April 29, 2022

By Email

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The Honorable Ricardo Lara
Insurance Commissioner
California Department of Insurance
1901 Harrison Street, 4th Floor
Oakland, CA 94612

RE: **California Workers' Compensation Insurance**
      Advisory Pure Premium Rates and Experience Rating Plan Values
      Effective September 1, 2022
      CDI File No. REG-2022-00004

Dear Commissioner Lara:

The Workers' Compensation Insurance Rating Bureau of California (WCIRB), a licensed rating organization and the designated statistical agent of the Insurance Commissioner, is submitting the proposed advisory pure premium rates contained in the enclosed filing pursuant to Article 2 of Chapter 2, and Articles 2 and 3 of Chapter 3, Part 3, Division 2, of the Insurance Code of the State of California. The proposed advisory pure premium rates contained in this filing were authorized by the WCIRB's Governing Committee for submission to you for review and approval.

Advisory Pure Premium Rates
The advisory pure premium rates contained in Section A are proposed to become effective September 1, 2022 for workers' compensation insurance policies with an effective date on or after September 1, 2022. The pure premium rates, which reflect loss costs including loss adjustment expenses per unit of exposure, are only advisory in that an insurer is not required to use either the proposed or the approved pure premium rates in establishing the rates it will charge.

The proposed advisory pure premium rates reflect the changes to the *California Workers' Compensation Uniform Statistical Reporting Plan—1995* (USRP) that were proposed in the WCIRB's Regulatory Filing submitted on February 28, 2022 (CDI File No. REG-2022-00006) to take effect on September 1, 2022. If some of these proposed regulatory changes are not approved, the WCIRB may need to amend the pure premium rates proposed in this filing for conformance with the Commissioner's Decision on the September 1, 2022 Regulatory Filing.

The advisory pure premium rates for the approximately 500 standard classifications proposed to be effective September 1, 2022 are on average 7.6% greater than the average of the current approved September 1, 2021 advisory pure premium rates.[1] The average of the September 1, 2022 advisory pure premium rates proposed by the WCIRB is $1.56 per $100 of payroll.

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[1] The average approved September 1, 2021 advisory pure premium rate is $1.45, which has been Restated from the average September 1, 2021 advisory pure premium rate approved by the Commissioner of $1.41 per $100 of payroll based on updated payroll weights by classification.

The Honorable Ricardo Lara
California Department of Insurance
April 29, 2022

The proposed September 1, 2022 advisory pure premium rates included in Section A are based on (1) insurer losses incurred during accident year 2021 and prior accident years valued as of December 31, 2021, (2) insurer allocated loss adjustment expenses for 2021 and prior years, (3) insurer unallocated loss adjustment expenses for 2020 and prior years, (4) classification payroll and loss experience reported for policies incepting in 2019 and prior years and (5) the September 1, 2022 experience rating off-balance correction factor proposed in the WCIRB's September 1, 2022 Regulatory Filing. The first three of these components are discussed in Section B of this filing while the last two components are discussed in Section C of the WCIRB's September 1, 2022 Regulatory Filing.

The WCIRB's September 1, 2021 Pure Premium Rate Filing submitted on April 26, 2021 excluded COVID-19 claims from the projection and largely excluded the 2020 accident year experience as the payroll, premium and claim experience of that year was anomalous due to the sudden and significant impact of the COVID-19 pandemic and resultant stay-at-home orders. In continued consideration of the unique impact of the pandemic, in this filing, the WCIRB (a) excluded all claims directly arising from a COVID-19 diagnosis from the experience on which the proposed advisory pure premium rates were predicated, (b) largely excluded accident year 2020 experience from the pure premium rate projection, (c) refined projection methodologies to adjust for distortions caused by the pandemic and (d) largely relied upon pre-pandemic experience and accident year 2021 experience to project cost levels for the period the proposed advisory pure premium rates will apply.

As in the January 1, 2021 and September 1, 2021 Pure Premium Rate Filings, the WCIRB analyzed the potential cost of future COVID-19 workers' compensation claims. The January 1, 2021 Pure Premium Rate Filing included an average provision of $0.06 per $100 of payroll to reflect the projected cost of COVID-19 claims to be incurred on 2021 policies. In the September 1, 2021 Pure Premium Filing, in light of the relatively low COVID-19 claim rates at the time the filing was made (April 2021) and that external models and published research at the time were indicating that the U.S. population would potentially be nearing herd immunity by the summer of 2021 and COVID-19 fatalities would plateau, the WCIRB did not recommend a provision be included to reflect the estimated costs of COVID-19 claims to be incurred on September 1, 2021 and later policies. However, subsequent to the time the September 1, 2021 Pure Premium Rate Filing was made, with the emergence of the Delta and Omicron variants, more than 100,000 workers' compensation COVID-19 claims have been filed in the state.[2] In addition, most experts now expect COVID-19 to transition to an endemic state and continue to infect individuals for the foreseeable future. Based largely on several model projections of future COVID-19 fatality rates, the advisory pure premium rates proposed in this filing, which as mentioned above average $1.56 per $100 of payroll, include a provision for the projected cost of COVID-19 claims to be incurred on policies incepting between September 1, 2022 and August 31, 2023 of $0.008 per $100 of payroll. The WCIRB's COVID-19 estimate is summarized in Section B, Appendix D.

As in prior WCIRB pure premium rate filings, a number of alternative pure premium rate projections based on methodologies and assumptions that differ from those used to develop the proposed September 1, 2022 advisory pure premium rates are included in Section B, Appendices A, B and C for informational purposes.

The Executive Summary of this filing provides a high-level summary of the key components of this filing and includes information regarding insurer rates, system costs and the insurance market.

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[2] Based on Division of Workers' Compensation information as of April 21, 2022. Includes insured and self-insured claims and denied claims.

Workers' Compensation Insurance Rating Bureau of California®

The Honorable Ricardo Lara
California Department of Insurance
April 29, 2022

We shall endeavor to provide you with any additional information you may require.

Sincerely,

Bill Mudge
President & Chief Executive Officer

Dave Bellusci
Executive Vice President & Chief Actuary

Tony Milano
Vice President & Actuary

BM:smd
Enclosures

Workers' Compensation Insurance Rating Bureau of California

September 1, 2022 Pure Premium Rate Filing REG-2022-00004

Submitted: April 29, 2022

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WCIRB September 1, 2022 Pure Premium Rate Filing

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Workers' Compensation Insurance Rating Bureau of California®

Executive Summary

A. Introduction

Continued decreases in loss development, acceleration in the rate of claim settlements, very modest levels of claim severity inflation and continued decline in pharmaceutical costs and lien filings have driven a series of advisory pure premium rate decreases in California over the past seven years. In total, since early 2015, there have been eleven consecutive advisory pure premium rate decreases approved by the Insurance Commissioner reducing average advisory pure premium rates by half.

Beginning in early 2020, the COVID-19 pandemic sharply impacted the workers' compensation system in California. A total of more than 255,000 COVID-19 claims have been filed in California[1] by April 21, 2022 and the economic aftershocks of the pandemic have sharply impacted workers' compensation exposures, premiums and losses. In particular, accident year 2020 premium and loss experience has been distorted by the impacts of the statewide stay-at-home order, reduced availability of in-person non-urgent non-COVID medical care, elimination of in-person Workers' Compensation Appeals Board activities and the sharp and sudden sharp rise in unemployment.

In consideration of the COVID-19 pandemic impacts, in this filing the WCIRB (a) excluded all COVID-19 claims from the experience on which the proposed advisory pure premium rates were based, (b) refined projection methodologies to adjust for distortions caused by the pandemic, (c) largely excluded 2020 experience as the basis to project future cost levels (d) relied upon-pre-pandemic experience as well as 2021 experience in the projection and (e) separately projected the cost of COVID-19 claims to be incurred on September 1, 2022 through August 31, 2023 insurance policies.

Based on the WCIRB's analysis of underlying exposure, premium and claim experience, the WCIRB is proposing September 1, 2022 advisory pure premium rates that average $1.56 per $100 of payroll. These proposed advisory pure premium rates are, on average, 7.6% above the advisory pure premium rates adopted by the Insurance Commissioner effective September 1, 2021.[2]

Actuarial projections of future claim costs on which the WCIRB's pure premium rate filings are predicated regularly involve uncertainty as to the assumptions underlying the projection methodologies. Given the unprecedented nature of the "stay-at-home" orders, the pandemic-related economic slowdown and the emergence of more than 250,000 COVID-19 workers' compensation claims, uncertainty as to the assumptions underlying the projections of future cost levels in this filing is particularly high. The September 1, 2022 advisory pure premium rates proposed by the WCIRB reflect the WCIRB's best actuarial estimates as to the factors driving workers' compensation costs for policies incepting between September 1, 2022 and August 31, 2023. Given this uncertainty, for informational purposes, the WCIRB has computed a series of alternative loss and loss adjustment expense projections over a range of alternative methodologies and assumptions. These alternatives are discussed in detail in Section B, Appendices A, B and C.

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[1] Based on first report of injuries reported to the DWC for both insured and self-insured employers as of April 21, 2022. The totals include denied claims.

[2] The pure premium rates approved by the Insurance Commissioner are only advisory in that insurers may, and often do, file and use rates other than those approved by the Insurance Commissioner.

B. Rates

The proposed September 1, 2022 advisory pure premium rates average $1.56 per $100 of payroll, which is 7.6% higher than the average of the approved September 1, 2021 advisory pure premium rates of $1.45[3] and 11.9% less than the industry average filed pure premium rate of $1.77 as of January 1, 2022. In the September 1, 2021 Pure Premium Rate Filing, the WCIRB's indicated average pure premium rate was $1.54[4] per $100 of payroll.

Chart 1 shows (1) the average of the proposed September 1, 2022 advisory pure premium rates, (2) the average of the approved September 1, 2021 advisory pure premium rates, (3) the industry average filed pure premium rate as of January 1, 2022, (4) the industry average filed manual rate as of January 1, 2022 and (5) the industry average charged rate for 2021 after the application of most insurer rating plan adjustments.[5]

Chart 1 – Advisory Pure Premium Rates and Industry Average Rates per $100 of Payroll

All rates include adjustment for classification payroll limitations adopted effective January 1, 2020 and September 1, 2022.

Sources: WCIRB pure premium rate filings, insurer rate filings submitted to the CDI, and insurer data submitted in WCIRB data calls.
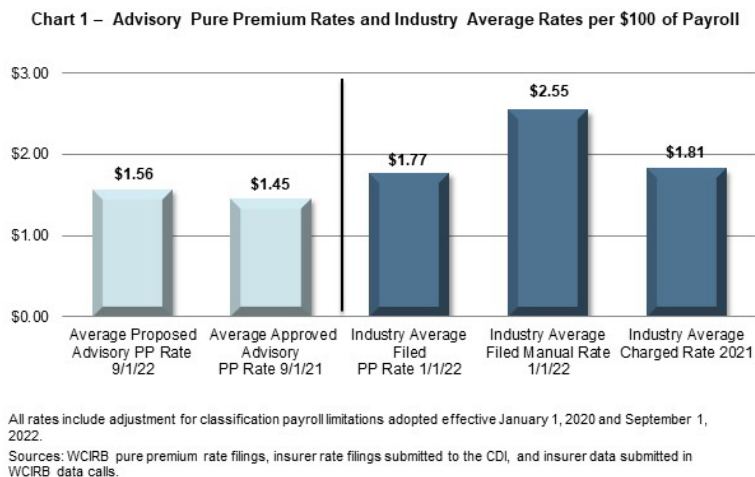
Exhibit 1 shows the advisory pure premium rate proposed by the WCIRB to be effective September 1, 2022 for each standard classification, the corresponding approved September 1, 2021 advisory pure premium rate and the percentage difference between these two pure premium rates. Exhibit 1 also shows the industry average filed pure premium rate as of January 1, 2022 and the percentage difference between the WCIRB's proposed September 1, 2022 advisory pure premium rate and the industry average filed pure premium rate as of January 1, 2022 for each classification.

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[3] Restated from the average September 1, 2021 advisory pure premium rate approved by the Commissioner of $1.41 per $100 of payroll based on updated payroll weights by classification.

[4] Restated from the average indicated September 1, 2021 advisory pure premium rate of $1.50 per $100 of payroll based on updated payroll weights by classification.

[5] This computation is based on reported premium at the insurer rate level, which includes the impact of all insurer rating plan adjustments except for the application of deductible credits, retrospective rating plan adjustments and terrorism charges.

C. Impacts of the COVID-19 Pandemic

The indicated average September 1, 2022 pure premium rate of $1.56 per $100 of payroll represents an increase of 7.6% from the average of the September 1, 2021 advisory pure premium rates approved by the Insurance Commissioner. Since early 2015, the approved advisory pure premium rates have declined by approximately one-half. In prior pure premium rate filings, the WCIRB has attributed this improvement to a number of factors including downward loss development, acceleration in claim settlement, modest claim severity trends and reduced pharmaceutical costs and lien filings. Beginning in early 2020, the COVID-19 pandemic significantly impacted the workers' compensation system. Since that time more than 255,000 COVID-19 workers' compensation claims have been filed in California.[6] In addition, the pandemic and stay-at-home orders have significantly impacted the California economy as well as many components of the California workers' compensation system. Among the areas impacted by the pandemic include wage levels, premiums, COVID-19 claim filings, non-COVID-19 claim filings and claim settlements.

- *Wage Levels.* Advisory pure premium rates are expressed as a percentage of insured payroll. Not only are insured payroll amounts impacted by changes in employment levels but also by changes in the average wages earned by California workers. As a result, growth in average wage levels mitigates inflation effects on loss and loss adjustment expense levels and can reduce pure premium rate level indications. Chart 2 shows the changes in statewide average wages based on UCLA and Department of Finance compilations of Bureau of Labor Statistics data and forecasts. As shown, with the sharp loss of employment at low wage levels during the economic slowdown in 2020 and continued decline, instead of recovery, of low wage employment in 2021, the average wages of California workers grew at more than 11% in 2020 and 8% in 2021, the highest levels experienced in decades. This sharp growth in average wages in 2020 and 2021 as well as increases in economic forecasts of future wage inflation has helped offset the impact of increased loss development and claim frequency on advisory pure premium rates. The WCIRB has made several adjustments to correct for the anomalous impacts of shifting employment by wage levels in 2020, 2021 and beyond as summarized later in this Executive Summary and discussed in detail in Section B, Appendix B.

Chart 2 – Historical Growth in Average Wages

Source: Derived from information provided by UCLA Anderson School of Business as of March 2022 and the California Department of Finance as of November 2021. (The 2021 change is preliminary and is the average of the UCLA and Department of Finance estimates.)

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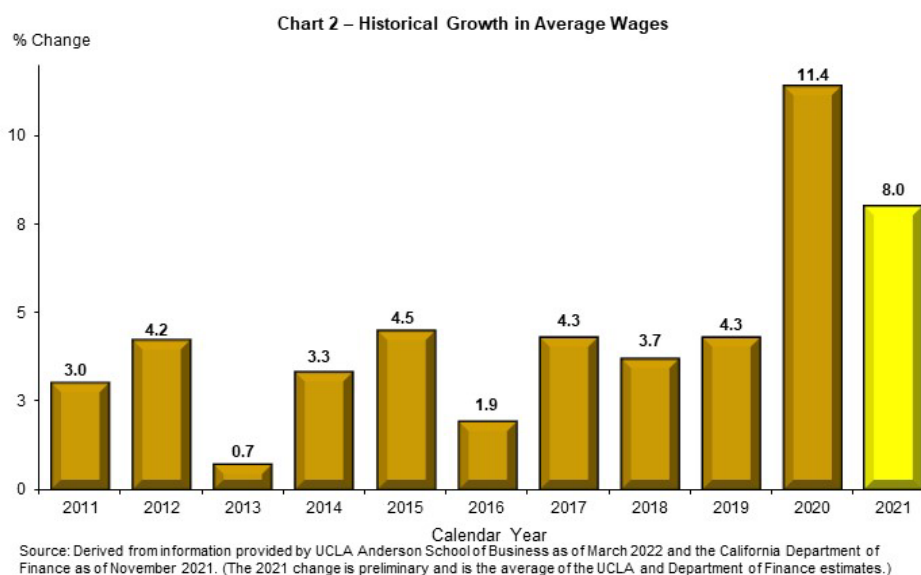
[6] Based on DWC data on reported claims including insured and self-insured claims as of April 21, 2022.

- **Premiums.** Chart 3 shows statewide written premiums by calendar year.[7] As shown, statewide premiums have been declining since 2016 as declining insurer charged premium rates have more than offset continued economic growth through 2019. The premium decline accelerated sharply in 2020 as insurer rates continued to drop and statewide employment levels also sharply declined due to the COVID-19 pandemic. The 12%, or almost $2 billion, decline in statewide written premium in 2020 was the largest drop in many years. Written premium in 2021 was slightly lower than 2020 as the impact of modest employment growth and significant average wage level growth was offset by continued declines in insurer rates. In addition, post-pandemic premiums were somewhat deflated by larger than typical return premiums on expiring policies as for many employers their actual audited payrolls were below pre-pandemic payroll estimates used in initial premium billings. The WCIRB included an adjustment to the on-leveling factors reflected in this filing to adjust for the distortion in 2020 and 2021 premiums resulting from these higher than typical audit premium returns on older policies. This adjustment is described in detail in Section B, Appendix B.

Chart 3 – Insurer Written Premium (in $Billions)

Calendar Year	Premium
2011	$10.8
2012	$12.5
2013	$14.8
2014	$16.5
2015	$17.6
2016	$18.1
2017	$17.7
2018	$17.0
2019	$15.9
2020	$14.0
2021	$13.7
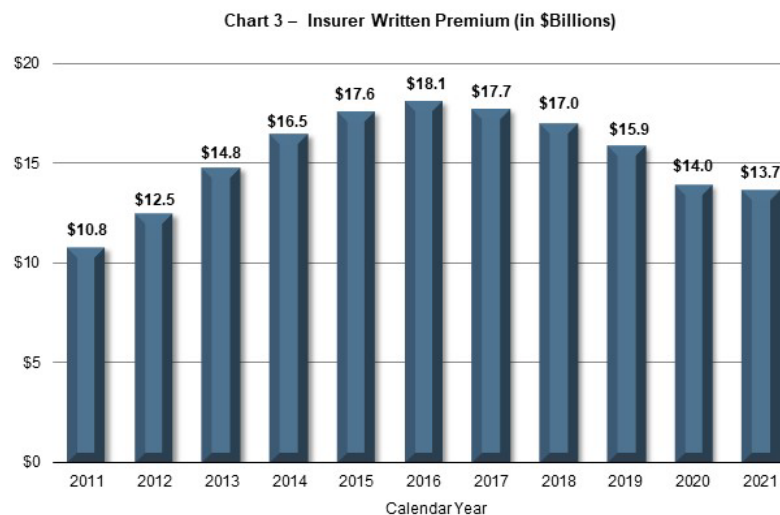
Source: WCIRB aggregate financial data. Premiums are gross of deductible credits and include COVID-19 premium charges.

- **COVID-19 Claims.** The COVID-19 pandemic began to emerge in California in the early months of 2020. In the initial weeks of the pandemic, even without a legal presumption of compensability in the workers' compensation system for COVID-19-related illnesses, many claims were filed, particularly by first responders and healthcare workers. With subsequent legal presumptions of compensability for COVID-19 claims provided to specified workers by the Governor's Executive Order (N-62-20) and later with the enactment of Senate Bill No. 1159 in September 2020, the filing of COVID-19 claims continued accelerating in late 2020 and early 2021 with the winter surge of COVID-19 infections. While the number of claims filed decreased sharply by the spring of 2021 with the rollout of the vaccines, the number accelerated sharply later in the year and early in 2022 with the emergence of the Delta and Omicron variants. As shown in Chart 4, in total, more than 255,000 COVID-19 workers' compensation claims have been filed in California with one-half coming from the insured employer sector. Given the unique nature of the COVID-19 exposure, the WCIRB's analysis of the claims experience underlying this filing excludes COVID-19 claims. The potential cost of COVID-19 claims incurred against September 1, 2022 through August 31, 2023 policies is separately considered in Section B, Appendix D.

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[7] Amounts shown are gross of deductible credits.

Chart 4 – Reported COVID-19 Workers' Compensation Claims
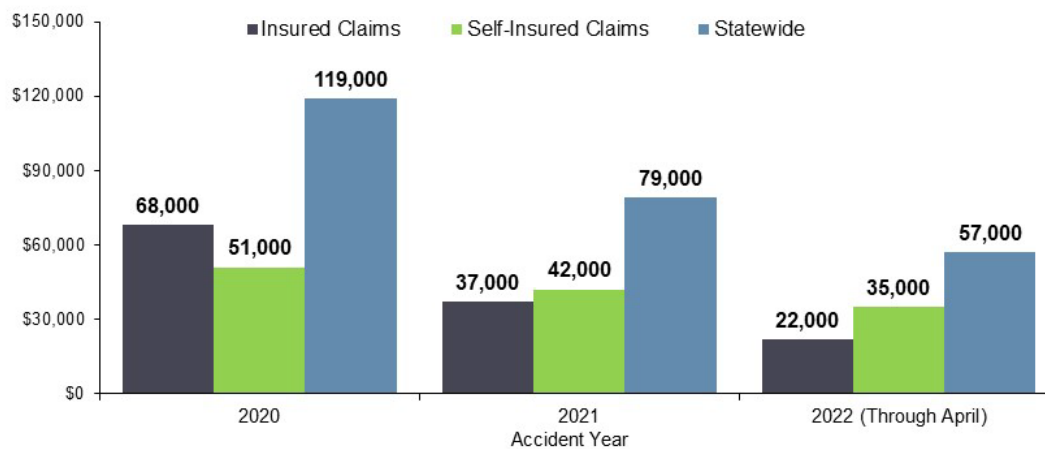
Source: Division of Workers Compensation First Reports of Injuries with injuries reported through April 21, 2022 (including denied claims).

- ***Non-COVID-19 Claims.*** While there was a surge of COVID-19 claims filed in California in 2020, the number of non-COVID claims filed dropped at even a greater rate than did statewide employment. In 2021, there was a significant bounce-back as the number of indemnity claims grew at a faster rate than statewide employment. Chart 5 shows the change in non-COVID-19 claims filed in the insured system in 2019, 2020 and 2021. As shown, while there was a small increase in claims filed in 2019, there was a sharp decline of 22% in 2020. In addition, the decline in smaller medical-only claims was more than twice that of indemnity claims, suggesting that claims for some of the less serious injuries were not being filed during the pandemic. In 2021, the number of both medical-only and indemnity claims increase by more than 10%. In comparison, statewide employment grew by only 2% in 2021.

Chart 5 – Annual Percent Change in Non-COVID-19 Claims Filed
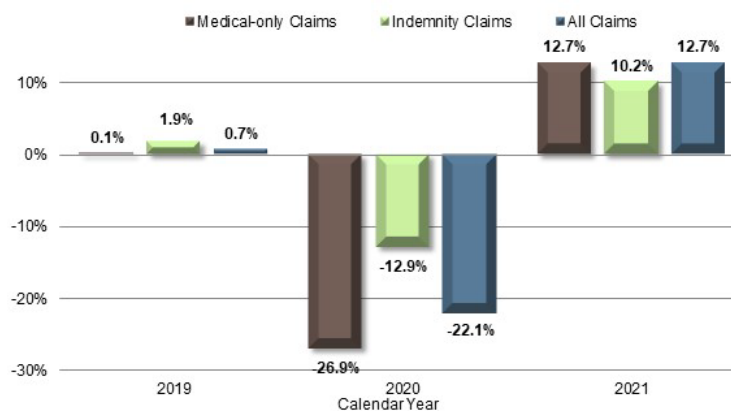
Source: WCIRB aggregate financial data calls.

- *Claim Settlement.* Since the implementation of Senate Bill No. 863 (SB 863) beginning in 2013, claim settlement rates have been increasing steadily in California. SB 863 contributed to an accelerated rate at which claims have settled through quicker medical treatment dispute resolution from independent medical review, reduction in the volume of liens and a significant decrease in the number of spinal surgeries. Reduced opioid use, increased anti-fraud efforts and further reductions in liens attributable to Senate Bill No. 1160 (SB 1160) and Assembly Bill No. 1244 (AB 1244) also contributed to this acceleration in claim settlement.

  Chart 6 shows accident year indemnity claim settlement rates at successive year-end evaluations. As shown, the claim settlement acceleration was beginning to plateau even before the pandemic arose in early 2020. With the pandemic, there was a significant slowdown during 2020 continuing into 2021 in how quickly claims were being settled. Changes in the rate that claims are settling can impact both future loss development and loss adjustment expenses.

Chart 6 – Indemnity Claim Settlement Ratios
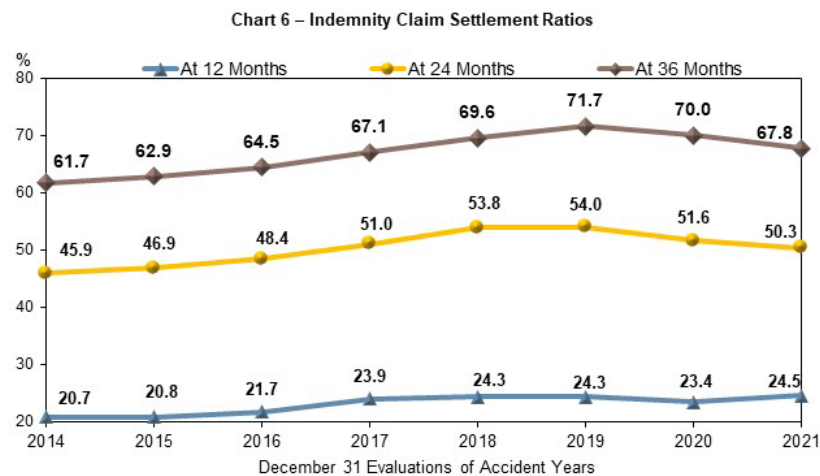
Source: WCIRB projections of ultimate indemnity claim counts and reported claim count information as of December 31, 2021.

D. Supplemental Insurance Market Information

Chart 7 shows industry average insurer charged rates by policy year. Largely as a result of the reforms of SB 863 as well as subsequent reforms, medical cost levels dropped and average charged rates have declined since 2014. Despite the COVID-19 pandemic, average charged rates continued to decline in 2020 and 2021. As shown in Chart 7, the average rate charged during 2021 is 44% less than the average charged rate in 2014.

Chart 7 – Industry Average Charged Rate per $100 of Payroll

Policy Period	2014	2015	2016	2017	2018	2019	2020	2021
Rate	$3.24	$3.22	$3.04	$2.69	$2.39	$2.12	$1.94	$1.81
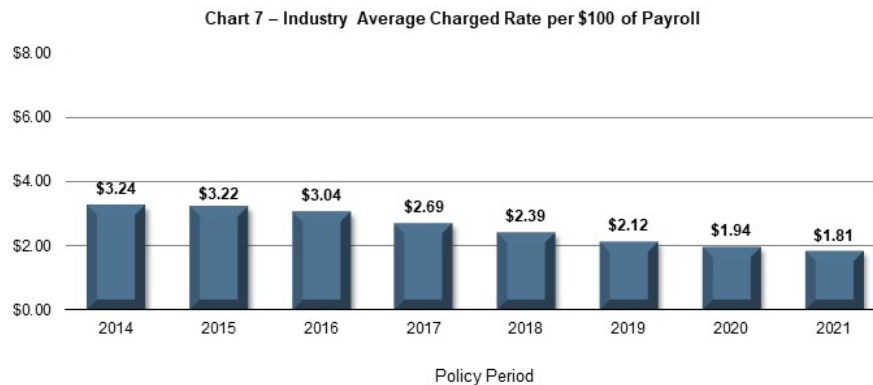
Source: Insurer unit statistical reports and WCIRB data calls. All rates include adjustment for classification payroll limitations adopted effective January 1, 2020 and September 1, 2022.

Chart 8 shows the WCIRB's projected combined ratios of losses, loss adjustment expenses and other insurer expenses to earned premium by accident year.[8] Rising claim costs, combined with relatively flat industry average charged rates, led to increasing accident year combined ratios for accident years 2006 through 2009. Since 2010, higher insurer charged rates, modest claim cost trends and lower insurer expense ratios have generally resulted in lower insurer combined loss and expense ratios. More recently, as insurer charged rates decreased, projected combined ratios have begun to increase. On a preliminary basis, the WCIRB estimates that the accident year 2021 projected combined ratio, including the projected cost of COVID-19 claims, is 112%, which is the highest combined ratio since accident year 2011. Excluding COVID-19 claim costs, the WCIRB estimates the statewide combined ratio is 100% in 2020 and 111% in 2021.

