

Actuarial Committee

Meeting Agenda

Date	Time	Location	Staff Contact
December 5, 2023	9:30 AM	WCIRB Office / Microsoft Teams Webinar	Sean Cooper
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To Members of the Actuarial Committee, WCIRB Members and All Interested Parties:

This meeting is Open to the Public.

Please use this [link](#) to register for the meeting webinar. After registering, you will receive a confirmation email containing information about the meeting.

I. Approval of Minutes

Meeting held on September 12, 2023

II. Working Group Meeting Summaries

Claims Working Group Meeting held September 7, 2023

Medical Analytics Working Group Meeting held November 3, 2023

Actuarial Research Working Group Meeting held November 9, 2023

III. Unfinished Business

- A. AC02-03-03: Experience of Large Deductible Policies
- B. AC22-09-03: Pandemic Impact on Classification Relativities
- C. AC22-12-05: Study of Paid and Incurred Loss Development
- D. AC22-12-06: Retrospective Rating Plan Updates
- E. AC22-12-07: Long COVID Study

IV. New Business

- A. AC23-12-01: 9/30/2023 Experience Review
- B. AC23-12-02: Classification Ratemaking Loss Limitations
- C. AC23-12-03: Employee Tenure Study

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- D. AC23-12-04: Workplace Violence Study
- E. AC23-12-05: Potential 2024 Actuarial and Research Projects
- F. AC23-12-06: 2024 Schedule of Meetings

V. Matters Arising at Time of Meeting

VI. Next Meeting Date: TBD

VII. Adjournment

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Claims Working Group

Meeting Summary

To: Participants of the Claims Working Group
Date: September 12, 2023

RE: Summary of September 7, 2023 Meeting

Discussion Topics

At the meeting, the following topics were discussed.

A. Third Quarter 2023 Review of Diagnostics

Staff noted the historically low share of permanent indemnity claims and suggested the mix shift towards more temporary claims is a significant deflating factor in recent indemnity and medical severity trends.

The ratio of incremental closed indemnity claims to prior open indemnity claims have generally increased over the most recent calendar year. It is higher than the pre-pandemic level in the early development period but remains below the pre-pandemic level beyond the 18-month development period. A Working Group member shared an observation regarding qualified medical evaluation (QME) with duplicate cumulative trauma applications covering the same period but differing by one day, which resulted in involvement with different panels.

Staff presented the average paid medical severities on open claims over the most recent calendar year, showing modest increases. Several Working Group members noted a possible contributing factor being the high inflation rate in recent years, which provides incentives for insurers to settle and pay out medical costs.

B. Review of COVID-19 Diagnostics

Staff presented the diagnostic exhibits and discussed key observations and trends with the Working Group. Staff highlighted that reported COVID-19 claims stabilized at around 2% in the past 18 months since the Omicron surge in December 2021 and January 2022. Staff presented estimates of incurred severities for COVID-19 and non-COVID-19 indemnity claims for accident years (AYs) 2020, 2021 and 2022, noting that COVID-19 severities in 2022 were significantly lower than for the prior two years both in dollar value and relative to the severity of non-COVID-19 claims. Staff highlighted that the share of COVID-19 claims with indemnity loss but no medical loss is higher for AY 2022 than for AY 2021. Staff showed the severity distributions of incurred losses for COVID-19 and non-COVID claims and noted that the distributions of COVID-19 claims had remained stable at later report levels for AYs 2020 and 2021, and that the distribution of COVID-19 claims at first report for AY 2022 is less severe than for prior AYs.

Meeting Summary

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Staff shared that COVID-19 claim diagnostics would be integrated into the standard claims diagnostics package going forward, rather than presented as a standalone item.

C. Summary of Current and Pending Legislative, Regulatory and Judicial Actions as of August 29, 2023

The Working Group reviewed the legislative, regulatory and judicial actions provided in the meeting materials.

With respect to the Division of Workers' Compensation's (DWC) and its regulations, a Working Group member shared that the DWC is in the process of conducting stakeholder and community outreach regarding updates to its audit regulations.

With respect to *Earley v. WCAB* (August 1, 2023) Cal.App.5th 1, a Working Group member noted that, while the five Petitioners' cases were resolved before *Earley* was decided and the Workers' Compensation Appeals Board (WCAB) has been abiding by the Court's order, the Court of Appeal did not address the backlog of 543 workers' compensation cases where the WCAB had issued a grant-for-study order between October 1, 2018 and October 1, 2021. The *Earley* defendants have until September 13, 2023 to file a petition for a writ of review with the California Supreme Court and staff will continue monitoring for updates.

Medical Analytics Working Group

Meeting Summary

To: Participants of the Medical Analytics Working Group
Date: November 21, 2023

RE: Summary of November 3, 2023 Meeting

Discussion Topics

At the meeting, the following topics were discussed.

1. Workplace Violence Study

Staff summarized the preliminary findings of the ongoing study on workplace violence (WPV) injuries in the California workers' compensation system. Below is feedback from the Working Group, along with context:

- Regarding the definition of claims involving WPV injuries, a Working Group member asked about the difference between WPV claims that involved treatments for post-traumatic stress disorder (PTSD) and non-WPV claims with PTSD treatments. Staff clarified that the PTSD treatments provided on the WPV claims were likely related to a workplace violence incident based on our definition, while non-WPV claims could be filed due to stress related to a traumatic work-related injury, such as a car crash.
- Staff noted that healthcare, retail, hospitality, and administrative industries have a higher share of WPV claims than other industries and may have different risk factors. A Working Group member suggested comparing the severity of WPV claims by industry and exploring age distribution particularly in the retail industry because younger age was highlighted by staff as being correlated with a higher risk of WPV injury. The Working Group also stressed the importance of understanding the underlying reasons for WPV injuries in these leading industries.
- Regarding WPV claims involving psychiatric conditions, staff noted that over 80% involved medical treatment for "reaction to severe stress," mostly post-traumatic stress disorder (PTSD). A Working Group member suggested clarifying how PTSD treatments were identified and differentiating PTSD from reaction to severe stress as PTSD is a specific medical diagnosis. Staff responded that treatments for PTSD were identified based on the medical diagnosis code in the medical transaction data and will update the term to PTSD on the chart.
- A Work Group member asked if there is any analysis on the patterns of treatment and costs of PTSD claims. Staff responded that the team plans to categorize WPV claims into three claim groups: physical injuries only, both psychical injuries and psychiatric conditions, and psychiatric conditions only and review the differences in treatment and cost patterns.
- A Working Group member suggested further examining the leading types of treatments during hospitalization as well as the share of WPV claims involving permanent disability by accident year.

Meeting Summary

Date: November 21, 2023

- A Working Group member asked if the WCIRB datasets have any information on race or ethnicity. Staff responded that the WCIRB datasets do not have any information on race or ethnicity of injured workers. It was suggested that staff explore the wage differential between WPV claims and non-WPV claims.

2. Long COVID Study – 2024 Update

Staff summarized preliminary findings of the updated analysis on long COVID, including estimates of the prevalence of long COVID and the impact of long COVID on permanent disability. The Working Group suggested looking at permanent disability outcomes by clinical severity and staff agreed to explore this area further. The Working Group also raised concerns that the acute care period for mild claims defined in the study may be too short. Staff clarified that the timeframe is consistent with CDC's definition of long COVID. The Working Group did not object to continuing with the current definition and shared that using a consistent definition in different iterations of the long COVID study is helpful to review the trend of long COVID prevalence in the workers' compensation system.

3. Potential 2024 Medical Analytics Research Projects

Staff discussed potential research studies contemplated for 2024, including:

- Updating the retrospective evaluation of the cost impacts of the new Medical-Legal fee schedule to support the September 1, 2024 pure premium rate filing.
- Publishing the 2024 update to the long COVID study.
- Publishing the Workplace Violence Study.
- Publishing the Employee Tenure Study.
- Continuing exploring early predictors for high-development claims using machine learning models. Staff noted that the 2024 study will be a continuation of the 2023 research and development study and will focus on claims that were small initially and grew substantially in later years.

A Working Group member suggested reviewing the impacts of multi-disciplinary pain management on worker outcomes. Staff will explore the feasibility of such a study in 2025.

Actuarial Research Working Group

Meeting Summary

To: Participants of the Actuarial Research Working Group
Date: November 27, 2023

RE: Summary of November 9, 2023 Meeting

Discussion Topics

At the meeting, the following topics were discussed.

A. Retrospective Rating Plan Updates

The Working Group was reminded that, as part of a multi-year comprehensive review of the California Retrospective Rating Plan (Plan), the WCIRB has finalized the simulation methodology and database. The last decision to be finalized before the Plan can be updated in its entirety is to update the classification Retro Hazard Groups (RHGs).

Staff reminded the Group that the RHGs are used for purposes beyond their use in WCIRB Advisory Plans, including classification ratemaking and experience rating.

Staff presented an update of the prior RHG selection methodology, which serves as the primary basis for this update. It was noted that the selection is based on cluster analysis, with simulated classification loss elimination ratios (LERs) at \$500,000 as the variable to be clustered. Staff noted that in the classification LER calculation, all simulated classification data below \$500,000 was used. Simulated classification frequency excess \$500,000 was used as well, with simulated severities replaced with the excess severity of the class's current RHG. This classification LER was then credibility weighted, using the LER of the class's current RHG as the complement of credibility.

Staff noted that the credibility used in the classification LER calculation relies on the idea of a "reasonable" number of simulated excess claims. Staff noted that first the classification size was determined by claim volume, such that all classifications with at least that claim volume had an excess claim simulation in all 100 simulations. Simulated excess claim count shares from these classifications served as the bounds for what constituted reasonable. Staff noted that each class's share of simulations with a reasonable share served as an empirical credibility value. These values were then smoothed using logistic regression to determine the credibility used in the classification LER calculation. A Group member asked what credibility a classification that never experienced an excess simulation would have. Staff noted that this classification would have 0% empirical, i.e., pre-smoothed, credibility and its selected credibility would be based on the smoothed credibility for its claim volume.

Staff explained the clustering algorithms that were tested and how they differed. Staff then presented the criteria used to choose an algorithm and noted that the Ward's linkage algorithm was selected. Staff further noted that no additional changes were made to classification RHGs past this point in the prior update.

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Staff noted a few potential issues that were under further investigation including the lowest credibility classifications essentially being bound to their current RHG, volatile experience underlying the indications for small classifications, and large indicated RHG changes. Staff explained an attempt to use cluster analysis iteratively so that small classifications would have further opportunities to change hazard groups once the data from the other classifications had been regrouped. Staff noted that since this approach effectively removed the impact of credibility weighting for most classifications, which resulted in many more extreme changes in RHG and is the reason that staff did not select this approach.

Staff presented a summary of its investigation into classifications with an indicated RHG change of 3 groups. Staff noted that in all 15 such cases, the large change was driven by the complete absence of excess claims in either the prior or current starting database that underlies the claim simulations. To vet the reasonableness of large indicated changes, staff presented a potential alternative RHG selection methodology that relies on USR data over a longer time period. Staff used USR data at a classification level for consecutive pro-forma starting databases consisting of USR data at report levels 5, 4, and 3. Staff noted that the most recent of these is the starting database used in the current update. Staff also noted that a second grouping of data using USR data from three policy years all at report level 5 was compiled, however this produced nearly identical results and was not used.

Staff noted that many severity and excess share metrics were considered for the USR-based approach with a focus on using measures that did not to rely on credibility-weighting and were less sensitive to thin data volume. Staff noted the measures selected were claim count excess shares at \$250,000 and \$500,000 along with the 95th and 99th percentiles of incurred loss. Staff explained that for each year and each measure, a classification could be assigned to the RHG with results closest to the class. Staff noted that the average RHG indication from these four measures over the most recent five years served as a potential alternative RHG.

Staff noted that the indicated RHG from the cluster analysis would provide the most differentiation in the simulation database and the intent of the alternative was to override the cluster indication only when long-term data showed it was inappropriate. Staff noted that a RHG move of one was considered normal movement for a classification and also that a move of one might happen when a class's experience was stable, but the RHG centers had changed from the prior update. Staff noted that the alternative was considered when the indicated RHG move using the cluster analysis was 2 or more. Finally, staff noted that the alternative was only used when it served to temper the change in a class's RHG.

Staff noted that LERs at the RHG level had changed significantly since the prior update and that there was minimal difference between LERs using the indicated cluster RHGs and the final proposed RHGs.

Finally, staff noted that WCIRB classification experts were reviewing the proposed RHG assignments and that based on their findings staff would conduct a secondary review of impacted classifications. A Group member noted that there were dual wage classifications where the high wage classification had a much more severe RHG assignment than the corresponding low wage class. Staff noted that a secondary review would be performed for these classifications.

The Group was generally supportive of staff's recommendations.

B. Classification Ratemaking – Loss Limitations

The Working Group was reminded that, as part of a multi-year comprehensive review of the classification ratemaking process, the WCIRB is exploring ways to improve the performance of the loss limitation methodology such as applying lower loss limitations for classifications with a smaller volume of experience.

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Staff implemented changes into the existing classification relativity process to incorporate varying loss limitations based on the size of the classification. Staff tested a loss limitation methodology with a threshold of \$10 million where losses for smaller classifications are limited to \$100,000 and losses for larger classifications are limited to \$500,000. Staff calculated classification relativities retrospectively using the updated classification relativity process with the most current methodology for the two loss limitation alternatives, where loss limitations vary based on the size of the classification and where all losses are limited to \$500,000. Staff reviewed the coefficient of variance (CV) and root mean squared errors (MSE) for classification relativities calculated using each method and the actual classification relativity based on developed USR data. Staff observed that:

- The CVs for the classification relativities are lower when losses are limited to \$100,000 for the smaller classifications than when all losses are limited to \$500,000. The largest improvement occurs for the smallest classifications and the overall improvement is not significant.
- The MSEs are slightly better when losses are limited to \$100,000 for the smaller classifications than when all losses are limited to \$500,000. However, this pattern is not consistent over time and does not hold for the smallest classifications.
- The relativities calculated with losses limited to \$100,000 for the smaller classifications tended to be lower than those calculated with all losses limited to \$500,000, implying an inconsistency between the empirical loss in that layer and the LERs for that layer.

Staff investigated the potential inconsistency in losses between \$100,000 and \$500,000 by reviewing the proposed change in the distribution of RHG assignments and in LERs under the proposed and current retrospective rating plans. Under the proposed plan, Staff observed a distribution shift of the RHG assignment to less severe groups and significant changes in the LERs throughout the distribution. Staff shared concerns about introducing new methods that rely more on the accuracy of RHG assignment and LERs. A Working Group member was concerned that years with retro hazard group changes could introduce additional volatility into the classification ratemaking process. Staff noted that the changes in LERs across RHGs is less significant at \$100,000 than at \$500,000 which could mitigate that impact for smaller classifications. A Working Group member asked if the CVs and MSEs should be recalculated with the proposed LERs. Staff noted that the methods were compared using only data available at the time to simulate how they would have worked.

Staff recommended to make no changes to the loss limitation methodology at this time, to continue the multi-year comprehensive review of the classification ratemaking process with a review of the credibility methodology, and to consider revisiting the loss limitation methodology with an updated credibility method at the end of that study. The Working Group supported this recommendation.

C. Review of Expected Loss Rate Methodology

Staff presented an initial analysis of the expected loss rate (ELR) projection methodology. The initial analysis included a review of the appropriate groupings to use to project the factors to adjust the indicated limited loss to payroll ratios from the classification relativities analysis to the ELR level. The current groupings of North American Industrial Classification System (NAICS) sectors as well as groupings based on RHG, loss development group (LDG), and statistical clustering of classifications are being reviewed.

Staff noted the data used in the retrospective study, including its limitations and assumptions. They discussed the clustering method employed in this study, utilizing both the Elbow and Silhouette methods to guide the determination of the number of clusters. Staff presented clustering results based on the Elbow method's recommendation of four and five groups.

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The preliminary actual vs. expected comparison across various groupings indicated smaller root mean square error (rMSE) and coefficient of variation (CV) when using the NAICS grouping. Staff also displayed the actual vs. expected comparison for a number of selected NAICS groups. Preliminary results revealed variations in rMSE across different grouping methods, and the NAICS grouping did not consistently maintain an advantage across all sectors.

The Working Group reviewed the clustering methodology and some of the initial results. The Working Group supported staff's overall direction with the study.

D. Employee Tenure Study

Staff summarized the methodology and preliminary findings of the ongoing study on employee tenure in the California workers' compensation system. Below is feedback from the Working Group, along with context:

- For the industry groups, the Working Group asked whether high-tech manufacturing is differentiated from other manufacturing in the physical labor industry group. Staff clarified that high-tech manufacturing is not differentiated from other manufacturing operations and that both are included in the physical labor industry group. The Working Group also asked which industry group includes the trucking and package delivery industry. Staff responded that trucking and package delivery industry is in the transportation and warehousing industry, which is part of the service providing industry group.
- Staff summarized the methodology for calculating claim frequency by tenure group, which estimates the claim count by tenure group relative to the estimated California workers in the corresponding tenure group. Claim counts by tenure group are calculated by applying the tenure distribution estimated using the WCIRB indemnity transaction data to the claim count information in the WCIRB aggregate financial data. Similarly, the number of California workers by tenure group is calculated by applying the tenure distribution estimated using the Current Population Survey supplement data on employee tenure to the American Community Survey data on California workers. The Working Group supported the methodology.
- To estimate changes in indemnity claim frequency by tenure group over time, the Working Group suggested exploring changes from the pre-pandemic period. Staff agreed and shared that the WCIRB is working with the Division of Workers' Compensation to obtain claims data on tenure during the pre-pandemic period and will analyze the pre-pandemic patterns on tenure as well as the frequency changes from the pre-pandemic period. A Working Group member suggested exploring drivers for the increased frequency by tenure group in the health and education industry group, specifically if home health services have any significant impact.
- A Working Group member suggested that age might be a factor for the pattern that workers with longer tenure are more likely to have a higher share of open indemnity claims. Staff agreed to explore the age distribution for open indemnity claims.
- Staff noted that the average total incurred loss increases as tenure increases, and a Working Group member was interested in the split between indemnity and medical incurred as well as the wage differential. Staff agreed to add those to the analysis.

Item AC02-03-03 Experience of Large Deductible Policies

Beginning with the year 2000 evaluation, the WCIRB has issued annual data calls for calendar year premium and pure premium data and December 31 evaluations of accident year loss, allocated loss adjustment expense and claim count experience for large deductible policies. Annually, the Committee reviews the summarized large deductible experience. In these annual reviews, the Committee generally found (a) the percentage of business written on a large deductible basis had been relatively stable, (b) claim reporting and development patterns for experience written on a large deductible basis were similar to those of non-large deductible policies and (c) the impact of excluding the large deductible experience from the rate level calculation has been relatively modest. As a result, the Committee has generally agreed that no adjustment to statewide experience to address large deductible policies is necessary. The Committee also agreed that annual reviews of updated large deductible experience should continue and the results monitored and presented to the Committee.

Included as Exhibits 1 through 7 is the summary of December 31, 2022 large deductible experience. For comparison purposes, Exhibits 1 through 7 also include analogous information summarizing the non-large deductible experience of insurers writing a large volume of large deductible experience, the experience of all non-large deductible policies and the total statewide experience. Note that COVID-19 claims are included in the information shown in Exhibits 1 through 7 for accident years 2020 and forward.

Distribution of Calendar Year Premium and Losses

Calendar	Written Premium at Insurer Rate Level				Earned Premium at Insurer Rate Level			
	LD Insurers		Other		LD Insurers		Other	
	Large Ded. ^[1]	Non-LD	Non-LD	All	Large Ded. ^[1]	Non-LD	Non-LD	All
Year								
2009	29.8%	34.2%	36.0%	100.0%	32.0%	32.9%	35.1%	100.0%
2010	33.2%	32.5%	34.4%	100.0%	33.7%	32.1%	34.2%	100.0%
2011	33.6%	35.3%	31.2%	100.0%	33.4%	35.6%	31.0%	100.0%
2012	35.1%	34.9%	30.0%	100.0%	35.0%	35.6%	29.4%	100.0%
2013	37.2%	29.4%	33.4%	100.0%	36.8%	30.9%	32.3%	100.0%
2014	36.9%	27.0%	36.2%	100.0%	36.3%	27.0%	36.7%	100.0%
2015	34.5%	27.4%	38.2%	100.0%	34.3%	27.7%	38.0%	100.0%
2016	33.0%	32.5%	34.6%	100.0%	34.0%	32.5%	33.5%	100.0%
2017	33.4%	35.3%	31.3%	100.0%	33.3%	35.6%	31.2%	100.0%
2018	33.3%	35.9%	30.8%	100.0%	33.6%	35.9%	30.6%	100.0%
2019	34.2%	35.7%	30.1%	100.0%	34.7%	35.3%	30.0%	100.0%
2020	32.7%	36.0%	31.4%	100.0%	32.9%	36.4%	30.7%	100.0%
2021	30.5%	35.6%	33.9%	100.0%	30.5%	36.0%	33.5%	100.0%
2022	32.5%	30.5%	37.0%	100.0%	32.1%	30.9%	37.0%	100.0%

Calendar	Written Premium at Pure Premium Rate Level				Earned Premium at Pure Premium Rate Level			
	LD Insurers		Other		LD Insurers		Other	
	Large Ded. ^[1]	Non-LD	Non-LD	All	Large Ded. ^[1]	Non-LD	Non-LD	All
Year								
2009	32.5%	35.1%	32.4%	100.0%	35.6%	33.0%	31.4%	100.0%
2010	37.6%	33.4%	29.0%	100.0%	37.8%	33.2%	29.1%	100.0%
2011	37.7%	36.1%	26.2%	100.0%	37.7%	36.4%	25.9%	100.0%
2012	40.7%	33.6%	25.7%	100.0%	40.3%	34.7%	25.1%	100.0%
2013	42.1%	28.0%	29.9%	100.0%	41.7%	29.7%	28.7%	100.0%
2014	41.5%	26.2%	32.3%	100.0%	41.1%	26.0%	32.9%	100.0%
2015	38.8%	27.1%	34.1%	100.0%	39.1%	27.2%	33.7%	100.0%
2016	39.0%	31.2%	29.8%	100.0%	39.6%	31.3%	29.1%	100.0%
2017	39.4%	33.5%	27.1%	100.0%	39.2%	33.8%	27.1%	100.0%
2018	40.2%	33.2%	26.5%	100.0%	40.0%	33.6%	26.4%	100.0%
2019	42.5%	32.0%	25.5%	100.0%	42.6%	32.0%	25.5%	100.0%
2020	42.2%	31.4%	26.4%	100.0%	42.5%	31.8%	25.7%	100.0%
2021	40.1%	31.1%	28.9%	100.0%	40.1%	31.6%	28.4%	100.0%
2022	42.5%	26.2%	31.4%	100.0%	42.2%	26.3%	31.5%	100.0%

Calendar	Paid Losses				Incurred Losses			
	LD Insurers		Other		LD Insurers		Other	
	Large Ded. ^[1]	Non-LD	Non-LD	All	Large Ded. ^[1]	Non-LD	Non-LD	All
Year								
2009	32.8%	27.6%	39.6%	100.0%	25.8%	41.8%	32.4%	100.0%
2010	33.5%	26.3%	40.2%	100.0%	36.1%	32.8%	31.1%	100.0%
2011	32.8%	30.6%	36.7%	100.0%	38.5%	38.8%	22.6%	100.0%
2012	32.6%	32.5%	34.9%	100.0%	35.3%	38.6%	26.1%	100.0%
2013	33.7%	30.6%	35.7%	100.0%	38.0%	33.3%	28.7%	100.0%
2014	35.8%	30.6%	33.7%	100.0%	38.9%	28.0%	33.0%	100.0%
2015	36.3%	30.4%	33.3%	100.0%	41.8%	24.7%	33.5%	100.0%
2016	37.3%	31.5%	31.2%	100.0%	40.6%	29.3%	30.1%	100.0%
2017	37.8%	31.4%	30.8%	100.0%	42.7%	31.8%	25.5%	100.0%
2018	37.4%	30.7%	31.9%	100.0%	38.5%	30.5%	31.0%	100.0%
2019	37.9%	29.9%	32.3%	100.0%	41.2%	35.1%	23.8%	100.0%
2020	37.4%	29.4%	33.2%	100.0%	43.5%	31.3%	25.2%	100.0%
2021	38.9%	28.9%	32.2%	100.0%	40.3%	28.6%	31.1%	100.0%
2022	39.7%	25.7%	34.6%	100.0%	43.2%	23.4%	33.4%	100.0%

Notes: ^[1] Large deductible policies are defined as policies with a deductible amount per claim or accident of at least \$100,000.

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims and COVID-19 premium charges.

Policy Year Ratios of Premiums at Insurer Rate Level to Pure Premium Level

Policy Year	Written Premium				Earned Premium			
	LD Insurers		Other		LD Insurers		Other	
	<u>Large Ded.^[1]</u>	<u>Non-LD</u>	<u>Non-LD</u>	<u>All</u>	<u>Large Ded.^[1]</u>	<u>Non-LD</u>	<u>Non-LD</u>	<u>All</u>
2009	1.246	1.312	1.575	1.363	1.244	1.322	1.580	1.365
2010	1.218	1.349	1.680	1.381	1.218	1.352	1.683	1.382
2011	1.272	1.414	1.735	1.432	1.274	1.419	1.735	1.432
2012	0.961	1.156	1.271	1.103	0.962	1.156	1.272	1.103
2013	1.015	1.212	1.283	1.150	1.016	1.212	1.285	1.151
2014	0.949	1.141	1.254	1.097	0.949	1.143	1.253	1.098
2015	0.987	1.139	1.282	1.122	0.986	1.142	1.284	1.122
2016	1.000	1.177	1.367	1.159	1.000	1.184	1.363	1.159
2017	1.008	1.226	1.408	1.184	1.008	1.228	1.408	1.184
2018	0.982	1.284	1.438	1.197	0.984	1.279	1.439	1.196
2019	0.961	1.357	1.495	1.221	0.955	1.356	1.494	1.220
2020	0.956	1.374	1.500	1.226	0.952	1.377	1.500	1.227
2021	0.927	1.384	1.502	1.224	0.922	1.379	1.506	1.221
2022	0.920	1.285	1.382	1.160	0.910	1.308	1.442	1.170

Notes: ^[1] Large deductible policies are defined as policies with a deductible amount per claim or accident of at least \$100,000.

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 premium charges.

Calendar/Accident Year Loss Ratios as of December 31, 2022

Insurers with Large Deductible Experience ^[1]:

CY/AY	Large Deductible Experience					Non-Large Deductible Experience				
	Indemnity		Medical ^[2]		Total Incurred ^[3]	Indemnity		Medical ^[2]		Total Incurred ^[3]
	Paid	Incurred	Paid	Incurred		Paid	Incurred	Paid	Incurred	
2009	0.356	0.366	0.494	0.518	0.913	0.295	0.305	0.449	0.470	0.809
2010	0.329	0.337	0.454	0.475	0.845	0.305	0.316	0.475	0.495	0.901
2011	0.299	0.310	0.385	0.411	0.767	0.277	0.288	0.388	0.410	0.746
2012	0.277	0.288	0.323	0.343	0.698	0.231	0.241	0.313	0.330	0.617
2013	0.223	0.232	0.246	0.265	0.620	0.190	0.198	0.241	0.256	0.505
2014	0.217	0.228	0.222	0.242	0.624	0.172	0.181	0.205	0.220	0.451
2015	0.217	0.230	0.211	0.234	0.644	0.160	0.171	0.190	0.206	0.436
2016	0.202	0.217	0.197	0.221	0.609	0.153	0.165	0.172	0.192	0.424
2017	0.208	0.228	0.200	0.232	0.628	0.146	0.165	0.169	0.198	0.439
2018	0.208	0.238	0.207	0.250	0.674	0.145	0.171	0.170	0.204	0.593
2019	0.214	0.257	0.209	0.265	0.657	0.152	0.192	0.165	0.215	0.561
2020	0.202	0.267	0.191	0.273	0.705	0.130	0.185	0.142	0.206	0.588
2021	0.162	0.248	0.167	0.289	0.810	0.092	0.157	0.106	0.186	0.593
2022	0.051	0.106	0.058	0.157	0.735	0.031	0.082	0.039	0.121	0.539

All Insurers with WC Experience:

CY/AY	All California WC Experience					All Non-Large Deductible Experience				
	Indemnity		Medical ^[2]		Total Incurred ^[3]	Indemnity		Medical ^[2]		Total Incurred ^[3]
	Paid	Incurred	Paid	Incurred		Paid	Incurred	Paid	Incurred	
2009	0.311	0.323	0.445	0.473	0.834	0.289	0.302	0.422	0.451	0.796
2010	0.297	0.306	0.432	0.452	0.825	0.280	0.290	0.421	0.440	0.814
2011	0.273	0.283	0.369	0.390	0.725	0.259	0.269	0.360	0.380	0.703
2012	0.241	0.252	0.309	0.328	0.636	0.222	0.233	0.301	0.320	0.603
2013	0.203	0.211	0.244	0.261	0.555	0.191	0.199	0.243	0.259	0.516
2014	0.189	0.199	0.214	0.231	0.525	0.174	0.182	0.210	0.225	0.470
2015	0.182	0.192	0.197	0.216	0.520	0.163	0.173	0.190	0.207	0.455
2016	0.168	0.181	0.182	0.203	0.491	0.150	0.163	0.174	0.194	0.430
2017	0.166	0.184	0.179	0.209	0.506	0.144	0.162	0.169	0.198	0.445
2018	0.165	0.192	0.182	0.220	0.593	0.144	0.168	0.170	0.205	0.553
2019	0.173	0.215	0.185	0.239	0.599	0.151	0.193	0.172	0.226	0.568
2020	0.156	0.217	0.165	0.245	0.639	0.134	0.192	0.152	0.230	0.607
2021	0.113	0.189	0.126	0.231	0.675	0.091	0.164	0.108	0.206	0.615
2022	0.038	0.095	0.046	0.146	0.608	0.032	0.090	0.041	0.141	0.549

Notes:

^[1] Large deductible policies are defined as policies with a deductible amount per claim or accident of at least \$100,000.

^[2] Paid medical for accident years 2011 and subsequent exclude the paid cost of medical cost containment programs (MCCP). Paid medical for accident years 2010 and prior include paid MCCP costs.

^[3] Including IBNR.

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 premium charges.

Incurred Indemnity Development

Large Deductible (LD) Experience

<u>AY</u>	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.862	1.265	1.110	1.062	1.050	1.032	1.025	1.016	1.014	1.011	1.008	1.005	1.005
2006	2.066	1.304	1.123	1.085	1.053	1.034	1.024	1.017	1.014	1.011	1.006	1.005	1.002
2007	2.027	1.318	1.148	1.078	1.052	1.042	1.033	1.015	1.014	1.007	1.012	1.005	1.005
2008	2.075	1.349	1.158	1.079	1.059	1.037	1.026	1.017	1.015	1.006	1.008	1.002	1.008
2009	2.192	1.352	1.158	1.093	1.058	1.033	1.023	1.017	1.011	1.009	1.006	1.006	1.008
2010	2.234	1.349	1.159	1.079	1.057	1.028	1.019	1.014	1.011	1.006	1.006	1.006	
2011	2.159	1.365	1.151	1.077	1.040	1.028	1.020	1.010	1.011	1.006	1.008		
2012	2.307	1.330	1.144	1.073	1.052	1.027	1.014	1.013	1.007	1.009			
2013	2.168	1.321	1.146	1.066	1.034	1.021	1.016	1.009	1.008				
2014	2.279	1.350	1.135	1.064	1.033	1.018	1.011	1.006					
2015	2.249	1.328	1.116	1.060	1.031	1.017	1.013						
2016	2.255	1.297	1.113	1.054	1.026	1.018							
2017	2.206	1.294	1.101	1.054	1.028								
2018	2.243	1.266	1.096	1.053									
2019	2.204	1.280	1.114										
2020	2.086	1.279											
2021	2.166												

Non-Large Deductible Experience from Insurers Writing LD

<u>AY</u>	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.318	1.199	1.084	1.065	1.045	1.028	1.020	1.021	1.017	1.008	1.004	1.008	1.006
2006	1.725	1.218	1.105	1.063	1.046	1.038	1.026	1.018	1.005	1.005	1.001	1.005	1.002
2007	1.752	1.270	1.107	1.054	1.049	1.036	1.022	1.012	1.004	1.002	1.004	1.004	1.002
2008	1.889	1.268	1.117	1.071	1.041	1.031	1.018	1.008	1.008	1.004	1.006	1.008	1.004
2009	1.893	1.269	1.125	1.074	1.049	1.026	1.015	1.010	1.007	1.006	1.004	1.007	1.005
2010	1.917	1.302	1.123	1.066	1.043	1.028	1.015	1.011	1.013	1.006	1.006	1.004	
2011	1.963	1.249	1.136	1.063	1.039	1.020	1.021	1.011	1.010	1.010	1.003		
2012	1.941	1.273	1.105	1.060	1.035	1.022	1.018	1.013	1.004	1.007			
2013	1.869	1.231	1.089	1.041	1.031	1.016	1.008	1.006	1.005				
2014	1.856	1.234	1.095	1.050	1.033	1.011	1.012	1.005					
2015	1.896	1.223	1.093	1.048	1.027	1.017	1.010						
2016	1.818	1.229	1.087	1.049	1.030	1.018							
2017	1.881	1.215	1.081	1.043	1.032								
2018	1.810	1.223	1.085	1.047									
2019	1.839	1.229	1.103										
2020	1.802	1.240											
2021	1.849												

All California WC Experience

<u>AY</u>	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.503	1.218	1.098	1.068	1.053	1.040	1.028	1.016	1.012	1.005	1.005	1.006	1.003
2006	1.690	1.247	1.111	1.080	1.053	1.035	1.023	1.015	1.009	1.007	1.004	1.005	1.002
2007	1.784	1.273	1.120	1.070	1.049	1.037	1.022	1.012	1.011	1.005	1.007	1.010	1.001
2008	1.858	1.302	1.136	1.074	1.045	1.030	1.019	1.012	1.009	1.006	1.007	1.006	1.005
2009	1.983	1.293	1.142	1.076	1.048	1.023	1.019	1.014	1.009	1.011	1.005	1.008	1.007
2010	1.994	1.315	1.131	1.069	1.045	1.026	1.016	1.012	1.012	1.006	1.004	1.004	
2011	1.997	1.277	1.133	1.061	1.037	1.022	1.019	1.012	1.008	1.007	1.004		
2012	1.992	1.279	1.113	1.063	1.041	1.023	1.016	1.013	1.007	1.007			
2013	1.931	1.259	1.111	1.055	1.032	1.021	1.013	1.007	1.006				
2014	1.960	1.278	1.115	1.059	1.030	1.016	1.011	1.006					
2015	1.969	1.260	1.101	1.049	1.027	1.017	1.009						
2016	1.941	1.246	1.097	1.046	1.026	1.017							
2017	1.913	1.243	1.088	1.043	1.029								
2018	1.906	1.228	1.083	1.045									
2019	1.900	1.231	1.101										
2020	1.831	1.235											
2021	1.904												

All Non-Large Deductible Experience

<u>AY</u>	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.376	1.196	1.090	1.070	1.055	1.045	1.030	1.016	1.011	1.002	1.003	1.006	1.001
2006	1.577	1.217	1.104	1.077	1.052	1.036	1.022	1.014	1.006	1.005	1.002	1.005	1.003
2007	1.687	1.252	1.107	1.065	1.048	1.034	1.016	1.010	1.010	1.003	1.004	1.012	1.000
2008	1.777	1.280	1.126	1.072	1.037	1.026	1.015	1.009	1.006	1.005	1.006	1.008	1.003
2009	1.896	1.264	1.134	1.068	1.043	1.017	1.017	1.013	1.008	1.010	1.005	1.009	1.006
2010	1.889	1.298	1.116	1.062	1.037	1.025	1.015	1.011	1.012	1.006	1.003	1.003	
2011	1.926	1.233	1.126	1.053	1.035	1.019	1.018	1.012	1.007	1.008	1.003		
2012	1.847	1.254	1.094	1.057	1.033	1.021	1.016	1.013	1.007	1.005			
2013	1.820	1.223	1.090	1.047	1.030	1.020	1.011	1.006	1.004				
2014	1.797	1.234	1.101	1.056	1.026	1.014	1.010	1.005					
2015	1.831	1.219	1.091	1.039	1.024	1.016	1.005						
2016	1.788	1.214	1.083	1.041	1.025	1.016							
2017	1.763	1.208	1.080	1.035	1.029								
2018	1.728	1.203	1.074	1.037									
2019	1.744	1.200	1.090										
2020	1.700	1.207											
2021	1.763												

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Incurred Medical Development *

Large Deductible (LD) Experience

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.558	1.180	1.094	1.077	1.065	1.049	1.035	1.031	1.019	1.019	1.009	1.003	1.005
2006	1.618	1.200	1.124	1.086	1.054	1.044	1.036	1.027	1.018	1.005	1.002	1.005	1.000
2007	1.579	1.224	1.131	1.078	1.069	1.067	1.037	1.023	1.008	1.004	1.005	1.003	0.999
2008	1.631	1.224	1.131	1.091	1.075	1.048	1.034	1.016	1.005	1.005	1.005	0.999	1.000
2009	1.646	1.237	1.130	1.104	1.072	1.041	1.022	1.010	1.009	1.003	1.002	1.002	1.004
2010	1.711	1.235	1.143	1.079	1.056	1.032	1.017	1.009	1.009	1.003	0.999	1.002	
2011	1.688	1.269	1.122	1.074	1.042	1.031	1.013	1.014	1.005	1.006	1.004		
2012	1.712	1.206	1.110	1.061	1.037	1.019	1.011	1.005	1.005	1.004			
2013	1.612	1.185	1.105	1.043	1.025	1.014	1.009	1.004	1.006				
2014	1.623	1.178	1.090	1.038	1.030	1.015	1.014	1.010					
2015	1.583	1.171	1.070	1.052	1.022	1.014	1.011						
2016	1.608	1.148	1.062	1.034	1.014	1.019							
2017	1.565	1.145	1.063	1.029	1.021								
2018	1.603	1.126	1.065	1.036									
2019	1.581	1.149	1.071										
2020	1.574	1.169											
2021	1.596												

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.235	1.156	1.066	1.073	1.067	1.044	1.033	1.030	1.010	1.007	1.004	1.000	0.997 #
2006	1.404	1.183	1.107	1.068	1.061	1.043	1.040	1.020	1.012	1.000	0.998	1.004	0.996 #
2007	1.483	1.216	1.107	1.063	1.063	1.044	1.035	1.017	1.004	0.996	1.000	0.998	1.000 #
2008	1.537	1.180	1.105	1.097	1.061	1.042	1.027	1.010	1.005	0.999	1.004	0.997	0.999
2009	1.528	1.205	1.143	1.088	1.063	1.030	1.014	1.003	1.000	1.002	1.001	0.999	1.002
2010	1.531	1.243	1.136	1.085	1.047	1.022	1.007	1.008	1.011	1.005	1.001	1.002	
2011	1.585	1.213	1.127	1.075	1.035	1.015	1.016	1.007	1.002	1.004	1.001		
2012	1.546	1.189	1.094	1.059	1.028	1.015	1.017	1.002	1.004	0.999			
2013	1.500	1.144	1.087	1.037	1.019	1.012	1.002	0.999	1.004				
2014	1.438	1.156	1.057	1.023	1.022	1.008	1.007	1.002					
2015	1.494	1.134	1.061	1.032	1.021	0.995	1.000						
2016	1.420	1.106	1.047	1.034	1.021	1.006							
2017	1.430	1.114	1.048	1.026	1.035								
2018	1.419	1.133	1.056	1.030									
2019	1.432	1.142	1.078										
2020	1.438	1.170											
2021	1.447												

All California WC Experience

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.389	1.172	1.087	1.074	1.084	1.055	1.045	1.032	1.020	1.006	1.006	0.999	1.000
2006	1.460	1.196	1.103	1.081	1.066	1.048	1.040	1.022	1.011	1.000	1.001	1.005	1.000
2007	1.518	1.204	1.124	1.081	1.070	1.050	1.032	1.018	1.004	1.008	1.001	1.004	0.996
2008	1.527	1.212	1.129	1.092	1.061	1.041	1.025	1.010	1.004	1.002	1.005	0.999	0.999
2009	1.604	1.227	1.140	1.087	1.061	1.029	1.016	1.007	1.005	1.009	1.001	1.002	1.003
2010	1.620	1.245	1.134	1.077	1.045	1.025	1.012	1.008	1.010	1.005	0.999	1.002	
2011	1.667	1.222	1.125	1.069	1.034	1.016	1.010	1.011	1.002	1.004	1.003		
2012	1.592	1.188	1.092	1.056	1.031	1.015	1.016	1.006	1.005	0.999			
2013	1.559	1.150	1.086	1.039	1.022	1.015	1.006	1.001	1.006				
2014	1.523	1.159	1.079	1.035	1.028	1.011	1.010	1.007					
2015	1.511	1.146	1.064	1.031	1.018	1.007	1.005						
2016	1.498	1.124	1.046	1.031	1.017	1.013							
2017	1.440	1.119	1.051	1.027	1.025								
2018	1.452	1.110	1.054	1.032									
2019	1.452	1.124	1.065										
2020	1.442	1.150											
2021	1.453												

All Non-Large Deductible Experience

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	1.316	1.163	1.083	1.072	1.095	1.059	1.051	1.033	1.021	0.998	1.005	0.996	0.997
2006	1.402	1.194	1.092	1.079	1.072	1.050	1.042	1.020	1.008	0.997	1.000	1.006	0.999
2007	1.488	1.194	1.119	1.083	1.070	1.042	1.030	1.015	1.002	1.010	1.000	1.004	0.995
2008	1.482	1.206	1.128	1.093	1.054	1.037	1.021	1.007	1.004	1.001	1.005	0.998	0.998
2009	1.584	1.222	1.144	1.078	1.055	1.023	1.012	1.006	1.004	1.011	1.001	1.003	1.003
2010	1.576	1.250	1.130	1.077	1.039	1.021	1.010	1.008	1.010	1.005	0.999	1.001	
2011	1.657	1.198	1.130	1.066	1.029	1.008	1.009	1.008	1.000	1.002	1.002		
2012	1.534	1.182	1.083	1.053	1.028	1.013	1.018	1.007	1.004	0.997			
2013	1.534	1.132	1.075	1.037	1.019	1.014	1.005	0.999	1.006				
2014	1.465	1.149	1.072	1.033	1.026	1.009	1.007	1.005					
2015	1.476	1.133	1.061	1.017	1.016	1.002	1.001						
2016	1.443	1.111	1.035	1.030	1.018	1.009							
2017	1.379	1.102	1.044	1.026	1.026								
2018	1.373	1.101	1.048	1.028									
2019	1.385	1.108	1.060										
2020	1.378	1.138											
2021	1.378												

* Incurred medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Paid Indemnity Development

Large Deductible (LD) Experience

Evaluated as of (months):													
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	2.906	1.562	1.237	1.123	1.082	1.055	1.045	1.035	1.023	1.022	1.015	1.010	1.011
2006	3.135	1.559	1.238	1.143	1.087	1.064	1.045	1.032	1.027	1.022	1.014	1.010	1.008
2007	3.001	1.554	1.262	1.144	1.095	1.069	1.049	1.036	1.032	1.019	1.019	1.011	1.009
2008	3.057	1.614	1.276	1.151	1.102	1.070	1.047	1.031	1.023	1.019	1.014	1.009	1.009
2009	3.244	1.615	1.284	1.165	1.101	1.066	1.047	1.032	1.023	1.017	1.011	1.011	1.013
2010	3.236	1.627	1.285	1.157	1.100	1.065	1.040	1.031	1.022	1.011	1.012	1.011	
2011	3.306	1.619	1.285	1.155	1.087	1.059	1.039	1.024	1.017	1.013	1.011		
2012	3.265	1.615	1.267	1.142	1.098	1.050	1.034	1.023	1.017	1.014			
2013	3.275	1.609	1.271	1.138	1.072	1.045	1.027	1.020	1.013				
2014	3.366	1.660	1.267	1.128	1.069	1.039	1.026	1.017					
2015	3.410	1.631	1.242	1.124	1.056	1.041	1.024						
2016	3.447	1.591	1.229	1.103	1.061	1.039							
2017	3.275	1.574	1.202	1.110	1.068								
2018	3.327	1.517	1.218	1.112									
2019	3.164	1.549	1.235										
2020	3.025	1.512											
2021	2.975												

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):													
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	2.870	1.516	1.261	1.128	1.071	1.061	1.044	1.039	1.027	1.020	1.014	1.014	1.010
2006	2.864	1.580	1.246	1.142	1.092	1.064	1.048	1.036	1.026	1.019	1.012	1.011	1.009
2007	2.995	1.615	1.246	1.132	1.088	1.065	1.042	1.032	1.027	1.014	1.011	1.009	1.005
2008	3.040	1.590	1.269	1.145	1.088	1.058	1.043	1.026	1.024	1.016	1.012	1.009	1.006
2009	3.014	1.628	1.268	1.153	1.091	1.060	1.044	1.028	1.021	1.015	1.009	1.009	1.009
2010	3.133	1.635	1.285	1.146	1.090	1.063	1.039	1.024	1.019	1.014	1.012	1.012	
2011	3.160	1.610	1.274	1.148	1.087	1.051	1.043	1.026	1.014	1.017	1.009		
2012	3.030	1.605	1.265	1.132	1.086	1.049	1.039	1.021	1.014	1.012			
2013	3.082	1.602	1.257	1.125	1.065	1.040	1.024	1.019	1.013				
2014	3.183	1.631	1.251	1.122	1.067	1.036	1.021	1.016					
2015	3.278	1.628	1.240	1.110	1.059	1.039	1.028						
2016	3.147	1.584	1.231	1.106	1.059	1.046							
2017	3.198	1.568	1.197	1.107	1.063								
2018	2.987	1.537	1.217	1.111									
2019	2.992	1.534	1.234										
2020	2.922	1.541											
2021	2.877												

All California WC Experience

Evaluated as of (months):													
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	2.734	1.512	1.235	1.121	1.079	1.060	1.047	1.042	1.028	1.020	1.015	1.013	1.010
2006	2.866	1.539	1.229	1.135	1.090	1.068	1.050	1.035	1.026	1.018	1.016	1.012	1.011
2007	2.905	1.547	1.246	1.140	1.092	1.066	1.046	1.033	1.027	1.020	1.016	1.013	1.013
2008	2.927	1.577	1.271	1.150	1.092	1.060	1.041	1.027	1.023	1.018	1.015	1.010	1.009
2009	3.069	1.616	1.280	1.156	1.092	1.060	1.043	1.031	1.023	1.021	1.011	1.013	1.010
2010	3.157	1.628	1.281	1.147	1.091	1.060	1.038	1.027	1.022	1.013	1.012	1.012	
2011	3.208	1.613	1.266	1.144	1.087	1.056	1.041	1.027	1.016	1.016	1.010		
2012	3.137	1.597	1.262	1.137	1.087	1.051	1.035	1.023	1.017	1.014			
2013	3.169	1.606	1.260	1.129	1.072	1.044	1.028	1.020	1.014				
2014	3.229	1.635	1.257	1.129	1.071	1.039	1.027	1.018					
2015	3.278	1.618	1.244	1.119	1.058	1.042	1.026						
2016	3.235	1.586	1.230	1.103	1.060	1.043							
2017	3.186	1.569	1.210	1.109	1.065								
2018	3.109	1.526	1.222	1.113									
2019	3.063	1.549	1.240										
2020	2.976	1.541											
2021	2.936												

All Non-Large Deductible Experience

Evaluated as of (months):													
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	2.653	1.492	1.233	1.119	1.077	1.064	1.048	1.047	1.031	1.018	1.015	1.015	1.010
2006	2.765	1.528	1.223	1.131	1.092	1.070	1.052	1.037	1.025	1.016	1.017	1.013	1.012
2007	2.856	1.544	1.238	1.138	1.091	1.064	1.044	1.032	1.025	1.020	1.014	1.013	1.016
2008	2.869	1.558	1.269	1.150	1.087	1.055	1.038	1.026	1.023	1.017	1.015	1.011	1.010
2009	2.981	1.616	1.278	1.151	1.087	1.057	1.041	1.030	1.023	1.021	1.011	1.014	1.008
2010	3.113	1.629	1.279	1.141	1.085	1.057	1.037	1.025	1.021	1.015	1.012	1.012	
2011	3.155	1.609	1.260	1.138	1.087	1.055	1.043	1.027	1.016	1.017	1.009		
2012	3.061	1.588	1.259	1.133	1.080	1.051	1.035	1.023	1.017	1.013			
2013	3.096	1.607	1.253	1.123	1.071	1.043	1.029	1.019	1.014				
2014	3.147	1.618	1.249	1.129	1.073	1.039	1.027	1.018					
2015	3.194	1.609	1.244	1.115	1.059	1.043	1.027						
2016	3.103	1.582	1.231	1.102	1.060	1.045							
2017	3.121	1.566	1.215	1.110	1.062								
2018	2.966	1.533	1.225	1.111									
2019	2.991	1.552	1.241										
2020	2.941	1.562											
2021	2.905												

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Paid Medical Development *

Large Deductible (LD) Experience

Evaluated as of (months):													
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2005	2.372	1.335	1.203	1.129	1.093	1.066	1.053	1.051	1.031	1.031	1.021	1.017	1.013
2006	2.456	1.380	1.213	1.136	1.087	1.067	1.056	1.039	1.035	1.026	1.019	1.015	1.014
2007	2.374	1.382	1.218	1.131	1.098	1.082	1.053	1.041	1.033	1.022	1.020	1.015	1.009
2008	2.335	1.411	1.220	1.144	1.110	1.076	1.053	1.038	1.028	1.021	1.018	1.012	1.011
2009	2.477	1.427	1.244	1.163	1.106	1.073	1.051	1.035	1.026	1.019	1.013	1.012	1.010
2010	2.508	1.443	1.260	1.155	1.099	1.070	1.043	1.032	1.024	1.014	1.010	1.009	
2011	2.576	1.465	1.244	1.149	1.094	1.061	1.043	1.030	1.019	1.014	1.014		
2012	2.626	1.457	1.244	1.145	1.093	1.056	1.038	1.023	1.017	1.014			
2013	2.573	1.454	1.235	1.137	1.071	1.049	1.027	1.023	1.015				
2014	2.535	1.449	1.222	1.118	1.072	1.044	1.038	1.024					
2015	2.572	1.427	1.207	1.113	1.061	1.046	1.031						
2016	2.548	1.397	1.193	1.095	1.066	1.048							
2017	2.469	1.382	1.169	1.103	1.070								
2018	2.455	1.361	1.193	1.106									
2019	2.375	1.413	1.216										
2020	2.569	1.419											
2021	2.500												

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):													
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2005	2.072	1.346	1.212	1.140	1.085	1.072	1.056	1.048	1.031	1.027	1.018	1.013	1.010
2006	2.255	1.397	1.219	1.139	1.098	1.068	1.058	1.035	1.033	1.027	1.014	1.012	1.010
2007	2.383	1.430	1.230	1.136	1.097	1.072	1.051	1.042	1.029	1.017	1.015	1.010	1.007
2008	2.312	1.415	1.240	1.148	1.100	1.070	1.054	1.033	1.022	1.016	1.013	1.010	1.007
2009	2.308	1.444	1.248	1.162	1.107	1.066	1.046	1.029	1.020	1.016	1.009	1.012	1.009
2010	2.420	1.470	1.273	1.154	1.100	1.067	1.042	1.028	1.021	1.021	1.009	1.007	
2011	2.517	1.470	1.258	1.148	1.095	1.051	1.039	1.027	1.018	1.013	1.008		
2012	2.499	1.478	1.253	1.142	1.085	1.053	1.041	1.020	1.016	1.013			
2013	2.434	1.469	1.233	1.123	1.071	1.044	1.026	1.023	1.014				
2014	2.499	1.464	1.217	1.112	1.065	1.037	1.024	1.018					
2015	2.565	1.440	1.217	1.100	1.060	1.040	1.028						
2016	2.504	1.401	1.186	1.090	1.060	1.041							
2017	2.363	1.387	1.165	1.091	1.071								
2018	2.334	1.372	1.188	1.098									
2019	2.300	1.408	1.211										
2020	2.485	1.425											
2021	2.444												

All California WC Experience

Evaluated as of (months):													
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2005	2.251	1.345	1.209	1.138	1.095	1.073	1.054	1.049	1.038	1.031	1.021	1.019	1.014
2006	2.340	1.399	1.220	1.140	1.099	1.068	1.056	1.042	1.033	1.025	1.020	1.015	1.015
2007	2.416	1.413	1.230	1.142	1.097	1.075	1.057	1.041	1.031	1.022	1.020	1.015	1.012
2008	2.325	1.421	1.241	1.148	1.103	1.072	1.051	1.035	1.027	1.018	1.017	1.012	1.009
2009	2.408	1.447	1.251	1.160	1.104	1.067	1.046	1.032	1.024	1.020	1.013	1.014	1.009
2010	2.479	1.468	1.265	1.152	1.096	1.066	1.043	1.030	1.025	1.017	1.013	1.009	
2011	2.580	1.470	1.248	1.145	1.095	1.058	1.041	1.029	1.018	1.015	1.011		
2012	2.561	1.468	1.247	1.143	1.087	1.056	1.039	1.023	1.019	1.014			
2013	2.492	1.464	1.238	1.130	1.077	1.048	1.029	1.022	1.016				
2014	2.518	1.462	1.226	1.121	1.076	1.043	1.033	1.022					
2015	2.533	1.439	1.217	1.111	1.062	1.044	1.030						
2016	2.479	1.410	1.197	1.099	1.064	1.048							
2017	2.372	1.391	1.177	1.104	1.071								
2018	2.378	1.378	1.197	1.106									
2019	2.347	1.428	1.219										
2020	2.516	1.442											
2021	2.485												

All Non-Large Deductible Experience

Evaluated as of (months):													
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2005	2.180	1.354	1.218	1.142	1.097	1.078	1.067	1.066	1.043	1.030	1.021	1.020	1.015
2006	2.270	1.420	1.224	1.142	1.106	1.080	1.068	1.044	1.032	1.024	1.021	1.015	1.015
2007	2.461	1.432	1.237	1.148	1.108	1.083	1.059	1.042	1.030	1.022	1.019	1.014	1.014
2008	2.320	1.427	1.252	1.164	1.108	1.070	1.050	1.034	1.027	1.017	1.016	1.013	1.009
2009	2.371	1.458	1.274	1.169	1.103	1.063	1.043	1.031	1.023	1.019	1.013	1.015	1.009
2010	2.463	1.501	1.277	1.152	1.094	1.064	1.043	1.029	1.024	1.019	1.014	1.008	
2011	2.634	1.488	1.259	1.143	1.095	1.057	1.040	1.027	1.017	1.016	1.009		
2012	2.532	1.479	1.250	1.141	1.083	1.056	1.039	1.023	1.021	1.014			
2013	2.456	1.472	1.240	1.126	1.079	1.048	1.029	1.022	1.017				
2014	2.511	1.470	1.229	1.123	1.078	1.043	1.029	1.020					
2015	2.510	1.446	1.224	1.110	1.063	1.043	1.029						
2016	2.441	1.417	1.198	1.101	1.063	1.049							
2017	2.318	1.397	1.183	1.105	1.071								
2018	2.332	1.388	1.200	1.105									
2019	2.329	1.439	1.219										
2020	2.485	1.457											
2021	2.476												

* Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Paid ALAE (Excluding M CCP) Development *

Large Deductible (LD) Experience

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	2.748	1.785	1.347	1.178	1.118	1.080	1.059	1.048	1.036	1.029	1.023	1.017	1.015
2006	4.628	1.744	1.334	1.189	1.116	1.083	1.060	1.047	1.036	1.025	1.019	1.016	1.011
2007	4.057	1.734	1.350	1.191	1.128	1.091	1.063	1.049	1.035	1.026	1.020	1.014	1.010
2008	4.178	1.759	1.363	1.198	1.135	1.090	1.066	1.045	1.030	1.024	1.018	1.012	1.009
2009	4.586	1.793	1.358	1.210	1.132	1.090	1.060	1.038	1.029	1.020	1.014	1.010	1.008
2010	4.680	1.744	1.348	1.199	1.128	1.080	1.054	1.036	1.024	1.015	1.010	1.008	
2011	4.415	1.749	1.344	1.195	1.113	1.077	1.049	1.030	1.018	1.015	1.011		
2012	4.584	1.755	1.347	1.183	1.110	1.064	1.044	1.026	1.019	1.014			
2013	4.576	1.717	1.306	1.160	1.087	1.056	1.032	1.022	1.014				
2014	4.382	1.670	1.286	1.141	1.080	1.052	1.030	1.021					
2015	4.350	1.638	1.257	1.128	1.071	1.045	1.029						
2016	4.428	1.614	1.239	1.119	1.068	1.045							
2017	4.192	1.573	1.225	1.114	1.071								
2018	3.887	1.555	1.221	1.124									
2019	3.824	1.563	1.239										
2020	4.057	1.554											
2021	3.868												

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005		1.625	1.289	1.185	1.106	1.076	1.050	1.046	1.035	1.025	1.022	1.016	1.012
2006	3.124	1.659	1.330	1.179	1.123	1.076	1.062	1.045	1.034	1.026	1.021	1.014	1.011
2007	3.753	1.765	1.341	1.194	1.116	1.087	1.056	1.040	1.029	1.020	1.016	1.013	1.009
2008	4.186	1.755	1.348	1.188	1.119	1.081	1.057	1.039	1.029	1.020	1.015	1.012	1.010
2009	4.072	1.753	1.342	1.192	1.121	1.082	1.052	1.037	1.026	1.018	1.014	1.012	1.009
2010	4.100	1.765	1.348	1.188	1.118	1.076	1.046	1.032	1.024	1.017	1.012	1.009	
2011	4.218	1.721	1.334	1.192	1.111	1.070	1.047	1.033	1.021	1.015	1.010		
2012	4.196	1.723	1.341	1.179	1.107	1.064	1.044	1.029	1.017	1.012			
2013	4.338	1.717	1.311	1.174	1.090	1.057	1.034	1.022	1.014				
2014	4.252	1.644	1.296	1.144	1.088	1.047	1.030	1.019					
2015	3.964	1.641	1.253	1.133	1.074	1.046	1.026						
2016	4.223	1.592	1.257	1.122	1.070	1.042							
2017	3.967	1.552	1.214	1.114	1.064								
2018	3.832	1.514	1.228	1.117									
2019	3.463	1.579	1.237										
2020	4.038	1.577											
2021	3.869												

All California WC Experience

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005	3.840	1.698	1.336	1.181	1.113	1.079	1.056	1.044	1.035	1.027	1.022	1.016	1.014
2006	3.750	1.736	1.330	1.186	1.120	1.081	1.060	1.046	1.035	1.025	1.019	1.014	1.011
2007	4.027	1.716	1.340	1.194	1.126	1.088	1.060	1.044	1.032	1.023	1.018	1.013	1.010
2008	4.015	1.758	1.367	1.199	1.126	1.085	1.060	1.040	1.029	1.021	1.017	1.012	1.009
2009	4.322	1.775	1.354	1.199	1.126	1.083	1.054	1.037	1.027	1.019	1.014	1.011	1.008
2010	4.300	1.737	1.342	1.190	1.120	1.076	1.049	1.033	1.023	1.017	1.010	1.009	
2011	4.225	1.729	1.351	1.196	1.109	1.072	1.045	1.030	1.019	1.014	1.011		
2012	4.338	1.773	1.344	1.174	1.105	1.060	1.042	1.027	1.018	1.013			
2013	4.542	1.706	1.297	1.161	1.085	1.056	1.032	1.022	1.015				
2014	4.322	1.635	1.285	1.139	1.081	1.049	1.029	1.020					
2015	4.041	1.630	1.255	1.128	1.071	1.044	1.029						
2016	4.254	1.603	1.240	1.117	1.068	1.044							
2017	3.979	1.546	1.217	1.114	1.068								
2018	3.767	1.530	1.226	1.122									
2019	3.627	1.569	1.241										
2020	3.951	1.568											
2021	3.839												

All Non-Large Deductible Experience

Evaluated as of (months):													
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005		1.704	1.309	1.183	1.108	1.077	1.052	1.045	1.034	1.024	1.021	1.015	1.012
2006	3.574	1.710	1.326	1.183	1.124	1.079	1.063	1.044	1.033	1.025	1.020	1.013	1.011
2007	3.865	1.701	1.333	1.197	1.124	1.089	1.057	1.041	1.029	1.021	1.016	1.013	1.009
2008	3.902	1.761	1.370	1.199	1.123	1.081	1.055	1.036	1.028	1.019	1.016	1.012	1.009
2009	4.159	1.761	1.350	1.194	1.121	1.078	1.049	1.036	1.026	1.018	1.014	1.011	1.008
2010	4.055	1.731	1.338	1.183	1.114	1.072	1.045	1.032	1.022	1.018	1.010	1.008	
2011	4.099	1.711	1.328	1.185	1.109	1.070	1.048	1.030	1.020	1.014	1.010		
2012	4.134	1.709	1.325	1.174	1.105	1.064	1.040	1.027	1.017	1.012			
2013	4.235	1.675	1.308	1.170	1.091	1.056	1.033	1.022	1.015				
2014	4.100	1.634	1.296	1.144	1.082	1.046	1.029	1.019					
2015	3.918	1.630	1.255	1.128	1.070	1.044	1.026						
2016	4.123	1.595	1.241	1.115	1.069	1.042							
2017	3.821	1.524	1.209	1.113	1.064								
2018	3.663	1.507	1.231	1.120									
2019	3.444	1.575	1.243										
2020	3.797	1.570											
2021	3.858												

* Based on private insurer data only.

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Paid MCCP Development

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2012	2.517	1.344	1.185	1.084	1.054	1.033	1.025	1.022	1.013	1.012			
2013	2.426	1.374	1.158	1.081	1.054	1.034	1.024	1.017	1.014				
2014	2.610	1.337	1.142	1.083	1.050	1.034	1.020	1.024					
2015	2.388	1.290	1.136	1.076	1.040	1.030	1.022						
2016	2.373	1.302	1.141	1.065	1.052	1.031							
2017	2.431	1.314	1.125	1.078	1.047								
2018	2.228	1.240	1.138	1.077									
2019	2.357	1.313	1.143										
2020	2.408	1.301											
2021	2.392												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2012	2.463	1.341	1.177	1.098	1.051	1.035	1.020	1.006	1.010	1.012			
2013	2.370	1.350	1.155	1.070	1.051	1.025	1.012	1.011	1.011				
2014	2.414	1.356	1.126	1.078	1.029	1.023	1.016	1.015					
2015	2.464	1.304	1.151	1.064	1.034	1.023	1.028						
2016	2.478	1.278	1.108	1.060	1.045	1.037							
2017	2.182	1.276	1.136	1.071	1.053								
2018	2.278	1.303	1.133	1.081									
2019	2.209	1.323	1.155										
2020	2.329	1.317											
2021	2.262												

All California WC Experience

	Evaluated as of (months):												
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2012	2.491	1.281	1.160	1.097	1.055	1.036	1.023	1.015	1.012	1.012			
2013	2.292	1.341	1.168	1.082	1.055	1.031	1.020	1.015	1.013				
2014	2.446	1.364	1.144	1.084	1.043	1.031	1.020	1.020					
2015	2.476	1.306	1.143	1.069	1.038	1.029	1.024						
2016	2.423	1.294	1.128	1.064	1.048	1.033							
2017	2.336	1.300	1.129	1.076	1.049								
2018	2.262	1.268	1.137	1.078									
2019	2.295	1.317	1.146										
2020	2.391	1.306											
2021	2.344												

All Non-Large Deductible Experience

	Evaluated as of (months):												
<u>AY</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2012	2.480	1.353	1.185	1.093	1.050	1.033	1.023	1.009	1.012	1.011			
2013	2.441	1.379	1.148	1.070	1.048	1.032	1.016	1.014	1.011				
2014	2.497	1.339	1.131	1.077	1.038	1.026	1.018	1.015					
2015	2.424	1.314	1.146	1.061	1.035	1.027	1.026						
2016	2.476	1.286	1.116	1.062	1.044	1.035							
2017	2.240	1.284	1.135	1.073	1.051								
2018	2.298	1.300	1.136	1.079									
2019	2.227	1.322	1.149										
2020	2.372	1.312											
2021	2.289												

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Incurred Indemnity Per Reported Indemnity Claim

Large Deductible (LD) Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		11,692	14,292	15,715	16,636	17,456	17,976	18,405	18,675	18,913	19,062	19,196	19,293	19,382
2006	7,014	11,841	15,017	16,602	17,969	18,832	19,435	19,638	19,941	20,145	20,339	20,463	20,564	20,590
2007	7,166	12,110	15,467	17,596	18,836	19,700	20,482	21,110	21,355	21,630	21,790	22,035	22,126	22,222
2008	7,863	12,991	16,961	19,274	20,635	21,723	22,495	22,934	23,300	23,636	23,771	23,959	24,004	24,200
2009	8,236	14,016	18,095	20,641	22,350	23,530	24,105	24,631	25,024	25,280	25,495	25,647	25,798	26,009
2010	8,313	14,059	18,219	20,781	22,254	23,329	23,903	24,307	24,634	24,891	25,064	25,220	25,359	
2011	8,698	14,201	18,540	21,007	22,369	23,168	23,752	24,195	24,423	24,687	24,820	25,002		
2012	8,524	14,729	18,795	21,018	22,441	23,546	24,105	24,468	24,744	24,890	25,085			
2013	8,999	14,798	18,477	20,921	22,201	22,860	23,344	23,641	23,835	24,028				
2014	9,189	15,198	19,806	22,222	23,465	24,179	24,556	24,860	24,983					
2015	9,186	15,931	20,355	22,449	23,663	24,296	24,698	24,998						
2016	9,342	15,646	19,399	21,302	22,387	22,964	23,375							
2017	9,271	15,715	19,689	21,510	22,629	23,210								
2018	9,731	16,535	20,349	22,106	23,191									
2019	10,527	16,933	20,960	23,134										
2020	9,711	16,066	19,886											
2021	10,162	16,732												
2022	10,350													

Non-Large Deductible Experience from Insurers Writing LD

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		11,556	13,485	14,487	15,420	16,118	16,485	16,818	17,092	17,369	17,501	17,560	17,578	17,685
2006	8,292	12,153	14,429	15,992	16,999	17,789	18,518	18,851	19,139	19,240	19,287	19,238	19,333	19,475
2007	8,214	12,763	15,981	17,741	18,475	19,622	20,123	20,486	20,732	20,710	20,645	20,706	20,939	20,789
2008	8,640	14,332	18,036	19,838	21,251	21,835	22,429	22,812	22,808	23,001	23,106	23,356	23,399	23,652
2009	8,726	14,567	18,061	20,146	21,257	22,183	22,736	22,858	23,217	23,364	23,723	23,578	23,834	23,951
2010	8,893	14,420	18,300	20,199	21,313	22,175	22,550	22,949	23,157	23,633	23,617	23,747	23,875	
2011	8,874	14,558	17,710	19,797	20,913	21,340	21,646	22,060	22,527	22,492	22,733	22,994		
2012	8,846	14,460	17,798	19,532	20,214	20,798	21,250	21,757	21,869	22,009	22,214			
2013	9,560	14,866	17,913	19,042	19,565	20,158	20,699	20,595	20,725	20,900				
2014	9,445	14,524	17,408	18,777	19,606	20,493	20,389	20,693	20,781					
2015	9,799	15,086	17,916	19,375	20,531	20,656	21,054	21,294						
2016	9,964	15,119	17,915	19,582	20,149	20,863	21,237							
2017	9,997	15,304	18,298	19,438	20,273	20,991								
2018	10,152	15,480	18,383	19,964	20,927									
2019	9,691	16,059	19,293	21,276										
2020	10,429	15,776	19,300											
2021	10,570	16,368												
2022	10,923													

All California WC Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		11,382	13,713	15,002	16,015	16,849	17,501	18,012	18,291	18,512	18,596	18,700	18,809	18,865
2006	8,032	12,113	14,907	16,485	17,764	18,674	19,320	19,666	19,946	20,094	20,236	20,329	20,436	20,483
2007	8,152	12,931	16,213	18,048	19,231	20,133	20,862	21,309	21,538	21,768	21,855	22,003	22,206	22,244
2008	8,652	13,936	17,740	19,950	21,324	22,173	22,811	23,184	23,435	23,682	23,828	23,983	24,127	24,238
2009	8,762	14,554	18,283	20,656	22,089	23,082	23,533	23,958	24,366	24,598	24,834	24,971	25,158	25,320
2010	8,730	14,233	18,167	20,305	21,563	22,413	22,956	23,372	23,675	23,921	24,083	24,181	24,268	
2011	9,014	14,606	18,117	20,277	21,351	22,097	22,591	23,002	23,225	23,421	23,577	23,674		
2012	9,017	14,517	17,972	19,712	20,848	21,668	22,150	22,443	22,725	22,872	23,017			
2013	9,323	14,536	17,681	19,464	20,426	21,048	21,422	21,675	21,822	21,950				
2014	9,382	14,664	18,251	20,164	21,286	21,848	22,185	22,434	22,555					
2015	9,633	15,344	18,830	20,639	21,553	22,076	22,436	22,767						
2016	9,816	15,310	18,559	20,178	21,052	21,573	21,933							
2017	9,971	15,630	18,951	20,476	21,292	21,873								
2018	10,573	16,387	19,659	21,163	22,045									
2019	11,029	17,144	20,549	22,441										
2020	11,002	16,628	20,080											
2021	11,015	17,051												
2022	11,207													

All Non-Large Deductible Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		11,216	13,391	14,600	15,664	16,505	17,233	17,789	18,073	18,284	18,331	18,416	18,532	18,569
2006	8,509	12,257	14,847	16,420	17,650	18,586	19,256	19,682	19,949	20,065	20,177	20,253	20,362	20,422
2007	8,630	13,366	16,618	18,294	19,446	20,372	21,071	21,420	21,639	21,845	21,891	21,986	22,251	22,257
2008	9,011	14,422	18,146	20,307	21,689	22,414	22,980	23,318	23,508	23,708	23,859	23,996	24,194	24,259
2009	9,005	14,831	18,382	20,663	21,949	22,842	23,225	23,595	24,001	24,220	24,468	24,594	24,801	24,936
2010	8,927	14,325	18,139	20,046	21,185	21,918	22,442	22,847	23,135	23,380	23,531	23,596	23,654	
2011	9,161	14,815	17,895	19,894	20,821	21,538	21,963	22,356	22,584	22,738	22,906	22,956		
2012	9,264	14,398	17,506	18,974	19,950	20,573	21,008	21,280	21,552	21,698	21,814			
2013	9,490	14,388	17,225	18,625	19,375	19,971	20,303	20,518	20,635	20,725				
2014	9,482	14,360	17,351	18,958	19,999	20,483	20,786	21,003	21,120					
2015	9,870	15,010	17,943	19,574	20,306	20,762	21,094	21,430						
2016	10,065	15,110	18,045	19,484	20,226	20,713	21,041							
2017	10,367	15,576	18,483	19,820	20,442	21,023								
2018	11,055	16,291	19,212	20,547	21,294									
2019	11,305	17,283	20,275	21,975										
2020	11,826	17,011	20,213											
2021	11,541	17,271												
2022	11,751													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Incurred Medical Per Reported Indemnity Claim

Large Deductible (LD) Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				22,000	22,050	23,211	24,388	24,933	25,741	26,304	26,751	27,010	27,098	27,219
2006			21,653	22,281	23,901	25,183	25,918	26,568	27,373	27,755	27,886	27,917	28,071	28,060
2007		19,406	21,403	23,839	25,646	26,946	28,818	29,964	30,574	30,803	30,932	31,069	31,143	31,103
2008	16,326	19,464	23,025	25,799	27,669	29,708	31,266	32,098	32,631	32,777	32,925	33,062	33,016	33,019
2009	15,828	20,143	24,157	26,650	29,335	31,530	32,559	33,265	33,582	33,880	33,946	34,010	34,079	34,193
2010	15,699	20,564	24,205	27,377	29,528	30,792	31,724	32,205	32,458	32,682	32,805	32,774	32,836	
2011	15,740	19,390	23,709	26,302	27,816	28,898	29,764	30,085	30,431	30,562	30,733	30,816		
2012	14,661	18,984	22,285	24,280	25,696	26,636	27,089	27,403	27,478	27,600	27,676			
2013	15,097	18,583	21,013	23,094	24,052	24,582	24,924	25,111	25,200	25,342				
2014	14,926	17,665	20,342	22,058	22,791	23,446	23,748	24,085	24,297					
2015	14,164	17,350	19,833	21,095	22,139	22,560	22,865	23,127						
2016	14,391	17,295	19,220	20,226	20,886	21,171	21,582							
2017	13,992	16,988	19,079	20,206	20,775	21,203								
2018	14,742	18,104	20,008	21,215	21,956									
2019	15,292	17,856	20,095	21,392										
2020	12,899	16,168	18,484											
2021	14,283	17,376												
2022	13,643													

Non-Large Deductible Experience from Insurers Writing LD

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				20,929	19,752	21,687	22,622	24,066	24,655	24,961	25,154	25,285	25,055	24,981
2006			21,330	21,193	23,042	24,608	26,424	27,326	27,864	28,156	28,051	27,658	27,785	27,864
2007		20,055	21,420	24,127	25,645	28,330	29,320	30,246	30,732	30,651	30,198	30,188	30,443	30,123
2008	16,858	20,174	24,139	26,589	29,669	31,336	32,601	33,437	33,419	33,523	33,481	33,681	33,488	33,527
2009	15,327	20,947	25,032	28,368	30,668	32,922	33,883	33,882	34,346	34,385	34,527	34,543	34,531	34,584
2010	16,397	21,109	26,335	29,538	31,907	33,278	33,518	33,842	34,042	34,587	34,669	34,574	34,632	
2011	15,789	21,008	24,652	27,435	29,168	29,617	29,995	30,409	30,892	30,633	30,635	30,841		
2012	15,951	20,865	24,181	26,206	27,163	27,645	27,989	28,490	28,514	28,608	28,596			
2013	16,439	20,540	22,928	23,845	24,318	24,737	24,896	24,982	24,845	25,172				
2014	16,044	18,990	21,092	21,980	22,373	22,764	22,949	23,101	23,224					
2015	16,576	19,709	21,664	22,749	23,514	23,794	23,596	23,670						
2016	16,350	19,015	20,549	21,499	22,022	22,612	22,654							
2017	16,114	18,918	20,567	21,536	22,196	23,027								
2018	15,704	18,670	20,733	21,727	22,514									
2019	14,068	17,941	19,904	21,565										
2020	14,057	16,741	19,454											
2021	14,632	17,522												
2022	14,745													

All California WC Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				20,105	20,415	22,239	23,508	24,652	25,496	26,070	26,198	26,390	26,359	26,360
2006			20,905	21,642	23,480	25,088	26,357	27,336	27,985	28,267	28,273	28,313	28,488	28,455
2007		19,244	21,415	24,097	26,085	27,951	29,429	30,444	30,973	31,098	31,356	31,401	31,523	31,407
2008	15,888	19,560	23,505	26,456	28,904	30,640	31,963	32,704	33,010	33,254	33,343	33,494	33,470	33,411
2009	15,097	20,544	24,827	28,194	30,559	32,447	33,300	33,801	34,222	34,431	34,679	34,757	34,822	34,913
2010	15,316	20,440	24,993	28,121	30,276	31,455	32,201	32,664	32,923	33,157	33,348	33,265	33,306	
2011	15,315	20,516	24,368	27,181	28,776	29,659	30,150	30,425	30,616	30,649	30,735	30,782		
2012	15,489	20,006	23,218	25,070	26,381	27,192	27,595	27,908	28,062	28,176	28,118			
2013	15,474	19,525	21,811	23,525	24,367	24,881	25,121	25,246	25,248	25,390				
2014	15,134	18,371	20,905	22,440	23,177	23,772	24,034	24,265	24,422					
2015	15,268	18,661	21,004	22,313	22,916	23,285	23,421	23,681						
2016	15,552	18,706	20,615	21,416	22,046	22,399	22,685							
2017	16,015	18,890	20,764	21,706	22,257	22,804								
2018	16,645	19,672	21,453	22,510	23,201									
2019	16,573	19,671	21,625	22,909										
2020	15,661	18,567	20,979											
2021	16,208	19,063												
2022	15,864													

All Non-Large Deductible Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				19,039	19,490	21,689	23,012	24,492	25,356	25,937	25,883	26,036	25,936	25,869
2006			20,497	21,287	23,246	25,035	26,602	27,771	28,332	28,558	28,494	28,539	28,726	28,681
2007		19,158	21,422	24,238	26,325	28,504	29,767	30,710	31,193	31,262	31,592	31,587	31,735	31,577
2008	15,689	19,609	23,755	26,803	29,558	31,138	32,336	33,029	33,213	33,513	33,571	33,729	33,717	33,625
2009	14,760	20,751	25,181	29,013	31,216	32,941	33,700	34,090	34,576	34,737	35,085	35,173	35,236	35,314
2010	15,134	20,374	25,419	28,526	30,685	31,813	32,459	32,922	33,185	33,422	33,654	33,541	33,571	
2011	15,118	21,097	24,714	27,643	29,275	30,057	30,359	30,609	30,715	30,696	30,736	30,764		
2012	15,902	20,578	23,746	25,516	26,767	27,517	27,890	28,198	28,402	28,511	28,375			
2013	15,669	20,059	22,268	23,773	24,554	25,058	25,235	25,325	25,277	25,418				
2014	15,241	18,772	21,230	22,665	23,405	23,963	24,203	24,372	24,496					
2015	15,852	19,409	21,685	23,030	23,374	23,715	23,751	24,013						
2016	16,160	19,545	21,468	22,151	22,763	23,158	23,368							
2017	17,159	20,080	21,833	22,660	23,198	23,823								
2018	17,733	20,682	22,392	23,356	24,017									
2019	17,279	20,873	22,647	23,929										
2020	17,424	20,201	22,708											
2021	17,393	20,223												
2022	17,273													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Paid Indemnity Per Closed Indemnity Claim

Large Deductible (LD) Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		3,432	6,380	9,545	11,315	12,723	13,694	14,576	15,409	15,979	16,544	17,012	17,317	17,580
2006	1,420	3,383	6,961	10,009	11,877	13,346	14,534	15,544	16,294	17,106	17,708	18,234	18,572	18,920
2007	1,403	3,709	7,052	10,114	12,231	13,888	15,295	16,507	17,366	18,276	18,996	19,564	19,986	20,385
2008	1,636	3,939	7,802	10,869	13,270	15,299	17,041	18,248	19,308	20,044	20,767	21,241	21,802	22,058
2009	1,646	4,328	8,011	11,422	14,453	16,825	18,689	20,143	21,178	22,003	22,675	23,185	23,534	23,851
2010	1,706	4,209	8,154	11,892	15,073	17,312	19,207	20,565	21,523	22,328	22,959	23,417	23,858	
2011	1,765	4,459	8,646	12,658	15,760	17,921	19,600	20,800	21,613	22,321	22,633	22,968		
2012	1,862	4,904	9,517	13,402	16,352	18,626	20,140	21,301	22,157	22,702	23,001			
2013	2,004	5,344	10,080	13,986	16,928	18,726	20,032	20,986	21,617	22,029				
2014	2,165	5,976	11,116	15,279	18,149	19,823	21,045	21,923	22,518					
2015	2,443	6,542	11,927	15,904	18,698	20,295	21,309	22,056						
2016	2,619	6,862	11,626	15,297	17,452	18,978	20,062							
2017	2,735	6,888	11,805	15,285	17,562	19,172								
2018	2,854	7,345	12,179	15,511	17,811									
2019	3,803	7,315	12,035	16,041										
2020	3,131	7,057	11,431											
2021	3,329	7,247												
2022	3,308													

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		3,114	6,307	8,299	10,617	11,570	12,427	13,249	14,018	14,688	15,191	15,594	15,748	15,939
2006	1,673	3,802	6,388	9,070	11,325	12,767	13,825	14,893	15,719	16,495	17,174	17,400	17,750	18,023
2007	1,432	3,628	7,204	10,076	12,103	13,907	15,190	16,297	17,237	17,976	18,349	18,704	19,173	19,046
2008	1,506	4,203	7,946	11,163	13,794	15,800	17,089	18,555	19,294	19,969	20,556	21,066	21,235	21,585
2009	1,637	4,079	7,977	11,432	14,041	15,892	17,665	18,779	19,835	20,430	21,235	21,258	21,629	21,868
2010	1,571	4,243	8,172	11,814	14,561	16,717	18,248	19,556	20,307	21,028	21,232	21,592	21,848	
2011	1,596	4,448	8,467	11,998	14,774	16,585	17,887	18,850	19,881	20,094	20,575	21,081		
2012	1,698	4,963	8,997	12,476	14,768	16,593	17,814	18,827	19,281	19,767	20,242			
2013	2,205	5,468	9,659	12,730	15,012	16,513	17,589	18,052	18,579	19,173				
2014	2,059	5,315	9,671	13,032	15,307	16,865	17,543	18,150	18,738					
2015	2,123	5,882	10,316	13,641	15,817	16,877	17,887	18,510						
2016	2,345	6,232	10,549	13,924	15,769	17,176	18,242							
2017	2,509	6,526	10,637	13,425	15,451	16,822								
2018	2,798	6,469	10,316	13,433	15,697									
2019	2,601	6,688	10,458	14,220										
2020	2,890	6,449	10,809											
2021	3,004	6,398												
2022	2,907													

All California WC Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		2,983	5,751	8,428	10,301	11,464	12,358	13,215	14,263	14,923	15,485	15,993	16,374	16,687
2006	1,418	3,281	6,304	9,092	11,020	12,441	13,662	14,918	15,791	16,527	17,211	17,701	18,146	18,512
2007	1,414	3,522	6,797	9,685	11,807	13,537	15,117	16,283	17,208	18,072	18,723	19,221	19,691	20,146
2008	1,535	3,830	7,483	10,700	13,245	15,515	16,990	18,238	19,218	19,975	20,639	21,160	21,640	21,960
2009	1,590	4,082	7,859	11,276	14,269	16,358	18,044	19,381	20,403	21,208	21,891	22,327	22,720	23,032
2010	1,539	4,132	8,049	11,775	14,581	16,626	18,323	19,609	20,486	21,167	21,651	22,122	22,472	
2011	1,644	4,440	8,536	12,135	14,888	16,866	18,433	19,599	20,463	21,027	21,479	21,788		
2012	1,776	4,954	9,051	12,557	15,116	17,062	18,378	19,391	20,075	20,558	20,922			
2013	2,086	5,307	9,523	12,960	15,451	17,145	18,250	19,074	19,614	20,045				
2014	2,132	5,642	10,170	13,795	16,360	17,934	19,006	19,769	20,365					
2015	2,340	6,176	10,888	14,496	16,892	18,272	19,266	20,125						
2016	2,493	6,545	11,038	14,481	16,454	17,824	18,854							
2017	2,591	6,648	11,144	14,345	16,462	17,863								
2018	2,875	7,039	11,390	14,635	16,867									
2019	3,160	7,059	11,451	15,386										
2020	2,987	6,897	11,475											
2021	3,032	6,950												
2022	3,175													

