

**ANALYSIS OF BIANNUAL DATA FROM
ACCREDITED CONTRACTORS FOR THE
JULY TO DECEMBER 2010
REPORTING PERIOD**

Australian Government Building and Construction
OHS Accreditation Scheme

July – December 2010

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1 Executive Summary

This report provides an overview and analysis of data collected from companies accredited under the Australian Government Building and Construction OHS Accreditation Scheme (the Scheme) for the period July to December 2010. Comparisons are also made with data collected in previous biannual periods where appropriate.

1.1 OFSC Objectives

Established in 2005, the Federal Safety Commissioner works with industry and government stakeholders towards achieving the highest possible occupational health and safety standards on Australian building and construction projects.

The key functions of the FSC (and the office) include:

- promoting sustainable OHS cultural change in the building and construction industry;
- developing and administering the Australian Government Building and Construction OHS Accreditation Scheme; and
- identifying and progressing initiatives to improve OHS performance.

The Office of the Federal Safety Commissioner (OFSC) is part of the Department of Education, Employment and Workplace Relations. The OFSC aims to promote and improve OHS in the Australian building and construction industry, by providing administrative support to the functions of the Federal Safety Commissioner.

1.2 Limitations

Prior to the introduction of biannual reporting in the December 2007 reporting period, data was not split by type of project (Scheme / non-Scheme). As a consequence, direct comparisons between biannual data and annual data are not practicable.

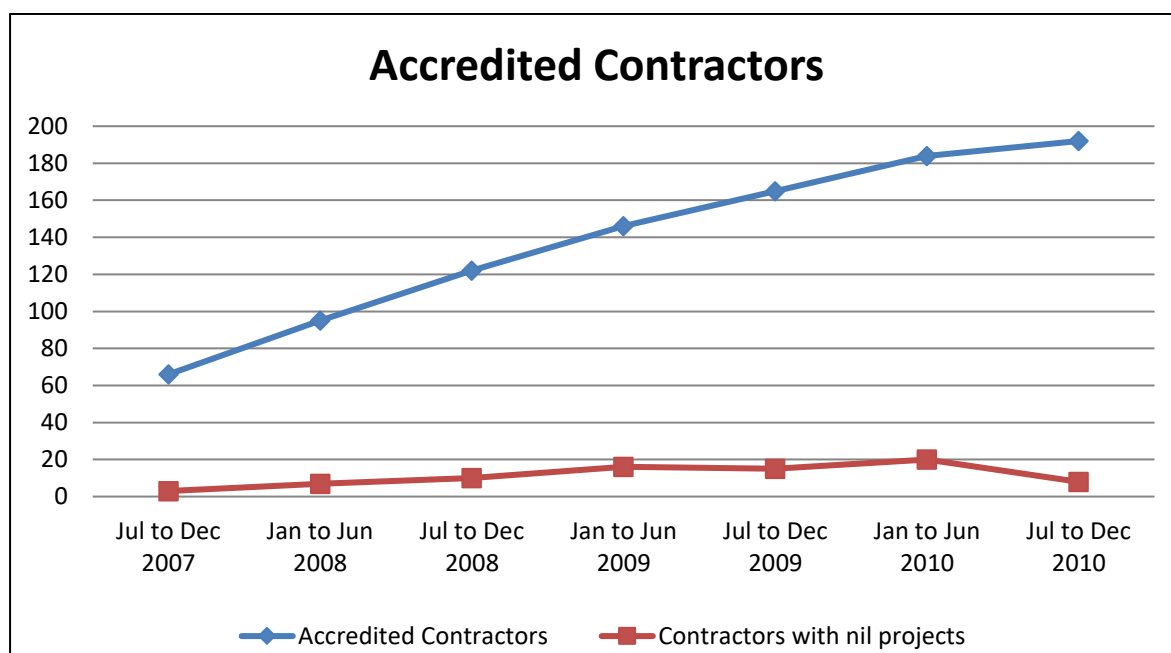
Where possible comparisons with industry-wide data are provided, however, the availability of this data is limited and is often not available until much later than the data reported by the Office of the Federal Safety Commissioner (OFSC).