Chart 8 – WCIRB Projected Ultimate Accident Year Combined Loss and Expense Ratios as of December 31, 2021

Legend: Losses, LAE, Other Expenses

Accident Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Ratio	146%	117%	82%	59%	55%	68%	89%	109%	128%	125%	118%	104%	89%	82%	81%	79%	82%	85%	96%	105%	112%
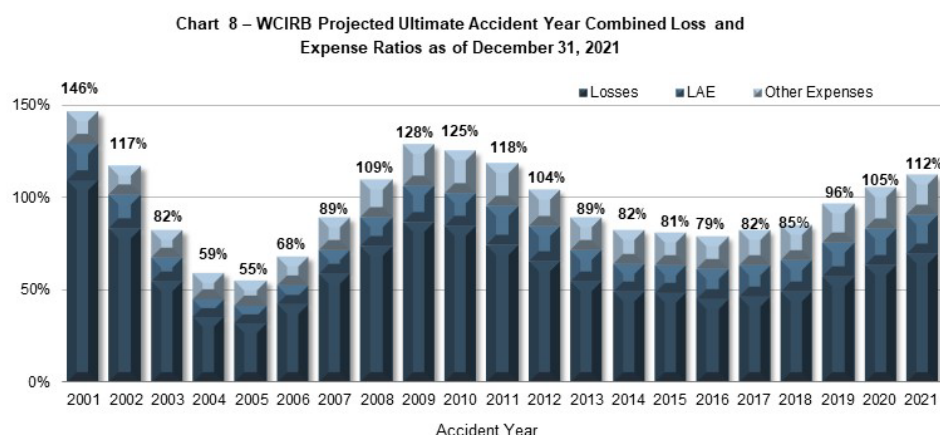
Source: WCIRB projections based on insurer aggregate financial data submissions to the WCIRB. The 2021 ratios are preliminary.
For accident years 2011-2020, MCCP costs are included in LAE rather than loss. For all other accident years, MCCP costs are included in loss.

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[8] These combined ratios reflect WCIRB estimates of ultimate losses and loss adjustment expenses by accident year relative to calendar year earned premiums. Insurers also report calendar year combined ratios, which reflect their paid losses and loss adjustment expenses and changes in reserves reported during a calendar year relative to calendar year earned premium. These two measures of combined ratios may differ. Also, these are combined underwriting results and, as such, do not reflect overall operating profits, federal income taxes, or investment income returns.

The combined ratios shown in Chart 8 do not include the impact of investment income, federal income taxes or insurer profits. The National Association of Insurance Commissioners (NAIC) annually publishes a summary of total insurer profitability by line of insurance and state that reflects all these components based on calendar year information reported by each insurer to the NAIC. Chart 9 provides a summary of the information published by the NAIC over the last 15 years.

As shown in Chart 9, relatively high loss and expense ratios as well as relatively low investment returns had led to modest profitability (return on net worth) since 2010, before beginning to rise in the last several years. The estimated calendar year 2020 return on net worth for California workers' compensation insurance, as reflected in the most recent NAIC report on profitability,[9] is 10.9%. This is slightly above the average of the countrywide workers' compensation return of 9.6% and the Fortune Magazine all-industry average return shown in the NAIC report of 10.3%. The long-term 15-year average return on net worth for California workers' compensation as published by the NAIC is 8.7% as compared to 8.0% for countrywide workers' compensation and 13.7% for the Fortune Magazine all-industry average.

Chart 9 – NAIC Estimates of Average Return on Net Worth
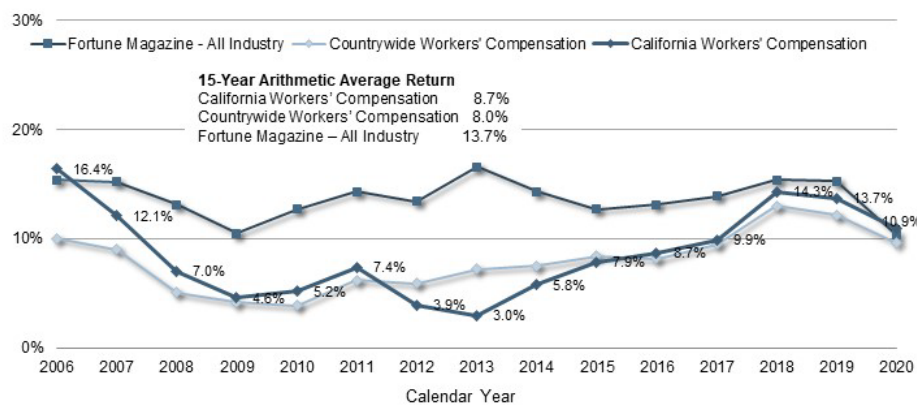
Source: NAIC Report on Profitability By Line and State in 2020.

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[9] *Report on Profitability by Line and State in 2020*, NAIC, 2021.

E. Computation of Indicated Average September 1, 2022 Pure Premium Rate and Proposed Pure Premium Rates

The average of the proposed September 1, 2022 pure premium rates is $1.56 per $100 of payroll. The proposed pure premium rates are based on the losses and loss adjustment expenses (LAE) projected to be incurred on policies incepting between September 1, 2022 and August 31, 2023. This proposed average pure premium rate is 7.6% above the average of the approved September 1, 2021 advisory pure premium rates of $1.45 per $100 of payroll.

The proposed advisory pure premium rates for policies incepting between September 1, 2022 and August 31, 2023 are based on an evaluation of the loss, LAE[10] and premium experience of calendar and accident years through 2021, valued as of December 31, 2021. For informational purposes, the WCIRB has computed a series of alternative September 1, 2022 projections over a wide range of alternative loss development, loss trending and loss adjustment expense projection methodologies. The assumptions underlying these alternative projection methodologies are discussed in detail in Section B, Appendices A, B and C.

The principal methodologies and projections used by the WCIRB in calculating the average proposed pure premium rate as detailed in Section B of this filing are summarized below.

Loss Development
As in prior pure premium rate filings, the methodologies used to develop each year's reported losses as of December 31, 2021 to its final or ultimate cost level in this pure premium rate filing are primarily based on paid loss development with adjustments for changes in claim settlement rates. Medical loss development is also adjusted for the impact of SB 1160 and AB 1244 reforms related to liens, for the sharp decline in pharmaceutical costs that has occurred since 2013, and for the impact of the significant changes to medical fee schedules adopted by the DWC in 2021.

Chart 10 shows quarterly medical development of the 2019 and 2020 accident years through December 31, 2021. Since the time of the SB 863 reforms, downward loss development has been a key driver of declining advisory pure premium rates. In contrast, as shown on Chart 10 over the last year medical losses on the 2019 and 2020 accident year have developed upward.

Chart 10 – Developed Medical Loss Ratios
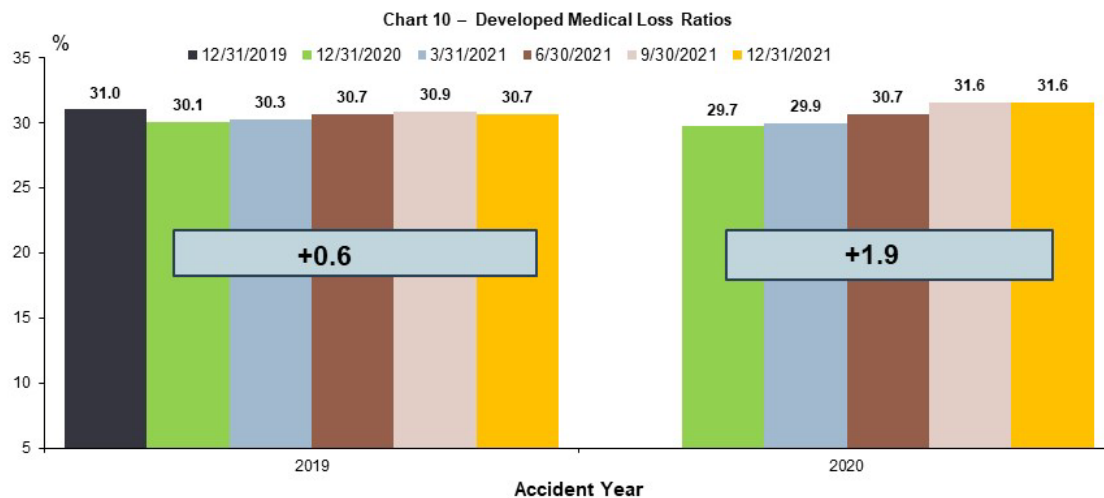
Note: All loss ratios are adjusted to the loss development methodology reflected in Section B and may not be comparable to the actual loss ratios projected at that time.
Source: WCIRB Aggregate Financial Data excluding COVID-19 claims.

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[10] The unallocated loss adjustment expense projection is based on experience through calendar year 2020.

In 2021, the DWC adopted significant changes to the Evaluation and Management Section of the Official Medical Fee Schedule (OMFS) effective March 1, 2021 and to the Medical-Legal Fee Schedule effective April 1, 2021. The WCIRB's prospective estimate of those fee schedule changes were reflected in the September 1, 2021 Pure Premium Rate Filing.[11] However, the impact of these schedule changes on medical costs vary depending on when the services are provided. For example, Evaluation and Management services are more frequently provided early in the life of a claim while medical-legal services are more frequently provided somewhat later. As a result, the WCIRB analyzed the impact of these fee schedule changes on medical loss development and have included adjustments to projected future medical loss development based on that analysis.[12] These adjustments reflect the WCIRB's recent retrospective evaluation of the fee schedule changes based on actual payments made in accordance with the updated schedules.[13]

Wage, Premium and Loss On-Level Adjustments
The proposed pure premium rates reflect the estimated cost of losses and LAE incurred on all accidents that arise on policies incepting between September 1, 2022 and August 31, 2023. As a result, ultimate cost (loss) information on historical accident years is adjusted, or "trended", to reflect the ultimate cost of claims covered by these policies. First, losses are adjusted to a current or "on-level" basis by adjusting for wage inflation, statutory benefit changes and reforms and fee schedule changes. Then premium is also adjusted to an on-level basis so that each year's historical premium is restated at a common wage and rate level.

- **Wage Projections**
  Pure premium rates are expressed as a percentage of payroll. Consequently, the reported premium for each year reflects the wages paid during that year. To determine the level of pure premium needed to fund the cost of losses and loss adjustment expenses incurred on policies incepting between September 1, 2022 and August 31, 2023, the premium reported for each year is adjusted to reflect the wages anticipated to be paid during the period these policies will be in effect. The estimated changes in annual California wages are based on those produced by the UCLA Anderson School of Business (as of March 2022) and California Department of Finance (as of November 2021) forecasts.[14]

  The pandemic-related drop in employment in California in 2020 was unprecedented, both in its magnitude and velocity. In the early months of the pandemic, the unemployment level in California quickly spiked from a near full-employment level to close to 15% unemployment. Chart 11 shows the annual change in the California unemployment rate since 1962. As shown on Chart 11, the magnitude of the increase in unemployment in 2020 was more than twice that of any year in prior recessions. Since the early months of the pandemic, the California economy has gradually recovered. However, the recovery has been slower than originally forecast, particularly among low wage workers who were impacted most by the economic downturn and, as shown in Chart 12, employment levels in some industry sectors are not forecast to reach their pre-pandemic highs by even 2024.

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[11] See Section B, Appendices D and E of September 1, 2021 Pure Premium Rate Filing.

[12] See Item AC21-12-10 of the December 9, 2021 WCIRB Actuarial Committee Agenda.

[13] See Item AC22-04-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda.

[14] These average wage changes are typically derived based on aggregate changes in total wages and salaries compared to aggregate changes in total employment.

Chart 11 – Annual Change in California Unemployment Rate
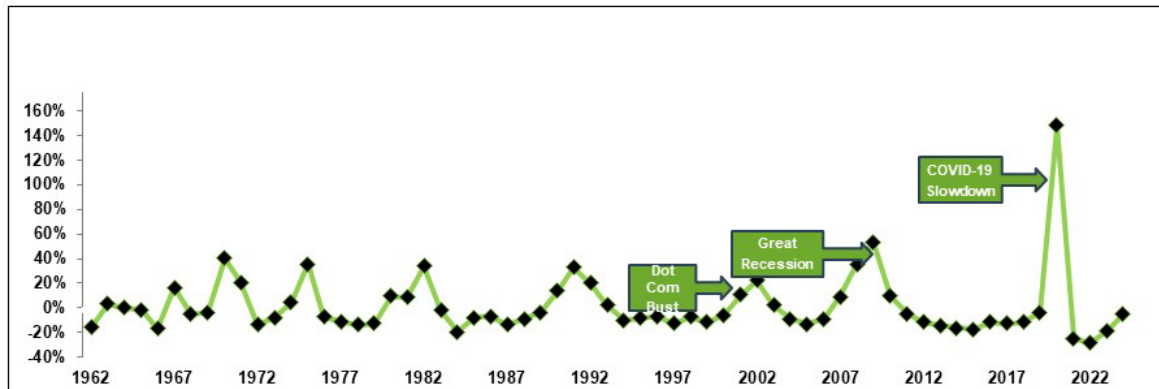
Source: Bureau of Labor Statistics, UCLA Anderson Forecast

Chart 12 – California Industry Employment Forecasts Indexed to 2019
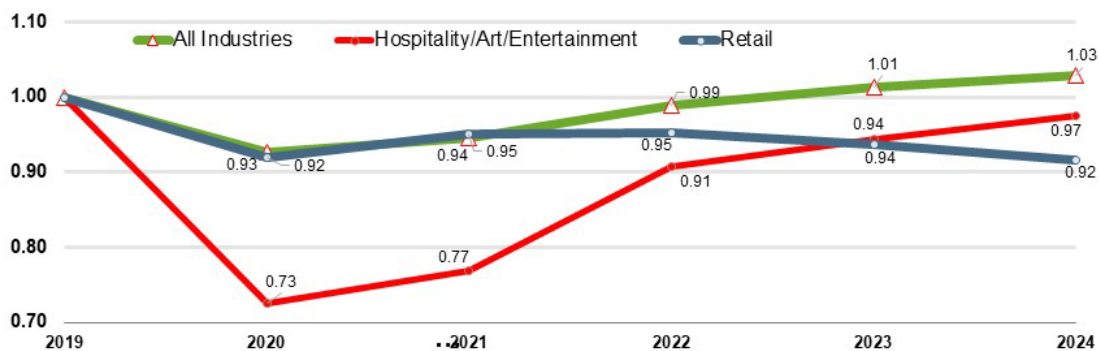
Source: Bureau of Labor Statistics, UCLA Anderson Forecast

During a recession, the mix of industries can shift significantly and, as a result, impact the aggregated average wage level in California. The loss of lower wage employees within industries can also drive measures of average wages artificially upward. For this pandemic-related economic slowdown, the reduction in employment levels have been greatest in the hospitality and entertainment industries which tend to have lower-than-average wages. In addition, employment losses in 2020 were much more significant for lower wage workers even within the same industry and, rather than seeing return in low wage employment in 2021, there was continued loss of low wage employment in most industries, despite overall employment growth.[15]

The 11.4% increase in the statewide average weekly wage in 2020 and the 8.0% increase in 2021 are significantly impacted by these distributional shifts and are not indicative of the typical wage increase for a California worker in the same job. Similarly, the modest increases in the state average weekly wage projected for 2022 through 2024 are artificially deflated by the projected return to the workforce of workers in lower wage industries and at lower wage levels within industries.

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[15] Based on American Community Survey and Current Population Survey from the Census Bureau as compiled by the Economic Policy Institute.

Earlier this year as well as in 2021, the WCIRB studied the impact of the economic slowdown on the pure premium rate indications.[16] The WCIRB found that projected shifts in the mix of industries resulted in an estimated 2% increase in statewide average wages for 2020 and a 0.3% decrease for 2021. The WCIRB study also estimated an approximate 4.3% increase in average wages for 2020 resulting from the loss of lower wage employees in the workforce within industries and a 2.0% increase in 2021. The projected wage level for pure premium rate filing purposes, as shown on Chart 13, have been adjusted to remove the impacts of shifts in industrial mix and the distribution of employment by wage level within industry. The average annual rate of wage growth projected from 2019 in this filing is 4.7%. This is significantly above the 2.9% average annual growth projected in the September 1, 2021 Pure Premium Rate Filing, as recovery in lower wage employment sectors has been much slower than projected a year ago and, in addition, recent general inflationary trends have impacted wages. This sharp increase in projected annual wage growth over the last year has to a large extent offset increasing loss development and indemnity claim frequency in 2021 and has resulted in an indicated average September 1, 2022 advisory pure premium rate, excluding the impact of the change in experience rating off-balance and the cost of COVID-19 claims, consistent with that of the September 1, 2021 Pure Premium Rate Filing.

Chart 13 – Average Annual Wage Level Change Forecast
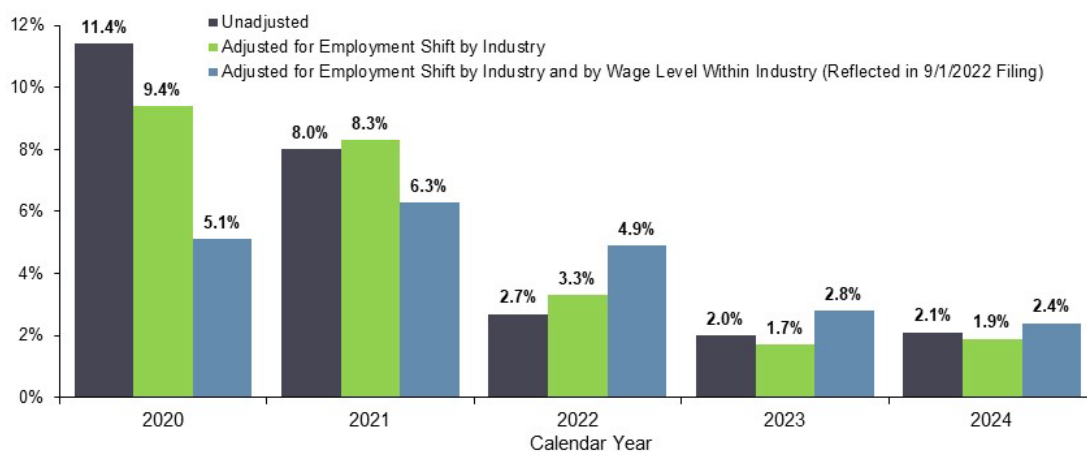
Source: UCLA Anderson School of Business and California Department of Finance forecasts.

- **Indemnity Claim Frequency (Non-COVID-19 Claims)**
  The ratio of losses, adjusted to an ultimate and on-level basis, to premium, also adjusted to an on-level basis, are trended forward by the WCIRB to project the indicated loss ratio for policies incepting between September 1, 2022 and August 31, 2023. The WCIRB trends these historical adjusted loss ratios forward by applying separate projections of growth in claim frequency and claim severity.

  For many years, the WCIRB has forecast changes in future claim frequency based on its econometric indemnity claim frequency model. Further, a 2012 WCIRB analysis of trending methodologies, indicated that frequency changes using a full year of preliminary actual frequency information were more predictive of the actual ultimate frequency change for that year than the change forecast by the WCIRB's frequency model.[17] The COVID-19 pandemic and economic slowdown resulted in significant shifts in exposure levels, industrial mix and the types of injuries occurring. As a result, the projected frequency change for accident year 2021 reflected in this filing is based on the preliminary 2021 "intra-class" frequency change, excluding reported COVID-19 claims, of +7.9%.

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[16] See Item AC20-08-04 of the March 16, 2021, April 15, 2021 and March 21, 2022 WCIRB Actuarial Committee Agendas.

[17] See Item AC12-12-02 of the March 20, 2013 WCIRB Actuarial Committee Agenda.

Chart 14 shows the change in non-COVID-19 indemnity claim counts relative to statewide employment. In 2019, both statewide employment and indemnity claim counts increased by about 2%. With the emergence of the COVID-19 pandemic and resultant economic slowdown, indemnity claim counts plummeted by 13%, while employment dropped by 7%, driving relative indemnity claim frequency down sharply. In 2021, as the economy was recovering and newer less well-trained workers were being hired indemnity claim counts increased by 10%, while statewide employment increased by only 2%. Considering the two years in combination, as shown in Chart 14, while indemnity claim counts decrease by 3.9% from 2019 to 2021, statewide employment dropped by 5.5%.

Chart 14 – Change in 12-Month Claim Counts and Employment Levels
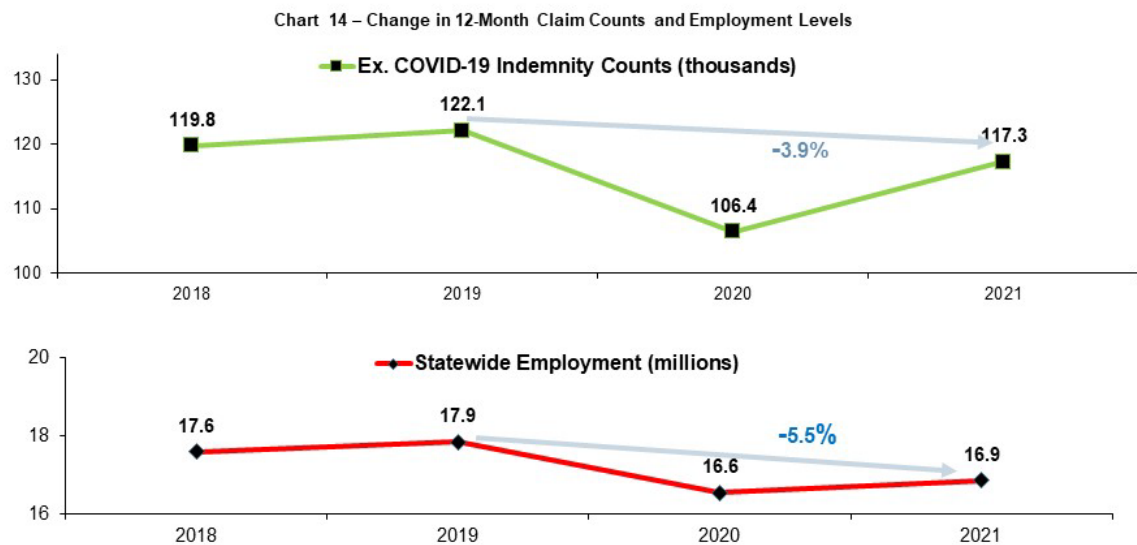
Source: WCIRB aggregate financial data and UCLA Anderson Forecast. Employment totals are adjusted to a common insurer mix level.

Projected frequency changes for accident years 2022 through 2024 are based on the WCIRB's econometric indemnity claim frequency model. The model is based on a more than forty-year history of frequency changes in relation to changes in indemnity benefit levels, economic factors, and other claims-related factors and excludes the impact of shifts in classification mix. The WCIRB's model indicates that when employment is growing, indemnity frequency tends to increase on a relative basis, while the opposite is true when employment is declining. Chart 15 shows indemnity claim frequency indexed to 2005 with the WCIRB's econometric model forecasts for 2022 through 2024 also shown. As shown on Chart 15, although the drop in 2020 and increase in 2021 were both greater than projected a year ago, indemnity claim frequency in 2021 is consistent with what was projected in last year's filing. Similarly, the forecast future changes in indemnity claim frequency projected in the September 1, 2022 Pure Premium Rate Filing are similar to those projected a year ago. On average, with continued economic recovery economy, the WCIRB is projecting an average indemnity frequency growth of about 0.5% per year, While, as shown on Chart 15, this is well below the level of frequency growth during the Great Recession recovery more than a decade ago, it is reflective of the long-term relationship between employment growth and indemnity claim frequency.

Chart 15 – Indemnity Claim Frequency – Indexed to 2005

Source: WCIRB unit statistical data and indemnity claim frequency model. Excludes COVID-19 claims.
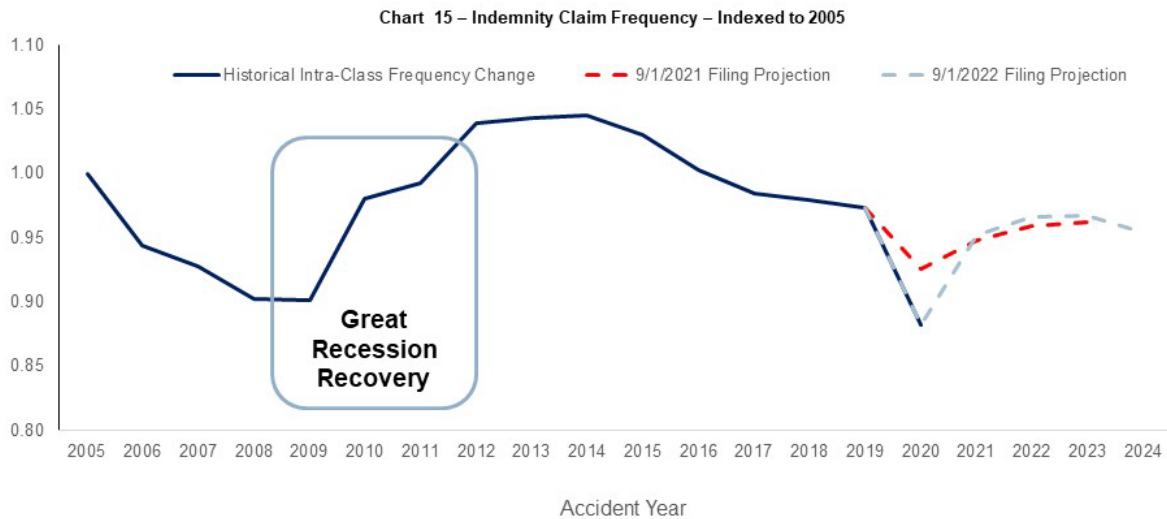
- **Indemnity Claim Severity**
  To project the average annual indemnity severity trend, the WCIRB reviewed historical changes in on-level indemnity severities over both long-term and short-term periods. Chart 16 shows estimated ultimate and on-level indemnity severity growth by accident year.

**Chart 16 – WCIRB Estimated Change in Indemnity On-Level Severity
Based on Experience as of December 31, 2021**

% Change

Annual Exponential Trend Based on: 1990 to 2021: +0.9%
2005 to 2021: -1.2%
2017 to 2021: +2.2%
WCIRB Selected: +1.0%

Source: WCIRB projections of ultimate indemnity losses based on reported loss and claim patterns adjusted to an on-level basis.
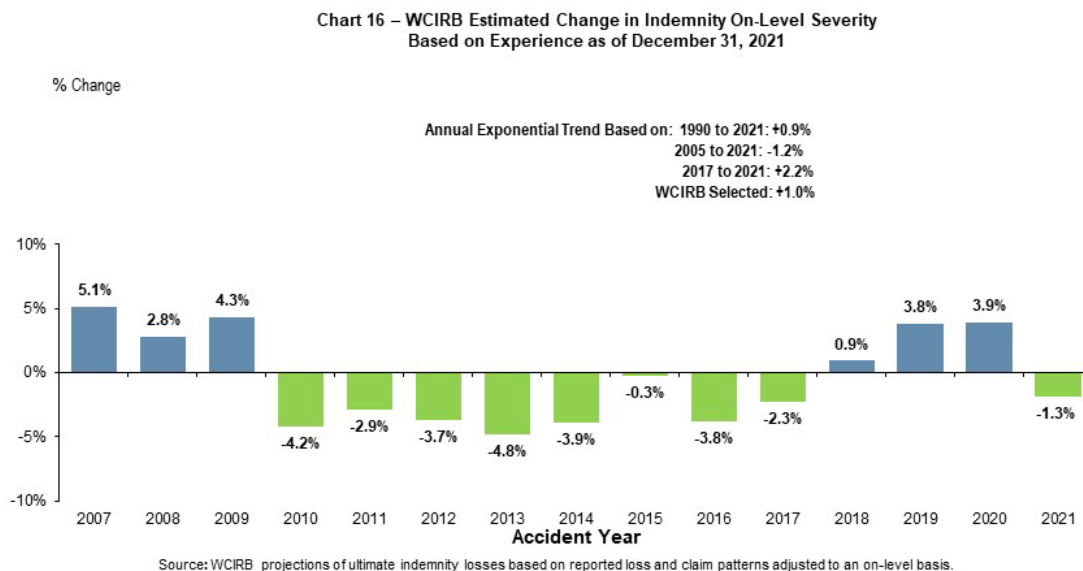
As shown on Chart 16, long-term on-level indemnity severity growth since 1990 is approximately 1% per year, which includes prior periods of sharp growth as well as more recent post-SB 863 periods of declining indemnity severities. On-level indemnity claim severities increased at a more significant rate in accident years 2019 and 2020 but declined modestly in 2021. Some of the recent changes may be related to shifts in the type of claims filed during the pandemic period, with a return of smaller indemnity claims in 2021 that did not occur or were not reported during the pandemic's stay-at-home period in 2020. The WCIRB has selected a 1.0% average annual on-level indemnity severity trend, which gives consideration to both longer-term and shorter-term rates of growth in average on-level

indemnity severities. This average annual indemnity severity trend is consistent with that reflected in the WCIRB's last two pure premium rate filings.

Chart 17 shows projected ultimate indemnity severities by accident year, which include not only the projected 1% annual on-level trend but also the impacts of projected wage inflation and annual statutory cost of living adjustments on indemnity benefits. As shown on Chart 17, even with only a 1% projected annual residual severity trend for indemnity, indemnity severities are projected to increase by about 5% per year as a result of the impact of the previously discussed high levels of projected wage inflation on indemnity benefits.