All Non-Large Deductible Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		2,728	5,390	7,778	9,703	10,724	11,580	12,427	13,603	14,318	14,878	15,409	15,834	16,175
2006	1,417	3,225	5,937	8,560	10,520	11,916	13,157	14,559	15,504	16,196	16,926	17,396	17,903	18,278
2007	1,419	3,424	6,658	9,444	11,570	13,342	15,019	16,159	17,120	17,960	18,572	19,030	19,528	20,014
2008	1,486	3,774	7,310	10,608	13,231	15,631	16,962	18,233	19,170	19,938	20,569	21,116	21,551	21,907
2009	1,563	3,954	7,778	11,198	14,170	16,108	17,696	18,971	19,976	20,768	21,459	21,851	22,269	22,578
2010	1,456	4,092	7,993	11,711	14,312	16,257	17,846	19,076	19,903	20,521	20,917	21,396	21,696	
2011	1,588	4,430	8,480	11,863	14,437	16,319	17,806	18,950	19,852	20,332	20,859	21,154		
2012	1,733	4,981	8,792	12,088	14,426	16,156	17,355	18,303	18,873	19,321	19,721			
2013	2,132	5,285	9,209	12,375	14,582	16,211	17,224	17,957	18,442	18,883				
2014	2,114	5,458	9,637	12,931	15,313	16,838	17,818	18,514	19,109					
2015	2,288	5,976	10,296	13,676	15,841	17,092	18,074	18,985						
2016	2,431	6,364	10,685	13,983	15,847	17,121	18,117							
2017	2,513	6,501	10,734	13,760	15,775	17,045								
2018	2,887	6,846	10,885	14,072	16,263									
2019	2,869	6,895	11,071	14,954										
2020	2,889	6,785	11,504											
2021	2,835	6,747												
2022	3,085													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Paid Medical Per Indemnity Claim

Large Deductible (LD) Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				17,062	17,639	19,027	20,362	21,153	22,311	23,103	23,807	24,343	24,780	25,118
2006			15,415	16,758	18,843	20,559	21,609	22,628	23,632	24,411	25,084	25,591	25,999	26,366
2007		12,300	14,885	17,941	20,398	22,005	23,929	25,332	26,313	27,223	27,872	28,470	28,920	29,206
2008	6,887	11,173	15,532	19,019	21,452	23,898	25,923	27,132	28,224	29,074	29,727	30,275	30,653	30,998
2009	5,447	11,297	16,127	19,720	23,052	25,678	27,391	28,855	29,916	30,719	31,310	31,738	32,135	32,455
2010	5,307	11,246	15,771	20,007	23,325	25,450	27,284	28,483	29,434	30,100	30,590	30,921	31,215	
2011	4,706	9,950	14,822	18,754	21,594	23,777	25,334	26,516	27,298	27,892	28,302	28,723		
2012	4,058	9,497	14,099	17,592	20,305	22,313	23,604	24,574	25,134	25,562	25,920			
2013	3,983	9,205	13,475	16,865	19,344	20,770	21,831	22,446	22,976	23,323				
2014	3,940	8,851	13,221	16,397	18,432	19,835	20,731	21,589	22,127					
2015	3,748	8,916	13,078	16,010	17,920	19,047	19,966	20,624						
2016	3,907	8,891	12,633	15,251	16,832	18,046	18,987							
2017	3,866	8,895	12,666	15,007	16,705	17,988								
2018	4,209	9,392	13,165	15,941	17,793									
2019	4,387	9,107	13,263	16,398										
2020	3,583	8,533	12,347											
2021	4,178	9,205												
2022	4,000													

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				15,528	15,082	17,069	18,417	20,164	21,110	21,855	22,494	22,938	23,075	23,305
2006			14,188	14,928	17,709	19,740	21,871	23,103	23,954	24,763	25,394	25,437	25,763	26,209
2007		11,136	13,271	17,183	19,881	22,801	24,396	25,635	26,730	27,384	27,592	28,030	28,566	28,522
2008	6,076	10,086	15,412	19,578	23,155	25,503	27,346	28,838	29,541	30,154	30,634	31,094	31,359	31,631
2009	4,297	10,672	16,097	20,618	23,949	26,737	28,548	29,519	30,703	31,365	31,941	32,210	32,634	32,911
2010	4,561	10,831	16,899	21,599	25,008	27,522	29,027	30,394	31,217	32,019	32,686	32,882	33,132	
2011	3,951	10,366	15,534	19,777	22,753	24,636	25,906	26,955	27,963	28,277	28,594	29,096		
2012	4,272	10,241	15,293	19,276	21,586	23,217	24,465	25,488	26,069	26,526	27,001			
2013	4,375	9,866	14,659	17,645	19,486	21,005	21,728	22,515	22,994	23,604				
2014	3,954	9,272	13,678	16,648	18,573	19,674	20,588	21,082	21,597					
2015	4,065	9,634	14,023	17,195	18,864	20,135	20,951	21,623						
2016	4,045	9,597	13,740	16,362	17,983	19,185	19,990							
2017	4,370	9,704	13,587	16,218	17,852	19,246								
2018	4,388	9,731	13,809	16,490	18,411									
2019	3,874	9,107	12,997	16,052										
2020	3,679	8,747	12,805											
2021	3,970	9,211												
2022	3,899													

All California WC Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				14,746	15,623	17,252	18,598	19,843	21,124	22,018	22,715	23,242	23,716	24,085
2006			13,636	15,294	17,629	19,510	21,086	22,424	23,451	24,238	24,887	25,449	25,865	26,252
2007		10,746	13,642	17,056	19,646	21,822	23,767	25,230	26,298	27,156	27,790	28,371	28,805	29,200
2008	5,701	10,239	14,949	18,765	21,891	24,376	26,276	27,597	28,593	29,487	30,070	30,580	31,006	31,309
2009	4,616	10,592	15,625	19,963	23,419	26,000	27,734	29,046	30,170	30,943	31,531	31,979	32,434	32,738
2010	4,608	10,520	15,872	20,323	23,598	25,825	27,595	28,884	29,792	30,464	31,059	31,439	31,714	
2011	4,057	9,957	15,064	19,139	21,995	24,245	25,788	26,947	27,678	28,218	28,660	28,977		
2012	4,090	9,689	14,427	18,093	20,770	22,626	23,961	24,843	25,452	25,948	26,316			
2013	4,102	9,303	13,786	17,233	19,516	21,105	22,080	22,725	23,239	23,619				
2014	3,888	8,982	13,463	16,693	18,839	20,318	21,246	21,980	22,481					
2015	3,885	9,113	13,427	16,605	18,550	19,752	20,675	21,462						
2016	4,072	9,270	13,360	16,174	17,869	19,090	20,079							
2017	4,261	9,479	13,535	16,117	17,908	19,273								
2018	4,445	9,893	13,951	16,910	18,853									
2019	4,367	9,549	13,958	17,252										
2020	3,932	9,223	13,584											
2021	4,199	9,594												
2022	4,096													

All Non-Large Deductible Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005				13,444	14,483	16,249	17,601	19,101	20,451	21,401	22,094	22,613	23,108	23,494
2006			12,666	14,482	16,955	18,925	20,793	22,308	23,348	24,140	24,775	25,368	25,787	26,186
2007		9,923	12,968	16,574	19,234	21,721	23,677	25,174	26,290	27,119	27,744	28,315	28,741	29,196
2008	5,161	9,759	14,645	18,632	22,124	24,631	26,465	27,847	28,791	29,712	30,256	30,746	31,198	31,479
2009	4,233	10,229	15,361	20,092	23,616	26,173	27,919	29,150	30,310	31,067	31,654	32,114	32,601	32,896
2010	4,276	10,135	15,926	20,496	23,746	26,028	27,764	29,108	29,993	30,667	31,323	31,730	31,996	
2011	3,755	9,961	15,190	19,341	22,204	24,489	26,033	27,180	27,882	28,394	28,854	29,113		
2012	4,106	9,796	14,612	18,376	21,032	22,808	24,170	24,997	25,636	26,173	26,546			
2013	4,163	9,358	13,964	17,445	19,618	21,304	22,224	22,889	23,394	23,793				
2014	3,861	9,056	13,603	16,866	19,079	20,601	21,551	22,210	22,691					
2015	3,957	9,225	13,630	16,955	18,922	20,169	21,096	21,964						
2016	4,158	9,495	13,804	16,744	18,510	19,736	20,755							
2017	4,484	9,845	14,087	16,821	18,672	20,091								
2018	4,580	10,216	14,462	17,543	19,547									
2019	4,355	9,841	14,423	17,826										
2020	4,155	9,692	14,441											
2021	4,211	9,862												
2022	4,158													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Incurred Indemnity Loss Per Open Indemnity Claim

Large Deductible (LD) Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		20,334	28,947	35,703	43,571	51,193	57,384	63,378	69,020	75,154	77,009	80,890	86,319	92,337
2006	9,450	20,799	30,355	38,427	50,104	58,266	67,386	65,858	71,830	74,528	79,655	83,049	89,735	92,662
2007	9,180	20,305	30,482	39,987	47,988	54,053	62,685	70,565	75,475	80,227	83,422	89,551	93,030	95,619
2008	10,405	21,574	32,765	42,407	50,348	58,687	67,132	74,211	81,762	90,566	96,911	105,432	102,726	111,364
2009	10,737	22,504	33,326	43,462	52,596	60,273	65,693	73,437	80,204	87,926	95,564	100,488	106,330	114,858
2010	10,851	22,577	33,575	43,899	51,736	58,784	64,634	70,742	78,899	83,949	86,896	90,895	89,041	
2011	11,307	22,589	34,094	43,440	50,446	56,691	63,610	72,632	78,227	83,045	90,718	98,982		
2012	11,142	23,743	34,389	42,539	50,480	59,638	67,326	74,296	78,818	82,026	89,557			
2013	11,770	23,614	33,061	42,786	50,597	57,808	64,783	70,507	74,812	81,966				
2014	11,893	23,735	35,748	46,451	55,427	64,014	69,967	75,918	78,901					
2015	11,561	25,069	37,734	48,605	56,787	62,316	68,973	76,003						
2016	11,843	25,176	37,665	48,340	56,276	62,515	68,907							
2017	11,983	26,639	40,035	48,988	57,484	62,922								
2018	12,790	28,069	40,053	49,398	57,639									
2019	13,048	27,759	39,957	50,284										
2020	13,221	28,626	40,851											
2021	13,796	29,337												
2022	14,330													

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		18,782	25,937	33,764	38,428	46,868	53,900	58,443	61,871	68,346	73,383	79,985	88,421	102,428
2006	10,421	20,300	29,571	37,295	42,990	50,276	57,226	62,260	68,777	67,335	67,329	71,775	74,344	75,170
2007	11,419	22,298	32,385	41,090	47,999	54,714	63,915	71,608	77,424	82,399	89,695	98,030	105,777	124,335
2008	11,462	23,882	34,884	43,853	52,029	58,969	68,116	72,007	79,340	87,350	93,973	104,269	120,157	129,459
2009	11,316	23,829	34,224	42,496	50,059	58,747	64,590	71,513	80,411	89,653	97,058	111,414	122,716	129,855
2010	11,537	23,422	33,827	42,515	49,948	56,649	64,923	71,652	79,243	91,869	107,266	115,272	132,344	
2011	11,587	23,332	32,815	41,830	48,310	55,361	62,926	72,649	79,914	89,895	96,796	105,681		
2012	11,547	22,928	32,882	40,296	47,415	53,726	62,539	71,949	82,557	90,995	100,168			
2013	12,008	23,537	32,445	39,932	45,754	53,649	63,987	71,547	79,529	82,633				
2014	12,086	23,238	33,131	40,296	47,900	56,580	63,937	74,836	78,978					
2015	12,544	24,878	35,213	44,255	54,308	62,182	72,158	85,960						
2016	13,093	25,866	36,479	45,426	54,311	62,254	69,790							
2017	13,342	26,691	38,517	48,400	57,305	69,240								
2018	13,521	26,581	38,862	48,980	59,609									
2019	13,373	27,521	39,730	50,601										
2020	14,228	28,436	41,121											
2021	14,222	29,682												
2022	14,936													

All California WC Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		19,553	27,588	34,432	40,867	48,534	57,057	65,525	72,896	80,000	83,625	90,186	98,153	106,208
2006	10,418	21,044	30,584	38,299	47,306	55,798	63,946	69,077	75,555	79,180	85,161	90,997	96,875	101,613
2007	10,676	22,253	32,620	41,325	49,390	56,512	66,578	74,762	80,826	89,334	96,282	104,581	117,149	120,440
2008	11,355	23,290	34,328	43,853	52,044	60,082	69,336	76,435	85,675	95,402	104,050	114,561	123,762	130,708
2009	11,376	23,567	33,895	43,285	51,704	60,058	65,940	74,667	84,287	92,953	104,169	114,073	124,260	132,404
2010	11,378	23,096	33,690	42,698	50,381	57,440	64,887	72,037	80,561	90,953	100,657	105,767	109,721	
2011	11,792	23,642	33,672	42,725	49,453	56,690	64,017	72,384	80,507	88,323	94,946	103,308		
2012	11,813	23,349	33,355	40,785	48,252	56,451	65,579	74,541	83,641	91,706	99,698			
2013	11,979	23,194	32,264	40,476	47,931	55,485	64,933	72,521	79,686	86,224				
2014	12,052	23,377	33,793	42,876	51,921	60,203	67,953	76,461	81,251					
2015	12,308	24,716	35,916	45,995	54,985	62,196	70,482	78,787						
2016	12,699	25,364	36,886	46,933	55,346	62,842	71,007							
2017	13,193	27,137	40,165	49,447	57,617	66,751								
2018	14,050	28,429	40,269	49,625	58,918									
2019	14,577	29,001	40,879	51,020										
2020	15,030	29,790	41,901											
2021	14,975	30,583												
2022	15,467													

All Non-Large Deductible Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		19,157	26,877	33,789	39,601	47,361	56,912	66,487	74,728	82,342	86,896	94,988	104,518	114,035
2006	10,837	21,170	30,703	38,237	46,072	54,719	62,503	70,705	77,491	81,543	88,076	95,258	100,727	106,382
2007	11,421	23,298	33,752	41,996	50,083	57,747	68,663	77,051	83,828	94,737	104,299	114,096	133,659	138,289
2008	11,775	24,157	35,096	44,566	52,881	60,816	70,477	77,602	87,797	98,179	108,127	120,065	137,457	143,819
2009	11,667	24,107	34,193	43,194	51,232	59,942	66,074	75,348	86,735	95,977	109,572	122,958	136,584	144,370
2010	11,623	23,374	33,752	42,036	49,636	56,688	65,033	72,809	81,527	95,202	109,271	115,301	123,664	
2011	12,018	24,197	33,445	42,338	48,921	56,690	64,248	72,246	81,881	91,613	97,699	106,262		
2012	12,146	23,127	32,754	39,746	46,932	54,516	64,471	74,699	86,890	98,633	107,443			
2013	12,084	22,954	31,793	39,106	46,297	54,017	65,032	73,911	83,226	89,435				
2014	12,132	23,166	32,606	40,723	49,753	57,733	66,553	76,869	83,185					
2015	12,710	24,507	34,808	44,394	53,806	62,112	71,609	81,099						
2016	13,159	25,481	36,389	46,013	54,697	63,079	72,652							
2017	13,893	27,459	40,254	49,767	57,714	69,730								
2018	14,777	28,666	40,415	49,784	59,899									
2019	15,495	29,855	41,531	51,555										
2020	16,146	30,560	42,650											
2021	15,673	31,447												
2022	16,163													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Outstanding Indemnity Per Open Indemnity Claim

Large Deductible (LD) Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		10,028	11,277	12,968	15,013	17,433	18,940	20,110	21,110	23,004	22,662	23,588	25,216	25,688
2006	6,086	9,548	11,897	14,258	17,655	19,986	21,809	20,739	21,868	22,620	23,494	24,814	27,043	27,452
2007	5,693	9,360	12,196	14,889	16,661	17,621	20,026	23,062	23,266	23,486	23,900	25,503	26,014	27,879
2008	6,575	10,193	13,205	15,349	16,548	18,440	20,286	21,877	24,504	27,824	28,834	31,290	31,075	35,128
2009	6,790	10,635	13,094	15,117	17,137	19,002	20,196	22,079	23,814	25,837	28,577	30,961	31,800	32,081
2010	6,788	10,674	13,115	15,481	17,034	18,446	19,295	20,997	22,393	23,244	26,359	27,416	26,891	
2011	7,279	10,569	13,711	15,842	17,165	18,452	20,318	23,651	25,128	28,226	28,924	32,229		
2012	6,834	11,302	13,674	15,309	17,385	19,667	22,837	25,576	28,970	29,815	31,067			
2013	7,517	11,249	12,890	15,109	16,823	18,529	20,461	23,732	24,850	28,380				
2014	7,644	11,553	14,390	16,952	19,675	22,005	24,195	26,233	26,964					
2015	7,394	12,150	15,355	18,049	19,980	22,571	23,737	26,414						
2016	7,595	12,305	15,367	18,330	20,639	22,016	23,760							
2017	7,586	13,133	16,749	19,492	22,096	22,416								
2018	8,156	14,067	17,641	19,422	21,257									
2019	8,215	13,644	16,343	18,623										
2020	8,300	13,845	16,817											
2021	8,159	13,517												
2022	8,473													

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		10,147	11,746	12,322	14,284	17,374	18,665	19,323	19,724	22,454	23,273	25,649	26,821	30,289
2006	7,639	11,367	13,199	15,066	16,630	18,499	20,208	22,105	24,242	22,497	22,807	23,279	24,243	21,829
2007	8,262	11,939	14,256	16,244	17,145	19,128	21,922	24,884	26,378	25,994	27,651	29,922	32,434	35,729
2008	7,964	12,553	15,097	16,470	18,148	19,778	22,110	23,512	25,908	26,860	28,221	30,672	37,760	41,410
2009	7,898	12,776	14,792	16,199	17,808	20,395	22,493	24,041	27,054	28,893	32,247	36,287	41,820	42,810
2010	8,084	12,447	14,688	16,247	17,952	20,027	22,887	25,305	28,424	34,765	39,326	42,275	44,494	
2011	8,079	12,397	13,983	16,278	17,543	19,980	22,983	25,501	28,860	33,571	36,040	38,218		
2012	7,825	12,189	14,545	15,504	18,051	20,075	23,785	27,136	32,163	35,260	39,305			
2013	8,564	13,119	14,689	15,507	16,382	19,503	23,500	26,064	27,887	29,261				
2014	8,764	12,965	14,751	15,907	18,227	21,436	23,905	29,136	31,498					
2015	9,198	14,272	16,317	18,354	22,066	24,870	28,744	33,005						
2016	9,493	14,602	16,852	18,922	22,149	25,664	27,451							
2017	9,721	15,152	17,967	21,177	24,386	29,858								
2018	9,725	15,159	18,818	22,055	27,068									
2019	9,550	15,413	18,563	22,767										
2020	10,178	15,978	20,273											
2021	9,658	15,613												
2022	10,107													

All California WC Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		9,831	11,243	12,546	14,745	17,592	20,562	23,463	25,663	27,579	28,053	30,567	33,299	35,278
2006	7,300	10,586	12,697	14,843	17,991	20,683	22,780	24,743	26,630	27,378	30,590	31,755	34,578	35,569
2007	7,305	11,167	13,863	16,007	17,923	19,792	23,750	26,522	27,927	30,973	32,405	34,781	41,946	39,955
2008	7,639	11,614	14,527	16,536	18,095	20,573	23,242	25,552	29,485	32,543	35,120	39,158	44,544	46,969
2009	7,716	12,232	14,366	16,336	18,462	21,013	22,351	25,415	28,691	31,495	35,886	39,960	43,419	46,344
2010	7,744	11,813	14,232	16,037	17,767	19,521	21,825	24,462	27,375	31,681	35,558	37,431	36,206	
2011	8,145	12,355	14,417	16,807	18,215	20,057	22,327	24,833	28,281	31,876	32,988	35,691		
2012	8,024	12,195	14,556	15,727	17,721	20,294	23,618	27,740	32,343	35,391	37,878			
2013	8,372	12,361	13,902	15,307	17,091	19,431	23,186	26,367	28,245	30,711				
2014	8,451	12,484	14,665	16,825	19,808	22,060	24,937	28,012	29,691					
2015	8,685	13,439	16,144	18,834	21,470	24,265	26,417	28,627						
2016	8,918	13,797	16,645	19,482	22,244	24,692	26,901							
2017	9,333	14,947	18,703	21,543	23,853	26,885								
2018	9,931	15,842	19,383	21,547	24,559									
2019	10,359	16,092	18,909	22,008										
2020	10,642	16,522	19,851											
2021	10,101	16,112												
2022	10,287													

All Non-Large Deductible Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		9,731	11,224	12,333	14,620	17,662	21,283	24,966	27,815	29,790	30,717	34,172	37,647	40,689
2006	7,825	11,119	13,115	15,127	18,140	20,987	23,188	26,769	29,105	29,795	34,349	35,477	38,644	39,893
2007	8,108	12,135	14,746	16,567	18,546	20,884	25,744	28,409	30,542	35,416	37,708	40,656	52,852	48,638
2008	8,109	12,331	15,176	17,121	18,858	21,697	24,773	27,479	32,185	35,252	38,711	43,902	53,313	54,994
2009	8,136	13,043	15,032	16,966	19,163	22,099	23,522	27,261	31,615	34,899	40,475	45,845	51,405	56,071
2010	8,189	12,424	14,838	16,344	18,170	20,124	23,282	26,528	30,271	36,798	41,316	43,851	42,486	
2011	8,548	13,296	14,799	17,328	18,777	20,934	23,472	25,490	30,181	34,151	35,634	38,054		
2012	8,615	12,697	15,068	15,974	17,920	20,674	24,113	29,146	34,615	39,382	43,080			
2013	8,801	12,996	14,499	15,424	17,255	20,001	25,009	28,186	30,711	32,468				
2014	8,861	13,032	14,832	16,749	19,891	22,096	25,453	29,351	31,936					
2015	9,380	14,204	16,624	19,315	22,445	25,437	28,419	30,465						
2016	9,628	14,726	17,460	20,235	23,363	26,632	29,361							
2017	10,344	16,119	20,024	22,973	25,126	30,362								
2018	10,955	17,013	20,558	23,036	27,093									
2019	11,644	17,776	20,723	24,465										
2020	12,087	18,292	22,012											
2021	11,252	17,909												
2022	11,397													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Outstanding Medical Per Open Indemnity Claim

Large Deductible (LD) Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		13,537	17,057	20,936	26,737	34,008	41,073	48,170	56,314	64,549	70,687	77,998	80,960	87,135
2006	11,884	14,552	18,114	23,807	31,737	37,861	46,462	48,427	56,969	63,171	65,970	67,611	73,995	74,799
2007	11,518	14,038	18,147	23,546	28,407	34,145	44,661	54,391	62,073	66,121	70,559	73,601	75,845	77,696
2008	13,292	16,153	20,422	25,443	31,302	39,242	49,077	59,303	68,949	72,684	81,042	86,294	86,855	84,279
2009	14,321	16,598	20,158	24,083	30,350	37,919	44,852	52,369	56,265	63,583	68,141	71,350	71,114	73,282
2010	14,382	17,376	21,303	26,539	31,665	36,819	42,956	49,903	55,776	62,066	67,267	69,348	70,423	
2011	15,186	17,567	22,857	27,826	32,655	37,833	46,946	54,485	63,116	68,500	75,674	78,190		
2012	14,768	18,192	21,943	25,585	30,213	36,038	41,476	47,336	51,340	55,230	56,068			
2013	15,517	18,121	20,632	25,869	30,055	36,041	41,783	49,707	53,343	60,535				
2014	15,214	16,973	20,187	25,416	30,562	36,635	42,039	45,880	49,621					
2015	14,086	16,643	20,683	25,408	32,369	36,887	40,776	45,901						
2016	14,384	17,521	22,065	27,376	31,893	34,137	38,258							
2017	14,326	18,109	22,961	28,149	32,072	34,832								
2018	15,218	19,647	23,348	27,097	30,819									
2019	14,994	18,596	21,373	24,113										
2020	14,288	18,277	21,354											
2021	15,480	19,031												
2022	15,092													

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		15,248	19,037	22,224	27,043	35,838	42,983	49,408	55,173	62,153	67,034	76,878	78,636	83,019
2006	13,430	16,149	20,592	25,549	29,758	36,364	42,111	50,549	60,653	62,857	63,062	65,714	72,271	65,128
2007	14,938	18,228	23,381	28,099	32,465	39,480	48,639	60,885	68,926	76,947	80,981	85,532	92,070	96,733
2008	15,047	19,598	23,297	26,417	33,402	41,718	50,206	57,746	66,268	74,877	81,975	94,008	97,288	98,912
2009	15,060	19,347	23,258	27,629	33,535	42,140	49,370	56,404	65,250	71,252	78,837	90,648	86,945	86,720
2010	16,111	19,371	23,901	29,067	36,161	42,112	48,727	52,943	58,415	69,832	71,532	73,567	81,819	
2011	16,250	19,877	24,020	29,291	35,044	40,624	49,000	57,906	66,443	68,558	72,068	77,162		
2012	16,093	20,096	24,122	27,321	33,432	39,107	45,851	54,446	59,795	66,153	64,648			
2013	16,080	20,523	22,827	26,718	32,625	38,014	47,278	51,900	52,572	57,633				
2014	16,413	18,915	22,480	25,302	28,806	33,829	38,477	45,012	47,959					
2015	16,984	20,794	25,034	29,658	37,967	43,877	45,330	49,586						
2016	17,358	20,806	23,971	28,601	35,550	41,891	45,834							
2017	16,989	21,167	25,405	30,932	37,703	47,532								
2018	16,499	19,951	24,497	28,503	34,443									
2019	15,490	19,641	22,883	28,422										
2020	15,607	18,846	23,737											
2021	15,807	19,410												
2022	16,276													

All California WC Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		14,000	17,713	21,200	25,633	34,329	42,674	52,441	63,629	73,480	76,277	86,290	88,738	93,529
2006	12,297	16,004	20,514	25,078	31,482	38,801	46,839	56,029	65,210	70,761	76,060	79,869	90,204	92,878
2007	12,990	16,919	21,316	26,640	32,600	39,934	50,728	60,662	68,682	76,004	88,306	92,974	105,333	105,529
2008	14,057	17,949	22,391	27,565	33,679	41,930	51,136	60,086	69,602	76,644	85,604	96,406	101,169	100,328
2009	14,301	18,519	22,983	28,090	34,183	41,901	48,565	57,434	65,326	73,800	87,993	96,395	99,477	103,953
2010	14,650	18,624	23,116	28,265	34,245	39,703	46,289	52,677	58,983	68,241	74,341	74,195	77,346	
2011	15,503	19,944	24,412	30,213	36,262	41,214	47,824	53,957	63,884	68,316	72,621	78,074		
2012	15,799	19,845	23,950	27,526	32,434	39,057	45,459	55,395	62,625	68,513	67,736			
2013	15,547	19,810	22,369	26,619	31,670	37,091	44,764	51,799	54,648	61,510				
2014	15,386	18,456	21,756	26,242	31,322	37,294	42,929	48,632	53,959					
2015	15,559	19,309	23,875	29,269	35,682	40,800	44,374	49,260						
2016	15,998	20,261	24,934	29,858	35,333	39,733	44,140							
2017	16,886	21,468	26,870	32,003	37,057	43,041								
2018	17,710	22,377	26,198	30,016	35,317									
2019	17,712	22,024	24,798	28,574										
2020	17,622	21,983	26,149											
2021	17,967	22,154												
2022	18,009													

All Non-Large Deductible Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		14,236	18,056	21,334	25,116	34,471	43,385	54,355	67,085	77,795	79,040	90,573	92,922	97,137
2006	12,476	16,749	21,766	25,695	31,369	39,212	46,997	59,875	69,494	74,617	81,404	86,441	98,949	102,509
2007	13,723	18,462	22,996	28,192	34,672	42,844	53,976	64,082	72,389	81,867	99,371	105,239	125,518	125,543
2008	14,396	18,856	23,358	28,611	34,852	43,346	52,202	60,497	69,957	78,918	88,209	102,504	110,489	111,205
2009	14,291	19,496	24,463	30,159	36,210	44,051	50,582	60,237	70,757	79,948	100,458	112,774	118,971	124,872
2010	14,775	19,295	24,100	29,216	35,664	41,319	48,207	54,330	60,846	71,986	78,769	77,302	82,014	
2011	15,651	21,197	25,252	31,504	38,195	43,062	48,323	53,663	64,346	68,201	70,632	77,995		
2012	16,311	20,776	25,115	28,676	33,750	40,891	47,983	60,631	70,225	78,018	76,647			
2013	15,562	20,773	23,394	27,064	32,660	37,755	46,759	53,244	55,596	62,244				
2014	15,473	19,328	22,708	26,739	31,793	37,720	43,548	50,703	57,531					
2015	16,352	20,890	25,819	31,636	37,850	43,508	47,064	52,051						
2016	16,865	21,967	26,764	31,481	37,732	43,789	48,747							
2017	18,366	23,638	29,511	34,690	40,668	49,427								
2018	19,147	24,178	28,122	32,061	38,768									
2019	19,342	24,382	27,219	31,811										
2020	19,681	24,433	29,565											
2021	19,439	24,317												
2022	19,794													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Average Paid ALAE (Excluding Paid M CCP) Per Indemnity Claim *

Large Deductible (LD) Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		1,864	3,247	4,336	5,093	5,683	6,109	6,459	6,759	6,932	7,107	7,267	7,386	7,494
2006	553	2,117	3,588	4,693	5,547	6,178	6,674	6,980	7,227	7,462	7,643	7,783	7,903	7,984
2007	670	2,262	3,777	5,041	5,967	6,690	7,283	7,640	7,977	8,243	8,454	8,614	8,728	8,813
2008	738	2,392	4,052	5,440	6,471	7,300	7,856	8,313	8,680	8,936	9,143	9,305	9,415	9,499
2009	742	2,634	4,521	6,068	7,252	8,092	8,738	9,249	9,594	9,860	10,050	10,190	10,293	10,373
2010	809	2,879	4,840	6,347	7,474	8,305	8,952	9,416	9,742	9,956	10,117	10,219	10,301	
2011	896	3,058	4,970	6,513	7,606	8,456	9,090	9,525	9,776	9,974	10,116	10,225		
2012	891	2,998	4,996	6,534	7,725	8,536	9,061	9,441	9,697	9,872	10,002			
2013	947	3,242	5,248	6,807	7,854	8,503	8,961	9,237	9,430	9,562				
2014	1,067	3,400	5,499	6,987	7,912	8,514	8,944	9,212	9,394					
2015	1,048	3,539	5,576	6,928	7,772	8,293	8,655	8,898						
2016	1,085	3,564	5,491	6,713	7,485	7,986	8,345							
2017	1,127	3,624	5,520	6,711	7,462	7,975								
2018	1,336	3,936	5,948	7,199	8,064									
2019	1,459	4,074	6,160	7,553										
2020	1,135	3,647	5,481											
2021	1,244	3,658												
2022	1,306													

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		1,888	3,053	3,897	4,617	5,138	5,487	5,776	6,016	6,187	6,336	6,455	6,466	6,546
2006	630	1,786	2,889	3,876	4,629	5,192	5,612	5,936	6,151	6,365	6,492	6,467	6,556	6,591
2007	516	1,725	3,002	4,059	4,932	5,517	5,944	6,267	6,525	6,679	6,679	6,783	6,894	6,901
2008	530	1,937	3,354	4,545	5,418	6,015	6,473	6,849	7,060	7,154	7,294	7,408	7,460	7,609
2009	618	2,197	3,766	5,126	5,994	6,625	7,161	7,486	7,602	7,793	7,940	7,994	8,166	8,229
2010	669	2,290	4,064	5,233	6,092	6,800	7,308	7,450	7,684	7,904	7,970	8,104	8,246	
2011	662	2,385	3,820	4,971	5,888	6,468	6,715	7,035	7,345	7,446	7,585	7,889		
2012	707	2,266	3,748	4,999	5,820	6,253	6,657	7,055	7,212	7,372	7,596			
2013	647	2,311	3,891	5,050	5,801	6,316	6,813	6,994	7,184	7,371				
2014	706	2,514	4,012	5,103	5,807	6,476	6,711	6,984	7,155					
2015	834	2,673	4,239	5,283	6,210	6,516	6,870	7,081						
2016	794	2,774	4,333	5,677	6,185	6,711	7,012							
2017	871	2,937	4,693	5,489	6,190	6,612								
2018	916	3,134	4,493	5,591	6,266									
2019	938	2,786	4,386	5,437										
2020	800	2,790	4,340											
2021	849	2,779												
2022	851													

All California WC Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		1,765	3,023	3,987	4,698	5,219	5,600	5,907	6,171	6,339	6,496	6,637	6,734	6,825
2006	534	1,853	3,126	4,127	4,876	5,444	5,874	6,193	6,420	6,630	6,788	6,908	7,007	7,063
2007	571	1,978	3,323	4,419	5,246	5,881	6,397	6,718	6,996	7,209	7,353	7,482	7,580	7,645
2008	619	2,118	3,620	4,886	5,819	6,532	7,020	7,412	7,695	7,884	8,055	8,192	8,277	8,350
2009	675	2,406	4,130	5,518	6,550	7,277	7,849	8,260	8,490	8,718	8,892	9,004	9,096	9,168
2010	748	2,589	4,352	5,688	6,653	7,383	7,966	8,244	8,515	8,722	8,859	8,943	9,017	
2011	769	2,616	4,270	5,561	6,516	7,311	7,726	8,075	8,345	8,502	8,617	8,706		
2012	774	2,602	4,301	5,631	6,676	7,293	7,729	8,078	8,290	8,431	8,535			
2013	788	2,732	4,447	5,810	6,686	7,253	7,699	7,939	8,108	8,223				
2014	873	2,908	4,687	5,961	6,770	7,342	7,690	7,913	8,067					
2015	927	3,049	4,827	6,013	6,799	7,255	7,569	7,822						
2016	933	3,157	4,901	6,072	6,751	7,199	7,507							
2017	1,016	3,281	4,984	6,012	6,670	7,108								
2018	1,111	3,421	5,100	6,209	6,947									
2019	1,144	3,364	5,124	6,306										
2020	989	3,166	4,816											
2021	1,023	3,172												
2022	1,068													

All Non-Large Deductible Experience

Evaluated as of (months):														
<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005		1,661	2,780	3,607	4,265	4,712	5,049	5,309	5,533	5,696	5,834	5,952	6,023	6,094
2006	519	1,634	2,738	3,645	4,306	4,818	5,192	5,513	5,724	5,911	6,049	6,147	6,228	6,262
2007	502	1,767	2,980	3,949	4,699	5,267	5,722	6,014	6,248	6,420	6,508	6,613	6,699	6,748
2008	548	1,935	3,330	4,510	5,376	6,008	6,448	6,794	7,020	7,153	7,297	7,418	7,482	7,548
2009	636	2,263	3,878	5,164	6,095	6,747	7,270	7,616	7,747	7,949	8,114	8,202	8,289	8,355
2010	714	2,411	4,050	5,274	6,139	6,813	7,355	7,488	7,723	7,933	8,047	8,122	8,190	
2011	702	2,361	3,861	5,005	5,887	6,649	6,908	7,205	7,498	7,621	7,721	7,797		
2012	710	2,360	3,873	5,078	6,033	6,505	6,883	7,230	7,403	7,523	7,609			
2013	696	2,410	3,940	5,177	5,924	6,435	6,890	7,097	7,250	7,354				
2014	756	2,587	4,152	5,277	6,006	6,567	6,855	7,048	7,183					
2015	853	2,730	4,334	5,407	6,153	6,566	6,846	7,098						
2016	845	2,889	4,503	5,637	6,253	6,666	6,940							
2017	947	3,047	4,612	5,527	6,122	6,508								
2018	969	3,060	4,502	5,509	6,156									
2019	954	2,852	4,373	5,399										
2020	885	2,804	4,311											
2021	868	2,799												
2022	901													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Paid MCCP per Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2012	828	1,570	2,113	2,457	2,625	2,767	2,850	2,925	2,982	3,017	3,050			
2013	854	1,646	2,154	2,434	2,619	2,749	2,841	2,904	2,951	2,989				
2014	852	1,660	2,129	2,402	2,584	2,708	2,793	2,849	2,914					
2015	911	1,696	2,104	2,362	2,528	2,619	2,694	2,753						
2016	884	1,556	1,940	2,184	2,319	2,435	2,510							
2017	814	1,531	1,948	2,174	2,337	2,443								
2018	908	1,534	1,848	2,084	2,236									
2019	861	1,481	1,883	2,130										
2020	673	1,286	1,617											
2021	731	1,329												
2022	678													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2012	838	1,723	2,309	2,686	2,626	2,786	2,879	2,928	2,882	2,915	2,913			
2013	864	1,762	2,319	2,326	2,492	2,614	2,656	2,593	2,627	2,650				
2014	840	1,673	1,993	2,211	2,374	2,412	2,370	2,421	2,466					
2015	748	1,420	1,744	1,989	2,070	2,038	2,102	2,172						
2016	624	1,241	1,555	1,644	1,659	1,743	1,829							
2017	608	1,132	1,343	1,462	1,584	1,676								
2018	623	1,137	1,383	1,596	1,724									
2019	542	1,009	1,339	1,539										
2020	456	917	1,182											
2021	493	931												
2022	471													

All California WC Experience

	Evaluated as of (months):													
AY	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2012	665	1,346	1,815	2,121	2,225	2,365	2,458	2,475	2,511	2,540	2,568			
2013	653	1,327	1,768	1,965	2,126	2,243	2,262	2,305	2,339	2,367				
2014	631	1,291	1,662	1,881	2,033	2,072	2,134	2,175	2,217					
2015	626	1,227	1,556	1,769	1,842	1,906	1,960	2,020						
2016	592	1,152	1,454	1,583	1,679	1,758	1,816							
2017	585	1,126	1,390	1,558	1,671	1,751								
2018	639	1,141	1,414	1,599	1,720									
2019	588	1,104	1,416	1,611										
2020	498	982	1,254											
2021	526	1,002												
2022	495													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2012	584	1,221	1,646	1,932	2,000	2,131	2,229	2,216	2,238	2,262	2,287			
2013	550	1,147	1,547	1,695	1,835	1,943	1,924	1,952	1,978	2,000				
2014	517	1,081	1,393	1,576	1,708	1,700	1,745	1,778	1,806					
2015	475	960	1,237	1,420	1,436	1,484	1,525	1,580						
2016	439	912	1,157	1,211	1,283	1,338	1,386							
2017	456	872	1,035	1,166	1,248	1,311								
2018	485	889	1,133	1,282	1,383									
2019	438	854	1,104	1,262										
2020	386	776	1,002											
2021	400	778												
2022	379													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Ratio of Paid Losses to Reported Incurred - Indemnity

Large Deductible (LD) Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	37.6%	58.0%	72.3%	80.5%	85.1%	87.7%	89.7%	91.4%	93.1%	94.0%	95.0%	95.8%	96.3%	96.8%
2006	39.5%	60.8%	72.7%	80.1%	84.3%	87.0%	89.6%	91.4%	92.8%	94.1%	95.1%	95.8%	96.3%	97.0%
2007	41.1%	60.9%	71.7%	78.8%	83.7%	87.0%	89.3%	90.7%	92.5%	94.1%	95.2%	95.9%	96.6%	96.9%
2008	40.6%	59.7%	71.4%	78.7%	84.0%	87.4%	90.2%	92.0%	93.3%	94.0%	95.2%	95.8%	96.5%	96.5%
2009	40.2%	59.6%	71.2%	78.9%	84.1%	87.5%	90.3%	92.5%	93.8%	94.9%	95.7%	96.2%	96.6%	
2010	41.0%	59.3%	71.5%	79.3%	85.0%	88.5%	91.7%	93.6%	95.1%	96.1%	96.5%	97.1%		
2011	39.2%	60.0%	71.2%	79.5%	85.4%	89.2%	91.9%	93.6%	94.9%	95.5%	96.3%			
2012	42.3%	60.0%	72.9%	81.0%	86.2%	90.0%	92.0%	93.8%	94.7%	95.6%				
2013	40.2%	60.7%	74.5%	82.6%	88.1%	91.4%	93.5%	94.6%	95.7%	96.1%				
2014	39.9%	60.5%	74.4%	83.0%	88.0%	91.0%	92.9%	94.3%	95.3%					
2015	40.5%	61.4%	75.4%	83.9%	89.0%	91.2%	93.2%	94.2%						
2016	40.7%	62.3%	76.4%	84.4%	88.3%	91.2%	93.1%							
2017	42.2%	62.7%	76.2%	83.3%	87.6%	91.1%								
2018	42.0%	62.3%	74.6%	82.9%	87.6%									
2019	43.2%	62.1%	75.1%	83.3%										
2020	44.3%	64.0%	75.7%											
2021	47.6%	65.3%												
2022	47.7%													

Non-Large Deductible Experience from Insurers Writing LD

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	26.0%	52.6%	68.1%	79.3%	84.0%	86.0%	88.9%	91.0%	93.6%	94.4%	95.6%	96.2%	96.2%	96.5%
2006	30.3%	52.7%	68.3%	77.1%	82.5%	86.1%	88.3%	90.9%	92.6%	93.5%	94.7%	95.5%	96.5%	97.2%
2007	31.7%	54.2%	69.0%	77.4%	83.5%	86.6%	89.0%	90.8%	92.6%	94.7%	95.7%	96.4%	96.8%	97.2%
2008	33.9%	54.9%	68.6%	78.1%	83.6%	87.3%	89.7%	91.8%	93.4%	94.7%	95.8%	96.4%	96.5%	96.6%
2009	33.7%	53.5%	68.6%	77.4%	81.7%	86.5%	89.3%	91.9%	93.5%	94.8%	95.5%	96.0%	96.2%	96.6%
2010	33.0%	54.0%	68.2%	77.6%	83.3%	87.7%	90.6%	92.8%	94.1%	94.6%	95.4%	95.9%	96.6%	
2011	33.5%	54.3%	68.8%	77.0%	83.3%	88.5%	91.1%	93.1%	94.4%	94.9%	95.5%	96.2%		
2012	35.5%	54.2%	68.7%	79.0%	84.7%	89.1%	91.4%	93.1%	94.0%	95.0%	95.6%			
2013	31.4%	53.5%	70.1%	80.6%	86.5%	90.5%	92.4%	94.0%	95.3%	96.2%				
2014	31.3%	54.4%	71.3%	80.8%	86.5%	90.4%	92.8%	93.7%	94.9%					
2015	30.9%	53.9%	71.1%	81.1%	87.0%	90.0%	92.0%	93.6%						
2016	31.9%	55.4%	72.3%	82.2%	87.0%	89.9%	92.5%							
2017	31.1%	55.2%	71.6%	80.5%	86.3%	88.7%								
2018	31.9%	54.8%	69.8%	79.7%	85.3%									
2019	31.2%	53.5%	69.1%	78.6%										
2020	31.1%	53.8%	69.5%											
2021	33.9%	55.8%												
2022	35.7%													

All California WC Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	31.4%	56.2%	70.1%	78.8%	82.8%	84.8%	86.5%	88.1%	91.8%	92.5%	93.6%	94.0%	94.7%	95.5%
2006	33.2%	56.5%	69.8%	77.2%	81.2%	84.1%	86.7%	89.0%	90.6%	91.9%	93.1%	94.4%	95.1%	95.9%
2007	34.8%	56.6%	68.8%	76.6%	81.6%	84.9%	87.3%	89.3%	91.2%	92.6%	94.0%	94.8%	95.1%	96.2%
2008	36.0%	56.7%	68.7%	76.9%	82.4%	86.1%	88.7%	90.6%	92.0%	93.2%	94.4%	95.1%	95.5%	95.9%
2009	35.5%	54.8%	68.6%	76.9%	82.5%	86.0%	89.1%	91.2%	92.7%	93.9%	94.8%	95.4%	95.9%	96.2%
2010	35.2%	55.7%	69.1%	78.2%	83.9%	87.7%	90.5%	92.5%	93.9%	94.8%	95.5%	96.2%	96.9%	
2011	34.3%	55.1%	69.7%	77.9%	84.0%	88.1%	91.0%	93.0%	94.4%	95.2%	96.0%	96.5%		
2012	35.8%	56.3%	70.3%	79.8%	85.3%	89.0%	91.5%	93.2%	94.1%	95.0%	95.6%			
2013	34.3%	56.1%	71.8%	81.4%	87.2%	90.6%	92.6%	94.1%	95.2%	96.0%				
2014	34.2%	56.7%	72.5%	81.7%	87.1%	90.6%	92.7%	94.1%	95.3%					
2015	34.0%	56.7%	72.8%	82.2%	87.8%	90.5%	92.7%	94.3%						
2016	34.8%	58.0%	73.9%	83.1%	87.5%	90.5%	92.8%							
2017	34.8%	58.1%	73.5%	81.6%	86.9%	89.9%								
2018	35.3%	57.8%	71.8%	81.0%	86.3%									
2019	35.3%	56.9%	71.6%	80.6%										
2020	35.6%	57.8%	72.0%											
2021	38.7%	59.6%												
2022	40.0%													

All Non-Large Deductible Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	28.9%	55.2%	68.8%	77.8%	81.4%	83.1%	84.6%	86.1%	88.7%	90.5%	92.0%	93.0%	93.8%	94.6%
2006	30.8%	54.3%	68.2%	75.6%	79.4%	82.4%	85.1%	87.6%	89.5%	91.2%	92.2%	93.6%	94.4%	95.2%
2007	32.2%	54.6%	67.4%	75.4%	80.5%	83.8%	86.2%	88.5%	90.4%	91.8%	93.3%	94.3%	94.3%	95.9%
2008	34.1%	55.3%	67.4%	75.9%	81.5%	85.5%	87.9%	89.9%	91.3%	92.8%	93.9%	94.7%	95.0%	95.6%
2009	33.5%	52.5%	67.2%	75.7%	81.7%	85.1%	88.4%	90.5%	92.1%	93.4%	94.3%	94.9%	95.4%	95.6%
2010	32.7%	54.0%	67.8%	77.6%	83.3%	87.1%	89.9%	91.9%	93.1%	94.0%	94.8%	95.6%	96.6%	
2011	32.3%	52.8%	68.8%	77.0%	83.3%	87.4%	90.4%	92.7%	94.1%	94.9%	95.9%	96.5%		
2012	32.7%	54.2%	68.7%	79.0%	84.7%	88.4%	91.1%	92.8%	93.7%	94.6%	95.3%			
2013	31.4%	53.5%	70.1%	80.6%	86.5%	90.0%	92.1%	93.7%	95.0%	95.9%				
2014	31.3%	54.4%	71.3%	80.8%	86.5%	90.4%	92.5%	94.0%	95.3%					
2015	30.9%	53.9%	71.1%	81.1%	87.0%	90.0%	92.4%	94.4%						
2016	31.9%	55.4%	72.3%	82.2%	87.0%	90.0%	92.5%							
2017	31.1%	55.2%	71.6%	80.5%	86.3%	89.1%								
2018	31.9%	54.8%	69.8%	79.7%	85.3%									
2019	31.2%	53.5%	69.1%	78.6%										
2020	31.1%	53.8%	69.5%											
2021	33.9%	55.8%												
2022	35.7%													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Ratio of Paid Losses to Reported Incurred - Medical

Large Deductible (LD) Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	40.5%	62.6%	70.6%	77.6%	81.4%	83.4%	84.8%	86.2%	87.8%	88.9%	89.9%	91.0%	92.2%	92.9%
2006	41.3%	62.0%	71.3%	77.0%	80.5%	83.0%	84.8%	86.4%	87.5%	89.0%	90.8%	92.4%	93.2%	94.5%
2007	42.3%	63.5%	71.8%	77.2%	81.1%	83.2%	84.4%	85.8%	87.2%	89.3%	90.9%	92.3%	93.4%	94.4%
2008	42.4%	60.9%	70.2%	75.7%	79.4%	82.0%	84.2%	85.7%	87.5%	89.5%	91.0%	92.2%	93.4%	94.3%
2009	39.9%	60.0%	69.2%	76.1%	80.2%	82.8%	85.3%	87.7%	89.9%	91.3%	92.8%	93.8%	94.7%	95.3%
2010	40.0%	58.6%	68.4%	75.2%	80.5%	83.9%	87.0%	89.2%	91.3%	92.6%	93.7%	94.7%	95.4%	
2011	38.6%	58.8%	65.7%	73.5%	79.3%	83.6%	86.2%	89.0%	90.4%	91.9%	92.6%	93.7%		
2012	38.9%	55.1%	66.5%	74.7%	80.6%	85.0%	88.1%	90.4%	92.1%	93.2%	94.1%			
2013	34.2%	54.5%	67.3%	75.2%	82.0%	85.7%	88.6%	90.2%	91.9%	92.6%				
2014	34.8%	55.6%	68.4%	76.7%	82.6%	85.9%	88.4%	90.5%	91.8%					
2015	35.0%	56.9%	69.3%	78.2%	82.7%	85.8%	88.5%	90.1%						
2016	35.9%	57.0%	69.3%	77.8%	82.5%	86.7%	89.1%							
2017	36.7%	57.9%	69.9%	76.9%	82.4%	86.3%								
2018	37.5%	57.4%	69.4%	77.7%	82.9%									
2019	37.8%	56.7%	69.6%	79.1%										
2020	35.3%	57.7%	69.9%											
2021	37.0%	58.0%												
2022	37.0%													

Non-Large Deductible Experience from Insurers Writing LD

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	34.5%	55.2%	66.0%	75.0%	79.8%	81.0%	83.4%	85.2%	86.8%	88.5%	90.3%	91.5%	92.7%	93.8%
2006	34.9%	57.2%	67.5%	74.4%	79.3%	82.2%	84.2%	85.7%	87.0%	88.8%	91.2%	92.5%	93.2%	94.5%
2007	35.3%	56.7%	66.9%	74.2%	79.7%	82.2%	84.4%	85.8%	87.9%	90.1%	92.0%	93.3%	94.3%	95.1%
2008	37.5%	56.5%	67.4%	76.1%	79.8%	82.6%	84.9%	87.1%	89.1%	90.6%	92.0%	92.8%	94.1%	94.7%
2009	37.3%	56.1%	67.5%	74.0%	76.9%	82.4%	85.2%	87.9%	90.0%	91.7%	93.0%	93.6%	94.8%	95.5%
2010	35.5%	56.5%	67.1%	73.4%	78.5%	83.7%	87.4%	90.4%	92.2%	93.0%	94.6%	95.4%	95.9%	
2011	35.3%	56.0%	63.7%	71.5%	77.1%	84.2%	87.2%	89.3%	91.1%	92.8%	93.7%	94.7%		
2012	35.7%	51.0%	63.7%	73.6%	79.7%	85.0%	88.2%	90.1%	91.9%	93.2%	94.8%			
2013	31.2%	49.9%	64.9%	74.9%	81.1%	85.9%	88.1%	90.8%	93.1%	94.2%				
2014	30.4%	51.8%	66.4%	76.0%	82.7%	87.5%	90.5%	91.9%	93.5%					
2015	30.1%	51.1%	65.2%	75.3%	82.1%	85.8%	89.6%	92.0%						
2016	30.9%	52.3%	66.7%	77.3%	82.6%	86.1%	89.2%							
2017	31.5%	53.0%	67.1%	76.1%	81.9%	85.0%								
2018	31.3%	53.3%	67.2%	77.0%	82.8%									
2019	30.4%	51.1%	66.3%	76.3%										
2020	28.6%	51.5%	65.9%											
2021	29.2%	52.4%												
2022	28.9%													

All California WC Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	35.1%	56.7%	66.0%	73.9%	78.3%	79.2%	80.5%	81.8%	83.9%	85.4%	87.5%	88.8%	90.6%	91.9%
2006	35.0%	56.0%	66.0%	72.9%	76.9%	79.3%	81.3%	83.2%	84.8%	86.6%	88.8%	90.5%	91.4%	92.7%
2007	35.1%	56.8%	66.7%	72.9%	77.0%	79.5%	82.0%	83.9%	85.8%	88.1%	89.3%	90.9%	91.9%	93.4%
2008	37.2%	56.6%	66.4%	73.0%	77.3%	80.8%	83.3%	85.3%	87.4%	89.3%	90.8%	91.8%	93.1%	94.1%
2009	37.1%	55.6%	65.6%	72.7%	78.0%	81.3%	84.2%	86.7%	88.8%	90.4%	91.4%	92.5%	93.5%	94.1%
2010	36.4%	55.7%	66.3%	74.0%	79.2%	83.1%	86.5%	89.1%	91.0%	92.3%	93.5%	94.8%	95.5%	
2011	35.1%	54.9%	64.4%	72.2%	77.8%	82.8%	86.4%	89.2%	91.0%	92.5%	93.6%	94.5%		
2012	35.1%	52.4%	64.7%	74.0%	80.1%	84.2%	87.6%	89.7%	91.3%	92.6%	94.0%			
2013	32.2%	51.5%	65.7%	75.0%	81.4%	85.8%	88.7%	90.7%	92.6%	93.5%				
2014	31.9%	53.2%	67.1%	76.3%	82.6%	86.5%	89.2%	91.2%	92.6%					
2015	31.7%	53.1%	66.7%	76.3%	82.3%	85.9%	89.1%	91.3%						
2016	32.6%	54.0%	67.7%	77.5%	82.5%	86.4%	89.4%							
2017	33.2%	54.7%	68.2%	76.4%	82.1%	85.8%								
2018	33.4%	54.8%	68.0%	77.2%	82.8%									
2019	32.9%	53.2%	67.6%	77.4%										
2020	30.8%	53.7%	67.4%											
2021	31.9%	54.5%												
2022	31.7%													

All Non-Large Deductible Experience

AY	Evaluated as of (months):													
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>
2005	32.6%	53.1%	63.1%	71.6%	76.4%	76.5%	77.9%	79.1%	81.6%	83.4%	86.1%	87.5%	89.6%	91.3%
2006	31.9%	52.7%	63.0%	70.6%	74.8%	77.2%	79.3%	81.3%	83.3%	85.3%	87.6%	89.5%	90.3%	91.7%
2007	31.6%	53.2%	63.9%	70.6%	74.9%	77.5%	78.4%	82.9%	85.1%	87.4%	88.4%	90.2%	91.0%	92.8%
2008	34.8%	54.5%	64.5%	71.6%	76.2%	76.5%	82.8%	85.1%	87.4%	89.2%	90.6%	91.6%	92.9%	93.9%
2009	35.8%	53.4%	63.7%	70.9%	74.8%	80.5%	83.7%	86.2%	88.3%	90.0%	90.7%	91.7%	92.9%	93.5%
2010	34.7%	54.3%	65.3%	70.6%	78.5%	82.7%	86.3%	89.0%	90.9%	92.2%	93.4%	94.9%	95.5%	
2011	33.3%	53.0%	64.5%	71.5%	77.1%	82.4%	86.5%	89.4%	91.2%	92.9%	94.2%	94.9%		
2012	33.2%	53.4%	63.7%	73.6%	79.7%	83.8%	87.4%	89.3%	90.8%	92.2%	93.9%			
2013	34.7%	49.9%	64.9%	74.9%	81.1%	85.9%	88.8%	90.9%	93.0%	94.0%				
2014	30.4%	51.8%	66.4%	76.0%	82.7%	86.8%	89.7%	91.7%	93.1%					
2015	30.1%	51.1%	65.2%	75.3%	82.1%	86.0%	89.5%	92.0%						
2016	30.9%	52.3%	66.7%	77.3%	82.6%	86.2%	89.6%							
2017	31.5%	53.0%	67.1%	76.1%	81.9%	85.4%								
2018	31.3%	53.3%	67.2%	77.0%	82.8%									
2019	30.4%	51.1%	66.3%	76.3%										
2020	28.6%	51.5%	65.9%											
2021	29.2%	52.4%												
2022	28.9%													

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Reported Indemnity Claim Count Development

Large Deductible (LD) Experience

AY	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005		1.035	1.011	1.005	1.000	1.002	1.001	1.000	1.001	1.001	1.000	1.000	1.000
2006	1.236	1.030	1.017	1.002	1.005	1.002	1.003	1.002	1.001	1.001	1.000	1.000	1.000
2007	1.196	1.030	1.009	1.007	1.006	1.002	1.002	1.002	1.001	1.000	1.001	1.000	1.000
2008	1.236	1.033	1.018	1.008	1.006	1.002	1.003	1.001	1.001	1.001	1.000	1.000	1.000
2009	1.284	1.047	1.015	1.009	1.005	1.004	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2010	1.322	1.041	1.017	1.008	1.006	1.004	1.002	1.001	1.001	1.000	1.000	1.000	
2011	1.320	1.052	1.018	1.010	1.004	1.002	1.001	1.001	1.000	1.000	1.000		
2012	1.362	1.045	1.019	1.005	1.004	1.002	1.001	1.000	1.001	1.001			
2013	1.337	1.047	1.013	1.005	1.004	1.002	1.001	1.001	1.001				
2014	1.326	1.037	1.012	1.007	1.004	1.001	1.000	1.001					
2015	1.296	1.039	1.012	1.006	1.004	1.001	1.001						
2016	1.347	1.047	1.013	1.003	1.001	1.000							
2017	1.300	1.033	1.008	1.002	1.002								
2018	1.319	1.029	1.009	1.005									
2019	1.373	1.033	1.010										
2020	1.261	1.033											
2021	1.317												

Non-Large Deductible Experience from Insurers Writing LD

AY	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005		1.010	1.004	0.997	1.005	1.006	1.002	1.003	1.000	0.999	0.999	1.000	1.000
2006	1.122	1.019	0.996	1.006	1.001	1.001	1.000	1.002	1.000	1.001	1.000	1.000	1.001
2007	1.126	1.011	1.009	1.004	1.003	1.001	1.001	1.000	1.000	1.001	1.000	1.001	1.000
2008	1.136	1.024	1.009	1.004	1.003	1.002	1.001	1.001	1.001	1.000	1.001	1.001	1.001
2009	1.153	1.022	1.011	1.005	1.004	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.001
2010	1.180	1.026	1.008	1.009	1.003	1.001	1.001	1.001	1.001	1.000	1.001	1.000	
2011	1.200	1.022	1.011	1.007	1.003	1.001	1.001	1.001	1.001	1.001	1.000		
2012	1.194	1.030	1.009	1.012	1.003	1.001	1.001	1.000	1.001	1.000			
2013	1.207	1.021	1.014	1.006	1.002	1.002	1.001	1.000	1.000				
2014	1.200	1.026	1.012	1.004	1.004	1.000	1.001	1.001					
2015	1.228	1.026	1.007	1.005	1.003	1.001	1.000						
2016	1.200	1.026	1.195	1.005	1.003	1.001							
2017	1.196	1.024	1.009	1.005	1.001								
2018	1.195	1.025	1.005	1.000									
2019	1.137	1.025	1.006										
2020	1.199	1.022											
2021	1.194												

All California WC Experience

AY	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005		1.010	1.003	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.126	1.011	1.005	1.002	1.001	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2007	1.122	1.014	1.006	1.004	1.002	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2008	1.146	1.022	1.011	1.005	1.003	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2009	1.192	1.029	1.011	1.006	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.217	1.030	1.011	1.006	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	
2011	1.233	1.032	1.013	1.007	1.002	1.001	1.001	1.001	1.000	1.000	1.000		
2012	1.243	1.035	1.013	1.005	1.003	1.001	1.001	1.000	1.001	1.000			
2013	1.248	1.031	1.010	1.004	1.002	1.002	1.001	1.000	1.000				
2014	1.236	1.027	1.010	1.004	1.002	1.000	1.000	1.000					
2015	1.236	1.027	1.006	1.003	1.002	1.001	1.000						
2016	1.244	1.029	1.007	1.003	1.001	1.000							
2017	1.220	1.023	1.007	1.003	1.001								
2018	1.226	1.023	1.006	1.001									
2019	1.222	1.027	1.007										
2020	1.213	1.022											
2021	1.223												

All Non-Large Deductible Experience

AY	Evaluated as of (months):												
	Evaluated as of (months):												
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005		0.997	0.999	0.997	1.001	1.001	0.999	1.000	0.999	1.000	0.999	1.000	1.000
2006	1.075	1.001	0.998	1.002	0.999	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.086	1.005	1.005	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.104	1.017	1.007	1.004	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2009	1.150	1.020	1.009	1.003	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.167	1.025	1.008	1.005	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	
2011	1.192	1.023	1.011	1.005	1.001	1.001	1.000	1.000	1.000	1.000	1.000		
2012	1.190	1.029	1.010	1.005	1.002	1.000	1.000	1.000	1.001	1.000			
2013	1.204	1.023	1.008	1.004	1.000	1.001	1.001	1.000	1.000				
2014	1.191	1.021	1.009	1.002	1.001	1.000	1.000	1.000					
2015	1.204	1.020	1.002	1.001	1.001	1.000	0.999						
2016	1.190	1.018	1.003	1.003	1.001	1.000							
2017	1.175	1.017	1.007	1.003	1.000								
2018	1.172	1.020	1.004	1.000									
2019	1.139	1.023	1.005										
2020	1.182	1.016											
2021	1.178												

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Reported Total Claim Count Development

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005				1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2006			1.007	1.002	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2007		1.012	1.005	1.003	1.003	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2008	1.165	1.013	1.009	1.003	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2009	1.184	1.019	1.006	1.003	1.001	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.199	1.015	1.007	1.003	1.003	1.002	1.001	1.001	1.000	1.000	1.000	1.000	
2011	1.198	1.021	1.006	1.004	1.002	1.001	1.001	1.001	1.000	1.000	1.000		
2012	1.226	1.016	1.006	1.002	1.002	1.001	1.001	1.001	1.000	1.000			
2013	1.206	1.016	1.004	1.002	1.001	1.001	1.004	1.001	1.000				
2014	1.201	1.012	1.005	1.002	1.001	1.010	1.000	1.001					
2015	1.207	1.014	1.005	1.002	1.001	1.001	1.001						
2016	1.227	1.018	1.006	1.001	1.001	1.000							
2017	1.195	1.011	1.008	1.001	1.002								
2018	1.202	1.008	1.002	1.002									
2019	1.208	1.007	1.006										
2020	1.173	1.015											
2021	1.196												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005				1.002	1.003	1.002	1.001	1.001	1.000	0.999	1.000	1.000	1.000
2006			1.002	1.003	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2007		1.013	1.006	1.003	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2008	1.126	1.013	1.006	1.002	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2009	1.131	1.014	1.006	1.004	1.003	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2010	1.138	1.015	1.006	1.005	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
2011	1.134	1.012	1.007	1.005	1.002	1.001	1.001	1.001	1.000	1.001	1.000		
2012	1.128	1.019	1.007	1.009	1.002	1.001	1.001	0.999	1.000	1.000			
2013	1.157	1.018	1.013	1.004	1.002	1.002	0.997	1.001	1.000				
2014	1.169	1.018	1.008	1.003	1.002	0.989	1.001	1.000					
2015	1.174	1.014	1.005	1.003	1.003	1.000	1.000						
2016	1.153	1.012	1.005	1.005	1.001	1.001							
2017	1.146	1.012	0.999	1.002	1.001								
2018	1.125	1.008	1.003	1.001									
2019	1.111	1.015	1.003										
2020	1.136	1.015											
2021	1.166												

All California WC Experience

	Evaluated as of (months):												
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005				1.001	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2006			1.005	1.003	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2007		1.012	1.005	1.004	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2008	1.128	1.013	1.008	1.003	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2009	1.146	1.016	1.006	1.004	1.002	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.001
2010	1.154	1.016	1.007	1.004	1.003	1.002	1.001	1.001	1.000	1.000	1.000	1.001	
2011	1.158	1.017	1.007	1.004	1.002	1.001	1.001	1.001	1.000	1.000	1.000		
2012	1.167	1.017	1.007	1.004	1.002	1.001	1.001	1.000	1.000	1.000			
2013	1.172	1.018	1.006	1.003	1.002	1.001	1.001	1.001	1.000				
2014	1.174	1.015	1.006	1.003	1.002	1.001	1.001	1.001					
2015	1.177	1.015	1.005	1.003	1.002	1.001	1.000						
2016	1.180	1.015	1.005	1.003	1.001	1.001							
2017	1.161	1.012	1.005	1.002	1.001								
2018	1.157	1.010	1.003	1.002									
2019	1.154	1.012	1.005										
2020	1.149	1.015											
2021	1.170												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-96</u>	<u>96-108</u>	<u>108-120</u>	<u>120-132</u>	<u>132-144</u>	<u>144-156</u>	<u>156-168</u>
2005				1.002	1.002	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2006			1.003	1.003	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2007		1.012	1.006	1.004	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2008	1.106	1.013	1.007	1.003	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2009	1.123	1.015	1.007	1.004	1.003	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2010	1.128	1.016	1.007	1.004	1.003	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
2011	1.133	1.015	1.008	1.005	1.002	1.001	1.001	1.001	1.000	1.000	1.000		
2012	1.133	1.018	1.008	1.005	1.002	1.001	1.001	1.000	1.000	1.000			
2013	1.149	1.019	1.007	1.004	1.002	1.002	0.999	1.001	1.000				
2014	1.155	1.016	1.008	1.003	1.002	0.994	1.001	1.000					
2015	1.157	1.015	1.005	1.003	1.003	1.001	1.000						
2016	1.149	1.013	1.005	1.005	1.001	1.001							
2017	1.137	1.013	1.002	1.003	1.001								
2018	1.124	1.011	1.004	1.001									
2019	1.114	1.015	1.004										
2020	1.131	1.015											
2021	1.155												

Source: Based on WCIRB's quarterly and large deductible data calls, including COVID-19 claims.

Reported Indemnity Claim Settlement Ratios

Large Deductible (LD) Experience

Evaluated as of (months):														
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2005		51.1%	64.9%	76.4%	83.5%	87.7%	90.2%	92.2%	93.9%	95.0%	95.8%	96.6%	97.1%	97.6%
2006	30.3%	51.4%	65.6%	76.8%	84.1%	87.8%	90.7%	91.9%	93.4%	94.7%	95.8%	96.6%	97.2%	97.7%
2007	25.9%	49.4%	64.1%	75.0%	81.5%	85.5%	89.1%	91.5%	93.1%	94.6%	95.7%	96.5%	97.1%	97.6%
2008	29.0%	48.7%	63.3%	73.4%	80.1%	85.2%	89.1%	91.6%	93.6%	94.9%	96.1%	96.8%	97.3%	97.6%
2009	27.5%	46.7%	60.2%	71.2%	79.3%	84.6%	88.5%	91.6%	93.5%	95.0%	96.1%	96.8%	97.3%	97.6%
2010	27.7%	46.4%	60.4%	72.2%	80.4%	85.5%	89.7%	92.5%	94.6%	95.8%	96.7%	97.3%	97.7%	
2011	27.3%	46.3%	61.1%	72.9%	80.9%	86.5%	90.6%	93.4%	95.0%	96.1%	96.8%	97.3%		
2012	28.2%	47.8%	62.7%	73.9%	82.2%	88.0%	91.6%	94.0%	95.4%	96.3%	96.9%			
2013	28.4%	48.3%	63.5%	75.9%	84.3%	89.4%	92.6%	94.6%	95.8%	96.7%				
2014	27.8%	48.1%	64.7%	77.7%	85.7%	90.1%	92.8%	94.6%	95.6%					
2015	26.1%	49.3%	67.3%	80.0%	87.0%	90.5%	92.9%	94.5%						
2016	27.1%	52.0%	70.2%	81.8%	87.3%	90.8%	93.2%							
2017	29.3%	55.3%	72.1%	81.5%	87.3%	90.8%								
2018	30.8%	55.7%	70.7%	80.5%	86.5%									
2019	27.3%	53.0%	68.0%	79.3%										
2020	34.8%	58.2%	71.3%											
2021	34.7%	57.1%												
2022	36.1%													

Non-Large Deductible Experience from Insurers Writing LD

Evaluated as of (months):														
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2005		48.3%	62.8%	73.8%	80.1%	84.2%	87.5%	90.1%	92.7%	94.2%	95.2%	96.2%	97.0%	97.6%
2006	24.7%	49.7%	64.0%	73.5%	79.9%	84.4%	87.6%	90.9%	92.8%	94.1%	95.4%	96.3%	97.0%	97.6%
2007	27.9%	50.0%	63.2%	72.8%	79.5%	84.2%	88.7%	91.4%	93.2%	94.9%	96.1%	96.9%	97.6%	98.1%
2008	26.9%	47.8%	61.0%	71.4%	78.7%	85.0%	88.8%	91.4%	93.7%	95.2%	96.2%	97.1%	97.7%	98.1%
2009	26.3%	46.0%	59.9%	70.4%	79.0%	84.6%	88.6%	91.8%	94.0%	95.4%	96.6%	97.3%	97.8%	98.1%
2010	26.5%	46.9%	60.6%	72.5%	80.5%	86.0%	90.3%	93.0%	94.8%	96.2%	97.0%	97.7%	98.1%	
2011	27.4%	47.5%	62.3%	73.6%	81.5%	87.1%	91.0%	93.6%	95.6%	96.6%	97.3%	97.9%		
2012	27.7%	48.1%	63.6%	75.1%	83.0%	88.5%	92.2%	94.7%	96.1%	97.0%	97.6%			
2013	26.1%	48.5%	64.5%	76.6%	84.9%	90.1%	93.6%	95.4%	96.6%	97.4%				
2014	26.5%	49.7%	66.4%	78.3%	86.4%	91.1%	93.9%	95.7%	96.9%					
2015	27.3%	51.3%	68.8%	80.8%	88.2%	91.8%	94.4%	96.1%						
2016	28.8%	54.3%	71.4%	82.8%	88.7%	92.2%	94.6%							
2017	31.0%	56.7%	73.8%	83.2%	88.9%	92.4%								
2018	31.3%	56.7%	71.8%	81.9%	88.5%									
2019	33.2%	54.8%	69.8%	80.8%										
2020	32.6%	57.0%	72.0%											
2021	32.2%	57.4%												
2022	33.7%													

All California WC Experience

Evaluated as of (months):														
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2005		49.3%	63.5%	74.7%	81.3%	85.5%	88.5%	90.8%	93.1%	94.5%	95.4%	96.4%	97.0%	97.6%
2006	26.5%	50.3%	64.6%	74.7%	81.4%	85.6%	88.7%	91.2%	93.0%	94.3%	95.5%	96.4%	97.1%	97.6%
2007	27.3%	49.8%	63.5%	73.6%	80.2%	84.7%	88.8%	91.4%	93.2%	94.8%	96.0%	96.7%	97.4%	97.9%
2008	27.5%	48.1%	61.8%	72.1%	79.2%	85.1%	88.9%	91.5%	93.7%	95.1%	96.2%	97.0%	97.6%	97.9%
2009	26.7%	46.3%	60.0%	70.7%	79.1%	84.6%	88.5%	91.7%	93.8%	95.3%	96.4%	97.1%	97.6%	97.9%
2010	26.9%	46.7%	60.5%	72.4%	80.5%	85.8%	90.1%	92.8%	94.7%	96.1%	96.9%	97.5%	97.9%	
2011	27.4%	47.1%	61.9%	73.4%	81.3%	86.9%	90.9%	93.6%	95.4%	96.4%	97.1%	97.7%		
2012	27.9%	48.0%	63.3%	74.7%	82.7%	88.3%	92.0%	94.5%	95.8%	96.7%	97.3%			
2013	26.8%	48.4%	64.1%	76.4%	84.7%	89.8%	93.2%	95.1%	96.3%	97.1%				
2014	26.9%	49.1%	65.8%	78.1%	86.2%	90.7%	93.5%	95.3%	96.4%					
2015	26.8%	50.6%	68.3%	80.5%	87.8%	91.3%	93.8%	95.5%						
2016	28.2%	53.4%	70.9%	82.4%	88.2%	91.7%	94.1%							
2017	30.4%	56.2%	73.1%	82.5%	88.3%	91.8%								
2018	31.1%	56.3%	71.4%	81.3%	87.7%									
2019	31.1%	54.0%	69.1%	80.2%										
2020	33.4%	57.5%	71.7%											
2021	33.2%	57.3%												
2022	34.7%													

All Non-Large Deductible Experience

Evaluated as of (months):														
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2005		48.3%	62.8%	73.8%	80.1%	84.2%	87.5%	90.1%	92.7%	94.2%	95.2%	96.2%	97.0%	97.6%
2006	24.7%	49.7%	64.0%	73.5%	79.9%	84.4%	87.6%	90.9%	92.8%	94.1%	95.4%	96.3%	97.0%	97.6%
2007	27.9%	50.0%	63.2%	72.8%	79.5%	84.2%	88.7%	91.4%	93.2%	94.9%	96.1%	96.9%	97.6%	98.1%
2008	26.9%	47.8%	61.0%	71.4%	78.7%	85.0%	88.8%	91.4%	93.7%	95.2%	96.2%	97.1%	97.7%	98.1%
2009	26.3%	46.0%	59.9%	70.4%	79.0%	84.6%	88.6%	91.8%	94.0%	95.4%	96.6%	97.3%	97.8%	98.1%
2010	26.5%	46.9%	60.6%	72.5%	80.5%	86.0%	90.3%	93.0%	94.8%	96.2%	97.0%	97.7%	98.1%	
2011	27.4%	47.5%	62.3%	73.6%	81.5%	87.1%	91.0%	93.6%	95.6%	96.6%	97.3%	97.9%		
2012	27.7%	48.1%	63.6%	75.1%	83.0%	88.5%	92.2%	94.7%	96.1%	97.0%	97.6%			
2013	26.1%	48.5%	64.5%	76.6%	84.9%	90.1%	93.6%	95.4%	96.6%	97.4%				
2014	26.5%	49.7%	66.4%	78.3%	86.4%	91.1%	93.9%	95.7%	96.9%					
2015	27.3%	51.3%	68.8%	80.8%	88.2%	91.8%	94.4%	96.1%						
2016	28.8%	54.3%	71.4%	82.8%	88.7%	92.2%	94.6%							
2017	31.0%	56.7%	73.8%	83.2%	88.9%	92.4%								
2018	31.3%	56.7%	71.8%	81.9%	88.5%									
2019	33.2%	54.8%	69.8%	80.8%										
2020	32.6%	57.0%	72.0%											
2021	32.2%	57.4%												
2022	33.7%													

Source: Based on WCIRB’s quarterly and large deductible data calls, including COVID-19 claims.

Item AC22-09-03 Pandemic Impact on Classification Relativities

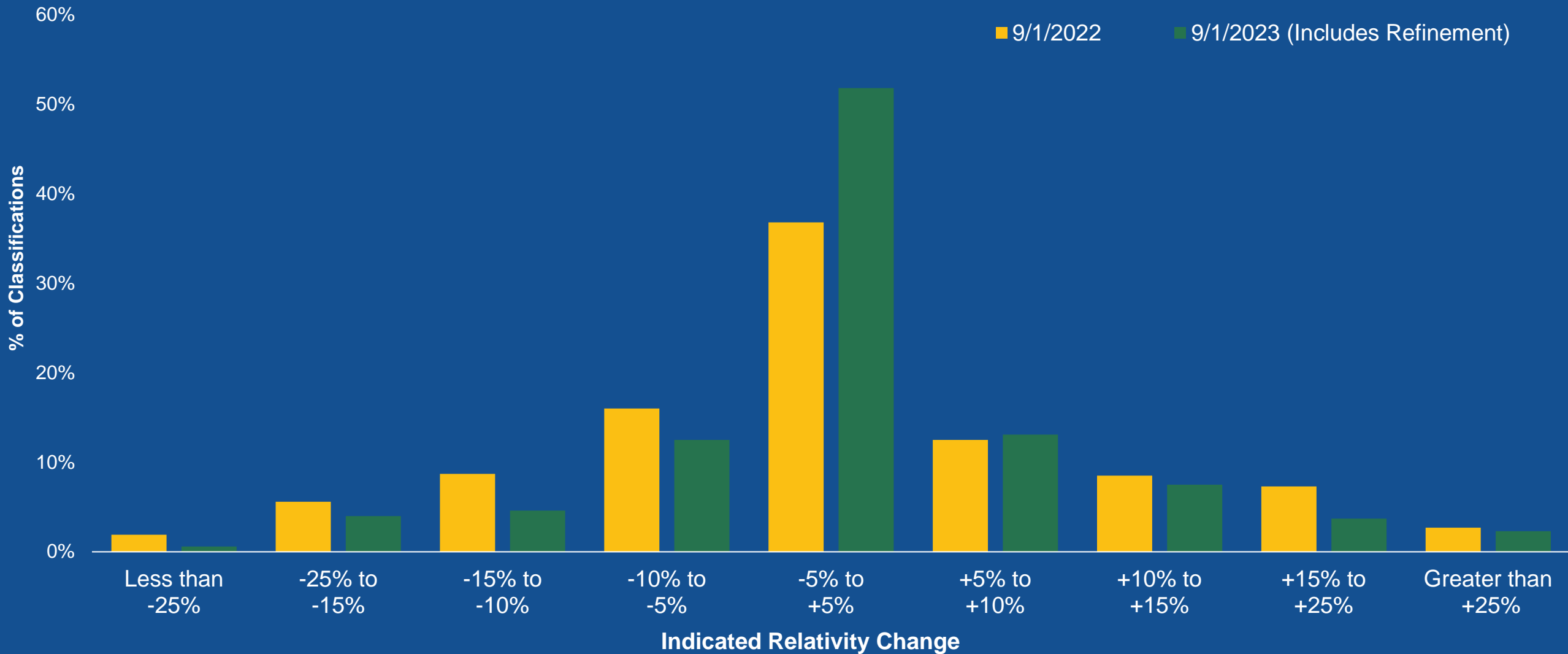
At the September 13, 2022 meeting, the Committee noted that the September 1, 2023 classification relativities will include policy year 2020 experience which is significantly impacted by the pandemic. At the December 6, 2022 meeting, the Committee adopted staff's recommended approach for mitigating the impact of the pandemic-period data on the classification relativities. The refined methodology, which was reflected in the September 1, 2023 Regulatory Filing, includes one additional year of experience for each classification (subject to a five-year maximum). As shown in Exhibit 1, the refined approach resulted in less dispersion in the September 1, 2023 classification relativity changes as expected.

For the September 1, 2024 classification relativities, the latest available policy year of experience is based on policies incepting between December 1, 2020 and November 1, 2021. Although most of this period occurs after the initial pandemic period, some of the data from this period is still impacted by the pandemic. In addition, the second latest available policy year is primarily experience from 2020, which is more significantly impacted by the pandemic. As a result, staff believes it is still appropriate to include an additional year of pre-pandemic data for the September 1, 2024 classification relativities.

In regulatory filings submitted since the pandemic began, COVID-19 claims have been excluded from the data underlying the classification relativities. Although exposure to COVID-19 at the workplace differs by industry, COVID-19 claim experience from earlier periods of the pandemic is likely not representative of the rate relationships among classifications on a prospective basis. Given that the latest available policy year of experience for the September 1, 2024 classification relativities includes data from late 2020 and 2021, which are in particular significantly impacted by the first winter surge and the omicron variant claims, staff believes it is still appropriate to exclude COVID-19 claim experience from the data underlying the September 1, 2024 classification relativities.

Distribution of Classification Relativity Changes

Exhibit 1



Item AC22-12-05 Study of Paid and Incurred Loss Development

At the April 13, 2023 meeting, the Committee reviewed a comprehensive study of paid and incurred loss development methods. The study indicated that the latest year unadjusted incurred loss development method showed comparable accuracy to the adjusted paid method for earlier development ages. However, the study also showed that incurred loss development is less accurate and less stable than adjusted paid loss development for later development ages.¹ In particular, system changes that impact loss development patterns in later development ages are more straightforwardly adjusted for in paid development compared to incurred development.

In this update, staff reviewed a blended methodology that uses incurred development at early development ages and paid development at later development ages. In particular, staff reviewed potential development age “break points” where the later period loss development is more appropriately projected using paid loss development rather than incurred loss development.

Staff considered paid and incurred loss development projections for accident years 2012 through 2022 based on experience through December 31, 2022. Staff compared developed indemnity and medical ultimate loss ratios using several “break points” where paid development is used in lieu of incurred development. At each “break point”, the reported ratio of paid losses to incurred losses at that age is used to convert the developed incurred loss ratio to a developed paid loss ratio. After that point, the projected paid loss development is applied. Figure 1 illustrates this approach formulaically.

Figure 1

$$\text{Ultimate LR} = [\text{Reported Incurred LR at Starting Age X}] * [\text{X to Y Incurred LDF}] * \\ [\text{Ratio of Paid to Incurred Loss at Break Point Y}] * [\text{Y to Ultimate Paid LDF}]$$

In selecting the appropriate “break point”, staff reviewed historical paid and incurred loss development patterns and indemnity claim settlement rates. Exhibit 1 shows historical indemnity loss development while Exhibit 2 shows historical medical loss development. Although both paid and incurred development show some downward trend, incurred medical development in particular begins to show a somewhat anomalous pattern at around 120 to 132 months, with age-to-age factors dropping below 1.000. Exhibit 3 shows ultimate indemnity claim settlement rates. Although the post-Senate Bill No. 863 speedup in claim settlement rates essentially impacted all development ages, the speedup was much less dramatic starting around 132 months, as most claims by that point are closed and as a result, payment patterns are likely to be more stable.

Based on the review above, staff selected “break points” from 84 months to 156 months to retrospectively review the blended incurred/paid development approach. The following loss development methodologies were used to compare projected ultimate loss ratios.

- Unadjusted Latest Year & 3 Year Average Hybrid Method²
- Unadjusted Latest Year Method
- Unadjusted 3-Year Average Method

Exhibits 4 and 5 show the projected ultimate loss ratios by accident year and “break point” for indemnity and medical, respectively. Changes in the projected ultimate loss ratios tend to stabilize around a “break point” of 120 months. Staff believes earlier period “break points” do not give sufficient weight to the age-

¹ See Item AC22-12-05 of the April 13, 2023 Actuarial Committee Agenda.

² Latest year age-to-age factors are used prior to 108 months, after which 6-year and 3-year averages are used for incurred and paid factors, respectively.

to-age incurred development which showed to have comparable accuracy to adjusted paid development at those early ages. Later period “break points” may rely too heavily on the anomalous later period incurred development that has been observed recently. As a result, staff believes 120 months is a reasonable “break point” between incurred loss development and paid loss development to use in this approach.

