

WorkCover WA

2023/24 recommended premium rates

March 2023

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Ms Sharryn Jackson
Board Chairperson
WorkCover WA
2 Bedbrook Place
Shenton Park WA 6008

23 March 2023

Dear Sharryn

Please find enclosed our report on 2023/24 recommended premium rates.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A Smith'.

Andrew Smith
Partner

A handwritten signature in black ink, appearing to read 'K Cannon'.

Kathryn Cannon

Fellows of the Institute of Actuaries of Australia

Key findings

Context of our review

The purpose of this report is to present the recommended premium rates for the Western Australian workers compensation scheme for the 2023/24 financial year. The recommended premium rates are calculated in line with the following objectives:

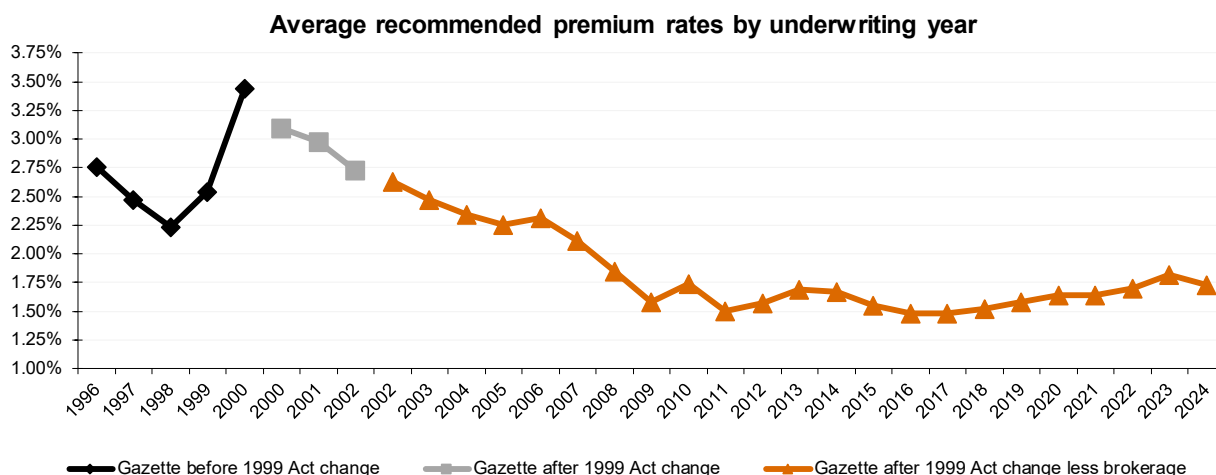
- Calculate the total amount of premium income required to meet the expected cost of claims allowing for expenses, contingency margins and investment income
- Recommend premium rates that are broadly equitable across different industry classes with no intentional cross subsidy of rates
- Suggest an appropriate overall increase or decrease in relative premium rates
- Use methods, which give relative stability in the rate structure.

A further objective of WorkCover WA is to examine the adequacy of outstanding claims provisions in aggregate.

Our recommendation

Based on the Board directives and other assumptions detailed in this report, we recommend a **5.2% decrease in the average premium rate for 2023/24 to 1.727% of wages**, excluding allowance for brokerage, from the current rate of 1.822%.

The chart below shows the applicable rates from 1996 onwards:



The average premium rate is based on an unbiased estimate of the future incurred risk cost of claims from our projection model.

The recommended premium rates for the 517 premium rating classes based on ANZSIC 2006 classification are detailed in Appendix A. The change in individual class rates is based on the experience for the class and will differ to the movement in the average premium rate.

Components of average premium rate

The average premium rate is derived by dividing the estimated incurred cost of claims, including expenses but excluding brokerage, by the developed returned earned wages.

The table below shows the key premium rating drivers for the WA scheme for the most recent three premium rating years. These are in appropriate values for that year, i.e. have not been brought into current values.

Key Driver	Premium rating year ending 30 June :				
	2024 (a)	2023 (b)	2022 (c)	% difference (a) / (b) -1 (b) / (c) -1	
Risk cost of claims \$M (d)	1,200.5	1,163.0	1,008.8	3.2%	15.3%
Expense and margin factor (e)	1.3889	1.4124	1.4006	-1.7%	0.8%
Estimated incurred cost of claims \$M (f)	1,667.4	1,642.6	1,412.9	1.5%	16.3%
Earned wages returned \$M (g)	96,556	90,152	82,933	7.1%	8.7%
Average premium rate (h)	1.727%	1.822%	1.704%	-5.2%	6.9%

Notes : (a) from 2.1 of this report
 (b) & (c) from Key Findings of our 6 April 2020 RPR report
 (d) includes allowance for IBNR, inflated and discounted values and allowance for the 2018 Amendment Act
 (e) for grossing up the estimated risk cost of claims for expenses and margins, net of interest credit
 (f) = (d) x (e) there is an additional 0.7% increase due to the 2018 Amendment Act
 (g) adjusted to include final wage adjustments and employment growth for the half year to 31 December 2022
 (h) = (f) / (g) %

There is a 5.2% decrease in the average rate for the premium rating year ending 30 June 2024, driven by:

- **A 1.5% increase in the incurred cost of claims.** The incurred cost increased due to the projected risk cost of claims being higher than the 2023 premium rating year by 3.2%, partially offset by the expenses and margin factor decreasing by 1.7%.

The key drivers of the 3.2% higher risk cost are:

- Higher average claim size
- Partially offset by the fewer incurred claim numbers for 2021/22.

The 1.7% lower expense and margin factor is due to a decrease in the expense loading from 16.2% to 15.5% as earned premium increased by more than expenses.

- **A 7.1% increase in projected earned returned wages.** This is mainly driven by an increase in returned wages.

Based on the experience discussed in the report we have made the following assumptions in deriving the recommended premium rates:

COVID-19

We have not included any additional allowance for COVID-19 in the projection of claims for 2023/24.

In the data to 31 December 2022, there have been 233 COVID-19 and related claims reported of which 78 are disallowed or withdrawn. This is significantly fewer than estimated in our high-level modelling last year. Of the claims that are reported to date, the average claims size is similar to all other claims in the scheme and similar to our estimates from our high-level modelling last year (as per Appendix J 3 our 1 April 2022 report). Thus,

given the relatively benign COVID-19 claims experience since the border reopened, we have not included any explicit allowance for COVID-19 over and above what we have observed in the data to date.

In section 7.3 we discuss the uncertainty arising from COVID-19. In Appendix J 3 we provide further details on the COVID-19 related claims in the data to 31 December 2022.

Target loss ratio

We have adopted a target loss ratio of 72.0% to calculate the premium rates gross of expenses and margins, including interest credit but excluding brokerage. This is higher than the target loss ratio of 70.8% used last year, primarily due to an increase in the expected one year forward interest rate partially offset by the decrease in the expense loading.

Total expense levels

The adopted expense margin is a three year average of insurers' expenses. The total adopted expense level of 15.5% (16.2%) of premium is made up of 14.3% (14.9%) management expenses and 1.2% (1.3%) for the General Account levy. Figures in brackets are last year's.

WA legislative changes

See Appendix D5 for more details on recent legislative changes.

Of particular note are:

Workers' Compensation and Injury Management Amendment (COVID-19 Response) Act 2020

From the 12 October 2020, the Workers' Compensation and Injury Management Amendment (COVID-19 Response) Act 2020 commenced. There is a risk the discontinuation of the common law termination date could increase the number of common law claims as it gives workers an additional year to elect to pursue common law benefits. The changes to the annual indexation of capped worker entitlements mean that the benefits cannot be reduced even if the index reduces over the year. The benefits will remain flat until the index increases.

We have not included any explicit allowance for the 2020 Amendment Act in the 2023/24 premium rates. This is the same treatment as the 2022/23 premium rates calculation.

Last year, we have been advised that some of the significant increase in case estimates as at 30 June 2021 may be related to the discontinuation of the common law termination date as claimants and their legal advisers are waiting longer to determine the level of whole person impairment and to elect to pursue common law benefits. It may be used in negotiations to obtain a higher settlement. We continue to see an increase in case estimates as at 30 June 2022, likely driven by the same reason. It will take a few years for the evidence to emerge to determine if this translates into an actual increase in lump sum settlements or is a temporary behavioural change but with no increase in benefits paid. Therefore, our view is that the 2020 Amendment Act may have been implicitly allowed for within these higher case estimates.

Workers Compensation and Injury Management Bill 2023

No allowance is made for the *Workers Compensation and Injury Management Bill 2023* which is currently tabled in WA Parliament. This is consistent with previous legislative change where any impact on benefits is only allowed for once the Bill has been passed. We understand that even when passed the effective date of the legislation is expected to be after the completion of the 2023/24 underwriting year.

Superimposed inflation

We have adopted a different rate of superimposed inflation to project from the 2021/22 accident year to the 2023/24 underwriting year than used in the outstanding claims valuation. This is due to the high superimposed inflation rate in the outstanding claims valuation being driven by the change in the mix of claims across the accident years. In particular, the high superimposed inflation rates are mainly driven by the reduction in the number of claims, and resultant change in claims mix as the number of lower cost claims continue to reduce. The number of claims has been relatively stable over 2020/21 and 2021/22, so we anticipate that the superimposed inflation rate may start to stabilise at a lower rate if this trend continues.

For the projections to the 2023/24 underwriting year, we have assumed the same mix of claims as the 2022 accident year.

The adopted superimposed inflation to project from the 2021/22 accident year to the 2023/24 underwriting year is 3.0%. This is slightly higher than the 2.9% adopted last year. See Appendix D 2.2 for more details

The total superimposed inflation adopted for outstanding claims valuation is 4.7% pa, a decrease compared to 5.5% at the previous valuation.

Claims experience for the half-year to 31 December 2022

The risk cost of claims for the 2023/24 premium rates includes an allowance for the number of claims reported in the half year to 31 December 2022 for the 2023 accident year compared to the 2022 accident year. For the 2023 accident year, the number of claims reported were slightly higher than expected, payments were lower than expected and claim closure rates were significantly slower than expected. We considered the payment experience when determining the adopted payment rates.

Employment growth for the half-year to 31 December 2022

The 2023/24 premium rates calculation includes an allowance for change in employment in the half year to 31 December 2022. This is to be consistent with our adjustment for the number of claims in the half year. The number of full time employees increased by 0.2% in the six months to 31 December 2022. In the six months to 31 December 2021 the number of full-time employees increased by 3.1%.

Wages to 31 December 2022

In calculating the premium rates, we have used the developed earned wages for the 2021/22 accident year. Claim costs and wages are assumed to be subject to the same inflation rates, and therefore any inflation impacts would offset in the context of the average premium rate. Given this, we do not inflate either to 2023/24.

Economic assumptions

The future inflation assumptions for our outstanding claims review are based on the wage inflation assumptions produced by the WA Treasury for the 2022/23 WA Government Mid-year Financial Projections Statement.

As per last year, we have used a stepped inflation rate for future periods. For initial periods this is based on the WA Treasury forecasts and for the longer-term periods, we have adopted long-term inflation and discount rate assumptions. The overall impact is an increase in the real rates of return for all years which decreases the liabilities.

See Appendix D1 for further information.

Recommended premium rates by class

We have adopted minimum and maximum rates of \$0.25 and \$12.00 per \$100 of wages respectively, when calculating the premium rates. These are the same minimum and maximum rates as last year. In addition, we have also excluded some additional classes from the premium pool respread, as per last year. See section 6.6 for more detail.

Premium rates for 12 classes were capped at the minimum rate of \$0.25 per \$100 of wages and one class is capped at \$12 per \$100 of wages and all other premium rates reduced by 0.3% as a result of the premium respread. This is higher than the 0.2% reduction for the 2022/23 premium rates.

This year, we have been requested to continue to cap the class premium rate movement at 25%, both upwards and downwards, as per last year. The capping of movement at 25% from the 2023/24 Gazette rates affected 30 of the 517 class (6%). 22 classes had a capped increase of 25% and 8 classes had a capped decrease of 25%. This meant that all other premium rates increased by 0.3% because of premium respread, which is less than last year (0.6%). Thus, the overall net impact of the respreading due to the minimum and maximum rates as well as the movement capping is close to 0%.

If the capping of premium rate movements were to continue in future years, the impact on uncapped classes is expected to continue to reduce.

For more details on the capping of rates, see section 5.2.

The Recommended Minimum Premiums per policy for the 2023/24 financial year have increased from last year and are as follows:

Recommended Minimum Premium			
	Last year's Gazette	Indexed since last change	2023/24 recommended
Householder Policies	\$90.00	\$99.79	\$95.00
All Other Policies	\$265.00	\$293.76	\$290.00

Outstanding claim liabilities

The outstanding claim liabilities (inflated but not discounted and excluding claims handling expenses) as at 30 June 2022 are estimated to be \$1,764.2 million, excluding the 2014 and earlier accident years. This is \$15.5 million (0.9%) higher than the aggregate outstanding claims estimates returned by applicable insurers of \$1,748.7 million. Last year we were 4.1% higher than insurers' estimates excluding the 2013 and earlier years.

A detailed reconciliation of the build-up of inflated and discounted estimates over the year is shown in section 3.3. This shows a net strain on reserves over 2021/22 of \$35 million (2.1%) on our inflated and discounted projections including expenses. Insurers provide inflated estimates, and these had a strain on reserves of \$112.5 million (6.5%) on all accident years to 30 June 2021. On an inflated basis, our estimates had a strain on reserves of \$66.5 million (3.9%).

Uncertainty

The main sources of uncertainty in the projected premium rate for 2023/24 include:

- COVID-19
- Claims management

- Current economic outlook, including inflationary pressure
- The historic reduction in the number of small claims in the scheme, and associated change in claims mix
- Legal and settlement costs
- Impact from the 2020 Amendment Act
- Silicosis claims

See section 7.3 for more details on these.

Form and quality of data used

The form of the data supplied for the 2021/22 year is similar to the data supplied last year.

The 2023/24 recommended premium rates are calculated using the 2021/22 returns together with information provided by WorkCover WA for the split by payment types and the experience in the six months to 31 December 2022.

The overall quality of the data this year was acceptable for our premium rate projections, once the data validation process was completed.

We encourage insurers to continue to compare their form submissions with the prior year's final version and proactively provide explanations for any large differences.

Contents

Key findings	i
1 About this report	3
1.1 Context for our review	3
1.2 Objectives for our review	4
1.3 Compliance with standards	4
2 Premium rates analysis	5
2.1 Overall premium rate variation	5
2.2 Premium rates by division	10
2.3 Movement in relative premium rates	11
2.4 Minimum premiums	12
2.5 Financial performance of WA workers compensation	13
3 Outstanding claims results	16
3.1 Outstanding claims liability	16
3.2 Actual vs expected claims experience	19
3.3 Reconciliation of provisions	19
4 Data used in the review	22
4.1 Insurer data	22
4.2 Other data	22
4.3 Data quality	23
4.4 Data enhancements	23
4.5 General data considerations	23
5 Calculation methods	25
5.1 Projection methods	25
5.2 Relative premium rates methods	26
6 Assumptions	29

6.1	Financial assumptions	29
6.2	Superimposed inflation	30
6.3	Expenses	31
6.4	Contingency margin	31
6.5	Combined loadings and loss ratio	31
6.6	Premium rating caps	32
6.7	WA legislative changes	33
6.8	Board directives	33
7	Uncertainty	35
7.1	Uncertainty in the estimates	35
7.2	Determination of provisions	35
7.3	Additional sources of uncertainty	37
Appendix A	Premium rates	44
Appendix B	Detailed data description	56
Appendix C	Detailed methods description	61
Appendix D	Assumptions	69
Appendix E	Outstanding claim valuation	81
Appendix F	Claims experience	95
Appendix G	Claims statistics	102
Appendix H	Comparative statistics	111
Appendix I	Analysis of lump sum claim experience	120
Appendix J	Additional data analysis	123
Appendix K	Glossary	128

1 About this report

1.1 Context for our review

The purpose of this report is to recommend premium rates for the Western Australian workers compensation scheme over the 2023/24 financial year and to document the analysis undertaken to reach that recommendation. This report has been prepared for WorkCover WA in accordance with the actuarial services as specified in detail in tender document WCWAT31718.

We have prepared the recommended premium rates report for the WA workers compensation scheme for a number of years. Our most recent report was *2022/23 recommended premium rates* dated 1 April 2022.

The Board of WorkCover WA is ultimately responsible for the determination of recommended premium rates.

Insurers have the discretion to discount the recommended rate by any amount or surcharge up to 75% of the applicable rate as detailed under section 152 of the Workers' Compensation and Injury Management Act 1981. An insurer may surcharge the recommended premium rate by more than 75% if the claims experience warrants it, subject to the approval of the WorkCover WA Board.

The analyses and recommended premium rates presented in this report are based on claim data to 30 June 2022 as supplied by applicable approved private insurers and the Insurance Commission of Western Australia (ICWA). Our recommendations also consider the half yearly data to 31 December 2022. The insurers supplying data are collectively known as premium rate returning entities. All self-insurers, other than RiskCover, are excluded from these analyses. See section 4 for a discussion on the data provided for this report.

We used a hierarchical credibility experience rating method to calculate the relative premium rates for each class, based on a weighted average over six accident years. This method relies on the claims experience of each class and the extent of this reliance increases with the size/exposure of the class.

The premium rating method has been adjusted for:

- Our projection of the ultimate incurred cost of claims
- Returned wages, adjusted to reflect the extent to which past returned wages have increased or decreased in future years
- Emerging claims and economic trends.

The method and assumptions are described in greater detail in sections 5 and 6 respectively.

No explicit allowance has been made for the 2020 Amendment Act which commenced on 12 October 2020. See Appendix D for more information.

As specified in WCWAT31718, we have examined the adequacy of insurers' outstanding claim provisions in total. See section 3.1.2 for more detail.

1.2 Objectives for our review

This report details our recommended premium rates to apply in the Western Australian workers compensation scheme in the 2023/24 financial year. The main objectives of this exercise are to:

- Calculate the total amount of premium income required to meet the expected cost of claims plus expenses and margins with investment income
- Recommend rates that are broadly equitable across different industry classes with no intentional cross subsidy of rates
- Suggest an appropriate overall increase or decrease in relative premium rates
- Use methods, which give relative stability in the rate structure.

A further objective of WorkCover WA is to examine the adequacy of outstanding claims provisions in aggregate.

1.3 Compliance with standards

1.3.1 Premium rates

Our advice complies with the Actuaries Institute Code of Conduct.

1.3.2 Outstanding claims liabilities

The approach for calculating the outstanding claims liabilities is consistent with that required by the Accounting Standards for private and State Government general insurers (AASB1023), and APRA's prudential standard CPS320 and GPS340 for liability valuations for general insurance. It also complies with the Actuaries Institute Professional Standard PS302, with the exception that we have not performed a valuation of asbestos liabilities. As agreed with WorkCover WA, an asbestos liability valuation is not necessary in the context of setting premium rates.

2 Premium rates analysis

2.1 Overall premium rate variation

2.1.1 Incurred cost of claims in inflated and discounted values

The estimated number of claims incurred by the premium rate returning entities is:

Claims incurred	
2021/22 accident year (a)	24,239
2022/23 accident year (b)	24,480
2023/24 underwriting year (c)	24,480

- Notes:**
- (a) From our analysis of the 2021/22 data
 - (b) = (a) x (1+1.0%) indicated by the experience in the half year to 31 December 2022
 - (c) Assumed equal to the 2022/23 accident year

The adopted average claim size is:

Average claim size	Current values	Inflated and discounted (d)
2021/22 accident year (a)	47,334	46,570
2022/23 accident year (b)	48,754	47,968
2023/24 underwriting year (c)	49,847	49,043

- Notes:**
- (a) As per the adopted actuarial assessment model
 - (b) = (a) x superimposed inflation (3.0%)
= (a) x 1.030
 - (c) = (a) x superimposed inflation (3.0%)^{1.75}
= (a) x 1.030^{1.75}
 - (d) = current values including Act changes x inflation and discount factor
The inflation and discount factor used is 0.9839 (1.0162 last year). This allows for projected future cashflow to be inflated and discounted using the financial assumptions stated in section 6.1

The rate of superimposed inflation (SII) allowed for in the premium rating calculation is derived from an analysis separate to the outstanding claims valuation. Historically, the high superimposed inflation rates observed are mainly driven by the reduction in the number of claims, and resultant change in claims mix as the number of lower cost claims continue to reduce. The number of claims has been relatively stable over 2020/21 and 2021/22, so we anticipate that the superimposed inflation rate may start to stabilise at a lower rate if this trend continues. As a result of the change in trend, a separate analysis of SII for premium rating purposes was required. The analysis indicated a SII rate of 3.0% which is slightly higher than the 2.9% adopted last year. See Appendix D 2.2 for more details.

SII is applied to the midpoint of the claims incurred period. For the 2023/24 underwriting year, this is 1.75 years after the 2021/22 accident year, which is the mid-point to which the premium rates apply. These are notional forward average claim sizes. Normal wage inflation is not included for consistency with the total wages used to calculate the average premium rate.

The adopted average claim sizes contain no explicit allowance for the 2020 Amendment Act.

The estimated risk premium is shown in the table below. The estimated risk premium is equivalent to the number of claims incurred multiplied by the average claim size.

Number of claims x average claim size = Risk premium (\$M)		
2021/22 accident year	24,239 x 46,570 =	1,128.8
2022/23 accident year	24,480 x 47,968 =	1,174.2
2023/24 underwriting year	24,480 x 49,043 =	1,200.5

We have not included any additional allowance for COVID-19 or silicosis in the projection of claims cost for 2023/24. See section 7.3.1 and 7.3.7 respectively for more detail.

2.1.2 Impact on overall premium levels

Gross premium is the risk premium with appropriate allowance for expenses (excluding brokerage), contingency margins and interest earned. The estimated gross premium for the premium rate returning entities is shown in the table below:

Risk premium x loading factor = Gross premium (\$M)		
2021/22 accident year	1,128.8 x 1.3889 =	1,567.8
2022/23 accident year	1,174.2 x 1.3889 =	1,630.9
2023/24 underwriting year	1,200.5 x 1.3889 =	1,667.4

The adopted loading factor of 1.3889 is lower than the 1.4124 adopted for our previous valuation due to a decrease in the expense margin. The factor is defined as the inverse of the target loss ratio. More detail is presented in section 6.5.

The average premium rate is derived by dividing the gross premium by developed wages. The estimated wages for the 2023/24 average premium rate is calculated by multiplying the 2021/22 returned wages by a wage development factor, and making an allowance for the change in the number of employed persons in the half year to 31 December 2022.

This is calculated as follows:

Wages (\$M)	
2021/22 returned wages (a)	94,125
Adjustment factor (b)	1.0238
2021/22 developed wages (c)	96,365
Employment growth (d)	1.0020
Earned wages (e)	96,556

- Notes:**
- (a) As supplied by insurers
 - (b) See Appendix C2
 - (c) = (a) x (b)
 - (d) = 1,519 / 1,516, from ABS Cat. 6202.0 Table 8 Labour Force for average full time persons for Western Australia at 31 December 2022 quarter and 30 June 2022 quarter respectively
 - (e) = (c) x (d)

This year, the employment growth factor is 1.0020, which is lower than the factor last year of 1.0310.

Similar to last year, we have not made any special adjustments to the projected wages due to COVID-19. Wages have continued to increase in line with previous trends. It is our understanding that the future

development of the 2021/22 earned wages provided are unlikely to be affected by COVID-19. For the purpose of estimating the 2023/24 recommended premium rates we have used the 2021/22 earned wages as provided with the historical development factors.

Using the information above, the average premium rate for 2023/24, with comparison to the prior two years, is as follows:

Key Driver	Premium rating year ending 30 June :				
	2024 (a)	2023 (b)	2022 (c)	% difference (a) / (b) -1	(b) / (c) -1
Number of claims incurred (d)	24,480	24,845	23,420	-1.5%	6.1%
Average claim size \$ (e)	49,043	46,809	43,076	4.8%	8.7%
Expense and margin factor (f)	1.3889	1.4124	1.4006	-1.7%	0.8%
Earned wages \$M (g)	96,556	90,152	82,933	7.1%	8.7%
Estimated incurred cost of claims \$M (h)	1,667.4	1,642.6	1,412.9	1.5%	16.3%
Average premium rate (i)	1.727%	1.822%	1.704%	-5.2%	6.9%

Notes :

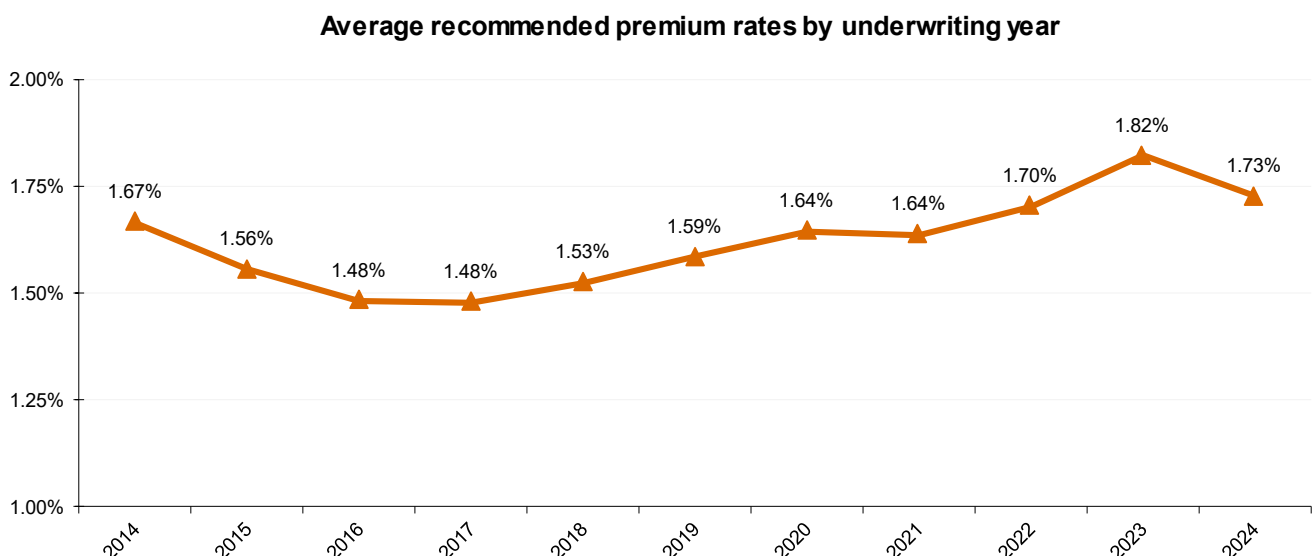
- (a) from 2.1 of this report
- (b) & (c) from 1.1 of our 1 April 2022 RPR report
- (d) includes allowance for IBNR
- (e) in inflated and discounted values
- (f) for grossing up the estimated risk cost of claims for expenses and margins, net of interest credit
- (g) adjusted to include final wage adjustments
- (h) = (d) x (e) x (1 + (f))
- (i) = (h) / (g) %

The above analyses and discussion suggest that the weighted average Gazette premium rate **decrease by 5.2%**.

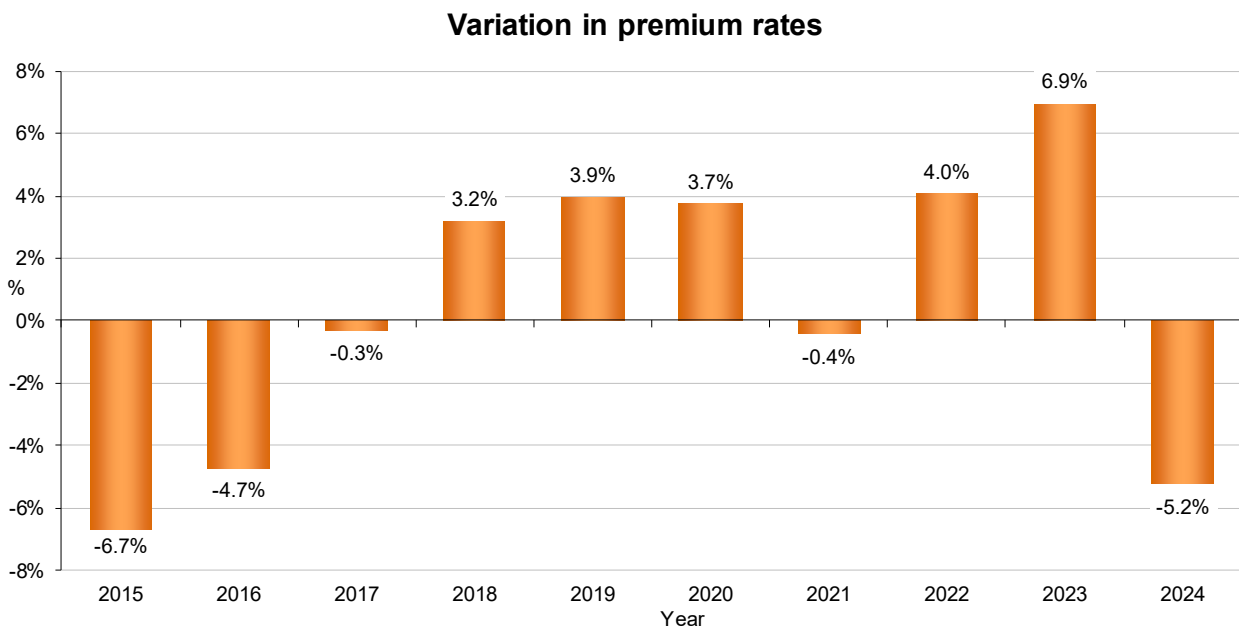
The premium rates do not include brokerage costs or an allowance for the 10% GST on premiums, which is generally recoverable by employers.

2.1.3 Historical aggregate premium rates

The historical aggregate premium rates over the last eleven years are as follows:



The chart below shows the variation in the average Gazetted recommended premium rates over the last ten years:



Overall, premium rates increased by 3.6% over the period shown.

The key drivers of past changes in the premium rates for the last five years were as follows:

Year	Increase / decrease	Main drivers
2019	3.9%	<ul style="list-style-type: none"> Reduction in wages An increase in the average claim size, including superimposed inflation, above the rate of inflation An increase in expenses Allowance for changes in fatalities benefits <p>Partially offset by:</p> <ul style="list-style-type: none"> Lower claim numbers for 2016/17 and in the half year to 31 December 2017 An increase in the number of employed persons over the six months to 31 December 2017
2020	3.7%	<ul style="list-style-type: none"> Reduction in wages compared to the wages used in last year's rates, after allowing for wage inflation An increase in expenses <p>Partially offset by:</p> <ul style="list-style-type: none"> Lower claim numbers for 2017/18 A decrease in superimposed inflation for the outstanding claims valuation, which more than offset the increase in the average claim size above the rate of wage inflation

Year	Increase / decrease	Main drivers
2021	-0.4%	<ul style="list-style-type: none"> Lower claim numbers for 2018/19 and in the half year to 31 December 2019 Increase in wages <p>Partially offset by:</p> <ul style="list-style-type: none"> An increase in the average claim size, including superimposed inflation, above the rate of inflation Reductions in market interest rates
2022	4.0%	<ul style="list-style-type: none"> Higher average claim size, including superimposed inflation, above the rate of inflation A 1% increase in contingency margin from 11% to 12% Reduction in market interest rates offset by a reduction in inflation rates <p>Partially offset by:</p> <ul style="list-style-type: none"> Increase in wages and employment to 31 December 2020 Lower incurred claim numbers for 2019/20 and in the half year to 31 December 2020, offset by the adjustment for the low claims in the June 2020 quarter
2023	6.9%	<ul style="list-style-type: none"> Higher incurred claim numbers for 2020/21 and in the half year to 31 December 2021 Higher average claim size, significantly above the rate of inflation A 1% increase in contingency margin from 12% to 13% <p>Partially offset by:</p> <ul style="list-style-type: none"> Increase in wages and employment to 31 December 2021 Decrease in the adopted forward looking superimposed inflation.

2023/24 premium rate drivers

The key drivers of the 5.2% decrease in premium rates for 2023/24 are:

- Increase in returned wages to 2021/22
- Fewer incurred claim numbers for 2021/22, partially offset by a higher half year to 31 December 2022
- Increase in the market interest rates by more than the increase in inflation rates
- Decrease in expense rate

partially offset by:

- Higher average claim size, above the rate of inflation
- Lower growth in employment in the six months to 31 December 2022, compared to last year

The table below shows the detailed 2023/24 premium rate drivers:

Key drivers				
2023/24 average premium rate change				
<i>Internal factors - claims, wages and other</i>				
Decrease in 2021/22 claim numbers	-2.4%			
Change in December 22 half year claim numbers	1.0%			
Average claim size increase more than inflation	5.2%			
Change in superimposed inflation	-0.7%			
Increase in wages	-6.1%			
Decrease in expenses	-1.0%			
<i>Total internal factors - claims, wages and other</i>				-4.3%
<i>External economic factors</i>				
Change in market interest rates	-4.7%			
Change in inflation rates	1.0%			
Change in employment in half year to December 2022	2.9%			
<i>Total external economic factors</i>				-1.0%
Total 2023/24 average premium rate change				-5.2%

The percentage increases are multiplicative rather than additive.

2.2 Premium rates by division

The recommended premium rates by division are:

Recommended Premium Rates at ANZSIC division level by underwriting year				
Division	2021/22	2022/23	2023/24	Difference (a)
A - Agriculture, forestry and fishing	5.49	5.72	5.12	-10.6%
B - Mining	1.48	1.61	1.52	-5.1%
C - Manufacturing	2.44	2.57	2.45	-4.7%
D - Electricity, gas, water and waste services	1.23	1.28	1.11	-13.9%
E - Construction	2.19	2.31	2.15	-6.8%
F - Wholesale trade	1.44	1.52	1.44	-5.5%
G - Retail trade	1.66	1.76	1.66	-5.8%
H - Accommodation and food services	1.74	1.95	1.87	-4.4%
I - Transport, postal and warehousing	2.76	3.04	2.93	-3.4%
J - Information media and telecommunications	0.49	0.59	0.51	-12.8%
K - Financial and insurance services	0.26	0.25	0.25	-1.8%
L - Rental, hiring and real estate services	0.86	0.91	0.86	-6.1%
M - Professional, scientific and technical service	0.36	0.39	0.37	-4.9%
N - Administrative and support services	2.14	2.22	2.17	-2.3%
O - Public administration and safety	2.70	3.03	3.02	-0.4%
P - Education and training	1.33	1.49	1.45	-2.9%
Q - Health care and social assistance	1.98	2.05	1.91	-6.5%
R - Arts and recreation services	1.85	2.01	1.87	-6.8%
S - Other services	1.69	1.82	1.63	-10.5%
Overall	1.70	1.82	1.73	-5.2%

Notes: (a) = (2023/24 rate) / (2022/23 rate) - 1 as a percentage

All 19 ANZSIC 2006 divisions have decreased in the 2023/24 premium rate compared to 2022/23.

The most significant decrease is for division *D- Electricity, gas, water and waste services*, which has decreased by 13.9% due to favourable experience in recent years in most of the classes within the division.

The overall aggregate premium rate is weighted by wages per division. Therefore, the 5.2% decrease in the overall premium rate is not a straight average of the percentage differences for each division, since the wages are not uniform by division.

We have not included a specific allowance for silicosis in the 2023/24 premium rates as we understand most WA employees currently employed in the relevant occupations have now been tested and their claims experience is mostly in the data, though the ultimate size of these claims is still uncertain as most claims remain open. There remains a risk that there could also be future claims reported from historical exposure which arise from people previously employed in the relevant industries who have not yet been tested and people who have been tested develop symptoms in the future.

As at 31 December 2022, excluding disallowed claims there were a total of 54 silicosis claims for 23 claimants, of which 52 silicosis claims lodged for 21 claimants are for non-mining industries. At our previous valuation there were 28 known silicosis claims for 15 claimants for non-mining industries that hadn't been disallowed. At this point, we don't expect the silicosis claim frequency in WA to be as prevalent as reported in Queensland.

COVID-19 could have a greater impact on some divisions than others, for example the presumptive legislation for healthcare workers. The claims reported to date have been spread across 17 of the 19 divisions, though overall have been fewer than our high-level modelling last year. As discussed earlier, we have not included an additional allowance for COVID-19 in the 2023/24 premium rates.

See section 7.3 for further discussion regarding both silicosis and COVID-19 claims.

2.3 Movement in relative premium rates

The tables below show the movement in the recommended premium rates exclusive and inclusive of the 5.2% decrease in the aggregate premium rate, as well as pre and post allowance for the 25% movement cap for both upwards and downwards.

2.3.1 Impact on class rates from change in claims experience

The following table compares the premium rates derived from the experience rating method for an unchanged premium pool, to the current 2022/23 Gazette rates, pre the 25% movement capping:

Table of movement in Recommended Premium Rates				
Size of Movement	Number of Recommended Rates which :			Total
	Decrease	Increase	Unchanged	
no. ≤ 5%	145	88	11	244
5% < no. ≤ 10%	103	47	0	150
10% < no. ≤ 15%	42	15	0	57
15% < no. ≤ 20%	11	10	0	21
20% < no. ≤ 25%	2	10	0	12
25% < no.	6	27	0	33
Total	309	197	11	517

Before allowing for the change in the average premium rate and without movement capping, six classes decreased by more than 25%, 27 classes increased by more than 25%.

Last year, two classes decreased by more than 25% and 26 classes increased by more than 25%.

2.3.2 Impact on class rates including aggregate rate increase

The following table is the distribution of the percentage movement in recommended rates allowing for the aggregate 5.2% decrease in rates, without a movement capping of 25%:

Table of movement in Recommended Premium Rates				
Size of Movement	Number of Recommended Rates which :			Total
	Decrease	Increase	Unchanged	
no. ≤ 5%	88	43	12	143
5% < no. ≤ 10%	149	19	0	168
10% < no. ≤ 15%	107	11	0	118
15% < no. ≤ 20%	39	6	0	45
20% < no. ≤ 25%	10	3	0	13
25% < no.	8	22	0	30
Total	401	104	12	517

Eight classes decreased by more than 25% and 22 classes increased by more than 25%. Last year, two classes decreased by more than 25% and 42 classes increased by more than 25%.

These classes were capped at a 25% increase or decrease in the table below.

Shown in the table below is the distribution of the percentage movement in recommended rates allowing movement capping of 25% which requires a premium shift/redistribution to other classes to ensure that the overall average premium rate is collected.

Table of movement in Recommended Premium Rates				
Size of Movement	Number of Recommended Rates which :			Total
	Decrease	Increase	Unchanged	
no. ≤ 5%	93	44	12	149
5% < no. ≤ 10%	152	16	0	168
10% < no. ≤ 15%	100	13	0	113
15% < no. ≤ 20%	41	7	0	48
20% < no. ≤ 25%	14	25	0	39
25% < no.	0	0	0	0
Total	400	105	12	517

61% of classes have a rate change (up or down) which is less than 10%, down from 62% last year.

Note that last year, there were three classes that were not capped at the 25% movement due to significant changes in the policy allocation for those classes. Thus for 2022/23 premium rates, class **75400- Justice** increased by more than 25% and the **77110 – Police Services** and **77140 – Correctional and Detention services** classes decreased by more than 25%. This is observable in Appendix A.

2.4 Minimum premiums

Revised minimum premiums are calculated each year based on movements in the Perth CPI index, but changes are only made in \$5 multiples. The recommended minimum premiums are:

Recommended Minimum Premium			
	Last year's Gazette	Indexed since last change	2023/24 recommended
Householder Policies	\$90.00	\$99.79	\$95.00
All Other Policies	\$265.00	\$293.76	\$290.00

Indexing is cumulative irrespective of when recommended minimum premiums were last revised.

2.5 Financial performance of WA workers compensation

The tables below show the performance of the WA workers compensation system on an accident year and financial year basis. The purpose of these is to assess the adequacy of premium rates for prior years.

2.5.1 Accident year performance table

Estimated Profit and Loss in the WA Workers' Compensation System (\$M)								
	2016	2017	Accident Year ending 30 June				2022	Estimated 2023
			2018	2019	2020	2021		
Gross earned premium (a)	1,058.6	1,005.6	1,065.0	1,211.7	1,258.7	1,414.0	1,590.3	1,657.6
Cumulative claim payments (b)	833.5	820.5	827.8	875.7	804.8	693.3	279.4	300.9
Outstanding estimate (c)	22.4	30.0	46.7	111.8	191.2	433.9	911.6	981.5
Net claims incurred (d)	855.9	850.5	874.5	987.4	996.0	1,127.2	1,191.0	1,282.3
Underwriting profit/loss (e)	202.8	155.1	190.4	224.3	262.7	286.8	399.3	375.3
Commission (f)	28.9	31.0	35.4	38.9	42.3	41.3	45.6	47.5
Other expenses (g)	165.3	165.6	188.3	197.6	199.6	231.7	227.7	237.3
Estimated investment income (h)	32.8	33.6	25.4	11.3	3.9	13.3	62.2	67.0
Estimated profit/loss - \$ (i)	41.3	-8.0	-7.8	-0.9	24.7	27.1	188.2	157.4
- % of gross EP (i)	4%	-1%	-1%	0%	2%	2%	12%	9%
Loss ratio (j)	81%	85%	82%	81%	79%	80%	75%	77%
					Total profit/loss (k)	76.443	264.667	422.075
					Total profit/loss % of EP (l)	1%	3%	4%
GWP on Gazette Rates (m)	1,178.5	1,162.3	1,151.2	1,263.9	1,363.7	1,459.4	1,599.3	1,833.7
Est EP on Gazette Rates (n)	1,178.5	1,167.2	1,154.6	1,230.1	1,333.8	1,430.7	1,557.3	1,763.4
Difference in EP (o)	119.8	161.6	89.6	18.4	75.1	16.6	-33.0	105.8
Estimated profit/loss on Gazette rates (p)	161.2	153.6	81.8	17.5	99.8	43.8	155.2	263.2
	14%	13%	7%	1%	7%	3%	10%	15%
					Total profit/loss (q)	557.603	712.837	976.049
					Total profit/loss % of EP (r)	7%	8%	9%
Number of active claims by accident year (s)	129	235	403	932	1,880	4,835	11,201	

Notes :

- (a), (b) from attachment G4 of this report, estimated for the 2023 accident year. Assumed a 6% discount on Gazette rates in 2023.
- (c) = PwC reserves from section 3.1.2 of this report. The 2023 accident year estimated as inflated average claim size x number incurred with 23% assumed paid in DY0 based on the proportion paid for DY0 in 2022. Excludes 5% claim management expense allowance and risk margins.
- (d) = (b) + (c)
- (e) = (a) - (d)
- (f) = brokerage from attachment D3 of report x (a)
- (g) = {total expense % from attachment D3 in this report x (a)} - (f)
- (h) = Assumed investment income based on discount factor calculated for each accident year
- (i) = (e) - (f) - (g) + (h), where the % in the row below is of (a). Estimated profit/loss is **after** allowance for superimposed inflation and the rate change in previous years. It is **before** allowance for (ie does not include) risk margins on outstanding claim reserves and the 12% contingency margin (CM) for 2022, 11% CM for 2018 to 2021 accident years and 10% CM adopted for 2016 to 2017
- (j) = (d) / (a) %
- (k) = sum of (i) in \$ million
- (l) = (k) / sum of (a) %
- (m) = gross written premium on the Gazette rates which applied for the year
- (n) = estimated earned premium on Gazette rates allowing for 30% of GWP to be unearned at each 30 June
- (o) = (n) - (a) ie Gazette earned premium minus insurer earned premium
- (p) = (o) + (i) ie estimated profit on Gazette rates, where % in row below is of (n)
- (q), (r) = defined as for (k) and (l) with reference to (p) and (n)
- (s) = the number of open claims from the consolidated Form WC20s supplied by returning entities.

In the table above note that the:

- Results are indicative of actual past and expected future claim trends
- Gross earned premium is different to last year's table as earned premium by accident year develops and becomes more certain as the actual experience of burning cost policies emerges
- Outstanding claim provisions contain no allowance for claims management expenses, as these are included in 'other expenses', or the risk margin

- Estimated profit/loss includes allowance for superimposed inflation, the rate change from previous years, expenses and commission/brokerage
- Estimated investment income credit is a theoretical allowance based on the forward rates implied by the Commonwealth Government Bond yield curve applicable for each year
- Estimated costs for the more recent years (2021 and 2022) comprise mainly uncertain future estimates. For example, of the total claims incurred for 2022 only 23% has been paid and 77% is the uncertain future estimate
- The whole of 2023 is an uncertain future estimate. The gross earned premium is subject to external market forces. Claims costs are influenced by market forces, uncertain future claim events and economic, legislative and social conditions.

The key points to note from the experience shown in the above table are:

- The estimated profit / loss for each accident year (row i) is significantly below the contingency margin allowed for in the premium rates from 2016 to 2021. The contingency margin allowance was 10% for 2016 and 2017, 11% for 2018 to 2021. The estimated profit margin was 4% in 2016, a 1% loss in 2017 and 2018, break-even in 2019 and a 2% profit for 2020 and 2021
- In 2022, the estimated profit is 12% which is in line with the contingency margin of 12%
- Compared to last year the estimated profit as a percentage of earned premium has:
 - Increased by 1% for 2016 and 2018. This is due to an increase in earned premium and a favourable movement in incurred costs.
 - Remain on par for the 2017 accident year, given the relatively similar proportional change in earned premium and incurred costs
 - 1% to 4% increase for 2019 to 2021, driven by the higher proportional increase in earned premium compared to the increase in incurred costs
- For the 2016 and 2017 accident years had insurers not discounted the recommended premium rates the estimated profit margin (row p) would have been 4% and 3% in excess of the 10% contingency margin respectively. However, for the 2018 to 2022 accident years, the estimated profit margin ranges from 2% to 10% below the relevant contingency margin for these years.

We provide a very early estimate of the 2023 accident year in the table above. We have considered the experience to December 2022 in our estimate of the incurred cost for 2023, however we do not have any wage information for that period. Assuming Gazette rates are discounted by 6% (which is the same level of discounting as 2022), we estimate a profit of 9%. This is below the 13% contingency margin assumed in the 2022/23 premium rates. Without discounting Gazette rates, the estimated profit margin is 15%, which is 2% above the contingency margin. Given the reliance on estimated experience, this result should be treated with caution as it is likely to change, perhaps significantly, as actual claims experience and wage levels emerge.

2.5.2 Financial year performance table

Estimated Profit and Loss in the WA Workers' Compensation System (\$ million)								
	Financial Year ending 30 June							
	2016	2017	2018	2019	2020	2021	2022	Total
Gross earned premium (a)	1,111.5	1,050.3	1,053.9	1,105.5	1,199.9	1,295.4	1,551.2	8,367.7
Claim payments (b)	890.0	876.3	848.4	838.1	898.3	962.8	1,080.4	6,394.2
Change in o/s estimate (c)	(73.9)	(139.0)	(96.3)	8.5	(0.6)	157.0	221.1	76.8
Net claims incurred (d)	816.2	737.3	752.0	846.6	897.7	1,119.8	1,301.4	6,471.0
Commission (e)	30.3	32.4	35.0	35.5	40.4	37.8	44.5	255.9
Other expenses (f)	173.6	173.0	186.3	180.3	190.3	212.3	222.1	1,337.8
Underwriting result (g)	91.5	107.7	80.6	43.1	71.5	(74.5)	(16.8)	303.0
Underwriting result % (h)	8%	10%	8%	4%	6%	-6%	-1%	4%
Number of active claims (i)	19,695	18,637	18,002	18,641	17,907	20,082	20,110	

Notes :

- (a) = from Form WC30 returns for 2021/22 and prior years
- (b) = from Form WC20 returns for 2021/22 and prior years
- (c) = from Form WC20 returns for 2021/22 and prior years.
- (d) = (b) + (c)
- (e) = commission rate for each financial year x (a) estimated
- (f) = {total expense % from attachment D3 in this report x (a)} - (e)
- (g) = (a) - (d) - (e) - (f)
- (h) = (g) / (a) %
- (i) = the number of open claims from the consolidated Form WC20s supplied by returning entities.

The gross earned premium is provided directly by insurers.

The above table is different from the accident year table as it:

- Does not include investment income (as this data is not returned by insurers)
- Does not use the benefit of hindsight for reserving
- Is based purely on data supplied by premium rate returning entities
- Shows the financial year results aggregated across accident years.

The outstanding claim provisions reflect market knowledge and conditions at the end of each year.

The overall underwriting result over the seven year period to 2022 on a financial year basis is 4% of gross earned premium, compared to 3% on an accident year basis.

Over 2016 to 2022 we estimate an aggregate investment return of \$181 million, which would have improved the overall profit over the seven year period to 2022, on a financial year basis, to 6% of gross earned premium. This is estimated using the average funds available for investment and the one year forward Commonwealth Bond rate.