Chart 17 – WCIRB Estimated Ultimate Indemnity Loss per Indemnity Claim

Source: WCIRB projections of ultimate indemnity losses and claims as of 12/31/21 based on reported loss and claim patterns.
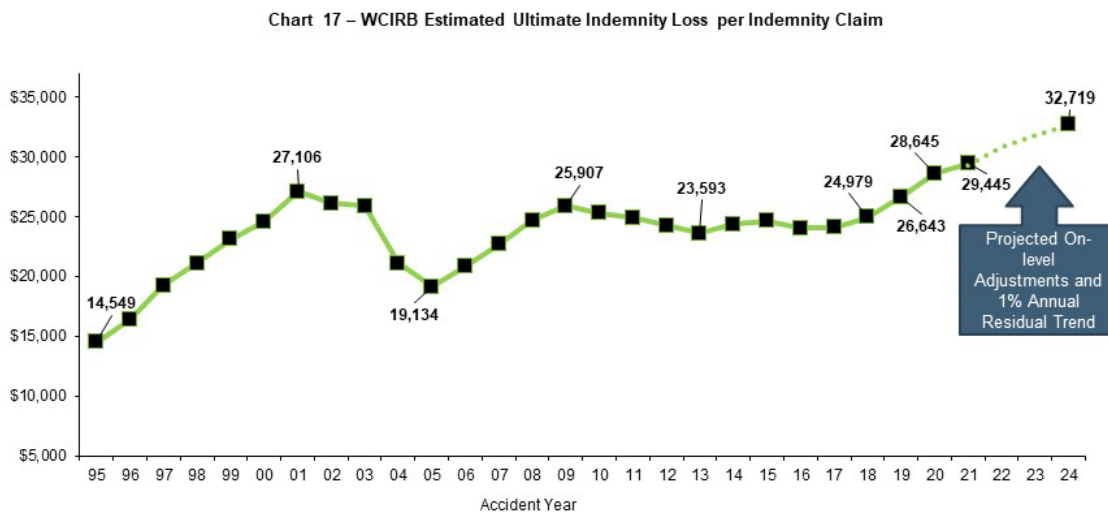
- **Medical Claim Severity**
  As with indemnity, the WCIRB is basing projected average medical severity growth on a review of long-term and short-term historical medical severity trends. In particular, medical losses occurring on policies incepting between September 1, 2022 and August 31, 2023 will be paid over a very extended period, with over one-half of policy year 2023 losses likely to be paid in 2026 or later and over one-quarter likely to be paid in 2031 or later. Also, medical cost levels are reflective of the year when services are provided rather than by when the injury occurred. As a result, it is particularly important to consider long-term medical severity trends in addition to short-term trends in projecting future growth in accident year medical severities.

  Chart 18 shows estimated ultimate and on-level medical severity growth by accident year. As shown, since 1990 long-term on-level medical severity growth in California has averaged approximately 5% per year. This long-term average trend includes both periods of reforms in which medical severities have been flat to declining and "post-reform" periods of sharp medical severity growth. Since 2005, on-level medical severities have, on average, increased by 1.3% per year. Over the last five years, average medical severities have grown by about 1.5% per year.

  Although the reforms of SB 863 and SB 1160 resulted in significant decreases to average medical costs through 2018; these reforms became effective a number of years ago. Absent reform, average medical costs have grown sharply in California in the past. Also, some of the key drivers of reduced medical over that post-SB 863 period such as sharp reductions in the number of liens and pharmaceutical costs are beginning to plateau.[18] Given these considerations, the WCIRB selected an average annual medical severity trend of 1.5%, which corresponds with the average rate of growth

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[18] See Item AC22-03-01 of the March 21, 2022 WCIRB Actuarial Committee Agenda and Item AC16-06-05 of the April 14, 2022 WCIRB Actuarial Committee Agenda.

from 2017 through 2021 and is generally consistent with the longer-term average rate of growth since 2005.

**Chart 18 – WCIRB Estimated Change in Medical On-Level Severity
Based on Experience as of December 31, 2021**

% Change

Annual Exponential Trend Based on: 1990 to 2021: +4.9% (including MCCP)
2005 to 2021: +1.3%
2017 to 2021: +1.5%

WCIRB Selected: +1.5%

Accident Year	% Change
2007	8.8%
2008	4.5%
2009	5.3%
2010	-0.4%
2011	1.0%
2012	-1.2%
2013	0.6%
2014	3.5%
2015	0.0%
2016	-4.1%
2017	-0.3%
2018	5.3%
2019	0.4%
2020	2.7%
2021	-2.2%

Accident Year
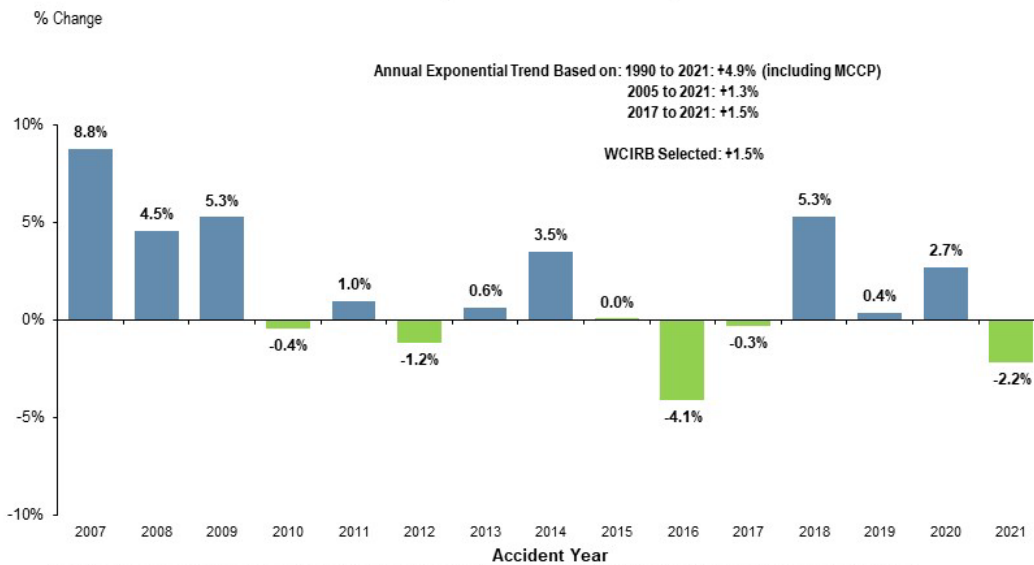
Source: WCIRB projections of ultimate medical losses based on reported loss and claim patterns adjusted to an on-level basis. Cost amounts exclude the cost of medical cost containment programs.

Chart 19 shows the WCIRB's projected ultimate average medical severities by accident year. The projected average medical severity growth including both the projected annual residual trend of 1.5% and the WCIRB's standard on-leveling adjustments for the September 1, 2022 to August 31, 2023 policy period represents an average annual increase of approximately 3% from 2021 and 2% from 2019.

Chart 19 – WCIRB Estimated Ultimate Medical Loss per Indemnity Claim

Selected values:
- 95: 12,536
- 01: 29,619
- 04: 27,038
- 09: 35,756
- 13: 30,308
- 17: 28,971
- 19: 29,371
- 20: 30,518
- 21: 30,081
- 24: 31,944

Accident Year
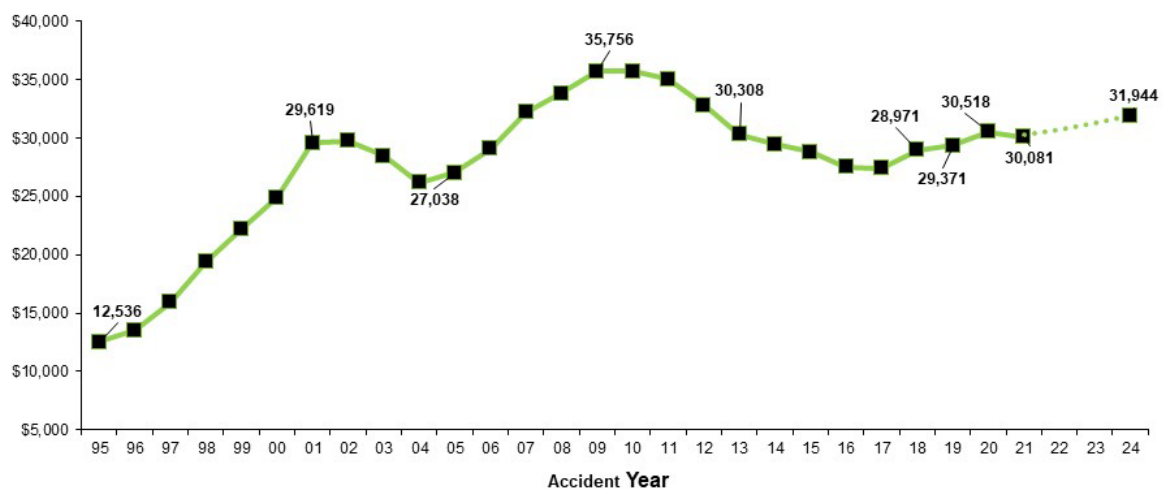
Source: WCIRB projections of ultimate medical losses and claims as of 12/31/2021 based on reported loss and claim patterns.
Excludes medical cost containment program costs from all years.

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Loss Adjustment Expenses
By California statute, pure premium rates contemplate the cost of LAE. The WCIRB has projected the LAE to be incurred on September 1, 2022 to August 31, 2023 policies using methodologies consistent with those used in prior filings. The WCIRB's projection of the cost of LAE on policies incepting between September 1, 2022 and August 31, 2023 as detailed in Section B, Appendix C is 32.1% of losses.[19]

COVID-19 Claim Cost Projection
As in the January 1, 2021 and September 1, 2021 pure premium rate filings, the WCIRB developed the indicated average pure premium rate excluding all COVID-19 claims that have emerged and then separately analyzed the potential cost of future COVID-19 workers' compensation claims. In the January 1, 2021 Pure Premium Rate Filing, the WCIRB estimated an average of $0.06 per $100 of payroll cost for COVID-19 claims to be incurred on 2021 policies.

In the September 1, 2021 Pure Premium Filing, in light of the relatively low COVID-19 claim rates at the time the filing was made (April 2021) and that the external models and published research at the time were indicating that the U.S. population would potentially be nearing herd immunity by the summer of 2021 and COVID-19 fatalities would plateau, the WCIRB did not recommend a provision be included to reflect the estimated costs of COVID-19 claims to be incurred on policies incepting between September 1, 2021 and August 31, 2022. However, subsequent to the time the September 1, 2021 filing was made, with the emergence of the Delta and Omicron variants, more than 100,000 workers' compensation claims have been filed in the state.[20] Most pandemic experts expect COVID-19 to become endemic and continue to infect individuals for the foreseeable future. As a result, in this filing, based largely on several model projections of future COVID-19 fatality rates,[21] the WCIRB has included a provision for the projected cost of COVID-19 claims to be incurred on policies incepting between September 1, 2022 and August 31, 2023. As a result, the proposed September 1, 2022 advisory pure premium rate for each classification includes a provision of $0.008 per $100 of payroll. The WCIRB's COVID-19 claim cost estimate is summarized in Section B, Appendix D.

Experience Rating Off-Balance Factor
Experience rating is designed to be premium-neutral in that the total statewide pure premium, after application of experience rating, should be the same as if there were no experience rating. However, the collective experience of large employers, to which experience rating assigns greater weight, has been better than average, and the collective experience of small employers, many of which are not rated, has been worse than average. As a result, if no adjustment was made, the statewide average experience modification would be below 100% and pure premium rates would be insufficient to provide for losses and loss adjustment expenses after application of experience rating. As a result, advisory pure premium rates are adjusted by a factor known as the experience rating off-balance correction factor (off-balance factor).

The WCIRB's projection of the indicated experience rating off-balance factor for policies incepting between September 1, 2022 and August 31, 2023 has been computed using the methodology reflected in prior WCIRB filings. Based on this methodology, the WCIRB projects an experience rating off-balance factor for policies incepting between September 1, 2022 and August 31, 2023 of 1.030, which is 1.5% above the current experience rating off-balance factor of 1.015 effective September 1, 2021.

Proposed Advisory Pure Premium Rates by Classification
The proposed September 1, 2022 advisory pure premium rate for each standard classification is based on the indicated change in the overall pure premium rate level as computed in Section B, the September 1, 2022 classification relativity for each standard classification and the projected cost of COVID-19 claims incurred on policies incepting between September 1, 2022 and August 31, 2023 as discussed in Section B, Appendix D. The computation of the September 1, 2022 classification relativities is based on the WCIRB's standard methodology and is described in detail in Section C, Appendix C of the

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[19] The LAE provision in the September 1, 2021 Pure Premium Rate Filing was 33.5% of losses.

[20] Based on Division of Workers' Compensation information as of April 2, 2022. Includes insured and self-insured claims and denied claims.

[21] Rockefeller Foundation's Report: https://www.rockefellerfoundation.org/report/getting-to-and-sustaining-the-next-normal-a-roadmap-for-living-with-covid/; IHME's projections: https://covid19.healthdata.org/united-states-of-america?view=cumulative-deaths&tab=trend.

WCIRB's September 1, 2022 Regulatory Filing submitted to the California Department of Insurance on February 28, 2022.

The proposed September 1, 2022 advisory pure premium rate for each standard classification is shown in Section A.

**Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022**

NOTE: THE INDUSTRY AVERAGE FILED PURE PREMIUM RATE SHOWN BELOW FOR EACH CLASSIFICATION REFLECTS THE MIX OF
INSURERS WRITING BUSINESS IN THAT CLASSIFICATION AS WELL AS THEIR UNDERWRITING AND RATE FILING PRACTICES. THE
DIFFERENCES SHOWN BELOW ARE NOT NECESSARILY INDICATIVE OF FUTURE CHANGES IN ANY INDIVIDUAL INSURER'S FILED
PURE PREMIUM RATE OR THE RATE IT WILL CHARGE ITS POLICYHOLDERS AS INSURERS MAY, AND OFTEN DO, FILE AND USE
RATES OTHER THAN THOSE PROPOSED OR APPROVED BY THE COMMISSIONER.

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
0005	4.86	4.28	14%	4.89	-1%
0016	6.57	6.02	9%	7.69	-15%
0034	6.36	5.50	16%	7.70	-17%
0035	4.78	4.49	6%	6.02	-21%
0036	7.45	6.65	12%	9.19	-19%
0038	8.89	7.51	18%	10.40	-15%
0040	4.06	3.23	26%	4.20	-3%
0041	4.39	4.35	1%	5.68	-23%
0042	5.37	4.57	18%	5.98	-10%
0045	4.35	3.79	15%	4.81	-10%
0050	4.85	6.03	-20%	6.93	-30%
0079	2.54	2.73	-7%	3.08	-18%
0096	4.17	4.51	-8%	5.73	-27%
0106	12.24	10.39	18%	14.22	-14%
0171	5.65	5.14	10%	6.67	-15%
0172	4.23	3.57	18%	4.47	-5%
0251	3.99	4.29	-7%	6.23	-36%
0400	4.58	3.42	34%	4.18	10%
0401	8.64	6.45	34%	8.55	1%
1122	2.23	2.27	-2%	2.87	-22%
1320	1.54	1.52	1%	1.89	-19%
1322	4.68	4.36	7%	5.49	-15%
1330	2.09	2.30	-9%	4.08	-49%
1438	5.70	5.09	12%	5.34	7%
1452	2.82	2.47	14%	2.78	1%
1463	3.32	3.07	8%	2.90	14%
1624	3.46	3.30	5%	4.66	-26%
1699	1.37	1.52	-10%	1.67	-18%
1701	2.98	2.75	8%	3.22	-7%
1710	3.37	3.51	-4%	4.83	-30%
1741	3.41	3.21	6%	4.09	-17%
1803	8.15	6.80	20%	8.83	-8%
1925	10.00	9.80	2%	10.53	-5%
2002	6.55	7.00	-6%	8.50	-23%
2003	6.05	6.07	0%	6.33	-4%
2014	4.54	4.34	5%	5.45	-17%
2030	3.80	3.28	16%	3.14	21%
2063	3.50	3.82	-8%	4.58	-24%
2081	8.72	10.05	-13%	12.99	-33%
2095	7.06	5.90	20%	6.83	3%

Rates are per $100 of payroll unless otherwise noted.

**Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)**

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
2102	5.56	5.16	8%	5.14	8%
2107	4.31	3.72	16%	4.85	-11%
2108	5.07	5.16	-2%	6.80	-25%
2109	5.15	4.12	25%	4.91	5%
2111	4.44	3.74	19%	4.09	9%
2113	8.41	7.50	12%	7.22	16%
2116	4.84	4.51	7%	5.80	-17%
2117	7.12	6.56	9%	6.23	14%
2121	3.02	2.53	19%	2.96	2%
2123	6.04	5.20	16%	6.88	-12%
2142	2.71	2.23	22%	3.01	-10%
2163	7.05	5.64	25%	5.62	25%
2222	4.31	4.32	0%	4.89	-12%
2362	15.07	13.86	9%	17.65	-15%
2402	9.98	8.66	15%	10.12	-1%
2413	5.08	4.70	8%	5.42	-6%
2501	6.24	5.00	25%	6.64	-6%
2570	8.82	9.18	-4%	12.08	-27%
2571	8.56	7.57	13%	8.75	-2%
2576	6.01	5.19	16%	5.85	3%
2584	5.25	5.36	-2%	6.61	-21%
2585	7.57	6.45	17%	6.50	16%
2589	4.74	4.11	15%	4.81	-1%
2660	8.53	7.05	21%	8.37	2%
2683	4.92	4.60	7%	5.66	-13%
2688	6.27	5.04	24%	6.34	-1%
2702	18.00	15.83	14%	26.77	-33%
2710	6.75	5.50	23%	7.16	-6%
2727	13.77	10.26	34%	16.00	-14%
2731	5.05	4.61	10%	5.40	-6%
2757	7.29	7.12	2%	9.48	-23%
2759	6.64	7.02	-5%	8.43	-21%
2790	1.87	1.65	13%	2.21	-15%
2797	7.61	7.21	6%	8.71	-13%
2806	5.68	4.81	18%	5.30	7%
2812	5.25	5.07	4%	6.03	-13%
2819	7.23	6.62	9%	7.55	-4%
2840	3.66	3.35	9%	4.02	-9%
2842	5.80	6.14	-6%	7.05	-18%
2852	8.08	6.26	29%	6.74	20%
2881	5.88	5.15	14%	7.40	-21%
2883	12.82	12.74	1%	13.37	-4%
2915	4.80	4.81	0%	6.60	-27%
2923	3.65	3.26	12%	4.24	-14%
3018	2.94	2.77	6%	4.30	-32%

Rates are per $100 of payroll unless otherwise noted.

Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
3022	5.27	4.40	20%	5.18	2%
3030	7.47	6.67	12%	9.02	-17%
3039	6.67	5.63	18%	6.44	4%
3040	6.21	6.13	1%	8.92	-30%
3060	7.09	5.29	34%	6.64	7%
3066	4.48	4.38	2%	4.86	-8%
3070	0.31	0.28	11%	0.31	0%
3076	4.99	4.97	0%	5.78	-14%
3081	9.50	7.94	20%	9.91	-4%
3082	12.52	12.13	3%	11.48	9%
3085	9.47	7.80	21%	9.04	5%
3099	3.73	3.38	10%	4.16	-10%
3110	6.14	5.48	12%	6.10	1%
3131	4.79	4.12	16%	5.05	-5%
3146	2.64	2.45	8%	3.16	-16%
3152	3.35	2.83	18%	3.46	-3%
3165	3.95	3.43	15%	4.10	-4%
3169	4.20	3.39	24%	3.81	10%
3175	3.60	2.90	24%	3.17	14%
3178	2.03	1.83	11%	2.13	-5%
3179	2.47	3.06	-19%	3.47	-29%
3180	5.10	5.04	1%	5.62	-9%
3220	2.14	1.91	12%	1.77	21%
3241	3.75	3.42	10%	3.44	9%
3257	5.00	4.66	7%	6.16	-19%
3339	6.42	5.85	10%	4.38	47%
3365	5.04	4.26	18%	5.93	-15%
3372	5.21	4.64	12%	5.43	-4%
3383	3.21	3.07	5%	4.12	-22%
3400	5.84	6.30	-7%	7.83	-25%
3401	4.42	4.10	8%	5.12	-14%
3501	6.21	5.48	13%	6.11	2%
3507	4.87	3.95	23%	4.81	1%
3560	2.82	2.69	5%	2.92	-3%
3568	2.74	2.29	20%	4.08	-33%
3569	1.79	1.59	13%	2.13	-16%
3570	3.23	3.37	-4%	3.78	-15%
3572	0.94	0.85	11%	0.92	2%
3573	1.29	1.16	11%	1.34	-4%
3574	3.34	3.16	6%	3.68	-9%
3577	1.11	1.21	-8%	1.40	-21%
3612	2.96	2.67	11%	3.15	-6%
3620	6.00	5.74	5%	7.28	-18%
3632	2.60	2.48	5%	3.00	-13%
3634	3.09	2.75	12%	2.89	7%

Rates are per $100 of payroll unless otherwise noted.

Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
3643	2.18	2.06	6%	2.54	-14%
3647	4.41	4.94	-11%	7.24	-39%
3651	2.80	2.29	22%	2.61	7%
3681	0.59	0.68	-13%	0.71	-17%
3682	1.24	1.19	4%	1.16	7%
3683	0.83	0.95	-13%	1.59	-48%
3719	2.21	1.73	28%	1.83	21%
3724	3.98	3.75	6%	4.71	-15%
3726	2.29	1.79	28%	2.62	-13%
3805	1.05	0.94	12%	0.94	12%
3808	4.41	3.54	25%	4.47	-1%
3815	5.09	4.73	8%	5.91	-14%
3821	7.06	6.69	6%	6.82	4%
3828	4.18	3.43	22%	4.07	3%
3830	2.08	1.54	35%	1.92	8%
3831	3.28	2.58	27%	2.80	17%
3840	5.07	3.88	31%	4.49	13%
4000	2.99	2.39	25%	3.12	-4%
4034	4.98	4.69	6%	6.08	-18%
4036	4.10	4.19	-2%	4.57	-10%
4038	6.83	5.57	23%	6.81	0%
4041	3.28	3.06	7%	3.96	-17%
4049	3.69	3.14	18%	2.98	24%
4111	2.91	2.38	22%	2.67	9%
4112	0.40	0.39	3%	0.38	5%
4114	2.56	2.58	-1%	3.07	-17%
4130	7.19	5.90	22%	5.38	34%
4150	2.87	2.46	17%	2.55	13%
4239	3.13	2.65	18%	3.19	-2%
4240	9.03	8.36	8%	10.13	-11%
4243	3.23	3.24	0%	3.83	-16%
4244	4.13	4.13	0%	4.73	-13%
4250	3.56	3.76	-5%	4.73	-25%
4251	3.53	3.29	7%	3.84	-8%
4279	5.24	4.77	10%	6.07	-14%
4283	2.66	2.68	-1%	3.48	-24%
4286	6.33	5.72	11%	7.45	-15%
4295	5.75	5.86	-2%	6.82	-16%
4297	0.23	0.20	15%	0.27	-15%
4299	4.21	4.17	1%	4.68	-10%
4304	7.91	7.42	7%	4.79	65%
4312	6.52	4.87	34%	6.13	6%
4351	2.78	2.50	11%	2.99	-7%
4354	2.48	2.19	13%	3.16	-22%
4361	1.37	1.58	-13%	2.22	-38%

Rates are per $100 of payroll unless otherwise noted.

Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
4362	1.68	1.83	-8%	2.15	-22%
4410	6.22	5.84	7%	6.06	3%
4420	9.10	8.02	13%	9.38	-3%
4432	3.34	3.15	6%	5.75	-42%
4470	2.35	1.91	23%	2.49	-6%
4478	5.47	4.69	17%	5.26	4%
4492	5.69	4.99	14%	6.57	-13%
4494	5.81	5.24	11%	5.76	1%
4495	3.23	3.13	3%	3.97	-19%
4496	5.28	5.22	1%	6.40	-18%
4497	3.68	3.74	-2%	4.41	-17%
4498	4.98	3.71	34%	4.81	4%
4499	5.34	5.49	-3%	5.79	-8%
4511	0.52	0.45	16%	0.61	-15%
4512	0.18	0.21	-14%	0.25	-28%
4557	3.72	2.96	26%	3.91	-5%
4558	3.02	2.76	9%	3.32	-9%
4611	1.53	1.33	15%	1.19	29%
4623	6.39	5.20	23%	6.92	-8%
4635	2.70	2.24	21%	2.45	10%
4665	7.49	6.41	17%	7.15	5%
4683	3.20	3.35	-4%	5.11	-37%
4691	1.28	1.24	3%	1.67	-23%
4692	1.66	1.39	19%	1.93	-14%
4717	4.17	3.94	6%	3.39	23%
4720	3.29	3.06	8%	3.88	-15%
4740	0.89	0.99	-10%	0.88	1%
4771	1.37	1.29	6%	1.52	-10%
4828	2.44	2.34	4%	2.68	-9%
4829	1.55	1.45	7%	1.51	3%
4831	4.55	4.09	11%	5.49	-17%
4983	2.92	2.74	7%	3.83	-24%
5020	3.54	3.36	5%	4.63	-24%
5027	8.05	8.18	-2%	10.23	-21%
5028	4.46	4.21	6%	5.65	-21%
5029	5.42	4.82	12%	7.30	-26%
5040	8.47	8.73	-3%	11.48	-26%
5102	5.69	5.48	4%	7.73	-26%
5107	5.67	4.26	33%	5.69	0%
5108	7.73	7.71	0%	9.49	-19%
5128	1.30	1.28	2%	1.15	13%
5129	0.43	0.47	-9%	0.48	-10%
5130	1.16	0.99	17%	1.20	-3%
5140	1.70	1.45	17%	1.87	-9%
5146	4.69	4.37	7%	5.49	-15%

Rates are per $100 of payroll unless otherwise noted.

**Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)**

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
5160	1.70	1.56	9%	1.90	-11%
5183	5.88	5.31	11%	6.51	-10%
5184	1.89	2.16	-13%	3.03	-38%
5185	4.46	4.57	-2%	5.86	-24%
5186	1.96	1.95	1%	2.55	-23%
5187	2.58	2.36	9%	3.01	-14%
5190	3.63	3.76	-3%	4.86	-25%
5191	2.05	1.90	8%	2.06	0%
5192	4.14	3.49	19%	3.47	19%
5193	1.04	0.97	7%	1.22	-15%
5195	2.79	2.95	-5%	3.83	-27%
5201	8.24	6.64	24%	8.25	0%
5205	4.57	4.23	8%	5.45	-16%
5212	5.23	5.78	-10%	6.72	-22%
5213	4.74	4.44	7%	5.60	-15%
5214	4.71	4.42	7%	5.62	-16%
5222	5.48	5.61	-2%	6.63	-17%
5225	5.41	4.86	11%	6.19	-13%
5348	4.85	4.53	7%	5.32	-9%
5403	12.24	10.03	22%	13.68	-11%
5432	4.63	4.50	3%	5.84	-21%
5436	4.60	3.97	16%	4.79	-4%
5443	5.29	5.01	6%	6.32	-16%
5446	5.91	5.42	9%	6.89	-14%
5447	2.69	2.65	2%	3.34	-19%
5467	7.35	7.62	-4%	10.20	-28%
5470	2.95	3.10	-5%	4.61	-36%
5473	10.29	8.29	24%	14.40	-29%
5474	8.09	8.09	0%	10.61	-24%
5479	5.60	5.36	4%	6.76	-17%
5482	4.89	4.34	13%	5.27	-7%
5484	11.60	9.98	16%	12.19	-5%
5485	5.81	6.25	-7%	7.84	-26%
5506	4.07	4.12	-1%	5.34	-24%
5507	3.46	3.45	0%	5.01	-31%
5538	6.12	5.07	21%	6.64	-8%
5542	2.88	2.52	14%	3.62	-20%
5552	21.97	21.05	4%	31.55	-30%
5553	10.47	8.14	29%	12.17	-14%
5606	0.74	0.80	-8%	1.11	-33%
5610	3.61	3.48	4%	4.62	-22%
5632	12.24	10.03	22%	13.59	-10%
5633	4.63	4.50	3%	5.07	-9%
5650	6.39	5.42	18%	6.83	-6%
5951	0.51	0.51	0%	0.44	16%

Rates are per $100 of payroll unless otherwise noted.

Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
6003	11.18	11.15	0%	15.54	-28%
6011	4.68	5.80	-19%	9.21	-49%
6204	6.27	6.24	0%	8.58	-27%
6206	3.08	3.02	2%	3.97	-22%
6213	1.62	1.51	7%	1.85	-12%
6216	3.08	2.64	17%	4.24	-27%
6218	5.38	5.10	5%	7.06	-24%
6220	2.65	2.93	-10%	3.80	-30%
6233	1.78	1.75	2%	2.87	-38%
6235	4.51	3.36	34%	4.32	4%
6237	2.53	1.88	35%	2.41	5%
6251	3.62	3.82	-5%	3.95	-8%
6258	5.87	5.32	10%	7.00	-16%
6307	7.08	6.98	1%	10.60	-33%
6308	3.19	2.84	12%	4.35	-27%
6315	4.24	4.18	1%	5.47	-22%
6316	3.19	3.70	-14%	5.23	-39%
6325	3.18	2.88	10%	3.87	-18%
6361	2.73	3.38	-19%	5.64	-52%
6364	4.51	4.67	-3%	6.22	-27%
6400	4.59	4.82	-5%	6.40	-28%
6504	6.81	6.09	12%	6.71	1%
6834	5.53	4.81	15%	5.89	-6%
7133	2.30	2.29	0%	3.18	-28%
7198	8.40	7.63	10%	5.56	51%
7207	8.93	7.55	18%	11.46	-22%
7219	7.02	6.38	10%	7.39	-5%
7227	6.50	7.01	-7%	8.61	-25%
7232	7.87	8.26	-5%	9.38	-16%
7248	1.64	1.42	15%	1.64	0%
7272	8.22	6.82	21%	9.38	-12%
7332	2.87	2.53	13%	3.38	-15%
7360	6.25	4.94	27%	6.24	0%
7365	5.95	5.33	12%	7.87	-24%
7382	7.20	6.21	16%	6.73	7%
7392	6.62	4.93	34%	5.10	30%
7403	5.75	5.35	7%	5.24	10%
7405	1.76	1.67	5%	1.64	7%
7409	6.99	7.38	-5%	10.93	-36%
7410	4.83	4.34	11%	6.89	-30%
7421	1.36	1.47	-7%	1.68	-19%
7424	1.69	1.51	12%	1.81	-7%
7428	2.92	2.83	3%	3.52	-17%
7429	1.93	1.93	0%	2.15	-10%
7500	2.82	2.77	2%	4.14	-32%

Rates are per $100 of payroll unless otherwise noted.

**Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)**

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
7515	1.08	1.00	8%	1.18	-8%
7520	2.82	2.77	2%	3.40	-17%
7538	2.30	2.30	0%	3.24	-29%
7539	1.65	1.58	4%	1.87	-12%
7580	3.03	2.74	11%	3.95	-23%
7600	8.27	9.02	-8%	8.65	-4%
7601	2.90	2.86	1%	3.02	-4%
7605	2.32	2.38	-3%	3.07	-24%
7607	0.21	0.25	-16%	0.38	-45%
7610	0.54	0.53	2%	0.52	4%
7706	6.48	4.83	34%	7.48	-13%
7707**	306.11	264.27	16%	369.77	-17%
7720	2.89	2.62	10%	3.33	-13%
7721	3.17	3.03	5%	4.42	-28%
7722 ‡	138.81	103.50	34%	N/A	N/A
7855	3.02	2.91	4%	4.09	-26%
8001	4.73	4.08	16%	5.07	-7%
8004	3.69	3.34	10%	4.05	-9%
8006	3.97	3.61	10%	3.95	1%
8008	2.69	2.12	27%	2.57	5%
8010	2.56	2.74	-7%	3.36	-24%
8013	1.14	1.13	1%	1.55	-26%
8015	4.81	3.68	31%	4.46	8%
8017	2.79	2.49	12%	2.81	-1%
8018	5.93	5.18	14%	5.76	3%
8019	1.57	1.64	-4%	2.24	-30%
8021	7.00	6.22	13%	7.20	-3%
8028	3.95	4.05	-2%	5.04	-22%
8031	4.79	4.78	0%	5.66	-15%
8032	5.52	4.82	15%	6.18	-11%
8039	3.09	2.38	30%	2.34	32%
8041	6.36	6.33	0%	6.88	-8%
8042	3.42	3.17	8%	3.72	-8%
8046	2.83	2.83	0%	3.50	-19%
8057	3.62	3.07	18%	3.25	11%
8059	3.11	2.76	13%	3.54	-12%
8060	1.81	1.71	6%	2.42	-25%
8061	3.09	3.03	2%	3.34	-7%
8062	1.24	1.17	6%	1.30	-5%
8063	3.95	3.23	22%	4.16	-5%

Rates are per $100 of payroll unless otherwise noted.
** The rate for classification 7707 is per capita.
‡ The rate for classification 7722 is per capita; this classification does not have sufficient exposure available to derive an industry average filed pure premium rate.

**Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)**

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
8064	3.36	2.75	22%	3.09	9%
8065	2.67	2.08	28%	2.67	0%
8066	1.51	1.14	32%	1.59	-5%
8071	1.04	1.03	1%	1.21	-14%
8078	1.35	1.29	5%	1.84	-27%
8102	1.71	1.37	25%	1.59	8%
8106	5.31	5.01	6%	5.82	-9%
8107	2.19	2.02	8%	2.57	-15%
8116	2.59	2.65	-2%	3.24	-20%
8117	3.91	3.32	18%	4.33	-10%
8209	6.48	5.08	28%	5.77	12%
8215	7.97	7.55	6%	10.16	-22%
8227	3.63	3.59	1%	5.18	-30%
8232	5.35	5.34	0%	6.40	-16%
8267	6.76	6.75	0%	8.57	-21%
8278***	200.99	174.81	15%	226.61	-11%
8286	7.65	6.29	22%	7.73	-1%
8290	3.52	2.97	19%	3.58	-2%
8291	4.93	4.18	18%	4.84	2%
8292	8.95	7.60	18%	8.02	12%
8293	11.89	9.37	27%	11.71	2%
8304	6.54	6.60	-1%	8.54	-23%
8324	3.24	3.07	6%	3.67	-12%
8350	4.88	4.38	11%	5.12	-5%
8370	2.04	1.88	9%	2.47	-17%
8387	3.53	3.02	17%	3.75	-6%
8388	4.46	4.30	4%	5.27	-15%
8389	2.89	2.98	-3%	3.60	-20%
8390	3.21	2.83	13%	3.62	-11%
8391	2.72	2.56	6%	2.97	-8%
8392	3.17	2.65	20%	3.40	-7%
8393	2.60	2.54	2%	3.09	-16%
8397	3.58	2.81	27%	3.38	6%
8400	2.46	1.92	28%	2.72	-10%
8500	6.57	5.61	17%	6.40	3%
8601 †	0.35	0.34	4%	0.44	-21%
8631***	6.27	4.69	34%	7.48	-16%
8720	1.64	1.42	15%	1.77	-7%
8729	0.84	0.78	8%	1.22	-31%
8740	0.95	0.74	28%	1.13	-16%
8741 †	0.18	0.14	26%	0.29	-37%
8742	0.35	0.33	6%	0.42	-17%
8743	0.18	0.16	13%	0.53	-66%
8744	0.35	0.33	6%	0.47	-26%
8745	7.20	6.06	19%	6.95	4%

Rates are per $100 of payroll unless otherwise noted.
*** The rate for classification 8278 is per race. The rate for classification 8631 is per occupied stall day.
† To be comparable to the proposed rates in Column (1), the rates in Columns (2) and (4) for this classification have been adjusted to reflect payroll limitations on this classification adopted to be effective September 1, 2022.

**Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)**

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
8746	0.35	0.33	6%	0.37	-5%
8748	0.99	0.86	15%	0.95	4%
8749 †	0.25	0.29	-13%	0.38	-35%
8755	0.77	0.75	3%	0.96	-20%
8800	3.10	2.92	6%	3.18	-3%
8801 †	0.67	0.78	-14%	1.08	-38%
8803	0.14	0.13	8%	0.27	-48%
8804	2.31	2.74	-16%	3.67	-37%
8806	2.97	2.93	1%	4.50	-34%
8807	0.27	0.28	-4%	0.45	-40%
8808 †	0.55	0.55	0%	0.63	-12%
8810	0.25	0.21	19%	0.29	-14%
8811	0.25	0.21	19%	0.30	-17%
8812	0.25	0.21	19%	0.39	-36%
8813	0.55	0.50	10%	0.78	-29%
8818	0.57	0.66	-14%	0.81	-30%
8820	0.34	0.34	0%	0.57	-40%
8821	0.76	0.89	-15%	1.22	-38%
8822 †	0.55	0.60	-9%	0.67	-18%
8823	3.42	3.13	9%	4.34	-21%
8827	3.03	3.00	1%	4.01	-24%
8829	2.96	3.09	-4%	3.75	-21%
8830	1.41	1.25	13%	1.96	-28%
8831	1.69	1.53	10%	2.00	-16%
8834	0.66	0.63	5%	1.11	-41%
8838	1.01	1.09	-7%	1.95	-48%
8839	0.72	0.67	7%	1.89	-62%
8840	0.34	0.31	10%	0.50	-32%
8846	1.29	1.24	4%	2.17	-41%
8847	8.00	6.84	17%	9.40	-15%
8850	1.74	1.84	-5%	2.58	-33%
8851	3.23	3.15	3%	3.55	-9%
8852	1.62	1.61	1%	1.73	-6%
8859	0.04	0.04	0%	0.10	-60%
8868	0.68	0.66	3%	0.83	-18%
8870	0.89	0.86	3%	1.52	-41%
8871*	0.25	0.21	19%	N/A	N/A
8874*†	0.12	N/A	N/A	N/A	N/A
8875	0.76	0.73	4%	0.93	-18%
9007	3.71	3.20	16%	3.86	-4%
9008	7.34	7.84	-6%	9.44	-22%
9009	3.31	2.65	25%	3.01	10%
9010	4.31	4.16	4%	5.37	-20%
9011	3.85	3.47	11%	4.10	-6%
9015	4.25	4.53	-6%	5.06	-16%

Rates are per $100 of payroll unless otherwise noted.
* This classification is recently established and there is no reported payroll available yet to derive an industry average filed pure premium rate.
† To be comparable to the proposed rates in Column (1), the rates in Columns (2) and (4) for this classification have been adjusted to reflect payroll limitations on this classification adopted to be effective September 1, 2022.

Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
9016	2.57	2.89	-11%	3.31	-22%
9031	4.35	4.04	8%	4.60	-5%
9033	4.19	3.66	14%	4.89	-14%
9043	1.41	1.25	13%	1.41	0%
9048	3.15	2.70	17%	3.94	-20%
9050	6.40	6.06	6%	7.19	-11%
9053	1.40	1.51	-7%	2.37	-41%
9054	3.95	3.80	4%	7.41	-47%
9059	1.99	2.07	-4%	2.59	-23%
9060	3.28	3.12	5%	4.05	-19%
9061	3.50	3.30	6%	4.07	-14%
9066	3.22	2.71	19%	3.69	-13%
9067	1.45	1.50	-3%	2.18	-33%
9069	3.99	3.78	6%	5.04	-21%
9070	4.65	4.44	5%	5.44	-15%
9079	2.84	2.56	11%	3.16	-10%
9085	2.69	2.93	-8%	3.78	-29%
9092	1.85	2.08	-11%	2.30	-20%
9095	2.87	3.32	-14%	5.00	-43%
9096	9.09	9.91	-8%	11.90	-24%
9097	3.28	3.32	-1%	3.80	-14%
9101	4.07	4.02	1%	4.82	-16%
9151	0.56	0.66	-15%	1.13	-50%
9154	2.05	2.54	-19%	2.69	-24%
9155	1.15	1.17	-2%	1.41	-18%
9156	3.61	3.64	-1%	5.22	-31%
9180	2.77	2.74	1%	3.79	-27%
9181	10.02	9.16	9%	9.77	3%
9182	1.20	1.19	1%	1.37	-12%
9184	8.18	9.11	-10%	8.28	-1%
9185	10.00	11.76	-15%	16.90	-41%
9220	6.38	5.07	26%	5.83	9%
9402	3.48	3.16	10%	3.74	-7%
9403	6.31	6.09	4%	6.17	2%
9410	0.97	1.01	-4%	1.80	-46%
9420	8.99	8.22	9%	10.84	-17%
9422	1.96	1.68	17%	2.61	-25%
9424	6.08	5.35	14%	5.82	4%
9426	4.66	5.22	-11%	6.59	-29%
9501	4.59	4.11	12%	4.58	0%
9507	3.30	2.86	15%	3.36	-2%
9516	2.58	2.13	21%	2.36	9%
9519	5.81	5.75	1%	7.05	-18%
9521	4.15	4.63	-10%	5.66	-27%
9522	7.11	6.79	5%	7.90	-10%

Rates are per $100 of payroll unless otherwise noted.

Comparison of Proposed September 1, 2022 Advisory Pure Premium Rates with Approved September 1, 2021
Advisory Pure Premium Rates and Industry Average Filed Pure Premium Rates as of January 1, 2022 (continued)

Class Code	(1) Proposed September 1, 2022 Advisory Pure Premium Rates	(2) Approved September 1, 2021 Advisory Pure Premium Rates	(3) Difference Between Proposed 9/1/2022 APPR & Approved 9/1/2021 APPR (1)/(2)-1	(4) Industry Average Filed Pure Premium Rates as of 1/1/2022	(5) Difference Between Proposed 9/1/2022 APPR & Industry Avg Filed PPR as of 1/1/2022 (1)/(4)-1
9529	5.06	4.60	10%	6.03	-16%
9531	2.98	3.02	-1%	3.77	-21%
9549	10.38	10.50	-1%	12.36	-16%
9552	8.47	8.29	2%	10.63	-20%
9586	1.44	1.35	7%	2.36	-39%
9610	1.78	1.36	31%	1.46	22%
9620	2.58	2.17	19%	2.64	-2%

Rates are per $100 of payroll unless otherwise noted.

Section A
Proposed Pure Premium Rates

This section sets forth the calculation of the proposed pure premium rates applicable to workers' compensation policies with an effective date on or after September 1, 2022. The pure premium rates included in this section are based on the "Selected (Unlimited) Loss to Payroll Ratio" or, if applicable, the "Selected Loss to Payroll Ratio (Restricted to 25% Change)" for each standard classification as computed in the classification relativities that were included in Section C, Appendix C of the WCIRB's September 1, 2022 Regulatory Filing submitted on February 28, 2022 (September 1, 2022 Regulatory Filing). The pure premium rates proposed in this section also include a provision for the cost of COVID-19 workers' compensation claims on policies incepting between September 1, 2022 and August 31, 2023, which is computed in Section B, Appendix D.

In order to determine the proposed pure premium rate for each classification prior to the application of the COVID-19 provision, the selected loss to payroll ratios in Section C, Appendix C of the September 1, 2022 Regulatory Filing are adjusted to reflect (a) the overall indicated difference in the level of losses (excluding COVID-19 claims) projected for policies incepting between September 1, 2022 and August 31, 2023, segregated into its indemnity and medical components, (b) the inclusion of loss adjustment expenses (LAE), and (c) the impact of experience rating on pure premium.

The projected indemnity loss factor of 1.0875 is computed as the ratio of the projected ratio of indemnity losses to pure premium at the industry average filed pure premium rate level as of January 1, 2022 (excluding COVID-19 claims) of 0.317 (see Section B, Exhibit 8, line 1) to the product of (a) the implied expected provision for indemnity losses in the September 1, 2021 advisory pure premium rates of 0.3611[1] and (b) the ratio of the average September 1, 2021 advisory pure premium rate of $1.45 per $100 of payroll to the industry average filed pure premium rate as of January 1, 2022 of $1.77 per $100 of payroll, with the resultant ratio multiplied by an adjustment of 1.0148 to reflect the difference in the payroll weights by classification underlying the average September 1, 2022 advisory pure premium rate to those underlying the classification relativities reflected in the September 1, 2022 Regulatory Filing. The projected medical loss factor of 1.0949 is computed as the ratio of the projected ratio of medical losses to pure premium at the industry average filed pure premium rate level as of January 1, 2022 (excluding COVID-19 claims) of 0.338 (see Section B, Exhibit 8, line 1) to the product of (a) the implied expected provision for medical losses in the September 1, 2021 advisory pure premium rates of 0.3824[2] and (b) the ratio of the average September 1, 2021 advisory pure premium rate of $1.45 per $100 of payroll to the industry average filed pure premium rate as of January 1, 2022 of $1.77 of $100 of payroll and with the resultant ratio multiplied by the adjustment of 1.0148 to reflect the difference in the payroll weights by classification underlying the average September 1, 2022 advisory pure premium rate to those underlying the classification relativities reflected in the September 1, 2022 Regulatory Filing.

Shown below are the indemnity and medical composite factors, which are the projected indemnity and medical loss factors adjusted for the indicated provision for loss adjustment expenses of 32.1% (see Section B, Appendix C) and the selected experience rating off-balance correction factor of 1.030 (see Section C, Appendix B of the September 1, 2022 Regulatory Filing).

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[1] This factor represents the loss provision in the approved September 1, 2021 advisory pure premium rates (i.e., 1/1.345 or 0.7435) apportioned to indemnity based on the indemnity (0.4857) and medical (0.5143) split reflected in the overall selected loss to payroll ratios included in Section C, Appendix C of the September 1, 2022 Regulatory Filing.

[2] This factor represents the loss provision in the approved September 1, 2021 advisory pure premium rates (i.e., 1/1.345 or 0.7435) apportioned to medical based on the indemnity (0.4857) and medical (0.5143) split reflected in the overall selected loss to payroll ratios included in Section C, Appendix C of the September 1, 2022 Regulatory Filing.

		Indemnity	Medical
(1)	Projected Loss Factors (excluding COVID-19 claims)		
(a)	Projected Loss to Industry Average Filed Pure Premium Rate as of January 1, 2022	0.317	0.338
(b)	Expected Loss Provision in September 1, 2021 Advisory Pure Premium Rates	0.3611	0.3824
(c)	Ratio of Average September 1, 2021 Advisory Pure Premium Rate to Industry Average Filed Pure Premium Rate as of January 1, 2022	0.8192	0.8192
(d)	Adjustment to Average Loss to Payroll Ratio Underlying Projected January 1, 2022 Average Advisory Pure Premium Rate[3]	1.0148	1.0148
(e)	Projected Loss Factors: [(a) / [(b) x (c)]] x (d)	**1.0875**	**1.0949**
(2)	Loss Adjustment Expense Factor	**1.321**	**1.321**
(3)	Experience Rating Off-Balance Factor	**1.030**	**1.030**
(4)	Composite Factors: (1e) x (2) x (3)	**1.480**	**1.490**

In summary, the September 1, 2022 pure premium rate for each classification, prior to reflecting the estimated cost of COVID-19 claims, is calculated by (a) multiplying the indemnity component shown in the "Selected (Unlimited) Loss to Payroll Ratio" or, if applicable, the "Selected Loss to Payroll Ratio (Restricted to 25% Change)" line on the classification relativity review sheet for the classification included in Section C, Appendix C of the September 1, 2022 Regulatory Filing by the indemnity composite factor of 1.480 shown above, (b) multiplying the medical component shown in the "Selected (Unlimited) Loss to Payroll Ratio" or, if applicable, the "Selected Loss to Payroll Ratio (Restricted to 25% Change)" line on the classification relativity review sheets included in Section C, Appendix C of the January 1, 2022 Regulatory Filing by the medical composite factor of 1.490 shown above and (c) adding the resulting products.

As discussed in Section B, Appendix D, the WCIRB projects the cost of COVID-19 workers' compensation claims on September 1, 2022 to August 31, 2023 policies to be 0.5% of losses and loss adjustment expenses, or $0.008 per $100 of payroll. Given that the exposure to COVID-19 workers' compensation costs is not necessarily proportional to other workers' compensation exposures for the classification, the WCIRB is reflecting this provision as an additive rather than multiplicative factor to each classification. To derive the proposed September 1, 2022 advisory pure premium rate for each classification, the pure premium rate based on the selected loss to payroll ratios adjusted by the composite factors as described above is added to the provision for COVID-19 workers' compensation claims of $0.008 per $100 of payroll.

For example, the proposed September 1, 2022 pure premium rate for Classification 4496, *Plastics – fabricated products mfg.,* of $5.28 per $100 of payroll is computed by multiplying the indemnity Selected (Unlimited) Loss to Payroll Ratio of 1.748 (see Section C, Appendix C of the September 1, 2022 Regulatory Filing) by the indemnity composite factor of 1.480 and adding that result to the product of the medical Selected (Unlimited) Loss to Payroll Ratio of 1.800 (see Section C, Appendix C of the September 1, 2022 Regulatory Filing) and the medical composite factor of 1.490, and adding that result to the COVID-19 provision of $0.008.

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[3] The ratio of the average loss to payroll ratio based on the payroll weights underlying the projected September 1, 2022 advisory pure premium rate (1.0525) to the average loss to payroll ratio based on the payroll weights underlying the classification relativities reflected in the September 1, 2022 Regulatory Filing (1.0371).

Proposed September 1, 2022 Pure Premium Rates
Effective September 1, 2022 on New and Renewal Policies
Effective on or after September 1, 2022

Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*
0005	4.86	2113	8.41	3066	4.48	3683	0.83	4478	5.47	5187	2.58	6216	3.08
0016	6.57	2116	4.84	3070	0.31	3719	2.21	4492	5.69	5190	3.63	6218	5.38
0034	6.36	2117	7.12	3076	4.99	3724	3.98	4494	5.81	5191	2.05	6220	2.65
0035	4.78	2121	3.02	3081	9.50	3726	2.29	4495	3.23	5192	4.14	6233	1.78
0036	7.45	2123	6.04	3082	12.52	3805	1.05	4496	5.28	5193	1.04	6235	4.51
0038	8.89	2142	2.71	3085	9.47	3808	4.41	4497	3.68	5195	2.79	6237	2.53
0040	4.06	2163	7.05	3099	3.73	3815	5.09	4498	4.98	5201	8.24	6251	3.62
0041	4.39	2222	4.31	3110	6.14	3821	7.06	4499	5.34	5205	4.57	6258	5.87
0042	5.37	2362	15.07	3131	4.79	3828	4.18	4511	0.52	5212	5.23	6307	7.08
0045	4.35	2402	9.98	3146	2.64	3830	2.08	4512	0.18	5213	4.74	6308	3.19
0050	4.85	2413	5.08	3152	3.35	3831	3.28	4557	3.72	5214	4.71	6315	4.24
0079	2.54	2501	6.24	3165	3.95	3840	5.07	4558	3.02	5222	5.48	6316	3.19
0096	4.17	2570	8.82	3169	4.20	4000	2.99	4611	1.53	5225	5.41	6325	3.18
0106	12.24	2571	8.56	3175	3.60	4034	4.98	4623	6.39	5348	4.85	6361	2.73
0171	5.65	2576	6.01	3178	2.03	4036	4.10	4635	2.70	5403	12.24	6364	4.51
0172	4.23	2584	5.25	3179	2.47	4038	6.83	4665	7.49	5432	4.63	6400	4.59
0251	3.99	2585	7.57	3180	5.10	4041	3.28	4683	3.20	5436	4.60	6504	6.81
0400	4.58	2589	4.74	3220	2.14	4049	3.69	4691	1.28	5443	5.29	6834	5.53
0401	8.64	2660	8.53	3241	3.75	4111	2.91	4692	1.66	5446	5.91	7133	2.30
1122	2.23	2683	4.92	3257	5.00	4112	0.40	4717	4.17	5447	2.69	7198	8.40
1320	1.54	2688	6.27	3339	6.42	4114	2.56	4720	3.29	5467	7.35	7207	8.93
1322	4.68	2702	18.00	3365	5.04	4130	7.19	4740	0.89	5470	2.95	7219	7.02
1330	2.09	2710	6.75	3372	5.21	4150	2.87	4771	1.37	5473	10.29	7227	6.50
1438	5.70	2727	13.77	3383	3.21	4239	3.13	4828	2.44	5474	8.09	7232	7.87
1452	2.82	2731	5.05	3400	5.84	4240	9.03	4829	1.55	5479	5.60	7248	1.64
1463	3.32	2757	7.29	3401	4.42	4243	3.23	4831	4.55	5482	4.89	7272	8.22
1624	3.46	2759	6.64	3501	6.21	4244	4.13	4983	2.92	5484	11.60	7332	2.87
1699	1.37	2790	1.87	3507	4.87	4250	3.56	5020	3.54	5485	5.81	7360	6.25
1701	2.98	2797	7.61	3560	2.82	4251	3.53	5027	8.05	5506	4.07	7365	5.95
1710	3.37	2806	5.68	3568	2.74	4279	5.24	5028	4.46	5507	3.46	7382	7.20
1741	3.41	2812	5.25	3569	1.79	4283	2.66	5029	5.42	5538	6.12	7392	6.62
1803	8.15	2819	7.23	3570	3.23	4286	6.33	5040	8.47	5542	2.88	7403	5.75
1925	10.00	2840	3.66	3572	0.94	4295	5.75	5102	5.69	5552	21.97	7405	1.76
2002	6.55	2842	5.80	3573	1.29	4297	0.23	5107	5.67	5553	10.47	7409	6.99
2003	6.05	2852	8.08	3574	3.34	4299	4.21	5108	7.73	5606	0.74	7410	4.83
2014	4.54	2881	5.88	3577	1.11	4304	7.91	5128	1.30	5610	3.61	7421	1.36
2030	3.80	2883	12.82	3612	2.96	4312	6.52	5129	0.43	5632	12.24	7424	1.69
2063	3.50	2915	4.80	3620	6.00	4351	2.78	5130	1.16	5633	4.63	7428	2.92
2081	8.72	2923	3.65	3632	2.60	4354	2.48	5140	1.70	5650	6.39	7429	1.93
2095	7.06	3018	2.94	3634	3.09	4361	1.37	5146	4.69	5951	0.51	7500	2.82
2102	5.56	3022	5.27	3643	2.18	4362	1.68	5160	1.70	6003	11.18	7515	1.08
2107	4.31	3030	7.47	3647	4.41	4410	6.22	5183	5.88	6011	4.68	7520	2.82
2108	5.07	3039	6.67	3651	2.80	4420	9.10	5184	1.89	6204	6.27	7538	2.30
2109	5.15	3040	6.21	3681	0.59	4432	3.34	5185	4.46	6206	3.08	7539	1.65
2111	4.44	3060	7.09	3682	1.24	4470	2.35	5186	1.96	6213	1.62	7580	3.03

*Pure Premium Rates are per $100 of payroll unless otherwise noted. Note that payroll limitations apply to Classifications 7607, 7610, 8601, 8741, 8743, 8749, 8801, 8803, 8808, 8820, 8822, 8859, 8874, 9151, 9156, 9181 and 9610. Refer to the classification phraseology in Part 3, Section VII of the California Workers' Compensation Uniform Statistical Reporting Plan – 1995 for more information.
WCIRB September 1, 2022 Pure Premium Rate Filing

Proposed September 1, 2022 Pure Premium Rates
Effective September 1, 2022 on New and Renewal Policies
Effective on or after September 1, 2022
(Continued)

Legend:
(A) See below

Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*	Class Code	P.P. Rate*
7600	8.27	8059	3.11	8387	3.53	8808	0.55	9008	7.34	9156	3.61		
7601	2.90	8060	1.81	8388	4.46	8810	0.25	9009	3.31	9180	2.77		
7605	2.32	8061	3.09	8389	2.89	8811	0.25	9010	4.31	9181	10.02		
7607	0.21	8062	1.24	8390	3.21	8812	0.25	9011	3.85	9182	1.20		
7610	0.54	8063	3.95	8391	2.72	8813	0.55	9015	4.25	9184	8.18		
7706	6.48	8064	3.36	8392	3.17	8818	0.57	9016	2.57	9185	10.00		
7707	(A)	8065	2.67	8393	2.60	8820	0.34	9031	4.35	9220	6.38		
7720	2.89	8066	1.51	8397	3.58	8821	0.76	9033	4.19	9402	3.48		
7721	3.17	8071	1.04	8400	2.46	8822	0.55	9043	1.41	9403	6.31		
7722	(A)	8078	1.35	8500	6.57	8823	3.42	9048	3.15	9410	0.97		
7855	3.02	8102	1.71	8601	0.35	8827	3.03	9050	6.40	9420	8.99		
8001	4.73	8106	5.31	8631	(A)	8829	2.96	9053	1.40	9422	1.96		
8004	3.69	8107	2.19	8720	1.64	8830	1.41	9054	3.95	9424	6.08		
8006	3.97	8116	2.59	8729	0.84	8831	1.69	9059	1.99	9426	4.66		
8008	2.69	8117	3.91	8740	0.95	8834	0.66	9060	3.28	9501	4.59		
8010	2.56	8209	6.48	8741	0.18	8838	1.01	9061	3.50	9507	3.30		
8013	1.14	8215	7.97	8742	0.35	8839	0.72	9066	3.22	9516	2.58		
8015	4.81	8227	3.63	8743	0.18	8840	0.34	9067	1.45	9519	5.81		
8017	2.79	8232	5.35	8744	0.35	8846	1.29	9069	3.99	9521	4.15		
8018	5.93	8267	6.76	8745	7.20	8847	8.00	9070	4.65	9522	7.11		
8019	1.57	8278	(A)	8746	0.35	8850	1.74	9079	2.84	9529	5.06		
8021	7.00	8286	7.65	8748	0.99	8851	3.23	9085	2.69	9531	2.98		
8028	3.95	8290	3.52	8749	0.25	8852	1.62	9092	1.85	9549	10.38		
8031	4.79	8291	4.93	8755	0.77	8859	0.04	9095	2.87	9552	8.47		
8032	5.52	8292	8.95	8800	3.10	8868	0.68	9096	9.09	9586	1.44		
8039	3.09	8293	11.89	8801	0.67	8870	0.89	9097	3.28	9610	1.78		
8041	6.36	8304	6.54	8803	0.14	8871	0.25	9101	4.07	9620	2.58		
8042	3.42	8324	3.24	8804	2.31	8874	0.12	9151	0.56				
8046	2.83	8350	4.88	8806	2.97	8875	0.76	9154	2.05				
8057	3.62	8370	2.04	8807	0.27	9007	3.71	9155	1.15				

Per Capita
Classifications

Firefighters, Police, Police Deputies, etc.

	Class Code	P.P. Rate*
Firefighting Operations - volunteers	7707	306.11
Police, Sheriffs - volunteers	7722	138.81

Horse Racing
Classifications

Horse Racing

	Class Code	P.P. Rate*
Jockeys or Harness Racing Drivers (per race)	8278	200.99
Racing Stables (per occupied stall day)	8631	6.27

*Pure Premium Rates are per $100 of payroll unless otherwise noted. Note that payroll limitations apply to Classifications
7607, 7610, 8601, 8741, 8743, 8749, 8801, 8803, 8808, 8820, 8822, 8859, 8874, 9151, 9156, 9181 and 9610. Refer to the classification
phraseology in Part 3, Section VII of the California Workers' Compensation Uniform Statistical Reporting Plan – 1995 for more information.
WCIRB September 1, 2022 Pure Premium Rate Filing

Section B
Computation of Indicated Average Pure Premium Rate for Policies Incepting between September 1, 2022 and August 31, 2023

The projected ratio of losses to premium at the industry average filed pure premium rate level as of January 1, 2022 for policies incepting between September 1, 2022 and August 31, 2023 based on experience through December 31, 2021, excluding the cost of COVID-19 claims, is 65.5%. The projected provision for loss adjustment expenses (LAE) is 32.1% of losses. In total, the projected loss and LAE as a percentage of premium at the industry average filed pure premium rate level as of January 1, 2022, prior to reflecting the cost of COVID-19 claims, is 86.5%. After reflecting a 1.5% indicated increase in the experience rating off-balance correction factor (see Section C, Appendix B of the WCIRB's September 1, 2022 Regulatory Filing), the result is an indicated -12.2% difference from the industry average filed pure premium rate as of January 1, 2022 of $1.77 per $100 of payroll. The resulting indicated average pure premium rate for policies incepting between September 1, 2022 and August 31, 2023, prior to reflecting the cost of COVID-19 claims, is $1.55 per $100 of payroll.

