

# Safety performance

in the Western Australian mineral industry



Accident and injury statistics

05-06



Department of Consumer  
and Employment Protection  
Government of Western Australia

Resources Safety 





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# Summary

Statistics generated from Resources Safety's AXTAT database for the year 2005–06 show a slight but continuing improvement in the overall safety performance of the Western Australian mining industry.

The number of serious injuries recorded since 2001–02 has increased slightly from year to year due primarily to an increase in the reported number of people employed. In 2005–06, the lost time injury frequency rate for serious injuries fell while the actual number of serious injuries reported rose.

There was only a small improvement in the lost time injury frequency rate (LTIFR), supporting the previous year's suggestion that the curve has plateaued.

For many years the focus has been on lost time injuries (LTIs) and how they can be managed more effectively, both in terms of the individual employee's welfare and the related issue of workers' compensation. Much has been achieved in this regard, and it is to industry's credit that considerable progress has been made in the areas of early return of employees to operational status, on-the-job post-accident rehabilitation and retraining of personnel. However, the number of LTIs reported in recent years has become so small that the value of the LTIFR as an indicator of safety performance is questionable and recorded improvements in the rate are more marginal.

Disabling injuries statistics have been collected since the beginning of fiscal 2001–02. This program was initiated with a view to establishing a more effective safety performance indicator than the current LTI-based system. Allegations that LTIs are 'managed' to provide

favourable accident reporting data have been made by various parties in recent times. Disabling injuries are generally not amenable to the mechanism alluded to above and are more numerous than LTIs. There were 506 disabling injuries recorded for 2005–06, an decrease of 102 on the 2004–05 figure of 608. The 56,425 employees in the mining industry (an increase of 10%) worked a total of 111.94 million hours. The disabling injury incidence and frequency rates both displayed an improvement at 9.0 and 4.5 respectively.

All of the above suggest that the various indicator numbers are reaching plateaus and any further improvement is likely to be minimal. Equally, a deterioration in performance cannot be discounted. Renewed effort on the part of all stakeholders is required, and new approaches to the issue of accident prevention are necessary to continue to improve safety.

Five mining industry employees lost their lives during the year, three more than for the previous year.

Resources Safety continues to regulate the mining industry by statutory inspections, safety management system and high impact function audits. It plays an important role in providing education, training support and information to industry. During the year, safety meetings, presentations to mine site employees, and briefings to industry safety and health representatives complemented the inspection activities.

Resources Safety is also participating in and assisting with the development of the National Mine Safety Framework, an initiative of the Ministerial Council on Mineral and Petroleum Resources.

# Statistical summary

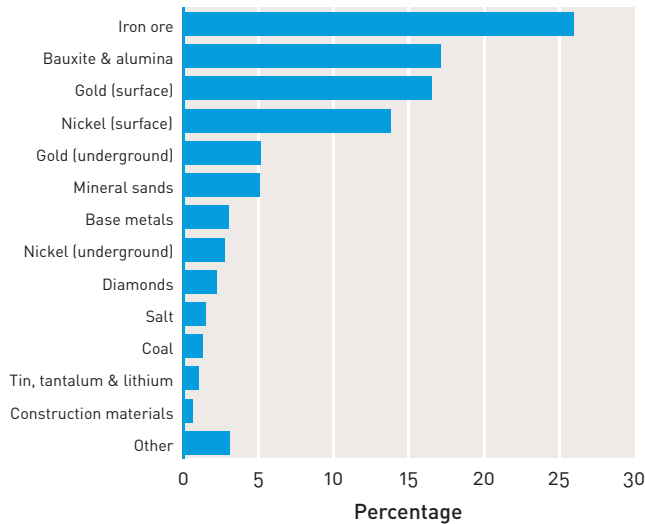
- There were five fatal accidents during 2005–06 — two were underground at nickel mines, one was underground at a gold mine and two were on the surface at gold mines.
- There were 462 LTIs during 2005–06, 37 more than the previous year (425 injuries in 2004–05). The breakdown of the number of injuries by commodity mined is shown in Appendix A.
- There was an average workforce of 56,425 employees in 2005–06, an increase of 10% over the previous year (51,207 employees in 2004–05). The breakdown of the number of employees by commodity mined is shown in Appendix A.
- The overall LTI duration rate deteriorated slightly by 4% during 2005–06, rising from 19.4 to 20.2. The breakdown of the work days lost for each commodity mined is shown in Appendix A.
- The overall LTIFR improved slightly by 2% during 2005–06, falling from 4.2 to 4.1.
- The overall injury index deteriorated slightly by 1% during 2005–06, up from 82 to 83.
- Serious injuries in the mining industry during 2005–06 totalled 349, which is 33 more than for 2004–05.
- The overall serious injury frequency rate improved slightly by 3% during 2005–06, falling from 3.2 to 3.1.
- The iron ore sector LTIFR deteriorated by 9% during 2005–06, rising from 2.2 to 2.4.
- The bauxite and alumina sector LTIFR deteriorated by 20% during 2005–06, rising from 2.5 to 3.0.
- The gold sector LTIFR deteriorated by 13% during 2005–06, rising from 3.9 to 4.4.
- The nickel sector LTIFR improved by 16% during 2005–06, falling from 7.0 to 5.9.