3 Outstanding claims results

3.1 Outstanding claims liability

3.1.1 Central estimate

The projected gross outstanding claims cost for each payment type group in current values is:

Estimates of outstanding claims at 30 June 2022 (\$M) (a) (b)							
Acc yr ending 30 June	Weekly	Medical (Scheduled And Non-Scheduled) And Hospital Expenses	Allied Health	Workplace Rehabilitation	Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)	Investigation, Legal And Miscellaneous	Total
2022	318.372	73.430	33.755	28.595	300.997	106.758	861.908
2021	101.463	19.504	9.366	6.555	208.978	63.564	409.430
2020	23.199	4.876	2.586	0.937	113.714	33.006	178.319
2019	6.446	2.059	1.183	0.169	72.857	20.351	103.064
2018	1.552	0.687	0.482	0.073	31.161	8.056	42.011
2017	1.241	0.534	0.384	0.046	19.733	4.770	26.707
2016	1.081	0.437	0.326	0.026	14.667	3.312	19.850
2015	0.914	0.348	0.269	0.012	10.592	2.730	14.865
2014	0.785	0.281	0.225	0.004	7.776	2.206	11.278
2013 & earlier	1.673	0.667	0.500	0.043	20.523	4.088	27.495
Total	456.727	102.824	49.077	36.461	800.997	248.840	1,694.926

To generate the central estimates, the current value estimates are inflated and discounted, and a claims handling expense margin added. These are as follows:

Total of payment types					
Estimates at 30 June 2022 (\$M)					
Acc yr ending 30 June	30 June 2022 values (a)	Inflated values (b)	Infl/disc values (b)	Case estimates	Ratio (c)
2022	861.908	957.167	905.871	446.162	193%
2021	409.430	455.580	430.052	316.171	129%
2020	178.319	200.754	187.109	161.419	110%
2019	103.064	117.366	108.076	101.936	101%
2018	42.011	49.021	43.926	40.733	103%
2017	26.707	31.484	27.904	23.902	112%
2016	19.850	23.468	20.736	10.277	193%
2015	14.865	17.561	15.531	7.256	205%
2014	11.278	13.316	11.786	3.260	346%
2013 & earlier	27.495	30.315	28.925	28.730	96%
Total	1,694.926	1,896.033	1,779.916	1,139.844	149%

- Notes:**
- (a) from Appendix E3.5, excluding claims expenses
 - (b) includes 5% claims expenses
 - (c) ratio of actuarial estimates in 30 June 2022 values to case estimates.

The inflated and discounted central estimate at 30 June 2022 is \$1,779.9 million, which is \$101 million (6.0%) higher than the \$1,679.0 million estimated at 30 June 2021. The higher estimates are driven by a \$55.9 million increase in case estimates as at 30 June 2022. Payments in the six months to 31 December 2022 were also \$20.2 million higher than the payments in the six months to 31 December 2021.

The detail in the development of the outstanding claims can be found in Appendix E.

We have not included an explicit allowance for silicosis claims in our outstanding claims liabilities. Based on the claims experience up to 31 December 2022, excluding disallowed claims there were a total of 54 silicosis claims for 23 claimants, of which 52 silicosis claims lodged for 21 claimants are for non-mining industries. At our previous valuation there were 28 known silicosis claims for 15 claimants for non-mining industries that

hadn't been disallowed. We understand that most WA employees currently employed in the relevant occupations have now been tested. At this point, we don't expect the silicosis claim frequency in WA to be as prevalent as reported in Queensland. We will monitor any emergence in the scheme for such claims.

From the individual claims data up to 31 December 2022 received this year, there were 233 COVID-19 virus related claims that have been reported, of which 78 are disallowed or withdrawn. This is significantly fewer than estimated in our high-level modelling last year. Just under 60% of these claims relates to mental stress or vaccine related claims (54 of the claims related to mental stress due to circumstances relating to COVID-19 and 84 claims were due to adverse reaction to vaccine or other exposure). This compares to 23 claims known as at 31 December 2021 with 15 claims related to mental stress due to circumstances relating to COVID-19. The average claims cost experience to date for COVID-19 claims is similar to other claims in the scheme. Therefore, we have decided not to include any explicit allowance for COVID-19 beyond the extent that it is reflected in the claims data to date.

See section 7.3 for further discussion regarding both silicosis and COVID-19 claims. We will continue to closely monitor any emergence in the scheme for such claims.

3.1.2 Comparison with insurers

The following table compares our assessment of the outstanding claim estimates for the last five years to insurers' estimates in inflated values without discounting or claims handling expenses and excluding the oldest accident years (for 2022 comparison the 2014 and earlier accident years are excluded, for prior year valuation comparisons one less accident year is excluded (e.g. for 2021 only the 2013 and earlier accident years are excluded, and so on)).

Infl/Undisc estimates excluding 'earlier years' (\$M)			
Year ending 30 June	Actuarial (a)	Aggregate insurers (b)	% Difference (c)
2022	1,764.2	1,748.7	0.9%
2021	1,592.9	1,530.3	4.1%
2020	1,373.3	1,373.9	0.0%
2019	1,309.3	1,326.1	-1.3%
2018	1,278.4	1,316.4	-2.9%

Notes: (a) = item (b) from Appendix E3.5 in this year and previous year's report divided by 1.05 to remove claims expenses
 (b) = col(d) + col(e) from Form WC20 data supplied by insurers (see Appendix E1.6)
 (c) = (a) / (b) - 1

Our inflated estimates are \$15.5 million (0.9%) higher than the insurers' estimates. Last year our estimates were \$62.6 million (4.1%) higher than the insurers' estimates. This comparison excludes the 'earlier years' valuation category as some insurers include asbestos claims while others do not. We have not done a valuation of asbestos liabilities.

The table below shows an accident year comparison of our estimates and the insurers' estimates as at 30 June 2022:

Comparison of claim estimates as at 30 June 2022					
Accident year ending 30 June	Inflated actuarial o/s claim estimates \$M (a)	Insurers o/s claim estimates \$M (b)	Difference \$M (c)	Difference % (d)	
2022	911.6	914.9	-3.3	-0.4%	
2021	433.9	432.1	1.8	0.4%	
2020	191.2	190.3	0.9	0.4%	
2019	111.8	107.6	4.2	3.9%	
2018	46.7	51.6	-5.0	-9.6%	
2017	30.0	28.3	1.7	6.1%	
2016	22.4	12.9	9.4	72.8%	
2015	16.7	11.0	5.8	52.5%	
2014 & earlier	41.6	109.5	-67.9	-62.0%	
Total	1,805.7	1,858.1	-52.4	-2.8%	
Total excluding 2014 & earlier	1,764.2	1,748.7	15.5	0.9%	

Notes :

- (a) = item (b) from attachment E3.5 divided by 1.05 to remove claim expenses
- (b) = from consolidated Form WC20 columns (d) + (e)
- (c) = (a) - (b)
- (d) = $\{(a) / (b) - 1\} \times 100$

Our estimates are generally higher than insurers for all accident years except 2014 and earlier, 2018 and 2022.

In total, our inflated estimates excluding earlier years as at 30 June 2022 of \$1,764 million are 10.8% higher than our estimates as at 30 June 2021 of \$1,593 million. We are not privy to the valuation process for each of the insurers so can't explain the differences in the results between our estimates and theirs. However, as our valuation is undertaken in the March 2023 quarter, we have incorporated the higher future inflation rate estimates in our valuation.

The 'earlier' years are a major source of difference due to insurers' reserves for asbestos related claims. Some but not all insurers include asbestos claims on their Form WC20.

Specialised data and methods are required to reserve IBNR dust-disease claims, and our central estimate does not include a full asbestos claim valuation. After discussions with WorkCover WA, a full asbestos valuation is not required, as it should not affect the level of recommended premium rates, which depends on the more recent accident years.

3.2 Actual vs expected claims experience

The 2021/22 experience showed that for:

- Claims incurred up to 30 June 2021, claims reported were 8% more than expected, claim payments were 3% higher than expected and claim closure rate was 1% slower than expected
- Claim reports for the 2021/22 accident year were 1.4% fewer than expected, active claims are 1.0% more than expected, payments per claim incurred were higher than expected but average case estimates were slightly lower than expected.

Over the six months to 31 December 2022 for the 2021/22 and earlier accident years there were 4% more claim reports than expected, payments were 3% lower than expected and the claim closures were 1% faster than expected. For the 2022/23 accident year, claim reports was slightly more than expected, but claim closures were much slower than expected and claim payments were lower than expected.

See Appendix F for full details.

3.3 Reconciliation of provisions

The tables below show the build-up of inflated and discounted outstanding claim estimates, including claims handling expenses, over 2021/22, for claims incurred to 30 June 2021 for:

- Our actuarial projections
- Insurers outstanding claim estimates.

The reconciliation of our projections is on an inflated and discounted basis while the insurer's reconciliation is on an inflated and undiscounted basis.

Actuarial reconciliation

Reconciliation of actuarial estimates (\$M)									
Accident year ending 30-June	2021	2020	2019	2018	2017	2016	2015	2014 & earlier	Total
A. Estimates at 30 June 2021 (a)	870.9	375.8	188.0	86.3	46.9	30.4	22.3	58.3	1,679.0
B. Gross payments 1 July 2021 to 30 June 2022	436.1	198.8	94.5	30.7	11.6	6.0	5.3	18.0	800.9
C. Expenses (b)	21.8	9.9	4.7	1.5	0.6	0.3	0.3	0.9	40.0
D. Assumed investment return (c)	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	1.0
E. = A-B-C+D	413.6	167.3	88.8	54.1	34.8	24.2	16.8	39.5	839.0
Updated estimates at 30 June 2022									
F. Revised estimates at 30 June 2022 (d)	430.1	187.1	108.1	43.9	27.9	20.7	15.5	40.7	874.0
G. = F-E	16.5	19.8	19.2	-10.1	-6.9	-3.4	-1.3	1.2	35.0
Change 1 July 2021 to 30 June 2022									
H. Proportion of change attributable to									
Changes in real rates of return	-7.7	-3.9	-2.5	-1.3	-0.9	-0.7	-0.5	-0.8	-18.3
Change in experience	18.3	6.2	21.2	-3.6	-2.1	-2.0	2.0	3.5	43.7
Change in actuarial assumptions	5.8	17.5	0.5	-5.3	-3.9	-0.8	-2.8	-1.4	9.6
I. Amount incurred and outstanding for 2021/22 accident year (d)									905.9
J. = F + I									1,779.9
Total outstanding liability at 30 June 2022									

- Notes :**
- (a) From Appendix E3.5 of our 1 April 2022 report
 - (b) Assumed to be 5% of claim payments in 2021/22
 - (c) Calculated using 0.08% pa being the one year forward rate from Appendix D1 of our 1 April 2022 report
 - (d) From Appendix E3.5 of this report.

The table shows that:

- Overall, there was a strain on reserves of \$35 million, which is 2.1% of the opening 30 June 2021 estimates. This is due to changes to:
 - Experience leading to a strain on reserve of \$43.7 million (2.6% of opening estimates)
 - Change in actuarial assumptions caused a strain of \$9.6 million (0.6% of opening estimates).
- Partially offset by:
- Real rates of return, which lead to a release of \$18.3 million (1.1% of opening estimates) as interest rates increased by more than inflation.
- There has been a strain across accident years from 2019 to 2021 and for the 2014 and earlier years. The strain for 2019 to 2021 is due to higher payments and case estimate development which increased the expected average claim size and more claims reported compared to expected.

Insurer reconciliation

Reconciliation of insurers' estimates (\$M)									
Accident year ending 30-June	2021	2020	2019	2018	2017	2016	2015	2014 & earlier	Total
A. Inflated estimates at 30 June 2021 (a)	850.3	382.0	200.5	84.1	43.6	21.9	17.8	118.8	1,718.9
B. Gross payments 1 July 2021 to 30 June 2022	436.1	198.8	94.5	30.7	11.6	6.0	5.3	18.0	800.9
C. Expenses (b)	21.8	9.9	4.7	1.5	0.6	0.3	0.3	0.9	40.0
D. = A - B - C	392.4	173.3	101.2	51.8	31.4	15.6	12.3	99.9	878.0
Updated inflated estimates at 30 June 2022									
E. Revised inflated estimates at 30 June 2022 (c)	453.7	199.9	113.0	54.2	29.7	13.6	11.5	114.9	990.4
F. = E - D	61.2	26.6	11.8	2.4	-1.7	-2.1	-0.7	15.0	112.5
Change 1 July 2021 to 30 June 2022									
G. Inflated amount incurred and outstanding for 2021/22 accident year (c)									960.6
H. = E + G									1,951.0
Total inflated outstanding liability at 30 June 2022									

- Notes :**
- (a) From columns (d) + (e) on insurers consolidated Form WC20 for 30 June 2021 (see our 1 April 2022 report Appendix E1.5 + E1.6) adjusted for 5% claim management expenses
 - (b) Assumed to be 5% of claim payments in 2021/22
 - (c) From columns (d) + (e) on insurers consolidated Form WC20 for 30 June 2022 (as per Appendix E1.5 + E1.6) adjusted as per notes (a).

This table shows that:

- Overall, there was a strain on insurer's inflated estimates of \$112.5 million, which is 6.5% of the opening estimates
- Most accident years had strains, except for the 2015 to 2017 accident years.

The reconciliation of our estimates on an inflated basis is shown in the table below.

Reconciliation of actuarial inflated estimates (\$ million)									
Accident year ending 30-June	2021	2020	2019	2018	2017	2016	2015	2014 & earlier	Total
A. Inflated estimates at 30 June 2021 (a)	884.2	383.2	192.6	89.4	49.1	31.9	23.3	59.5	1,713.3
B. Gross payments 1 July 2021 to 30 June 2022	436.1	198.8	94.5	30.7	11.6	6.0	5.3	18.0	800.9
C. Expenses (b)	21.8	9.9	4.7	1.5	0.6	0.3	0.3	0.9	40.0
D. = A - B - C	426.4	174.5	93.4	57.2	37.0	25.6	17.8	40.5	872.3
Updated inflated estimates at 30 June 2022									
E. Revised inflated estimates at 30 June 2022 (c)	455.6	200.8	117.4	49.0	31.5	23.5	17.6	43.6	938.9
F. = E - D	29.2	26.2	24.0	-8.2	-5.5	-2.1	-0.2	3.1	66.5
Change 1 July 2021 to 30 June 2022									
G. Inflated amount incurred and outstanding for 2021/22 accident year (c)									957.2
H. = E + G									1,896.0
Total inflated outstanding liability at 30 June 2022									

On an inflated basis, our estimates had a strain on reserve of \$66.5 million (3.9%).

Overall, our estimates on an inflated basis showed a lower strain on reserve by \$45.9 million compared to insurers, mainly driven by:

- A lower strain on reserve in our estimates for the 2021 and the 2014 and earlier accident years, in addition to a higher release of reserve in comparison to the insurers' estimate for the 2018 accident year
- Partially offset by a higher strain on reserve for the 2019 accident year in our estimate as we had a lower estimate for 2019 than insurers last year but at this valuation have a higher estimate than insurers.

The 2021 and 2020 accident years had the largest strains for both ourselves and insurers. Our estimates at 30 June 2021 were higher than insurers for 2021, is partially why the strain on our reserves is lower. There is still a high portion outstanding for these years, so the ultimate incurred cost is still uncertain.

4 Data used in the review

4.1 Insurer data

We were supplied the following electronic forms as at 30 June 2022:

- Form WC12 – individual policy data with associated claims data for ANZSIC 2006 premium rating classes
- Form WC20 – aggregate claims data for each accident year
- Form WC30 – premium and expenses data
- Checklist – performs high level checks on forms.

The data is supplied to WorkCover WA by the premium rate returning entities. WorkCover WA reviews the data and then forwards it to us.

Policy data refers to the number of policies, written premium and written wages and is presented on an underwriting year basis. Form WC12 presents policy-level earned premium and earned wages on a financial/accident year basis based on the ANZSIC 2006 classifications and so matches the claim data exposure period.

Claims data refers to claims reported, active claims (Form WC20 only), payments, case estimates and development, and incurred but not reported (IBNR) estimates (Form WC20 only). Claims data is presented on a financial year basis, subdivided by accident year.

We were also provided with a half yearly WC20 to 31 December 2022.

For further details on the insurer data, see Appendix B1.

4.2 Other data

WorkCover WA provided the following data:

- Payment data for the 2022 financial year, split into the 12 different payment types and by accident year.
- Claim payments for the half year to 31 December 2022
- Individual list of claims for each financial year at 30 June 2022 and 31 December 2022 to assess any change in the frequency of claims for claimants over 60 years old, to track movement in both silicosis and COVID claims, as well as the review of the forward-looking superimposed inflation
- Claims with an incurred cost estimate over \$0.2 million, as at 30 June 2022
- Number of Schedule 2, Redemptions and section 92(f) settlements lodged and payments made per quarter from the WorkCover WA claims system
- Lump sum payments split into lump sum settlements with and without election, Schedule 2 and legal payments
- Number of claims reported each quarter split into duration of days lost of 0, 1 to 4, 5 to 19, 20 to 59, 60 to 119, 120 to 179 and greater than 180 days time lost
- Self-insurers' wages for the 2021/22 and 2020/21 financial year with comments for those self-insurers' with large movement
- Silicosis and COVID-19 claims information reports.

Appendix B2 discusses the form of the data provided in greater detail.

4.3 Data quality

The overall quality of the data was acceptable for our premium rate projections, once the data validation process was completed.

In summary, of 20 (20) returns received:

- 7 (11) required no further action
- 13 (9) insurers had to clarify specific issues or do a first revision
- 0 (0) insurers had to further clarify issues or do a second revision.

The numbers in brackets are last year's.

The data quality was reasonably consistent with previous years.

We encourage insurers to continue to compare their submissions with the prior year's final version and provide explanations for any large differences. This will reduce the number of queries we have when we review the initial submissions. In addition, it is also essential that all required WC12 data corrections are submitted by insurers as a revision of the form. This helps to improve efficiency and reduce the potential for data errors to be introduced when manual data corrections are made.

At the previous valuation one insurer had issues with the half yearly WC20. We did not encounter this problem at this year's valuation. We continue to encourage these to be checked closely to ensure they contain half yearly information not quarterly information.

4.4 Data enhancements

Future enhancements to data could be to:

- separately identify and possibly exclude the impact of asbestos claims for DY10 and later, to ensure they are not unintentionally impacting the estimates for the future premium rating years
- include a flag for secondary psychological injury claims in the data so we can better monitor and understand the impact of these to the scheme and how their impact changes over time.

4.5 General data considerations

Former insurers

Even though insurers may surrender their licences to renew or write new policies, they will generally have outstanding and IBNR claims to manage. These claims are a cost to the system and hence need to be reported.

There are guidelines in place for data provision during the claim run-off period and WorkCover WA have advised us that supervisory control of the claim run-off continues once the licence to write premiums is surrendered.

Mergers/takeovers

Where one insurer takes over another on the basis that it manages the claims on a 100% recovery basis, the cost of these managed claims still need to be returned since they are a cost to the system.

Administrative issues

WorkCover WA assists us with the efficient administration of the quarterly and annual statutory returns, by advising us of any changes to the licensing situation of insurers/self-insurers as they occur, e.g.:

- New insurer / self-insurer licences granted
- Insurer / self-insurer licences surrendered
- Purchase / merger of insurers.

Such advice includes information such as the full details of effective dates, and any relevant background detail.

Self-Insurers

Self-insurers supply all the statutory returns submitted by insurers, excluding Form WC12. They renew their licences annually.

RiskCover is the only self-insurer included in the calculation of the recommended premium rates, as requested by WorkCover WA.

LGIS - WorkCare has not been included in the calculation of the recommended premium rates since 2002/03. As a result, the recommended premium rate for ANZSIC code 75300 – Local Government Administration should be treated with caution as it does not reflect the current experience of the Local Government self-insurance scheme as it only includes the data from the privately insured entities.

The premium rates for other classes, where there is a dominant employer, could be similarly non-reflective of the whole WA experience for that class if that employer is self-insured or changes between being insured and self-insured.

5 Calculation methods

5.1 Projection methods

We assessed the outstanding claims liability by projecting cashflows separately by payment type. The payment types are grouped as follows:

- Weekly
- Medical (Scheduled and Non-Scheduled) and Hospital Expenses
- Allied Health
- Workplace Rehabilitation
- Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)
- Investigation, Legal and Miscellaneous.

These are the same payment groupings as the previous valuation.

The first four groupings listed above were projected using the payments per active claim (PPAC) and payments per claim incurred (PPCI) methods. The Lump Sum and Investigation, Legal and Miscellaneous groups were projected using the payments per claim finalised (PPCF) and PPCI methods.

Appendix C has a description of each of the projection methods.

The above methods calculate the projected liability in current values, including allowances for superimposed inflation.

The estimated liability for outstanding claims is calculated as the present value of the future claim payments allowing for:

- a Future increases prior to payment, due to claims inflation
- b Discounting to take into account the time value of money
- c Expenses associated with claims handling.

This approach is consistent with the standards described in section 1.3.

The question of uncertainty in the actuarial estimates and the determination of provisions are discussed in sections 7.1 and 7.2.

5.2 Relative premium rates methods

Calculate weighted average rates

The raw premium rate is calculated on an accident year basis for 2016/17 to 2021/22 using the following formula:

$$\frac{\text{developed total estimate (claim payments + outstanding case estimates)}}{\text{developed returned earned wages}}$$

This is done by industry division, subdivision, group and class.

Both the total estimate and returned earned wages are developed on an individual insurer basis and then cumulated to attain the industry totals. Returned earned wages are developed by considering the extent to which individual insurers' returns have developed in the past. The total estimate is developed based on the insurers' expected development, provided on Form WC20, adjusted on an aggregate level to align with our total development expectations.

The weighted average rates (WARs) are calculated from the raw rates by applying the following weightings to each development year (weights for prior rating years are for information only):

Weightings	Development year					
	0	1	2	3	4	5
30 June 2022	0.6	0.9	1.0	1.0	1.0	0.5
30 June 2021	0.6	0.9	1.0	1.0	1.0	0.5

The current accident year experience is given only 60% weighting because of the low level of development. This increases to 90% for development year 1. The rates are then standardised to give an overall weighting of 100% up to development year 4, reducing thereafter due to lower relevance of the older years. The weights sum to five full years.

The weightings for this year are the same as the weightings for previous year's valuation.

Partial credibility rates

Partial Credibility Rates (PCRs) are calculated from the WARs using aggregate weighted wages as the exposure measure. PCRs are calculated by industry division, sub-division, group and class progressively, using a system of hierarchical credibility.

To obtain full credibility, the aggregated weighted wages for each class, group, sub-division or division need to be greater than \$2,685 million. This is 5.4% higher than the \$2,548 million from the analysis last year. The increase is due to higher estimated average wages and lower projected claim frequency.

Under this method the following obtained full credibility:

- 19 (19) of 19 divisions
- 36 (35) of 86 sub-divisions
- 35 (35) of 214 groups
- 34 (35) of 517 premium rating classes.

Figures in brackets are last year's.

The table below shows the distribution of credibility level achieved by rating classes on their own claims experience:

Credibility Level	This year		Last year	
	No. of Classes	%	No. of Classes	%
$x \leq 25\%$	241	46.6%	240	46.4%
$25\% < x \leq 50\%$	152	29.4%	153	29.6%
$50\% < x \leq 75\%$	57	11.0%	58	11.2%
$75\% < x < 100\%$	33	6.4%	31	6.0%
100%	34	6.6%	35	6.8%
Total	517	100.0%	517	100.0%

Where a class, group or sub-division does not have full credibility the rate is built-up from group level, progressively through sub-division and division level, if necessary.

The wages for some classes were aggregated to calculate the credibility factor. This is done to promote homogeneity of experience where rating classes have claim experience vastly different from the other classes in the same group.

This year, in reviewing the impact of Silicosis claims on individual classes, we observed that two classes had a class rate before credibility that was increasing at a faster rate than the group rate. To ensure that the premium rates for these classes include an appropriate allowance for the higher recent claims experience, we have increased the credibility of the following two classes by adding 25%:

- 20901 - Other Non-Metallic Product Manufacturing Stone Products
- 20290 - Other Ceramic Product Manufacturing.

After allowing for this adjustment the class credibility increases to 35% and 43% respectively. Given the relatively small class size and volatility of the experience, we have not increased the class experience to 100%. We will monitor the future Silicosis experience and review the credibility weighting in future valuations.

We have assigned class **91290 - Other Horse and Dog Racing Activities** credibility of 100%. This class has a calculated 14% credibility based on wages but the claim activity in this class has been significantly higher than all other classes in the subdivision. The class experience has been relatively stable at this higher level, so we considered the higher credibility to be appropriate despite it having lower wages. This is the same approach as last year.

See Appendix C for a detailed description of changes made to credibility factors for select classes.

Capping large claims

Large claims are capped when calculating relative premium rates to moderate their influence on the rates at a class level.

For the 2021/22 accident year, large claims are capped if the incurred cost estimate is greater than \$7.1 million. The level that large claims are capped at is indexed in line with wage inflation, starting from a base of \$3.0 million for the 2000/01 accident year.

Large claims are also capped based on their size relative to the rating class to which they belong. Claims are capped if the incurred cost is 12% or more of wages for that rating class. For the 2021/22 accident year, the minimum incurred cost for which this capping is applied is \$0.48 million. This has also been indexed in line with wage inflation, starting from a base of \$0.20 million for the 2000/01 accident year.

Large claims are capped only for the purposes of calculating the relative premium rates. They are not capped for the calculation of the Scheme's outstanding claims liability. As such, the cost above the cap is in effect respread over the whole scheme for valuation purposes.

For the 2017 to 2022 accident years, which have a greater than 0% weighting (see above in this section), at class level six (six) claims are capped, while at group, sub-division and division level two (two) claims are capped. The numbers in brackets are last year figures.

Our methodology for capping large claims remained unchanged from our previous recommended premium rates.

The large claims capping method is discussed in further detail in Appendix C2.

Normalise partial credibility rates

The PCRs are normalised such that when they are applied to adjusted accident year returned wages for 2021/22 by class, the aggregate notional premiums are equal to the aggregate notional premiums, based on the same wage data, calculated using the 2022/23 Gazette rates.

The normalised PCRs (NPCRs) are subjected to absolute minimum and maximum rates of \$0.25 and \$12.00 per \$100 of wages. This is the same as last year.

Capping the movement of premium rates

In addition, the normalised PCRs post the absolute minimum and maximum adjustment (above) is then further capped in their total movement from the 2022/23 Gazetted rates (both upwards and downwards) by 25%. This is intended to strike a balance between manageable increases for policyholders and limiting the cross-subsidisation between classes. This approach is the same as last year.

Having applied these limits, the NPCRs are normalised once again to the aggregate notional premiums at Gazette rates.

Weighted loss ratio

The weighted loss ratio in Appendix A, is calculated as follows:

$$\frac{\text{estimated risk cost of claims (based on this year's Gazette rates times wages)}}{\text{premium on last year's Gazette rates}}$$

The weighted loss ratio is not directly used when calculating recommended premium rates. However, one divided by the weighted loss ratio is equivalent to the combined loadings factor, which is used (see section 6.5).

6 Assumptions

6.1 Financial assumptions

Future inflation and interest rates

The financial assumptions of future inflation and market rates of interest are as follows:

Years ahead	Interest rate 28 Feb 2023	Inflation rate 28 Feb 2023	Real rate 28 Feb 2023	28 Feb 2022
1	3.17%	3.50%	-0.33%	-2.42%
2	3.68%	3.75%	-0.07%	-1.91%
3	3.52%	3.50%	0.02%	-0.75%
4	3.64%	3.25%	0.39%	-0.27%
5	3.78%	3.26%	0.52%	-0.32%
6	3.90%	3.27%	0.63%	-0.39%
7	4.01%	3.28%	0.73%	-0.43%
8	4.11%	3.29%	0.83%	-0.45%
9	4.21%	3.30%	0.91%	-0.43%
10	4.29%	3.31%	0.98%	-0.39%
11	4.36%	3.31%	1.04%	-0.31%
12	4.42%	3.32%	1.09%	-0.22%
13	4.47%	3.33%	1.14%	-0.15%
14	4.51%	3.34%	1.17%	-0.09%
15	4.54%	3.35%	1.18%	-0.04%
16	4.55%	3.36%	1.19%	-0.01%
17	4.56%	3.37%	1.19%	0.01%
18	4.56%	3.38%	1.18%	0.02%
19	4.56%	3.39%	1.17%	0.04%
20	4.56%	3.40%	1.16%	0.05%
21	4.55%	3.41%	1.15%	0.07%

For this valuation, there has been an increase in the real rate of return for all years which decreases the liabilities. This is mainly due to increases in the interest rates which more than offset the increase in the short-term inflation rates.

The interest rate for one quarter of the first year ahead $[(1 + 3.17\%)^{0.25} - 1] = 0.78\%$ is included in the calculation of the average premium rate. This is because premiums are received on average three months earlier than the point to which claims are discounted.

See Appendix D1 for further information.

Employment growth for the half-year to 31 December 2022

To determine the employment growth, we have used the movement in the ABS Cat. 6202.0 Table 8 Labour Force for full time persons for Western Australia. This year the employment growth of 0.2% has been calculated based on the growth rate factor between the average index in the 30 June 2022 quarter and 31 December 2022 quarter. Over the equivalent period last year, 30 June 2021 to 31 December 2021, there was an increase of 3.1%.

Past general inflation

To determine the minimum premium for householders and other policies we have used the movement in the ABS Cat. 6401.0 Table 1 CPI all groups index numbers for Perth. CPI is expected to increase by 4.0% over 2023/24, this is based on our expectations of CPI growth and is slightly lower than the increase 2021/22 (6.0%) and expected for 2022/23 (6.2%).

Past wage inflation

Payments and case estimates are inflated to current values based on the ABS Cat 6302.0 Average Weekly Earnings for Western Australia (persons full-time adult ordinary time earnings). Details are in Appendix D1.

6.2 Superimposed inflation

The superimposed inflation assumptions for each payment category are shown in the table below. As per last year, we have used different superimposed inflation rates for the outstanding claims blend and 2023/24 premium rate calculation.

6.2.1 Outstanding claims

We have analysed the historic level of SII for each payment group and weighted these by the outstanding claims amount to find an overall level. This is shown in the table below.

Superimposed Inflation							
	Weekly	Medical (Scheduled And Non-Scheduled) And Hospital Expenses	Allied Health	Workplace Rehabilitation	Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)	Investigation, Legal And Miscellaneous	Total
30 June 22	4.5%	3.3%	5.9%	4.3%	4.7%	5.5%	4.7%
30 June 21	5.0%	3.2%	5.4%	4.5%	6.0%	5.9%	5.5%

See Appendix D2 for more details of our analysis.

Superimposed inflation for the outstanding claims is 4.7% overall, which is lower than the 5.5% adopted last year. All payment groups have decreased except for a small increase for the Medical and Hospital (Scheduled and Non-Scheduled) expenses and Allied Health.

The high superimposed inflation rates are mainly driven by the reduction in the number of claims, and resultant change in claims mix as the number of lower cost claims continue to reduce. The number of claims is relatively stable over 2021/22 and 2020/21, so we anticipate that the superimposed inflation rate may be stabilising at a lower level in the future.

6.2.2 2023/24 premium rate calculation

Historically the reduction in small claims and change in claims mix lead to the high rate of SII over the past decade. However, more recently, the number of claims incurred has begun to stabilise at a lower level. As a result, we have performed a separate analysis of SII for premium rating purposes. The analysis indicated a SII rate of 3.0% which is slightly higher than the 2.9% adopted last year. See Appendix D 2.2 for more details.

6.3 Expenses

Total expenses

A three year average is calculated from the expenses provided by insurers on the WC30 form. The expenses adopted are as follows:

	Expense Ratios			Adopted
	2021/22	2020/21	2019/20	3 yr ave
Commission / Brokerage	2.9%	2.9%	3.4%	3.1%
General Fund Levy	1.1%	1.2%	1.4%	1.2%
Management Expenses	13.3%	15.1%	14.5%	14.3%
Total	17.2%	19.3%	19.2%	18.6%
Total excluding brokerage	14.3%	16.4%	15.9%	15.5%

Note that brokerage, the supplementation fund levy (if applicable) and GST on the premium are not included in the recommended premium rates.

The total expenses, excluding brokerage, of 15.5% is lower than the 16.2% last year.

If a one year average of expenses was used in the premium rates, the average premium rate would decrease by 1.77%. This is shown in the premium rates sensitivity table in section 7.2.3.

Claims handling expenses

Claims management expenses equal to 5% of the projected future claim payments have been allowed for in the outstanding claims liability. This is intended to be a market level reserving allowance for claim handling costs.

Goods and Services Tax

Our adopted projection bases use claim payments data, which includes Goods and Services Tax (GST) net of Input Tax Credit (ITC) and Decreasing Adjustment Mechanism (DAM) and therefore appropriate GST net of ITC, and/or DAM allowance is included in the results obtained. As mentioned above, the 10% GST on the workers compensation premium itself (which employers will generally be able to recover via an input tax credit) is not included in our analysis or the recommended premium rates.

6.4 Contingency margin

This year, we have maintained the contingency margin at 13% as per last year. This was based on a full review in 2020, with updated analysis last year.

The contingency margin allows for insurers' cost of servicing the regulatory solvency capital required without the purchase of reinsurance.

6.5 Combined loadings and loss ratio

The loss ratio is calculated from the expenses and contingency margin above and includes interest earned on earlier receipt of premiums.

A combination of these loadings, excluding brokerage, is:

$$\begin{aligned} \text{Gross premium} &= \frac{\text{Risk Premium}}{(1 - \text{total expenses} - \text{contingency margin}) \times \text{interest earned factor}} \\ &= \frac{\text{Risk Premium}}{(1 - 0.155 - 0.13) \times 1.0317^{0.25}} \end{aligned}$$

Gross premium = Risk premium x 1.3881 (combined loading factor)

This is equivalent to a loss ratio of:

Risk premium / Gross Premium = 72.0% excluding brokerage

The 1.3889 combined loading factor in the premium rates is calculated as the inverse of the loss ratio, rounded to four decimal places.

The loss ratio adopted last year was 70.8%. The increase in the loss ratio adopted this year is due to the increase in the one year interest rate, partially offset by a decrease in total expenses.

6.6 Premium rating caps

Minimum and maximum premium rating caps

As detailed in section 5.2, premium rates are subject to absolute minimum and maximum rates. The minimum and maximum rates are \$0.25 and \$12.00 per \$100 of wages, which is the same as last year.

In addition, we have excluded the following classes from the premium pool respread calculation:

- 07000 – Oil and Gas Extraction on Land
- 96020 – Undifferentiated Goods – Producing Activities of Private Households for Own Use
- 96030 – Undifferentiated Service – Producing Activities of Private Households for Own Use
- 96011 – Private Households Employing Staff – Occasional Staff

These are the same classes excluded as last year. Premium rates for 12 rating classes were increased to the minimum rate, one class was decreased to the maximum premium rate (prior to the 25% movement cap) and all other premium rates have reduced by 0.3% as a result of respreading the extra premium generated. This is higher than the 0.2% for redistribution last year.

Premium rate movement cap of 25%

As detailed in section 5.2, premium rates are subject to absolute minimum and maximum rates and a movement cap from its previous comparable Gazetted rates. This movement cap was retained at 25% this year, the same movement rate as last year. In section 5.2, we have noted three classes for which this movement cap was not applied.

This capping of movement increases all premium rates (not subject to capping) by 0.3% as a result of respreading the extra premium required. This has reduced from 0.6% last year.

Thus, the overall net impact of the respreading due to the minimum and maximum rates as well as the movement capping is close to 0%.

Large claims capping

As detailed in section 5.2, the 2021/22 accident year large claims are capped at \$7.1 million. A cap is also applied for claims above 12% of wages if the claims are between \$0.48 million and \$7.1 million. In both cases, these are the values for the 2021/22 accident year, which have been indexed from base values set for the 2000/01 accident year. This is the same method as last year.

For the 2017 to 2022 accident years, which have a greater than 0% weighting (see section 5.2), at class level six (six) claims are capped, while at group, sub-division and division level two (two) claims are capped. The capped large claims represent 0.4% (0.2%) of the 2023/24 premium pool.

The numbers in brackets are last year figures.

6.7 WA legislative changes

No explicit allowance has been made for the 2020 Amendment Act which commenced on 12 October 2020. We have been advised that some of the increase in case estimates may be related to the discontinuation of the common law termination date as claimants and their legal advisers are waiting longer to determine the level of whole person impairment and to elect to pursue common law benefits. It may be used in negotiations to obtain a higher settlement. It will take a few years for the evidence to emerge to determine if this translates into an actual increase in lump sum settlements or is a temporary behavioural change but with no increase in benefits paid. Therefore, the 2020 Amendment Act may be implicitly allowed for within the case estimates.

We note that the first cohort of claims impacted by the 2020 Amendment Act would be those claims for the 2019/20 accident year. Thus, in next year's data as at 30 June 2023, we may be able to see the percentage of claims that commence a common law claim and the impact on case estimates.

No allowance is made for the *Workers Compensation and Injury Management Bill 2023* which is currently tabled in WA Parliament. This is consistent with previous legislative change where any impact on benefits is only allowed for once the Bill has been passed. We understand that even when passed the effective date of the legislation is expected to be after the completion of the 2023/24 underwriting year.

For more details on what the Acts entailed see Appendix D5.

6.8 Board directives

The following WorkCover WA Board directives have been issued:

- All self-insurers, with the exception of the ICWA-RiskCover, are to be excluded from the recommended premium rates (LGIS WorkCare was included in the rates until 2004)
- Brokerage is to be excluded from the premium rates
- Premium rates are to be specified gross of reinsurance. The contingency margin allows for the insurer to hold the total amount of capital required to support the business without the purchase of reinsurance
- Premium rates are calculated using earned wages, which provides more stable premium rates than the use of written wages
- The level for large claim capping
- The minimum and maximum premium rates
- A maximum movement (both upwards and downwards movement) of 25% for the premium rates by class based their comparable Gazetted 2021/22 rates. This was part of the strategy to smooth the transition for

premium rates calculated and published based on ANZSIC 1993 to ANZSIC 2006. The board advised that this is now intended to strike a balance between manageable increases for policyholders and limiting the cross-subsidisation between classes. The percentage cap is the same as last year's cap.

- Use a three year average to calculate the expense loading
- Contingency margin remains at 13%.

7 Uncertainty

7.1 Uncertainty in the estimates

Actuarial estimates are obtained after analysis of past claims experience. From these analyses, models of the claim payment process can be established and used to project future payments on claims outstanding at the valuation date.

The estimates of outstanding claims obtained in this manner are indeed estimates in the sense that there is a degree of uncertainty as to the difference, which will ultimately arise between the estimates and the final result of the experience. This uncertainty arises due to independent risk and systemic risk. These are defined as:

- **Independent risk:** This covers the uncertainty associated with the actual claim cost outcome from random effects
- **External systemic risk:** refers to the uncertainty arising from non-random risks external to the actuarial modelling process. This covers systemic episodes that have not yet occurred but may emerge in the future and those that are emerging in the recent experience but where there is some uncertainty as to how they will develop in future. This component of risk includes items such as economic and superimposed inflation risks, legislative and political risks, claims management process risk, event risk, expense risk, recovery risk, and latent claims risk
- **Internal systemic risk:** refers to the uncertainty arising from the actuarial valuation models used being an imperfect representation of the insurance process as it pertains to insurance liabilities. This covers risks such as *model specification error* (an inability to build a model that is fully representative of the underlying insurance process), *parameter selection error* (even if a perfect model could be specified, it would not be possible to adequately measure all the predictors of claim cost outcomes or trends in these predictors) and *data error* (errors that arise as a result of incomplete or inaccurate data).

The investigation and application of different models to the data is intended to reduce the model specification error, although the extent to which this is achieved is unknown.

The initial estimates obtained from the calculations are "central" estimates in the sense that they incorporate no deliberate bias towards over or under estimation. By definition, the estimates are intended to have about an even chance of ultimately turning out to be sufficient.

7.2 Determination of provisions

7.2.1 Background

Insurers' financial statements would have to comply with Accounting Standard AASB 1023 on General Insurance Contracts.

AASB1023 requires the determination of a central estimate of the present value of the expected future payments for claims incurred with an additional risk margin to allow for the inherent uncertainty in the central estimate.

It should be realised that, by definition, any margins over central estimates are intended to have a better than even chance of falling into future surplus, provided that future experience is consistent with that of the recent past. This should be considered in making management decisions.

7.2.2 Levels of sufficiency

The nature of insurance claims is such that the actual value of the liabilities is unknown because claims experience is subject to the sources of uncertainty described above. As a result, it is very difficult to determine the central estimate with a reasonable degree of precision. For this reason, the inherent uncertainty in the central estimate must also be considered.

Determination of a risk margin allows for some part of the uncertainties in the claim process and also it ensures as far as possible that surplus is not released until it is reasonably certain that the surplus is real.

The adopted method was tested for its sensitivity to changes in the claim rates assumed and a measure of the variation in the results was obtained. This analysis indicated that the distribution of likely results was skewed to the right. This means that the variation upwards in the provision is expected to be greater than the variation downwards.

The dispersion of expected results is added to by:

- The variable nature of the claim experience
- Very large common law claims can sometimes occur.

The variation analysed together with benchmarking against reports published by APRA and the Actuaries Institute leads to the assumption of a 17% standard deviation of the distribution of results, which allows for the skewed distribution and systemic variation. The lognormal distribution was then assumed to apply when calculating the risk margin required to increase the level of sufficiency above 50%.

The coefficient of variation calculated as described above is taken as 17%. This leads to the following risk margins. As per last year we adopted a risk margin of 10.5%.

Level of sufficiency and risk margins				
Level of sufficiency	60%	70%	75%	80%
Risk margin	2.89%	7.71%	10.47%	13.63%

7.2.3 Sensitivity

The adopted method was tested for its sensitivity to changes in the assumptions about future interest and inflation rates, adopted reporting rates, and superimposed inflation, and a measure of the variation in the results was obtained. The results of this analysis are shown below:

Recommended Premium Rates Provision - Sensitivity Analysis		
Assumption varied	Variation	% Change in total provision
Future interest rates	1% increase	-1.65%
	1% decrease	1.73%
Future inflation rates	1% increase	1.72%
	1% decrease	-1.66%
Adopted claim reporting rates	DY0 rate decreased from 10.13% to 5.07%	-2.48%
Superimposed inflation	1% increase	1.69%
	1% decrease	-1.64%

The percentage change in the outstanding claim provision as at 30 June 2022 is shown in the table above. The inherent robustness of the various assumptions in the table above means that the variations shown are not necessarily cumulative. Hence care needs to be exercised in developing any best or worst case scenario.

We also tested the impact on the 2023/24 recommended premium rate for changes in key assumptions. The results of this test are shown in the table below:

Recommended Premium Rates Provision - Sensitivity Analysis		
Assumption varied	Variation	% Change in premium rates
Future interest rates	1% increase	-1.74%
	1% decrease	1.67%
Future inflation rates	1% increase	1.14%
	1% decrease	-1.12%
Superimposed inflation for future accident years	1% increase	1.71%
	1% decrease	-1.69%
Superimposed inflation for both historical and future accident years	1% increase	2.86%
	1% decrease	-2.78%
Claims incurred (allowing for small claims)	6,000 more claims incurred with an average claim size of \$6,000 per claim	2.95%
Expenses	one year average (14.3%) used instead of three year average (15.5%)	-1.77%

This table differs from the previous table as the first table is the change in the outstanding claims provision and the second table is the change in the recommended premium rate.

7.3 Additional sources of uncertainty

7.3.1 COVID-19 claims experience

There continues to be a degree of uncertainty due to COVID-19. Up until 31 December 2022, we were advised of 233 COVID-19 related claims, of which 78 are disallowed or withdrawn. This is an increase compared to the 23 claims as at 31 December 2021 but significantly fewer than estimated in our high-level modelling last year. Of the claims that are reported to date, the average claims size is similar to all other claims in the scheme and similar to our estimates from our high-level modelling last year (as per Appendix J 3 our 1 April 2022 report).

The ultimate impact of COVID-19 will depend upon the percentage of people who can prove they obtained it through work. There may be an increase in claims reported for long term illness, either long COVID or mental stress. There could also be additional mental stress claims from employees who are taking on additional workload while other staff are absent.

Other potential impacts due to COVID-19 include lengthening claims durations if there are delays in accessing services or delays in the ability for people to return to work. Over time, other impacts may also emerge.

The overall impact of COVID-19 is still unknown for the projection of 2023/24 premium rates. Given the low number of claims to date and average payments to date not being dissimilar to other claims we have not included any explicit allowance for COVID-19 in our 30 June 2022 valuation or our projection of 2023/24 premium rates.

See Appendix J3 for further COVID-19 related information.

7.3.2 Claims management

We understand that over the 2022 financial year and prior years insurers have all experienced a shortage of experienced case managers and staff to process claims as claims managers left the industry. We understand that this impacted insurers' ability to proactively manage claims as caseloads increased for remaining claims managers which delayed finalisation and settlement of claims potentially increasing claims costs as well as creating an unintended change in case estimation practice, due to lack of experienced case managers. We understand that this has stabilised in the last 6 to 12 months with an increase in the number of claims managers and a reduction in caseloads to enable more proactive settlement of historical claims.

This adds uncertainty in the estimation of insurance liabilities.

7.3.3 Current economic outlook and the WA workers compensation scheme

The current economic outlook is very much uncertain. Insurers are faced with a number of challenges with, which includes:

- Increasing inflationary pressure, increasing interest rates and volatility in investment outlook; all of which will impact the estimated insurance liabilities and net profit after investment income. While average weekly earnings have not increased to the same extent as CPI, if CPI continues to increase that will put pressure on wages increases. Both wage inflation and CPI impact workers compensation claims costs.
- Aftermath of COVID as government initiatives have now reduced or stopped entirely, such as the COVID-19 stimulus packages. The main impacted sector for this is the construction industry. With reduced stimulus, as demand for construction work reduced compared to the surge during COVID, coupled with cost inflation for building materials, we understand that there have been several collapses of construction business as well as large projects being put on pause
- COVID-19 related as well as the general economic pressure may also cause a higher level of bad debts and premium refunds compared to a longer-term average. We understand that currently bad debts are accounted for in management expenses. Future increases in bad debts will increase the expense rate, and therefore premium rate, for the scheme.

7.3.4 Historical reduction in claim numbers and change in claims mix

The number of incurred claims over the 2023/24 premium rate year has a direct impact on the assumed incurred cost, if there is no change in the average claim size, and therefore the premium rate. Since the Global Financial Crisis (GFC) in 2008 to the 2021 accident year there had been a reducing trend in the number of incurred claims across accident years.

Over the 2015 to 2021 accident years, there had been significant decreases, with the number of small (time lost less than five days) claims reducing by more than longer duration claims, so the mix of claims was changing. Over the 2015 to 2021 period, the decreases between accident years range from 2.4% (2017 to 2018) to 8.5% (2016 to 2017).

The 2022 accident year is estimated to follow this trend with 24,239 claims estimated to be incurred which is 353 (1.4%) claims fewer than the 2021 accident year (24,591). Despite the fewer claims number, average claims size has been increasing and fully offsetting the favourable fewer claims number experience.

Other sources of uncertainty with regards to the changing claims mix are:

- The number of psychological claims both primary and secondary. Although these claims represent a small, but increasing, proportion of the total, they tend to have a higher average cost, and therefore an increase in the volume of these claims would cause additional uncertainty for the incurred cost in the scheme. From our

discussions with insurers, secondary psychological claims are thought to be increasing but difficulties in effectively capturing and tracking secondary psychological claim data make this hard to prove.

- Whether the employer is requesting reimbursement for all payment types from the insurer or whether employers are choosing to pay part of the claim's costs in house, particularly in situations where an employee has partially returned to work. If costs are currently being withheld from the scheme this creates additional uncertainty about the actual total cost. The total cost could increase in the future if these payments are reclaimed.

7.3.5 Settlements and legal costs

There has been significant superimposed inflation for lump sum and legal costs over recent years. The increase in redemptions may be driven by the impact of the economic environment, especially on the ability to find injured employee's alternative duties or return to work opportunities. It could also be driven by other reasons such as changing claimant preferences. The increase in legal costs are linked to the higher settlements. Legal costs are also impacted by insurers using external versus internal lawyers.

Over the 2022 financial year, we continue to see higher lump sum payments than expected, though this has slowed. For the 2021 and earlier accident years, lump sum payments during the year were 1% higher than projected in our previous report. We have allowed for this in our valuation by adopting more recent periods of experience for assumptions, as well as referencing the experience in the six months to 31 December 2022. We will monitor this to analyse whether there is a continuation or easing of this trend.

The actuarial valuation of workers compensation risks is subject to a high level of uncertainty, especially for the settlement payment types. This is because the cost of settlement claims are more difficult to predict since they are the larger claims, tend to have longer reporting and payment delays than statutory benefit claims, and a greater dispersion of claim size. We have taken longer averaging periods for older years to offset this volatility.

7.3.6 Impact from the 2020 Amendment Act

There is a risk the discontinuation of the common law termination date could increase the number of common law claims as it gives workers an additional year to elect to pursue common law benefits. It is not known how much impact this will have given common law claims have declined significantly over the last 10 years. It will create an additional year of uncertainty in estimating which claims may become common law which could increase liabilities.

We have been advised that some of the increase in case estimates may be related to the discontinuation of the common law termination date as claimants and their legal advisers are waiting longer to determine the level of whole person impairment and to elect to pursue common law benefits. It may be used in negotiations to obtain a higher settlement. It will take a few years for the evidence to emerge to determine if this translates into an actual increase in lump sum settlements or is a temporary behavioural change but with no increase in benefits paid.

We note that the first cohort of claims impacted by the 2020 Amendment Act would be those claims for the 2019/20 accident year. Thus, in next year's data as at 30 June 2023, we may be able to see the percentage of claims that commence a common law claim and the impact on case estimates.

We have not included any explicit allowance for the 2020 Amendment Act in the outstanding claims liability at 30 June 2022 and 2023/24 premium rates, though it may be implicitly allowed for within the case estimates.

7.3.7 Silicosis claims

Silicosis has become a significant issue for employees in the manufacturing stone industry in some other states, particularly Queensland. Towards the end of the 2018 calendar year, Queensland commenced testing all employees who have potentially been exposed to crystalline silica dust.