As discussed in Appendix D, the WCIRB estimates the cost of COVID-19 claims on policies incepting between September 1, 2022 and August 31, 2023 is 0.5% of total losses and LAE. The resulting indicated average pure premium rate for policies incepting between September 1, 2022 and August 31, 2023, after reflecting the projected cost of COVID-19 claims on those policies, is $1.56 per $100 of payroll.

The data and actuarial methodologies underlying the computation of the indicated average pure premium rate for policies incepting between September 1, 2022 and August 31, 2023 is summarized below. This actuarial analysis is provided by Tony Milano, who is a Vice President and Actuary at the WCIRB and a Fellow of the Casualty Actuarial Society. The methodologies summarized in this Section have also been reviewed by the WCIRB's Actuarial Committee, whose members are also Fellows of the Casualty Actuarial Society.

Computation of Projected Loss to Pure Premium Ratio

A. Calendar Accident Year Experience
The projected loss to pure premium ratio is based on a review of calendar and accident year experience through 2021, valued as of December 31, 2021. A summary of the 1987 through 2021 calendar year premiums and accident year losses is shown in Exhibit 1. The experience included in this summary reflects the data reported by insurers representing approximately 100% of the California workers' compensation insurance market in 2021. (The December 31, 2021 experience of a number of insurers that were in liquidation by the fourth quarter of 2021 but may have written a significant portion of the market in prior years has not been reported to the WCIRB and is, therefore, not included in this analysis.)

Exhibit 1 shows the earned premium, the indemnity paid losses and case reserves and the medical paid losses and case reserves as of December 31, 2021 for accident years 1987 through 2021.[1] Exhibit 1 also shows, for informational purposes, the incurred but not reported (IBNR) losses reported by insurers as of December 31, 2021, the total incurred losses including IBNR losses, and the total loss ratio reported for each accident year.

The COVID-19 pandemic has had a significant impact on the workers' compensation insurance system. Thousands of claims arising out of a diagnosis of COVID-19 have been filed for accident years 2020 and 2021 totaling almost $400 million in reported incurred indemnity and medical losses as of December 31, 2021 (see Appendix B, Exhibit 1). Although the WCIRB believes there will be costs associated with

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[1] As in prior pure premium rate filings, due to a change in the reporting of medical cost containment program (MCCP) costs beginning July 1, 2010, the paid medical losses shown in Exhibit 1 for accident year 2011 have been adjusted to exclude all MCCP paid costs including the portion of MCCP costs reported in medical losses. The paid medical losses shown in Exhibit 1 for accident years 2010 and prior continue to include all MCCP costs including the MCCP costs reported as allocated loss adjustment with.

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COVID-19 claims on policies incepting between September 1, 2022 and August 31, 2023, the costs from accident year 2020 and 2021 claims reflect earlier and different stages of the pandemic and are likely not indicative of costs incurred during this policy period which will predominantly include exposure in 2023 and 2024. As a result, the WCIRB has excluded COVID-19 claims from Exhibit 1 and other exhibits in this Section that include accident years 2020 and 2021 based on the data reported on the WCIRB's Quarterly Call for Experience.[2] The WCIRB's estimated cost of claims arising from a COVID-19 diagnosis on policies incepting between September 1, 2022 and August 31, 2023 is discussed separately in Appendix D.

B. Loss Development

The indemnity and medical losses paid and incurred (paid plus case reserves) shown in Exhibit 1 for each accident year are valued as of December 31, 2021. However, the amount of losses reported for the accidents that occur in a particular year will change over time and the final cost of these accidents will not be known for many years. In general, the pure premium rates are intended to reflect the estimated final, or ultimate, cost of losses and loss adjustment expenses on all accidents that will occur during the period that the rates will be in effect. Consequently, the losses reported for each historical accident year as of December 31, 2021 are adjusted, or developed, to reflect the estimated ultimate cost of all accidents that have occurred during that year.

The historical incurred age-to-age development factors for each annual evaluation period are shown in Exhibits 2.1.1 and 2.1.2 for indemnity and in Exhibits 2.2.1 and 2.2.2 for medical. The historical paid age-to-age development factors for each annual evaluation period are shown in Exhibits 2.3.1 and 2.3.2 for indemnity and Exhibits 2.4.1 and 2.4.2 for medical. These factors represent the historical year-to-year growth in the incurred and paid losses reported at consecutive December 31 evaluation periods.[3]

The methodologies used to develop each year's reported losses to its ultimate level in this pure premium rate filing are primarily based on paid loss development with adjustments for changes in claim settlement rates. Medical loss development is also adjusted for the impact of Senate Bill No. 1160 (SB 1160) and Assembly Bill No. 1244 (AB 1244) reforms related to liens, for the sharp decreases in pharmaceutical costs that have occurred since 2013, and for the updates to medical fee schedules adopted by the Division of Workers' Compensation (DWC) in 2021. These methodologies, which are discussed in detail in Appendix A, are summarized below.

Indemnity Loss Development
The WCIRB is projecting future indemnity loss development based primarily on latest year historical paid indemnity age-to-age loss development factors through 108 months and a three-year average of historical paid indemnity age-to-age loss development factors after 108 months. Paid indemnity age-to-age loss development factors are also adjusted for the impact of changes in claim settlement rates through 84 months. Exhibits 2.3.1 and 2.3.2 show the historical annual paid indemnity loss development factors.

Changes in the rate claims are settled can affect paid loss development patterns. As shown in Appendix A, Exhibit 2, since the implementation of Senate Bill No. 863 (SB 863) in 2013, indemnity claim settlement rates increased steadily through the pre-pandemic period. Beginning in the second quarter of 2020, primarily as a result of the COVID-19 pandemic, claim settlement rates slowed significantly. Although the claim settlement rates have begun to moderate in the most recent calendar year, rates continue to decline for accident years 2018 through 2020. If no adjustment to loss development is made during periods of significant claim settlement rate change, projections of future loss development may be distorted. A WCIRB retrospective study of the standard actuarial approach for adjusting paid loss development for changes in claim settlement rates showed that the methodology improved the accuracy of the projection during periods of significant claim settlement rate change.[4] As a result, the WCIRB is

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[2] COVID-19 premium charges are also excluded from the premium amounts shown in Exhibit 1.

[3] Incurred and paid medical loss development factors for accident years 2012 and later shown in Exhibits 2.2 and 2.4 do not include MCCP costs while, for consistency of comparison, medical loss development factors for accident years 2011 and prior continue to include all MCCP costs since these costs cannot be completely segregated from other medical costs.

[4] See Item AC17-03-03 of the March 21, 2017 WCIRB Actuarial Committee Agenda.

adjusting paid indemnity loss development through 84 months for changes in indemnity claim settlement rates, which is consistent with the methodology used in the last several pure premium rate filings. Exhibits 2.5.3 through 2.5.8 show the adjustment for changes in claim settlement rates applied to paid indemnity loss development.

The longer-term acceleration in claim settlement rates since the SB 863 reforms also impacts later period loss development as fewer claims being open in more mature periods lead to fewer future payments being made in the future on these more mature years. Although claim settlement have slowed recently, claim settlement rates remain significantly above those for the older accident years underlying the loss development tail. In 2020, the WCIRB conducted a study of longer-term loss development which showed that there is a strong correlation between changes in the proportion of ultimate claims open at a point in time and changes in later period loss development.[5] As a result, the WCIRB adjusted paid loss development applied after 288 months for the post-SB 863 increases in claim settlement rates impacting later period loss development. Exhibits 2.5.9 through 2.5.12 show this adjustment applied to paid indemnity development, which is consistent with the approach used in the last two pure premium rate filings. (See Appendix A for a more detailed discussion of these adjustments.)

Exhibits 2.5.1 and 2.5.2 show the WCIRB's projected indemnity loss development factors including the adjustments discussed above. Indemnity development is based on the latest paid indemnity age-to-age development factor through 108 months, with adjustments for changes in claim settlement rates applied through 84 months. Prior WCIRB studies have shown that loss development at later maturities can be more volatile than at earlier maturities and a longer-term average of age-to-age development factors reduces this volatility. As a result, the WCIRB has based the projected indemnity development from 108 months through 444 months on the average of the latest three paid indemnity age-to-age development factors, with the factors after 288 months adjusted for the impact of changes in claim settlement rates on later period development as discussed above.

Losses continue to develop even after 444 months of maturity. To reflect this long-term development, an additional factor, or tail development factor, is applied to adjust the losses to an ultimate basis. This tail development factor applied to indemnity losses is based on an approach that fits an inverse power curve to a four-year average of the 108-to-120 through 348-to-360 paid indemnity age-to-age factors, adjusted for the long-term impact of changes in claim settlement rates as discussed above and extrapolating the fitted factors to approximately 80 development years. The WCIRB's most recent study of long-term loss development showed that a tail factor based on the inverse power curve fit to a four-year average of paid loss development was the most stable of the alternative methods reviewed.[6]

Medical Loss Development
The WCIRB is projecting future medical loss development primarily based on latest year historical paid medical age-to-age loss development factors through 108 months and a three-year average of the historical paid medical age-to-age loss development factors after 108 months. The historical paid age-to-age medical loss development factors are shown in Exhibits 2.4.1 and 2.4.2. In addition to the adjustments for changes in settlement rates through 84 months discussed above with respect to indemnity loss development, medical paid development is also adjusted for the impact of SB 1160 and AB 1244 reforms, recent shifts in pharmaceutical cost patterns, and the medical fee schedule changes adopted by the DWC in 2021.

SB 1160 and AB 1244, which took effect in 2017, included a number of provisions related to liens which have reduced the number of lien filings by approximately 70%. A 2018 WCIRB study showed that, prior to the reforms, liens represented a significant proportion of paid medical loss development, particularly at mid-maturities.[7] The WCIRB believes relying on the historical paid medical development from these periods without adjusting for the reductions in future lien filings will overstate the loss development projection. To project loss development for accident years 2012 and forward on a post-lien reform basis,

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[5] See Item AC19-08-05 of the August 4, 2020 WCIRB Actuarial Committee Agenda.
[6] See Item AC19-08-05 of the August 1, 2019 WCIRB Actuarial Committee Agenda.
[7] See Item AC18-03-03 of the March 19, 2018 WCIRB Actuarial Committee Agenda.

the WCIRB adjusted the cumulative loss development factors to reflect the estimated impact of the SB 1160 and AB 1244 lien-related provisions. These adjustments, which are reflected in a manner consistent with the approach used in the last several pure premium rate filings, were based on a review of medical development with and without any lien payments using the WCIRB's medical transaction data and assuming 70% weight given to the projected medical development with no lien payments (to represent the 70% estimated reduction in lien filings) and 30% weight given to the projected medical development with lien payments.

Since 2013, pharmaceutical costs have decreased sharply. In 2019 the WCIRB studied the impact of the recent pharmaceutical cost declines on paid medical loss development. The study showed that pharmaceutical costs represent a much larger proportion of later period development than the development for earlier periods.[8] Similar to other significant one-time shifts in the distribution of medical services, the WCIRB has adjusted medical payments in the age-to-age factor computations made prior to 2018 to be at the estimated 2018 pharmaceutical cost level. This adjustment to paid medical development is consistent with the approach reflected in the last several pure premium rate filings.

Effective March 1, 2021, the DWC adopted significant changes to the Evaluation & Management (E&M) section of the Official Medical Fee Schedule (OMFS) related to office visits. Effective April 1, 2021, the DWC adopted a significant update to the Medical-Legal Fee Schedule (MLFS). These medical fee schedule changes impact medical services on a date-of-service basis rather than an accident date basis. As a result, they impact medical loss development on pre-2021 accident years emerging after the first quarter of 2021. As with other reforms that become effective on a date-of-service basis, these changes may distort paid medical loss development emerging after the first quarter of 2021 which is based on a mix of pre- and post-schedule change payments. The WCIRB is adjusting for this potential distortion by adjusting all medical payments made prior to the first quarter of 2021 to the post-schedule change level and computing the medical paid age-to-age factors based on the adjusted amounts. This adjustment, which is also discussed in Appendix A, uses the estimated impact of the medical fee schedule changes based on the WCIRB's recent retrospective evaluation of these changes (discussed below and in Appendix B).[9] In the WCIRB's review of the impact of the 2021 fee schedule changes, the WCIRB found that E&M and medical-legal services represent a small and generally declining share of all medical service payments at later maturities. As a result, the WCIRB is only applying this adjustment to medical paid development from accident years 2013 and later.[10]

As discussed above, changes in claim settlement rates can distort paid loss development patterns if no adjustment is made. Given the recent decreases in claim settlement rates for accident years 2018 through 2020, the WCIRB is adjusting paid medical loss development through 84 months for changes in claim settlement rates using an approach similar to that used for indemnity loss development. Exhibits 2.6.3 through 2.6.8 show the adjustment for changes in claim settlement rates applied to the paid medical loss development factors through 84 months.

As discussed above, the post-SB 863 acceleration in claim settlement rates in older accident years also impacts later period loss development, particularly for medical losses. The WCIRB adjusted paid medical loss development applied after 288 months for recent changes in claim settlement rates impacting longer-term loss development using an approach similar to that applied for indemnity. Exhibits 2.5.9 through 2.5.12 show the computation of this adjustment applied to paid medical loss development.

The WCIRB's recommended age-to-age and cumulative medical loss development factors, which have been adjusted for the SB 1160 and AB 1244 lien reforms, the recent decreases in pharmaceutical costs, the medical fee schedule changes adopted by the DWC in 2021, as well as for changes in indemnity claim settlement rates, are shown in Exhibits 2.6.1 and 2.6.2. As with indemnity, age-to-age paid medical development through 108 months is projected using the latest year's factor and development from 108 months through 444 months is projected using an average of the latest three factors, with the adjustments

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[8] See Item AC19-06-03 of the June 14, 2019 WCIRB Actuarial Committee Agenda.

[9] Also see Item AC22-04-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda.

[10] See Item AC21-12-10 of the December 9, 2021 WCIRB Actuarial Committee Agenda.

as discussed above. Paid medical loss development beyond 444 months of maturity is estimated by applying an inverse power curve fit to the average of the latest four historical paid medical development factors with the adjustments for changes in pharmaceutical costs levels and the long-term impact of changes in claim settlement rates as described above with respect to indemnity loss development.

Estimated Ultimate Loss Ratios
The historical accident year loss ratios are developed to their projected ultimate values in Exhibits 3.1 (for indemnity) and 3.2 (for medical). Column 1 of Exhibit 3.1 shows the historical reported (undeveloped) paid indemnity losses as a ratio to calendar year earned premium as of December 31, 2021. Column 2 of Exhibit 3.1 shows the age-to-age paid indemnity development factor selected for each evaluation period from Exhibits 2.5.1 and 2.5.2. Column 3 of Exhibit 3.1 shows the cumulative paid indemnity development factor for each period. Column 4 of Exhibit 3.1 shows the projected ultimate indemnity loss ratio for each accident year based on the cumulative paid indemnity loss development projection factor shown in column 3 and the reported paid indemnity loss ratio shown in column 1.

Column 1 of Exhibit 3.2 shows the historical reported (undeveloped) paid medical losses as a ratio to calendar year earned premium as of December 31, 2021.[11] Column 2 of Exhibit 3.2 shows the historical paid medical loss ratios as of December 31, 2021 estimated at a 2018 pharmaceutical cost level by adjusting the medical payments made prior to 2018 for the estimated decrease in pharmaceutical costs through 2018. Paid medical loss ratios for accident years 2013 and later shown in column 2 of Exhibit 3.2 are also adjusted to a 2021 OMFS and MLFS level. These loss ratios form the basis to which the age-to-age and cumulative paid medical loss development factors, which are also adjusted to a 2018 pharmaceutical cost level and 2021 OMFS and MLFS level, are applied. Column 3 of Exhibit 3.2 shows the age-to-age paid medical development factor selected for each evaluation period. Column 4 of Exhibit 3.2 shows the cumulative medical development factor for each period. Column 5 of Exhibit 3.2 shows the developed medical loss ratio for each accident year adjusted to a 2018 pharmaceutical cost level and 2021 OMFS and MLFS level based on the adjusted cumulative medical loss development factor shown in column 4 and the adjusted paid medical loss ratio shown in column 2. These loss ratios are used for the sole purpose of computing the indicated September 1, 2022 pure premium rate level and do not reflect the actual WCIRB estimates of projected ultimate loss ratios for those years. Column 6 of Exhibit 3.2 shows, for informational purposes, the projected ultimate medical loss ratios based on combining the unadjusted paid medical loss ratio from column 1 and the projected medical development derived from columns 2 and 5.

C. Cost Level Adjustments to Losses
Each year's historical losses, once developed to an ultimate basis, are adjusted to reflect various measurable economic or claims-related changes that have occurred since the time that year's claims were incurred. In this way, each year's adjusted, or "on-level", ratios of losses to premium are on a more comparable basis and can be used to project future ratios of losses to premium. Each of these adjustments are described in detail in Appendix B.

Exhibits 4.1 through 4.4 show the adjustments made to losses to reflect the changes in the cost of selected loss components that can be specifically measured. Exhibit 4.1 displays the average impact on indemnity benefits of legislative and regulatory changes as well as wage inflation. Specifically, column 1 of Exhibit 4.1 shows the impact of legislative, regulatory or judicial actions on indemnity claim severities. These adjustments include the anticipated increase in minimum and maximum temporary disability and permanent total disability benefits made by the DWC each year based on the changes in state average weekly wage levels on which these benefits are statutorily based. Column 2 of Exhibit 4.1 shows the estimated impact of these annual changes on indemnity claim frequencies.

Even without statutory benefit changes, wage inflation will impact the cost of indemnity benefits. Column 3 of Exhibit 4.1 shows the impact of wage inflation on indemnity benefits. These estimated wage inflation effects are generally based on (a) the most current historical and average of the UCLA Anderson School of Business and California Department of Finance forecast changes in California annual wages as

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[11] Medical loss ratios shown for accident years 2011 and subsequent do not include MCCP costs while those for accident years 2010 and prior include MCCP costs.

shown in Exhibit 5.1, (b) the distribution of the weekly wages of injured workers and (c) the schedule of statutory benefits in effect for each year. The forecast changes in wages impacting indemnity benefits shown in column 3 of Exhibit 4.1 also include the adjustments to changes in average wage levels for shifts in the industrial mix and shifts in the wage distribution within industries attributable to the pandemic-related economic slowdown and recovery, as discussed in Appendix B and with regards to the wage and premium adjustments below. Column 4 of Exhibit 4.1 shows the total annual cost impact of statutory benefit changes and wage inflation on indemnity losses. Column 5 of Exhibit 4.1 shows the factor to adjust each historical accident year's estimated ultimate indemnity losses to the level expected for policies incepting between September 1, 2022 and August 31, 2023.

Exhibits 4.2 through 4.4 show the adjustment of medical losses to a current, or on-level basis. Exhibit 4.2 shows the impact of non-legislative factors on medical costs. For many years, many medical service components, such as physician services, inpatient and outpatient facility fees, pharmaceuticals and medical-legal costs, have been subject to fee schedules. Column 3 of Exhibit 4.2 shows the average impact of regulatory changes in fee schedules on total medical costs by accident year based on the WCIRB's cost analysis of the fee schedule changes.

In the September 1, 2021 Pure Premium Rate Filing, the WCIRB prospectively estimated that the March 1, 2021 changes to the E&M section of the OMFS would increase E&M office visit service costs by 15% while the April 1, 2021 changes to the MLFS would increase medical-legal service costs by 22%. Earlier this year, the WCIRB performed a retrospective evaluation of these fee schedule changes based on the first nine months the updated schedules were in effect.[12] The review showed that E&M office visit service costs increased by 10% while medical-legal costs increased by 39%. The sharp increase in medical-legal costs compared to the WCIRB's prospective estimate was primarily driven by a significantly higher than projected increase in the costs for record review, while the lower than initially projected cost impact for E&M office visits under the new schedule was largely due to an increase in average network discounts. The WCIRB's retrospective cost estimates for these fee schedule changes based on the latest information available are reflected in the loss development adjustments for accident years 2013 and forward reflected in Exhibits 2.6 and 3.2 and the medical on-level adjustments for accident years 2012 and prior shown in Exhibit 4.2.

Some workers' compensation medical costs are not subject to fee schedules. As a result, the portion of each historical accident year's medical losses that is not subject to fee schedules is adjusted to reflect the anticipated general medical cost level during the period in which the proposed pure premium rates will be in effect. The cost adjustments used in this analysis are shown in column 4 of Exhibit 4.2. The historical values are based on the "Medical Care" component of the Consumer Price Index (CPI) as published by the U.S. Bureau of Labor Statistics and the California Department of Finance. Projected values are based on the average of California Department of Finance forecasts of medical inflation for the Los Angeles and San Francisco regions. Column 6 of Exhibit 4.2 shows the combined impact of fee schedule changes and general medical inflation on non-legislative medical cost components by accident year.

Legislative and regulatory changes and judicial actions also impact the cost of medical benefits. Exhibit 4.3 shows the impact of legislative, regulatory, and judicial activity on medical costs. The factors in column 1 of Exhibit 4.3 reflect the impact on medical costs per claim of statutory reforms, legislative changes, regulatory changes and judicial action not otherwise reflected. (The factors shown in column 1 of Exhibit 4.3 do not include the impact of SB 1160 lien reforms and reductions in medical utilization resulting from SB 863 related to the recent decreases in pharmaceutical costs, which are reflected in the adjustments to paid medical loss development shown in Exhibits 2.6.1 and 2.6.2.) The factors in column 2 of Exhibit 4.3 reflect the impact on medical costs of the changes in the frequency of indemnity claims as a result of statutory benefit changes.

The combined impact of both measurable legislative and non-legislative changes on medical costs is shown in Exhibit 4.4. Column 4 of Exhibit 4.4 shows the medical on-level factor used to adjust each

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[12] See Item AC22-04-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda.

historical accident year's estimated ultimate medical losses to the level expected for policies incepting between September 1, 2022 and August 31, 2023.

D. Wage and Premium Adjustments
As with accident year losses, each historical year's earned premium is adjusted to a common, or on-level, basis. The adjustments made to historical premium amounts are also discussed in detail in Appendix B.

Exhibit 5.1 displays the adjustment made to historical premiums to reflect changes in wage levels. Pure premium rates are expressed as a percentage of payroll. Consequently, the reported premium for each year reflects the wages paid during that year. To determine the level of pure premium needed to fund the cost of losses and loss adjustment expenses incurred on policies incepting between September 1, 2022 and August 31, 2023, the premium reported for each year is adjusted to reflect the wages anticipated to be paid during the period these policies will be in effect. The estimated changes in annual California wages shown in column 1 of Exhibit 5.1 are based on historical Bureau of Labor Statistics data through 2020 and the average of wage level forecasts produced by the UCLA Anderson School of Business (as of March 2022) and California Department of Finance (as of November 2021) for 2021 through 2024. These average wage changes are typically derived based on aggregate changes in total wages and salaries compared to aggregate changes in total employment.

The COVID-19 pandemic resulted in a sudden and significant slowdown in the California economy. During a recession, the mix of industries can shift significantly and impact the aggregate average wage level and the loss of lower wage, less experienced employees within industries can drive measures of average wages artificially upward. In particular for the recent economic slowdown, the reductions in employment levels were greatest in the hospitality and entertainment industries which tend to have lower than average wages. In addition, employment losses were much more significant for lower wage workers within industries. Some of these shifts continued at a more modest rate in 2021 and will likely impact average wages for 2022 and later as the economy recovers. As a result, the changes in average wages for 2020 and later shown in column 1 of Exhibit 5.1 are significantly impacted by these shifts and do not reflect the wage increases for the typical California worker performing the same job year-to-year. In the September 1, 2021 Pure Premium Rate Filing, the WCIRB reflected adjustments to the projected average wages to better reflect the wage increases for the typical worker based on a study conducted in 2021.[13]

Earlier this year, the WCIRB updated its 2021 study of the impact of the economic slowdown on the pure premium rate indications.[14] The WCIRB found that projected shifts in the mix of industries resulted in an estimated 1.8% increase in average wages for 2020 and modest changes in average wages for 2021 through 2024. The WCIRB's study also estimated a 3.9% increase in average wages for 2020 and a 1.8% increase for 2021 resulting from the shift in the mix of employees within industries. To project the expected wage level underlying policies incepting between September 1, 2022 and August 31, 2023, the impact of these shifts in the mix of employments were removed from the average wage changes for the purposes of on-leveling premium for policies incepting between September 1, 2022 and August 31, 2023. In addition, the WCIRB assumed projected average wages for 2022, 2023, and 2024 are artificially lowered by 1.6%, 1.1%, and 0.5%, respectively, as a result of a return of lower wage employment within industries for these years.[15] The average wage changes adjusted for the impact of each of these factors are shown in column 2 of Exhibit 5.1. These adjustments are also reflected in the adjustments to indemnity benefits for the impact of changes in average wages shown in Exhibit 4.1.

The amount of premium generated during a particular year is based on the rates in effect during that year. The earned premium amounts shown in Exhibit 1 and reflected in the loss ratios shown in Exhibits 3.1 and 3.2 reflect the actual rates charged by insurers including the impact of most rating plan adjustments

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[13] See Item AC20-08-04 of the March 16, 2021 and April 15, 2021 WCIRB Actuarial Committee Agendas.

[14] See Item AC20-08-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda.

[15] This assumed "unwinding" of the impact of shifts in the wage distribution within industries was based on a review of projected shifts in industrial mix for these years as well as judgmental assumptions. See Item AC 20-08-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda and Appendix B for more information.

such as schedule rating.[16] To determine the indicated difference from the industry average filed pure premium rate as of January 1, 2022, the earned premium generated for each year is adjusted to reflect the premium that would have been generated had the industry average filed pure premium rates as of January 1, 2022 been charged during that year. This adjustment is shown in columns 2a, 2b and 2c of Exhibit 5.2.

Column 2a of Exhibit 5.2 shows the ratio of the industry average charged rate to the average advisory pure premium rate for each calendar year subsequent to the implementation of competitive rating in 1995. Column 2b of Exhibit 5.2 shows the factors needed to adjust the earned premium for each calendar year to the industry average filed pure premium rate level as of January 1, 2022. The factors reflect both the historical changes in advisory pure premium rates that are needed to adjust each year's earned premium to the current (September 1, 2021) advisory pure premium rate level and an additional factor to adjust from the September 1, 2021 average advisory pure premium rate level to the industry average filed pure premium rate level as of January 1, 2022. Column 2c of Exhibit 5.2 shows the combined effect of the rate adjustments in columns 2a and 2b, which are the factors needed to adjust each year's earned premium to the premium that would have been earned had the industry average filed pure premium rates as of January 1, 2022 been charged during that year.

In addition to the adjustment to a common wage and pure premium rate level, the premium reported for each year is adjusted for (a) the surcharge premium generated under the Minimum Rate Law through 1995, (b) the average experience modification for each year, (c) the current experience rating off-balance correction factor and (d) the impact of the Great Recession on audit premium for the 2007 through 2010 years for which there were very atypical levels of audit premiums collected. These adjustment factors are shown in Exhibit 5.2, columns 3, 4, 5 and 6, respectively.

The COVID-19 pandemic and resultant economic slowdown significantly impacted exposure levels and premiums beginning in the second quarter of 2020, which impacted premiums from policies incepting in 2019 and 2020. The WCIRB recently studied the impact on earned premiums in calendar years 2020 and 2021 to determine if an adjustment to on-level premium similar to that applied during the Great Recession years was appropriate.[17] The WCIRB's study found that, similar to the Great Recession period, there were atypical amounts of return premiums on 2019 policies that were earned in calendar year 2021. When audits on older policy years have a highly atypical effect on premiums booked during the current year, the use of unadjusted calendar year earned premium can distort accident year loss ratios. To adjust for the distortions created by the pandemic-related economic downturn, premiums earned in calendar years 2020 and 2021 are adjusted to an estimated "accident year" basis. These adjustments, which are shown in column 6 of Exhibit 5.2, are computed 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.

Column 7 of Exhibit 5.2 shows the combined on-level factor for each year that reflects the impact of all the premium adjustment factors applied by the WCIRB.

E. Trending of On-Level Ratios
The loss ratios shown for historical accident years, once adjusted to an ultimate and on-level basis, are trended forward to project the indicated loss ratio for policies incepting between September 1, 2022 and August 31, 2023. The WCIRB is using a trending methodology based on applying separate projections of growth in claim frequency and claim severity to the accident year 2019 and 2021 on-level loss ratios, which is generally consistent with the methodology used in the last several pure premium rate filings. The WCIRB believes separately analyzing frequency and severity trends is particularly appropriate in the current environment given the uncertainty in projecting costs during the COVID-19 pandemic for which the frequency and severity of claims are likely impacted by different forces. In addition, prior WCIRB retrospective reviews of trending methodologies have found that methods based on separate frequency

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[16] These premiums do not reflect the impact of deductible credits, retrospective rating plan adjustments, terrorism charges, or insurer COVID-19 premium charges.
[17] See Item AC21-03-05 of the March 21, 2022 WCIRB Actuarial Committee Agenda.

and severity projections have generally been more accurate than the alternative approaches reviewed, particularly during periods of transition.[18]

Exhibits 6.1 through 6.4 show the information upon which the separate frequency and severity projections are based. Exhibits 7.1 through 7.4 summarize the computation of the projected on-level loss to pure premium ratio for policies incepting between September 1, 2022 and August 31, 2023. Separate projections are made for the indemnity and medical components. These trending methodologies are also discussed in detail in Appendix B.

