



Australian Government

**Australian Safety and
Compensation Council**

TECHNICAL MANUAL

FOR THE

**NATIONAL DATA SET FOR
COMPENSATION-BASED
STATISTICS (NDS)**

March 2008

This technical manual has been written primarily for the suppliers of data into the national dataset. It has been provided as a support to the specifications and therefore does not restate the data requirements for the NDS. Instead, it contains further information on selected areas of the specifications and outlines the data processes followed by the Office of the Australian Safety and Compensation Commission (ASCC) after the data are received from jurisdictions.

CONTENTS

1.0	Claims to be reported to the ASCC.....	3
1.1	Claims under NDS 2nd edition.....	3
1.2	Claims under NDS 3rd edition.....	4
2.0	Missing data – how to estimate key data	5
2.1	Size of employer	5
2.2	Duty Status.....	5
2.3	Hours usually worked each week	5
2.4	Time Lost	6
3.0	How do the preliminary data differ from updated data?.....	7
4.0	What happens to the data received.....	8
4.1	What edits are applied to the data?	9
5.0	Publication of NDS-based Statistics by the ASCC.....	11
5.1	Scope of claims published	11
5.2	Adjustment to Victorian data	12
5.3	Time series considerations	12
5.5	Duration of absence	14
5.6	Cost of claims	14
5.7	Frequency and incidence rates	15
5.8	Online Statistics Interactive Database (NOSI)	15
6.0	ABS denominator data.....	16

1.0 Claims to be reported to the ASCC

The *National Data Set for Compensation-based Statistics* (NDS1) was endorsed by NOHSC in 1987 to enable the production of national and nationally-comparable workers' compensation based data. Following a review of this system the 2nd Edition of the NDS (NDS2) was introduced from 1 July 2000. The scope of the dataset was subsequently revised by the ASCC under the 3rd edition of the NDS. While NDS3 was to be introduced from 1 July 2005, some jurisdictions will not be in a position to implement the changes until 2008 or later. The first set of data from NDS3 will become available in 2008. This document relates primarily to NDS2 data.

1.1 Claims under NDS 2nd edition

Under NDS2 the claims to be reported to the ASCC should meet the following scope:

All new cases (that is, all new **ACCEPTED** workers' compensation claims made by or for a worker in relation to a single initial claim) reported in the reference year which involved the following:

- i) a death or permanent incapacity (whether or not payments have already been made) or
- ii) a temporary incapacity for which payments were made (by any party, including common law payments) other than those cases where payments made related only to medical and like services.

For the 2006-07 year, claims to be reported to the ASCC are ones that were lodged with the employer between 1 July 2006 and 30 June 2007 and which were accepted by the workers' compensation authority by 30 November 2007 (the date data are to be extracted).

Fatalities

Information on all accepted claims for fatality, regardless of whether payments have been made, are to be sent to the ASCC. This includes claims where funeral benefits only are likely to be paid. Under NDS2 these claims are identified with the Severity indicator (data item E2) = 1.

Permanent incapacity

No formal definition of permanent incapacity is defined under NDS2. Because the definitions and thresholds used to determine permanent incapacity differ by jurisdiction, claims reported under this item are inconsistent. The intention of this item is to capture claims for injuries or diseases where the worker will receive a lump sum payment for the complete or partial loss of the use of any part of the body or body faculty. It is expected that these workers will receive a lump sum payment but that these payments may take some time to be determined. Suppliers are asked to ensure these claims are captured, particularly where there may be no time lost from work (such as for deafness) and hence the claim may not be captured under the temporary incapacity group. Under NDS2 permanent incapacity claims are identified with the Severity indicator (data item E2) = 2.

Temporary incapacity

Within some jurisdictions, only payments made by the workers' compensation authority or the insurer are recorded: payments made by the employer during the excess period may not be recorded. However, in many of these cases the time lost field indicates that the injured worker has been off work for a period. While the scope specifically mentions that payments should have been paid for the temporary claim to be included in the data sent to the ASCC, if time lost is reported for a claim and the claim has been accepted, then it is safe to assume that the employer will have paid some compensation and this claim should be included in the dataset. On this basis, all accepted claims with time lost but as yet no compensation payments are considered to be in scope and should be provided to the ASCC. Under NDS2 temporary incapacity claims are identified with the Severity indicator (data item E2) = 3.