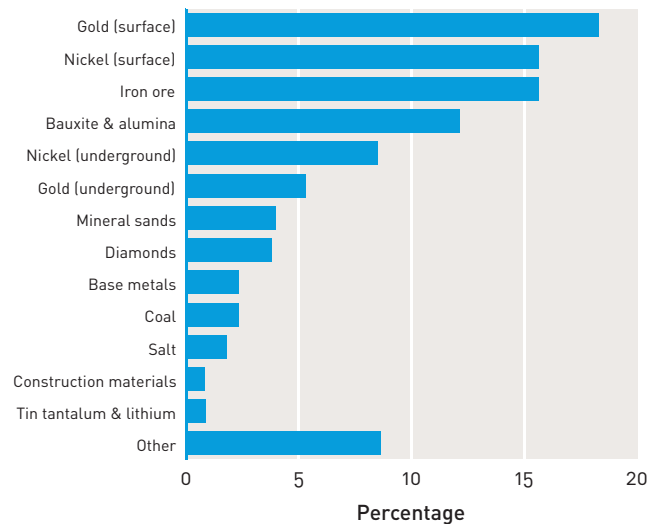
# Appendix A

## Western Australian mines 2005–06

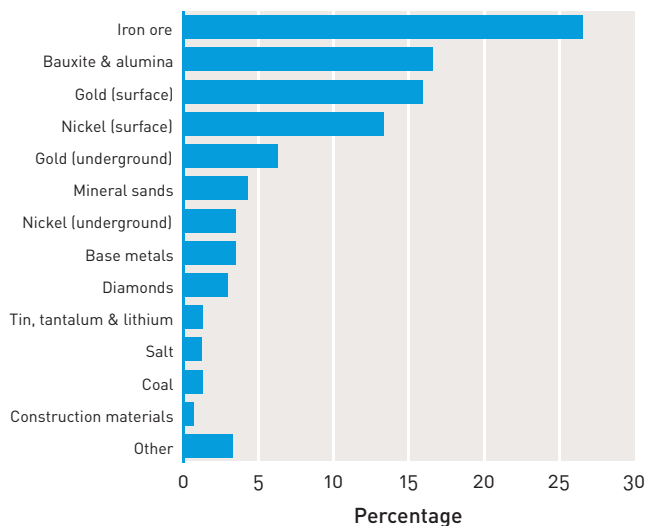
462 injuries



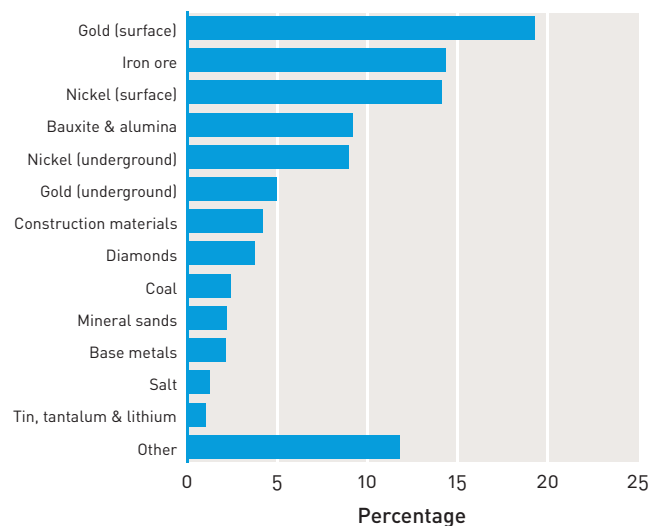
Percentage of employees



Percentage of injuries



Percentage of million hours worked

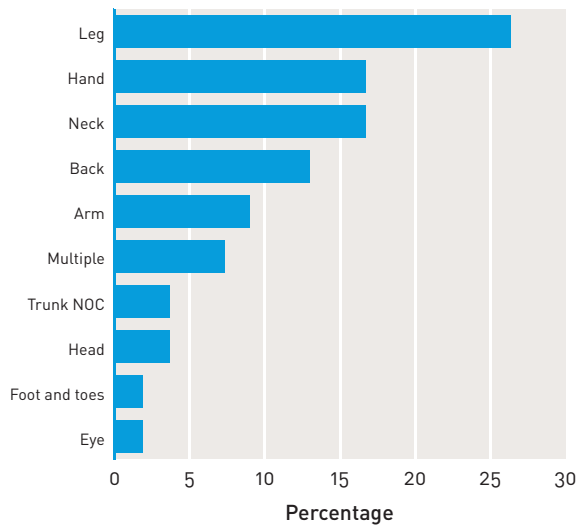


Percentage of work days lost

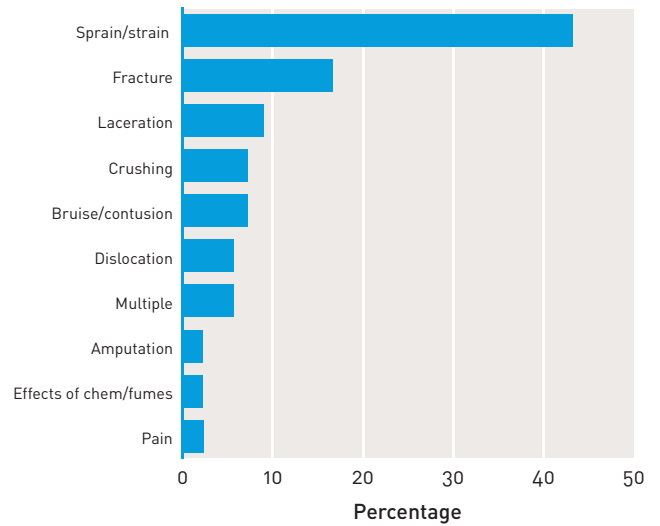
# Appendix B

## Serious injuries underground 2005–06

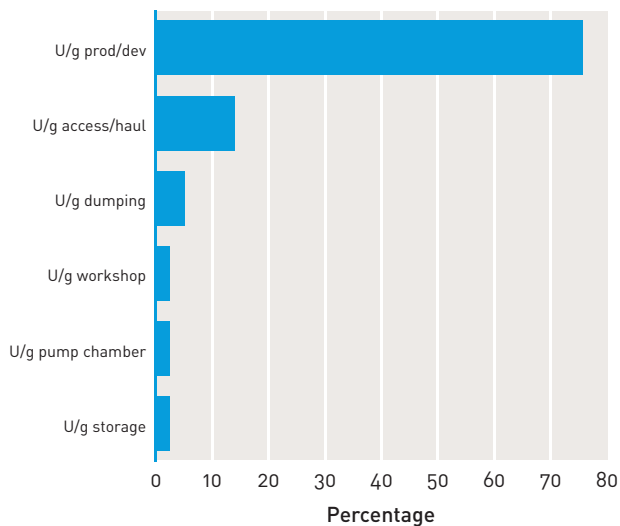
54 injuries



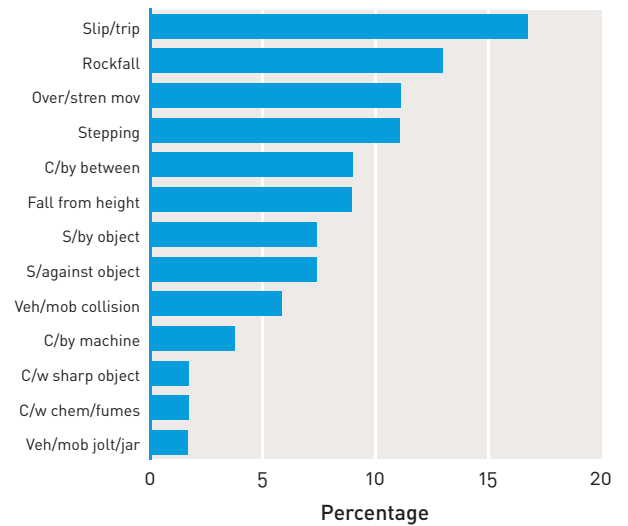
Part of body



Nature of injury



Location of accident

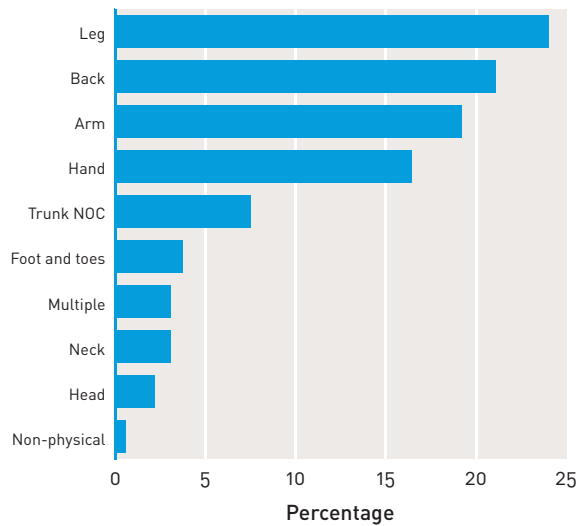


Type of accident

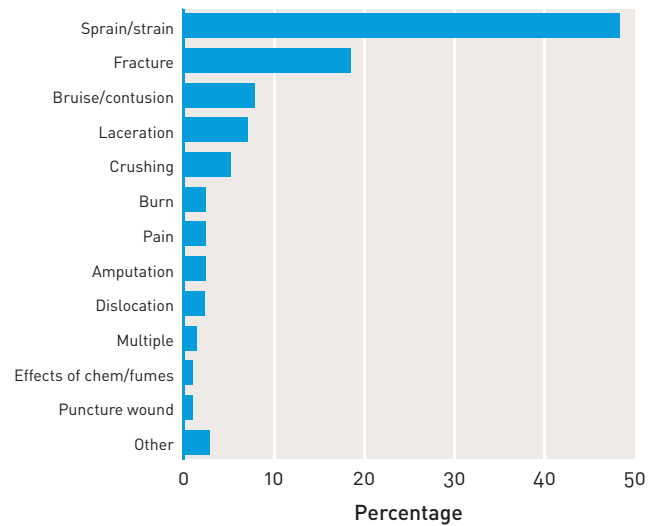
# Appendix C

## Serious injuries surface 2005–06

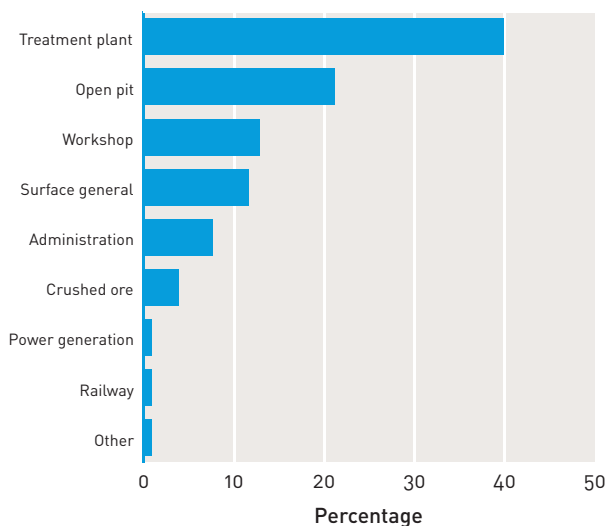
295 injuries