Trended On-Level Indemnity Loss Ratio
Column 1 of Exhibit 7.1 shows the indemnity loss to pure premium ratios developed to an estimated ultimate level from Exhibit 3.1. These developed loss ratios are then adjusted for the impact of changes in statutory benefit levels and wage inflation on indemnity benefits from Exhibit 4.1 and the premium level adjustments from Exhibit 5.2 to produce the on-level indemnity ratios shown for 2021 and prior accident years in column 4 of Exhibit 7.1. These on-level loss ratios reflect the ratio of estimated ultimate indemnity losses to premium for each year as though the statutory benefit level and projected wages underlying policies incepting between September 1, 2022 and August 31, 2023 had been in effect for each historical year and the premium for each historical year had been generated at the industry average filed pure premium rate level as of January 1, 2022 and at the average wage level projected for policies incepting between September 1, 2022 and August 31, 2023. These indemnity on-level loss ratios are also shown graphically in Exhibit 7.2.

The WCIRB's projected change in claim frequency for accident year 2020 (which is applied to the 2019 on-level loss ratio in the trending calculation) is based on preliminary WCIRB unit statistical data. This measure compares changes in indemnity claim counts (excluding COVID-19 claims) from accident year 2019 (from 2018 policies) to accident year 2020 (from 2019 policies) adjusted to a common classification mix level to changes in insured payroll adjusted to a common wage level earned over these years. The wage level adjustments include the WCIRB's recommended adjustments for the shifts in industrial mix and wage levels within industries discussed above. This results in a projected "intra-class" claim frequency change of -9.3% for accident year 2020, which is shown in Appendix B, Exhibit 3. This significant decline in claim frequency is likely related to the sharp and sudden change in exposures during the stay-at-home period of the pandemic and fewer smaller indemnity claims occurring in 2020.

The WCIRB's projected change in claim frequency for accident year 2021 is based on the preliminary claim frequency change as of 12 months, which is consistent with the approach used in the last several pure premium rate filings. This measure is estimated as a ratio of changes in reported indemnity claim counts (excluding COVID-19 claims) from accident year 2020 to accident year 2021 as of December 31, 2021 adjusted to an "intra-class" level for estimated shifts in industrial mix impacting claim frequency relative to changes in statewide employment adjusted for estimated shifts in industrial mix impacting exposure levels. The WCIRB's 2021 analysis of claim frequency projections suggested that this approach of using actual frequency information was more accurate compared to the change forecast based on the WCIRB's frequency model and comparable in accuracy to other approaches reviewed.[19] This results in a projected "intra-class" claim frequency change of 7.9% for accident year 2021, which is shown in Appendix B, Exhibit 3. The WCIRB believes using the actual claim frequency information for accident year 2021 is of particular importance in this filing given the sharp frequency decline in 2020 and the significant shifts in exposure levels and the mix of injuries occurring during the pandemic period. Combining the estimates for the two years, the WCIRB projects a frequency change of -2.2% from accident year 2019 to 2021 which is comparable to claim frequency changes from shortly before the pandemic.

Consistent with the last several pure premium rate filings, projected frequency changes for accident years 2022 through 2024 are based on the WCIRB's econometric indemnity claim frequency model. The model is based on a long-term forty-year history of frequency changes in relation to changes in indemnity benefit

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[18] See Item AC12-12-02 of the August 2, 2017 and March 19, 2018 WCIRB Actuarial Committee Agendas.
[19] See Item AC21-12-07 of the December 9, 2021 WCIRB Actuarial Committee Agenda.

levels, economic factors and other claims-related factors and excludes the impact of shifts in classification mix (i.e., "intra-class" frequency). The model also includes several refinements to the historical variables based on the WCIRB's 2021 study of claim frequency projections.[20] Exhibit 6.1 shows the WCIRB's indemnity claim frequency model forecasts. The forecasts for 2022 through 2024 reflect economic data included in the March 2022 UCLA forecast. This results in an overall modest change in intra-class indemnity claim frequency forecast for accident years 2022 through 2024, generally corresponding with the gradual economic recovery that is being forecast.

To project the average annual indemnity severity trend, the WCIRB reviewed historical changes in on-level indemnity severities over both a long-term and short-term period. Exhibit 6.2 shows estimated ultimate and on-level indemnity severities by accident year. Long-term on-level indemnity severity growth since 1990 is approximately 1% per year, which includes prior periods of sharp average severity growth as well as more recent periods of declining indemnity severities. On-level indemnity claim severities increased at a more significant rate in accident years 2019 and 2020 but declined modestly in 2021. Some of the recent changes may be related to shifts in the type of claims filed during the pandemic period with a return of smaller indemnity claims in 2021 that did not occur during the pandemic's stay-at-home period in 2020. The WCIRB has selected a 1.0% average annual on-level indemnity severity trend, which gives consideration to both longer-term and shorter-term rates of growth in average on-level indemnity severities. This average annual on-level indemnity severity trend is consistent with that reflected in the WCIRB's last two pure premium rate filings.

In prior pre-pandemic pure premium rate filings, the WCIRB has applied its selected frequency and average annual on-level severity trends to the average of the most recent two accident years. As discussed above and in the WCIRB's September 1, 2021 Pure Premium Rate Filing, the COVID-19 pandemic significantly impacted exposure, premium and claim cost levels for accident year 2020, which are expected to be temporary and not a reliable basis to project future loss ratios. However, the accident year 2021 loss ratio is based on projections of costs from 12 months of maturity (as of December 31, 2021), which relies more heavily on accurate loss development projections compared to more mature accident years. The WCIRB believes averaging the projection based on the accident year 2021 loss ratio with a projection based on a more mature loss ratio from a pre-pandemic year is appropriate. As a result, the WCIRB is basing the projected loss ratio for policies incepting between September 1, 2021 and August 31, 2022 by applying the recommended trending rates discussed above to accident years 2019 and 2021.

Column 4 of Exhibit 7.1 shows the projected indemnity loss ratio for policies incepting between September 1, 2022 and August 31, 2023 based on the accident year 2019 and 2021 on-level indemnity ratios adjusted by the WCIRB's selected frequency projections and a 1.0% average annual on-level indemnity severity trend projection. The indemnity loss ratio projected on this basis is 0.317.

Trended On-Level Medical Loss Ratio
Exhibit 7.3 shows accident year on-level medical loss to industry average filed pure premium ratios, which have been computed in a manner similar to those for indemnity. These on-level ratios are also displayed graphically in Exhibit 7.4.[21]

Similar to indemnity, the WCIRB recommends projecting the on-level medical loss ratio for policies incepting between September 1, 2022 and August 31, 2023 based on the accident year 2019 and 2021 on-level medical loss ratios adjusted separately for projected frequency and severity trends. The projected on-level medical loss ratios shown in column 4 of Exhibit 7.3 reflect the same frequency change projections used in the indemnity loss projection.

Exhibit 6.3 shows estimated ultimate medical severities by accident year. As discussed above, medical losses shown for accident years 2011 and subsequent do not include MCCP costs while those for

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[20] See Item AC21-12-07 of the December 9, 2021 WCIRB Actuarial Committee Agenda.

[21] As discussed above, projections of on-level medical loss ratios for accident years 2011 and subsequent do not include MCCP costs while those for accident years 2010 and prior include MCCP costs. As a result, comparisons between the ratios shown in Exhibits 7.3 and 7.4 for 2010 and prior with those for 2011 and subsequent cannot be made on a consistent basis.

accident years 2010 and prior do include MCCP costs. In order to compare medical severity trends on a consistent basis, Exhibit 6.4 shows estimated ultimate medical severities with MCCP costs included in all years. Additionally, Exhibit 6.4 also shows for accident years 2005 and later estimated ultimate medical severities exclusive of MCCP costs for all years with estimated MCCP costs excluded from accident years 2010 and prior based on calendar year MCCP paid costs from WCIRB aggregate financial data calls.

As shown in Exhibit 6.4, since 1990, long-term on-level medical severity growth in California has averaged approximately 5% per year. This long-term average trend includes periods of reforms in which medical severities have been flat to declining and "post-reform" periods of sharp medical severity growth. In the early to mid-2010s, with the enactment of SB 863 and subsequent reforms, on-level medical severities were generally flat to declining. Since 2017, on-level medical severities have grown by an average rate of 1.5% per year. Although on-level medical severities declined modestly in 2021, this may be driven by a return of smaller indemnity claims as discussed above. Shortly prior to the pandemic in 2018 and 2019, on-level medical severities were growing at a rate higher than the immediate post-SB 863 period.

Similar to indemnity, the WCIRB is basing projected average on-level medical severity growth on a review of long-term and short-term historical medical severity trends. For medical in particular, losses occurring on policies incepting between September 1, 2022 and August 31, 2023 will be paid over a very extended period as, for example, over one-half of policy year 2023 losses are expected to be paid in 2026 or later and over one-quarter in 2031 or later. In addition, medical cost levels are impacted by when services are provided rather than by when the injury occurred. As a result, it is particularly appropriate to consider long-term medical severity trends in addition to short-term trends in projecting future growth in medical severities. Although the reforms of SB 863 and SB 1160 have resulted in significant decreases to average medical costs; these reforms became effective a number of years ago. Absent reform, average medical costs have grown steadily in California in the past. Given these considerations, the WCIRB selected an average annual medical severity trend of 1.5%, which corresponds with the approximate average rate of growth in from 2017 through 2021 and is generally consistent with the longer-term average rate of growth since 2005.

Column 4 of Exhibit 7.3 shows the projected medical loss ratio for policies incepting between September 1, 2022 to August 31, 2023 based on the accident year 2019 and 2021 on-level medical loss ratios adjusted by the WCIRB's selected frequency projections and an average annual medical severity trend projection of 1.5% per year. The medical loss ratio projected on this basis is 0.338.

Computation of Projected Loss Adjustment Expenses
The WCIRB's projection of the cost of LAE on policies incepting between September 1, 2022 and August 31, 2023 is discussed in Appendix C. As indicated in Appendix C, the WCIRB estimates that the ratio of total LAE to losses is 32.1%.

Evaluation of the Impact of COVID-19 Claims
In the January 1, 2021 Pure Premium Rate Filing, given that tens of thousands of COVID-19 claims were being filed in the California workers' compensation system and that the effects of the COVID-19 pandemic were expected to continue into 2021, the WCIRB included a provision for the expected cost of future COVID-19 claims in the proposed January 1, 2021 advisory pure premium rates. Given the successful rollout of the COVID-19 vaccines and projections of infection rates available at that time, the WCIRB did not reflect a provision for projected COVID-19 claims in the proposed September 1, 2021 advisory pure premium rates. However, given the continued duration of the pandemic and the rise of more transmissible and vaccine-resistant variants such as Delta and Omicron, the WCIRB believes reflecting a provision for estimated COVID-19 losses arising on policies incepting between September 1, 2022 and August 31, 2023 is appropriate. The WCIRB's projected cost of COVID-19 claims for policies incepting between September 1, 2022 and August 31, 2023 is discussed in Appendix D. As indicated in Appendix D, the WCIRB estimates that COVID-19 claim costs incurred on policies incepting between September 1, 2022 and August 31, 2023 will be 0.5% of total losses and LAE excluding COVID-19 claims.

Computation of Experience Rating Off-Balance Factor

The WCIRB's projection of the indicated experience rating off-balance factor for policies incepting between September 1, 2022 to August 31, 2023 is discussed in Section C, Appendix B of the WCIRB's September 1, 2022 Regulatory Filing submitted on February 28, 2022. As indicated in that filing, the WCIRB projects an experience rating off-balance factor for policies incepting between September 1, 2022 and August 31, 2023 of 1.030, which is 1.5% higher than the current experience rating off-balance factor effective September 1, 2021.

Computation of the Indicated Average Pure Premium Rate

Line 1 of Exhibit 8 displays the projected ratios of on-level indemnity and medical losses to premium at the industry average filed pure premium rate level as of January 1, 2022 as computed in Exhibits 7.1 and 7.3. The projected ratio of total losses to premium, excluding COVID-19 claim costs, is 0.655. Line 2 of Exhibit 8 shows the estimated ratio of LAE to losses of 32.1% (see Appendix C). Line 3 of Exhibit 8 shows the projected loss and LAE ratio at the industry average filed pure premium rate level as of January 1, 2022, excluding COVID-19 claim costs, of 0.865. Line 4 of Exhibit 8 shows the 1.5% indicated change in the experience rating off-balance correction factor for policies incepting between September 1, 2022 and August 31, 2023 (see Section C, Appendix B of the WCIRB's September 1, 2022 Regulatory Filing). Line 5 of Exhibit 8 shows the -12.2% difference in the indicated pure premium rate level excluding COVID-19 claim costs from the industry average filed pure premium rate level as of January 1, 2022. Line 6 of Exhibit 8 shows the industry average filed pure premium rate as of January 1, 2022 of $1.77 per $100 of payroll. Line 7 of Exhibit 8 shows the indicated average September 1, 2022 pure premium rate, excluding COVID-19 claim costs, of $1.55 per $100 of payroll.

Line 8 of Exhibit 8 shows the estimated cost of COVID-19 claims on policies incepting between September 1, 2022 and August 31, 2023 of 0.5% of non-COVID-19 losses and LAE (see Appendix D). Line 9 of Exhibit 8 shows the indicated average September 1, 2022 pure premium rate, including projected COVID-19 claim costs, of $1.56 per $100 of payroll. The indicated average pure premium rate of $1.56 is 7.6% higher than the average of the approved September 1, 2021 advisory pure premium rates of $1.45.

California Workers' Compensation
Accident Year Experience as of December 31, 2021

Year	Earned Premium	Paid Indemnity	Indemnity Reserves	Paid Medical**	Medical Reserves	IBNR*	Total Incurred**	Loss Ratio*
1987	4,373,802,923	1,508,064,385	7,031,832	1,341,299,653	38,169,956	59,898,596	2,954,464,422	0.675
1988	5,172,689,663	1,705,476,929	6,227,038	1,549,492,899	28,220,627	37,476,147	3,326,893,640	0.643
1989	5,675,354,099	1,942,359,934	5,547,934	1,809,541,474	38,117,280	44,729,504	3,840,296,126	0.677
1990	5,704,833,514	2,263,720,229	5,609,177	2,055,601,198	31,816,418	60,322,670	4,417,069,692	0.774
1991	5,866,830,467	2,484,746,761	13,493,313	2,211,959,611	40,280,405	59,659,632	4,810,139,722	0.820
1992	5,685,646,721	1,982,068,875	12,914,163	1,774,780,609	38,542,891	54,516,243	3,862,822,781	0.679
1993	5,935,051,898	1,697,388,675	12,045,365	1,523,632,332	47,262,812	54,043,724	3,334,372,908	0.562
1994	5,031,286,773	1,633,621,744	17,128,729	1,479,365,087	68,107,434	37,709,247	3,235,932,241	0.643
1995	3,789,372,110	1,771,255,867	21,546,846	1,641,864,781	75,967,415	41,852,012	3,552,486,921	0.937
1996	3,746,680,214	1,965,227,669	27,458,791	1,735,175,311	71,058,684	57,297,958	3,856,218,413	1.029
1997	3,926,898,608	2,331,095,572	29,209,170	2,038,056,783	94,857,396	98,871,654	4,592,090,575	1.169
1998	4,332,127,034	2,788,433,263	41,777,756	2,679,133,490	181,525,063	162,342,474	5,853,212,046	1.351
1999	4,550,437,880	3,069,296,922	39,727,633	3,073,599,872	130,339,307	234,239,881	6,547,203,615	1.439
2000	5,920,961,162	3,445,330,141	53,569,340	3,603,083,406	159,615,901	377,791,899	7,639,390,687	1.290
2001	10,108,322,683	4,869,964,526	75,910,407	5,433,625,138	265,450,546	602,322,921	11,247,273,538	1.113
2002	13,426,805,168	4,802,062,085	72,834,012	5,557,107,781	238,166,774	854,375,923	11,524,546,575	0.858
2003	19,469,632,328	4,599,498,681	110,284,931	5,146,188,453	251,423,714	1,221,743,257	11,329,139,036	0.582
2004	23,087,556,493	3,243,098,822	97,835,495	4,118,396,077	209,600,672	1,341,234,298	9,010,165,364	0.390
2005	21,384,168,532	2,565,423,205	83,747,973	3,718,139,510	193,668,303	1,077,505,700	7,638,484,691	0.357
2006	17,221,671,307	2,655,242,076	88,394,734	3,829,677,407	225,017,911	717,769,165	7,516,101,293	0.436
2007	13,260,139,026	2,805,720,358	98,548,621	4,105,527,185	242,697,036	688,901,941	7,941,395,141	0.599
2008	10,744,447,308	2,850,840,127	120,736,343	4,094,997,821	257,523,885	438,443,329	7,762,541,505	0.722
2009	8,873,155,994	2,730,618,621	118,292,417	3,911,898,876	270,951,507	557,575,105	7,589,336,526	0.855
2010	9,374,814,819	2,749,336,679	108,966,382	4,018,257,176	216,196,407	491,363,589	7,584,120,233	0.809
2011	10,120,427,050	2,733,929,017	113,784,721	3,648,027,898	250,557,374	619,762,857	7,366,061,867	0.728
2012	11,699,330,284	2,783,353,397	147,282,653	3,561,130,116	285,302,178	737,430,435	7,514,498,779	0.642
2013	14,161,005,539	2,829,163,082	141,155,527	3,403,537,026	272,715,680	1,276,817,068	7,923,388,383	0.560
2014	15,986,106,452	2,971,478,771	185,841,960	3,353,178,980	322,779,835	1,666,187,910	8,499,467,456	0.532
2015	17,029,088,080	3,013,748,524	237,115,811	3,262,308,803	398,478,450	2,077,362,301	8,989,013,889	0.528
2016	17,919,421,824	2,888,553,338	304,106,177	3,108,226,238	490,398,009	2,173,426,562	8,964,710,324	0.500
2017	17,644,730,152	2,747,485,480	416,275,043	2,957,196,271	647,033,053	3,234,303,536	10,002,293,383	0.567
2018	17,405,934,213	2,588,982,622	605,937,538	2,869,732,646	846,165,129	2,667,590,182	9,578,408,117	0.550
2019	16,120,058,303	2,249,074,052	895,118,235	2,444,133,679	1,173,804,032	2,971,373,908	9,733,503,906	0.604
2020	14,065,484,301	1,342,147,459	961,418,102	1,542,299,541	1,299,848,265	3,445,774,205	8,591,487,572	0.611
2021	13,515,637,651	513,715,062	811,992,612	680,755,626	1,445,180,288	5,026,060,050	8,477,703,638	0.627

* 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, excluding COVID-19 claims and COVID-19 premium charges.

Incurred Indemnity Loss Development Factors

Age-to-Age (in months)

Accident Year	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
1996												1.000	1.000	1.000	1.001	1.002
1997											1.002	1.002	1.003	1.002	1.001	1.001
1998										1.004	1.002	1.003	1.004	1.001	1.002	1.001
1999									1.007	1.004	1.002	1.003	1.003	1.002	1.002	1.001
2000								1.008	1.004	1.004	1.005	1.003	1.001	1.004	1.002	1.000
2001							1.014	1.009	1.006	1.007	1.006	1.005	1.003	1.002	1.001	1.001
2002						1.018	1.011	1.010	1.010	1.007	1.005	1.003	1.002	1.002	1.003	1.002
2003					1.033	1.021	1.018	1.015	1.015	1.009	1.006	1.004	1.003	1.002	1.002	1.004
2004				1.042	1.041	1.026	1.028	1.018	1.014	1.007	1.007	1.003	1.001	1.004	1.006	1.001
2005			1.098	1.068	1.053	1.040	1.028	1.016	1.012	1.006	1.005	1.006	1.003	1.005	1.004	1.002
2006		1.247	1.111	1.080	1.053	1.035	1.023	1.015	1.009	1.007	1.004	1.005	1.002	1.003	1.001	
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	1.024	1.019	1.014	1.009	1.010	1.005	1.008				
2010	1.994	1.315	1.131	1.069	1.045	1.026	1.016	1.012	1.012	1.006	1.004					
2011	1.997	1.277	1.133	1.061	1.037	1.022	1.019	1.011	1.008	1.007						
2012	1.992	1.279	1.113	1.063	1.041	1.023	1.016	1.013	1.007							
2013	1.931	1.259	1.111	1.055	1.032	1.020	1.013	1.007								
2014	1.960	1.278	1.115	1.059	1.029	1.016	1.011									
2015	1.969	1.260	1.101	1.047	1.027	1.017										
2016	1.941	1.246	1.095	1.046	1.026											
2017	1.911	1.241	1.088	1.043												
2018	1.901	1.228	1.083													
2019	1.900	1.231														
2020	1.820															
Selected (a)	1.820	1.231	1.083	1.043	1.026	1.017	1.011	1.007	1.009	1.007	1.005	1.006	1.003	1.003	1.003	1.002
Cumulative	2.831	1.556	1.264	1.167	1.119	1.090	1.072	1.060	1.053	1.043	1.036	1.031	1.024	1.022	1.019	1.016

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and six-year average for the subsequent age-to-age factors.

Incurred Indemnity Loss Development Factors (Continued)

Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	420/408	432/420	444/432	ULT/444Inc (b)
1983	1.000	1.001	1.000	1.001	0.999	1.001	1.000	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001	1.001	
1984	0.998	1.001	1.000	1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.001	1.000	0.999	0.999	1.000	1.000	1.000	1.001	1.000	
1985	0.999	1.001	1.001	0.999	1.000	1.001	1.000	1.000	1.002	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1986	1.001	1.001	1.001	1.000	1.001	1.000	1.001	1.001	1.000	1.000	1.001	1.001	0.999	1.000	1.000	1.000	1.001	1.000			
1987	1.003	1.001	1.002	1.000	1.001	1.001	1.000	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.000					
1988	1.003	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000						
1989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							
1990	1.003	1.000	1.000	1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000								
1991	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.001									
1992	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.001	1.001	1.000	1.000										
1993	1.001	1.002	1.000	1.001	1.000	1.000	1.001	1.001	1.000	1.000											
1994	1.001	1.003	1.002	1.001	0.999	1.001	1.001	1.000	1.000												
1995	1.002	1.002	1.002	1.000	1.000	1.001	1.001	1.000													
1996	1.001	1.003	1.001	1.000	1.001	1.001	1.001														
1997	1.000	1.001	1.000	1.000	1.001	1.001															
1998	1.003	1.001	1.002	1.001	1.000																
1999	1.000	1.000	1.002	1.000																	
2000	1.002	1.001	1.002																		
2001	1.001	1.003	1.001																		
2002	1.001	1.002																			
2003	1.002																				
2004	1.001																				
Selected (a)	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.001	1.001	1.000	
Cumulative	1.014	1.013	1.011	1.010	1.010	1.009	1.008	1.008	1.007	1.007	1.006	1.006	1.006	1.005	1.005	1.004	1.004	1.004	1.003	1.003	1.002

(b) The ULT/444Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Incurred Medical Loss Development Factors

Age-to-Age (in months) (b)

Accident Year	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
1996												1.024	1.018	1.013	1.014	1.005
1997											1.030	1.012	1.015	1.012	1.003	1.007
1998										1.023	1.020	1.017	1.004	1.014	1.008	1.012
1999									1.030	1.019	1.018	1.013	1.011	1.013	1.005	0.999
2000								1.028	1.017	1.024	1.018	1.018	1.012	1.006	0.999	0.995
2001							1.040	1.034	1.035	1.022	1.017	1.015	1.013	1.001	0.997	0.994
2002						1.040	1.036	1.029	1.028	1.022	1.014	1.010	0.999	0.997	1.000	0.999
2003					1.060	1.042	1.042	1.037	1.029	1.018	1.011	1.003	0.998	0.999	1.001	1.006
2004				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
2005			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
2006		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	
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	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			
2009	1.604	1.227	1.140	1.087	1.061	1.030	1.016	1.007	1.006	1.008	1.001	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					
2011	1.667	1.222	1.125	1.069	1.034	1.016	1.010	1.010	1.002	1.004						
2012	1.592	1.188	1.092	1.056	1.031	1.015	1.015	1.006	1.005							
2013	1.559	1.150	1.086	1.039	1.022	1.014	1.006	1.001								
2014	1.523	1.159	1.079	1.035	1.027	1.011	1.010									
2015	1.511	1.146	1.064	1.030	1.018	1.007										
2016	1.498	1.124	1.045	1.031	1.017											
2017	1.440	1.117	1.051	1.027												
2018	1.449	1.110	1.054													
2019	1.452	1.124														
2020	1.446															
Selected (a)	1.446	1.124	1.054	1.027	1.017	1.007	1.010	1.001	1.005	1.005	1.002	1.002	0.998	1.000	1.000	0.999
Cumulative	1.829	1.265	1.125	1.067	1.039	1.022	1.015	1.005	1.004	0.999	0.994	0.992	0.990	0.992	0.992	0.992

(a) Selections are latest year for the 12-to-24 month through 96-to-108 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)

Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	420/408	432/420	444/432	ULT/444Inc (c)
1983									1.006	1.004	1.002	1.006	1.003	1.004	1.003	0.997	0.999	0.998	1.001	1.001	
1984								1.003	1.003	1.002	1.003	1.001	1.003	1.001	0.997	1.000	1.001	1.000	1.000	0.998	
1985							1.001	1.003	1.003	1.003	1.005	1.002	1.003	0.998	0.999	0.999	1.000	1.001	1.000	1.000	
1986						1.003	1.006	1.005	1.006	1.004	1.005	1.000	1.002	0.998	1.001	1.006	0.994	1.002	1.001		
1987					1.003	1.011	0.999	1.007	1.003	1.004	1.005	1.001	0.997	1.001	1.000	1.005	1.002	0.999			
1988				1.006	1.005	1.005	1.002	1.005	1.003	1.003	1.002	0.998	0.999	1.000	1.001	1.001	1.000				
1989			1.006	1.005	1.005	1.008	1.006	1.000	1.003	0.999	0.999	0.999	0.999	1.002	0.999	1.000					
1990		1.007	1.007	1.005	1.003	1.003	1.003	0.997	1.002	1.000	1.000	0.998	0.999	1.000	1.000						
1991	1.008	1.005	1.006	1.002	1.003	1.002	1.003	1.001	1.001	0.999	0.998	1.000	1.001	1.001							
1992	1.005	1.004	1.002	1.005	1.003	1.005	1.000	0.999	0.998	0.999	1.002	0.999	0.999								
1993	1.007	1.011	1.014	1.004	0.999	1.000	0.996	0.999	1.002	0.998	0.997	0.998									
1994	1.011	1.004	1.007	1.006	1.001	0.996	0.995	1.002	0.999	0.999	0.997										
1995	1.015	0.996	1.006	0.999	1.006	0.992	0.999	1.001	0.997	1.001											
1996	1.008	1.005	1.001	0.998	0.999	0.997	1.000	0.999													
1997	1.001	1.001	0.998	0.997	0.998	1.001	0.997														
1998	1.001	1.001	0.994	1.001	1.003	1.000	0.999														
1999	0.999	0.995	1.002	0.999	0.999	0.999															
2000	0.996	0.999	0.999	1.000	0.998																
2001	1.001	1.003	0.998	0.998																	
2002	1.001	1.001	0.999																		
2003	1.001	0.998																			
2004	0.999																				
Selected (a)	1.000	1.000	0.998	0.999	1.001	0.998	0.998	1.000	1.000	0.999	0.999	0.999	0.999	1.000	1.000	1.002	0.999	1.000	1.001	1.000	
Cumulative	0.994	0.994	0.995	0.996	0.998	0.997	1.000	1.002	1.002	1.003	1.003	1.004	1.006	1.007	1.006	1.006	1.005	1.005	1.005	1.005	1.005

(c) The ULT/444Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Paid Indemnity Loss Development Factors

Age-to-Age (in months)

Accident Year	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
1996												1.009	1.006	1.006	1.004	1.004
1997											1.012	1.008	1.007	1.006	1.006	1.005
1998										1.015	1.012	1.009	1.009	1.007	1.006	1.006
1999									1.018	1.015	1.011	1.009	1.008	1.007	1.006	1.004
2000								1.025	1.016	1.013	1.010	1.009	1.008	1.007	1.005	1.004
2001							1.034	1.024	1.017	1.014	1.012	1.011	1.008	1.007	1.006	1.005
2002						1.046	1.031	1.020	1.018	1.015	1.014	1.008	1.008	1.006	1.006	1.005
2003					1.072	1.043	1.030	1.026	1.023	1.021	1.015	1.012	1.009	1.008	1.007	1.007
2004				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
2005			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
2006		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	
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		
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	1.061	1.043	1.031	1.023	1.020	1.011	1.013				
2010	3.157	1.628	1.281	1.147	1.091	1.060	1.038	1.027	1.021	1.013	1.012					
2011	3.208	1.613	1.266	1.144	1.087	1.056	1.041	1.026	1.016	1.016						
2012	3.137	1.597	1.262	1.137	1.087	1.051	1.034	1.023	1.017							
2013	3.169	1.606	1.260	1.129	1.072	1.044	1.028	1.020								
2014	3.229	1.635	1.257	1.129	1.071	1.039	1.027									
2015	3.278	1.618	1.244	1.119	1.058	1.042										
2016	3.235	1.586	1.230	1.103	1.060											
2017	3.185	1.569	1.210	1.110												
2018	3.110	1.526	1.222													
2019	3.063	1.550														
2020	2.956															
Selected (a)	2.956	1.550	1.222	1.110	1.060	1.042	1.027	1.020	1.018	1.016	1.013	1.012	1.011	1.009	1.009	1.006
Cumulative	8.255	2.793	1.802	1.474	1.328	1.253	1.203	1.171	1.148	1.128	1.110	1.096	1.083	1.071	1.062	1.053

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.

