

ACT Workers' Compensation Review of Scheme Performance

The Chief Minister and Cabinet Directorate

April 2012

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2 April 2012

Ms Meg Brighton
Director Continuous Improvement & Workers' Compensation
Chief Minister and Cabinet Directorate
Canberra Nara Centre
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CANBERRA ACT 2601

Dear Meg

2010/11 ACT Workers' Compensation Review of Scheme Performance

Please find enclosed our report on the review of the ACT private workers' compensation scheme for 2010/11.

This is the fourth review of its kind we have undertaken of the ACT private workers' compensation scheme and we are pleased to present a report covering trends in the scheme.

We look forward to discussing our report with you.

Yours sincerely



Karen Cutter



Mimi Shepherd

Fellows of the Institute of Actuaries of Australia



ACT Workers' Compensation Review of Scheme Performance

Part I	Executive Summary	i
Part II	Detailed Findings	1
1	Introduction	1
2	Data	4
3	Approach	8
4	Overview of Claims Experience	10
5	Claim Analysis and Assumptions	21
6	Economic, Expense and Profit Assumptions	36
7	Reliances & Limitations	38
Part III	Appendices	40
A	Glossary of Terms	40
B	Scheme Background	42
C	Data	47
D	Valuation Approach	54

Part I Executive Summary

1 Introduction & Background

The Chief Minister and Cabinet Directorate (CMCD) have requested that Finity Consulting (Finity) undertake an actuarial review of the performance of the ACT private sector workers' compensation scheme (the Scheme) for publication. As part of this review, we were required to investigate trends in the claims experience to 30 June 2011.

This is the fourth review of its kind that Finity has conducted.

We note that the scope of our review is limited to the insured private sector workers' compensation scheme, i.e. it does not include self-insured employers. Our review (based on data to 30 September 2011) encompasses:

- Identifying major trends in the private sector experience that have impacted on the cost of the Scheme. We have examined:
 - ▶ Trends in claim numbers and frequency - in total, for non-nil claims, for the number of claims receiving weekly benefits (lost time claims) and also for lump sum benefits
 - ▶ Trends in claim payments and average claim sizes by benefit type
 - ▶ Trends in claim duration
- Estimates of future claim costs for past accident years, including estimated claim numbers, average claim sizes and payment patterns.

2 Legislative Reform

The Exposure Draft Workers' Compensation Amendment Bill 2010 ("the Bill") was released for public consultation in October 2010 and proposes a number of changes to the workers compensation legislation in the ACT.

The draft bill has not been tabled in the ACT Legislative Assembly and we have made no allowance for the impact of legislative change.

Appendix B of this report summarises the various historical legislative reforms that have had a significant impact on the cost of the ACT workers' compensation scheme.

3 Scheme Experience

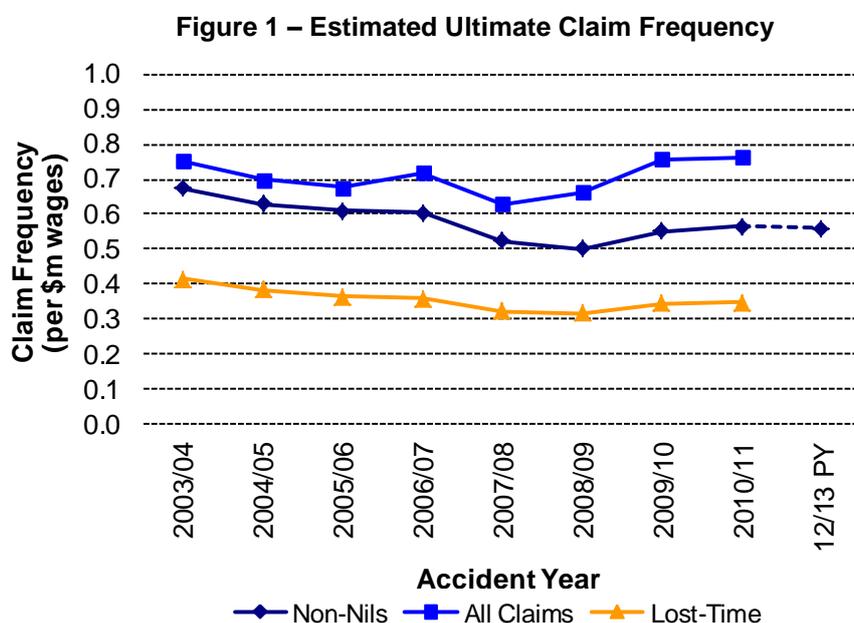
Section 4 of the main body of the report details various elements of claims experience. Our key findings in relation to the scheme experience are:

- Almost 5,000 claims (including nil and incident-only notifications) were reported in the ACT in the 12 months to 30 June 2011, a 3% increase relative to the previous year.
- The number of non-nil claims increased in 2010/11 to be at a level similar to that seen immediately prior to the GFC with around 3,600 non-nil claims reported in this year.
- Claim payments increased by 1% in 2010/11. The small increase has been driven mainly by an increase in weekly benefit and lump sum payments.
- Common law and lump sum claims are important drivers of the scheme financials. These claims account for around 13% of non-nil claims by number, however payments associated with these claims (including weekly benefit payments, medicals, rehabilitation and legal costs) account for over 80% of total scheme payments to date.

4 Actuarial Estimates

Claim Frequency

Figure 1 shows our estimated ultimate claim frequency for the Scheme. We have shown three different measures – all claims, non-nil claims only and lost time claims only (reflecting the frequency of claimants receiving weekly benefits). The estimated ultimate number of claims is divided by earned wages to arrive at a measure of the ultimate claim frequency per \$ million earned wages (inflated to December 2011 values).



While total claim frequency has increased since 2007/08, much of this increase is attributable to an increase in the reported number of nil claims.

The non-nil claim frequency fell in 2007/08 and 2008/09 following a decline in claim reports in these years which is likely to be at least partly related to economic conditions during the Global Financial Crisis (GFC). Claim frequency increased in 2009/10 and again in 2010/11 following a return to more normal economic conditions. The increase in frequency in 2010/11 is the result of a 6% increase in numbers of non-nil claims which has been only partially offset by a 3% increase in real wages in the year.

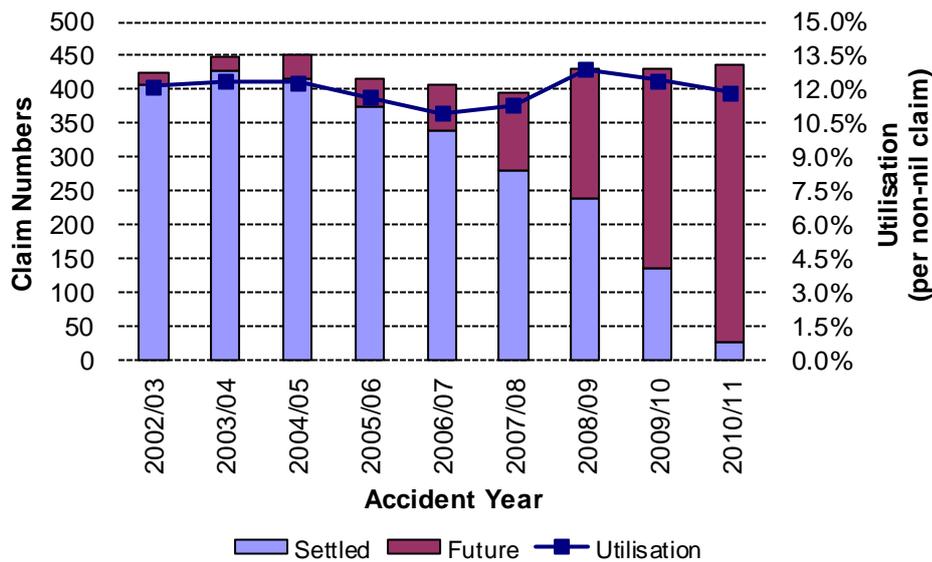
We estimate the ultimate non-nil claim frequency for the 2010/11 year to be 0.54 claims per \$ million wages.

The lost time claim frequency has followed a similar trend to the non-nil claim frequency.

Lump Sum Claim Numbers

We estimated the ultimate number of lump sum claims (including common law claims) for each past accident year. We also calculated the rate of lump sum utilisation by accident year (expressed as the ultimate number of lump sum claims over ultimate number of non-nil claims).

Figure 2 - Estimated Ultimate Lump Sum Claim Numbers and Utilisation



For 2010/11 we estimate that around 12% of claims will involve a lump sum or common law benefit payment, with the ultimate number of lump sum claims projected to be around 435.

Average Claim Size

Figure 3 summarises the adopted gross average claim sizes for each past accident year, and our selection.

Figure 3 - Adopted Gross Average Claim Size (per Non-Nil Claim) by Payment Type

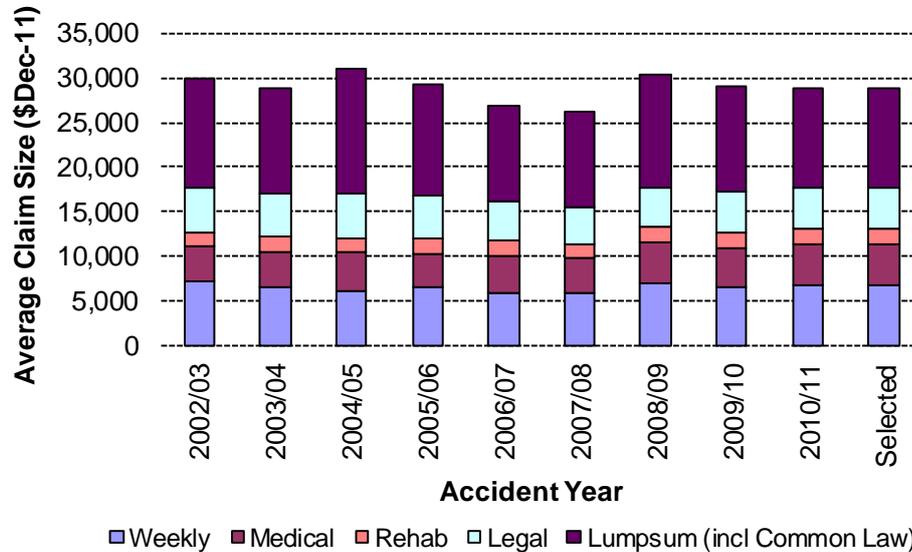


Figure 3 shows our selected gross average claim size per non-nil claim is just under \$28,950.

We have taken the view that the higher average weekly benefits in 2008/09 results from the GFC-related lower claim numbers for this year i.e. that the claims with a lower claim size on average are the ones that are not reported during an economic downturn. While the average size appears to have decreased from the high observed for 2008/09, the average size of claims in the two most recent accident years is projected to be higher than the pre-GFC levels mainly as a result of higher weekly benefit and lump sum payments.

There is also some evidence of an increasing trend in average claim sizes in medical and rehabilitation payments. We have allowed for superimposed inflation in these payment types.

After allowance for recoveries, the selected net average claim size per non-nil claim is \$27,868. This is 2% higher than that selected in our previous review (\$27,285 after adjustment to December 2011 dollars).

5 Economic Assumptions

The long-tailed nature of workers' compensation business means that it is appropriate to allow for both future inflation and the time value of money in estimating future claims costs.

Two types of inflation are incorporated into our cost models: normal inflation (in this case wage inflation based on AWE increases, given the income-related nature of the weekly benefits) and superimposed inflation, which represents the tendency for costs to increase above the rate of normal inflation.

We have made allowance for the following economic assumptions:

Element	Assumption	Basis
Discount rate	3.75% p.a.	Expected returns on government bonds over the period in which future claims payments are made, derived from the 29 February 2012 yield curve.
Wage Inflation	3.75% p.a.	Current economic forecasts for medium term wage inflation.
Superimposed inflation	3.0% p.a. for medical benefits 2.0% p.a. for rehabilitation costs	Analysis of recent Scheme experience, together with expectations for the future (necessarily judgemental).

6 Compliance with Relevant Australian Standards

The purpose of this report is to provide an overview of the performance of the ACT workers compensation scheme, not to advise any individual entity on the financial reporting of its workers compensation liabilities. Accordingly, Professional Standard 300 "Valuations of General Insurance Claims" (PS 300) issued by the Institute of Actuaries of Australia does not apply to this report. In the absence of any other applicable professional standard we have used PS 300 for guidance on our approach to the review, but our report is not intended to comply with all requirements of PS 300.

This report has been prepared in accordance with the Institute of Actuaries of Australia's Code of Professional Conduct for the provision of actuarial advice.

7 Reliances and Limitations

Data

We have relied on the accuracy and completeness of all data and other information (qualitative, quantitative, written and verbal) provided to us by WorkSafe ACT and private insurers for the purpose of this report. We have not independently verified or audited the data but we have reviewed it for general reasonableness and consistency. It should be noted that if any data or other information is inaccurate or incomplete, we should be advised, so that our advice can be revised, if warranted.

Specific data limitations identified and the impact of these on our review are discussed further in Appendix B.

Uncertainty

The estimates of future claims costs are intended to be a central estimate and are based on assumptions selected without deliberate bias towards either over-estimation or under-estimation. Please note however, that it is not possible to put a value on future claims cost with certainty. As well as difficulties caused by limitations on the historical information, outcomes remain dependent on future events, including legislative, social, and economic forces. Although we have prepared estimates in conformity with what we believe to be the likely future experience, actual experience could vary considerably from our estimates. Deviations are normal and are to be expected.

We have generally assumed that the payment of claims will proceed as in the recent past, and we have not anticipated any extraordinary changes to the legal, social or economic environment that might affect the cost, frequency or future reporting of claims.

In particular, we note the Exposure Draft Workers Compensation Amendment Bill 2010 was released in 2010, which introduced potential changes to lump sum and common law benefits. We have not made any allowance for the impact of this draft Bill.

In our judgement, we have employed techniques and assumptions that are appropriate, and the conclusions presented herein are reasonable, given the information currently available. However, it should be recognised that future claim emergence will likely deviate, perhaps materially, from our estimates.

Distribution and Use

This report is being provided for the use of the Chief Minister and Cabinet Directorate (CMCD) for the purposes stated in Section 1.1 of this report. It is not intended, nor necessarily suitable, for any other purpose. This report should only be relied on by the CMCD for the purpose for which it is intended. The report should be considered as a whole.

We understand that CMCD intends to publish this report. Permission is granted for such publication on the condition that the entire report (including appendices), rather than any excerpt, be distributed.

Third parties, including but not limited to parties who obtain this report from its public release, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the third party.

Finity has performed the work assigned and has prepared this report in conformity with its intended utilisation by a person technically competent in the areas addressed and for the stated purposes only. Judgements about the conclusions drawn in this report should be made only after considering the report in its entirety, as the conclusions reached by a review of a section or sections on an isolated basis may be incorrect.

Part II Detailed Findings

1 Introduction

1.1 Purpose

The Chief Minister and Cabinet Directorate (CMCD) have requested that Finity Consulting (Finity) undertake an actuarial review of the performance of the ACT private sector workers' compensation scheme (the Scheme) in order to inform the CMCD on key developments in the scheme experience. As part of this review, we were required to investigate trends in the claims experience to 30 June 2011.

We note that the scope of our review is limited to the insured private sector workers' compensation scheme, i.e. it does not include self-insured employers.

This is the fourth review of its kind that Finity has conducted. Our previous review is contained in the report "2009/10 Review of the ACT Workers' Compensation Scheme" dated 11 August 2011 (the previous report).

Our review is based on data to 30 September 2011. We note however that the last full financial year of data is for the year ending 30 June 2011, and many of the graphs and commentary in this report are prepared using data to 30 June 2011 only. Note that we have specifically utilised the claims data for the three months to 30 September 2011 in projecting ultimate claim numbers and in forming our lump sum assumptions.

