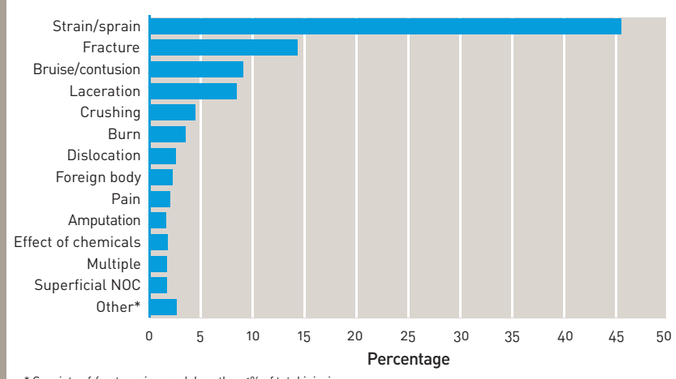
# Safety performance
## in the Western Australian mineral industry

05-06

## Statistical summary

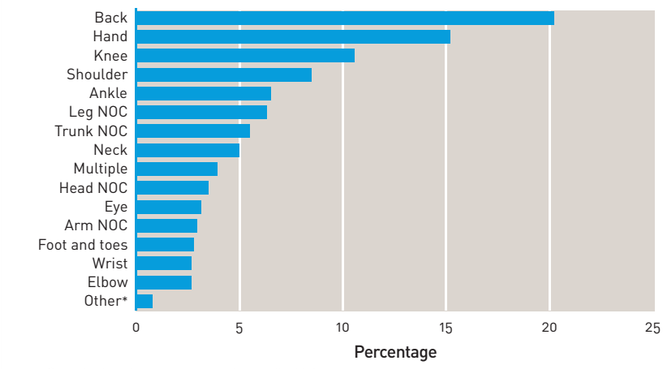
- There were five fatal accidents during 2005–06 — two were underground at nickel mines, one was underground at a gold mine and two were on the surface at gold mines
- There were 462 LTIs during 2005–06, 37 more than the previous year (425 injuries in 2004–05)
- The overall LTI duration rate deteriorated slightly by 4% during 2005–06, rising from 19.4 to 20.2
- 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
- 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 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