Incurred Indemnity Loss Development Factors

AY	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192	216/204	228/216	240/228	252/240
2002	1.952	1.263	1.069	1.033	1.033	1.018	1.011	1.010	1.010	1.007	1.005	1.003	1.002	1.002	1.003	1.002	1.001	1.003	1.001	1.000
2003	1.782	1.187	1.069	1.056	1.033	1.021	1.018	1.015	1.015	1.009	1.006	1.004	1.003	1.002	1.002	1.004	1.002	1.002	1.003	
2004	1.448	1.158	1.083	1.042	1.041	1.026	1.028	1.018	1.014	1.007	1.007	1.003	1.001	1.002	1.006	1.001	1.001	1.001	1.001	
2005	1.503	1.218	1.098	1.068	1.053	1.040	1.028	1.016	1.012	1.006	1.005	1.006	1.003	1.004	1.004	1.002	1.001	1.003		
2006	1.690	1.247	1.111	1.080	1.053	1.035	1.023	1.015	1.009	1.007	1.004	1.005	1.002	1.005	1.001	1.003				
2007	1.784	1.273	1.120	1.070	1.049	1.037	1.022	1.012	1.011	1.005	1.007	1.010	1.001	1.003	1.003					
2008	1.858	1.302	1.136	1.074	1.045	1.030	1.019	1.012	1.009	1.006	1.007	1.006	1.005	1.002						
2009	1.983	1.293	1.142	1.076	1.048	1.024	1.019	1.014	1.009	1.010	1.005	1.008	1.007							
2010	1.994	1.315	1.131	1.069	1.045	1.026	1.016	1.012	1.012	1.006	1.004	1.004								
2011	1.997	1.277	1.133	1.061	1.037	1.022	1.019	1.011	1.008	1.007	1.004									
2012	1.992	1.279	1.113	1.063	1.041	1.023	1.016	1.013	1.007	1.007										
2013	1.931	1.259	1.111	1.055	1.032	1.020	1.013	1.007	1.006											
2014	1.960	1.278	1.115	1.059	1.029	1.016	1.011	1.006												
2015	1.969	1.260	1.101	1.047	1.027	1.017	1.009													
2016	1.941	1.246	1.095	1.046	1.026	1.017														
2017	1.911	1.241	1.088	1.043	1.029															
2018	1.901	1.228	1.083	1.045																
2019	1.900	1.231	1.101																	
2020	1.815	1.241																		
2021	1.913																			

Paid Indemnity Loss Development Factors

AY	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192	216/204	228/216	240/228	252/240
2002	3.590	1.782	1.290	1.127	1.075	1.046	1.031	1.020	1.018	1.015	1.014	1.008	1.008	1.006	1.006	1.005	1.004	1.004	1.003	1.002
2003	3.370	1.696	1.249	1.128	1.072	1.043	1.030	1.026	1.023	1.021	1.015	1.012	1.009	1.008	1.007	1.007	1.007	1.005	1.003	
2004	2.914	1.522	1.236	1.116	1.073	1.049	1.041	1.035	1.030	1.020	1.015	1.011	1.009	1.008	1.009	1.006	1.004	1.003		
2005	2.734	1.512	1.235	1.121	1.079	1.060	1.047	1.042	1.028	1.020	1.015	1.013	1.010	1.010	1.010	1.005	1.005			
2006	2.866	1.539	1.229	1.135	1.090	1.068	1.050	1.035	1.026	1.018	1.016	1.012	1.011	1.009	1.007	1.006				
2007	2.905	1.547	1.246	1.140	1.092	1.066	1.046	1.033	1.027	1.020	1.016	1.013	1.013	1.007	1.006					
2008	2.927	1.577	1.271	1.150	1.092	1.060	1.041	1.027	1.023	1.018	1.015	1.010	1.009	1.007						
2009	3.069	1.616	1.280	1.156	1.092	1.061	1.043	1.031	1.023	1.019	1.011	1.013	1.010							
2010	3.157	1.628	1.281	1.147	1.091	1.060	1.038	1.027	1.021	1.013	1.012	1.012								
2011	3.208	1.613	1.266	1.144	1.087	1.056	1.041	1.026	1.016	1.016	1.010									
2012	3.137	1.597	1.262	1.137	1.087	1.051	1.034	1.023	1.017	1.014										
2013	3.169	1.606	1.260	1.129	1.072	1.044	1.028	1.020	1.014											
2014	3.229	1.635	1.257	1.129	1.071	1.039	1.027	1.018												
2015	3.278	1.618	1.244	1.119	1.058	1.042	1.026													
2016	3.235	1.586	1.230	1.103	1.060	1.043														
2017	3.185	1.569	1.210	1.109	1.065															
2018	3.110	1.526	1.222	1.113																
2019	3.063	1.549	1.240																	
2020	2.959	1.544																		
2021	2.952																			

Source: WCIRB aggregate financial data

Incurred Medical Loss Development Factors

AY	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192	216/204	228/216	240/228	252/240
2002	1.632	1.203	1.059	1.039	1.056	1.040	1.036	1.029	1.028	1.022	1.014	1.010	0.999	0.997	1.000	0.999	1.001	1.001	0.999	1.000
2003	1.567	1.119	1.057	1.059	1.060	1.042	1.042	1.037	1.029	1.018	1.011	1.003	0.998	0.999	1.001	1.006	1.001	0.998	1.000	
2004	1.351	1.135	1.113	1.081	1.060	1.061	1.043	1.032	1.026	1.012	1.006	1.001	0.996	0.998	1.002	1.000	0.999	1.000		
2005	1.389	1.172	1.087	1.074	1.084	1.055	1.045	1.032	1.020	1.006	1.006	0.999	1.000	1.000	1.000	0.998	0.999			
2006	1.460	1.196	1.103	1.081	1.066	1.048	1.040	1.022	1.012	1.000	1.001	1.006	0.999	1.003	1.000	1.003				
2007	1.518	1.204	1.124	1.081	1.070	1.050	1.032	1.018	1.004	1.008	1.001	1.004	0.996	0.999	1.000					
2008	1.527	1.212	1.129	1.092	1.061	1.041	1.026	1.010	1.005	1.002	1.005	0.999	0.999	1.001						
2009	1.604	1.227	1.140	1.087	1.061	1.030	1.016	1.007	1.006	1.008	1.001	1.002	1.003							
2010	1.620	1.245	1.134	1.077	1.045	1.025	1.012	1.008	1.010	1.005	0.999	1.002								
2011	1.667	1.222	1.125	1.069	1.034	1.016	1.010	1.010	1.002	1.004	1.003									
2012	1.592	1.188	1.092	1.056	1.031	1.015	1.015	1.006	1.005	0.999										
2013	1.559	1.150	1.086	1.039	1.022	1.014	1.006	1.001	1.006											
2014	1.523	1.159	1.079	1.035	1.027	1.011	1.010	1.007												
2015	1.511	1.146	1.064	1.030	1.018	1.007	1.005													
2016	1.498	1.124	1.045	1.031	1.017	1.013														
2017	1.440	1.117	1.051	1.027	1.025															
2018	1.449	1.110	1.054	1.032																
2019	1.452	1.124	1.065																	
2020	1.445	1.154																		
2021	1.463																			

Paid Medical Loss Development Factors

AY	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192	216/204	228/216	240/228	252/240
2002	2.887	1.416	1.168	1.112	1.072	1.054	1.046	1.034	1.032	1.024	1.023	1.018	1.016	1.012	1.011	1.010	1.009	1.008	1.006	1.004
2003	2.592	1.318	1.170	1.112	1.074	1.057	1.048	1.041	1.030	1.030	1.026	1.019	1.016	1.013	1.012	1.010	1.010	1.008	1.004	
2004	2.298	1.345	1.189	1.123	1.092	1.070	1.055	1.040	1.036	1.034	1.024	1.018	1.015	1.012	1.013	1.009	1.008	1.005		
2005	2.251	1.345	1.209	1.138	1.095	1.073	1.054	1.049	1.038	1.031	1.021	1.019	1.014	1.013	1.012	1.008	1.006			
2006	2.340	1.399	1.220	1.140	1.099	1.068	1.056	1.042	1.034	1.025	1.020	1.015	1.014	1.011	1.010	1.008				
2007	2.416	1.413	1.230	1.142	1.097	1.075	1.057	1.041	1.031	1.022	1.020	1.015	1.012	1.009	1.007					
2008	2.325	1.421	1.241	1.148	1.103	1.072	1.051	1.035	1.027	1.018	1.017	1.012	1.009	1.008						
2009	2.408	1.447	1.251	1.160	1.104	1.067	1.046	1.032	1.024	1.019	1.013	1.014	1.009							
2010	2.479	1.468	1.265	1.152	1.096	1.066	1.043	1.030	1.024	1.017	1.013	1.009								
2011	2.580	1.470	1.248	1.145	1.095	1.058	1.041	1.028	1.018	1.015	1.011									
2012	2.561	1.468	1.247	1.143	1.087	1.056	1.039	1.023	1.019	1.014										
2013	2.492	1.464	1.238	1.130	1.077	1.048	1.029	1.022	1.016											
2014	2.518	1.462	1.226	1.121	1.076	1.043	1.033	1.022												
2015	2.533	1.439	1.218	1.111	1.062	1.044	1.030													
2016	2.480	1.410	1.196	1.099	1.064	1.048														
2017	2.373	1.391	1.177	1.104	1.071															
2018	2.378	1.378	1.197	1.106																
2019	2.347	1.428	1.219																	
2020	2.493	1.447																		
2021	2.502																			

Source: WCIRB aggregate financial data

AY	Ultimate Indemnity Claim Settlement Ratios																			
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
2003	21.3%	42.8%	56.5%	70.9%	79.5%	85.0%	88.4%	90.6%	92.3%	93.6%	95.0%	95.7%	96.2%	96.8%	97.3%	97.7%	98.1%	98.3%	98.6%	98.7%
2004	22.3%	44.0%	60.8%	72.9%	80.9%	85.3%	88.3%	90.5%	92.3%	94.1%	95.1%	95.9%	96.6%	97.1%	97.6%	98.0%	98.3%	98.5%	98.7%	
2005	22.2%	48.4%	63.0%	74.5%	81.0%	85.2%	88.4%	90.6%	92.9%	94.3%	95.3%	96.2%	96.9%	97.4%	97.8%	98.2%	98.4%	98.6%		
2006	22.8%	48.6%	63.5%	73.8%	80.6%	84.8%	88.0%	90.9%	92.8%	94.2%	95.4%	96.3%	96.9%	97.5%	97.8%	98.1%	98.4%			
2007	23.5%	48.3%	62.5%	72.8%	79.7%	84.2%	88.4%	91.1%	92.9%	94.6%	95.7%	96.5%	97.2%	97.7%	98.0%	98.3%				
2008	23.0%	45.9%	60.3%	71.0%	78.4%	84.4%	88.3%	91.1%	93.4%	94.8%	95.9%	96.7%	97.3%	97.7%	98.0%					
2009	21.3%	43.9%	58.5%	69.6%	78.3%	84.0%	88.2%	91.5%	93.5%	95.0%	96.1%	96.8%	97.3%	97.7%						
2010	20.9%	44.3%	59.1%	71.4%	79.9%	85.5%	89.8%	92.6%	94.4%	95.9%	96.7%	97.4%	97.7%							
2011	21.2%	44.5%	60.5%	72.7%	81.0%	86.6%	90.7%	93.3%	95.2%	96.2%	96.9%	97.5%								
2012	20.9%	45.2%	61.7%	73.9%	82.2%	87.9%	91.6%	94.1%	95.5%	96.5%	97.1%									
2013	20.5%	45.9%	63.0%	75.7%	84.2%	89.3%	92.8%	94.8%	96.1%	96.9%										
2014	20.8%	47.0%	64.7%	77.5%	85.7%	90.4%	93.2%	95.0%	96.2%											
2015	20.9%	48.6%	67.4%	79.8%	87.3%	91.1%	93.6%	95.3%												
2016	21.8%	51.3%	70.0%	81.9%	87.9%	91.5%	93.9%													
2017	24.0%	54.1%	72.1%	82.0%	88.0%	91.6%														
2018	24.5%	54.4%	70.6%	80.9%	87.4%															
2019	24.5%	52.0%	68.3%	79.8%																
2020	23.6%	51.3%	68.1%																	
2021	24.7%	53.7%																		
2022	25.2%																			

Source: WCIRB aggregate financial data

Indemnity Ultimate Loss Ratios

Unadjusted Latest Year & 3 Year Average Hybrid Method*

Break Point**	Accident Year										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
All Paid	0.313	0.313	0.267	0.254	0.218	0.205	0.199	0.210	0.214	0.226	0.265
84 Months	0.297	0.306	0.268	0.258	0.220	0.206	0.199	0.210	0.214	0.226	0.265
96 Months	0.297	0.305	0.268	0.258	0.220	0.205	0.199	0.210	0.214	0.226	0.265
108 Months	0.295	0.304	0.267	0.256	0.219	0.204	0.198	0.208	0.214	0.226	0.265
120 Months	0.295	0.303	0.266	0.256	0.219	0.204	0.197	0.208	0.213	0.226	0.265
132 Months	0.293	0.302	0.265	0.255	0.218	0.203	0.196	0.207	0.212	0.224	0.265
144 Months	0.293	0.301	0.264	0.254	0.217	0.203	0.196	0.206	0.212	0.223	0.265
156 Months	0.291	0.300	0.263	0.253	0.216	0.202	0.195	0.206	0.211	0.222	0.264

Unadjusted Latest Year Method

Break Point**	Accident Year										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
All Paid	0.310	0.310	0.265	0.251	0.216	0.203	0.197	0.208	0.213	0.225	0.264
84 Months	0.294	0.303	0.266	0.256	0.219	0.204	0.197	0.208	0.213	0.225	0.264
96 Months	0.294	0.303	0.266	0.255	0.218	0.204	0.197	0.208	0.213	0.225	0.264
108 Months	0.293	0.301	0.264	0.254	0.217	0.203	0.196	0.206	0.213	0.225	0.264
120 Months	0.292	0.301	0.264	0.254	0.217	0.202	0.196	0.206	0.211	0.225	0.264
132 Months	0.291	0.300	0.263	0.253	0.216	0.202	0.195	0.205	0.210	0.222	0.264
144 Months	0.290	0.299	0.262	0.252	0.215	0.201	0.194	0.205	0.210	0.222	0.263
156 Months	0.288	0.297	0.260	0.250	0.214	0.200	0.193	0.203	0.209	0.220	0.261

Unadjusted 3 Year Average Method

Break Point**	Accident Year										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
All Paid	0.310	0.306	0.262	0.252	0.217	0.205	0.200	0.210	0.214	0.226	0.265
84 Months	0.287	0.301	0.266	0.258	0.221	0.206	0.200	0.210	0.214	0.226	0.265
96 Months	0.287	0.301	0.266	0.258	0.221	0.206	0.199	0.210	0.214	0.226	0.265
108 Months	0.286	0.300	0.265	0.257	0.220	0.205	0.199	0.209	0.214	0.226	0.265
120 Months	0.285	0.299	0.264	0.256	0.219	0.205	0.198	0.208	0.213	0.226	0.265
132 Months	0.284	0.298	0.263	0.255	0.218	0.204	0.197	0.207	0.212	0.224	0.265
144 Months	0.283	0.297	0.262	0.255	0.217	0.203	0.197	0.207	0.211	0.223	0.265
156 Months	0.281	0.296	0.261	0.253	0.216	0.202	0.196	0.206	0.210	0.222	0.263

Source: WCIRB aggregate financial data

* Latest Year Age-to-Age factors are used prior to 108 months, after which 3-year and 6-year averages are used for incurred and paid factors, respectively.

** Incurred Age-to-Age factors are used before the break point, and paid factors after the break point.

Medical Ultimate Loss Ratios*

Unadjusted Latest Year & 3 Year Average Hybrid Method**

Break Point***	Accident Year										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
All Paid	0.335	0.361	0.316	0.303	0.270	0.248	0.239	0.252	0.268	0.300	0.374
84 Months	0.330	0.354	0.312	0.301	0.269	0.249	0.239	0.252	0.268	0.300	0.374
96 Months	0.329	0.352	0.311	0.300	0.267	0.248	0.238	0.252	0.268	0.300	0.374
108 Months	0.328	0.351	0.310	0.299	0.267	0.247	0.237	0.251	0.268	0.300	0.374
120 Months	0.327	0.350	0.309	0.298	0.265	0.246	0.236	0.250	0.266	0.300	0.374
132 Months	0.326	0.349	0.308	0.297	0.265	0.246	0.236	0.249	0.265	0.298	0.374
144 Months	0.323	0.346	0.305	0.295	0.263	0.244	0.234	0.247	0.263	0.295	0.369
156 Months	0.321	0.343	0.303	0.292	0.261	0.241	0.232	0.245	0.261	0.293	0.366

Unadjusted Latest Year Method

Break Point***	Accident Year										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
All Paid	0.327	0.353	0.309	0.296	0.263	0.242	0.234	0.246	0.262	0.294	0.366
84 Months	0.323	0.346	0.305	0.294	0.262	0.243	0.234	0.246	0.262	0.294	0.366
96 Months	0.321	0.344	0.304	0.293	0.261	0.242	0.232	0.246	0.262	0.294	0.366
108 Months	0.320	0.343	0.303	0.292	0.260	0.241	0.232	0.245	0.262	0.294	0.366
120 Months	0.320	0.342	0.302	0.291	0.260	0.241	0.231	0.244	0.260	0.294	0.366
132 Months	0.318	0.340	0.300	0.290	0.258	0.240	0.230	0.243	0.259	0.290	0.366
144 Months	0.316	0.338	0.299	0.288	0.257	0.238	0.228	0.241	0.257	0.288	0.363
156 Months	0.314	0.336	0.297	0.286	0.255	0.237	0.227	0.240	0.256	0.287	0.361

Unadjusted 3 Year Average Method

Break Point***	Accident Year										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
All Paid	0.312	0.345	0.308	0.300	0.268	0.247	0.240	0.252	0.268	0.300	0.374
84 Months	0.316	0.341	0.307	0.299	0.267	0.249	0.240	0.252	0.268	0.300	0.374
96 Months	0.315	0.340	0.307	0.298	0.266	0.248	0.239	0.252	0.268	0.300	0.374
108 Months	0.314	0.338	0.305	0.296	0.265	0.246	0.237	0.250	0.268	0.300	0.374
120 Months	0.312	0.336	0.303	0.295	0.263	0.245	0.236	0.249	0.265	0.300	0.374
132 Months	0.311	0.335	0.302	0.293	0.262	0.244	0.235	0.248	0.264	0.297	0.374
144 Months	0.308	0.332	0.299	0.291	0.260	0.242	0.233	0.246	0.262	0.294	0.369
156 Months	0.305	0.329	0.296	0.288	0.257	0.240	0.231	0.243	0.260	0.292	0.366

Source: WCIRB aggregate financial data

* No adjustments for reforms are applied to any methods.

** Latest Year Age-to-Age factors are used prior to 108 months, after which 3-year and 6-year averages are used for incurred and paid factors, respectively.

*** Incurred Age-to-Age factors are used before the break point, and paid factors after the break point.

Item AC22-12-06 Retrospective Rating Plan Updates

This item is the continuation of a multi-year process to update the WCIRB's California Retrospective Rating Plan (Plan). Prior phases of the study involved updates and enhancements of the incurred loss development simulation methodology and the implementation of the paid loss development methodology. This phase of the study details the update of classification retro hazard groups (RHGs) and represents the final selection to be made before the Plan is updated in its entirety in preparation for the Regulatory Filing to be effective September 1, 2024.

Retro Hazard Group Background

RHGs were last updated as part of the derivation of the 2019 California Retrospective Rating Plan. The update used the same simulation database that underlies the Plan which was based on a starting database of unit statistical report (USR) data consisting of claims from policy years 2009, 2010 and 2011 at report levels five, four and three, respectively.

The RHGs serve multiple purposes. They were originally designed to differentiate classifications based on their size of loss distribution for the purpose of pricing policies that are retrospectively rated. For the same reason, they are also used to price policies that use the California Large Risk Deductible Plan and California Small Deductible Plan. RHGs have been used as part of the classification ratemaking process to adjust limited losses to an unlimited basis since the per claim loss limit was reduced from \$2,700,000 to \$500,000 in the Rate Filing effective January 1, 2010.

RHG Selection Methodology

After the retro database is prepared, aggregate loss elimination ratios (LERs) are refined by hazard groups. Hazard groups combine classifications with similar size of loss distributions. The goal of the hazard group development process is to identify groups that optimize the credible variance in LERs across limits. This goal is analogous to an analysis of variance. Optimal groups are those that maximize the variance of LERs subject to the constraints that groups must not be so refined as not to be credible.

Retro hazard groups are used to load expected excess losses at ultimate in classification ratemaking. The hazard group assignments have been updated to optimize this dual use in both classification ratemaking and retrospective rating. Specifically, an approach that focuses on the after-credibility excess loss factors at \$500,000 was selected.

Data Details

RHG selections are based on the simulation database underlying the Plan update, after adjustment for indemnity and medical trend and benefit levels. Some classifications are combined with another classification for ratemaking. Throughout this discussion, the term classification refers to the group of classifications combined for ratemaking when applicable. Additionally, data from deactivated classifications has been included with the data for the current classification to which the deactivated classification's data was moved.

Credibility

The credibility of each classification's simulated size of loss distribution was determined by examining the stability of the size of loss distributions across simulations. Each claim was simulated to ultimate 100 times. Each of these simulations was tabulated separately, allowing a comparison of the size of loss distribution across the simulations. The share of a classification's simulations that resulted in a reasonable share of simulated claims excess \$500,000 was the basis of credibility. The determination of a reasonable share was based upon the simulated excess shares of large classifications. A classification was considered large if its total claim volume was large enough that all classifications with the same total

claim volume or larger had at least one simulated claim excess \$500,000 in all 100 simulations. These reasonable shares were fit to a logistic curve, using the log of the total number of claim simulations as the independent variable. The results of the fit formed the formula for classification credibility. This approach is unchanged from the prior update. This selected credibility curve is shown in Exhibit 1.

The relationship between classifications' size of loss credibilities and their credibilities for pure premium ratemaking was studied. No classification's simulated size of loss distribution was more credible than the indemnity and medical component-weighted total credibility of its pure premium relativity.

Each classification's simulated size of loss distribution received the fitted credibility associated with its claim volume. The classification size of loss distributions were adjusted to replace simulated severities excess \$500,000 with fitted severities excess \$500,000 of its current hazard group while retaining the classification's simulated frequency of claims excess \$500,000. The classification's size of loss distribution was then credibility weighted with that of its current hazard group.

Hazard Group Assignment

To develop updated hazard group assignments, a cluster analysis was performed on classifications' credibility-weighted \$500,000 LERs. Clustering algorithms were tested using both the median LER of a classification's 100 simulations and the aggregate LER of its simulations. Use of median LERs was problematic for many smaller classifications for which the median LER was often zero and, as such, was not used.

The aggregate LERs were tested using the k-means, k-medians and Ward's linkage clustering algorithms. The algorithms' results were judged based on the differentiation between the updated RHGs, the reasonableness of the dislocation from the current RHGs and how well "centered" the resulting RHGs were. The "centeredness" of the RHG was measured by the share of classifications in the resulting RHGs that had LERs above and below the RHG aggregate. The differentiation between the updated RHGs was measured by the differences between the LERs of successive RHGs. The dislocation from the current RHGs was measured by both the changes in RHG at a classification level and the share of data in the updated versus current RHGs. The k-means and Ward's linkage options resulted in very similar differentiation between updated RHGs and centeredness. The Ward's linkage algorithm resulted in the least dislocation from the current groups, particularly movements in the lowest and highest severity hazard groups and was selected. This methodology is unchanged from the prior update. A summary of these selection statistics is shown in Exhibit 2.

Iterative Clustering

Due to the use of current RHGs as the complement of credibility and the number of policy years between simulation databases, staff was concerned that some low credibility classifications would be inappropriately bound to their current RHG. Staff investigated the use of an iterative cluster analysis. Using this approach, the process outlined above was repeated using the new indicated RHGs to determine the classification excess severities and as the complement of credibility. The process was repeated until no classifications changed hazard group. However, this approach effectively eliminated the impact of the complement for all but the smallest classifications. Any classification with enough credibility to change hazard groups would drift toward the group that would be indicated by its non-credibility weighted LER. The end result was the movement of many small classifications into the least and most severe hazard groups, often depending on whether the classification had a single excess claim. This approach was not intended to allow extreme results for small classifications and was not used.

Large Changes in Hazard Group Assignment

Staff investigated all instances where a classification's updated RHG would differ from its current RHG by 3 or more. All these instances occurred in classifications with medium credibility. These classifications were large enough to change hazard groups, but still small enough to be impacted by the presence or absence of large claims. To examine these classifications, staff compared the LERs of their current and

prior USR starting databases. All of these classifications had significant movements in their starting databases. In all cases, the movement was driven by the absence of claims excess \$500,000 in either the current or prior starting database. An example for Classification 3018, *Steel Making or Processing*, is shown in Exhibit 3. This finding led staff to consider alternative ways to determine whether the current or prior starting database was an aberration or if the classification had genuinely changed.

Methodological Refinement

Staff sought a method to vet the reasonableness of RHG changes without reliance on credibility, complements or simulated data. USR data was used to examine classifications without using simulations. Since the impacted classifications were small enough to have a large, indicated change using a multi-year starting database, multiple years of USR data were also combined for this analysis. Staff developed two aggregations of data. The first would use three consecutive policy years of data at report levels five, four and three, essentially starting databases that would have been available over time. The second aggregation used a rolling set of three policy years at report level five. The first approach allows for the investigation of two additional years of observations compared to the second, while the second uses slightly more mature data. The two datasets resulted in almost identical results, which was not surprising due to the large overlap in the underlying claims. Only the starting database version was used as it allowed the use of more recent data.

Staff used the USR datasets to compile classification measures related to the potential for large losses. Staff avoided the use of LERs or other measures that would require summing loss dollars, as these measures would involve the credibility and complement issues that we were attempting to avoid. Instead, staff focused on excess claim count shares and loss percentiles. Various excess limits and percentiles were investigated, and staff ultimately focused on four measures: claim count shares excess \$250,000 and \$500,000 and the 95th and 99th percentiles of incurred loss.

Classification values of these measures were compared to these measures calculated for the indicated cluster RHGs described above. The cluster RHGs were well differentiated using all four of these measures over time, and the rank order of these measures by RHG was properly sorted for at least the past 20 starting databases. An example of this comparison for Classification 4829, *Chemical Mfg.*, is shown in Exhibit 4. The red dots on the line for the classification results represent the current and prior starting databases.

Staff found all of these measures to be reasonable ways to investigate the long-term stability of classification size-of-loss distributions. In order to use them as an alternative to the cluster RHGs, staff first determined the closest RHG to the classification for each of the four measures for each starting database. The average of these determinations over the last five starting databases was selected as a potential alternative to the cluster RHGs.

Staff used the alternative selection to potentially override the cluster RHG for all classifications with an indicated cluster RHG move of two or more. In many cases, the starting database data was relatively stable over time, and this gave the same indication. For a few classifications, the indicated RHG move using USR data was more extreme than the clustering method. In these cases, the cluster RHG was used. The alternative selection was used in 9 out of 15 instances where the indicated move using clustering was +/-3 and 36 out of 64 instances where the indicated move was +/-2. These selections serve as the proposed RHGs. The use of the USR based alternative can only serve to temper changes in a class's RHG assignment.

Secondary Review

WCIRB classification experts reviewed these proposed RHGs for reasonableness. Nine classifications were identified for further review. Additionally, dual wage classifications received further review if the high wage classification had an indicated RHG more severe than the corresponding low wage classification. The manual review of these classifications confirmed the general effectiveness of the selection

methodology discussed previously. Of the seven individual classifications and seven dual wage classification pairs that were investigated, the RHG was manually changed for only one classification, 8743 – *Mortgage Brokers*. This classification has low credibility and was effectively unable to move from its current RHG. The RHG for this classification was changed from its cluster indication (and current RHG) of 6 to RHG 3 based on an examination of its USR data. The RHG selections for the other classifications were confirmed.

A summary of the share of classifications, claim counts and simulated losses by change in hazard group using the cluster RHGs and proposed RHGs is shown in Exhibit 5. Since the classifications whose RHG change was tempered by the refined methodology were generally small, they had a small impact on the final RHG LERs. LERs compiled using the current, cluster and proposed RHGs are shown in Exhibit 6.

Decimal Hazard Group Assignment

Each classification was assigned a decimal RHG, which reflects how similar it is to the RHGs resulting from the cluster analysis and USR analysis. For example, a classification with the same LER as the proposed RHG 3 would have a decimal RHG of 3.0 and a classification that was halfway between proposed RHGs 3 and 4 would have a decimal RHG of 3.5.

Since the clustering algorithms assign observations to clusters, but do not generate cutoff values, these cutoff values needed to be calculated. For each pair of successive RHGs, the cutoff was calculated as the average of the greatest classification LER in the smaller RHG and the smallest classification LER in the larger RHG. This cutoff represents the +/- 0.5 decimal value for each RHG. This value is not necessarily the halfway point between the RHGs, depending on the clustering algorithm. Since there are not RHGs 0 and 8, the minimum LER was selected as the RHG 0.5 value and the maximum LER was selected as the RHG 7.5 value. Each classification's decimal RHG is the interpolation of its LER between the LER of its RHG and either the +/- 0.5 cutoff point, depending on whether its LER is less than or greater than the RHG's LER. Classifications whose RHG was selected using the USR-based approach are given the decimal RHG corresponding to the average of the indications underlying their selection.

The current, proposed and decimal RHG selections for each classification are shown in Exhibit 7. The values for deactivated classifications are shown in Exhibit 8. The proposed and decimal RHG selections for these classifications are taken from the classification to which their data was migrated upon deletion.

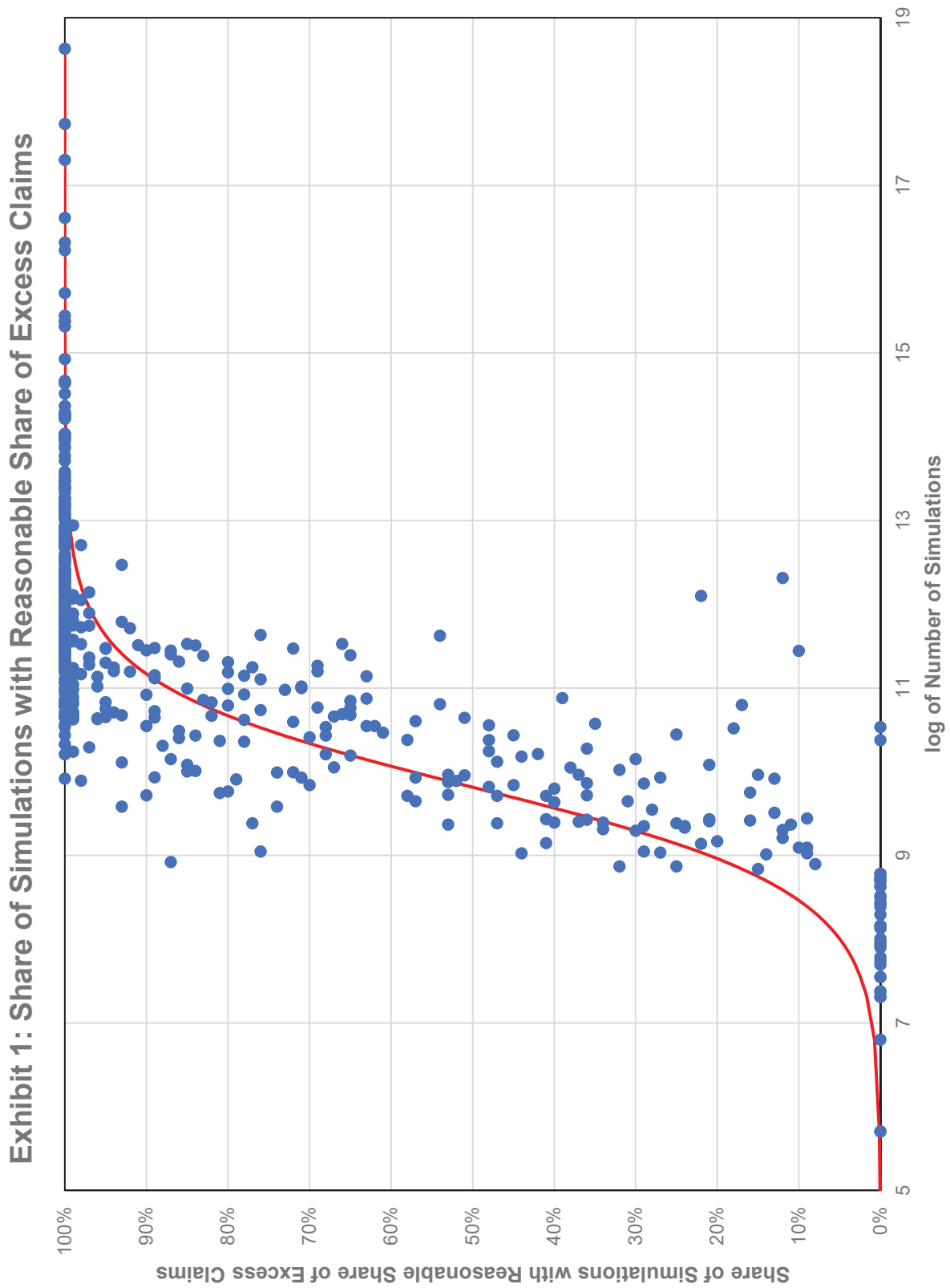


Exhibit 2: Cluster Methodology Selection Statistics

Type	Average Class Move from Current RHG		Difference Between RHG LERs	
	Change	Absolute	Average	Median
Kmeans	-0.401	0.860	0.048	0.044
Kmedians	0.336	0.833	0.046	0.027
Ward	-0.253	0.783	0.051	0.044

Classification Count by RHG								
Type	1	2	3	4	5	6	7	Total
Kmeans	101	122	89	54	45	39	29	479
Kmedians	40	86	106	82	57	56	52	479
Ward	74	132	75	85	45	43	25	479
Current	54	91	122	81	58	45	28	479

"Centeredness" by RHG									
Type	1	2	3	4	5	6	7	Average	Median
Kmeans	55.4%	59.0%	64.0%	55.6%	51.1%	66.7%	82.8%	62.1%	59.0%
Kmedians	60.0%	57.0%	50.0%	61.0%	56.1%	58.9%	51.9%	56.4%	57.0%
Ward	58.1%	58.3%	50.7%	55.3%	51.1%	60.5%	84.0%	59.7%	58.1%

Claim Count Share by RHG								
Type	1	2	3	4	5	6	7	Total
Kmeans	36.0%	34.4%	11.9%	8.5%	4.3%	3.6%	1.3%	100%
Kmedians	5.5%	40.4%	26.7%	9.9%	8.7%	4.7%	4.2%	100%
Ward	25.2%	43.9%	11.2%	10.6%	4.3%	3.8%	1.1%	100%
Current	9.0%	40.8%	26.6%	13.3%	5.4%	3.6%	1.2%	100%

Excess Claim Count Share by RHG								
Type	1	2	3	4	5	6	7	Total
Kmeans	20.0%	28.8%	14.1%	13.8%	8.2%	9.7%	5.3%	100%
Kmedians	2.2%	24.5%	25.0%	11.4%	14.1%	9.3%	13.5%	100%
Ward	13.0%	34.6%	13.0%	16.2%	8.2%	10.3%	4.7%	100%
Current	6.0%	29.1%	24.7%	17.2%	9.2%	9.3%	4.5%	100%

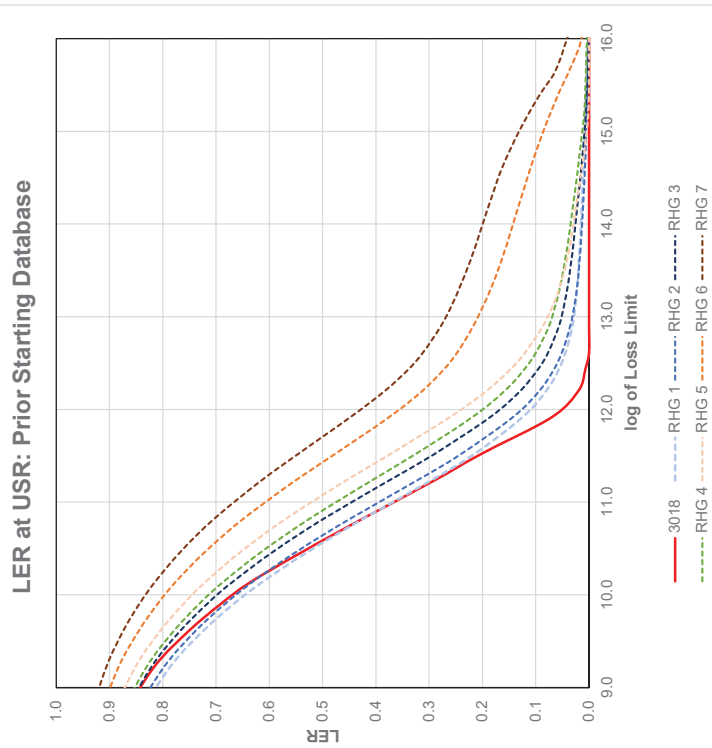
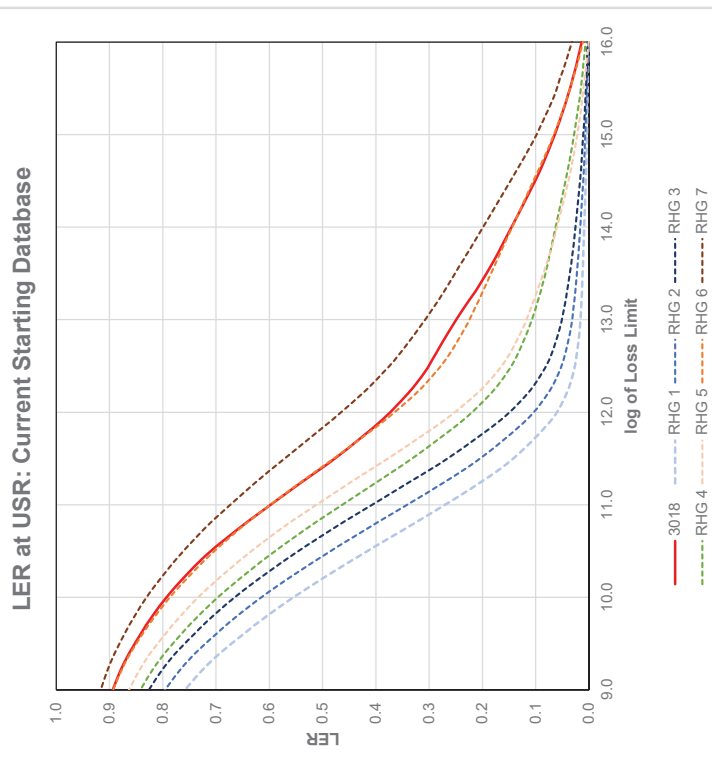
Loss Share by RHG								
Type	1	2	3	4	5	6	7	Total
Kmeans	27.3%	31.6%	13.5%	11.1%	6.3%	7.0%	3.3%	100%
Kmedians	3.5%	31.9%	26.3%	10.8%	11.3%	7.0%	9.2%	100%
Ward	18.1%	39.5%	12.4%	13.3%	6.3%	7.4%	2.9%	100%
Current	7.1%	33.9%	26.0%	15.8%	7.5%	6.8%	2.9%	100%

Excess Loss Share by RHG								
Type	1	2	3	4	5	6	7	Total
Kmeans	17.6%	25.4%	13.4%	14.4%	8.8%	13.1%	7.2%	100%
Kmedians	1.9%	21.6%	22.2%	10.9%	14.7%	10.1%	18.6%	100%
Ward	11.3%	30.7%	11.9%	16.9%	8.8%	13.7%	6.6%	100%
Current	5.1%	26.6%	22.8%	17.2%	10.8%	11.8%	5.7%	100%

Exhibit 3: Comparison of Size of Loss Distribution in Current and Prior Starting Databases
Classification 3018 - Steel Making or Processing

	3018	RHG 1	RHG 2	RHG 3	RHG 4	RHG 5	RHG 6	RHG 7
Open Share	7.3%	5.8%	6.4%	7.2%	7.7%	7.3%	7.4%	8.2%
Excess Share	0.813%	0.022%	0.059%	0.122%	0.228%	0.311%	0.543%	1.055%

	3018	RHG 1	RHG 2	RHG 3	RHG 4	RHG 5	RHG 6	RHG 7
	7.7%	8.5%	9.2%	10.3%	10.0%	10.7%	11.2%	12.7%
	0.000%	0.055%	0.093%	0.140%	0.204%	0.373%	0.544%	0.793%



**Exhibit 4: USR Based Size of Loss Metrics
Classification 4829 – Chemical Manufacturing**

Current RHG: 5

Indicated Cluster RHG: 2

USR Based RHG: 3



Exhibit 5: Summary of Simulation Database by RHG Change

Ward Cluster RHGs				Proposed RHGs			
Change	Class Count	Count Share	Loss Share	Change	Class Count	Count Share	Loss Share
-3	9	0.7%	0.6%	-3	5	0.3%	0.2%
-2	45	4.2%	4.2%	-2	22	2.6%	2.3%
-1	131	41.8%	36.1%	-1	153	43.7%	38.1%
0	198	44.0%	47.0%	0	208	44.7%	47.9%
1	71	6.8%	9.1%	1	81	7.5%	9.8%
2	19	2.2%	2.6%	2	8	1.2%	1.6%
3	6	0.3%	0.3%	3	2	0.1%	0.1%
Total	479	100.0%	100.0%	Total	479	100.0%	100.0%

Exhibit 6.1: LERs with Current RHGs
After Trend & On-Level; Claims Excess \$2,000,000 Pareto-Smoothed

per Accident Limit	Current RHG							Total
	1	2	3	4	5	6	7	
0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
500	0.977	0.978	0.981	0.984	0.986	0.990	0.992	0.981
1,000	0.960	0.962	0.967	0.972	0.976	0.982	0.985	0.968
2,000	0.934	0.937	0.945	0.953	0.960	0.969	0.974	0.946
3,000	0.912	0.915	0.926	0.936	0.946	0.957	0.965	0.927
4,000	0.892	0.896	0.908	0.921	0.933	0.946	0.956	0.910
5,000	0.873	0.878	0.892	0.907	0.921	0.937	0.947	0.895
10,000	0.798	0.807	0.828	0.850	0.872	0.895	0.912	0.832
15,000	0.740	0.750	0.775	0.803	0.832	0.861	0.882	0.782
20,000	0.691	0.702	0.730	0.762	0.797	0.831	0.855	0.738
25,000	0.648	0.660	0.690	0.725	0.766	0.803	0.830	0.700
35,000	0.577	0.589	0.622	0.663	0.711	0.756	0.786	0.634
50,000	0.492	0.504	0.539	0.587	0.644	0.696	0.730	0.555
75,000	0.391	0.403	0.438	0.490	0.556	0.616	0.654	0.458
100,000	0.323	0.335	0.368	0.420	0.491	0.555	0.595	0.390
150,000	0.242	0.253	0.280	0.329	0.402	0.468	0.509	0.304
200,000	0.196	0.207	0.230	0.275	0.347	0.412	0.451	0.254
250,000	0.168	0.179	0.198	0.240	0.311	0.374	0.411	0.222
300,000	0.149	0.159	0.176	0.216	0.285	0.346	0.381	0.200
400,000	0.124	0.134	0.148	0.184	0.251	0.309	0.338	0.171
500,000	0.108	0.118	0.130	0.164	0.228	0.283	0.309	0.152
600,000	0.097	0.107	0.117	0.149	0.212	0.264	0.287	0.139
700,000	0.089	0.098	0.108	0.138	0.198	0.248	0.269	0.128
800,000	0.082	0.091	0.100	0.128	0.186	0.235	0.254	0.120
900,000	0.076	0.085	0.093	0.120	0.176	0.224	0.241	0.113
1,000,000	0.071	0.080	0.088	0.114	0.168	0.213	0.229	0.107
2,000,000	0.046	0.053	0.058	0.075	0.113	0.147	0.155	0.071
3,000,000	0.034	0.040	0.043	0.056	0.085	0.110	0.116	0.053
4,000,000	0.027	0.031	0.034	0.045	0.067	0.088	0.092	0.042
5,000,000	0.022	0.026	0.028	0.037	0.055	0.071	0.075	0.034
6,000,000	0.019	0.021	0.023	0.030	0.046	0.059	0.063	0.029
7,000,000	0.016	0.018	0.020	0.026	0.039	0.050	0.053	0.024
8,000,000	0.013	0.015	0.017	0.022	0.033	0.043	0.045	0.020
9,000,000	0.011	0.013	0.014	0.019	0.028	0.037	0.039	0.018
10,000,000	0.010	0.011	0.012	0.016	0.024	0.031	0.033	0.015

**Exhibit 6.2: LERs with Ward Cluster RHGs
After Trend & On-Level; Claims Excess \$2,000,000 Pareto-Smoothed**

per Accident Limit	Ward Cluster RHG							Total
	1	2	3	4	5	6	7	
0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
500	0.974	0.979	0.983	0.985	0.987	0.990	0.992	0.981
1,000	0.956	0.964	0.970	0.974	0.977	0.982	0.986	0.968
2,000	0.928	0.941	0.950	0.956	0.962	0.970	0.977	0.946
3,000	0.904	0.920	0.933	0.940	0.948	0.959	0.968	0.927
4,000	0.883	0.901	0.917	0.926	0.936	0.949	0.960	0.910
5,000	0.863	0.884	0.903	0.912	0.925	0.940	0.952	0.895
10,000	0.784	0.816	0.843	0.858	0.877	0.901	0.920	0.832
15,000	0.722	0.762	0.795	0.814	0.838	0.868	0.893	0.782
20,000	0.669	0.714	0.753	0.776	0.804	0.839	0.869	0.738
25,000	0.624	0.673	0.715	0.742	0.773	0.812	0.847	0.700
35,000	0.548	0.602	0.650	0.683	0.720	0.766	0.808	0.634
50,000	0.459	0.517	0.571	0.612	0.652	0.707	0.758	0.555
75,000	0.356	0.415	0.472	0.521	0.565	0.629	0.690	0.458
100,000	0.288	0.344	0.400	0.455	0.499	0.569	0.637	0.390
150,000	0.211	0.258	0.307	0.366	0.407	0.484	0.560	0.304
200,000	0.169	0.209	0.252	0.312	0.348	0.428	0.507	0.254
250,000	0.144	0.179	0.218	0.276	0.309	0.391	0.469	0.222
300,000	0.128	0.158	0.194	0.251	0.282	0.364	0.440	0.200
400,000	0.106	0.132	0.162	0.217	0.245	0.326	0.397	0.171
500,000	0.093	0.115	0.143	0.195	0.221	0.300	0.367	0.152
600,000	0.083	0.104	0.129	0.178	0.203	0.280	0.343	0.139
700,000	0.076	0.095	0.118	0.166	0.189	0.264	0.324	0.128
800,000	0.071	0.088	0.110	0.155	0.176	0.250	0.307	0.120
900,000	0.066	0.082	0.102	0.146	0.166	0.238	0.292	0.113
1,000,000	0.062	0.077	0.096	0.138	0.157	0.228	0.279	0.107
2,000,000	0.040	0.051	0.062	0.092	0.104	0.157	0.191	0.071
3,000,000	0.030	0.038	0.047	0.069	0.078	0.118	0.143	0.053
4,000,000	0.024	0.030	0.037	0.055	0.062	0.094	0.114	0.042
5,000,000	0.020	0.025	0.030	0.045	0.051	0.076	0.093	0.034
6,000,000	0.016	0.020	0.025	0.037	0.042	0.064	0.077	0.029
7,000,000	0.014	0.017	0.021	0.031	0.036	0.053	0.065	0.024
8,000,000	0.012	0.015	0.018	0.027	0.030	0.046	0.055	0.020
9,000,000	0.010	0.013	0.015	0.023	0.026	0.039	0.048	0.018
10,000,000	0.009	0.011	0.013	0.020	0.022	0.034	0.041	0.015

Exhibit 6.3: LERs with Proposed RHGs
After Trend & On-Level; Claims Excess \$2,000,000 Pareto-Smoothed

per Accident Limit	Proposed RHG							Total
	1	2	3	4	5	6	7	
0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
500	0.974	0.979	0.983	0.985	0.987	0.990	0.992	0.981
1,000	0.956	0.964	0.971	0.974	0.977	0.982	0.986	0.968
2,000	0.928	0.940	0.951	0.956	0.961	0.970	0.977	0.946
3,000	0.903	0.920	0.933	0.941	0.947	0.959	0.968	0.927
4,000	0.881	0.901	0.917	0.926	0.935	0.949	0.960	0.910
5,000	0.861	0.884	0.903	0.913	0.923	0.940	0.952	0.895
10,000	0.782	0.816	0.843	0.858	0.875	0.901	0.920	0.832
15,000	0.720	0.761	0.795	0.814	0.836	0.868	0.893	0.782
20,000	0.667	0.714	0.752	0.776	0.801	0.839	0.869	0.738
25,000	0.622	0.673	0.715	0.742	0.770	0.812	0.847	0.700
35,000	0.546	0.602	0.650	0.683	0.716	0.766	0.808	0.634
50,000	0.458	0.517	0.571	0.610	0.648	0.707	0.757	0.555
75,000	0.355	0.415	0.472	0.519	0.561	0.628	0.689	0.458
100,000	0.288	0.345	0.400	0.452	0.495	0.566	0.636	0.390
150,000	0.212	0.259	0.307	0.363	0.403	0.480	0.558	0.304
200,000	0.171	0.210	0.252	0.308	0.345	0.425	0.504	0.254
250,000	0.146	0.180	0.218	0.272	0.306	0.387	0.465	0.222
300,000	0.130	0.160	0.194	0.247	0.279	0.359	0.436	0.200
400,000	0.108	0.133	0.163	0.213	0.242	0.322	0.393	0.171
500,000	0.095	0.117	0.144	0.190	0.218	0.296	0.363	0.152
600,000	0.085	0.105	0.130	0.174	0.201	0.277	0.339	0.139
700,000	0.078	0.096	0.119	0.161	0.186	0.261	0.319	0.128
800,000	0.072	0.089	0.110	0.151	0.174	0.247	0.302	0.120
900,000	0.067	0.083	0.103	0.142	0.164	0.236	0.288	0.113
1,000,000	0.063	0.078	0.097	0.135	0.155	0.225	0.274	0.107
2,000,000	0.041	0.051	0.063	0.089	0.103	0.155	0.187	0.071
3,000,000	0.031	0.038	0.047	0.067	0.077	0.117	0.140	0.053
4,000,000	0.025	0.031	0.038	0.053	0.061	0.093	0.111	0.042
5,000,000	0.020	0.025	0.031	0.043	0.050	0.076	0.091	0.034
6,000,000	0.017	0.021	0.026	0.036	0.042	0.063	0.076	0.029
7,000,000	0.014	0.017	0.022	0.030	0.035	0.053	0.064	0.024
8,000,000	0.012	0.015	0.018	0.026	0.030	0.045	0.054	0.020
9,000,000	0.010	0.013	0.016	0.022	0.026	0.039	0.046	0.018
10,000,000	0.009	0.011	0.013	0.019	0.022	0.033	0.040	0.015

Exhibit 7: RHG Selections

Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG
0005	1	2	2.0	2413	3	3	3.3	3339	5	4	3.8
0016	2	2	2.2	2501	1	1	1.0	3365	2	3	3.1
0034	3	3	3.1	2570	3	2	2.3	3372	4	3	3.1
0035	1	2	1.7	2571	3	2	2.0	3383	3	3	3.2
0036	2	2	2.2	2576	4	3	2.9	3400	5	6	5.6
0038	5	5	5.3	2584	1	1	1.2	3401	5	2	2.4
0040	2	2	1.7	2585	1	1	1.0	3501	3	2	2.4
0041	5	2	1.6	2589	3	2	1.8	3507	4	3	3.3
0042	3	2	2.1	2660	2	2	1.6	3560	2	2	2.3
0045	4	4	4.3	2683	2	2	1.7	3568	1	1	0.8
0050	5	6	5.5	2688	1	1	1.1	3569	2	1	0.7
0079	2	2	2.1	2702	7	7	7.1	3570	4	3	3.4
0096	4	4	3.6	2710	1	1	1.1	3572	2	3	2.6
0106	7	7	7.0	2727	7	7	6.8	3573	3	3	3.1
0171	5	4	4.3	2731	2	4	4.1	3574	5	3	2.7
0172	3	2	2.0	2757	3	2	1.5	3577	2	1	0.8
0251	5	5	4.8	2759	3	2	1.8	3612	3	3	3.3
0400	5	5	4.5	2790	1	2	2.1	3620	4	3	2.6
0401	5	5	4.5	2797	2	2	1.6	3632	3	3	2.8
1122	5	4	4.3	2806	3	3	3.1	3634	2	3	3.1
1320	7	6	5.8	2812	4	4	4.1	3643	1	2	1.9
1322	7	6	6.1	2819	2	3	3.1	3647	3	3	2.7
1330	4	4	3.6	2840	1	1	0.8	3651	2	1	1.0
1438	2	3	3.4	2842	3	2	2.3	3681	4	3	3.0
1452	4	4	3.6	2852	2	1	1.4	3682	1	2	1.7
1463	6	6	5.8	2881	2	2	1.7	3683	2	2	1.8
1624	5	4	4.4	2883	4	2	2.2	3719	7	6	6.2
1699	3	2	2.2	2915	4	4	3.6	3724	5	5	5.2
1701	6	7	6.8	2923	5	3	2.6	3726	5	5	5.4
1710	6	7	6.6	3018	1	4	3.6	3805	3	2	2.5
1741	6	6	6.2	3022	1	3	3.0	3808	1	3	2.7
1803	4	4	4.4	3030	6	6	5.9	3815	3	2	1.6
1925	4	4	4.0	3039	4	4	3.7	3821	3	2	1.7
2002	2	1	0.9	3040	1	3	2.7	3828	2	1	0.9
2003	2	2	2.1	3060	3	2	2.4	3830	5	5	5.1
2014	5	5	5.0	3066	4	3	3.4	3831	2	2	2.2
2030	5	5	4.9	3070	3	2	2.2	3840	3	2	2.5
2063	3	3	2.8	3076	3	2	1.8	4000	4	4	3.7
2081	5	2	1.9	3081	2	3	3.0	4034	5	4	4.2
2095	3	2	1.7	3082	3	2	2.1	4036	4	4	4.1
2102	4	4	3.6	3085	3	2	2.0	4038	3	2	1.6
2107	1	1	0.9	3099	4	3	3.3	4041	3	1	1.4
2108	1	2	2.2	3110	6	5	5.0	4049	4	2	2.2
2109	2	3	2.7	3131	3	3	2.9	4111	4	2	2.3
2111	3	2	2.2	3146	1	2	1.9	4112	2	1	1.3
2113	3	3	3.2	3152	2	2	2.2	4114	4	3	3.4
2116	1	1	0.9	3165	2	1	1.3	4130	5	4	4.1
2117	2	2	2.5	3169	3	4	4.0	4150	3	2	2.1
2121	2	1	1.2	3175	3	3	2.7	4239	3	3	3.2
2123	1	2	1.9	3178	1	1	0.9	4240	2	2	1.9
2142	3	2	2.1	3179	1	2	1.8	4243	1	3	2.8
2163	4	3	3.0	3180	5	4	3.8	4244	4	5	4.5
2222	2	3	3.2	3220	3	3	2.9	4250	4	3	2.7
2362	6	4	3.6	3241	1	2	2.2	4251	2	1	1.3
2402	3	3	2.5	3257	1	1	0.9	4279	3	2	2.2

Exhibit 7: RHG Selections (continued)

Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG
4283	3	2	2.0	5160	7	7	6.8	6237	7	7	6.6
4286	2	3	3.3	5183	4	3	3.3	6251	4	4	3.8
4295	4	3	3.2	5184	6	7	6.5	6258	6	7	6.6
4297	3	2	1.9	5185	5	4	3.5	6307	5	6	5.9
4299	3	3	2.6	5186	3	4	4.1	6308	6	7	6.5
4304	3	2	1.8	5187	6	5	4.8	6315	6	6	5.7
4312	3	3	2.8	5190	6	6	5.9	6316	7	6	5.7
4351	3	2	2.2	5191	5	5	5.1	6325	5	6	5.6
4354	1	2	2.3	5192	3	3	2.9	6361	4	4	3.6
4361	1	1	0.8	5193	5	4	4.2	6364	3	3	2.6
4362	3	2	2.2	5195	3	5	4.7	6400	1	2	1.9
4410	3	3	2.6	5201	3	3	3.3	6504	3	2	1.8
4420	2	1	0.9	5205	7	6	6.3	6834	3	2	1.8
4432	4	3	2.5	5212	6	6	6.1	7133	7	6	6.2
4470	4	3	3.4	5213	6	6	6.2	7198	3	3	2.8
4478	4	2	2.3	5214	3	2	2.1	7207	4	5	5.3
4492	2	3	3.3	5222	6	7	6.6	7219	4	4	4.1
4494	2	3	3.2	5225	6	6	5.9	7227	4	4	4.1
4495	1	2	1.7	5348	2	4	4.1	7232	6	6	5.6
4496	3	2	2.3	5403	6	6	6.1	7248	4	3	3.3
4497	3	2	2.1	5432	5	6	5.9	7272	6	6	6.1
4498	2	2	2.0	5436	2	3	2.8	7332	1	1	0.8
4499	5	4	4.0	5443	4	3	3.1	7360	2	2	2.3
4511	3	4	3.9	5446	3	3	2.8	7365	5	5	4.5
4512	3	3	2.6	5447	6	5	5.2	7382	3	3	2.7
4557	5	4	3.6	5467	4	4	4.0	7392	1	1	0.9
4558	2	3	2.6	5470	4	3	3.4	7403	2	2	2.0
4611	3	3	2.6	5473	6	6	5.6	7405	1	2	2.4
4623	4	2	1.9	5474	5	5	5.1	7409	7	7	6.6
4635	5	4	4.5	5479	4	5	4.7	7410	2	3	3.2
4665	3	3	2.8	5482	7	6	6.3	7421	2	2	2.2
4683	3	3	3.0	5484	3	3	3.2	7424	6	7	6.8
4691	3	2	2.1	5485	7	6	5.8	7428	2	2	2.3
4692	3	4	4.1	5506	6	7	6.5	7429	2	2	2.0
4717	3	2	2.3	5507	7	6	5.8	7500	5	5	4.8
4720	2	1	0.7	5538	5	6	5.9	7515	6	6	5.5
4740	5	5	4.7	5542	6	6	5.9	7520	5	5	4.8
4771	3	4	3.8	5552	7	7	7.1	7538	7	7	7.5
4828	3	4	3.5	5553	6	7	6.7	7539	7	6	5.7
4829	5	3	3.2	5606	4	5	4.8	7580	6	6	6.1
4831	4	2	1.8	5610	4	5	5.1	7600	3	2	2.5
4983	5	4	4.2	5632	6	6	6.1	7601	3	2	2.0
5020	5	4	4.1	5633	5	6	5.9	7605	4	4	3.7
5027	6	5	5.2	5650	3	4	4.4	7607	4	2	2.2
5028	5	5	4.8	5951	3	4	3.8	7610	4	4	3.7
5029	5	5	5.4	6003	7	7	6.7	7706	6	6	5.7
5040	7	7	6.9	6011	7	7	6.5	7707	7	6	6.3
5102	5	6	5.8	6204	7	7	7.1	7720	4	4	4.1
5107	3	3	3.3	6206	6	5	5.3	7721	3	4	4.0
5108	5	4	3.6	6213	6	6	5.7	7722	5	5	4.9
5128	6	5	4.7	6216	6	6	6.4	7855	7	6	6.0
5129	6	6	5.9	6218	6	6	6.1	8001	1	1	0.8
5130	6	6	6.1	6220	7	7	6.7	8004	6	4	4.0
5140	5	5	4.7	6233	7	6	6.3	8006	2	1	1.2
5146	4	4	4.1	6235	7	7	6.6	8008	1	1	0.9

Exhibit 7: RHG Selections (continued)

Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG
8010	2	2	2.5	8601	6	6	6.4	9016	3	2	1.6
8013	4	4	3.5	8631	7	7	6.6	9031	3	3	3.2
8015	4	2	2.2	8720	4	3	3.3	9033	3	2	2.1
8017	2	2	1.8	8729	3	2	2.3	9043	3	2	2.3
8018	3	2	1.6	8740	2	2	2.4	9048	1	2	1.7
8019	3	2	2.4	8741	4	3	3.2	9050	2	1	1.4
8021	3	4	3.5	8742	4	4	4.1	9053	1	1	1.0
8028	4	5	4.8	8743	6	3	3.1	9054	1	1	1.1
8031	2	2	1.8	8744	4	4	4.1	9059	2	2	1.6
8032	3	2	2.4	8745	3	2	1.6	9060	3	2	2.3
8039	2	2	1.6	8746	4	4	4.1	9061	1	2	1.9
8041	4	3	2.7	8748	3	2	2.3	9066	1	2	1.7
8042	3	3	2.6	8749	1	4	4.0	9067	3	1	0.7
8046	3	2	2.1	8755	6	6	5.7	9069	2	1	1.0
8057	4	4	3.6	8800	1	2	1.6	9070	2	1	1.0
8059	2	2	2.0	8801	1	2	1.8	9079	2	1	1.3
8060	3	2	2.1	8803	3	2	2.3	9085	3	2	1.9
8061	3	4	3.6	8804	3	2	2.0	9092	2	2	2.0
8062	4	1	0.7	8806	1	1	0.9	9095	4	4	4.4
8063	2	3	3.2	8807	2	2	1.7	9096	1	1	1.0
8064	3	2	1.7	8808	2	2	2.1	9097	3	3	3.1
8065	2	3	2.6	8810	2	2	2.4	9101	5	4	3.6
8066	2	2	1.9	8811	2	2	2.4	9151	1	1	1.4
8071	3	1	0.7	8812	2	2	2.4	9154	3	4	4.3
8078	1	1	1.2	8813	1	2	2.3	9155	3	2	1.5
8102	2	3	3.0	8818	2	1	1.3	9156	1	1	0.6
8106	4	4	3.9	8820	4	4	3.8	9180	5	5	5.1
8107	2	3	3.0	8821	2	2	2.4	9181	3	3	2.9
8116	1	1	0.9	8822	3	3	3.2	9182	4	4	4.2
8117	3	1	0.5	8823	2	2	1.6	9184	2	2	2.2
8209	1	1	1.0	8827	4	2	2.0	9185	5	5	5.3
8215	5	6	5.6	8829	3	2	1.6	9220	4	4	3.7
8227	6	5	4.6	8830	3	2	2.3	9402	5	5	5.1
8232	5	5	4.8	8831	1	1	0.9	9403	4	4	3.9
8267	4	3	3.0	8834	2	2	1.8	9410	3	1	1.0
8278	6	6	5.9	8838	4	4	3.8	9420	3	2	2.1
8286	3	4	3.6	8839	2	2	1.7	9422	2	2	1.8
8290	2	3	2.6	8840	6	5	5.4	9424	4	3	3.1
8291	5	5	4.8	8846	1	2	1.6	9426	4	3	2.9
8292	2	1	1.2	8847	2	2	1.7	9501	1	1	1.3
8293	4	4	3.6	8850	2	2	1.6	9507	2	3	2.8
8304	5	4	3.9	8851	3	1	0.9	9516	4	4	3.7
8324	4	3	3.1	8852	5	4	4.3	9519	3	2	2.4
8350	2	3	3.0	8859	2	2	2.1	9521	3	3	3.2
8370	4	4	3.5	8868	2	2	2.2	9522	3	2	2.2
8387	3	2	1.6	8870	2	2	1.6	9529	5	6	6.1
8388	3	2	1.9	8871	2	2	2.4	9531	4	4	3.5
8389	4	3	3.0	8874	2	2	2.1	9549	3	4	3.6
8390	2	1	1.0	8875	3	4	3.8	9552	6	6	6.1
8391	3	2	2.3	9007	3	2	2.0	9586	2	1	1.2
8392	4	3	2.9	9008	2	2	1.5	9610	2	4	3.9
8393	4	3	2.8	9009	5	3	3.1	9620	4	3	2.6
8397	2	2	1.7	9010	3	3	3.4				
8400	5	3	3.3	9011	4	3	2.9				
8500	5	5	4.9	9015	4	4	3.8				

Exhibit 8: RHG Selections for Deactivated Classifications

Class	Current RHG	Proposed RHG	Decimal RHG
0044	5	4	4.3
1123	4	4	3.8
1124	4	4	3.8
2106	3	2	2.2
2150	3	3	2.8
2211	2	3	3.2
2578	1	1	1.0
2586	1	1	1.0
2623	1	1	1.0
2960	1	1	1.1
3004	1	4	3.6
3255	1	1	0.9
3300	1	1	0.9
3373	4	3	3.1
3566	4	3	3.0
3567	4	3	3.0
3578	4	3	3.0
3579	4	3	3.0
3807	3	2	2.5
4133	4	2	2.3
4360	3	2	2.2
4414	3	3	2.6
4431	4	2	2.3
4567	3	3	2.7
4922	4	3	2.7
5057	5	6	5.8
5059	7	7	6.9
5188	5	4	3.5
5207	7	7	6.5
5630	6	6	6.1
5631	5	6	5.9
5645	6	6	6.1
5697	5	6	5.9
6254	4	4	3.8
7413	1	2	2.4
7606	3	2	2.5
8070	3	1	0.7
8103	4	3	3.1
8110	2	2	2.5
8111	2	2	2.5
8113	2	2	2.5
8204	2	2	2.5
8264	4	3	3.1
8265	5	5	4.9
8604	6	6	6.4
8901	2	2	2.4

Item AC22-12-07 Long COVID Study

In June 2023, the WCIRB published the second long COVID study - [Medical Treatments and Costs of COVID-19 Claims and “Long COVID” in the California Workers’ Compensation System – 2023 Update.](#) Using more recent data, WCIRB staff has updated the study with a focus on the prevalence of long COVID during the 2-year post-acute care period, how long COVID prevalence varies by accident year and vaccine periods, impacts of long COVID on permanent disability and cost and treatment patterns on long COVID claims.

At the meeting, WCIRB staff will summarize the preliminary findings of the updated analysis. Draft slides summarizing staff’s preliminary findings are attached for review.

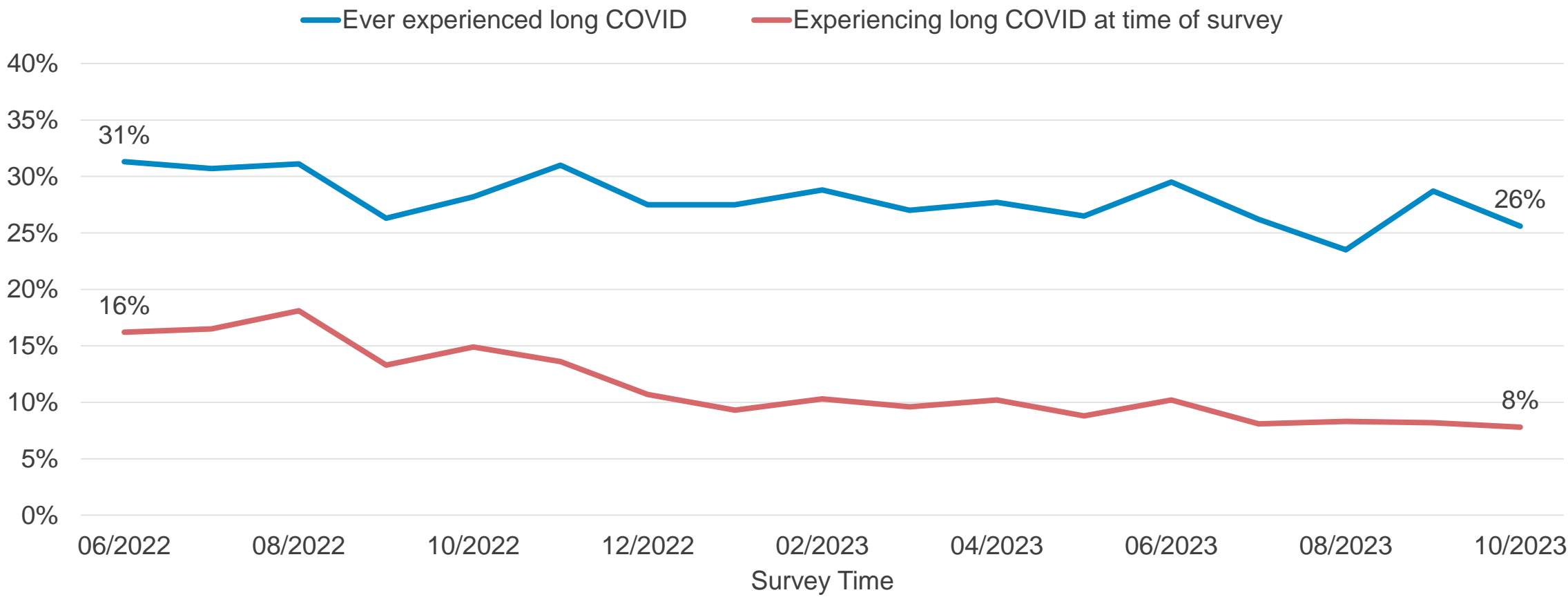


Long COVID Study – 2024 Update

Background: CDC Household Pulse Survey on Long COVID

(symptoms lasting for at least 3 months after a COVID-19 infection)

Share of California Adults who ever had COVID-19

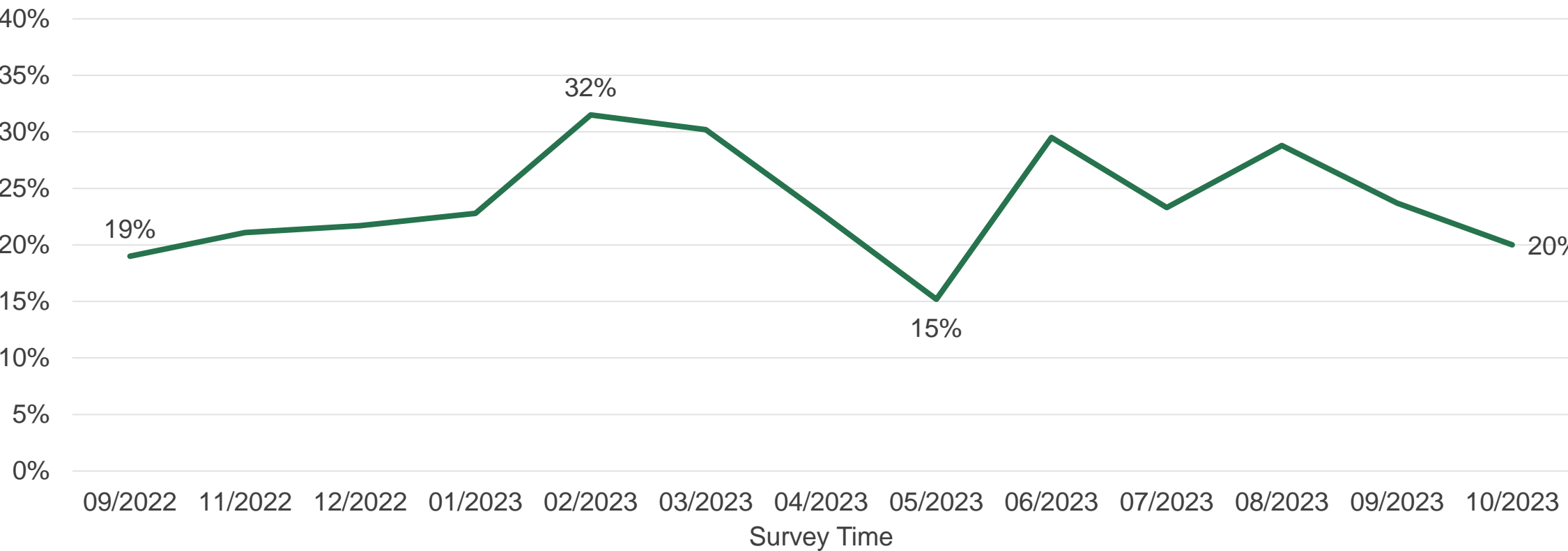


Source: [Long COVID - Household Pulse Survey - COVID-19 \(cdc.gov\)](https://www.cdc.gov/longcovid/)

Background: CDC Household Pulse Survey on the Impacts of Long COVID on Daily Activities

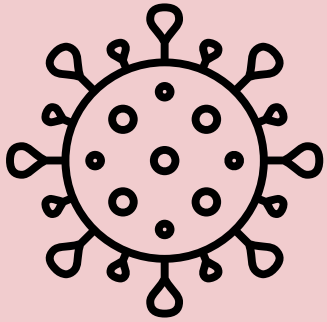
Share of California Adults who had Long COVID at Time of Survey

— Significant activity limitations from long COVID



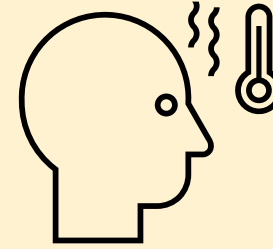
Source: [Long COVID - Household Pulse Survey - COVID-19 \(cdc.gov\)](#)

Key Findings of Prior WCIRB Studies of Long COVID in 2022 and 2023



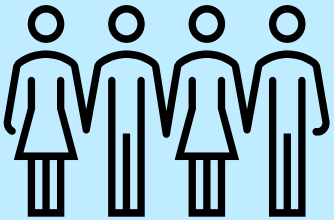
Estimated long COVID prevalence in the workers' compensation system

- Over 4 months: 11%
- Over 1 year: 13%
 - Symptoms particularly persistent for hospital claims



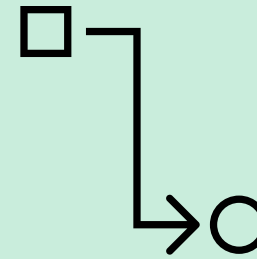
Leading long COVID symptoms:

- Consistent in the prior two studies
- Include respiratory, musculoskeletal and neurological conditions and fatigue



Characteristics of workers experiencing long COVID

- Higher prevalence among female workers, workers ≥ 40 years and workers with pre-existing comorbidities
- Higher prevalence in the healthcare, manufacturing and retail industries



Early assessment of permanent disability (PD) on long COVID claims (compared to other COVID claims without long COVID):

- Higher share of PD claims
- Higher average PD rating
- Higher average medical incurred

Source: Medical Treatments and Costs of COVID-19 Claims and "Long COVID" the California Workers' Compensation System – 2023 Update; Medical Treatments and Costs of COVID-19 Claims and an Early Look at "Long COVID" the California Workers' Compensation System.

Research Questions for the 2024 Update

1. What is the prevalence of long COVID during the 2-year post-acute care period?
 - Difference in the prevalence by accident year, variant and vaccine period
 - Difference in the prevalence by industry sector
 - Prevalence of long COVID among indemnity-only claims and reopened COVID-19 claims
 - Clusters of long COVID symptoms for mild and hospital claims
2. What are the long-term disability outcomes of long COVID Claims?
 - Valued at approximately 18 and 30 months from policy inception
3. What are the cost and treatment patterns on long COVID claims? (work in progress)

Research Approach

- Data source:
 - WCIRB medical transaction data, Unit Statistical Report data (USR) and indemnity transaction data
- Claim Population
 - A sample of COVID-19 claims from insured employers:
 - Identified using Catastrophe Number 12 in USR or Nature of Injury/Cause of Injury 83 in USR or indemnity transaction data
 - COVID-19 claims with any medical payments, including medical-only and indemnity/medical claims
 - Mild claims: with no hospital care
 - Severe claims: with hospital care but without ICU care
 - Critical claims: with ICU care
 - Death claims: based on injury type in the USR data or death field in the indemnity transaction data
 - Indemnity-only COVID-19 claims: no incurred medical at Report Level (RL) 1
 - Reopened COVID-19 claims: closed at RL1 but open or have higher incurred medical at RL2 or have paid medical transactions after RL1
 - Non-COVID-19 claims with any medical payments and same criteria for mild, severe, critical and death claims
 - Denied COVID-19 claims were excluded
- Accident date period:
 - April 2020 through December 2022

Definition of “Long COVID” in the Study

- Followed the definition of "long COVID" from NIH
- Used ICD information to identify COVID-19 claims with medical treatment for long COVID symptoms (“Long COVID Claims”)
- Extended the analysis timeframe for long COVID to 2-year post-acute care period based on available data
 - Post-acute care period starts on 31st day from the first medical treatment for mild claims and starts on 31st day from hospital discharge for both severe and critical claims
 - Analyzing medical treatment and cost patterns during the post-acute care period for long COVID claims

*In addition to ICD information for specific long COVID symptoms, based on published research, we also included U09.9 (Long COVID, effective Oct 1, 2021), U07.1 (COVID-19) and B94.8 (Sequelae of other specified infectious and parasitic diseases) to identify claims that continued to receive medical treatments for COVID-19 related medical concerns.