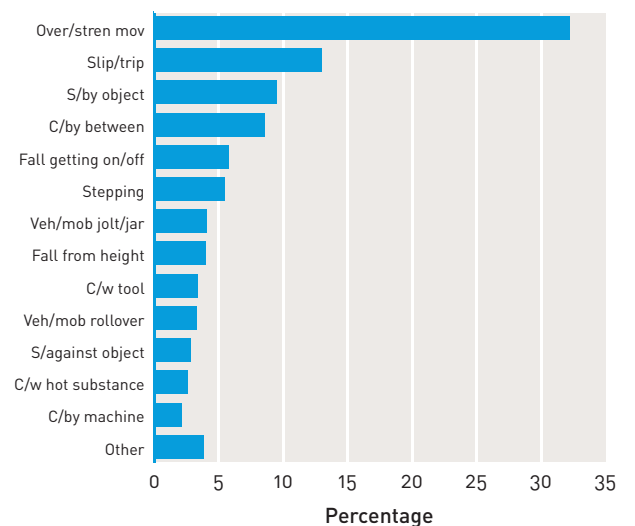
Part of body



Nature of injury



Location of accident

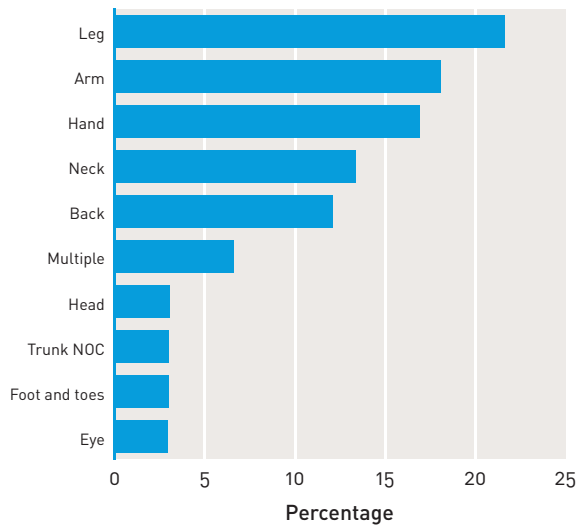


Type of accident

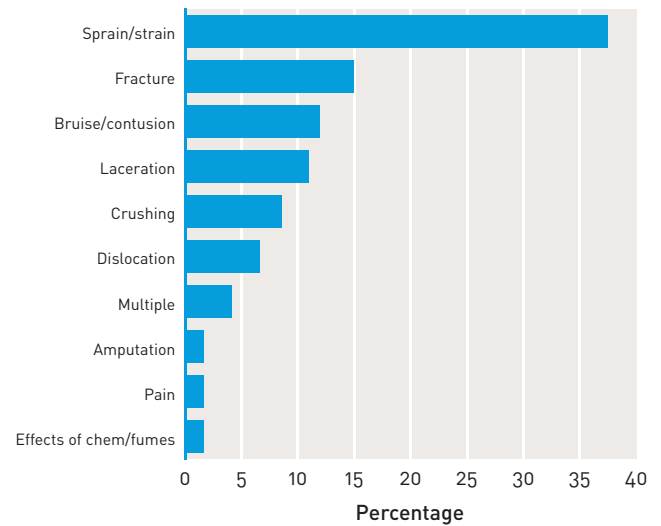
# Appendix D

## Metalliferous underground injuries 2005–06

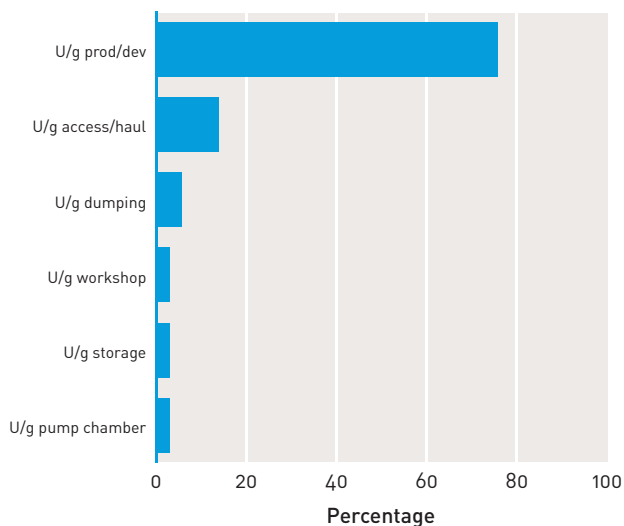
66 injuries



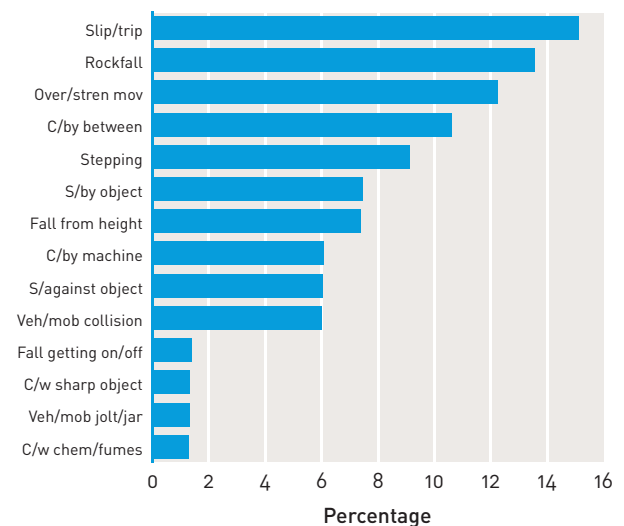
Part of body



Nature of injury



Location of accident

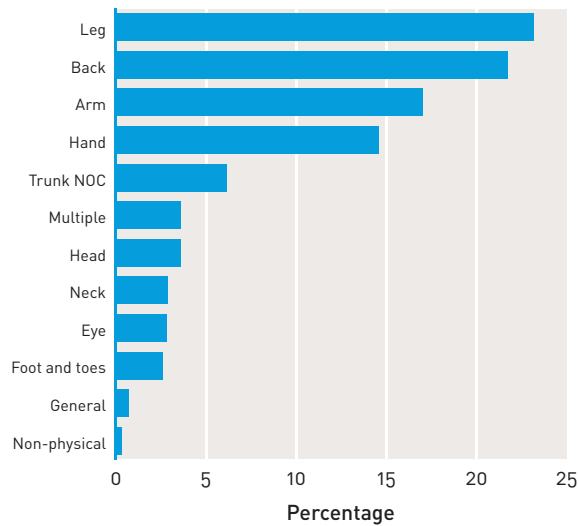


Type of accident

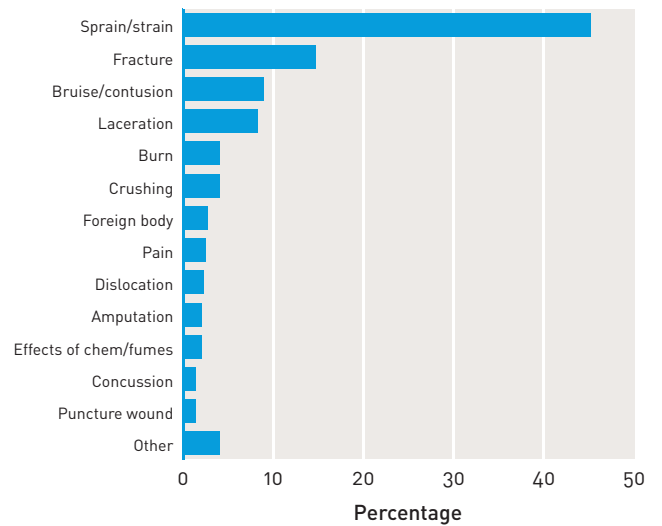
# Appendix E

## Metalliferous surface injuries 2005–06

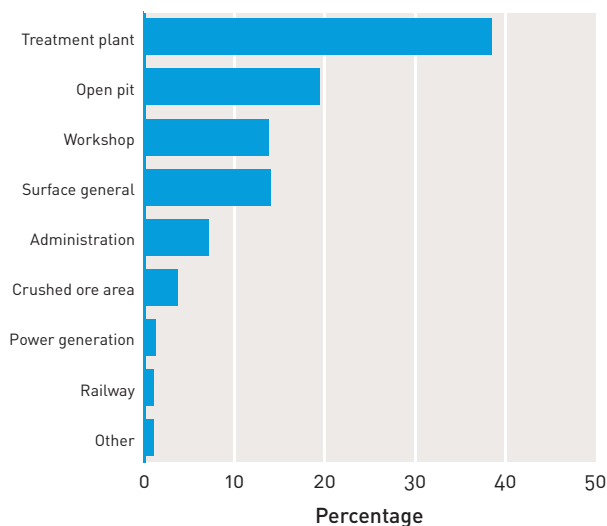
385 injuries



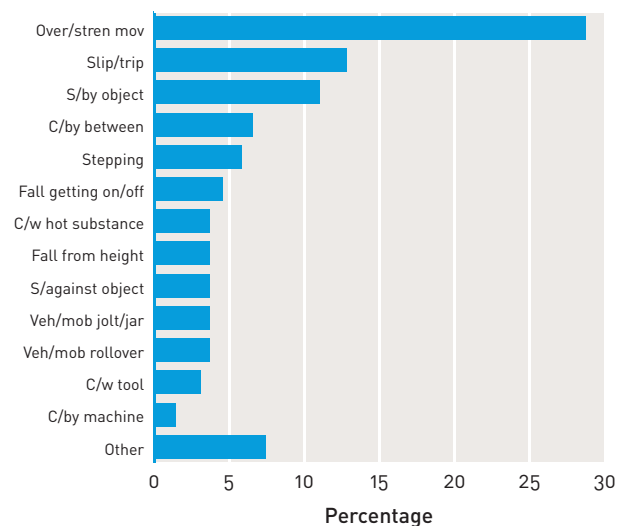
Part of body



Nature of injury



Location of accident

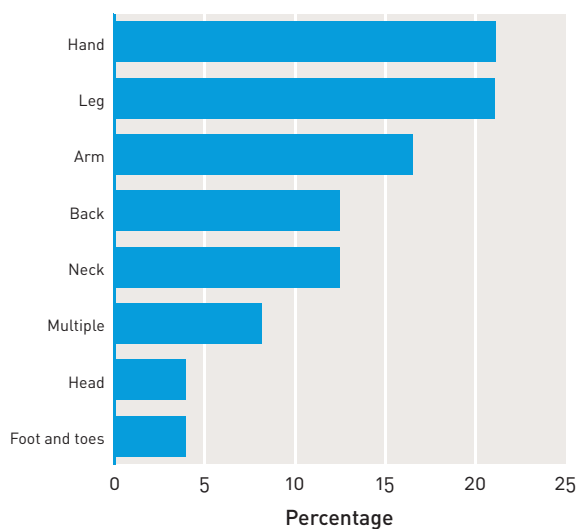


Type of accident

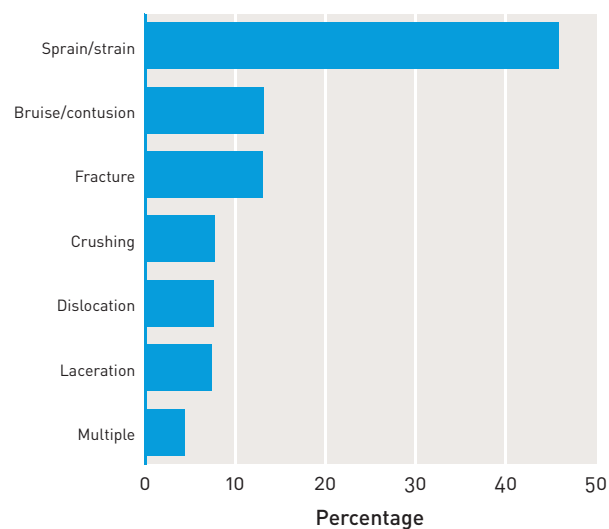