1.2 Scope

Our review of the ACT private workers' compensation scheme encompassed:

- Identifying major trends in the private sector claims experience that has impacted on the cost of the Scheme. We have examined:
 - ▶ Trends in claim numbers and frequency - in total, for non-nil claims, for the number of claims receiving weekly benefits (lost time claims) and also for lump sum benefits
 - ▶ Trends in claim payments and average claim sizes by benefit type. For our analysis, the benefit types were grouped into:
 - Weekly benefits
 - Medical and related benefits (including medical, hospital, and other treatment/appliances)
 - Rehabilitation
 - Legal and investigation costs (including legal costs, investigation and medico-legal costs, and other non-compensation benefits)

- ▶ Lump sum benefits (including common law settlements, statutory impairment lump sums, commutations and death benefits)
- ▶ Recoveries (including sharing, employer and other recoveries)
- ▶ Trends in claim duration
- Estimates of future claim costs for past accident years, including estimated claim numbers, average claim sizes and payment patterns.

1.3 Compliance with Relevant Australian Standards

The purpose of this report is to provide an overview of the performance of the Scheme, not to advise any individual entity on the financial reporting of its workers' compensation liabilities. Accordingly, Professional Standard 300 "Valuations of General Insurance Claims" (PS 300) issued by the Institute of Actuaries of Australia does not apply to this report. In the absence of any other applicable professional standard, we have used PS 300 for guidance on our approach to the review, but our report is not intended to comply with all requirements of PS 300.

This report has been prepared in accordance with the Institute of Actuaries of Australia's Code of Professional Conduct for the provision of actuarial advice.

1.4 Basis of Estimates

The estimates of future claims costs provided in this report are intended to be central estimates, which means they are based on assumptions selected without deliberate bias towards either over-estimation or under-estimation.

The claims estimates have been developed on the basis of the following principles:

- (i) Estimates of expected claims costs should be "central estimates", incorporating allowance for both "normal" and "superimposed" inflation
- (ii) Claim costs are to be discounted to allow for the time value of money
- (iii) Estimates of claims costs should take into account any amounts recoverable in respect of the claims.

Workers' Compensation Amendment Bill 2010

The Exposure Draft Workers' Compensation Amendment Bill 2010 ("the Bill") was released for public consultation in October 2010 and proposes a number of changes to the workers compensation legislation in the ACT.

The draft bill has not been tabled in the ACT Legislative Assembly and we have made no allowance for the impact of legislative change.

Appendix B of this report summarises the various historical legislative reforms that have had a significant impact on the cost of the ACT workers' compensation scheme.

1.5 Structure of the Report

The details of our review are set out in the following report sections:

Section 2 describes the data we were supplied with for this investigation

Section 3 sets out our approach to analysis of Scheme performance

Section 4 presents the trends in Scheme claims experience

Section 5 includes our assessment of the Scheme claim number and claim payment experience and includes our assumptions required to estimate ultimate claim costs

Section 6 summarises our adopted economic assumptions

Section 7 details the reliances and limitations to which this report is subject.

The Appendices include a detailed description of the data used and our analysis.

1.6 Distribution and Use

This report is being provided for the use of the CMCD for the purposes stated in Section 1.1 of this report. It is not intended, nor necessarily suitable, for any other purpose. This report should only be relied on by the CMCD for the purpose for which it is intended. The report should be considered as a whole.

We understand that CMCD intends to publish this report. Permission is granted for such publication on the condition that the entire report (including appendices), rather than any excerpt, be distributed.

Third parties, including but not limited to parties who obtain this report from its public release, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the third party.

Finity has performed the work assigned and has prepared this report in conformity with its intended utilisation by a person technically competent in the areas addressed and for the stated purposes only. Judgements about the conclusions drawn in this report should be made only after considering the report in its entirety, as the conclusions reached by a review of a section or sections on an isolated basis may be incorrect.

2 Data

This section describes the data items we were supplied with for this investigation, the results of our reconciliations and the data summaries produced.

2.1 Data Supplied

WorkSafe ACT administers the Accident Information Management System (AIMS) database. AIMS was established in 1999 and contains workers' compensation premium and claim information from all insurers and self-insurers operating in the Scheme. As part of our review, WorkSafe ACT supplied us with the following information from AIMS:

- Individual claim file showing the accident and report date, insurer code, current liability status, total payments to date and estimated future payments outstanding for each claim reported or having had a payment between 1 July 1999 and 30 September 2011
- Claim payment transaction file with payments made (by type and month) between 1 July 1999 and 30 September 2011
- Individual policy files, with the ANZSIC Division and insurer codes for each policy written or renewed between 1 July 1999 and 30 September 2011.

In addition to the information provided, we also received the following summarised data from each of the insurers:

- Premiums by ANZSIC Division;
- Wages by ANZSIC Division;
- "Triangulations" of numbers of claims reported;
- "Triangulations" of claim payments; and
- Case estimates as at 30 June 2011.

We have also compiled workforce figures from information available from the Australian Bureau of Statistics (ABS) and the Australian Public Service Employment Database (APSED), plus information on the number of ACT public sector employees supplied by the CMCD.

Refer to Appendix A for a more detailed listing of the data.

2.2 Reconciliation

Our key findings in respect of the AIMS data are:

- Claim number information on AIMS is fairly reliable and is satisfactory for the purposes of our actuarial review.

- Claim payment information on AIMS for 2001/02 and later years is of reasonable quality and is satisfactory for the purposes of our actuarial review. Significant amounts of payments prior to 2001/02 are missing (around 25%), primarily due to one insurer.
- Premium and wages information on AIMS is inadequate and cannot be used because the current system does not adequately capture policy adjustments. We have instead relied on information sourced directly from insurers. The new system anticipated to be implemented in 2012/2013 is anticipated to deal with this system deficiency.
- Case estimates from AIMS for 2004/05 and prior are approximately 45% lower than the estimates provided by insurers in these years.

As such, in preparing this advice we have relied on the claims information (with the exception of case estimates) supplied by WorkSafe ACT and case estimate, premium and wages information supplied by the private sector insurers.

We have compared the AIMS data provided for this review with the data provided for our previous review (see Appendix C.2). The data from the two extracts matched closely.

We have also reviewed and checked the AIMS data for reasonableness and consistency. Reliance was placed on, but not limited to, the accuracy of the information described in this report.

2.3 Information Provided by Insurers

Each of the insurers of workers' compensation in the ACT provided us with summarised premium, wages and claims information, including:

- Written premiums and wages by policy year – both initial amounts and amounts after adjustment for actual wages and premium adjustments
- Earned premiums and wages by year and by ANZSIC Class – both initial amounts and amounts after adjustment for actual wages and premium adjustments
- Numbers of claims reported, subdivided by accident year and report year
- Claim payments made, subdivided by accident year and payment year
- Case estimates, as at 31 December 2010 and 30 June 2011, subdivided by accident year.

In order to improve the comparability and consistency of the information supplied by insurers, the data required adjustment in some cases so that:

- Premiums include brokerage
- Wages exclude superannuation.

We compared the premium and wages information supplied for this review with that supplied for the previous review and found some increases in wages and premiums recorded for more recent policy years which reflects expected development on policies as information becomes updated with final wages estimates and changes to burner policies reflecting emerging claims experience. The differences were not unexpected.

We compared the claim number and claim payment information supplied by the insurers to that on AIMS. The reconciliations are detailed in Appendix C.2. Our findings were:

- There are some significant differences between AIMS claim number data and insurer records arising from differences in recording and reporting of nil claims and notifications for two insurers. This is not expected to impact our analysis as our average payment models are based on the number of non-nil claims.
- There are some significant differences between AIMS claim payment data for years 1999/00 and 2001/02 that relate to one insurer that has a significant amount of payments missing from the AIMS database. We were aware of this limitation at our previous review and as a result only relied on the AIMS payment information for 2002/03 onwards. Differences in other years were minimal, and relate primarily to timing differences.

At an overall level however we found no material differences between AIMS and the insurer data.

2.4 Coding of Claim Payments on AIMS

There are a number of areas of uncertainty regarding the definition of claim payments recorded on the AIMS database. This is partly due to a lack of clarity in the AIMS data specification, but is also a function of the ACT being a privately underwritten market with a number of insurers participating – hence recording practices between insurers may vary. Specific areas of inconsistency are discussed further in Appendix C.

We note that CMCD has been working on a new national data specification with the other privately underwritten jurisdictions in Australia and are also in the process of acquiring a new IT system to replace AIMS. The timing of the implementation of these two initiatives is still to be finalised, however we note that data quality after implementation should be much improved and many of the issues noted below are not expected to remain in future.

2.5 Workforce Information

We have calculated an approximate private sector workforce as follows:

- Total workforce in the ACT
- less ACT public sector employees
- less Commonwealth public sector employees.

We do not have a “full time equivalent” number of workers, and have therefore used the numbers of full time workers to approximate the total ACT private sector workforce.

2.6 Reinsurance and Other Recoveries

The data supplied for the purposes of our review did not include details of reinsurance recovery amounts. Therefore, all data and projections contained in this review are gross of reinsurance, but net of all other recoveries.

2.7 Data Adjustments

In performing our claims analysis we have identified and separately considered claims which have zero payments made to date (“nil claims”).

Further, in determining the number of claims in receipt of common law and lump sum benefits, we have excluded from our claim number summaries those claims which received total common law or lump sum benefits of less than \$500. We found that one insurer in particular had a large number of such claims. We have excluded these from all lump sum claim counts (noting the costs of such claims continue to be included in our claim payment summaries).

3 Approach

For the purpose of analysis, all data has been grouped into accident years, i.e. the year in which the injury occurred which gave rise to the claim. Development of this data is then analysed and projected by development year (which is a measure of the number of years since the year in which the accident occurred, e.g. development year 2 is the year after the year in which the injury occurred). All analysis has been carried out on a financial year basis (i.e. years ending 30 June).

In conducting our analysis of the ACT workers' compensation experience, we have followed the same approach as in the previous review. This involved examining claim numbers and frequency, and average size by benefit type. The development analysis allows us to project future claim reports and costs in respect of injuries which have already occurred, from which we can estimate the ultimate number and cost of claims arising from each accident year. This allows analysis of the underlying trends in Scheme experience.

3.1 Claim Numbers

In order to estimate ultimate numbers of claims we use the Chain Ladder method to estimate the number of claims relating to accidents that occurred prior to 30 June 2011 that are yet to be reported (i.e. "Incurred But Not Reported" or "IBNR" claims). The estimated ultimate number of claims (reported to date plus IBNR claims) is then expressed as a claim frequency by dividing the ultimate number of claims in each accident year by a measure of exposure.

Claim numbers were modelled by the following groups:

- All claims - we analysed the number of claims and the frequency of such claims relative to ultimate inflation-adjusted wages earned in the period.
- Non-nil claims - as for all claims, we estimated the ultimate number and frequency of claims that are expected to result in a payment by the insurer.
- Lost time - we analysed the numbers of claims receiving weekly benefits ("lost time") and the frequency of lost time claims relative to non-nil claims.
- Lump sums - we analysed the numbers of lump sum claims (common law, statutory impairment, commutations and death benefits, excluding claims with total lump sum payments less than \$500) and utilisation rate (expressed as the ultimate number of lump sum claims divided by ultimate number of lost time claims).

3.2 Claim Duration

We examined trends in duration of weekly benefit claims by analysing the number of claims that remain active in each development quarter. A claim received an "active" flag and was counted once if it received a weekly payment in the quarter. We excluded from

our active count any claims where total weekly payments to date were negative or where the weekly payments made in a quarter total zero.

3.3 Average Claim Size

Claim payments were analysed and projected using the following benefit type groupings:

- Weekly benefits - modelled using a Payments Per Claim Incurred (PPCI) approach, where the claim count used is the estimated ultimate number of lost time claims. We supplemented this primary model with a Payment Per Active Claim (PPAC) model.
- Medical and related benefits - modelled using a PPCI approach, where the claim count used is the estimated ultimate number of non-nil claims.
- Rehabilitation benefits - modelled using a PPCI approach, where the claim count used is the estimated ultimate number of non-nil claims.
- Lump sums - modelled using a Payments Per Claim Settled (PPCS) approach, where the claim count used is the ultimate number of lump sum claims.
- Legal and other benefits - modelled using a PPCI approach, where the claim count used is the estimated ultimate number of non-nil claims.
- Recoveries - modelled using a PPCI approach, where the claim count used is the estimated ultimate number of non-nil claims.

An explanation of these methods can be found in Appendix D.

From each of the above models we estimate the average payment, by payment type and development year. The overall average claim size for each accident year is the result of adding our estimated payments for each payment type and dividing by the projected ultimate number of claims.



4 Overview of Claims Experience

This section summarises trends in the experience of the Scheme. Full details of claim frequency and average claim size, including projections by payment type, follow in Section 5.

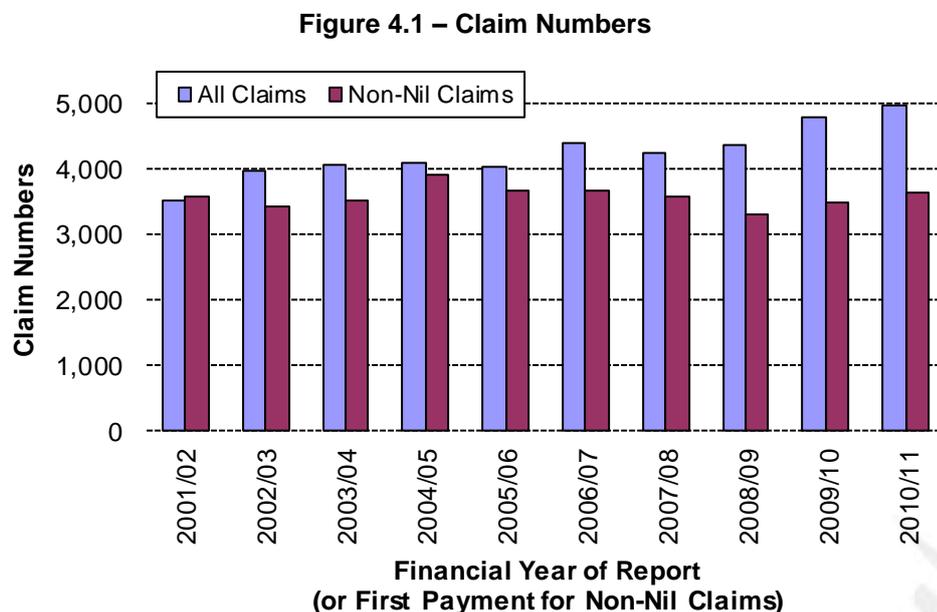
4.1 Summary of Findings

Key findings from this section are:

- Almost 5,000 claims (including nil and incident-only notifications) were reported in the ACT in the 12 months to 30 June 2011, a 3% increase relative to the previous year.
- The number of non-nil claims increased in 2010/11 to be at a level similar to that seen immediately prior to the GFC with around 3,600 non-nil claims reported in this year.
- Claim payments increased by 1% in 2010/11. The small increase has been driven mainly by an increase in weekly benefit and lump sum payments.
- Common law and lump sum claims are important drivers of the scheme financials. These claims account for around 13% of non-nil claims by number, however payments associated with these claims (including weekly benefit payments, medicals, rehabilitation and legal costs) account for over 80% of total scheme payments to date.

4.2 Numbers of Claims Reported

The following graph shows the number of claims reported in each year of report, and also the number of non-nil claims counted in the year of their first payment.



Almost 5,000 claims were reported in the ACT in the 12 months to 30 June 2011, a 3% increase relative to the previous year. Total claim reports have increased across the period shown, but this primarily relates to an increase in the number of nil claims reported. We believe this increase may be in response to the 2006 legislative amendments which encouraged early reporting of claims and an increase in reporting of incident-only notifications. In addition, we have noticed that different insurers have different practices in respect of recording and/or reporting notification only matters to AIMS. Some of the increase in nil claims in recent years is due to employers moving from an insurer who doesn't record/report notification only matters to one who does.

In 2010/11, the number of non-nil claims increased to be at a level similar to that seen immediately prior to the GFC (i.e. similar to 2007/08) with around 3,600 non-nil claims reported in this year. In a number of other workers compensation jurisdictions in Australia we observed a similar reduction in claim numbers in 2008/09 followed by increases in more recent years as economic conditions have improved.

The following table compares the claims experience that has emerged in the year to 30 June 2011 with the expected experience taken from our previous report, for accident periods to 30 June 2010 (prior periods).