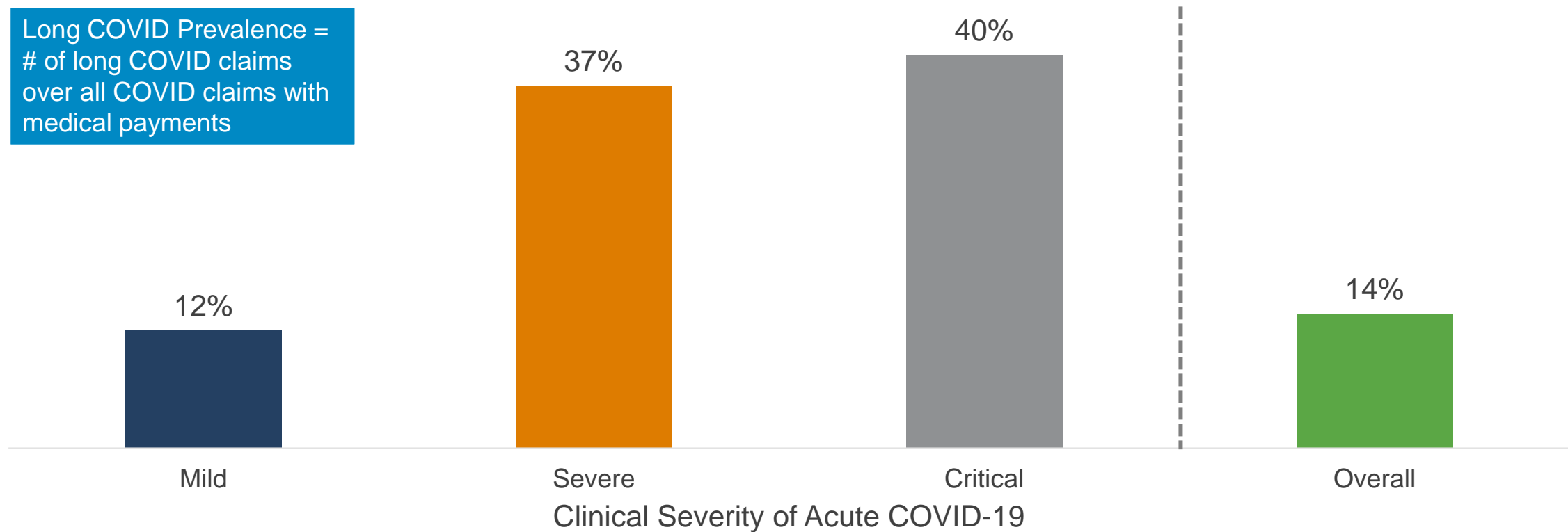
Distribution of COVID-19 and Non-COVID-19 Workers' Compensation Claims included in the Study by Clinical Severity

Clinical Severity of Acute COVID-19	Share of COVID-19 Claims with Medical Payments (N = 11,093)			Share of Non-COVID-19 Claims with Medical Payments (N = 724,508)
	Accident Year (AY) 2020	AY 2021	AY 2022	AY 2020-2022
Mild (no hospital care)	91.0%	91.5%	97.6%	98.7%
Severe (no ICU, excl. deaths)	3.3%	3.8%	1.3%	0.9%
Critical (w/ ICU, excl. deaths)	3.4%	2.4%	0.7%	0.3%
Death	2.3%	2.3%	0.4%	0.05%

Note: Death claims in the WC system were identified using the death field in the TI data or injury type in the USR data
Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

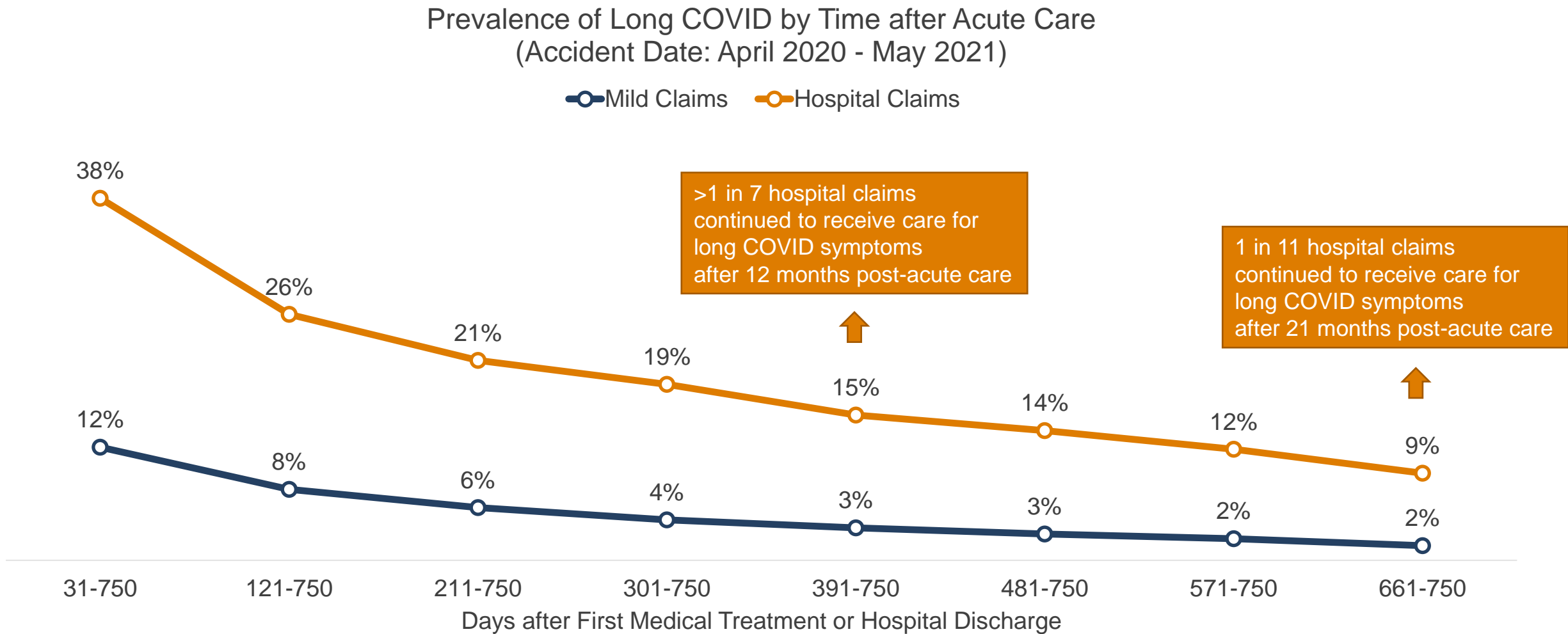
Estimated Prevalence of Long COVID in the California Workers' Compensation System

Prevalence of Long COVID during the 2-Year Post-Acute Care Period
(Accident Date: April 2020 - May 2021)



Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

Persistence of Long COVID over 2-Year Post-Acute Care Period

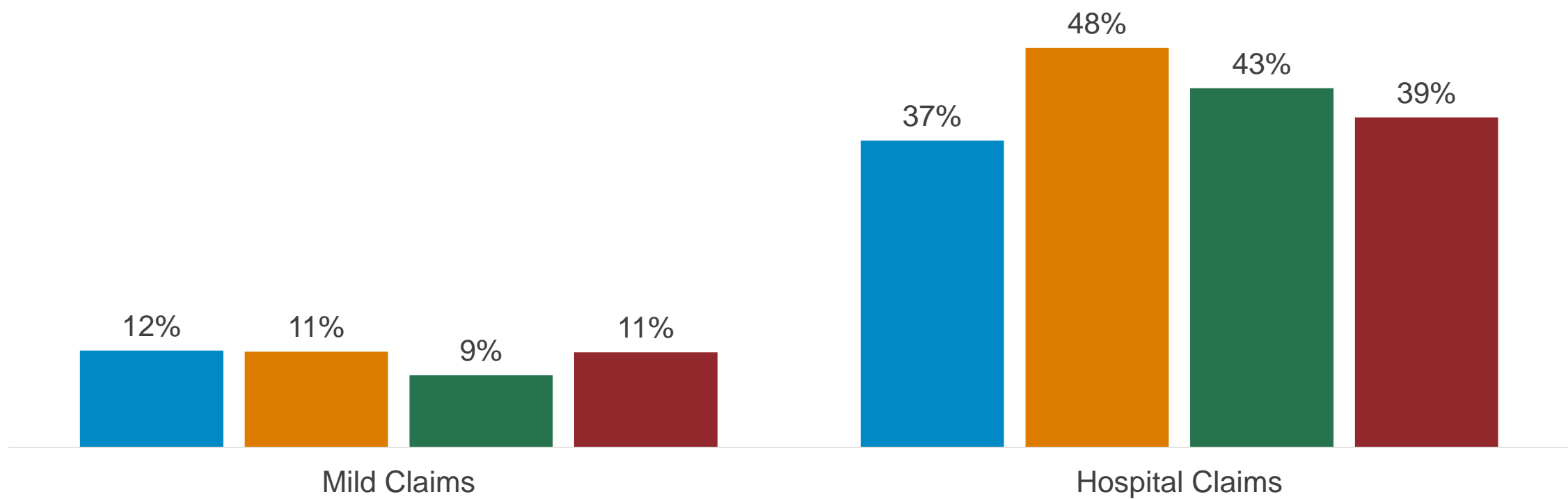


Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

Prevalence of Long COVID by Accident Year for Mild and Hospital Claims

Prevalence of Long COVID During 1-Year Post-Acute Care Period*

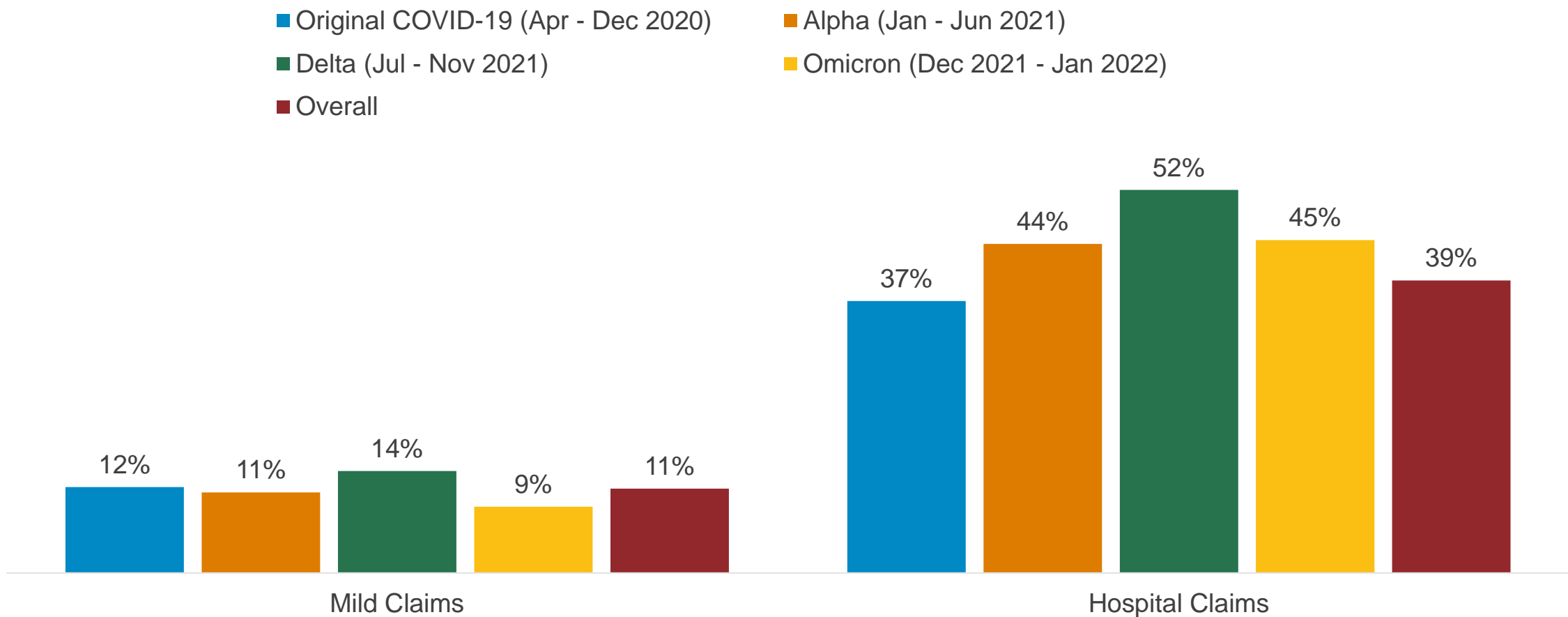
■ 2020 ■ 2021 ■ Jan 2022 ■ Overall



Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

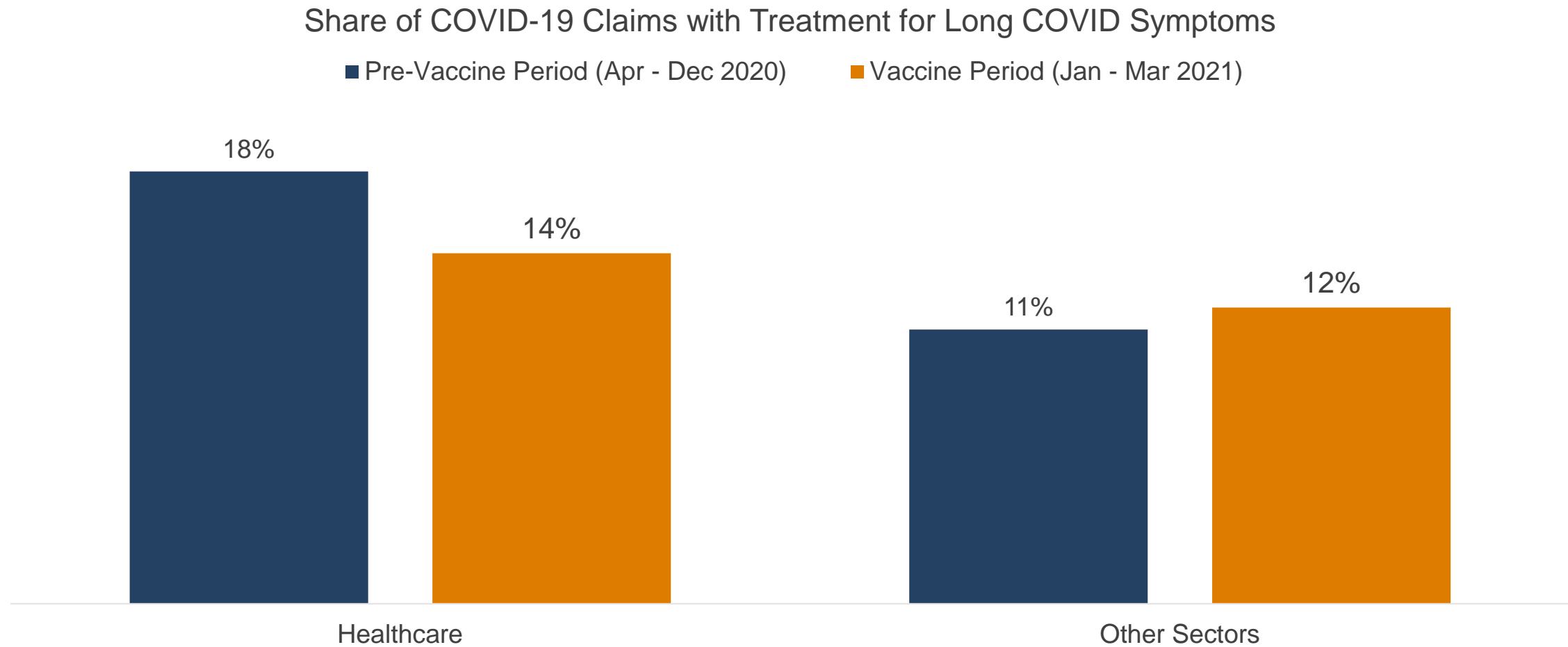
Prevalence of Long COVID by Variants for Mild and Hospital Claims

Prevalence of Long COVID During 1-Year Post-Acute Care Period*



Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

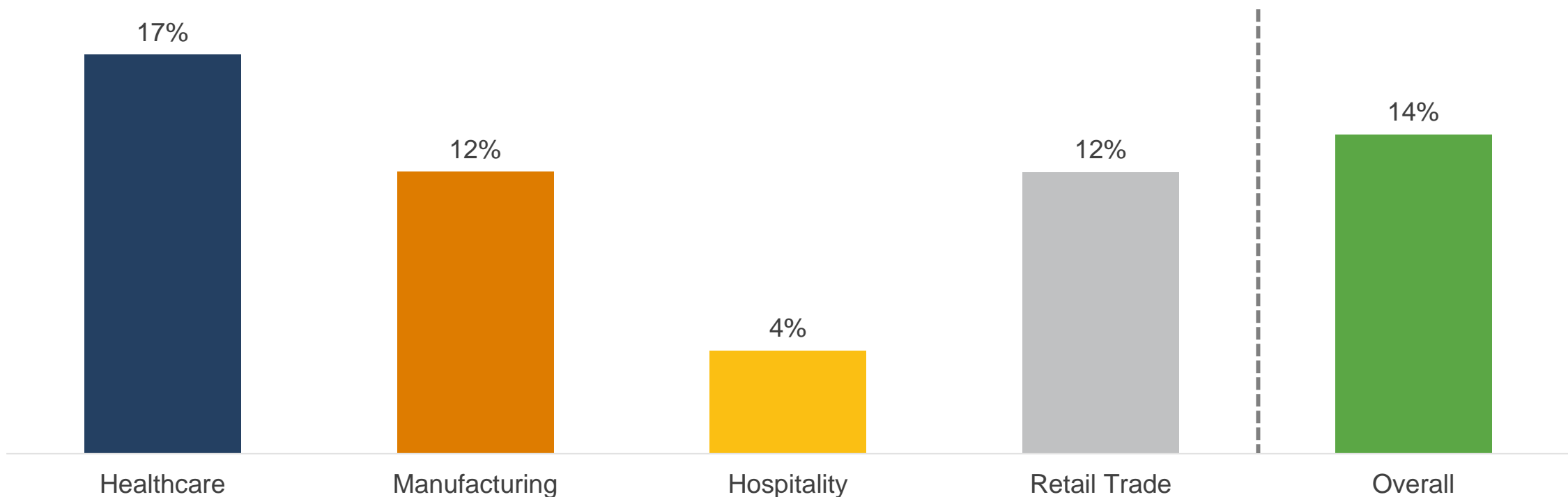
Estimated Prevalence of Long COVID over Two Years by Vaccine Period - Healthcare vs. Other Sectors



Note: Industry sectors are based on the North American Industry Classification System (NAICS) sectors. The NAICS sector assigned to each claim is derived from a crosswalk between the NAICS sector codes and the reported classification codes from the WCIRB unit statistical data and WCIRB indemnity transaction data.
Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

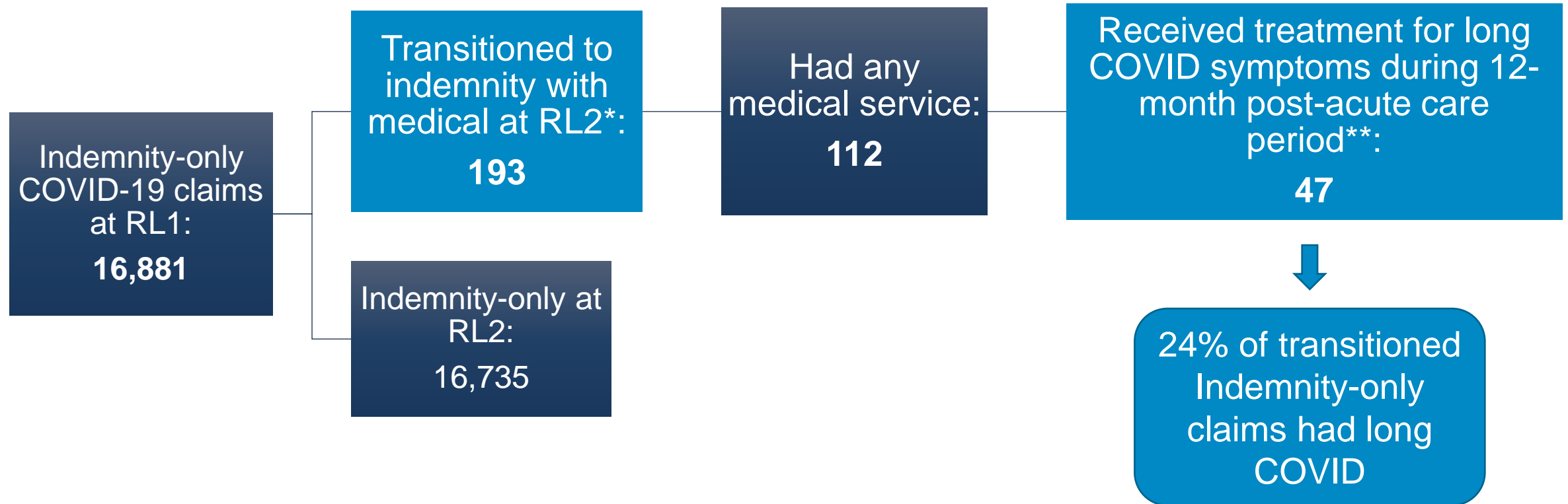
Estimated Prevalence of Long COVID by Leading Industry Sectors

Share of COVID-19 Claims with Treatment for Long COVID Symptoms over the 2-Year Post-Acute Care Period
(Accident Date: April 2020 - May 2021)



Note: Industry sectors are based on the North American Industry Classification System (NAICS) sectors. The NAICS sector assigned to each claim is derived from a crosswalk between the NAICS sector codes and the reported classification codes from the WCIRB unit statistical data and WCIRB indemnity transaction data.
Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

Prevalence of Long COVID among Transitioned Indemnity-Only COVID-19 Claims

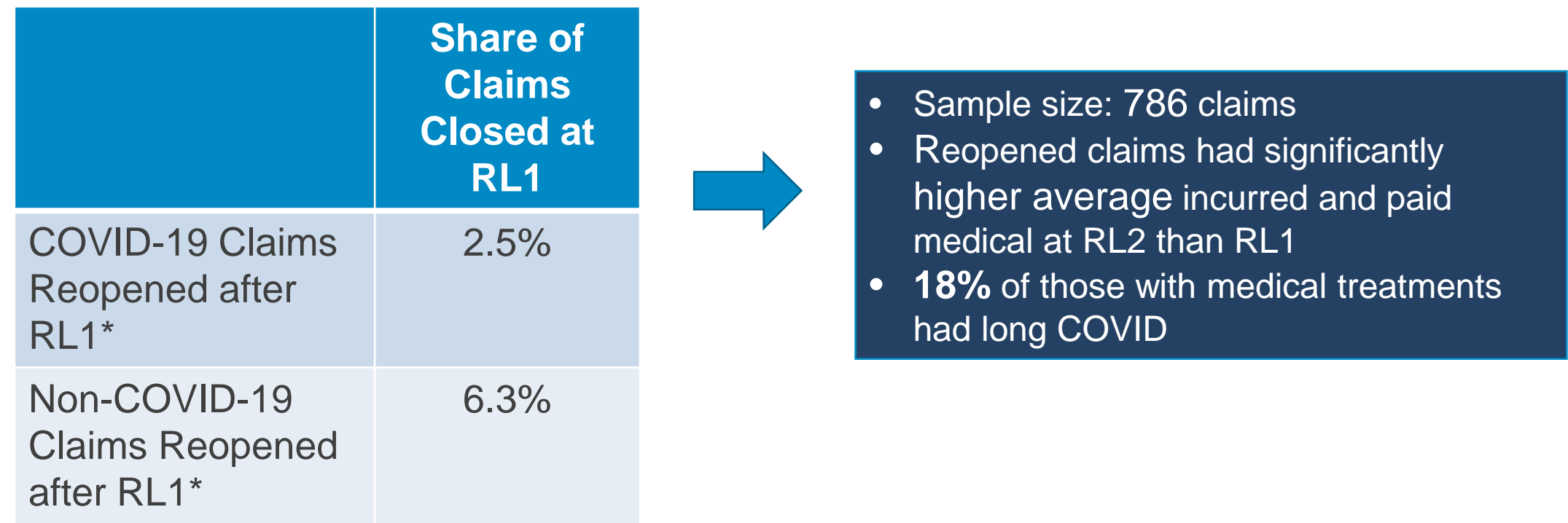


* Includes: 1) COVID-19 claims with 0 incurred medical at RL1 but >0 incurred medical at RL2 or 2) COVID-19 claims with 0 incurred medical at RL1 but had medical payments in the medical transaction data after RL1 (no RL2 data available).

** Post-acute care period starts on day of first medical service for mild claims and starts on 31st day from hospital discharge for hospital claims

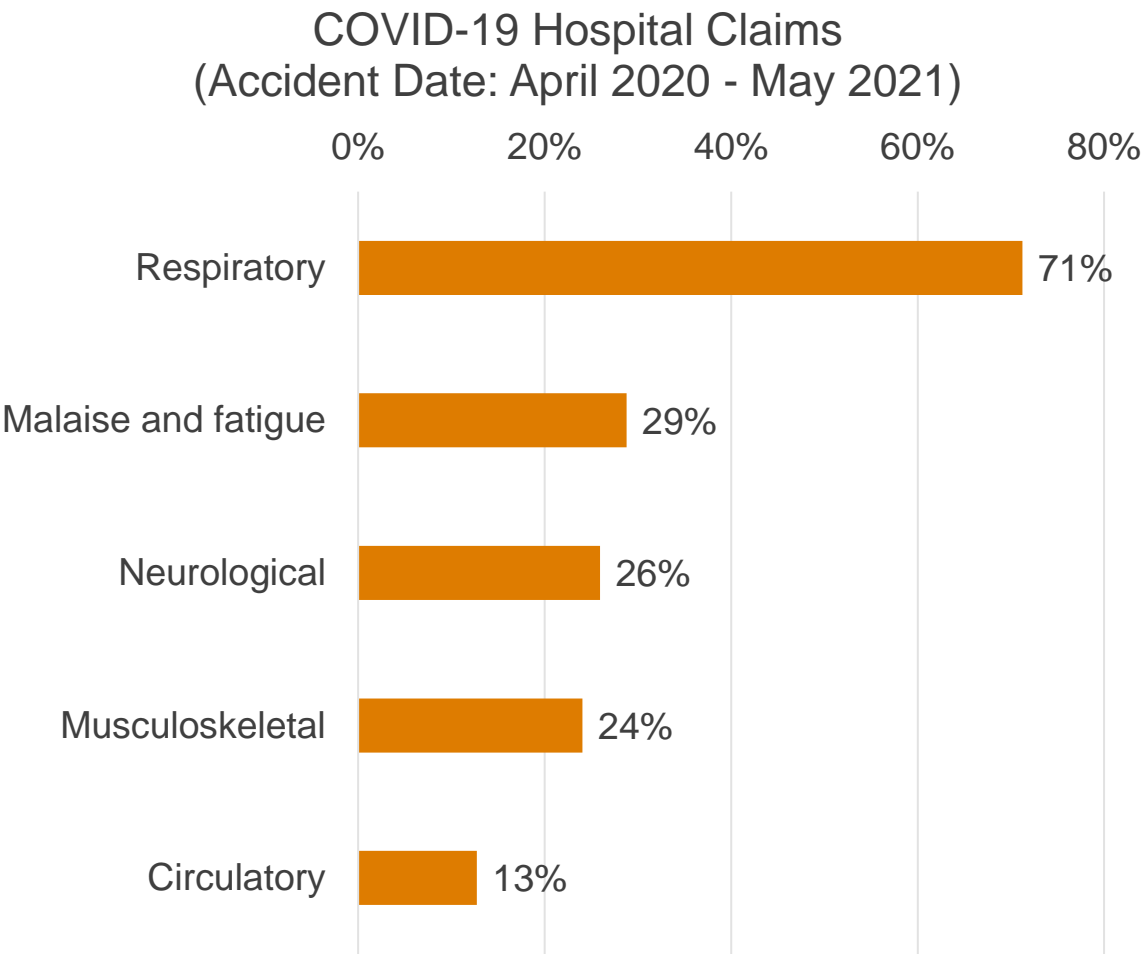
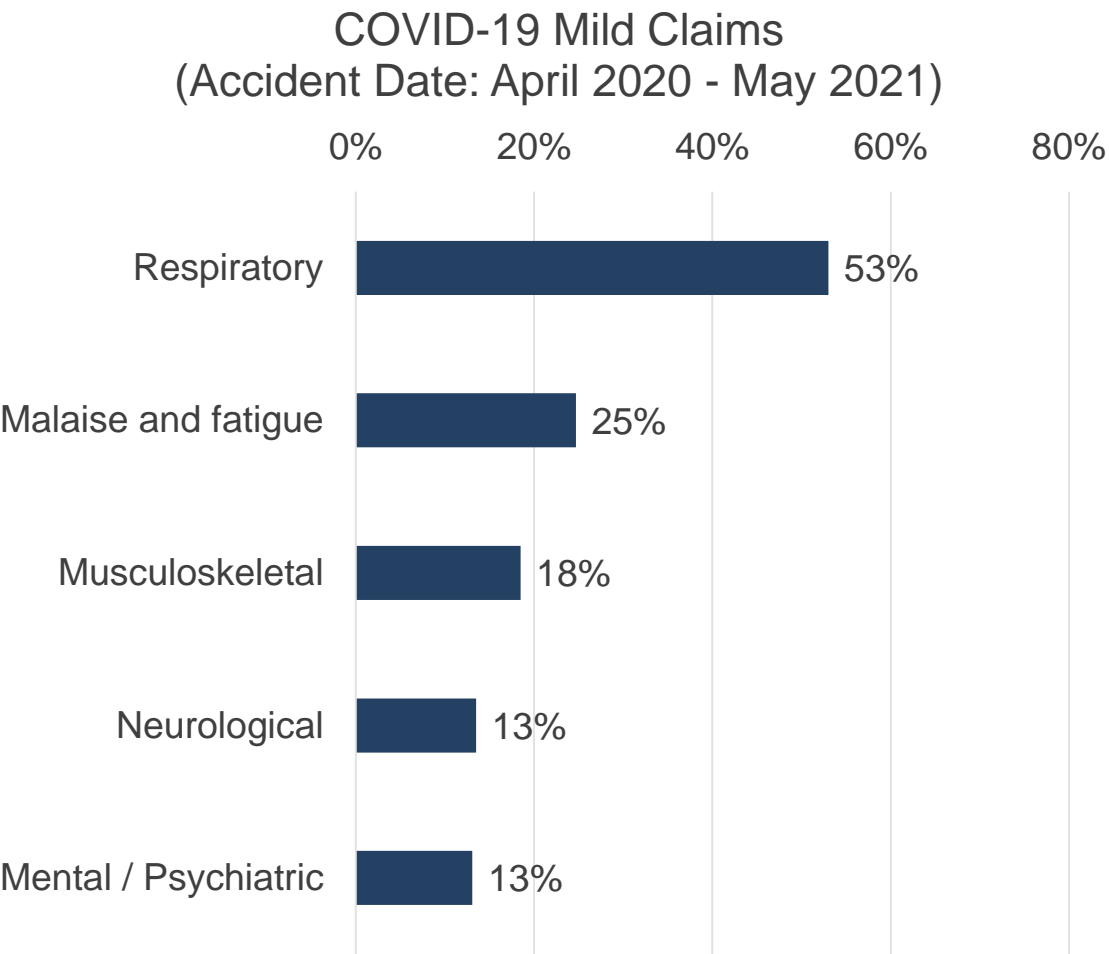
Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data. Death claims excluded.

Prevalence of Long COVID among Reopened COVID-19 Claims



Note. All closed COVID -19 claims were included in the calculation, including indemnity-only, medical-only and indemnity and medical claims.
* Includes 1) COVID-19 claims closed at RL1 but reopened at RL2, 2) COVID-19 claims closed at RL1 and remained closed at RL2 but had more paid medical at RL2 and 3) COVID-19 claims closed at RL1 but had medical payments in the medical transaction data after RL1 (no RL2 data available).
Source. WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

Leading Categories of Long COVID Symptoms Treated in the Workers' Compensation System

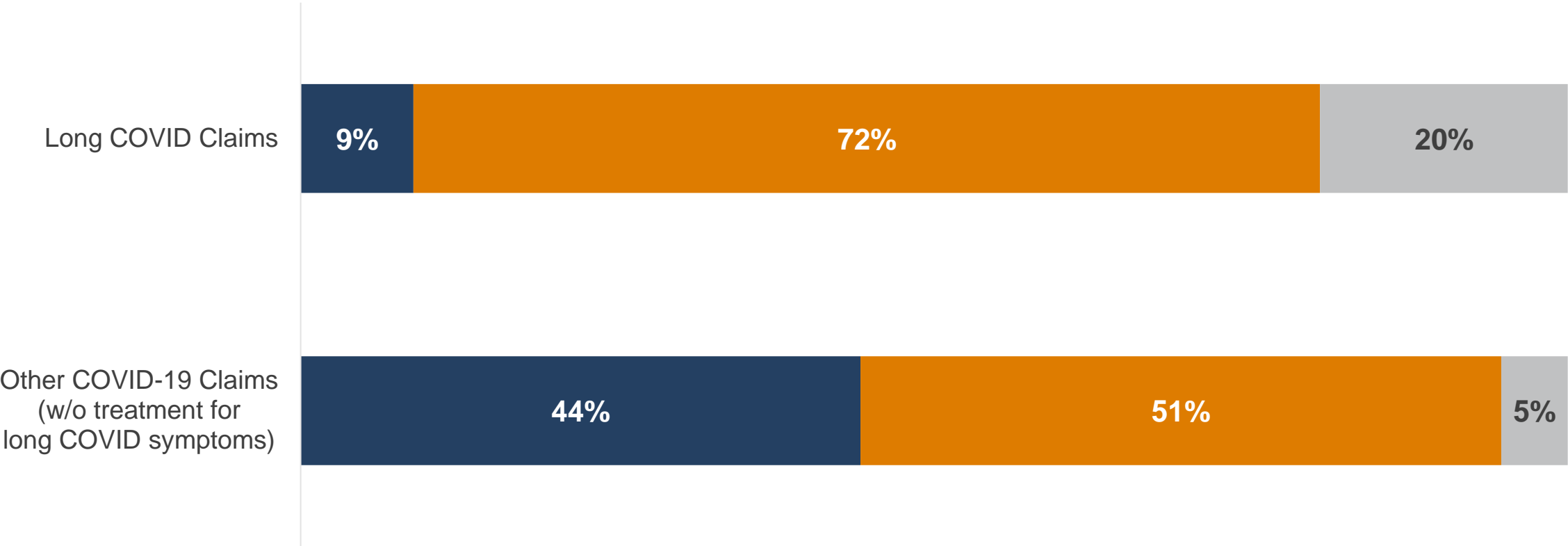


Note: Some claims may have multiple symptoms.
Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

Temporary and Permanent Disability for Long COVID Claims

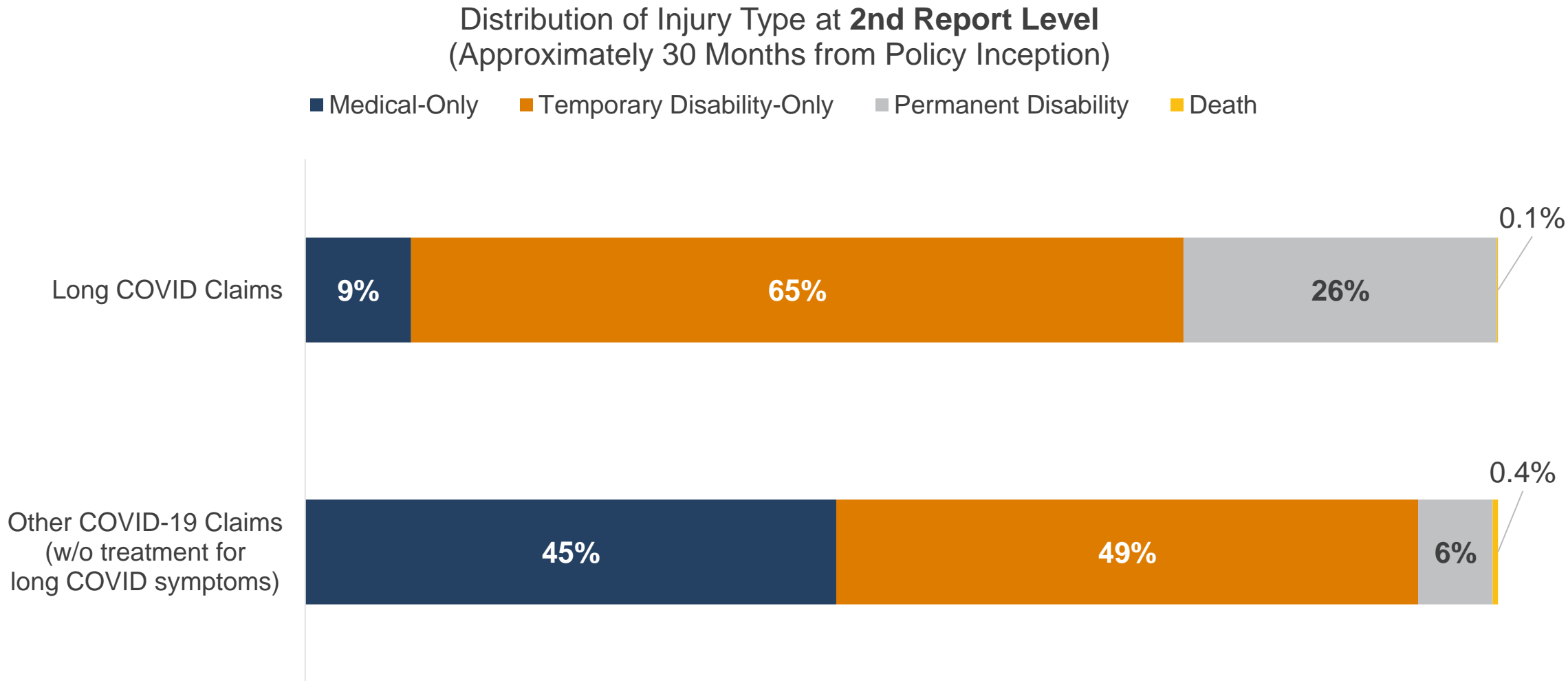
Distribution of Injury Type at **1st Report Level**
(Approximately 18 Months from Policy Inception)

■ Medical-Only ■ Temporary Disability-Only ■ Permanent Disability



Source: WCIRB medical transaction data and WCIRB unit statistical data.

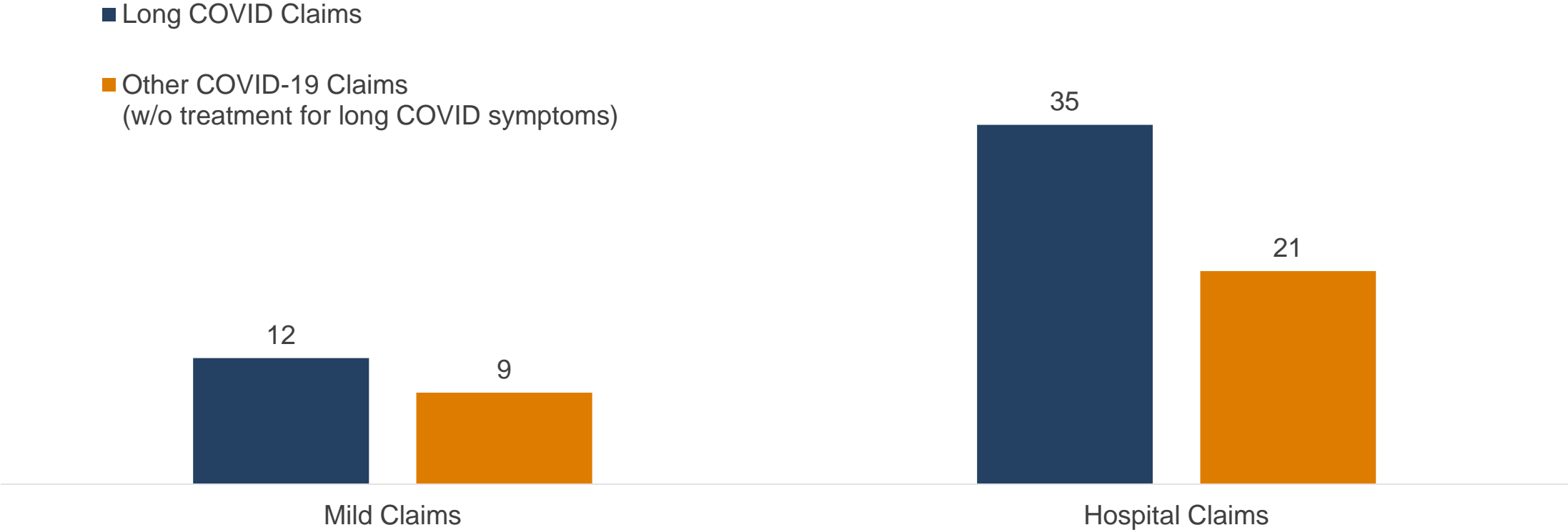
Temporary and Permanent Disability for Long COVID Claims



Source: WCIRB medical transaction data and WCIRB unit statistical data.

Permanent Disability Rating for Long COVID Claims

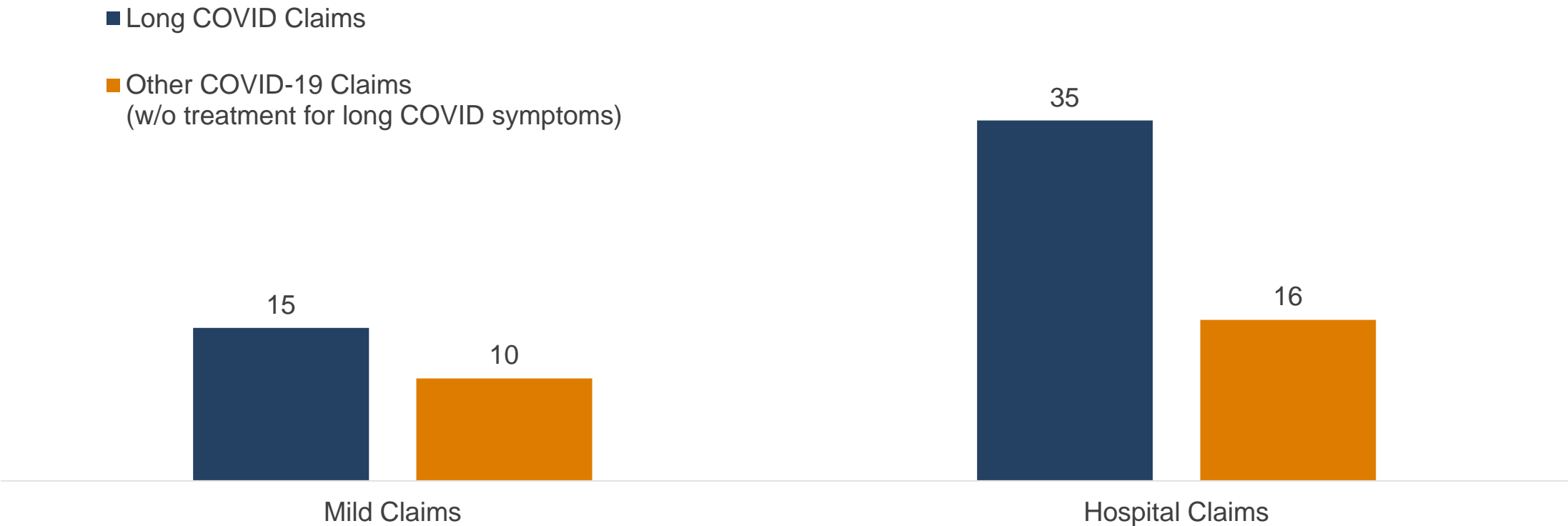
Average Permanent Disability Rating at **1st Report Level**
(Approximately 18 Months from Policy Inception)



Note: Chart includes COVID-19 claims in the WCIRB USR data as of approximately 18 months from policy inception. The majority (73%) of these claims remained open as of approximately 18 months from policy inception, therefore the average PD ratings in the analysis represent estimated ratings and not final ratings.
Source: WCIRB medical transaction data and WCIRB unit statistical data.

Permanent Disability Rating for Long COVID Claims

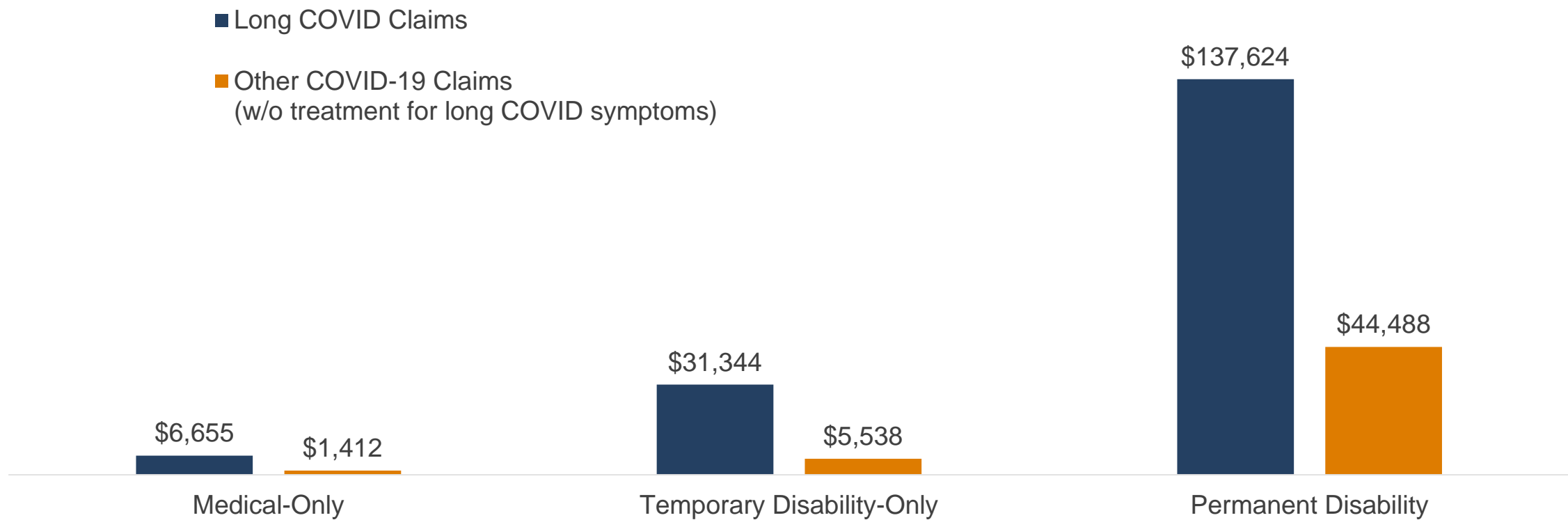
Average Permanent Disability Rating at **2nd Report Level**
(Approximately 30 Months from Policy Inception)



Note: Chart includes COVID-19 claims in the WCIRB USR data as of approximately 18 months from policy inception. The majority (73%) of these claims remained open as of approximately 18 months from policy inception, therefore the average PD ratings in the analysis represent estimated ratings and not final ratings.
Source: WCIRB medical transaction data and WCIRB unit statistical data.

Average Incurred Medical for Long COVID Claims

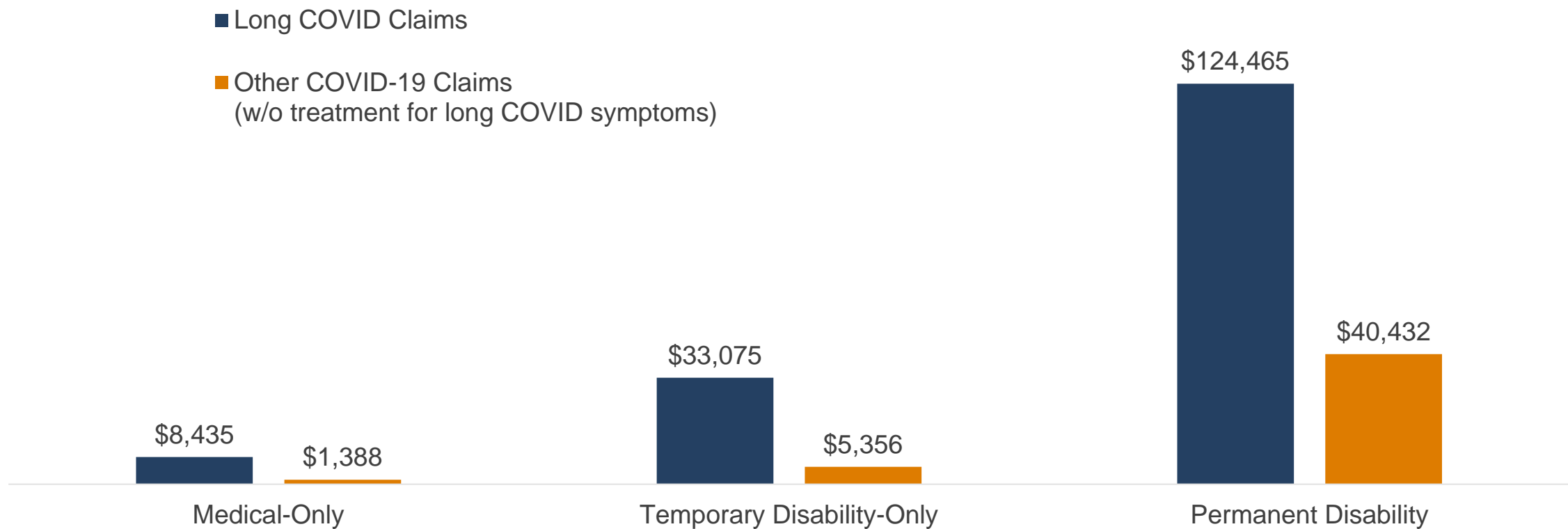
Average Incurred Medical at **1st Report Level**
(Approximately 18 Months from Policy Inception)



Source: WCIRB medical transaction data and WCIRB unit statistical data.

Average Incurred Medical for Long COVID Claims

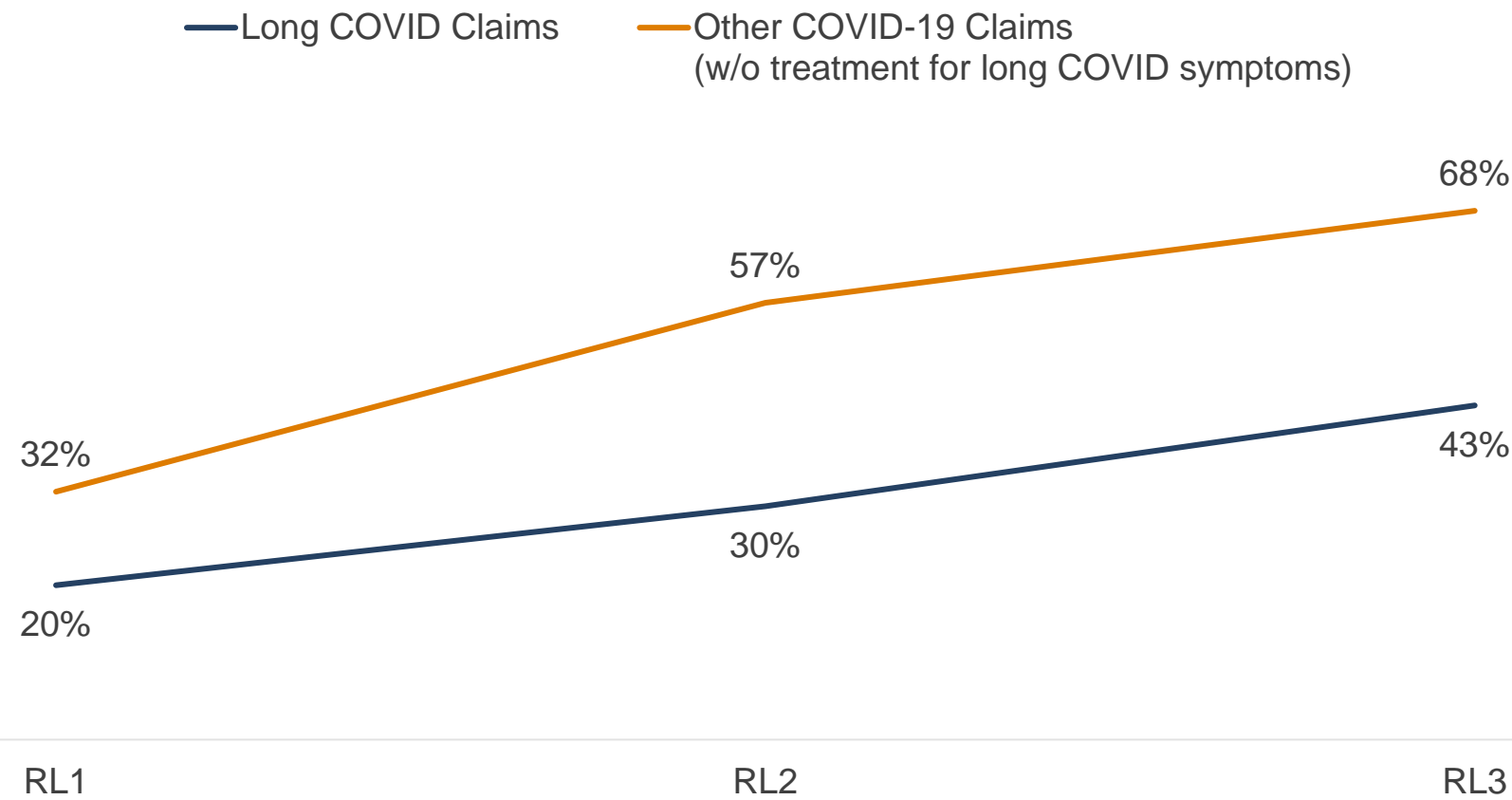
Average Incurred Medical at **2nd Report Level**
(Approximately 30 Months from Policy Inception)



Source: WCIRB medical transaction data and WCIRB unit statistical data.

Permanent Disability Claim Closure Rate

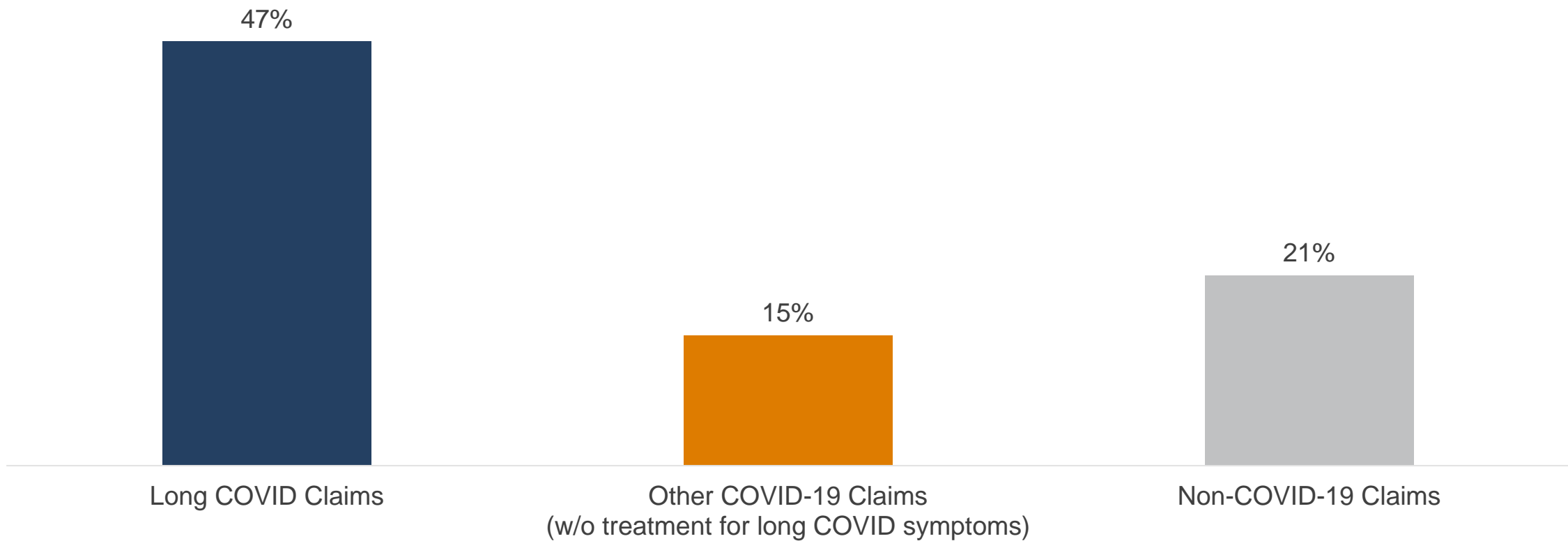
Share of Permanent Disability Claims that Closed by Report Level



Source: WCIRB medical transaction data and WCIRB unit statistical data.

Share of Claims with Litigation

Share of Claims with Paid ALAE > \$1000 at 1st Report Level

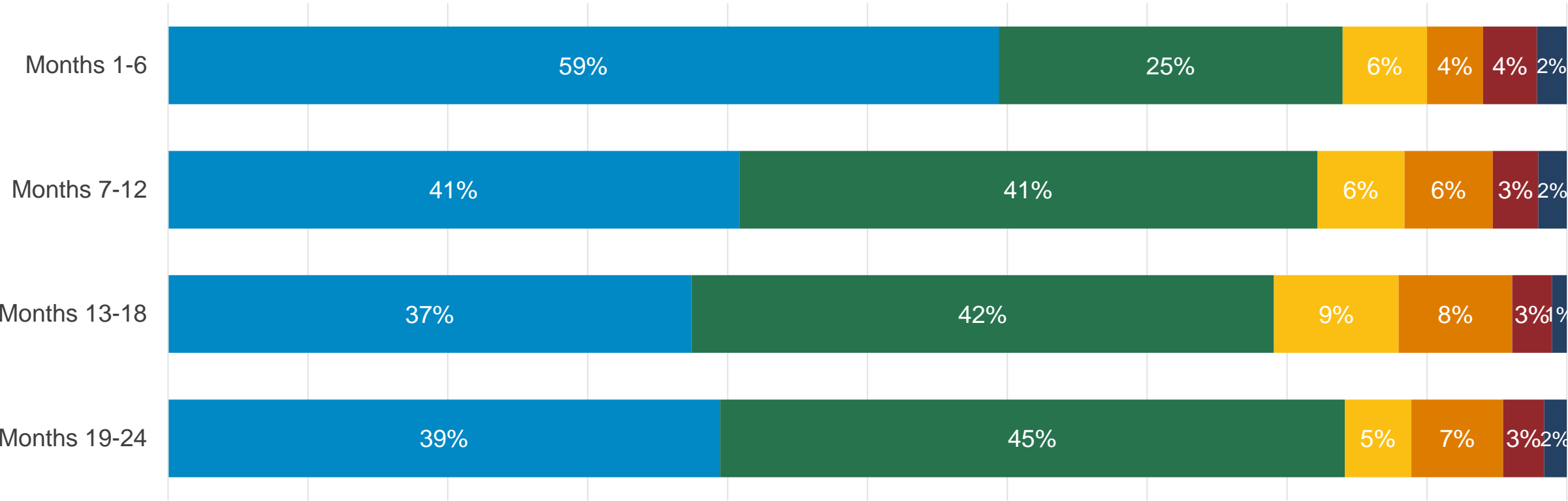


Source: WCIRB medical transaction data and WCIRB unit statistical data.

Leading Medical Services on Long COVID Claims with an Initial Mild infection

Mild Claims with Long COVID: Share of Medical Payments during 2-Years Post-Acute Care Period

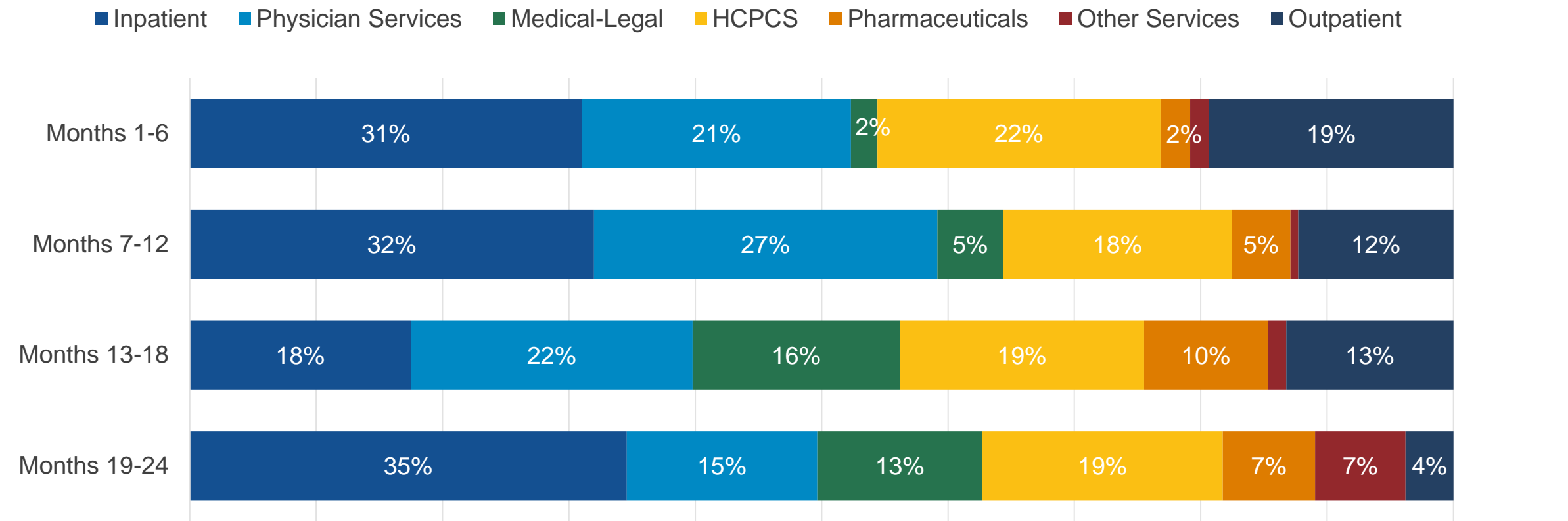
■ Physician Services ■ Medical-Legal ■ HCPCS ■ Pharmaceuticals ■ Other Services ■ Outpatient



Note: Other services include Copy Services, Dental, Medical Liens and, Unclassifiable.
Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

Leading Medical Services on Long COVID Claims Involving Hospitalization for the Initial Infection

Hospital Claims with Long COVID: Share of Medical Payments during 2-Years Post-Acute Care Period



Note: Other services include Copy Services, Medical Liens and, Unclassifiable.
Source: WCIRB medical transaction data, WCIRB unit statistical data and WCIRB indemnity transaction data.

Summary of Preliminary Findings

- Estimated prevalence of long COVID: Overall, **1 in 7 (14%)** COVID-19 claims with medical payments during the 2-year post-acute care period
 - Persistent for hospital claims: 1 in 11 (9%) hospital COVID-19 claims continued to receive treatment for long COVID after 21 months of post-acute care
 - 1 in 4 (24%) transitioned indemnity-only claims received treatment for long COVID
 - Leading long COVID symptoms: respiratory, malaise and fatigue, musculoskeletal and neurological
 - Healthcare, manufacturing, hospitality and retail are the leading industries with relatively high prevalence
 - Vaccination appeared to lower the prevalence of long COVID
- Impact of long COVID on permanent disability
 - A higher share of long COVID claims involved PD than other COVID-19 claims
 - The share increased at RL2
 - Higher average PD rating and higher average medical incurred than other COVID-19 claims
 - Lower closure rate

Next Steps

- Continue to analyze the patterns of medical treatment and costs for long COVID claims
- Continue to explore estimating the prevalence of long COVID in the group health dataset of a sample of California workers with group health insurance and comparing it with the estimates in WC
- Continue to analyze how comorbidity affects risks of long COVID in the group health data
- Publish the report in the third quarter of 2024

Item AC23-12-01 9/30/2023 Experience Review

Staff has prepared an analysis of statewide insurer experience through September 30, 2023, which is included in Exhibits 1 through 8. This information reflects insurers writing almost 100% of the market based on 2022 premium levels. The methodologies used are generally consistent with those reflected in the September 1, 2023 Pure Premium Rate Filing with the exception that projected loss development through 81 months is not adjusted for changes in claim settlement rates (as discussed at the September 12, 2023 meeting).¹ Wage and loss levels are projected to September 1, 2024—the approximate midpoint of experience on policies incepting between September 1, 2023 and August 31, 2024 and premiums were adjusted to the approved advisory pure premium rate level as of September 1, 2022. The accident year 2020 through 2022 information shown in Exhibits 1 through 8 have been adjusted to remove COVID-19 claims although the preliminary accident year 2023 experience includes COVID-19 claims. (A summary of COVID-19 claim experience as of September 30, 2023 is included in Exhibit 13.)

As shown on Exhibit 8, the projected loss to pure premium ratio for policies incepting between September 1, 2023 and August 31, 2024 based on September 30, 2023 experience is 0.762. This compares to the projected loss ratio of 0.755 included in the September 1, 2023 Pure Premium Rate Filing.

Additional supplemental information is included in Exhibits 9 through 16.

¹ The adjustment for the impact of longer-term improvement in claim settlement rates on the loss development tail is still reflected.

**California Workers' Compensation
Accident Year Experience as of September 30, 2023**

<u>Year</u>	<u>Earned Premium</u>	<u>Paid Indemnity</u>	<u>Indemnity Reserves</u>	<u>Paid Medical**</u>	<u>Medical Reserves</u>	<u>IBNR*</u>	<u>Total Incurred**</u>	<u>Loss Ratio*</u>
1987	4,276,669,575	1,478,124,901	5,621,004	1,322,590,076	37,439,058	10,662,483	2,854,437,522	0.667
1988	5,072,567,368	1,681,395,816	4,706,296	1,535,006,994	19,449,594	66,228,109	3,306,786,809	0.652
1989	5,589,253,665	1,919,670,870	4,709,744	1,794,484,669	29,950,701	41,280,503	3,790,096,487	0.678
1990	5,621,904,307	2,239,396,589	4,358,831	2,040,870,660	25,207,740	52,354,111	4,362,187,931	0.776
1991	5,775,222,923	2,455,820,838	11,534,730	2,194,637,611	29,614,678	52,251,751	4,743,859,608	0.821
1992	5,589,085,408	1,953,916,541	9,525,553	1,755,215,934	30,204,092	45,784,814	3,794,646,934	0.679
1993	5,820,784,091	1,670,159,876	8,026,605	1,504,476,043	41,614,081	51,148,381	3,275,424,986	0.563
1994	4,924,070,206	1,606,808,295	12,938,859	1,459,264,253	45,998,363	39,923,704	3,164,933,474	0.643
1995	3,717,263,476	1,741,554,482	17,578,162	1,623,024,615	71,360,713	30,835,811	3,484,353,783	0.937
1996	3,687,514,863	1,933,717,701	22,130,276	1,720,128,281	64,041,024	50,520,670	3,790,537,952	1.028
1997	3,882,985,870	2,308,104,700	24,243,729	2,026,952,321	77,294,906	85,365,130	4,521,960,786	1.165
1998	4,323,448,205	2,787,129,836	32,385,539	2,708,814,603	135,182,264	164,274,390	5,827,786,632	1.348
1999	4,550,791,128	3,070,669,147	32,869,325	3,103,086,278	99,549,682	228,056,949	6,534,231,381	1.436
2000	5,920,975,170	3,456,420,153	45,633,756	3,637,056,581	137,717,803	356,996,290	7,633,824,583	1.289
2001	10,108,322,683	4,888,191,821	58,284,672	5,478,627,004	206,133,142	577,581,704	11,208,818,343	1.109
2002	13,309,435,814	4,793,442,509	58,911,914	5,563,458,232	198,302,860	801,027,970	11,415,143,485	0.858
2003	19,280,128,929	4,586,621,826	98,735,494	5,150,353,243	207,888,667	1,167,327,422	11,210,926,652	0.581
2004	23,014,791,568	3,251,598,296	88,116,790	4,143,835,050	187,678,358	1,273,639,951	8,944,868,445	0.389
2005	21,384,360,071	2,582,796,750	76,050,373	3,754,882,988	155,547,731	1,038,736,746	7,608,014,588	0.356
2006	17,221,780,296	2,680,608,067	72,009,405	3,878,984,871	186,199,703	684,323,072	7,502,125,118	0.436
2007	13,260,139,026	2,829,564,165	84,832,539	4,150,799,059	193,061,048	643,399,170	7,901,655,981	0.596
2008	10,744,447,308	2,885,685,781	101,764,467	4,146,648,716	216,390,740	378,012,371	7,728,502,075	0.719
2009	8,873,155,994	2,773,773,054	95,103,326	3,979,794,929	226,275,609	310,656,042	7,385,602,960	0.832
2010	9,374,814,819	2,794,290,254	84,985,991	4,075,972,810	170,233,578	405,134,691	7,530,617,324	0.803
2011	10,120,427,050	2,775,698,785	94,041,244	3,712,475,726	202,798,134	678,124,143	7,463,138,032	0.737
2012	11,699,330,284	2,849,707,905	118,075,306	3,647,051,898	211,054,230	612,741,171	7,438,630,510	0.636
2013	14,161,005,539	2,891,680,095	110,630,388	3,491,657,905	213,328,418	1,094,443,507	7,801,740,313	0.551
2014	15,986,106,452	3,061,863,319	136,101,658	3,472,337,030	242,027,987	1,452,014,230	8,364,344,224	0.523
2015	17,060,021,462	3,141,820,018	161,255,706	3,424,036,756	279,694,992	1,763,407,637	8,770,215,109	0.514
2016	17,949,045,779	3,084,475,668	194,079,952	3,338,351,961	327,198,194	1,765,184,914	8,709,290,689	0.485
2017	17,671,411,530	3,021,210,386	276,027,730	3,275,946,336	443,505,547	1,836,756,291	8,853,446,290	0.501
2018	17,426,671,333	3,037,388,223	374,507,078	3,352,420,913	567,318,439	2,557,862,576	9,889,497,229	0.567
2019	16,116,850,562	3,051,966,224	555,375,944	3,264,560,916	721,864,235	2,446,302,999	10,040,070,318	0.623
2020	14,095,940,927	2,464,047,043	647,923,494	2,632,918,730	875,723,312	2,098,351,402	8,718,963,981	0.619
2021	13,599,208,582	2,134,948,772	927,633,266	2,291,446,024	1,229,575,740	2,696,333,848	9,279,937,650	0.682
2022	15,306,241,879	1,437,787,830	1,106,164,873	1,602,887,987	1,556,223,875	4,122,283,305	9,825,347,870	0.642
2023	11,592,212,918	325,483,832	616,663,856	416,423,297	1,151,120,679	4,492,327,847	7,002,019,511	0.604

* Shown for informational purposes only.

** Paid medical for accident years 2011 and subsequent exclude the paid cost of medical cost containment programs (MCCP). Paid medical for accident years 2010 and prior include paid MCCP costs.

Source: WCIRB quarterly experience calls. COVID-19 claims and COVID-19 premium charges are excluded from 2020 to 2022.

Incurred Indemnity Loss Development Factors

Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1996													1.001	1.000	1.002	1.001
1997													1.003	1.002	1.001	1.001
1998												1.002	1.005	1.001	1.001	1.003
1999									1.003	1.002	1.004	1.003	1.003	1.001	1.001	1.001
2000								1.006	1.008	1.006	1.003	1.002	1.004	1.002	1.000	1.002
2001								1.006	1.007	1.006	1.005	1.004	1.001	1.001	1.002	1.001
2002							1.010	1.011	1.007	1.006	1.003	1.003	1.002	1.002	1.002	1.001
2003						1.017	1.018	1.016	1.011	1.004	1.005	1.003	1.003	1.002	1.003	1.004
2004					1.028	1.029	1.018	1.015	1.010	1.007	1.004	1.001	1.002	1.005	1.001	1.002
2005				1.053	1.045	1.033	1.018	1.012	1.005	1.005	1.005	1.003	1.006	1.003	1.003	1.002
2006			1.080	1.061	1.041	1.027	1.015	1.010	1.007	1.006	1.004	1.003	1.005	1.002	1.003	1.002
2007		1.144	1.075	1.057	1.037	1.028	1.012	1.012	1.006	1.006	1.008	1.004	1.002	1.004	1.001	
2008	1.369	1.166	1.086	1.048	1.033	1.021	1.014	1.008	1.008	1.007	1.005	1.005	1.002	1.003	1.001	
2009	1.372	1.171	1.086	1.054	1.029	1.019	1.016	1.010	1.010	1.006	1.007	1.006	1.002	1.004	1.001	
2010	1.402	1.157	1.083	1.047	1.029	1.020	1.013	1.012	1.007	1.004	1.004	1.005	1.002	1.003	1.002	
2011	1.366	1.154	1.072	1.042	1.026	1.020	1.012	1.009	1.007	1.005	1.005	1.005	1.006	1.003	1.003	
2012	1.364	1.133	1.074	1.046	1.023	1.020	1.014	1.008	1.005	1.008	1.004	1.004	1.002	1.003	1.001	
2013	1.333	1.135	1.063	1.037	1.024	1.013	1.009	1.004	1.007	1.005	1.005	1.005	1.002	1.003	1.002	
2014	1.363	1.140	1.069	1.035	1.017	1.013	1.006	1.009	1.004	1.008	1.007	1.006	1.002	1.004	1.001	
2015	1.353	1.122	1.057	1.029	1.020	1.008	1.008									
2016	1.326	1.116	1.057	1.026	1.018	1.013										
2017	1.315	1.114	1.048	1.030	1.020											
2018	1.316	1.097	1.050	1.031												
2019	1.302	1.118	1.060													
2020	1.309	1.130														
2021	1.332															
Selected (a)	1.332	1.130	1.060	1.031	1.020	1.013	1.008	1.009	1.007	1.006	1.006	1.005	1.003	1.003	1.002	1.002
Cumulative	1.812	1.360	1.204	1.136	1.102	1.080	1.066	1.058	1.048	1.041	1.034	1.029	1.024	1.021	1.018	1.016

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and six-year average for the subsequent age-to-age factors.

Incurred Indemnity Loss Development Factors (Continued)

Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	Age-to-Age (in months)										369/357	381/369	393/381	405/393	417/405	429/417	441/429	453/441	465/453	ULT/465Inc (b)	
1983										1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1984										1.001	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1985										1.001	1.001	1.000	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.000
1986										1.002	1.002	1.000	1.000	0.999	1.000	0.999	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
1987										1.001	1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.001	1.000	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.001	1.001	1.001	1.000
1988										1.002	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.001	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
1989										1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990										1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.003	0.998	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991										1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.001	1.000	1.001	1.000	1.001	1.000	1.001	1.001	1.001	1.001	1.000
1992										1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993										1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994										1.002	1.003	1.000	1.001	0.999	1.000	1.001	1.001	1.001	1.001	1.002	1.001	1.002	1.000	1.001	1.000	1.001	1.000	1.001	1.001	1.001	1.000
1995										1.001	0.998	1.001	1.000	1.000	1.000	1.001	1.003	0.999	1.000	0.999	1.001	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996										1.002	1.001	1.001	1.002	1.000	1.001	1.003	0.999	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1997										1.000	1.000	1.000	1.001	1.000	1.004	0.998	1.000	1.000	1.000	1.000	0.998	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998										1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1999										1.000	1.001	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000										1.002	1.000	1.002	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001										1.001	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002										1.002	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003										1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
2004										1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
2005										1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002

Selected (a)
Cumulative

1.002
1.014

1.001
1.002

1.001
1.002

1.001
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1.003

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1.012

(b) The ULT/465Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 117-to-129 through 345-to-357 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Incurred Medical Loss Development Factors

Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1997																
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2019																
2020																
2021																
Selected (a)	1.200	1.095	1.047	1.031	1.009	1.004	1.006	1.006	1.004	1.003	1.003	1.000	1.000	1.001	1.001	1.000
Cumulative	1.464	1.220	1.114	1.064	1.032	1.023	1.019	1.013	1.007	1.003	1.000	0.997	0.997	0.997	0.996	0.996

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and six-year average for the subsequent age-to-age factors.

(b) Incurred medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Incurred Medical Loss Development Factors (Continued)

Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	Age-to-Age (in months)										357/345	369/357	381/369	393/381	405/393	417/405	429/417	441/429	453/441	465/453	ULT/465Inc (c)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
1983										1.003	1.005	1.004	1.002	1.004	1.002	1.004	0.998	1.000	0.998	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Selected (a)
Cumulative

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(c) The ULT/465Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 117-to-129 through 345-to-357 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Paid Indemnity Loss Development Factors

Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1997																
1998																
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2019																
2020																
2021																
Selected (a)	1.676	1.286	1.140	1.077	1.046	1.032	1.020	1.016	1.013	1.012	1.011	1.010	1.008	1.007	1.006	1.005
Cumulative	3.312	1.976	1.537	1.348	1.252	1.197	1.159	1.137	1.119	1.104	1.091	1.079	1.068	1.060	1.052	1.046

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year average for the subsequent age-to-age factors.

Paid Indemnity Loss Development Factors (Continued)

Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	Age-to-Age (in months)										405/393	417/405	429/417	441/429	453/441	465/453	ULT/465Pd (b)			
1983										1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1984									1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1985								1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1986							1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1987						1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1988					1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1989				1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1990			1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1991		1.002	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1992	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1993	1.002	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1994	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1995	1.005	1.003	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.002	1.002	1.001	1.001	1.001	1.002	1.001	1.002	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002
1996	1.004	1.004	1.004	1.003	1.002	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.001	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002
1997	1.003	1.003	1.002	1.003	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
1998	1.004	1.004	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.002	1.002	1.002	1.002	1.001	1.002	1.002	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002
1999	1.003	1.002	1.003	1.002	1.002	1.002	1.001	1.002	1.002	1.002	1.002	1.002	1.002	1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
2000	1.004	1.003	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
2001	1.005	1.004	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002
2002	1.004	1.003	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
2003	1.006	1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002
2004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003
2005	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003

Selected (a)
Cumulative

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(b) The ULT/465Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 factors and extrapolated to 80 development years.

Paid Medical Loss Development Factors

Unadjusted (a) Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1997																
1998																
1999																
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Adjusted (b) Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
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2021																

Selected (c)	1.544	1.262	1.134	1.074	1.046	1.032	1.025	1.018	1.016	1.014	1.012	1.010	1.010	1.009	1.008	1.008
Cumulative Unadjusted for Impact of SB 1160	3.400	2.202	1.745	1.539	1.433	1.370	1.327	1.295	1.272	1.252	1.235	1.220	1.208	1.195	1.185	1.175
Cumulative Adjusted for Impact of SB 1160(d)	3.391	2.196	1.740	1.535	1.429	1.366	---	---	---	---	---	---	---	---	---	---

- (a) Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.
 (b) These factors are adjusted for the impact of pharmaceutical cost reductions through 2018 and the 2021 changes to the Official Medical Fee Schedule and Medical-Legal Fee Schedule in order to bring the historical payments to the current pharmaceutical and medical service cost level.
 (c) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year average for the subsequent age-to-age factors.
 (d) The cumulative factor for 81 months is adjusted by -0.3% for the impact of the SB 1160 reductions in future lien filings.

Paid Medical Loss Development Factors (Continued)

Unadjusted (a) Accident Year	Age-to-Age (in months)															
	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393
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Adjusted (b) Accident Year	Age-to-Age (in months)															
	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393
1983																
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Selected (c) Cumulative	Age-to-Age (in months)															
	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393
1983																
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2005																

(e) The ULT/465Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 adjusted factors and extrapolated to 80 development years.

Selected Indemnity Development Factors - Paid to Ultimate

Accident Year	Age-to-Age (in months)																				
	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201	225/213	237/225	249/237	261/249	273/261
1996													1.006	1.004	1.005	1.004	1.004	1.004	1.004	1.003	1.002
1997												1.007	1.006	1.006	1.005	1.004	1.003	1.003	1.002	1.003	1.003
1998											1.009	1.009	1.007	1.006	1.006	1.006	1.004	1.004	1.003	1.003	1.002
1999									1.011	1.010	1.010	1.008	1.008	1.006	1.004	1.005	1.003	1.002	1.003	1.002	1.002
2000									1.013	1.010	1.010	1.008	1.008	1.005	1.004	1.004	1.004	1.003	1.003	1.003	1.002
2001								1.018	1.015	1.013	1.012	1.009	1.007	1.006	1.006	1.005	1.005	1.004	1.003	1.002	1.002
2002							1.022	1.018	1.016	1.014	1.009	1.008	1.006	1.006	1.005	1.004	1.004	1.003	1.003	1.002	1.002
2003						1.033	1.026	1.023	1.022	1.016	1.013	1.009	1.009	1.007	1.006	1.007	1.006	1.003	1.003	1.002	1.002
2004					1.055	1.043	1.036	1.032	1.020	1.016	1.013	1.010	1.008	1.009	1.007	1.005	1.003	1.003	1.003	1.002	1.002
2005				1.088	1.062	1.049	1.044	1.031	1.022	1.017	1.012	1.012	1.010	1.010	1.006	1.004	1.004	1.003	1.003	1.002	1.002
2006				1.099	1.072	1.054	1.039	1.026	1.022	1.017	1.013	1.010	1.009	1.008	1.006	1.006	1.006	1.003	1.003	1.002	1.002
2007		1.290	1.160	1.102	1.072	1.051	1.033	1.030	1.022	1.015	1.014	1.012	1.008	1.007	1.005	1.005	1.003	1.003	1.003	1.002	1.002
2008	1.724	1.323	1.173	1.103	1.067	1.044	1.030	1.024	1.020	1.016	1.010	1.011	1.008	1.007	1.005	1.006	1.004	1.004	1.003	1.002	1.002
2009	1.782	1.332	1.178	1.106	1.068	1.046	1.034	1.025	1.020	1.012	1.013	1.011	1.008	1.007	1.005	1.006	1.004	1.003	1.003	1.002	1.002
2010	1.793	1.339	1.172	1.101	1.066	1.043	1.030	1.022	1.016	1.012	1.013	1.007	1.007	1.007	1.005	1.006	1.004	1.003	1.003	1.002	1.002
2011	1.796	1.318	1.165	1.098	1.062	1.044	1.031	1.019	1.015	1.012	1.013	1.007	1.007	1.007	1.006	1.006	1.006	1.006	1.006	1.006	1.006
2012	1.776	1.316	1.157	1.101	1.055	1.038	1.026	1.017	1.014	1.013	1.013	1.007	1.007	1.007	1.006	1.006	1.006	1.006	1.006	1.006	1.006
2013	1.768	1.315	1.155	1.084	1.048	1.031	1.022	1.015	1.011	1.012	1.012	1.007	1.007	1.007	1.006	1.006	1.006	1.006	1.006	1.006	1.006
2014	1.816	1.316	1.151	1.081	1.046	1.029	1.020	1.016	1.011	1.012	1.013	1.007	1.007	1.007	1.006	1.006	1.006	1.006	1.006	1.006	1.006
2015	1.802	1.301	1.139	1.069	1.045	1.030	1.020	1.016	1.011	1.012	1.013	1.007	1.007	1.007	1.006	1.006	1.006	1.006	1.006	1.006	1.006
2016	1.758	1.287	1.125	1.070	1.044	1.032	1.020	1.016	1.011	1.012	1.013	1.007	1.007	1.007	1.006	1.006	1.006	1.006	1.006	1.006	1.006
2017	1.746	1.263	1.128	1.072	1.046																
2018	1.709	1.266	1.130	1.077																	
2019	1.706	1.287	1.140																		
2020	1.692	1.286																			
2021	1.676																				

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year averages for the subsequent paid age-to-age factors.

Selected Indemnity Development Factors - Paid to Ultimate (Continued)

Accident Year	Age-to-Age (in months)																		
	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	441/429	453/441	465/453	ULT/465Pd (d)		
1983					1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001			
1984				1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.001			
1985			1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.001	1.000	1.000			
1986		1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000			
1987	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000				
1988	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1989	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000				
1990	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.000				
1991	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000				
1992	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1993	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1994	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1995	1.002	1.002	1.003	1.002	1.002	1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1996	1.003	1.003	1.002	1.002	1.002	1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1997	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1998	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1999	1.002	1.001																	
2000	1.002																		
Unadjusted (a)	1.002	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.010		
Selected (c)	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.007		
Cumulative	1.021	1.019	1.018	1.016	1.015	1.013	1.012	1.011	1.010	1.010	1.009	1.008	1.008	1.008	1.008	1.008	1.007		

(c) Adjusted for the impact of changes in claim settlement rates on later period development for 309 months and later. See Exhibits 2.5.3 through 2.5.6.

(d) The ULT/465Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 factors and extrapolated to 80 development years.

Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development

1. Reported Closed Indemnity Claim Counts

Accident	Evaluated as of (in months)									
Year	<u>309</u>	<u>321</u>	<u>333</u>	<u>345</u>	<u>357</u>	<u>369</u>	<u>381</u>	<u>393</u>	<u>405</u>	<u>417</u>
1989							208,132	208,186	208,228	208,225
1990						228,006	228,085	228,144	228,165	
1991					228,145	228,225	228,270	228,314		
1992				179,353	179,427	179,473	179,519			
1993			140,079	140,152	140,218	140,238				
1994		127,356	127,456	127,529	127,511					
1995	118,119	118,220	118,305	118,363						
1996	112,748	112,827	112,874							
1997	119,960	120,025								
1998	131,535									

Accident Year	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>	<u>1994</u>	<u>1993</u>	<u>1992</u>	<u>1991</u>	<u>1990</u>	<u>1989</u>
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<u>2. Ult. Claim Counts (a)</u>	132,504	120,759	113,444	118,841	127,949	140,599	179,861	228,682	228,411	208,548
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3. Ultimate Indemnity Claim Settlement Ratio (b)

Accident	Evaluated as of (in months)									
Year	<u>309</u>	<u>321</u>	<u>333</u>	<u>345</u>	<u>357</u>	<u>369</u>	<u>381</u>	<u>393</u>	<u>405</u>	<u>417</u>
1989							99.8%	99.8%	99.8%	99.8%
1990						99.8%	99.9%	99.9%	99.9%	
1991					99.8%	99.8%	99.8%	99.8%		
1992				99.7%	99.8%	99.8%	99.8%			
1993			99.6%	99.7%	99.7%	99.7%				
1994		99.5%	99.6%	99.7%	99.7%					
1995	99.4%	99.5%	99.5%	99.6%						
1996	99.4%	99.5%	99.5%							
1997	99.3%	99.4%								
1998	99.3%									

(a) Based on the latest year age-to-age development in indemnity claim counts. See Exhibit 2.5.3.

(b) Ratio of closed indemnity claim counts (Item 1) to the estimated ultimate indemnity claim counts (Item 2) for that accident year.

Source: Accident year experience of insurers with available claim count data

Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development

4. Ratio of Incremental Closed Indemnity Claims to Estimated Prior Open Indemnity Claims (c)

Accident	Evaluated as of (in months)									
Year	<u>297-309</u>	<u>309-321</u>	<u>321-333</u>	<u>333-345</u>	<u>345-357</u>	<u>357-369</u>	<u>369-381</u>	<u>381-393</u>	<u>393-405</u>	<u>405-417</u>
1989								13.0%	11.6%	---
1990							19.5%	18.1%	7.9%	
1991						14.9%	9.9%	10.7%		
1992					14.6%	10.6%	11.9%			
1993				14.0%	14.7%	5.2%				
1994			16.9%	14.8%	-4.3%					
1995		14.0%	13.7%	10.8%						
1996	15.8%	11.3%	7.6%							
1997	12.8%	8.1%								
1998	6.7%									
3-Year Average	11.8%	11.1%	12.7%	13.2%	8.3%	10.3%	13.7%	13.9%	9.7%	
Share of Open on Prior (d)	88.2%	88.9%	87.3%	86.8%	91.7%	89.7%	86.3%	86.1%	90.3%	

5. Projected Open + IBNR Indemnity Claim Counts (e)

Accident	Evaluated as of (in months)									
Year	<u>309</u>	<u>321</u>	<u>333</u>	<u>345</u>	<u>357</u>	<u>369</u>	<u>381</u>	<u>393</u>	<u>405</u>	
1989										
1990										246
1991								368		332
1992							342	294		266
1993						361	312	268		242
1994					438	393	339	292		264
1995				478	439	394	339	292		264
1996			570	495	454	407	351	302		273
1997		734	641	556	510	457	394	340		306
1998	969	861	751	652	598	536	463	398		359
1999	926	823	718	623	571	513	442	381		344
...										
2021	491	436	381	331	303	272	235	202		182
2022	520	462	403	350	321	288	248	214		193

- (c) Equal to [the difference in ultimate indemnity claim settlement ratios from the prior evaluation (Item 3)] divided by [1.0 less the ultimate indemnity claim settlement ratio from the prior evaluation].
- (d) Equal to 1.0 minus the selected ratio of incremental closed indemnity claims to prior open indemnity claims from Item 4.
- (e) The italicized diagonal is equal to the Ultimate Indemnity Claim Counts (Item 2) less the Reported Closed Indemnity Claim Counts (Item 1) as of the latest evaluation. The remaining figures are projected based on the italicized diagonal and the Share of Open on Prior from Item 4.

Source: Accident year experience of insurers with available claim count data

Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development

6. Ratio of Projected Open Claim Counts to Ultimate Claim Counts (f)

Accident	Evaluated as of (in months)								
<u>Year</u>	<u>309</u>	<u>321</u>	<u>333</u>	<u>345</u>	<u>357</u>	<u>369</u>	<u>381</u>	<u>393</u>	<u>405</u>
1989								0.2%	0.2%
1990							0.1%	0.1%	0.1%
1991						0.2%	0.2%	0.2%	0.1%
1992					0.2%	0.2%	0.2%	0.2%	0.1%
1993				0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
1994			0.4%	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%
1995		0.5%	0.5%	0.4%	0.4%	0.3%	0.3%	0.2%	0.2%
1996	0.6%	0.5%	0.5%	0.4%	0.4%	0.4%	0.3%	0.3%	0.2%
1997	0.7%	0.6%	0.5%	0.5%	0.4%	0.4%	0.3%	0.3%	0.3%
1998	0.7%	0.6%	0.6%	0.5%	0.5%	0.4%	0.3%	0.3%	0.3%
1999	0.7%	0.6%	0.5%	0.5%	0.4%	0.4%	0.3%	0.3%	0.3%
...									
2021	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
2022	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
3-Year Historical Avg.	0.7%	0.6%	0.4%	0.3%	0.3%	0.2%	0.2%	0.2%	0.1%

7. Ratio of Projected Percent Open to Historical Percent Open (g)

Accident	Evaluated as of (in months)								
<u>Year</u>	<u>309</u>	<u>321</u>	<u>333</u>	<u>345</u>	<u>357</u>	<u>369</u>	<u>381</u>	<u>393</u>	<u>405</u>
1989									
1990									
1991									1.11
1992								1.09	1.13
1993							1.30	1.27	1.32
1994						1.37	1.55	1.52	1.58
1995					1.29	1.48	1.67	1.63	1.70
1996				1.25	1.40	1.60	1.81	1.77	1.84
1997			1.19	1.32	1.48	1.69	1.91	1.87	1.94
1998		1.16	1.27	1.41	1.58	1.81	2.04	2.00	2.08
1999	1.03	1.10	1.20	1.33	1.49	1.70	1.92	1.88	1.96
...									
2021	0.49	0.52	0.57	0.63	0.71	0.81	0.91	0.89	0.93
2022	0.49	0.52	0.57	0.63	0.71	0.80	0.91	0.89	0.93

(f) Equal to the Projected Open + IBNR Indemnity Claim Counts (Item 5) divided by the Ultimate Indemnity Claim Counts (Item 2).

