Typology: Transport industry

A report on the circumstances causing injuries or diseases which were compensated for 60 days or more.

Note: Data extracted January 2018
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1. Executive summary

This document provides a Typology based on Queensland Transport industry claims with 60 or more workdays compensated. The Typology classifies the circumstances that resulted in the injury or disease using mechanism of incident, as outlined in the types of occurrence classification system (TOOCS).

Claims with 60 or more workdays compensated account for 66 per cent of all Transport claims costs over the period. The average claim rate was 5.2 claims per 1000 workers, which is noticeably higher than the average claim rate of three claims per 1000 workers for all Queensland industries. Workers in the Transport industry are nearly twice as likely to experience a significant injury as workers in all other industries.

Transport workers between the ages of 25 to 54 years represent almost 70 per cent of all Transport claims with 60 or more workdays compensated. Moreover, the average claim rates for the Transport industry were significantly higher than the rates for all of Queensland across all age groups. This was particularly evident in the older age groups.

Approximately 80 per cent of claims with 60 or more workdays compensated were the result of either body stressing, falls or vehicle incidents.

Body stressing injuries represent 44 per cent of all relevant Transport claims. Almost all of the body stressing injuries were the result of muscle strains while lifting or handling objects.

Falls, trips and slips injuries represent a quarter of all relevant Transport claims. Falls, trips and slips injuries were the result of either a fall from height or at level.

Injuries resulting from vehicle incidents represent 17 per cent of all relevant Transport claims. Notably, 80 per cent of the Transport related fatalities over the period were due to vehicle incidents.
2. Introduction

This document provides a Typology based on *mechanism of incident* and relates to the Transport, postal and warehousing (hereafter, Transport) industry only. The Types of Occurrence Classification System (TOOCS), developed by Safe Work Australia, has been used to describe the relevant mechanism. The mechanism is the *action, exposure or event* that best describes the circumstances that resulted in the injury/disease.

2.1 What is a Typology?

A Typology is a scientific method of classification that helps explain what has happened previously. In this case, the classification is based on TOOCS *mechanism of incident* and the Typology is comprised of two levels. The higher level (or type) contains the largest and most general groups of mechanisms of incidents. The second type or sub-grouping is a breakdown of these larger mechanisms of incident groups. This Typology is a form of pattern analysis that allows the reader to:
- identify common injury mechanisms and target areas of concern
- assess the effectiveness of targeted initiatives over time.

Note: The Typology is restricted to two levels as it is based on TOOCS *mechanism of incident*, which is comprised of two levels. That is, an upper level (mechanism group) and a more detailed lower level (mechanism).

2.2 Scope

The Typology was developed using accepted workers’ compensation claims\(^1\) data where:
- the industry division\(^2\) is Transport
- 60 or more workdays are compensated
- psychological and commuting claims are excluded
- the claim intimation date is between 1 January 2012 and 31 December 2016 (the period).

**2.2.1 Why focus on claims with 60 or more workdays compensated?**

Table 1 below shows the number of Transport claims and overall costs for each claim category. Although claims with 60 or more workdays compensated make up only 14 per cent of all claims over the period, they account for 66 per cent of total claim costs.

Transport claims with 60 or more workdays compensated include permanent and non-permanent impairment damage claims and involve injuries of a significant nature.

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\(^1\) Source: Queensland Employee Injury Database (QEIDB)

\(^2\) Based on ABS: ANZSIC 2006 Classifications
Table 1. Transport claims by category (2012 to 2016)

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of claims</th>
<th>% of claims</th>
<th>Total claim costs^</th>
<th>% of costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 60 workdays</td>
<td>20,936</td>
<td>86%</td>
<td>$88M</td>
<td>29%</td>
</tr>
<tr>
<td>compensated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 or more workdays</td>
<td>3,339</td>
<td>14%</td>
<td>$201M</td>
<td>66%</td>
</tr>
<tr>
<td>compensated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatality claims</td>
<td>39</td>
<td>&lt;1%</td>
<td>$14M</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>24,314</td>
<td>100%</td>
<td>$303M</td>
<td>100%</td>
</tr>
</tbody>
</table>

^Total statutory costs over the period - 2012 to 2016

3. Background – Transport industry

3.1 Incidence

The claim rate for Transport claims with 60 or more workdays compensated has declined over the past five years; however, the Transport claim rate sits above the claim rate for all Queensland industries. The average claim rate for Transport over the period was 5.2 claims per 1000 workers, which is noticeably higher than the average claim rate of 3 claims per 1000 workers for all industries. Refer to chart 1 below.