Acceptance of claims

Where jurisdictions use private insurers for claims management it has been noted that the status of the claim is not always updated correctly. Consequently, notification of a claim having moved from pending to accepted may be delayed. Suppliers are advised that if compensation payments are recorded against a claim with a status of 'pending' then these claims should be classed as accepted and reported to the ASCC. Exceptions to this rule may exist in jurisdictions where provisional liability options apply, such as in New South Wales.

1.2 Claims under NDS 3rd edition

NDS3 was introduced from 1 July 2005, however it was not implemented in all jurisdictions from this date. The scope of NDS3 is:

All new workers' compensation cases made by or for a worker in relation to a single initial claim reported in the reference year for which liability is **ACCEPTED**, **REJECTED**, or a decision on liability is **PENDING**.

Claims that only have payments for medical and like services should now be provided.

The NDS3 data specifications do not include the Severity Indicator that existed in NDS2. However, the ASCC is having difficulty identifying the permanent incapacity claims via other data items and therefore all suppliers are requested to continue to provide the information previously included in the Severity Indicator under the Fatality Indicator in the NDS3 documentation. Without the identification of permanent incapacity claims, the number of claims published in the ASCC's main reports may show a fall for the preliminary and early update years.

Other additional items added to the NDS3 specifications since the specifications were first introduced are:

Self insurance flag – where 0 means that the claims is from the insured sector and 1 from a self-insuring employer.

Date of death – only to be recorded for fatalities.

2.0 Missing data – how to estimate key data

To ensure that the claims information can be fully utilised, the ASCC requests suppliers to make the following calculations for missing data items, if possible.

2.1 Size of employer

If size of employer (item A2) is missing but information exists on the annual amount of remuneration paid by the employer, an estimate for the number of employees working for that employer can be derived using ABS data from the survey of *Average Weekly Earnings* (AWE), catalogue number 6302.0. This calculation is performed at the ANZSIC division level.

$$\text{Number of employees} = \frac{\text{annual remuneration paid by employer}}{52 \text{ weeks} * \text{AWE estimate for that industry}}$$

These data are currently only used in compiling one indicator in the *Comparative Performance Monitoring* report. Data are only released in aggregated format i.e. 1 to 4 employees, 5 to 19 employees, 20 to 100 employees and 100 or more employees. Therefore absolute accuracy is not required on this data item.

2.2 Duty Status

If duty status (item C2) is currently assigned within a jurisdiction according to a coding system other than that specified in NDS2, a concordance will need to be developed mapping the jurisdictional codes to NDS2. The code '1 At work – working at normal workplace' should be used for all claims missing duty status.

2.3 Hours usually worked each week

If information on the number of hours usually worked each week by the claimant (item C3) is not available, an estimate can be derived using estimates from the ABS's Labour Force Survey or preferably the specifically calculated denominator data designed for use with the NDS which jurisdictions can purchase from the ABS.

The following calculation should be performed using ANZSIC 3 digit level information by gender for the claims with missing information:

$$\text{Hrs usually worked per week} = \frac{\text{ABS denominator estimate of hours usually worked per year}}{52 \text{ weeks} * \text{ABS denominator estimate of employees}}$$

The hours are then the integer part of the above calculation. The minutes can be calculated by taking the decimal from the above calculation and multiplying it by 60 minutes, rounding to the nearest integer. Smaller jurisdictions should pay particular attention to the Relative Standard Errors (RSEs) on the ABS denominator data, possibly choosing a higher level of the classification to lower the errors.

For example, the ABS denominator data indicates that the 15 500 males working in industry 4120 in New South Wales worked 30 941 000 hours per year. Therefore, the hours usually worked each week for a claimant in this group would be estimated as:

$$\frac{30\,941\,000}{52 * 15\,500} = 38.388 \text{ hours} = 38 \text{ hours and } 60 * 0.388 = 23 \text{ minutes}$$

This claim should then have 3823 entered for data item C3.

Where corresponding denominator data are not available, an estimate of 38 hours per week should be used. Industry award hours should be used where known.

2.4 Time Lost

If time lost in hours and minutes (item E1) is unavailable from the claim but the number of days lost is known, an estimate for time lost in hours and minutes can be derived using ABS denominator data as follows:

$$\text{Time lost} = \frac{\text{days lost} * \text{ABS denominator estimate of hours usually worked per year}}{52 \text{ weeks} * 5 \text{ days} * \text{ABS denominator estimate of employees}}$$

where the ABS denominator estimates used are at the ANZSIC 3 digit level by the appropriate gender for the claim.