The italicized diagonals are based on historical data while the remaining figures are projections.

(g) Equal to the Ratio of Projected Open Claim Counts to Ultimate Claim Counts (Item 6) divided by the three-year historical average.

Source: Accident year experience of insurers with available claim count data

**Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development**

Age-to-Age Paid Development (in months):									
Age	<u>309-321</u>	<u>321-333</u>	<u>333-345</u>	<u>345-357</u>	<u>357-369</u>	<u>369-381</u>	<u>381-393</u>	<u>393-405</u>	<u>405-417</u>

8. 3-Year Average (h)

Indemnity	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000
Medical	1.005	1.005	1.004	1.003	1.002	1.003	1.003	1.003	1.003

9. Adjustment Ratio (i)

Accident Year 2021	0.80	0.81	0.83	0.85	0.88	0.92	0.96	0.96	0.97
Accident Year 2022	0.79	0.81	0.83	0.85	0.88	0.92	0.96	0.96	0.97

10. Adjusted Factors (j)

Indemnity									
Accident Year 2021	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000
Accident Year 2022	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000
Medical									
Accident Year 2021	1.004	1.004	1.003	1.003	1.002	1.002	1.003	1.002	1.003
Accident Year 2022	1.004	1.004	1.003	1.003	1.002	1.002	1.003	1.003	1.003

- (h) Indemnity development factors are from Exhibit 2.3.2. Medical development factors are from Exhibit 2.4.2 and include adjustments for SB 1160 and changes in pharmaceutical costs.
- (i) Equal to the Ratio of Projected Percent Open to Historical Percent Open (Item 7) for the given accident year, with the difference from 1.0 adjusted by 40% to reflect the estimated impact of claim settlement rate changes on later period development.
- (j) Equal to the [three year average factors (Item 8) - 1.0] multiplied by the Adjustment Ratio (Item 9), and adding 1.0.

Source: Accident year experience of insurers with available claim count data

Selected Medical Development Factors - Paid to Ultimate																					
Adjusted (a)(b) Accident Year	Age-to-Age (in months)																				
	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201	225/213	237/225	249/237	261/249	273/261
1999																					1.006
2000																				1.007	1.004
2001																			1.007	1.005	1.005
2002																		1.007	1.005	1.005	
2003																		1.007	1.005	1.006	
2004																	1.009	1.006	1.006		
2005															1.010	1.009	1.007	1.006			
2006														1.011	1.009	1.009	1.007				
2007													1.011	1.009	1.006	1.007					
2008												1.016	1.011	1.009	1.007						
2009												1.016	1.011	1.008							
2010										1.014		1.011	1.011								
2011									1.017	1.013		1.010									
2012									1.019	1.018											
2013									1.023	1.018											
2014									1.023	1.018											
2015					1.049				1.023	1.018											
2016					1.048				1.025												
2017					1.046																
2018			1.120																		
2019		1.232	1.116																		
2020		1.241	1.134																		
2021		1.262																			
		1.544																			
Selected (c)	1.544	1.262	1.134	1.074	1.046	1.032	1.025	1.018	1.016	1.014	1.012	1.010	1.010	1.009	1.008	1.008	1.007	1.006	1.006	1.006	1.005
Cumulative Unadjusted for Impact of SB 1160	3.308	2.143	1.698	1.497	1.394	1.333	1.291	1.260	1.238	1.218	1.202	1.187	1.175	1.163	1.153	1.143	1.135	1.127	1.120	1.113	1.107
Cumulative Adjusted for Impact of SB 1160(d)	3.300	2.137	1.693	1.493	1.390	1.329															

- (a) Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.
 (b) These factors are adjusted for the impact of pharmaceutical cost reductions through 2018 and the 2021 changes to the Official Medical Fee Schedule and Medical-Legal Fee Schedule in order to bring the historical payments to the current pharmaceutical and medical service cost level.
 (c) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year averages for the subsequent paid age-to-age factors.
 (d) The cumulative factor for 81 months is adjusted by -0.3% for the impact of the SB 1160 reductions in future lien filings.

Selected Medical Development Factors - Paid to Ultimate (Continued)

Accident Year	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	441/429	453/441	465/453	ULT/465Pd (g)
1983																1.002	
1984																1.001	
1985																1.003	
1986														1.002		1.002	
1987													1.003	1.002		1.002	
1988												1.003	1.003	1.002			
1989												1.003	1.003				
1990										1.003	1.002	1.003					
1991								1.003	1.003	1.002							
1992								1.003	1.002	1.002							
1993								1.003	1.002	1.002							
1994						1.005	1.003	1.005									
1995						1.005	1.005										
1996						1.004											
1997			1.005	1.006	1.006												
1998		1.006	1.004	1.004													
1999	1.007	1.006	1.007														
2000	1.005	1.004															
Unadjusted (c)	1.005	1.005	1.005	1.005	1.005	1.004	1.003	1.002	1.003	1.003	1.003	1.003	1.003	1.002	1.002	1.002	1.072
Selected (f)	1.005	1.005	1.005	1.004	1.004	1.003	1.003	1.002	1.003	1.002	1.002	1.003	1.003	1.002	1.002	1.002	1.048
Cumulative	1.102	1.096	1.090	1.084	1.080	1.076	1.073	1.070	1.067	1.065	1.062	1.060	1.057	1.054	1.052	1.050	1.048

(f) Adjusted for the impact of changes in claim settlement rates on later period development for 309 months and later. See Exhibits 2.5.3 through 2.5.6.

(g) The UL T/465Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 factors and extrapolated to 80 development years.

**Developed Indemnity Loss Ratios Using Selected Loss Development Factors
Based on Experience as of September 30, 2023**

Accident Year	<u>Development Factors</u>			
	(1) Paid Loss Ratio (a)	(2) Annual (b)	(3) Cumulative	(4) Projected Ultimate Loss Ratio (4) = (1) x (3)
1987	0.346	1.000	1.008	0.348
1988	0.331	1.000	1.008	0.334
1989	0.343	1.000	1.008	0.346
1990	0.398	1.000	1.008	0.402
1991	0.425	1.000	1.009	0.429
1992	0.350	1.001	1.010	0.353
1993	0.287	1.001	1.010	0.290
1994	0.326	1.001	1.011	0.330
1995	0.469	1.001	1.012	0.474
1996	0.524	1.001	1.013	0.531
1997	0.594	1.001	1.015	0.603
1998	0.645	1.001	1.016	0.655
1999	0.675	1.002	1.018	0.687
2000	0.584	1.002	1.019	0.595
2001	0.484	1.002	1.021	0.494
2002	0.360	1.002	1.023	0.369
2003	0.238	1.002	1.026	0.244
2004	0.141	1.003	1.029	0.145
2005	0.121	1.003	1.032	0.125
2006	0.156	1.004	1.036	0.161
2007	0.213	1.005	1.042	0.222
2008	0.269	1.006	1.048	0.281
2009	0.313	1.007	1.055	0.330
2010	0.298	1.008	1.064	0.317
2011	0.274	1.010	1.074	0.295
2012	0.244	1.011	1.086	0.264
2013	0.204	1.012	1.099	0.224
2014	0.192	1.013	1.114	0.213
2015	0.184	1.016	1.132	0.208
2016	0.172	1.020	1.154	0.198
2017	0.171	1.032	1.191	0.204
2018	0.174	1.046	1.246	0.217
2019	0.189	1.077	1.342	0.254
2020	0.175	1.140	1.530	0.267
2021	0.157	1.286	1.967	0.309
2022	0.094	1.676	3.297	0.310

(a) Based on Exhibit 1.

(b) See Exhibits 2.5.1 and 2.5.2.

**Developed Medical Loss Ratios Using Selected Loss Development Factors
Based on Experience as of September 30, 2023**

Accident Year	(1)	(2)	(3)	(4)	(5)	(6)
	Paid Loss Ratio (a)	Adjusted Paid Loss Ratio (b)	Reform Adjusted		Adjusted Developed Loss Ratio (d) (2) x (4)	Projected Ultimate Loss Ratio (1) + ((5) - (2))
			Development Factors			
			Annual (c)	Cumulative (c)		
1987	0.309	0.274	1.002	1.052	0.288	0.324
1988	0.303	0.268	1.002	1.054	0.283	0.317
1989	0.321	0.285	1.003	1.057	0.301	0.337
1990	0.363	0.322	1.003	1.060	0.341	0.382
1991	0.380	0.337	1.002	1.062	0.358	0.401
1992	0.314	0.279	1.003	1.065	0.297	0.332
1993	0.258	0.230	1.002	1.067	0.245	0.274
1994	0.296	0.264	1.002	1.070	0.282	0.315
1995	0.437	0.389	1.003	1.073	0.417	0.465
1996	0.466	0.415	1.003	1.076	0.447	0.498
1997	0.522	0.465	1.004	1.080	0.502	0.559
1998	0.627	0.559	1.004	1.084	0.606	0.674
1999	0.682	0.609	1.005	1.090	0.664	0.737
2000	0.614	0.549	1.005	1.096	0.602	0.667
2001	0.542	0.487	1.005	1.102	0.536	0.591
2002	0.418	0.377	1.005	1.107	0.417	0.458
2003	0.267	0.241	1.006	1.113	0.269	0.295
2004	0.180	0.163	1.006	1.120	0.183	0.200
2005	0.176	0.159	1.006	1.127	0.179	0.196
2006	0.225	0.205	1.007	1.135	0.233	0.253
2007	0.313	0.286	1.008	1.143	0.327	0.354
2008	0.386	0.354	1.008	1.153	0.409	0.440
2009	0.449	0.415	1.009	1.163	0.483	0.516
2010	0.435	0.404	1.010	1.175	0.475	0.506
2011	0.367	0.345	1.010	1.187	0.409	0.431
2012	0.312	0.296	1.012	1.202	0.356	0.371
2013	0.247	0.247	1.014	1.218	0.301	0.300
2014	0.217	0.221	1.016	1.238	0.274	0.270
2015	0.201	0.207	1.018	1.260	0.261	0.255
2016	0.186	0.193	1.025	1.291	0.249	0.242
2017	0.185	0.192	1.032	1.329	0.256	0.249
2018	0.192	0.199	1.046	1.390	0.277	0.270
2019	0.203	0.207	1.074	1.493	0.310	0.305
2020	0.187	0.189	1.134	1.693	0.319	0.318
2021	0.168	0.169	1.262	2.137	0.361	0.360
2022	0.105	0.105	1.544	3.300	0.346	0.346

- (a) Based on Exhibit 1. Paid MCCP costs are excluded from accident years 2011 and subsequent.
- (b) Based on experience evaluated as of September 30, 2023. Reflects adjustments for the pharmaceutical cost reductions through 2018 and 2021 changes to the Official Medical Fee Schedule (OMFS) and Medical-Legal Fee Schedule (MLFS), restating the historical medical paid-to-date ratios at a 2018 pharmaceutical cost level and a 2021 OMFS and MLFS level.
- (c) See Exhibits 2.6.1 and 2.6.2.
- (d) The developed medical loss ratios shown were derived based on an adjustment for pharmaceutical cost reductions and 2021 medical fee schedule changes. They are only for purposes of projecting future medical loss ratios and do not reflect true estimates of ultimate loss ratios for those accident years.

Indemnity Benefit Level Factors

Accident Year	(1) Annual Benefit Change Prior to Frequency <u>Adjustments (a)</u>	(2) Frequency <u>Adjustments (a)</u>	(3) Annual Impact on Indemnity Benefits Due to Wage <u>Inflation (b)</u>	(4) Annual Cost Impact on <u>Indemnity (c)</u>	(5) Composite Indemnity Adjustment <u>Factor (d)</u>	
1987	0.0	0.0	1.9	1.9	1.715	
1988	0.0	0.0	1.5	1.5	1.690	
1989	0.0	0.0	1.5	1.5	1.665	
1990	2.3	19.9	1.7	24.7	1.335	
1991	4.9	14.8	0.8	21.4	1.099	
1992	1.8	-8.3	1.6	-5.2	1.159	
1993	0.2	-18.1	0.4	-17.6	1.407	
1994	-5.1	0.2	0.6	-4.3	1.471	
1995	6.3	0.6	1.0	8.0	1.362	
1996	5.3	0.4	1.2	7.0	1.273	
1997	9.7	0.2	1.6	11.7	1.140	
1998	6.5	0.0	1.8	8.4	1.051	
1999	5.7	0.0	2.1	7.9	0.974	
2000	3.9	0.0	3.1	7.1	0.909	
2001	-0.3	0.0	0.2	-0.1	0.910	
2002	-0.7	0.0	0.4	-0.3	0.932	(e)
2003	7.3	0.0	1.2	8.6	0.929	(e)
2004	-6.0	-13.7	2.1	-17.2	1.272	(e)
2005	-31.6	-15.3	1.6	-41.2	1.724	
2006	5.6	-5.7	2.2	1.8	1.694	
2007	1.6	0.0	2.1	3.7	1.633	
2008	4.8	0.6	1.0	6.5	1.534	
2009	0.4	1.4	0.2	2.0	1.504	
2010	0.4	0.0	1.5	1.9	1.476	
2011	0.0	0.0	1.4	1.4	1.455	
2012	-0.8	0.0	2.1	1.3	1.437	
2013	1.4	0.2	0.6	2.3	1.406	
2014	5.8	1.5	1.7	9.2	1.287	
2015	-0.8	0.0	2.3	1.4	1.269	
2016	0.3	0.0	1.0	1.3	1.253	
2017	0.5	0.0	2.2	2.7	1.220	
2018	0.4	0.0	2.2	2.6	1.189	
2019	0.4	0.0	2.4	2.8	1.157	
2020	0.4	0.0	2.5	3.0	1.123	
2021	0.5	0.0	3.2	3.7	1.083	
2022	1.3	0.0	1.3	2.6	1.055	
2023	0.4	0.0	1.8	2.2	1.032	
2024	0.4	0.0	2.5	2.9	1.003	
9/1/2024	0.1 (Annual 0.4)	0.0	0.2 (Annual 1.5)	0.3		

- (a) Based on WCIRB evaluations of the average impact of legislative changes on the cost of indemnity benefits. These annual changes in benefits reflect the WCIRB's retrospective estimates of the cost impact of recent legislation as reflected in emerging post-reform costs. The annual cost impacts have been segregated between claim severity and claim frequency impacts.
- (b) These impacts are based on the weekly wages (see Exhibit 5.1) of injured workers and the legislatively scheduled benefits for that year.
- (c) $\{ [\text{Column (1)} / 100 + 1.0] \times [\text{Column (2)} / 100 + 1.0] \times [\text{Column (3)} / 100 + 1.0] - 1.0 \} \times 100$.
- (d) These factors represent the combined impact of the annual benefit changes on claim severity shown in Column (1), claim frequencies shown in Column (2) and wage inflation impact on benefits shown in Column (3), adjusted to the 9/1/2024 level.
- (e) On-level factors for accident years 2002, 2003 and 2004 adjust the portion of permanent disability claims that are estimated to not be subject to the January 1, 2005 PDRS (95% for accident year 2002, 75% for accident year 2003 and 40% for accident year 2004) to the January 1, 2005 PDRS level, and adjust for the corresponding utilization impacts on all 2002, 2003 and 2004 indemnity claims.

Annual Medical Cost Level Change - Non-Legislative

Accident	(1) Proportion of Medical Subject to	(2) Proportion of Medical Not Subject to	(3) Impact of Fee Schedule Change on	(4) Change in Medical	(5) Impact of CPI Change on Total	(6) Annual Non-Legislative Cost Impact on
<u>Year</u>	<u>Fee Schedule (a)</u>	<u>Fee Schedule (a)</u>	<u>Total Medical (b)</u>	<u>CPI (c)</u>	<u>Medical (d)</u>	<u>Total Medical (e)</u>
1987	0.610	0.390	0.9%	7.4%	2.9%	3.8%
1988	0.649	0.351	0.8%	7.7%	3.0%	3.8%
1989	0.647	0.353	0.0%	8.6%	3.0%	3.0%
1990	0.661	0.339	0.0%	10.4%	3.7%	3.7%
1991	0.631	0.369	0.0%	10.6%	3.6%	3.6%
1992	0.628	0.372	0.0%	8.1%	3.0%	3.0%
1993	0.565	0.435	0.0%	7.3%	2.7%	2.7%
1994	0.691	0.309	-3.6%	4.3%	1.3% (i)	-2.3%
1995	0.681	0.319	0.0%	3.0%	0.9%	0.9%
1996	0.663	0.337	0.0%	3.0%	1.0%	1.0%
1997	0.643	0.357	0.0%	2.2%	0.7%	0.7%
1998	0.658	0.342	0.0%	2.2%	0.8%	0.8%
1999	0.728	0.272	1.6%	3.3%	0.9% (ii)	2.5%
2000	0.715	0.285	0.5%	4.3%	1.2%	1.7%
2001	0.722	0.278	1.5%	4.8%	1.4%	2.9%
2002	0.635	0.365	0.6%	5.1%	1.4%	2.0%
2003	0.786	0.214	0.0%	4.8%	1.4% (iii)	1.4%
2004	0.952	0.048	0.0%	5.0%	0.0% (iv),(v)	0.0%
2005	0.936	0.064	0.0%	4.8%	0.0% (v)	0.0%
2006	0.926	0.074	0.0%	4.1%	0.3%	0.3%
2007	0.923	0.077	1.4%	5.3%	0.4%	1.8%
2008	0.896	0.104	-0.1%	4.2%	0.3%	0.2%
2009	0.894	0.106	0.0%	3.6%	0.4%	0.4%
2010	0.895	0.105	0.0%	2.8%	0.3%	0.3%
2011	0.969	0.031	0.0%	3.2%	0.3%	0.3%
2012	0.969	0.031	0.0%	2.7%	0.1%	0.1%
2013	0.938	0.062	0.0%	2.6%	0.1%	4.9% (f)
2014	0.928	0.072	0.0%	4.2%	0.3%	0.3%
2015	0.933	0.067	0.0%	3.1%	0.2%	0.2%
2016	0.918	0.082	0.0%	5.4%	0.4%	0.4%
2017	0.906	0.094	0.0%	2.2%	0.2%	0.2%
2018	0.887	0.113	0.0%	2.5%	0.2%	0.2%
2019	0.872	0.128	0.0%	3.8%	0.4%	0.4%
2020	0.866	0.134	0.0%	3.0%	0.4%	0.4%
2021	0.865	0.135	4.8%	1.2%	0.2%	0.2% (f)
2022	0.859	0.141	0.0%	5.8%	0.8%	0.8%
2023	0.859	0.141	0.0%	3.5%	0.5%	0.5%
2024	0.859	0.141	0.0%	2.6%	0.4%	0.4%
9/1/2024	0.859	0.141	0.0% (Annual 0.0%)	0.4% (Annual 2.2%)	0.1%	0.1%

- (a) From a Special Carrier Study through 1990. Based on WCIRB's Aggregate Indemnity and Medical Costs Calls for years 1991 through 2012. Based on WCIRB medical transaction data from 2013 onwards. Accident years 2011 and subsequent do not include MCCC costs.
- (b) Based on the WCIRB's evaluation of the cost impact of changes in the medical fee schedules. Does not include the impact of the 2021 changes to the Official Medical Fee Schedule and Medical-Legal Fee Schedule, which are reflected in the medical loss development projections for accident years 2013 and later.
- (c) Based on a component of the Consumer Price Index. Projections furnished by the California Department of Finance.
- (d) Adjusted CPI on workers' compensation medical costs that are not subject to fee schedules. The current year impact is the weighted average of 0% and Column (4), with Columns (1) and (2) from prior years as weights. (i) 1993's non-fee proportion is reduced by 13.8% due to the new medical-legal fee schedule enacted in 1994. (ii) 1998's non-fee proportion is reduced by 7.7% due to the Inpatient Hospital Fee Schedule (IHFS) effective 4/1/1999. (iii) 2002's non-fee proportion is reduced by 7.6% due to the new pharmaceutical fee schedule effective 1/1/2003. (iv) 2003's non-fee proportion is reduced by 17.2% due to the outpatient fee schedule effective 1/1/2004. (v) Given the anticipated impact of legislative reform, a 0% inflation rate has been assumed for 2004 and 2005.
- (e) Column (6) = Column (3) + Column (5).
- (f) The impact of the 2021 changes to the Official Medical Fee Schedule and Medical-Legal Fee Schedule is applied to accident years 2012 and prior, which are not reflected in the medical loss development projections.

Annual Medical Cost Level Change - Legislative

Accident Year	(1) Annual Legislative Cost Impact on Medical Severity (a)	(2) Annual Legislative Cost Impact on Medical Due to Frequency Changes (b)	(3) Annual Total Legislative Cost Impact on Medical (c)
1987	0.0%	0.0%	0.0%
1988	0.0%	0.0%	0.0%
1989	0.0%	0.0%	0.0%
1990	-0.7%	19.9%	19.1%
1991	-1.6%	14.7%	12.9%
1992	0.5%	-8.4%	-7.9%
1993	-0.7%	-18.1%	-18.7%
1994	-2.6%	0.3%	-2.3%
1995	0.0%	0.5%	0.5%
1996	0.0%	0.4%	0.4%
1997	0.0%	0.2%	0.2%
1998	12.6%	0.0%	12.6%
1999	12.6%	0.0%	12.6%
2000	7.0%	0.0%	7.0%
2001	6.6%	0.0%	6.6%
2002	-5.6%	0.0%	-5.6%
2003	-6.0%	0.0%	-6.0%
2004	-24.4%	-12.5%	-33.9%
2005	0.0%	-13.9%	-13.9%
2006	0.1%	-5.2%	-5.1%
2007	0.1%	0.0%	0.1%
2008	0.2%	0.3%	0.5%
2009	0.0%	1.0%	1.0%
2010	0.0%	0.0%	0.0%
2011	-2.0%	0.0%	-2.0%
2012	-3.7%	0.0%	-3.7%
2013	-8.6%	0.2%	-8.4%
2014	-6.1%	1.3%	-4.9%
2015	-2.2%	0.0%	-2.2%
2016	-0.8%	0.0%	-0.8%
2017	-0.5%	0.0%	-0.5%
2018	-0.3%	0.0%	-0.3%
2019	0.0%	0.0%	0.0%
2020	0.0%	0.0%	0.0%
2021	0.0%	0.0%	0.0%
2022	0.0%	0.0%	0.0%
2023	0.0%	0.0%	0.0%
2024	0.0%	0.0%	0.0%
9/1/2024	0.0%	0.0%	0.0%

- (a) Reflects the WCIRB's most recent estimates of the cost impact of legislation. Does not include the impact of the SB 1160 lien provisions on future medical costs as well as the estimated reductions to pharmaceutical costs attributable to SB 863, which are reflected in the medical loss development projections.
- (b) This reflects the annual percentage impact on medical costs due to changes in the frequency of indemnity claims as a result of benefit changes.
- (c) $[\text{Column (1)} + 1.0] \times [\text{Column (2)} + 1.0] - 1.0$

Total Medical Cost Level Factors

Accident Year	(1) Annual Non-Legislative Cost Impact on Medical (a)	(2) Annual Legislative Cost Impact on Medical (b)	(3) Total Annual Cost Impact on Medical (c)	(4) Composite Medical On-level Factor (d)
1987	3.8%	0.0%	3.8%	0.854
1988	3.8%	0.0%	3.8%	0.822
1989	3.0%	0.0%	3.0%	0.798
1990	3.7%	19.1%	23.5%	0.647
1991	3.6%	12.9%	16.9%	0.553
1992	3.0%	-7.9%	-5.2%	0.583
1993	2.7%	-18.7%	-16.5%	0.698
1994	-2.3%	-2.3%	-4.6%	0.732
1995	0.9%	0.5%	1.4%	0.721
1996	1.0%	0.4%	1.4%	0.712
1997	0.7%	0.2%	0.9%	0.705
1998	0.8%	12.6%	13.5%	0.621
1999	2.5%	12.6%	15.4%	0.538
2000	1.7%	7.0%	8.8%	0.495
2001	2.9%	6.6%	9.7%	0.451
2002	2.0%	-5.6%	-3.7%	0.468
2003	1.4%	-6.0%	-4.7%	0.491
2004	0.0%	-33.9%	-33.9%	0.743
2005	0.0%	-13.9%	-13.9%	0.863
2006	0.3%	-5.1%	-4.8%	0.906
2007	1.8%	0.1%	1.9%	0.889
2008	0.2%	0.5%	0.7%	0.883
2009	0.4%	1.0%	1.4%	0.871
2010	0.3%	0.0%	0.3%	0.868
2011	0.3%	-2.0%	-1.7%	0.884
2012	0.1%	-3.7%	-3.6%	0.917
2013	4.9%	-8.4%	-3.9%	0.954
2014	0.3%	-4.9%	-4.6%	1.000
2015	0.2%	-2.2%	-2.0%	1.020
2016	0.4%	-0.8%	-0.4%	1.024
2017	0.2%	-0.5%	-0.3%	1.027
2018	0.2%	-0.3%	-0.1%	1.028
2019	0.4%	0.0%	0.4%	1.024
2020	0.4%	0.0%	0.4%	1.020
2021	0.2%	0.0%	0.2%	1.018
2022	0.8%	0.0%	0.8%	1.010
2023	0.5%	0.0%	0.5%	1.005
2024	0.4%	0.0%	0.4%	
9/1/2024	0.1%	0.0%	0.1%	

(a) See Exhibit 4.2, Column (6).

(b) See Exhibit 4.3, Column (3).

(c) $\text{Column (3)} = [1.0 + \text{Column (1)}] \times [1.0 + \text{Column (2)}] - 1.0$.

(d) These factors adjust the annual impact shown in Column (3) to the 9/1/2024 level.

Annual Wage Level Changes

	(1)	(2)	(3)
<u>Year</u>	<u>Annual Wage Level Change (a)</u>	<u>Adjusted Annual Wage Level Change (b)</u>	<u>Factor to a 9/1/2024 Wage Level (c)</u>
1987	5.6		3.658
1988	4.4		3.504
1989	4.3		3.359
1990	5.0		3.199
1991	2.3		3.127
1992	4.7		2.987
1993	1.2		2.952
1994	1.8		2.899
1995	2.9		2.818
1996	3.4		2.725
1997	4.7		2.603
1998	5.2		2.474
1999	6.2		2.330
2000	9.0		2.137
2001	0.6		2.125
2002	0.5		2.114
2003	3.3		2.046
2004	4.7		1.955
2005	3.1		1.896
2006	4.6		1.812
2007	4.5		1.734
2008	2.1		1.699
2009	0.4		1.692
2010	3.0		1.643
2011	3.0		1.595
2012	4.2		1.531
2013	0.7		1.520
2014	3.3		1.471
2015	4.5		1.408
2016	1.9		1.382
2017	4.4		1.324
2018	3.7		1.276
2019	4.4		1.223
2020	11.3	4.9	1.165
2021	7.4	6.0	1.099
2022	-0.6	2.1	1.076
Projected:			
2023	3.0		
2024	4.1		
9/1/2024	0.4	(Annual = 2.5)	

- (a) Historical wage changes through 2022 are based on Bureau of Labor Statistics (BLS) data. Forecasts for 2023 and forward are based on the average of wage level projections made by the UCLA Anderson School of Business as of September 2023 and those made by the California Department of Finance as of April 2023.
- (b) Wage level changes for 2020 to 2022 were adjusted for estimated shifts in industrial mix and shifts in the wage level mix within industries impacting average wages in order to more appropriately project changes in average wages for the typical worker. For 2022, the observed estimate based on BLS average wage data was averaged with the BLS Current Employment Statistics hourly wage estimate to account for shifts in the wage level mix within industries.
- (c) Based on Column (2) for 2020 through 2022 and Column (1) for all other years.

Premium Adjustment Factors

	(1)	(2a)	(2b)	(2c)	(3)	(4)	(5)	(6)	(7)
		Ratio of		Factor to Adjust			Off-Balance		
	Factor to a	Industry Average	Factor to	to Approved	Adjustment		Correction in	Factor to Adjust	
	9/1/2024	Charged Rates	Approved Pure	Pure Premium	to Remove	Average	Advisory	for Impact	Composite
Calendar		Pure Premium	Premium Rate	Rate Level as of	Surcharge	Experience	Sept. 1, 2022	Resulting from	Premium
<u>Year</u>	<u>Wage Level (a)</u>	<u>Rates (b)</u>	<u>Sept. 1, 2022 (c)</u>	<u>Sept. 1, 2022 (d)</u>	<u>Premium (e)</u>	<u>Modification (f)</u>	<u>Rates</u>	<u>Audits (g)</u>	<u>Factor (h)</u>
1987	3.658	---	---	0.446	0.992	0.983	1.030	---	1.599
1988	3.504	---	---	0.399	0.993	0.963	1.030	---	1.401
1989	3.359	---	---	0.393	0.993	0.945	1.030	---	1.348
1990	3.199	---	---	0.383	0.991	0.942	1.030	---	1.253
1991	3.127	---	---	0.355	0.987	0.939	1.030	---	1.134
1992	2.987	---	---	0.340	0.982	0.940	1.030	---	1.031
1993	2.952	---	---	0.337	0.981	0.949	1.030	---	0.997
1994	2.899	---	---	0.385	0.986	0.948	1.030	---	1.128
1995	2.818	---	---	0.521	0.995	0.958	1.030	---	1.481
1996	2.725	1.054	0.554	0.525	1.000	0.935	1.030	---	1.486
1997	2.603	1.013	0.553	0.545	1.000	0.949	1.030	---	1.452
1998	2.474	0.968	0.576	0.595	1.000	0.959	1.030	---	1.490
1999	2.330	0.972	0.582	0.599	1.000	0.954	1.030	---	1.419
2000	2.137	1.005	0.528	0.525	1.000	0.970	1.030	---	1.123
2001	2.125	1.031	0.465	0.450	1.000	0.969	1.030	---	0.959
2002	2.114	1.167	0.416	0.356	1.000	0.991	1.030	---	0.738
2003	2.046	1.282	0.340	0.265	1.000	1.005	1.030	---	0.525
2004	1.955	1.400	0.346	0.247	1.000	0.981	1.030	---	0.479
2005	1.896	1.470	0.417	0.283	1.000	0.982	1.030	---	0.531
2006	1.812	1.447	0.537	0.371	1.000	0.956	1.030	---	0.683
2007	1.734	1.493	0.731	0.490	1.000	0.931	1.030	0.985	0.873
2008	1.699	1.426	0.870	0.610	1.000	0.946	1.030	0.991	1.054
2009	1.692	1.366	0.858	0.628	1.000	0.937	1.030	1.034	1.139
2010	1.643	1.383	0.841	0.608	1.000	0.941	1.030	1.005	1.035
2011	1.595	1.401	0.840	0.600	1.000	0.982	1.030	---	0.945
2012	1.531	1.223	0.692	0.566	1.000	1.000	1.030	---	0.841
2013	1.520	1.138	0.557	0.490	1.000	0.983	1.030	---	0.735
2014	1.471	1.127	0.514	0.456	1.000	0.961	1.030	---	0.677
2015	1.408	1.109	0.499	0.450	1.000	0.951	1.030	---	0.647
2016	1.382	1.148	0.543	0.473	1.000	0.949	1.030	---	0.669
2017	1.324	1.156	0.601	0.520	1.000	0.955	1.030	---	0.700
2018	1.276	1.196	0.680	0.568	1.000	0.956	1.030	---	0.737
2019	1.223	1.214	0.790	0.650	1.000	0.945	1.030	---	0.817
2020	1.165	1.207	0.881	0.730	1.000	0.944	1.030	0.990	0.866
2021	1.099	1.224	0.949	0.775	1.000	0.948	1.030	1.033	0.901
2022	1.076	1.189	0.990	0.833	1.000	0.959	1.030	0.993	0.902

- (a) See Exhibit 5.1.
- (b) Based on WCIRB calendar year experience calls. The industry average charged rates reflect most rating plan adjustments but do not reflect the application of deductible credits or retrospective rating plan adjustments.
- (c) Reflects approved advisory pure premium rate level changes to bring premium to the advisory September 1, 2022 pure premium rate level.
- (d) (2b) ÷ (2a). This column adjusts premiums at the industry average charged rate level to the approved advisory pure premium rate level as of September 1, 2022.
- (e) Based on unit statistical data.
- (f) Based on average promulgated experience modifications. Calendar years 1996 through 2000 include adjustments for the impacts of AB 1913 and SB 1217 (1998).
- (g) Based on a comparison of premium reported on a calendar year basis to premium reported on an estimated ultimate policy year basis over the course of two accident years. The factor is applied only for calendar years 2007 to 2010 and 2020 to 2022, during which reported premiums were impacted by recessionary economic forces.
- (h) (1) × (2c) × (3) × (6) ÷ [(4) × (5)] for calendar years 2007 to 2010 and 2020 to 2022. (1) × (2c) × (3) ÷ [(4) × (5)] for all other calendar years.

**2022 Accident Year Indemnity Claim Frequency Model
As of PY 2020 1st Set & June 2023 UCLA**

AY	Annual %	Annual Log Differences					
	Changes Intra- Class Ind Freq	Intra-Class Indemnity Frequency per \$M Exposure at PY 2021 Level			AY+1 Indemnity	Cumulative	Economic
	Total	Total	Cumulative	Non-cum.	Benefit Level	Injury Index	Variables (1st Prin. Comp.)
1979	0.5%	0.005	-0.053	0.007	0.000	-0.060	0.129
1980	-6.5%	-0.068	-0.132	-0.066	0.000	-0.066	-0.079
1981	-3.5%	-0.036	-0.028	-0.036	0.033	0.008	-0.076
1982	-1.6%	-0.016	0.153	-0.022	0.000	0.175	-0.285
1983	6.2%	0.060	0.214	0.054	0.352	0.160	0.028
1984	9.5%	0.091	0.235	0.084	0.081	0.151	0.215
1985	2.0%	0.020	0.138	0.014	0.000	0.124	0.077
1986	-2.4%	-0.024	0.039	-0.028	0.000	0.067	0.075
1987	1.5%	0.015	0.053	0.013	0.000	0.041	0.145
1988	0.7%	0.007	0.104	0.000	0.000	0.104	0.084
1989	2.5%	0.024	0.212	0.009	0.000	0.203	0.042
1990	9.0%	0.087	0.337	0.061	0.046	0.276	-0.116
1991	0.3%	0.003	0.166	-0.018	0.071	0.184	-0.282
1992	-10.3%	-0.108	-0.263	-0.089	0.023	-0.174	-0.181
1993	-9.2%	-0.097	-0.175	-0.088	0.013	-0.088	-0.021
1994	-10.5%	-0.111	-0.167	-0.105	-0.057	-0.061	0.103
1995	-0.3%	-0.003	0.009	-0.004	0.061	0.013	0.089
1996	-6.8%	-0.070	-0.165	-0.061	0.053	-0.104	0.072
1997	-3.3%	-0.033	-0.026	-0.034	0.096	0.008	0.132
1998	-3.7%	-0.038	-0.020	-0.040	0.066	0.019	0.075
1999	1.5%	0.015	0.010	0.015	0.058	-0.005	0.122
2000	4.0%	0.039	0.101	0.033	0.040	0.068	0.063
2001	-6.9%	-0.072	0.106	-0.091	-0.003	0.197	-0.096
2002	-2.3%	-0.023	0.202	-0.055	-0.007	0.257	-0.194
2003	-2.9%	-0.029	0.028	-0.038	0.060	0.067	-0.022
2004	-16.7%	-0.182	-0.318	-0.161	-0.065	-0.158	0.090
2005	-13.6%	-0.146	-0.342	-0.120	-0.398	-0.222	0.135
2006	-5.6%	-0.058	-0.204	-0.042	0.051	-0.163	0.090
2007	-1.7%	-0.017	-0.042	-0.015	0.016	-0.027	-0.081
2008	-2.7%	-0.027	-0.012	-0.029	0.049	0.017	-0.296
2009	-0.2%	-0.002	0.134	-0.016	0.069	0.150	-0.414
2010	8.9%	0.085	0.115	0.081	0.016	0.034	-0.090
2011	1.2%	0.012	0.028	0.010	0.000	0.017	0.047
2012	4.7%	0.046	0.115	0.037	0.003	0.077	0.126
2013	0.4%	0.004	0.131	-0.014	0.019	0.145	0.154
2014	0.2%	0.002	0.046	-0.005	0.070	0.051	0.179
2015	-1.5%	-0.015	0.008	-0.018	0.000	0.026	0.194
2016	-2.7%	-0.027	0.032	-0.037	0.000	0.069	0.127
2017	-1.8%	-0.018	-0.069	-0.010	0.000	-0.060	0.130
2018	-0.3%	-0.003	-0.050	0.005	0.000	-0.055	0.127
2019	1.8%	0.018	0.047	0.014	0.000	0.033	0.045
2020	-10.4%	-0.110	0.058	-0.140	0.000	0.198	-0.913
2021*	12.8%	0.105	-0.223	0.171	0.000	-0.394	0.328
2022	3.9%	0.038	0.038	0.038	0.000	0.000	0.561
2023	-1.8%	-0.018	-0.018	-0.018	0.000	0.000	0.019
2024	-1.6%	-0.016	-0.016	-0.016	0.000	0.000	0.040
2025	-2.1%	-0.022	-0.022	-0.022	0.000	0.000	-0.016

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

Constant	-0.020		
Std Err of Y Est	0.040		
R Squared	0.440		
No. of Observations	41		
Degrees of Freedom	37		
X Coefficient(s)	0.184	0.211	0.104
Std Err of Coef.	0.076	0.062	0.045

Notes:

The Indemnity Benefit Level variable is concurrent. The AY 2004 benefit level change is related to the AY 2004 change in non-cumulative frequency.
The Indemnity Benefit Level variable excludes indemnity benefit utilization, cost-of-living adjustments, and changes in the death and permanent total benefits.
The Indemnity Benefit Level variable has been revised due to on-leveling reassessments. See Actuarial Committee item AC09-03-03.
For 1993 on, cumulative claims include both cumulative trauma and occupational disease claims. See Actuarial Committee item AC14-03-19.
The definition of cumulative claims has been further amended to include claims coded with certain nature of injury codes in USR. See Actuarial Committee item AC21-12-09.
Economic variables are historical through 2022; June 2023 UCLA Anderson Forecasts for 2023 on.
The indicator variable for Cal-OSHA inspections has been moved into an on-level adjustment. See Actuarial Committee item AC21-12-09.
Regression is over AY 1979 through AY 2021, excluding 2020 and 2021. AY 2022 through AY 2025 are projections.
The constant term, -0.020, consists of measured offsets that recognize annual changes in real benefit levels relative to nominal benefit levels and long-term economic growth.
Without these offsets, the indemnity benefit level and economic variables would project frequency to increase without bound.
*AY 2021 change is based on a comparison of 2021 accidents on 2020 policies to 2020 accidents on 2019 policies.

**Projection of Indemnity Severity Trends by Accident Year
Based on Experience as of September 30, 2023**

Accident Year	(1) Estimated Ultimate Severity	(2) Annual % Change	(3) Indemnity Adjustment Factor (a)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	10,020	---	2.135	21,389	---
1991	10,974	9.5%	2.019	22,155	3.6%
1992	11,058	0.8%	1.952	21,585	-2.6%
1993	12,030	8.8%	1.940	23,342	8.1%
1994	13,031	8.3%	2.032	26,485	13.5%
1995	14,643	12.4%	1.893	27,719	4.7%
1996	16,534	12.9%	1.776	29,370	6.0%
1997	19,350	17.0%	1.594	30,840	5.0%
1998	21,200	9.6%	1.470	31,166	1.1%
1999	23,177	9.3%	1.362	31,572	1.3%
2000	24,842	7.2%	1.272	31,590	0.1%
2001	27,197	9.5%	1.273	34,620	9.6%
2002	26,239	-3.5%	1.304	34,212	-1.2%
2003	25,994	-0.9%	1.300	33,786	-1.2%
2004	21,124	-18.7%	1.536	32,436	-4.0%
2005	19,140	-9.4%	1.763	33,738	4.0%
2006	20,856	9.0%	1.633	34,064	1.0%
2007	22,622	8.5%	1.575	35,618	4.6%
2008	24,619	8.8%	1.488	36,621	2.8%
2009	25,813	4.9%	1.479	38,168	4.2%
2010	25,102	-2.8%	1.451	36,423	-4.6%
2011	24,616	-1.9%	1.431	35,224	-3.3%
2012	24,071	-2.2%	1.413	34,018	-3.4%
2013	23,254	-3.4%	1.385	32,201	-5.3%
2014	24,118	3.7%	1.287	31,044	-3.6%
2015	24,402	1.2%	1.269	30,962	-0.3%
2016	23,910	-2.0%	1.253	29,957	-3.2%
2017	24,048	0.6%	1.220	29,343	-2.1%
2018	24,794	3.1%	1.189	29,473	0.4%
2019	26,230	5.8%	1.157	30,337	2.9%
2020	27,629	5.3%	1.123	31,033	2.3%
2021	27,879	0.9%	1.083	30,186	-2.7%
2022	29,660	6.4%	1.055	31,295	3.7%

(6)	Estimated Annual Exponential Trend Based on 1990 to 2022:	0.8%
(7)	Estimated Annual Exponential Trend Based on 2005 to 2022:	-1.2%
(8)	Estimated Annual Exponential Trend Based on 2018 to 2022:	1.2%

Selected Indemnity Severity Trend: 1.0%

(a) These adjustment factors are based on Exhibit 4.1, excluding the impact of frequency.

Source: WCIRB quarterly experience calls, excluding COVID-19 claims.

**Projection of Medical Severity Trends by Accident Year
Based on Experience as of September 30, 2023**

Accident Year	(1) Estimated Ultimate Severity (a)	(2) Annual % Change	(3) Medical Adjustment Factor (b)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	8,877	---	0.966	8,577	---
1991	9,573	7.8%	0.948	9,073	5.8%
1992	9,621	0.5%	0.916	8,809	-2.9%
1993	10,501	9.1%	0.898	9,428	7.0%
1994	11,539	9.9%	0.943	10,887	15.5%
1995	13,381	16.0%	0.935	12,512	14.9%
1996	14,479	8.2%	0.926	13,405	7.1%
1997	16,916	16.8%	0.919	15,552	16.0%
1998	20,684	22.3%	0.810	16,754	7.7%
1999	23,633	14.3%	0.702	16,587	-1.0%
2000	26,529	12.3%	0.645	17,110	3.2%
2001	31,291	18.0%	0.588	18,398	7.5%
2002	31,360	0.2%	0.611	19,150	4.1%
2003	29,989	-4.4%	0.641	19,212	0.3%
2004	27,463	-8.4%	0.847	23,273	21.1%
2005	28,250	2.9%	0.847	23,940	2.9%
2006	30,735	8.8%	0.844	25,941	8.4%
2007	33,950	10.5%	0.828	28,120	8.4%
2008	36,348	7.1%	0.825	29,986	6.6%
2009	38,260	5.3%	0.822	31,438	4.8%
2010	37,961	-0.8%	0.819	31,099	-1.1%
2011	34,096 (c)	---	0.842	28,710 (c)	---
2012	31,902	-6.4%	0.883	28,160	-1.9%
2013	29,275	-8.2%	0.966	28,275	0.4%
2014	28,594	-2.3%	1.030	29,448	4.1%
2015	27,871	-2.5%	1.055	29,412	-0.1%
2016	27,157	-2.6%	1.057	28,716	-2.4%
2017	27,235	0.3%	1.057	28,798	0.3%
2018	28,561	4.9%	1.054	30,111	4.6%
2019	29,209	2.3%	1.043	30,458	1.2%
2020	30,711	5.1%	1.029	31,612	3.8%
2021	30,423	-0.9%	1.019	31,005	-1.9%
2022	31,054	2.1%	1.010	31,365	1.2%

Selected Medical Severity Trend: 1.5%

- (a) Estimated ultimate severities for all accident years are derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts. The estimated ultimate medical severities were derived from the projected ultimate loss ratios shown in Exhibit 3.2, column (6).
- (b) These adjustment factors are based on Exhibit 4.4, excluding the impact of frequency, and including the impact of SB 1160 provisions and 2021 changes to the Official Medical Fee Schedule and Medical-Legal Fee Schedule, applicable to outstanding medical losses.
- (c) Severities for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Severities for accident years 2010 and prior do reflect MCCP costs.

Source: WCIRB quarterly experience calls, excluding COVID-19 claims.

**Projection of Medical Severity Trends by Accident Year
Adjusted to Remove the Cost of Medical Cost Containment Programs (MCCP)
Based on Experience as of September 30, 2023**

(1) Accident Year	MCCP Included				MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b)			
	(2) Estimated Ultimate Severity (a)	(3) Annual % Change	(4) Ultimate On-Level Severity (c)	(5) Annual % Change	(6) Estimated Ultimate Severity (a)	(7) Annual % Change	(8) Ultimate On-Level Severity (c)	(9) Annual % Change
2005	28,250	---	23,940	---	26,801	---	22,712	---
2006	30,735	8.8%	25,941	8.4%	28,852	7.7%	24,352	7.2%
2007	33,950	10.5%	28,120	8.4%	31,734	10.0%	26,285	7.9%
2008	36,348	7.1%	29,986	6.6%	33,213	4.7%	27,400	4.2%
2009	38,260	5.3%	31,438	4.8%	35,114	5.7%	28,853	5.3%
2010	37,961	-0.8%	31,099	-1.1%	34,804	-0.9%	28,513	-1.2%
2011	37,313	-1.7%	31,420	1.0%	34,096	-2.0%	28,710	0.7%
2012	34,799	-6.7%	30,717	-2.2%	31,902	-6.4%	28,160	-1.9%
2013	31,993	-8.1%	30,901	0.6%	29,275	-8.2%	28,275	0.4%
2014	31,189	-2.5%	32,121	3.9%	28,594	-2.3%	29,448	4.2%
2015	30,263	-3.0%	31,936	-0.6%	27,871	-2.5%	29,412	-0.1%
2016	29,381	-2.9%	31,067	-2.7%	27,157	-2.6%	28,716	-2.4%
2017	29,450	0.2%	31,141	0.2%	27,235	0.3%	28,798	0.3%
2018	30,866	4.8%	32,541	4.5%	28,561	4.9%	30,111	4.6%
2019	31,570	2.3%	32,920	1.2%	29,209	2.3%	30,458	1.2%
2020	33,107	4.9%	34,079	3.5%	30,711	5.1%	31,612	3.8%
2021	32,930	-0.5%	33,560	-1.5%	30,423	-0.9%	31,005	-1.9%
2022	33,675	2.3%	34,013	1.4%	31,054	2.1%	31,365	1.2%
Estimated Annual Exponential Trend								
Trend Based on 1990 to 2022:				4.6%	N/A			
Trend Based on 2005 to 2022:				1.4%	1.4%			
Trend Based on 2018 to 2022:				1.1%	1.0%			

Selected Medical Severity Trend: 1.5%

- (a) Estimated ultimate severities for all accident years were derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts.
 (b) Adjustments to accident years 2005 through 2010 based on WCIRB's Annual Calls for Direct California Workers' Compensation Aggregate Indemnity and Medical Costs.
 (c) Ultimate severities are on-leveled based on adjustment factors shown on Exhibit 6.3.

Source: WCIRB quarterly experience calls, excluding COVID-19 claims.

**Projected On-Level Accident Year
Indemnity Loss to Pure Premium Ratios
Based on Experience as of September 30, 2023**

Accident Year	(1) Developed Indemnity Loss Ratio (a)	(2) Composite Indemnity Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Indemnity to Pure Premium Ratio (1)×(2)÷(3)
1987	0.348	1.715	1.599	0.374
1988	0.334	1.690	1.401	0.403
1989	0.346	1.665	1.348	0.428
1990	0.402	1.335	1.253	0.428
1991	0.429	1.099	1.134	0.416
1992	0.353	1.159	1.031	0.397
1993	0.290	1.407	0.997	0.409
1994	0.330	1.471	1.128	0.430
1995	0.474	1.362	1.481	0.436
1996	0.531	1.273	1.486	0.455
1997	0.603	1.140	1.452	0.473
1998	0.655	1.051	1.490	0.462
1999	0.687	0.974	1.419	0.471
2000	0.595	0.909	1.123	0.482
2001	0.494	0.910	0.959	0.469
2002	0.369	0.932	0.738	0.466
2003	0.244	0.929	0.525	0.432
2004	0.145	1.272	0.479	0.387
2005	0.125	1.724	0.531	0.405
2006	0.161	1.694	0.683	0.400
2007	0.222	1.633	0.873	0.416
2008	0.281	1.534	1.054	0.409
2009	0.330	1.504	1.139	0.436
2010	0.317	1.476	1.035	0.452
2011	0.295	1.455	0.945	0.453
2012	0.264	1.437	0.841	0.452
2013	0.224	1.406	0.735	0.429
2014	0.213	1.287	0.677	0.405
2015	0.208	1.269	0.647	0.409
2016	0.198	1.253	0.669	0.372
2017	0.204	1.220	0.700	0.355
2018	0.217	1.189	0.737	0.350
2019	0.254	1.157	0.817	0.360
2020	0.267	1.123	0.866	0.347
2021	0.309	1.083	0.901	0.371
2022	0.310	1.055	0.902	0.362
				Projections (d)
2023				0.366
2024				0.364
9/1/2024				0.363

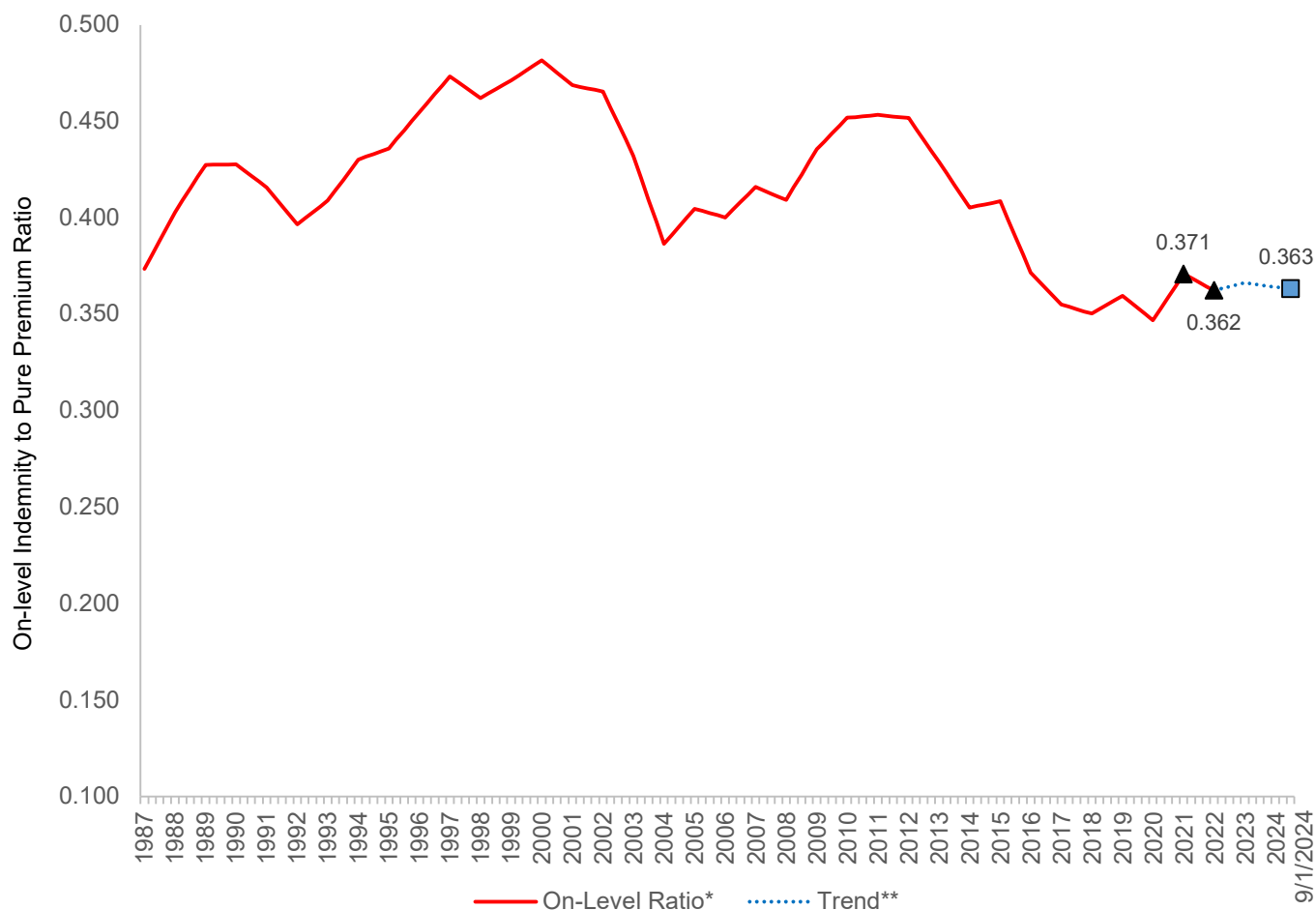
(a) See Exhibit 3.1.

(b) See Exhibit 4.1.

(c) See Exhibit 5.2.

(d) The trending projection is based on frequency and severity growth separately applied to the 2021 and 2022 on-level ratios. The frequency growth estimates are based on the intra-class frequency changes for accident year 2022 from Exhibit 12 and frequency model projections for accident years 2023 to 2025 from Exhibit 6.1. The annual indemnity severity growth estimates are from Exhibit 6.2.

**On-Level Indemnity Loss to Pure Premium Ratios
Based on Experience as of September 30, 2023**



* On-level indemnity to pure premium ratios (see Exhibit 7.1)

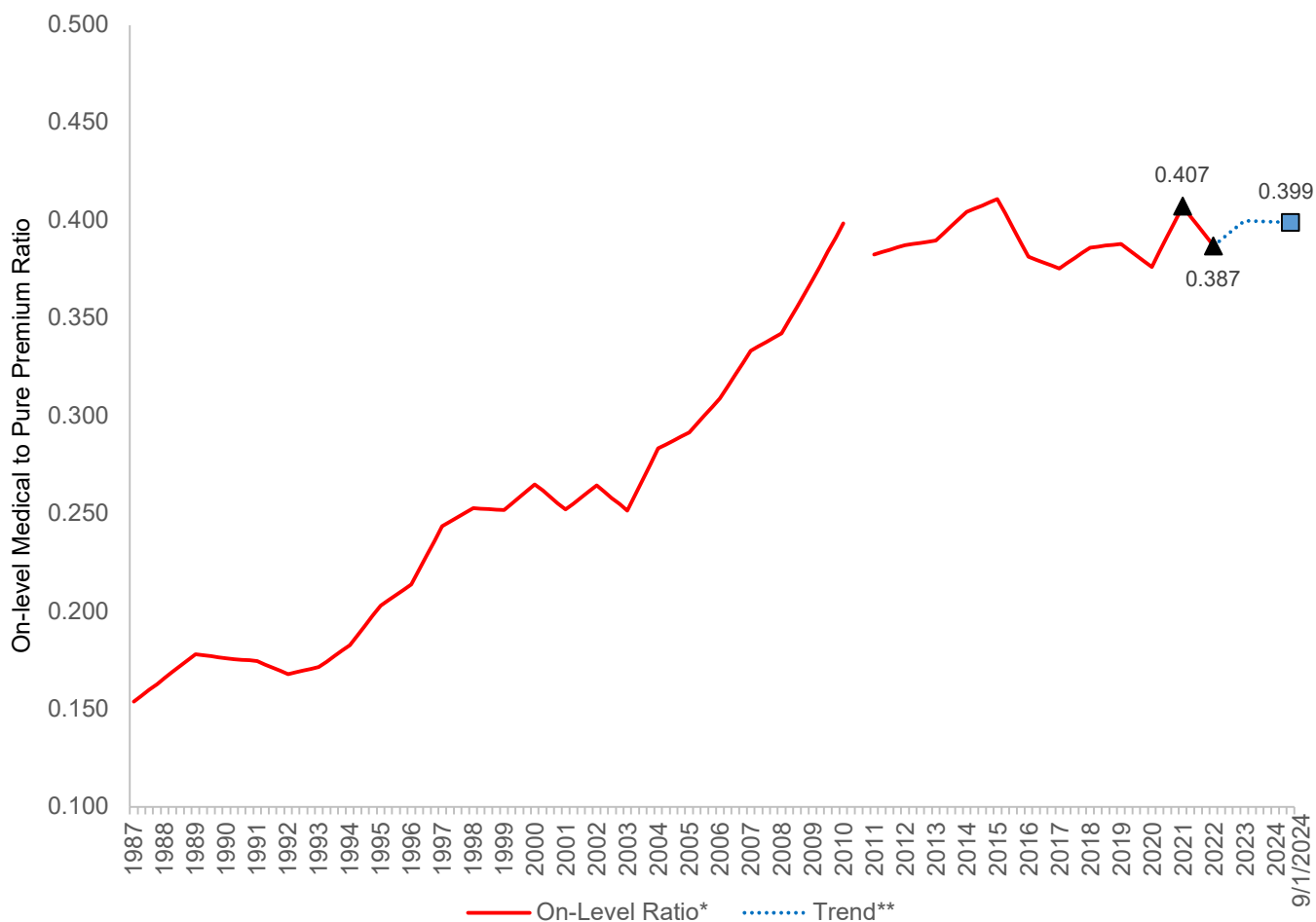
** The 9/1/2024 indemnity to pure premium ratio was calculated based on separate frequency and severity trends applied to the 2021 and 2022 years.

**Projected On-Level Accident Year
Medical Loss to Pure Premium Ratios
Based on Experience as of September 30, 2023**

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical On-Level Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Pure Premium Ratio (e) (1)×(2)÷(3)
1987	0.288	0.854	1.599	0.154
1988	0.283	0.822	1.401	0.166
1989	0.301	0.798	1.348	0.178
1990	0.341	0.647	1.253	0.176
1991	0.358	0.553	1.134	0.175
1992	0.297	0.583	1.031	0.168
1993	0.245	0.698	0.997	0.172
1994	0.282	0.732	1.128	0.183
1995	0.417	0.721	1.481	0.203
1996	0.447	0.712	1.486	0.214
1997	0.502	0.705	1.452	0.244
1998	0.606	0.621	1.490	0.253
1999	0.664	0.538	1.419	0.252
2000	0.602	0.495	1.123	0.265
2001	0.536	0.451	0.959	0.252
2002	0.417	0.468	0.738	0.265
2003	0.269	0.491	0.525	0.252
2004	0.183	0.743	0.479	0.284
2005	0.179	0.863	0.531	0.292
2006	0.233	0.906	0.683	0.309
2007	0.327	0.889	0.873	0.333
2008	0.409	0.883	1.054	0.342
2009	0.483	0.871	1.139	0.370
2010	0.475	0.868	1.035	0.399
2011	0.409	0.884	0.945	0.383
2012	0.356	0.917	0.841	0.388
2013	0.301	0.954	0.735	0.390
2014	0.274	1.000	0.677	0.405
2015	0.261	1.020	0.647	0.411
2016	0.249	1.024	0.669	0.382
2017	0.256	1.027	0.700	0.376
2018	0.277	1.028	0.737	0.386
2019	0.310	1.024	0.817	0.388
2020	0.319	1.020	0.866	0.376
2021	0.361	1.018	0.901	0.407
2022	0.346	1.010	0.902	0.387
				Projections (d)
2023				0.400
2024				0.399
9/1/2024				0.399

- (a) See Exhibit 3.2. Medical loss ratios for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Ratios for accident years 2010 and prior do reflect MCCP costs.
- (b) See Exhibit 4.4.
- (c) See Exhibit 5.2.
- (d) The trending projection is based on frequency and severity growth separately applied to the 2021 and 2022 on-level ratios. The frequency growth estimates are based on the intra-class frequency changes for accident year 2022 from Exhibit 12 and frequency model projections for accident years 2023 to 2025 from Exhibit 6.1. The annual medical severity growth estimates are from Exhibit 6.4.
- (e) Accident years 2011 and subsequent do not reflect the paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

**On-Level Medical Loss to Pure Premium Ratios
Based on Experience as of September 30, 2023**



* On-level medical to pure premium ratios (see Exhibit 7.3)

** The 9/1/2024 medical to pure premium ratio was calculated based on separate frequency and severity trends applied to the 2021 and 2022 years.

**Indicated Loss to Pure Premium Ratios
For Policies with Effective Dates between September 1, 2023 and August 31, 2024
Based on Experience as of September 30, 2023**

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Projected Loss to Advisory Pure Premium Ratio (See Exhibits 7.1 and 7.3)	0.363	0.399	0.762

Quarterly Incurred Indemnity Loss Development Factors
Through September 30, 2023

Age in	Accident Year																						
Months	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
6/3	2.834	2.736	2.463	2.417	2.724	2.785	3.031	3.116	3.052	3.238	3.344	3.303	3.209	3.201	3.372	3.200	3.228	--	3.161	3.187	3.266		
9/6	1.808	1.776	1.618	1.656	1.776	1.820	1.848	1.904	2.001	1.966	1.940	1.960	1.948	1.945	1.874	1.998	2.017	--	1.970	1.912	1.976		
12/9	1.473	1.460	1.355	1.448	1.511	1.510	1.530	1.564	1.632	1.587	1.585	1.570	1.578	1.578	1.580	1.578	1.596	--	1.561	1.563			
15/12	1.238	1.180	1.149	1.189	1.234	1.248	1.293	1.306	1.306	1.303	1.301	1.301	1.313	1.309	1.298	1.298	1.295	1.261	1.293	1.298			
18/15	1.167	1.101	1.103	1.140	1.158	1.182	1.194	1.197	1.195	1.206	1.178	1.190	1.187	1.189	1.177	1.183	1.189	1.169	1.183	1.191			
21/18	1.127	1.066	1.096	1.117	1.128	1.139	1.153	1.140	1.146	1.141	1.141	1.132	1.137	1.134	1.138	1.123	1.128	1.122	1.134	1.137			
24/21	1.094	1.045	1.082	1.098	1.106	1.106	1.114	1.119	1.117	1.111	1.104	1.114	1.111	1.104	1.100	1.102	1.094	1.097	1.100				
27/24	1.073	1.045	1.070	1.082	1.081	1.088	1.089	1.091	1.085	1.087	1.081	1.082	1.087	1.079	1.078	1.071	1.073	1.079	1.078				
30/27	1.051	1.040	1.054	1.057	1.072	1.075	1.075	1.080	1.071	1.068	1.067	1.074	1.066	1.064	1.059	1.066	1.062	1.058	1.065				
33/30	1.032	1.036	1.042	1.049	1.053	1.059	1.052	1.064	1.053	1.060	1.047	1.055	1.050	1.047	1.047	1.045	1.045	1.046	1.051				
36/33	1.020	1.029	1.033	1.039	1.043	1.051	1.049	1.049	1.043	1.041	1.043	1.042	1.036	1.037	1.038	1.029	1.034	1.038					
39/36	1.017	1.027	1.029	1.031	1.033	1.040	1.039	1.039	1.041	1.035	1.031	1.036	1.030	1.028	1.028	1.027	1.029	1.029					
42/39	1.018	1.020	1.020	1.031	1.033	1.036	1.038	1.035	1.032	1.028	1.031	1.030	1.027	1.026	1.028	1.023	1.027	1.031					
45/42	1.019	1.018	1.024	1.026	1.028	1.030	1.035	1.027	1.033	1.022	1.024	1.024	1.024	1.021	1.016	1.015	1.022	1.026					
48/45	1.013	1.013	1.021	1.019	1.021	1.024	1.024	1.026	1.023	1.024	1.020	1.020	1.016	1.017	1.014	1.015	1.018						
51/48	1.016	1.010	1.018	1.021	1.018	1.022	1.023	1.021	1.018	1.017	1.015	1.019	1.015	1.014	1.013	1.014	1.016						
54/51	1.017	1.009	1.017	1.021	1.020	1.021	1.020	1.020	1.016	1.019	1.015	1.014	1.013	1.015	1.011	1.011	1.013						
57/54	1.011	1.011	1.018	1.017	1.014	1.018	1.017	1.015	1.014	1.013	1.011	1.014	1.011	1.009	1.009	1.009	1.012						
60/57	1.009	1.011	1.013	1.019	1.016	1.013	1.015	1.012	1.014	1.012	1.012	1.011	1.007	1.007	1.009	1.009							
63/60	1.008	1.010	1.014	1.013	1.015	1.011	1.014	1.014	1.009	1.012	1.008	1.010	1.007	1.007	1.008	1.008							
66/63	1.008	1.010	1.013	1.016	1.014	1.015	1.013	1.013	1.009	1.010	1.009	1.008	1.007	1.007	1.008	1.006							
69/66	1.007	1.011	1.012	1.011	1.010	1.009	1.012	1.007	1.010	1.010	1.007	1.006	1.007	1.005	1.006	1.008							
72/69	1.009	1.009	1.013	1.011	1.009	1.009	1.009	1.010	1.008	1.007	1.007	1.005	1.005	1.007	1.007								
75/72	1.005	1.007	1.010	1.011	1.010	1.010	1.008	1.007	1.004	1.006	1.007	1.004	1.006	1.005	1.004								
78/75	1.006	1.006	1.012	1.009	1.010	1.006	1.006	1.006	1.007	1.005	1.006	1.005	1.006	1.003	1.004								
81/78	1.005	1.006	1.010	1.009	1.007	1.007	1.006	1.006	1.007	1.005	1.005	1.003	1.003	1.003	1.004								
84/81	1.006	1.007	1.008	1.005	1.009	1.006	1.004	1.007	1.004	1.007	1.003	1.004	1.002	1.005									
87/84	1.002	1.007	1.010	1.007	1.004	1.005	1.006	1.004	1.006	1.004	1.003	1.002	1.001	1.003									
90/87	1.004	1.008	1.008	1.008	1.008	1.004	1.005	1.005	1.005	1.004	1.004	1.003	1.004	1.002									
93/90	1.005	1.006	1.008	1.006	1.007	1.006	1.003	1.004	1.005	1.004	1.003	1.004	1.002	1.003									
96/93	1.006	1.006	1.003	1.002	1.003	1.004	1.004	1.003	1.003	1.003	1.003	1.002	1.002										

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

Quarterly Incurred Medical Loss Development Factors *
Through September 30, 2023

Age in	Accident Year																						
Months	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
6/3	2.805	2.671	2.530	2.584	2.662	2.782	2.892	2.992	2.757	2.853	2.843	2.921	2.863	3.019	3.209	2.891	2.830	--	2.871	2.928	2.907		
9/6	1.762	1.703	1.670	1.650	1.744	1.717	1.807	1.800	1.827	1.833	1.819	1.840	1.884	1.755	1.740	1.821	1.845	--	1.747	1.763	1.841		
12/9	1.425	1.400	1.375	1.453	1.443	1.466	1.454	1.488	1.521	1.484	1.500	1.482	1.451	1.487	1.448	1.459	1.470	--	1.429	1.455			
15/12	1.197	1.132	1.145	1.138	1.182	1.167	1.199	1.206	1.228	1.211	1.207	1.199	1.206	1.215	1.184	1.191	1.183	1.166	1.172	1.178			
18/15	1.126	1.086	1.087	1.103	1.106	1.126	1.135	1.129	1.141	1.136	1.117	1.114	1.094	1.095	1.087	1.096	1.100	1.092	1.103	1.113			
21/18	1.093	1.055	1.061	1.073	1.081	1.090	1.097	1.101	1.103	1.085	1.088	1.077	1.082	1.069	1.069	1.063	1.060	1.077	1.067	1.079			
24/21	1.060	1.040	1.052	1.070	1.074	1.067	1.074	1.080	1.080	1.067	1.064	1.055	1.059	1.057	1.046	1.044	1.052	1.054	1.058				
27/24	1.042	1.034	1.048	1.055	1.058	1.053	1.071	1.066	1.072	1.058	1.048	1.046	1.048	1.040	1.036	1.030	1.034	1.049	1.050				
30/27	1.038	1.039	1.049	1.046	1.054	1.057	1.048	1.063	1.052	1.046	1.037	1.044	1.037	1.032	1.028	1.036	1.037	1.041	1.042				
33/30	1.018	1.032	1.030	1.041	1.045	1.045	1.051	1.055	1.045	1.046	1.031	1.033	1.033	1.026	1.029	1.024	1.028	1.031	1.037				
36/33	1.016	1.024	1.034	1.042	1.033	1.042	1.040	1.041	1.037	1.028	1.026	1.027	1.021	1.021	1.020	1.016	1.020	1.024					
39/36	1.012	1.028	1.025	1.027	1.029	1.033	1.031	1.040	1.039	1.027	1.021	1.023	1.022	1.011	1.018	1.016	1.019	1.023					
42/39	1.013	1.017	1.020	1.025	1.035	1.036	1.037	1.037	1.031	1.022	1.026	1.022	1.017	1.010	1.015	1.014	1.017	1.024					
45/42	1.019	1.033	1.021	1.025	1.029	1.026	1.030	1.028	1.027	1.021	1.018	1.017	1.015	1.011	1.009	1.013	1.014	1.021					
48/45	1.013	1.025	1.018	1.022	1.025	1.029	1.034	1.022	1.023	1.020	1.018	1.014	1.008	1.012	1.008	1.011	1.013						
51/48	1.013	1.018	1.015	1.020	1.021	1.021	1.026	1.024	1.019	1.014	1.013	1.010	1.008	1.008	1.009	1.007	1.013						
54/51	1.012	1.021	1.019	1.022	1.022	1.027	1.023	1.019	1.018	1.015	1.011	1.009	1.009	1.012	1.005	1.009	1.012						
57/54	1.017	1.020	1.018	1.019	1.019	1.023	1.020	1.017	1.018	1.013	1.007	1.009	1.007	1.006	1.007	1.005	1.008						
60/57	1.014	1.020	1.019	1.018	1.017	1.019	1.016	1.015	1.014	1.012	1.007	1.007	1.005	1.005	1.007	1.009							
63/60	1.016	1.015	1.021	1.015	1.018	1.016	1.020	1.015	1.009	1.009	1.005	1.008	1.005	1.004	1.004	1.007							
66/63	1.013	1.015	1.022	1.019	1.018	1.017	1.015	1.010	1.008	1.008	1.006	1.010	1.006	1.005	1.009	1.006							
69/66	1.018	1.015	1.023	1.017	1.017	1.015	1.014	1.010	1.008	1.008	1.005	1.008	1.003	1.002	1.008	1.009							
72/69	1.010	1.014	1.015	1.013	1.014	1.012	1.011	1.010	1.007	1.005	1.005	1.002	1.003	1.005	1.003								
75/72	1.009	1.012	1.012	1.011	1.018	1.013	1.008	1.006	1.001	1.003	1.006	1.003	1.002	1.004	1.002								
78/75	1.011	1.018	1.013	1.012	1.012	1.010	1.008	1.008	1.006	1.005	1.003	1.005	1.003	1.003	1.002								
81/78	1.014	1.018	1.017	1.016	1.009	1.009	1.005	1.006	1.006	1.005	1.004	1.002	1.002	1.006	1.002								
84/81	1.007	1.012	1.011	1.008	1.010	1.008	1.007	1.005	1.001	1.003	1.002	1.002	0.999	1.000									
87/84	1.010	1.012	1.014	1.012	1.008	1.007	1.004	1.003	1.001	1.002	1.002	1.001	1.001	1.002									
90/87	1.012	1.009	1.009	1.013	1.008	1.006	1.006	1.003	1.006	1.006	1.001	1.004	1.001	1.000									
93/90	1.010	1.011	1.012	1.009	1.009	1.007	1.002	1.003	1.002	1.004	1.000	1.003	1.002	1.002									
96/93	1.010	1.011	1.009	1.005	1.006	1.005	1.003	1.002	1.001	1.003	1.002	1.002	1.001										

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

* Incurred medical loss development factors include the paid cost of medical cost containment programs (MCCP) for accident years 2011 and prior.

Quarterly Paid Indemnity Loss Development Factors
Through September 30, 2023

Age in	Accident Year																						
Months	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
6/3	4.908	4.745	4.512	4.376	4.495	4.553	4.807	4.911	4.722	4.854	5.099	5.076	5.056	5.087	5.272	4.987	5.083	--	5.102	5.241	4.929		
9/6	2.424	2.399	2.303	2.259	2.375	2.377	2.398	2.452	2.432	2.484	2.462	2.462	2.484	2.456	2.446	2.538	2.505	--	2.441	2.433	2.411		
12/9	1.876	1.841	1.774	1.812	1.834	1.810	1.825	1.861	1.869	1.877	1.866	1.879	1.910	1.882	1.892	1.891	1.902	--	1.849	1.817			
15/12	1.516	1.491	1.456	1.482	1.488	1.481	1.507	1.532	1.539	1.506	1.539	1.540	1.559	1.571	1.544	1.527	1.522	1.509	1.503	1.505			
18/15	1.379	1.331	1.306	1.306	1.327	1.332	1.343	1.355	1.361	1.361	1.353	1.364	1.372	1.366	1.358	1.353	1.341	1.331	1.333	1.337			
21/18	1.297	1.241	1.217	1.233	1.235	1.243	1.259	1.257	1.261	1.261	1.263	1.267	1.264	1.256	1.260	1.248	1.258	1.239	1.236	1.239			
24/21	1.244	1.183	1.181	1.195	1.191	1.194	1.206	1.209	1.215	1.213	1.204	1.216	1.211	1.206	1.205	1.206	1.193	1.189	1.186				
27/24	1.186	1.140	1.142	1.151	1.149	1.153	1.162	1.165	1.168	1.164	1.159	1.170	1.176	1.161	1.159	1.152	1.154	1.148	1.142				
30/27	1.161	1.122	1.117	1.126	1.129	1.130	1.141	1.141	1.137	1.134	1.141	1.147	1.142	1.137	1.131	1.116	1.126	1.126	1.123				
33/30	1.123	1.097	1.096	1.100	1.101	1.108	1.114	1.116	1.112	1.111	1.111	1.115	1.107	1.104	1.105	1.103	1.101	1.101	1.102				
36/33	1.097	1.085	1.081	1.080	1.084	1.092	1.094	1.098	1.091	1.091	1.096	1.092	1.089	1.088	1.083	1.077	1.084	1.082					
39/36	1.072	1.070	1.066	1.064	1.067	1.074	1.078	1.077	1.073	1.075	1.074	1.075	1.071	1.068	1.064	1.066	1.066	1.067					
42/39	1.063	1.059	1.058	1.058	1.062	1.067	1.067	1.071	1.070	1.065	1.064	1.066	1.062	1.059	1.050	1.057	1.061	1.061					
45/42	1.049	1.047	1.049	1.047	1.051	1.058	1.059	1.057	1.055	1.054	1.052	1.050	1.050	1.045	1.044	1.045	1.050	1.050					
48/45	1.044	1.041	1.044	1.043	1.047	1.049	1.051	1.050	1.048	1.048	1.048	1.045	1.041	1.040	1.037	1.039	1.042						
51/48	1.035	1.033	1.036	1.036	1.037	1.042	1.042	1.043	1.039	1.038	1.038	1.039	1.035	1.031	1.031	1.031	1.033						
54/51	1.035	1.030	1.028	1.035	1.036	1.038	1.041	1.038	1.036	1.036	1.033	1.032	1.031	1.024	1.030	1.029	1.032						
57/54	1.026	1.025	1.028	1.030	1.032	1.033	1.033	1.032	1.033	1.028	1.027	1.028	1.025	1.024	1.024	1.025	1.026						
60/57	1.024	1.024	1.024	1.028	1.029	1.029	1.032	1.027	1.030	1.028	1.025	1.025	1.023	1.020	1.021	1.022							
63/60	1.019	1.019	1.021	1.023	1.025	1.025	1.024	1.026	1.025	1.025	1.021	1.021	1.018	1.016	1.017	1.019							
66/63	1.019	1.019	1.020	1.025	1.025	1.025	1.025	1.023	1.022	1.022	1.018	1.018	1.014	1.016	1.017	1.018							
69/66	1.017	1.016	1.021	1.020	1.020	1.020	1.022	1.020	1.019	1.022	1.017	1.014	1.013	1.015	1.015	1.016							
72/69	1.015	1.017	1.015	1.020	1.019	1.019	1.019	1.019	1.019	1.016	1.014	1.016	1.012	1.011	1.013								
75/72	1.012	1.013	1.015	1.019	1.018	1.016	1.016	1.017	1.015	1.014	1.012	1.012	1.011	1.012	1.011								
78/75	1.011	1.012	1.015	1.017	1.016	1.015	1.016	1.016	1.015	1.013	1.011	1.009	1.012	1.012	1.011								
81/78	1.010	1.012	1.015	1.015	1.016	1.015	1.015	1.013	1.012	1.011	1.010	1.008	1.009	1.009	1.010								
84/81	1.009	1.011	1.013	1.015	1.014	1.013	1.012	1.013	1.013	1.011	1.010	1.009	1.009	1.010									
87/84	1.008	1.009	1.012	1.014	1.013	1.010	1.012	1.010	1.011	1.010	1.007	1.006	1.008	1.008									
90/87	1.008	1.011	1.012	1.013	1.012	1.011	1.010	1.010	1.010	1.009	1.007	1.007	1.007	1.006									
93/90	1.008	1.012	1.011	1.011	1.012	1.010	1.010	1.009	1.009	1.008	1.007	1.006	1.006	1.008									
96/93	1.007	1.008	1.011	1.011	1.008	1.010	1.010	1.009	1.010	1.007	1.007	1.007	1.005										

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

Quarterly Paid Medical Loss Development Factors *
Through September 30, 2023

Age in	Accident Year																						
Months	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
6/3	7.127	7.617	5.563	5.308	5.615	6.579	6.101	6.048	5.854	5.989	6.284	5.604	5.720	5.897	5.433	5.460	4.982	--	6.124	6.026	5.205		
9/6	2.577	2.483	2.236	2.348	2.381	2.348	2.375	2.361	2.327	2.398	2.498	2.428	2.287	2.326	2.248	2.351	2.287	--	2.232	2.354	2.321		
12/9	1.825	1.759	1.666	1.716	1.765	1.731	1.723	1.756	1.746	1.763	1.736	1.750	1.705	1.752	1.737	1.719	1.796	--	1.720	1.753			
15/12	1.510	1.437	1.423	1.429	1.444	1.413	1.429	1.445	1.472	1.446	1.443	1.460	1.454	1.479	1.434	1.426	1.433	1.436	1.437	1.455			
18/15	1.295	1.243	1.230	1.227	1.259	1.243	1.259	1.268	1.282	1.284	1.263	1.265	1.278	1.263	1.250	1.245	1.231	1.270	1.272	1.293			
21/18	1.179	1.153	1.151	1.163	1.173	1.170	1.178	1.182	1.187	1.192	1.193	1.192	1.189	1.173	1.170	1.173	1.170	1.190	1.192	1.204			
24/21	1.125	1.115	1.118	1.127	1.133	1.132	1.137	1.144	1.153	1.154	1.148	1.146	1.146	1.141	1.131	1.143	1.138	1.149	1.145				
27/24	1.093	1.090	1.093	1.106	1.107	1.110	1.112	1.119	1.120	1.123	1.122	1.122	1.124	1.111	1.111	1.108	1.114	1.117	1.117				
30/27	1.077	1.084	1.087	1.097	1.100	1.100	1.106	1.107	1.111	1.109	1.111	1.111	1.105	1.100	1.092	1.083	1.101	1.107	1.106				
33/30	1.063	1.071	1.065	1.081	1.083	1.086	1.092	1.094	1.093	1.094	1.090	1.089	1.082	1.082	1.077	1.078	1.084	1.088	1.092				
36/33	1.055	1.062	1.062	1.071	1.072	1.072	1.077	1.083	1.082	1.078	1.080	1.076	1.071	1.067	1.065	1.066	1.074	1.073					
39/36	1.044	1.053	1.056	1.057	1.059	1.061	1.066	1.071	1.066	1.069	1.065	1.064	1.061	1.055	1.054	1.054	1.061	1.065					
42/39	1.044	1.049	1.054	1.055	1.058	1.059	1.061	1.068	1.063	1.062	1.057	1.059	1.057	1.048	1.040	1.048	1.053	1.058					
45/42	1.037	1.040	1.047	1.048	1.049	1.054	1.053	1.056	1.056	1.053	1.051	1.045	1.044	1.042	1.039	1.043	1.049	1.048					
48/45	1.035	1.037	1.043	1.043	1.046	1.047	1.050	1.051	1.046	1.045	1.046	1.041	1.040	1.038	1.033	1.039	1.039						
51/48	1.030	1.033	1.037	1.036	1.036	1.039	1.041	1.043	1.040	1.039	1.038	1.037	1.032	1.031	1.027	1.027	1.033						
54/51	1.029	1.034	1.034	1.035	1.035	1.036	1.042	1.038	1.035	1.035	1.034	1.032	1.029	1.023	1.029	1.029	1.032						
57/54	1.024	1.029	1.031	1.034	1.031	1.033	1.038	1.034	1.034	1.031	1.028	1.026	1.025	1.023	1.023	1.025	1.026						
60/57	1.026	1.028	1.029	1.028	1.032	1.032	1.035	1.030	1.030	1.030	1.023	1.022	1.021	1.019	1.021	1.021							
63/60	1.020	1.024	1.024	1.024	1.024	1.027	1.027	1.026	1.027	1.025	1.021	1.022	1.019	1.018	1.017	1.018							
66/63	1.021	1.023	1.024	1.026	1.026	1.029	1.029	1.024	1.028	1.023	1.021	1.018	1.015	1.016	1.017	1.018							
69/66	1.019	1.021	1.023	1.023	1.021	1.024	1.024	1.022	1.020	1.020	1.017	1.016	1.014	1.016	1.020	1.018							
72/69	1.016	1.021	1.021	1.022	1.022	1.023	1.021	1.020	1.019	1.016	1.015	1.017	1.014	1.013	1.014								
75/72	1.014	1.018	1.020	1.019	1.019	1.018	1.018	1.018	1.015	1.015	1.013	1.014	1.011	1.012	1.011								
78/75	1.015	1.016	1.018	1.017	1.022	1.019	1.018	1.017	1.017	1.015	1.013	1.011	1.012	1.015	1.012								
81/78	1.014	1.018	1.018	1.015	1.019	1.018	1.015	1.015	1.013	1.012	1.011	1.009	1.010	1.010	1.011								
84/81	1.013	1.016	1.016	1.015	1.018	1.015	1.015	1.015	1.013	1.013	1.010	1.009	1.010	1.010									
87/84	1.012	1.014	1.013	1.015	1.017	1.013	1.013	1.011	1.012	1.010	1.008	1.008	1.008	1.009									
90/87	1.013	1.015	1.013	1.015	1.013	1.013	1.012	1.011	1.012	1.009	1.008	1.009	1.007	1.006									
93/90	1.013	1.013	1.012	1.014	1.014	1.013	1.011	1.010	1.009	1.010	1.006	1.007	1.007	1.008									
96/93	1.009	1.013	1.015	1.016	1.011	1.012	1.010	1.009	1.009	1.009	1.006	1.007	1.007										

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

* Paid medical loss development factors include the paid cost of medical cost containment programs (MCCP) for accident years 2011 and prior.