# Appendix F

## Gold underground injuries 2005-06

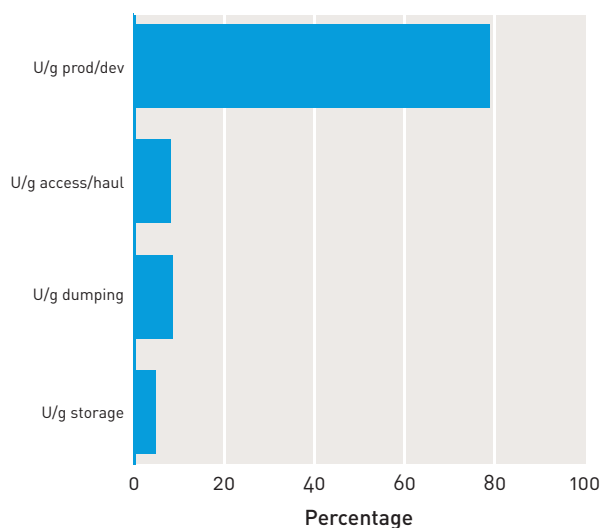
24 injuries



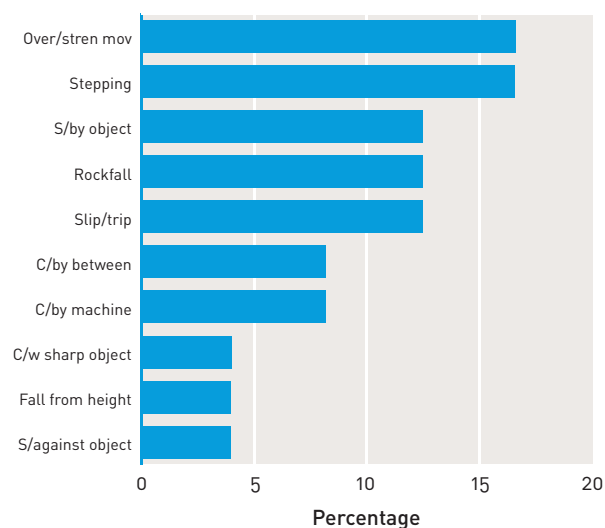
Part of body



Nature of injury



Location of accident

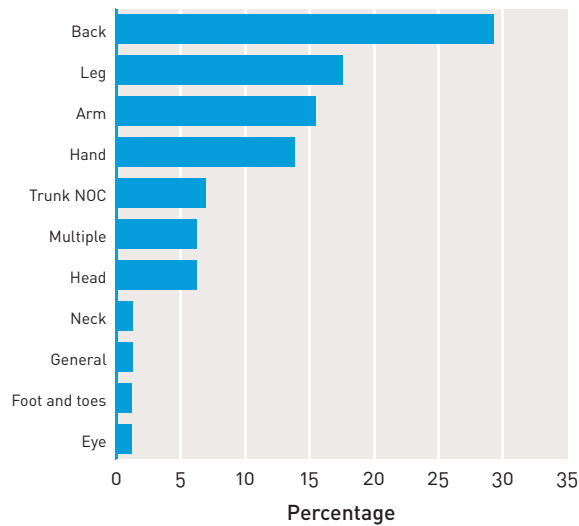


Type of accident

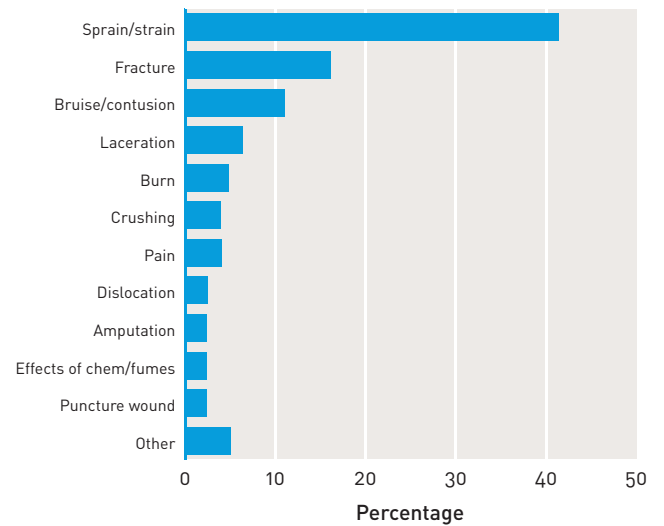
# Appendix G

## Gold surface injuries 2005–06

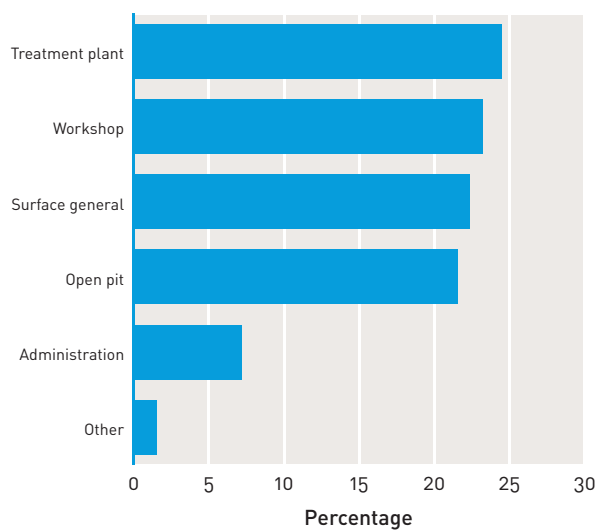
85 injuries



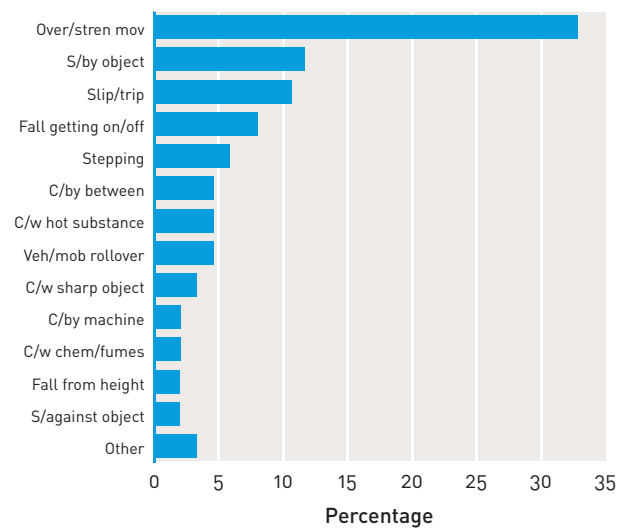
Part of body



Nature of injury



Location of accident

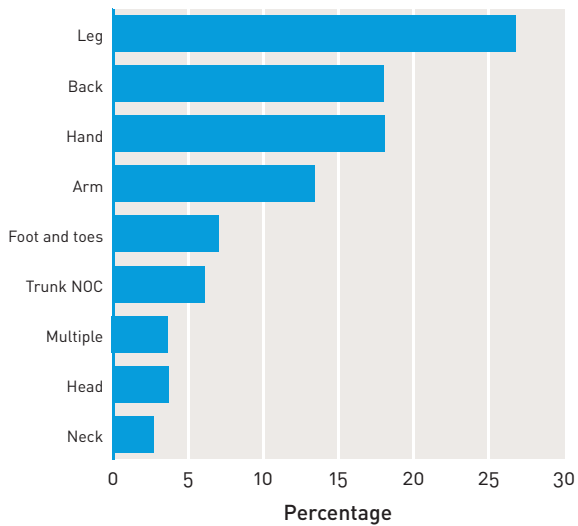


Type of accident

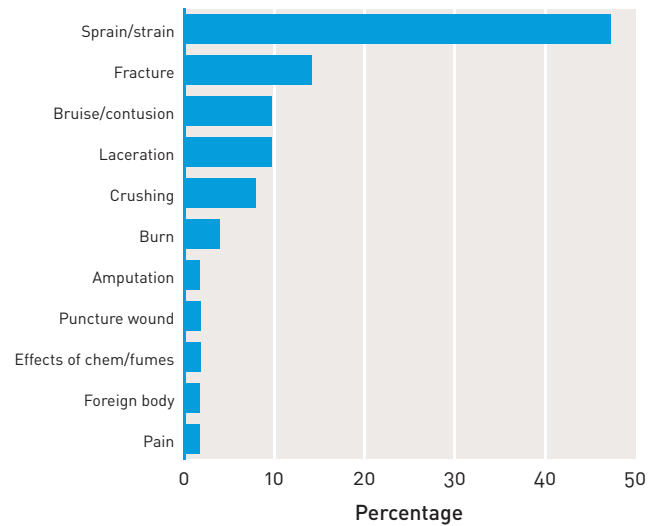
# Appendix H

## Iron ore injuries 2005–06

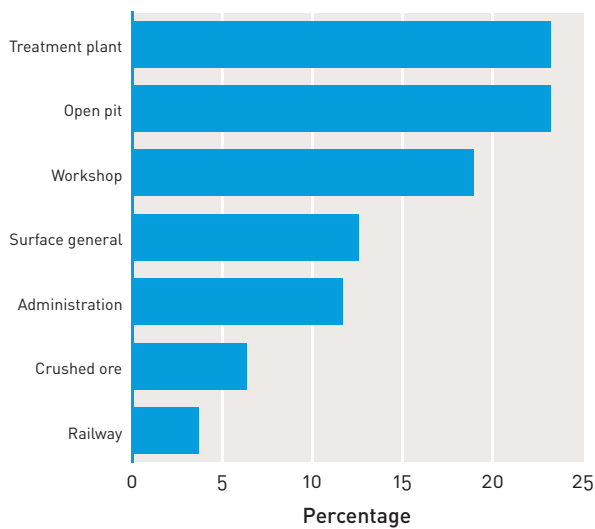
72 injuries



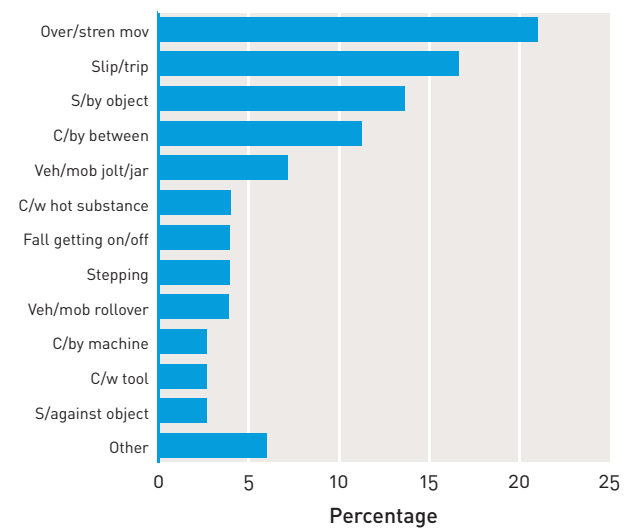
Part of body



Nature of injury



Location of accident



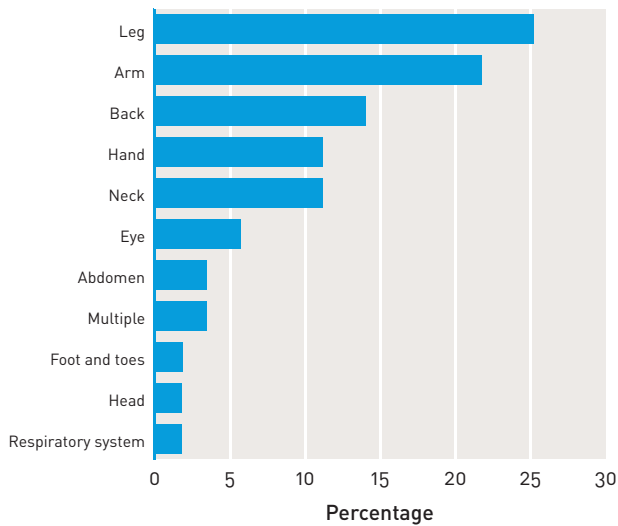