WorkCover Queensland's website advises that as at 28 February 2023, WorkCover Queensland had completed the health screening of 1,054 stonemasons exposed to respirable crystalline silica from engineered stone.

255 people have been diagnosed with a work-related condition, WorkCover Queensland are helping them with their recovery and rehabilitation and providing compensation for their loss of wages. Some of these people were diagnosed through other health screening and have lodged claims with WorkCover Queensland.

Of these workers:

- 36 have a diagnosis of progressive massive fibrosis
- 13 have a respiratory condition that is not silicosis
- 206 have silicosis.

In WA, as at 31 December 2022, excluding disallowed claims there were a total of 54 silicosis claims for 23 claimants, of which 52 silicosis claims lodged for 21 claimants are for non-mining industries. At our previous valuation there were 28 known silicosis claims for 15 claimants for non-mining industries that hadn't been disallowed.

The total average claim size per claimant ranges from \$50,000 to \$1.6 million. The accident year for each claim varies between 2001/02 to 2021/22. Note that there is often different accident years for each claim per claimant due to the worker changing employers and having exposure across multiple years.

It has been four years since the Queensland experience emerged. We understand that most WA employees currently employed in the relevant occupations have now been tested. There could be future claims reported from historical exposure which arise from people previously employed in the relevant industries who have not yet been tested and people who have been tested develop symptoms in the future. Based on the claims data and our understanding that most WA employees currently employed in the relevant occupations have been tested at this point in time, we don't expect the silicosis claim frequency in WA to be as prevalent as reported in Queensland.

We have not included an explicit cost allowance for silicosis in the 2023/24 premium rates given most relevant WA employees have now been tested and their claims experience is mostly in the data, though the ultimate size of these claims is still uncertain as most claims remain open. This could impact the rates of select classes in the future. This approach is the same as last year's valuation. However, this year, we have investigated and adjusted the credibility applied to the class experience for two classes with silicosis (20901 and 20290). See section 5.2 for more information.

Based on the silicosis claims data to date and as per last year, we note that if the silicosis claim frequency in WA becomes more prevalent, this could have a significant impact on the rates for some classes. Classes with current claims, which could be impacted further are 14920, 19120, 20290, 20330, 20901, 21210, 22930, 24990, 30110, 31090, 32990 and 33390.

There is a risk that the premium rates in the above classes could reach the maximum rate of 12% if the size of claims increases significantly or if the silicosis claim frequency in WA is as prevalent as Queensland.

We recommend that silicosis claims associated with manufacturing stone continue to be monitored.

Appendices

Appendix A	Premium rates	44
Appendix B	Detailed data description	56
	B 1 Data supplied by insurers	56
	B 2 Other data provided	58
	B 3 Data quality	60
Appendix C	Detailed methods description	61
	C 1 Projection methods	61
	C 2 Premium rates methods	62
Appendix D	Assumptions	69
	D 1 Financial assumptions	69
	D 2 Superimposed inflation	72
	D 3 Management and other expenses	77
	D 4 Contingency margin	78
	D 5 WA Legislative changes	79
	D 6 GST	80
Appendix E	Outstanding claim valuation	81
	E 1 Claims experience and analysis	81
	E 2 Analysis and projection models	83
	E 3 Adopted estimates of outstanding claims	92
Appendix F	Claims experience	95
	F 1 Claims experience during 2021/22	95
	F 2 Claims experience in the six months to 31 December 2022	97
	F 3 Analysis by type of payment	100
Appendix G	Claims statistics	102
	G 1 Number of claims incurred	102

	G 2	Average claim size	103
	G 3	Incurred cost	104
	G 4	Loss ratios	105
	G 5	Finalisation of claims	107
	G 6	Payment per claim incurred	109
Appendix H		Comparative statistics	111
	H 1	Statistical trends	111
	H 2	Comparative statistics	117
Appendix I		Analysis of lump sum claim experience	120
	I 1	Section 92(f) settlements	120
	I 2	Redemptions and Schedule 2 payments	121
Appendix J		Additional data analysis	123
	J 1	Duration analysis	123
	J 2	Age data	123
	J 3	COVID-19 claims	124
Appendix K		Glossary	128

Appendix A Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins Uncapped / (RES2023/24)
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates		(RES2023/24)/ GAZ2022/23		
					Un capped	Restricted	GAZ2022/23	GAZ2021/22	
A Agriculture, forestry and fishing									
1110 NURSERY PRODUCTION (UNDER COVER)	75.4%	13.4%	4.33	4.64	4.28	4.28	-7.8%	7.3%	0.1%
1120 NURSERY PRODUCTION (OUTDOORS)	74.8%	22.6%	4.49	4.97	4.40	4.41	-11.4%	10.8%	0.1%
1130 TURF GROWING	79.9%	11.6%	5.06	5.45	5.31	5.31	-2.6%	7.7%	0.1%
1140 FLORICULTURE PRODUCTION (UNDER COVER)	76.9%	8.5%	4.51	4.96	4.55	4.55	-8.1%	9.9%	0.1%
1150 FLORICULTURE PRODUCTION (OUTDOORS)	73.8%	9.1%	4.48	4.82	4.34	4.34	-10.0%	7.6%	0.1%
1210 MUSHROOM GROWING	71.9%	7.6%	5.72	5.79	5.40	5.40	-6.7%	1.2%	0.1%
1220 VEGETABLE GROWING (UNDER COVER)	66.4%	8.8%	5.67	5.38	4.95	4.95	-8.0%	-5.2%	0.1%
1230 VEGETABLE GROWING (OUTDOORS)	71.6%	36.5%	5.83	5.77	5.47	5.48	-5.0%	-1.1%	0.1%
1310 GRAPE GROWING	64.7%	24.7%	4.58	4.69	3.89	3.89	-17.0%	2.4%	0.1%
1320 KIWIFRUIT GROWING	0.0%	0.0%	4.65	4.83	4.23	4.23	-12.5%	3.9%	0.1%
1330 BERRY FRUIT GROWING	72.8%	18.3%	4.06	4.32	3.88	3.88	-10.2%	6.4%	0.1%
1340 APPLE AND PEAR GROWING	66.4%	19.3%	4.39	4.42	3.82	3.83	-13.5%	0.8%	0.1%
1350 STONE FRUIT GROWING	69.9%	11.4%	4.37	4.38	4.00	4.01	-8.6%	0.4%	0.1%
1360 CITRUS FRUIT GROWING	67.3%	11.5%	4.39	4.54	3.88	3.88	-14.5%	3.3%	0.1%
1370 OLIVE GROWING	65.6%	9.9%	4.63	4.73	3.98	3.98	-15.8%	2.3%	0.1%
1390 OTHER FRUIT AND TREE NUT GROWING	75.9%	22.9%	4.63	5.11	4.61	4.62	-9.6%	10.3%	0.1%
1410 SHEEP FARMING (SPECIALISED)	68.4%	12.7%	6.43	6.84	5.77	5.77	-15.6%	6.4%	0.1%
1420 BEEF CATTLE FARMING (SPECIALISED)	67.6%	28.1%	7.53	7.64	6.68	6.68	-12.5%	1.4%	0.1%
1430 BEEF CATTLE FEEDLOTS (SPECIALISED)	68.8%	4.7%	6.47	6.47	5.84	5.84	-9.7%	0.0%	0.1%
1440 SHEEP-BEEF CATTLE FARMING	65.8%	16.6%	6.80	6.81	5.87	5.87	-13.7%	0.1%	0.1%
1450 GRAIN-SHEEP OR GRAIN-BEEF CATTLE FARMING	67.0%	69.8%	6.10	6.19	5.36	5.36	-13.4%	1.5%	0.1%
1460 RICE GROWING	76.5%	3.1%	6.14	6.63	6.16	6.17	-7.0%	8.0%	0.1%
1490 OTHER GRAIN GROWING	64.1%	27.6%	5.84	5.93	4.91	4.92	-17.2%	1.6%	0.1%
1510 SUGAR CANE GROWING	67.6%	0.6%	5.61	5.72	4.98	4.98	-12.9%	1.9%	0.1%
1520 COTTON GROWING	66.8%	1.7%	5.61	5.69	4.92	4.92	-13.5%	1.4%	0.1%
1590 OTHER CROP GROWING N.E.C.	66.1%	8.9%	5.67	5.72	4.91	4.92	-14.1%	1.0%	0.1%
1600 DAIRY CATTLE FARMING	77.2%	20.8%	6.15	6.79	6.23	6.24	-8.2%	10.4%	0.1%
1710 POULTRY FARMING (MEAT)	65.5%	11.0%	5.68	5.88	4.88	4.89	-16.8%	3.4%	0.1%
1720 POULTRY FARMING (EGGS)	66.4%	15.9%	5.50	5.48	4.79	4.79	-12.5%	-0.3%	0.1%
1800 DEER FARMING	69.2%	0.7%	5.57	5.74	5.05	5.06	-11.8%	3.0%	0.1%
1910 HORSE FARMING	68.5%	13.0%	6.38	6.36	5.74	5.74	-9.8%	-0.3%	0.1%
1920 PIG FARMING	68.4%	16.6%	5.77	5.93	5.18	5.19	-12.5%	2.7%	0.1%
1930 BEEKEEPING	64.7%	6.9%	6.10	6.12	5.18	5.18	-15.4%	0.4%	0.1%
1990 OTHER LIVESTOCK FARMING N.E.C.	67.9%	7.1%	5.51	5.59	4.91	4.92	-12.1%	1.4%	0.1%
2010 OFFSHORE LONGLINE AND RACK AQUACULTURE	75.4%	11.3%	4.23	4.69	4.18	4.19	-10.7%	10.9%	0.1%
2020 OFFSHORE CAGED AQUACULTURE	71.8%	0.5%	4.91	5.30	4.62	4.62	-12.7%	7.9%	0.1%
2030 ONSHORE AQUACULTURE	66.4%	11.4%	5.46	5.64	4.76	4.76	-15.5%	3.2%	0.1%
3010 FORESTRY	75.2%	31.4%	4.03	4.39	3.98	3.98	-9.3%	8.8%	0.1%
3020 LOGGING	76.0%	26.0%	5.51	6.02	5.49	5.50	-8.7%	9.2%	0.1%
4110 ROCK LOBSTER AND CRAB POTTING	69.1%	20.7%	4.19	4.18	3.80	3.80	-9.2%	-0.1%	0.1%
4120 PRAWN FISHING	68.1%	6.5%	4.41	4.51	3.94	3.94	-12.6%	2.4%	0.1%
4130 LINE FISHING	64.8%	6.1%	4.82	4.77	4.10	4.10	-14.1%	-1.0%	0.1%
4140 FISH TRAWLING, SEINING AND NETTING	69.3%	3.2%	4.58	4.88	4.17	4.17	-14.5%	6.4%	0.1%
4190 OTHER FISHING	70.0%	12.3%	4.75	5.06	4.37	4.37	-13.6%	6.4%	0.1%
4200 HUNTING AND TRAPPING	68.4%	5.0%	4.62	4.75	4.15	4.15	-12.7%	2.9%	0.1%
5100 FORESTRY SUPPORT SERVICES	76.9%	21.0%	4.08	4.53	4.11	4.11	-9.2%	11.2%	0.1%
5210 COTTON GINNING	0.0%	0.0%	6.50	6.86	6.17	6.17	-10.0%	5.5%	0.1%
5220 SHEARING SERVICES	69.2%	35.1%	7.72	7.97	7.01	7.01	-12.0%	3.3%	0.1%
5290 OTHER AGRICULTURE AND FISHING SUPPORT SERVICES	76.4%	37.7%	5.75	6.23	5.77	5.77	-7.3%	8.3%	0.1%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins Uncapped / (RES2023/24)
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Restricted	(RES2023/24)/ GAZ2022/23	(GAZ2022/23)/ GAZ2021/22	
B Mining									
6000 COAL MINING	84.7%	40.3%	3.55	4.11	3.95	3.95	-3.9%	15.7%	0.1%
7000 OIL AND GAS EXTRACTION ON LAND	41.3%	100.0%	0.25	0.25	0.14	0.25	0.0%	0.0%	45.8%
7001 OIL AND GAS EXTRACTION OFFSHORE	89.6%	92.0%	0.49	0.45	0.57	0.57	25.0%	-6.8%	-0.9%
8010 IRON ORE MINING	78.0%	100.0%	0.85	0.90	0.87	0.87	-2.9%	5.5%	0.1%
8020 BAUXITE MINING	71.3%	11.0%	1.85	1.89	1.73	1.73	-8.5%	2.2%	0.1%
8030 COPPER ORE MINING	62.8%	40.5%	1.62	1.53	1.34	1.34	-12.8%	-5.5%	0.1%
8040 GOLD ORE MINING ABOVE GROUND	81.1%	100.0%	1.75	1.98	1.86	1.86	-5.7%	12.9%	0.1%
8041 GOLD ORE MINING UNDERGROUND	60.7%	90.4%	2.37	2.19	1.88	1.89	-13.7%	-7.6%	0.1%
8050 MINERAL SAND MINING	82.6%	68.3%	0.84	0.89	0.91	0.91	2.5%	5.9%	0.1%
8060 NICKEL ORE MINING	74.1%	62.6%	1.49	1.51	1.45	1.45	-3.7%	1.0%	0.1%
8070 SILVER-LEAD-ZINC ORE MINING	83.3%	23.0%	1.26	1.26	1.38	1.38	9.6%	-0.3%	0.1%
8090 OTHER METAL ORE MINING	88.8%	36.7%	1.74	1.88	2.03	2.03	7.9%	8.0%	0.1%
9110 GRAVEL AND SAND QUARRYING	72.1%	21.4%	2.62	2.85	2.48	2.48	-12.9%	8.6%	0.1%
9190 OTHER CONSTRUCTION MATERIAL MINING	61.5%	37.9%	3.09	3.13	2.49	2.50	-20.2%	1.2%	0.1%
9900 OTHER NON-METALLIC MINERAL MINING AND QUARRYING EXCLUDING SALT HARVESTING	76.1%	57.0%	1.46	1.65	1.46	1.46	-11.4%	12.8%	0.1%
9901 OTHER NON-METALLIC MINERAL MINING AND QUARRYING SALT HARVESTING	83.3%	37.0%	1.05	1.23	1.14	1.15	-6.9%	17.4%	0.1%
10110 PETROLEUM EXPLORATION	59.8%	33.4%	0.86	0.74	0.68	0.68	-8.9%	-13.8%	0.1%
10120 MINERAL EXPLORATION	92.4%	91.6%	0.71	0.89	0.86	0.86	-3.0%	25.0%	0.1%
10900 OTHER MINING SUPPORT SERVICES ON LAND	80.7%	100.0%	2.41	2.73	2.55	2.55	-6.5%	13.3%	0.1%
10901 OTHER MINING SUPPORT SERVICES OFFSHORE	69.5%	100.0%	0.81	1.01	0.74	0.76	-25.0%	25.0%	2.7%
C Manufacturing									
11110 MEAT PROCESSING	74.8%	66.5%	4.11	4.50	4.04	4.04	-10.2%	9.4%	0.1%
11120 POULTRY PROCESSING	70.2%	33.3%	4.59	4.80	4.23	4.23	-11.8%	4.5%	0.1%
11130 CURED MEAT AND SMALLGOODS MANUFACTURING	77.7%	30.8%	4.65	5.11	4.74	4.74	-7.3%	10.1%	0.1%
11200 SEAFOOD PROCESSING	80.5%	29.3%	2.61	2.86	2.76	2.76	-3.5%	9.5%	0.1%
11310 MILK AND CREAM PROCESSING	66.4%	19.4%	2.75	2.83	2.39	2.40	-15.3%	3.0%	0.1%
11320 ICE CREAM MANUFACTURING	73.9%	4.5%	2.72	2.91	2.64	2.64	-9.2%	6.8%	0.1%
11330 CHEESE AND OTHER DAIRY PRODUCT MANUFACTURING	77.4%	28.7%	2.51	2.75	2.55	2.55	-7.1%	9.4%	0.1%
11400 FRUIT AND VEGETABLE PROCESSING	82.3%	19.7%	3.41	3.60	3.68	3.68	2.3%	5.7%	0.1%
11500 OIL AND FAT MANUFACTURING	73.3%	9.5%	3.16	3.42	3.04	3.05	-11.0%	8.2%	0.1%
11610 GRAIN MILL PRODUCT MANUFACTURING	72.5%	14.5%	3.05	3.27	2.90	2.90	-11.4%	7.4%	0.1%
11620 CEREAL, PASTA AND BAKING MIX MANUFACTURING	72.1%	15.4%	3.29	3.59	3.11	3.11	-13.3%	9.3%	0.1%
11710 BREAD MANUFACTURING (FACTORY BASED)	68.0%	30.3%	2.98	2.98	2.66	2.66	-10.7%	0.0%	0.1%
11720 CAKE AND PASTRY MANUFACTURING (FACTORY BASED)	71.4%	21.3%	3.03	3.01	2.84	2.84	-5.6%	-0.7%	0.1%
11730 BISCUIT MANUFACTURING (FACTORY BASED)	71.2%	3.5%	2.72	2.76	2.54	2.55	-7.8%	1.4%	0.1%
11740 BAKERY PRODUCT MANUFACTURING (NON-FACTORY BASED)	68.7%	42.1%	2.37	2.32	2.14	2.14	-7.6%	-2.3%	0.1%
11810 SUGAR MANUFACTURING	0.0%	0.0%	3.12	3.34	3.09	3.09	-7.5%	6.9%	0.1%
11820 CONFECTIONERY MANUFACTURING	74.9%	8.1%	2.94	3.13	2.89	2.89	-7.6%	6.5%	0.1%
11910 POTATO, CORN AND OTHER CRISP MANUFACTURING	80.3%	7.0%	2.95	3.23	3.11	3.11	-3.5%	9.2%	0.1%
11920 PREPARED ANIMAL AND BIRD FEED MANUFACTURING	77.2%	22.0%	3.45	3.78	3.49	3.49	-7.7%	9.8%	0.1%
11990 OTHER FOOD PRODUCT MANUFACTURING N.E.C.	86.5%	37.0%	2.84	3.21	3.23	3.23	0.4%	13.1%	0.1%
12110 SOFT DRINK, CORDIAL AND SYRUP MANUFACTURING	80.0%	36.1%	1.74	1.86	1.82	1.82	-2.1%	7.2%	0.1%
12120 BEER MANUFACTURING	80.6%	27.5%	1.56	1.72	1.65	1.66	-3.7%	10.0%	0.1%
12130 SPIRIT MANUFACTURING	65.2%	6.9%	2.07	2.11	1.77	1.77	-16.0%	2.0%	0.1%
12140 WINE AND OTHER ALCOHOLIC BEVERAGE MANUFACTURING	75.3%	41.4%	1.59	1.66	1.58	1.58	-5.0%	4.2%	0.1%
12200 CIGARETTE AND TOBACCO PRODUCT MANUFACTURING	62.0%	0.3%	2.36	2.02	1.92	1.92	-4.9%	-14.4%	0.1%
13110 WOOL SCOURING	0.0%	0.0%	2.68	2.98	2.60	2.60	-12.6%	11.3%	0.1%
13120 NATURAL TEXTILE MANUFACTURING	73.3%	2.2%	2.65	2.93	2.54	2.55	-13.1%	10.7%	0.1%
13130 SYNTHETIC TEXTILE MANUFACTURING	73.5%	3.6%	2.68	2.96	2.58	2.58	-12.9%	10.8%	0.1%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates		% Change in Relative		Margins
			Gazette 2021/22	Gazette 2022/23	Normalised 2023/24		Premium Rates		
					Relative Prem Rates Uncapped	Restricted	(RES2023/24)/ GAZ2022/23	(GAZ2022/23)/ GAZ2021/22	
13200 LEATHER TANNING, FUR DRESSING AND LEATHER PRODUCT MANUFACTURING	85.5%	6.7%	2.47	3.09	2.77	2.77	-10.2%	25.0%	0.1%
13310 TEXTILE FLOOR COVERING MANUFACTURING	84.2%	2.5%	2.89	3.52	3.19	3.20	-9.1%	21.7%	0.1%
13320 ROPE, CORDAGE AND TWINE MANUFACTURING	79.8%	2.8%	2.91	3.59	3.05	3.05	-15.1%	23.4%	0.1%
13330 CUT AND SEWN TEXTILE PRODUCT MANUFACTURING	73.3%	32.4%	3.19	3.72	3.07	3.07	-17.6%	16.8%	0.1%
13340 TEXTILE FINISHING AND OTHER TEXTILE PRODUCT MANUFACTURING	70.3%	7.7%	2.94	3.23	2.71	2.72	-15.8%	9.7%	0.1%
13400 KNITTED PRODUCT MANUFACTURING	76.0%	1.6%	2.64	2.95	2.63	2.63	-10.8%	11.9%	0.1%
13510 CLOTHING MANUFACTURING	72.6%	12.0%	2.25	2.46	2.14	2.14	-12.7%	9.2%	0.1%
13520 FOOTWEAR MANUFACTURING	72.1%	3.0%	2.44	2.63	2.31	2.31	-12.2%	7.8%	0.1%
14110 LOG SAWMILLING	70.5%	23.5%	4.20	4.17	3.88	3.88	-6.8%	-0.7%	0.1%
14120 WOOD CHIPPING	69.0%	12.6%	3.94	3.92	3.57	3.57	-8.8%	-0.7%	0.1%
14130 TIMBER RESAWING AND DRESSING	69.6%	10.3%	4.02	3.91	3.67	3.67	-6.0%	-2.8%	0.1%
14910 PREFABRICATED WOODEN BUILDING MANUFACTURING	72.1%	21.4%	2.94	3.09	2.78	2.78	-9.9%	5.1%	0.1%
14920 WOODEN STRUCTURAL FITTING AND COMPONENT MANUFACTURING	70.7%	48.0%	3.21	3.20	2.98	2.99	-6.8%	-0.4%	0.1%
14930 VENEER AND PLYWOOD MANUFACTURING	75.4%	18.3%	3.09	3.20	3.05	3.06	-4.4%	3.6%	0.1%
14940 RECONSTITUTED WOOD PRODUCT MANUFACTURING	68.1%	6.9%	4.22	4.18	3.77	3.78	-9.8%	-0.9%	0.1%
14990 OTHER WOOD PRODUCT MANUFACTURING N.E.C.	70.5%	16.8%	3.36	3.42	3.10	3.11	-9.2%	2.0%	0.1%
15100 PULP, PAPER AND PAPERBOARD MANUFACTURING	71.4%	7.1%	2.68	2.72	2.51	2.51	-7.5%	1.4%	0.1%
15210 CORRUGATED PAPERBOARD AND PAPERBOARD CONTAINER MANUFACTURING	76.4%	18.6%	2.36	2.33	2.37	2.37	1.8%	-1.4%	0.1%
15220 PAPER BAG MANUFACTURING	77.8%	0.4%	2.39	2.41	2.43	2.44	1.3%	0.8%	0.1%
15230 PAPER STATIONERY MANUFACTURING	78.9%	1.5%	2.32	2.36	2.41	2.41	2.0%	1.6%	0.1%
15240 SANITARY PAPER PRODUCT MANUFACTURING	83.2%	7.9%	2.40	2.44	2.63	2.63	7.8%	1.4%	0.1%
15290 OTHER CONVERTED PAPER PRODUCT MANUFACTURING	79.4%	6.6%	2.32	2.35	2.42	2.42	3.2%	1.0%	0.1%
16110 PRINTING	68.8%	41.2%	1.41	1.47	1.28	1.28	-13.0%	3.8%	0.1%
16120 PRINTING SUPPORT SERVICES	76.9%	17.7%	1.63	2.03	1.64	1.64	-19.2%	25.0%	0.1%
16200 REPRODUCTION OF RECORDED MEDIA	78.9%	6.0%	1.57	1.76	1.63	1.63	-7.7%	12.2%	0.1%
17010 PETROLEUM REFINING AND PETROLEUM FUEL MANUFACTURING	73.9%	7.4%	0.93	1.06	0.90	0.90	-15.1%	14.3%	0.1%
17090 OTHER PETROLEUM AND COAL PRODUCT MANUFACTURING	77.0%	69.3%	0.49	0.55	0.49	0.49	-10.5%	12.9%	0.1%
18110 INDUSTRIAL GAS MANUFACTURING	87.8%	18.3%	2.02	2.51	2.32	2.33	-7.4%	24.4%	0.1%
18120 BASIC ORGANIC CHEMICAL MANUFACTURING	84.1%	7.1%	2.29	2.69	2.53	2.53	-5.8%	17.2%	0.1%
18130 BASIC INORGANIC CHEMICAL MANUFACTURING	132.6%	36.2%	1.91	2.39	3.33	2.99	25.0%	25.0%	-11.3%
18210 SYNTHETIC RESIN AND SYNTHETIC RUBBER MANUFACTURING	69.0%	12.9%	2.54	2.59	2.30	2.30	-11.4%	2.3%	0.1%
18290 OTHER BASIC POLYMER MANUFACTURING	74.0%	1.8%	2.28	2.39	2.21	2.21	-7.4%	5.0%	0.1%
18310 FERTILISER MANUFACTURING	77.0%	35.0%	2.09	2.15	2.11	2.12	-1.6%	2.8%	0.1%
18320 PESTICIDE MANUFACTURING	74.7%	10.8%	1.89	1.93	1.86	1.86	-3.6%	1.8%	0.1%
18410 HUMAN PHARMACEUTICAL AND MEDICINAL PRODUCT MANUFACTURING	68.6%	31.4%	1.90	1.97	1.71	1.71	-13.3%	3.8%	0.1%
18420 VETERINARY PHARMACEUTICAL AND MEDICINAL PRODUCT MANUFACTURING	72.0%	3.2%	1.92	2.01	1.82	1.82	-9.7%	4.8%	0.1%
18510 CLEANING COMPOUND MANUFACTURING	80.8%	17.3%	1.77	2.06	1.87	1.87	-8.9%	16.5%	0.1%
18520 COSMETIC AND TOILETRY PREPARATION MANUFACTURING	86.1%	11.2%	1.89	2.11	2.14	2.14	1.5%	11.3%	0.1%
18910 PHOTOGRAPHIC CHEMICAL PRODUCT MANUFACTURING	73.9%	0.3%	1.78	1.73	1.72	1.72	-0.2%	-2.9%	0.1%
18920 EXPLOSIVE MANUFACTURING	75.6%	40.3%	1.55	1.43	1.54	1.54	7.6%	-7.8%	0.1%
18990 OTHER BASIC CHEMICAL PRODUCT MANUFACTURING N.E.C.	69.0%	18.3%	1.76	1.66	1.59	1.59	-4.3%	-5.4%	0.1%
19110 POLYMER FILM AND SHEET PACKAGING MATERIAL MANUFACTURING	72.4%	15.7%	2.78	2.73	2.64	2.64	-3.2%	-1.8%	0.1%
19120 RIGID AND SEMI-RIGID POLYMER PRODUCT MANUFACTURING	76.0%	40.9%	2.49	2.59	2.48	2.48	-4.2%	4.1%	0.1%
19130 POLYMER FOAM PRODUCT MANUFACTURING	70.4%	9.6%	2.81	2.77	2.60	2.60	-6.3%	-1.3%	0.1%
19140 TYRE MANUFACTURING	72.6%	12.1%	2.78	2.81	2.65	2.65	-5.7%	1.1%	0.1%
19150 ADHESIVE MANUFACTURING	80.3%	7.7%	2.61	2.77	2.75	2.75	-0.7%	6.1%	0.1%
19160 PAINT AND COATINGS MANUFACTURING	76.3%	13.1%	2.50	2.67	2.50	2.50	-6.4%	7.0%	0.1%
19190 OTHER POLYMER PRODUCT MANUFACTURING	63.9%	22.5%	3.81	3.93	3.19	3.19	-18.6%	3.1%	0.1%
19200 NATURAL RUBBER PRODUCT MANUFACTURING	63.0%	24.5%	2.89	2.69	2.39	2.39	-11.1%	-6.9%	0.1%
20100 GLASS AND GLASS PRODUCT MANUFACTURING	74.0%	18.9%	3.60	3.49	3.50	3.50	0.4%	-3.2%	0.1%
20210 CLAY BRICK MANUFACTURING	86.4%	22.2%	2.31	2.33	2.62	2.62	12.6%	0.7%	0.1%
20290 OTHER CERAMIC PRODUCT MANUFACTURING	109.6%	34.6%	2.79	2.91	4.02	3.64	25.0%	4.3%	-10.3%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Relative Prem Rates Restricted	(RES2023/24)/ (GAZ2022/23)/	(GAZ2021/22) (RES2023/24)	
20310 CEMENT AND LIME MANUFACTURING	76.0%	23.1%	2.72	2.77	2.71	2.71	-2.1%	1.9%	0.1%
20320 PLASTER PRODUCT MANUFACTURING	75.5%	16.0%	2.76	2.92	2.73	2.74	-6.4%	5.9%	0.1%
20330 READY-MIXED CONCRETE MANUFACTURING	79.1%	34.6%	2.90	3.00	3.01	3.01	0.4%	3.5%	0.1%
20340 CONCRETE PRODUCT MANUFACTURING	81.7%	32.8%	3.21	3.49	3.44	3.44	-1.3%	8.6%	0.1%
20900 OTHER NON-METALLIC MINERAL PRODUCT MANUFACTURING EXCL FIBREGLASS, INSULATION AND STONE PRODUCTS	77.8%	13.3%	3.86	3.85	3.94	3.95	2.4%	-0.3%	0.1%
20901 OTHER NON-METALLIC MINERAL PRODUCT MANUFACTURING STONE PRODUCTS	108.8%	43.0%	3.85	4.20	5.49	5.25	25.0%	9.1%	-4.6%
21100 IRON SMELTING AND STEEL MANUFACTURING	79.2%	17.1%	2.89	3.06	3.00	3.00	-2.0%	6.1%	0.1%
21210 IRON AND STEEL CASTING	92.9%	22.3%	1.71	1.82	2.09	2.09	14.6%	6.4%	0.1%
21220 STEEL PIPE AND TUBE MANUFACTURING	98.5%	26.6%	1.94	2.10	2.51	2.51	19.5%	8.2%	0.1%
21310 ALUMINA PRODUCTION	108.8%	10.6%	1.85	2.31	2.64	2.64	14.2%	25.0%	0.1%
21320 ALUMINIUM SMELTING	143.4%	8.6%	1.62	2.02	3.05	2.53	25.0%	25.0%	-20.4%
21330 COPPER, SILVER, LEAD AND ZINC SMELTING AND REFINING	104.8%	3.7%	1.71	2.02	2.35	2.35	16.3%	18.4%	0.1%
21390 OTHER BASIC NON-FERROUS METAL MANUFACTURING	117.1%	36.9%	1.46	1.83	2.25	2.25	23.0%	25.0%	0.1%
21410 NON-FERROUS METAL CASTING	88.5%	1.3%	1.95	2.12	2.26	2.26	6.9%	8.8%	0.1%
21420 ALUMINIUM ROLLING, DRAWING, EXTRUDING	88.6%	11.0%	1.86	1.99	2.16	2.16	8.5%	7.1%	0.1%
21490 OTHER BASIC NON-FERROUS METAL PRODUCT MANUFACTURING	88.5%	2.7%	1.92	2.08	2.23	2.23	7.2%	8.4%	0.1%
22100 IRON AND STEEL FORGING	86.0%	18.9%	2.13	2.36	2.40	2.41	2.0%	10.7%	0.1%
22210 STRUCTURAL STEEL FABRICATING	91.3%	53.8%	3.06	3.47	3.66	3.67	5.5%	13.6%	0.1%
22220 PREFABRICATED METAL BUILDING MANUFACTURING	85.5%	21.1%	2.75	3.16	3.08	3.09	-2.5%	15.1%	0.1%
22230 ARCHITECTURAL ALUMINIUM PRODUCT MANUFACTURING	90.7%	46.3%	2.50	2.87	2.98	2.98	3.7%	14.8%	0.1%
22240 METAL ROOF AND GUTTERING MANUFACTURING (EXCEPT ALUMINIUM)	92.2%	18.3%	2.61	2.93	3.16	3.16	8.0%	12.1%	0.1%
22290 OTHER STRUCTURAL METAL PRODUCT MANUFACTURING	83.4%	28.2%	2.95	3.29	3.23	3.23	-1.7%	11.4%	0.1%
22310 BOILER, TANK AND OTHER HEAVY GAUGE METAL CONTAINER MANUFACTURING	65.5%	46.7%	4.63	4.72	3.98	3.98	-15.7%	2.0%	0.1%
22390 OTHER METAL CONTAINER MANUFACTURING	74.2%	18.4%	3.53	3.93	3.44	3.44	-12.5%	11.3%	0.1%
22400 SHEET METAL PRODUCT MANUFACTURING (EXCEPT METAL STRUCTURAL AND CONTAINER PRODUCTS)	89.0%	51.3%	2.55	2.94	2.97	2.98	1.2%	15.5%	0.1%
22910 SPRING AND WIRE PRODUCT MANUFACTURING	78.7%	15.6%	3.20	3.72	3.30	3.30	-11.2%	16.3%	0.1%
22920 NUT, BOLT, SCREW AND RIVET MANUFACTURING	74.1%	9.8%	3.49	3.64	3.39	3.40	-6.7%	4.2%	0.1%
22930 METAL COATING AND FINISHING	75.3%	33.8%	3.53	3.68	3.49	3.49	-5.1%	4.2%	0.1%
22990 OTHER FABRICATED METAL PRODUCT MANUFACTURING N.E.C.	84.1%	56.5%	3.28	3.62	3.62	3.62	0.0%	10.3%	0.1%
23110 MOTOR VEHICLE MANUFACTURING	77.8%	12.3%	2.52	2.60	2.57	2.58	-0.9%	3.2%	0.1%
23120 MOTOR VEHICLE BODY AND TRAILER MANUFACTURING	70.2%	42.3%	2.85	2.76	2.63	2.63	-4.8%	-3.2%	0.1%
23130 AUTOMOTIVE ELECTRICAL COMPONENT MANUFACTURING	71.4%	5.5%	2.43	2.42	2.28	2.28	-5.6%	-0.8%	0.1%
23190 OTHER MOTOR VEHICLE PARTS MANUFACTURING	65.9%	17.2%	2.63	2.38	2.27	2.27	-4.7%	-9.2%	0.1%
23910 SHIPBUILDING AND REPAIR SERVICES	74.7%	68.5%	1.50	1.46	1.47	1.47	0.6%	-2.6%	0.1%
23920 BOATBUILDING AND REPAIR SERVICES	96.3%	24.3%	2.25	2.58	2.84	2.84	10.2%	14.7%	0.1%
23930 RAILWAY ROLLING STOCK MANUFACTURING AND REPAIR SERVICES	81.5%	34.5%	1.63	1.81	1.75	1.75	-3.7%	11.1%	0.1%
23940 AIRCRAFT MANUFACTURING AND REPAIR SERVICES	97.6%	34.8%	1.25	1.49	1.59	1.60	7.0%	19.7%	0.1%
23990 OTHER TRANSPORT EQUIPMENT MANUFACTURING N.E.C.	77.3%	12.6%	1.65	1.69	1.67	1.67	-1.2%	2.7%	0.1%
24110 PHOTOGRAPHIC, OPTICAL AND OPHTHALMIC EQUIPMENT MANUFACTURING	67.5%	9.2%	1.47	1.49	1.30	1.30	-12.5%	1.3%	0.1%
24120 MEDICAL AND SURGICAL EQUIPMENT MANUFACTURING	58.9%	22.0%	1.69	1.63	1.31	1.31	-19.9%	-3.5%	0.1%
24190 OTHER PROFESSIONAL AND SCIENTIFIC EQUIPMENT MANUFACTURING	59.3%	38.9%	1.42	1.38	1.10	1.10	-19.8%	-2.9%	0.1%
24210 COMPUTER AND ELECTRONIC OFFICE EQUIPMENT MANUFACTURING	78.0%	10.8%	1.75	1.93	1.79	1.79	-7.4%	10.6%	0.1%
24220 COMMUNICATION EQUIPMENT MANUFACTURING	78.5%	17.6%	1.22	1.30	1.25	1.26	-3.0%	6.3%	0.1%
24290 OTHER ELECTRONIC EQUIPMENT MANUFACTURING	74.8%	36.0%	1.00	1.07	0.98	0.98	-7.9%	6.6%	0.1%
24310 ELECTRIC CABLE AND WIRE MANUFACTURING	82.4%	5.7%	1.74	1.92	1.89	1.89	-1.9%	10.4%	0.1%
24320 ELECTRIC LIGHTING EQUIPMENT MANUFACTURING	82.5%	16.8%	2.14	2.38	2.31	2.31	-3.0%	11.6%	0.1%
24390 OTHER ELECTRICAL EQUIPMENT MANUFACTURING	88.1%	27.9%	1.69	1.93	1.96	1.96	1.7%	13.7%	0.1%
24410 WHITEWARE APPLIANCE MANUFACTURING	71.8%	1.5%	1.81	1.88	1.71	1.71	-9.0%	3.6%	0.1%
24490 OTHER DOMESTIC APPLIANCE MANUFACTURING	70.6%	7.3%	1.77	1.80	1.63	1.64	-9.0%	1.9%	0.1%
24510 PUMP AND COMPRESSOR MANUFACTURING	85.4%	22.6%	1.70	1.89	1.90	1.91	0.9%	11.1%	0.1%
24520 FIXED SPACE HEATING, COOLING AND VENTILATION EQUIPMENT MANUFACTURING	85.3%	30.6%	2.06	2.40	2.30	2.30	-4.2%	16.8%	0.1%
24610 AGRICULTURAL MACHINERY AND EQUIPMENT MANUFACTURING	79.1%	27.0%	2.12	2.42	2.20	2.21	-8.7%	13.8%	0.1%
24620 MINING AND CONSTRUCTION MACHINERY MANUFACTURING	71.8%	96.3%	2.02	2.01	1.90	1.90	-5.3%	-0.4%	0.1%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Relative Prem Rates Restricted	(RES2023/24)/ (GAZ2022/23)	(GAZ2022/23)/ (GAZ2021/22)	
24630 MACHINE TOOL AND PARTS MANUFACTURING	77.5%	28.8%	2.14	2.40	2.18	2.18	-9.2%	12.1%	0.1%
24690 OTHER SPECIALISED MACHINERY AND EQUIPMENT MANUFACTURING	81.9%	30.0%	2.27	2.55	2.44	2.44	-4.4%	12.5%	0.1%
24910 LIFTING AND MATERIAL HANDLING EQUIPMENT MANUFACTURING	67.2%	58.7%	2.18	2.11	1.93	1.93	-8.6%	-3.4%	0.1%
24990 OTHER MACHINERY AND EQUIPMENT MANUFACTURING N.E.C.	81.3%	58.2%	1.67	1.75	1.79	1.79	1.8%	4.9%	0.1%
25110 WOODEN FURNITURE AND UPHOLSTERED SEAT MANUFACTURING	76.6%	30.0%	3.22	3.44	3.24	3.24	-5.8%	6.8%	0.1%
25120 METAL FURNITURE MANUFACTURING	73.0%	17.0%	2.85	3.05	2.73	2.74	-10.3%	7.0%	0.1%
25130 MATTRESS MANUFACTURING	74.0%	13.5%	3.20	3.37	3.11	3.11	-7.8%	5.4%	0.1%
25190 OTHER FURNITURE MANUFACTURING	68.6%	18.2%	3.15	3.05	2.83	2.83	-7.2%	-3.0%	0.1%
25910 JEWELLERY AND SILVERWARE MANUFACTURING	74.6%	5.4%	2.69	2.93	2.64	2.64	-9.7%	8.6%	0.1%
25920 TOY, SPORTING AND RECREATIONAL PRODUCT MANUFACTURING	74.4%	11.3%	2.90	3.13	2.83	2.84	-9.5%	7.9%	0.1%
25990 OTHER MANUFACTURING N.E.C.	74.8%	19.2%	2.88	3.22	2.82	2.83	-12.3%	12.0%	0.1%

D Electricity, gas, water and waste services

26110 FOSSIL FUEL ELECTRICITY GENERATION	71.4%	35.5%	0.42	0.48	0.39	0.39	-17.8%	14.2%	0.1%
26120 HYDRO-ELECTRICITY GENERATION	87.2%	4.4%	0.45	0.56	0.52	0.52	-8.4%	25.0%	0.1%
26190 OTHER ELECTRICITY GENERATION	119.5%	27.3%	0.46	0.57	0.72	0.71	25.0%	25.0%	-0.3%
26200 ELECTRICITY TRANSMISSION	102.5%	39.6%	0.42	0.53	0.57	0.57	7.7%	25.0%	0.1%
26300 ELECTRICITY DISTRIBUTION	74.3%	92.5%	0.62	0.67	0.60	0.60	-10.1%	8.5%	0.1%
26400 ON SELLING ELECTRICITY AND ELECTRICITY MARKET OPERATION	59.0%	33.2%	0.50	0.42	0.39	0.39	-9.0%	-14.9%	0.1%
27000 GAS SUPPLY	65.4%	37.5%	0.53	0.52	0.45	0.45	-12.7%	-1.7%	0.1%
28110 WATER SUPPLY	106.8%	86.6%	0.48	0.59	0.67	0.67	13.4%	23.6%	0.1%
28120 SEWERAGE AND DRAINAGE SERVICES	55.6%	27.9%	1.40	1.26	1.02	1.02	-18.7%	-10.2%	0.1%
29110 SOLID WASTE COLLECTION SERVICES	70.7%	49.6%	2.90	3.02	2.69	2.69	-11.0%	4.3%	0.1%
29190 OTHER WASTE COLLECTION SERVICES	59.1%	21.6%	3.34	3.23	2.59	2.59	-19.9%	-3.1%	0.1%
29210 WASTE TREATMENT AND DISPOSAL SERVICES	74.9%	28.0%	3.53	3.99	3.47	3.47	-12.9%	12.9%	0.1%
29220 WASTE REMEDIATION AND MATERIALS RECOVERY SERVICES	76.5%	33.0%	4.43	5.19	4.44	4.44	-14.4%	17.3%	0.1%