**Table 4.1 – Actual vs. Expected Claims Reported in 12 months to 30 June 2011
(for Accidents Prior to 30 June 2010)**

Accident Year	All Claims Reported				Non-Nil Claims Reported			
	Actual	Expected	Difference	Difference	Actual	Expected	Difference	Difference
Prior	1	1	0	0%	2	1	1	100%
2001/02	0	0	0	0%	1	1	0	0%
2002/03	2	2	0	0%	2	0	2	639%
2003/04	2	2	0	0%	3	2	1	74%
2004/05	1	0	1	206%	0	1	-1	-100%
2005/06	4	3	1	18%	3	1	2	172%
2006/07	6	6	0	6%	6	6	0	7%
2007/08	13	11	2	22%	16	20	-4	-19%
2008/09	17	24	-7	-28%	20	33	-13	-40%
2009/10	213	220	-7	-3%	411	411	0	0%
Total	259	269	-10	-4%	464	475	-11	-2%

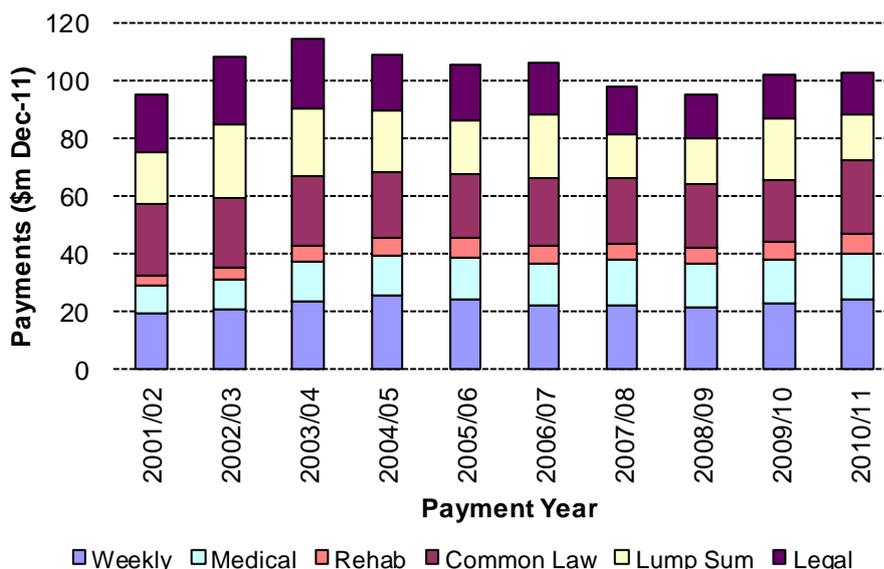
Of the 5,000 claims reported in the 12 months to 30 June 2011 (as shown in Figure 4.1 above), 259 related to prior accident periods. This actual number of reports is very close to the expected number of 269 taken from our previous review.

The number of non-nil claims reported (i.e. the number of claims in receipt of first payment) in the 12 months to 30 June 2011 was also quite close to expected, with just 11 fewer claims (2%) than expected, the bulk of which related to the 2008/09 accident year.

4.3 Claim Payments

The following graph shows the mix of gross claim payments made since 1 July 2001, split by payment type. All amounts have been inflated to December 2011 values.

Figure 4.2 - Payments by Type



After falling for a number of years to 2008/09, gross claim payments increased by 7% in 2009/10 and a further 1% in 2010/11. Gross payments in 2010/11 were \$103.3 million (in December 2011 values), an increase of \$1.1 million in the year. This is as a result of higher weekly benefit and common law payments than the previous year.

Insurers also received \$2.2 million in non-reinsurance recoveries in the year, to bring net payments in the year to \$101.1 million.

It is important to note that payment year data contains a mix of payments from various accident and legislative periods; so it does not necessarily indicate underlying trends in Scheme costs. The accident year analysis in Section 5 investigates underlying cost trends.

The following table compares the payments made in the 12 months to 30 June 2011 by payment type (in respect of accidents prior to 30 June 2010) against those expected from our previous report.

Table 4.2 – Actual vs. Expected Payments in the 12 months to 30 June 2011 (for Accidents Prior to 30 June 2010)

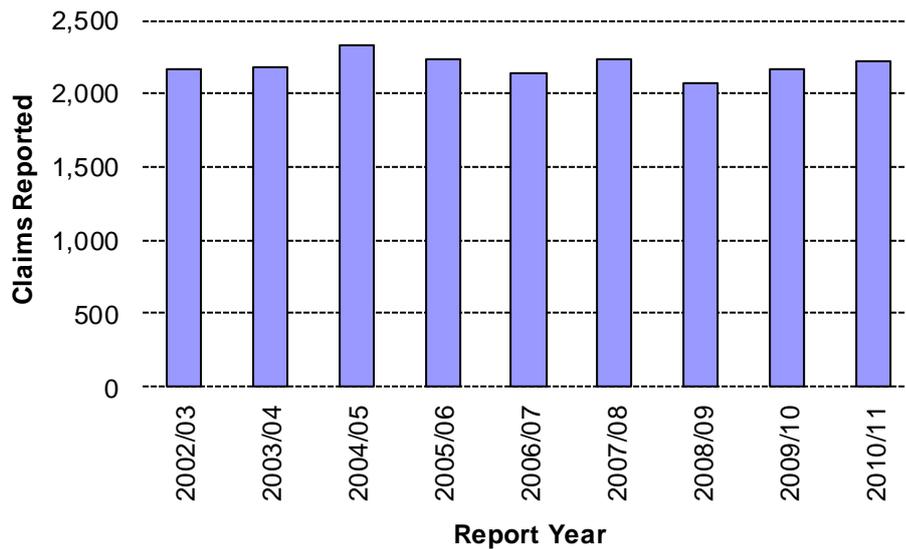
Payment Type	Actual \$m	Expected \$m	Difference \$m	Difference %
Weekly	14.3	14.4	-0.1	-1%
Medical	8.4	8.2	0.2	3%
Rehab	3.4	3.3	0.2	6%
Lumpsums	39.5	34.2	5.3	15%
Legal	12.6	13.7	-1.1	-8%
Recoveries	-1.8	-3.7	1.9	-52%
Total	76.6	70.1	6.4	9%

Payments in the 12 months to 30 June 2011 were \$6.4 million (9%) higher than expected mainly as a result of higher than expected lump sum benefit payments and lower than expected claim recoveries.

4.4 Weekly Benefits

Figure 4.3 below shows the number of new weekly benefit claims (lost time claims) reported in each year. We have counted claims as “new” lost time claims in the year that they first received a weekly benefit payment.

Figure 4.3 - Lost Time Claims Reported



The number of lost time claims has increased from a low of 2,075 claims in 2008/09 to almost 2,230 in 2010/11, back to similar levels as for 2007/08. This increase in the number of lost time claims in 2009/10 and 2010/11 is consistent with the trend in non-nil claim numbers and is consistent with our hypothesis around the GFC and its impact on claim reports (i.e. that at times of economic uncertainty, workers are less likely to make a workers compensation claim, particularly smaller claims, as they fear for their employment prospects and ability to return to their previous employment).

The following graph shows the weekly benefit continuance rates for the 2001/02 to 2010/11 accident years in the first two years (8 quarters) following the date of injury i.e. the proportion of lost time claims that “continue” to be on benefits from one period to the next. All else being equal, a lower continuance rate implies better outcomes for the Scheme (as more claimants are returning to work).

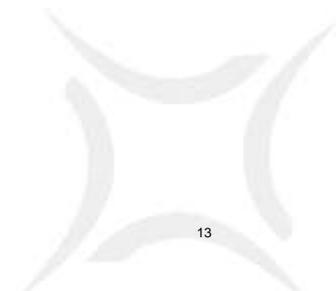
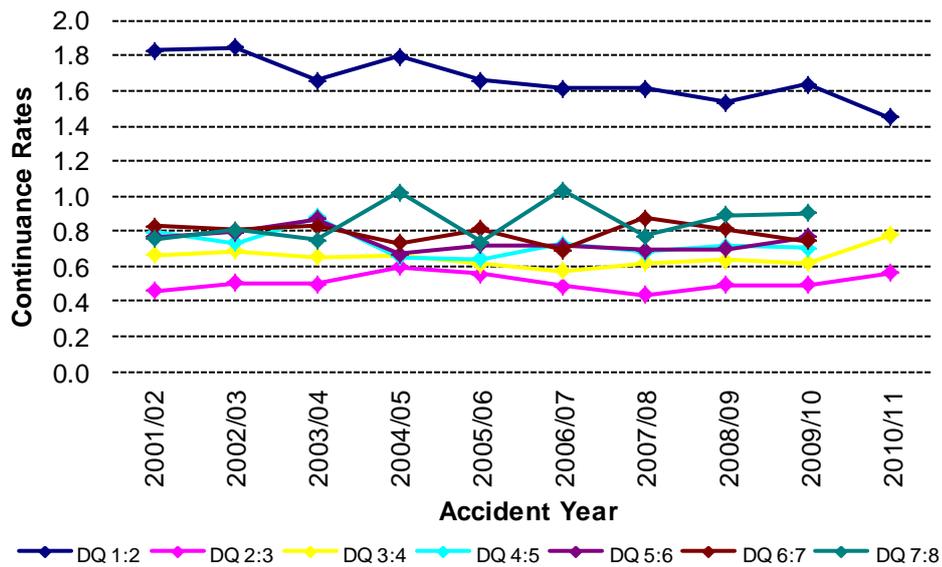


Figure 4.4 - Weekly Benefit Continuance Rates



Our comments on the experience are:

- The continuance rate between development quarters 1 and 2 declined in 2010/11, after having been reasonably stable for the previous four years. The continuance rate between development quarter 1 and 2 is greater than 1.0 due to the delay between the time the accident occurs, reporting the claim and commencement of payment of weekly benefits.
- Continuance rates between development quarters 2 to 3 and 3 to 4 have increased in 2010/11.
- The continuance rates in later development quarters have been reasonably stable in 2010/11.

4.5 Common Law and Lump Sums

Injured workers may choose to pursue either:

- A common law claim;
- A redemption of statutory entitlements; or
- A statutory permanent impairment benefit.

Pursuing either a common law claim or a commutation results in finalisation of the claim, as all of the worker’s entitlements are settled via this path. However, payment of a statutory permanent impairment benefit results in the settlement of the impairment benefit component only – the worker continues to have an entitlement to receive future weekly benefits and medical costs.

In reality, very few claimants pursue statutory permanent impairment benefits relative to common law or commutations. We understand that they may not be as attractive as common law or commutations, to both:

- Claimants, as the amount of statutory entitlements is viewed as “low” relative to what may be paid via the other two routes
- Insurers, as the insurers prefer to settle claims via common law or commutations as they are able to permanently finalise the claim through a deed of release, hence obtaining some certainty of their claims costs.

Figure 4.5 shows the number of claims that have received common law, commutation, statutory impairment benefits or death benefits in each payment year. Note that around 30 claimants per year receive more than one type of these benefits (usually claimants receiving both a common law and a commutation) and for the purpose of this graph we have counted claims using the following hierarchy:

- If a claim has a common law payment then it is counted as common law
- If a claim has no common law payment but has a commutation payment, then it is counted as a commutation lump sum
- If a claim has no common law or commutation payments, then it is counted as a statutory impairment lump sum
- If a claim has no common law, commutation, or impairment benefit payments, then it is counted as a death benefit.

Figure 4.5 – Number of Common Law and Lump Sum Claims

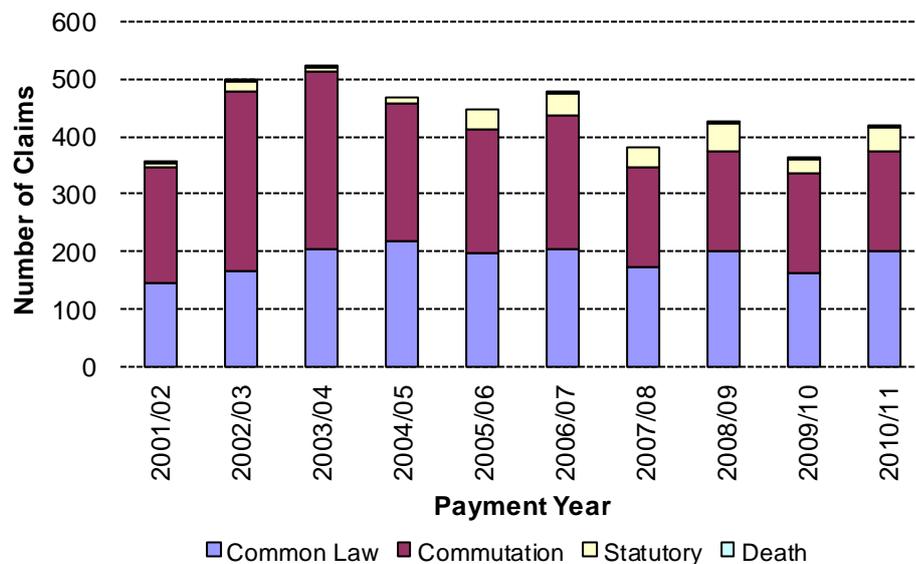


Figure 4.5 shows:

- The number of claimants receiving common law damages increased in 2010/11 was higher than for 2009/10, with 2010/11 returning to more 'normal' levels after the low 2009/10 year.
- The number of commutations has declined from a peak in 2002/03 of around 310, to around 175 commutations in each of the last four years.
- The number of statutory impairment benefits has increased since 2004/05, perhaps reflecting the lagged impact of the 2002 amendments which introduced a two-year time limit before workers can receive permanent impairment benefits. In 2010/11, 42 impairment benefits were paid.
- As expected, there are very few death benefit claims in each year.

We have also investigated the total average cost of claims that receive common law payments and commutations (i.e. for those claims which receive a common law or commutation payment, the average across all benefit payments received, not just the common law/commutation component). Figure 4.6 below shows for claims that have received a common law benefit, the average amount received for common law, lump sums, weekly benefits, medicals and rehabilitation, and legal costs. Figure 4.7 shows the same information for claims that have received a commutation.

Note the following:

- If a claim has received both a common law payment and a commutation payment, we have grouped them in with the common law claims in Figure 4.6.
- The graphs are constructed on an accident year basis and we expect the average claim size to develop significantly for the more recent accident years. As such, we have only shown accident years 2001/02 to 2008/09.

Figure 4.6 – Average Size of Claims Receiving Common Law

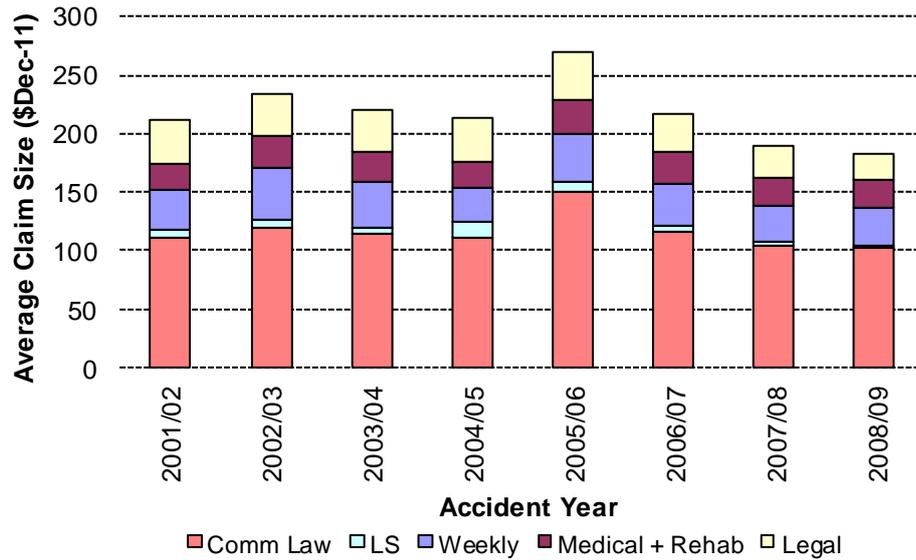


Figure 4.6 shows the overall average cost of claims receiving common law payments (for accident years 2001/02 to 2008/09) is around \$220,000 (in December 2011 values), made up as follows:

- The common law component of the claim is around \$117,000 per claim (just over 50% of the cost)
- Other lump sums add around \$7,000 per claim
- Weekly benefits add around \$36,000 per claim. Of these weekly benefits, 99% of payments are made prior to the common law settlement
- Medical and rehabilitation costs add around a further \$25,000 per claim. Of these medical and rehabilitation payments, 99% are paid prior to the common law settlement
- Legal costs account for around a further \$35,000 per claim.