Paid Indemnity Loss Development Factors (Continued)

Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	420/408	432/420	444/432	ULT/444Pd (b)
1983									1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001	
1984								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	
1985							1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.001	
1986						1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.000		
1987					1.001	1.001	1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000			
1988				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				
1989			1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.000	1.000					
1990		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						
1991	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							
1992	1.002	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001								
1993	1.002	1.003	1.003	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001									
1994	1.004	1.003	1.003	1.003	1.002	1.002	1.002	1.003	1.001	1.001	1.002										
1995	1.005	1.005	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002											
1996	1.005	1.004	1.003	1.002	1.002	1.003	1.003	1.002	1.002												
1997	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.002													
1998	1.006	1.004	1.003	1.003	1.003	1.003	1.002														
1999	1.004	1.003	1.003	1.003	1.002	1.002															
2000	1.004	1.004	1.003	1.002	1.002																
2001	1.005	1.005	1.004	1.003																	
2002	1.004	1.004	1.003																		
2003	1.007	1.005																			
2004	1.004																				
Selected (a)	1.005	1.005	1.003	1.003	1.002	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	
Cumulative	1.047	1.041	1.037	1.033	1.030	1.028	1.025	1.023	1.020	1.018	1.017	1.016	1.015	1.014	1.013	1.012	1.011	1.010	1.010	1.010	1.009

(b) The ULT/444Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 108-to-120 through 348-to-360 factors and extrapolated to 80 development years.

Paid Medical Loss Development Factors

Unadjusted (a)

Age-to-Age (in months)

Accident Year	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
1996													1.020	1.018	1.016	1.013
1997												1.023	1.019	1.016	1.014	1.014
1998										1.032	1.026	1.022	1.019	1.016	1.015	1.017
1999									1.032	1.032	1.030	1.021	1.016	1.019	1.018	1.015
2000								1.038	1.031	1.027	1.025	1.025	1.020	1.016	1.012	1.010
2001							1.045	1.038	1.034	1.030	1.023	1.020	1.022	1.017	1.011	1.011
2002						1.054	1.046	1.034	1.032	1.024	1.022	1.022	1.016	1.012	1.012	1.010
2003					1.074	1.057	1.048	1.041	1.030	1.030	1.023	1.018	1.016	1.013	1.013	1.010
2004				1.123	1.092	1.070	1.055	1.040	1.036	1.034	1.026	1.018	1.015	1.012	1.012	1.009
2005			1.209	1.138	1.095	1.073	1.054	1.049	1.038	1.031	1.024	1.019	1.014	1.013	1.010	1.008
2006		1.399	1.220	1.140	1.099	1.068	1.056	1.042	1.034	1.025	1.021	1.015	1.014	1.011		
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	1.010		
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	1.019	1.013	1.014				
2010	2.479	1.468	1.265	1.152	1.096	1.066	1.043	1.030	1.024	1.017	1.013					
2011	2.580	1.470	1.248	1.145	1.095	1.058	1.041	1.028	1.018	1.015						
2012	2.561	1.468	1.247	1.143	1.087	1.056	1.039	1.023	1.019							
2013	2.492	1.464	1.238	1.130	1.077	1.048	1.029	1.022								
2014	2.518	1.462	1.226	1.121	1.076	1.043	1.033									
2015	2.533	1.439	1.218	1.111	1.062	1.044										
2016	2.480	1.410	1.196	1.099	1.064											
2017	2.373	1.391	1.177	1.104												
2018	2.378	1.378	1.197													
2019	2.347	1.428														
2020	2.492															

Adjusted (b)

Age-to-Age (in months)

Accident Year	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
2003																1.011
2004															1.014	1.010
2005														1.015	1.013	1.008
2006													1.016	1.012	1.011	
2007												1.016	1.014	1.011		
2008											1.018	1.013	1.010			
2009										1.021	1.014	1.015				
2010									1.026	1.019	1.014					
2011								1.030	1.019	1.016						
2012							1.041	1.025	1.020							
2013						1.051	1.030	1.022								
2014					1.079	1.045	1.033									
2015				1.114	1.064	1.044										
2016			1.201	1.101	1.063											
2017		1.400	1.180	1.101												
2018	2.391	1.385	1.192													
2019	2.360	1.420														
2020	2.466															
Selected (c)	2.466	1.420	1.192	1.101	1.063	1.044	1.033	1.022	1.019	1.019	1.015	1.015	1.013	1.013	1.013	1.010
Cumulative Unadjusted for Impact of SB 1160	7.216	2.926	2.061	1.729	1.570	1.477	1.415	1.370	1.340	1.312	1.288	1.268	1.250	1.233	1.218	1.203
Cumulative Adjusted for Impact of SB 1160 (d)	7.074	2.869	2.020	1.695	1.539	1.461	---	---	---	---	---	---	---	---	---	---

(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 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.
(d) The cumulative factors for 60 and 72 months are adjusted by -2.0% and -1.1%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Paid Medical Loss Development Factors (Continued)

Unadjusted (a) — Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	420/408	432/420	444/432	ULT/444Pd (e)
1983								1.003	1.003	1.005	1.004	1.004	1.003	1.004	1.003	1.002	1.004	1.003	1.003	1.003	1.002
1984							1.004	1.004	1.004	1.003	1.004	1.004	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.001
1985						1.004	1.005	1.004	1.003	1.004	1.004	1.004	1.003	1.002	1.003	1.002	1.002	1.002	1.002	1.001	1.001
1986					1.006	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.004	1.006	1.004	1.004	1.003	1.003	1.001		
1987				1.006	1.005	1.005	1.006	1.005	1.005	1.005	1.005	1.003	1.003	1.003	1.003	1.002	1.002	1.003			
1988			1.006	1.005	1.006	1.006	1.006	1.005	1.005	1.004	1.003	1.003	1.003	1.004	1.003	1.002	1.003				
1989		1.005	1.005	1.005	1.005	1.008	1.004	1.007	1.006	1.003	1.003	1.003	1.003	1.003	1.004	1.002					
1990	1.007	1.006	1.006	1.006	1.006	1.006	1.006	1.004	1.003	1.002	1.003	1.002	1.003	1.002	1.003						
1991	1.008	1.007	1.002	1.013	1.008	1.005	1.005	1.003	1.003	1.003	1.006	1.004	1.003	1.002							
1992	1.011	1.011	1.010	1.010	1.011	1.006	1.006	1.005	1.005	1.004	1.003	1.003	1.003								
1993	1.013	1.009	1.010	1.012	1.009	1.007	1.007	1.006	1.005	1.008	1.004	1.002									
1994	1.011	1.016	1.013	1.009	1.009	1.008	1.007	1.004	1.004	1.005	1.004										
1995	1.014	1.013	1.011	1.006	1.007	1.012	1.008	1.008	1.007	1.005											
1996	1.014	1.011	1.009	1.008	1.007	1.009	1.006	1.006	1.004												
1997	1.013	1.010	1.008	1.006	1.009	1.007	1.006	1.004													
1998	1.012	1.009	1.009	1.005	1.006	1.007	1.006														
1999	1.009	1.008	1.007	1.006	1.005	1.005															
2000	1.010	1.010	1.009	1.006	1.006																
2001	1.009	1.008	1.007	1.006																	
2002	1.010	1.008	1.009																		
2003	1.008	1.008																			
2004	1.008																				

Adjusted (b) — Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	420/408	432/420	444/432	ULT/444Pd (e)
1983																				1.002	1.002
1984																			1.002	1.001	1.001
1985																		1.002	1.002	1.001	1.001
1986																	1.003	1.004	1.001		
1987																1.002	1.003	1.003			
1988															1.003	1.002	1.003				
1989														1.003	1.005	1.002					
1990													1.003	1.002	1.003						
1991												1.004	1.003	1.002							
1992											1.006	1.003	1.003								
1993										1.009	1.004	1.003									
1994									1.005	1.005	1.004										
1995								1.010	1.007	1.006											
1996							1.009	1.007	1.005												
1997						1.008	1.006	1.005													
1998					1.010	1.008	1.006														
1999				1.009	1.006	1.006															
2000			1.007	1.006	1.006																
2001		1.011	1.010	1.006																	
2002	1.010	1.009	1.007																		
2003	1.012	1.009																			
2004	1.008																				
Selected (c)	1.010	1.010	1.008	1.007	1.007	1.007	1.007	1.007	1.006	1.007	1.005	1.003	1.003	1.002	1.004	1.002	1.003	1.003	1.002	1.001	
Cumulative	1.191	1.180	1.168	1.159	1.151	1.143	1.134	1.126	1.118	1.112	1.104	1.099	1.096	1.092	1.090	1.086	1.084	1.080	1.077	1.075	1.074

(e) The ULT/444Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 108-to-120 through 348-to-360 adjusted factors and extrapolated to 80 development years.

Selected Indemnity Development Factors - Paid to Ultimate

Age-to-Age Factors (in months)

Accident Year	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	264/252
1995													1.007	1.005	1.005	1.003	1.005	1.005	1.003	1.003	1.002
1996												1.009	1.006	1.006	1.004	1.004	1.005	1.004	1.003	1.003	1.002
1997											1.012	1.008	1.007	1.006	1.006	1.005	1.004	1.003	1.003	1.002	1.003
1998										1.015	1.012	1.009	1.009	1.007	1.006	1.006	1.006	1.004	1.003	1.003	1.003
1999									1.018	1.015	1.011	1.009	1.008	1.007	1.006	1.004	1.004	1.003	1.003	1.003	1.002
2000								1.025	1.016	1.013	1.010	1.009	1.008	1.007	1.005	1.004	1.004	1.004	1.004	1.002	1.002
2001							1.034	1.024	1.017	1.014	1.012	1.011	1.008	1.007	1.006	1.005	1.005	1.005	1.003	1.003	
2002						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		
2003					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			
2004				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				
2005			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					
2006		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						
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							
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	1.061	1.043	1.031	1.023	1.019	1.011	1.013									
2010	3.157	1.628	1.281	1.147	1.091	1.060	1.038	1.027	1.021	1.013	1.012										
2011	3.208	1.613	1.266	1.144	1.087	1.056	1.041	1.026	1.016	1.016											
2012	3.137	1.597	1.262	1.137	1.087	1.051	1.034	1.023	1.017												
2013	3.169	1.606	1.260	1.129	1.072	1.044	1.028	1.020													
2014	3.229	1.635	1.257	1.129	1.071	1.039	1.027														
2015	3.278	1.618	1.244	1.119	1.058	1.042															
2016	3.235	1.586	1.230	1.103	1.060																
2017	3.185	1.569	1.210	1.110																	
2018	3.110	1.526	1.222																		
2019	3.063	1.550																			
2020	2.956																				
Selected (a)	2.944(b)	1.568(b)	1.253(b)	1.122(b)	1.060(b)	1.039(b)	1.027	1.020	1.018	1.016	1.013	1.012	1.011	1.009	1.009	1.006	1.005	1.005	1.003	1.003	1.002
Cumulative	8.543	2.902	1.850	1.477	1.317	1.243	1.195	1.164	1.141	1.121	1.103	1.090	1.077	1.065	1.056	1.047	1.040	1.035	1.030	1.027	1.024

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year averages for the subsequent paid age-to-age factors.

(b) Based on calculations shown on Exhibits 2.5.3 to 2.5.8. Each of these selections is calculated as the latest year paid indemnity age-to-age factor multiplied by an adjustment for changes in claim settlement rates.

Selected Indemnity Development Factors - Paid to Ultimate (Continued)

Age-to-Age (in months)

Accident Year	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	420/408	432/420	444/432	ULT/444Pd (d)
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	
1984			1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.001	1.001	1.000	
1985		1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.001	
1986	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	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	1.001	1.000			
1988	1.001	1.002	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	1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.000	1.000					
1990	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001						
1991	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001							
1992	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									
1994	1.002	1.002	1.003	1.002	1.002	1.002										
1995	1.002	1.002	1.002	1.002	1.002											
1996	1.003	1.003	1.002	1.002												
1997	1.003	1.003	1.002													
1998	1.003	1.002														
1999	1.002															
Unadjusted (a)	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.009
Selected (c)	1.003	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.006
Cumulative	1.022	1.019	1.016	1.015	1.014	1.013	1.011	1.011	1.010	1.009	1.009	1.008	1.007	1.007	1.006	1.006

(c) Adjusted for the impact of changes in claim settlement rates on later period development for 288 months and later. See Exhibits 2.5.9 through 2.5.12.

(d) The ULT/444Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 108-to-120 through 348-to-360 factors and extrapolated to 80 development years.

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

A. Total Reported Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							125,377
2013						133,609	133,807
2014					139,333	139,632	139,673
2015				144,009	144,423	144,783	144,944
2016			146,455	147,461	147,904	148,191	
2017		143,734	147,089	148,179	148,580		
2018	119,668	146,730	150,175	151,186			
2019	121,955	148,976	153,193				
2020	106,343	129,773					
2021	117,281						

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):						
	12-24	24-36	36-48	48-60	60-72	72-84	84-Ult
2013						1.001	
2014					1.002	1.000	
2015				1.003	1.002	1.001	
2016			1.007	1.003	1.002		
2017		1.023	1.007	1.003			
2018	1.226	1.023	1.007				
2019	1.222	1.028					
2020	1.220						
Latest Year	1.220	1.028	1.007	1.003	1.002	1.001	
Cumulative	1.279	1.048	1.019	1.012	1.010	1.008	1.007

Acc. Year	2021	2020	2019	2018	2017	2016	2015
Ult. Claim Counts	149,995	136,006	156,131	153,055	150,011	149,328	145,894

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							115,362
2013						119,961	124,639
2014					119,990	126,657	130,555
2015				115,938	126,756	132,244	135,967
2016			103,860	121,586	130,437	135,861	
2017		80,736	107,524	122,292	131,112		
2018	37,254	82,615	107,185	122,951			
2019	37,947	80,502	105,790				
2020	31,842	68,458					
2021	36,793						

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							91.5%
2013						89.1%	92.6%
2014					85.3%	90.1%	92.9%
2015				79.5%	86.9%	90.6%	93.2%
2016			69.6%	81.4%	87.3%	91.0%	
2017		53.8%	71.7%	81.5%	87.4%		
2018	24.3%	54.0%	70.0%	80.3%			
2019	24.3%	51.6%	67.8%				
2020	23.4%	50.3%					
2021	24.5%						

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							117,445
2013						122,502	125,483
2014					122,877	127,909	131,022
2015				117,199	127,514	132,737	135,967
2016			101,181	119,957	130,515	135,861	
2017		75,507	101,643	120,506	131,112		
2018	37,544	77,040	103,706	122,951			
2019	38,298	78,588	105,790				
2020	33,362	68,458					
2021	36,793						

F. Average Paid Indemnity per Closed Claim

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							18,341
2013						17,097	18,228
2014					16,330	17,926	18,996
2015				14,494	16,892	18,271	19,248
2016			11,035	14,480	16,452	17,800	
2017		6,647	11,145	14,345	16,459		
2018	2,874	7,039	11,385	14,614			
2019	3,156	7,059	11,430				
2020	3,301	7,747					
2021	3,255						

(a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.

(b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

G. Adjusted Average Paid Indemnity per Closed Claim (c)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							19,038
2013						17,702	18,483
2014					17,003	18,263	19,126
2015				14,756	17,076	18,398	19,248
2016			10,491	14,123	16,471	17,800	
2017		5,955	9,949	13,914	16,459		
2018	2,891	6,306	10,636	14,614			
2019	3,177	6,808	11,430				
2020	3,420	7,747					
2021	3,255						

H. Adjusted Paid Indemnity on Closed Claims (in $000) (d)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							2,235,901
2013						2,168,588	2,319,316
2014					2,089,250	2,336,051	2,505,927
2015				1,729,325	2,177,491	2,442,062	2,617,112
2016			1,061,489	1,694,134	2,149,749	2,418,300	
2017		449,681	1,011,286	1,676,659	2,157,942		
2018	108,539	485,789	1,103,023	1,796,769			
2019	121,685	535,002	1,209,216				
2020	114,092	530,315					
2021	119,765						

I. Paid Indemnity on Open Claims (in $000)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							419,175
2013						491,816	382,241
2014					622,087	494,714	392,107
2015				762,395	592,278	475,825	396,231
2016			862,136	710,279	578,275	470,766	
2017		768,063	849,155	722,378	589,881		
2018	339,265	806,763	898,050	792,331			
2019	353,966	883,140	1,039,858				
2020	348,879	811,855					
2021	393,950						

(c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear relationship between maturities.

(d) Each amount is the product of the adjusted closed indemnity claim counts (Item E) and the adjusted average paid indemnity per closed claim (Item G), and divided by $1,000.

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

J. Average Paid Indemnity per Open Claim for Indemnity Claims in Transition (e)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							41,855
2013						36,036	41,696
2014					32,160	38,129	43,004
2015				27,159	33,524	37,948	44,138
2016			17,357	26,987	33,107	38,181	
2017		7,720	18,288	28,616	33,769		
2018	4,117	8,233	18,875	28,062			
2019	4,213	8,427	21,937				
2020	4,683	13,241					
2021	4,895						

K. Changes in Paid Indemnity on Open Claims Resulting from the Impact of Changes in
   Claim Settlement Rates (in $000) (f)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							-87,184
2013						-91,567	-35,191
2014					-92,847	-47,737	-20,083
2015				-34,248	-25,411	-18,708	
2016			46,499	43,962	-2,582		
2017		40,370	107,550	51,109			
2018	-1,194	45,900	65,665				
2019	-1,479	16,129					
2020	-7,118						

L. Adjusted Paid Indemnity on Open Claims (in $000) (g)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							331,991
2013						400,249	347,050
2014					529,240	446,977	372,024
2015				728,147	566,867	457,117	396,231
2016			908,636	754,241	575,692	470,766	
2017		808,433	956,705	773,487	589,881		
2018	338,072	852,664	963,715	792,331			
2019	352,487	899,269	1,039,858				
2020	341,761	811,855					
2021	393,950						

(e) Each amount is equal to the product of [the average monthly indemnity payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly indemnity payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly indemnity payment per open indemnity claim at the same evaluation is used.

(f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by the corresponding [average paid indemnity per open claim for indemnity claims in transition (Item J)].

(g) Each amount is the sum of [paid indemnity on open claims (Item I)] and the corresponding [incremental changes in paid indemnity on open claims resulting from the impact of changes in claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

M. Adjusted Total Paid Indemnity (in $000) (h)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							2,567,892
2013						2,568,837	2,666,366
2014					2,618,490	2,783,028	2,877,951
2015				2,457,472	2,744,358	2,899,179	3,013,343
2016			1,970,125	2,448,374	2,725,441	2,889,066	
2017		1,258,114	1,967,991	2,450,146	2,747,823		
2018	446,611	1,338,452	2,066,738	2,589,100			
2019	474,171	1,434,271	2,249,074				
2020	455,854	1,342,170					
2021	513,715						

N. Paid Indemnity Loss Development Factors Based on Adjusted Total Paid Indemnity

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2012						
2013						1.038
2014					1.063	1.034
2015				1.117	1.056	1.039
2016			1.243	1.113	1.060	
2017		1.564	1.245	1.121		
2018	2.997	1.544	1.253			
2019	3.025	1.568				
2020	2.944					
Latest Year	2.944	1.568	1.253	1.121	1.060	1.039
3-Year Average	2.989	1.559	1.247	1.117	1.060	1.037

O. Paid Indemnity Loss Development Factors (i)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2013						1.044
2014					1.071	1.039
2015				1.119	1.058	1.042
2016			1.230	1.103	1.060	
2017		1.569	1.210	1.110		
2018	3.110	1.526	1.222			
2019	3.064	1.550				
2020	2.956					

(h) Each amount is the sum of the adjusted paid indemnity on closed claims (Item H) and the adjusted paid indemnity on open claims (Item L).

(i) Development factors are based on paid indemnity losses from the same insurer mix as that used in the adjustment for changes in claim settlement rates and applied in the calculation of the development factors in Item N.

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

P. Impact of Adjustment for Changes in Claim Settlement Rates (j)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2013						-0.56%
2014					-0.78%	-0.44%
2015				-0.20%	-0.15%	-0.24%
2016			1.01%	0.96%	-0.04%	
2017		-0.32%	2.93%	1.08%		
2018	-3.65%	1.20%	2.50%			
2019	-1.27%	1.19%				
2020	-0.41%					

Q. Paid Indemnity Loss Development Factors Adjusted for Changes in
   Indemnity Claim Settlement Rates (k)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2013						1.038
2014					1.063	1.034
2015				1.117	1.056	1.039
2016			1.242	1.114	1.060	
2017		1.564	1.245	1.122		
2018	2.997	1.544	1.253			
2019	3.024	1.568				
2020	2.944					
Latest Year	2.944	1.568	1.253	1.122	1.060	1.039
2-Year Average	2.984	1.556	1.249	1.118	1.058	1.037
3-Year Average	2.988	1.559	1.247	1.117	1.060	1.037

(j) Each factor represents the change in age-to-age development factors from Item O to those in Item N.
(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item P)]
    and [the paid indemnity age-to-age development factor from Exhibit 2.5.1].

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

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

1. Reported Closed Indemnity Claim Counts

Accident Year	_Evaluated as of (in months)_									
	288	300	312	324	336	348	360	372	384	396
1990							230,815	230,896	230,974	231,050
1991						231,227	231,322	231,397	231,477	
1992					182,092	182,173	182,246	182,323		
1993				142,619	142,695	142,788	142,862			
1994			129,902	129,983	130,072	130,180				
1995		120,700	120,808	120,931	121,020					
1996	115,024	115,145	115,239	115,369						
1997	121,320	121,486	121,590							
1998	131,671	131,800								
1999	133,469									
2000										

Accident Year	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
2. Ult. Claim Counts (a)	134,835	133,056	122,569	116,118	121,690	130,705	143,292	182,748	231,926	231,362

3. Ultimate Indemnity Claim Settlement Ratio (b)

Accident Year	_Evaluated as of (in months)_									
	288	300	312	324	336	348	360	372	384	396
1990							99.8%	99.8%	99.8%	99.9%
1991						99.7%	99.7%	99.8%	99.8%	
1992					99.6%	99.7%	99.7%	99.8%		
1993				99.5%	99.6%	99.6%	99.7%			
1994			99.4%	99.4%	99.5%	99.6%				
1995		99.2%	99.3%	99.4%	99.4%					
1996	99.1%	99.2%	99.2%	99.4%						
1997	99.0%	99.1%	99.2%							
1998	99.0%	99.1%								
1999	99.0%									

(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 Year	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
1990								---	---	---
1991							14.8%	16.7%	19.6%	
1992						13.6%	12.4%	15.1%		
1993					12.3%	12.7%	15.3%			
1994				11.3%	15.6%	14.7%				
1995			10.1%	12.3%	17.1%					
1996		10.9%	13.9%	11.7%						
1997	11.1%	9.6%	14.8%							
1998	13.3%	9.6%								
1999	9.3%									
2000										
3-Year Average	11.3%	10.0%	12.9%	11.8%	15.0%	13.7%	14.2%	15.9%	19.6%	
Share of Open on Prior (d)	88.7%	90.0%	87.1%	88.2%	85.0%	86.3%	85.8%	84.1%	80.4%	

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

Accident Year	288	300	312	324	336	348	360	372	384
1989									
1990									*312*
1991								*449*	449
1992							*425*	425	357
1993						*430*	430	369	310
1994					*525*	525	453	389	327
1995				*670*	670	570	492	422	355
1996			*749*	749	661	562	485	416	350
1997		*979*	979	853	752	639	552	474	398
1998	*1,256*	1,256	1,130	984	868	738	637	547	460
1999	1,366	1,212	1,090	949	838	712	615	528	444
…									
2020	465	412	371	323	285	242	209	179	151
2021	492	437	393	342	302	257	222	190	160

(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 Year									

Accident Year	288	300	312	324	336	348	360	372	384
1990								*0.2%*	*0.2%*
1991							*0.3%*	*0.2%*	*0.2%*
1992						*0.3%*	*0.3%*	*0.2%*	0.2%
1993					*0.4%*	*0.4%*	*0.3%*	0.3%	0.2%
1994				*0.6%*	*0.5%*	*0.4%*	0.3%	0.3%	0.3%
1995			*0.7%*	*0.6%*	*0.6%*	0.5%	0.4%	0.3%	0.3%
1996		*0.8%*	*0.8%*	*0.6%*	0.6%	0.5%	0.4%	0.4%	0.3%
1997	*1.0%*	*0.9%*	*0.8%*	0.7%	0.6%	0.5%	0.5%	0.4%	0.3%
1998	*1.0%*	*0.9%*	0.8%	0.7%	0.7%	0.6%	0.5%	0.4%	0.3%
1999	*1.0%*	0.9%	0.8%	0.7%	0.6%	0.5%	0.5%	0.4%	0.3%
2000	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%	0.5%	0.4%	0.3%
…									
2020	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
2021	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%
3-Year Historical Avg.	*1.0%*	*0.9%*	*0.8%*	*0.6%*	*0.5%*	*0.4%*	*0.3%*	*0.2%*	*0.2%*

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

Accident Year	288	300	312	324	336	348	360	372	384
1990									
1991									
1992									1.08
1993								1.17	1.20
1994							1.25	1.35	1.39
1995						1.31	1.45	1.57	1.61
1996					1.18	1.36	1.50	1.62	1.67
1997				1.15	1.27	1.47	1.62	1.75	1.80
1998			1.12	1.22	1.35	1.56	1.72	1.86	1.91
1999		1.01	1.06	1.16	1.28	1.48	1.64	1.77	1.82
2000	0.98	1.00	1.05	1.15	1.27	1.47	1.62	1.76	1.80
…									
2020	0.33	0.34	0.36	0.39	0.43	0.50	0.55	0.60	0.61
2021	0.32	0.33	0.34	0.38	0.42	0.48	0.53	0.57	0.59

(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	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396

8. 3-Year Average (h)

	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
Indemnity	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Medical	1.007	1.006	1.007	1.005	1.003	1.003	1.002	1.004	1.002

9. Adjustment Ratio (i)

	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
Accident Year 2020	0.73	0.74	0.74	0.76	0.77	0.80	0.82	0.84	0.85
Accident Year 2021	0.73	0.73	0.74	0.75	0.77	0.79	0.81	0.83	0.84

10. Adjusted Factors (j)

	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
Indemnity									
Accident Year 2020	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Accident Year 2021	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Medical									
Accident Year 2020	1.005	1.004	1.005	1.004	1.003	1.002	1.002	1.003	1.002
Accident Year 2021	1.005	1.004	1.005	1.004	1.003	1.002	1.002	1.003	1.002

(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

Age-to-Age (in months)

Adjusted (a)(b) Accident Year	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	264/252
1998																					1.010
1999																				1.009	1.006
2000																			1.007	1.006	1.006
2001																		1.011	1.010	1.006	
2002																	1.010	1.009	1.007		
2003																1.011	1.012	1.009			
2004															1.014	1.010	1.008				
2005														1.015	1.013	1.008					
2006													1.016	1.012	1.011						
2007												1.016	1.014	1.011							
2008											1.018	1.013	1.010								
2009										1.021	1.014	1.015									
2010									1.026	1.019	1.014										
2011								1.030	1.019	1.016											
2012							1.041	1.025	1.020												
2013						1.051	1.030	1.022													
2014					1.079	1.045	1.033														
2015				1.114	1.064	1.044															
2016			1.201	1.101	1.063																
2017		1.400	1.180	1.101																	
2018	2.391	1.385	1.192																		
2019	2.360	1.420																			
2020	2.466																				
Selected (c)	2.464(d)	1.429(d)	1.213(d)	1.109(d)	1.063(d)	1.042(d)	1.033	1.022	1.019	1.015	1.015	1.013	1.013	1.013	1.010	1.010	1.010	1.008	1.007	1.007	
Cumulative Unadjusted for Impact of SB 1160	7.170	2.910	2.037	1.680	1.515	1.425	1.368	1.324	1.296	1.268	1.245	1.226	1.208	1.192	1.177	1.163	1.152	1.140	1.129	1.120	1.113
Cumulative Adjusted for Impact of SB 1160(e)	7.029	2.853	1.997	1.647	1.485	1.409	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

(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 12-to-24 month through 96-to-108 month factors and three-year averages for the subsequent paid age-to-age factors.

(d) Based on calculations shown on Exhibits 2.6.3 to 2.6.8. Each of these selections are calculated as the latest year paid medical age-to-age factor multiplied by an adjustment for changes in claim settlement rates.