E Construction

30110 HOUSE CONSTRUCTION	65.1%	100.0%	1.55	1.57	1.32	1.32	-15.9%	1.6%	0.1%
30190 OTHER RESIDENTIAL BUILDING CONSTRUCTION	79.4%	84.0%	1.11	1.18	1.15	1.15	-2.4%	6.8%	0.1%
30200 NON-RESIDENTIAL BUILDING CONSTRUCTION	84.9%	100.0%	2.05	2.35	2.28	2.28	-2.8%	14.7%	0.1%
31010 ROAD AND BRIDGE CONSTRUCTION	75.4%	87.1%	2.66	2.78	2.63	2.63	-5.4%	4.6%	0.1%
31090 OTHER HEAVY AND CIVIL ENGINEERING CONSTRUCTION	70.7%	100.0%	1.84	1.88	1.71	1.71	-9.2%	2.2%	0.1%
32110 LAND DEVELOPMENT AND SUBDIVISION	112.8%	38.0%	1.30	1.63	1.93	1.93	18.4%	25.0%	0.1%
32120 SITE PREPARATION SERVICES	78.0%	100.0%	2.75	2.88	2.82	2.82	-2.1%	4.5%	0.1%
32210 CONCRETING SERVICES	83.7%	57.0%	3.60	4.22	3.95	3.96	-6.1%	17.1%	0.1%
32220 BRICKLAYING SERVICES	87.2%	29.3%	4.07	4.86	4.65	4.66	-4.3%	19.5%	0.1%
32230 ROOFING SERVICES	78.8%	30.9%	4.99	5.68	5.15	5.16	-9.2%	13.9%	0.1%
32240 STRUCTURAL STEEL ERECTION SERVICES	122.4%	50.1%	2.47	3.09	3.96	3.86	25.0%	25.0%	-2.8%
32310 PLUMBING SERVICES	72.0%	71.6%	2.58	2.59	2.44	2.44	-5.6%	0.2%	0.1%
32320 ELECTRICAL SERVICES	67.0%	100.0%	1.43	1.37	1.26	1.26	-8.0%	-4.4%	0.1%
32330 AIR CONDITIONING AND HEATING SERVICES	71.0%	65.3%	2.11	2.17	1.97	1.97	-9.2%	2.7%	0.1%
32340 FIRE AND SECURITY ALARM INSTALLATION SERVICES	75.0%	56.3%	1.86	1.99	1.83	1.83	-8.0%	7.1%	0.1%
32390 OTHER BUILDING INSTALLATION SERVICES	66.5%	47.3%	2.88	2.91	2.52	2.52	-13.5%	1.0%	0.1%
32410 PLASTERING AND CEILING SERVICES	71.3%	39.3%	4.91	4.95	4.59	4.60	-7.2%	0.9%	0.1%
32420 CARPENTRY SERVICES	77.4%	40.8%	5.02	5.43	5.10	5.11	-5.9%	8.0%	0.1%
32430 TILING AND CARPETING SERVICES	72.4%	31.2%	4.10	4.25	3.90	3.90	-8.2%	3.5%	0.1%
32440 PAINTING AND DECORATING SERVICES	76.0%	47.6%	3.62	3.84	3.60	3.61	-6.2%	6.3%	0.1%
32450 GLAZING SERVICES	66.8%	31.9%	4.76	4.88	4.17	4.17	-14.5%	2.6%	0.1%
32910 LANDSCAPE CONSTRUCTION SERVICES	64.8%	58.6%	3.47	3.46	2.95	2.95	-14.6%	-0.3%	0.1%
32920 HIRE OF CONSTRUCTION MACHINERY WITH OPERATOR	78.6%	53.2%	2.66	3.11	2.74	2.74	-11.8%	17.1%	0.1%
32990 OTHER CONSTRUCTION SERVICES N.E.C.	78.6%	100.0%	2.36	2.68	2.43	2.44	-9.1%	13.5%	0.1%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins Uncapped / (RES2023/24)
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Restricted	(RES2023/24)/ GAZ2022/23	(GAZ2022/23)/ GAZ2021/22	
F Wholesale trade									
33110 WOOL WHOLESALING	82.5%	12.6%	1.97	2.27	2.13	2.14	-5.8%	15.0%	0.1%
33120 CEREAL GRAIN WHOLESALING	80.3%	14.3%	2.44	2.90	2.57	2.57	-11.4%	19.0%	0.1%
33190 OTHER AGRICULTURAL PRODUCT WHOLESALING	69.7%	44.4%	1.79	1.93	1.64	1.64	-15.0%	7.7%	0.1%
33210 PETROLEUM PRODUCT WHOLESALING	86.6%	39.0%	2.13	2.32	2.42	2.42	4.2%	9.2%	0.1%
33220 METAL AND MINERAL WHOLESALING	90.1%	39.9%	3.09	3.82	3.65	3.65	-4.3%	23.6%	0.1%
33230 INDUSTRIAL AND AGRICULTURAL CHEMICAL PRODUCT WHOLESALING	70.7%	38.1%	2.33	2.24	2.17	2.17	-3.0%	-4.2%	0.1%
33310 TIMBER WHOLESALING	75.9%	18.7%	2.03	2.19	2.03	2.03	-7.6%	7.8%	0.1%
33320 PLUMBING GOODS WHOLESALING	84.7%	36.4%	1.46	1.63	1.62	1.63	-0.3%	11.5%	0.1%
33390 OTHER HARDWARE GOODS WHOLESALING	81.5%	80.9%	1.99	2.25	2.13	2.13	-5.2%	12.9%	0.1%
34110 AGRICULTURAL AND CONSTRUCTION MACHINERY WHOLESALING	68.3%	66.7%	1.44	1.39	1.29	1.29	-7.5%	-3.0%	0.1%
34190 OTHER SPECIALISED INDUSTRIAL MACHINERY AND EQUIPMENT WHOLESALING	66.0%	85.3%	1.15	1.09	0.99	0.99	-8.8%	-5.1%	0.1%
34910 PROFESSIONAL AND SCIENTIFIC GOODS WHOLESALING	68.8%	62.4%	0.49	0.49	0.44	0.44	-10.3%	0.7%	0.1%
34920 COMPUTER AND COMPUTER PERIPHERAL WHOLESALING	82.8%	36.6%	0.59	0.63	0.64	0.64	1.5%	7.1%	0.1%
34930 TELECOMMUNICATION GOODS WHOLESALING	83.3%	30.4%	0.75	0.85	0.82	0.82	-4.4%	14.4%	0.1%
34940 OTHER ELECTRICAL AND ELECTRONIC GOODS WHOLESALING	54.0%	83.9%	0.81	0.69	0.58	0.58	-16.0%	-15.7%	0.1%
34990 OTHER MACHINERY AND EQUIPMENT WHOLESALING N.E.C.	88.6%	96.8%	0.96	1.14	1.11	1.11	-2.8%	19.6%	0.1%
35010 CAR WHOLESALING	79.9%	29.4%	1.60	1.78	1.68	1.68	-5.7%	11.3%	0.1%
35020 COMMERCIAL VEHICLE WHOLESALING	73.1%	36.7%	1.67	1.67	1.60	1.60	-4.3%	0.2%	0.1%
35030 TRAILER AND OTHER MOTOR VEHICLE WHOLESALING	68.8%	8.5%	2.26	2.25	2.04	2.05	-9.1%	-0.6%	0.1%
35040 MOTOR VEHICLE NEW PARTS WHOLESALING	79.1%	48.5%	2.01	2.18	2.08	2.08	-4.5%	8.7%	0.1%
35050 MOTOR VEHICLE DISMANTLING AND USED PARTS WHOLESALING	71.5%	19.2%	1.99	2.06	1.87	1.87	-9.4%	3.5%	0.1%
36010 GENERAL LINE GROCERY WHOLESALING	74.7%	39.7%	2.57	2.75	2.52	2.52	-8.6%	7.2%	0.1%
36020 MEAT, POULTRY AND SMALLGOODS WHOLESALING	76.5%	21.4%	2.93	3.19	2.94	2.94	-7.6%	8.7%	0.1%
36030 DAIRY PRODUCE WHOLESALING	74.7%	11.9%	2.89	3.21	2.83	2.83	-11.9%	11.3%	0.1%
36040 FISH AND SEAFOOD WHOLESALING	72.7%	18.0%	2.66	2.87	2.54	2.54	-11.5%	7.9%	0.1%
36050 FRUIT AND VEGETABLE WHOLESALING	79.5%	46.2%	2.60	2.79	2.71	2.72	-2.6%	7.2%	0.1%
36060 LIQUOR AND TOBACCO PRODUCT WHOLESALING	84.3%	27.7%	1.95	2.18	2.16	2.16	-0.9%	11.7%	0.1%
36090 OTHER GROCERY WHOLESALING	81.3%	40.7%	2.47	2.73	2.64	2.64	-3.3%	10.4%	0.1%
37110 TEXTILE PRODUCT WHOLESALING	87.7%	17.9%	1.13	1.26	1.30	1.30	2.9%	11.9%	0.1%
37120 CLOTHING AND FOOTWEAR WHOLESALING	88.7%	32.1%	1.02	1.16	1.18	1.18	1.7%	14.5%	0.1%
37200 PHARMACEUTICAL AND TOILETRY GOODS WHOLESALING	66.5%	46.4%	0.93	0.86	0.81	0.81	-6.2%	-7.0%	0.1%
37310 FURNITURE AND FLOOR COVERING WHOLESALING	67.1%	25.2%	1.63	1.59	1.44	1.44	-9.5%	-2.7%	0.1%
37320 JEWELLERY AND WATCH WHOLESALING	66.7%	10.8%	1.43	1.39	1.25	1.25	-9.9%	-2.8%	0.1%
37330 KITCHEN AND DININGWARE WHOLESALING	58.7%	8.4%	1.68	1.38	1.30	1.30	-6.4%	-17.7%	0.1%
37340 TOY AND SPORTING GOODS WHOLESALING	74.7%	20.2%	1.31	1.32	1.29	1.29	-2.2%	0.2%	0.1%
37350 BOOK AND MAGAZINE WHOLESALING	68.3%	9.2%	1.63	1.61	1.46	1.46	-9.6%	-0.8%	0.1%
37360 PAPER PRODUCT WHOLESALING	67.6%	26.4%	1.51	1.49	1.34	1.34	-10.3%	-1.0%	0.1%
37390 OTHER GOODS WHOLESALING N.E.C.	75.0%	33.1%	1.71	1.74	1.69	1.69	-3.0%	1.5%	0.1%
38000 COMMISSION-BASED WHOLESALING	63.7%	32.8%	0.90	0.81	0.75	0.75	-7.4%	-9.7%	0.1%
G Retail trade									
39110 CAR RETAILING	70.2%	100.0%	1.22	1.29	1.12	1.12	-13.2%	6.1%	0.1%
39120 MOTOR CYCLE RETAILING	70.1%	19.2%	1.52	1.60	1.39	1.40	-13.0%	5.7%	0.1%
39130 TRAILER AND OTHER MOTOR VEHICLE RETAILING	68.3%	16.9%	1.65	1.70	1.48	1.48	-12.7%	2.7%	0.1%
39210 MOTOR VEHICLE PARTS RETAILING	63.8%	37.0%	2.50	2.40	2.09	2.10	-12.7%	-4.1%	0.1%
39220 TYRE RETAILING	64.7%	39.8%	3.46	3.43	2.94	2.94	-14.3%	-0.9%	0.1%
40000 FUEL RETAILING	77.2%	50.8%	2.38	2.63	2.41	2.41	-8.4%	10.5%	0.1%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins Uncapped / (RES2023/24)
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Restricted	(RES2023/24)/ GAZ2022/23	(GAZ2022/23)/ GAZ2021/22	
41100 SUPERMARKET AND GROCERY STORES	77.8%	81.5%	2.30	2.41	2.35	2.35	-2.4%	4.7%	0.1%
41210 FRESH MEAT AND POULTRY RETAILING EXCLUDES FISH RETAILING	74.3%	31.7%	2.93	2.93	2.85	2.85	-2.6%	0.1%	0.1%
41211 FISH RETAILING	79.9%	11.6%	2.30	2.50	2.42	2.42	-3.3%	8.4%	0.1%
41220 FRUIT AND VEGETABLE RETAILING	73.2%	39.2%	2.30	2.31	2.21	2.21	-4.4%	0.5%	0.1%
41230 LIQUOR RETAILING	74.3%	32.4%	2.21	2.30	2.16	2.16	-6.3%	4.2%	0.1%
41290 OTHER SPECIALISED FOOD RETAILING	79.4%	34.2%	1.88	2.00	1.96	1.96	-2.2%	6.6%	0.1%
42110 FURNITURE RETAILING	81.2%	46.1%	2.20	2.35	2.35	2.35	0.0%	6.6%	0.1%
42120 FLOOR COVERINGS RETAILING	70.9%	31.4%	1.82	1.79	1.69	1.69	-5.5%	-1.5%	0.1%
42130 HOUSEWARE RETAILING	71.0%	28.6%	1.87	1.89	1.74	1.75	-7.6%	0.9%	0.1%
42140 MANCHESTER AND OTHER TEXTILE GOODS RETAILING	73.2%	26.4%	2.05	2.07	1.97	1.97	-5.2%	1.3%	0.1%
42210 ELECTRICAL, ELECTRONIC AND GAS APPLIANCE RETAILING	67.0%	62.3%	1.00	0.95	0.88	0.88	-7.6%	-4.9%	0.1%
42220 COMPUTER AND COMPUTER PERIPHERAL RETAILING	76.4%	15.0%	1.00	1.01	1.00	1.00	-0.6%	1.0%	0.1%
42290 OTHER ELECTRICAL AND ELECTRONIC GOODS RETAILING	75.7%	20.1%	1.13	1.19	1.12	1.12	-6.0%	5.7%	0.1%
42310 HARDWARE AND BUILDING SUPPLIES RETAILING	93.4%	43.1%	1.64	2.05	2.01	2.01	-1.9%	25.0%	0.1%
42320 GARDEN SUPPLIES RETAILING	94.7%	24.9%	1.72	2.12	2.14	2.14	1.1%	23.1%	0.1%
42410 SPORT AND CAMPING EQUIPMENT RETAILING	58.0%	39.2%	1.20	1.13	0.91	0.91	-19.3%	-5.7%	0.1%
42420 ENTERTAINMENT MEDIA RETAILING	71.2%	8.6%	1.09	1.14	1.01	1.02	-11.1%	5.0%	0.1%
42430 TOY AND GAME RETAILING	78.6%	18.8%	1.20	1.32	1.24	1.24	-6.2%	10.0%	0.1%
42440 NEWSPAPER AND BOOK RETAILING	70.5%	31.8%	1.07	1.18	0.99	0.99	-16.2%	10.4%	0.1%
42450 MARINE EQUIPMENT RETAILING	71.7%	22.0%	1.31	1.34	1.23	1.23	-8.2%	2.6%	0.1%
42510 CLOTHING RETAILING	79.2%	70.2%	1.61	1.71	1.67	1.68	-1.7%	5.8%	0.1%
42520 FOOTWEAR RETAILING	81.5%	29.7%	1.28	1.43	1.37	1.37	-4.1%	11.6%	0.1%
42530 WATCH AND JEWELLERY RETAILING	99.6%	38.9%	1.23	1.44	1.60	1.60	11.7%	17.2%	0.1%
42590 OTHER PERSONAL ACCESSORY RETAILING	92.4%	20.3%	1.57	1.92	1.90	1.90	-1.1%	22.6%	0.1%
42600 DEPARTMENT STORES	75.2%	23.3%	1.62	1.69	1.60	1.60	-5.1%	4.1%	0.1%
42710 PHARMACEUTICAL, COSMETIC AND TOILETRY GOODS RETAILING	73.8%	80.2%	0.77	0.79	0.75	0.75	-4.9%	1.9%	0.1%
42720 STATIONERY GOODS RETAILING	71.9%	19.8%	1.03	1.04	0.97	0.97	-6.5%	0.9%	0.1%
42730 ANTIQUE AND USED GOODS RETAILING	69.4%	17.7%	1.18	1.20	1.07	1.07	-11.0%	2.4%	0.1%
42740 FLOWER RETAILING	73.9%	15.8%	1.34	1.47	1.30	1.30	-11.8%	10.0%	0.1%
42790 OTHER STORE-BASED RETAILING N.E.C.	75.4%	54.4%	1.40	1.36	1.38	1.38	1.7%	-2.7%	0.1%
43100 NON-STORE RETAILING	79.3%	20.5%	2.07	2.27	2.16	2.16	-4.8%	9.4%	0.1%
43200 RETAIL COMMISSION-BASED BUYING AND/OR SELLING	86.3%	8.6%	2.04	2.38	2.31	2.31	-2.9%	16.6%	0.1%
H Accommodation and food services									
44000 ACCOMMODATION	77.3%	93.8%	2.26	2.56	2.30	2.30	-10.1%	13.0%	0.1%
45110 CAFES AND RESTAURANTS	99.4%	100.0%	1.24	1.55	1.62	1.62	4.4%	25.0%	0.1%
45120 TAKEAWAY FOOD SERVICES	64.7%	100.0%	1.20	1.20	1.02	1.02	-15.6%	0.7%	0.1%
45130 CATERING SERVICES	89.2%	100.0%	2.45	2.79	2.87	2.87	2.8%	13.9%	0.1%
45200 PUBS, TAVERNS AND BARS	83.7%	95.3%	1.63	1.90	1.79	1.80	-5.5%	16.3%	0.1%
45300 CLUBS (HOSPITALITY)	68.9%	29.5%	2.01	2.03	1.82	1.82	-10.4%	0.9%	0.1%

Premium rates

				Relative Premium Rates		Relative Premium Rates		% Change in Relative		Margins
						Normalised 2023/24		Premium Rates		
Divn/Class Name		Weighted Loss Ratio	Credibility	Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Restricted	(RES2023/24)/ GAZ2022/23	(GAZ2022/23)/ GAZ2021/22	Uncapped / (RES2023/24)
I	Transport, postal and warehousing									
46100	ROAD FREIGHT TRANSPORT	79.9%	100.0%	5.08	5.53	5.33	5.33	-3.6%	8.8%	0.1%
46210	INTERURBAN AND RURAL BUS TRANSPORT	77.1%	20.5%	2.28	2.51	2.30	2.30	-8.3%	10.3%	0.1%
46220	URBAN BUS TRANSPORT (INCLUDING TRAMWAY)	84.0%	74.2%	1.73	2.02	1.91	1.91	-5.1%	16.2%	0.1%
46230	TAXI AND OTHER ROAD TRANSPORT	89.5%	8.9%	2.20	2.70	2.59	2.59	-4.1%	22.6%	0.1%
47100	RAIL FREIGHT TRANSPORT	106.3%	51.5%	1.10	1.37	1.53	1.53	11.6%	25.0%	0.1%
47200	RAIL PASSENGER TRANSPORT	91.6%	61.8%	3.79	4.31	4.55	4.56	5.7%	13.8%	0.1%
48100	WATER FREIGHT TRANSPORT	88.2%	31.1%	1.57	1.74	1.81	1.81	4.1%	11.2%	0.1%
48200	WATER PASSENGER TRANSPORT	78.4%	18.8%	2.00	2.20	2.06	2.06	-6.3%	9.8%	0.1%
49000	AIR AND SPACE TRANSPORT	73.9%	89.9%	1.54	1.60	1.50	1.50	-6.4%	3.6%	0.1%
50100	SCENIC AND SIGHTSEEING TRANSPORT	80.6%	29.2%	1.98	1.97	2.09	2.09	6.1%	-0.3%	0.1%
50210	PIPELINE TRANSPORT	72.1%	35.8%	1.13	1.15	1.07	1.07	-7.3%	2.2%	0.1%
50290	OTHER TRANSPORT N.E.C.	90.4%	14.3%	1.54	1.80	1.83	1.83	1.8%	16.6%	0.1%
51010	POSTAL SERVICES	89.1%	21.8%	2.36	2.71	2.76	2.76	2.1%	14.6%	0.1%
51020	COURIER PICK-UP AND DELIVERY SERVICES	81.3%	32.8%	2.62	2.87	2.79	2.80	-2.6%	9.6%	0.1%
52110	STEVEDORING SERVICES	89.8%	42.2%	2.56	2.94	3.02	3.02	2.7%	14.9%	0.1%
52120	PORT AND WATER TRANSPORT TERMINAL OPERATIONS	81.0%	61.1%	1.47	1.59	1.56	1.56	-2.0%	8.5%	0.1%
52190	OTHER WATER TRANSPORT SUPPORT SERVICES EXCLUDES MARINE SALVAGE SERVICE	77.8%	61.0%	1.66	1.84	1.70	1.70	-7.8%	10.7%	0.1%
52191	MARINE SALVAGE SERVICE	87.3%	10.6%	1.73	2.01	1.98	1.98	-1.5%	16.3%	0.1%
52200	AIRPORT OPERATIONS AND OTHER AIR TRANSPORT SUPPORT SERVICES	74.9%	60.4%	1.40	1.53	1.37	1.37	-10.3%	9.7%	0.1%
52910	CUSTOMS AGENCY SERVICES	70.3%	20.1%	2.06	2.44	1.90	1.90	-22.1%	18.5%	0.1%
52920	FREIGHT FORWARDING SERVICES	65.4%	47.7%	2.18	2.44	1.87	1.87	-23.1%	11.7%	0.1%
52990	OTHER TRANSPORT SUPPORT SERVICES N.E.C.	66.0%	43.4%	3.77	4.52	3.26	3.39	-25.0%	19.9%	3.7%
53010	GRAIN STORAGE SERVICES	90.2%	56.1%	1.24	1.47	1.47	1.47	-0.3%	18.7%	0.1%
53090	OTHER WAREHOUSING AND STORAGE SERVICES	96.3%	72.0%	1.42	1.63	1.80	1.80	10.3%	14.5%	0.1%
J	Information media and telecommunications									
54110	NEWSPAPER PUBLISHING	47.3%	44.2%	0.63	0.62	0.39	0.47	-25.0%	-0.8%	16.6%
54120	MAGAZINE AND OTHER PERIODICAL PUBLISHING	38.3%	12.3%	0.65	0.59	0.33	0.44	-25.0%	-10.0%	25.7%
54130	BOOK PUBLISHING	43.4%	13.8%	0.69	0.68	0.39	0.51	-25.0%	-2.1%	22.5%
54140	DIRECTORY AND MAILING LIST PUBLISHING	48.4%	5.0%	0.56	0.56	0.35	0.42	-25.0%	-0.2%	15.1%
54190	OTHER PUBLISHING (EXCEPT SOFTWARE, MUSIC AND INTERNET)	44.3%	5.1%	0.70	0.65	0.41	0.49	-25.0%	-7.5%	16.2%
54200	SOFTWARE PUBLISHING	56.7%	45.4%	0.25	0.25	0.19	0.25	0.0%	0.0%	25.6%
55110	MOTION PICTURE AND VIDEO PRODUCTION	142.7%	30.8%	0.48	0.60	0.90	0.75	25.0%	25.0%	-19.8%
55120	MOTION PICTURE AND VIDEO DISTRIBUTION	122.4%	4.4%	0.49	0.62	0.79	0.77	25.0%	25.0%	-2.8%
55130	MOTION PICTURE EXHIBITION	109.3%	20.9%	0.51	0.64	0.73	0.73	14.8%	25.0%	0.1%
55140	POST-PRODUCTION SERVICES AND OTHER MOTION PICTURE AND VIDEO ACTIVITIES	119.7%	6.9%	0.46	0.58	0.73	0.72	25.0%	25.0%	-0.5%
55210	MUSIC PUBLISHING	92.7%	3.2%	0.58	0.63	0.71	0.71	11.6%	9.0%	0.1%
55220	MUSIC AND OTHER SOUND RECORDING ACTIVITIES	110.4%	6.6%	0.55	0.64	0.79	0.79	24.1%	16.7%	0.1%
56100	RADIO BROADCASTING	80.3%	26.3%	0.25	0.27	0.26	0.26	-2.5%	8.0%	0.1%
56210	FREE-TO-AIR TELEVISION BROADCASTING	138.7%	19.4%	0.25	0.31	0.45	0.39	25.0%	25.0%	-16.5%
56220	CABLE AND OTHER SUBSCRIPTION BROADCASTING	111.8%	10.9%	0.29	0.36	0.43	0.43	17.4%	25.0%	0.1%
57000	INTERNET PUBLISHING AND BROADCASTING	78.6%	9.4%	0.37	0.44	0.38	0.38	-14.0%	20.1%	0.1%
58010	WIRED TELECOMMUNICATIONS NETWORK OPERATION	76.6%	19.3%	0.67	0.74	0.68	0.68	-8.4%	9.8%	0.1%
58020	OTHER TELECOMMUNICATIONS NETWORK OPERATION	91.1%	26.2%	0.62	0.78	0.75	0.75	-4.3%	25.0%	0.1%
58090	OTHER TELECOMMUNICATIONS SERVICES	78.2%	31.0%	0.62	0.72	0.63	0.63	-12.0%	16.6%	0.1%
59100	INTERNET SERVICE PROVIDERS AND WEB SEARCH PORTALS	169.7%	31.9%	0.28	0.34	0.61	0.43	25.0%	25.0%	-42.5%
59210	DATA PROCESSING AND WEB HOSTING SERVICES	111.5%	21.4%	0.40	0.49	0.58	0.58	17.1%	25.0%	0.1%
59220	ELECTRONIC INFORMATION STORAGE SERVICES	144.4%	21.6%	0.33	0.41	0.63	0.52	25.0%	25.0%	-21.2%
60100	LIBRARIES AND ARCHIVES	51.1%	15.0%	1.01	1.08	0.67	0.81	-25.0%	7.7%	17.1%
60200	OTHER INFORMATION SERVICES	64.1%	12.9%	0.59	0.64	0.50	0.50	-22.5%	8.7%	0.1%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins Uncapped / (RES2023/24)
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Restricted	(RES2023/24)/ GAZ2022/23	(GAZ2022/23)/ GAZ2021/22	
K Financial and insurance services									
62100 CENTRAL BANKING	55.1%	5.8%	0.28	0.25	0.20	0.25	0.0%	-11.4%	18.4%
62210 BANKING	59.7%	51.9%	0.46	0.44	0.36	0.36	-18.2%	-4.2%	0.1%
62220 BUILDING SOCIETY OPERATION	60.2%	2.6%	0.38	0.36	0.30	0.30	-16.7%	-5.1%	0.1%
62230 CREDIT UNION OPERATION	59.6%	10.1%	0.36	0.34	0.28	0.28	-17.3%	-5.4%	0.1%
62290 OTHER DEPOSITORY FINANCIAL INTERMEDIATION	58.7%	10.5%	0.36	0.34	0.28	0.28	-17.7%	-6.3%	0.1%
62300 NON-DEPOSITORY FINANCING	47.7%	29.9%	0.25	0.25	0.16	0.25	0.0%	0.0%	37.4%
62400 FINANCIAL ASSET INVESTING	37.2%	47.3%	0.25	0.25	0.12	0.25	0.0%	0.0%	51.1%
63100 LIFE INSURANCE	70.3%	16.0%	0.31	0.31	0.29	0.29	-5.9%	-1.9%	0.1%
63210 HEALTH INSURANCE	69.4%	41.6%	0.43	0.42	0.39	0.39	-7.8%	-1.2%	0.1%
63220 GENERAL INSURANCE	68.8%	62.2%	0.49	0.48	0.44	0.44	-7.0%	-2.9%	0.1%
63300 SUPERANNUATION FUNDS	82.8%	23.5%	0.47	0.51	0.51	0.51	-0.7%	9.4%	0.1%
64110 FINANCIAL ASSET BROKING SERVICES	21.1%	54.5%	0.25	0.25	0.07	0.25	0.0%	0.0%	72.4%
64190 OTHER AUXILIARY FINANCE AND INVESTMENT SERVICES	47.4%	85.9%	0.25	0.25	0.16	0.25	0.0%	0.0%	37.8%
64200 AUXILIARY INSURANCE SERVICES	78.5%	60.9%	0.30	0.31	0.31	0.31	-2.4%	5.6%	0.1%
L Rental, hiring and real estate services									
66110 PASSENGER CAR RENTAL AND HIRING	70.6%	30.0%	1.27	1.35	1.17	1.17	-13.3%	6.9%	0.1%
66190 OTHER MOTOR VEHICLE AND TRANSPORT EQUIPMENT RENTAL AND HIRING	68.3%	23.4%	1.45	1.55	1.30	1.30	-16.3%	7.2%	0.1%
66200 FARM ANIMAL AND BLOODSTOCK LEASING	75.4%	1.3%	1.72	1.83	1.70	1.70	-6.9%	6.4%	0.1%
66310 HEAVY MACHINERY AND SCAFFOLDING RENTAL AND HIRING	85.9%	71.0%	1.76	2.01	1.98	1.98	-1.5%	14.4%	0.1%
66320 VIDEO AND OTHER ELECTRONIC MEDIA RENTAL AND HIRING	83.7%	4.6%	1.77	1.99	1.94	1.94	-2.5%	12.8%	0.1%
66390 OTHER GOODS AND EQUIPMENT RENTAL AND HIRING N.E.C.	76.1%	36.3%	2.28	2.43	2.27	2.27	-6.5%	6.9%	0.1%
66400 NON-FINANCIAL INTANGIBLE ASSETS (EXCEPT COPYRIGHTS) LEASING	90.5%	8.1%	1.42	1.78	1.69	1.69	-5.0%	25.0%	0.1%
67110 RESIDENTIAL PROPERTY OPERATORS	76.2%	65.0%	0.92	1.01	0.92	0.92	-9.2%	10.2%	0.1%
67120 NON-RESIDENTIAL PROPERTY OPERATORS	83.3%	66.4%	0.66	0.76	0.72	0.72	-5.1%	15.2%	0.1%
67200 REAL ESTATE SERVICES	66.2%	100.0%	0.31	0.29	0.27	0.27	-8.7%	-4.9%	0.1%
M Professional, scientific and technical services									
69100 SCIENTIFIC RESEARCH SERVICES	76.9%	54.8%	0.42	0.42	0.42	0.42	-0.2%	1.2%	0.1%
69210 ARCHITECTURAL SERVICES	66.0%	68.0%	0.25	0.25	0.22	0.25	0.0%	0.0%	13.4%
69220 SURVEYING AND MAPPING SERVICES	78.4%	65.8%	0.54	0.55	0.55	0.55	0.9%	2.0%	0.1%
69230 ENGINEERING DESIGN AND ENGINEERING CONSULTING SERVICES	72.4%	100.0%	0.25	0.25	0.24	0.25	0.0%	0.0%	5.0%
69240 OTHER SPECIALISED DESIGN SERVICES	82.3%	38.0%	0.42	0.46	0.45	0.45	-2.2%	10.5%	0.1%
69250 SCIENTIFIC TESTING AND ANALYSIS SERVICES	87.7%	100.0%	0.60	0.73	0.69	0.69	-5.7%	22.1%	0.1%
69310 LEGAL SERVICES	68.0%	100.0%	0.29	0.32	0.26	0.26	-19.0%	10.2%	0.1%
69320 ACCOUNTING SERVICES	32.8%	100.0%	0.25	0.25	0.11	0.25	0.0%	0.0%	57.0%
69400 ADVERTISING SERVICES	101.2%	47.3%	0.41	0.50	0.54	0.54	9.4%	21.4%	0.1%
69500 MARKET RESEARCH AND STATISTICAL SERVICES	59.5%	47.7%	0.30	0.25	0.23	0.25	0.0%	-15.7%	7.4%
69610 CORPORATE HEAD OFFICE MANAGEMENT SERVICES	108.7%	88.3%	0.90	1.13	1.29	1.29	14.2%	25.0%	0.1%
69620 MANAGEMENT ADVICE AND RELATED CONSULTING SERVICES	62.0%	100.0%	0.57	0.57	0.46	0.46	-20.0%	1.7%	0.1%
69700 VETERINARY SERVICES	74.1%	53.4%	1.74	1.89	1.69	1.69	-10.5%	8.6%	0.1%
69910 PROFESSIONAL PHOTOGRAPHIC SERVICES	56.9%	15.6%	0.78	0.75	0.59	0.59	-22.1%	-4.1%	0.1%
69990 OTHER PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES N.E.C.	70.3%	38.8%	0.70	0.78	0.65	0.65	-17.2%	11.5%	0.1%
70000 COMPUTER SYSTEM DESIGN AND RELATED SERVICES	39.0%	100.0%	0.25	0.25	0.13	0.25	0.0%	0.0%	48.9%

Premium rates

Divn/Class Name	Weighted Loss Ratio	Credibility	Relative Premium Rates		Relative Premium Rates Normalised 2023/24		% Change in Relative Premium Rates		Margins Uncapped / (RES2023/24)
			Gazette 2021/22	Gazette 2022/23	Relative Prem Rates Uncapped	Restricted	(RES2023/24)/ GAZ2022/23	(GAZ2022/23)/ GAZ2021/22	
N Administrative and support services									
72110 EMPLOYMENT PLACEMENT AND RECRUITMENT SERVICES	130.4%	60.5%	1.52	1.90	2.60	2.37	25.0%	25.0%	-9.5%
72120 LABOUR SUPPLY SERVICES PREDOMINANTLY CLERICAL STAFF	99.3%	46.3%	1.52	1.90	1.98	1.98	4.3%	25.0%	0.1%
72121 LABOUR SUPPLY SERVICES NOT ELSEWHERE CLASSIFIED (rate as per industry)	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
72200 TRAVEL AGENCY AND TOUR ARRANGEMENT SERVICES	96.2%	52.0%	0.56	0.61	0.70	0.70	14.4%	10.4%	0.1%
72910 OFFICE ADMINISTRATIVE SERVICES	263.0%	65.2%	0.69	0.86	2.37	1.07	25.0%	25.0%	-120.9%
72920 DOCUMENT PREPARATION SERVICES	119.8%	11.4%	1.16	1.42	1.82	1.77	25.0%	22.7%	-2.5%
72930 CREDIT REPORTING AND DEBT COLLECTION SERVICES	100.2%	12.5%	1.27	1.33	1.67	1.66	25.0%	4.3%	-0.8%
72940 CALL CENTRE OPERATION	99.5%	31.0%	1.07	1.18	1.40	1.40	19.0%	9.8%	0.1%
72990 OTHER ADMINISTRATIVE SERVICES N.E.C.	164.1%	53.1%	0.52	0.65	1.11	0.81	25.0%	25.0%	-37.8%
73110 BUILDING AND OTHER INDUSTRIAL CLEANING SERVICES	69.1%	86.2%	2.49	2.56	2.26	2.26	-11.9%	3.0%	0.1%
73120 BUILDING PEST CONTROL SERVICES	64.5%	30.7%	3.22	3.15	2.72	2.72	-13.5%	-2.1%	0.1%
73130 GARDENING SERVICES	71.9%	37.4%	4.42	4.65	4.17	4.17	-10.4%	5.4%	0.1%
73200 PACKAGING SERVICES	72.5%	25.7%	3.31	3.45	3.15	3.15	-8.6%	4.2%	0.1%
O Public administration and safety									
75100 CENTRAL GOVERNMENT ADMINISTRATION	88.1%	11.0%	0.82	0.95	0.95	0.95	0.0%	15.7%	0.1%
75200 STATE GOVERNMENT ADMINISTRATION	93.5%	100.0%	0.96	1.14	1.18	1.18	3.3%	18.8%	0.1%
75300 LOCAL GOVERNMENT ADMINISTRATION (Applies only to privately insured entities. Excludes all self-insured entities in the Local Government Insurance Service - WorkCare scheme)	71.4%	42.8%	1.75	1.75	1.64	1.64	-6.3%	0.0%	0.1%
75400 JUSTICE	1340.8%	100.0%	0.47	8.19	8.23	8.24	0.6%	1649.3%	0.1%
75510 DOMESTIC GOVERNMENT REPRESENTATION	94.3%	2.3%	0.86	1.04	1.06	1.06	2.1%	21.3%	0.1%
75520 FOREIGN GOVERNMENT REPRESENTATION	92.1%	9.6%	0.82	0.98	0.99	0.99	0.6%	20.2%	0.1%
76000 DEFENCE	116.8%	18.2%	1.56	1.95	2.39	2.39	22.7%	25.0%	0.1%
77110 POLICE SERVICES	44.9%	1.8%	7.02	4.22	4.14	4.14	-2.0%	-39.8%	0.1%
77120 INVESTIGATION AND SECURITY SERVICES	55.6%	66.3%	4.31	3.57	3.15	3.15	-11.8%	-17.2%	0.1%
77130 FIRE PROTECTION AND OTHER EMERGENCY SERVICES	64.4%	62.7%	6.66	5.60	5.63	5.63	0.6%	-15.9%	0.1%
77140 CORRECTIONAL AND DETENTION SERVICES	29.2%	55.9%	9.29	3.35	3.56	3.56	6.4%	-63.9%	0.1%
77190 OTHER PUBLIC ORDER AND SAFETY SERVICES	76.4%	27.0%	4.87	4.76	4.89	4.89	2.8%	-2.4%	0.1%
77200 REGULATORY SERVICES	189.0%	23.3%	1.02	1.28	2.53	1.59	25.0%	25.0%	-58.7%
P Education and training									
80100 PRESCHOOL EDUCATION	86.6%	16.0%	1.84	2.21	2.09	2.09	-5.1%	19.8%	0.1%
80210 PRIMARY EDUCATION	82.1%	83.5%	1.03	1.23	1.11	1.11	-9.8%	19.5%	0.1%
80220 SECONDARY EDUCATION	84.7%	82.8%	0.93	1.12	1.04	1.04	-7.0%	19.6%	0.1%
80230 COMBINED PRIMARY AND SECONDARY EDUCATION	82.9%	100.0%	1.79	2.01	1.95	1.95	-2.8%	11.9%	0.1%
80240 SPECIAL SCHOOL EDUCATION	83.7%	10.0%	1.68	1.93	1.85	1.85	-4.3%	14.9%	0.1%
81010 TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	76.3%	100.0%	1.05	1.10	1.05	1.05	-3.8%	4.2%	0.1%
81020 HIGHER EDUCATION	73.1%	100.0%	0.35	0.36	0.33	0.33	-7.6%	3.8%	0.1%
82110 SPORTS AND PHYSICAL RECREATION INSTRUCTION	74.6%	28.9%	1.34	1.45	1.31	1.31	-9.4%	8.2%	0.1%
82120 ARTS EDUCATION	71.2%	17.7%	1.33	1.34	1.24	1.24	-7.2%	0.8%	0.1%
82190 ADULT, COMMUNITY AND OTHER EDUCATION N.E.C.	89.4%	46.5%	1.09	1.34	1.28	1.28	-4.0%	22.2%	0.1%
82200 EDUCATIONAL SUPPORT SERVICES	104.9%	39.7%	0.79	0.99	1.09	1.09	10.2%	25.0%	0.1%

Premium rates

				Relative Premium Rates		Relative Premium Rates		% Change in Relative		Margins		
						Normalised 2023/24		Premium Rates				
Divn/Class Name				Weighted		Gazette	Gazette	Relative Prem Rates	(RES2023/24)/ (GAZ2022/23)/	Uncapped /		
				Loss Ratio	Credibility	2021/22	2022/23	Uncapped	GAZ2022/23	GAZ2021/22 (RES2023/24)		
Q	Health care and social assistance											
84010	HOSPITALS (EXCEPT PSYCHIATRIC HOSPITALS)			78.8%	100.0%	1.89	1.99	1.95	1.95	-1.8%	5.3%	0.1%
84020	PSYCHIATRIC HOSPITALS			65.4%	25.2%	2.13	1.97	1.83	1.83	-7.4%	-7.3%	0.1%
85110	GENERAL PRACTICE MEDICAL SERVICES			86.3%	80.1%	0.60	0.67	0.68	0.68	0.4%	12.8%	0.1%
85120	SPECIALIST MEDICAL SERVICES			66.1%	84.2%	0.49	0.50	0.42	0.42	-14.9%	2.0%	0.1%
85200	PATHOLOGY AND DIAGNOSTIC IMAGING SERVICES			93.8%	91.0%	0.67	0.81	0.83	0.83	1.7%	21.1%	0.1%
85310	DENTAL SERVICES			73.0%	99.0%	0.54	0.56	0.52	0.52	-7.1%	3.1%	0.1%
85320	OPTOMETRY AND OPTICAL DISPENSING			99.6%	99.0%	0.31	0.39	0.41	0.41	4.6%	25.0%	0.1%
85330	PHYSIOTHERAPY SERVICES			109.8%	99.0%	0.25	0.31	0.36	0.36	15.4%	25.0%	0.1%
85340	CHIROPRACTIC AND OSTEOPATHIC SERVICES			123.2%	99.0%	0.26	0.33	0.43	0.41	25.0%	25.0%	-3.4%
85390	OTHER ALLIED HEALTH SERVICES			57.4%	76.2%	1.55	1.39	1.17	1.17	-15.8%	-10.5%	0.1%
85910	AMBULANCE SERVICES			74.3%	58.7%	3.69	3.84	3.60	3.60	-6.2%	4.1%	0.1%
85990	OTHER HEALTH CARE SERVICES N.E.C.			75.9%	63.9%	1.77	1.77	1.76	1.76	-0.3%	0.0%	0.1%
86010	AGED CARE RESIDENTIAL SERVICES			68.3%	100.0%	2.81	2.87	2.52	2.52	-12.1%	2.0%	0.1%
86090	OTHER RESIDENTIAL CARE SERVICES			66.3%	100.0%	2.80	2.82	2.43	2.44	-13.8%	0.9%	0.1%
87100	CHILD CARE SERVICES			76.5%	93.4%	2.10	2.28	2.10	2.10	-7.8%	8.9%	0.1%
87900	OTHER SOCIAL ASSISTANCE SERVICES			64.3%	100.0%	3.41	3.46	2.88	2.88	-16.8%	1.5%	0.1%
R	Arts and recreation services											
89100	MUSEUM OPERATION			89.7%	23.8%	1.24	1.50	1.46	1.46	-2.2%	20.4%	0.1%
89210	ZOOLOGICAL AND BOTANICAL GARDENS OPERATION			71.2%	18.7%	2.31	2.46	2.16	2.16	-12.1%	6.3%	0.1%
89220	NATURE RESERVES AND CONSERVATION PARKS OPERATION			73.5%	20.2%	2.07	2.36	2.00	2.00	-15.5%	14.3%	0.1%
90010	PERFORMING ARTS OPERATION			82.2%	21.3%	1.48	1.69	1.60	1.60	-5.2%	13.8%	0.1%
90020	CREATIVE ARTISTS, MUSICIANS, WRITERS AND PERFORMERS			68.4%	25.8%	1.54	1.62	1.38	1.38	-14.5%	5.0%	0.1%
90030	PERFORMING ARTS VENUE OPERATION			65.1%	22.4%	1.45	1.50	1.24	1.24	-17.3%	3.4%	0.1%
91110	HEALTH AND FITNESS CENTRES AND GYMNASIA OPERATION			61.4%	37.0%	1.71	1.66	1.37	1.37	-17.3%	-2.6%	0.1%
91120	SPORTS AND PHYSICAL RECREATION CLUBS AND SPORTS PROFESSIONALS			73.2%	44.3%	1.56	1.64	1.50	1.50	-8.7%	5.2%	0.1%
91130	SPORTS AND PHYSICAL RECREATION VENUES, GROUNDS AND FACILITIES OPERATION			64.4%	42.0%	1.72	1.68	1.46	1.46	-13.2%	-2.5%	0.1%
91131	SPEEDWAY OPERATION			59.1%	3.8%	2.11	2.02	1.63	1.63	-19.2%	-4.0%	0.1%
91140	SPORTS AND PHYSICAL RECREATION ADMINISTRATIVE SERVICE			70.6%	32.4%	1.51	1.55	1.40	1.40	-9.7%	2.6%	0.1%
91210	HORSE AND DOG RACING ADMINISTRATION AND TRACK OPERATION			76.2%	35.8%	4.78	5.08	4.77	4.78	-5.9%	6.2%	0.1%
91290	OTHER HORSE AND DOG RACING ACTIVITIES			218.4%	100.0%	6.94	8.68	19.90	10.85	25.0%	25.0%	-83.4%
91310	AMUSEMENT PARKS AND CENTRES OPERATION			77.7%	17.3%	1.87	2.06	1.91	1.91	-7.4%	10.2%	0.1%
91390	AMUSEMENT AND OTHER RECREATIONAL ACTIVITIES N.E.C.			86.6%	17.1%	1.89	2.18	2.15	2.15	-1.3%	15.1%	0.1%
92010	CASINO OPERATION			92.9%	64.8%	1.07	1.26	1.30	1.30	3.4%	17.9%	0.1%
92020	LOTTERY OPERATION			90.6%	22.6%	0.82	0.94	0.98	0.98	3.8%	14.6%	0.1%
92090	OTHER GAMBLING ACTIVITIES			96.8%	10.5%	0.91	1.08	1.15	1.15	6.5%	19.3%	0.1%

Premium rates

				Relative Premium Rates		Relative Premium Rates		% Change in Relative		Margins		
						Normalised 2023/24		Premium Rates				
Divn/Class Name				Weighted		Gazette	Gazette	Relative Prem Rates	(RES2023/24)/	Uncapped /		
S	Other services			Loss Ratio	Credibility	2021/22	2022/23	Uncapped	Restricted	GAZ2022/23	GAZ2021/22	(RES2023/24)
94110	AUTOMOTIVE ELECTRICAL SERVICES			71.8%	38.0%	2.45	2.61	2.31	2.31	-11.7%	6.8%	0.1%
94120	AUTOMOTIVE BODY, PAINT AND INTERIOR REPAIR			68.7%	62.5%	2.45	2.47	2.21	2.21	-10.7%	1.0%	0.1%
94190	OTHER AUTOMOTIVE REPAIR AND MAINTENANCE			75.3%	80.6%	2.67	3.04	2.64	2.64	-13.1%	13.8%	0.1%
94210	DOMESTIC APPLIANCE REPAIR AND MAINTENANCE			72.1%	15.1%	1.75	1.82	1.65	1.65	-9.3%	4.4%	0.1%
94220	ELECTRONIC (EXCEPT DOMESTIC APPLIANCE) AND PRECISION EQUIPMENT REPAIR AND MAINTENANCE			164.0%	45.9%	0.52	0.65	1.11	0.81	25.0%	25.0%	-37.7%
94290	OTHER MACHINERY AND EQUIPMENT REPAIR AND MAINTENANCE			67.0%	100.0%	1.78	1.88	1.56	1.56	-16.9%	5.8%	0.1%
94910	CLOTHING AND FOOTWEAR REPAIR			67.4%	10.7%	2.03	2.06	1.79	1.80	-12.9%	1.6%	0.1%
94990	OTHER REPAIR AND MAINTENANCE N.E.C.			67.8%	14.7%	1.98	2.03	1.76	1.76	-13.0%	2.4%	0.1%
95110	HAIRDRESSING AND BEAUTY SERVICES			94.9%	66.1%	0.81	1.02	1.01	1.01	-0.4%	25.0%	0.1%
95120	DIET AND WEIGHT REDUCTION CENTRE OPERATION			89.2%	5.2%	0.89	1.09	1.04	1.04	-4.7%	22.8%	0.1%
95200	FUNERAL, CREMATORIUM AND CEMETERY SERVICES			63.9%	28.1%	2.30	2.10	1.92	1.93	-8.2%	-8.6%	0.1%
95310	LAUNDRY AND DRY-CLEANING SERVICES EXCLUDES INDUSTRIAL LAUNDRIES			67.0%	21.2%	2.67	2.74	2.35	2.35	-14.3%	2.7%	0.1%
95311	INDUSTRIAL LAUNDRIES			85.9%	21.4%	2.84	3.26	3.20	3.20	-1.6%	14.7%	0.1%
95320	PHOTOGRAPHIC FILM PROCESSING			74.8%	2.1%	2.25	2.37	2.21	2.21	-6.9%	5.6%	0.1%
95330	PARKING SERVICES			64.6%	8.9%	2.46	2.25	2.08	2.08	-7.3%	-8.5%	0.1%
95340	BROTHEL KEEPING AND PROSTITUTION SERVICES			71.1%	4.5%	2.34	2.32	2.19	2.19	-5.6%	-1.1%	0.1%
95390	OTHER PERSONAL SERVICES N.E.C.			67.6%	18.1%	2.61	2.63	2.31	2.31	-11.9%	0.8%	0.1%
95400	RELIGIOUS SERVICES			69.7%	57.3%	1.23	1.28	1.13	1.13	-11.5%	3.4%	0.1%
95510	BUSINESS AND PROFESSIONAL ASSOCIATION SERVICES			82.6%	46.0%	0.89	0.96	0.96	0.96	-0.4%	8.9%	0.1%
95520	LABOUR ASSOCIATION SERVICES			87.3%	32.6%	1.16	1.44	1.33	1.34	-7.4%	23.9%	0.1%
95590	OTHER INTEREST GROUP SERVICES N.E.C.			74.3%	94.3%	1.27	1.38	1.24	1.24	-10.5%	9.1%	0.1%
96010	PRIVATE HOUSEHOLDS EMPLOYING STAFF PERMANENT STAFF			77.3%	35.4%	1.45	1.61	1.47	1.47	-8.5%	10.9%	0.1%
96011	these are dollar premiums (see Recommended Minimum Premium - Householders' Policies) while for 2023/24 these are true rates)					90.00	90.00	1.64	95.00	5.6%	0.0%	
96020	UNDIFFERENTIATED GOODS-PRODUCING ACTIVITIES OF PRIVATE HOUSEHOLDS FOR OWN USE (for 2023/24 restricted these are dollar premiums (see Recommended Minimum Premium - Householders' Policies) while for 2023/24 these are true rates)					90.00	90.00	1.51	95.00	5.6%	0.0%	
96030	UNDIFFERENTIATED SERVICE-PRODUCING ACTIVITIES OF PRIVATE HOUSEHOLDS FOR OWN USE (for 2023/24 restricted these are dollar premiums (see Recommended Minimum Premium - Householders' Policies) while for 2023/24 these are true rates)					90.00	90.00	1.50	95.00	5.6%	0.0%	

Appendix B Detailed data description

B 1 Data supplied by insurers

Data is supplied to WorkCover WA by the premium rate returning entities. The term premium rate returning entities refers to all approved private insurers, former insurers currently in run-off and ICWA. ICWA supplies data for RiskCover, the Government Insurance Fund (Funded and Unfunded) and for its pre - 1987 private sector risks.

After initial validation, WorkCover WA forwarded the data to us.

LGIS - WorkCare has not been included in the calculation of the recommended premium rates since 2002/03. As a result, the recommended premium rate for ANZSIC code 75300 – Local Government Administration should be treated with caution as it does not reflect the current experience of the Local Government self-insurance scheme as it only includes the data from the privately insured entities.

The following forms from the premium rating returning entities were supplied electronically as at 30 June 2022:

Form WC12

The form contains a list of each policy with its associated claims data (in aggregate) and class based on ANZSIC 2006. The form contains the following pieces of data for each policy:

- ANZSIC 2006 code where the policy is classified
- Reporting year
- Gross written premium including any adjustments
- Written wages, including any adjustments to initial wage declarations
- Earned premium
- Earned wages, including any adjustments to initial wage declarations
- Cumulative number of claim reports
- Cumulative claim payments
- Case estimates outstanding on active claims.

WorkCover WA aggregated the forms provided by insurers for us and provide the aggregated data to us.

Form WC20

This form contains the following information:

- Number of claim reports in the year
- Amount of claim payments in the year
- Number of active claims at year end
- Case estimates of active claims at year end
- IBNR and development estimates at year end
- Prudential margin used in the financial accounts
- Corresponding level of sufficiency adopted in the financial accounts
- Prudential margin at a 75% level of sufficiency (as supplied to APRA).

We were also provided with a half yearly WC20 to 31 December 2022.

Form WC30

Form WC30 contains the following information:

- Premium information
 - Gross written premium for the year to 30 June 2022
 - Unearned premium as at 30 June 2021
 - Unearned premium as at 30 June 2022
 - Earned premium for the year to 30 June 2022
 - Earned but not yet raised premium for burner policies split into the last five financial years.
- Expenses for the year to 30 June 2022
 - Commission and brokerage
 - General Account levy
 - Supplementary fund levy
 - Other statutory charges
 - Management expenses.

B 2 Other data provided

WorkCover WA also provided the following data as at 31 December 2022.

Payments data for 2021/22

The payment data provided by WorkCover WA are split payments by accident year and into 12 different categories as follows:

- Weekly benefits
- Lump sum election registered
- Lump sum no election registered
- Lump sum permanent impairment/Fatal
- Investigation
- Legal
- Miscellaneous
- Medical non scheduled
- Medical scheduled
- Hospital
- Allied health
- Workplace rehabilitation.

This data was provided for the 2021/22 financial year and the half year to 31 December 2022.

Individual list of all 2004/05 to 2021/22 claims

We were provided with a list of each claim with an accident date from 1 July 2004 to 31 December 2022. This data contained:

- Claim number
- Occurrence date
- Finalisation date
- Reopened date
- Date of birth
- Insurer type
- Total payments and split into by payment type
- Total estimate
- Claim type (i.e., Disallowed or Disease)
- Nature of injury
- Settlement type
- Age group

- Claimant identifier
- Settlement type
- Silicosis flag
- COVID-19 flag

We used this data to review any change in the frequency of claims and average claim size for claimants over age 65, as well as to undertake analysis on the forward-looking superimposed inflation.

In addition, based on the information above and the additional Silicosis and COVID flag, we have used these to identify the number of claims related to these two sources of uncertainty.

Large claims

A file of large claims (>\$0.2 million) incurred by the premium rate returning entities. Data fields provided include:

- Claim number
- Accident year, date insurer received claim and finalisation date (if applicable)
- Total estimate, paid and outstanding
- Premium rating class.

The large claim file is provided as at 30 June 2022 and used to apply the large claim cap when calculating premium rates.

Lump sum payment type by reported quarter

We have been provided with the schedule 2, redemptions and 92(f) number of claims and payments by quarter reported from September 2015 for insurers only.

This data enabled us to review the trends in settlement lodgement and payment.

Lump sum payments in the 2021/22 financial year

We received a report that provides the lump sum payments over the financial year, separated by accident year and split into lump sums without election, lump sum with election, Schedule 2. It also has the total number of settlements and legal payments.

Lump sum payments by accident year

We received a report that provides the total lump sum payments by accident year and split into lump sums without election, lump sum with election, Schedule 2. It also has the total number of settlements and legal payments.

Number of claims reported each quarter split by duration

We have been provided with the number of claims reported by quarter split into number of lost time days of 0, 1 to 4, 5 to 19, 20 to 59, 60 to 119, 120 to 179 and greater than 180 days' time lost.

While for the more recent quarters the days lost is only an estimate, this data helps us understand the changes in the duration and which durations are experiencing a reduction in the number of claims.

B 3 Data quality

The overall quality of the data this year was acceptable for our premium rate projections, once the data validation process was completed.

The initial data is screened by WorkCover WA using a set of validation tests and cross-referencing information from the database. We then subject the data to more comprehensive and detailed checking.

Each insurer form is checked to ensure that they are:

- Reasonable and internally consistent
- Consistent across the forms, i.e.:
 - Claims paid: WC20 = WC12

A range of ratios were also calculated for each insurer, being:

- Notional loss ratio
- Outstanding claim ratio
- Expense ratios.

We review these ratios over the past three financial years to check for any major changes and errors in the data.

In summary, of 20 (20) returns received:

- 7 (11) required no further action
- 13 (9) insurers had to clarify specific issues or do a first revision
- 0 (0) insurers had to further clarify issues or do a second revision.

The numbers in brackets are last year's.

The data quality was reasonably consistent with previous years.

We encourage insurers to continue to compare their submissions with the prior year's final version and provide explanations for any large differences. This will reduce the number of queries we have when we review the initial submissions. In addition, it is also essential that all required WC12 data corrections are submitted by insurers as a revision of the form. This helps to improve efficiency and reduce the potential for data errors to be introduced when manual data corrections are made.

At the previous valuation one insurer had issues with the half yearly WC20. We did not encounter this problem at this year's valuation. We continue to encourage these to be checked closely to ensure they contain half yearly information not quarterly information.

Appendix C Detailed methods description

C 1 Projection methods

As discussed in section 5.1, a range of projection methods were used to calculate the outstanding claims liability. They are detailed below:

Payments per claim finalised method

All payments were brought to current values and divided by the numbers of claims finalised in their respective accident years and years of payment. Averages of payments per claim finalised were formed from these figures. These averages were then combined with a projection of future numbers of claims finalised to produce projected future payments.

The PPCF model was used, along with other methods, to project the cashflows for the following payment categories:

- Lump sum (election registered, no election registered, permanent impairment/fatal)
- Investigation, legal and miscellaneous.

Payments per active claim method

As described for the payments per claim finalised method, but with a denominator of numbers of claims active at the beginning of the period.

The PPAC model was used, along with other methods, to project the cashflows for the following payment categories:

- Weekly benefits
- Medical (scheduled and non-scheduled) and Hospital expenses
- Allied health
- Workplace rehabilitation.

Payments per claim incurred method

All claim payments were brought to current values and divided by the numbers of claims incurred in their respective accident years. A pattern of past payments per claim incurred was derived in respect of each accident year. These payment patterns were then extended into future years and used to project future payments.