Figure 4.7 – Average Size of Claims Receiving Commutations

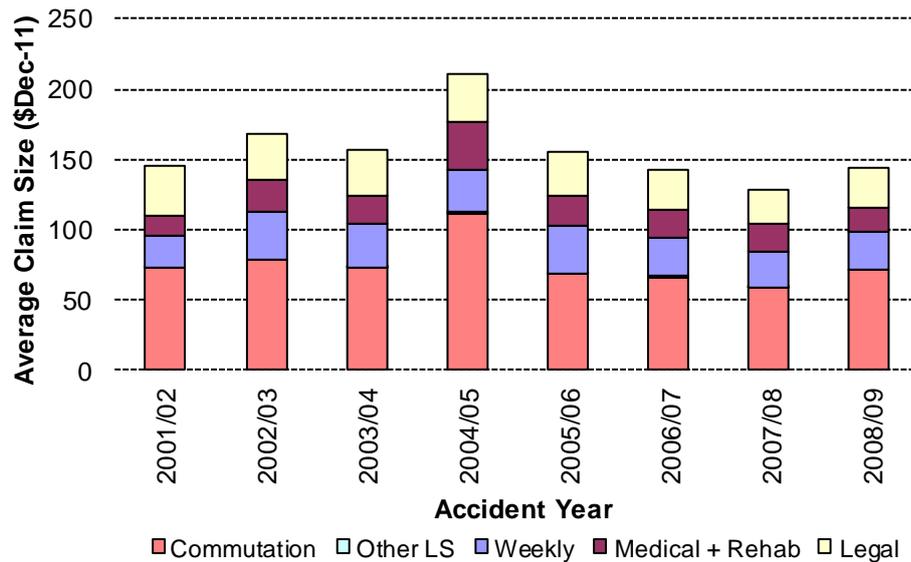


Figure 4.7 shows that the overall average cost of claims receiving commutations (for accident years 2001/02 to 2008/09) is around \$160,000 and is made up as follows:

- The commutation component of the claim is around \$76,000 per claim (approximately 50% of the cost)
- Other lump sums are negligible
- Weekly benefits add around \$30,000 per claim. Of these weekly benefits, around 97% of payments are made prior to the commutation
- Medical and rehabilitation costs add a further \$21,000 per claim approximately. Of these medical and rehabilitation payments, 99% are paid prior to the commutation
- Legal costs account for around a further \$32,000 per claim, similar to the amount paid on common law claims.

Figure 4.8 shows the number of common law or lump sum settlements in each year expressed as a proportion of scheme non-nil claims reported in that year, compared with the amount spent on the common law or lump sum settlements in each year (including the weekly benefit, medical, rehabilitation and legal cost components) expressed as a proportion of total payments made in each year.

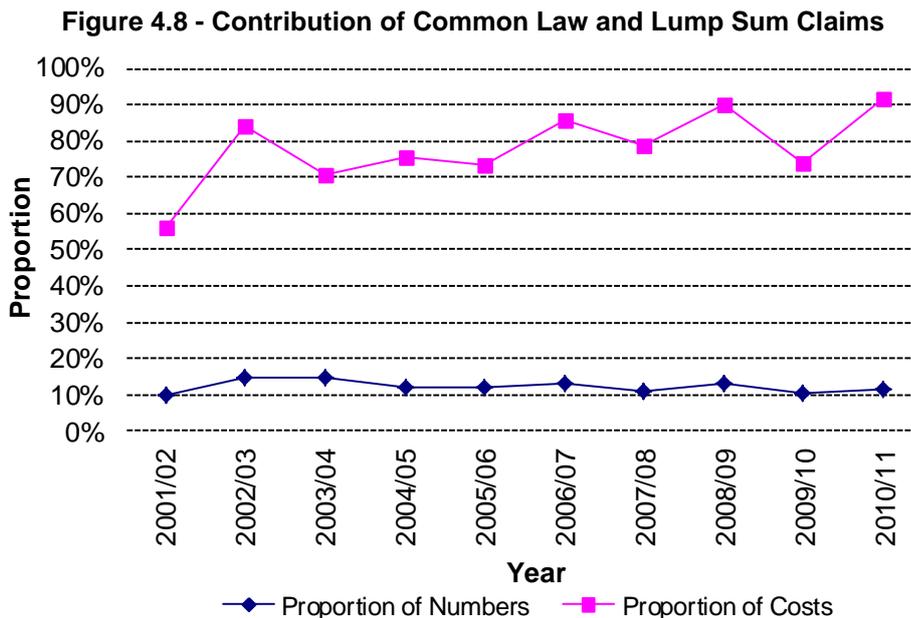


Figure 4.8 demonstrates the importance of the common law and lump sum claims to the scheme financials as they represent around 13% of non-nil claims by number and over 80% of claim payments.

4.6 Open Claims

In this section we provide some information on “open” claims. As discussed in Section 2.2, we have some concerns around the quality of the finalised/open flag, with significant numbers of open claims with zero case estimates. As such, we have not used this flag. Instead we have estimated the number of open claims on two different bases:

- If the claim has a non-zero case estimate at 31 December 2011
- If the claim has had a payment in the September 2011 payment quarter.

The following table shows the number of “open” claims on each of these bases.

Table 4.3 – Number of “Open” Claims

Accident Year	Non-Nil Case Est.	Payment in S11 Qtr	Difference
2001/02	27	6	21
2002/03	48	13	35
2003/04	45	16	29
2004/05	67	15	52
2005/06	77	39	38
2006/07	104	72	32
2007/08	163	110	53
2008/09	248	215	33
2009/10	463	467	-4
2010/11	1,139	1,532	-393
Total	2,381	2,485	-104

Based on case estimates, the total number of open claims for the 2001/02 and later years is around 2,400. Based on whether or not the claim had a payment in the last quarter, the number of open claims is slightly higher at around 2,500. The bulk of this difference is in the 2010/11 accident year. Reasons for the differences include:

- The case estimate definition is likely to underestimate the true number of open claims for the most recent year, as claims that have recently been reported may not have had sufficient time for a case estimate to be established on the file.
- The case estimate definition may overstate the number of open claims for older years if there are processing delays in setting the estimate to zero.
- The payment based definition is likely to overstate the true number of open claims, for the most recent year in particular, as many recently reported claims of short duration will have had a payment in the quarter and be finalised, but won't be captured as "closed" under this definition.
- The payment based definition may understate the number of open claims for older years if, for example, there are no ongoing weekly or medical payments but a common law or lump sum claim is yet to be settled.

The incurred costs on these claims are shown in the following table.

Table 4.4 – Incurred Costs on “Open” Claims

Accident Year	Non-Nil Case Est.	Payment in S11 Qtr	Difference
	\$000	\$000	\$000
2001/02	1,000	667	332
2002/03	7,999	4,223	3,776
2003/04	2,989	3,979	-990
2004/05	6,241	5,035	1,206
2005/06	15,128	11,421	3,707
2006/07	18,117	16,685	1,431
2007/08	25,102	23,886	1,217
2008/09	49,345	47,457	1,888
2009/10	77,535	74,920	2,615
2010/11	80,493	77,794	2,699
Total	283,949	266,068	17,881

Case estimates on the open claims accounts for \$182 million of the incurred cost in the years shown.

5 Claim Analysis and Assumptions

This section describes our findings in relation to trends in the Scheme claim number experience, claim payments and average claim costs, and documents our assumptions required to estimate ultimate claim costs.

5.1 Summary of Findings

The key findings from this section are:

- We estimate that the number of non-nil claims increased by around 6% for the 2010/11 accident year. The increase in claim numbers reflects a return to more normal economic conditions following the GFC.
- Estimated non-nil claim frequency per \$m of wages has increased by 3% in 2010/11 due to a 6% increase in non-nil numbers in the year which has been only partially offset by a 3% increase in wages (in real terms).
- There is some evidence of increasing trends in average claim sizes of weekly benefits, medical benefits and rehabilitation payments.
- We also observed higher settlement sizes for common law and lump sum claims in 2010/11 and have therefore increased our assumed average claim size for lump sum claims as a result.
- The selected net average claim size per non-nil claim for the 2012/13 policy year is 2% higher than that selected in our previous review.

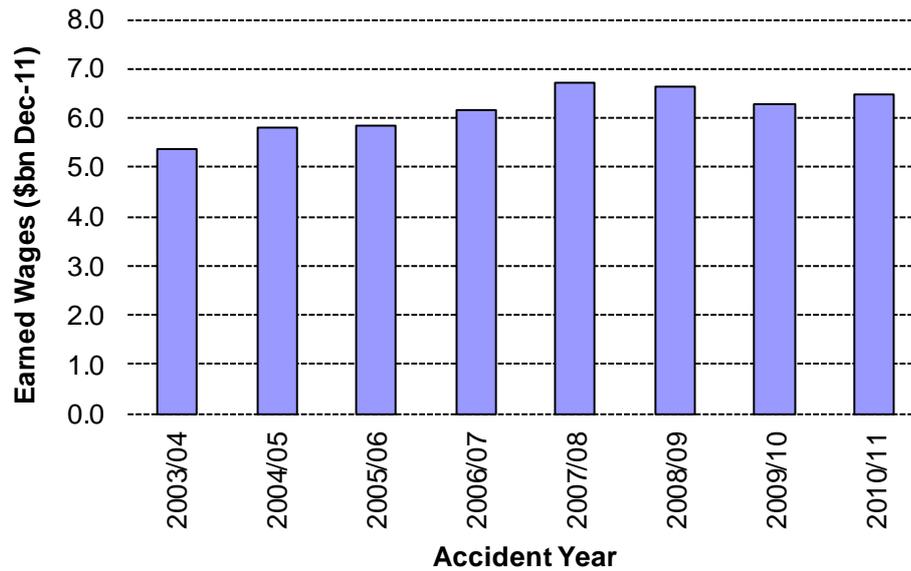
5.2 Exposure

“Earned” Wages

Wages are used as a measure of exposure in the calculation of ultimate claim frequency. When an employer purchases workers’ compensation cover, the amount they pay is usually expressed as a premium rate that is a percentage of “wages covered” for the policy year. In our analysis of claim numbers, we estimate the ultimate number of claims for each accident year (as opposed to policy year). In order to determine the relevant wages for each accident year, we use policy-year wages spread over the period of cover (“earned” wages for each accident year), using data provided by insurers.

Figure 5.1 shows earned wages by accident year. In this graph the wages have been increased for historical wage inflation, i.e. all amounts are expressed in December 2011 values so that the graph shows real growth in total wages. Note, the figures shown are estimates based on information to September 2011 (wages are often revised from initial estimates to actual figures at the end of the policy year and the figures shown here allow for the expected movement from initial to final wages).

Figure 5.1 – Estimated Ultimate Earned Wages



Earned wages increased in real terms to 2007/08 before declining in 2008/09 and 2009/10. Reasons for the decline are unclear, but may reflect -

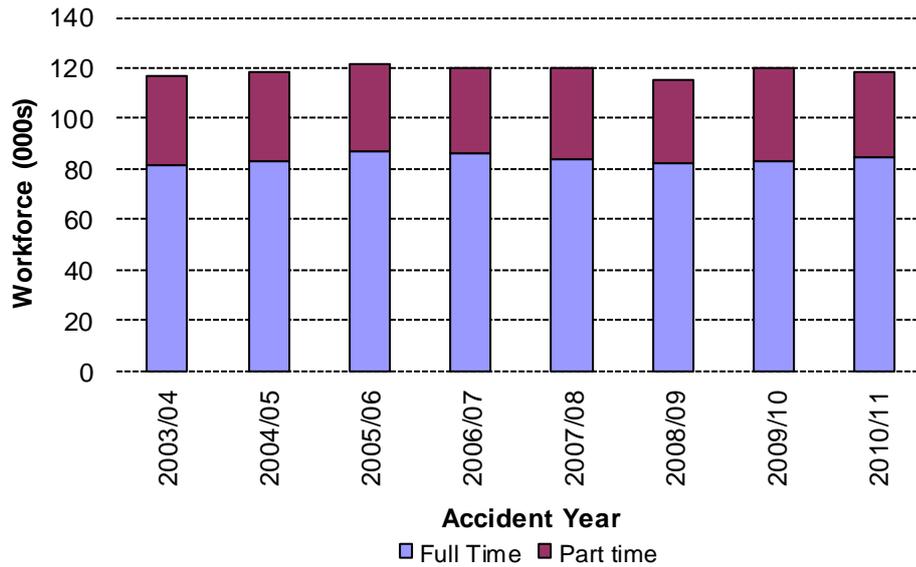
- The impact of the Global Financial Crisis (GFC)
- Potential under-reporting of wages.

In 2010/11, earned wages increased by around 3% in real terms relative to the previous year.

Number of Employees

Figure 5.2 shows our estimate of the ACT private sector workforce by accident year, split between full time and part time workers.

Figure 5.2 – Workforce (000s)



The proportion of full time versus part time employees has been relatively stable over the period shown at around two thirds of the workforce. We have used the number of full time ACT private sector employees as a measure of exposure in the calculation of ultimate claim frequency. Full time employee numbers have grown by just over 1% in the year to 30 June 2011.

5.3 Total Claim Numbers and Frequency

Figure 5.3 shows the number of nil and non-nil claims that have been reported to the insurers to 30 June 2011 and our estimated ultimate number of such claims for each accident year.

Figure 5.3 - Ultimate Claim Numbers – Nil and Non-Nil

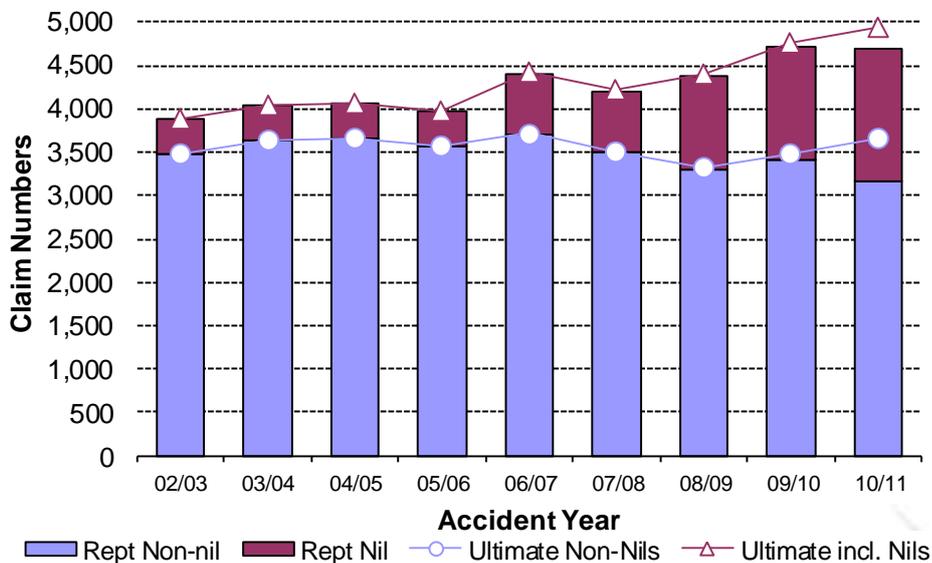
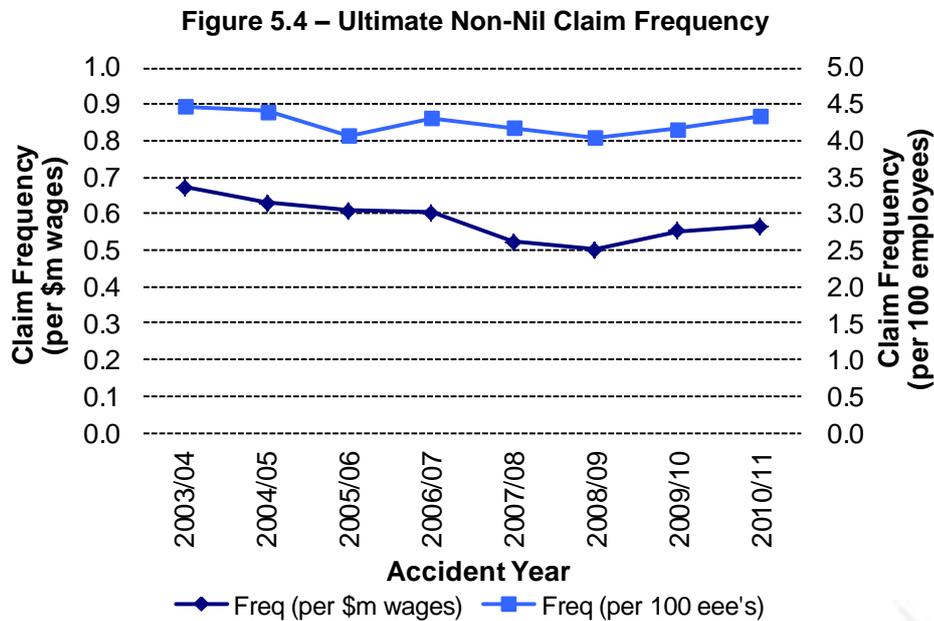


Figure 5.3 shows that for all but the most recent accident years the number of IBNR claims is small (i.e. the “ultimate” number is very close to the “reported” number). We also expect only small numbers of claims to move from nil to non-nil for all but the latest accident year.