Chart 1. Claim rates (2012 to 2016)

3.2 Likelihood of ≥60 workdays compensated claims

On average, one in every 194 Queensland Transport workers each year will experience a significant injury (an injury which results in a claim requiring 60 or more workdays compensated). Notably, Transport workers are nearly twice as likely to experience a significant injury when compared to workers from all other industries. Refer to tables 2 and 3 below.
Table 2. Likelihood - Transport claims with 60 or more workdays compensated

<table>
<thead>
<tr>
<th>Calendar year</th>
<th>No. of claims</th>
<th>Labour force</th>
<th>Likelihood (1 in X workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>715</td>
<td>127,200</td>
<td>1 in 178</td>
</tr>
<tr>
<td>2013</td>
<td>688</td>
<td>133,400</td>
<td>1 in 194</td>
</tr>
<tr>
<td>2014</td>
<td>699</td>
<td>119,000</td>
<td>1 in 170</td>
</tr>
<tr>
<td>2015</td>
<td>639</td>
<td>127,100</td>
<td>1 in 199</td>
</tr>
<tr>
<td>2016</td>
<td>598</td>
<td>135,700</td>
<td>1 in 227</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td><strong>1 in 194</strong></td>
</tr>
</tbody>
</table>

Table 3. Likelihood - All other industry claims (excluding Transport) with 60 or more workdays compensated

<table>
<thead>
<tr>
<th>Calendar year</th>
<th>No. of claims</th>
<th>Labour force</th>
<th>Likelihood (1 in X workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>6,611</td>
<td>2,156,500</td>
<td>1 in 326</td>
</tr>
<tr>
<td>2013</td>
<td>6,276</td>
<td>2,162,500</td>
<td>1 in 345</td>
</tr>
<tr>
<td>2014</td>
<td>6,518</td>
<td>2,206,700</td>
<td>1 in 339</td>
</tr>
<tr>
<td>2015</td>
<td>6,186</td>
<td>2,225,600</td>
<td>1 in 360</td>
</tr>
<tr>
<td>2016</td>
<td>6,288</td>
<td>2,232,900</td>
<td>1 in 355</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td><strong>1 in 345</strong></td>
</tr>
</tbody>
</table>

3.3 Age distribution

The rates in this section are significantly higher than other rates calculated in this paper due to different source denominators being used for age analysis. As such, they are not comparable.

Almost 70 per cent of all Transport claims with 60 or more workdays compensated were for workers between the ages of 25 and 54 years.

Chart 2 shows the claim rates for claims with 60 or more workdays compensated by age group. Notably, the average claim rates for Transport are significantly higher than the rates for all of Queensland across all age groups.

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³ Source: ABS labour force data
Chart 2. Claims rates by age group (2012 to 2016)

Note: the age group rates were calculated using the average number of claims over the period (2012-2016) divided by the 2016 Census labour force numbers multiplied by 1000.
4. Typology by mechanism (group)

Note: orange indicates an area of concern whereas blue indicates an area of interest but of less importance.

Queensland Transport permanent and non-permanent damage ≥ 60 days
January 2012 to December 2016
Qld Workcover 3,339 claims

Body stressing
1,456 claims
44%
Type 1

Falls, trips & slips
830 claims
25%
Type 2

Vehicle incidents & other
557 claims
17%
Type 3

Being hit by moving objects
316 claims
9%
Type 4

Hitting objects with a part of the body
155 claims
5%
Type 5

Chemicals and other substances
9 claims
<1%
Type 6

Heat, radiation and electricity
9 claims
<1%
Type 7

Biological factors
4 claims
<1%
Type 8

Sound and pressure
3 claims
<1%
Type 9
4.1 Type 1 – body stressing

*Body stressing represents 44 per cent of all Queensland Transport claims ≥ 60 workdays compensated.*

Unsurprisingly, most claims for body stressing were for truck drivers (38%) and 33% of those claims related to shoulder injuries.
4.2 Type 2 – falls, trips and slips

Falls, trips and slips represents 25 per cent of all Queensland Transport claims ≥ 60 workdays compensated.

Road and rail drivers made up nearly two-thirds of falls, trips and slips claims (62%) and almost a fifth of those claims were associated with the knee (19%).
4.3 Type 3 – vehicle incidents and other

Vehicle incidents and other represent 17 per cent of all Queensland Transport claims ≥ 60 workdays compensated.

Unsurprisingly, road and rail drivers accounted for nearly two-thirds of vehicle incident claims (60%), and a sixth of those claims (16%) were associated with the shoulder.
4.4 Type 4 – being hit by moving objects

*Being hit by moving objects represents 9 per cent of all Queensland Transport claims ≥ 60 workdays compensated.*

More than a half of claims for *being hit by moving objects* were for road and rail drivers (54%) and nearly a third (30%) of those claims were for fractures.