The hours component of time lost is then the integer part of the above calculation. The minutes component of the data item is calculated by taking the decimal from the above calculation and multiplying it by 60 minutes, rounding to the nearest integer.

For example, if a claim for a female worker in Queensland within industry 5320 indicated that she had had 7 days off work but gave no indication of hours or minutes lost and the ABS denominator data indicated there were 5600 female workers in Qld in industry 5320 working 8 959 000 hours per year, the estimate would be:

$$\frac{7 * 8\,959\,000}{5 * 52 * 5600} = 43.072 \text{ hours} = 43 \text{ hours and } 0.072 * 60 = 4 \text{ minutes.}$$

This claim should then have 4304 entered for data item E1.

An estimate of 8 hours per day is used for those claims where there is no corresponding denominator data. This amount can be varied for different jurisdictions if it is known that most people work some other amount per day, such as 7.5 hours.

Alternatively, if hours usually worked each week are known, and pre-injury earnings and compensation weekly benefits paid for the absence are also known, it is possible to derive an accurate estimate for time lost in a different manner.

$$\text{Time lost} = \frac{\text{weekly benefits} * \text{hours usually worked each week}}{\text{Pre-injury earnings}}$$

For example, if a person usually works 40 hours per week, is paid \$1200 per week and has been paid \$1600 in compensation payments, an estimate of their time lost is:

$$\frac{\$1600 * 40 \text{ hrs}}{\$1200} = 53.33 \text{ hours time lost or } 50 \text{ hours and } 20 \text{ minutes}$$

Using this methodology it is important to take into account any step-downs in payments that may artificially lower the ratio of weekly benefits to pre-injury earnings and therefore result in a lower estimate of time lost than should apply.

3.0 How do the preliminary data differ from updated data?

When jurisdictions supply preliminary unit record files for a financial year to the ASCC, they also provide updated NDS data for the five years prior to that reference year.

The updated files contain all of the records that remain in scope of the NDS, updated to reflect any changes to:

- the severity of the injury/disease (such as a worker dieing from their injuries)
- the TOOCS coding of nature of injury/disease, bodily location of injury/disease, mechanism of injury/disease, as a result of changes in terms of the most serious injury
- time lost, and
- compensation paid.

Cases reopened within five years of the original claim should be linked to the original case so that updating can occur.

There are generally more accepted claims recorded in the updated files than recorded in the previous year's preliminary data. These additional claims were lodged in the reference financial year but not accepted by the workers' compensation authority until after the 30 November cut off. In addition to claims that were 'pending', some disputed claims may have been accepted by a jurisdiction.