The estimated ultimate number of claims in total (i.e. including nils) increased by 4% in 2010/11 after having increased by 4% and 8% in 2008/09 and 2009/10 respectively. (In last year’s review, we noted that the high increase in claims in 2008/09 and 2009/10 related to an increase in nil claims due primarily to one large employer changing insurers during 2008/09, with the new insurer reporting incidents as well as claims on AIMS, while the previous insurer did not report incident only notifications to the same extent.)

We estimate that the ultimate number of non-nil claims will increase by around 6% in 2010/11 to 3,665 non-nil claims. The number of non-nil claims had declined between 2006/07 to 2008/09, but then increased in 2009/10. We believe that the increase in claim numbers in 2009/10 and 2010/11 reflects a return to more normal economic conditions following the GFC. In a number of other workers compensation jurisdictions in Australia we have seen a similar reduction in claim numbers in 2008/09 followed by increases in subsequent years. We believe that the reduction in 2008/09 primarily reflects a decline in the workers’ propensity to claim caused by the GFC, due to worker’s concerns over their employment prospects and their ability to return to their previous employment during an economic downturn.

The estimated ultimate number of claims is divided by both earned wages and full time employees to arrive at a measure of the ultimate claim frequency per \$ million earned wages and per 100 employees respectively, as shown in Figure 5.4 below.



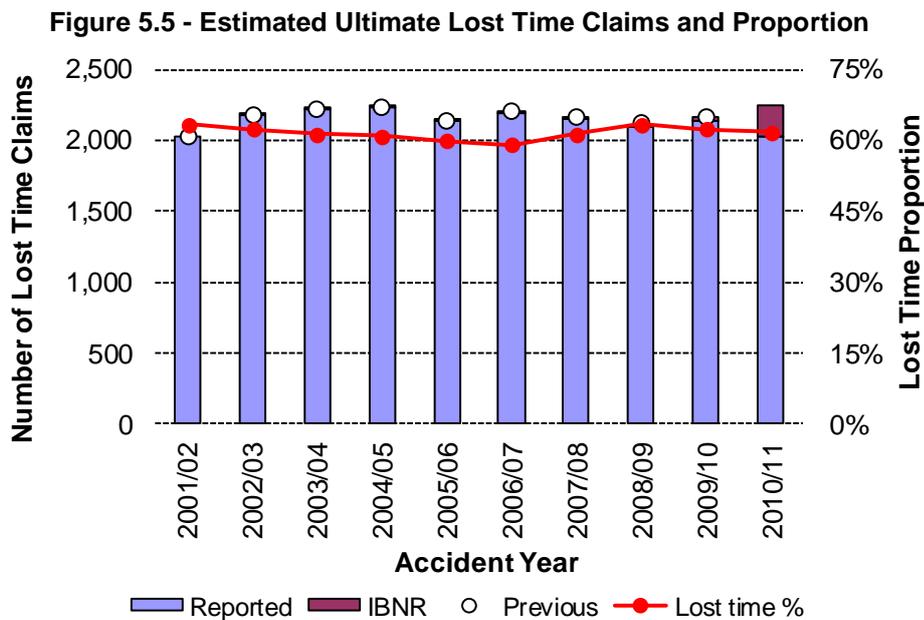
In 2008/09, claim frequency fell to its lowest level at 0.50 claims per \$ million wages. Since then, claim numbers have increased by more than real wages and, as a result, claim frequency has increased to be 0.57 claims per \$ million wages in 2010/11.

Claim frequency per 100 employees shows the same fall in frequency in 2008/09 followed by increases in 2009/10 and 2010/11.

5.4 Weekly Benefits

In order to understand the trends in the number of claimants receiving weekly benefit payments, we have also estimated the ultimate number of lost time claims.

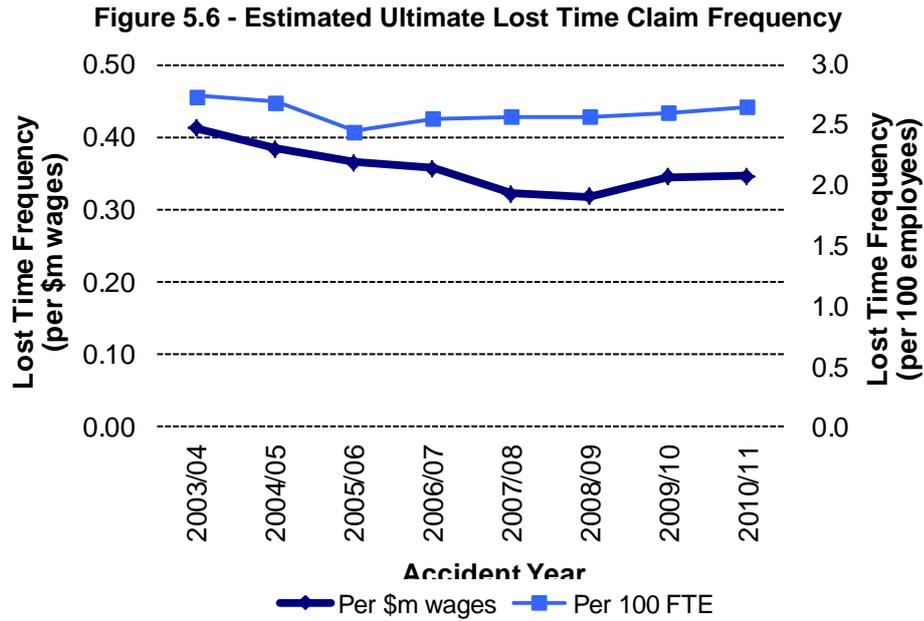
Figure 5.5 show our estimated ultimate number of lost time claims and the estimated proportion of non-nil claims that involve weekly benefits.



We have estimated the ultimate number of lost time claims in the 2010/11 year to be 2,260, a 1% increase on the previous year.

The estimated ultimate lost time proportion increased in 2008/09 as the GFC resulted in a greater reduction in non-nil claims than for lost time claims. The lost time proportion has reduced subsequently in each of 2009/10 and 2010/11 and is estimated to be 62% for 2010/11, similar to the 2007/08 year (i.e. immediately prior to the impact of the GFC).

Figure 5.6 shows the ultimate lost time claims expressed as a frequency (per \$ million of wages and per 100 employees respectively).

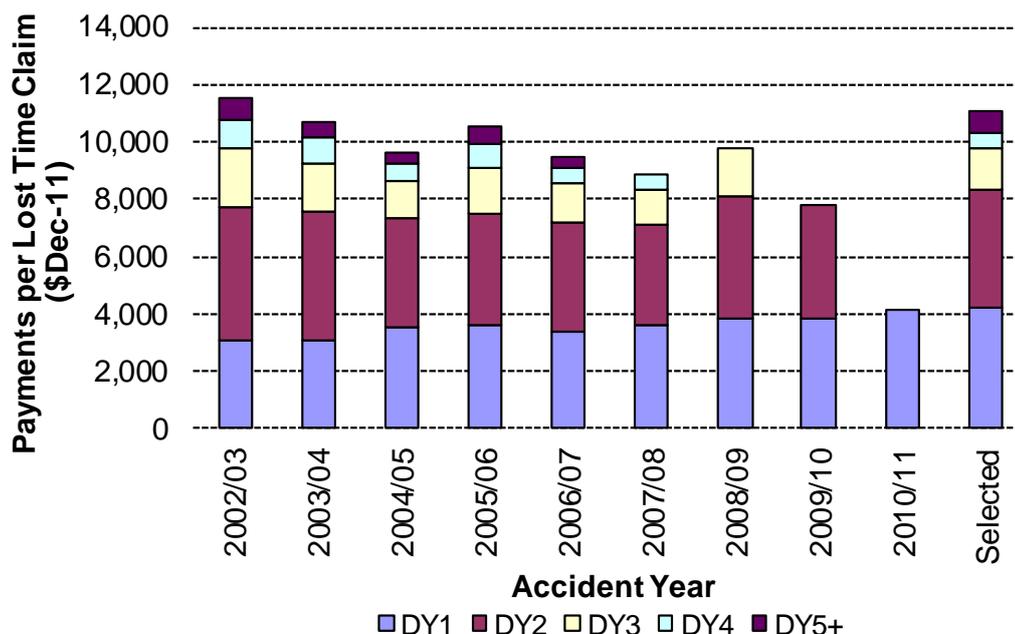


The frequency of claimants receiving weekly benefits has followed a similar trend to the non-nil claim frequency. In 2010/11 the lost time claim frequency has remained stable at 0.35 claims per \$ million wages.

The lost time claim frequency per 100 full time employees has been reasonably stable since 2006/07, and is estimated to be 2.65 for the 2010/11 year.

Figure 5.7 below shows the average weekly benefits paid per lost time claim by accident year. Each of the accident years is split into payments made in the year of accident (“DY1”), the year following the year of accident (“DY2”), etc. Our selected average weekly benefit claim size per lost time claim is also shown.

Figure 5.7 - Weekly Benefits per Lost Time Claim



Average weekly benefits per lost time claim in development year one (DY1) have generally increased across the period shown and this trend has continued in 2010/11; 2010/11 is almost 9% higher than the previous year.

Last year we observed that the average weekly benefit in development year 2 for the 2008/09 accident year was higher than earlier years (and hypothesised that this resulted from the GFC-related reduction in claim numbers for this year). We have seen a reduction in the average weekly benefit in development year 2 for the 2009/10 accident year, but note that the 2009/10 experience remains higher than the years immediately preceding the GFC.

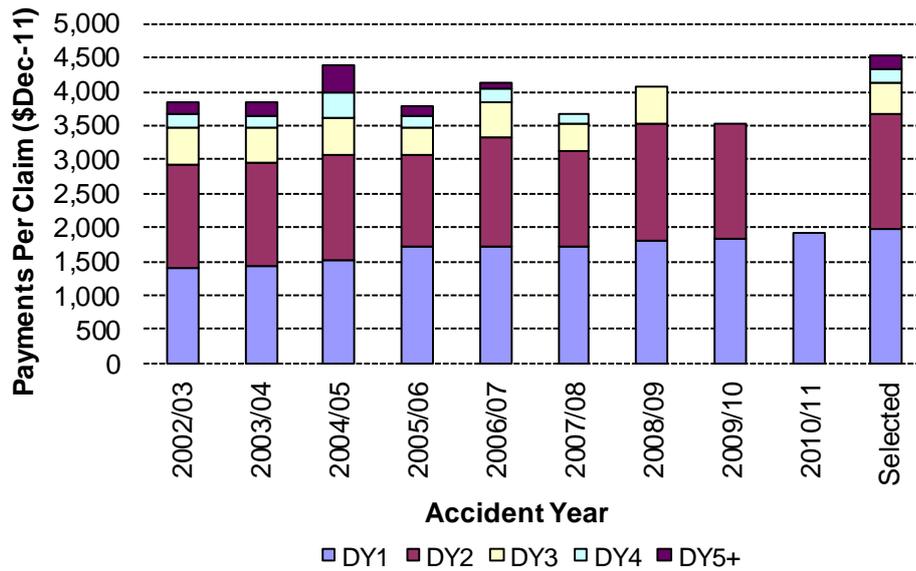
Our selected average claim size for weekly benefits is \$11,054 (in December 2011 dollars) per lost time claim. This is 3% higher than our selected average claim size at the previous review, and is mainly the result of a higher adopted average size in development year 1.

The average claim size expressed over all non-nil claims (not just lost time claims) is \$6,798. This is 2% higher than selected in our previous review (\$6,697 after adjustment to December 2011 dollars). The 2% increase is the result of a combination of the 3% higher average weekly benefit claim size per lost time claim coupled with a lower lost time claim proportion.

5.5 Medical and Related Payments

Figure 5.8 shows the average medical payments per non-nil claim for each past accident year and our selected average medical claim size per non-nil claim.

Figure 5.8 - Medical Benefits per Non-Nil Claim



Average medical benefits per non-nil claim have increased in development year 1 for each year over the period shown. Experience for 2010/11 is 5% higher than 2009/10.

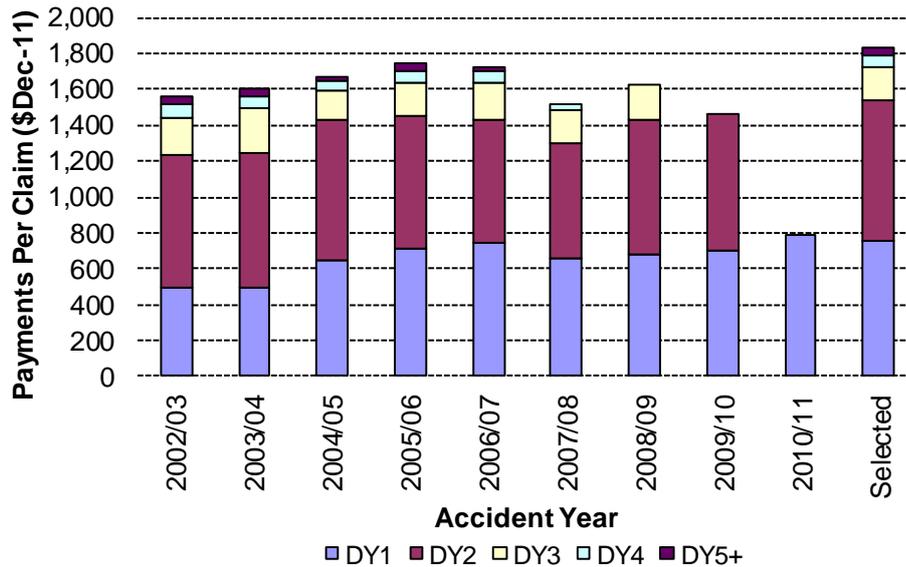
Average medical benefits in development year 2 have been more volatile, and the trend in recent years is similar to the trend in weekly benefits average sizes i.e. the average size was high for the 2008/09 accident year, fell a little for the 2009/10 accident year but remained higher than pre-GFC levels. We have allowed for future superimposed inflation in this payment type (see Section 6.2).

The selected average claim size for medical benefits is \$4,544 per non-nil claim in December 2011 dollars. This is 2% higher than selected in our previous review (\$4,462 after adjustment to December 2011 dollars) and is due to higher average claim size selections for development years 1 and 2.

5.6 Rehabilitation

Figure 5.9 shows the average rehabilitation benefits per non-nil claim along with our selected average rehabilitation claim size per non-nil claim.

Figure 5.9 – Rehabilitation Benefits per Non-Nil Claim



Average rehabilitation benefits per non-nil claim have increased in development years 1 and 2 in each year since 2007/08. The increase in the average rehabilitation benefits in development year 1 for 2010/11 was particularly high, with a 13% increase over 2009/10.