Reported Indemnity Claim Count Development

Accident Year	Development															
	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117	117-129	129-141	141-153	153-165	165-177	177-189	189-201
1998																1.000
1999															1.000	1.000
2000														1.001	1.000	1.000
2001													1.000	1.000	1.000	1.000
2002												1.000	1.000	1.000	1.000	1.000
2003											1.000	1.001	1.000	1.000	1.000	1.000
2004										1.000	1.001	1.000	1.000	1.000	1.000	1.000
2005									1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2006								1.000	1.002	1.000	1.000	1.000	1.000	0.999	1.000	1.000
2007							1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008						1.002	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	
2009					1.004	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000		
2010				1.007	1.005	1.002	1.002	1.000	1.000	1.000	1.001	1.000	1.000			
2011			1.016	1.010	1.003	1.001	1.001	1.000	1.000	1.001	1.000	1.000				
2012		1.050	1.019	1.006	1.003	1.001	1.001	1.000	1.001	1.001	1.000					
2013	1.753	1.051	1.011	1.006	1.001	1.001	1.001	1.001	1.001	1.001						
2014	1.752	1.040	1.012	1.004	1.002	1.001	1.000	1.000	1.000							
2015	1.728	1.039	1.006	1.004	1.003	1.001	1.000	1.000								
2016	1.731	1.041	1.009	1.004	1.001	1.000	1.000									
2017	1.705	1.033	1.010	1.003	1.001	1.001										
2018	1.703	1.038	1.007	1.002	1.002											
2019	1.715	1.040	1.009	1.005												
2020	1.548	1.035	1.009													
2021	1.699	1.037														
2022	1.729															
Latest Year																
<u>Age-to-Age</u>																
1.729	1.037	1.009	1.005	1.002	1.001	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
<u>Age-to-Ultimate</u>																
1.833	1.060	1.023	1.013	1.008	1.006	1.004	1.004	1.004	1.003	1.003	1.002	1.002	1.002	1.001	1.001	

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

Quarterly Reported Indemnity Claim Count Development Factors

Accident Year	Development														
	<u>3-6</u>	<u>6-9</u>	<u>9-12</u>	<u>12-15</u>	<u>15-18</u>	<u>18-21</u>	<u>21-24</u>	<u>24-27</u>	<u>27-30</u>	<u>30-33</u>	<u>33-36</u>	<u>36-39</u>	<u>39-42</u>	<u>42-45</u>	<u>45-48</u>
2011	2.688	1.708	1.407	1.124	1.037	1.021	1.015	1.011	1.008	1.005	1.005	1.003	1.004	1.003	1.001
2012	2.691	1.738	1.424	1.123	1.041	1.026	1.018	1.010	1.010	1.006	1.005	1.004	1.004	1.003	1.002
2013	2.749	1.727	1.420	1.123	1.050	1.028	1.018	1.012	1.010	1.007	1.004	1.004	1.003	1.007	1.001
2014	2.821	1.739	1.421	1.138	1.045	1.027	1.016	1.010	1.009	1.013	1.003	1.003	1.003	1.001	1.002
2015	2.778	1.723	1.421	1.130	1.045	1.037	1.015	1.010	1.008	1.004	1.003	1.003	1.003	1.002	1.002
2016	2.817	1.781	1.414	1.135	1.045	1.023	1.014	1.014	1.008	1.005	1.003	1.003	1.002	1.002	1.002
2017	2.733	1.717	1.410	1.149	1.047	1.027	1.018	1.012	1.010	1.006	1.004	1.002	1.003	1.002	1.002
2018	2.892	1.696	1.423	1.139	1.045	1.023	1.018	1.010	1.008	1.006	1.003	1.002	1.002	1.002	1.001
2019	2.780	1.750	1.424	1.138	1.034	1.023	1.015	1.010	1.009	1.005	1.003	1.003	1.002	1.001	1.001
2020	--	--	--	1.131	1.042	1.025	1.014	1.009	1.008	1.004	1.003	1.003	1.002	1.001	
2021	2.801	1.740	1.408	1.129	1.043	1.024	1.015	1.009	1.007	1.005					
2022	2.852	1.715	1.419	1.136	1.046	1.026									
2023	2.834	1.715													

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

Reported Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	9	21	33	45	57	69	81	93	105	117	129	141	153	165	177	189	201
1998																	98.2%
1999																97.9%	98.1%
2000															97.4%	97.7%	98.0%
2001													96.4%	96.9%	97.3%	97.6%	97.6%
2002												96.2%	96.7%	97.3%	97.6%	97.9%	97.9%
2003											95.7%	96.3%	96.9%	97.4%	97.8%	98.2%	98.2%
2004										95.1%	95.9%	96.6%	97.2%	97.7%	98.1%	98.4%	98.4%
2005									94.1%	95.2%	96.1%	96.9%	97.4%	97.9%	98.3%	98.5%	98.5%
2006									92.6%	94.0%	95.3%	96.2%	96.9%	97.5%	98.0%	98.3%	98.5%
2007								90.8%	92.8%	94.5%	95.7%	96.6%	97.3%	97.8%	98.2%	98.4%	98.6%
2008							88.0%	90.9%	93.2%	94.8%	95.9%	96.8%	97.4%	97.8%	98.1%	98.4%	98.4%
2009						83.3%	87.7%	91.1%	93.3%	94.9%	96.2%	97.0%	97.5%	97.9%	98.1%		
2010					78.7%	84.7%	89.1%	92.2%	94.2%	95.7%	96.7%	97.4%	97.9%	98.2%			
2011				71.0%	79.8%	85.8%	90.1%	93.1%	95.0%	96.2%	97.0%	97.5%	97.9%				
2012			59.7%	72.2%	81.1%	87.2%	91.2%	93.9%	95.5%	96.5%	97.2%	97.6%					
2013		44.0%	60.5%	73.9%	83.0%	88.7%	92.4%	94.7%	96.0%	96.9%	97.5%						
2014	21.6%	44.5%	62.0%	75.4%	84.5%	89.7%	92.9%	94.8%	96.2%	96.9%							
2015	21.8%	45.6%	64.3%	77.9%	86.3%	90.6%	93.2%	95.2%	96.3%								
2016	22.4%	48.1%	66.8%	80.1%	87.0%	90.9%	93.6%	95.2%									
2017	23.9%	50.6%	69.4%	80.6%	87.0%	91.0%	93.6%										
2018	24.7%	51.2%	68.0%	79.2%	86.4%	90.5%											
2019	24.7%	49.5%	65.6%	77.8%	85.2%												
2020	27.0%	48.5%	65.3%	77.2%													
2021	25.5%	51.2%	66.6%														
2022	26.0%	51.0%															
2023	26.3%																

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

Estimated Ultimate Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	9	21	33	45	57	69	81	93	105	117	129	141	153	165	177	189	201
1998																	98.1%
1999																97.9%	98.1%
2000															98.1%	98.4%	98.6%
2001													96.4%	96.8%	97.2%	97.6%	
2002												96.2%	96.7%	97.2%	97.5%	97.9%	
2003												95.6%	96.2%	96.8%	97.3%	97.7%	98.1%
2004											95.0%	95.8%	96.5%	97.1%	97.6%	98.0%	98.3%
2005									94.0%	95.2%	96.1%	96.8%	97.4%	97.8%	98.2%	98.4%	
2006									92.5%	94.0%	95.3%	96.2%	96.9%	97.5%	97.9%	98.2%	98.4%
2007								90.5%	92.6%	94.3%	95.6%	96.4%	97.1%	97.7%	98.0%	98.3%	98.5%
2008							87.5%	90.6%	92.9%	94.6%	95.7%	96.6%	97.3%	97.7%	98.0%	98.3%	
2009						82.7%	87.3%	90.8%	93.1%	94.7%	96.0%	96.8%	97.3%	97.7%	98.0%		
2010					77.8%	84.1%	88.7%	92.0%	93.9%	95.4%	96.5%	97.2%	97.7%	98.0%			
2011				69.7%	79.1%	85.3%	89.7%	92.7%	94.6%	95.9%	96.7%	97.3%	97.7%				
2012			57.7%	71.1%	80.3%	86.6%	90.7%	93.4%	95.0%	96.2%	96.9%	97.4%					
2013		40.8%	58.9%	72.8%	82.3%	88.1%	91.9%	94.2%	95.6%	96.6%	97.2%						
2014	11.6%	41.8%	60.6%	74.6%	83.9%	89.2%	92.5%	94.4%	95.8%	96.6%							
2015	11.9%	43.1%	63.2%	77.1%	85.6%	90.1%	92.9%	94.8%	96.0%								
2016	12.2%	45.4%	65.6%	79.3%	86.6%	90.4%	93.2%	94.9%									
2017	13.3%	48.1%	68.1%	79.8%	86.4%	90.5%	93.2%										
2018	13.8%	48.5%	66.8%	78.4%	85.7%	90.0%											
2019	13.6%	46.6%	64.2%	76.8%	84.5%												
2020	16.5%	45.8%	63.8%	76.2%													
2021	14.1%	48.3%	65.2%														
2022	14.2%	48.1%															
2023	14.3%																

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

Quarterly Ultimate Settlement Ratios

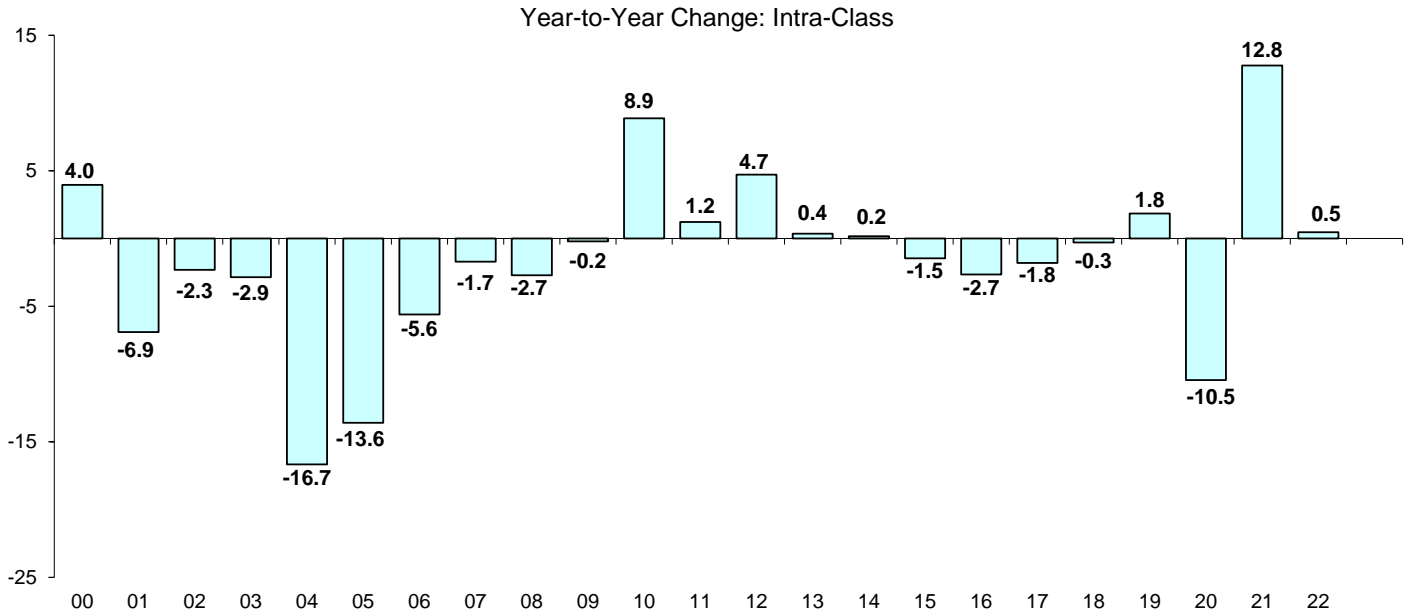
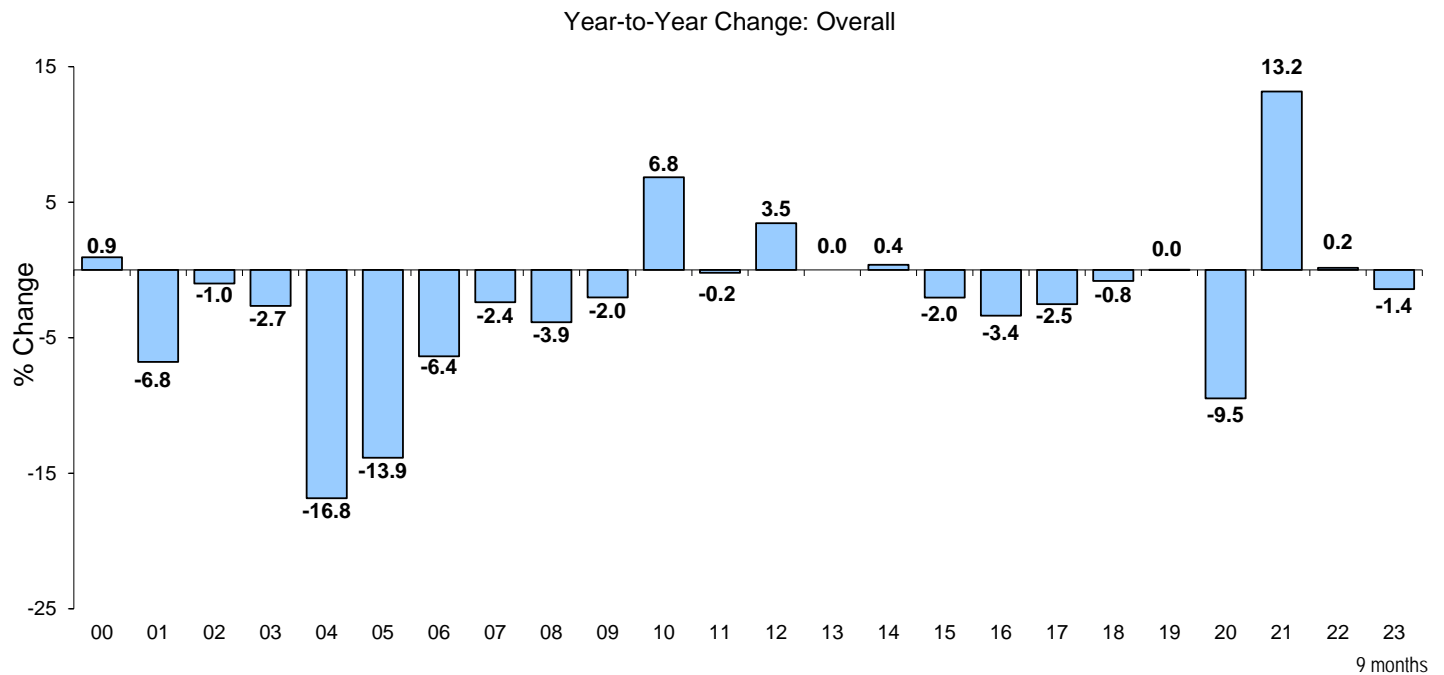
Accident	Evaluated as of (in months):															
Year	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
2014	0.7%	4.7%	11.6%	20.8%	29.2%	36.0%	41.8%	47.0%	51.6%	56.1%	60.6%	64.7%	67.9%	71.5%	74.6%	77.5%
2015	0.8%	4.7%	11.9%	20.9%	30.0%	37.3%	43.1%	48.6%	53.6%	58.7%	63.2%	67.4%	70.6%	73.9%	77.1%	79.8%
2016	0.8%	5.0%	12.2%	21.8%	31.4%	39.3%	45.4%	51.3%	56.0%	61.1%	65.6%	70.0%	73.2%	76.5%	79.3%	81.9%
2017	0.8%	5.5%	13.3%	24.0%	33.8%	41.7%	48.1%	54.1%	58.8%	63.7%	68.1%	72.1%	74.9%	77.3%	79.8%	82.0%
2018	0.9%	5.8%	13.8%	24.5%	34.4%	42.2%	48.5%	54.4%	59.1%	63.0%	66.8%	70.6%	73.2%	75.9%	78.4%	80.9%
2019	1.0%	5.6%	13.6%	24.5%	34.5%	41.0%	46.6%	52.0%	56.1%	60.3%	64.2%	68.3%	71.1%	74.0%	76.8%	79.8%
2020	--	--	--	23.6%	32.8%	40.4%	45.8%	51.3%	55.1%	59.7%	63.8%	68.1%	71.0%	73.5%	76.2%	
2021	0.7%	6.0%	14.1%	24.7%	34.8%	42.7%	48.3%	53.7%	57.7%	61.4%	65.2%					
2022	0.8%	5.8%	14.2%	25.2%	35.3%	42.4%	48.1%									
2023	1.1%	6.1%	14.3%													

Accident	Quarterly Incremental Change														
Year	<u>3-6</u>	<u>6-9</u>	<u>9-12</u>	<u>12-15</u>	<u>15-18</u>	<u>18-21</u>	<u>21-24</u>	<u>24-27</u>	<u>27-30</u>	<u>30-33</u>	<u>33-36</u>	<u>36-39</u>	<u>39-42</u>	<u>42-45</u>	<u>45-48</u>
2014	4.0%	6.9%	9.2%	8.5%	6.8%	5.8%	5.2%	4.6%	4.5%	4.4%	4.2%	3.2%	3.5%	3.1%	2.9%
2015	3.9%	7.2%	9.0%	9.1%	7.4%	5.8%	5.5%	5.0%	5.1%	4.5%	4.2%	3.2%	3.4%	3.2%	2.7%
2016	4.2%	7.2%	9.6%	9.6%	7.9%	6.1%	5.9%	4.6%	5.2%	4.5%	4.4%	3.3%	3.3%	2.8%	2.6%
2017	4.7%	7.8%	10.7%	9.8%	7.9%	6.3%	6.1%	4.7%	4.8%	4.4%	4.1%	2.8%	2.4%	2.5%	2.2%
2018	4.8%	8.0%	10.8%	9.9%	7.8%	6.3%	5.9%	4.7%	3.9%	3.8%	3.7%	2.6%	2.7%	2.5%	2.5%
2019	4.7%	7.9%	10.9%	10.1%	6.5%	5.6%	5.4%	4.1%	4.2%	3.9%	4.1%	2.9%	2.9%	2.8%	2.9%
2020	--	--	--	9.2%	7.6%	5.5%	5.5%	3.8%	4.6%	4.1%	4.3%	2.8%	2.6%	2.7%	
2021	5.3%	8.2%	10.6%	10.1%	7.9%	5.6%	5.4%	3.9%	3.8%	3.7%					
2022	5.0%	8.4%	11.1%	10.1%	7.1%	5.7%									
2023	5.0%	8.2%													

Notes All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 91% to 100% of the total California workers' compensation insured market measured using 2022 earned premium levels).

Source: WCIRB accident year experience calls, excluding COVID-19 claims for Accident Years 2020 through 2022.

California Workers' Compensation Estimated Indemnity Claim Frequency by Accident Year



Note:

The 2022 and 2023 estimates are based on a comparison of claim counts based on WCIRB accident year experience as of September 30, 2023 relative to the estimated change in statewide employment. Experience excludes COVID-19 claims. Prior years are based on unit statistical data.

Summary of COVID-19 Claim Information as of September 30, 2023

AY2020 @9/30/2023	Based on 100% of the Market			Average per Indemnity Claim			Average per Total Claim		
	COVID-19 Claims	3Q-2023 Data Call	COVID-19 Percentage	COVID-19 Claims	All WC Claims	Without COVID-19 Claims	COVID-19 Claims	All WC Claims	Without COVID-19 Claims
Ind. Paid	145,101,053	2,609,200,968	5.6%	\$7,880	\$17,046	\$18,299	\$5,246	\$7,252	\$7,420
<u>Ind. Reserves</u>	<u>65,593,146</u>	<u>713,588,103</u>	<u>9.2%</u>	<u>\$3,562</u>	<u>\$4,662</u>	<u>\$4,812</u>	<u>\$2,371</u>	<u>\$1,983</u>	<u>\$1,951</u>
Ind. Incurred	210,694,199	3,322,789,071	6.3%	\$11,441	\$21,707	\$23,111	\$7,617	\$9,236	\$9,371
Med. Paid	102,702,822	2,735,756,851	3.8%	\$5,577	\$17,872	\$19,554	\$3,713	\$7,604	\$7,928
<u>Med. Reserves</u>	<u>72,918,106</u>	<u>948,704,364</u>	<u>7.7%</u>	<u>\$3,960</u>	<u>\$6,198</u>	<u>\$6,504</u>	<u>\$2,636</u>	<u>\$2,637</u>	<u>\$2,637</u>
Med. Incurred	175,620,928	3,684,461,215	4.8%	\$9,537	\$24,070	\$26,058	\$6,349	\$10,241	\$10,565
ALAE Paid	40,038,091	1,090,901,415	3.7%	\$2,174	\$7,127	\$7,804	\$1,447	\$3,032	\$3,164
MCCP	6,340,657	211,772,467	3.0%	\$344	\$1,383	\$1,526	\$229	\$589	\$619
Paid on Med-Only Claims	7,264,999	265,760,188	2.7%						
Ind. Paid on Open Ind. Claims	145,101,053	2,609,200,968	5.6%						
Med. Paid on Open Ind. Claims	65,593,146	713,588,103	9.2%						
AY2020 Claim Counts									
# of Open Indemnity Claims	1,301	31,964	4.1%						
# of Med-Only Claims	9,246	206,694	4.5%						
# of Indemnity Claims	18,415	153,072	12.0%						
Total Number of Claims	27,661	359,766	7.7%						

AY2021 @9/30/2023	Based on 100% of the Market			Average per Indemnity Claim			Average per Total Claim		
	COVID-19 Claims	3Q-2023 Data Call	COVID-19 Percentage	COVID-19 Claims	All WC Claims	Without COVID-19 Claims	COVID-19 Claims	All WC Claims	Without COVID-19 Claims
Ind. Paid	37,036,046	2,172,496,996	1.7%	\$5,035	\$14,047	\$14,497	\$3,356	\$5,653	\$5,721
<u>Ind. Reserves</u>	<u>24,930,404</u>	<u>952,603,053</u>	<u>2.6%</u>	<u>\$3,390</u>	<u>\$6,160</u>	<u>\$6,298</u>	<u>\$2,259</u>	<u>\$2,479</u>	<u>\$2,485</u>
Ind. Incurred	61,966,450	3,125,100,049	2.0%	\$8,425	\$20,207	\$20,795	\$5,615	\$8,132	\$8,206
Med. Paid	26,372,733	2,318,486,160	1.1%	\$3,586	\$14,991	\$15,561	\$2,390	\$6,033	\$6,141
<u>Med. Reserves</u>	<u>27,244,168</u>	<u>1,256,945,655</u>	<u>2.2%</u>	<u>\$3,704</u>	<u>\$8,127</u>	<u>\$8,348</u>	<u>\$2,469</u>	<u>\$3,271</u>	<u>\$3,294</u>
Med. Incurred	53,616,901	3,575,431,815	1.5%	\$7,290	\$23,119	\$23,909	\$4,859	\$9,304	\$9,435
ALAE Paid	11,646,542	893,094,281	1.3%	\$1,583	\$5,775	\$5,984	\$1,055	\$2,324	\$2,361
MCCP	1,808,089	190,703,223	0.9%	\$246	\$1,233	\$1,282	\$164	\$496	\$506
Paid on Med-Only Claims	2,739,889	279,874,511	1.0%						
Ind. Paid on Open Ind. Claims	37,036,046	2,172,496,996	1.7%						
Med. Paid on Open Ind. Claims	24,930,404	952,603,053	2.6%						
AY2021 Claim Counts									
# of Open Indemnity Claims	745	49,908	1.5%						
# of Med-Only Claims	3,680	229,652	1.6%						
# of Indemnity Claims	7,355	154,654	4.8%						
Total Number of Claims	11,035	384,306	2.9%						

AY2022 @9/30/2023	Based on 100% of the Market			Average per Indemnity Claim			Average per Total Claim		
	COVID-19 Claims	3Q-2023 Data Call	COVID-19 Percentage	COVID-19 Claims	All WC Claims	Without COVID-19 Claims	COVID-19 Claims	All WC Claims	Without COVID-19 Claims
Ind. Paid	9,640,065	1,449,144,641	0.7%	\$1,535	\$9,221	\$9,540	\$1,005	\$3,704	\$3,772
<u>Ind. Reserves</u>	<u>5,098,898</u>	<u>1,112,313,108</u>	<u>0.5%</u>	<u>\$812</u>	<u>\$7,077</u>	<u>\$7,338</u>	<u>\$532</u>	<u>\$2,843</u>	<u>\$2,901</u>
Ind. Incurred	14,738,963	2,561,457,749	0.6%	\$2,347	\$16,298	\$16,879	\$1,537	\$6,547	\$6,673
Med. Paid	4,415,653	1,608,807,964	0.3%	\$703	\$10,236	\$10,633	\$460	\$4,112	\$4,204
<u>Med. Reserves</u>	<u>5,388,977</u>	<u>1,563,176,097</u>	<u>0.3%</u>	<u>\$858</u>	<u>\$9,946</u>	<u>\$10,324</u>	<u>\$562</u>	<u>\$3,996</u>	<u>\$4,082</u>
Med. Incurred	9,804,630	3,171,984,061	0.3%	\$1,561	\$20,183	\$20,958	\$1,022	\$8,108	\$8,286
ALAE Paid	3,029,808	592,041,149	0.5%	\$483	\$3,767	\$3,904	\$316	\$1,513	\$1,543
MCCP	430,536	135,808,460	0.3%	\$69	\$864	\$897	\$45	\$347	\$355
Paid on Med-Only Claims	713,236	264,833,303	0.3%						
Ind. Paid on Open Ind. Claims	9,640,065	1,449,144,641	0.7%						
Med. Paid on Open Ind. Claims	5,098,898	1,112,313,108	0.5%						
AY2022 Claim Counts									
# of Open Indemnity Claims	533	74,479	0.7%						
# of Med-Only Claims	3,311	234,048	1.4%						
# of Indemnity Claims	6,279	157,164	4.0%						
Total Number of Claims	9,590	391,212	2.5%						

AY2023 @9/30/2023	Based on 100% of the Market			Average per Indemnity Claim			Average per Total Claim		
	COVID-19 Claims	3Q-2023 Data Call	COVID-19 Percentage	COVID-19 Claims	All WC Claims	Without COVID-19 Claims	COVID-19 Claims	All WC Claims	Without COVID-19 Claims
Ind. Paid	1,474,843	325,483,832	0.5%	\$812	\$3,619	\$3,677	\$675	\$1,400	\$1,407
<u>Ind. Reserves</u>	<u>1,084,651</u>	<u>616,663,856</u>	<u>0.2%</u>	<u>\$597</u>	<u>\$6,857</u>	<u>\$6,987</u>	<u>\$497</u>	<u>\$2,652</u>	<u>\$2,672</u>
Ind. Incurred	2,559,494	942,147,688	0.3%	\$1,409	\$10,477	\$10,664	\$1,172	\$4,052	\$4,079
Med. Paid	234,940	416,423,297	0.1%	\$129	\$4,631	\$4,724	\$108	\$1,791	\$1,807
<u>Med. Reserves</u>	<u>2,151,788</u>	<u>1,151,120,679</u>	<u>0.2%</u>	<u>\$1,184</u>	<u>\$12,801</u>	<u>\$13,040</u>	<u>\$985</u>	<u>\$4,950</u>	<u>\$4,988</u>
Med. Incurred	2,386,728	1,567,543,976	0.2%	\$1,314	\$17,431	\$17,764	\$1,093	\$6,741	\$6,795
ALAE Paid	192,571	111,752,763	0.2%	\$106	\$1,243	\$1,266	\$88	\$481	\$484
MCCP	33,618	38,507,977	0.1%	\$19	\$428	\$437	\$15	\$166	\$167
Paid on Med-Only Claims	34,170	114,934,802	0.0%						
Ind. Paid on Open Ind. Claims	1,474,843	325,483,832	0.5%						
Med. Paid on Open Ind. Claims	1,084,651	616,663,856	0.2%						
AY2023 Claim Counts									
# of Open Indemnity Claims	442	65,394	0.7%						
# of Med-Only Claims	367	142,609	0.3%						
# of Indemnity Claims	1,817	89,926	2.0%						
Total Number of Claims	2,184	232,535	0.9%						

Source: WCIRB accident year experience calls.

Average Paid ALAE per Reported Indemnity Claim - Private Insurers

As of September 30, 2023

Accident	Evaluated as of (in months):									
Year	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
2002							5,859	6,202	6,401	6,576
2003						5,796	6,232	6,527	6,756	6,956
2004					4,911	5,460	5,865	6,157	6,388	6,579
2005				3,774	4,549	5,101	5,501	5,824	6,092	6,281
2006			2,831	3,909	4,704	5,306	5,766	6,090	6,352	6,572
2007		1,616	3,025	4,177	5,043	5,711	6,244	6,613	6,912	7,144
2008	415	1,734	3,273	4,582	5,577	6,331	6,862	7,294	7,615	7,837
2009	464	1,944	3,685	5,142	6,238	7,024	7,653	8,107	8,428	8,669
2010	510	2,060	3,861	5,274	6,318	7,129	7,753	8,164	8,454	8,665
2011	496	2,091	3,800	5,214	6,311	7,170	7,733	8,096	8,366	8,565
2012	509	2,086	3,925	5,422	6,548	7,308	7,786	8,136	8,405	8,551
2013	521	2,282	4,171	5,647	6,652	7,293	7,729	8,050	8,232	8,355
2014	577	2,452	4,378	5,778	6,684	7,271	7,714	7,957	8,127	8,250
2015	641	2,548	4,468	5,780	6,606	7,179	7,521	7,739	7,916	
2016	631	2,617	4,506	5,785	6,607	7,104	7,439	7,687		
2017	677	2,712	4,578	5,797	6,534	7,013	7,361			
2018	751	2,836	4,745	5,976	6,795	7,359				
2019	751	2,810	4,743	6,065	6,923					
2020	653	2,921	4,888	6,280						
2021	723	2,767	4,715							
2022	747	3,025								
2023	818									

	Annual Change									
Year	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
2003							6.4%	5.3%	5.5%	5.8%
2004						-5.8%	-5.9%	-5.7%	-5.5%	-5.4%
2005					-7.4%	-6.6%	-6.2%	-5.4%	-4.6%	-4.5%
2006				3.6%	3.4%	4.0%	4.8%	4.6%	4.3%	4.6%
2007			6.8%	6.8%	7.2%	7.6%	8.3%	8.6%	8.8%	8.7%
2008		7.3%	8.2%	9.7%	10.6%	10.9%	9.9%	10.3%	10.2%	9.7%
2009	11.9%	12.1%	12.6%	12.2%	11.9%	10.9%	11.5%	11.1%	10.7%	10.6%
2010	10.0%	5.9%	4.8%	2.6%	1.3%	1.5%	1.3%	0.7%	0.3%	0.0%
2011	-2.8%	1.5%	-1.6%	-1.1%	-0.1%	0.6%	-0.3%	-0.8%	-1.0%	-1.1%
2012	2.6%	-0.2%	3.3%	4.0%	3.8%	1.9%	0.7%	0.5%	0.5%	-0.2%
2013	2.2%	9.4%	6.3%	4.2%	1.6%	-0.2%	-0.7%	-1.1%	-2.1%	-2.3%
2014	10.9%	7.5%	5.0%	2.3%	0.5%	-0.3%	-0.2%	-1.2%	-1.3%	-1.3%
2015	11.0%	3.9%	2.1%	0.0%	-1.2%	-1.3%	-2.5%	-2.7%	-2.6%	
2016	-1.6%	2.7%	0.8%	0.1%	0.0%	-1.1%	-1.1%	-0.7%		
2017	7.3%	3.6%	1.6%	0.2%	-1.1%	-1.3%	-1.1%			
2018	11.1%	4.6%	3.6%	3.1%	4.0%	4.9%				
2019	-0.1%	-0.9%	0.0%	1.5%	1.9%					
2020	-13.1%	3.9%	3.1%	3.6%						
2021	10.7%	-5.3%	-3.5%							
2022	3.3%	9.3%								
2023	9.5%									

Source: WCIRB accident year experience calls excluding COVID-19 claims from Accident Years 2020-2022

Paid Allocated Loss Adjustment Expense Development - Private Insurers
As of September 30, 2023

Accident	Age-to-Age Development (in months):															
Year	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117	117-129	129-141	141-153	153-165	165-177	177-189	189-201	201-213
1996														1.008	1.010	1.010
1997													1.013	1.013	1.010	1.008
1998												1.015	1.014	1.012	1.012	1.010
1999											1.019	1.016	1.014	1.013	1.010	1.011
2000										1.022	1.019	1.016	1.015	1.013	1.012	1.009
2001									1.025	1.021	1.018	1.017	1.015	1.012	1.009	1.008
2002								1.029	1.022	1.019	1.017	1.015	1.012	1.010	1.008	1.006
2003							1.037	1.030	1.025	1.021	1.018	1.014	1.011	1.008	1.006	1.007
2004						1.053	1.038	1.031	1.026	1.022	1.016	1.013	1.010	1.008	1.007	1.005
2005					1.085	1.060	1.048	1.037	1.030	1.024	1.017	1.014	1.010	1.010	1.007	1.005
2006				1.133	1.089	1.064	1.050	1.037	1.028	1.019	1.016	1.012	1.008	1.007	1.005	1.004
2007			1.218	1.137	1.097	1.067	1.048	1.035	1.025	1.019	1.014	1.011	1.008	1.006	1.005	
2008		1.429	1.226	1.141	1.094	1.065	1.045	1.031	1.023	1.018	1.013	1.010	1.007	1.006		
2009	2.000	1.417	1.228	1.140	1.093	1.060	1.041	1.029	1.021	1.015	1.012	1.009	1.007			
2010	1.955	1.406	1.219	1.134	1.090	1.055	1.037	1.025	1.018	1.012	1.008	1.007				
2011	1.946	1.409	1.224	1.139	1.081	1.051	1.031	1.022	1.015	1.012	1.008					
2012	1.993	1.404	1.215	1.120	1.070	1.044	1.030	1.019	1.014	1.011						
2013	1.917	1.369	1.186	1.101	1.060	1.037	1.024	1.016	1.012							
2014	1.859	1.339	1.164	1.091	1.057	1.032	1.022	1.016								
2015	1.831	1.306	1.149	1.084	1.049	1.030	1.023									
2016	1.801	1.299	1.139	1.077	1.048	1.034										
2017	1.749	1.270	1.132	1.075	1.052											
2018	1.726	1.271	1.140	1.086												
2019	1.761	1.292	1.148													
2020	1.741	1.300														
2021	1.774															
	Latest Year															
Age-to-Age	1.774	1.300	1.148	1.086	1.052	1.034	1.023	1.016	1.012	1.011	1.008	1.007	1.007	1.006	1.005	1.004
Cumulative	3.686	2.078	1.599	1.392	1.282	1.219	1.179	1.152	1.134	1.121	1.108	1.099	1.092	1.085	1.078	1.073
	2-Year Arithmetic Average															
Age-to-Age	1.758	1.296	1.144	1.081	1.050	1.032	1.023	1.016	1.013	1.011	1.008	1.008	1.007	1.006	1.005	1.005
Cumulative	3.612	2.055	1.586	1.386	1.283	1.222	1.184	1.158	1.140	1.125	1.113	1.104	1.095	1.088	1.081	1.076
Accident	Age-to-Age Development (in months):															
Year	213-225	225-237	237-249	249-261	261-273	273-285	285-297	297-309	309-321	321-333	333-345	345-357	357-369	369-381	381-393	393-405
1990				1.003	1.003	1.003	1.003	1.002	1.003	1.002	1.002	1.002	1.002	1.001	1.003	1.001
1991			1.003	1.003	1.003	1.003	1.002	1.002	1.003	1.003	1.002	1.002	1.002	1.001	1.001	
1992		1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.002	1.003	1.002	1.001	1.001		
1993	1.006	1.006	1.006	1.005	1.006	1.005	1.005	1.004	1.004	1.004	1.002	1.002	1.002			
1994	1.007	1.006	1.006	1.006	1.005	1.005	1.004	1.003	1.004	1.003	1.002	1.002				
1995	1.009	1.008	1.008	1.007	1.008	1.006	1.006	1.006	1.003	1.003	1.002					
1996	1.008	1.008	1.007	1.006	1.005	1.005	1.006	1.003	1.003	1.003						
1997	1.008	1.007	1.007	1.006	1.005	1.005	1.004	1.003	1.003							
1998	1.010	1.009	1.006	1.006	1.005	1.003	1.003	1.003								
1999	1.008	1.007	1.005	1.004	1.003	1.003	1.002									
2000	1.007	1.006	1.005	1.004	1.003	1.003										
2001	1.007	1.006	1.004	1.003	1.003											
2002	1.006	1.004	1.003	1.003												
2003	1.005	1.003	1.003													
2004	1.005	1.003														
2005	1.004															
	Latest Year															
Age-to-Age	1.004	1.003	1.003	1.003	1.003	1.003	1.002	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.001
Cumulative ^[1]	1.068	1.064	1.061	1.058	1.054	1.051	1.048	1.046	1.043	1.040	1.037	1.035	1.033	1.031	1.030	1.029
	2-Year Arithmetic Average															
Age-to-Age	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.002	1.001
Cumulative ^[1]	1.071	1.066	1.063	1.059	1.056	1.053	1.050	1.047	1.044	1.041	1.038	1.035	1.034	1.032	1.031	1.029

Note:

⁽¹⁾ Factors in italics are based on powerfit to the "3-Year Arithmetic Average" factors.

Source: WCIRB quarterly experience calls, excluding MCCP costs and COVID-19 claims from Accident Years 2020-2022

Quarterly Paid ALAE Loss Development Factors - Private Insurers

Age in Months	Accident Year														
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3 - 6	5.434	9.136	8.769	8.693	8.584	6.234	9.857	8.970	8.932	8.255	7.884	---	9.251	8.756	8.709
6 - 9	2.630	3.023	3.176	3.213	3.058	3.163	3.169	3.155	3.050	3.134	3.137	---	3.169	3.062	3.053
9 - 12	2.034	2.077	2.165	2.115	2.133	2.158	2.103	2.100	2.130	2.076	2.133	---	2.065	2.126	
12 - 15	1.724	1.737	1.701	1.713	1.784	1.744	1.730	1.771	1.699	1.672	1.662	1.639	1.667	1.718	
15 - 18	1.509	1.482	1.486	1.510	1.494	1.486	1.480	1.488	1.450	1.442	1.432	1.458	1.469	1.485	
18 - 21	1.326	1.334	1.343	1.338	1.349	1.328	1.309	1.307	1.309	1.289	1.261	1.309	1.314	1.311	
21 - 24	1.255	1.253	1.248	1.249	1.237	1.237	1.225	1.226	1.226	1.213	1.218	1.209	1.207		
24 - 27	1.197	1.189	1.186	1.205	1.187	1.176	1.183	1.167	1.150	1.150	1.157	1.152	1.165		
27 - 30	1.170	1.158	1.163	1.160	1.156	1.149	1.141	1.132	1.129	1.123	1.131	1.131	1.134		
30 - 33	1.138	1.133	1.131	1.130	1.122	1.116	1.110	1.109	1.099	1.101	1.109	1.105	1.113		
33 - 36	1.114	1.113	1.108	1.104	1.101	1.095	1.088	1.092	1.084	1.078	1.084	1.082			
36 - 39	1.094	1.091	1.095	1.093	1.085	1.085	1.073	1.068	1.061	1.063	1.068	1.071			
39 - 42	1.082	1.083	1.081	1.081	1.076	1.072	1.062	1.062	1.055	1.057	1.062	1.063			
42 - 45	1.074	1.069	1.068	1.070	1.061	1.057	1.054	1.049	1.047	1.050	1.052	1.055			
45 - 48	1.064	1.062	1.059	1.057	1.055	1.050	1.046	1.043	1.039	1.040	1.041				
48 - 51	1.053	1.053	1.051	1.049	1.047	1.041	1.036	1.034	1.031	1.035	1.036				
51 - 54	1.050	1.048	1.048	1.045	1.042	1.036	1.034	1.031	1.030	1.032	1.032				
54 - 57	1.043	1.040	1.043	1.038	1.035	1.031	1.027	1.025	1.027	1.027	1.032				
57 - 60	1.039	1.037	1.036	1.035	1.031	1.028	1.026	1.023	1.022	1.023					
60 - 63	1.034	1.032	1.031	1.031	1.025	1.023	1.021	1.018	1.018	1.020					
63 - 66	1.031	1.032	1.029	1.028	1.023	1.021	1.019	1.018	1.018	1.021					
66 - 69	1.028	1.028	1.024	1.024	1.021	1.017	1.015	1.017	1.015	1.020					
69 - 72	1.026	1.023	1.023	1.021	1.018	1.018	1.014	1.014	1.014						
72 - 75	1.022	1.021	1.020	1.019	1.017	1.015	1.012	1.012	1.012						
75 - 78	1.022	1.020	1.019	1.016	1.015	1.013	1.012	1.012	1.011						
78 - 81	1.020	1.017	1.017	1.015	1.011	1.010	1.011	1.010	1.013						
81 - 84	1.017	1.016	1.014	1.014	1.012	1.009	1.009	1.009							
84 - 87	1.015	1.014	1.014	1.013	1.011	1.008	1.008	1.009							
87 - 90	1.014	1.012	1.012	1.011	1.008	1.008	1.008	1.007							
90 - 93	1.012	1.012	1.011	1.009	1.005	1.007	1.005	1.008							
93 - 96	1.012	1.010	1.011	1.009	1.007	1.006	1.007								
96 - 99	1.010	1.010	1.008	1.010	1.006	1.006	1.005								
99 - 102	1.009	1.009	1.008	1.007	1.006	1.006	1.006								
102 - 105	1.009	1.008	1.007	1.004	1.005	1.005									
105 - 108	1.008	1.007	1.007	1.005	1.005	1.004									
108 - 111	1.008	1.006	1.005	1.005	1.004	1.004									
111 - 114	1.007	1.006	1.005	1.004	1.004	1.004									
114 - 117	1.007	1.006	1.004	1.005	1.003	1.004									
117 - 120	1.006	1.005	1.004	1.004	1.003										
120 - 123	1.005	1.005	1.004	1.003	1.003										

Source: WCIRB quarterly experience calls, excluding MCCP costs and COVID claims from Accident Years 2020 to 2022

Average Paid M CCP per Reported Indemnity Claim - Statewide
As of September 30, 2023

Accident	Evaluated as of (in months):							
<u>Year</u>	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>
2014	504	1,091	1,505	1,745	1,909	2,002	2,030	2,071
2015	491	1,095	1,473	1,706	1,843	1,875	1,931	1,980
2016	485	1,041	1,386	1,589	1,658	1,736	1,806	1,843
2017	467	1,016	1,364	1,525	1,648	1,736	1,788	
2018	494	1,072	1,361	1,560	1,697	1,783		
2019	489	1,003	1,357	1,574	1,704			
2020	418	980	1,324	1,526				
2021	436	941	1,282					
2022	421	897						
2023	428							

Accident	Annual Change							
<u>Year</u>	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>
2015	-2.7%	0.4%	-2.1%	-2.2%	-3.5%	-6.3%	-4.9%	-4.4%
2016	-1.2%	-5.0%	-5.9%	-6.8%	-10.0%	-7.4%	-6.5%	-6.9%
2017	-3.7%	-2.4%	-1.5%	-4.1%	-0.6%	0.0%	-1.0%	
2018	5.8%	5.5%	-0.3%	2.3%	3.0%	2.7%		
2019	-0.9%	-6.5%	-0.3%	0.9%	0.4%			
2020	-14.5%	-2.3%	-2.5%	-3.1%				
2021	4.4%	-4.0%	-3.1%					
2022	-3.6%	-4.6%						
2023	1.7%							

Source: WCIRB accident year experience calls excluding COVID-19 claims for accident years 2020 to 2022.

Item AC23-12-05 Classification Ratemaking Loss Limitations

Background

While a number of ratemaking components are intended to adjust for differences in the volume of experience in a classification, in general, the WCIRB's classification ratemaking methodology is applied in a uniform manner to all classifications. However, concerns exist that classification relativities and the resultant advisory pure premium rates are more difficult to accurately project for smaller classifications than for larger classifications due to the smaller volume of recent data available in those smaller classifications. Since 2010, for classification ratemaking, all losses are limited to \$500,000 per claim during the ratemaking process and the relativity for the classification is adjusted to an unlimited basis by the application of loss elimination ratios (LERs) for the retro hazard group (RHG) to which the classification is assigned.

As part of the multi-year comprehensive review of this process and based on findings from the 2022 study of how the experience of employers in smaller classifications differs from the experience of those in larger classifications, staff tested an alternative methodology where the size of the loss limitation varies by the size of the classification. Staff selected a single option to retrospectively test against the current methodology.

Definition of a Small Classification

Staff considered several potential metrics, based on data available at the beginning of the classification ratemaking process, for splitting classifications into small and large categories including both exposure and count-based metrics. For example, pure premium based metrics for policy year (PY) 2020 are calculated by applying the pure premium rates effective January 1, 2019 to exposure from PYs 2012 through 2016. Staff preferred exposure-based metrics because the resulting size rankings are less volatile than loss-based metrics and selected pure premium. Exhibit 1 shows the correlations between pure premium and the actual loss at latest report level currently available for the policy year. Each point represents an average of three policy years for a classification. The correlation between pure premium and actual loss is very high. Staff selected pure premium due to the simplicity of calculation and intuitive connection with the size of a classification for ratemaking purposes.

Next, staff identified a threshold below which classifications are considered small for ratemaking. Exhibit 2 shows the correlation of pure premium with actual loss and how it differs between small and large classifications for potential thresholds of \$10 million and \$15 million. The potential thresholds were selected using cluster analysis. While the correlation between pure premium and actual loss is high for both groups, it is higher for the large classifications at both thresholds. As the threshold increases, the correlation increases for the small classifications as larger classifications are added to the grouping. A threshold of \$10 million was selected for the rest of the study.

Selection of Alternative Loss Limitation for Testing

To select the alternative loss limitations, staff assessed the stability and accuracy of the estimated relative limited loss to payroll ratios for classifications using a simplified classification relativity. For each limit and classification, the actual limited loss to payroll ratio was calculated and then brought to an unlimited basis with the applicable loss elimination ratio. For each limit, this ratio was divided by the unlimited loss to payroll ratio to calculate the simplified class relativity. These relativities were calculated using the same years of data used in the filing for each policy year.

To assess stability, staff reviewed the coefficient of variation of the relative limited loss to payroll ratio (CV) for PYs 2003 through 2011 at tenth report level. To assess the accuracy, staff reviewed the root mean squared error (MSE) compared to the observed relative loss to payroll ratios. Both stability and

accuracy were assessed for several loss limitation options and the resulting estimates were smoothed across the size of the classifications.

Exhibit 3 shows the smoothed CV of relative loss to payroll ratios for several limit options. The CV decreases as the size of the classification increases and increases as the loss limitation increases. Loss limitations of \$100,000 yield the most stable simplified relativities. Exhibit 4 shows the smoothed MSE of relative loss to payroll ratios for several limit options. The MSE decreases as the size of the classification increases. The MSE increases as the loss limitation increases for smaller classifications but decreases for larger classifications. The MSE is lower for smaller classification using a loss limitation of \$100,000. For classifications with average pure premiums greater than approximately \$17.7 million, the MSE for the current limit of \$500,000 is lower than for a limit of \$100,000. Exhibit 5 compares the distribution of the MSE at alternatives to the current \$500,000 loss limit at a threshold of \$10 million. Limiting losses to \$100,000 reduces the MSE for a majority of smaller classifications but generally increases it for larger classifications.

Staff selected a pure premium threshold of \$10 million as the threshold between small and large classifications, and an alternative methodology where losses in the smaller classifications are limited to \$100,000 and losses in the larger classifications continue to be limited to \$500,000.

Adjustments to Existing Methodology to Incorporate Varying Loss Limitations

To implement varying loss limitations, the current classification relativity methodology requires one additional step and several factors must be produced for a limit of \$100,000 in addition to the current limit of \$500,000. The methodology and factors for the larger classifications remain unchanged. The algorithm is shown in Exhibit 6. The following factors will vary by limitation:

- Limit to Historic Losses: Both thresholds are detrended. The same severity change is used to detrend both the \$100,000 and \$500,000 limits.
- Loss Development Factors (LDFs): The LDFs will vary by size of the classification, calculated using on-leveled and detrended unit statistical report (USR) data. Losses from all classifications are used to calculate development factors for each limit.
- Adjustment to a common limit of \$500,000: After development, losses limited to \$100,000 will be adjusted by application of LERs to be limited to \$500,000.

The resulting classification relativities from the methodology with varying loss limitations is compared to relativities for historical policy years calculated using the most current methodologies. As a result of existing changes in methodology, these relativities will differ from the filed relativities.

The following items are differences between underlying calculations of the filed methodology and the methodology used for this study:

- Loss Development: The groupings for loss development were updated based on a 2020 WCIRB study of loss development for classification ratemaking.¹ The groupings of classifications were updated and a separate group was added for closed claims.
- PY 2014 LERs: Due to technical challenges with calculating separate LERs for indemnity and medical at the \$100,000 limit, the PY 2015 LERs separate for indemnity and medical are used for the PY 2014 calculation.

Adjusted Loss

A sample computation of adjusted loss for small classifications is shown in Exhibit 6 based on Classification 0034. The procedure used to compute adjusted loss for large classifications is identical except that step five is trivial.

¹ See AC20-12-03 of the December 11, 2020 WCIRB Actuarial Committee Agenda.

1. Raw Data: Line 1 of Exhibit 6 shows the year 2020 USR loss (unlimited) for Classification 0034, expressed as the sum of loss experience in five policy periods, policy year 2016 at first report level through policy year 2012 at fifth report level, separately for indemnity and medical.
2. Adjustment to Projection Year Benefit Level: Each year's losses are adjusted to the level of statutory benefits expected for the projection year. Line 2 of Exhibit 7 shows the on-leveled losses, on-leveled factors varied by report level, NAICS sector and injury type.
3. Limitation of Large Losses for Small Class: The presence of an atypically large claim can significantly distort the relativity computation for a particular classification. Line 3 of Exhibit 7 shows the aggregate on-leveled losses for Classification 0034 after the loss limitation of \$100,000 is applied to the cost of individual claims. Losses are limited separately for indemnity and medical losses with the limit applied proportionally to the incurred indemnity and medical loss amounts. The loss limitation of \$100,000 will also be adjusted to reflect the difference in loss level for each year in the experience period using the policy year percentage change between on level severity as the basis.
4. Loss Development: Line 4 of Exhibit 7 shows the on-leveled and limited loss adjusted to an estimated ultimate value for indemnity and medical losses. Indemnity and medical loss development factors to tenth report level were computed based on specific loss development groupings with all classifications limited at \$100,000.
5. Adjustment to \$500,000 Level: Line 5 of Exhibit 7 shows the adjustment factor that brings losses limited at \$100,000 to the level of loss limited at \$500,000. It is calculated as the quotient of $(1 - 2020 \text{ loss elimination ratio at } \$500,000)$ and $(1 - 2020 \text{ loss elimination ratio at } \$100,000)$. This step is only required for small classifications. Line 7 of Exhibit 7 shows the on-leveled limited and developed loss at \$500,000 as a result of multiplying Line 4 and Line 5.
6. Adjustment to Earlier Years: Classifications may use two, three, four or five years of actual experience in computing relativities. To ensure that a particular classification's relativity is not impacted by whether a particular year of experience was or was not used, an adjustment is made to the losses reported on the years used in the calculation. Line 7 of Exhibit 7 shows the experience adjusted, on-leveled limited and developed USR losses.
7. Adjustment to Overall Average Level of Experience: Line 8 of Exhibit 7 shows this factor separately by indemnity and medical. This is essentially a balance factor to ensure the average adjusted loss to payroll ratio balances to the average expected loss to payroll ratio.

Line 9 of Exhibit 7 shows the fully adjusted losses based on the methodology described above, separately for indemnity and medical loss amounts. The exposure adjustment and the remaining classification relativity calculation remain the same as in the pure premium rate filing.

Stability and Accuracy for Classification Relativities Calculated with Varying Loss Limitations

To assess the stability and accuracy of the classification relativities calculated with varying loss limitations, staff reviewed the CVs and MSEs compared to the classification relativities calculated with a single loss limitation. Classification relativities were calculated for PYs 2014 through 2021 using experience period data from PYs 2008 through 2016. These relativities were compared to actual experience from these policy periods at first report level, which was developed to ultimate, and also at latest report level, which was developed to ultimate.

Exhibit 8 shows the smoothed CV of the classification relativities from the two methods' mixed limitations and only \$500,000 limitation separately for smaller and larger classifications. Exhibit 8a shows the smoothed CV for policy year experience at first report level which was developed to ultimate and Exhibit 8b shows the experience at latest report level developed to ultimate. Classifications with aggregate pure premium less than logarithm of 12 are not shown in the graph but are included in the smoothed CV. The CV decreases as the size of the classification increases. The CVs are lower for small classifications under

the mixed method, where the loss limitations vary by the size of the classification, and CVs are very similar for the large classifications under the two methods. Exhibit 9 shows the smoothed MSE of classification relativity for the two options mentioned above, separated by size of classification. Exhibit 9a shows the smoothed MSE for policy year experience at first report level which was developed to ultimate and Exhibit 9b shows the experience at latest report level developed to ultimate. The MSEs are slightly lower for small classifications under the mixed methodology. For both evaluation periods, there are slight improvements for the smallest classifications.

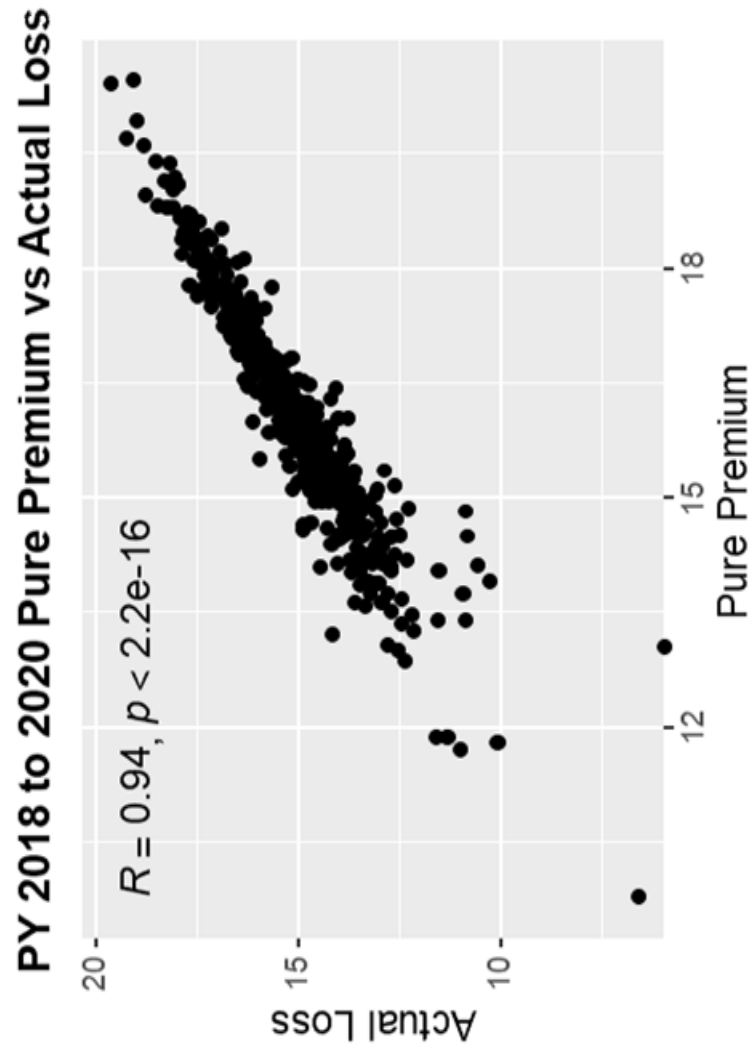
Impact of LERs on Classification Relativities

With a lower loss limitation threshold, the ultimate relativity for a classification is more reliant on the RHG to which the classification is assigned as well as the LER for the RHG. The WCIRB updates the Retrospective Rating Plan including the RHGs and underlying loss database every 5-7 years. Losses in the database are trended forward annually and updated LERs are published and used for classification ratemaking. Particularly when the claims environment is changing rapidly, the lag between when the shape of the severity curve changes and when we reflect it in the LERs can be significant.

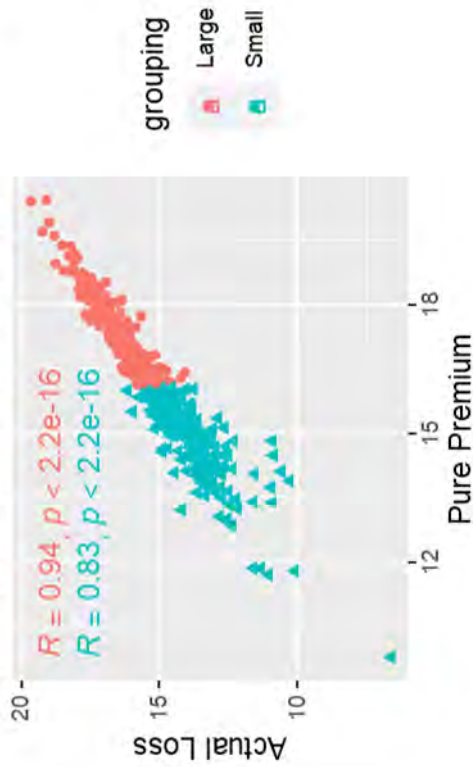
Exhibit 10 compares the distribution of classifications by RHG distribution for the current and proposed RHG assignments separately for small and large classes. In general, there is a distribution shift to the left, as both small and large classes are generally shifting to less severe RHGs. Exhibit 11 shows the proposed change in the LER by the RHG currently assigned. Exhibit 12 shows the change in the share of losses in the layer between \$100,000 and \$500,000.

Findings and Recommendations

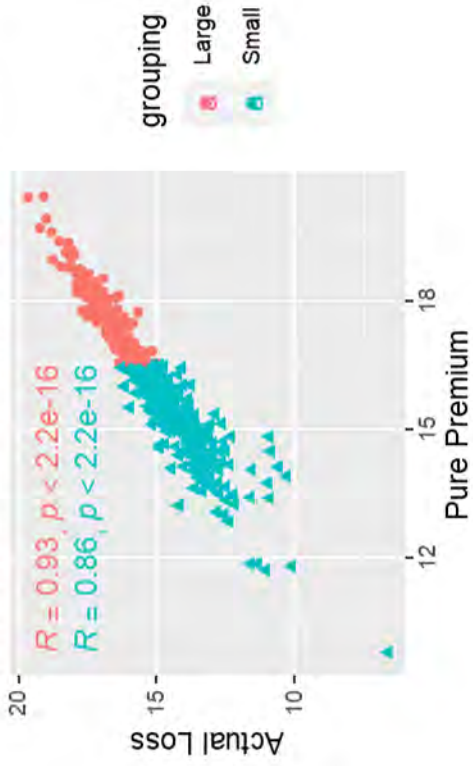
Based on this analysis, staff found that the improvements to projected classification relativities for smaller classifications would not be significant enough to outweigh the additional complexity required to incorporate an additional loss limit into the classification ratemaking process. In addition, incorporating a lower loss limitation could add volatility and reduce accuracy when the claims environment is changing significantly. Staff recommends continuing with the existing loss limitation methodology and proceeding with a 2024 study of ways to improve the credibility methodology used for classification ratemaking.

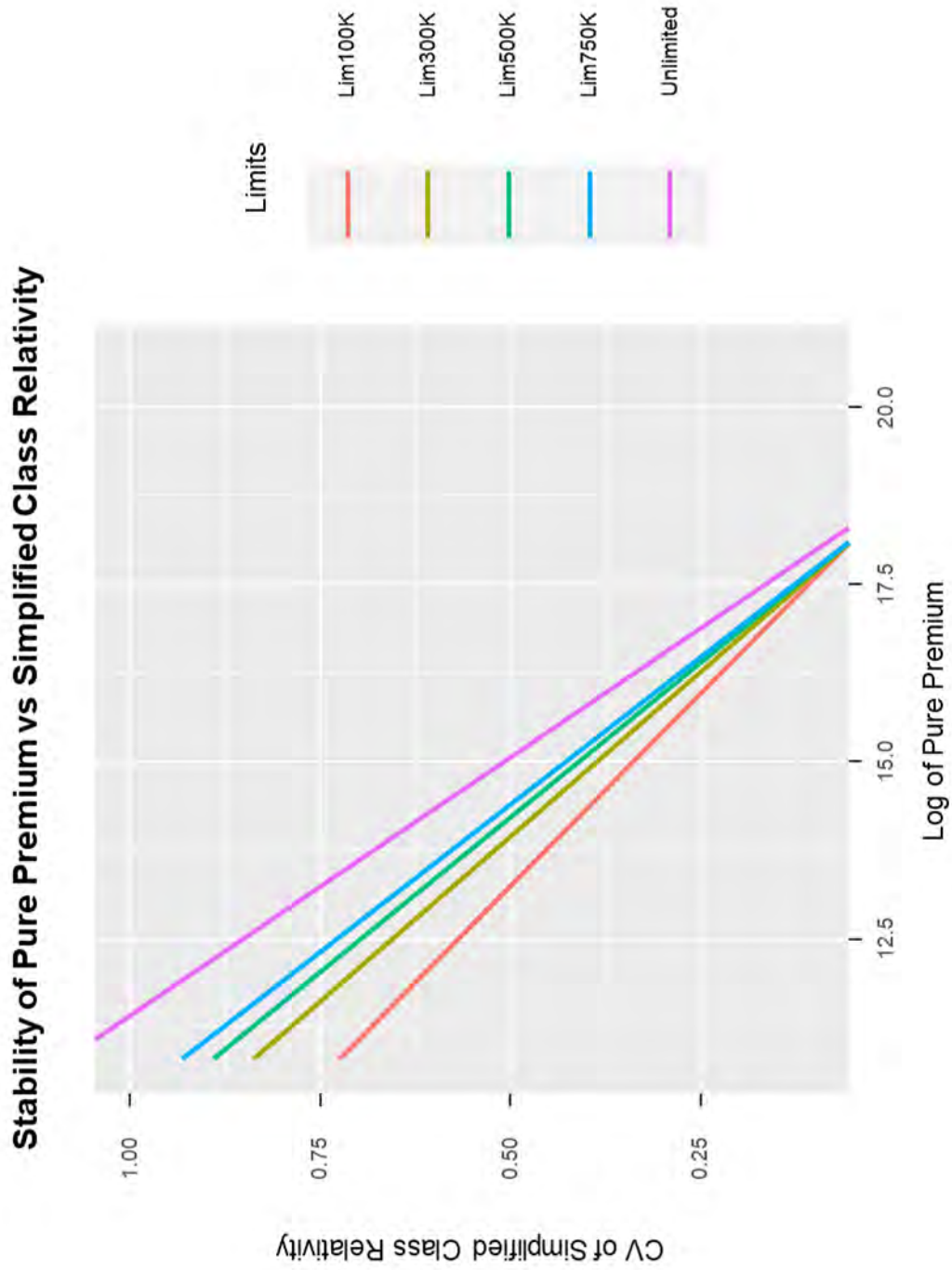


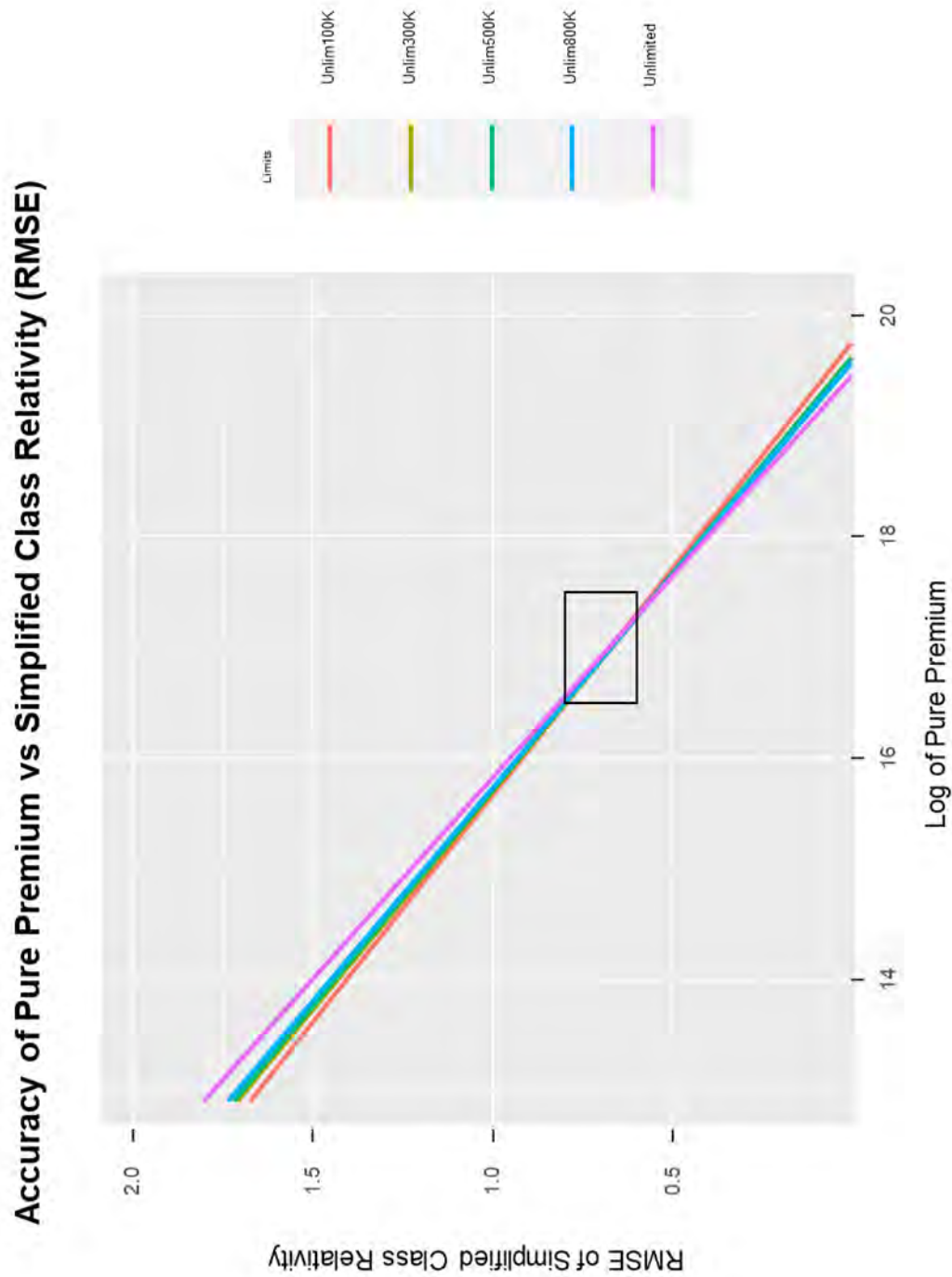
**A. PY 2018 to 2020 Actual Loss vs Pure Premium
Pure Premium Threshold: \$10M**

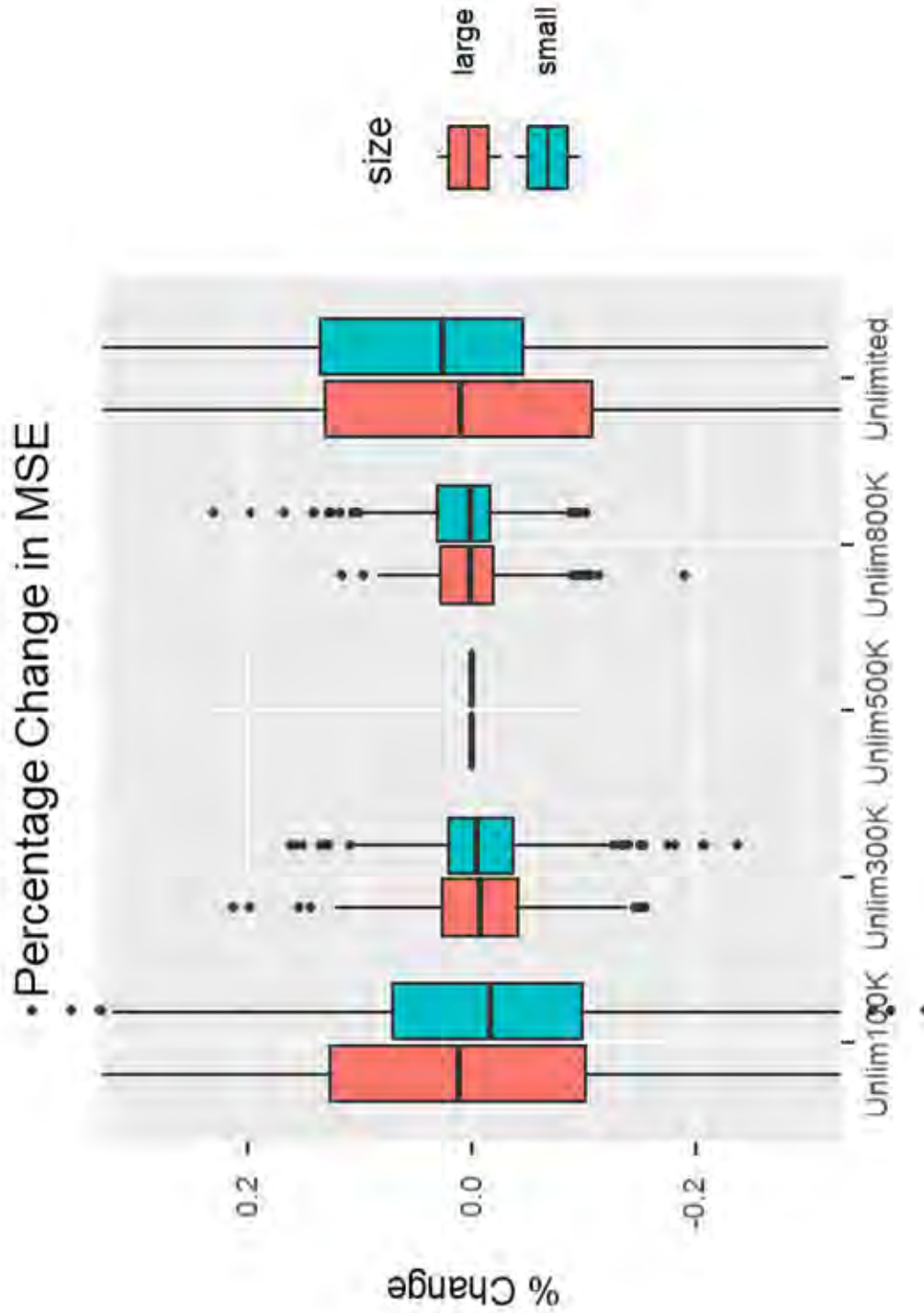


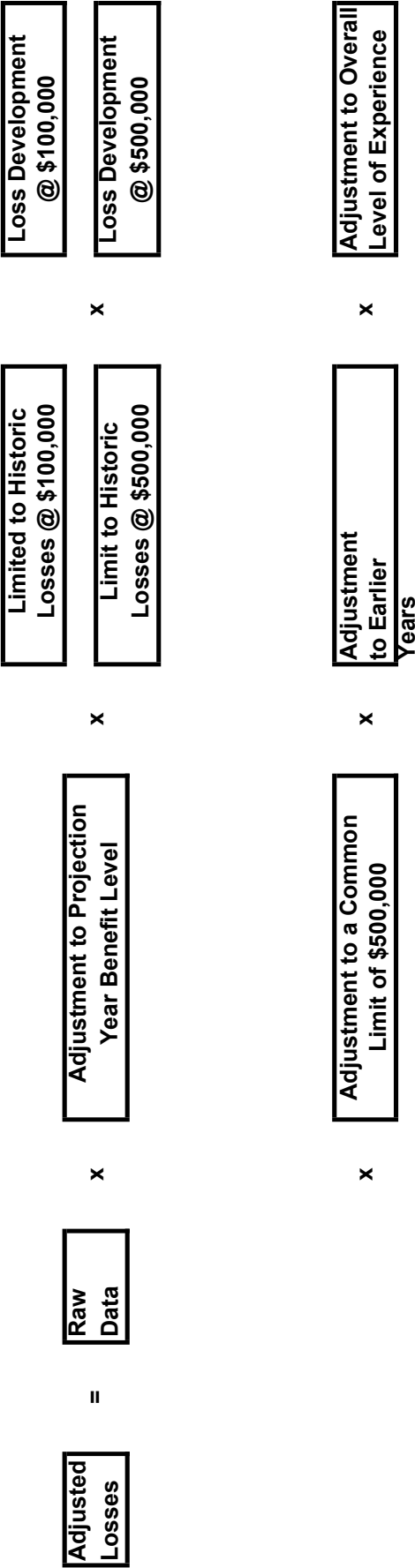
**B. PY 2018 to 2020 Actual Loss vs Pure Premium
Pure Premium Threshold: \$15M**









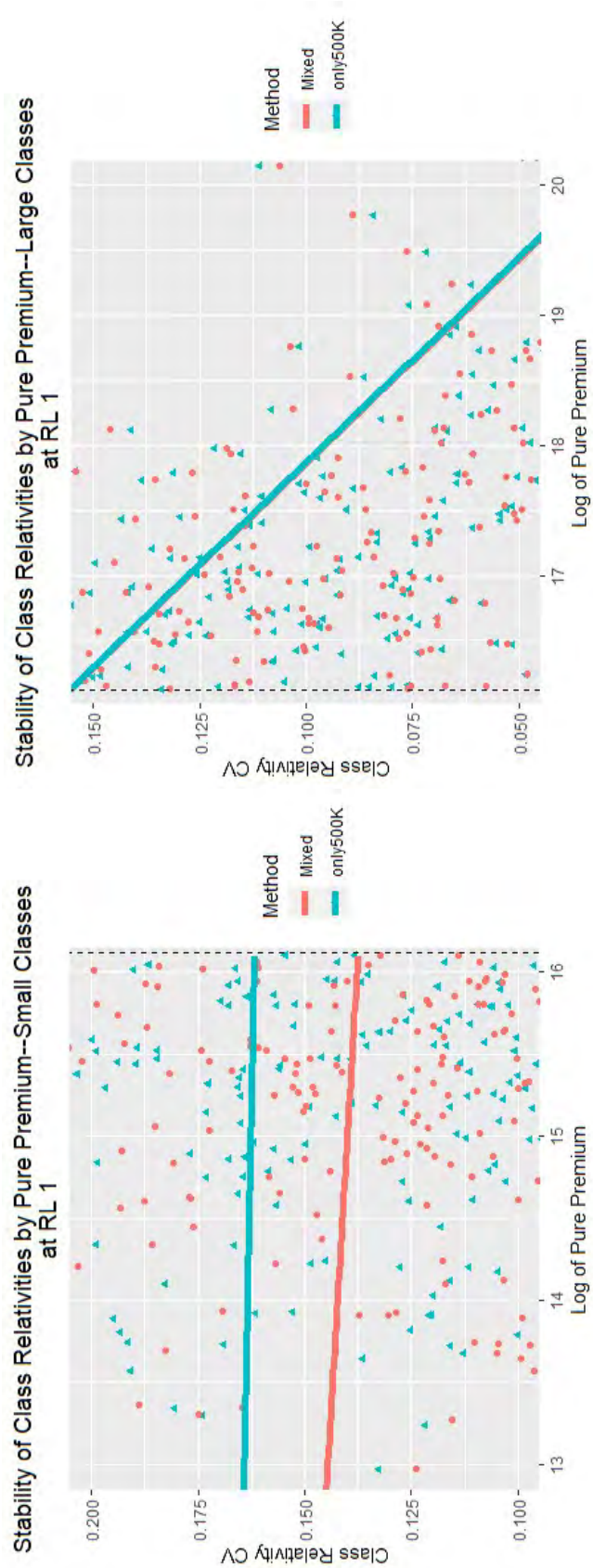


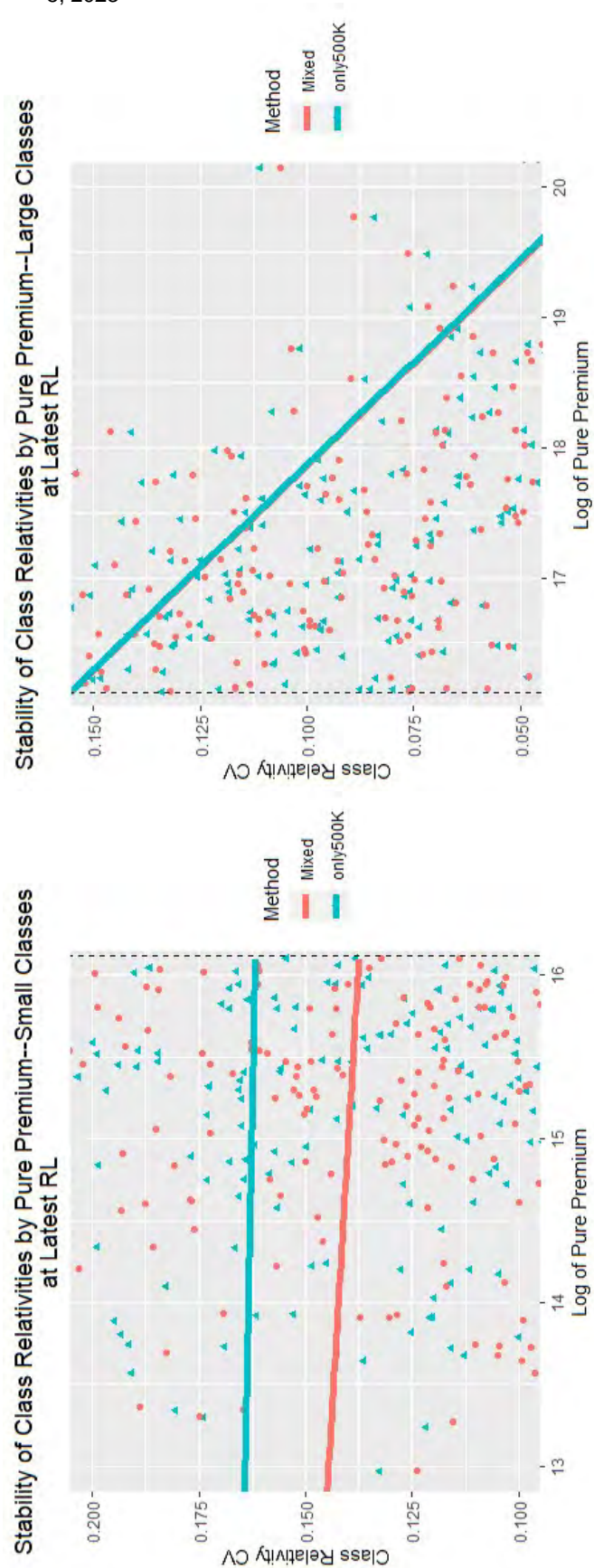
Class Code: 0034
Class Size: Small
Number of years to be fully credible: 5

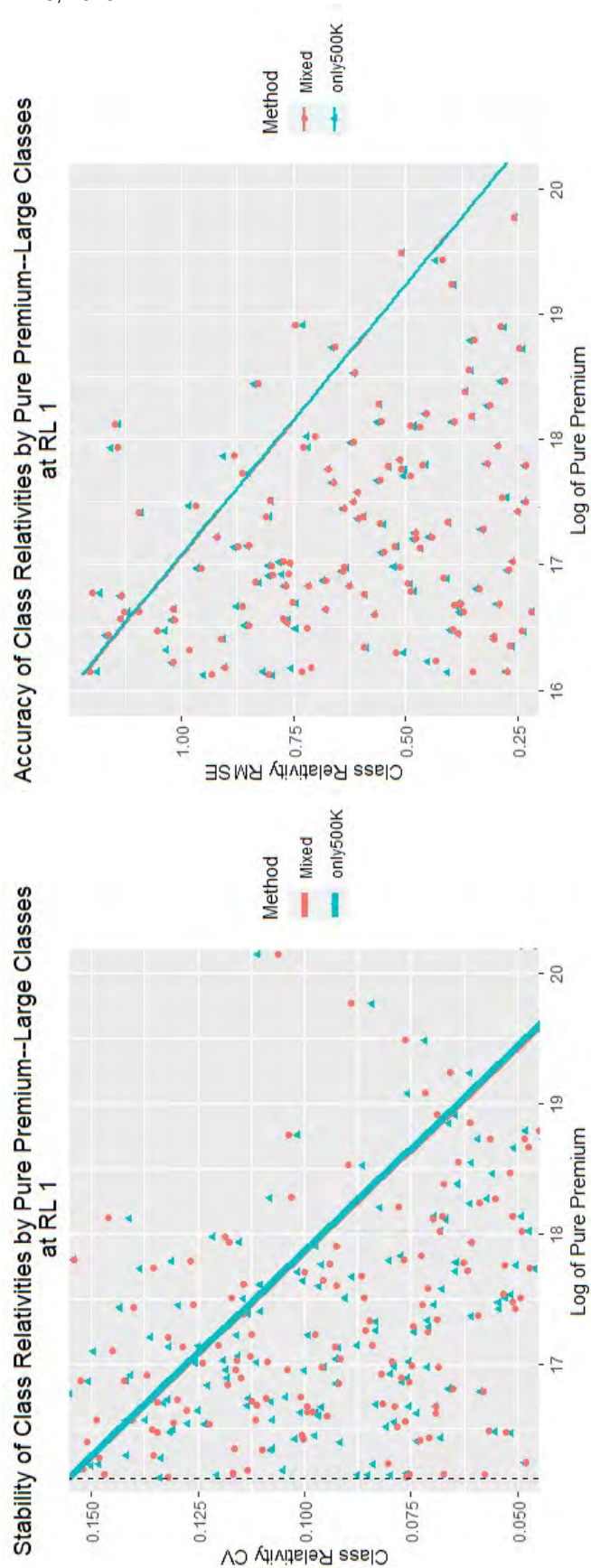
Derivation of Adjusted Loss
Classification 0034, Poultry Raising; Sheep Raising and Hog Farms

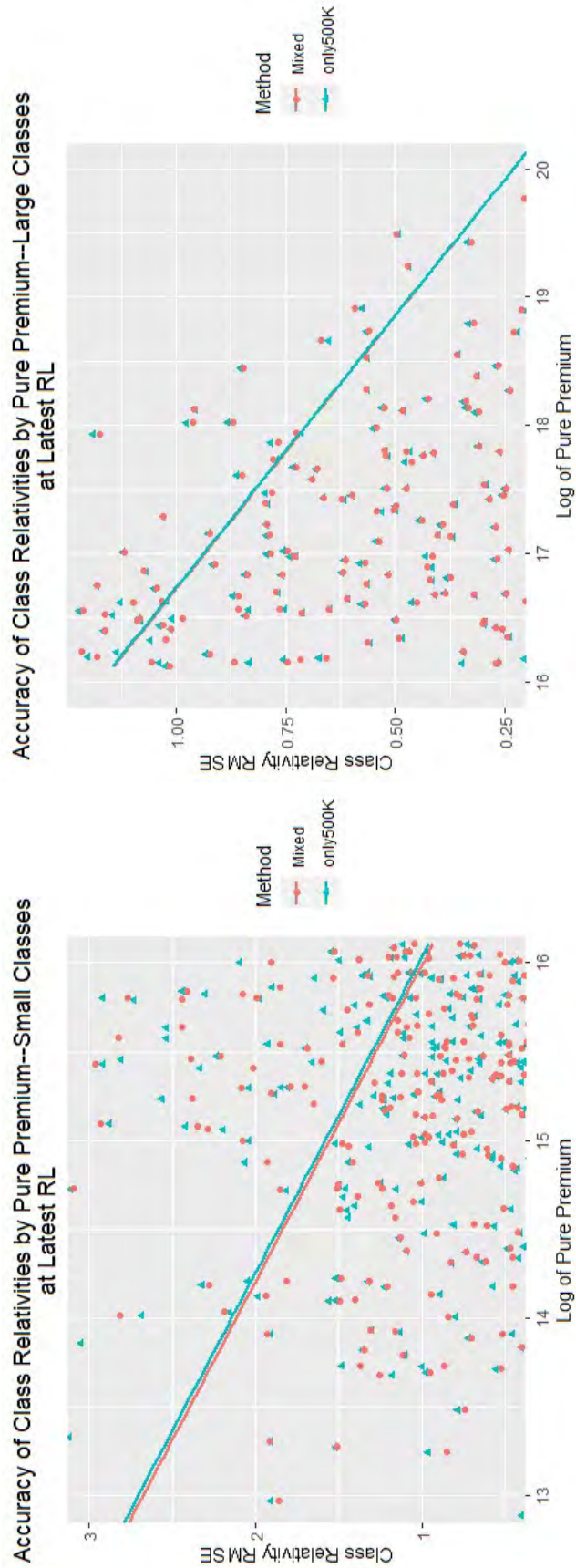
	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Raw Data	11,235,632	14,934,003	26,169,635
2. Adjustment to Projection Year Benefit Level	12,061,269	13,900,365	25,961,634
3. Limitation of Large Losses for Small Class at \$100,000	8,541,522	10,528,979	19,070,501
4. Loss Development	10,001,573	11,926,154	21,927,727
5. Factor for Adjustment to \$500,000 Level	1.245	1.274	
6. Losses after Adjustment to \$500,000 Level (4) x (5)	12,451,709	15,197,915	27,649,624
7. Losses with Adjustment to Earlier Years	12,488,578	16,140,140	28,628,718
8. Adjustment to Overall Average Level of Experience	0.817	0.839	
9. Fully Adjusted USR Losses (7) x (8)	10,198,341	13,538,345	23,736,686