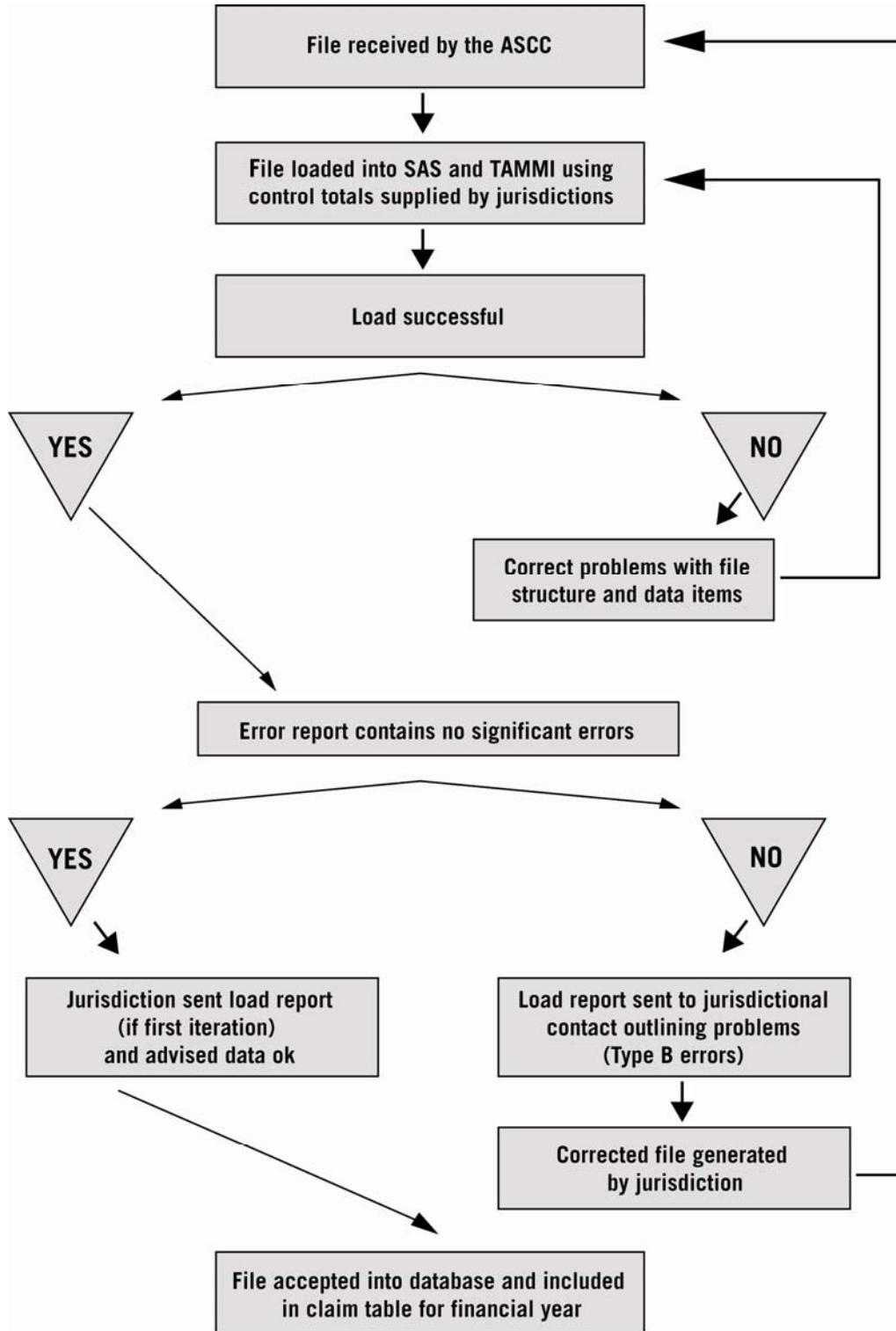
The preliminary number of accepted claims for a financial year will generally understate the final number of claims by around 4-5%. Most of this adjustment will occur in the year following the reference year (the first update).

Because some claims take many years to finalise, the median time lost and median cost per claim in the preliminary year are generally understated by over 10%. Consequently, when looking at changes over time in time lost from work and claim costs, users are advised to exclude preliminary data.

Under NDS3 jurisdictions will supply all **pending** and **rejected** claims as well as **accepted** claims. Therefore the total number of claims submitted each year should not change. However, the number of **accepted** claims recorded will still increase between the preliminary and updated data.

4.0 What happens to the data received

The following flow chart outlines the process that is followed after the initial unit record data file has been supplied by a jurisdiction to the ASCC.



Note: The claim table for a given year, from which all reports for that year are produced, is only generated when files for all jurisdictions have been accepted for that year.

4.1 What edits are applied to the data?

The following summarises the National Data Set Validation System (NDVS) and other edits applied to the data within the ASCC's computer system. A copy of the NDVS (the latest version is NDVS2.1) can be obtained from

<http://www.ascc.gov.au/NR/rdonlyres/06AB6B27-380E-488C-8DB2-4BFBE55E6382/0/ndvs21June2002.pdf>.

Data Item	Edits applied	Consequences/Options
Type A Error Edits		
File layout	Checks meets specifications such as field lengths and whether numeric or text.	File will not load if it does not comply with the NDS file layout specifications.
Invalid characters	Detects invalid characters in fields	Some characters may need to be deleted in order for file to load (files with negative payments will load).
Dates	Checks years in dates at least 1900	File will not load if dates earlier than 1900 detected.
Type B Error Edits		
All	Size of file verified against control totals	If size different, queried with contact to discern reason.
Invalid characters	Detects invalid characters, such as text in numeric field	System will ignore values with invalid characters, meaning they will not be included in the total for that data item or will be classified as 'not stated'.
ANZSIC	Checks for invalid codes Checks for unusual combinations with ASCO codes	System will recognise codes at whatever level they are valid or classify as 'not stated'. See below.
Size of employer	No edits	If missing, jurisdictions can approximate using AWE survey data with scheme remuneration data.
Date of birth (DOB)	Checks if supplied Also checks, using date of occurrence, that age between 15 and 70	If missing, field should be left blank. System will classify age as 'not stated'.
Gender	Checks if missing or invalid	System will include as 'not stated'.
ASCO	Checks for invalid codes for ASCO version expected for that year and unusual combinations with ANZSIC	If invalid codes, System will use codes at valid level or classify as 'not stated'.
Duty status	Checks for invalid codes and for invalid combinations with TOOCS codes	If invalid codes, usually recoded to valid code for 'usual workplace'.
Hours usually worked each week	Detects weekly hours of 70 hrs or more Checks if missing	Since necessary for scope determination, missing values replaced by estimate calculated using ABS denominator data.
Date of occurrence	Checks that occurrence was after DOB and before DOL, but not by more than 10 years. Also checks age at occurrence using DOB	If occurrence before birth, age will be classified as 'not stated'.
Date of lodgement (DOL)	Checks whether within financial year for scope, and relationship to other dates	Restrict from scope if not within financial year.
TOOCS codes	Checks for invalid codes and unusual combinations between TOOCS	System will use codes at valid level or classify as 'not stated'.