Type of accident



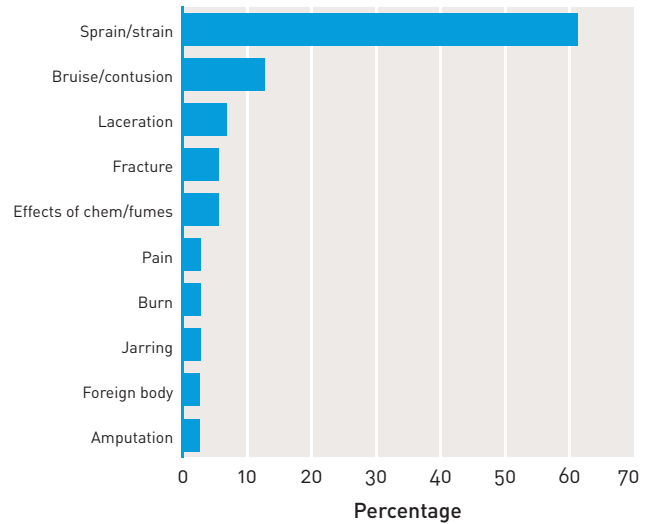
# Appendix I

## Bauxite and alumina injuries 2005-06

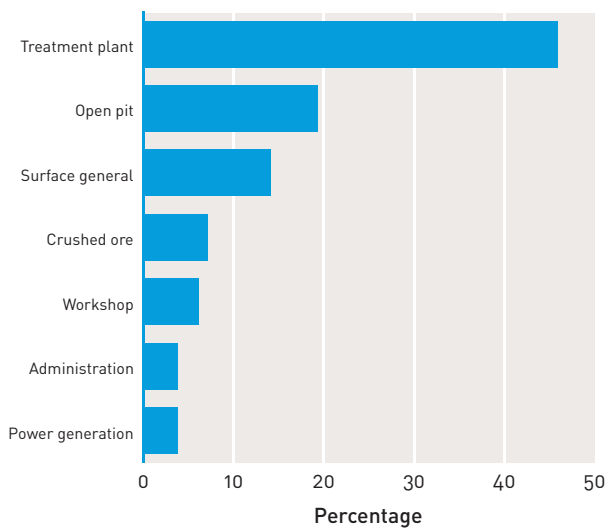
56 injuries



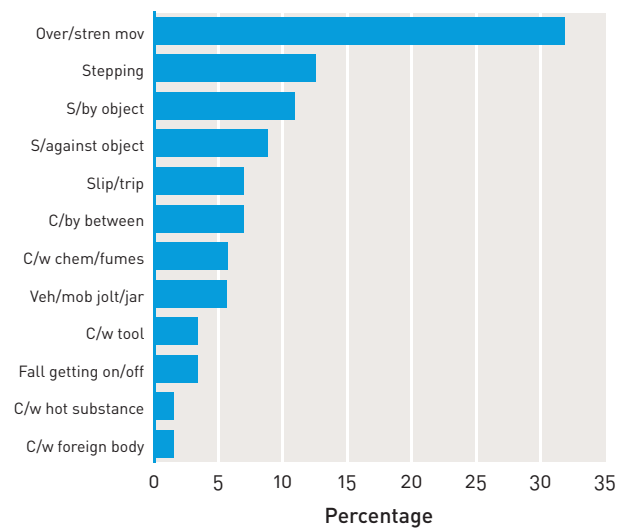
Part of body



Nature of injury



Location of accident

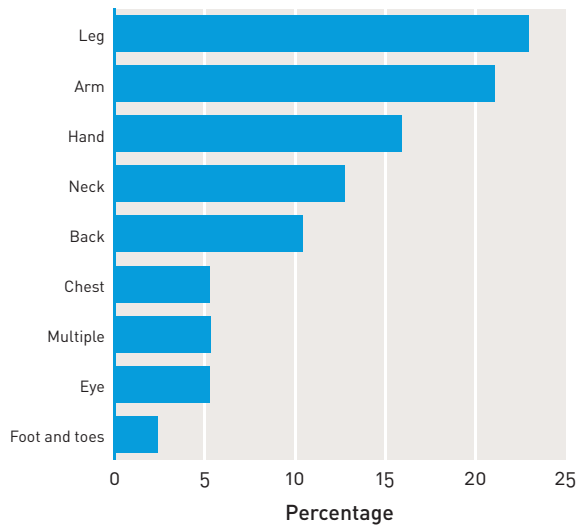


Type of accident

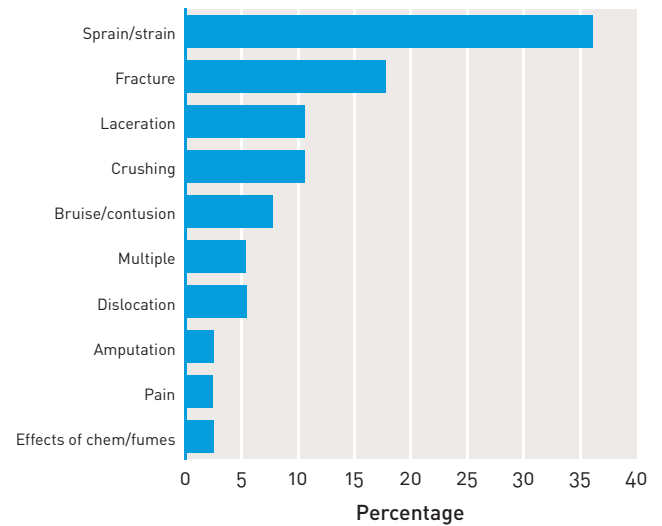
# Appendix J

## Nickel underground injuries 2005–06

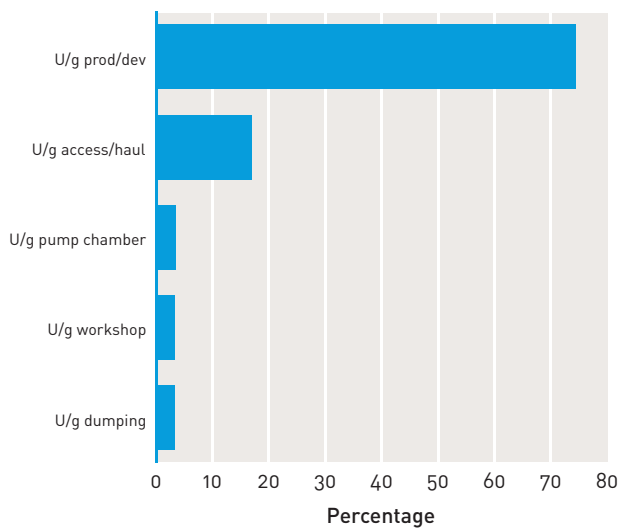
39 injuries



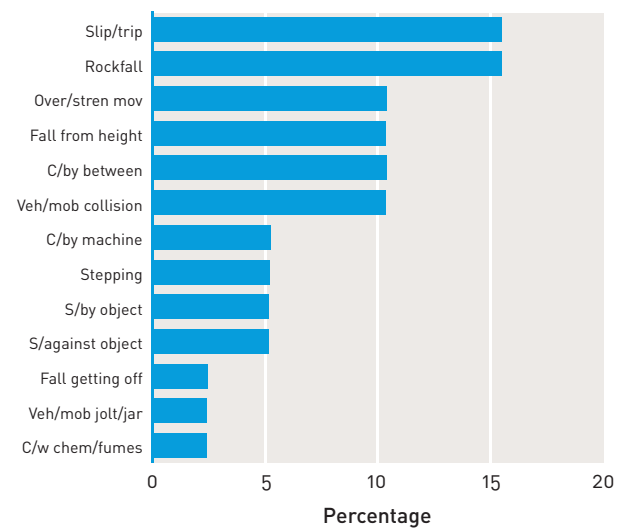
Part of body



Nature of injury



Location of accident

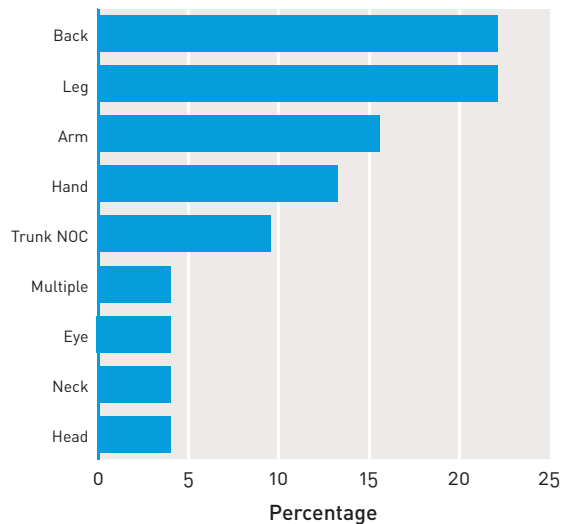


Type of accident

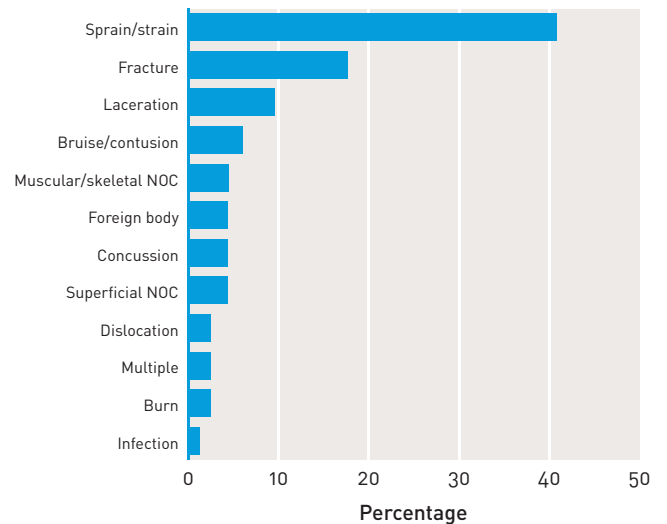
# Appendix K

## Nickel surface injuries 2005–06

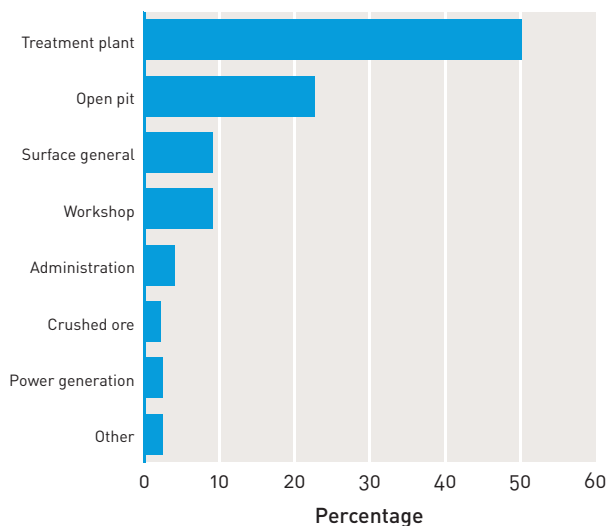
72 injuries



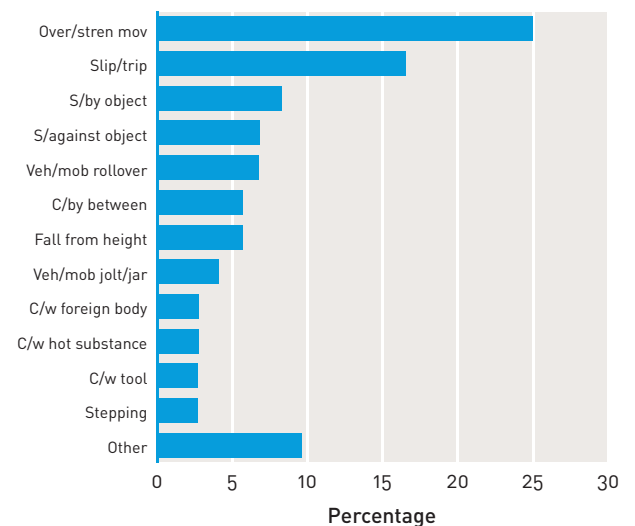
