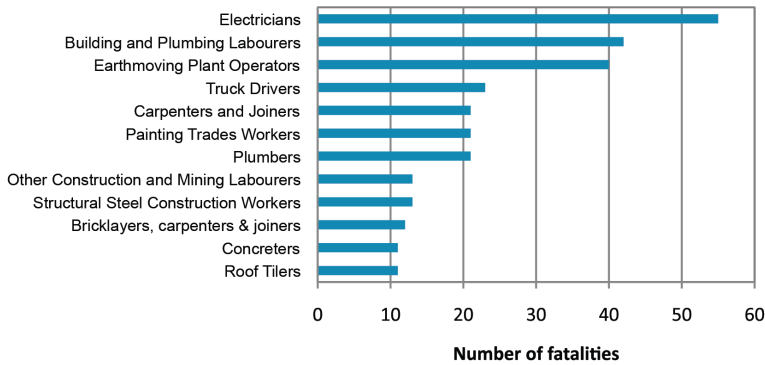
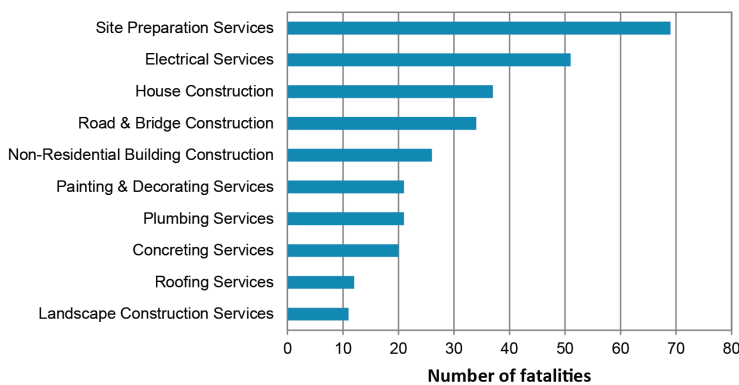


Figure 7: Worker fatalities: number by industry groups, 2002–03 to 2013–14 combined



Occupation

Over the period 2002–03 to 2013–14 there were 417 fatalities in the construction industry: Figure 6 shows the 12 occupations which recorded the most fatalities over the period.

Industry groups

The industry group classes which recorded the highest number of deaths are shown in Figure 7. Site preparation services recorded the most deaths: its activities involve earthmoving work such as levelling of construction sites, excavation of foundations, trench digging or removal of overburden.

Within site preparation services, being hit by moving objects was the most common single mechanism causing death. Electrical services had the second highest number of fatalities, of these 53% were from contact with electricity.

Table 8: Fatalities: percentage by industry group classes and mechanism of incident, 2002–03 to 2013–14 combined

Industry group classes	Falls from a height	Vehicle incident	Contact with electricity	Hit by falling objects	Hit by moving objects	Other mechanisms	Total
Site preparation services	6%	17%	1%	19%	20%	36%	100%
Electrical services	22%	20%	53%	0%	2%	4%	100%
House construction	49%	11%	11%	19%	0%	11%	100%
Road & bridge construction	6%	26%	0%	9%	41%	18%	100%
Non-residential building construction	35%	19%	4%	23%	4%	15%	100%
Painting & decorating services	71%	5%	10%	0%	5%	10%	100%
Plumbing services	52%	14%	24%	5%	5%	0%	100%
Concreting services	20%	15%	10%	20%	10%	25%	100%
Roofing services	75%	0%	25%	0%	0%	0%	100%
Landscape construction services	0%	36%	18%	9%	18%	18%	100%
Other industry group classes	30%	15%	14%	12%	11%	18%	100%

Falls from a height

Construction Industry



SERIOUS CLAIMS

Falls from a height accounted for 12% of work-related workers' compensation claims in the construction industry over the five year period 2008–09 to 2012–13p ('p' denotes the data is preliminary). Younger workers were more likely to make a claim than older workers—workers aged less than 35 years of age accounted for 45% of serious workers'

compensation claims, workers aged 35 to 54 years a further 40% and workers aged 55 years and over 15%.

The causes and location of injuries that were most commonly claimed for by workers in the five occupations recording the highest number of claims in the construction industry are shown in Table 9 below.

Table 9: Serious claims: number by occupation, breakdown agency and location of injury, 2008–09 to 2012–13p combined

Occupation	Location of injury			
	Breakdown agency	Lower Limbs	Upper Limbs	Trunk
Carpenters & joiners	345	270	160	100
Ladders	125	140	50	35
Buildings & other structures	80	60	40	25
Scaffolding	55	35	35	15
Others	85	40	30	25
Plumbers	235	175	105	60
Ladders	100	95	45	25
Buildings & other structures	35	35	30	15
Steps & stairways	30	10	5	5
Others	70	40	25	10
Electricians	220	190	85	60
Ladders	135	145	50	45
Buildings & other structures	35	15	15	10
Steps & stairways	25	10	5	0
Others	30	20	15	5
Building & plumbing labourers	105	110	70	35
Ladders	45	45	20	10
Buildings & other structures	35	20	25	10
Holes in the ground	35	10	5	10
Others	60	35	20	10
Painting trades workers	155	105	80	45
Ladders	90	80	40	25
Scaffolding	20	5	10	15
Buildings & other structures	20	10	15	5
Others	25	10	10	5