### Nature of injury



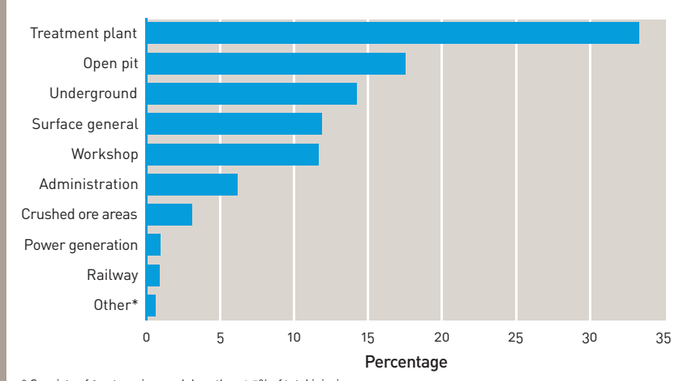

* Consists of 6 categories, each less than 1% of total injuries

### Part of body



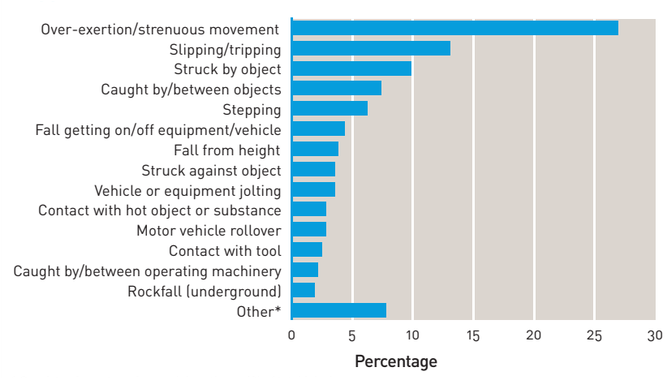

* Consists of 3 categories, each less than 0.5% of total injuries

### Location of accident




* Consists of 2 categories, each less than 0.5% of total injuries

### Type of accident




* Consists of 13 categories, each less than 1.6% of total injuries

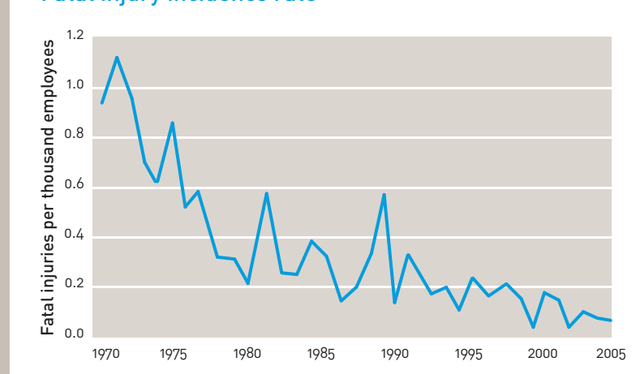
## Fatal accidents 2005-06

- A project manager died after becoming trapped between the trays of two haul trucks at a gold mine. One of the haul trucks had broken down and another haul truck was being maneuvered into position to enable jumper cables to be connected to re-start the disabled haul truck. The manager was standing on the cab decking of the disabled haul truck directing the driver of the other haul truck who was watching the manager's hand signals in order to get as close as possible. The manager was looking down and as the gap between the vehicles narrowed his head was caught and crushed between the trays of the trucks.
- A drill jumbo operator died in an underground gold mine after a rock weighing about one tonne fell from the backs, striking his head, shoulders and back. He was assisting another drill jumbo operator during ground support operations and was in the process of placing a split set rock bolt onto a boom of the twin boom drill jumbo when the rock fell from behind an area of mesh that had not been pinned to the backs.
- An electrician was electrocuted while attempting to restore a dewatering pump to working condition in a pump chamber in an underground nickel mine. A supervisor found the deceased lying face up on the floor in front of the open pump starter box with a plastic termination shroud and a screwdriver nearby. A subsequent inspection of the pump starter box identified that the pump circuit was switched on at the time of the accident.
- A senior charge-up operator received fatal injuries when an explosion occurred while he was attempting to assemble an impact cannon adjacent to a hung up ore pass in an underground nickel mine. The deceased had intended to use the cannon to fire an explosive projectile into the ore pass. Evidence indicates that the projectile detonated in the barrel of the cannon.
- A blast hole drill operator received fatal injuries at night when the tray-back truck he was driving collided with the back of a truck parked near an open pit gold mine workshop. Two drill rods protruding from the tray of the parked truck speared through the operator's windscreen and struck him, causing massive injuries. The operator was treated at a hospital but succumbed to his injuries two days later.

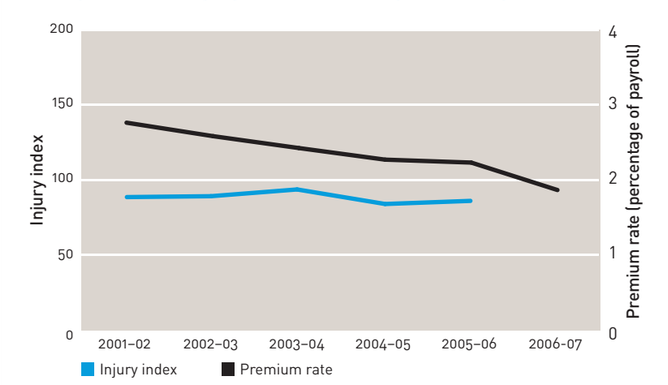
### Injuries by mineral mined during 2005–06