We have allowed for future superimposed inflation in this payment type (see Section 6.2).

Our selected average claim size for rehabilitation benefits is \$1,883 per non-nil claim in December 2011 dollars. This is 9% higher than selected in our previous review (\$1,684 after adjustment to December 2011 dollars) and relates to increases in our adopted average claim sizes in development years 1 and 2, noting that we have not increased our selection for development year 1 to be as high as the 2010/11 experience.

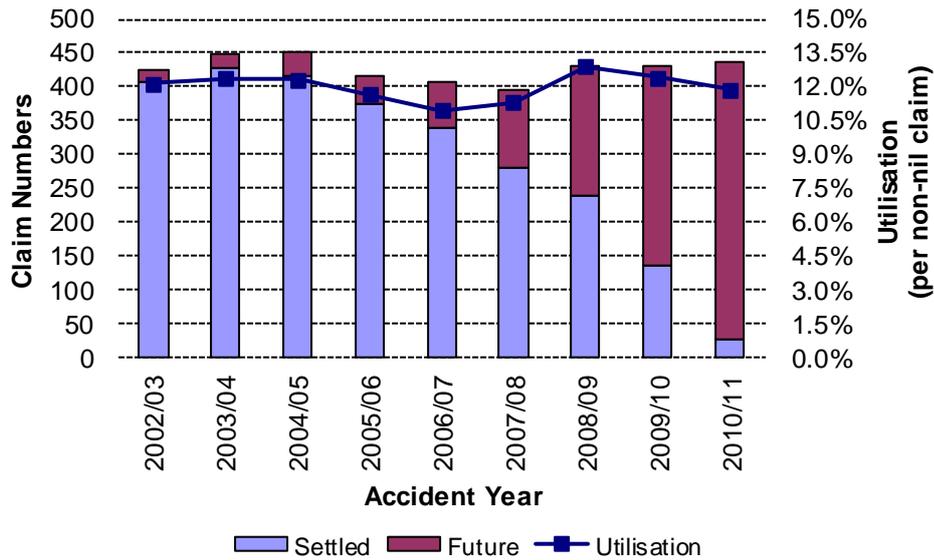
5.7 Lump Sums

Ultimate Number of Lump Sums

Due to classification differences between the common law and lump sum payments types (as discussed in Appendix C.4) we have grouped all common law and lump sum claims together in doing our analysis.

The following graph shows the estimated ultimate number of lump sum claims (including common law claims) for each past accident year. We also show the rate of lump sum utilisation by accident year (expressed as the ultimate number of lump sum claims over ultimate number of non-nil claims).

Figure 5.10 - Estimated Ultimate Lump Sum Claim Numbers and Utilisation



For 2010/11 we estimate the ultimate number of lump sum claims to be around 435, a similar level to the previous three years. We note the considerable level of uncertainty in these projections and the large IBNR component, even for quite old accident years.

The ultimate lump sum utilisation in 2010/11 is projected to be 11.9%.

Settlement Experience

The following table shows the number and average size (inflated to December 2011 dollars) of common law and lump sum settlements that have been made by year of settlement. Note that we have included in the table the three months' worth of settlement experience to 30 September 2011.

Table 5.1 – Average Size of Common Law & Lump Sum Settlements

Year of Settlement	Common Law			Lump Sums			Lump Sums & Common Law		
	Number of Claims	Average size (\$Dec-11)	Change (%)	Number of Claims	Average size (\$Dec-11)	Change (%)	Number of Claims	Average size (\$Dec-11)	Change (%)
2002/03	168	137,600		352	71,900		501	96,658	
2003/04	205	116,600	-15%	347	69,900	-3%	517	93,150	-4%
2004/05	218	105,400	-10%	280	74,400	6%	472	92,816	0%
2005/06	196	116,500	11%	277	68,100	-8%	444	93,914	1%
2006/07	204	111,600	-4%	314	70,700	4%	481	93,485	0%
2007/08	174	118,500	6%	234	63,000	-11%	380	93,055	0%
2008/09	200	120,800	2%	253	61,500	-2%	427	93,020	0%
2009/10	161	127,700	6%	214	102,000	66%	360	117,744	27%
2010/11	199	145,500	14%	232	72,700	-29%	422	108,580	-8%
2011/12 *	109	81,500	-44%	83	70,700	-3%	192	76,831	-29%
Total	1,834	114,400		2,586	69,800		4,196	90,800	

* Note: 2011/12 shows settlements in the three months to 30 September 2011 only

In respect of common law claims:

- After a period of relative stability in average claim size, the average claim size increased in each year from 2007/08 to 2010/11
- In 2010/11, the average claim size increased by almost 15%. This is driven by two claims involving common law settlements in excess of \$1 million, and also due to a general increase in the number of claims involving settlements of over \$300,000
- The number of common law claims settled in the first three months of 2011/12 (at 109) is very high relative to previous years (averaging around 190 to 200 per year)
- The average claim size of the 2011/12 settlements is very low relative to prior years.

For other lump sum claims:

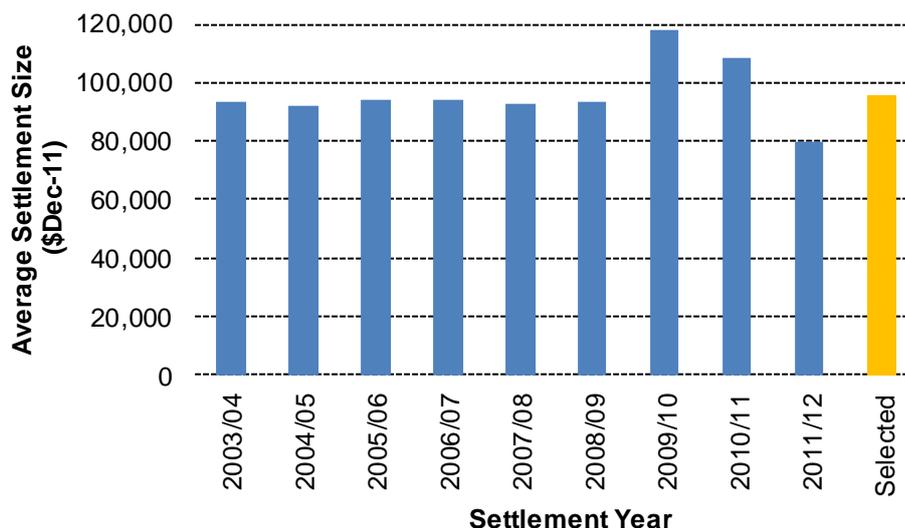
- The average size of lump sum claims has averaged around \$70,000 in each year except for 2009/10 (which includes the settlement of a single large claim)
- The number of lump sums settled in the first three months of 2011/12 is also high relative to previous years, although the increase is not as great as for common law settlements.

Overall, the number of settlements in the first three months of 2011/12 at 192 is around half the annual average of approximately 400 or so settlements in the period 2007/08 to 2010/11. We have examined the 2011/12 experience by insurer, and while most insurers have experienced some increase, the increase is particularly pronounced for one insurer. Discussions with insurers have not revealed any clear reasons for the increase in settlements, with insurers indicating that the level of settlements is not considered unusual and does not represent any increase in the level of or speeding up in the settlement of lump sum and common law claims.

Adopted Average Size of Lump Sums

The following graph shows the average size of all lump sum (including common law) claims, by year of settlement and inflated to December 2011 dollars. Note that we have also included the three months' worth of experience to 30 September 2011.

Figure 5.11 – Average Size of Lump Sum Settlements



Our observations on the average size of lump sum claims is as follow –

- Settlement sizes had been very stable across the period 2003/04 to 2008/09, averaging around \$93,000.
- The average settlement size of settlements in 2009/10 was significantly higher at \$118,000, due to the impact of the single large claim. If this large claim is excluded, the average claim size for 2009/10 is similar to prior years.
- The average settlement size in 2010/11 was \$108,000, with the higher size being the result of two common law settlement over \$1 million plus a higher proportion of ‘larger’ (over \$300,000) common law and lump sum settlements.
- The average settlement size for the first three months of 2011/12 (where we have quite high numbers of settlements) is low relative to prior years at \$80,000. If we combine the 15 months experience for 2010/11 and 2011/12, the average size of settlements is around \$99,000.
- The average size of settlements across all years (excluding the single large claim in 2009/10 claim) is around \$95,000

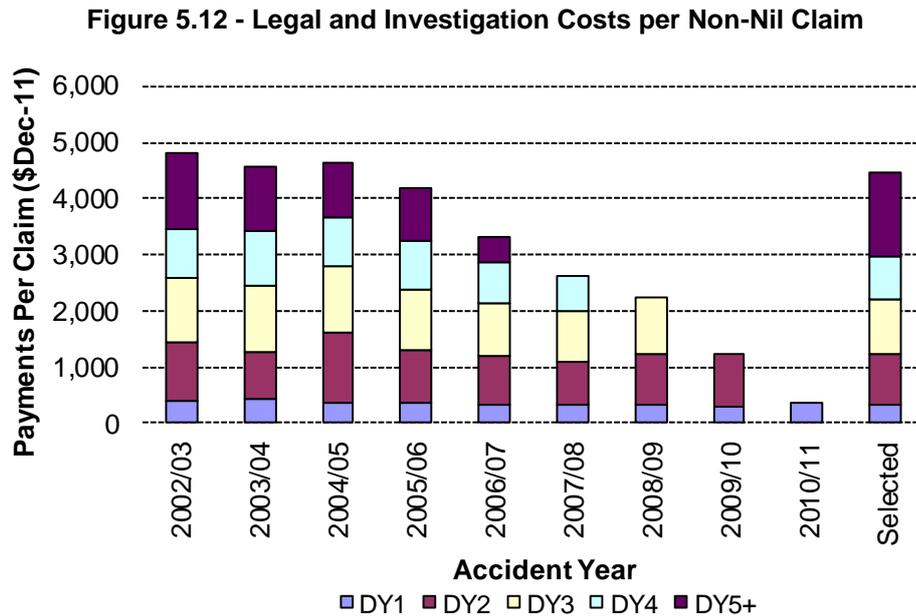
As conversations with insurers did not reveal any claims management actions that may be impacting on the timing and amount of common law and other lump sum settlements, we have taken a somewhat caution response to adjusting our adopted average claim size. We have taken the view that the higher than usual settlement experience in 2010/11 is somewhat ‘random’, and that there may be some timing differences that mean that 2010/11 may be a ‘high’ year and that 2011/12 may be a ‘low’ year.

As a result, we have increased our selected average claim size for lump sum claims by 5% to around \$95,000 in December 2011 values for the 2012/13 policy year. This is consistent with the longer term experience, but is not as high as the average size for the latest 15 months.

The average claim size across all non-nil claims (not just lump sum claims) is \$12,296. This is 2% higher than in the previous report (\$11,065 after adjustment to December 2011 dollars). The 2% increase is the result of a combination of the 5% higher average lump sum claim size coupled with a slightly lower lump sum utilisation rate.

5.8 Legal and Investigation

Figure 5.12 shows legal and investigation costs per non-nil claim along with our selected average claim size per non-nil claim.

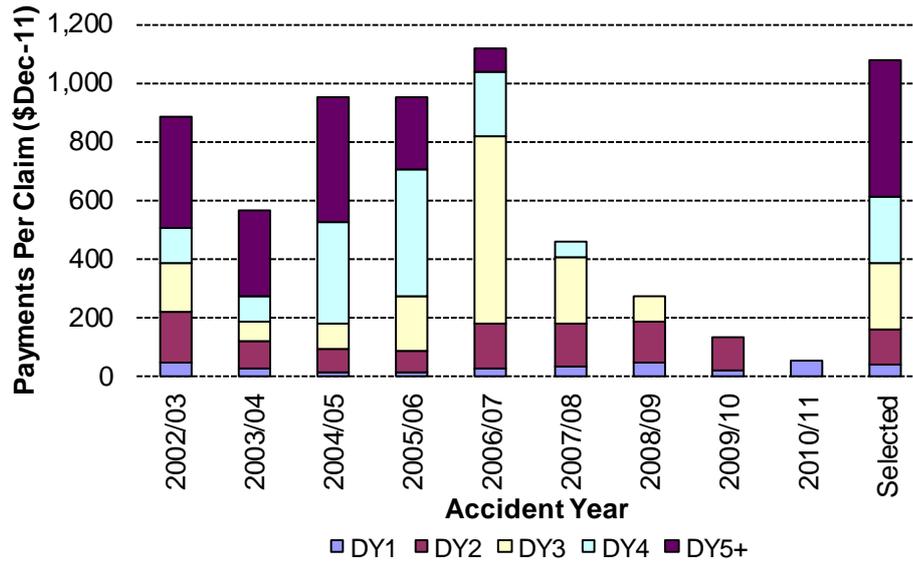


Average legal and investigation costs have generally declined since 2004/05. Our selected average claim size for legal and investigation costs is \$4,473 per non-nil claim in December 2011 dollars. This is similar to the size adopted in the previous report (\$4,487 after adjustment to December 2011 dollars).

5.9 Recoveries

Figure 5.13 shows the amount recovered by insurers per non-nil claim along with our selection. Recoveries include recoveries from other insurers (sharing), employers (excess) and other sources.

Figure 5.13 - Recoveries per Non-Nil Claim



Recoveries can vary significantly by year, but recoveries in the first three development years have generally increased since 2003/04. Our selected average size for recoveries is \$1,076 per non-nil claim in December 2011 dollars. This is 3% lower than in the previous report (\$1,109 after adjustment to December 2011 dollars).

5.10 Overall Average Claim Size

Figure 5.14 summarises the adopted gross average claim sizes for each past accident year, and our selection for the 2012/13 policy year.

Figure 5.14 - Adopted Gross Average Claim Size (per Non-Nil Claim) by Payment Type

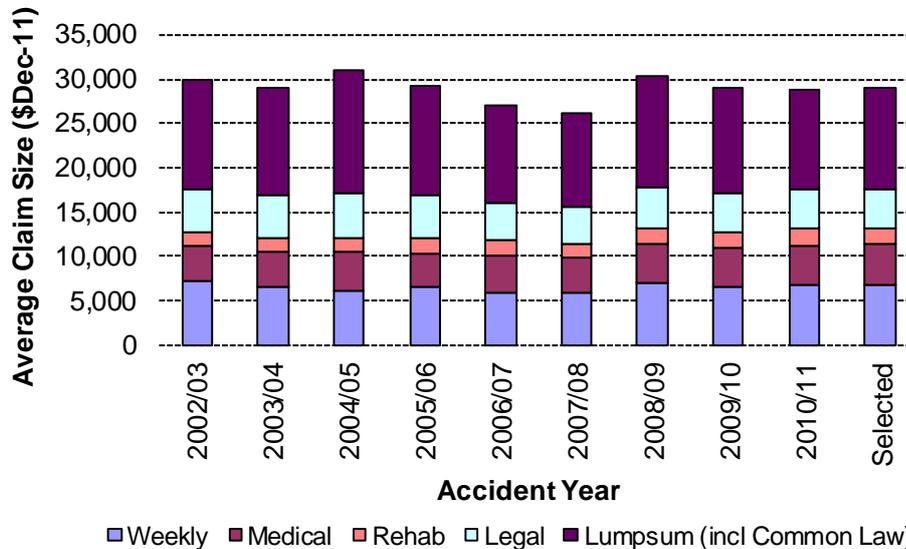


Figure 5.14 shows our selected gross average claim size per non-nil claim is \$28,944. After allowance for recoveries, the selected net average claim size per non-nil claim is

\$27,868. This is 2% higher than that selected in our previous review (\$27,285 after adjustment to December 2011 dollars).

5.11 Payment Pattern

The valuation methods incorporate assumptions about the pattern of payments by development year. The analysis is done by payment type, and the resulting payment pattern is shown below in Figure 5.15 for all payment types combined.