Part of body



Nature of injury



Location of accident



Type of accident

# Appendix L

## Disabling injuries 2005–06

### 506 injuries

In addition to the 462 LTIs during 2005–06, there were 506 disabling injuries (DIs) reported (505 in metalliferous mines and one in coal mines), bringing the total number of reportable injuries to 968. A breakdown of these data with performance indicators is shown in the tables below.

Of the disabling injuries, 300 resulted in the injured person being disabled for two weeks or more.

### Disabling injuries during 2005–06

Mines	No. of employees	Disabling injuries			All injuries (DIs and LTIs)		
		No. of injuries	Incidence	Frequency	No. of injuries	Incidence	Frequency
Metalliferous surface	50,446	365	7.2	3.7	750	14.9	7.6
Metalliferous underground	5,228	140	26.8	11.5	206	39.4	16.9
Metalliferous total	55,674	505	9.07	4.6	956	17.2	8.6
Coal total	751	1	1.3	0.8	12	16.0	9.4
<b>TOTAL MINING</b>	<b>56,425</b>	<b>506</b>	<b>9.0</b>	<b>4.5</b>	<b>968</b>	<b>17.2</b>	<b>8.6</b>

### Disabling injuries by mineral mines during 2005–06

Mines	No. of employees	Disabling injuries			All injuries (DIs and LTIs)		
		No. of injuries	Incidence	Frequency	No. of injuries	Incidence	Frequency
Gold	12,051	178	14.8	7.2	287	23.8	11.6
Iron ore	14,428	62	4.3	2.1	134	9.3	4.5
Bauxite and alumina	9,757	100	10.2	5.4	156	16.0	8.5
Nickel	9,682	120	12.4	6.4	231	23.9	12.4
Mineral sands	2,831	20	7.1	4.1	38	13.4	7.7
Base metals	1,881	5	2.7	1.3	16	8.5	4.2
Diamonds	1,483	2	1.3	0.6	19	12.8	5.4
Salt	838	1	1.2	0.8	9	10.7	6.8
Coal	751	1	1.3	0.8	12	16.0	9.4
Tin, tantalum and lithium	540	3	5.6	2.1	7	13.0	5.0
Construction materials	371	1	2.7	1.3	5	13.5	6.3
Other	1,812	13	7.2	3.7	54	29.8	15.4
<b>TOTAL MINING</b>	<b>56,425</b>	<b>506</b>	<b>9.0</b>	<b>4.5</b>	<b>968</b>	<b>17.2</b>	<b>8.6</b>

**Disabling injury (DI)** — a work injury, not a lost time injury, that results in the injured person being unable to fully perform his or her ordinary occupation (regular job) any time after the day or shift on which the injury occurred, and where either alternative or light duties are performed.

This category would include where the injured person:

- is placed in a different occupation or job, whether on full or restricted work hours
- remains in his or her normal occupation or job, but is not able to perform the full range of work duties
- remains in his or her normal occupation or job, but on restricted hours.





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