The PPCI method was used in a blend with other methods to project payments for all payment groups for more recent accident years. The PPCI method was used as a benchmark for all groupings for older accident years.

C 2 Premium rates methods

C 2.1 Relative rates

Calculate weighted average rates

The raw premium rate is calculated on an accident year basis for 2014/15 to 2021/22 using the following formula:

$$\frac{\text{developed total estimate (claim payments + outstanding case estimates)}}{\text{developed returned earned wages}}$$

This is done by industry division, subdivision, group and class.

Both the total estimate and returned earned wages are developed on an individual insurer basis and then cumulated to attain the industry totals. Returned earned wages are developed by considering the extent to which earned wages have developed historically on individual insurers' returns. The total estimate is developed based on the insurers' expected development, provided on Form WC20, adjusted at an aggregate level to align with our expected total development.

The equivalent aggregate adjustment rates, after applying the development at an individual insurer level for total case estimates and earned wages, are shown in the tables below.

Development Year	Adjustment Factors for Total Case Estimates				
	30 June 2022	30 June 2021	30 June 2020	30 June 2019	30 June 2018
0	1.641	1.534	1.551	1.485	1.460
1	1.117	1.088	1.078	1.107	1.079
2	1.031	1.014	1.032	1.022	1.022
3	1.010	1.017	1.019	1.017	1.013
4	1.007	1.018	1.014	1.012	1.008
5	1.007	1.016	1.007	1.005	1.021
6	1.014	1.012	1.016	1.018	1.017
7	1.011	1.016	1.014	1.015	1.021

Development Year	Adjustment Factors for Earned Wages				
	30 June 2022	30 June 2021	30 June 2020	30 June 2019	30 June 2018
0	1.024	1.019	1.008	1.002	1.000
1	1.004	1.002	0.996	0.999	1.002
2	1.001	0.998	0.995	0.998	0.999
3	1.000	0.999	0.996	0.999	1.001
4	1.002	1.001	0.999	1.000	1.000
5	1.000	1.000	1.000	1.000	1.000
6	1.000	0.999	1.000	1.000	1.000
7	1.000	1.000	1.000	1.000	1.000

Development Year	Adjustment Factors for Written Wages				
	30 June 2022	30 June 2021	30 June 2020	30 June 2019	30 June 2018
0	1.035	1.032	1.023	1.016	1.012
1	1.010	1.009	1.003	1.007	1.010
2	1.002	1.002	1.001	1.005	1.007
3	0.999	0.998	1.000	1.004	1.005
4	0.999	1.000	0.999	1.000	1.000
5	1.000	1.001	0.999	1.000	1.000
6	0.998	0.999	1.000	1.000	1.000
7	1.000	1.000	1.000	1.000	1.000

Earned wage development is generally lower than written wage development since earned wages already include part of the wage adjustments from the prior underwriting years.

Development Year	Adjustment Factors for Gross written premiums				
	30 June 2022	30 June 2021	30 June 2020	30 June 2019	30 June 2018
0	1.105	1.064	1.058	1.038	1.047
1	1.049	1.021	1.016	1.003	1.012
2	1.018	0.998	0.996	0.983	0.990
3	0.996	0.988	0.997	0.999	1.000
4	0.997	0.995	0.998	0.999	1.000
5	0.997	0.996	0.998	0.999	0.999
6	0.998	0.999	1.000	1.000	1.000
7	1.000	1.000	1.000	1.000	1.000

The table below shows the development of the earned premiums, including the earned but not yet raised (EBNYR) premium.

Development Year	Adjustment Factors for Earned premiums (including EBNYR)				
	30 June 2022	30 June 2021	30 June 2020	30 June 2019	30 June 2018
0	1.067	1.020	1.014	0.987	0.976
1	1.022	0.988	0.986	0.966	0.964
2	1.024	0.993	0.995	0.980	0.977
3	1.013	1.001	1.007	0.999	1.012
4	1.009	0.998	0.999	0.988	1.001
5	0.996	0.991	0.993	0.993	1.000
6	0.999	0.998	1.000	1.000	1.000
7	0.999	0.999	1.000	1.000	1.000

The gross written premium and earned premium for the most recent accident years is affected by burner policies. The development of gross written premium and earned premium will depend upon the percentage of burner policies in the scheme.

The WARs are calculated from the raw rates by applying the following credibility weightings to each financial year:

Weightings	Development year					
	0	1	2	3	4	5
30 June 2022	0.6	0.9	1.0	1.0	1.0	0.5
30 June 2021	0.6	0.9	1.0	1.0	1.0	0.5

The current accident year experience is given only 60% weighting because of the low level of development. This increases to 90% for development year 1. The rates are then standardised to give an overall weighting of 100% up to development year 4, reducing thereafter due to lower relevance of the older years. The weights sum to five full years.

The weightings for this year are the same as previous year's valuation.

Partial credibility rates

PCRs are calculated from the WARs using aggregate weighted wages as the exposure measure. PCRs are calculated by industry division, sub-division, group and class progressively, using a system of hierarchical credibility.

The application of credibility theory to experience rating was developed as follows:

Calculation of self-rating point

Estimated average wages (a)	91,329
Estimated claim frequency (b)	2.5%
n	720
σ/m	0.175
Number of claims for full credibility (c)	742
Number of employees for full credibility (d)	29,404
Indexed wages for full credibility (e)	2,685,446,616

- Notes:**
- (a) = estimated average full time adult ordinary time earnings over 2021/22
= $(1895.80 + 1937.30) / 2 \times 52.18$ (ABS Cat 6302.0) / 3 year inflation factor (=1.095) to adjust to the same base as weighted average wages
 - (b) from Appendix H being an average of claims experience over the 2017 to 2021 accident years
 - (c) = $n \times (1 + (\sigma/m)^2)$
 - (d) = (c) / (b)
 - (e) = (d) x (a)

To obtain full credibility, the aggregated weighted wages for each class, group, sub-division or division need to be greater than \$2,685 million. This is 5.4% higher than the \$2,548 million from the analysis last year. The increase is due to higher estimated average wages and lower projected claim frequency.

The formula for the partial credibility factor Z is:

$$Z = \sqrt{n_1 / n_f}$$

where: n_1 = returned wages for the industry class

n_f = returned wages for full credibility, where returned wages are substituted as a surrogate measure for number of claims.

The partial credibility rate is then calculated as:

$$\text{PCR} = Z \times \text{WAR} + (1 - Z) \times \text{DWAR}$$

Where: WAR = weighted average rate per class

DWAR = weighted average rate per division, sub-division, group

For full credibility, we get Z = 1 and the formula reduces to:

$$\text{PCR} = \text{WAR}$$

i.e.: PCR = full credibility premium rate.

Under this method the following obtained full credibility:

- 19 (19) of 19 divisions
- 36 (35) of 86 sub-divisions
- 35 (35) of 214 groups
- 34 (35) of 517 premium rating classes.

Figures in brackets are last year's.

The table below shows the distribution of credibility level achieved by rating classes on their own claims experience:

Credibility Level	This year		Last year	
	No. of Classes	%	No. of Classes	%
$x \leq 25\%$	241	46.6%	240	46.4%
$25\% < x \leq 50\%$	152	29.4%	153	29.6%
$50\% < x \leq 75\%$	57	11.0%	58	11.2%
$75\% < x < 100\%$	33	6.4%	31	6.0%
100%	34	6.6%	35	6.8%
Total	517	100.0%	517	100.0%

Where a class, group, sub-division or division does not have full credibility the rate is built-up from group level, progressively through sub-division and division level, if necessary. In this way, a finer distinction is made to better approach homogeneity in the full credibility grouping of the premium rating classes. Classes with credibility close to unity will be largely unaffected, while those with low credibility levels should experience greater equity and appropriateness in their rates.

Wages across the following classes were aggregated to calculate the credibility factor Z for the relevant class:

Group	Rating Classes	Z based on aggregate wages
A	85310 - Dental Services	0.99
	85320 - Optometry and Optical Dispensing	0.99
	85330 - Physiotherapy Services	0.99
	85340 - Chiropractic and Osteopathic Services	0.99

This is done to promote homogeneity of experience and for consistency with grouping applied on an ANZSIC 1993 classification basis. The above rating classes have claim experience vastly different from the other classes in the same group:

- Group A has Other Allied Health Services.

This year, in reviewing the impact of Silicosis claims on individual classes, we observed that two classes had a class rate before credibility that was increasing a faster rate than the group rate. To ensure that the premium rates for these classes include an appropriate allowance for the higher recent claims experience, we have increased the credibility of the following two classes by adding 25%:

- 20901 - Other Non-Metallic Product Manufacturing Stone Products
- 20290 - Other Ceramic Product Manufacturing.

After allowing for this adjustment the class credibility increases to 35% and 43% respectively. Given the relatively small class size and volatility of the experience, we have not increased the class experience to 100%. We will monitor the future Silicosis experience and review the credibility weighting in future valuations.

We have assigned class **91290 - Other Horse and Dog Racing Activities** credibility of 100%. This class has a calculated 14% credibility based on wages but the claim activity in this class has been significantly higher than all other classes in the subdivision. The class experience has been relatively stable at this higher level. This is the same approach as last year.

We are of the opinion that the significant difference in the premium rate for this class compared to the group/sub-division along with stable experience at the higher level justifies using the higher credibility of its own experience. We note that the average premium charged by insurers for this class is significantly higher than the historical recommended premium rate.

We also reviewed other classes which have low credibility, and their own class rate is significantly different to the group or sub-division. As these other classes either have very volatile experience or are extremely small this didn't support adopting 100% of their own experience so we have continued with the same approach as last year for these classes.

Capping large claims

We have been provided with all claims with an incurred cost greater than \$0.2 million. Although no longer considered in our analysis, large claims for the 2000/01 accident year are capped at an incurred cost estimate of \$3.0 million or 12% of wages for claims between \$0.2 million and \$3.0 million. For subsequent accident years, the capping is indexed in line with wage inflation.

The table below shows the capping applied to each accident year with greater than 0% weighting in the premium rates.

Accident year	Minimum (\$M)	Maximum (\$M)
2017	0.422	6.331
2018	0.428	6.415
2019	0.436	6.546
2020	0.451	6.769
2021	0.462	6.927
2022	0.477	7.148

The large claim capping has been performed at an individual insurer level, using the total aggregate wages across all insurers by:

- Deducting the total estimate for each large claim from 'claim payments and outstanding case estimates' for the rating class it belongs to
- Applying the development factor to the reduced total
- Adding back the capped amount for the large claim and
- Dividing by returned wages.

This implies that:

- No further development is added to insurer's estimates of these claims

- They are capped when calculating the WARs to limit the influence of abnormally large items on relative rates at class level
- The cost above the cap is in effect respread over the whole scheme.

For the 2017 to 2022 accident years (those with a greater than 0% weight to calculate the WAR) there are six (six) claims capped at class level, but only two (two) claims capped at group, sub-division and divisional level. Figure in brackets are last year's equivalent figures.

Caps on large claims amount to 0.4% (0.2%) of the total premium pool for 2023/24.

Normalise partial credibility rates

The PCRs are normalised such that when they are applied to adjusted accident year returned wages for 2021/22 by class, the aggregate notional premiums are equal to the aggregate notional premiums, based on the same wage data, calculated using the 2022/23 Gazette rates.

The normalised PCRs (NPCRs) are subjected to absolute minimum and maximum rates of \$0.25 and \$12.00 per \$100 of wages. This is the same as last year.

In 2019, we performed a review of the minimum and maximum premium rate capping for the 2020/21 and future recommended premium rates. The details of our findings are contained in our *Review of minimum and maximum premium rates* report dated 8 November 2019. The key recommendations from our review were:

- For the minimum and maximum premium rate caps to be applied to the 2020/21 and future recommended premium rates remain unchanged at \$0.25 and \$12.00 per \$100 wages, until the next review occurs.
- Recommend that the following classes to be removed from the premium pool respread calculation:
 - 07000 – Oil and Gas Extraction On Land
 - 96020 – Undifferentiated Goods – Producing Activities of Private Households for Own Use
 - 96030 – Undifferentiated Service – Producing Activities of Private Households for Own Use
 - 96011 – Private Households Employing Staff – Occasional Staff
- For classes 96020, 96030 and 96011 we recommend using the dollar value of the minimum premium for householder's policies (\$95 for 2023/24) rather than a rate. This is why they are not included in the respread calculation.
- While we recommend that the Gazetted rate for class 07000 - Oil and Gas Extraction On Land be based on the minimum rate of 0.25, the premium pool respread calculation does not include class 07000 to avoid the under collection of the total premium pool. We make this exclusion due to the presence of one very large policy for which the actual premium rate charged is similar to its own true rate which is significantly below 0.25.

All premium rates, other than those where a minimum or maximum premium rate cap is applied, have reduced by 0.3% as a result of the premium respread.

Capping the movement of premium rates

In addition, the normalised PCRs post the absolute minimum and maximum adjustment (above) is then further capped in their total movement from the 2022/23 Gazetted rates (both upwards and downwards) by 25%. This is intended to strike a balance between manageable increases for policyholders and limiting the cross-subsidisation between classes. This approach is the same as last year.

Having applied these limits, the NPCRs are normalised once again to the aggregate notional premiums at Gazette rates.

This capping of movement increases all premium rates (not subject to capping) by 0.3% as a result of respreading the extra premium required. Thus, the overall net impact due to the minimum and maximum as well as the movement capping mostly offset each other.

Weighted loss ratio

The weighted loss ratio presented in the tables in Appendix A, is calculated as follows:

$$\frac{\text{estimated risk cost of claims (based on this year's Gazette rates times wages)}}{\text{premium on last year's Gazette rates}}$$

The weighted loss ratio is a benchmark statistic and is not used as part of the Gazette rate calculation.

Appendix D Assumptions

D 1 Financial assumptions

Future inflation and interest rates

Years ahead	Interest rate 28 Feb 2023	Inflation rate 28 Feb 2023	Real rate 28 Feb 2023	28 Feb 2022
1	3.17%	3.50%	-0.33%	-2.42%
2	3.68%	3.75%	-0.07%	-1.91%
3	3.52%	3.50%	0.02%	-0.75%
4	3.64%	3.25%	0.39%	-0.27%
5	3.78%	3.26%	0.52%	-0.32%
6	3.90%	3.27%	0.63%	-0.39%
7	4.01%	3.28%	0.73%	-0.43%
8	4.11%	3.29%	0.83%	-0.45%
9	4.21%	3.30%	0.91%	-0.43%
10	4.29%	3.31%	0.98%	-0.39%
11	4.36%	3.31%	1.04%	-0.31%
12	4.42%	3.32%	1.09%	-0.22%
13	4.47%	3.33%	1.14%	-0.15%
14	4.51%	3.34%	1.17%	-0.09%
15	4.54%	3.35%	1.18%	-0.04%
16	4.55%	3.36%	1.19%	-0.01%
17	4.56%	3.37%	1.19%	0.01%
18	4.56%	3.38%	1.18%	0.02%
19	4.56%	3.39%	1.17%	0.04%
20	4.56%	3.40%	1.16%	0.05%
21	4.55%	3.41%	1.15%	0.07%

For this valuation, there has been an increase in the real rate of return for all years which decreases the liabilities. This is mainly due to increases in the interest rates which more than offset the increase in the short-term inflation rates.

The interest rate for one quarter of the first year ahead $[(1 + 3.17\%)^{0.25} - 1] = 0.78\%$ is included in the calculation of the average premium rate. This is because premiums are received on average three months earlier than the point to which claims are discounted.

Forward interest rates are those estimated to be anticipated over future years by the Commonwealth bond market as it stood at 28 February 2023.

The interest rate for the 2023 financial year is set using the actual one month forward rates from July 2022 to February 2023, along with the monthly forward rates for March 2023 to June 2023, which are obtained by fitting a curve to the 28 February 2023 Commonwealth Government Bond yield curve. Future one year forward rates of interest are derived from the same yield curve and are independent of the cash flows of a particular portfolio of risks.

The inflation and interest rates are chosen to be consistent with those currently used in our actuarial assessments for long tail classes.

We assume a long term discount rate of 4.50% after year 50. We have assumed a smooth progression from the observed market rate at year 16 to the long term rate at year 50. This is the same approach used in the last valuation.

To set the **future wage inflation** assumption for our outstanding claims review we consider the wage price index inflation assumptions produced by the WA Treasury for the *2022/23 WA Government Mid-year Financial Projections Statement* with no adjustment as we do not expect a material difference between the increase in AWE and the WPI. These form the basis for the inflation rate assumption for the first four projection years.

Forecasts of Future Wage Inflation		
Financial year ending 30 June	WA Treasury WPI (a)	Assumed AWE from WA Treasury (b)
2023	3.50%	3.50%
2024	3.75%	3.75%
2025	3.50%	3.50%
2026	3.25%	3.25%

Notes: (a) from 2022/23 WA Government Mid-year Financial Projections Statement produced by the WA Treasury Department
(b) = (a) as no adjustment is made for the difference between the increase in AWE and WPI.

We have adopted a long term inflation rate of 3.5% after 30 years. We have assumed a smooth progression of wage inflation increasing from 3.25% in 2026 to a rate of 3.50% in 2052. This is the same approach we used in the last valuation.

Past wage inflation

Past wage inflation for bringing past payments and case estimates into current values is taken from ABS Cat 6302.0 Average Weekly Earnings for Western Australia (persons full-time adult ordinary time earnings), as shown below:

Year to 30-Jun	Mid Quarter AWE	End Quarter AWE	% Change p.a.	Claims escalation factors	
				For payments	For case estimates
2008	1,202.90	1,214.14	7.62%	1.668	1.606
2009	1,287.00	1,299.78	7.05%	1.551	1.500
2010	1,364.10	1,375.77	5.85%	1.453	1.417
2011	1,474.10	1,486.40	8.04%	1.365	1.312
2012	1,516.80	1,534.92	3.26%	1.287	1.270
2013	1,644.80	1,638.56	6.75%	1.218	1.190
2014	1,641.20	1,649.12	0.64%	1.196	1.182
2015	1,691.20	1,695.56	2.82%	1.164	1.150
2016	1,698.60	1,699.75	0.25%	1.145	1.147
2017	1,714.70	1,721.68	1.29%	1.142	1.133
2018	1,740.30	1,744.48	1.32%	1.122	1.118
2019	1,780.80	1,780.05	2.04%	1.106	1.095
2020	1,840.80	1,840.72	3.41%	1.082	1.059
2021	1,879.70	1,883.71	2.34%	1.051	1.035
2022	1,937.30	1,949.98	3.52%	1.021	1.000

Past general inflation

To determine the minimum premium for householders and other policies we have used the movement in the Perth CPI Index as shown below:

Financial Year	CPI Perth Index	Rate
2019/20	112.8	1.3%
2020/21	114.6	1.6%
2021/22	121.5	6.0%
2022/23 (a)	128.9	6.2%
2023/24 (b)	134.1	4.0%

Note: (a) from ABS Cat. 6401.0 Table 1 CPI All Groups Index Numbers for Perth as at 31 December 2022, extrapolated to 30 June 2023
(b) Projected increase in CPI over 2023/24

The 2021/22 and 2022/23 index has changed since last year's report where these CPI rates had been estimated.

Employment growth

We have included an allowance for the employment growth in the half year to December 2022 to match the exposure base for the increase in claim numbers.

To determine the change in employment we have used the movement in the ABS Cat. 6202.0 Table 8 Labour Force for full time persons for Western Australia.

	Jun 22	Dec 22	Increase
Number of full time employees in WA	1515.6	1518.6	0.2%

The number of full time employees increased by 0.2% in the half year to 31 December 2022, derived from the growth rate between June 2022 quarter to December 2022 quarter. This is the same approach as last year.

Wages to 31 December 2022

In calculating the premium rates, we use the developed earned wages for the 2021/22 accident year. We assume claim costs and wages are subject to the same inflation and would cancel in the context of the average premium rate, and hence we do not inflate either to 2023/24.

D 2 Superimposed inflation

A realistic level of superimposed inflation is allowed for in the outstanding claim reserves and premium rating. We have analysed SII separately for each payment type and performed separate analyses for the outstanding claims and premium rating.

D 2.1 Outstanding claims

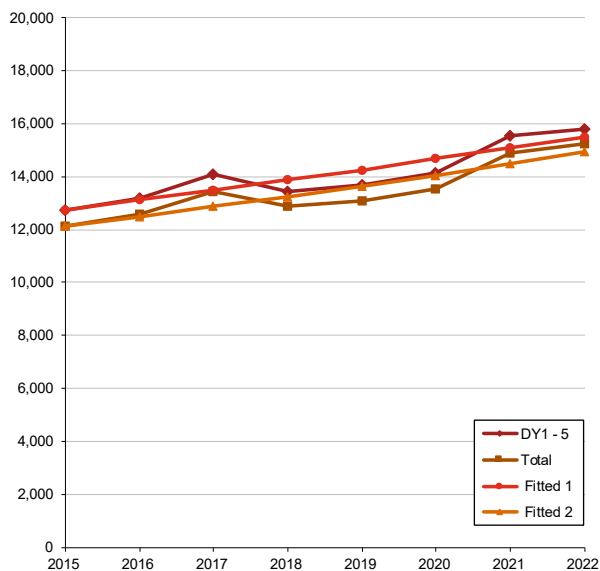
The recent trends in real growth, i.e. superimposed inflation, are shown in the charts below.

The adopted periods over which superimposed inflation has been analysed for each method are:

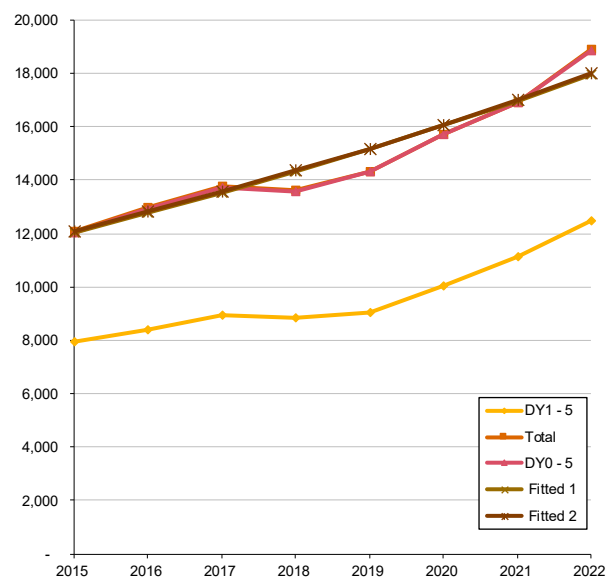
Number of years analysed to calculate superimposed inflation						
	Weekly	Medical (Scheduled And Non-Scheduled) And Hospital Expenses	Allied Health	Workplace Rehabilitation	Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)	Investigation, Legal And Miscellaneous
PPAC/PPCF	8	8	8	8	8	6
PPCI	8	8	8	6	8	6

Weekly benefits

PPAC

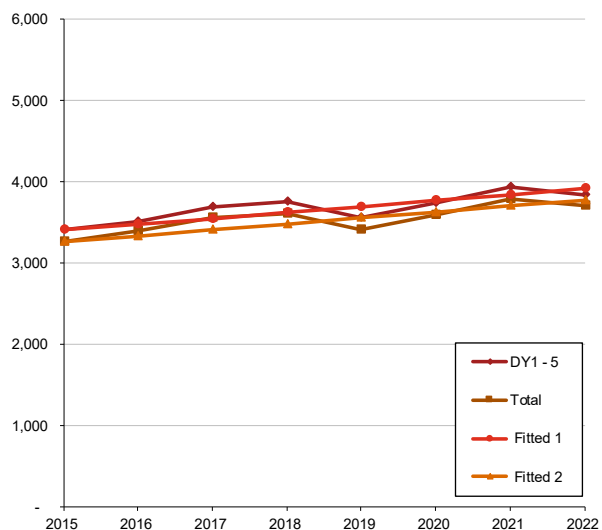


PPCI

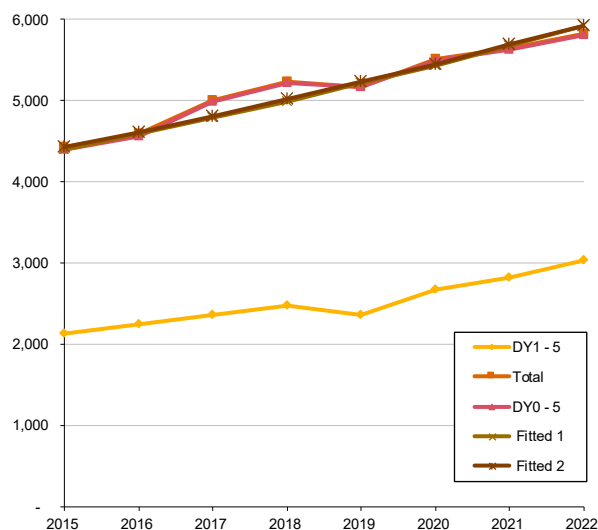


Medical (scheduled and non-scheduled) and hospital expenses

PPAC

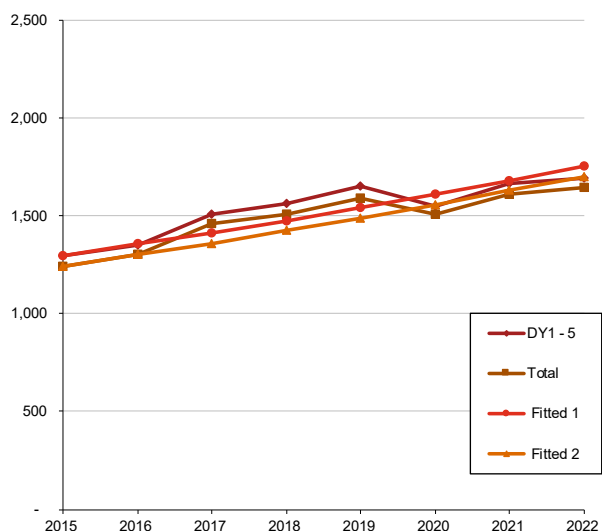


PPCI

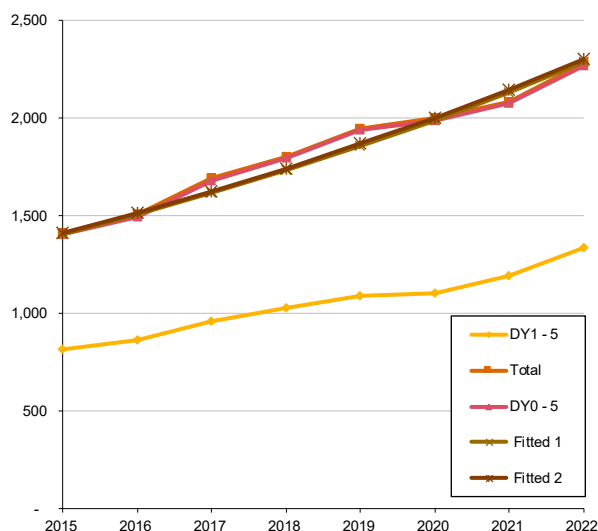


Allied Health

PPAC

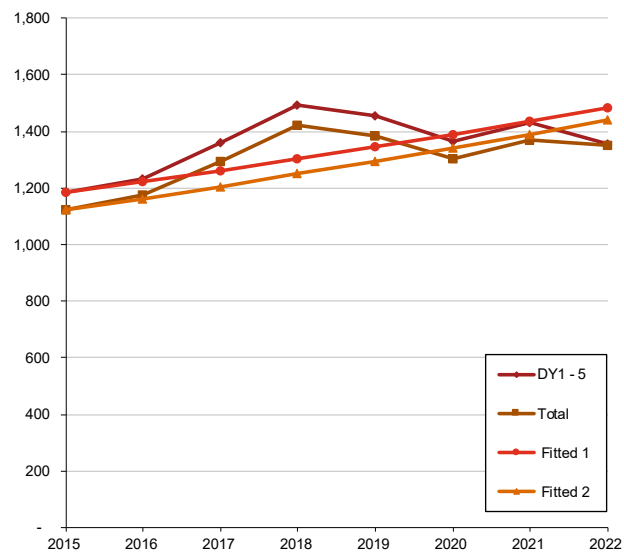


PPCI

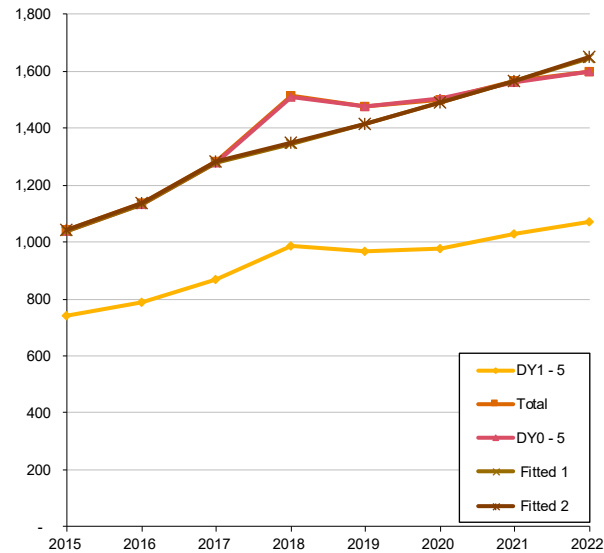


Workplace rehabilitation

PPAC

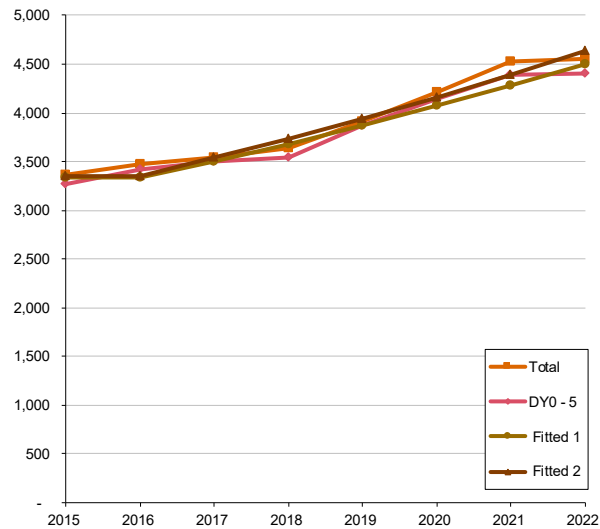


PPCI

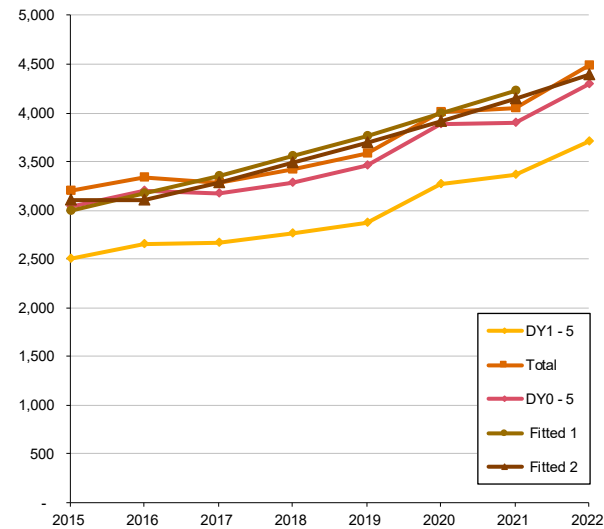


Investigation, Legal and Miscellaneous

PPCF

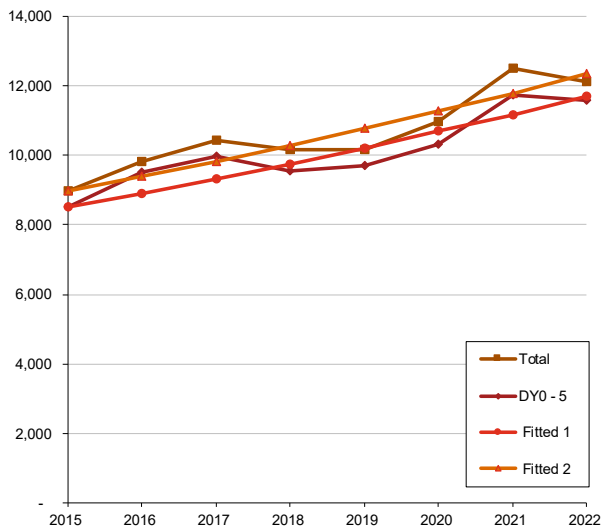


PPCI

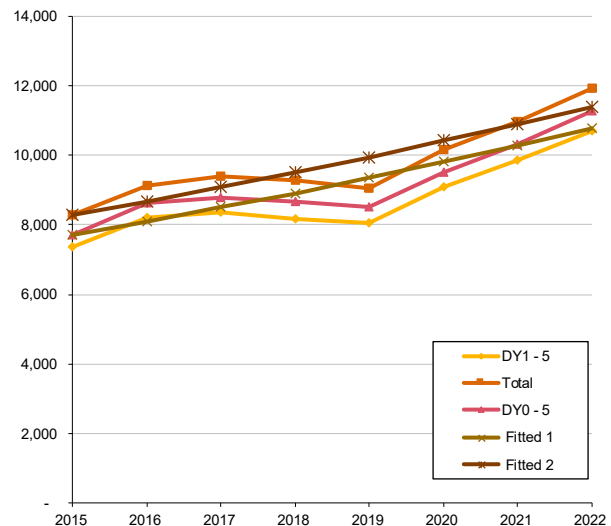


Lump Sum (Election registered, No election registered, Permanent impairment/fatal)

PPCF



PPCI



This analysis of trends leads to the following assumed rates of superimposed inflation:

Superimposed Inflation							
	Weekly	Medical (Scheduled And Non-Scheduled) And Hospital Expenses	Allied Health	Workplace Rehabilitation	Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)	Investigation, Legal And Miscellaneous	Total
30 June 22							
PPAC / PPCF	2.8%	2.0%	4.4%	3.3%	4.6%	5.1%	4.0%
PPCI	5.9%	4.3%	7.2%	5.2%	4.9%	5.9%	5.3%
Outstanding claims blend	4.5%	3.3%	5.9%	4.3%	4.7%	5.5%	4.7%
30 June 21							
Outstanding claims blend	5.0%	3.2%	5.4%	4.5%	6.0%	5.9%	5.5%

Superimposed inflation for the outstanding claims is 4.7% overall, which is lower than the 5.5% adopted last year. All payment groups have decreased except for a small increase for the Medical and Hospital (Scheduled and Non-Scheduled) expenses and Allied Health.

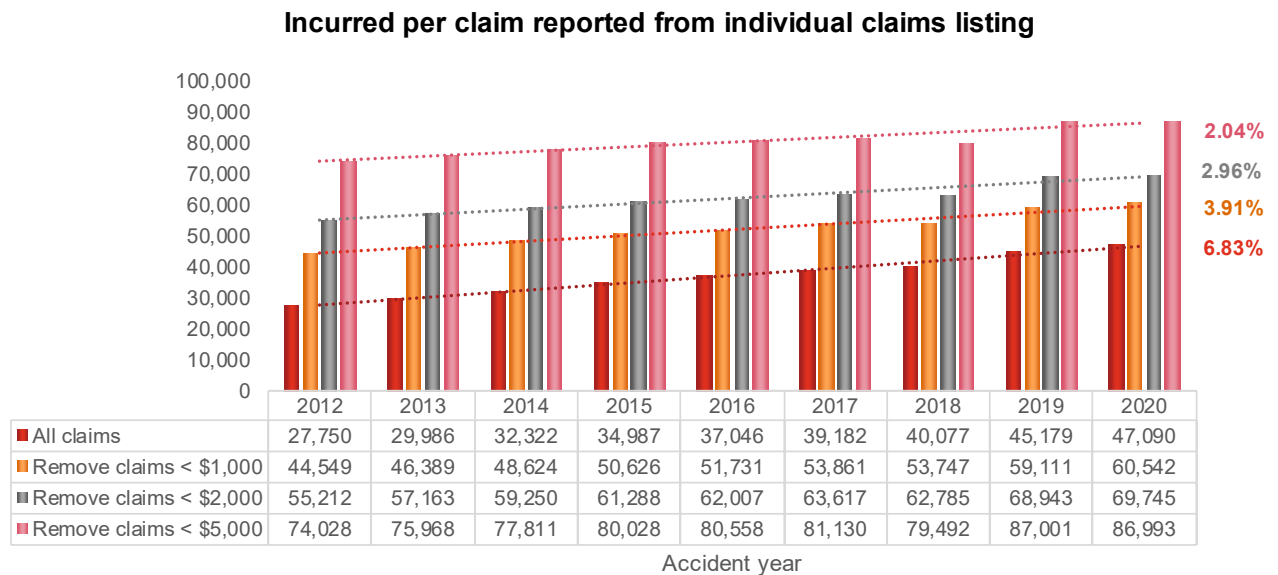
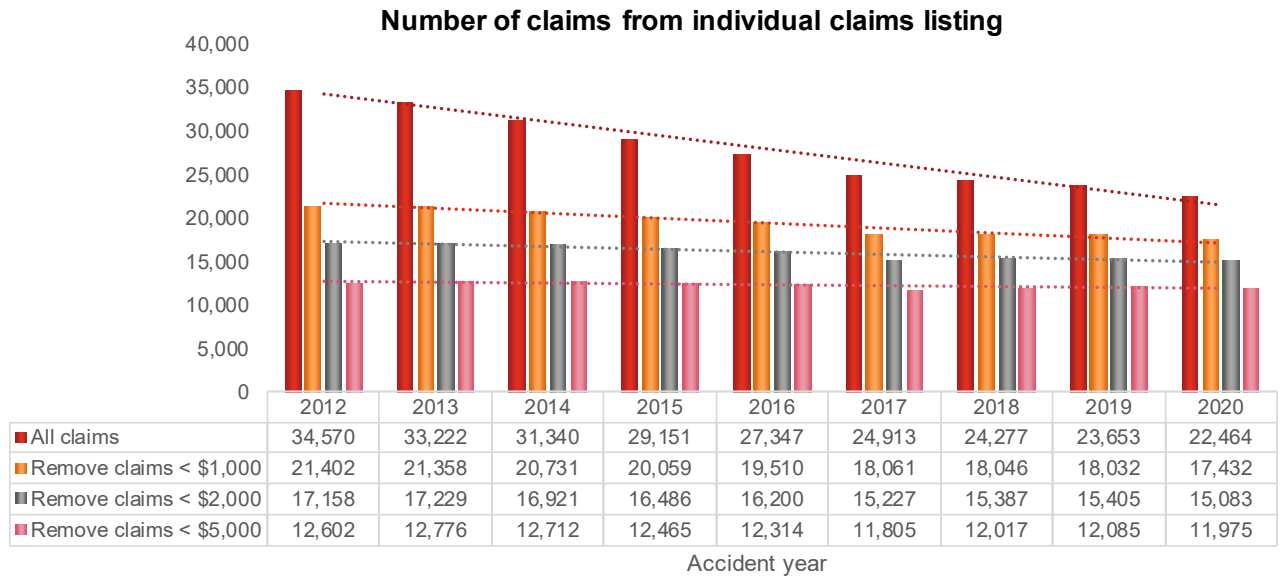
The high superimposed inflation rates are mainly driven by the reduction in the number of claims, and resultant change in claims mix as the number of lower cost claims continue to reduce. The number of claims is relatively stable over 2021/22 and 2020/21, so we anticipate that the superimposed inflation rate may be stabilising at a lower level in the future.

D 2.2 2022/23 premium rating

Due to the reduction in small claims and change in claims mix leading to the high rate of SII over the past decade, we have performed a separate analysis of SII for premium rating purposes.

We analysed the annual growth in the incurred cost per claim reported from the 2012 to 2020 accident years. We have not included the 2021 and 2022 accident years in our analysis due to the higher levels of uncertainty in the estimates on these claims and higher IBNR allowances.

To remove the impact of the change in claims mix, we analysed the incurred cost per claim reported after removing claims within incurred cost amounts less than or equal to \$1,000, \$2,000 and \$5,000 (in June 2022 values). The number of claims and average claim size per claim reported is shown in the graphs below.



The figures above are taken from inflating the figures in the individual claim listings provided by WorkCover WA. This is a different data set to that used for our outstanding claims valuation and so the average claim sizes are not directly comparable with other figures shown throughout this report.

However, the analysis was undertaken to understand the average annual increase in average claim sizes when controlling for the reduction in small claim numbers over time.

From our analysis we have adopted 3.0% as our forward expectation of superimposed inflation which is equivalent to the figure when all claims which are less than \$2,000 (in June 2022 values) are removed. This was selected after viewing the trend in the number of claims when removing claims of different sizes. The \$2,000 and \$5,000 analysis removed the strong decreasing trend in number of claims reported. We decided to

use the result based on removing claims less than \$2,000 as it maximised the number of claims included in the analysis while utilising a stable claims mix. This is the same approach as per last year.

The adopted forward superimposed inflation rate is 3.0% which is slightly higher than the 2.9% adopted last year.

D 3 Management and other expenses

Overall expenses

The overall level of expenses is analysed below:

Expenses					
Year ending 30 June (\$000s)					
Financial Year	2022	2021	2020	2019	2018
Commission/Brokerage	48,008	40,543	40,778	37,267	34,987
Statutory Charges	17,934	17,332	16,589	15,218	17,512
Management Expenses	205,551	196,191	173,959	165,883	168,862
Total expenses	271,493	254,066	231,326	218,368	221,361
 Earned Premium	 1,551,176	 1,295,367	 1,199,853	 1,105,510	 1,053,926
Claim Payments	1,080,306	963,624	898,011	837,924	848,303
 Commission and Statutory Charges as % of Earned Premium	 4.3%	 4.5%	 4.8%	 4.7%	 5.0%

The commission/statutory charge ratio has ranged between 4.3% to 5.0% over 2018 to 2022.

Expense analysis

The expenses are analysed from the Form WC30. The results obtained are summarised below:

	Expense Ratios					Adopted 3 yr ave
	2021/22	2020/21	2019/20	2018/19	2017/18	
Commission / Brokerage	2.9%	2.9%	3.4%	3.2%	3.3%	3.1%
General Fund Levy	1.1%	1.2%	1.4%	1.3%	1.7%	1.2%
Management Expenses	13.3%	15.1%	14.5%	15.0%	16.0%	14.3%
 Total	 17.2%	 19.3%	 19.2%	 19.5%	 21.0%	 18.6%
Total excluding brokerage	14.3%	16.4%	15.9%	16.3%	17.7%	15.5%

The expense ratios are used directly in deriving the loss ratio used to quantify the gross incurred cost of WA workers compensation claims.

The total adopted expenses, excluding brokerage, of 15.5% are 0.7% lower than the 16.2% adopted last year. This is due to the fact that the 2021/22 expense ratio (14.3%) is lower than the 2018/19 expense ratio (16.3%) it replaces. This is because the management expenses in 2021/22 increased by less than the earned premium.

Expenses by insurer for 2021/22 were as follows:

Insurer	Brokerage % (a)	General Account Charges % (b)	Management Expenses % (c)	Total Expenses (d)
1	0.7%	1.1%	27.1%	28.9%
2	5.2%	1.1%	19.6%	25.9%
3	3.3%	1.2%	19.1%	23.6%
4	0.0%	1.5%	20.5%	22.0%
5	3.8%	1.1%	16.4%	21.2%
6	4.0%	1.0%	10.0%	15.1%
7	4.1%	1.0%	9.2%	14.3%
8	1.9%	1.0%	10.0%	12.9%
9	0.0%	1.0%	10.6%	11.6%
Total	2.9%	1.1%	13.3%	17.2%

Notes :

- (a) = Commission and brokerage / Gross written premium
- (b) = General account charges / Gross written premium
- (c) = Management expenses / Earned premium
- (d) = (a) + (b) + (c)

If brokerage is spread over only those insurers paying brokerage, the percentage increases from 2.9% to 3.4%.

The adopted expenses for the 2023/24 recommended premium rates are a three year average of the expenses for the 2019/20 to 2021/22 financial years.

D 4 Contingency margin

In the 2020 year, we performed a full review of the contingency margin where we recommended an increase, but in light of the economic uncertainty of COVID-19, the Board decided to retain the same contingency margin for the 2020/21 recommended premium rates.

For the 2021/22 recommended premium rates, at the request of WorkCover WA, the contingency margin was increased to 12%, an increase of 1% compared to the 2020/21 recommended premium rates.

Last year, we increased the contingency margin to 13% at the request of WorkCover WA after a re-run of the contingency margin analysis based on claim data to 30 June 2021 and financial data to 28 February 2022.

This year, we have maintained the contingency margin at 13%.

The contingency margin allows for insurers' cost of servicing the regulatory solvency capital required without the purchase of reinsurance.

D 5 WA Legislative changes

Workers Compensation and Injury Management Bill 2023

No allowance is made for the *Workers Compensation and Injury Management Bill 2023* which is currently tabled in WA Parliament. This is consistent with previous legislative change where any impact on benefits is only allowed for once the Bill has been passed. We understand that even when passed the effective date of the legislation is expected to be after the completion of the 2023/24 underwriting year.

Workers' Compensation and Injury Management Amendment (COVID-19 Response) Act 2020

From 12 October 2020, the Workers' Compensation and Injury Management Amendment (COVID-19 Response) Act 2020 commenced. This amendment:

- Establishes a presumption of work-related injury for COVID-19 contracted by health care workers
- Discontinue the common law termination day
- Provide for a revised notice to be given to workers about common law claims
- Provide for email service of liability decision notices to workers from insurers and self-insurers
- Provide for annual indexation of capped worker entitlements

There is a risk the discontinuation of the common law termination date could increase the number of common law claims as it gives workers an additional year to elect to pursue common law benefits. It is not known how much impact this will have given common law claims have declined significantly over the last 10 years. It will create an additional year of uncertainty in estimating which claims may become common law which could increase liabilities.

We have been advised that some of the increase in case estimates may be related to the discontinuation of the common law termination date as claimants and their legal advisers are waiting longer to determine the level of whole person impairment and to elect to pursue common law benefits. It may be used in negotiations to obtain a higher settlement. It will take a few years for the evidence to emerge to determine if this translates into an actual increase in lump sum settlements or is a temporary behavioural change but with no increase in benefits paid.

The changes to the annual indexation of capped worker entitlements mean that the benefits cannot be reduced even if the index reduces over the year. The benefits will remain flat until the index increases. No costing was done for the scheme as part of these Amendments.

Ultimately, we have not included any explicit allowance for the 2020 Amendment Act in the outstanding claims liability at 30 June 2022 and 2023/24 premium rates, though it may be implicitly allowed for within the case estimates.

Workers' Compensation and Injury Management Amendment Act 2018

On 1 July 2018, the Worker's Compensation and Injury Management Amendment Act 2018 (2018 Amendment Act) commenced. This affects the benefits available where there is a work related fatality. See previous reported for a summary of the fatality benefit changes and expected impact.

We no longer make an explicit allowance for the 2018 Amendment Act in the outstanding claims valuation or premium rates, as we are of the opinion that the impact of the 2018 Amendment Act is sufficiently captured in the adopted experience used in the valuation. This is the same approach as per last year

Workers' Compensation Amendment Act 2011

We have not made any explicit allowance for the 2011 Amendment Act within the outstanding claims valuation as at 30 June 2022, as the adopted factors are based on post-Act change experience.

This is unchanged from last year's valuation.

For information about the 2011 Amendment Act, see previous reports.

D 6 GST

No explicit allowance has been made for GST net of ITC and/or DAM as our adopted bases rely on data, which includes GST net of ITC and/or DAM. The 10% GST on the workers compensation premium itself (which employers will generally be able to recover via an input tax credit) is not included in our analysis or the recommended premium rates.

Appendix E Outstanding claim valuation

E 1 Claims experience and analysis

E 1.1 Numbers of claims reported

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2012	32,342	3,070	101	49	27	27	25	20	19	15	253	35,948
2013	31,221	3,136	139	54	39	34	27	25	29	14	298	35,016
2014	29,464	2,910	138	54	36	37	21	29	50	29	412	33,180
2015	27,296	2,752	139	63	42	32	26	19	24	25	393	30,811
2016	25,733	2,497	161	71	52	38	42	27	13	21	484	29,139
2017	23,514	2,340	164	68	46	36	44	27	20	21	519	26,799
2018	22,941	2,146	143	62	41	35	30	22	23	16	361	25,820
2019	22,203	2,079	124	66	43	29	28	21	36	31	448	25,108
2020	20,956	2,001	139	53	21	25	18	14	11	14	316	23,568
2021	21,828	2,075	133	57	32	14	19	15	14	13	203	24,403
2022	21,532	2,231	131	67	29	29	22	20	19	18	337	24,435

Note: From summary of Form WC20 up to 30 June 2022.

E 1.2 Cumulative claims reported

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2012	32,342	34,204	32,952	35,675	37,941	37,560	37,353	39,152	38,312	37,860	38,216	401,567
2013	31,221	35,478	34,343	33,006	35,714	37,975	37,587	37,378	39,181	38,326	38,158	398,367
2014	29,464	34,131	35,616	34,397	33,042	35,751	37,996	37,616	37,428	39,210	38,738	393,389
2015	27,296	32,216	34,270	35,679	34,439	33,074	35,777	38,015	37,640	37,453	39,603	385,462
2016	25,733	29,793	32,377	34,341	35,731	34,477	33,116	35,804	38,028	37,661	37,937	374,998
2017	23,514	28,073	29,957	32,445	34,387	35,767	34,521	33,143	35,824	38,049	38,180	363,860
2018	22,941	25,660	28,216	30,019	32,486	34,422	35,797	34,543	33,166	35,840	38,410	351,500
2019	22,203	25,020	25,784	28,282	30,062	32,515	34,450	35,818	34,579	33,197	36,288	338,198
2020	20,956	24,204	25,159	25,837	28,303	30,087	32,533	34,464	35,829	34,593	33,513	325,478
2021	21,828	23,031	24,337	25,216	25,869	28,317	30,106	32,548	34,478	35,842	34,796	316,368
2022	21,532	24,059	23,162	24,404	25,245	25,898	28,339	30,126	32,567	34,496	36,179	306,007

Note: Cumulative claim reports from table above.