1.3 Room for Improvement

- During this reporting period there were two Scheme project fatalities and two non-Scheme project fatalities.
- The top three mechanism of incident groups accounted for 72.97 per cent of all incidents for the July – Dec 2010 reporting period. The breakdown for these three groups is:
 - 27.78 per cent – Group 4 (body stressing);
 - 23.83 per cent – Group 2 (being hit by moving objects);
 - 21.35 per cent – Group 0 (falls, trips and slips of a person).

2 Background

2.1 Number of Accredited Contractors



There were 192 accredited contractors in the July to December 2010 reporting period. Of the 192 accredited contractors reporting in this period, 8 reported nil projects.

2.2 Number of Projects

The data gathered for this current reporting period includes projects valued at less than \$3 million. The data for each previous year only includes projects with a value in excess of \$3 million.

| Period | Scheme projects | | Non-Scheme projects | |
|------------------|----------------------------|--------------|----------------------------|--------------|
| | Accredited contractors No. | Projects No. | Accredited contractors No. | Projects No. |
| Jul to Dec 2007 | 25 | 42 | 58 | 1,019 |
| Jan to Jun 2008 | 32 | 71 | 85 | 1,212 |
| Jul to Dec 2008 | 44 | 103 | 107 | 1,416 |
| Jan to Jun 2009 | 61 | 128 | 124 | 1,730 |
| Jul to Dec 2009 | 75 | 183 | 145 | 2,170 |
| Jan to Jun 2010 | 94 | 249 | 153 | 2,255 |
| July to Dec 2010 | 102 | 293 | 177 | 6,943 |

2.3 Number Employed/Hours Worked

From mid 2009, accredited contractors were asked to report head contractor employees [overall] and the number of hours worked on both Scheme projects and non-Scheme projects valued at \$3 million or more.

In previous periods, accredited contractors reported the number of head contractor employees and subcontractors for both Scheme and non-Scheme projects. Collection of this data by accredited companies was problematic and was discontinued in favour of the collection of hours worked data to provide more consistently accurate Lost Time Injury Frequency Rate (LTIFR) and Medically Treated Injury Frequency Rate (MTIFR) estimates. Hours worked data also had the additional benefit of providing a better indication of the size and level of activity on projects.

Total hours reported for the periods before July 2010 covers projects valued at \$3 million or more and therefore does not provide a comprehensive picture of accredited company activity. The figure for July to Dec 2010 includes all projects including those with a value less than \$3 million.

| Period | Scheme projects (million hours) | Non-Scheme projects valued at \$3 million or more (million hours) | All projects (million hours) |
|--|--|--|---|
| Jul to Dec 2009 | 14.57 | 93.56 | 108.13 |
| Jan to Jun 2010 | 22.92 | 127.58 | 150.50 |
| | | | |
| Period (includes less than \$3 million) | Scheme projects (million hours) | Non-Scheme projects any value (million hours) | All projects (million hours) |
| Jul to Dec 2010 | 41.97 | 147.44 | 189.40 |

3 Analysis

3.1 Fatalities

In line with the change to record hours worked rather than employees, the fatalities figures have been adjusted to show the fatalities frequency rate instead of the incident rate. These figures do not include heart attack or other natural causes.

It should be noted that the fatalities frequency rates of accredited companies for previous biannual reporting periods are significantly inflated as hours for projects less than \$3 million were not included, even though all fatalities for these companies were included. However, from July 2010, data was collected for all projects regardless of the value, so this current period includes projects with a value less than \$3 million.

| Period | Scheme projects | | Non-Scheme projects | | All projects | |
|-----------------|-----------------|---------------------------|---------------------|---------------------------|----------------|---------------------------|
| | Fatalities No. | Fatalities frequency rate | Fatalities No. | Fatalities frequency rate | Fatalities No. | Fatalities frequency rate |
| Jul to Dec 2007 | 1 | NA | 0 | NA | 1 | NA |
| Jan to Jun 2008 | 0 | NA | 6 | NA | 6 | NA |
| Jul to Dec 2008 | 0 | NA | 4 | NA | 4 | NA |
| Jan to Jun 2009 | 1 | NA | 4 | NA | 5 | NA |
| Jul to Dec 2009 | 0 | 0.00 | 1 | 1.07 | 1 | 0.92 |
| Jan to Jun 2010 | 1 | 4.36 | 0 | 0.00 | 1 | 0.66 |
| Jul to Dec 2010 | 2 | 4.77 | 2 | 1.35 | 4 | 2.39 |

3.2 Injury Frequency Rate

- As both Scheme and non-Scheme projects may have a few very high LTIFR values (outliers), the Winsorized mean (see Glossary) is also calculated as it is regarded as a more robust estimator of the central tendency because it is less sensitive to outliers.