	codes, and with duty status and severity	
Time Lost	Check not missing	If missing and unable to be supplied, can approximate using days lost and ABS denominator data.
Severity	Checks not missing and for unusual combinations with TOOCS codes	Could be classified using 'lump sum' payments if not otherwise known.
Payments data	Checks if missing or greater than \$100,000 Checks for claims missing both comp and non-comp payments	If both compensation and non-compensation payments missing and this fact is confirmed by jurisdiction, should be excluded from scope.
Unique Record Identifier (URI)	Checks that URIs are unique	May need to remove duplicate claims (once confirmed) from scope.

5.0 Publication of NDS-based Statistics by the ASCC

5.1 Scope of claims published

While the majority of employees are covered for workers' compensation under general State, Territory and Australian Government workers' compensation legislation some specific groups of workers are covered under separate legislation. Every effort has been made to compile data from all groups of employees, but it is known that claims lodged by police in Western Australia and military personnel within the Defence Forces are currently excluded.

Most occupational injuries to the self-employed are excluded because such workers are generally not covered for workers' compensation. The exclusion of self-employed workers is likely to result in an understatement of the number of occupational injuries in industries where self-employment is common, for example, Agriculture, forestry and fishing; Construction; Transport and storage - Road transport; and Retail trade. The denominators used in the calculation of the incidence and frequency rates have been compiled to match the NDS scope, and consequently exclude self-employed workers. Assuming employees and self-employed workers in a particular industry have a similar work-environment, the rate can be considered to be representative of all workers in that industry. Similarly, claim information for employees in particular industries shown by Type Of Occurrence (TOOCS) should be broadly representative of the industry experience as a whole.

Occupational injuries and diseases occurring on a journey to or from work are excluded from regular ASCC publications due to only half the jurisdictions providing this coverage.

While the Australian Standard on the recording of incidents states that incidents involving one shift or more should be recorded, it is not possible to create a national dataset on this basis due to the different jurisdictions' employer excess (the period of time the employer has to compensate the employee directly before they can then claim with the workers' compensation authority or insurer). These excesses range from none (the claim can be made from the day of injury), up to 10 days. Under NDS1 the data reported in ASCC (and previously NOHSC) publications were for claims involving five or more days off work (plus fatalities and permanent incapacity claims). This was changed to 'one working week' under NDS2. One working week is defined as being lost when the time lost from work as a result of the injury/disease is greater than or equal to the number of hours the claimant usually works each week.

The NDS2 scope allows better coverage of short-term claims among part-time workers. Within the NDS1 scope, a part-time worker who worked only 1 day per week would need to have been off work for 5 weeks in order to have had 5 days off work and thus be included in scope (although the treatment of part-time workers differs among the jurisdictions). Within the NDS2 scope, the same worker would now be included in scope as soon as he/she had been off work for one day.

5.2 Adjustment to Victorian data

Due to the structure of the Victorian workers' compensation scheme, Victorian data reported to the NDS are not directly comparable with other jurisdictions. Under the Victorian workers' compensation scheme the employer is generally liable for the first 10 days of the injured worker's lost wages, plus the first \$531 (in 2005-06) of medical services, unless the employer has elected the Excess Buyout option (more information on the Excess Buyout option can be found at www.workcover.vic.gov.au).

In order to compare Victorian claims data with other jurisdictions, adjustments have been made to the supplied Victorian claims involving one to two weeks off work. The adjustment is derived by comparing the percentage of claims of one to two weeks duration between Victoria and the other Australian jurisdictions. The adjustment factor increases the number of Victorian one to two weeks claims so that the percentage of such claims is the same as the Australian average excluding Victoria. The analysis is undertaken at the industry division level to allow for a greater degree of homogeneity in respect of claim duration. The application of the factors increases the number of claims supplied by the Victorian WorkCover Authority by approximately 25%.