Falls from a height

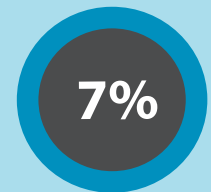
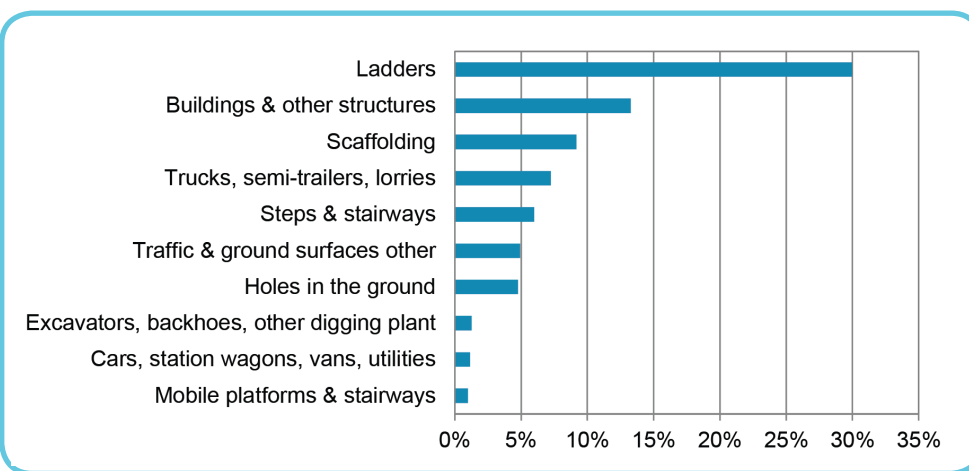
Construction Industry



Serious claims by causes of falls

Figure 8 shows the 10 most common breakdown agencies involving falls from a height over the five years 2008–09 to 2012–13p. Ladders were the most common cause of injuries accounting for 30% of claims which was more than twice that of the next most common cause.

Figure 8: Serious claims: percentage by breakdown agency in the construction industry, 2008–09 to 2012–13p combined

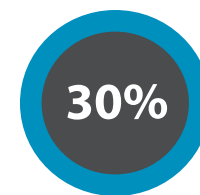


7% of fall injuries were caused by trucks, semi-trailers & lorries

Serious claims by location and nature of injury

The most common types of injuries resulting from falls from a height and the location of injuries are shown in Table 10.

It shows that over the five years, 2008–09 to 2012–13p combined, traumatic joint/ligament & muscle tendon injuries to the lower limbs were the most common outcome of falls from a height (1715 claims) followed by fractures to the upper limbs (1045).



30% of fall injuries were caused by ladders



Table 10: Serious claims: number by bodily location and nature of injury, 2008–09 to 2012–13p combined

Location of injury	Traumatic joint/ligament & muscle/tendon injury	Fractures	Wounds, lacerations, amputations & internal organ damage	Musculoskeletal & connective tissue diseases	Other injuries	Total
Lower limbs	1715	905	375	115	70	3180
Upper limbs	705	1045	330	110	40	2225
Trunk	545	540	190	200	50	1525
Head	5	60	70	0	95	230
Neck	30	20	5	20	5	80
Other locations	210	120	125	15	100	560
Total	3205	2690	1095	455	355	7800

Falls from a height

Construction Industry



FATALITIES

Falls from a height was the most common cause of workplace death over the period 2002–03 to 2013–14—accounting for 117 fatalities in the construction industry (see Table 6).

Table 12 shows falls from roofs and ladders combined accounted for 58% of fatalities. Almost half of fall fatalities (48%) in the construction industry resulted from falls from a height of less than 4 metres.



117
fatalities in the
construction industry
over 12-year period were
caused by falls from a
height

Table 11: Worker fatalities: number by breakdown agency and height of the fall, 2002–03 to 2013–2014 combined

Breakdown agency	Height of fall causing fatality						Unknown	Total
	<3m	3<4m	4<6m	6<10m	10<20m	20m+		
Roof	8	10	8	8	6	1	-	41
Ladders	8	11	6	1	1	-	2	27
Scaffolding	3	3		1	2	4	1	13
Ceiling, joist, manhole, trusses, skylights	5	5	3	-	-	-	-	13
Tower, crane, drilling rig	-	-	-	-	1	3	-	4
Balcony	1	-	1	1	-	-	-	3
Elevated work platform	-	-	-	-	2	1	-	3
Hole in ground	1	-	1	1	-	-	-	3
Trucks, boats, bulldozers	2	-	-	-	-	-	1	3
Formwork	-	-	-	1	1	-	-	2
Shipping containers, tanks	1	1	-	-	-	-	-	2
Total fatalities	29	30	19	13	13	9	4	117

Fatalities by occupation

Over the 12-years, 2002–03 to 2013–14, building & plumbing labourers reported the most fatalities (18) with most the result of falling from roofs. There were 16 bricklayers, carpenters & joiners fatalities, 14 painting trades workers fatalities and 13 electricians fatalities—the most common cause being falls from ladders.

Table 12: Worker fatalities: number by occupation and breakdown agency, 2002–03 to 2013–14 combined

Occupations and breakdown agencies	Numbers
Building & plumbing labourers—of these 13 involved falls from roofs and balconies.	18
Bricklayers, carpenters & joiners—of these 11 involved falls from roofs and balconies.	16
Painting trades workers—of these 6 involved falls from ladders and 3 from roofs and balconies.	14
Electricians—falls from ladders accounted for 6 and 6 from roofs and balconies.	13
Roof tilers—falls from roofs and balconies accounted for 8 fatalities.	9
Plumbers—of these 4 were the result of falls from ladders and 3 from roofs and balconies.	8
Structural steel construction workers, of these 3 were from falls from scaffolding and 3 from roofs and balconies.	6
Handypersons—all fatalities resulting from falls from ladders.	5
Other occupations	28
Total fatalities	117