3.2.1 Lost Time Injury Frequency Rate (LTIFR)

| LTIFR | | | | | | |
|-----------------|-----------------|-----------------|-----------------|---------------------|-----------------|-----------------|
| Period | Scheme projects | | | Non-Scheme projects | | |
| | Median | Arithmetic mean | Winsorized mean | Median | Arithmetic mean | Winsorized mean |
| Jul to Dec 2007 | 0.00 | 6.94 | 4.04 | 4.65 | 10.06 | 7.52 |
| Jan to Jun 2008 | 0.00 | 9.24 | 8.72 | 4.95 | 10.41 | 9.05 |
| Jul to Dec 2008 | 0.00 | 7.44 | 6.21 | 4.65 | 12.22 | 7.36 |
| Jan to Jun 2009 | 0.00 | 12.86 | 10.35 | 3.50 | 11.54 | 6.10 |
| Jul to Dec 2009 | 0.00 | 9.36 | 7.68 | 3.00 | 11.61 | 8.28 |
| Jan to Jun 2010 | 0.00 | 21.99 | 3.21 | 3.73 | 11.34 | 8.61 |
| Jul to Dec 2010 | 0.00 | 5.54 | 3.43 | 0.00 | 13.83 | 4.76 |

3.2.2 Medically Treated Injury Frequency Rate (MTIFR)

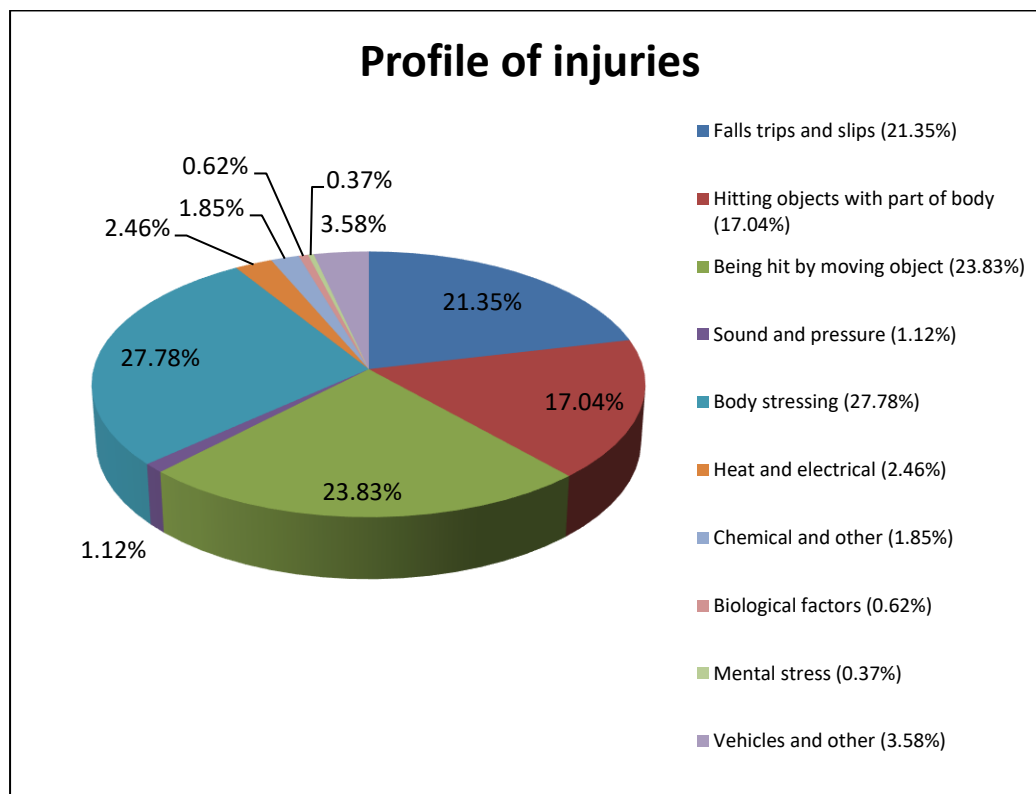
| MTIFR | | | | | | |
|-----------------|-----------------|-----------------|-----------------|---------------------|-----------------|-----------------|
| Period | Scheme projects | | | Non-Scheme projects | | |
| | Median | Arithmetic mean | Winsorized mean | Median | Arithmetic mean | Winsorized mean |
| Jul to Dec 2007 | 0.00 | 12.06 | 9.53 | 19.90 | 26.23 | 23.32 |
| Jan to Jun 2008 | 0.00 | 18.06 | 16.29 | 19.00 | 29.39 | 24.36 |
| Jul to Dec 2008 | 2.78 | 21.79 | 14.50 | 13.18 | 21.10 | 16.67 |
| Jan to Jun 2009 | 8.58 | 33.93 | 22.78 | 14.32 | 26.82 | 17.21 |
| Jul to Dec 2009 | 13.04 | 21.84 | 16.62 | 18.17 | 38.51 | 28.73 |
| Jan to Jun 2010 | 0.00 | 34.67 | 16.95 | 21.03 | 40.15 | 28.45 |
| Jul to Dec 2010 | 0.00 | 11.30 | 6.44 | 12.71 | 63.91 | 21.07 |