E 1.3 Active claims

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2012	13,930	4,566	1,845	911	508	296	201	148	114	84	478	23,081
2013	13,514	4,754	1,955	892	472	301	192	134	97	74	450	22,835
2014	12,880	4,724	2,013	888	484	256	183	139	94	78	489	22,228
2015	11,978	4,694	1,932	929	416	275	156	114	82	57	447	21,080
2016	11,427	4,187	1,835	808	430	220	151	92	62	55	428	19,695
2017	10,823	4,098	1,636	758	402	218	133	91	71	41	366	18,637
2018	10,641	3,899	1,530	678	388	211	132	78	74	41	330	18,002
2019	11,094	4,043	1,590	740	368	201	119	86	56	37	307	18,641
2020	10,159	4,188	1,665	744	366	216	110	88	58	35	278	17,907
2021	11,880	4,345	1,829	791	397	213	147	84	65	43	288	20,082
2022	11,201	4,835	1,880	932	403	235	129	89	56	46	304	20,110

Note: From summary of Form WC20 up to 30 June 2022.

Outstanding claim valuation

E 1.4 Claim payments

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2012	184,309,822	249,133,602	120,714,321	58,877,453	23,672,921	7,603,686	5,951,178	5,260,115	5,643,152	1,568,302	11,838,460	674,573,012
2013	201,047,130	285,131,272	139,176,680	55,908,765	24,740,417	8,915,627	5,353,272	5,055,186	3,173,743	2,812,156	10,588,374	741,902,621
2014	211,981,199	312,875,016	163,959,829	70,627,661	28,551,843	9,068,321	5,454,928	9,214,596	2,326,319	2,020,181	13,147,502	829,227,394
2015	213,034,087	328,223,202	177,002,746	79,396,512	31,453,547	11,082,699	4,632,280	4,287,134	1,969,569	2,500,054	13,243,739	866,825,570
2016	220,498,949	336,237,136	185,856,372	75,964,353	32,438,383	15,232,917	5,089,405	2,430,039	1,584,366	1,376,227	13,308,572	890,016,717
2017	216,639,074	344,366,737	177,139,517	69,598,512	28,160,539	14,652,429	5,988,238	2,493,100	2,138,256	1,005,778	14,095,450	876,277,633
2018	223,494,433	334,342,088	163,859,769	60,968,559	25,648,705	11,996,488	7,223,647	2,715,709	1,430,737	1,085,339	15,599,935	848,365,408
2019	234,217,709	327,942,176	158,190,305	55,677,185	27,388,835	11,932,584	4,303,750	3,207,287	939,730	1,890,193	12,399,840	838,089,595
2020	237,540,876	361,435,159	174,130,955	61,728,962	27,125,352	11,483,911	7,452,053	1,842,330	4,384,236	663,934	10,486,057	898,273,825
2021	257,289,626	368,475,161	185,487,900	71,543,820	38,016,558	16,005,476	10,036,325	2,038,907	2,525,312	1,008,624	10,357,936	962,785,646
2022	279,445,858	436,055,902	198,770,067	94,512,776	30,726,072	11,589,040	5,981,438	5,275,286	2,021,798	1,780,781	14,209,913	1,080,368,931

Note: From summary of Form WC101 up to 30 June 2013 and from WorkCover WA's database from 1 July 2013 to 30 June 2022.

E 1.5 Case estimates outstanding

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2012	335,338,002	225,239,088	112,782,605	56,012,429	24,090,967	17,503,510	13,864,120	10,156,068	8,091,378	3,156,525	24,999,941	831,234,632
2013	379,712,259	270,088,121	140,722,336	59,498,665	23,740,354	13,992,136	12,038,829	7,678,817	5,680,261	4,430,304	24,220,987	941,803,070
2014	399,200,332	276,707,555	146,973,954	74,121,099	32,687,912	11,541,151	7,758,280	5,378,923	4,718,487	4,524,588	25,167,406	988,779,688
2015	374,313,463	292,302,623	142,525,830	73,069,636	35,327,743	14,401,635	7,484,776	4,071,626	3,377,046	2,357,617	25,100,727	974,332,722
2016	370,177,994	249,553,640	143,165,323	64,995,521	34,702,145	12,422,920	8,019,853	4,543,299	2,707,048	1,645,437	24,015,475	915,948,655
2017	389,934,389	254,765,365	128,241,881	74,619,975	29,085,343	17,884,734	7,008,162	5,185,150	3,276,235	1,556,462	20,009,220	931,566,916
2018	376,824,525	236,397,978	113,131,205	61,288,268	42,734,072	13,489,749	9,756,803	3,952,145	3,643,283	2,022,872	19,000,156	882,241,056
2019	375,007,184	229,566,778	117,298,925	60,437,457	33,191,124	25,144,735	7,657,407	7,533,565	2,551,102	1,463,926	15,869,320	875,721,523
2020	369,616,631	267,732,668	120,745,215	61,840,423	31,757,041	22,204,473	6,529,145	5,707,071	2,954,047	1,764,600	17,397,362	908,248,675
2021	459,561,919	286,492,902	170,039,882	70,311,521	31,677,783	16,837,171	11,943,578	4,189,135	3,825,066	2,426,287	26,612,538	1,083,917,783
2022	446,162,131	316,170,818	161,418,544	101,935,743	40,733,197	23,901,888	10,276,738	7,255,544	3,259,615	3,160,977	25,569,030	1,139,844,225

Note: From summary of Form WC20 up to 30 June 2022.

E 1.6 Insurer's development and IBNR estimates

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2012	276,297,911	129,484,933	80,424,819	64,726,694	49,270,465	21,879,119	16,182,431	11,869,848	7,673,171	5,533,561	174,538,162	837,881,112
2013	306,317,713	99,797,755	60,047,109	47,739,966	38,902,839	21,420,486	12,637,217	9,499,508	7,317,466	5,083,033	164,339,903	773,102,995
2014	332,122,549	115,805,924	53,820,400	36,707,863	29,618,910	24,095,523	12,497,010	7,568,618	5,624,748	4,432,681	146,590,600	768,884,826
2015	385,427,025	118,974,066	47,651,749	38,972,974	31,011,986	22,296,676	15,933,345	7,791,524	5,536,768	4,008,116	129,403,302	807,007,529
2016	357,641,199	135,466,579	57,828,986	28,431,503	23,475,324	19,482,366	11,857,911	7,536,769	5,798,631	4,679,744	139,339,985	791,538,999
2017	291,323,062	105,318,106	46,022,925	26,471,139	20,375,414	11,550,671	8,281,701	4,439,442	3,940,173	2,360,005	116,814,023	636,896,661
2018	288,415,264	86,313,770	33,197,975	15,813,595	16,049,436	8,456,298	5,548,928	5,012,998	3,952,021	2,287,147	124,835,852	589,883,284
2019	310,859,652	91,545,567	24,857,667	14,015,983	10,630,746	9,482,693	4,724,688	4,169,513	5,966,093	1,850,914	126,817,615	604,921,131
2020	344,181,692	85,057,114	26,547,441	10,910,872	9,116,454	3,193,945	4,411,656	4,372,555	3,401,521	6,006,693	74,613,487	571,813,430
2021	350,248,857	77,281,464	20,878,855	9,756,639	9,818,534	4,039,702	5,010,468	2,208,709	2,918,896	1,991,909	69,008,758	553,162,791
2022	468,705,204	115,908,203	28,920,732	5,667,943	10,905,692	4,352,189	2,654,677	3,711,737	2,614,809	1,728,052	73,121,331	718,290,569

Note: From summary of Form WC20 up to 30 June 2022.

E 2 Analysis and projection models

E 2.1 All payment types

Claim notification pattern

Accident year ending	Chain ladder ratio (a) for development year:									
30 June	1	2	3	4	5	6	7	8	9	10
2013	1.097	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.008
2014	1.093	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.011
2015	1.093	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.010
2016	1.091	1.005	1.002	1.001	1.001	1.001	1.001	1.000	1.001	1.013
2017	1.091	1.006	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.014
2018	1.091	1.005	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.009
2019	1.091	1.005	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.013
2020	1.090	1.006	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.010
2021	1.099	1.005	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.006
2022	1.102	1.006	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.009
Adopted (b)	1.101	1.006	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.009

Notes: (a) Using cumulative claim report numbers from data

(b) Calculated using a two-year weighted average for the first four development years and five-year weighted average for all other development years.

Numbers of claims incurred

Accident year ending	Number of claims		Incurred
	Reported to 30-Jun-22	IBNR at 30-Jun-22	
30 June	(a)	(b)	(c)
2013	34,496	324	34,820
2014	32,567	323	32,890
2015	30,126	317	30,443
2016	28,339	314	28,653
2017	25,898	306	26,204
2018	25,245	321	25,566
2019	24,404	339	24,743
2020	23,162	381	23,543
2021	24,059	532	24,591
2022	21,532	2,707	24,239

Notes: (a) From number reported in Appendix E1.1

(b) From pattern in chain ladder ratio table above

(c) Sum of the two previous columns.

Claim finalised per handled rate

Accident year ending 30 June	Finalisation rate (a) for development year:										
	0	1	2	3	4	5	6	7	8	9	10
2013	0.567	0.721	0.584	0.530	0.503	0.445	0.406	0.407	0.452	0.422	0.477
2014	0.563	0.712	0.589	0.558	0.478	0.497	0.432	0.371	0.489	0.381	0.478
2015	0.561	0.700	0.603	0.553	0.553	0.467	0.447	0.436	0.497	0.521	0.534
2016	0.556	0.711	0.622	0.597	0.562	0.515	0.524	0.497	0.512	0.466	0.567
2017	0.540	0.702	0.624	0.602	0.529	0.532	0.496	0.489	0.366	0.506	0.635
2018	0.536	0.699	0.639	0.601	0.514	0.517	0.468	0.497	0.351	0.529	0.570
2019	0.500	0.682	0.605	0.536	0.490	0.518	0.502	0.438	0.509	0.648	0.625
2020	0.515	0.680	0.602	0.547	0.519	0.450	0.498	0.338	0.402	0.500	0.579
2021	0.456	0.645	0.577	0.541	0.488	0.439	0.374	0.328	0.363	0.394	0.442
2022	0.480	0.657	0.580	0.508	0.509	0.448	0.451	0.467	0.456	0.446	0.545
Adopted (b)	0.483	0.661	0.586	0.531	0.505	0.446	0.440	0.386	0.407	0.514	0.561

Notes: (a) Defined as: Number of claims finalised / number of claims handled

(b) Adopted for the valuation as at 30 June 2022.

E 2.2 Weekly benefits

Claim payments

Claim Payments - Weekly												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2014	104,972,360	144,738,874	53,825,309	14,842,323	3,722,829	704,093	660,715	(568,091)	568,951	689,798	517,518	324,674,679
2015	106,996,120	153,689,983	57,292,560	15,969,062	1,913,923	983,407	619,639	584,638	(281,994)	28,998	593,484	338,389,820
2016	113,628,557	152,965,081	59,036,313	14,606,515	2,875,311	339,457	668,605	(96,891)	166,876	13,059	959,525	345,162,408
2017	109,594,424	160,001,937	53,950,128	12,141,917	3,019,583	1,141,839	61,514	261,016	395,014	110,983	451,913	341,130,268
2018	108,796,574	150,643,813	49,045,719	10,034,867	1,928,596	429,350	295,713	264,563	133,163	131,893	691,948	322,396,200
2019	117,325,606	150,534,000	50,138,880	10,757,345	1,171,399	(640,319)	(7,498)	136,020	111,379	122,144	518,348	330,167,303
2020	122,717,892	164,035,866	54,350,066	12,080,401	1,892,882	174,298	(587,356)	119,092	121,012	97,398	454,807	355,456,358
2021	135,200,821	172,724,786	63,748,642	14,352,971	3,034,687	(528,356)	(132,421)	18,106	422,652	131,017	(70,908)	388,901,998
2022	151,010,050	211,958,108	66,567,517	16,473,561	3,391,394	(612,779)	309,392	220,236	231,704	318,025	790,405	450,657,613

Note: From summary of payments data provided by WorkCover WA up to 30 June 2022.

Average real payment per active claim

Accident year ending 30 June	Weekly PPAC (a) for development year:									
	1	2	3	4	5	6	7	8	9	10
2014	12,805	13,536	9,077	4,990	1,783	2,624	(3,537)	5,076	8,502	1,181
2015	13,884	14,112	9,231	2,508	2,364	2,816	3,717	(2,361)	359	1,218
2016	14,625	14,403	8,658	3,545	935	2,784	(711)	1,676	182	2,180
2017	15,996	14,720	7,559	4,269	3,034	319	1,975	4,905	2,045	1,069
2018	15,614	13,425	6,881	2,854	1,198	1,522	2,231	1,641	2,084	1,907
2019	15,640	14,217	7,773	1,910	(1,824)	(39)	1,139	1,579	1,825	1,545
2020	16,004	14,551	8,224	2,769	513	(3,163)	1,083	1,523	1,883	1,431
2021	17,871	16,000	9,061	4,287	(1,517)	(644)	173	5,048	2,374	(238)
2022	18,222	15,648	9,199	4,379	(1,576)	1,484	1,530	2,817	4,997	2,439
Adopted (b)	18,575	16,271	9,394	4,458	870	1,103	1,279	3,147	3,173	1,823

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Average real payment per claim incurred

Weekly PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2014	3,816	4,970	1,779	510	133	23	21	-18	18	21	16	11,288
2015	4,090	5,437	1,915	514	64	34	20	18	-9	1	17	12,101
2016	4,542	5,754	2,056	480	91	11	23	-3	5	0	29	12,988
2017	4,778	6,379	2,025	422	99	36	2	9	12	3	14	13,779
2018	4,774	6,449	1,920	370	66	14	9	9	4	4	20	13,639
2019	5,242	6,510	2,115	415	43	-22	0	4	4	4	16	14,330
2020	5,642	7,176	2,301	499	72	6	-19	4	4	3	15	15,701
2021	5,779	7,712	2,708	590	122	-19	-5	1	13	4	-2	16,902
2022	6,363	8,803	2,888	680	135	-24	11	7	7	9	22	18,903
Adopted (b)	6,426	8,755	2,971	700	136	10	7	5	6	5	18	19,039

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Estimates from models

Weekly					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2022 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2022	314.480	322.265	318.372	50%	50%
2021	107.157	99.565	101.463	25%	75%
2020	24.357	22.042	23.199	50%	50%
2019	6.446	5.055	6.446	100%	0%
2018	1.957	1.552	1.552	0%	100%
2017	1.570	1.241	1.241	0%	100%
2016	1.252	1.081	1.081	0%	100%
2015	1.088	0.914	0.914	0%	100%
2014	0.782	0.785	0.785	0%	100%
2013 & earlier	1.673	1.205	1.673	100%	0%
Total	460.762	455.705	456.727		

Notes: (a) From models described above, in 30 June 2022 values and includes superimposed inflation.

E 2.3 Medical (scheduled and non-scheduled) and hospital expenses

Claim payments

Claim Payments - Medical (Scheduled And Non-Scheduled) And Hospital Expenses												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2014	58,940,904	45,508,717	12,725,553	3,030,624	1,505,053	346,827	304,486	(100,031)	146,604	56,715	461,235	122,926,687
2015	59,112,884	45,675,554	11,986,537	3,074,327	397,950	295,869	213,468	314,847	29,499	3,067	478,098	121,582,101
2016	57,910,929	45,335,457	11,652,639	3,166,471	673,262	322,149	243,152	178,665	55,280	35,323	768,587	120,341,913
2017	60,044,205	45,893,122	10,969,335	2,567,225	698,053	317,024	82,602	191,704	148,666	65,237	503,269	121,480,440
2018	62,296,776	45,743,233	10,433,781	2,470,152	446,964	168,658	199,095	73,783	48,330	41,779	382,598	122,305,150
2019	62,669,250	42,814,343	9,968,616	2,027,365	397,296	(22,754)	(156,422)	69,353	52,769	90,025	191,320	118,101,161
2020	61,544,475	47,112,197	11,433,958	2,324,580	598,570	283,344	(2,364)	(103,165)	77,946	32,013	202,261	123,503,815
2021	65,970,550	47,425,546	12,819,104	2,934,746	881,838	(56,717)	90,028	55,488	165,844	89,106	130,959	130,506,492
2022	65,936,062	55,093,988	13,340,287	3,137,150	741,330	8,275	95,145	117,700	112,341	136,781	234,174	138,953,233

Note: From summary of payments data provided by WorkCover WA up to 30 June 2022.

Average real payment per active claim

Medical (Scheduled And Non-Scheduled) And Hospital Expenses PPAC (a) for development year:										
Accident year ending 30 June	1	2	3	4	5	6	7	8	9	10
2014	4,026	3,200	1,853	2,017	879	1,209	(623)	1,308	699	1,052
2015	4,126	2,952	1,777	521	711	970	2,002	247	38	981
2016	4,335	2,843	1,877	830	887	1,013	1,312	555	493	1,746
2017	4,588	2,993	1,598	987	842	429	1,450	1,846	1,202	1,190
2018	4,741	2,856	1,694	661	471	1,024	622	596	660	1,054
2019	4,448	2,827	1,465	648	(65)	(820)	581	748	1,345	570
2020	4,597	3,061	1,582	876	833	(13)	(938)	981	619	636
2021	4,907	3,217	1,853	1,246	(163)	438	530	1,981	1,615	440
2022	4,737	3,136	1,752	957	21	456	818	1,366	2,149	723
Adopted (b)	4,742	3,139	1,732	1,025	543	447	695	1,681	1,897	736

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Average real payment per claim incurred

Medical (Scheduled And Non-Scheduled) And Hospital Expenses PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2014	2,143	1,563	421	104	54	11	9	(3)	5	2	14	4,322
2015	2,259	1,616	401	99	13	10	7	10	1	0	14	4,430
2016	2,315	1,705	406	104	21	11	8	6	2	1	23	4,602
2017	2,618	1,830	412	89	23	10	3	7	5	2	15	5,012
2018	2,733	1,958	408	91	15	5	6	2	2	1	11	5,234
2019	2,800	1,851	421	78	14	(1)	(5)	2	2	3	6	5,172
2020	2,830	2,061	484	96	23	10	(0)	(3)	2	1	7	5,510
2021	2,820	2,117	545	121	35	(2)	3	2	5	3	4	5,652
2022	2,778	2,288	579	129	30	0	3	4	3	4	7	5,826
Adopted (b)	2,809	2,156	561	125	29	6	4	3	4	3	6	5,704

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Estimates from models

Medical (Scheduled And Non-Scheduled) And Hospital Expenses					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2022 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2022	74.032	72.827	73.430	50%	50%
2021	21.265	18.916	19.504	25%	75%
2020	5.330	4.423	4.876	50%	50%
2019	2.059	1.427	2.059	100%	0%
2018	0.959	0.687	0.687	0%	100%
2017	0.729	0.534	0.534	0%	100%
2016	0.594	0.437	0.437	0%	100%
2015	0.507	0.348	0.348	0%	100%
2014	0.345	0.281	0.281	0%	100%
2013 & earlier	0.667	0.396	0.667	100%	0%
Total	106.488	100.277	102.824		

Note: (a) From models described above, in 30 June 2022 values and includes superimposed inflation.

E 2.4 Allied Health

Claim payments

Claim Payments - Allied Health												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2014	15,668,131	16,794,046	4,812,837	1,321,868	542,433	185,327	136,741	25,873	66,969	55,357	277,505	39,887,088
2015	15,443,582	16,688,176	4,816,907	1,241,204	405,112	230,238	36,119	70,858	44,422	(26,915)	224,518	39,174,221
2016	15,779,032	16,826,088	4,928,022	1,204,913	399,973	167,907	134,699	34,456	27,704	16,791	191,795	39,711,381
2017	16,331,690	18,200,085	4,809,223	1,125,010	352,948	162,620	123,856	69,534	34,512	30,300	196,866	41,436,645
2018	17,366,664	18,695,462	4,507,078	980,207	412,811	87,323	49,822	76,838	31,532	35,255	180,737	42,423,731
2019	18,864,491	19,277,657	4,847,906	1,040,495	272,082	115,752	47,142	47,900	29,225	21,580	208,901	44,773,132
2020	19,158,320	19,425,752	4,526,625	1,218,893	188,928	128,812	64,434	111,696	22,448	18,289	221,282	45,085,480
2021	20,622,490	20,277,108	5,151,971	1,139,185	490,891	31,766	115,743	100,032	38,884	29,985	18,649	48,016,704
2022	22,072,042	24,446,091	5,459,099	1,490,897	422,432	64,311	70,641	88,922	59,412	42,273	148,219	54,364,340

Note: From summary of payments data provided by WorkCover WA up to 30 June 2022.

Average real payment per active claim

Allied Health PPAC (a) for development year:										
Accident year ending 30 June	1	2	3	4	5	6	7	8	9	10
2014	1,486	1,210	808	727	469	543	161	598	682	633
2015	1,508	1,186	717	531	554	164	451	372	(333)	461
2016	1,609	1,202	714	493	462	561	253	278	235	436
2017	1,820	1,312	700	499	432	643	526	429	558	466
2018	1,938	1,234	672	611	244	256	648	389	557	498
2019	2,003	1,375	752	444	330	247	401	414	322	622
2020	1,895	1,212	830	276	379	347	1,016	283	354	696
2021	2,098	1,293	719	694	91	563	956	464	543	63
2022	2,102	1,283	833	545	165	339	618	722	664	457
Adopted (b)	2,100	1,345	813	516	407	407	407	407	407	532

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Average real payment per claim incurred

Allied Health PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2014	570	577	159	45	19	6	4	1	2	2	9	1,394
2015	590	590	161	40	14	8	1	2	1	(1)	7	1,414
2016	631	633	172	40	13	6	5	1	1	1	6	1,506
2017	712	726	180	39	12	5	4	2	1	1	6	1,688
2018	762	800	176	36	14	3	2	2	1	1	5	1,803
2019	843	834	205	40	10	4	1	1	1	1	6	1,946
2020	881	850	192	50	7	5	2	3	1	1	7	1,998
2021	881	905	219	47	20	1	4	3	1	1	1	2,083
2022	930	1,015	237	62	17	3	3	3	2	1	4	2,276
Adopted (b)	930	962	256	64	13	3	2	3	1	1	5	2,240

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Estimates from models

Allied Health					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2022 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2022	33.629	33.881	33.755	50%	50%
2021	9.783	9.226	9.366	25%	75%
2020	2.760	2.412	2.586	50%	50%
2019	1.183	0.842	1.183	100%	0%
2018	0.595	0.482	0.482	0%	100%
2017	0.414	0.384	0.384	0%	100%
2016	0.303	0.326	0.326	0%	100%
2015	0.249	0.269	0.269	0%	100%
2014	0.207	0.225	0.225	0%	100%
2013 & earlier	0.500	0.333	0.500	100%	0%
Total	49.625	48.381	49.077		

Note: (a) From models described above, in 30 June 2022 values and includes superimposed inflation.

E 2.5 Workplace rehabilitation

Claim payments

Claim Payments - Workplace Rehabilitation												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2014	7,255,232	15,421,227	4,875,179	997,200	253,938	(25,606)	54,409	13,962	14,398	13,168	26,889	28,899,995
2015	7,726,433	15,535,144	4,720,862	910,449	119,102	56,347	29,032	38,743	6,466	(99)	34,226	29,176,705
2016	8,590,355	15,658,804	4,816,099	827,398	126,376	58,238	40,605	9,386	2,353	837	63,725	30,194,177
2017	9,392,340	16,439,879	4,772,914	819,922	149,550	80,560	(9,525)	2,076	10,604	4,360	29,787	31,692,466
2018	11,924,543	18,176,702	4,671,220	594,050	107,981	10,813	32,428	(343)	9,406	6,980	18,453	35,552,231
2019	11,371,175	17,890,543	4,030,414	660,683	9,821	(60,376)	(29,390)	39,993	3,527	5,410	19,963	33,941,763
2020	11,443,090	17,625,327	4,260,833	555,201	48,804	16,105	(44,537)	(35,154)	14,689	7,874	12,413	33,904,644
2021	12,494,211	18,181,670	4,397,405	627,625	91,086	(12,838)	19,529	12,426	18,602	14,979	9,966	35,854,661
2022	12,519,082	20,045,409	4,777,754	750,716	33,885	(66,172)	1,365	8,367	20,965	7,721	7,067	38,106,160

Note: From summary of payments data provided by WorkCover WA up to 30 June 2022.

Average real payment per active claim

Workplace Rehabilitation PPAC (a) for development year:										
Accident year ending 30 June	1	2	3	4	5	6	7	8	9	10
2014	1,364	1,226	610	340	(65)	216	87	128	162	61
2015	1,403	1,163	526	156	135	132	246	54	(1)	70
2016	1,497	1,175	490	156	160	169	69	24	12	145
2017	1,644	1,302	510	211	214	(49)	16	132	80	70
2018	1,884	1,279	407	160	30	167	(3)	116	110	51
2019	1,859	1,143	477	16	(172)	(154)	335	50	81	59
2020	1,720	1,141	378	71	47	(240)	(320)	185	152	39
2021	1,881	1,104	396	129	(37)	95	119	222	271	33
2022	1,723	1,123	419	44	(170)	7	58	255	121	22
Adopted (b)	1,963	1,255	444	108	38	47	47	47	47	47

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Average real payment per claim incurred

Workplace Rehabilitation PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2014	264	530	161	34	9	(1)	2	0	0	0	1	1,001
2015	295	550	158	29	4	2	1	1	0	(0)	1	1,041
2016	343	589	168	27	4	2	1	0	0	0	2	1,137
2017	409	655	179	28	5	3	(0)	0	0	0	1	1,281
2018	523	778	183	22	4	0	1	(0)	0	0	1	1,512
2019	508	774	170	25	0	(2)	(1)	1	0	0	1	1,477
2020	526	771	180	23	2	1	(1)	(1)	0	0	0	1,501
2021	534	812	187	26	4	(0)	1	0	1	0	0	1,564
2022	528	833	207	31	1	(3)	0	0	1	0	0	1,598
Adopted (b)	541	854	213	30	2	1	1	1	0	0	-	1,642

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Estimates from models

Workplace Rehabilitation					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2022 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2022	29.431	27.760	28.595	50%	50%
2021	7.314	6.303	6.555	25%	75%
2020	1.017	0.857	0.937	50%	50%
2019	0.169	0.137	0.169	100%	0%
2018	0.058	0.073	0.073	0%	100%
2017	0.041	0.046	0.046	0%	100%
2016	0.029	0.026	0.026	0%	100%
2015	0.023	0.012	0.012	0%	100%
2014	0.018	0.004	0.004	0%	100%
2013 & earlier	0.043	0.000	0.043	100%	0%
Total	38.142	35.217	36.461		

Note: (a) From models described above, in 30 June 2022 values and includes superimposed inflation.

E 2.6 Investigation, Legal and Miscellaneous

Claim payments

Claim Payments - Investigation, Legal And Miscellaneous												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2014	14,540,780	29,970,038	17,959,520	10,207,756	4,399,082	1,748,388	1,176,221	(127,212)	249,383	288,320	2,263,500	82,675,776
2015	13,952,969	33,591,164	21,422,020	10,526,857	5,630,212	2,209,701	1,078,734	811,467	628,433	493,353	2,069,971	92,414,881
2016	13,493,032	33,369,793	22,820,939	10,950,035	5,516,637	2,234,356	777,454	781,261	302,424	227,675	2,263,977	92,737,583
2017	11,614,682	30,665,049	20,724,880	11,242,877	5,543,062	2,825,672	1,355,599	449,567	351,734	180,681	1,392,816	86,346,619
2018	11,795,649	30,847,508	20,422,235	10,446,812	4,675,418	3,014,681	2,117,128	733,302	353,065	163,016	1,212,476	85,781,292
2019	13,091,107	31,512,700	20,211,926	9,725,141	5,457,648	2,648,995	1,366,974	941,954	362,325	220,929	978,549	86,518,249
2020	13,313,511	36,180,517	22,397,207	10,157,269	5,588,359	3,007,827	1,185,953	482,102	811,216	160,149	1,287,504	94,571,614
2021	12,492,803	34,416,937	23,203,129	11,688,781	5,902,003	3,496,597	2,293,865	452,048	515,438	(60,604)	1,279,322	95,680,318
2022	14,019,882	38,604,338	26,193,830	14,449,684	6,215,037	3,140,205	1,598,765	945,417	453,288	375,124	2,739,661	108,735,228

Note: From summary of payments data provided by WorkCover WA up to 30 June 2022.

Average real payment per claim finalised

Investigation, Legal And Miscellaneous PPCF (a) for development year:											
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10
2014	1,048	3,062	7,458	10,887	11,845	8,262	10,117	(1,855)	3,313	7,181	6,054
2015	1,060	3,573	8,504	10,679	12,746	10,669	9,962	10,730	9,028	9,259	4,695
2016	1,080	3,715	8,654	10,494	11,466	10,935	5,364	9,832	5,328	5,432	4,630
2017	1,046	3,623	8,720	11,217	14,010	13,016	11,822	5,903	9,800	4,914	2,502
2018	1,076	3,815	8,450	11,489	12,761	14,963	20,473	10,683	9,901	3,975	3,105
2019	1,303	4,015	9,184	12,560	17,092	13,558	12,594	15,543	6,906	3,592	2,113
2020	1,335	4,397	9,631	12,229	15,313	18,393	11,777	11,596	22,514	4,953	3,648
2021	1,320	4,586	9,787	13,197	16,369	22,008	27,399	11,589	14,643	(2,275)	5,898
2022	1,386	4,251	10,305	15,309	15,222	16,792	15,405	12,379	9,850	10,355	7,687
Adopted (b)	1,354	4,402	9,913	15,000	16,573	19,225	20,845	12,107	15,307	4,928	5,684

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Average real payment per claim incurred

Investigation, Legal And Miscellaneous PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2014	529	1,029	593	351	157	58	37	(4)	8	9	70	2,835
2015	533	1,188	716	339	188	77	35	25	19	15	61	3,195
2016	539	1,255	795	360	175	74	27	25	9	7	68	3,333
2017	506	1,223	778	391	182	89	45	15	11	5	42	3,286
2018	518	1,321	800	385	159	97	66	24	12	5	35	3,421
2019	585	1,363	853	375	198	89	43	29	12	7	30	3,584
2020	612	1,583	948	420	211	107	39	15	24	5	42	4,005
2021	534	1,537	986	481	237	128	79	14	16	(2)	39	4,048
2022	591	1,603	1,136	596	248	122	57	32	14	11	77	4,489
Adopted (b)	562	1,571	1,122	614	242	119	58	20	18	5	53	4,383

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Estimates from models

Investigation, Legal And Miscellaneous					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2022 (\$M) (a)			Weightings	
	PPCF	PPCI	Adopted	PPCF	PPCI
2022	110.719	102.797	106.758	50%	50%
2021	71.450	60.936	63.564	25%	75%
2020	36.596	29.417	33.006	50%	50%
2019	20.351	14.432	20.351	100%	0%
2018	10.295	8.056	8.056	0%	100%
2017	6.294	4.770	4.770	0%	100%
2016	3.770	3.312	3.312	0%	100%
2015	3.058	2.730	2.730	0%	100%
2014	2.367	2.206	2.206	0%	100%
2013 & earlier	4.088	3.098	4.088	100%	0%
Total	268.985	231.753	248.840		

Note: (a) From models described above, in 30 June 2022 values and includes superimposed inflation.

E 2.7 Lump sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)

Claim payments

Claim Payments - Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2014	10,603,791	60,442,113	69,761,430	40,227,890	18,128,508	6,109,291	3,122,356	9,970,096	1,280,013	916,825	9,600,856	230,163,170
2015	9,802,098	63,043,182	76,763,859	47,674,613	22,987,249	7,307,138	2,655,288	2,466,581	1,542,743	2,001,650	9,843,442	246,087,843
2016	11,097,044	72,081,912	82,602,360	45,209,021	22,846,822	12,110,810	3,224,889	1,523,162	1,029,729	1,082,543	9,060,963	261,869,255
2017	9,661,733	73,166,665	81,913,038	41,701,561	18,397,344	10,124,715	4,374,193	1,519,203	1,197,726	614,217	11,520,799	254,191,195
2018	11,314,228	70,235,370	74,779,736	36,442,470	18,076,935	8,285,663	4,529,460	1,567,566	855,240	706,415	13,113,723	239,906,805
2019	10,896,080	65,912,934	68,992,563	31,466,156	20,080,589	9,891,285	3,082,944	1,972,067	380,505	1,430,104	10,482,760	224,587,986
2020	9,363,587	77,055,500	77,162,265	35,392,617	18,807,810	7,873,525	6,835,922	1,267,759	3,336,925	348,212	8,307,792	245,751,914
2021	10,508,750	75,449,116	76,167,649	40,800,511	27,616,053	13,075,023	7,649,581	1,400,807	1,363,893	804,142	8,989,949	263,825,473
2022	13,888,739	85,907,968	82,431,581	58,210,768	19,921,994	9,055,201	3,906,130	3,894,644	1,144,088	900,857	10,290,387	289,552,356

Note: From summary of payments data provided by WorkCover WA up to 30 June 2022.

Average real claim payment per claim finalised

Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal) PPCF (a) for development											
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10
2014	764	6,176	28,970	42,904	48,815	28,870	26,856	145,364	17,004	22,836	25,679
2015	745	6,707	30,475	48,364	52,038	35,280	24,521	32,615	22,162	37,566	22,327
2016	888	8,024	31,324	43,326	47,486	59,271	22,248	19,169	18,142	25,828	18,530
2017	870	8,645	34,467	41,606	46,498	46,639	38,145	19,949	33,372	16,707	20,694
2018	1,032	8,687	30,942	40,078	49,338	41,126	43,801	22,837	23,984	17,227	33,585
2019	1,084	8,398	31,350	40,639	62,889	50,626	28,402	32,540	7,253	23,250	22,635
2020	939	9,364	33,182	42,612	51,538	48,148	67,882	30,494	92,612	10,769	23,540
2021	1,110	10,053	32,127	46,065	76,590	82,296	91,371	35,913	38,746	30,187	41,445
2022	1,373	9,459	32,431	61,674	48,794	48,421	37,637	50,997	24,862	24,867	28,874
Adopted (b)	1,218	9,177	31,997	46,320	62,029	64,223	62,011	45,800	34,362	21,101	28,717

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Average real payment per claim incurred

Lump sum (election registered, no election registered, permanent impairment/fatal)												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2014	385	2,075	2,305	1,382	647	201	97	312	40	28	296	7,770
2015	375	2,230	2,565	1,533	769	254	85	75	47	61	289	8,284
2016	444	2,712	2,876	1,487	723	399	110	48	31	32	274	9,135
2017	421	2,917	3,074	1,448	604	320	144	52	38	18	345	9,380
2018	496	3,007	2,928	1,343	617	267	140	51	29	22	383	9,281
2019	487	2,850	2,911	1,214	729	332	98	60	12	47	319	9,060
2020	430	3,371	3,267	1,462	710	280	225	39	100	11	268	10,164
2021	449	3,369	3,236	1,678	1,108	480	264	45	41	23	272	10,963
2022	585	3,568	3,576	2,403	796	353	139	131	36	26	291	11,903
Adopted (b)	517	3,226	3,402	2,034	954	419	211	70	44	26	308	11,210

Notes: (a) In 30 June 2022 values

(b) Adopted for the valuation as at 30 June 2022.

Estimates from models

Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2022 (\$M) (a)			Weightings	
	PPCF	PPCI	Adopted	PPCF	PPCI
2022	314.857	287.137	300.997	50%	50%
2021	234.885	200.342	208.978	25%	75%
2020	122.723	104.705	113.714	50%	50%
2019	72.857	55.790	72.857	100%	0%
2018	36.371	31.161	31.161	0%	100%
2017	23.112	19.733	19.733	0%	100%
2016	15.753	14.667	14.667	0%	100%
2015	13.180	10.592	10.592	0%	100%
2014	11.689	7.776	7.776	0%	100%
2013 & earlier	20.523	9.537	20.523	100%	0%
Total	865.951	741.439	800.997		

Note: (a) From models described above, in 30 June 2022 values and includes superimposed inflation.

E 3 Adopted estimates of outstanding claims

E 3.1 Estimates from models

Estimates of outstanding claims at 30 June 2022 (\$M) (a) (b)							
Acc yr ending 30 June	Medical (Scheduled And Non-Scheduled) And Hospital Expenses			Workplace Rehabilitation	Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)	Investigation, Legal And Miscellaneous	Total
	Weekly	Allied Health					
2022	318.372	73.430	33.755	28.595	300.997	106.758	861.908
2021	101.463	19.504	9.366	6.555	208.978	63.564	409.430
2020	23.199	4.876	2.586	0.937	113.714	33.006	178.319
2019	6.446	2.059	1.183	0.169	72.857	20.351	103.064
2018	1.552	0.687	0.482	0.073	31.161	8.056	42.011
2017	1.241	0.534	0.384	0.046	19.733	4.770	26.707
2016	1.081	0.437	0.326	0.026	14.667	3.312	19.850
2015	0.914	0.348	0.269	0.012	10.592	2.730	14.865
2014	0.785	0.281	0.225	0.004	7.776	2.206	11.278
2013 & earlier	1.673	0.667	0.500	0.043	20.523	4.088	27.495
Total	456.727	102.824	49.077	36.461	800.997	248.840	1,694.926

Notes: (a) From models described in Appendix E2

(b) In 30 June 2022 values and includes superimposed inflation.

E 3.2 Average claim sizes

Average claim size at 30 June 2022 (\$) (a)							
Acc yr ending 30 June	Weekly	Medical (Scheduled And Non-Scheduled) And Hospital Expenses	Allied Health	Workplace Rehabilitation	Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)	Investigation, Legal And Miscellaneous	Total
2022	19,498	5,808	2,323	1,707	13,003	4,995	47,334
2021	18,708	5,901	2,278	1,633	12,515	4,722	45,757
2020	17,227	5,733	2,133	1,585	12,205	4,687	43,570
2019	16,066	5,618	2,021	1,504	12,441	4,572	42,222
2018	14,371	5,246	1,870	1,507	10,306	3,872	37,172
2017	13,986	5,149	1,804	1,383	10,014	3,640	35,977
2016	13,357	4,670	1,595	1,210	9,344	3,449	33,624
2015	12,320	4,510	1,470	1,088	9,255	3,457	32,100
2014	11,787	4,282	1,403	1,011	8,431	3,285	30,198

Note: (a) In 30 June 2022 values, from results in Appendix E3.1, includes superimposed inflation.

E 3.3 Relationship to case estimates

Ratio of outstandings to case estimates at 30 June 2022							
Acc yr ending 30 June	Weekly	Medical (Scheduled And Non-Scheduled) And Hospital Expenses	Allied Health	Workplace Rehabilitation	Lump Sum (Election Registered, No Election Registered, Permanent Impairment/Fatal)	Investigation, Legal And Miscellaneous	Total
2022	71%	16%	8%	6%	67%	24%	193%
2021	32%	6%	3%	2%	66%	20%	129%
2020	14%	3%	2%	1%	70%	20%	110%
2019	6%	2%	1%	0%	71%	20%	101%
2018	4%	2%	1%	0%	76%	20%	103%
2017	5%	2%	2%	0%	83%	20%	112%
2016	11%	4%	3%	0%	143%	32%	193%
2015	13%	5%	4%	0%	146%	38%	205%
2014	24%	9%	7%	0%	239%	68%	346%
2013 & earlier	6%	2%	2%	0%	71%	14%	96%

E 3.4 Adopted estimates in 30 June 2022 values

Acc yr ending 30 June	Estimate of outstanding claims (a)	Estimate of outstanding claims (a)(b)	Average claim size (a) (b)	Ratio to Case Estimates
	\$M	\$M	\$	
2022	861.908	861.908	47,334	193%
2021	409.430	409.430	45,757	129%
2020	178.319	178.319	43,570	110%
2019	103.064	103.064	42,222	101%
2018	42.011	42.011	37,172	103%
2017	26.707	26.707	35,977	112%
2016	19.850	19.850	33,624	193%
2015	14.865	14.865	32,100	205%
2014	11.278	11.278	30,198	346%
2013 & earlier	27.495	27.495		96%
Total	1,694.926	1,694.926		149%

Note: (a) In 30 June 2022 values, includes superimposed inflation.

(b) As there is no longer any explicit allowance for 2018 Amendment Act change, this is the same as (a).

E 3.5 Gross of reinsurance estimates

Total of payment types					
Estimates at 30 June 2022 (\$M)					
Acc yr ending 30 June	30 June 2022 values (a)	Inflated values (b)	Infl/disc values (b)	Case estimates	Ratio (c)
2022	861.908	957.167	905.871	446.162	193%
2021	409.430	455.580	430.052	316.171	129%
2020	178.319	200.754	187.109	161.419	110%
2019	103.064	117.366	108.076	101.936	101%
2018	42.011	49.021	43.926	40.733	103%
2017	26.707	31.484	27.904	23.902	112%
2016	19.850	23.468	20.736	10.277	193%
2015	14.865	17.561	15.531	7.256	205%
2014	11.278	13.316	11.786	3.260	346%
2013 & earlier	27.495	30.315	28.925	28.730	96%
Total	1,694.926	1,896.033	1,779.916	1,139.844	149%

- Notes:**
- (a) From Appendix E3.4
 - (b) Includes 5% claims expenses
 - (c) Ratio of actuarial estimates in 30 June 2022 values to case estimates

Appendix F Claims experience

F 1 Claims experience during 2021/22

F 1.1 Aggregate trends

Total actual claim payments during 2021/22 were \$1,080.4 million, which is \$117.6 million (12.2%) higher than the \$962.8 million for the 2020/21 year. This compares to a \$64.5 million (7.2%) increase from 2019/20 to 2020/21.

Total case estimates outstanding increased by \$55.9 million (5.2%) to \$1,139.8 million at 30 June 2022 from \$1,083.9 million as at 30 June 2021. From 30 June 2020 to 30 June 2021, case estimates increased by \$175.7 million (19.3%).

Claims reported over 2021/22 increased by 32 (0.1%) to 24,435 from 24,403 over 2020/21. This compares to a 3.5% increase last year.

Active claim numbers increased by 28 (0.1%) to 20,110 at 30 June 2022 from 20,082 at 30 June 2021, this compares to a 12.1% increase last year.

The claim statistics indicate unfavourable claims experience in 2021/22 compared to last year, with high increase in payments and case estimates, though claims reported and active claims were fairly stable.

F 1.2 Claims incurred in 2021/22

There were 21,532 claims reported to 30 June 2022 for the 2021/22 accident year. The projected number of incurred claims is 24,239. This is 1.4% fewer than the 24,591 projected incurred claims for the 2020/21 accident year.

The expected number of open claims for the 2021/22 accident year at 30 June 2022 is $21,532 \times (1 - 0.4849) = 11,092$ compared to actual of 11,201 i.e. actual active claims are 1.0% more.

The 30 June 2021 projection basis expected $\$11,019 \times (1.025 \times 1.055)^{0.5} = \$11,459$ to be paid on each of the 2021/22 accident year claims in the year of claiming. The actual amount paid per claim was \$11,775 i.e. 2.8% more in real values.

The average case estimate per active claim in real values at the end of development year zero decreased by 0.5% to \$39,832 at 30 June 2022 from \$40,044 at 30 June 2021. This compares to a 3.9% increase between 30 June 2020 and 30 June 2021.

The 2021/22 accident year shows a mix claim experience relative to 2020/21 with fewer claims incurred and slightly lower average case estimates offset by higher than expected payments per claim and slightly higher active claims.

F 1.3 Claims incurred in prior years (up to 30 June 2021)

The main aspects of claim experience over 2021/22 compared to the projections in our 1 April 2022 report, as follows:

- a Number of claims reported is (8%) higher than expected
- b Claims finalisation is (1%) slower than expected

- c Claim payments are (3%) higher than projected.

Numbers of claims reported

For the number of claims reported, the overall result was higher than expected. This is driven by more than expected claims reported for most years, particularly recent accident years.

Accident year ended 30 June	Number of claims reported during 2021/22		Ratio of actual to projected number reported %
	Actual	Projected (a)	
2021	2,231	2,061	108%
2020	131	127	103%
2019	67	53	127%
2018	29	29	101%
2017	29	19	150%
2016	22	19	116%
2015	20	15	137%
2014	19	19	100%
2013	18	19	93%
2012 and earlier	337	334	101%
Total	2,903	2,696	108%

Note: (a) From our 1 April 2022 actuarial report.

Proportions of claims finalised

Claim finalisation was slower compared to expected overall. Most accident years were slower than expected with the exception of 2018, 2015, 2014 and 2012 and earlier years where actual finalisations were faster expected.

Accident year ended 30 June	Proportion of claims finalised (a) during 2021/22		
	Actual	Projected (b)	Actual / expected (c)
2021	66%	66%	99%
2020	58%	59%	98%
2019	51%	54%	94%
2018	51%	50%	102%
2017	45%	47%	95%
2016	45%	46%	99%
2015	47%	37%	125%
2014	46%	40%	114%
2013	45%	53%	85%
2012 and earlier	54%	53%	104%
Total	61.2%	62.0%	99%

- Notes:** (a) Defined as:
- $$\frac{\text{Number of claims finalised during year}}{\text{Number outstanding at beginning of year} + \text{number reported during year}}$$
- (b) According to PPCF model in Appendix E3.1 of our 1 April 2022 report
- (c) = (a) / (b) %

Claim payments

Claim payments were higher than expected in total and across most accident years, with the exception of 2014, and 2016 to 2018 which were lower than expected.

Accident year ended 30 June	Amount of claim payments during 2021/22 Combined total		Actual / expected (c)
	Actual (a)	Projected (b)	
2021	436,055,902	427,692,093	102%
2020	198,770,067	195,512,598	102%
2019	94,512,776	81,599,350	116%
2018	30,726,072	34,019,996	90%
2017	11,589,040	14,557,857	80%
2016	5,981,438	8,273,517	72%
2015	5,275,286	2,953,208	179%
2014	2,021,798	2,442,046	83%
2013	1,780,781	1,228,801	145%
2012 and earlier	14,209,913	12,603,508	113%
Total	800,923,073	780,882,973	103%

Notes: (a) From data supplied by RPR returning entities.
 (b) Sum of payments expected in the 2021/22 year.
 (c) = (a) / (b) x 100.

F 2 Claims experience in the six months to 31 December 2022

F 2.1 Claim reports

In total across all accident years, claim reports for the six months are more than expected from models derived on experience to 30 June 2022.

In aggregate, claims reported in the six months to 31 December 2022 are 1% higher than expected.

Accident year	Expected for 2022/23 (a)	Proportion to 31 Dec 22 (b)	Six months to 31 Dec 22		Actual/ Expected % (e)
			Expected (c)	Actual (d)	
2023	21,532	46.6%	10,023	10,045	100%
2022	2,182	87.5%	1,909	1,913	100%
2021	134	67.7%	91	89	98%
2020	58	52.4%	30	40	132%
2019	29	52.5%	15	17	111%
2018	22	55.2%	12	9	74%
2017 & earlier	393	55.7%	219	310	141%
Total	24,351		12,301	12,423	101%

Notes : (a) = from the adopted 30 Jun 22 actuarial projection patterns, assuming 2023 equals 2022
 (b) = from examination of the 2019/20, 2020/21 and 2021/22 December to June Form WC20.
 (c) = (a) x (b)
 (d) = from Form WC20 to 31 Dec 22
 (e) = (d) / (c) %

F 2.2 Claims finalised

Claims finalisation is 2% slower than expected in aggregate, with the 2021 to 2023 accident years slower than expected, but 2020 and earlier were faster than expected.

Accident year	Expected for	Proportion to	Six months to 31 Dec 22		
	2022/23 (a)	31 Dec 22 (b)	Expected (c)	Actual (d)	Actual/ Expected % (e)
2023	10,404	28.3%	2,948	2,591	88%
2022	8,847	68.6%	6,072	5,967	98%
2021	2,912	62.6%	1,821	1,789	98%
2020	1,029	62.2%	640	663	104%
2019	486	59.7%	290	320	110%
2018	190	58.3%	111	115	104%
2017 & earlier	551	49.2%	271	439	162%
Total	24,418		12,153	11,884	98%

Notes : (a) = from the adopted 30 Jun 22 actuarial projection patterns
(b) = from examination of the 2019/20, 2020/21 and 2021/22 December to June Form WC20.
(c) = (a) x (b)
(d) = from Form WC20 to 31 Dec 22
(e) = (d) / (c) %

F 2.3 Claim payments

Total actual claim payments are 3% lower than expected for the December 2022 half year. The experience by accident year is mixed.