5.3 Time series considerations

Time series continuity was affected by the move to NDS2 in 2000–01. The nature of the 'break' in series brought about by this change is not the same across jurisdictions due to the different formats used to supply the data. To increase comparability between jurisdictions and improve consistency over time, factors are applied to some historical and current year data.

New South Wales and Tasmanian data for 1996–97 to 1999–2000 and ACT Private sector data for 1999–2000 used definitions of a working week similar to the NDS2 definition (introduced in 2000-01). Since all other claims were submitted under NDS1 scope, part-time workers' claims were comparatively over-reported for those jurisdictions in the years listed. To correct for this, the claim numbers for the jurisdictions and years listed have been decreased by a factor of 3.3%.

From 2000–01 actual figures for hours usually worked and time lost were not available for the Northern Territory, therefore estimates needed to be derived for these data items. Due to the estimation methodology, one working week lost could only be derived as 5 working days lost (as per NDS1 scope). To make the Northern Territory data (NDS1 scope) comparable with that from all other jurisdictions (NDS2 scope), a factor of 3.3% has been applied from 2000–01 onwards. Additional factors have been applied to the Victorian data as discussed in section 5.2.

Data back to 1997-98 (including these adjustments) are available via the on-line statistical database (NOSI) which can be accessed at <http://nosi.ascc.gov.au/>.

A further complication when looking at time series data is the inclusion of jurisdictions for only part of the time frame. This is particularly relevant for the years prior to 1999–2000, in this and following years ACT Private sector data were included.

A number of other data items changed in some respect between NDS1 and NDS2. The following table summarises the major changes to the data and what is available in time series format back to 1997-98.

Concept/Data Item	Changed for NDS2	Approach & data available
Occupation	Moved from ASCO1 to ASCO2	The ABS's conversion facility was used to convert all data from ASCO1 to ASCO2.
Duty Status	Expanded to include working away from normal workplace	If data is compared over time will need to map NDS2 years back to NDS1. Note this data item is not part of the usual set of data released in publications or via NOSI.
TOOCS codes	Extension of codes, includes and excludes.	TOOCS1 data have been concorded to TOOCS2.1. Assumes small impact of new include/exclude information. See note on Change to Nature of injury/disease below.
Severity Indicator	Classification revised. Permanent/Temporary replaces Severe/Non Severe.	All years have been updated to NDS2 severity codes, though this item is not part of the usual set of data released in publications or via NOSI.
Payments items	No longer includes future liability.	All years updated to NDS2 payment data items.

Time lost & costs

The adjustment factors mentioned in section 5.2 and 5.3 enhance the comparability of the number of claims over time. However, they are not able to fully adjust for the inclusion in the published data of a lot more shorter term duration claims due to the change from NDS1 to NDS2 which resulted in the recording of duration of absence changing from whole days lost to a precise record of hours and minutes lost.

In addition, a review carried out in 2006 established that some common law claims which were within the data scope of NDS2 were not being supplied. These data were only able to be supplied for the years 2000–01 onwards. Although the small number of claims added did not impact greatly on time series comparisons of number of claims, the associated costs and time lost noticeably increased the overall median time lost and median costs from 2000–01 onwards.

Consequently, time series comparison of time lost and costs should be limited to the period 2000–01 onwards.

Change to Nature of injury/disease

When undertaking a time series comparison of claims by Nature of injury/disease, the claims for *Diseases of the musculoskeletal system and connective tissue* should be combined with the claims for *Strains and sprains of joints and adjacent muscles*. This procedure is necessitated by the introduction of a new coding system in Victoria in 2002–03 under which some claims that were previously coded as *Sprains and strains of joints and adjacent muscles* are now coded to *Diseases of the musculoskeletal system and connective tissue*. This coding change more accurately reflects the repetitive and long term muscle stress that results from these conditions. By combining these categories, a useful time series can still be maintained.

The introduction of TOOCS3 across the other jurisdictions is also likely to result in a similar shift of claims. TOOCS3 has been introduced in Queensland, South Australia, Tasmania, the Northern Territory and Comcare from 2005–06.

5.5 Duration of absence

Information relating to duration of absence from work should be used with caution. The data item capturing length of absence from work only records what has been taken so far. As some claims can take some years to finalise the duration of absence field will continue to be updated each year until the claim is finalised or the time period for updating lodgement years is exceeded (6 years past the current year). It is therefore not possible to analyse the duration of absence of claims that continue for longer than this period of time and any averages calculated using these data may understate the true value if data had continued to be collected.