3.3 Profile of Injuries

Accredited contractors are required to report lost time incidents based on the mechanism of incident classification groups contained in the *Type of Occurrence Classification System, Version 3.1* (TOOCS3.1) published by Safe Work Australia.

The *mechanism of incident* classification is intended to identify the overall action, exposure or event that best describes the circumstances that resulted in the most serious injury or disease. Accredited contractors report at the major group classification level (see Glossary).

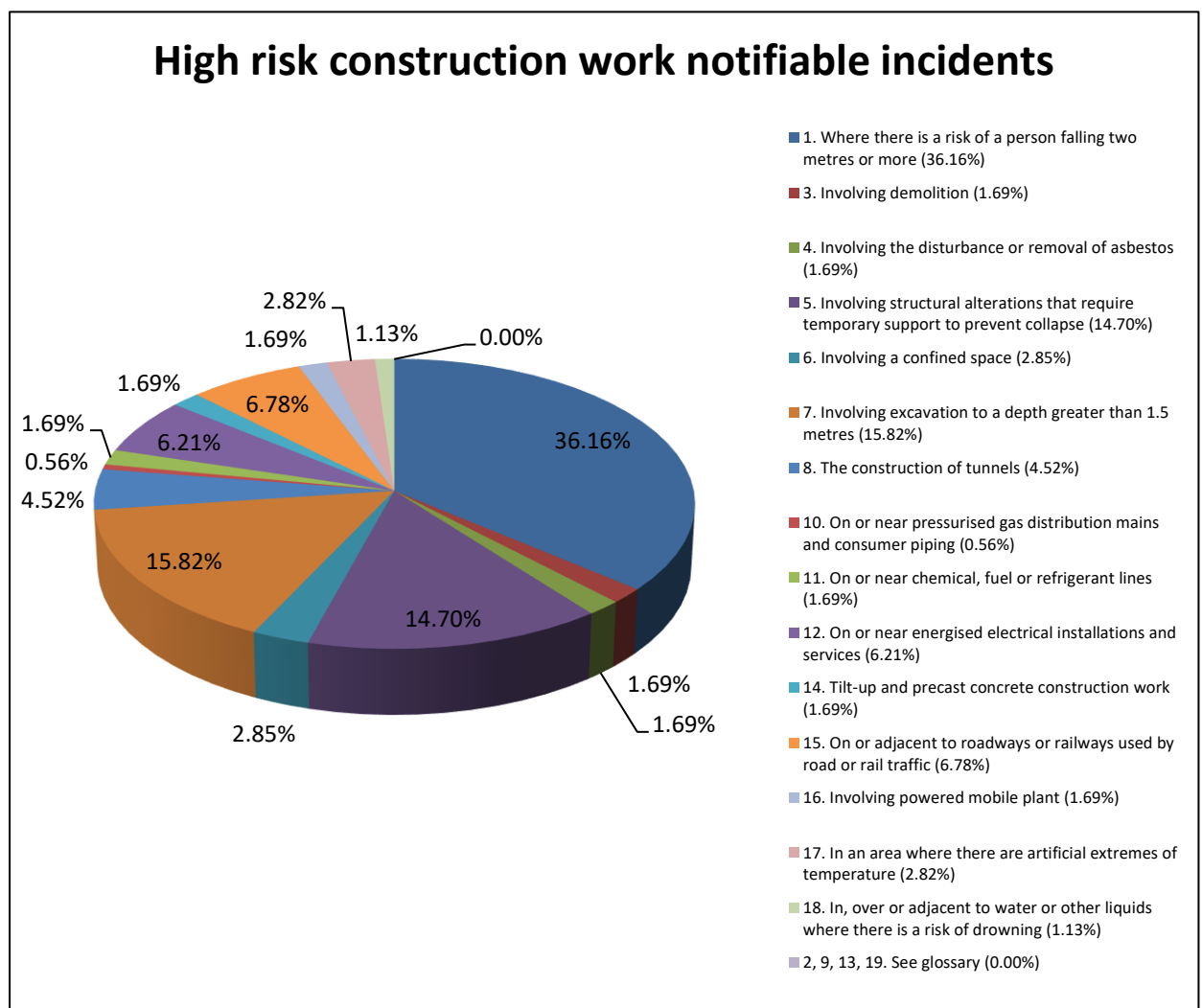
- For the December 2010 reporting period, 810 incidents were reported by 97 accredited contractors compared to 592 incidents by 97 accredited contractors in the June 2010 reporting period, an increase of 36.8% per cent in the number of incidents. This change in the number of incidents was a result of the changes to the incident reporting strategy.
- The top three mechanism of incident groups accounted for 72.97 per cent of all incidents for the July – Dec 2010 reporting period. The breakdown for these three groups is:
 - 27.78 per cent – Group 4 (body stressing);
 - 23.83 per cent – Group 2 (being hit by moving objects);
 - 21.35 per cent – Group 0 (falls, trips and slips of a person).