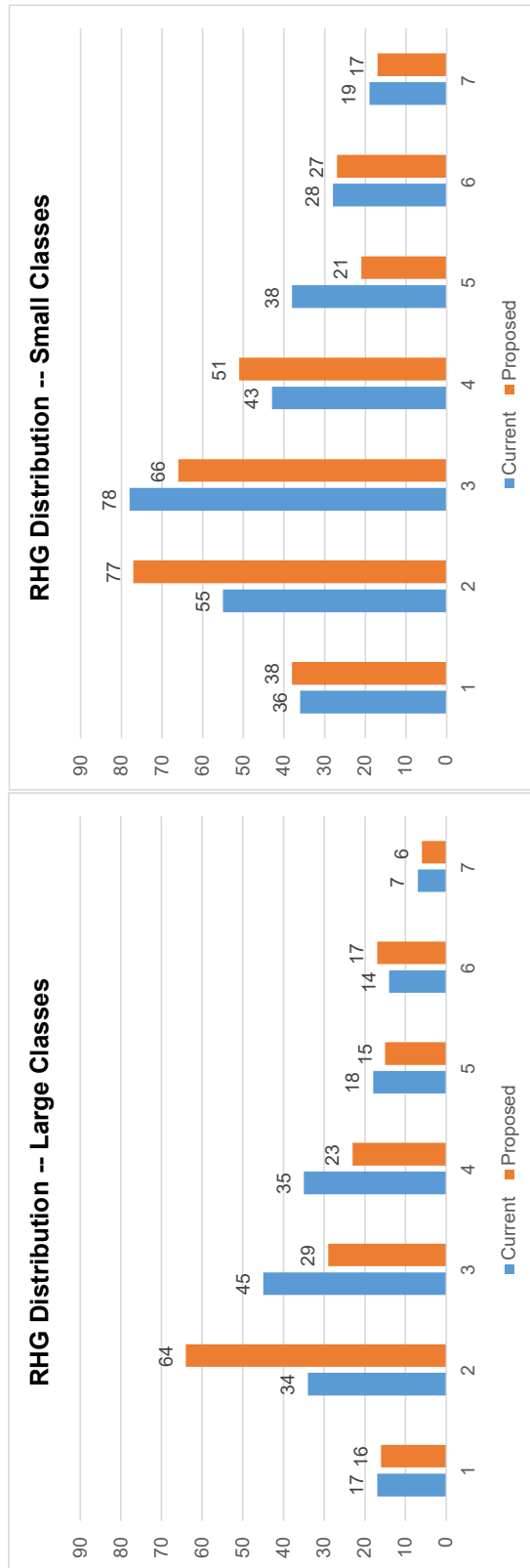
Note: Based on the data underlying the classification relativities effective January 1, 2020



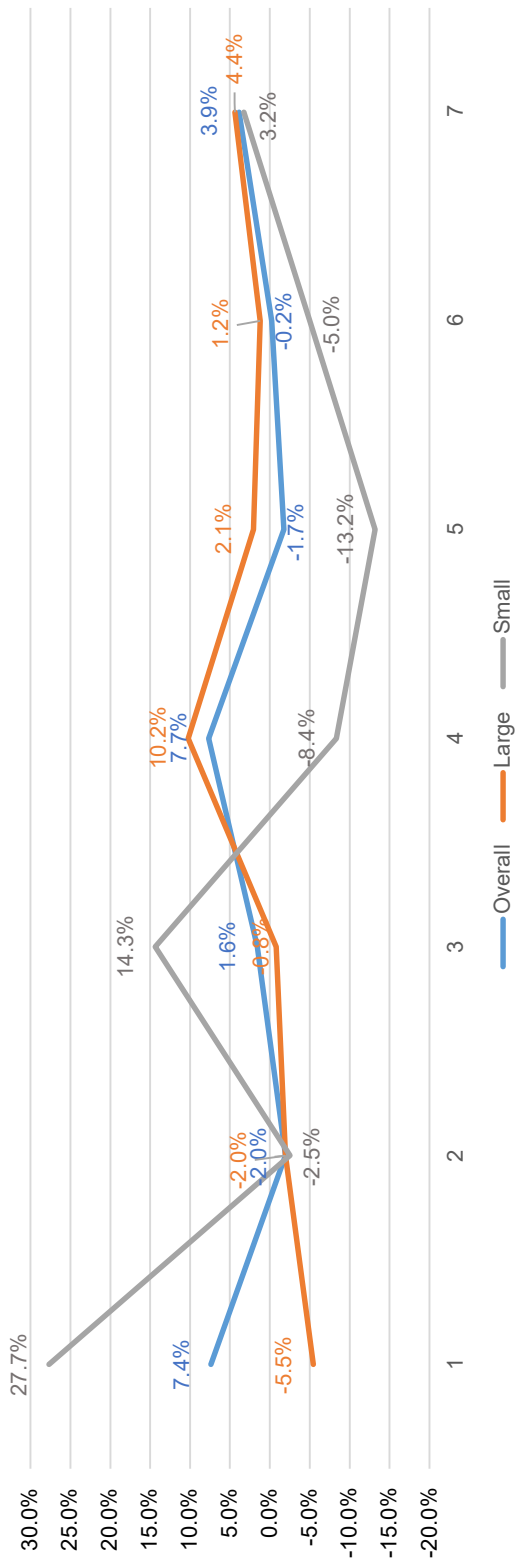




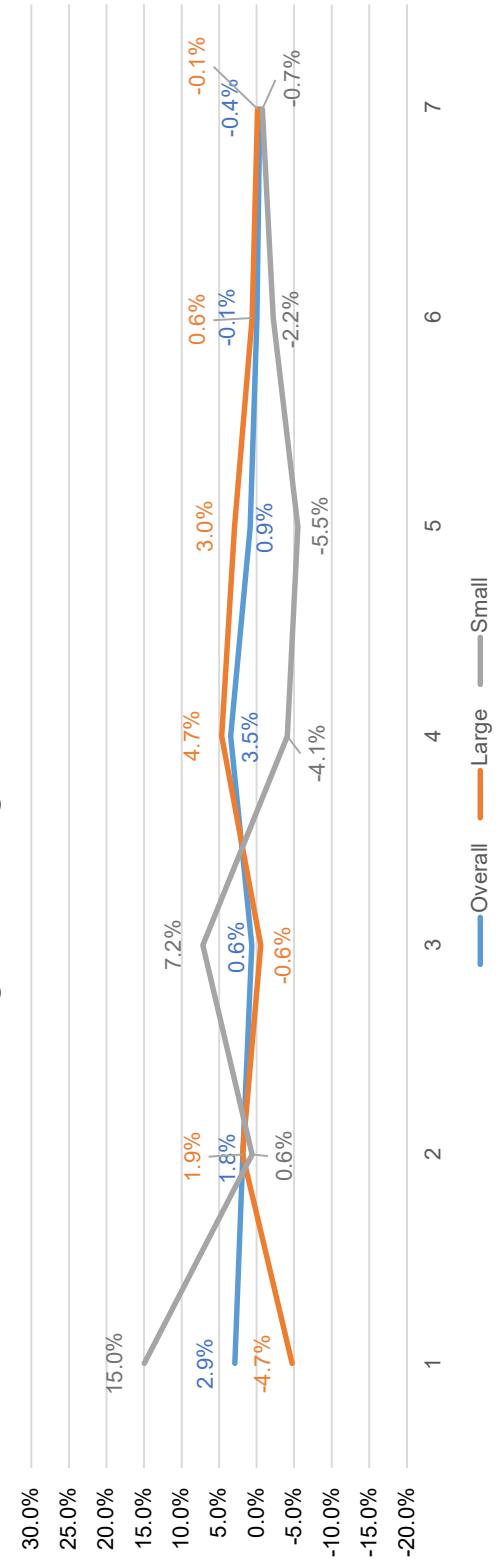


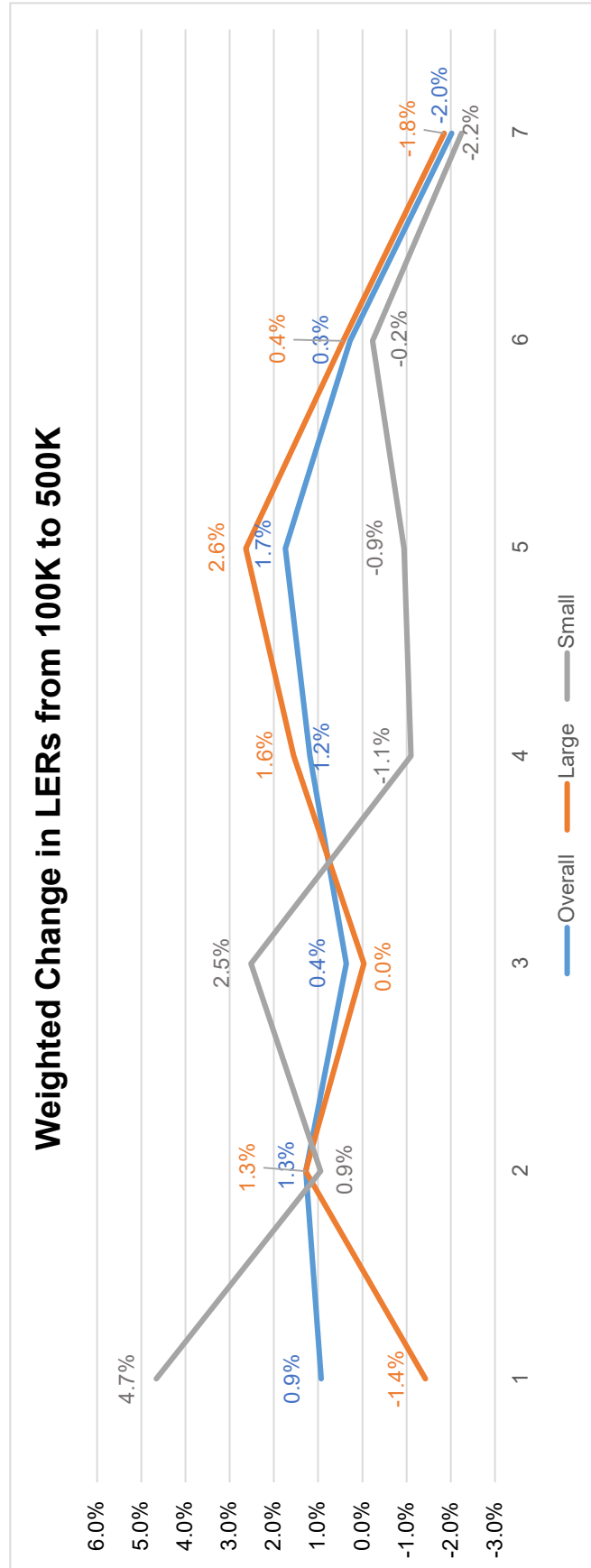


Weighted Change in LERs at \$500K



Weighted Change in LERs at \$100K





Item AC23-12-03 Employee Tenure Study

Published research has shown that employees with shorter tenure are more likely to be involved in work-related injuries than those with longer job tenure, as employees newer to a job may be less skilled and less aware of safety practices than more experienced employees. A 2016 WCIRB study of recent claim frequency changes also showed decreases in the average tenure of injured workers during a period of claim frequency increase.¹ More recently, significant shifts in employment occurred during the COVID-19 pandemic in 2020 and 2021, with many shorter tenured employees losing their jobs in 2020 and some gaining jobs in 2021, likely involving workers entering new industries. The recent changes in the labor market make a study of shifts in employee tenure and claim frequency in the workers' compensation system particularly timely.

WCIRB staff has conducted a study of employee tenure focusing on several key areas, including a comparison of shifts in employee tenure among injured workers and those in the overall California worker population, relative claim frequency by workers of different tenure and claim characteristics of injured workers of different tenure.

At the meeting, WCIRB staff will present the preliminary results. Draft slides summarizing staff's preliminary findings are attached for review.

¹ Analysis of Changes in Indemnity Claim Frequency – January 2016 Update Report (WCIRB, 2016).



Employee Tenure Study

IV-C-2

Research Questions

- 1. How do shifts in tenure of injured workers compare to those in the overall California worker population?**
 - By tenure group: <1 year, 1-4 years, 5-9 years and 10 years or more
 - By industry group: service providing, physical labor, office-based and health & education
- 2. How does claim frequency differ by workers of different tenure?**
 - Claim count per 10,000 California employees by tenure group and by industry group
 - Changes in frequency by tenure group and by industry group over time
- 3. What are the claim characteristics among injured workers of different tenure?**
 - Cumulative trauma claim distribution
 - Cause of injury distribution
 - Share of open claims and claims involving permanent disability
 - Incurred total and by medical and indemnity
 - Diagnostic group (work in progress)
 - Medical treatment patterns (work in progress)

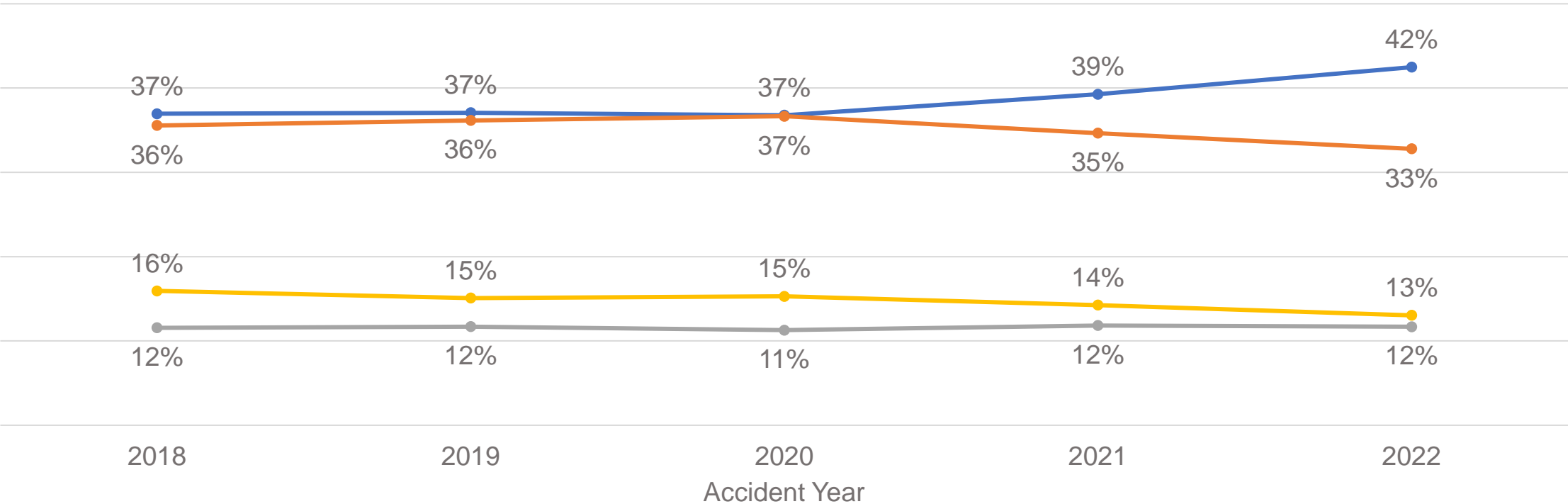
Research Methods

- Employee tenure is defined as how long the employee had been with their current employer
- Injured worker population:
 - Employee tenure is calculated as the injury date relative to the hire date and represents tenure at the time of injury
 - Includes injured workers of insured employers only
 - COVID-19 claims are excluded
 - Data source: WCIRB indemnity transaction data, unit statistical data, aggregate financial data and medical transaction data
- California worker population:
 - Employee tenure information is collected bi-annually by the Current Population Survey (CPS) Supplement on Employee Tenure
 - Respondents eligible for the survey are those who were working during the week of the survey
 - Tenure distribution in the worker population is estimated based on the tenure survey
 - Data source:
 - Census Bureau's CPS Displaced Worker, Employee Tenure, and Occupational Mobility Supplement data
 - Census Bureau American Community Survey (ACS) data

Estimated Shifts in Injured Worker Distribution by Tenure Group

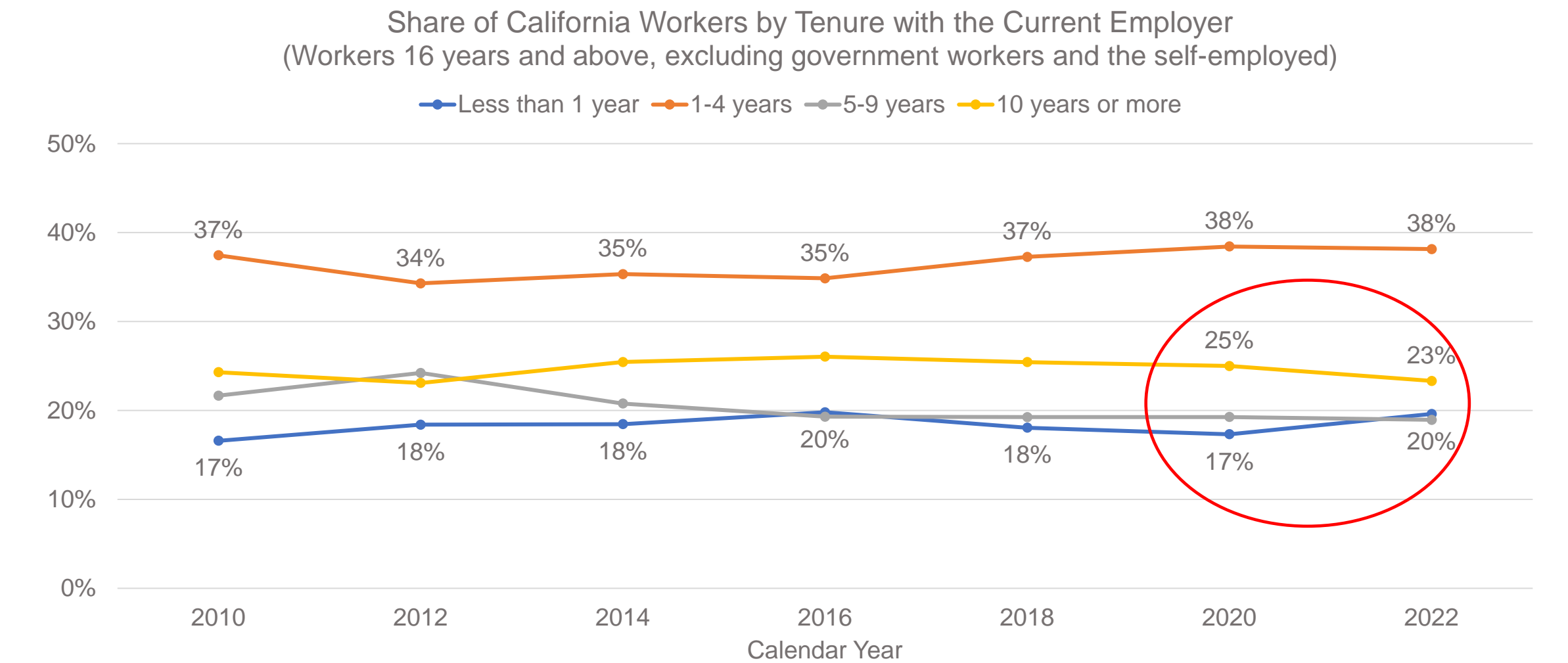
Share of Injured Workers by Tenure with the Current Employer
(Injured Workers 16 years and above, excluding government workers)

Less than 1 year 1-4 years 5-9 years 10 years or more



Note: Data in 2020 is between April and December of 2020. Data in 2018 and 2019 is from the six insurers that voluntarily submitted data to the indemnity transaction data, while data in 2020 through 2022 is from all insurers eligible for indemnity transaction data. However, the trends and patterns in 2020 through 2022 are similar between all insurers and the six insurers.
Source: WCIRB indemnity transaction data and unit statistical report data.

Estimated Shifts in California Worker Distribution by Tenure Group

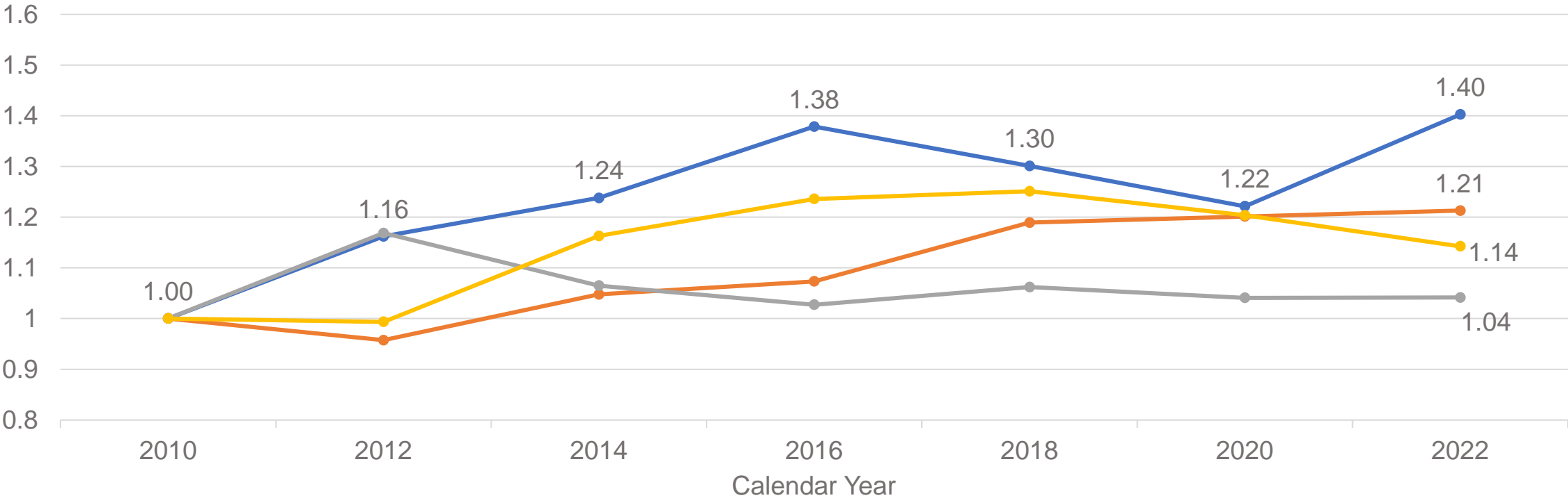


Source: IPUMS Current Population Survey (CPS) Displaced Worker, Employee Tenure, and Occupational Mobility Supplement data.

Estimated Changes in California Employment Level by Tenure Group

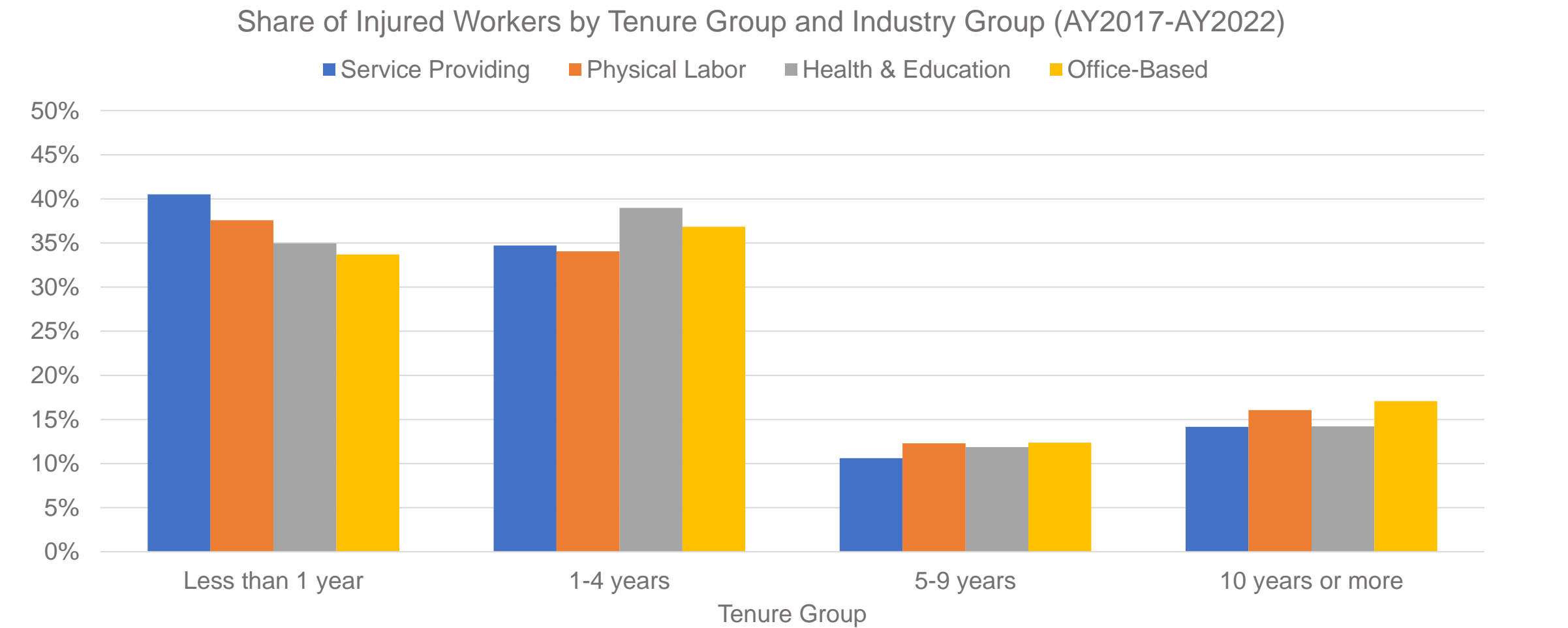
Changes in California Employment Level Indexed to 2010 by Tenure Group
(Workers 16 years and above, excluding government workers and the self-employed)

Less than 1 year 1-4 years 5-9 years 10 years or more



Source: Census Bureau American Community Survey data in 2010-2022 and IPUMS Current Population Survey (CPS) Displaced Worker, Employee Tenure, and Occupational Mobility Supplement data.

Tenure Distribution among Injured Workers by Industry Group



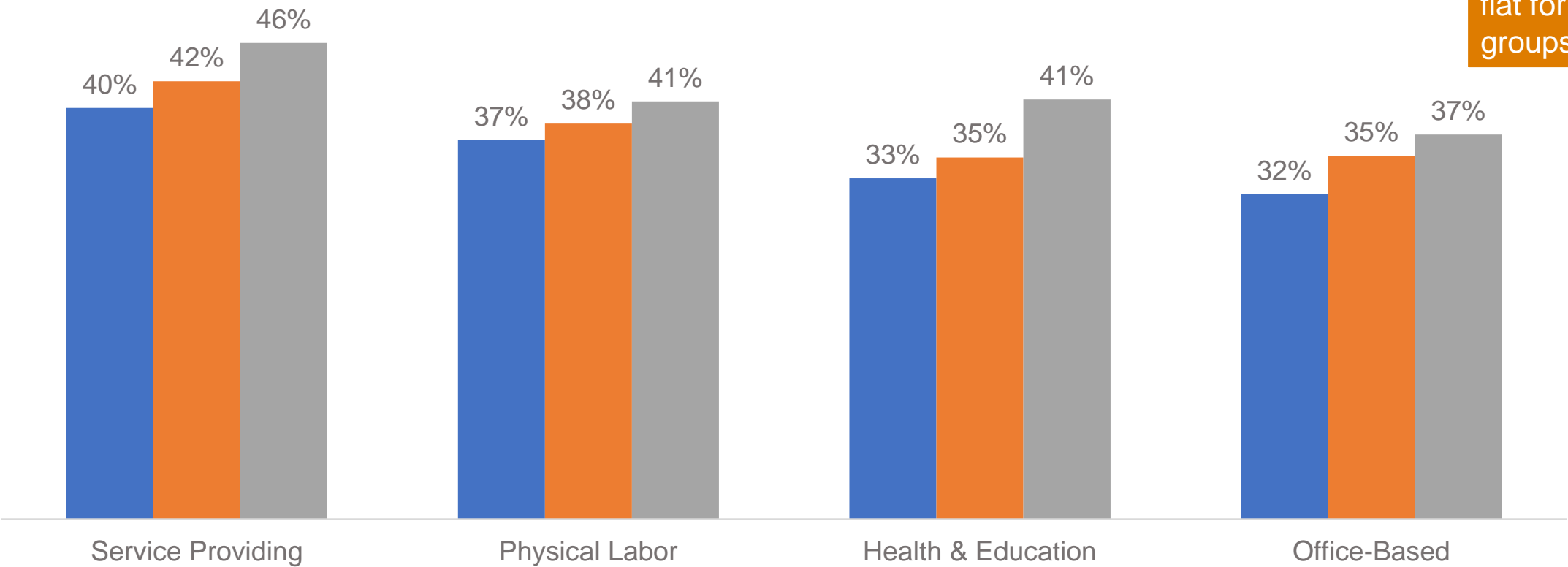
Note: The industry groups are based primarily on the published industry groupings from the Bureau of Labor Statistics and Census Bureau. Service providing industries include retail, wholesale, hospitality, transportation & warehousing, utilities, arts and entertainment and outside sales industries. Physical labor industries include construction, manufacturing, agriculture and mining industries. Office-based industries include clerical, real estate, professional services, information, finance and insurance, and administrative industries.
Source: WCIRB indemnity transaction data and unit statistical data.

Changes in Tenure Distribution among Injured Workers by Industry Group

Injured Workers with Tenure of Less than 1 Year

■ 2020 ■ 2021 ■ 2022

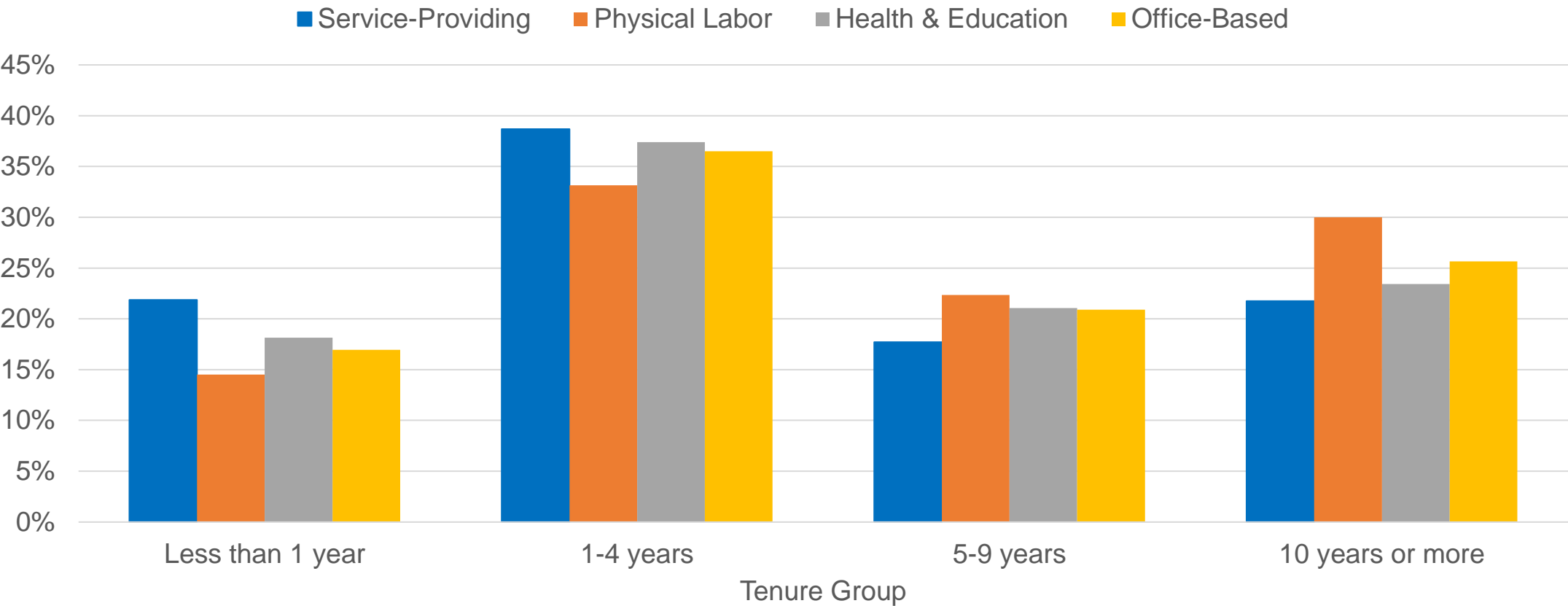
Share of injured workers in other tenure groups declined or stayed flat for all industry groups.



Source: WCIRB indemnity transaction data and unit statistical data.

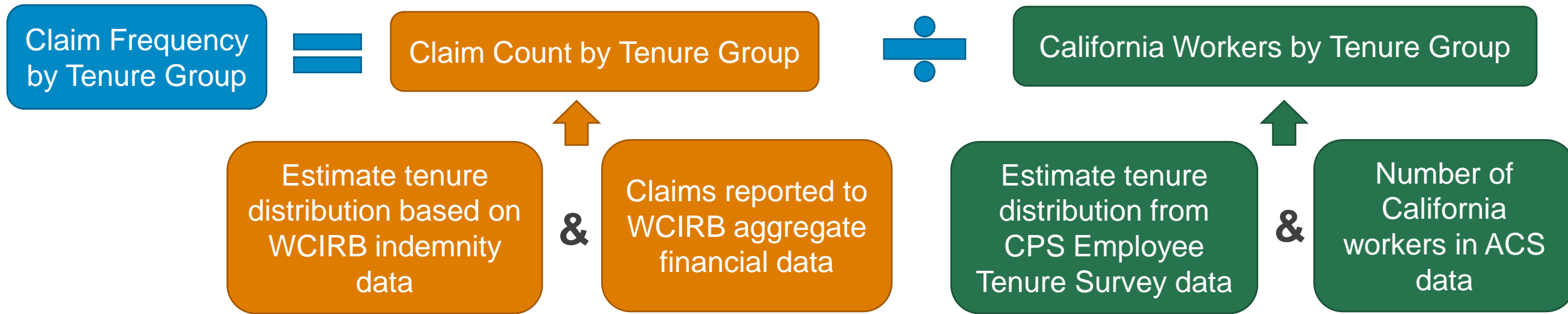
Tenure Distribution among California Workers by Industry Group

Share of California Workers by Tenure Group and Industry Group (AY2010-AY2022)
(Workers 16 years and above, excluding government workers and the self-employed)



Note: The industry groups are based primarily on the published industry groupings from the Bureau of Labor Statistics and Census Bureau. Service providing industries include retail, wholesale, hospitality, transportation & warehousing, utilities, arts and entertainment and outside sales industries. Physical labor industries include construction, manufacturing, agriculture and mining industries. Office-based industries include clerical, real estate, professional services, information, finance and insurance, and administrative industries.
Source: WCIRB indemnity transaction data and unit statistical data.

Estimating Claim Frequency by Tenure Group

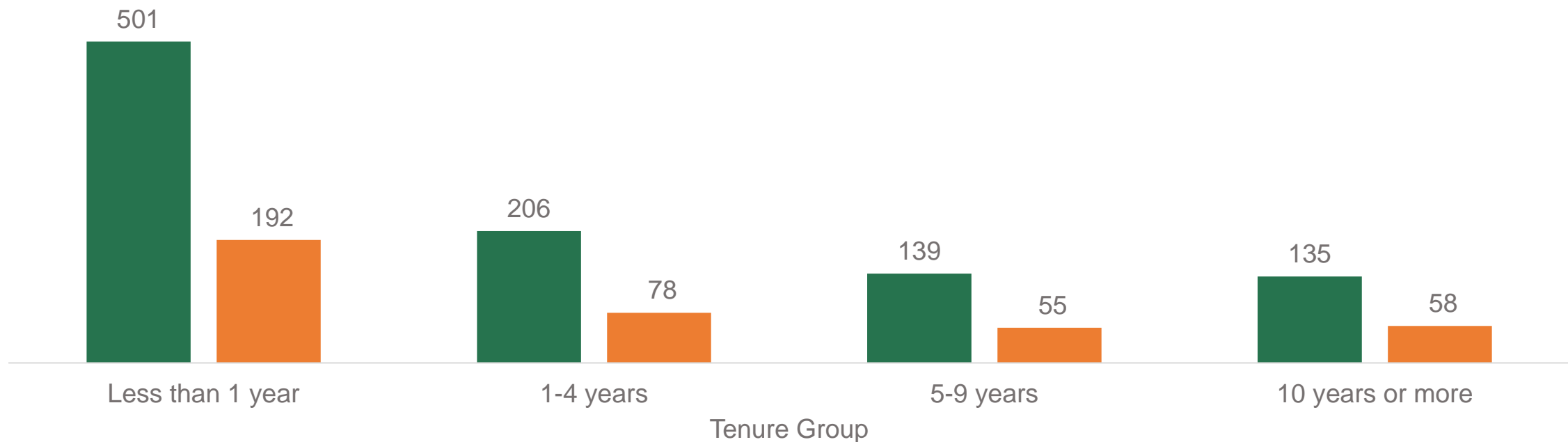


- Limited to workers who are 16 years and above
- Injured worker population is of insured employers but excludes public administration in the analysis
- California worker population excludes government workers and self-employed
- Same methodology was used for estimating claim frequency by tenure group and industry group

Claim Frequency Decreases as Tenure Increases

Claim Count per 10,000 California Workers (AY2020 & AY2022)
(Workers 16 years and above, excluding government workers and the self-employed)

■ All Claims ■ Indemnity Claims

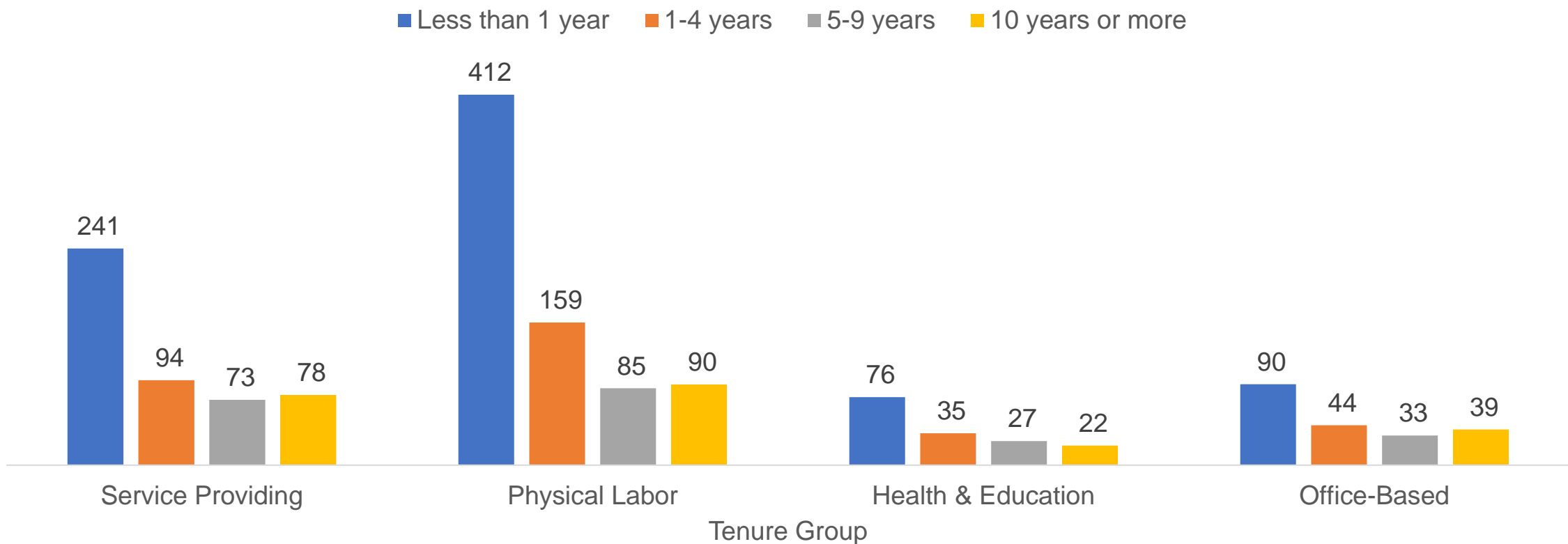


Source: Census Bureau 's Microdata on the Current Population Survey (CPS) Displaced Worker, Employee Tenure, and Occupational Mobility Supplement data, ACS data, and WCIRB indemnity transaction data and aggregate financial data.

Estimated Indemnity Claim Frequency for Workers of Different Tenure by Industry Group

Indemnity Claim Count per 10,000 California Workers by Industry Group
(AY2020 & AY2022)

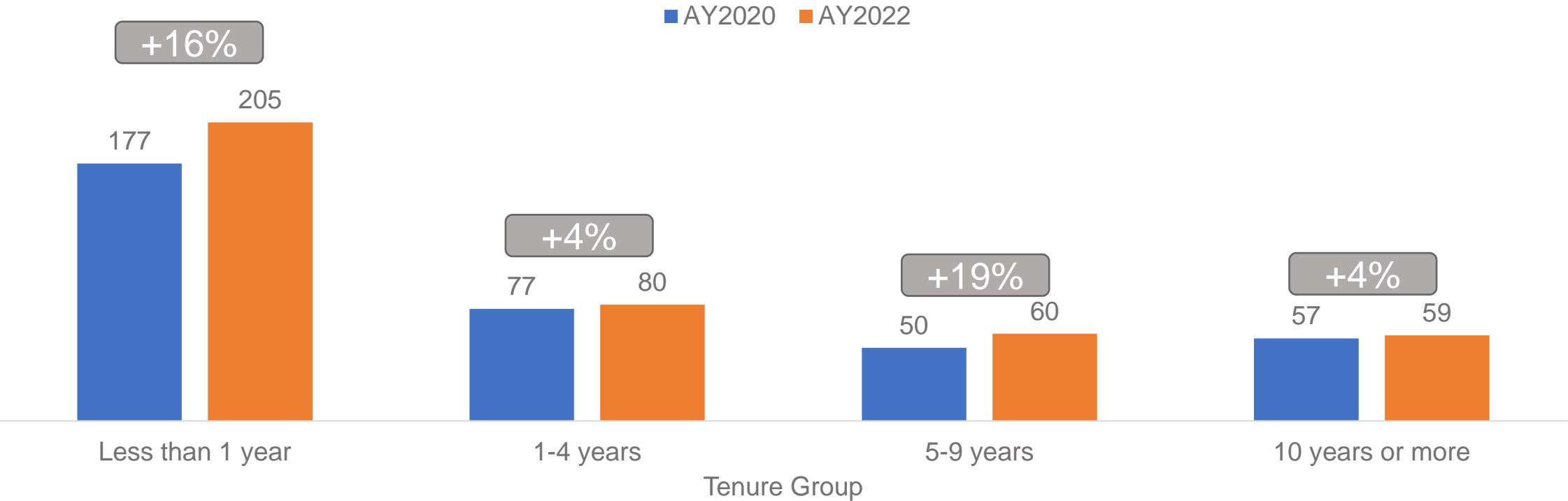
(Workers 16 years and above, excluding government workers and the self-employed)



Source: Census Bureau 's Microdata on the Current Population Survey (CPS) Displaced Worker, Employee Tenure, and Occupational Mobility Supplement data, ACS data, and WCIRB indemnity transaction data and unit statistical report data.

Estimated Indemnity Claim Frequency for Workers of Different Tenure by Accident Year

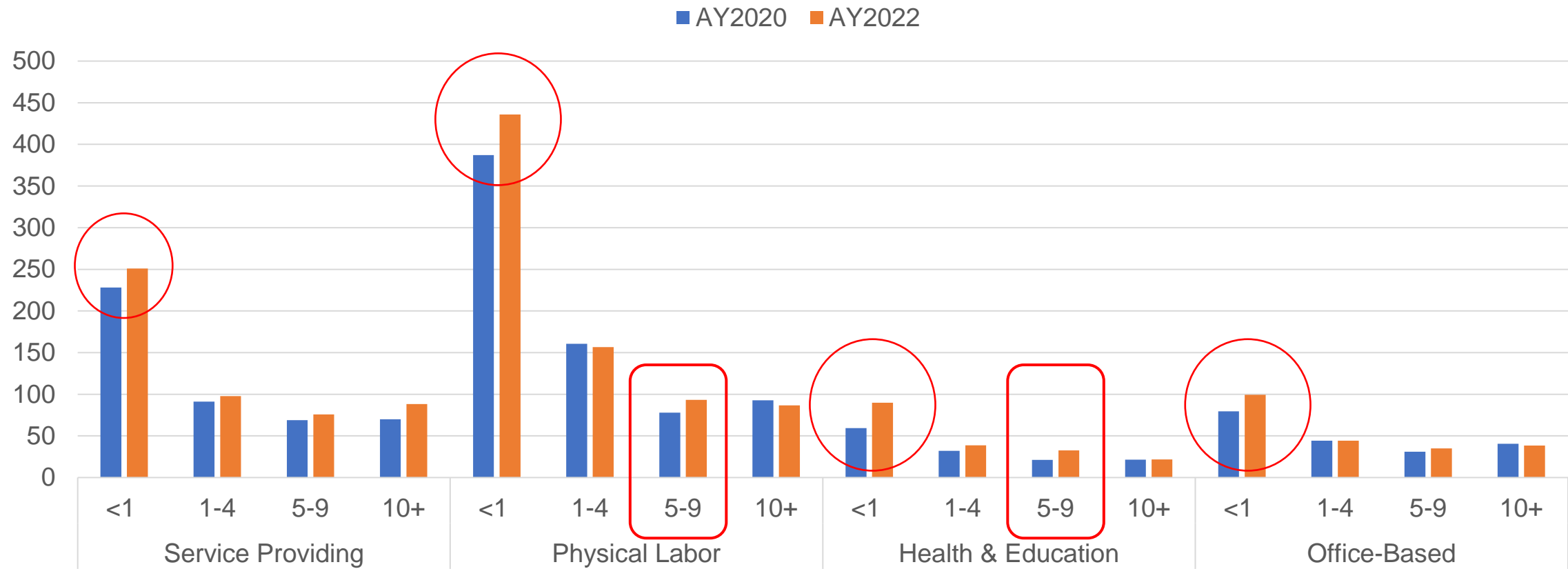
Indemnity Claim Count per 10,000 California Workers
(Workers 16 years and above, excluding government workers and the self-employed)



Source: Census Bureau 's Microdata on the Current Population Survey (CPS) Displaced Worker, Employee Tenure, and Occupational Mobility Supplement data, ACS data, and WCIRB indemnity transaction data and unit statistical report data.

Estimated Indemnity Claim Frequency for Workers of Different Tenure by Accident Year and Industry Group

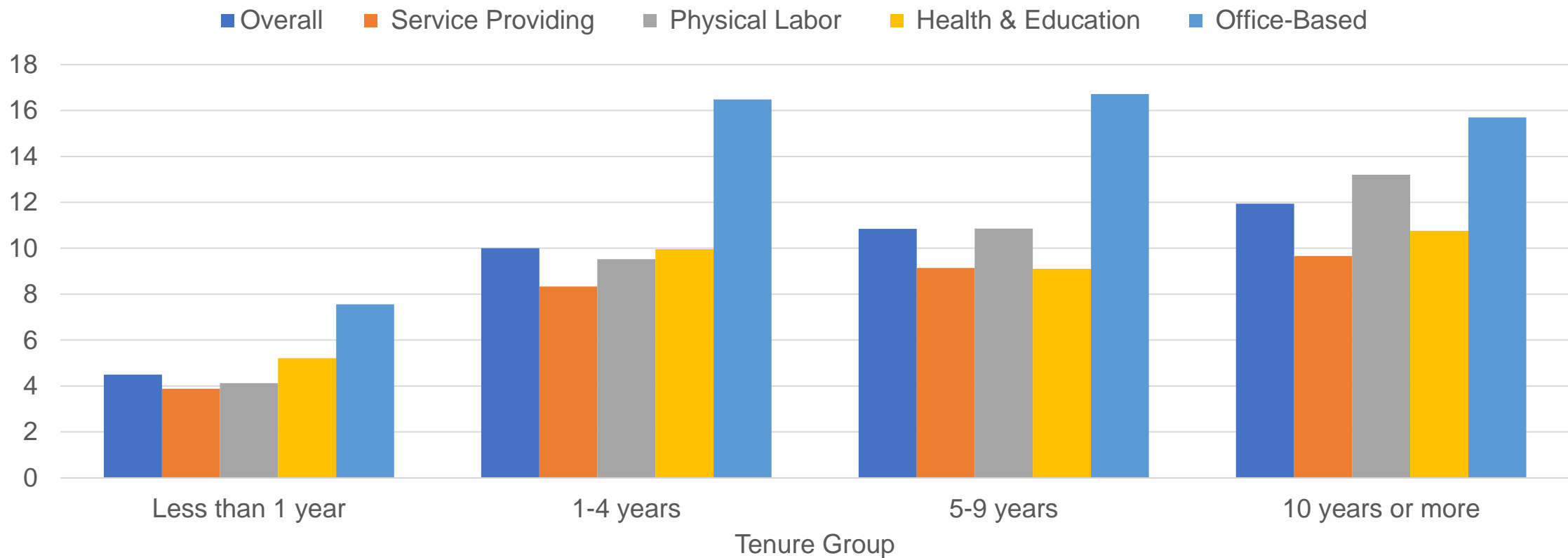
Indemnity Claim Count per 10,000 California Workers by Tenure Group and Industry Group
(Workers 16 years and above, excluding government workers and the self-employed)



Source: Census Bureau's Microdata on the Current Population Survey (CPS) Displaced Worker, Employee Tenure, and Occupational Mobility Supplement data, ACS data, and WCIRB indemnity transaction data and unit statistical report data.

Ratio of Indemnity CT Claims and Non-CT Claims by Tenure Group and Industry Group

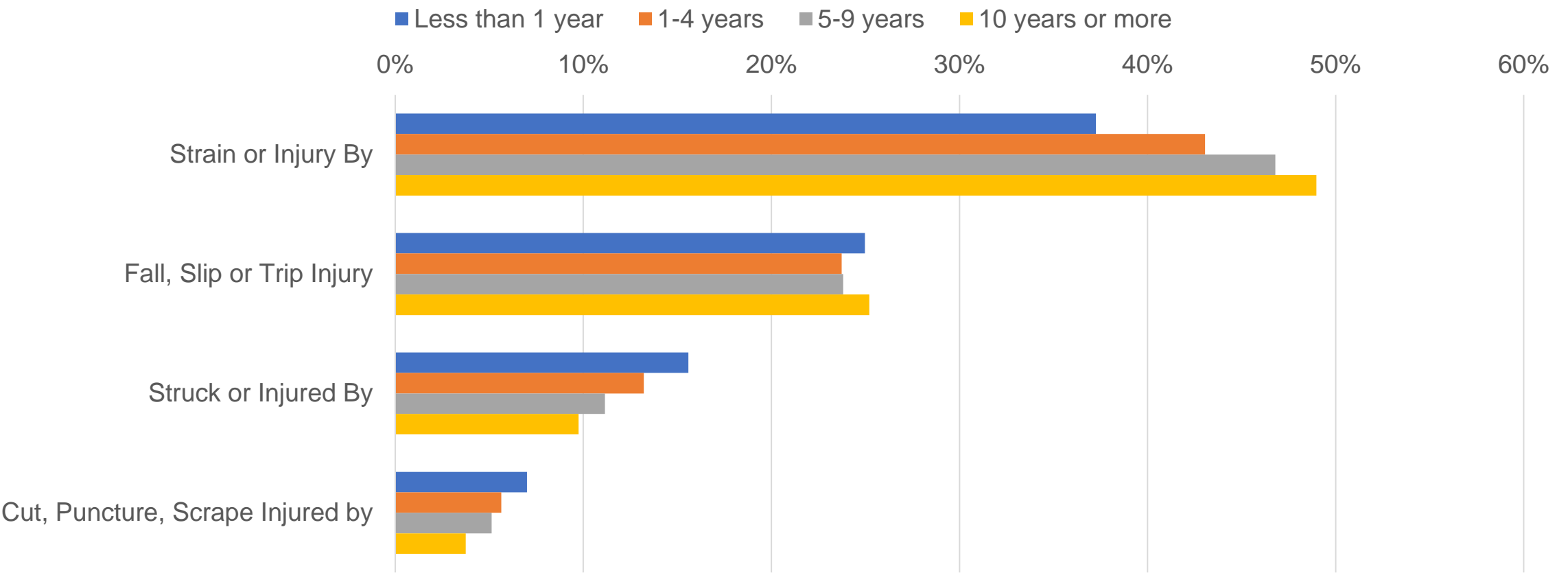
Number of CT Indemnity Claims per 100 Non-CT Indemnity Claims at RL1
(AY2020-AY2022)



Source: WCIRB indemnity transaction data and unit statistical data.

Cause of Injury Distribution by Tenure Group

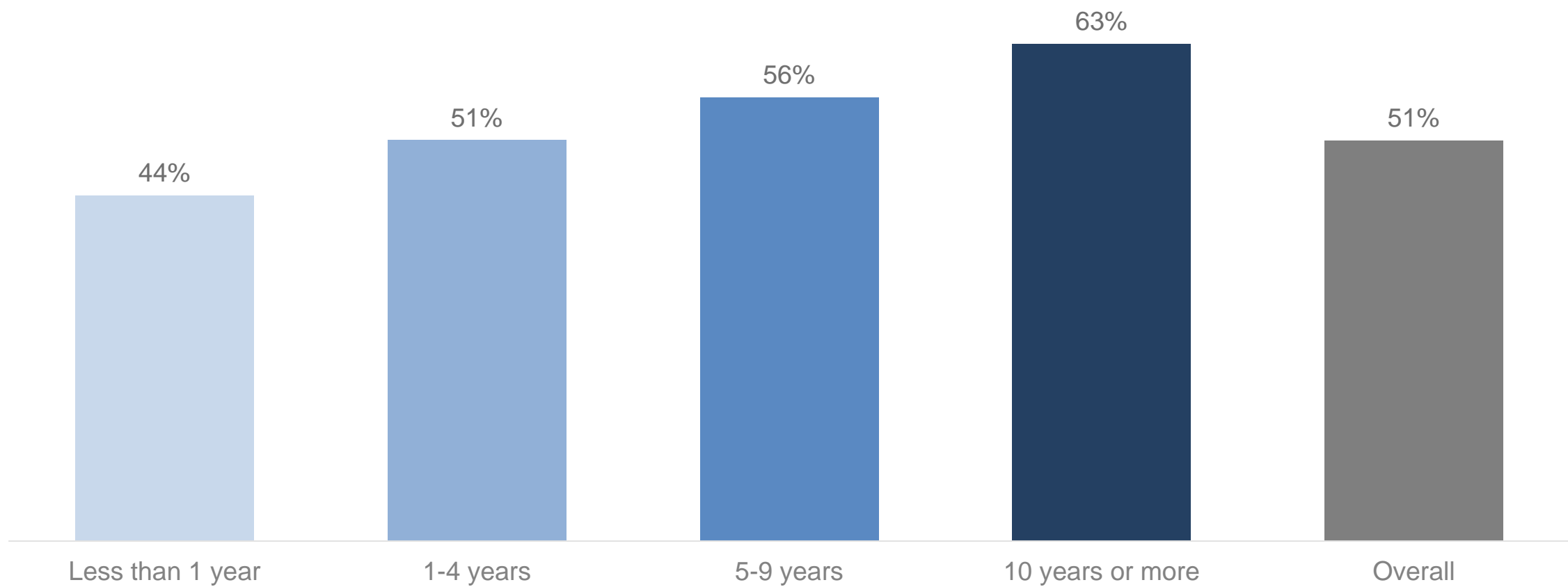
Share of Indemnity Claims by Leading Causes of Injury and Tenure Group at RL1 (AY2020-AY2022)



Source: WCIRB indemnity transaction data and unit statistical data.

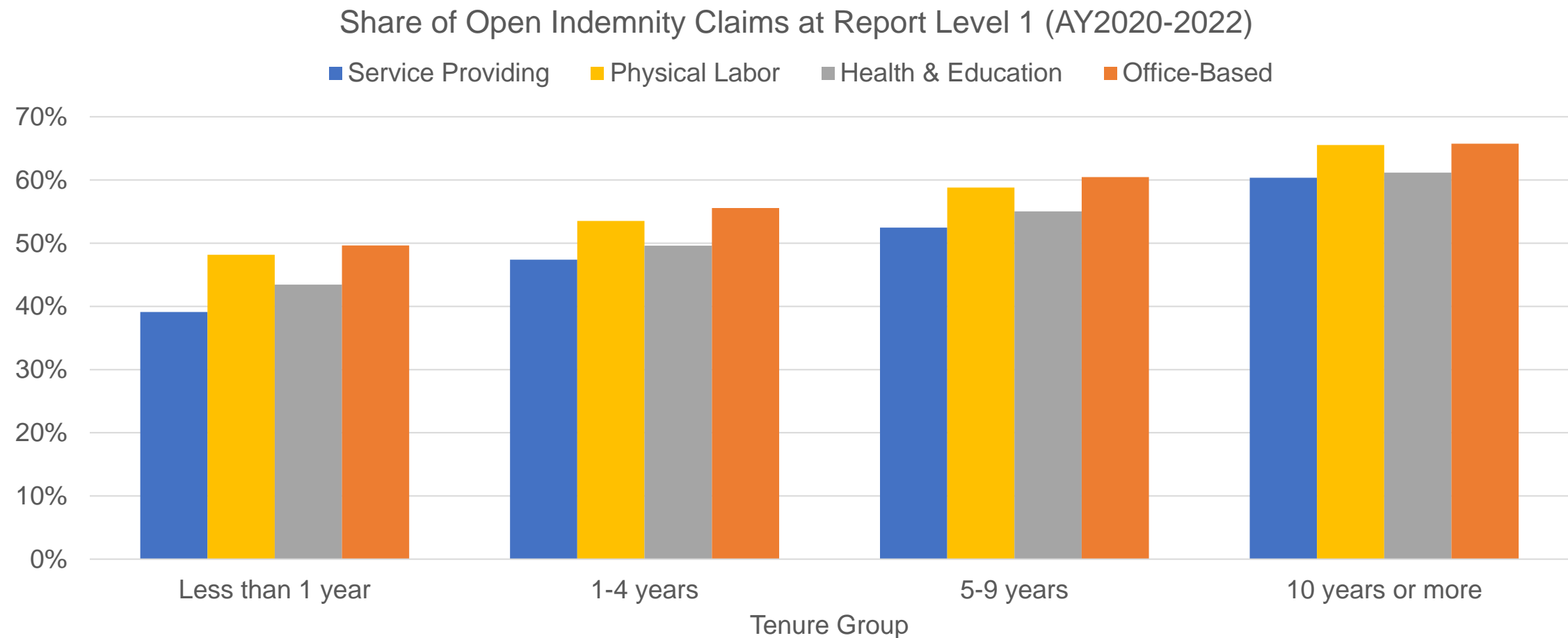
Share of Open Indemnity Claims by Tenure Group

Share of Open Indemnity Claims at RL1 (AY2020-2022)



Source: WCIRB indemnity transaction data and unit statistical data.

Share of Open Indemnity Claims by Tenure Group and Industry Group

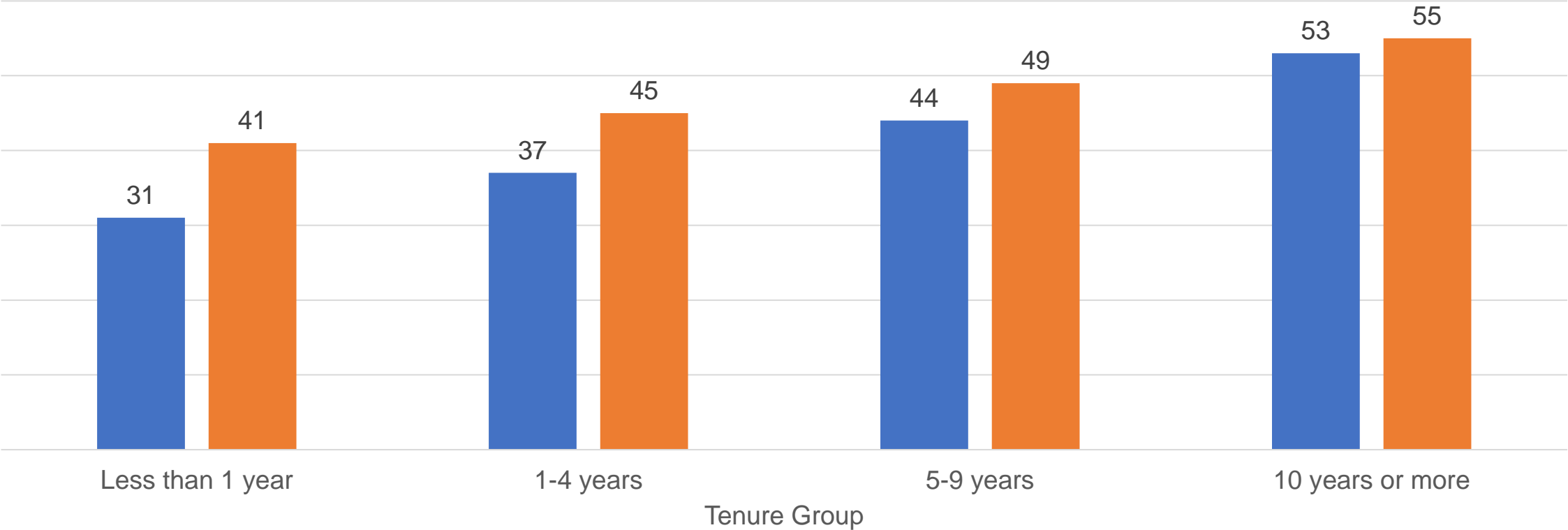


Source: WCIRB indemnity transaction data and unit statistical data.

Higher Median Age for Open Indemnity Claims within Each Tenure Group

Median Age by Tenure Group and Indemnity Claim Status at RL1 (AY2020-2022)

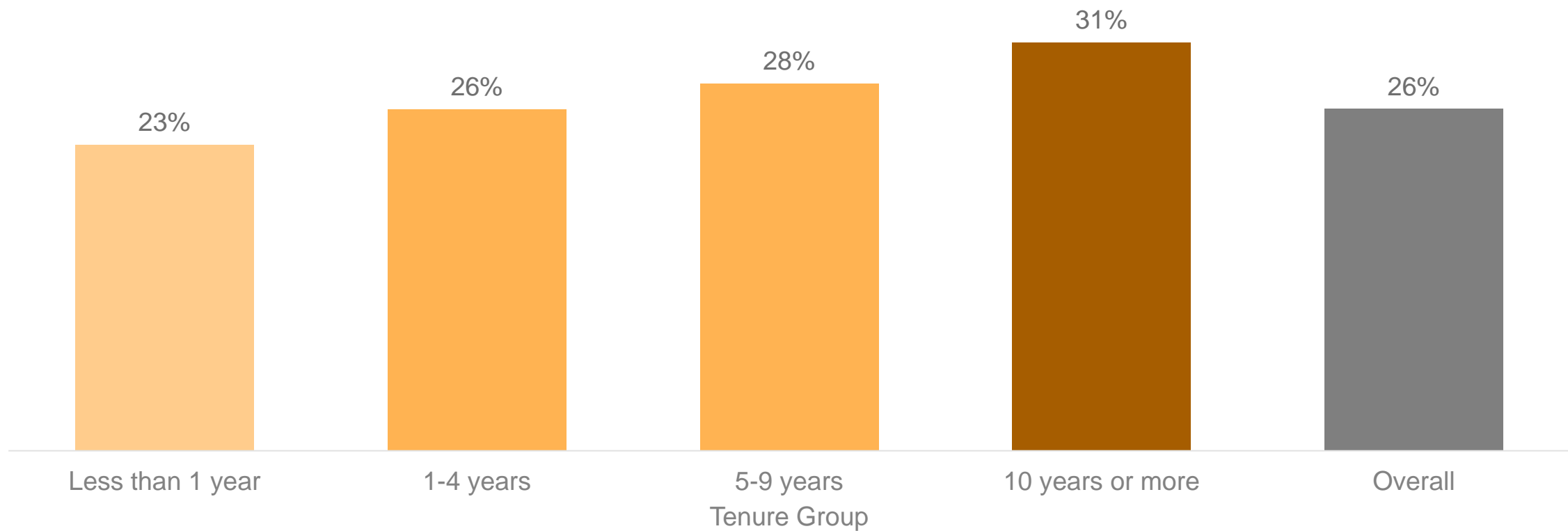
■ Closed Claim ■ Open Claim



Source: WCIRB indemnity transaction data, medical transaction data and unit statistical data.

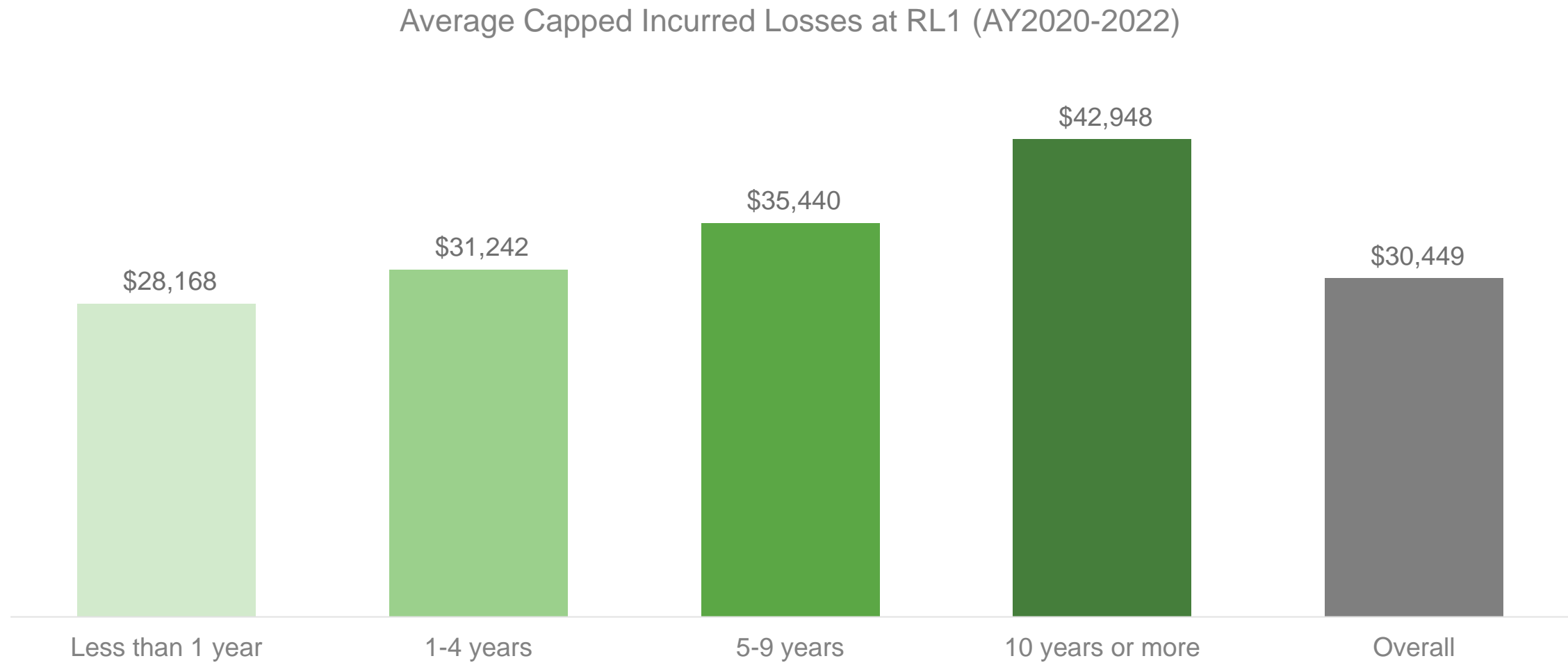
Share of Indemnity Claims Involving Permanent Disability by Tenure Group

Share of Indemnity Claims Involving Permanent Disability by Tenure Group
(AY2020-AY2022 RL1)



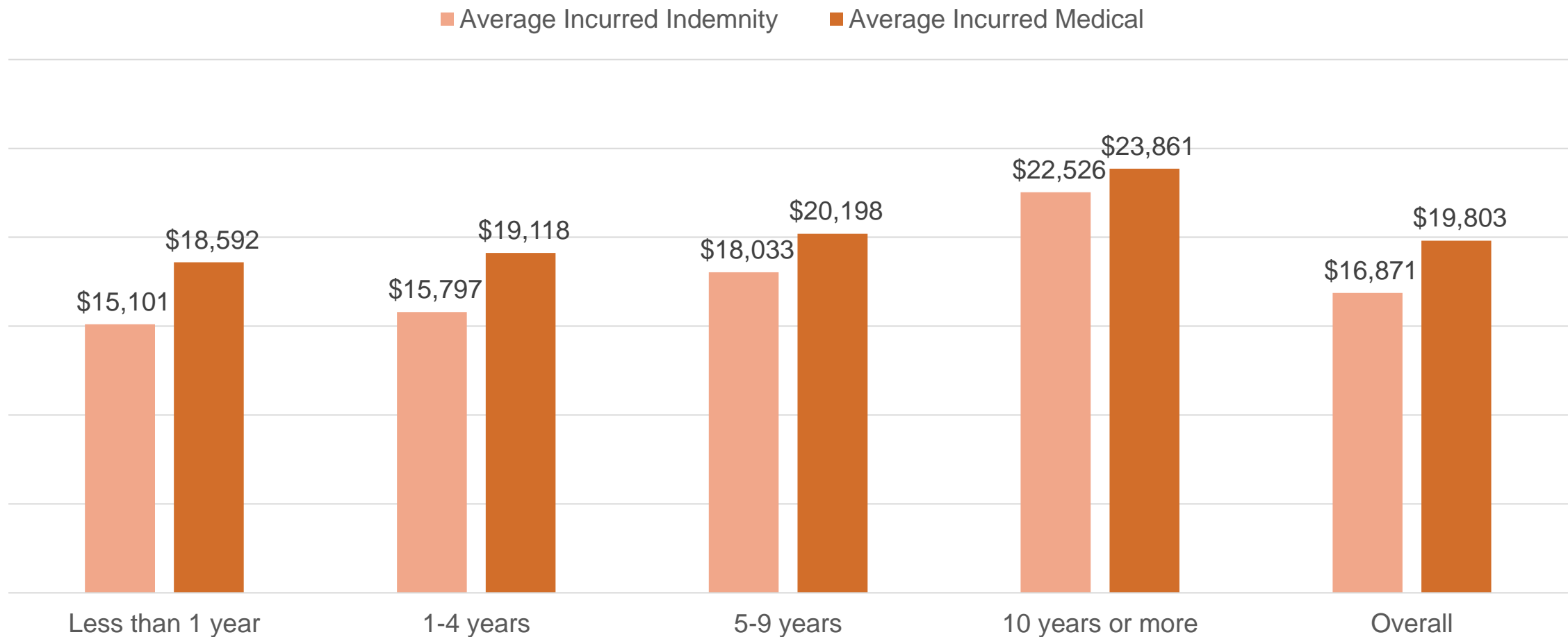
Source: WCIRB indemnity transaction data and unit statistical data.

Average Incurred on Indemnity Claims by Tenure Group



Note: Incurred losses are capped at \$500,000 per claim.
Source: WCIRB indemnity transaction data and unit statistical data.

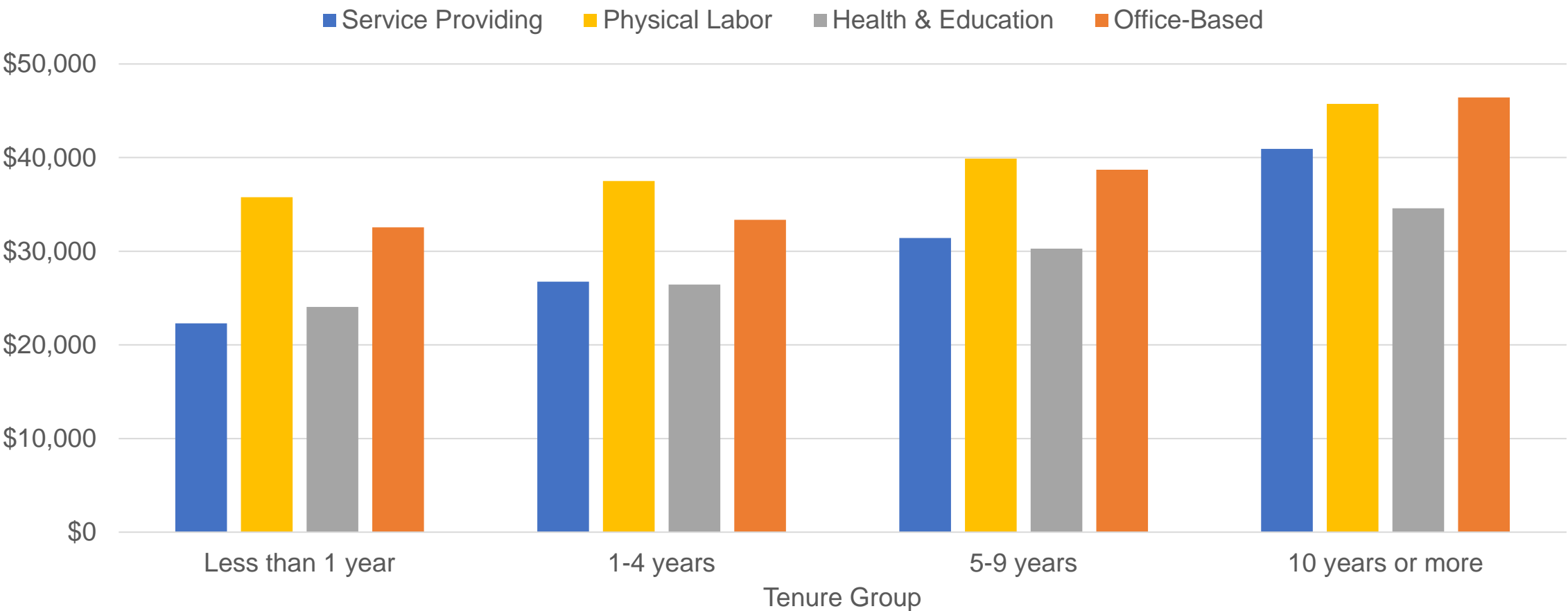
Average Incurred Indemnity and Medical on Indemnity Claims at RL1 by Tenure Group



Source: WCIRB indemnity transaction data and unit statistical data.

Average Incurred on Indemnity Claims by Tenure Group and Industry Group

Average Incurred Losses at Report Level 1 (AY2020-AY2022)



Note: Incurred losses are capped at \$500,000 per claim.
Source: WCIRB indemnity transaction data and unit statistical data.

Summary of Preliminary Findings

- Overall, ~75% of injured workers vs. <60% of California workers had tenure less than 5 years
 - Since 2020, share of injured workers with tenure <1 year increased, while tenure of 1-4 years decreased
 - During the same period, share of California workers with tenure <1 year also increased, while tenure of 10+ years decreased
- Claim frequency decreases as tenure increases, with >2X differential between <1 year and 1-4 years
 - Similar patterns for indemnity frequency
 - Highest differential among physical labor industries and service providing industries
- Indemnity claim frequency increased in 2022 compared to 2020 for all tenure groups
 - Largest increase in tenure groups of <1 year and 5-9 years
 - Differential in frequency between <1 year and 1-4 years increased in 2022
- Indemnity claim characteristics among workers of different tenure (all at RL1)
 - Ratio of CT to non-CT claims increases as tenure increases
 - Shorter-tenured injured workers are more likely to involve struck and cut injuries and less likely to have strain injuries
 - Share of open claims and permanent disability claims increase as tenure increases
 - Average incurred higher for longer-tenured workers

Next Steps

- Analyze claim frequency by tenure group in the pre-2020 data that will be shared by the DWC
- Explore analyzing claim frequency by tenure group and by industry group in the pre-2020 period
- Continue analyzing other claim characteristics by tenure group
- Publish the study report in early 2024

Item AC23-12-04 Workplace Violence Study

Workplace Violence (WPV) is an important issue among Americans and American workers. Estimates suggest that around one in five violent incidents occur in a victim's workplace. WPV can lead to negative physical and psychological outcomes affecting personal and work function. With the COVID-19 pandemic, early indicators suggest that WPV has increased, particularly among health care workers. Several studies using workers' compensation data were conducted decades ago, but there has been limited research on workplace violence in recent years, due to limited data availability.

WCIRB staff has conducted a study on WPV injuries in the California workers' compensation system to understand the characteristics of WPV claims, including trends, demographics, industry distribution, geographic distribution, medical treatment patterns and long-term impacts on permanent disability.

At the meeting, WCIRB staff will present the analytical framework and preliminary results. Draft slides summarizing staff's preliminary findings are attached for review.



Workplace Violence Study

Background: Workplace Violence (WPV)

1 in 5

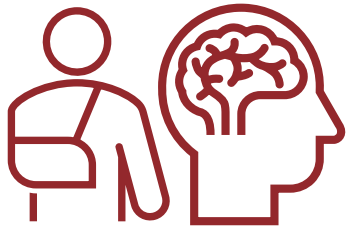
violent incidents occur
in a victim's workplace

 **~2 million**

American workers report they
are victims of a WPV incident
every year

Globally, an annual loss of
- \$121 billion

can be attributed to assaults in
the workplace



WPV can lead to negative physical
and psychological outcomes
affecting personal and work function

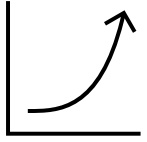


Limited research on the topic due
to data availability (two studies
using WC data were conducted
decades ago)

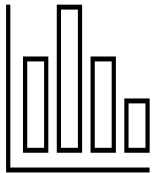


Early indication that
there was an increase in WPV
incidents during the COVID-19
pandemic, particularly among
healthcare workers

Research Questions



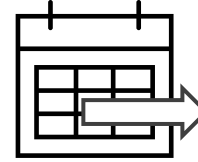
1. What is the overall pattern and trend of WPV injuries in the workers' compensation system?



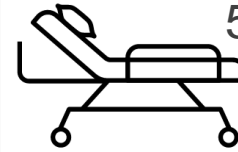
2. What are the characteristics of workers experiencing WPV injuries?
 - Distribution of age, gender, geographic location and industry sector and segment



3. What are the leading medical diagnoses for workers experiencing WPV injuries?
 - Physical injuries
 - Psychiatric conditions



4. What are the patterns of medical treatment and cost for claims involving WPV injuries?
 - First 7 days, first 6 months and in the long term



5. What are the long-term disability outcomes of workers experiencing WPV injuries?

Definition of Claims Involving WPV Injuries

According to the CDC, “workplace violence is the act or threat of violence, ranging from verbal abuse to physical assaults directed toward persons at work or on duty.”