As these data are not collected and it is known that long term claims can skew any averages calculated from them, the ASCC only releases information on median time lost of claims. These data are only published in ‘working weeks’ lost due to the way data are now collected.

‘Median working weeks lost’ have been calculated including cases where zero days have been recorded in the duration of absence field. No time lost is recorded against many fatalities as weekly compensation benefits are not paid when the fatality occurs immediately following the incident. Also time lost is not recorded for some diseases such as deafness where the condition does not require absence from work. The published data will also include claims from people who are no longer in the workforce (i.e. retired people) and who therefore not entitled to weekly compensation benefits.

In addition, differences in the scope of data collections in some jurisdictions, associated with the effect of employer excess on threshold provisions, may impact on the number of short duration claims reported.

Despite these limitations, the median duration of absence is considered to be a reasonable indicator of the relativities between jurisdictions and industry, occupation and injury types.

5.6 Cost of claims

Caution needs to be exercised when using workers' compensation payments data as a measure of the cost of workplace injury and disease. The costs data collected are only those paid by the workers' compensation authority and will not include any payments made by the injured worker which were not reimbursed by the workers' compensation authority.

In particular, costs data for the most recent years should be treated with caution as these data will contain many claims that have yet to be finalised and considerable additional payments are likely to be added in future years. The payments data do not include estimates of future costs (except in the case of common law settlements) nor do they include costs to the employer associated with loss of productivity.

Median cost of claims are reported in ASCC publications as representative of the costs associated with a ‘typical’ claims. Medians are calculated excluding cases where zero payments have been reported. This is different to the way median time lost estimates are

calculated. The rationale for the different calculation of median costs, compared with median duration of absence, is that while occurrences with zero time lost are valid observations for some claims, an occurrence which has been accepted for compensation will eventually record a payment figure. Therefore, it is considered that the calculation excluding zero payment observations produces a more accurate reflection of median cost.

5.7 Frequency and incidence rates

The **frequency rate** of occupational injuries and diseases is the number of occurrences expressed as a rate per million hours worked by employees. Frequency rates should be used when making comparisons across industries where the number of part-time workers varies substantially. Such rates are calculated using the following formula:

$$\frac{\text{number of occupational injury and disease cases} \times 1\,000\,000}{\text{number of hours worked}}$$

The **incidence rate** of occupational injuries and diseases is the number of occurrences expressed as a rate per thousand employees. The rate is calculated using the following formula:

$$\frac{\text{number of occupational injury and disease cases} \times 1000}{\text{number of employees}}$$

5.8 National Online Statistics Interactive database (NOSI)

NOSI is a web-based interactive statistics database which users can interrogate to provide a variety of reports to their own design. Data are available on the number, incidence and frequency of workers' compensation claims in Australia plus median duration of time lost from work and the median cost of claims. NOSI is located on the web at <http://nosi.ascc.gov.au/>

While the change to NDS2 effectively resulted in a break in the time series from 2000–01, a number of measures were introduced to limit the impact of this change. All data available in current ASCC publications and on NOSI have been generated using NDS2 format data items. Data is available on NOSI back to 1997–98.

6.0 ABS denominator data

Denominator data are supplied each year from the Australian Bureau of Statistics (ABS), estimating the number of employees and hours exposed for each Australian workers' compensation jurisdiction except Seacare. These estimates are provided by jurisdiction, gender and age for both industry and occupation.

The methodology uses Labour Force Survey (LFS) data as a base. A number of adjustments are then applied to account for differences in scope between the denominators and the workers' compensation coverage for some jurisdictions. The Commonwealth estimate is calculated using the Survey of Employment and Earnings (SEE). The following extract from the ABS Denominator Review Final Report outlines the steps used to calculate the new estimates.