3.4 High risk Construction Work

Accredited contractors are required to report if they performed any *'high-risk construction work'* as described in the *National Standard For Construction Work* [NOHSC:1016 (2005)] published by Safe Work Australia and indicate whether any such work resulted in an injury or near miss event that required the accredited contractor to notify the relevant OHS authority (under the OHS legislation covering notifiable incidents) in the jurisdiction in which the project was undertaken.

The objective of this national standard is to protect persons from the hazards associated with construction work. It assigns responsibilities to individuals to identify these hazards and either eliminate them, or where this is not reasonably practicable, minimise the risks they pose. There are 19 hazards that have been identified as high-risk construction work (see Glossary).



- There were 245 notifiable incidents reported by 71 accredited contractors to the relevant jurisdiction OHS authority for the December 2010 reporting period, compared to 207 notifiable incidents reported by 51 accredited contractors for the June 2010 reporting period.

- The top three notifiable incidents accounted for 66.68 per cent of all incidents for the December 2010 period compared to 75.8 per cent in the June 2010 period.
- Work on construction sites where there is a risk of a person falling two metres or more was the most commonly reported high risk hazard category related to notifiable incidents (36.16 per cent), as opposed to the June 2010 period which recorded work on construction sites where there is any movement of powered mobile plant as the most common (34.3 per cent). The second most common high risk category was work involving excavation to a depth greater than 1.5 metres (15.8 per cent) which is also a change from the June 2010 period where the second most common category was construction work where there is a risk of a person falling two metres or more (21.7 per cent).

4 Workers' Compensation

| | | Mean premium rate % | | | | | | | |
|----------------------|--|---------------------|-------|-------|-------|-------|-------|-------|-------|
| | Period | ACT | NSW | NT | QLD | SA | TAS | VIC | WA |
| Accredited companies | Jul to Dec 2007 | 5.589 | 3.069 | 2.675 | 1.346 | 2.940 | . | 3.098 | 2.496 |
| | Jan to Jun 2008 | 4.962 | 3.508 | 2.355 | 1.438 | 3.037 | . | 2.054 | 3.348 |
| | Jul to Dec 2008 | 4.274 | 3.106 | 2.261 | 1.568 | 3.750 | 1.087 | 2.297 | 2.066 |
| | Jan to Jun 2009 | 3.742 | 2.811 | 1.973 | 1.117 | 3.832 | 1.155 | 2.289 | 2.342 |
| | Jul to Dec 2009 | 3.849 | 3.351 | 2.376 | 1.424 | 3.695 | 1.302 | 2.202 | 1.948 |
| | Jan to Jun 2010 | 3.521 | 2.975 | 2.372 | 1.316 | 3.560 | 1.475 | 2.270 | 1.731 |
| | Jul to Dec 2010 | 3.025 | 3.051 | 2.389 | 1.548 | 3.845 | 1.015 | 1.980 | 1.896 |
| | House construction September 2010 ¹ | NA | 5.040 | NA | 2.586 | 3.3 | 3.74 | 1.892 | 1.10 |
| | Non-residential construction September 2010 | NA | 3.928 | NA | 2.431 | 3.4 | 3.74 | 2.214 | 2.04 |