Accident year	Expected for	Proportion to	Six months to 31 Dec 22		
	2022/23 \$M (a)	31 Dec 22 (b)	Expected \$M (c)	Actual \$M (d)	Actual/ Expected % (e)
2023	294.925	25.2%	74.190	69.836	94%
2022	442.718	58.5%	259.122	248.215	96%
2021	223.431	62.7%	140.021	140.126	100%
2020	88.683	64.3%	57.012	54.351	95%
2019	45.616	62.2%	28.385	19.888	70%
2018	14.874	63.4%	9.423	15.002	159%
2017 & earlier	34.576	55.6%	19.222	21.884	114%
Total	1,144.823		587.377	569.304	97%

Notes : (a) = from the adopted 30 Jun 22 actuarial projection and using PPCI for 2022 AYR
(b) = from examination of the 2019/20, 2020/21 and 2021/22 December to June Form WC20.
(c) = (a) x (b)
(d) = from Form WC20 to 31 Dec 22
(e) = (d) / (c) %

The table below compares claim payments by type of payment in real terms:

Payment type	Six months ended			% Real change (d)
	31 Dec 22 \$M (a)	31 Dec 21 \$M (b)	31 Dec 21 in 31 Dec 22 values \$M (c)	
Lump sum election registered	30,899	22,161	23,209	33.1%
Lump sum no election registered	110,008	116,005	121,490	-9.5%
Lump sum permanent impairment/fatal	22,584	22,577	23,644	-4.5%
Weekly	226,371	216,008	226,220	0.1%
Allied health	28,609	27,089	28,370	0.8%
Investigation	19,777	18,198	19,058	3.8%
Legal	37,372	35,111	36,771	1.6%
Miscellaneous	3,978	3,454	3,618	9.9%
Hospital	22,961	23,561	24,675	-6.9%
Medical non scheduled	14,145	14,426	15,108	-6.4%
Medical scheduled	31,861	32,596	34,137	-6.7%
Workplace rehabilitation	21,158	18,371	19,240	10.0%
Total	569,723	549,559	575,540	-1.0%

Notes : (a) = from summary of payments data provided by WorkCover WA for returning entities, for the half year period to 31 Dec 22
 (b) = from summary of payments data provided by WorkCover WA for returning entities, for the half year period to 31 Dec 21
 (c) = (b) x 1.047 in current values
 (d) = (a) / (c) - 1 in current values

This table shows that, after adjusting for 4.7% wage inflation, in total, claim payments for the six months are 1.0% lower than the same period in the prior year. The experience by payment types was mixed with some large increases and decreases. The most significant movements were:

- Lump sum no election registered decreasing by \$11.5 million (9.5%)
- Lump sum election registered increasing by \$7.7 million (33.1%)
- Medical scheduled and non-scheduled decreasing by \$3.2 million (6.7%)
- Workplace rehabilitation increasing by \$1.9 million (10.0%)
- Hospital decreasing by \$1.7 million (6.9%)

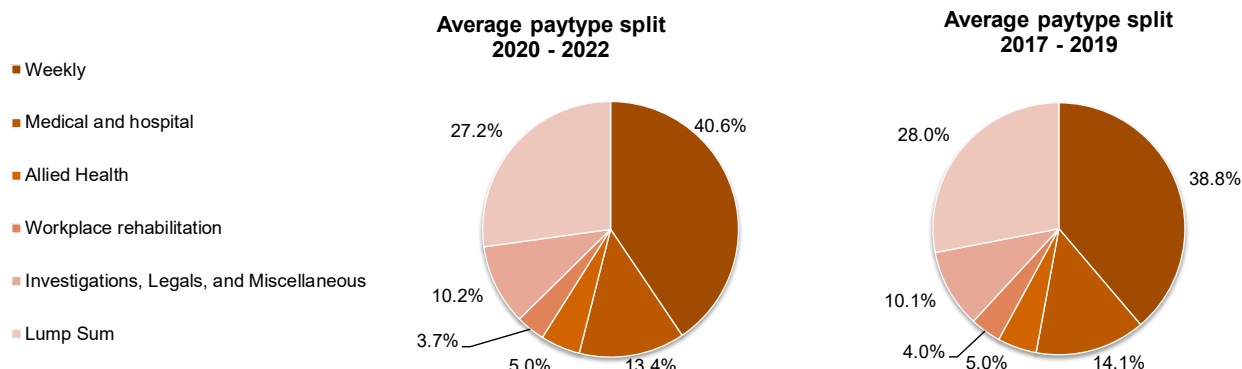
F 2.4 Summary of experience for the six months to 31 December 2022

In summary, the six months to 31 December 2022 has been favourable as payments were lower than expected and in real terms. Partially offset by claim closures that were slower than expected and claim reports that were higher than expected.

F 3 Analysis by type of payment

The purpose of this section is to investigate trends in the composition of claim payments by benefit type. We use higher level groups to explore the relative movement of ongoing and lump sum benefits.

The pie-charts and table below show the composition in two period ranges over the past five years:



In both periods, weekly benefits are the major payment group, at around 39% to 41% of total payments over the periods, and lump sum payments are the second highest group, between 27% and 28%.

The table below shows all other payments are also relatively stable across both periods.

Type of Payment	Financial years ending 30 June	
	2020 - 2022	2017 - 2019
Weekly	40.6%	38.8%
Medical and hospital	13.4%	14.1%
Allied Health	5.0%	5.0%
Workplace rehabilitation	3.7%	4.0%
Investigations, Legals, and Miscellaneous	10.2%	10.1%
Lump Sum	27.2%	28.0%
Total	100.0%	100.0%

The table below shows the annual composition of claim payments over the past seven and a half years.

Type of Payment	2022/23 6 months	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17	2015/16
Weekly	39.7%	41.7%	40.4%	39.6%	39.4%	38.0%	38.9%	38.8%
Medical and hospital	12.1%	12.9%	13.6%	13.7%	14.1%	14.4%	13.9%	13.5%
Allied Health	5.0%	5.0%	5.0%	5.0%	5.3%	5.0%	4.7%	4.5%
Workplace rehabilitation	3.7%	3.5%	3.7%	3.8%	4.0%	4.2%	3.6%	3.4%
Investigations, Legals, and Miscellaneous	10.7%	10.1%	9.9%	10.5%	10.3%	10.1%	9.9%	10.4%
Lump Sum	28.7%	26.8%	27.4%	27.4%	26.8%	28.3%	29.0%	29.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Amount (\$000s)	569,723	1,080,369	962,786	898,274	838,090	848,365	876,278	890,017
% change	3.7%	12.2%	7.2%	7.2%	-1.2%	-3.2%	-1.5%	
WC20 Amount (\$000s)	569,304	1,080,306	963,624	898,011	837,924	848,303	876,129	890,167
% difference from data provided by WorkCover WA	-0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Over the six months to 31 December 2022, there was an increase in payments of 3.7% which is below inflation. In the same period of the previous year, payments increased by 12.2%. We have not included the December 2022 half year in the trend comments below because its payment composition is variable and subject to seasonal influences.

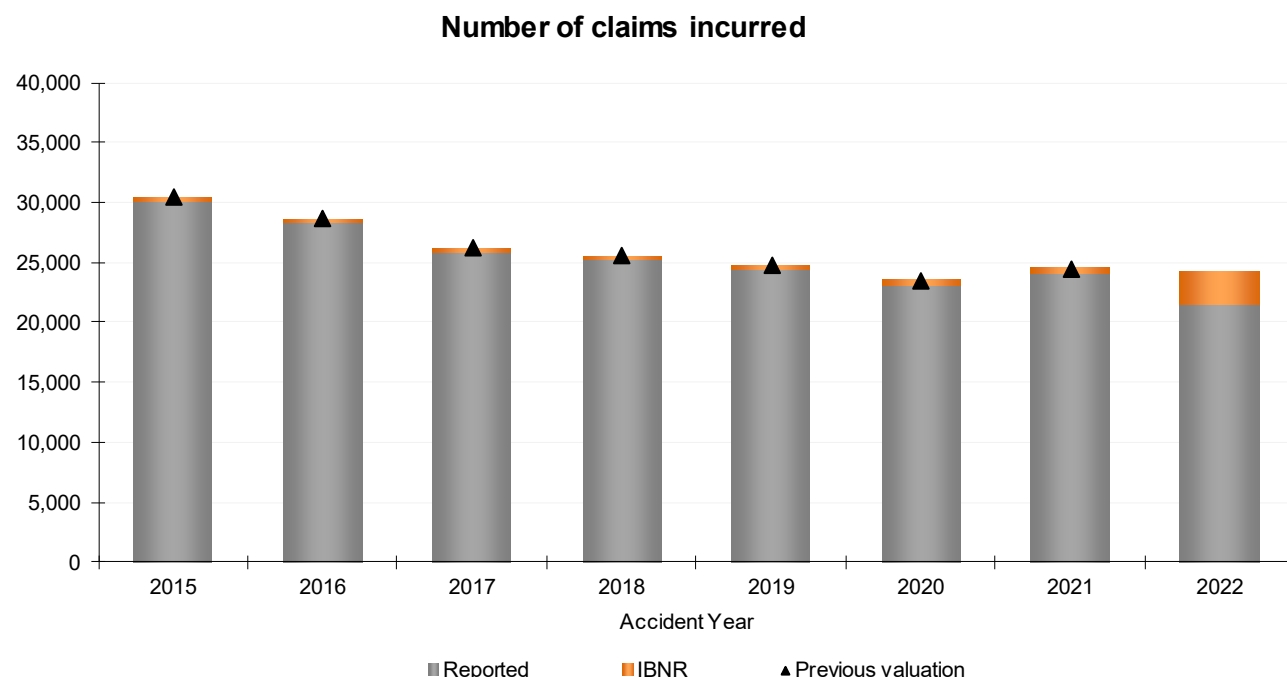
The following trends are apparent:

- Weekly benefits has been steadily increasing from 39% to 42% over 2015/16 to 2021/22, with the exception of the low 2017/18.
- Lump sum group has generally been decreasing from 29% to 27% over 2015/16 to 2021/22
- Medical and hospital payments ranged between 12.9% to 14.4% over 2015/16 to 2021/22
- Investigation, legal and miscellaneous has been relatively stable at between 9.9% and 10.5% over 2015/16 to 2021/22
- Allied health increased from 4.5% in 2015/16 to 5.3% in 2018/19, while being stable from 2019/20 to 2021/22 at 5.0%
- Workplace rehabilitation increased from 3.4% to 4.2% in 2017/18. Since then, it has been steadily decreasing to 3.5% in 2021/22.

Appendix G Claims statistics

G 1 Number of claims incurred

Slight decrease in claims incurred for 2022 to 24,239



The key experience points from the above chart are:

- There has been a strong decreasing trend, with reductions of between 2.4% and 8.5% across the 2015 to 2020 accident years.
- In 2021 however, there was an increase in claim number of about 4.5%. This is the first increase since the 2012 accident year, driven by the low June 2020 quarter of the 2020 accident year, which was impacted by COVID-19. The increase from 2020 to 2021 was more than the increase expected in the 30 June 2020 valuation, when we factored in the reduction in claims in the June 2020 quarter that was not expected to reoccur in 2021.
- The estimated number of incurred claims for the 2022 accident year is just under 24,250, which is lower than 2021 but is higher than 2020.

We have factored in the claims experience in the six months to 31 December 2022 in our estimates above for the number of claims incurred for the 2022 accident year.

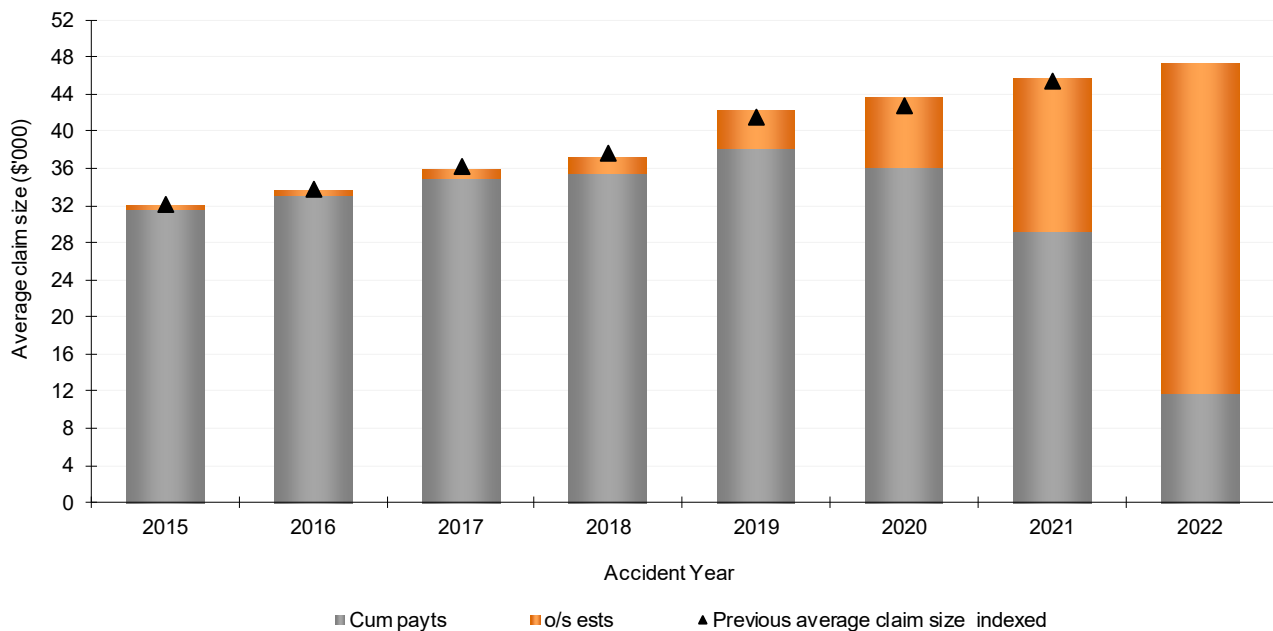
The number of claims by duration data shows that it is the number of short duration claims that have caused the ongoing reduction in claims numbers since 2015.

The number of claims incurred for the current valuation is in line with the previous valuation for all accident years shown. The difference is less than 0.1% per year, with the exception of 2021 where current estimate is 0.8% higher than expected in the previous valuation.

G 2 Average claim size

Strong and consistent increasing trend continues in the 2022 accident year

Average claim size in 30 June 2022 values



The higher average claim sizes in recent years are a reflection of the trends shown in Appendix G6. Over the eight years shown in the graph there has been an increasing trend, with an overall increase of 47.5% or 5.7% pa, in current values.

The uncertainty of the estimates, and any future development which occurs, means that the ultimate level may differ from projected at this early development stage for recent accident years. This is especially true for the 2022 accident year where a high proportion (75%) of the average claim size consists of the uncertain future estimate.

The real average claim size trends show the combined impact of:

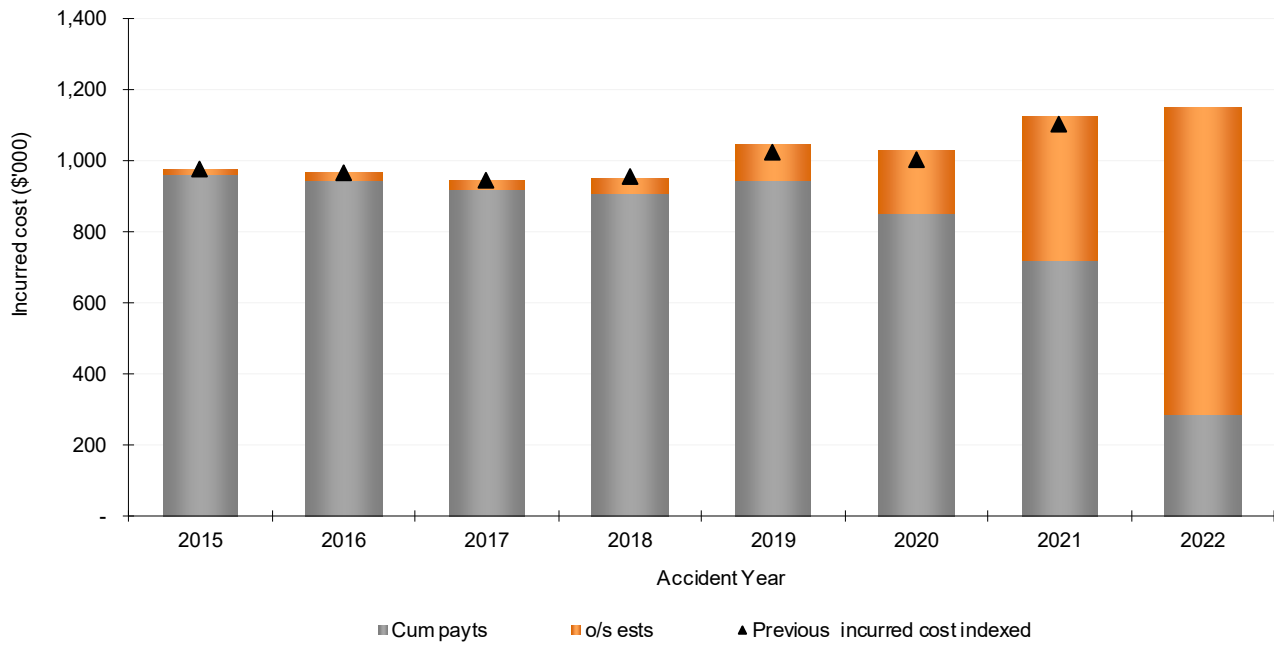
- The change in mix of claims, with a reduction in the number of small claims over recent years
- High levels of superimposed inflation
- The increasing average duration of claims.

The average claim sizes are mostly on par with the estimate from the previous valuation, however the 2019 to 2021 accident years are higher than our previous valuation, while 2018 is lower. The increase for 2019 and 2020 reflects the slower than expected claim finalisations and higher than expected case estimate development.

G 3 Incurred cost

2022 is expected to be higher than 2021 and all prior years due to the high average claim size partially offset by the decrease in claim numbers

Incurred cost in 30 June 2022 values



The incurred cost has shown the following trends:

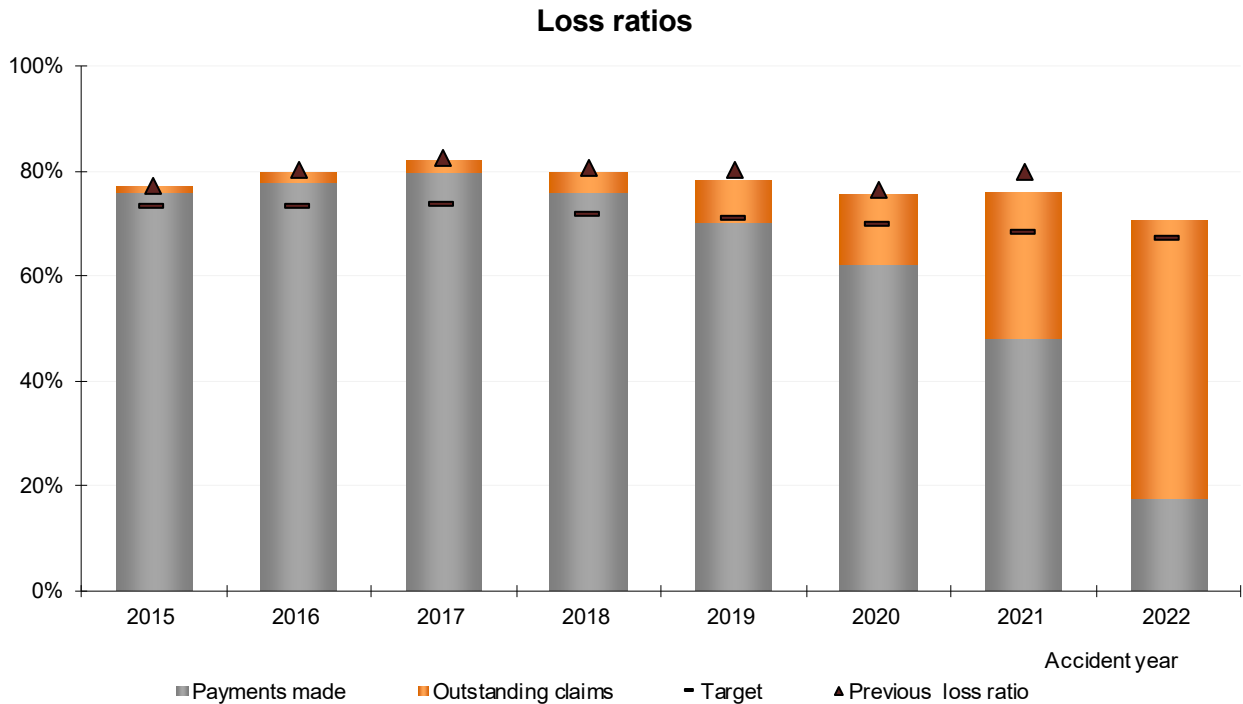
- A decrease in incurred cost from 2015 to 2017 is due to the reduction in claim numbers offsetting the increasing average claim size. Incurred cost is expected to be \$943 million for 2017
- An increase in incurred cost from 2017 to 2019 as the increase in the average claim size more than offset the decrease in the claims incurred
- The 2020 incurred cost is lower than 2019 due to the reduction in claims more than offsetting the increase in the average claim size
- The 2021 incurred cost is higher than 2020 and all prior years due to the increase in the number of claims and average claim size
- 2022 incurred cost is estimated to be \$1,147 million, a 2% increase compared to 2021 due to the high average claim size which is partially offset by the decrease in claim numbers.

Over the period shown in the graph, the proportion outstanding increases from 2% of the total incurred cost to 75% of the total incurred cost for 2022.

Incurred costs are lower than the previous valuation for the 2018 accident year and higher than the previous valuation for the 2019 accident year onwards. The movements are due to the reasons discussed in the number of claims and average claim size section.

G 4 Loss ratios

The most recent eight accident years are above the target loss ratio for that year



Note: (a) The target loss ratio was developed in section 6.5, and equivalent section of prior reports. Including brokerage, the 2023/24 target loss ratio is 69.0% in inflated and discounted values. This is equivalent to 70.1% in current values or 72.8% inflated.

Loss ratios are calculated for each accident year using the following formula:

$$\frac{(\text{Past claim payments to 30 June 2022} + \text{estimated outstanding liability at 30 June 2022})}{\text{Earned premium}}$$

The past claim payments, estimated outstanding liability and earned premium are all in 30 June 2022 values i.e. current values. The estimated outstanding liability includes allowance for future superimposed inflation.

These ratios are not a proper measure of profitability, as they do not allow for investment returns or expenses. Nevertheless, as a crude measure, they do provide an indication of trends in the experience.

The loss ratios are calculated in the following table and illustrated in the chart above. The chart shows separately the portion of the loss ratios relating to amount already paid and amount still outstanding:

Accident year ended 30 June	Gross earned premiums		Cumulative payments		Estimated net outstanding claims liability in 30 June 2022 values	Estimated loss ratio
	In historic values	In 30 June 2022 values	In historic values	In 30 June 2022 values		
	\$M	\$M	\$M	\$M	\$M	
2015	1,091.907	1,270.531	841.564	962.349	14.865	77%
2016	1,058.630	1,212.361	833.515	943.576	19.850	79%
2017	1,005.594	1,148.780	820.506	916.032	26.707	82%
2018	1,064.959	1,194.622	827.837	908.318	42.011	80%
2019	1,211.748	1,339.629	875.654	941.649	103.064	78%
2020	1,258.667	1,362.366	804.786	847.436	178.319	75%
2021	1,414.019	1,486.303	693.346	715.806	409.430	76%
2022	1,590.334	1,624.281	279.446	285.411	861.908	71%

The loss ratio is in current 30 June 2022 values.

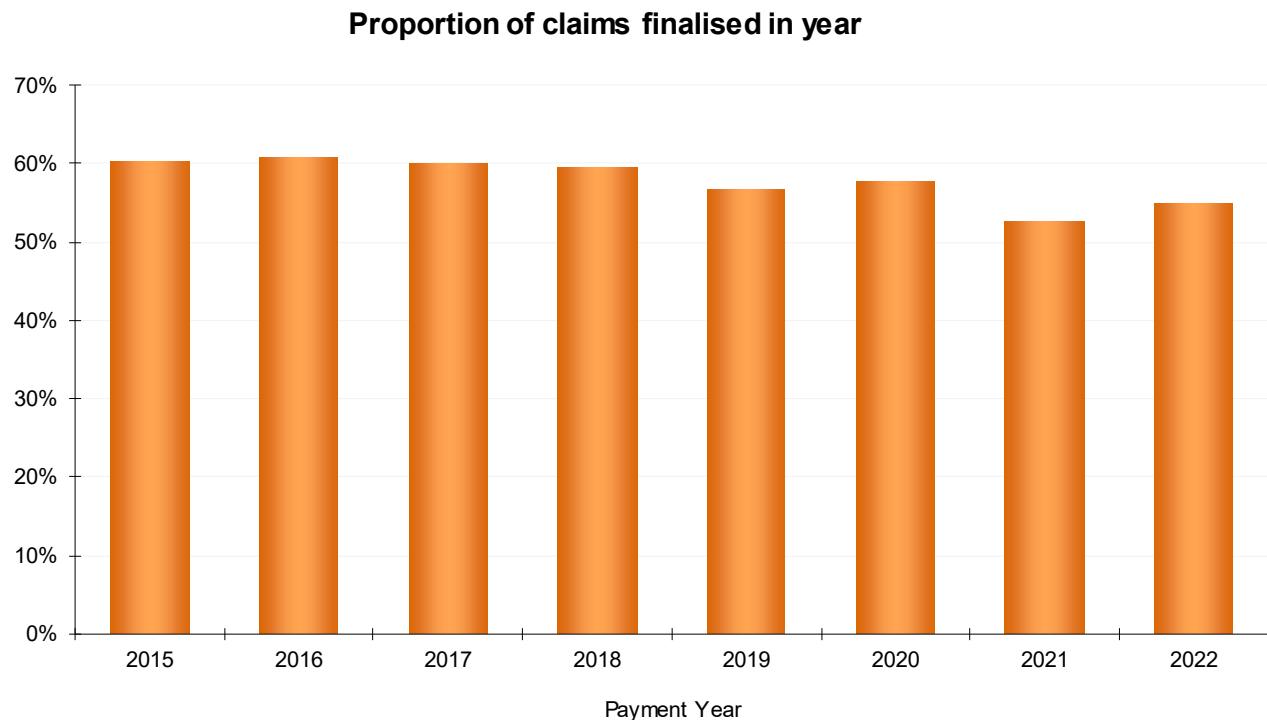
The table and chart show:

- The loss ratio ranges between 75% to 82% across all years from 2015 to 2021, with 2022 below this range at 71%
- The loss ratio has increased from 77% in 2015 to 82% in 2017 and then generally decreasing to 76% in 2021
- For 2022, loss ratio decreased to 71% so is lower than all prior years shown
- All accident years' estimated loss ratios are above the target
- Compared to the previous valuation:
 - The loss ratio for all accident years have been stable or decreased slightly
 - The loss ratio for the 2021 accident year had the largest decrease from 80% last year to 76% this year, due to the larger increase in earned premium compared to the increase in estimated incurred cost.

G 5 Finalisation of claims

By payment year

2022 payment year has finalisation rates of 55%



Claim finalisation rate by payment year is defined as:

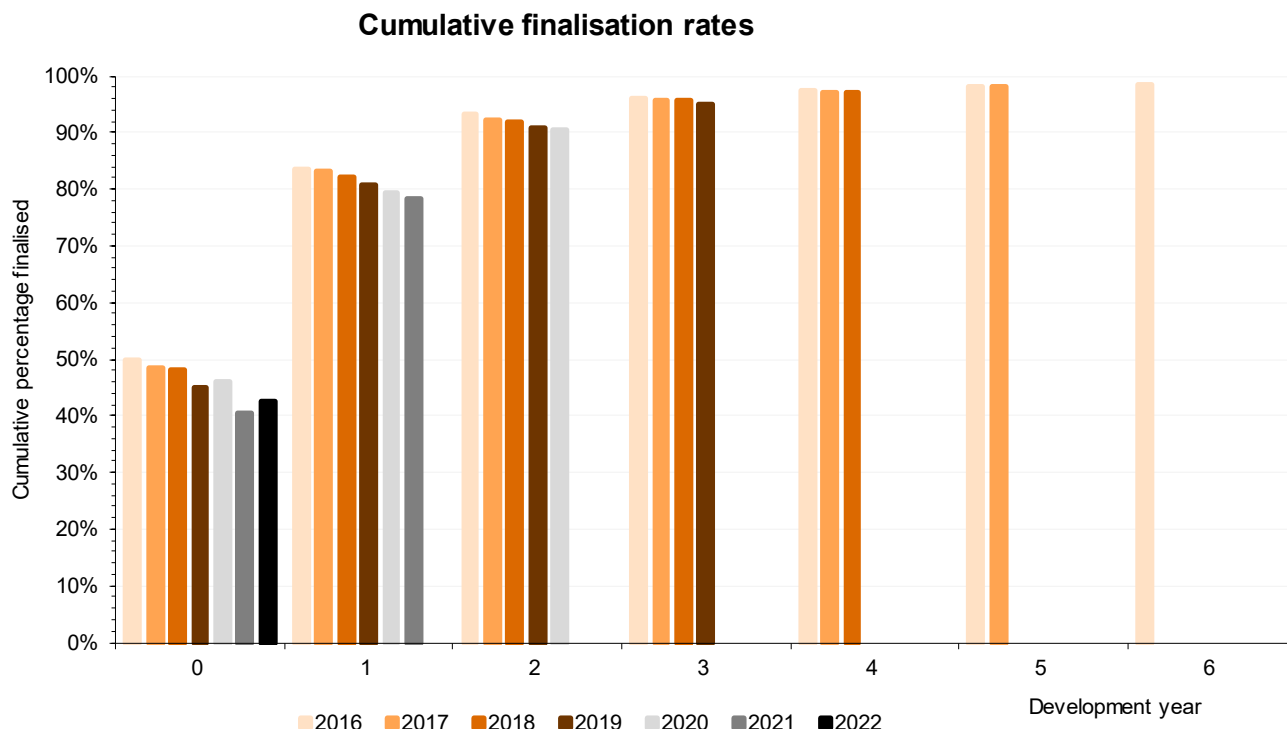
Number of claims finalised in year

(Number of outstanding at beginning of the year plus number reported during the year)

The proportion of total claims finalised since 2015 has historically been between 57% and 61%. However, the finalisation rate reduced to 53% in the 2021 payment year. The 2022 payment year has a finalisation rate of 55%, this is higher than the low of 2021 but lower than all other prior years.

By accident year

Slower finalisation for 2021 compared to all prior years in DY0 and DY1. DY0 for 2022 is higher than 2021 but slower than all other prior years



Claim finalisation rate by accident year is defined as:

$$\frac{\text{Cumulative number of claims finalised by development year}}{\text{Incurred number of claims for the accident year}}$$

The chart above shows that more recent accident years have a lower proportion of total incurred claims finalised by the end of development year 0 (i.e. the same year as the accident occurred) and development year 1 (the year following year in which the accident occurred). 2021 was significantly lower than 2020 and all prior accident years in DY0. Meanwhile, 2022 is higher than 2021 but lower than all prior years.

After development year three, the cumulative finalisation is relatively stable for the accident years that have developed that far at around 95% to 96%.

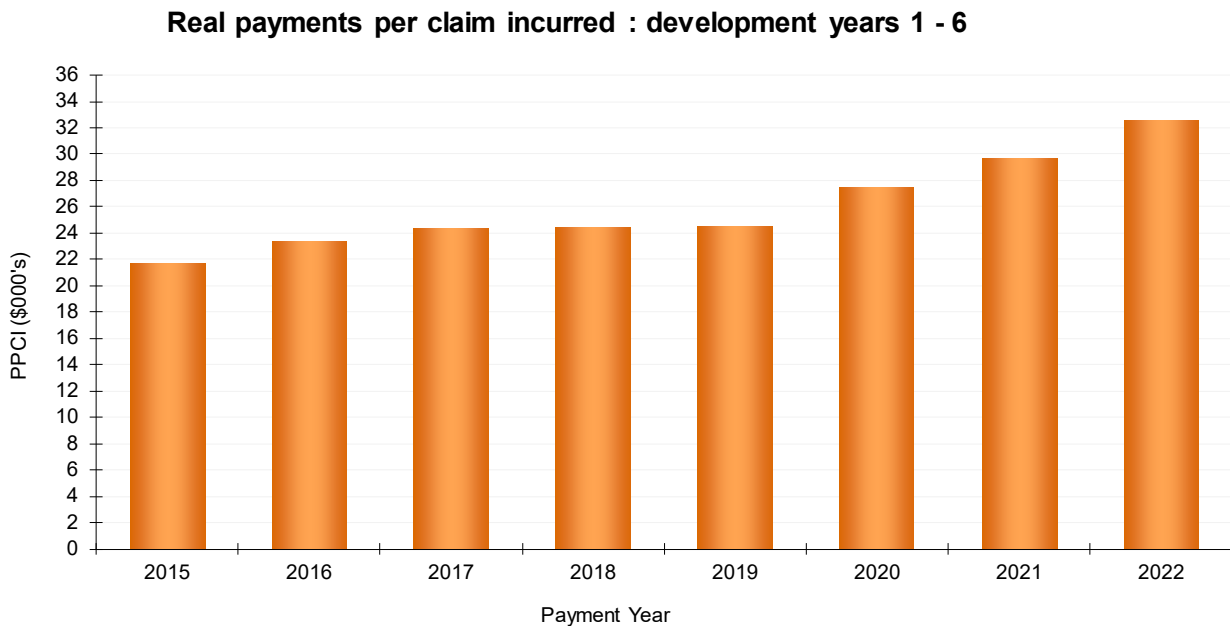
Overall, this suggests that within the first three years after an accident, claims are taking longer to be finalised, but a catch up occurs in DY 3 and after this, they are being closed at the same rate compared to older accident years.

Approximately 98% of claims are finalised by development year 5.

G 6 Payment per claim incurred

By payment year

Significant increase (9.4%) in 2022 to \$32,500



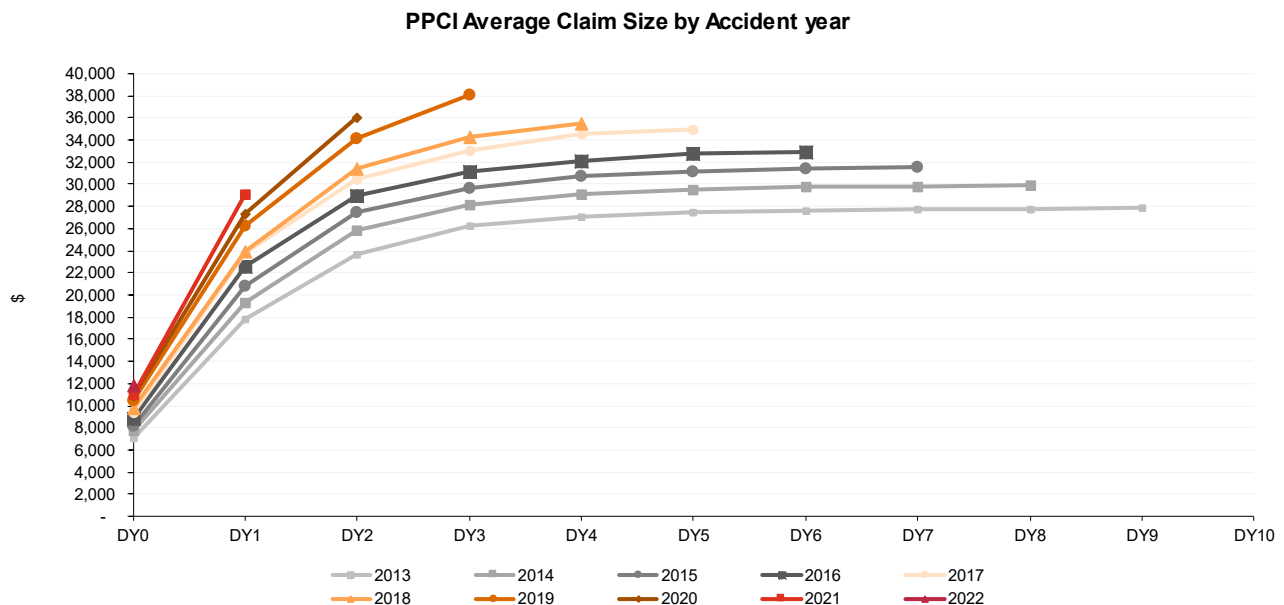
There was an increasing trend from 2015 to 2017 payment years but was fairly stable over 2017 to 2019. These increases were partially due to the changing mix in the size of claims.

There has been a significant increase in the 2020 payment year, to just under \$27,500. This was 11.7% higher than the 2019 payment year. This increase is higher than all prior years increases. In 2021, there was a further increase of 8.5% to \$29,700 driven by increases in the lump sum and weekly payments.

In 2022, there was another increase of 9.4% to \$32,500, driven by increases in payments across all payment types.

By accident year

Continuing evidence of superimposed inflation in payments by accident year



The chart above shows cumulative PPCI by accident year. This is calculated as:

$$\frac{\text{sum of claim payments by development year made to date (in 30 June 2022 values)}}{\text{number of claims incurred to date}}$$

As the values in the chart are all in current values, any differences are the result of a change in the real cost of each claim. This is also referred to as superimposed inflation. The chart is based entirely on actual experience. There are no future projections included in this graph.

The key points from this chart may be summarised as follows:

- From 2014 to 2022, there is an increasing trend across accident years, with each year higher than the previous years at the same stage of development. This is due to the combined impact of:
 - The presence of superimposed inflation in the scheme
 - The change in the mix of claims and the reduction in the number of small claims reported since 2014.

Appendix H Comparative statistics

H 1 Statistical trends

H 1.1 Aggregate incurred cost of claims in current values

The table below shows, using the benefit of hindsight, the estimated incurred cost of claims in current values as at 30 June 2022 by financial year of accident:

Accident year ending 30 June	Estimated Incurred Costs in Current Values as at 30 June 2022						
	Cumulative payments \$M (a)	Estimated outstanding \$M (b)	Estimated incurred \$M (c)	Estimated no of claims incurred (d)	Average claim size \$ (e)	Earned wages in c/ values \$M (f)	Claim cost % of wages (g)
2022	285.4	861.9	1,147.3	24,239	47,334	98,422	1.17%
2021	715.8	409.4	1,125.2	24,591	45,757	92,916	1.21%
2020	847.4	178.3	1,025.8	23,543	43,570	90,901	1.13%
2019	941.6	103.1	1,044.7	24,743	42,222	89,734	1.16%
2018	908.3	42.0	950.3	25,566	37,172	87,902	1.08%
2017	916.0	26.7	942.7	26,204	35,977	88,753	1.06%
2016	943.6	19.8	963.4	28,653	33,624	91,421	1.05%
2015	962.3	14.9	977.2	30,443	32,100	93,587	1.04%

Notes :

- (a) cumulative actual claim payments indexed to current values
- (b) from appendix E3.5
- (c) = (a) + (b)
- (d) from appendix E2.1
- (e) = (c) in \$ / (d)
- (f) from Form WC12 indexed to current values adjusted to est final wages as in appendix C2.1
- (g) = (c) / (f) .

The key trends to highlight in the table are:

- The estimated number of claims incurred was just under 30,450 in 2015. Since 2015, there has been strong steady decreases, such that in 2022 the estimated incurred claims are just under 24,250. The 2020 accident year is the lowest at just above 23,500, mainly due to COVID-19 that impacted the June 2020 quarter.
- The average claim size has increased in real terms from \$32,100 in 2015 to \$47,334 in 2022. This is an average annual increase over the period of 5.7%. For the most recent years this is predominantly driven by a reduction in the number of small claims and an increasing trend in both payments and case estimates on open claims
- Estimated claim cost as a percentage of wages has an increasing trend from 1.04% in 2015 to 1.21% in 2021. In 2022 the estimated claim cost as a percentage of wages dropped to 1.17% due to wages increasing by more than incurred cost for 2022 compared to 2021
- The claim cost as a percentage of wages have increased by 0.01% to 0.02% compared to the previous valuation, driven by unfavourable experience due to the increasing average claim size.

Our estimates in the table above make realistic allowance for current trends to continue in the future.

The wages above include the wage adjustment factors from Appendix C2.1 to develop them to ultimate.

Claim frequency has been as follows:

Claim frequency as % of :		
Accident year ending 30 June	Number of employees (a)	\$100,006 of real wages (b)
2022	2.2%	2.5%
2021	2.5%	2.6%
2020	2.4%	2.6%
2019	2.5%	2.8%
2018	2.6%	2.9%
2017	2.7%	3.0%
2016	2.9%	3.1%
2015	3.0%	3.3%

Notes :
 (a) item (g) from the last table in appendix H2
 (b) = number of claims incurred / (real wages / ave real wages {\$100,006}) from table above

Claim frequency per \$100,006 wages has declined by an equivalent 3.9% per year over 2015 to 2022 and by 4.2% per year per employee. The \$100,006 figure adopted is the annualised figure from ABS Cat 6302.0 Average Weekly Earnings for Western Australia (persons, full-time adult ordinary time earnings).

H 1.2 Reserving and loss ratios

Some overall market reserving and loss ratios which may assist insurers to judge the relative strength of their outstanding claim estimates are as follows:

Accident year ending 30 June	Cumulative claim payments \$M (a)	Total case estimates \$M (b)	Inflated actuarial incurred cost ests \$M (c)	Total case estimates to claim payments (d)	Ultimate incurred costs/claim payments (e)	Ultimate incurred costs/total case ests (f)	Inflated loss ratios (g)
2022	279.4	725.6	1,191.0	260%	426%	164%	75%
2021	693.3	1,009.5	1,127.2	146%	163%	112%	80%
2020	804.8	966.2	996.0	120%	124%	103%	79%
2019	875.7	977.6	987.4	112%	113%	101%	81%
2018	827.8	868.6	874.5	105%	106%	101%	82%
2017	820.5	844.4	850.5	103%	104%	101%	85%
2016	833.5	843.8	855.9	101%	103%	101%	81%
2015	841.6	848.8	858.3	101%	102%	101%	79%

Notes :
 (a) cumulative actual claim payments
 (b) = (a) + insurer's case estimates outstanding
 (c) = (b) from previous table
 (d) = (b) / (a) x 100
 (e) = (c) / (a) x 100
 (f) = (c) / (b) x 100
 (g) = (c) in \$ / (earned premium from WC12 supplied by insurers + earned but not yet raised premium supplied by insurers on their WC30) x development factor in Appendix C

By applying the ratios in columns (d), (e) and (f) above, insurers can obtain a measure of the strength of their own case estimates and total incurred claim cost, relative to overall market levels.

Compared to last year:

- The case estimate ratio (d) at the same stage of development was similar to last year, except the most recent four years. The 2019 accident year has increased by 3% while, 2020 to 2022 have decreased by 2%,

2% and 19% respectively. The decreases in the case estimate ratio for recent years is due to increases in payments over the 2022 financial year.

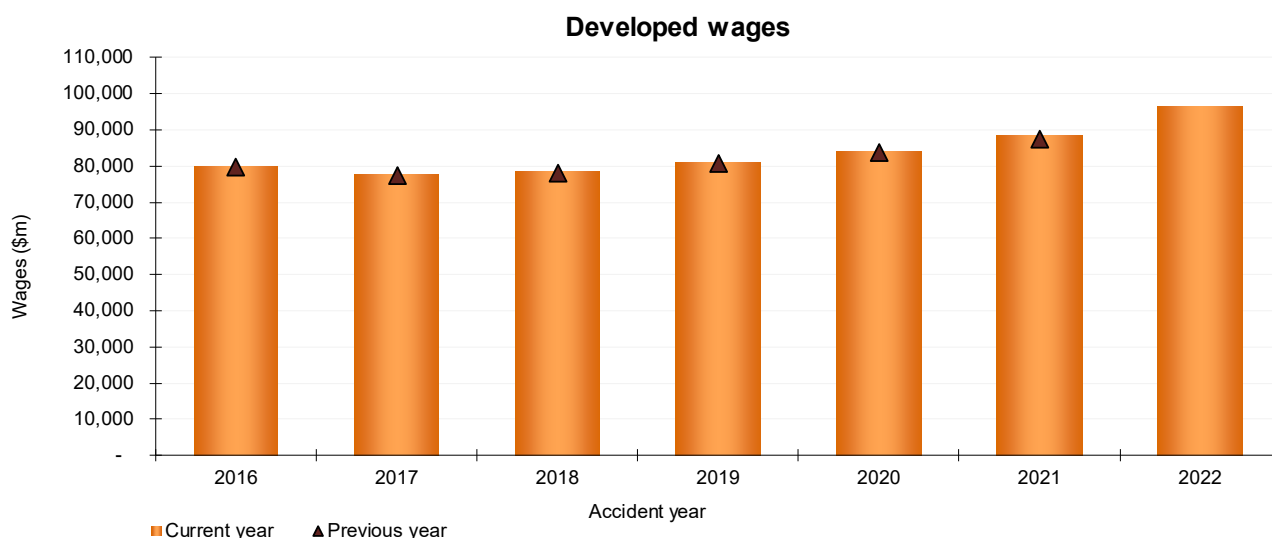
- The ultimate incurred cost ratio to payments (e) for 2015 to 2022 is relatively on par, with changes between 0% and 2%
- The ultimate incurred cost ratio to total case estimates (f) was on par for all years (changes between 0% to 1%), except 2021 and 2022 year where it increased by 3% and 11%, respectively.

The inflated loss ratio (g) is a measure of the cost of claims to earned premium. The higher the loss ratio, the less profitable the portfolio of risks. Compared to last year, loss ratio estimates are either on par or 1% to 2% lower for all accident years except 2021 which is 4% lower.

The target inflated loss ratio including all expenses (including brokerage) and profit loadings is 69.0% for 2023/24. See Appendix G4 for a comparison of loss ratios against the target loss ratio for that year in current values.

H 1.3 Developed wages

Developed wages for 2021/22 are 9.0% higher than 2020/21



Developed wages are equal to reported wages plus an allowance for future development.

Developed wages for 2015/16 onwards has been shown in the chart above to reflect the same period used for the Gazetted rates based on the ANZSIC 2006 classification, based on Form WC12.

The 2021/22 wages are estimated to be 9.0% higher than the 2020/21 wages.

We have not made any special adjustments to the projected wages due to COVID-19. Wages have continued to increase in line with previous trends.

For the 2016 to 2021 accident years, the developed wages are higher than estimated last year (up to 1.0%), 2021 is 1.1% higher.

H 1.4 Comparison of workers compensation costs and wages by industry division

The charts below show the:

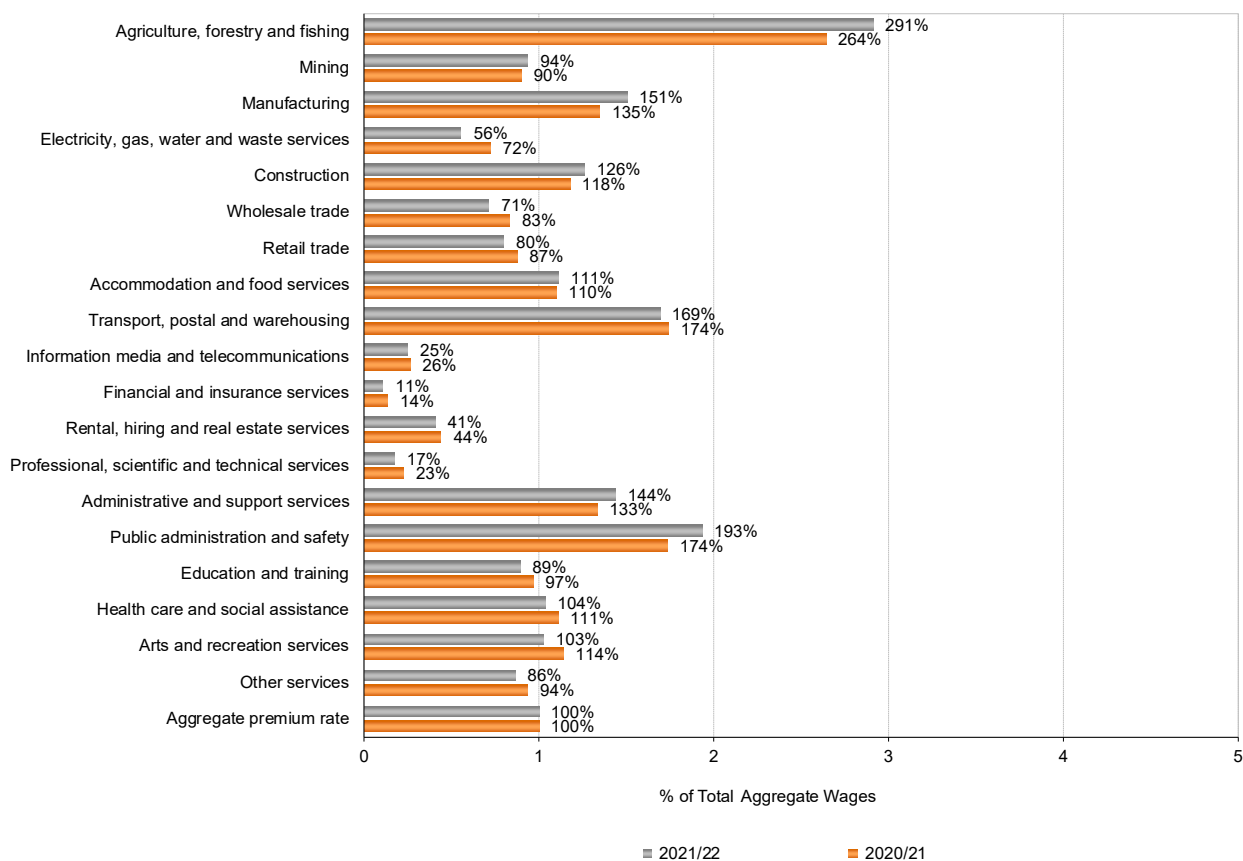
- Comparative cost of workers compensation claims as a percentage of the aggregate premium rate over the past two years by industry
- Composition of wages by industry for the 2021/22 accident year only and
- Composition of wages by industry for the 2017/18 to 2021/22 accident years
- Percentage movement in developed wages by accident year from 2018/19 to 2021/22.