1. Calculate the LFS financial year employee estimate, removing Western Australian police and owner managers of incorporated enterprises working in Queensland.
2. Apply the labour hire firm employees adjustment to New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania using proportions calculated from the Forms of Employment Survey.
3. Apply the multiple jobholder adjustment using proportions calculated from the annual Multiple Job Holder supplementary survey.
4. Calculate the number of Commonwealth employees in SEE by state and industry and in total.
5. Create the proportion SEE Commonwealth employees make up of LFS employees. The proportion of non-Commonwealth employees is then one minus the Commonwealth proportion.
6. Apply the non-Commonwealth proportion to LFS employee industry data disaggregated by state, sex and age.
7. Apply the same non-Commonwealth employee proportions to the LFS hours usually worked each week data disaggregated by state, sex and age.
8. Calculate the Commonwealth employees denominators using the Comcare FTE methodology as specified:
 - i) Calculate the SEE total of Commonwealth employees.
 - ii) Obtain Comcare FTE estimates by industry to the ANZSIC 3 digit level.
 - iii) Transform the Comcare FTE estimate into Comcare employee estimates by increasing the Commonwealth total to equal the SEE total. This will result in a blanket increase across industries.
 - iv) Apply the Public sector age by sex distributions from the Employee Earnings, Benefits and Trade Union Membership supplementary survey (EEB).

9. Calculate the Commonwealth hours denominators using Comcare FTE data assuming FTE employees work 38 hours per week and apply the EEB sex and age distributions.
10. Calculate EEH Commonwealth/non-Commonwealth sector employee proportions from the most recent survey by occupation, state, sex and age.
11. Apply the EEH proportions to LFS employee and hours occupation data by state, sex and age.
12. Adjust the occupation based state by sex by age totals to equal the industry based state by sex by age totals.

A methodology to derive ACT public sector employee denominators separately, based on the Comcare denominator methodology has been developed. The following outlines the procedure used:

- i) Calculate the SEE total of ACT public sector employees.
- ii) Obtain ACT public sector FTE estimates by industry to the ANZSIC 3 digit level.
- iii) Transform the ACT public sector FTE estimate into ACT public sector employee estimates by increasing the FTE total to equal the SEE total. This will result in a blanket increase across industries.
- iv) Apply the Public sector age by sex distributions from the Employee Earnings, Benefits and Trade Union Membership supplementary survey (EEB).
- v) Calculate the ACT public sector hours denominators using the FTE data by assuming FTE employees work 38 hours per week. Apply the EEB sex and age distributions.

More detailed information on the actual denominator methodology and the rationale behind the adjustments applied and methods used is available from the Australian Bureau of Statistics Denominator Review Preliminary and Final Reports held by the ASCC.

Since the denominators are based on survey data, the estimates derived are subject to relative standard errors (RSEs), which provide some indication of how inaccurate the estimates are. Incidence rates that are calculated using denominator data with an RSE of 50% or more are not published by the ASCC due to the degree of inaccuracy inherent in the denominator data.

As a rule, the more finely disaggregated the denominator data used, the higher the RSEs will be. For small jurisdictions, this means that a large number of the data cells in a finely disaggregated table are likely to be not publishable and in cases where the employment type is rare within the jurisdiction, even high level data may be too inaccurate to be used.

Glossary of common terms

ANZSIC codes

Australian and New Zealand Standard Industrial Classification used to code the industry in which the occupational injury or disease occurred.

ASCO codes

Australian Standard Classification of Occupations, used to code the occupation of the injured worker.

Occupational Diseases

All employment injuries that result from repeated or long term exposure to an agent (s) or event(s), and employment injuries that are the result of a single traumatic event where there was a long latency period, for example, the development of hepatitis following a single exposure to the infection. It should be noted that workers' compensation data are not an ideal measure of the extent of work-related disease, as many diseases do not result in compensation claims for a variety of reasons.

Occupational Injuries

All employment injuries which are the result of a single traumatic event occurring while a person is on duty or during a recess period and where there was a short or non-existent latency period. This includes injuries that are the result of a single exposure to an agent(s) causing an acute toxic effect.

Type of Occurrence Classification (TOOCS)

These codes are used to classify the details of the 'description of occurrence' reported on the workers' compensation claim. The five categories used to describe the type of occurrence are:

- *Nature of Injury or Disease*
The nature of injury or disease refers to the most serious injury or disease sustained or suffered by the worker.
- *Bodily Location of Injury or Disease*
The bodily location of injury or disease refers to the part of the body affected by the most serious injury or disease.
- *Mechanism of Injury or Disease*
The mechanism of injury or disease is the action, exposure or event which was the direct cause of the most serious injury or disease, that is, how exactly the injury or disease was sustained.
- *Breakdown Agency*
The breakdown agency refers to the object, substance or circumstance that was principally involved in, or most closely associated with, the point at which things started to go wrong, and which ultimately led to the most serious injury or disease.
- *Agency of Injury or Disease*
The agency of injury or disease refers to the object, substance or circumstance that was the direct cause of the most serious injury or disease sustained.