Figure 5.15 – Selected Net Payment Pattern

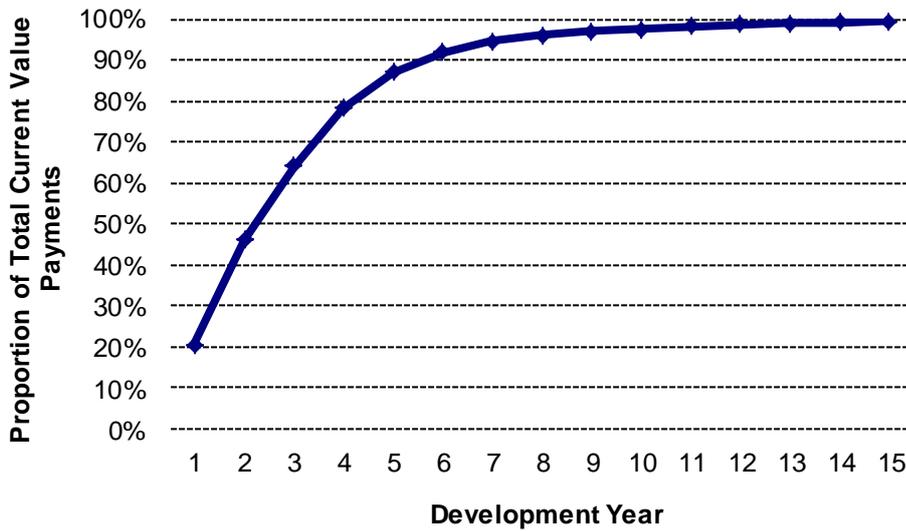


Figure 5.15 shows the majority of payments tend to be made within the first few years after the accident, with around 85% of payments being made within 5 years of the accident.

6 Economic, Expense and Profit Assumptions

This section outlines the economic assumptions incorporated into our assessment of claims costs.

6.1 Discount Rate

We have calculated the discount rate applicable to the duration of the ACT workers' compensation claims, based on the forward rates implied by the yields available on Commonwealth Government bonds at 29 February 2012. The yields available on Commonwealth bonds have decreased significantly since our previous review as a result of the uncertainty prevalent in the global economy. As a result, the discount rate is now set to 3.90% per annum (down 1.5% per annum from the previous valuation assumption of 5.40% per annum adopted in our previous report).

6.2 Inflation

Two types of inflation are incorporated into our cost models: normal economic inflation (in this case wage inflation based on AWE increases, given the income-related nature of the workers' compensation benefits) and superimposed inflation.

Wage Inflation

We have adopted a uniform assumption of 3.75% per annum for all future periods, in line with market forecasts. This is 0.25% lower than that assumed at the previous review.

Superimposed Inflation

Superimposed inflation is the tendency for payments to increase at a higher rate than normal economic inflation (i.e. wage inflation). Some examples of the forms superimposed inflation can take are:

- Longer periods of payment - for example, in the case of weekly benefits and medical costs.
- More claims for particular heads of damage - for example, more claimants seeking lump sum benefits.
- Costs per claim increasing in real terms – e.g. medical costs, common law awards.

We analysed the experience of the ACT workers' compensation portfolio in order to detect any evidence of superimposed inflation; this was done for each payment type. We observed evidence of superimposed inflation in the medical and rehabilitation payment types. This is consistent with what we have observed in other workers' compensation schemes in Australia where these costs are growing faster than inflation. We believe there may still be long term inflationary pressures in this area.

We have therefore incorporated a superimposed inflation assumption of 3.0% per annum for medical benefit payments, which is unchanged since our previous review. For rehabilitation payments, we have increased our selected superimposed inflation assumption from 1.0% to 2.0% per annum. This is equivalent to approximately 0.35% per annum across all payment types.

We believe our assumption takes a balanced view of the likely rates of future superimposed inflation, but acknowledge that this is one of the areas in the actuarial basis that is highly subjective.

7 Reliances & Limitations

7.1 Data

We have relied on the accuracy and completeness of all data and other information (qualitative, quantitative, written and verbal) provided to us by WorkSafe ACT and private insurers for the purpose of this report. We have not independently verified or audited the data but we have reviewed it for general reasonableness and consistency. It should be noted that if any data or other information is inaccurate or incomplete, we should be advised, so that our advice can be revised, if warranted.

Specific data limitations identified and the impact of these on our review are discussed further in Appendix B.

7.2 Uncertainty

The estimates of future claims costs are intended to be a central estimate and are based on assumptions selected without deliberate bias towards either over-estimation or under-estimation. Please note however, that it is not possible to put a value on future claims cost with certainty. As well as difficulties caused by limitations on the historical information, outcomes remain dependent on future events, including legislative, social, and economic forces. Although we have prepared estimates in conformity with what we believe to be the likely future experience, actual experience could vary considerably from our estimates. Deviations are normal and are to be expected.

We have generally assumed that the payment of claims will proceed as in the recent past, and we have not anticipated any extraordinary changes to the legal, social or economic environment that might affect the cost, frequency or future reporting of claims.

In particular, we note the Exposure Draft Workers Compensation Amendment Bill 2010 was released for public consultation in 2010, which introduced potential changes to lump sum and common law benefits. We have not made any allowance for the impact of this draft Bill.

In our judgement, we have employed techniques and assumptions that are appropriate, and the conclusions presented herein are reasonable, given the information currently available. However, it should be recognised that future claim emergence will likely deviate, perhaps materially, from our estimates.

7.3 Distribution and Use

This report is being provided for the use of the CMCD for the purposes stated in Section 1.1 of this report. It is not intended, nor necessarily suitable, for any other purpose. This report should only be relied on by CMCD for the purpose for which it is intended. The report should be considered as a whole.

We understand that the CMCD intends to publish this report. Permission is granted for such publication on the condition that the entire report (including appendices), rather than any excerpt, be distributed.

Third parties, including but not limited to parties who obtain this report from its public release, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the third party.

Finity has performed the work assigned and has prepared this report in conformity with its intended utilisation by a person technically competent in the areas addressed and for the stated purposes only. Judgements about the conclusions drawn in this report should be made only after considering the report in its entirety, as the conclusions reached by a review of a section or sections on an isolated basis may be incorrect.

Part III Appendices

A Glossary of Terms

The table below provides a summary of a number of terms used throughout the report. The terms described below may have different meanings ascribed to them in other actuarial reports.

Term	Definition
Accident Year	The year (years ending 30 June) in which the injury occurred which gave rise to a claim. E.g. a claim occurring on either 30 September 2007 or 30 March 2008 is said to belong to the 2007/08 accident year.
Active claim	A claim which has received a weekly payment in the quarter, excluding any claims where total weekly payments to date were negative or where the weekly payments made in the quarter total zero.
Central Estimate	An estimate of the liability which is intended to contain no deliberate bias to either over- or under-estimation and does not include allowance for claims handling expenses.
Claim Frequency	Estimated ultimate number of claims divided by a measure of exposure (either wages or employees).
Continuance Rate	The number of claimants in receipt of weekly benefits in one quarter divided by the number in receipt of weekly benefits in the preceding quarter. For example, the rate for development quarter 1:2 is calculated as the number of claimants receiving weekly benefits the second quarter after the accident quarter, compared with the number receiving weekly benefits in the accident quarter.
Development Year	The number of years since the year in which the accident occurred, e.g. development year 1 is the same as the year of accident, development year 2 is the year following the accident year, etc.
Earned Premium	Policy-year premiums spread over the period of cover. All premiums shown are exclusive of GST and inclusive of brokerage/commissions.
Earned Wages	Policy-year wages spread over the period of cover. All wages shown are exclusive of superannuation, but include salary, overtime, shift & other allowances, over-award payments, bonus, commissions, payments for public and annual holidays (incl. loadings), payments for sick and long service leave, value of board/lodging provided by employer, reimbursement for expenses incurred by the worker due to employment, any amount expended on behalf of the worker, directors' fees, and fringe benefits costs.

Loss Ratio	Estimated ultimate cost (net of recoveries) divided by gross earned premium for that year. Ultimate costs have been discounted to the mid-point of the relevant accident year.
IBNR	Incurred but Not Reported Claims – i.e. claims that have occurred at the review date but have not yet been reported.
Nil claims	Claims which have no payments made to date. Some nil claims will always remain nil (“report only claims”) while others will become non-nil claims as payments are made
Outstanding Claims Costs	Includes the costs of IBNR claims and allowance for further payments on already reported claims.
PPCF	Payment per Claim Finalised
PPCI	Payment per Claim Incurred
PPCS	Payment per Claim Settled
Premium Pool	Estimated claims costs plus allowance for expenses and insurer margins.
Premium Rate	Premiums divided by wages. The premium rate may be calculated on either a written or earned basis.
Risk Premium	Total expected claim costs divided by wages. Historical risk premiums are calculated from actual past payments plus our estimate of outstanding claims.
Superimposed Inflation	The tendency for claims costs to increase at a higher rate than normal economic inflation (i.e. wage inflation).
Ultimate Claim Numbers	The total expected number of claims for an accident year. This will include all claims reported to the review date together with any IBNR claims for the accident year.
Ultimate Claims Costs	The total expected claim costs for an accident year. This includes all amounts paid to the review date (net of recoveries) plus outstanding claims costs.

B Scheme Background

This section covers the background to the workers' compensation scheme in the ACT, including the impacts of the major legislative amendments.

B.1 Introduction

The ACT workers' compensation scheme (Scheme) is a privately underwritten scheme, operating under the Workers' Compensation Act 1951 (the Act). WorkSafe ACT is responsible for the administration of the Act.

Under the Act, employers are required to take out a workers' compensation insurance policy with an approved insurer (approved by the Minister) or be granted an exemption to self-insure these risks by the Minister. There are currently 7 licensed insurers providing workers compensation insurance in the ACT:

- QBE (including the run-off of Mercantile Mutual Insurance)
- Allianz
- IAG (including the run-off of CGU, FAI, HIH, NZI and VACC)
- Suncorp (written through the GIO licence and including the run-off of Vero)
- Zurich
- Guild
- Catholic Churches Insurance (CCI).

The Default Insurance Fund

The Default Insurance Fund (DIF) is a body established under the Act to cover the cost of claims for compensation where the employer is uninsured, bankrupt or insolvent. The DIF is funded by a levy on premiums, and on notional premiums in the case of self insurers. We have excluded the cost of claims covered by the DIF from the analysis of claim performance of the Scheme.

B.2 Compensation Types

Under the Act, a worker is entitled to compensation as described below.

Weekly Benefits

Compensation is provided to a worker who is incapacitated for work as a result of an injury or disease arising out of, or in the course of, the worker's employment. Weekly payments may continue for the duration of the incapacity, or to age 65. The level of the weekly payment ("the replacement ratio") varies by duration of incapacity as shown in the table below.

Table B.1 – Weekly Benefit Entitlements

Weeks on Benefit	Total Incapacity	Partial Incapacity
0-26 weeks	100% of average pre-incapacity weekly earnings.	100% of the difference between average pre-incapacity weekly earnings and average weekly amounts the worker is being paid or could earn in reasonably available suitable employment.
26 weeks +	<p>* 100% of average pre-incapacity weekly earnings, if average pre-incapacity weekly earnings are less than the pre-incapacity floor (i.e. the federal minimum wage immediately before the incapacity); or</p> <p>* Maximum of either 65% of average pre-incapacity weekly earnings and the statutory floor.</p>	A percentage of the difference between average pre-incapacity weekly earnings (subject to the minimum statutory floor and maximum statutory ceiling of 150% of AWE) and average weekly amounts the worker is being paid or could earn in reasonably available suitable employment, with this percentage varying depending on the weekly hours worked relative to pre-incapacity hours of the employer.

The weekly benefits described above have been in place since 1 July 2002.

Medical and Rehabilitation Benefits

The Act provides for compensation to the injured worker for costs associated with medical treatment (including hospital), rehabilitation services, alterations to the worker's place of residence, wages lost by the worker whilst attending treatment, transport to/from treatment, accommodation (incl. meals) while at treatment, repair/replacement of damaged clothing, etc. The total amount of medical costs relating to repair or replacement of contact lenses, crutches, prosthesis, spectacles, artificial aids and for loss or damage to a worker's clothing is capped at \$500 (CPI indexed to approximately \$660 at the date of this review).

Death Benefits

Dependants are entitled to lump sum compensation on the death of the worker, capped at \$150,000 (CPI indexed to approximately \$199,000 at the date of this review). In addition, dependants may be entitled to receive weekly payments of \$50 per week (CPI indexed to just over \$66 per week at the date of review) and funeral expenses of \$4,000 (CPI indexed to just over \$5,200 at the date of this review).

Impairment Lump Sums

Workers who suffer a permanent impairment from a work-related injury or disease are entitled to receive a maximum lump sum payment of \$100,000 (CPI indexed to approximately \$133,000 at the date of this review) for a single injury or \$150,000 (CPI indexed to approximately \$199,000 at the date of this review) for multiple injuries. The level of the lump sum payment varies between 2% and 100% of the maximum amount for a total loss as shown in Schedule 1 of the Act. For partial losses, the claimant is entitled to a proportionate reduction on the Schedule 1 amount. In most cases, a claim for an impairment lump sum cannot be made earlier than two years after the injury. Weekly benefits may continue to be payable despite payment of a lump sum benefit, subject to negotiation between the injured worker and employer or insurer.

Redemptions of Statutory Entitlements

In certain circumstances, subject to negotiation between the injured worker and the employer or insurer, claimants may commute their statutory benefits. The redemption may include amounts for the worker's entitlement to weekly benefits, medical and other expenses. Throughout the report we refer to the redemption of statutory entitlements as "commutations".

Common Law

A worker may be entitled to seek compensation damages under common law where the work-related injury or disease was caused or contributed to by the negligence of a third party. Damages awarded are reduced by the amount of compensation already paid to the worker. Access to common law and the maximum amount of compensation available are unlimited under the Act.

Legal Costs

An injured worker may also seek reimbursement for the costs of legal and other expenses incurred as a result of pursuing common law damages or negotiating a settlement of their statutory entitlement.

B.3 Journey Claims

Workers are covered for injuries arising out of journeys both to and from work and undertaken for work purposes.

B.4 Employer Excess

The level of employer excess is not prescribed under the Act, but can be negotiated between the employer and the insurer.

B.5 Legislative Reform

This section summarises the legislative reforms that have had a significant impact on our review. The reader is referred to the relevant legislation for full details of the changes.

2002 Amendments

The *Workers' Compensation Amendment Act 2001* came into effect on 1 July 2002, and applied to injuries where the accident occurred on or after this date.

The amendments from the previous legislation may be summarised as follows:

- Weekly benefits
 - ▶ Benefits cease upon return to work or pension age (previously death)



- ▶ Benefits depend on average pre-injury earnings including overtime (previously did not include overtime or allowances)
- ▶ Benefits for incapacity post 26 weeks drop to 65% of pre-injury earnings (previously based on a statutory rate) subject to a minimum of a statutory floor
- ▶ Benefits for partial incapacity subject to a minimum of a statutory floor (the federal minimum wage) and statutory ceiling (150% of AWE) (previously based on a statutory amount).
- Lump sums
 - ▶ Introduction of 6% threshold for access to compensation for hearing loss
 - ▶ Expanded the table of maims
 - ▶ Increased maximum impairment, death and funeral benefits
 - ▶ Introduction of a two year waiting period before a worker could claim for permanent impairment benefits.
- Medical benefits
 - ▶ Increased maximum amount for specified medical costs.
- Common Law
 - ▶ Reduced statute of limitations for common law to 3 years (previously 6 years).
- Other
 - ▶ Definition of worker expanded to include volunteers
 - ▶ Definition of employment-related diseases tightened
 - ▶ Definition of journey claims tightened
 - ▶ Increased focus on injury management processes, including the strengthening of requirements for employers to provide suitable return to work
 - ▶ Encouraged early notification of claims.

Civil Law (Wrongs) Act 2002

The amendments introduced as part of the Civil Law (Wrongs) Act 2002 came into force in late 2002 and resulted in changes to legal proceedings in the ACT. In September 2003, the legislation was amended to exclude workers' compensation claims from the Wrongs Act.



2006 Amendments

The Workers' Compensation Act 2006 and Workers' Compensation Amendment Act 2006 (No 2) became effective 1 July 2006 and resulted in the:

- Establishment of the Default Insurance Fund
- Change in definition of maximum duration of weekly compensation to 65 years of age
- Categorisation of some 'carers' as workers
- Encouragement of early reporting of injury
- Specific mention of rehabilitation costs.