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**Being hit by moving objects**
Queensland Transport
Permanent and non-permanent damage ≥ 60 days
January 2012 to December 2016
Qld Workcover
316 claims
100%
Type 4

- **Type 4.1**
  - Being hit by falling objects
  - 91 claims
  - 29%
  - Type 4.2

- **Type 4.2**
  - Being hit by falling objects
  - 91 claims
  - 29%
  - Type 4.2

- **Type 4.3**
  - Being trapped between stationary and moving objects
  - 83 claims
  - 26%
  - Type 4.3

- **Type 4.4**
  - Being assaulted by a person or persons
  - 24 claims
  - 8%
  - Type 4.4

- **Type 4.5**
  - Being trapped by moving machinery or equipment
  - 10 claims
  - 3%
  - Type 4.5

- **Type 4.6**
  - Other relevant mechanisms
  - 13 claims
  - 4%
  - Type 4.6
4.5 Type 5 – hitting objects with a part of the body

Hitting objects with a part of the body represents five (5) per cent of all Queensland Transport claims ≥ 60 workdays compensated.

Road and rail drivers accounted for half (50%) the claims for this mechanism group and more than half of those claims (51%) were associated with the upper limbs.

- **Hitting stationary objects**: 82 claims, 53%, Type 5.1
- **Hitting moving objects**: 72 claims, 46%, Type 5.2
- **Rubbing and chafing**: 1 claim, 1%, Type 5.3
4.6 Type 6 – chemicals and other substances

*Chemicals and other substances represent less than one (1) per cent of all Queensland Transport claims ≥ 60 workdays compensated.*

Road and rail drivers accounted for more than a half (56%) of *chemicals and other substances claims* with insect and spider bites and stings being the cause of most of these claims (60%).
Chemicals and other substances
Queensland Transport
permanent and non-permanent damage ≥ 60 days
January 2012 to December 2016
Workcover
9 claims
100%
Type 6

Single contact with chemical or substance
5 claims
56%
Type 6.1

Insect and spider bites and stings
4 claims
44%
Type 6.2
4.7 Type 7 – heat, radiation and electricity

Heat, radiation and electricity represents less than one (1) per cent of all Queensland Transport claims ≥ 60 workdays compensated.

Other labourers and road and rail drivers each accounted for a third of these claims (33%). Of this subset of claims, contact with electricity and contact with hot objects equally contributed a third (33%).
4.8 Type 8 – biological factors

*Biological factors represents less than one (1) per cent of all Queensland Transport claims ≥ 60 workdays compensated.*

Half these claims were due to contact with dead animals or exposure to industrial gases or fumes.

**Biological factors**
Queensland Transport permanent and non-permanent damage ≥ 60 days
January 2012 to December 2016
Qld Workcover
4 claims
100%
Type 8

- **Contact with, or exposure to, biological factors of non-human origin**
  2 claims
  50%
  Type 8.1

- **Contact with, or exposure to, biological factors of human origin**
  2 claims
  50%
  Type 8.2
4.9 Type 9 – sound and pressure

*Sound and pressure represents less than one (1) per cent of all Queensland Transport claims ≥ 60 workdays compensated.*

A sports and personal service worker and a road and rail driver suffered from hearing injuries due to a sudden sound from a passenger aircraft and vehicle wheels and tyres respectively.

### Sound and pressure
- Queensland Transport permanent and non-permanent damage ≥ 60 days
- January 2012 to December 2016
- Qld Workcover: 3 claims
  - 100%
  - Type 9

### Exposure to single, sudden sound
- 2 claims
  - 67%
  - Type 9.1

### Explosion
- 1 claim
  - 33%
  - Type 9.2
5. Typology – summary of key findings

Approximately 85 per cent of claims with 60 or more workdays compensated were the result of either body stressing, falls or vehicle incidents.

*Body stressing* injuries represent 44 per cent of all relevant Transport claims. Almost all of the *body stressing* injuries were the result of muscle strains while lifting or handling objects. This is not surprising given the physically demanding nature of the Transport industry.

*Falls, trips and slips* injuries represent 25 per cent of all relevant Transport claims. *Falls, trips and slips injuries* were the result of either a fall from height or at level. A total of two Transport workers were fatally injured over the period as a result of a fall.

Injuries resulting from *vehicle incidents* represent 17 per cent of all Transport claims with 60 or more workdays compensated. On average, six Transport workers a year over the period were fatally injured as a result of a vehicle incident. Also, 80 per cent of the Transport related fatalities over the period were due to vehicle incidents.