¹ Source: Safe Work Australia publication Comparison of Workers' Compensation Arrangements in Australia and New Zealand February 2011, Table 4.4 Selected Industry Premium Rates as at 30 September 2010, page 74.

5 Glossary

Arithmetic mean (average) - The mean is the sum of all the scores divided by the number of scores.

Frequency rate - Frequency rates are calculated as follows:

$$\frac{\text{Number of incidences}}{\text{Number of hours worked}} \times 1,000,000 \text{ (hours)}^2$$

High risk construction work hazards –

1. Construction work where there is a risk of a person falling two metres or more
2. Construction work on telecommunications towers
3. Construction work involving demolition
4. Construction work involving the disturbance or removal of asbestos
5. Construction work involving structural alterations that require temporary support to prevent collapse
6. Construction work involving a confined space
7. Construction work involving excavation to a depth greater than 1.5 metres
8. The construction of tunnels
9. Construction work involving the use of explosives
10. Construction work on or near pressurised gas distribution mains and consumer piping
11. Construction work on or near chemical, fuel or refrigerant lines
12. Construction work on or near energised electrical installations and services
13. Construction work in an area that may have a contaminated or flammable atmosphere
14. Tilt-up and precast concrete construction work
15. Construction work on or adjacent to roadways or railways used by road or rail traffic
16. Work on construction sites where there is any movement of powered mobile plant
17. Construction work in an area where there are artificial extremes of temperature
18. Construction work in, over or adjacent to water or other liquids where there is a risk of drowning
19. Construction work involving diving

Incident - An incident resulting in an injury that is required to be notified by the OHS legislative requirement for notifiable incidents in the jurisdiction in which the project is being undertaken.

LTIFR (Lost Time Injury Frequency Rate) - The number of occurrences of lost time injury that result in a fatality, a permanent disability or time lost from work of one day shift or more in the period. The number of hours worked refers to the total number of hours worked by all workers in the period, including overtime and extra shifts.

² Fatalities rate is per 100 million hours.

Mechanism of incident classification –

Major Groups

0. Falls, trips and slips of a person
1. Hitting objects with a part of the body
2. Being hit by moving objects
3. Sound and pressure
4. Body stressing
5. Heat, electricity and other environmental factors
6. Chemicals and other substances
7. Biological factors
8. Mental stress
9. Vehicle incidents and other

Median - The median is the middle of a distribution; half the scores are above the median and half are below the median. If the number of values in the data set is even, then the median is the average of the two middle values. The median is less sensitive to extreme scores than the average.

MTIFR (Medically Treated Injury Frequency Rate) - The number of occurrences of treatment by, or under the order of, a qualified medical practitioner, or any injury that could be considered as being one that would normally be treated by a medical practitioner. The number of hours worked refers to the total number of hours worked by all workers in the period, including overtime and extra shifts.

Non-Scheme projects – Projects where the accredited contractor is the head contractor, the value of building work is \$3 million or more, and the project is not a Scheme project.

Scheme projects - Projects that are directly funded by the Australian Government with a value of \$3 million or more, plus, projects that are indirectly funded by the Australian Government where:

- the value of the Australian Government contribution to the project is at least \$5 million and represents at least 50 per cent of the total construction project value; or
- the Australian Government contribution to a project is \$10 million or more, irrespective of the proportion of Australian Government funding.

Winsorized mean - involves the calculation of the mean after replacing given parts of a distribution at the high and low end with the most extreme remaining values, typically replacing an equal amount of both ends. Often 10 per cent of the ends are replaced. The Winsorized mean is a useful estimator because it is less sensitive to outliers than the mean but will still give a reasonable estimate of central tendency.