Definition for claims involving a WPV injury:

Claims with at least one medical treatment that had an ICD code* for assault

Claims with a reported cause of injury (COI) “Gunshot Wound”

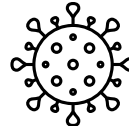
Claims with a reported COI “person in an act of crime” (i.e., robbery or criminal assault)

Claims involving medical treatment for PTSD likely related to a workplace violence incident, meeting either of the criteria below:

- PTSD claims with COI “struck injury by fellow workers, patients or other persons”
- PTSD claims filed with an employer that has a separate WPV claim within 6 months before the PTSD treatment



Includes claims from insured employers only



COVID-19 claims excluded

Note: *ICD codes used to identify assault injuries include X92-Y09 and E96.CDC:
<https://www.cdc.gov/niosh/topics/violence/default.html#:~:text=Workplace%20violence%20is%20the%20act,physical%20injury%2C%20or%20even%20death.>

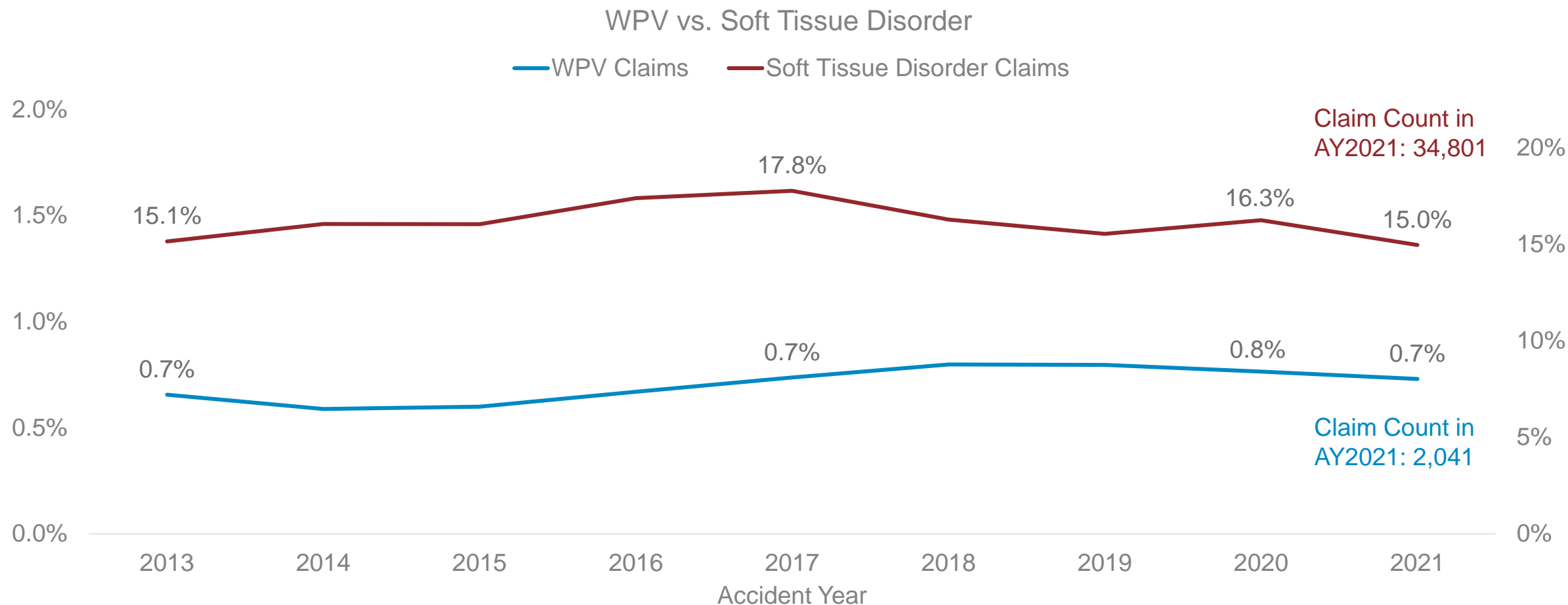
Claims Involving WPV Injuries Identified in the Workers' Compensation System (AY2013-2022)

Types of WPV Claims in the Study	Claim Share (N = 19,018)
With a reported COI Person in an Act of Crime, such as robbery and criminal assault	48%
Received medical treatment for assault injuries	32%
Involved medical treatment for PTSD related to a workplace violence event*	27%
With a reported COI Gunshot Wound	0.4%

WPV Claims Involving Physical Assault Injuries	WPV Claims Involving Psychiatric Conditions Only
83%	17%

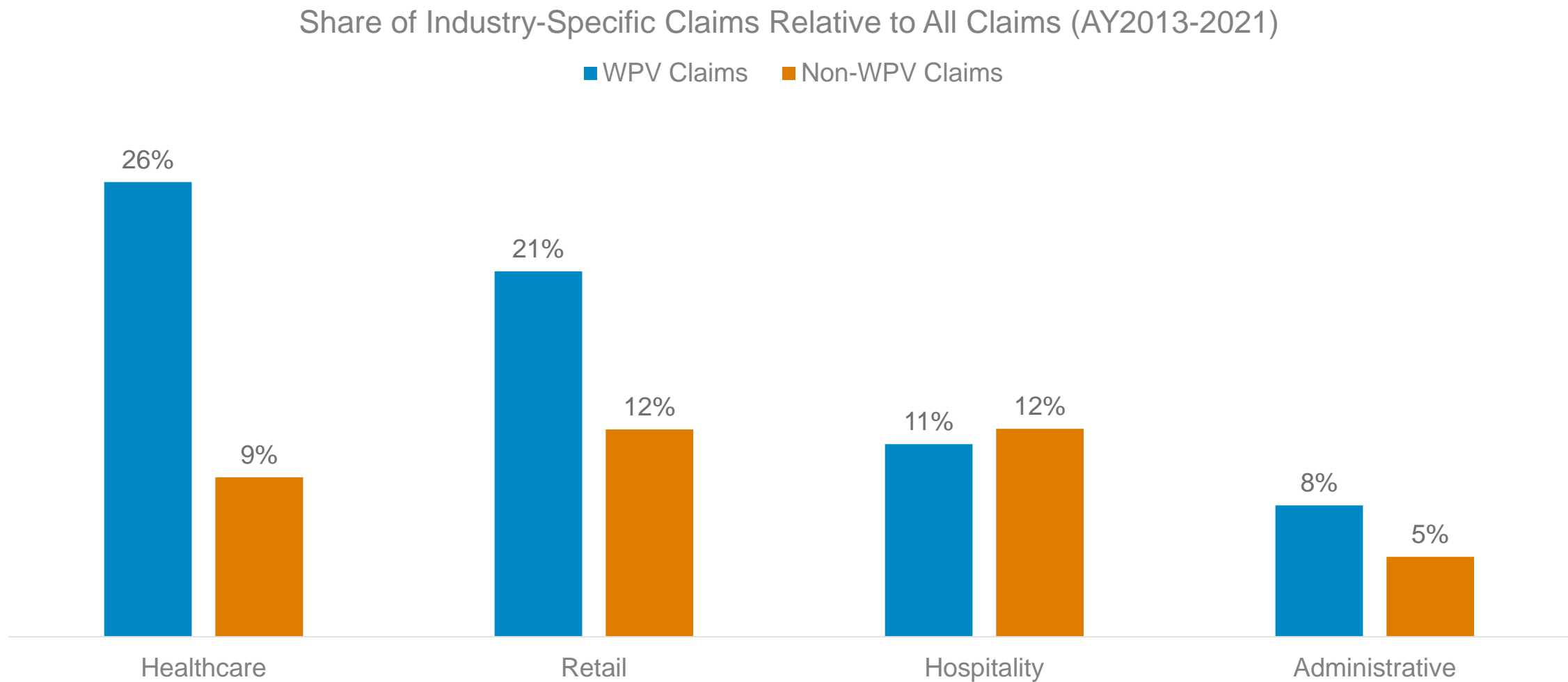
* Does not include claims with any medical treatment for assault injuries.
Source: WCIRB medical transaction data and WCIRB unit statistical data

Share of Claims Involving WPV Injuries Remained Low



Source: WCIRB medical transaction data and WCIRB unit statistical data

Share of Claims Involving Workplace Violence Injuries by Leading Industry Sectors



Source: WCIRB medical transaction data and WCIRB unit statistical data

WPV Claim Types by Leading Industry Sector (AY2013 – 2021)

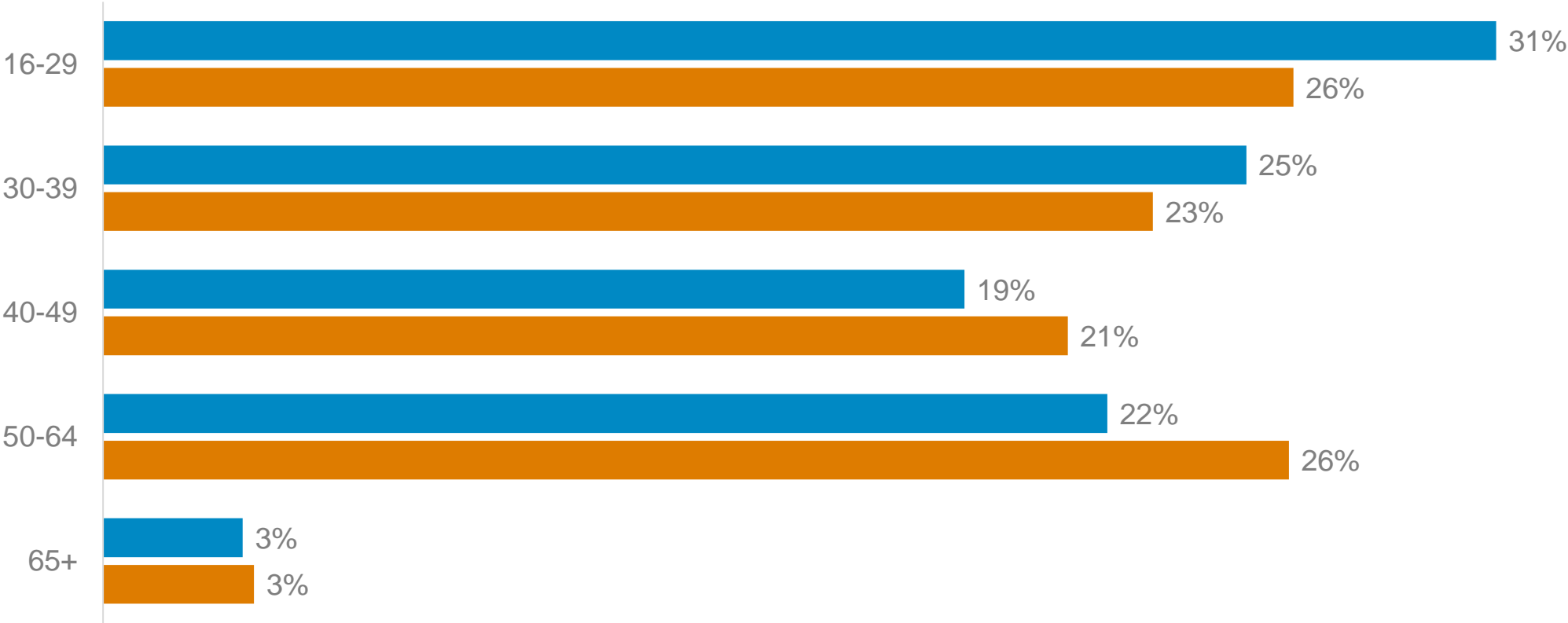
Types of WPV Claims in the Study	All WPV Claims	Healthcare	Administrative	Hospitality	Retail
Involved assault injuries	81%	81%	94%	86%	73%
Involved PTSD related to a workplace violence event*	22%	24%	11%	19%	38%
Involved gunshot wound	0.4%	0.2%	0.7%	0.7%	0.3%

* Does not include claims with any medical treatment for assault injuries.
Source: WCIRB medical transaction data and WCIRB unit statistical data

Younger Workers More Likely to Experience WPV Injuries

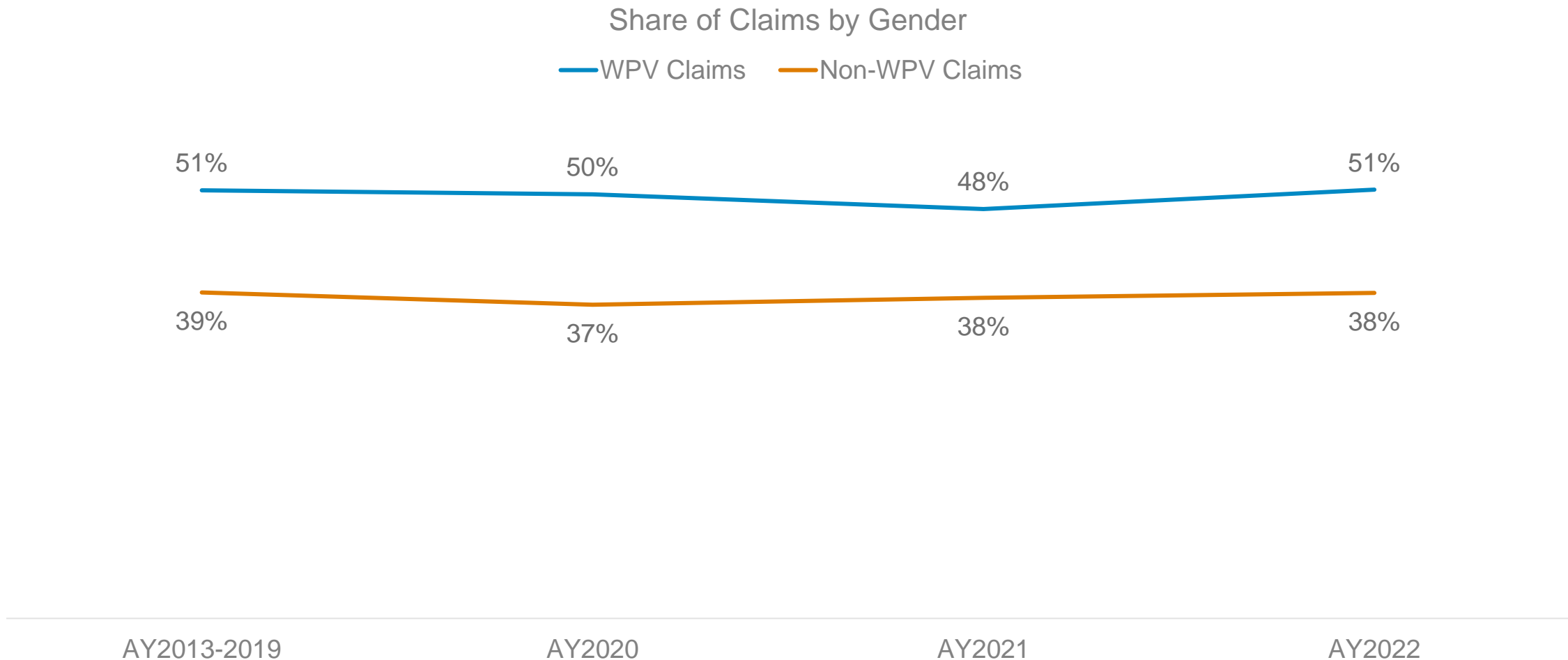
Share of Claims by Age Group (AY2013-2022)

■ WPV Claims ■ Non-WPV Claims



Source: WCIRB medical transaction data and WCIRB unit statistical data

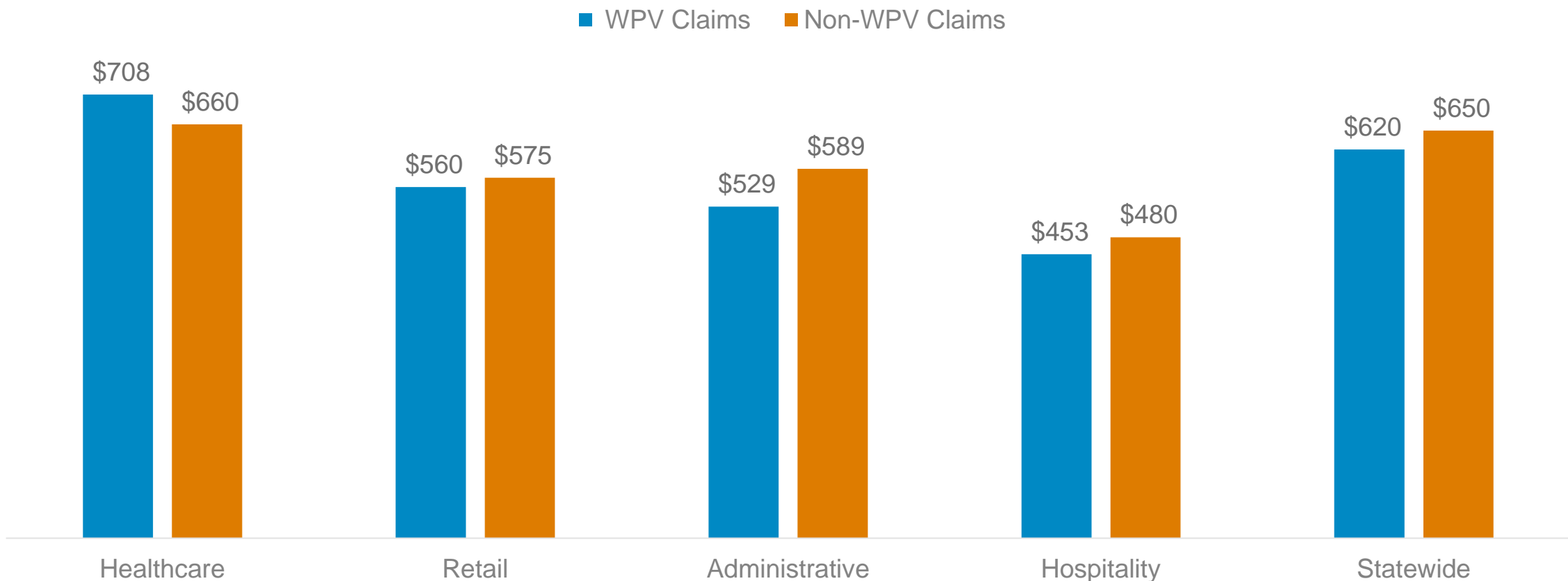
Female Workers More Likely to Experience WPV Injuries



Source: WCIRB medical transaction data and WCIRB unit statistical data

Lower Wage Employees Generally More Likely to Experience Workplace Violence Injuries

Average Weekly Wage (Median) for Injured Workers by Leading Industry Sector (AY2013-2022)

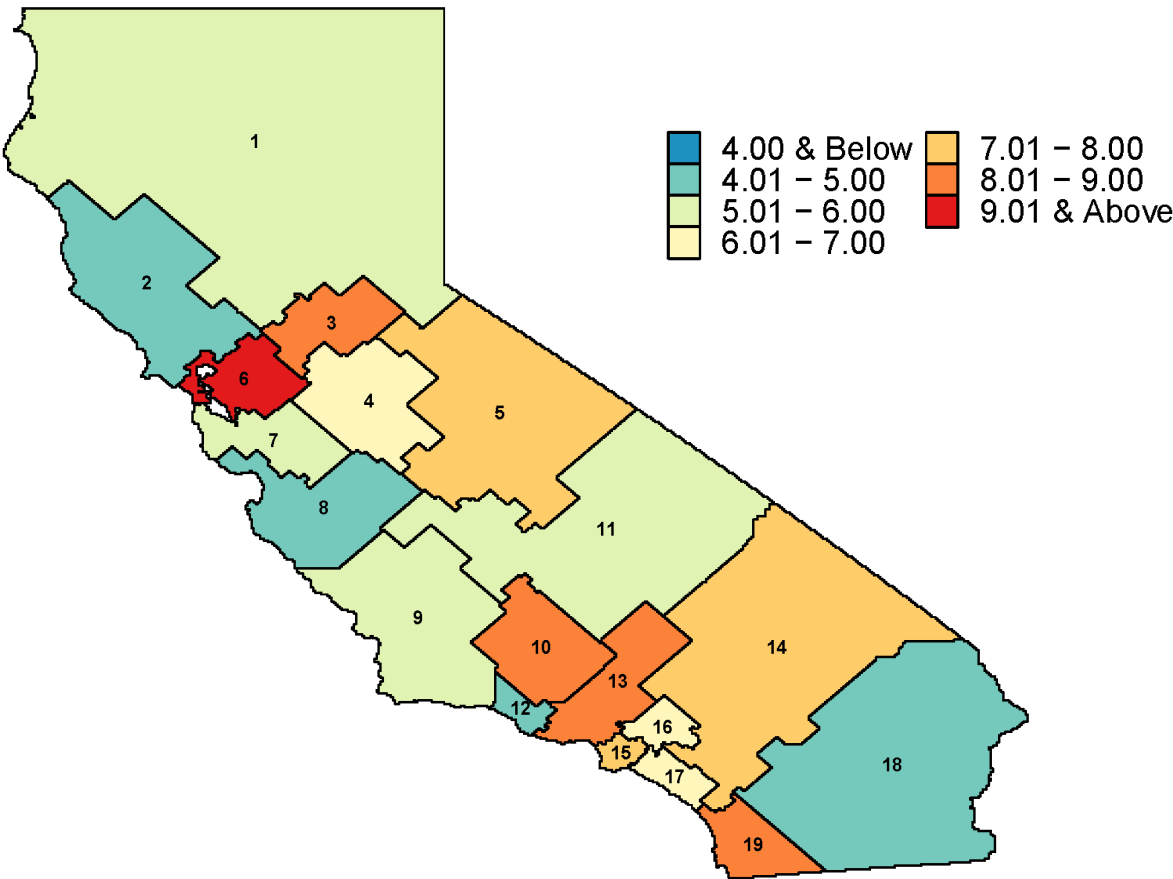


Source: WCIRB medical transaction data and WCIRB unit statistical data

Urban Areas Generally Have A Higher Relative Risk of Workplace Violence Injuries

WPV Claims per 1,000 Non-WPV Claims by Geographic Region
(AY2013-2022)

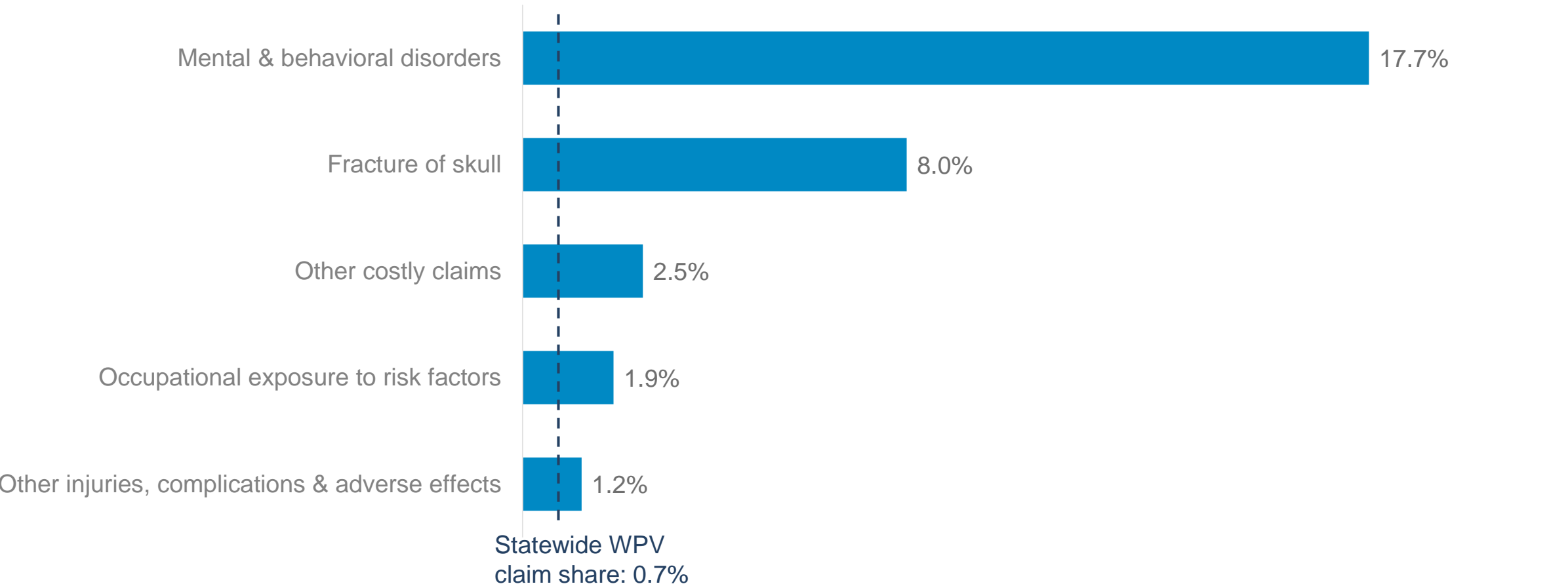
- 01 – Yuba City/Redding/Far North
- 02 – Sonoma/Napa
- 03 – Sacramento
- 04 – Stockton/Modesto/Merced
- 05 – Fresno/Madera
- 06 – Bay Area
- 07 – Peninsula/Silicon Valley
- 08 – Santa Cruz/Monterey/Salinas
- 09 – SLO/Santa Barbara
- 10 – Bakersfield
- 11 – Tulare/Inyo
- 12 – Ventura
- 13 – Santa Monica/San Fernando Valley
- 14 – San Bernardino/West Riverside
- 15 – LA/Long Beach
- 16 – San Gabriel Valley/Pasadena
- 17 – Orange County
- 18 – Imperial/Riverside
- 19 – San Diego



Source: WCIRB medical transaction data, WCIRB unit statistical data and 2023 WCIRB Geo Study

Leading Medical Diagnoses for WPV Claims

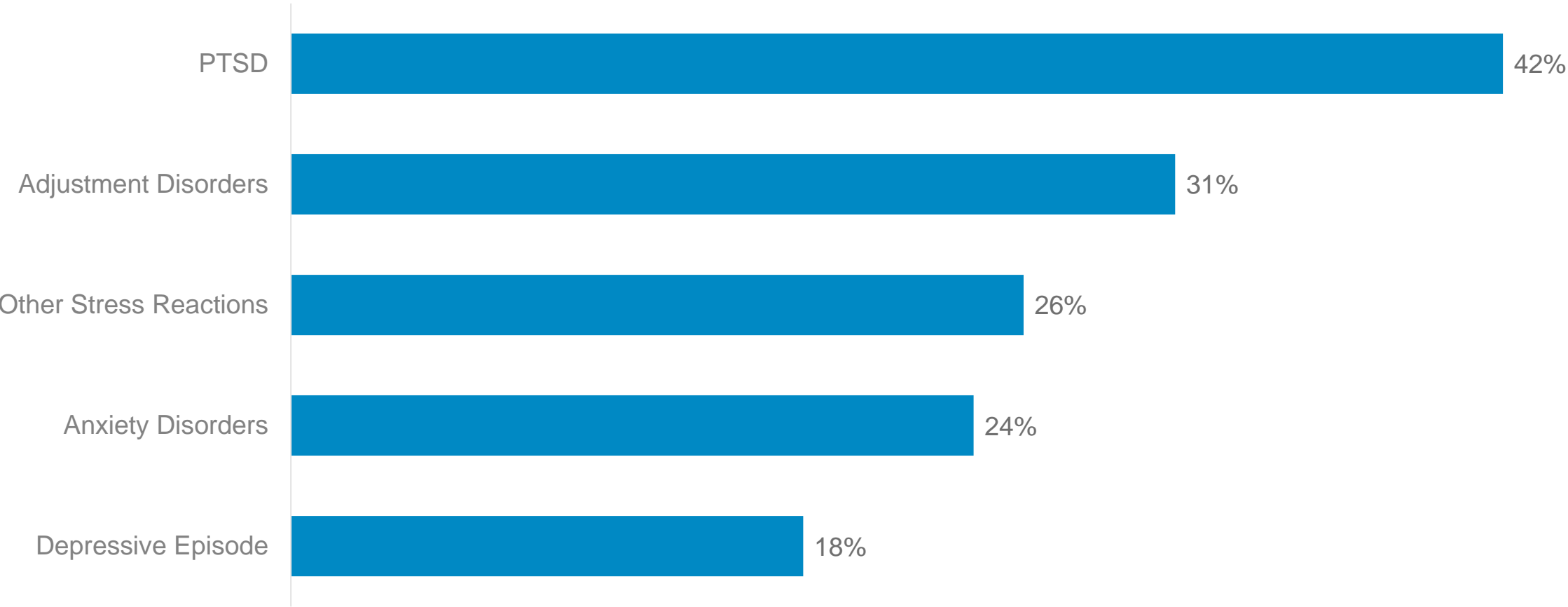
WPV Claims Relative to All Claims by Diagnostic Group (AY2013-2022)



Source: WCIRB medical transaction data and WCIRB unit statistical data

Leading Psychiatric Conditions Treated on WPV Claims

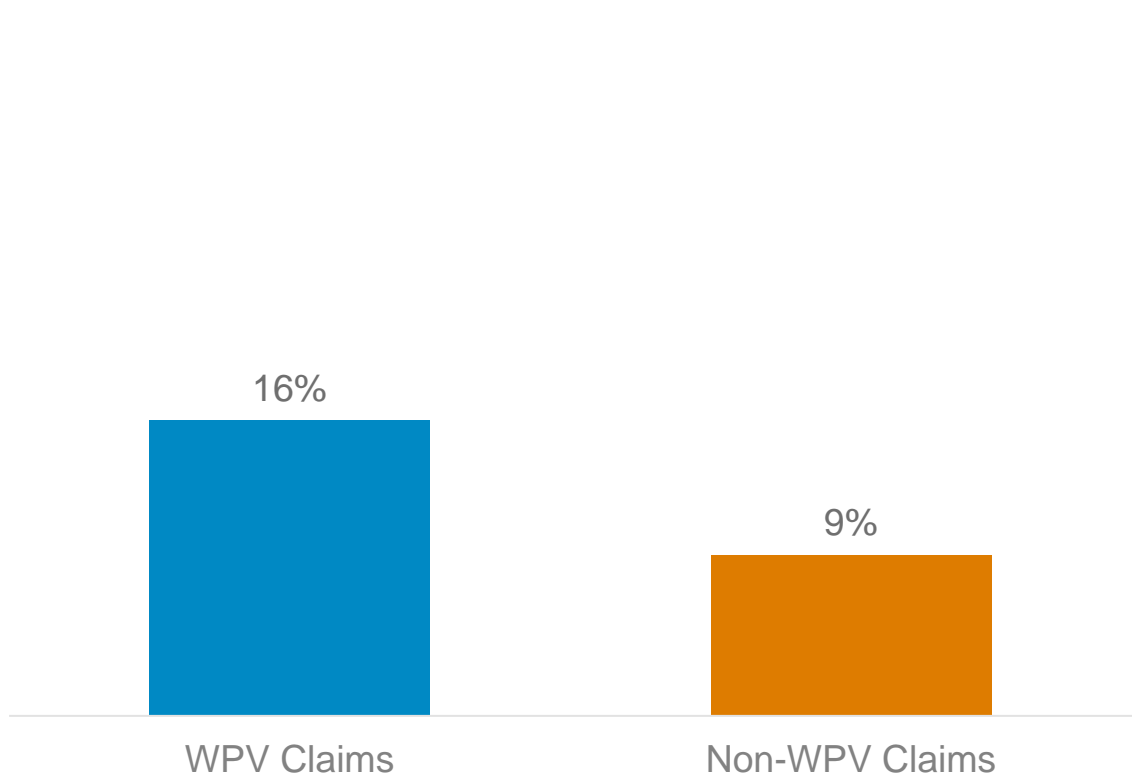
Share of WPV Claims involving Psychiatric Conditions
(AY2013-2022)



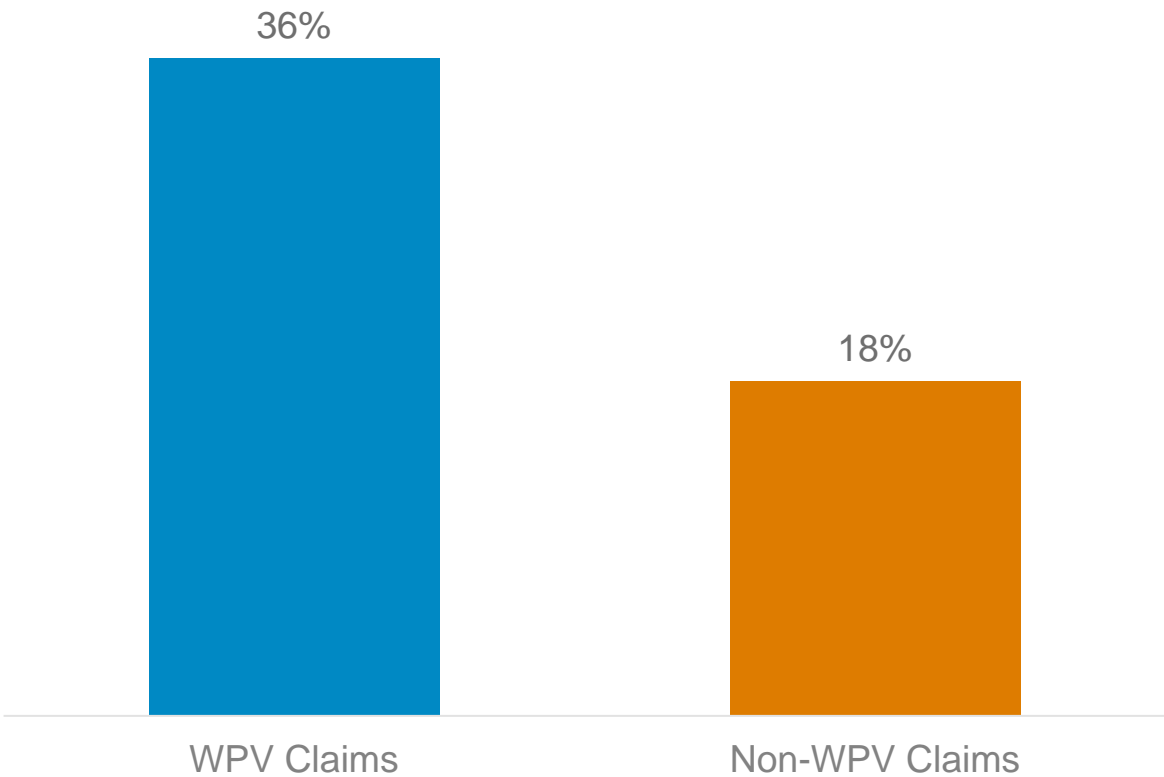
Source: WCIRB medical transaction data and WCIRB unit statistical data

More Urgent and Intensive Care Provided on WPV Claims

Share of Claims with Emergency Room as the First Visit (AY2013-2022)

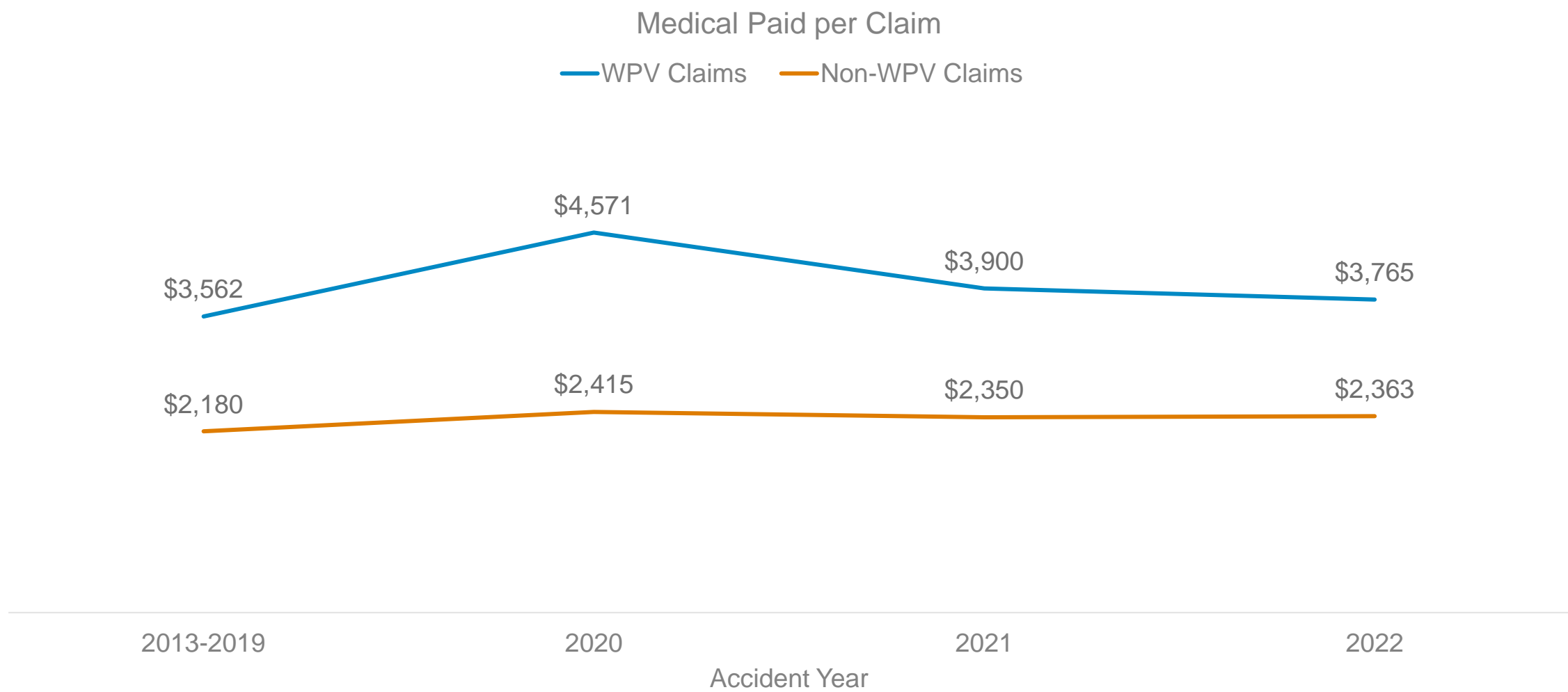


Share of Payment for Inpatient Care in the First 7 Days following Injury Date (AY2013-2022)



Note: Non-medical services excluded.
Source: WCIRB medical transaction data and WCIRB unit statistical data

Higher Average Medical Payments on WPV Claims in the First Six Months



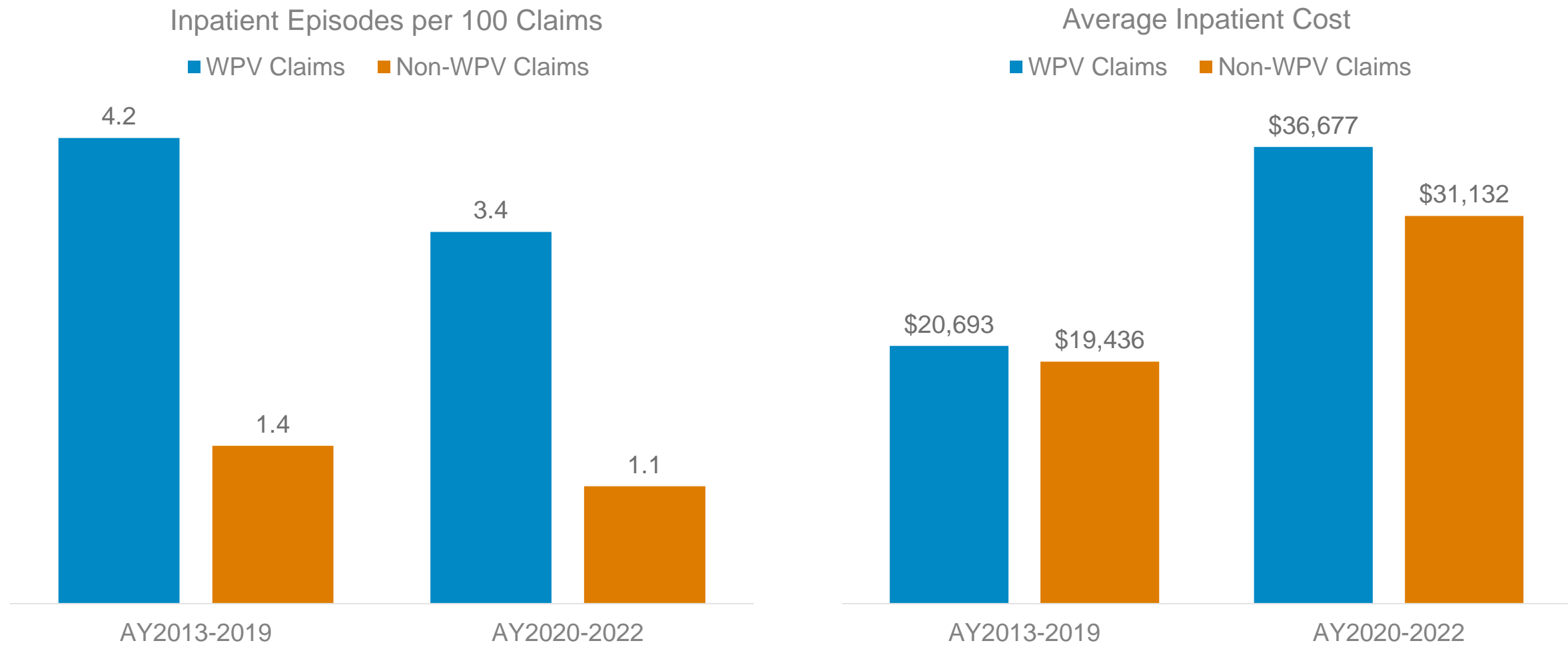
Source: WCIRB medical transaction data and WCIRB unit statistical data

Higher 6-Month Average Medical Payments on WPV Claims Driven Primarily by Higher Paid per Transaction

	Percentage difference between WPV and Non-WPV Claims		
AY	Paid per Transaction	Transactions per Claim	Paid per Claim
2013-2019	+61%	+1%	+63%
2020	+63%	+16%	+89%
2021	+48%	+12%	+66%
2022	+45%	+10%	+59%

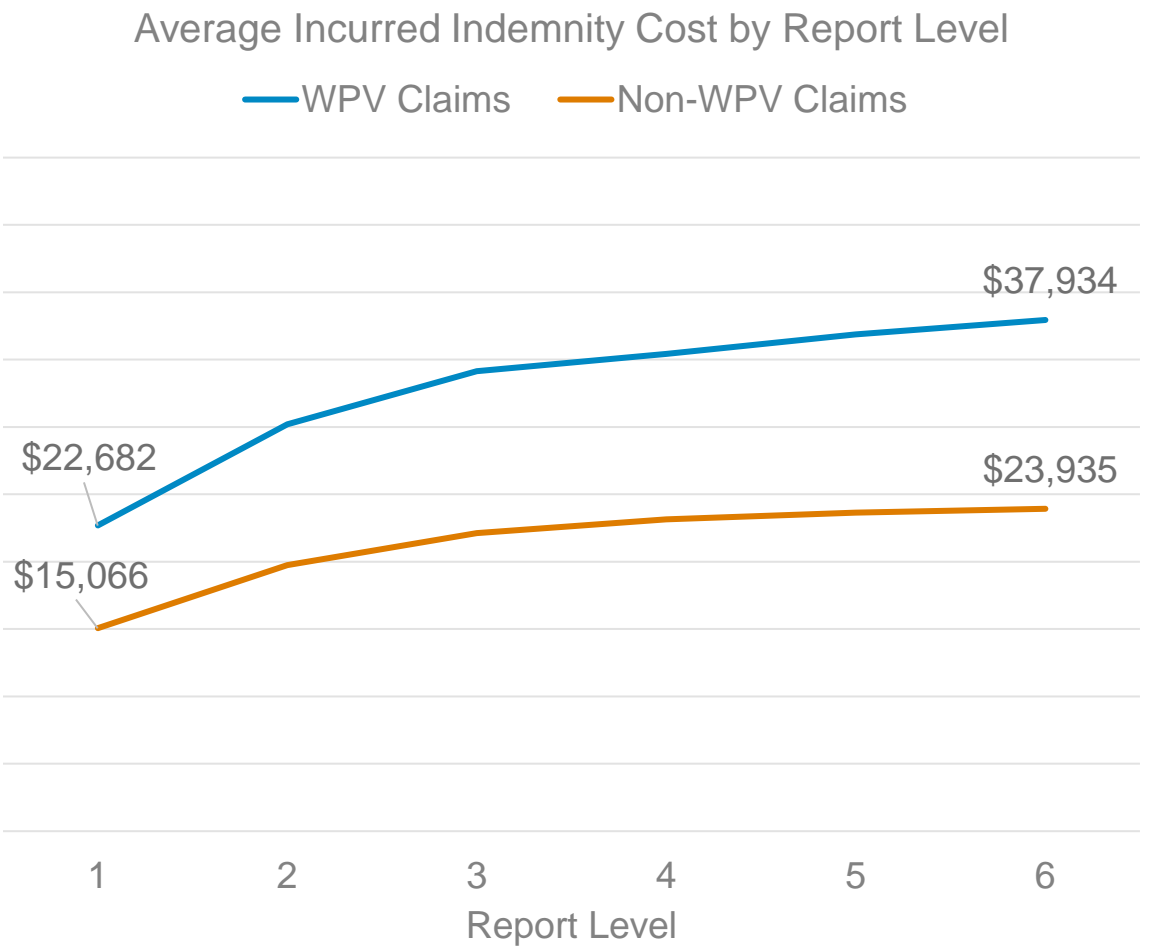
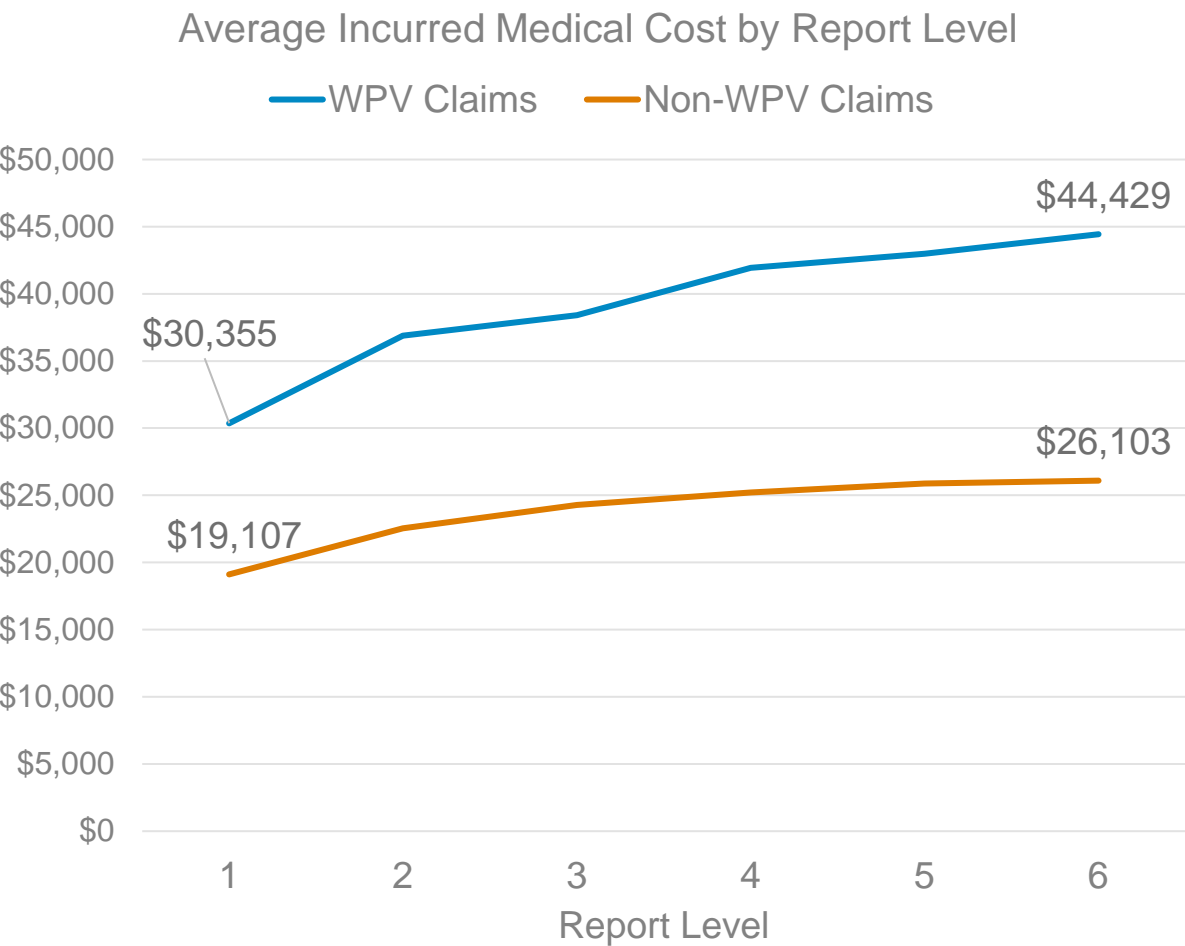
Source: WCIRB medical transaction data and WCIRB unit statistical data

Inpatient Episodes and Average Inpatient Costs during the First 6 Months of Treatment



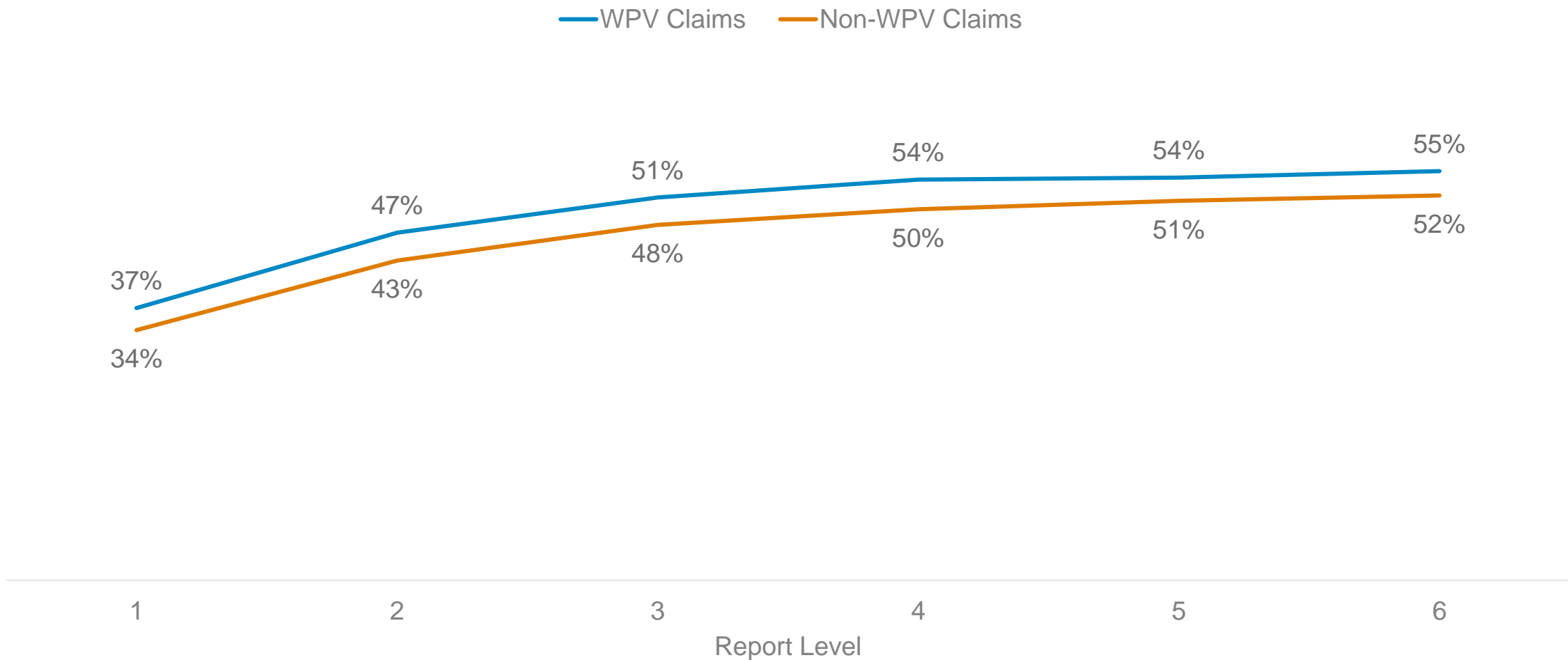
Source: WCIRB medical transaction data and WCIRB unit statistical data

Higher Long-Term Medical and Indemnity on Indemnity Claims Involving WPV



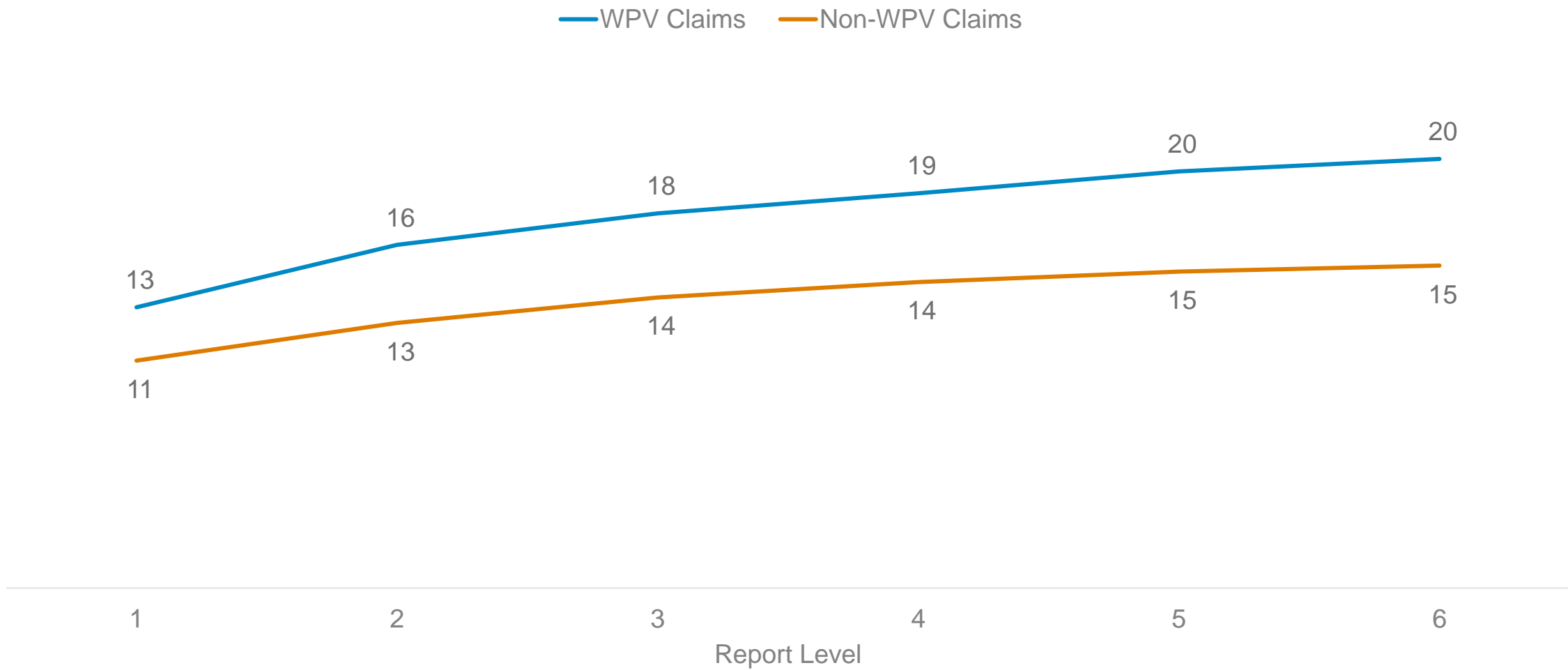
Source: WCIRB medical transaction data and WCIRB unit statistical data

Higher Share of Indemnity WPV Claims involving Permanent Disability



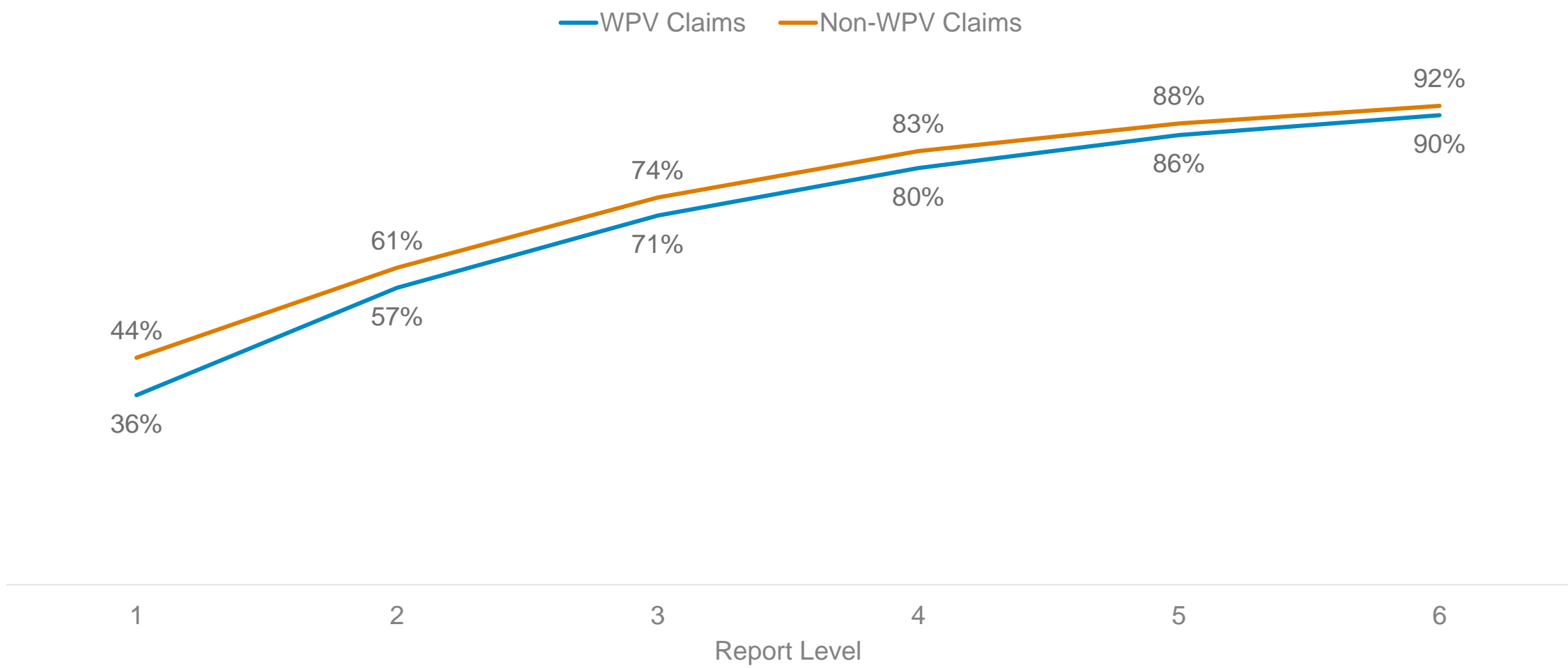
Source: WCIRB medical transaction data and WCIRB unit statistical data

Higher Average Permanent Disability Rating on WPV Claims



Source: WCIRB medical transaction data and WCIRB unit statistical data

Lower Claim Closure Rate for Indemnity WPV Claims by Report Level



Source: WCIRB medical transaction data and WCIRB unit statistical data

Item AC23-12-05

Potential 2024 Actuarial and Research Projects

Potential actuarial and medical research studies under consideration for 2024 are shown below. Also shown for each potential study is staff's assessment of the status of the study. Classification studies are separately reviewed by the Classification & Rating Committee. Input is being solicited as to the completeness and relative priority of the potential studies listed below.

A. Studies Arising Out of California Department of Insurance (CDI) Directives and Decisions

1. Indemnity Claim Frequency Model Projections. In the CDI Decision on the January 1, 2017 Pure Premium Rate Filing, the CDI recommended that the WCIRB review its frequency projection model in light of the continued increases in indemnity claim frequency. At the Public Hearings on recent pure premium rate filings, the CDI raised several questions related to the claim frequency projections.

Project Status: The WCIRB regularly reviews its frequency projection model and has made a number of enhancements over the years. Staff completed a comprehensive study of the frequency projection model in 2021 with recommended methodology enhancements approved by the Actuarial Committee at the December 9, 2021 meeting. While most of the enhancements were adopted by the Committee for use in the September 1, 2022 Pure Premium Rate Filing, implementation of several were deferred due to the anomalous impact of some of the emerging post-pandemic data on the model. Staff presented a review of these potential frequency model enhancements with an additional year of data in the first quarter of 2023, but the implementation was again deferred.

Staff anticipates presenting another review of these potential frequency model enhancements in the first quarter of 2024 for possible inclusion in the September 1, 2024 Pure Premium Rate Filing.

2. Terrorism Data Reporting. The CDI has directed staff to provide information to both the National Association of Insurance Commissioners (NAIC) and the Federal Insurance Office (FIO) related to terrorism exposure in California workers' compensation.

Project Status: Staff anticipates providing the annual updates to the NAIC and FIO in the first and second quarters of 2024.

3. Collection of COVID-19 Premium Data. In the CDI Decision on the January 1, 2021 Pure Premium Rate Filing, the Insurance Commissioner directed the WCIRB to collect information on insurer premium charges related to COVID-19.

Project Status: WCIRB aggregate data calls were modified in 2021 to collect information on insurer premium charges related to COVID-19. A summary of the premium information collected for 2021, 2022 and 2023 will be summarized for the Actuarial Committee in the second quarter of 2024.

B. Studies/Projects Directed by Legislation

1. Statewide Paid Costs. Section 11759.1 of the Insurance Code requires the WCIRB to report annually on workers' compensation costs paid during the preceding calendar year. The 2023 calendar year report is required to be completed by June 2024.

Project Status: Staff anticipates publishing the required report by the end of the second quarter of 2024. In addition, as in the last several years, staff anticipates compiling

information from this report and other WCIRB reports into a high level “executive summary” of the state of the California workers’ compensation system to be published by the third quarter of 2024.

2. Policyholder Dividends. Section 11739 of the Insurance Code requires the WCIRB to collect information on policyholder dividends in California and prepare an annual report to the Insurance Commissioner.

Project Status: Staff anticipates providing the report on 2023 dividends to the CDI by the third quarter of 2024.

3. Report on Roofing Industry. Section 11665 of the Insurance Code requires the WCIRB to annually compile and report the payroll and loss data reported in the roofing classification for employers holding C-39 licenses from the Contractors State License Board as well as the payroll and loss information by employer payroll size interval.

Project Status: Staff anticipates providing this annual report to the CDI in the second quarter of 2024.

C. COVID-19 Pandemic Related Research

1. Projected Cost of Future COVID-19 Claims. Approximately 300,000 workers’ compensation claims have been filed in the state. Beginning in mid-2020, the Actuarial Committee has been reviewing the potential impact of COVID-19 claims on advisory pure premium rates.

Project Status: In 2020, the WCIRB published several evaluations of prospective and adopted presumptions of compensability for specified COVID-19 claims. The WCIRB’s Amended January 1, 2021 Pure Premium Rate Filing included an evaluation of the cost impact on COVID-19 claims on 2021 policies that contemplated the impact of the presumption in Senate Bill No. 1159. Based on updated projections of COVID-19 cost drivers available at various points in time:

- **The September 1, 2021 and September, 2023 Pure Premium Rate Filings did not include a provision for the projected cost of COVID-19 claims.**
- **The September 1, 2022 Pure Premium Rate Filing did include a provision for the projected cost of COVID-19 claims.**

Staff will propose a strategy for addressing the projected cost of COVID-19 claims as part of the September 1, 2024 Pure Premium Rate Filing process in the second quarter of 2024.

2. Impact of Pandemic-Related Recession on Wage and Claim Projections. Unemployment in California increased sharply during the pandemic and resultant stay-at-home orders resulting in many business slowdowns and closures. The impacts of the recession varied dramatically by industry sector and wage level and the economic recovery over the last two years has been uneven. Sharp economic shifts can significantly impact future changes in wage levels, claim frequency and claim severity.

Project Status: In 2020, the WCIRB published a research brief on the impact of economic downturns on indemnity claim frequency. In early 2021, early 2022 and early 2023, staff presented updated analyses of the impacts of the pandemic on wages, premiums, claim frequencies and claim severities and many of those projected impacts were reflected in the September 1, 2021, September 1, 2022 and September 1, 2023 Pure Premium Rate Filings. Staff anticipates updating these projections in consideration of the September 1, 2024 Pure Premium Rate Filing in the first and second quarters of 2024.

3. COVID-19 Claim Indicators. The COVID-19 pandemic is having a significant impact on emerging costs. Among the areas potentially impacted include claim frequency, medical treatment levels, COVID-19 diagnosis claims, claim settlement rates, litigation rates, cumulative trauma claims, post-termination claims and temporary disability duration.

Project Status: In 2020, the WCIRB initiated a COVID-19 cost monitoring process using indemnity transaction data, medical transaction data, unit statistical data, information from the Division of Workers' Compensation (DWC), special surveys as needed and other information to develop early indicators of experience emerging during the pandemic. Staff provided summaries of this information at several Actuarial Committee meetings, and research briefs summarizing the latest available information were published in October 2021 and October 2022. Staff continued to provide regular updates to the Committee in 2023 and an updated research brief on COVID-19 claim characteristics was published in October 2023. COVID-19 has become more endemic and the volume and cost of COVID-19 claims declined during 2022 and remained stable in 2023. In 2024 and forward, staff does not plan to present COVID-19 claim diagnostics as a standalone item but will integrate COVID-19 data into the standard claim diagnostics package.

4. Countrywide COVID-19 Claim Information. While there have been several state-specific analyses of the impact of COVID-19 claims on the workers' compensation system, limited analyses published from a countrywide perspective have been published. In 2021, the WCIRB, NCCI and several other independent bureaus have discussed preparing an analysis summarizing the countrywide impact of COVID-19 claims as well as highlighting state differentials.

Project Status: Staff collaborated with a team of actuaries from other rating bureaus to prepare an analysis of the countrywide patterns of COVID-19 claim characteristics based on aggregate data evaluated as of December 31, 2020. The report was published on December 15, 2021. An updated study based on aggregate financial data as of December 31, 2021, as well as unit statistical data was published on November 15, 2022, and a webinar summarizing the results took place in January 2023. No further work on this countrywide analysis is anticipated for 2024.

5. COVID-19 Claim Severity and "Long COVID". Extensive information is available on the number of COVID-19 claims. However, given how recently these claims have occurred, the nature of the more severe claims and typical lags in the reporting of hospital payments, limited information has been summarized on the cost and treatment patterns of COVID-19 claims. Similarly, there is limited information available on the potential impact of post-acute sequelae SARS-CoV-2 (commonly referred to as "long COVID") claims on the workers' compensation system.

Project Status: An analysis of the cost and treatment patterns of severe COVID-19 claims based on data from both the workers' compensation system and the group health system was published on March 2, 2022. An update was presented to the Actuarial Committee for review at the December 8, 2022 meeting and an update was published in June 2023. Another update of the Long COVID component of the study based on an additional year of experience will be presented to the Actuarial Committee at the December 5, 2023 meeting and the publication of a second update to the original study is anticipated to be published in the third quarter of 2024.

6. Telemedicine. With the COVID-19 pandemic and resultant stay-at-home orders, the use of telemedicine in workers' compensation has increased. While the level of telemedicine services has declined somewhat from the early months of the pandemic, it appears that telemedicine will remain a permanent component of the workers' compensation system. At the November 4, 2021 meeting, the Medical Analytics Working Group (MAWG) recommended that the WCIRB complete an in-depth analysis of the use of telemedicine in workers' compensation.

Project Status: In 2020 and 2021, staff presented regular summaries of costs reported in telemedicine codes to the Actuarial Committee. Staff presented an in-depth analysis of telemedicine for Actuarial Committee review at the December 8, 2022 meeting and a report was published in March 2023. Staff does not anticipate further analysis of this issue in 2024.

7. Telecommuting. With the COVID-19 pandemic and resultant stay-at-home orders, many employees have begun working from home and a significant level of telecommuting is likely to continue beyond the pandemic. A new classification for telecommuting was proposed by the WCIRB and adopted by the Insurance Commissioner effective January 1, 2021.

Project Status: At the August 4, 2020 Actuarial Committee and August 7, 2020 Classification and Rating (C & R) Committee meetings, the Committees agreed that the advisory pure premium rate for the new classification being proposed to be initially equal to that for the clerical classification. Both Committees also recommended that preliminary experience emerging in the new classification be reviewed as soon as initially available to assess whether there is a significant differential in experience between the new classification and the clerical classification. Staff presented its analysis of emerging experience in the new telecommuting classification to both the Actuarial Committee and the C & R Committee during 2023 for consideration in the September 1, 2023 Regulatory and Pure Premium Rate Filings and included an adjustment to the pure premium rate for the new classification, Classification 8871, in the September 1, 2023 Pure Premium Rate Filing. During 2024, staff plans to present the latest Classification 8871 experience for Actuarial Committee review in consideration of the September 1, 2024 Pure Premium Rate Filing by the second quarter of 2024.

8. Impact of Pandemic on Classification Relativities. While COVID-19 claims have been excluded from classification relativities as from experience rating and overall pure premium ratemaking, the indirect pandemic impacts have affected different classifications in different ways. As a result, staff is reviewing potential adjustments to the classification ratemaking process to correct for any potential distortions caused by the pandemic.

Project Status: Staff presented an initial analysis of alternative approaches at the September 13, 2022 meeting. Staff's recommendations were adopted by the Actuarial Committee and included in the September 1, 2023 Regulatory Filing in February 2023. At the December 5, 2023 meeting, staff will review the adjustments, as appropriate, with respect to the September 1, 2024 filings.

9. Future Pandemic Losses. With the COVID-19 pandemic emerging in 2020 and generating more than 300,000 workers' compensation claims in California, the Actuarial Committee has discussed analyses of the potential system costs of future pandemics.

Project Status: Staff has begun discussions with a catastrophe modeler who has developed a pandemic model and are building out the workers' compensation component of the model. Staff does not anticipate further analysis of this issue in 2024 but suggests that consideration be given as to whether a study in the future may be appropriate.

D. Cost Impact of Legislative and Regulatory Changes

1. 2021 Fee Schedule Changes. Effective March 1, 2021, the DWC adopted changes to the Evaluation and Management Section of California's Official Medical Fee Schedule (OMFS) to conform to recent changes to Medicare that included significant changes to the values and structure of the Schedule. Effective April 1, 2021, the DWC adopted significant changes to California's Medical-Legal Fee Schedule intended to increase the reimbursement rate for medical-legal reports while eliminating the increased hourly billing provisions.

Project Status: The WCIRB's evaluation of the impact of the 2021 fee schedule changes was included in the WCIRB's September 1, 2021 Pure Premium Rate Filing. Staff's initial retrospective evaluation of these two fee schedule changes were reviewed by the Actuarial Committee at the April 14, 2022 meeting with updated estimates reflected in the September 1, 2022 Pure Premium Rate Filing. Given that the impact of the Medical-Legal Fee Schedule change was much greater than originally estimated, staff completed a retrospective evaluation of the impact of the April 1, 2021 Medical-Legal Fee Schedule for review at the April 13, 2023 Actuarial Committee meeting, and updated estimates were reflected in the September 1, 2023 Pure Premium Rate Filing. Staff anticipates completing another retrospective evaluation of the impact of the April 1, 2021 Medical-Legal Fee Schedule for Actuarial Committee review in consideration of the September 1, 2024 Pure Premium Rate Filing by the second quarter of 2024.

2. Additional Fee Schedules. SB 863 provided for new fee schedules for interpreter and home health services to be promulgated.

Project Status: At this time, the DWC has not promulgated final schedules for interpreter or home health services. If any of those fee schedules are finalized or significant changes are made to an existing fee schedule, working with the Claims Working Group, Medical Analytics Working Group and Actuarial Committee, staff anticipates completing its analysis of the pure premium rate impact of the new fee schedules within 120 days of the final values being promulgated.

3. Adjustments to Loss Development Projections for Reforms. In that legislative and regulatory reforms can not only impact overall cost levels but also the rate at which claims are paid, the WCIRB often adjusts loss development patterns for the impact of the reforms.

Project Status: The WCIRB regularly reviews the adjustments to loss development for reform impacts as part of the annual pure premium rate process. Staff anticipates continuing to review these adjustments as part of the regular review of alternative loss development projections in the second quarter of 2024.

E. Other Studies Directly Impacting Pure Premium Rates and Rate Level Projections

1. Classification Ratemaking Methodologies. Although the WCIRB has reflected refinements to the classification ratemaking loss development process in 2012 as well as adjustments for differences in wage levels by classification in 2016, a comprehensive review of the classification ratemaking methodologies has not been undertaken for a number of years.

Project Status: Staff completed a comprehensive study of loss development as the first phase of a multi-year comprehensive study of classification ratemaking methodologies with the results included in the September 1, 2022 Regulatory Filing. The second phase of the study, which focused on payroll on-leveling for the impact of wage growth was reviewed by the Actuarial Committee at the December 9, 2021 meeting and reflected in the September 1, 2022 Regulatory Filing. Staff presented the results of the third phase of the comprehensive review focusing on pure premium ratemaking for smaller classifications at the December 6, 2022 Actuarial Committee meeting. Staff is presenting the results of the fourth phase of this comprehensive review with a focus on loss limitations at the December 5, 2023 meeting. In 2024, staff anticipates continuing its analysis of small classification ratemaking with recommended methodology enhancements to be presented to the Actuarial Committee in the fourth quarter of 2024.

2. Study of Dual Wage Thresholds. In 2017, the C & R Committee recommended that a comprehensive study of the dual wage classification thresholds be conducted every two years.

Project Status: The 2023 update to the dual wage thresholds was approved by the C & R Committee at the November 14, 2023 meeting for inclusion in the September 1, 2024 Regulatory Filing. Staff anticipates completing the next comprehensive study of the dual wage thresholds for the C & R Committee's review by the fourth quarter of 2025 in preparation for the September 1, 2026 Regulatory Filing.

3. Payroll Limitations for Classification Ratemaking. At the March 21, 2017 meeting, the Actuarial Committee noted that total costs per \$100 of payroll declined at higher wage levels and it was agreed that staff begin to explore expanding the number of classifications subject to an employee annual payroll limitation.

Project Status: In the January 1, 2019 Regulatory Filing, the CDI approved the WCIRB's proposal to limit an employee's payroll to the amount used to limit the payroll of executive officers for five classifications effective January 1, 2020. The CDI approved payroll limitations for six additional classifications as part of the September 1, 2021 Regulatory Filing to be effective September 1, 2022. Pure premium rates for these classifications reflected estimated adjustments for the impacts of the limitations on payroll. In 2022, staff validated the reasonability of initial pure premium rate adjustment factors by completing a survey of payroll audits to help analyze the accuracy of the advisory pure premium rate adjustment factors to reflect payroll limitations that have been applied. At the May 17, 2022 C & R Committee meeting, the Committee approved establishing payroll limitations for six additional classifications to be included in the September 1, 2023 Regulatory filing to be effective September 1, 2024. In 2024, staff anticipates exploring a further broadening of the payroll limited classifications.

4. Loss Development Analysis. While the WCIRB regularly reviews the accuracy of alternative loss development methodologies, at the April 14, 2022 meeting, the Committee noted the recent diverging of paid and incurred methodology projections. As a result, a more in-depth exploration of recent paid and incurred patterns was suggested.

Project Status: Staff presented analysis comparing paid and incurred loss development patterns at the December 8, 2022 meeting as well as at the April 13, 2023 meeting. Staff has been reviewing a blended methodology that uses incurred development at early development ages and paid development at later development ages and plans to present this work at the December 5, 2023 meeting.

5. Allocated Loss Adjustment Expense (ALAE) Development. At the April 14, 2022 Actuarial Committee meeting, the Committee noted that after an extended period of decline, ALAE development has begun to increase with the pandemic-related slowdown in claim settlement. While the last several filings included adjustments to ALAE development for changing settlement patterns, the Committee suggested that the paid ALAE development methodology should be reviewed.

Project Status: Staff presented an analysis of ALAE development patterns and methodologies for the Actuarial Committee's review in the first and second quarters of 2023 and does not anticipate further work on this issue in 2024.

F. Other Studies Indirectly Impacting Rate Level Projections

1. Analysis of Very Large Claims. Given recent patterns of medical treatment and shifts in mortality estimates, including that for impaired individuals, it has been suggested that the WCIRB undertake a comprehensive analysis of the frequency and characteristics of very large or "jumbo" claims in the California workers' compensation system.

Project Status: On August 31, 2020, the WCIRB in collaboration with rating bureaus in other jurisdictions published a national study on the basic demographics of “mega claims” (claims which exceed \$3 million in incurred value on an on-level and trended basis). The WCIRB plans to collaborate with other rating bureaus to publish an updated study of “mega” claims. It is anticipated that the threshold of this study will be \$2 million in incurred value and that the study will also include exposure and more refined claim groupings. Staff has also been conducting some internal analyses exploring machine learning techniques to identify early drivers of what makes certain relatively small claims increase into very large claims and anticipates continuing this work in 2024.

2. Medicare “Set-Asides” (MSAs). At the July 28, 2015 meeting, the Claims Working Group recommended that consideration be given to conducting a more in-depth study of MSAs.

Project Status: In 2016, the Claims Working Group and Actuarial Committee reviewed some initial work in this area which included the development differences between compromise and release settled claims and stipulated award settled claims. Staff does not anticipate further work on this issue in 2024.

3. Analysis of Cumulative Trauma Claims. Recent Actuarial Committee analyses of claim frequency changes have indicated that cumulative trauma claims are increasing and are a significant factor driving many of the key cost trends in California.

Project Status: The WCIRB published a comprehensive report on cumulative trauma claims in October of 2018. Staff’s analysis of the medical characteristics of cumulative trauma claims was presented to the Actuarial Committee at the September 13, 2022 meeting and a report was published in December 2022. Staff does not anticipate further analysis of this issue in 2024.

4. Analysis of Claim Duration. Despite improvement over the last decade, average claim duration in California is significantly higher than in most other jurisdictions and a significant driver of the higher-than-average premium rates in the state.

Project Status: Staff’s analysis of the key drivers of the extended claim duration in California was presented to the Actuarial Committee at the September 13, 2022 meeting and a report was published in November 2022. Staff does not anticipate further analysis of this issue in 2024.

5. Analysis of Work-Related Violence in the Workers’ Compensation System. Worker injuries resulting from workplace violence has become a significant component of the California workers’ compensation system. Staff has identified over 100,000 claims involving workplace violence injuries between 1993 and 2019.

Project Status: Staff entered a partnership with researchers at Johns Hopkins University to jointly study workplace violence claims in California. The partner researcher left Johns Hopkins before preliminary results could be published, but staff will share preliminary results with the Actuarial Committee at the December 5, 2023 meeting and anticipates publishing a report in the second quarter of 2024.

6. Impact of Employee Tenure on Claim Frequency. Published studies have shown that newer workers are more likely to be injured on the job than more experienced workers. Increases in new hires as the economy began to recover from the pandemic-related downturn has been suggested as a driver of the sharp increase in claim frequency in 2021.

Project Status: Staff has started a comprehensive study of the impact of changing employee tenure on claim frequency and a comparison of changes in tenure among injured workers and those of the general worker population in California. Staff plans to present initial results to the Actuarial Committee at the December 5, 2023 meeting and anticipates publishing a report in the first quarter of 2024.

G. Studies Related to Rating Plans

1. Experience Rating Eligibility. At the October 22, 2014 meeting, the Actuarial Research Working Group discussed changes to the experience rating eligibility criteria in light of other changes to the Experience Rating Plan being adopted and noted that staff had not completed a comprehensive review of experience rating eligibility in a number of years.

Project Status: In 2020 and early 2021, staff completed a review of the eligibility threshold for experience rating that showed that the threshold could be reduced and was accepted by the Actuarial Committee at the December 11, 2020 meeting and by the C & R Committee at the May 18, 2021 meeting. Staff began some initial outreach to stakeholders on reducing the experience rating threshold but has deferred further activity due to operational concerns.

2. Experience Rating Parameters. Until 2020, it had been several years since the parameters of the WCIRB's variable split Experience Rating Plan (Plan) had been updated. To keep the Plan values current and to avoid wide fluctuations in values, the experience rating parameters should be updated at regular intervals.

Project Status: Staff completed a comprehensive analysis of the Experience Rating Plan parameters with recommended changes approved by the Actuarial Committee at the April 2, 2020 meeting for inclusion in the January 1, 2021 Regulatory Filing. As recommended in the analysis, staff now develops regular annual changes to the primary threshold intervals and D-ratio credibility constants in the Plan for inclusion in subsequent regulatory filings. Considering recent volatility in experience, staff specifically reviewed the D-ratio credibility methodology and presented its analysis to the Actuarial Committee at the February 14, 2023 meeting. At that time, the Committee agreed to use the same credibility constants from the September 1, 2022 Regulatory Filing in the September 1, 2023 Regulatory Filing.

Staff intends to conduct an abbreviated review of the updated values in advance of the September 1, 2024 Regulatory Filing and anticipates prioritizing a study on the credibility methodology used for D-ratios during 2024.

3. Impact of Experience Rating on Workplace Safety. The statutory goal of experience rating in California is to incentivize a safe workplace. Although experience rating seems to create significant financial incentives and receives significant attention from many employers, there is limited research on its effectiveness as a safety incentive.

Project Status: The WCIRB published its report called "Does Experience Rating Help Keep Workers Safe?" in March 2023. Staff does not anticipate further analysis of this issue in 2024.

4. Development of Experience Rating Expected Loss Rates. The Actuarial Committee annually reviews the WCIRB's methodology to compute the experience rating expected loss rates proposed to the CDI each year, but a comprehensive analysis has not been undertaken for some time. The methodology used for this process was adopted by the Actuarial Committee at the June 11, 2008 meeting.

Project Status: Staff began a comprehensive review of the expected loss rate projection methodology during 2023 and anticipates presenting initial results to the Actuarial Committee in the first quarter of 2024.

5. Retrospective Rating Plan Values. In 2018, the WCIRB completed a comprehensive update to the advisory *California Retrospective Rating Plan* values, including hazard group assignments, insurance charges and loss elimination ratios, to be effective January 1, 2019.

Project Status: Staff annually updates loss elimination ratios for purposes of classification ratemaking. Staff began the multi-year effort of comprehensively reviewing the Retrospective Rating Plan values by presenting a summary of the updated loss development process at the December 8, 2022 meeting. Staff continued this work in 2023 and is presenting its review of the Retro Hazard Groups at the December 5, 2023 meeting. Staff plans to continue this work in 2024 with the objective of updating advisory plans in early 2024 to be effective September 1, 2024.

H. Other Potential Studies

1. Analysis of California Regional Differences. Recent WCIRB analyses of claim frequency, cumulative injuries, liens, allocated loss adjustment and other system components have suggested that there are significant regional differences across California.

Project Status: Staff uses a wide range of available information to prepare analyses of regional differences in components such as frequency, severity and permanent disability patterns. The WCIRB's latest report on regional differences was published in November 2023. Staff anticipates continuing this work in 2024 with the annual update report to be published during the fourth quarter of 2024.

2. Wage Data Analysis. Early in 2017, staff developed a comprehensive data cube and wage report for members with detailed information on various wage distributions by industry, classification and occupation as well as other wage related information. The information relates historical and projected wage levels by classification to industries, recognizing differences in payroll exclusions in developing insured exposures and in the allocation of standard exception classifications.

Project Status: Staff completed a comprehensive update to this wage information based on updated source information in November 2019 with an update provided to the Actuarial Committee at the December 5, 2019 meeting. Staff anticipates updating the components of this analysis needed for classification ratemaking in the first quarter of 2024 with a comprehensive update anticipated by the third quarter of 2024.

3. Comparison of Workers' Compensation Medical Costs to Group Health Costs. At the May 27, 2009 meeting, the Claims Working Group suggested that consideration be given to conducting a research study comparing occupational and non-occupational medical treatment cost data for a similar mix of injuries.

Project Status: In 2021 staff has acquired a comprehensive dataset of group health transaction data to facilitate this type of comparative analysis with an update to the dataset acquired in 2022. From 2021 through 2023, staff has used this data to better understand the severity of COVID-19 claims and "long COVID." In future years, staff plans to explore using this information to study potential cost shifting between systems and differences in treatment patterns between workers' compensation and group health.

3. Terrorism Losses. In early 2003, the WCIRB contracted with EQECAT to help estimate potential terrorism losses with respect to the Terrorism Risk Insurance Act of 2002. In 2018, the WCIRB contracted with Risk Management Solutions (RMS) to conduct an analysis of potential statewide

workers' compensation exposure arising from terrorism. The results of the study were presented to the Actuarial Committee at the December 5, 2018 meeting and published in January 2019.

Project Status: Staff does not anticipate further analysis of this issue in 2024.

4. Earthquake Losses. In July 2002, EQECAT completed a report estimating the average annual expected costs arising from California earthquakes. In 2003, EQECAT completed a follow-up study to address some of the issues raised by the CDI in reviewing the 2002 study. Based on the results of these studies, the WCIRB included a provision to reflect expected earthquake losses in the January 1, 2004 Pure Premium Rate Filing. In the Decision on that filing, the CDI rejected this provision based on concerns as to the underlying loss distribution projected by the model and the lack of a mechanism to fund the cost of a major earthquake if one were to occur. In 2007, the WCIRB contracted with EQECAT to update the California earthquake studies. The updated report was published in June 2007. In December 2017, the WCIRB in partnership with RMS published a further updated analysis on potential statewide workers' compensation exposure arising from an earthquake.

Project Status: At the June 14, 2019 meeting, the Actuarial Committee discussed whether a pure premium rate adjustment to reflect the long-term average expected losses arising from an earthquake based on the recent RMS study would be appropriate. Given the CDI's concerns in prior decisions and that including a long-term average provision for earthquake and terrorism exposure in advisory pure premium rates may create administrative issues for some insurers, the Committee agreed that the WCIRB's proposed advisory pure premium rates should not reflect a provision for earthquake and terrorism losses at this time. Several Committee members did suggest that published information on the potential statewide exposure of these events is of value and should be updated on a regular basis. Staff does not anticipate further analysis of this issue in 2024.

Item AC23-12-06 2024 Schedule of Meetings

The following is a proposed schedule of Actuarial Committee meetings for 2024. At this time, the WCIRB intends to hold hybrid meetings in 2024 so that Committee members may attend either in person or virtually. All meetings will begin at 9:30 AM (Pacific Time).

Tuesday, February 13, 2024 (September 1, 2024 Regulatory Filing)

Thursday, March 21, 2024

Thursday, April 11, 2024 (September 1, 2024 Pure Premium Rate Filing)

Thursday, June 27, 2024

Tuesday, September 17, 2024

Tuesday, December 10, 2024

Also, the WCIRB Annual Conference will be held virtually and is tentatively scheduled for July 18, 2024.