2009 Amendments

The Workers Compensation Amendment Act 2009 introduced a range of amendments that:

- Allowed the appointment of a rehabilitation service provider in the event that an injured worker had been unable to return to work in their pre-injury hours and duties within 4 weeks;
- Introduced new offences and penalties for non-compliance by employers.

2011 Amendments

The Workers Compensation Amendment Regulation 2011 came into effect of 1 September 2011 and introduced amendments requiring compliance audits of Approved Insurers and Self Insurers.



C Data

This section summarises the data provided to us for this review and documents the reconciliations performed.

C.1 AIMS Data

The AIMS data provided to us by WorkSafe ACT is detailed below.

Claim File

We received an individual claim file listing all claims reported or having had a payment between 1 July 1999 and 30 September 2011, which included the following variables:

- Insurer Reference Code
- Policy Number
- Claim Reference Number
- Date of Lodgement of Claim
- Date of Occurrence/Report
- Date Claim Finalised
- Payments – Total to Date
- Estimated Payments – Outstanding
- Claim finalised flag – ‘Claim Details – Finalised’
- Claim reopened flag – ‘Claim Details – Reopened’
- Reason Reopened
- Current Liability Status
- Estimate of Recoveries.

Payment Transaction File

We received a claim payment transaction file with payments made (by payment type and month) between 1 July 1999 and 30 September 2011, which included the following variables:

- Claim Reference Number
- Payment Type Code
- Month End Date
- Total of all Monthly Payments.



Policy File

We received an individual policy file for all policies written or renewed between 1 July 1999 and 30 September 2011, which contained the following variables:

- Insurer Reference Code
- Policy Number
- Inception Date
- Expiration Date.

Industry File

We received an individual file for all policies written or renewed between 1 July 1999 and 30 September 2011, which contained the following variables:

- Policy Number
- Industry Class Code
- Industry Class
- Anticipated No. of Employees (current policy period)
- Actual No. of Employees (previous policy period)
- Anticipated Wages (current policy period)
- Actual Wages (previous policy period)
- Initial Gross Premium (current policy period)
- Actual Gross Premium (previous policy period).

C.2 Data Reconciliations

We compared the AIMS data provided for this review with the data provided for our previous review. The following table summarises the comparison of claim reports and claim payments to 30 June 2010 from the two data sources.



Table C.2 – Reconciliation to Previous Data

Accident Year	Claim Numbers				Claim Payments (\$m)			
	Current Dataset	Previous Dataset	Difference	% Difference	Current Dataset	Previous Dataset	Difference	% Difference
2000/01	3,562	3,562	0	0%	52.3	52.3	0.0	0%
2001/02	3,434	3,434	0	0%	60.2	60.2	0.0	0%
2002/03	3,881	3,881	0	0%	69.9	69.9	0.0	0%
2003/04	4,044	4,044	0	0%	72.5	72.5	0.0	0%
2004/05	4,063	4,063	0	0%	80.3	80.3	0.0	0%
2005/06	3,965	3,965	0	0%	68.9	68.9	0.0	0%
2006/07	4,406	4,406	0	0%	60.5	60.5	0.0	0%
2007/08	4,198	4,198	0	0%	45.5	45.5	0.0	0%
2008/09	4,370	4,370	0	0%	37.3	37.3	0.0	0%
2009/10	4,498	4,491	7	0%	16.8	16.8	0.0	0%
Total	40,421	40,414	7	0%	564.2	564.2	0.0	0%

The data from the two sources matched closely.

We also received summaries of claim and policy data from the insurers operating in the Scheme in response to our request to confirm the validity of the AIMS data.

Table C.3 shows a reconciliation of the number of claims on the AIMS database to those supplied by insurers.

Table C.3 - Claim Numbers Reported - AIMS vs. Insurer Data

Accident Year	AIMS Data	Insurer Data	Difference	% Difference
2000/01	3,563	3,427	136	4%
2001/02	3,434	3,256	178	5%
2002/03	3,883	3,888	-5	0%
2003/04	4,046	4,853	-807	-17%
2004/05	4,064	5,075	-1,011	-20%
2005/06	3,969	3,967	2	0%
2006/07	4,412	4,400	12	0%
2007/08	4,211	4,192	19	0%
2008/09	4,387	4,377	10	0%
2009/10	4,711	4,693	18	0%
2010/11	4,702	4,639	63	1%

The differences between the AIMS data and insurer data are significant in the 2003/04 and 2004/05 years in particular, but this relates to one insurer that had an abnormally high number of nil claims recorded on their databases against these years, while the AIMS database does not include nil claims. As such, our view is that the number of claims on the AIMS database reconciles satisfactorily to the insurer data.

Table C.4 shows a reconciliation of claim payments in AIMS to that supplied by insurers.

Table C.4 - Claim Payments - AIMS vs. Insurer Data

Payment Year	AIMS Data \$000	Insurer Data \$000	Difference \$000	Difference %
2000/01	14,549	21,080	-6,531	-31%
2001/02	31,225	35,821	-4,597	-13%
2002/03	47,296	45,469	1,827	4%
2003/04	59,497	58,778	719	1%
2004/05	67,269	67,031	238	0%
2005/06	73,115	73,287	-171	0%
2006/07	80,269	80,266	2	0%
2007/08	75,093	76,449	-1,355	-2%
2008/09	73,512	72,216	1,297	2%
2009/10	89,176	89,889	-713	-1%
2010/11	97,035	94,269	2,766	3%

The significant differences in the 2001/02 and prior accident years relate to one insurer that has a significant amount of payments missing from the AIMS database. We are aware of this problem, hence have only relied on the AIMS payment information for the 2002/03 and later years. Differences for the 2002/03 to 2010/11 years are minimal.

As such, our view is that the claim payment data on the AIMS database reconciles satisfactorily to the insurer data.

Table C.5 shows a reconciliation of case estimates in AIMS to that supplied by insurers.

Table C.5 – Case Estimates - AIMS vs. Insurer Data

Accident Year	AIMS Data \$000	Insurer Data \$000	Difference \$000	Difference %
Prior	-1,172	2,619	-3,792	-145%
2001/02	381	249	133	53%
2002/03	2,545	1,967	577	29%
2003/04	860	1,141	-281	-25%
2004/05	2,199	2,827	-628	-22%
2005/06	7,682	8,117	-435	-5%
2006/07	11,334	13,264	-1,930	-15%
2007/08	15,151	16,162	-1,012	-6%
2008/09	30,153	33,327	-3,174	-10%
2009/10	54,582	56,231	-1,649	-3%
2010/11	61,148	59,470	1,679	3%

The case estimates from AIMS are understated relative to insurer data for years to 2003/04. For later years, there are some minor differences by year but we suspect this is a matter of timing with the AIMS data reflecting information at 30 September 2011 where the insurer data is as at 30 June 2011.

As a result of the reconciliation differences observed in older years, we do not rely on case estimates in our analysis of ultimate claim size or costs and use case estimates supplied directly by insurers instead of that in AIMS when comparing to our projected central estimates.

Table C.6 shows a reconciliation of the AIMS wages data to that supplied by insurers.

Table C.6 - Written Wages - AIMS vs. Insurer Data

Policy Year	AIMS Data	Insurer Data	Difference	Difference
	\$m	\$m	\$m	%
2003/04	3,627	3,967	-340	-9%
2004/05	3,941	4,262	-321	-8%
2005/06	4,238	4,566	-328	-7%
2006/07	4,235	5,212	-977	-19%
2007/08	4,045	5,781	-1,735	-30%
2008/09	4,074	5,668	-1,594	-28%
2009/10	3,541	5,968	-2,428	-41%
2010/11	2,780	6,395	-3,615	-57%

The AIMS data is significantly different to the insurer data. The wage information from AIMS has therefore not been used in our analysis, and we have instead relied on the information provided directly to Finity by insurers.

Table C.7 shows a reconciliation of the AIMS premium data to that supplied by the insurers.

Table C.7 - Written Premiums - AIMS vs. Insurer Data

Policy Year	AIMS Data	Insurer Data	Difference	Difference
	\$m	\$m	\$m	%
2003/04	128	139	-10	-8%
2004/05	138	149	-10	-7%
2005/06	137	153	-16	-11%
2006/07	134	151	-17	-11%
2007/08	115	151	-37	-24%
2008/09	109	136	-27	-20%
2009/10	103	147	-44	-30%
2010/11	77	147	-70	-48%

Again, the AIMS data is significantly different to the insurer data. The premium information from AIMS has therefore not been used in our analysis, and we have instead relied on the information provided directly to Finity by insurers.

C.3 Premiums & Wages Data

Due to the limitations with the AIMS premium and wages information, we were supplied with this information directly from each of the insurers. Each of the insurers provided:

- Written wages for policy years ending 30 June 2004 to 30 June 2011. Insurers provided both initial (i.e. that initially estimated at the start of the policy period) and final adjusted written wages, separately for burner and all other policies.

- Written premium for policy years ending 30 June 2004 to 30 June 2011. Insurers provided both initial and adjusted written premiums, separately for burner and all other policies.
- Earned wages for accident years ending 30 June 2004 to 30 June 2011, and by ANZSIC Class. Insurers provided adjusted earned wages.
- Earned premium for accident years ending 30 June 2004 to 30 June 2010, and by ANZSIC Class. Insurers provided adjusted earned premiums.

In some cases, we need to adjust the data received from some insurers to ensure that all the data was on a consistent basis. These adjustments were as follows:

- All but two insurers provided wages information exclusive of superannuation. For these insurers, we adjusted the wages supplied to remove the estimated superannuation component.
- One insurer provided premium information which excluded brokerage and commission costs. We have adjusted their premium data to include brokerage/commission based on their advice as to the average rate of brokerage/commission paid.

C.4 Coding of Data on AIMS

Common Law, Commutations and Impairment Benefits

Discussions with the CMCD have revealed differences in coding practices of common law, commutation and impairment benefit payments. Specific examples include:

- For claims where a common law action is commenced and is subsequently settled out of court, some insurers code the payments as common law while others code the payment as a commutation
- Some insurers are negotiating commutations with the claimant and having the claimant sign a common law deed of release. These are being coded as common law rather than commutations.
- Some insurers are coding what are essentially impairment benefit payments as commutations.

As a result of these differences in practices, we have grouped all common law, commutation and impairment benefit payments together in undertaking this review.

Legal Payments

It is not clear whether all insurers are coding their legal costs consistently. We understand that the legal costs payment field includes the insurer's legal costs, and may also include plaintiff legal costs to the extent that they can be identified. Plaintiff legal costs associated with common law settlements are unlikely to be coded as "legals", but will be included in the common law payment amount.

Rehabilitation

It is not clear whether the rehabilitation payment type captures only vocational rehabilitation or if it also includes some elements of medical rehabilitation.

GST and ITCs

We understand that all claim payments made in the post-GST environment are reported inclusive of GST for all insurers. However, practices vary in relation to the treatment of ITC recoveries – some insurers net them off payments captured on AIMS while others do not. (We understand that the AIMS data specification is in the process of being amended to offer greater clarity to insurers on the treatment of ITCs. However, historical information will not be amended.)

As we have analysed payment data net of ITC recoveries, we have had to adjust the data for those insurers who have not netted off the ITC. Given that the majority of workers' compensation payments do not attract GST, we have only netted off estimated ITC amounts from legal and investigation costs for these insurers. Some elements of medical and rehabilitation payments will also attract GST (e.g. home modifications, vocational rehabilitation services) and hence should have ITC recoveries netted off. However we do not know what proportion of medical and rehabilitation payments attract GST, and have therefore not adjusted these payments. We believe this is immaterial in the context of our review.

Incident notifications

We understand that some insurers are submitting incident notifications as well as claim records to AIMS, and that the treatment of this varies by insurers.



D Valuation Approach

D.1 Chain Ladder Method

The chain ladder method estimates the ultimate number of claims incurred in each accident year by analysing past claim reporting patterns and estimating a pattern for the future.

The chain ladder method can be applied to any cumulative data triangle that summarises the experience by accident year and development period.

Chain ladder ratios are calculated from the data triangle by taking, for each accident period:

$$\frac{\text{Cumulative Number of Claims reported to Development Period } t}{\text{Cumulative Number of Claims reported to Development Period } (t - 1)}$$

Ratios for projection are selected taking into account the observed ratios in recent periods and changes expected in the future. The ratios generated are then applied to the most recent cumulative claim figures (separately for each accident period) to project reported claims to ultimate.

D.2 Payments Per Claim Incurred

The Payments Per Claim Incurred (PPCI) method models the claim process by assuming that the payments in respect of a group of claims will develop in a predictable pattern over a period of years. This pattern is defined by:

- An average claim size
- The proportion of claim payments that will be made in each development year.

The PPCI method proceeds as follows:

- (i) Estimate the ultimate number of claims incurred in each accident year by using the Chain Ladder method.
- (ii) Inflate past claim payments, subdivided by accident and payment years, to the monetary values of the latest accident year using an appropriate measure of past inflation.
- (iii) For each accident year divide the inflation adjusted claim payments [derived in (ii)] by the estimated ultimate number of claims incurred [calculated in (i)] to obtain an historical PPCI pattern of payments.



- (iv) Taking into account the result for (iii) and expectations for the future, select the average claims size together with the proportion of the payments made in each development year.
- (v) Using an assumed future rate of claim inflation calculate projected future payments for each accident year by multiplying together:
 - (a) The estimated ultimate number of claims incurred
 - (b) The average claim size in current dollars
 - (c) The proportion of payments by development year
 - (d) The assumed inflation factor.

The present value of liabilities is calculated by discounting projected payments to the valuation date at the assumed discount rate.

D.3 Payments Per Claim Settled

This method models the claims process by assuming that the payments in respect of a group of claims will develop in a predictable pattern over a period of years. This pattern is often expressed as the payments per claim settled together with the proportion of claims which will be settled in each development year.

There can sometimes be a timing mismatch between the date a claim first receives a lump sum payment and the date of final payment, and we note that a small amount of common law and lump sum claims do involve multiple common law or lump sum payments. We therefore define date of settlement to be the date of last payment. We note that the method may be susceptible to changes in data due to re-openings and payment of further benefits, but this is not expected to materially alter the results of our analysis providing the rate of such re-openings remains stable over time.

In order to use this method, we need to make assumptions about:

- The number of claims incurred in each accident year
- The average payment per claim settled in the monetary values of the latest accident year (not necessarily the same average cost for all accident years)
- The proportion of claims settled in each development period, before allowance for claim inflation
- Rates of future claim inflation and investment earnings.

Future payments are projected by multiplying together:

- The number of claims outstanding
- The payment per claim settled in current dollars
- The proportion of claims settled by development period



- The proportion of future settlements paid by development period
- The inflation index based on projected rates of claims inflation.

The present value of liabilities is then calculated by discounting projected payments to the valuation date at the assumed discount rate.

D.4 Continuance model

The continuance model is in effect a Payments Per Active Claim (“PPAC”) method which assumes that the payments in respect of a group of claims will develop in a predictable pattern over a period of years. This pattern is defined by:

- An average claim size
- The proportion of claims will remain active and receiving benefits in each development year.

The PPCI method proceeds as follows:

- (i) Estimate the ultimate number of active claims incurred in each accident year by using the Chain Ladder method, taking into account the number of claims active in the most recent period and assumed continuance rates in future.
- (ii) Inflate past claim payments, subdivided by accident and payment years, to the monetary values of the latest accident year using an appropriate measure of past inflation.
- (iii) For each accident year divide the inflation adjusted claim payments [derived in (ii)] by the estimated ultimate number of active claims [calculated in (i)] to obtain an historical pattern of average weekly benefits per continuing claim.
- (iv) Taking into account the result for (iii) and expectations for the future select the average claims size together with the proportion of the payments made in each development year.
- (v) Using an assumed future rate of claim inflation, calculate projected future payments for each accident year by multiplying together:
 - (a) The estimated ultimate number of active claims incurred
 - (b) The average claim size in current dollars
 - (c) The proportion of payments by development year
 - (d) The assumed inflation factor.

The implied payments were then converted into PPCIs for comparison with the PPCI model.