The cost of claims is estimated:

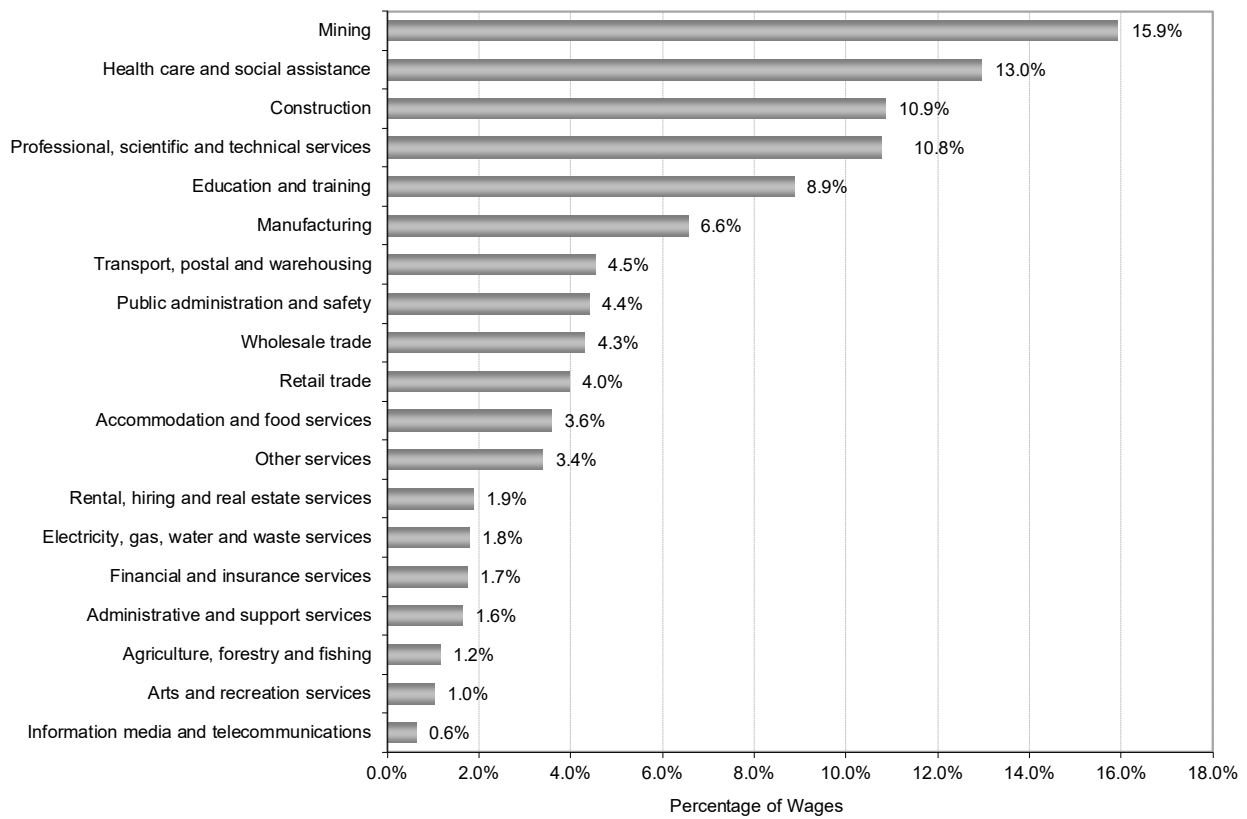
- By year of accident
- Using the actuarial basis and methods in this report
- Including an allowance for expenses and margins (as per section 2)
- Using cost estimates including all development data up to 30 June 2022.

A higher proportion of total cost is estimated for 2021/22 than for the earlier accident years.

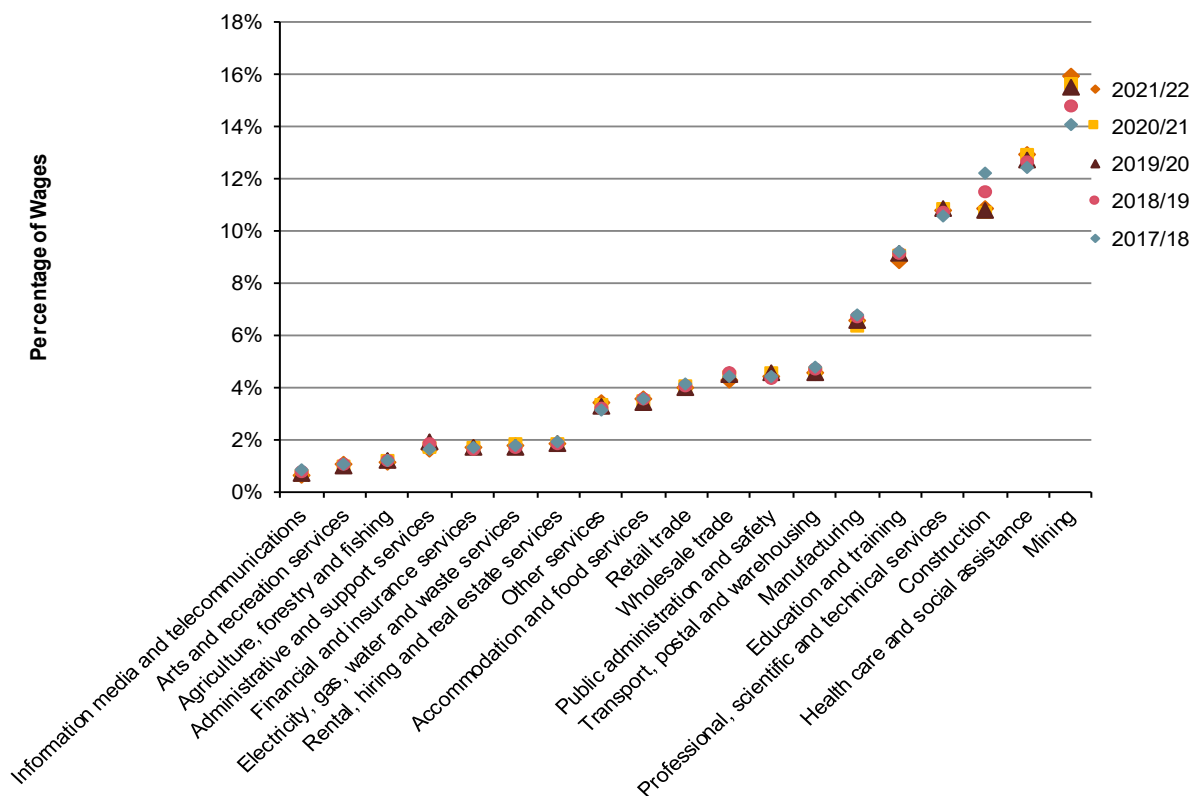
Industry premium rate by accident year as % of aggregate premium rate



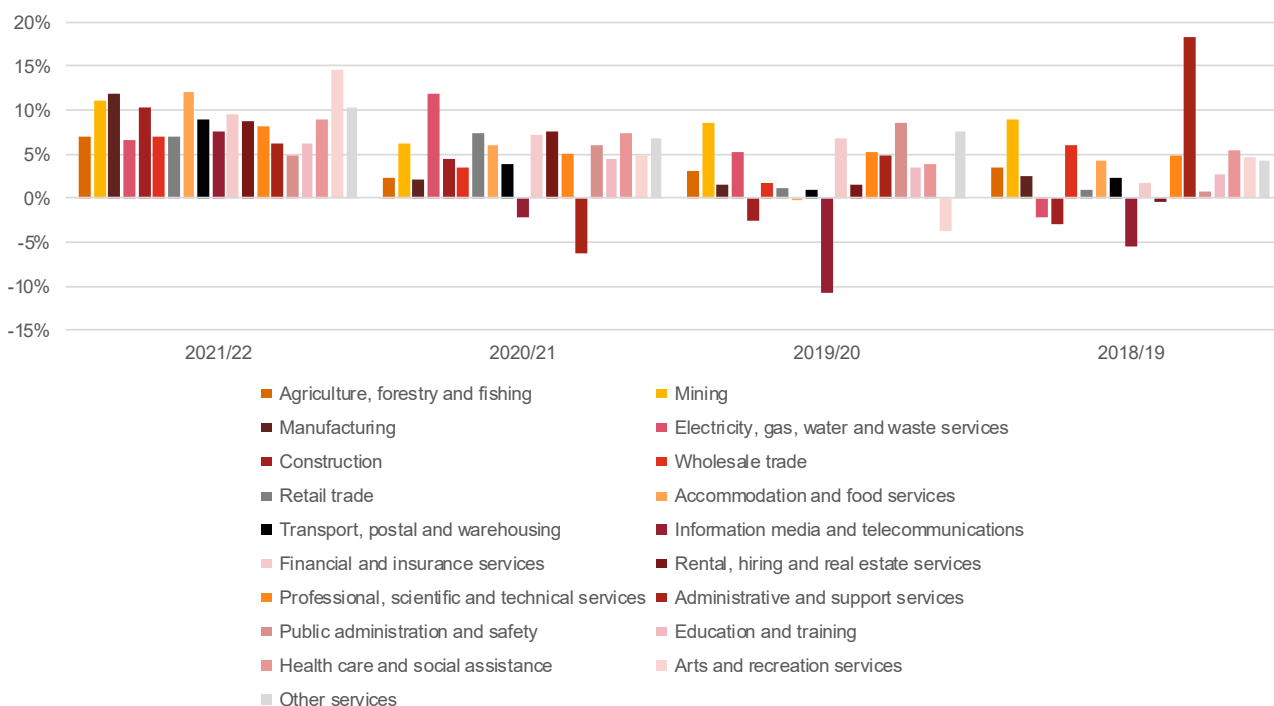
Percentage of wages by industry for the 2021/22 accident year only



Percentage of wages by industry for the 2017/18 to 2021/22 accident years



Percentage movement in developed wages by industry for the 2018/19 to 2021/22 accident years



Significant movements in division wages can significantly impact the divisional premium rates where the change in wages are not reflected in a change in claims experience.

H 2 Comparative statistics

Wages

	Reporting period							
	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17	2015/16	2014/15
Adjusted written wages \$M (a)	98,752	91,589	84,618	82,191	77,974	77,381	78,777	79,779
% change (b)	7.8%	8.2%	3.0%	5.4%	0.8%	-1.8%	-1.3%	
% change in rates (c)	4.0%	-0.4%	3.7%	3.9%	3.2%	-0.3%	-4.7%	-6.7%
Notional premium \$M (d)	1,599.3	1,459.4	1,363.7	1,263.9	1,151.2	1,162.3	1,178.5	1,244.5
% change (e)	9.6%	7.0%	7.9%	9.8%	-1.0%	-1.4%	-5.3%	
Expected % change in notional prem (f)	12.2%	7.8%	6.8%	9.6%	4.0%	-2.1%	-5.9%	
Returned Gross Written Premium (g)	1,401.4	1,279.3	1,179.9	1,157.5	1,071.0	1,011.4	1,033.9	1,077.5
Adjusted Gross Written Premium (h)	1,547.9	1,342.1	1,200.6	1,153.1	1,067.3	1,008.4	1,031.8	1,077.5
% discount by market (i)	5.9%	10.6%	14.8%	11.6%	10.3%	15.8%	14.8%	15.9%
Notional Average Premium Rate (j)	1.62%	1.59%	1.61%	1.54%	1.48%	1.50%	1.50%	1.56%
Insurer's average premium rate (k)	1.57%	1.47%	1.42%	1.40%	1.37%	1.30%	1.31%	1.35%

Notes :

- (a) from Form WC12 adjusted to estimated final written wages as per appendix C2.1
- (b) % change in (a) from previous year
- (c) rate change as decided by RPR
- (d) calculated from (a) and the applicable Gazette rates
- (e) % change in (d) from previous year
- (f) $= (1 + b) \times (1 + c) - 1$
- (g) returned by insurers taken from Form WC12
- (h) $= (g) \times (\text{GWP adjustment factor as per appendix C2.1})$
- (i) $= \{1 - (h) / ((d) \times (1 + \text{the rate of commission}))\}$ to add back the brokerage allowance.
Note that ICWA doesn't include brokerage or contingency margin in premium, so discount overstated but impact immaterial (0.5%)
- (j) $= (d) / (a)$
- (k) $= (h) / (a)$

Wages for 2021/22 increased by 7.8%, compared to AWE growth of 3.5% i.e. 4.3% higher than AWE.

In most years, except 2017/18 and 2021/22, the expected percentage change in returned notional premiums has been reasonably close to the actual change (within 2%).

Insurer premium discounts to Gazette rates were between 14% to 16% over 2015 to 2017. In 2018, the discount was 10.3%, before increasing to 11.6% in 2019 and 14.8% in 2020. In 2021, insurer premium discounts to Gazette rates decreased to 10.6% and in 2022 they decreased further to 5.9% which is 4.7% lower than 2021 and the lowest since 2015.

We have developed the gross written wages based on historical development. Without this development, the discount levels would be significantly higher. The discount levels for all years have decreased in comparison to the level of discounting estimated in last year's valuation.

As a basis for comparison we have extracted statistics from the Australian Bureau of Statistics Cat 6248.0 (Wage and Salary Earners, Public sector Australia), Cat 6202.0 Labour Force Australia (Private sectors) for wage and salary earners and Cat 5676.0 for private sector wages.

ABS Gross earnings statistics are not directly comparable with returned wages since:

- Returned wages include the Agriculture private sector, ABS figures do not
- For ABS gross earnings we include only State Government all public sector earnings excluding permanent defence forces, and returned wages are on a similar basis, but exclude WA Police officers
- ABS gross earnings include self-insurers, while premium rating returns exclude self-insurers.

Adjustments made for these items for comparison purposes are:

- Deduct the percent of RPR wages that self-insurers represent each year
- Deduct 1% for police officers
- Add back the percent of wages that the Agriculture division represents each year.

In order to attain the relevant percentage that self-insurers represent we have examined the developed wages, which allows for development in wages reported for accident years across reporting periods. The analysis shows self-insurer wages represent approximately 9% of the total RPR wages.

	Reporting period							
	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17	2015/16	2014/15
Wage & salary earners (\$000s) (a)	1,179.1	1,104.0	1,098.1	1,102.4	1,073.2	1,055.7	1,073.6	1,104.5
% change (b)	6.8%	0.5%	-0.4%	2.7%	1.7%	-1.7%	-2.8%	
Estimated RPR employees (c)	1,077.5	1,000.0	996.6	1,004.8	979.1	962.7	978.1	1,005.0
Gross ABS earnings \$M (d)	102,800	93,853	89,498	85,919	83,625	80,978	84,081	86,460
Estimated gross RPR earnings \$M (e)	93,940	85,011	81,229	78,308	76,288	73,848	76,599	78,672
% change (f)	10.5%	4.7%	3.7%	2.6%	3.3%	-3.6%	-2.6%	
RPR adjusted earned wages (g)	96,365	88,397	83,982	81,168	78,361	77,691	79,828	80,429
Earned wages % of est gross earnings (h)	102.6%	104.0%	103.4%	103.7%	102.7%	105.2%	104.2%	102.2%
Est RPR employees % of wage & salary earners (i)	91.4%	90.6%	90.8%	91.1%	91.2%	91.2%	91.1%	91.0%
Agriculture wages as % of total RPR wages (j)	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.0%
Self insurer wages as % of total RPR wages (k)	8.7%	9.5%	9.3%	9.0%	8.9%	8.9%	8.9%	8.9%

Notes :

- (a) = from ABS Cat 6248.0.55.002 2011-12 Table 1 Public sector employees state
ABS Cat 6202.0 Labour Force Australia table 8 (Persons) for private sector
- (b) = % change in (a) from previous year
- (c) = (a) x (1 - (j) self-insurers - 0.01 WA Police) / (1 - (i) Agriculture).
- (d) = from ABS Cat 6248.0.55.002 2011-12 Table 2 Public sector cash wages and salaries for State Government only
Table 19 of ABS Cat 5676.0 for private sector
- (e) = (d) x (1 - (j) self-insurers - 0.01 WA Police) / (1 - (i) Agriculture).
- (f) = % change in (e) from previous year
- (g) from Form WC11 adjusted to estimated final written wages as per appendix C2.1
- (h) = (g) / (e)
- (i) = (c) / (a) x 100
- (j) = Agriculture as % of total RPR wages chart in appendix H1.5 and equivalent in earlier reports
- (k) = Self insurers as % of total RPR + self insurers wages

As mentioned above, in 2021/22 adjusted earned wages increased by 7.8%, which is 3.5% more than that of AWE inflation.

Adjusted earned wages as a percentage of ABS data are all above 100%, between 102.2% and 105.2%. 2021/22 adjusted earned wages are 2.6% higher than ABS wages, which is in line with the difference in prior years.

Claim Experience

Claim payments, case estimates and claim numbers have varied as follows by financial year:

	Reporting period							
	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17	2015/16	2014/15
Claim payments \$M (a)	1,080.4	962.8	898.3	838.1	848.4	876.3	890.0	866.8
% change (b)	12.2%	7.2%	7.2%	-1.2%	-3.2%	-1.5%	2.7%	
Real claim payments \$M (c)	1,103.4	1,012.0	972.3	926.5	951.7	1,001.1	1,019.3	1,008.6
% change (d)	9.0%	4.1%	4.9%	-2.6%	-4.9%	-1.8%	1.1%	
Estd incurred claim numbers (e)	24,239	24,591	23,543	24,743	25,566	26,204	28,653	30,443
% change (f)	-1.4%	4.5%	-4.9%	-3.2%	-2.4%	-8.5%	-5.9%	
Claim frequency (g)	2.2%	2.5%	2.4%	2.5%	2.6%	2.7%	2.9%	3.0%
Active claims (h)	20,110	20,082	17,907	18,641	18,002	18,637	19,695	21,080
% change (i)	0.1%	12.1%	-3.9%	3.5%	-3.4%	-5.4%	-6.6%	
Case estimates outstanding \$M (j)	1,139.8	1,083.9	908.2	875.7	882.2	931.6	915.9	974.3
% change (k)	5.2%	19.3%	3.7%	-0.7%	-5.3%	1.7%	-6.0%	
Real case estimates outstanding \$M (l)	1,139.8	1,122.0	962.2	959.3	986.2	1,055.1	1,050.8	1,120.5
% change (m)	1.6%	16.6%	0.3%	-2.7%	-6.5%	0.4%	-6.2%	

Notes :

- (a) from Form WC20 returned by insurers
- (b) % change in (a) from previous year
- (c) = (a) indexed into 30 June 2022 values
- (d) % change in (c) from previous year
- (e) = number reported + actuarial estimate of IBNRs
- (f) % change in (e) from previous year
- (g) = (e) / {row (c) from previous table}
- (h) from Form WC20 returned by insurers
- (i) % change in (h) from previous year
- (j) from Form WC20 returned by insurers
- (k) % change in (j) from previous year
- (l) = (j) indexed into 30 June 2022 values
- (m) % change in (l) from previous year

- Real claim payments increased to \$1,019 million in 2015/16 then decreased to \$927 million in 2018/19. Over 2019/20 to 2021/22 real claim payments have increased to \$1,103 million. Over 2014/15 to 2021/22, payments have increased 9.4% in total or 1.3% per annum
- Estimated incurred claim numbers decreased from around 30,450 in 2014/15 to 24,239 claims in 2021/22
- Claim frequency as a percentage of employees steadily declined from 3.0% in 2014/15 to 2.2% in 2021/22
- Active claims decreased from around 21,080 in 2014/15 to 17,900 in 2019/20 before a significant increase in active claims in 2020/21 and stable in 2021/22 to around 20,100
- Real case estimates outstanding generally decreased from \$1,120.5 million in 2014/15 to \$962.2 million in 2019/20. They increased significantly by 16.6% to \$1,122.0 million in 2020/21 and have been relatively stable in 2021/22. Over the whole period real case estimates increased by 1.7% or 0.2% per annum.

Appendix I Analysis of lump sum claim experience

I 1 Section 92(f) settlements

Section 92(f) has been in the Act since 1981, however the use of this settlement pathway has escalated significantly since 2007/08. The intention of the section is to allow common law claims to be settled prior to the matter going to trial and close the claim off to any further common law action.

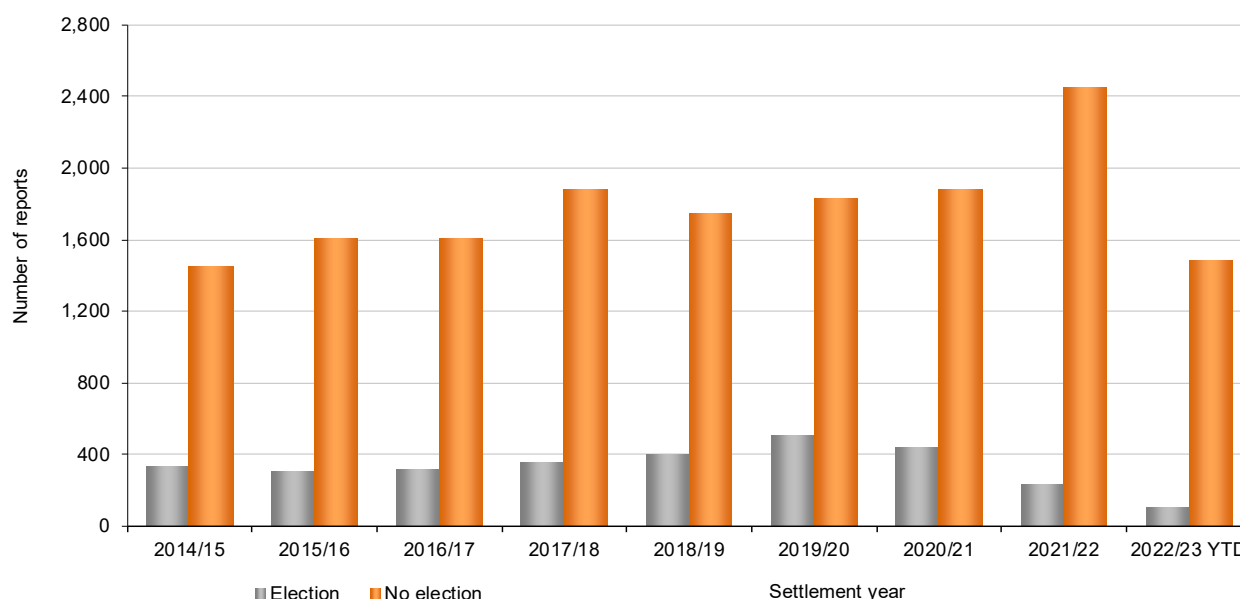
As the wording of the Act is quite broad, this section has been used for a number of purposes including:

- Redeeming claims before the six months of weekly benefits required for a redemption under the statutory system
- Industrial relations claims, and
- The original intention of this section of the Act.

WorkCover WA supplied us with 92(f) settlement data separately for claims with and without an election application for the most recent settlement year. Data relating to previous settlement years was provided for previous reviews. An analysis of this data is presented in the chart and commentary below.

In total, 2021/22 is significantly higher than all other prior years

Number of 92(f) settlement claims reported at 31 December 2022



The number of section 92(f) settlements has been generally increasing between 2014/15 and 2021/22. The number of section 92(f) settlements peaks at 2,684 in 2021/22 which is higher than 2,322 settlements in 2020/21. The increase in total 92(f) settlements for 2021/22 is driven by the increase in settlements without an election partially offset by the decrease in settlement with an election application. The total growth over 2014/15 to 2021/22 was 51%, or an equivalent annual rate of 6%. In the half year to December 2022, there has been 16% more 92(f) settlements compared to the half year to December 2021.

The proportion of 92(f) settlements made without an election application has varied between 78% and 91%. The number of 92(f) settlements without an election application increased from 1,612 in 2016/17 to 1,884 in 2017/18, which was the biggest driver behind the high total 92(f) settlements for 2017/18. In 2021/22, the number of 92(f) settlements without an election application is 2,451, an increase from the 1,884 for the 2020/21 year. Meanwhile settlements with an election application decreased from 438 to 233 between 2020/21 to 2021/22.

The average size of 92(f) settlement payments with election over 2014/15 to 2019/20 generally ranged between \$128,000 to \$150,000, except for the high in 2016/17, which was \$183,000. The 2016/17 average settlement was higher compared to all its surrounding years due to one very large 92(f) settlement in the December 2016 quarter. For 2020/21, the average claim size of 92(f) settlement payments with election increased significantly to \$192,500. For 2021/22, the average claim size of 92(f) settlement payments with election further increased to a peak of \$235,800.

The average increased further to \$370,700 in the half year to 31 December 2022, which was higher than the half year to 31 December 2021 of \$232,400 and 2021/22.

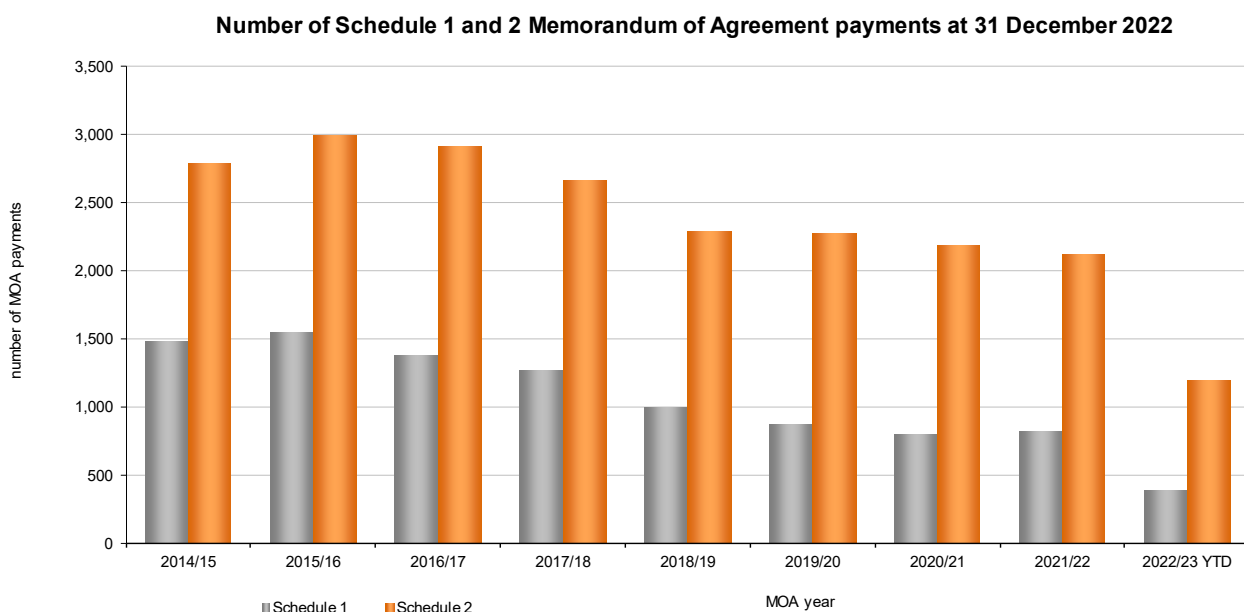
The average size of 92(f) settlement payments without election increased from \$50,400 for those lodged in 2014/15 to \$65,100 for those lodged in 2021/22, an average annual increase of 3.7%.

I 2 Redemptions and Schedule 2 payments

The change in section 92(f) settlements experience should be viewed together with the change in the number of Schedule 1 redemptions. There may be some transfer of costs between the settlement types.

The chart below shows that the recorded number of Memorandum of Agreement (MOA) Schedule 1 redemptions and Schedule 2 specific injury payments to 31 December 2022:

Schedule 1 settlements and schedule 2 reduced from 2015/16 to 2021/22



Over the period shown, Schedule 1 claims have decreased from 1,484 in 2014/15 to 816 in 2021/22, which is similar to 2020/21 but lower than all prior years.

The number of Schedule 2 specific injury payments increased from 2,789 in 2014/15 to 3,000 in 2015/16. This increase in the number of schedule 2 payments has been matched by an increase in the total amount of schedule 2 payments made. The number of Schedule 2 specific injury payments has declined over 2016/17 to 2021/22 to 2,121, the total amount of schedule 2 payments made dropped in line with the numbers.

The average size of Schedule 1 redemptions payments recorded has increased from \$36,300 for those lodged in 2014/15 to \$37,500 for those lodged in 2021/22. For the half year to 31 December 2022, the average claim size was \$34,350. Over the period since 2014/15 to 2021/21, the average annual increase in Schedule 1 average claim size is 0.4% per year, which is less than inflation. The average claim size for schedule 2 payments has increased from \$15,400 to \$17,100 for 2021/22, which is an average growth of 2.2% per year.

Appendix J Additional data analysis

J 1 Duration analysis

We reviewed the data provided on the number of claims separated by duration of less than 60 days and those with 60 days or more. The table below shows the initial estimate of the proportion of claims with more than 60 days timelost, and the most recent estimate as at June 2022 (which is based on data to December 2022). Similarly, the original estimates are as at 30 September following the end of the financial year.

	Financial reporting year						
	2016	2017	2018	2019	2020	2021	2022
Original estimate of claims with 60+ days timelost	5,607	5,423	5,455	5,789	5,760	6,646	6,604
Original 60+ % of Total	19%	21%	22%	23%	24%	27%	27%
Current estimate of claims with 60+ days timelost	4,556	4,415	4,597	4,777	4,968	5,825	6,500
Current 60+ % of total	16%	17%	18%	19%	21%	24%	27%

This table shows that:

- There has been an increasing trend in the proportion of claims initially reported with more than 60 days timelost since the 2016 financial year
- As a lodgement year matures the estimate of the proportion of claims with more than 60 days timelost reduces.

In the 2023/24 premium rates, we have not made an explicit additional allowance for an increasing trend in the percentage of claims with a duration of 60 or more days, as we are of the opinion that this is reflected in our valuation, particularly in the superimposed inflation component.

J 2 Age data

Our review of the distribution of claims by age shows:

Age	Distribution of number of claims by age												2022/23
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	YTD
<20	6.7%	6.4%	5.6%	5.0%	4.7%	4.1%	3.5%	3.5%	3.4%	3.1%	3.8%	4.4%	5.0%
20 to 24	12.3%	12.2%	12.4%	11.5%	10.9%	10.2%	9.7%	9.4%	9.4%	9.0%	8.9%	9.9%	9.8%
25 to 29	11.8%	12.4%	12.7%	12.9%	12.5%	12.0%	11.0%	11.0%	10.8%	10.5%	10.5%	10.6%	10.0%
30 to 34	10.0%	10.2%	10.5%	11.0%	11.0%	11.1%	11.1%	10.8%	10.9%	10.6%	10.2%	10.3%	10.4%
35 to 39	10.8%	9.9%	9.6%	9.6%	9.2%	9.6%	9.8%	9.5%	10.1%	9.8%	9.7%	10.0%	9.8%
40 to 44	11.0%	11.6%	11.3%	11.3%	10.9%	10.8%	10.7%	10.1%	9.7%	10.0%	10.0%	9.6%	10.0%
45 to 49	11.7%	11.0%	10.9%	11.1%	11.4%	11.5%	12.4%	12.5%	11.8%	12.0%	11.4%	10.6%	10.2%
50 to 54	10.8%	11.0%	10.9%	11.1%	11.6%	11.7%	11.8%	12.1%	12.1%	12.2%	12.0%	11.8%	11.7%
55 to 59	8.2%	8.5%	8.4%	8.8%	9.4%	9.7%	10.5%	11.1%	11.0%	11.4%	11.6%	10.8%	10.7%
60 to 64	5.2%	5.1%	5.6%	5.6%	6.0%	6.5%	6.9%	7.2%	7.6%	8.0%	8.2%	8.0%	8.6%
65+	1.5%	1.6%	1.9%	2.1%	2.3%	2.6%	2.8%	2.8%	3.2%	3.3%	3.7%	3.9%	3.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Since 2010/11, there has been an increasing trend in the proportion of claimants over 60, from 6.7% to 11.8% in 2021/22. The proportion in the half year to December 2021 is at 12.4%.

Given the general similarity in the percentage of claimants over 60 in 2010/11 to 2011/12, there is not conclusive evidence that the introduction of the 2011 Amendment Act has caused an increase in the claim frequency for older claimants, as it is more likely due to an aging workforce.

The average claim size by age is shown in the table below. This is based on actual payments and case estimates with no allowance for actuarial development. Therefore, the most recent accident years have a large amount of uncertainty regarding the ultimate value and are likely to develop further.

Average claim size based on payments plus case estimates, no allowance for actuarial development													2022/23
Age	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	YTD
<20	6,854	5,393	5,595	6,768	7,062	13,077	10,487	13,693	9,877	15,347	12,764	16,835	18,091
20 to 24	8,700	9,951	11,974	12,742	13,535	14,191	16,210	15,785	19,943	19,589	19,593	20,048	23,279
25 to 29	14,933	15,026	16,965	17,440	18,562	22,521	21,778	22,334	27,353	29,766	30,266	30,217	27,075
30 to 34	15,623	18,230	22,450	25,264	25,129	25,530	28,610	28,703	35,511	35,069	35,680	36,319	30,781
35 to 39	23,143	26,407	27,848	25,908	28,998	33,050	37,385	37,230	42,211	47,020	44,953	37,845	33,633
40 to 44	24,583	25,883	31,306	33,769	37,488	33,465	40,980	43,907	44,800	50,217	48,179	40,100	34,496
45 to 49	28,288	30,730	31,623	37,362	38,370	37,774	43,387	41,500	51,397	49,114	53,824	46,244	34,714
50 to 54	27,028	30,086	32,970	35,065	37,546	39,626	42,939	48,037	52,308	51,367	56,287	48,756	38,145
55 to 59	28,633	30,216	31,012	37,524	40,911	39,481	38,677	42,692	49,804	54,768	56,127	49,327	38,252
60 to 64	23,556	31,459	32,448	33,684	36,030	43,939	44,744	45,481	52,393	53,855	55,648	49,403	38,721
65+	22,269	27,473	26,548	28,993	31,550	36,535	34,712	39,455	45,770	49,819	58,894	51,944	42,609
Total	20,190	22,215	24,543	26,970	29,125	30,985	34,039	35,592	40,958	43,112	44,373	39,294	32,878

This shows that for accident years prior to the 2011 Amendment Act the average claim size for claimants over the age of 60, particularly those aged 65 and older were much lower than the average claim size for claimants aged between 45 and 59. For accident years since the 2011 Amendment Act was introduced, the average claim size for those claimants aged 60 to 64 is in line with claimants aged 45 to 59, though claimants over age 65 are generally lower.

J 3 COVID-19 claims

Last year, at the time of writing our *2022/23 recommended premium rates* report dated 1 April 2022, the impact of COVID-19 was highly uncertain, as the WA state border had only reopened on 3 March 2022. Thus, last year, we had modelled three different scenarios for COVID-19 and derived the results of these additional costs as a percentage increase on the 2020/21 earned premium, to give a proxy of COVID-19 impact on the 2022/23 recommended premium rates (see Appendix J3 in our report last year).

J 3.1 COVID-19 scenario modelling 2022/23 RPR report

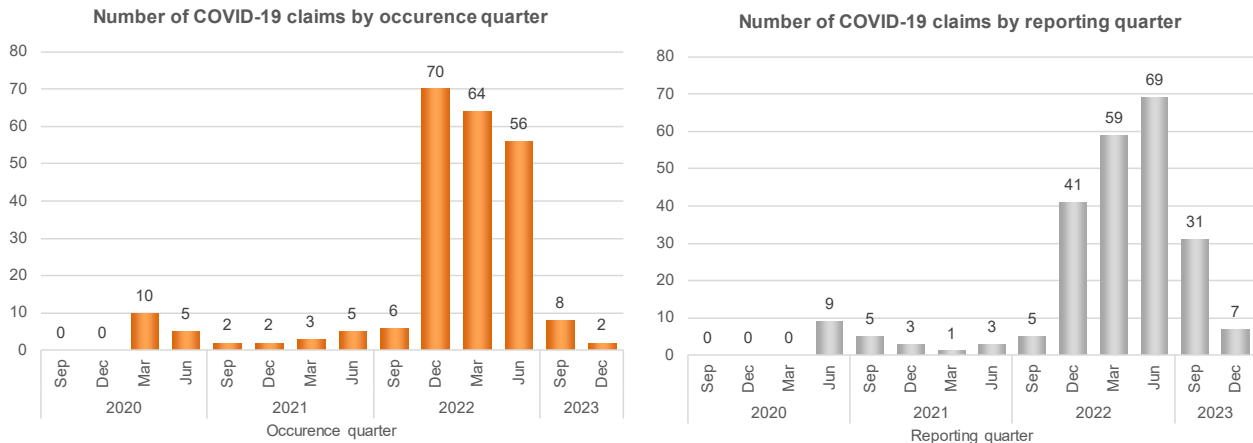
A summary of our expectation and scenario modelling results from last year are as follow:

- number of COVID-19 claims would peak in March or April 2022, driven by the Omicron outbreak at the time, acknowledging that new variants may emerged which could have different transmissibility and severity profiles
- a COVID-19 outbreak is likely to impact the Healthcare sector more than other divisions due to the higher potential exposure and presumptive legislation that applies to Healthcare workers in WA
- Three different scenarios where number of COVID-19 claims incurred were expected to range between 432 to 857 claims per annum, and 143 to 399 claims per annum if Healthcare claims are excluded
- Average claim sizes under the three different scenarios ranges between \$40,000 to \$41,500 if all claims are included, and \$33,500 to \$42,200 if Healthcare claims are excluded.

See Appendix J3 in our report last year for more details on the modelling.

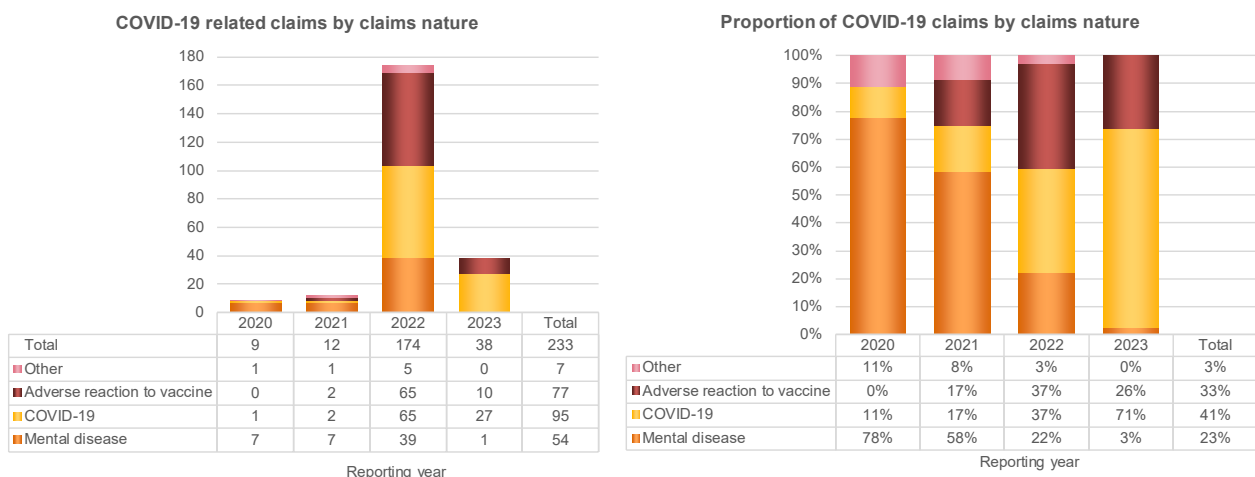
J 3.2 COVID-19 claim experience as at 31 December 2022

From the individual claims data (for returning entities including ICWA) up to 31 December 2022 received this year, there were 233 COVID-19 virus related claims that have been reported. This compares to 23 claims known as at 31 December 2021. The chart below shows the distribution of claims based on occurrence and reporting quarter respectively.



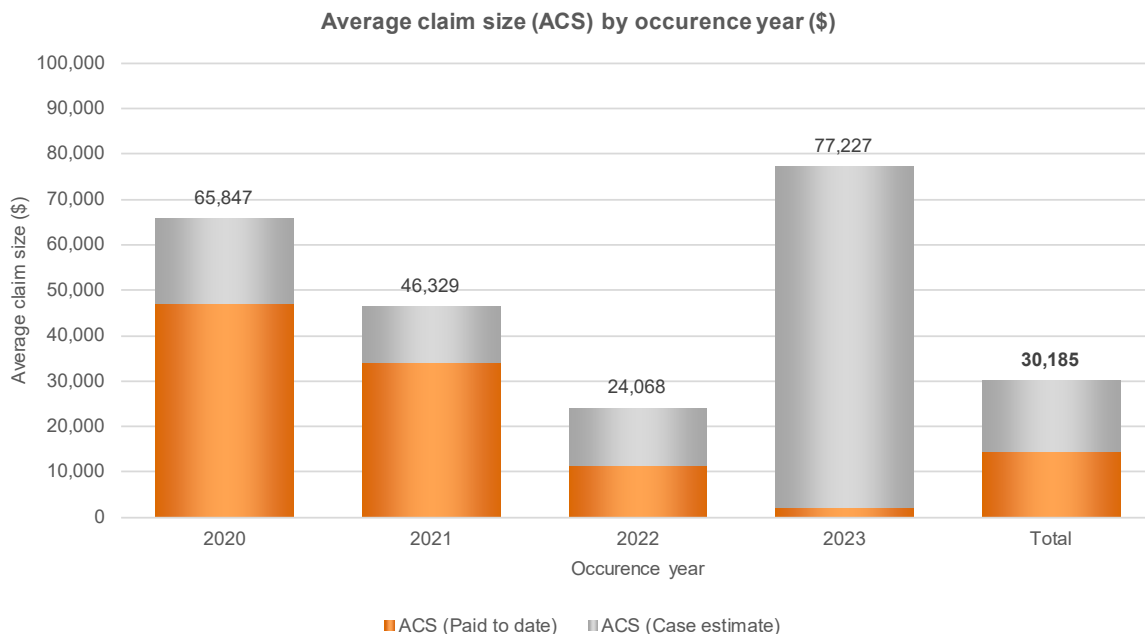
The majority of COVID-19 claims had occurred and reported over the quarters in the 2022 financial year. This is in line with our expectation, which is a surge of COVID-19 cases from the reopening of WA state border. However, from the above charts, we note that there were 38 claims reported over the half year to 31 December 2022 (over the 2023 financial year).

From the reported claims to 31 December 2022, we note that just under 60% of the 233 COVID-19 claims were related to other nature (i.e., claims related to mental stress due to circumstances relating to COVID-19 or due to adverse reaction to vaccine and other exposure). This compares to 23 claims known as at 31 December 2021 with 15 claims related to mental stress due to circumstances relating to COVID-19. The charts below show the number of claims and its relative proportion by claims nature.

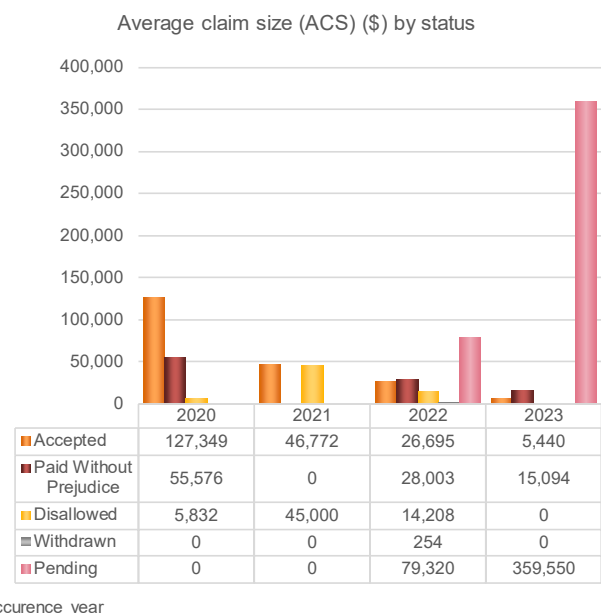
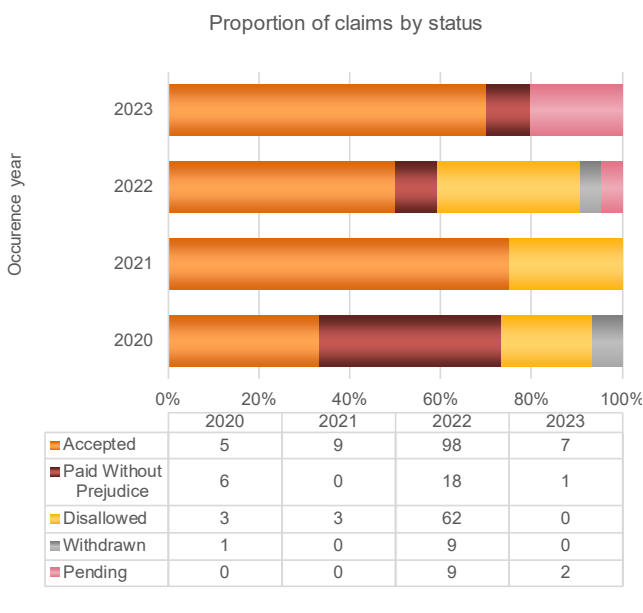


Out of 233 claims reported, only 95 (41%) claims relate to direct actual infection of the Novel coronavirus (COVID-19). In addition, overall, the number of claims incurred is significantly fewer compared to our projected scenarios in last year's report, with the lowest scenario estimating at least 400 claims.

The chart below shows the average claim size by occurrence (accident) years.



We note that the year-on-year average claim size (ACS) based on the claims reported incurred cost to 31 December 2022 are volatile, ranging from a low of \$24,000 in 2022, to the high 2023 at over \$77,000. The overall reported average claims cost as at 31 December 2022 is around \$30,000. This is lower than the average claim size assumed in our projected scenarios last year that ranges between \$40,000 to \$42,000 but not inconsistent if withdrawn and disallowed claims are excluded from the average (see graphs below for detail).



The above chart on the left hand side shows the number of COVID-19 claims by claims status. For 2020 to 2022, there are between 25% to 35% of claims with a disallowed or withdrawn status. This is an expected behavioural trend that arises as claimants, insurers and lawyers work through criteria to claim workers

compensation due to the novel virus, COVID-19. We also note that 2022 and 2023 still have a small proportion of pending claims.

On the right hand side, the chart illustrates the average claim size (ACS) for COVID-19 claims by status. Albeit experience has been volatile, due to the small number of claims in each status group, we note the following:

- Both accepted and paid without prejudice claims have relatively similar average claims size'
- Disallowed ACS claims is lower compared to accepted claims in general. We note that for disallowed claims, the average claims size considering only payment to date is significantly smaller than accepted claims. The higher ACS shown in the chart above includes a case estimates component which the insurers have left against the claim until sufficient time has passed to ensure a dispute is not lodged before closing the claim
- Withdrawn claims only have small costs, which likely related to initial investigation costs
- Pending claims have the highest estimated average claim size, based on insurers reported incurred cost as at 31 December 2022. This is not unreasonable as these claims could be more complex and severe. Similarly, the main component of cost is the case estimates set aside for these claims. Given the nature of claims in this status group and the possibility for claims to become disallowed claims, the estimated cost for this group will be very volatile at any given time.

Appendix K Glossary

AASB

Australian Accounting Standards Board

ABS

Australian Bureau of Statistics

Accident year

The financial year ending 30 June, in which the accident event leading to a claim occurs, irrespective of when the claim is reported, paid and finalised.

APRA

Australian Prudential Regulation Authority

Burner policies

Burner policies or adjustable premium policies are a form of risk rated insurance, generally issued to large employers. The effect is ultimately that an employer pays the claims cost plus a margin for expenses and other loadings subject to a stated minimum and maximum premium. The initial burner premium is known as the deposit premium and the insurer will request a top-up premium once claim costs exceed a stated percentage of the deposit premium. When the burner is finalised or closed (usually after 36 months or longer) the final balance is either paid to the employer or insurer depending on the developed cost of claims.

Central estimate

Unbiased actuarial estimate, which has 50% probability of being sufficient. It is the mean of the range of possible outcomes.

Combined loading factor

The combined loading factor allows for expenses and contingency margin. It is equal to one divided by the loss ratio.

Conventional policies

Conventional policies pay premiums based on declared wages.

Developed wages

Developed wages are reported wages multiplied by the wage development factor (i.e. allowing for the initial underestimation of wages).

Development year

The number of completed years since the end of the accident year. Development year zero refers to the financial year ending 30 June in which the accident event occurs. Development year is also abbreviated to DY in this report.

Gross premium

The gross premium is an estimate of the total cost of a policy, that is the claims cost and allowance for expenses and margins.

Gross Premium = Risk Premium + loadings for expenses, margins etc.
= Risk Premium / [(1 - expense loading % - contingency margin %) x interest earned factor)

Inflated and discounted values

The estimates in current values are inflated to the dollar values in the estimated future year of payment. These values are discounted to 30 June 2022 values to allow for future investment income that will be earned until the claim is paid. The inflation and discount rates are outlined in Appendix D1.

Premium rating returning entities

Applicable approved private insurers and the Insurance Commission of Western Australia (ICWA)

Risk margin

The margin added to the central estimate to increase its level of adequacy to above 50%.

Risk premium

The risk premium is an estimate of the pure risk cost of claims and does not include allowance for expenses or margins.

Risk Premium = estimated incurred cost of the risk covered i.e. of the claims with
dates of occurrence in the risk/cover period
= number of claims x average claim size

Superimposed inflation (SII)

Superimposed inflation is claims inflation over and above wage inflation.

Wage development factor

The wage development factor is applied to reported wages to increase them to ultimate (or developed) wages.

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