| Mineral mined | No. of employees | No. of LTIs | No. of fatalities | No. of serious LTIs | No. of minor LTIs | Incidence rate | Frequency rate | Duration rate | Injury index | Days lost |
|---|---|---|---|---|---|---|---|---|---|---|
| Iron ore | 14,428 | 72 | 0 | 57 | 15 | 5.0 | 2.4 | 18.8 | 46 | 1,355 |
| Gold | 12,051 | 109 | 3 | 88 | 21 | 9.0 | 4.4 | 21.0 | 93 | 2,287 |
| Bauxite and alumina | 9,757 | 56 | 0 | 41 | 15 | 5.7 | 3.0 | 15.5 | 47 | 869 |
| Nickel | 9,682 | 111 | 2 | 80 | 31 | 11.5 | 5.9 | 19.5 | 116 | 2,164 |
| Mineral sands | 2,831 | 18 | 0 | 13 | 5 | 6.4 | 3.7 | 10.9 | 40 | 197 |
| Base Metals | 1,881 | 11 | 0 | 10 | 1 | 5.8 | 2.9 | 17.3 | 50 | 190 |
| Diamonds | 1,483 | 17 | 0 | 11 | 6 | 11.5 | 4.8 | 21.8 | 104 | 370 |
| Salt | 838 | 8 | 0 | 5 | 3 | 9.5 | 6.1 | 12.8 | 77 | 102 |
| Tin–tantalum–lithium | 540 | 4 | 0 | 3 | 1 | 7.4 | 2.8 | 21.8 | 62 | 87 |
| Construction materials | 371 | 4 | 0 | 4 | 0 | 10.8 | 5.1 | 102.3 | 518 | 409 |
| Other | 1,812 | 41 | 0 | 27 | 14 | 22.6 | 11.7 | 26.0 | 304 | 1,067 |
| Surface metalliferous | 50,446 | 385 | 2 | 285 | 100 | 7.6 | 3.9 | 20.1 | 79 | 7,752 |
| Underground metalliferous | 5,228 | 66 | 3 | 54 | 12 | 12.6 | 5.4 | 20.4 | 111 | 1,345 |
| Total metalliferous | 55,674 | 451 | 5 | 339 | 112 | 8.1 | 4.1 | 20.2 | 82 | 9,097 |
| Coal | 751 | 11 | 0 | 10 | 1 | 14.6 | 8.7 | 19.4 | 168 | 213 |
| Total — all mining | 56,425 | 462 | 5 | 349 | 113 | 8.2 | 4.1 | 20.2 | 83 | 9,310 |

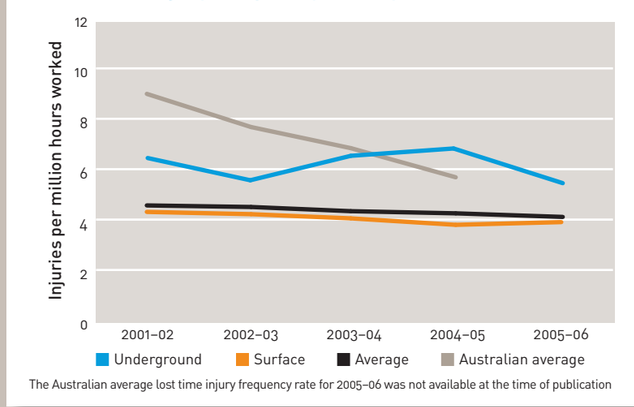
### Fatal injury incidence rate




### Comparison of injury index and compensation premium rate

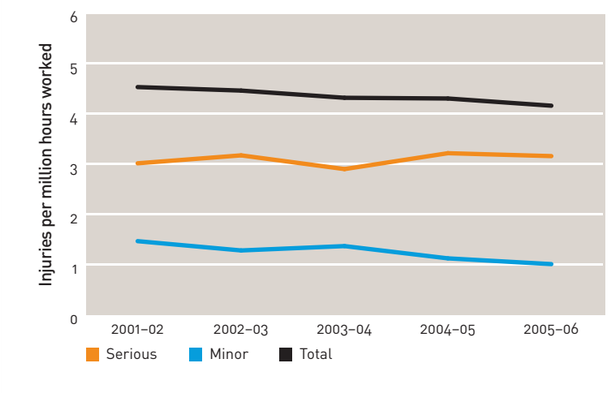



### Lost time injury frequency rate by location




The Australian average lost time injury frequency rate for 2005–06 was not available at the time of publication

### Lost time injury frequency rate by severity




DEFINITIONS

**Lost time injury (LTI):** A work injury that results in an absence from work for at least one full day or shift any time after the day or shift on which the injury occurred

**Serious injury:** A lost time injury that results in the injured person being disabled for a period of two weeks or more

**Minor injury:** A lost time injury that results in the injured person being disabled for a period of less than two weeks

**Incidence rate:** The number of lost time injuries per 1000 employees for a 12 month period

**Fatal injury incidence rate:** The number of fatal injuries per 1000 employees for a 12 month period

**Lost time injury frequency rate (LTIFR):** The number of lost time injuries per million hours worked

**Duration rate:** The average number of workdays lost per injury

**Injury index:** The number of workdays lost per million hours worked

**Serious injury frequency rate:** The number of serious injuries per million hours worked

**Metalliferous mines:** All mines other than coal mines are classed as metalliferous mines

**NOC:** Not otherwise classified

*The charts and tables on this poster are prepared by Resources Safety from data submitted by mining operations throughout Western Australia as required by section 76 of the Mines Safety and Inspection Act 1994. Note that exploration data are not included.*


Department of Consumer and Employment Protection
Government of Western Australia

Resources Safety

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