(e) The cumulative factors for 60 and 72 months are adjusted by -2.0% and -1.1%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Selected Medical Development Factors - Paid to Ultimate (Continued)

Age-to-Age (in months)

Accident Year	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	420/408	432/420	444/432	ULT/444Pd (g)
1983															1.002	
1984														1.002	1.001	
1985													1.002	1.002	1.001	
1986												1.003	1.004	1.001		
1987											1.002	1.003	1.003			
1988										1.003	1.002	1.003				
1989									1.003	1.005	1.002					
1990								1.003	1.002	1.003						
1991							1.004	1.003	1.002							
1992						1.006	1.003	1.003								
1993					1.009	1.004	1.003									
1994				1.005	1.005	1.004										
1995			1.010	1.007	1.006											
1996		1.009	1.007	1.005												
1997	1.008	1.006	1.005													
1998	1.008	1.006														
1999	1.006															
Unadjusted (c)	1.007	1.007	1.007	1.006	1.007	1.005	1.003	1.003	1.002	1.004	1.002	1.003	1.003	1.002	1.001	1.074
Selected (f)	1.007	1.007	1.005	1.004	1.005	1.004	1.003	1.002	1.002	1.003	1.002	1.003	1.003	1.001	1.001	1.048
Cumulative	1.104	1.096	1.089	1.083	1.078	1.073	1.069	1.067	1.064	1.062	1.059	1.057	1.054	1.051	1.049	1.048

(f) Adjusted for the impact of changes in claim settlement rates on later period development for 288 months and later. See Exhibits 2.5.9 through 2.5.12.

(g) The ULT/444Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 108-to-120 through 348-to-360 factors and extrapolated to 80 development years.

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

A. Total Reported Indemnity Claim Counts

Accident Year	Evaluated as of (in months)
	12	24	36	48	60	72	84
2012							125,377
2013						133,609	133,807
2014					139,333	139,632	139,673
2015				144,009	144,423	144,783	144,944
2016			146,455	147,461	147,904	148,191	
2017		143,734	147,089	148,179	148,580		
2018	119,668	146,730	150,175	151,186			
2019	121,955	148,976	153,193				
2020	106,343	129,773					
2021	117,281						

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):
	12-24	24-36	36-48	48-60	60-72	72-84	84-Ult
2013						1.001	
2014					1.002	1.000	
2015				1.003	1.002	1.001	
2016			1.007	1.003	1.002		
2017		1.023	1.007	1.003			
2018	1.226	1.023	1.007				
2019	1.222	1.028					
2020	1.220						
Latest Year	1.220	1.028	1.007	1.003	1.002	1.001	
Cumulative	1.279	1.048	1.019	1.012	1.010	1.008	1.007

Acc. Year	2021	2020	2019	2018	2017	2016	2015
Ult. Claim Counts	149,995	136,006	156,131	153,055	150,011	149,328	145,894

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)
	12	24	36	48	60	72	84
2012							115,362
2013						119,961	124,639
2014					119,990	126,657	130,555
2015				115,938	126,756	132,244	135,967
2016			103,860	121,586	130,437	135,861	
2017		80,736	107,524	122,292	131,112		
2018	37,254	82,615	107,185	122,951			
2019	37,947	80,502	105,790				
2020	31,842	68,458					
2021	36,793						

Source: Accident year experience of insurers with available claim count and paid loss data, excluding COVID-19 claims.

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							91.5%
2013						89.1%	92.6%
2014					85.3%	90.1%	92.9%
2015				79.5%	86.9%	90.6%	93.2%
2016			69.6%	81.4%	87.3%	91.0%	
2017		53.8%	71.7%	81.5%	87.4%		
2018	24.3%	54.0%	70.0%	80.3%			
2019	24.3%	51.6%	67.8%				
2020	23.4%	50.3%					
2021	24.5%						

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							117,445
2013						122,502	125,483
2014					122,877	127,909	131,022
2015				117,199	127,514	132,737	135,967
2016			101,181	119,957	130,515	135,861	
2017		75,507	101,643	120,506	131,112		
2018	37,544	77,040	103,706	122,951			
2019	38,298	78,588	105,790				
2020	33,362	68,458					
2021	36,793						

F. Average Paid Medical per Closed Indemnity Claim

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							21,057
2013						18,502	19,887
2014					16,347	18,136	19,285
2015				13,856	16,236	17,713	18,699
2016			10,500	13,516	15,523	16,797	
2017		6,660	10,653	13,476	15,468		
2018	2,982	6,975	11,110	13,999			
2019	3,422	6,734	10,799				
2020	2,902	7,022					
2021	2,960						

(a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.

(b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count and paid loss data, excluding COVID-19 claims.

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

G. Adjusted Average Paid Medical per Closed Indemnity Claim (c)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							21,940
2013						19,242	20,177
2014					17,099	18,498	19,426
2015				14,115	16,433	17,840	18,699
2016			10,020	13,206	15,541	16,797	
2017		6,029	9,610	13,098	15,468		
2018	2,999	6,283	10,401	13,999			
2019	3,441	6,532	10,799				
2020	3,011	7,022					
2021	2,960						

H. Adjusted Paid Medical (in $000) on Closed Indemnity Claims (d)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							2,576,737
2013						2,357,217	2,531,921
2014					2,101,110	2,366,013	2,545,218
2015				1,654,246	2,095,438	2,368,067	2,542,406
2016			1,013,791	1,584,151	2,028,312	2,282,091	
2017		455,262	976,757	1,578,404	2,028,081		
2018	112,577	484,054	1,078,653	1,721,166			
2019	131,784	513,369	1,142,436				
2020	100,436	480,740					
2021	108,922						

I. Paid Medical on Open Indemnity Claims (in $000)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							564,174
2013						579,109	462,493
2014					656,893	535,017	444,639
2015				784,731	621,163	517,460	452,890
2016			865,455	741,190	617,927	543,992	
2017		824,564	845,401	740,036	632,615		
2018	420,433	874,976	903,995	832,686			
2019	402,258	879,999	992,905				
2020	369,718	825,780					
2021	398,458						

(c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear relationship between maturities.

(d) Each amount is equal to the product of [adjusted closed indemnity claim counts (Item E)] and [adjusted average paid medical per closed indemnity claim (Item G)], and divided by $1,000.

Source: Accident year experience of insurers with available claim count and paid loss data, excluding COVID-19 claims.

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

J. Average Paid Medical per Open Indemnity Claim for Indemnity Claims in Transition (e)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							56,333
2013						42,432	50,450
2014					33,960	41,235	48,765
2015				27,955	35,159	41,268	50,450
2016			20,318	28,645	35,377	44,119	
2017		13,089	21,367	28,587	36,216		
2018	5,101	13,647	21,028	29,491			
2019	4,788	12,852	20,946				
2020	4,963	13,468					
2021	4,951						

K. Changes in Paid Medical on Open Indemnity Claims Resulting from the Impact of Changes in
   Indemnity Claim Settlement Rates (in $000) (f)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							-117,342
2013						-107,820	-42,580
2014					-98,042	-51,626	-22,773
2015				-35,251	-26,651	-20,345	
2016			50,165	44,131	-2,759		
2017		51,060	115,462	50,883			
2018	-1,479	56,881	71,217				
2019	-1,681	18,330					
2020	-7,543						

L. Adjusted Paid Medical on Open Indemnity Claims (in $000) (g)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							446,832
2013						471,289	419,913
2014					558,852	483,391	421,866
2015				749,480	594,512	497,115	452,890
2016			915,619	785,321	615,167	543,992	
2017		875,624	960,863	790,919	632,615		
2018	418,953	931,857	975,212	832,686			
2019	400,577	898,329	992,905				
2020	362,175	825,780					
2021	398,458						

(e) Each amount is equal to the product of [the average monthly medical payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly medical payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly medical payment per open indemnity claim at the same evaluation is used.

(f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by [the corresponding average paid medical per open indemnity claim for indemnity claims in transition (Item J)].

(g) Each amount is the sum of [paid medical on open indemnity claims (Item I)] and the corresponding [incremental changes in paid medical on open indemnity claims resulting from the impact of changes in indemnity claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count and paid loss data, excluding COVID-19 claims.

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

M. Paid Medical on Medical-Only Claims (in $000)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							227,273
2013						230,593	233,340
2014					248,836	251,127	253,275
2015				255,171	260,622	263,739	266,176
2016			265,442	273,474	278,230	282,738	
2017		273,173	284,659	291,356	296,613		
2018	199,891	288,895	303,301	315,991			
2019	197,062	289,434	308,792				
2020	156,676	235,822					
2021	173,375						

N. Adjusted Total Paid Medical (in $000) (h)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2012							3,558,706
2013						3,059,100	3,185,174
2014					2,908,798	3,100,530	3,220,359
2015				2,658,897	2,950,572	3,128,921	3,261,472
2016			2,194,853	2,642,947	2,921,709	3,108,821	
2017		1,604,059	2,222,280	2,660,678	2,957,309		
2018	731,421	1,704,806	2,357,166	2,869,843			
2019	729,423	1,701,132	2,444,134				
2020	619,287	1,542,343					
2021	680,756						

O. Paid Medical Loss Development Factors Based on Adjusted Total Paid Medical

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2013						1.041
2014					1.066	1.039
2015				1.110	1.060	1.042
2016			1.204	1.105	1.064	
2017		1.385	1.197	1.111		
2018	2.331	1.383	1.217			
2019	2.332	1.437				
2020	2.491					
Latest Year	2.491	1.437	1.217	1.111	1.064	1.042

(h) Each amount is the sum of [adjusted paid medical on closed indemnity claims (Item H)], [adjusted paid medical on open indemnity claims (Item L)] and [paid medical on medical-only claims (Item M)]. The effect of the paid cost of medical cost containment programs are only present for accident years 2011 and prior.

Source: Accident year experience of insurers with available claim count and paid loss data, excluding COVID-19 claims.

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

P. Paid Medical Loss Development Factors (i)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2013						1.048
2014					1.075	1.043
2015				1.111	1.063	1.044
2016			1.197	1.099	1.064	
2017		1.391	1.177	1.104		
2018	2.379	1.378	1.197			
2019	2.347	1.428				
2020	2.492					

Q. Impact of Adjustment for Changes in Indemnity Claim Settlement Rates (j)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2013						-0.64%
2014					-0.87%	-0.41%
2015				-0.11%	-0.19%	-0.17%
2016			0.64%	0.60%	-0.03%	
2017		-0.43%	1.68%	0.70%		
2018	-2.03%	0.33%	1.74%			
2019	-0.64%	0.61%				
2020	-0.08%					

R. Paid Medical Loss Development Factors Adjusted for Changes in Indemnity
   Claim Settlement Rates (k)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2013						1.044
2014					1.070	1.041
2015				1.113	1.062	1.042
2016			1.209	1.108	1.063	
2017		1.394	1.200	1.109		
2018	2.343	1.390	1.213			
2019	2.345	1.429				
2020	2.464					
Latest Year	2.464	1.429	1.213	1.109	1.063	1.042
2-Year Average	2.404	1.409	1.206	1.108	1.062	1.041
3-Year Average	2.384	1.404	1.207	1.110	1.065	1.042

(i) Development factors are based on paid medical losses from the same insurer mix as that used in the adjustment for changes in
   claim settlement rates and applied in the calculation of the development factors in Item O.
(j) Each factor represents the change in age-to-age development factors from Item P to those in Item O.
(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item Q)] and [the adjusted
   paid medical age-to-age development factor from Exhibit 2.6.1].

Source: Accident year experience of insurers with available claim count and paid loss data, excluding COVID-19 claims.

**Developed Indemnity Loss Ratios Using Selected Loss Development Factors
Adjusted for Changes in Claim Settlement Rates
Based on Experience as of December 31, 2021**

		Development Factors		
	(1)	(2)	(3)	(4)
Accident Year	Paid Loss Ratio (a)	Annual (b)	Cumulative	Projected Ultimate Loss Ratio (4) = (1) x (3)
1987	0.345	1.000	1.007	0.347
1988	0.330	1.000	1.007	0.332
1989	0.342	1.001	1.008	0.345
1990	0.397	1.001	1.009	0.400
1991	0.424	1.001	1.009	0.427
1992	0.349	1.001	1.010	0.352
1993	0.286	1.001	1.011	0.289
1994	0.325	1.001	1.011	0.328
1995	0.467	1.001	1.013	0.473
1996	0.525	1.001	1.014	0.532
1997	0.594	1.001	1.015	0.602
1998	0.644	1.002	1.016	0.654
1999	0.675	1.003	1.019	0.687
2000	0.582	1.003	1.022	0.595
2001	0.482	1.002	1.024	0.493
2002	0.358	1.003	1.027	0.367
2003	0.236	1.003	1.030	0.243
2004	0.140	1.005	1.035	0.145
2005	0.120	1.005	1.040	0.125
2006	0.154	1.006	1.047	0.161
2007	0.212	1.009	1.056	0.223
2008	0.265	1.009	1.065	0.283
2009	0.308	1.011	1.077	0.331
2010	0.293	1.012	1.090	0.320
2011	0.270	1.013	1.103	0.298
2012	0.238	1.016	1.121	0.267
2013	0.200	1.018	1.141	0.228
2014	0.186	1.020	1.164	0.216
2015	0.177	1.027	1.195	0.212
2016	0.161	1.039	1.243	0.200
2017	0.156	1.060	1.317	0.205
2018	0.149	1.122	1.477	0.220
2019	0.140	1.253	1.850	0.258
2020	0.095	1.568	2.902	0.277
2021	0.038	2.944	8.543	0.325

(a) Based on Exhibit 1.
(b) See Exhibits 2.5.1 and 2.5.2.

Developed Medical Loss Ratios Using Selected Loss Development Factors
Adjusted for Changes in Claim Settlement Rates
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)
				Reform Adjusted		
			Development Factors			
Accident Year	Paid Loss Ratio (a)	Adjusted Paid Loss Ratio (b)	Annual (c)	Cumulative (c)	Adjusted Developed Loss Ratio (d) (2) x (4)	Projected Ultimate Loss Ratio (1) + ((5) - (2))
1987	0.307	0.272	1.001	1.051	0.285	0.320
1988	0.300	0.266	1.003	1.054	0.280	0.314
1989	0.319	0.283	1.003	1.057	0.299	0.335
1990	0.360	0.319	1.002	1.059	0.338	0.379
1991	0.377	0.334	1.003	1.062	0.355	0.398
1992	0.312	0.277	1.002	1.064	0.295	0.330
1993	0.257	0.228	1.002	1.067	0.243	0.272
1994	0.294	0.261	1.003	1.069	0.279	0.312
1995	0.433	0.385	1.004	1.073	0.414	0.461
1996	0.463	0.412	1.005	1.078	0.444	0.495
1997	0.519	0.462	1.004	1.083	0.500	0.557
1998	0.618	0.551	1.005	1.089	0.600	0.667
1999	0.675	0.603	1.007	1.096	0.661	0.734
2000	0.609	0.544	1.007	1.104	0.600	0.665
2001	0.538	0.482	1.007	1.113	0.536	0.592
2002	0.414	0.372	1.007	1.120	0.417	0.459
2003	0.264	0.239	1.008	1.129	0.269	0.295
2004	0.178	0.161	1.010	1.140	0.184	0.201
2005	0.174	0.158	1.010	1.152	0.181	0.198
2006	0.222	0.202	1.010	1.163	0.235	0.255
2007	0.310	0.283	1.013	1.177	0.333	0.360
2008	0.381	0.350	1.013	1.192	0.417	0.448
2009	0.441	0.408	1.013	1.208	0.492	0.526
2010	0.429	0.398	1.015	1.226	0.488	0.519
2011	0.360	0.338	1.015	1.245	0.421	0.443
2012	0.304	0.288	1.019	1.268	0.366	0.382
2013	0.240	0.238	1.022	1.296	0.309	0.311
2014	0.210	0.212	1.022	1.324	0.281	0.278
2015	0.192	0.196	1.033	1.368	0.268	0.264
2016	0.173	0.179	1.042	1.409	0.252	0.247
2017	0.168	0.174	1.063	1.485	0.258	0.252
2018	0.165	0.171	1.109	1.647	0.281	0.275
2019	0.152	0.156	1.213	1.997	0.311	0.307
2020	0.110	0.111	1.429	2.853	0.318	0.316
2021	0.050	0.051	2.464	7.029	0.356	0.356

(a) Based on Exhibit 1. Paid MCCP costs are excluded from accident years 2011 and subsequent.
(b) Based on experience evaluated as of December 31, 2021. 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 Adjustments (a)	(2) Frequency Adjustments (a)	(3) Annual Impact on Indemnity Benefits Due to Wage Inflation (b)	(4) Annual Cost Impact on Indemnity (c)	(5) Composite Indemnity Adjustment Factor (d)	
1987	0.0	0.0	1.9	1.9	1.702	
1988	0.0	0.0	1.5	1.5	1.677	
1989	0.0	0.0	1.5	1.5	1.652	
1990	2.3	19.9	1.7	24.7	1.325	
1991	4.9	14.8	0.8	21.4	1.091	
1992	1.8	-8.3	1.6	-5.2	1.151	
1993	0.2	-18.1	0.4	-17.6	1.396	
1994	-5.1	0.2	0.6	-4.3	1.460	
1995	6.3	0.6	1.0	8.0	1.352	
1996	5.3	0.4	1.2	7.0	1.263	
1997	9.7	0.2	1.6	11.7	1.131	
1998	6.5	0.0	1.8	8.4	1.043	
1999	5.7	0.0	2.1	7.9	0.967	
2000	3.9	0.0	3.1	7.1	0.903	
2001	-0.3	0.0	0.2	-0.1	0.903	
2002	-0.7	0.0	0.4	-0.3	0.925	(e)
2003	7.3	0.0	1.2	8.6	0.922	(e)
2004	-6.0	-13.7	2.1	-17.2	1.263	(e)
2005	-31.6	-15.3	1.6	-41.2	1.711	
2006	5.6	-5.7	2.2	1.8	1.682	
2007	1.6	0.0	2.1	3.7	1.621	
2008	4.8	0.6	1.0	6.5	1.522	
2009	0.4	1.4	0.2	2.0	1.492	
2010	0.4	0.0	1.5	1.9	1.465	
2011	0.0	0.0	1.4	1.4	1.444	
2012	-0.8	0.0	2.1	1.3	1.426	
2013	1.4	0.2	0.6	2.3	1.395	
2014	5.8	1.5	1.7	9.2	1.277	
2015	-0.8	0.0	2.3	1.4	1.259	
2016	0.3	0.0	1.0	1.3	1.243	
2017	0.5	0.0	2.2	2.7	1.211	
2018	0.4	0.0	2.2	2.6	1.180	
2019	0.4	0.0	2.4	2.8	1.148	
2020	0.4	0.0	3.0	3.4	1.110	
2021	0.4	0.0	3.7	4.1	1.066	
2022	1.1	0.0	2.9	4.0	1.024	
2023	0.4	0.0	1.7	2.1	1.003	
9/1/2023	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 column 2 of Exhibit 5.1) of injured workers and the legislatively scheduled benefits for that year.

(c)   { [Column (1) /100 + 1.0] x [Column (2) /100 + 1.0] x [Column (3) /100 + 1.0] - 1.0 } x 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 9/1/2023 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 Year	(1) Proportion of Medical Subject to Fee Schedule (a)	(2) Proportion of Medical Not Subject to Fee Schedule (a)	(3) Impact of Fee Schedule Change on Total Medical (b)	(4) Change in Medical CPI (c)	(5) Impact of CPI Change on Total Medical (d)	(6) Annual Non-Legislative Cost Impact on Total Medical (e)
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%	4.2% (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	0.873	0.127	0.0%	3.8%	0.4%	0.4%
2020	0.866	0.134	0.0%	3.0%	0.4%	0.4%
2021	0.866	0.134	4.1%	1.1%	0.1%	0.1% (f)
2022	0.866	0.134	0.0%	2.0%	0.3%	0.3%
2023	0.866	0.134	0.0%	2.5%	0.3%	0.3%
9/1/2023	0.866	0.134	0.0% (Annual 0.0%)	0.5% (Annual 2.8%)	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 MCCP 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	-4.5%	0.0%	-4.5%
2013	-8.3%	0.2%	-8.1%
2014	-6.0%	1.3%	-4.8%
2015	-2.1%	0.0%	-2.1%
2016	-0.7%	0.0%	-0.7%
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%
9/1/2023	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)   [Column (1) + 1.0] x [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%	0.836
1988	3.8%	0.0%	3.8%	0.805
1989	3.0%	0.0%	3.0%	0.782
1990	3.7%	19.1%	23.5%	0.633
1991	3.6%	12.9%	16.9%	0.542
1992	3.0%	-7.9%	-5.2%	0.571
1993	2.7%	-18.7%	-16.5%	0.684
1994	-2.3%	-2.3%	-4.6%	0.717
1995	0.9%	0.5%	1.4%	0.707
1996	1.0%	0.4%	1.4%	0.697
1997	0.7%	0.2%	0.9%	0.691
1998	0.8%	12.6%	13.5%	0.609
1999	2.5%	12.6%	15.4%	0.527
2000	1.7%	7.0%	8.8%	0.485
2001	2.9%	6.6%	9.7%	0.442
2002	2.0%	-5.6%	-3.7%	0.459
2003	1.4%	-6.0%	-4.7%	0.481
2004	0.0%	-33.9%	-33.9%	0.728
2005	0.0%	-13.9%	-13.9%	0.845
2006	0.3%	-5.1%	-4.8%	0.888
2007	1.8%	0.1%	1.9%	0.871
2008	0.2%	0.5%	0.7%	0.865
2009	0.4%	1.0%	1.4%	0.853
2010	0.3%	0.0%	0.3%	0.851
2011	0.3%	-2.0%	-1.7%	0.865
2012	0.1%	-4.5%	-4.4%	0.905
2013	4.2%	-8.1%	-4.2%	0.945
2014	0.3%	-4.8%	-4.5%	0.990
2015	0.2%	-2.1%	-1.9%	1.009
2016	0.4%	-0.7%	-0.3%	1.012
2017	0.2%	-0.5%	-0.3%	1.015
2018	0.2%	-0.3%	-0.1%	1.016
2019	0.4%	0.0%	0.4%	1.012
2020	0.4%	0.0%	0.4%	1.008
2021	0.1%	0.0%	0.1%	1.007
2022	0.3%	0.0%	0.3%	1.004
2023	0.3%	0.0%	0.3%	
9/1/2023	0.1%	0.0%	0.1%	

(a)   See Exhibit 4.2, Column (6).
(b)   See Exhibit 4.3, Column (3).
(c)   Column (3) = [1.0 + Column (1)] x [1.0 + Column (2)] - 1.0.
(d)   These factors adjust the annual impact shown in Column (3) to the 9/1/2023 level.

Annual Wage Level Changes

Year	(1) Annual Wage Level Change (a)	(2) Adjusted Annual Wage Level Change (b)	(3) Factor to a 9/1/2023 Wage Level (c)
1987	5.6		3.664
1988	4.4		3.510
1989	4.3		3.365
1990	5.0		3.205
1991	2.3		3.133
1992	4.7		2.992
1993	1.2		2.957
1994	1.8		2.904
1995	2.9		2.823
1996	3.4		2.730
1997	4.7		2.607
1998	5.2		2.478
1999	6.2		2.334
2000	9.0		2.141
2001	0.6		2.128
2002	1.1		2.105
2003	3.6		2.032
2004	5.0		1.935
2005	3.2		1.875
2006	4.6		1.793
2007	4.5		1.715
2008	2.1		1.680
2009	0.5		1.672
2010	3.0		1.623
2011	3.0		1.576
2012	4.2		1.512
2013	0.7		1.502
2014	3.3		1.454
2015	4.5		1.391
2016	1.9		1.365
2017	4.3		1.309
2018	3.7		1.262
2019	4.3		1.210
2020	11.4	5.1	1.152
2021	8.0	6.3	1.083

Projected:

Year	(1)		(2)	
2022	2.7		4.9	
2023	2.0		2.8	
9/1/2023	0.3	(Annual = 2.0)	0.4	(Annual = 2.5)

(a)   Historical wage changes through 2020 are based on Bureau of Labor Statistics data. Forecasts for 2021 and forward are based on the average of wage level projections made by the UCLA Anderson School of Business as of March 2022 and those made by the California Department of Finance as of November 2021.

(b)   Wage level changes for 2020 to 2024 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.

(c)   Based on Column (1) for 2019 and prior and Column (2) for 2020 and subsequent.

Premium Adjustment Factors

Calendar Year	(1) Factor to a 9/1/2023 Wage Level (a)	(2a) Ratio of Industry Average Charged Rates to Advisory Pure Premium Rates (b)	(2b) Factor to Industry Average Filed Pure Premium Rate Level as of January 1, 2022 (c)	(2c) Factor to Adjust Insurer Premium to an Industry Average Filed Pure Premium Rate Level as of January 1, 2022 (d)	(3) Adjustment to Remove Surcharge Premium (e)	(4) Average Experience Modification (f)	(5) Off-Balance Correction in Advisory September 1, 2021 Pure Premium Rates	(6) Factor to Adjust for Impact of Premium Resulting from Audits (g)	(7) Composite Premium Adjustment Factor (h)
1987	3.664	---	---	0.545	0.992	0.983	1.015	---	1.984
1988	3.510	---	---	0.488	0.993	0.963	1.015	---	1.739
1989	3.365	---	---	0.480	0.993	0.945	1.015	---	1.672
1990	3.205	---	---	0.468	0.991	0.942	1.015	---	1.555
1991	3.133	---	---	0.434	0.987	0.939	1.015	---	1.407
1992	2.992	---	---	0.415	0.982	0.940	1.015	---	1.280
1993	2.957	---	---	0.411	0.981	0.949	1.015	---	1.238
1994	2.904	---	---	0.470	0.986	0.948	1.015	---	1.400
1995	2.823	---	---	0.636	0.995	0.958	1.015	---	1.838
1996	2.730	1.023	0.676	0.661	1.000	0.935	1.015	---	1.901
1997	2.607	0.989	0.675	0.682	1.000	0.949	1.015	---	1.846
1998	2.478	0.965	0.703	0.728	1.000	0.959	1.015	---	1.854
1999	2.334	0.972	0.710	0.731	1.000	0.954	1.015	---	1.761
2000	2.141	1.005	0.644	0.641	1.000	0.970	1.015	---	1.393
2001	2.128	1.030	0.567	0.551	1.000	0.969	1.015	---	1.191
2002	2.105	1.157	0.508	0.439	1.000	0.991	1.015	---	0.918
2003	2.032	1.266	0.415	0.328	1.000	1.005	1.015	---	0.654
2004	1.935	1.397	0.423	0.302	1.000	0.981	1.015	---	0.588
2005	1.875	1.470	0.508	0.346	1.000	0.982	1.015	---	0.651
2006	1.793	1.447	0.655	0.453	1.000	0.956	1.015	---	0.837
2007	1.715	1.493	0.893	0.598	1.000	0.931	1.015	0.985	1.069
2008	1.680	1.426	1.062	0.745	1.000	0.946	1.015	0.991	1.292
2009	1.672	1.366	1.047	0.767	1.000	0.937	1.015	1.034	1.394
2010	1.623	1.383	1.026	0.742	1.000	0.941	1.015	1.005	1.267
2011	1.576	1.401	1.025	0.732	1.000	0.982	1.015	---	1.157
2012	1.512	1.223	0.845	0.691	1.000	1.000	1.015	---	1.030
2013	1.502	1.138	0.680	0.598	1.000	0.983	1.015	---	0.900
2014	1.454	1.127	0.627	0.556	1.000	0.961	1.015	---	0.829
2015	1.391	1.110	0.609	0.549	1.000	0.951	1.015	---	0.791
2016	1.365	1.149	0.663	0.577	1.000	0.949	1.015	---	0.818
2017	1.309	1.157	0.734	0.634	1.000	0.955	1.015	---	0.857
2018	1.262	1.197	0.830	0.693	1.000	0.956	1.015	---	0.902
2019	1.210	1.216	0.964	0.793	1.000	0.945	1.015	---	1.000
2020	1.152	1.206	1.075	0.891	1.000	0.944	1.015	0.990	1.061
2021	1.083	1.222	1.158	0.948	1.000	0.950	1.015	1.025	1.091

(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 (1) advisory pure premium rate level changes to bring premium to the advisory September 1, 2021 pure premium rate level and (2) an additional adjustment factor, which is the ratio of the average advisory September 1, 2021 pure premium rate ($1.45) to the industry average filed pure premium rate as of January 1, 2022 ($1.77).

(d) (2b) ÷ (2a). This column adjusts premiums at the industry average charged rate level to the industry average filed pure premium rate level as of January 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 2021, during which reported premiums were impacted by recessionary economic forces.

(h) (1)x(2c)x(3)x(6) ÷ [(4)x(5)] for calendar years 2007 to 2010 and 2020 to 2021. (1)x(2c)x(3) ÷ [(4)x(5)] for all other calendar years.

Accident Year Indemnity Claim Frequency Model
As of PY 2019 Preliminary 1st Set & March 2022 UCLA

	Annual % Changes Intra-Class Ind Freq	Annual Log Differences					
		Intra-Class Indemnity Frequency per $M Exposure at PY 2020 Level			AY+1 Indemnity	Cumulative	Economic Variables
AY	Total	Total	Cumulative	Non-cum.	Benefit Level	Injury Index	(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	-0.078
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	0.078
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	0.043
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	-1.4%	-0.015	0.008	-0.018	0.000	0.026	0.195
2016	-2.7%	-0.027	0.029	-0.036	0.000	0.066	0.128
2017	-1.8%	-0.018	-0.083	-0.008	0.000	-0.075	0.133
2018	-0.5%	-0.005	-0.055	0.003	0.000	-0.058	0.122
2019	-0.7%	-0.007	0.037	-0.013	0.000	0.050	0.037
2020*	-9.3%	-0.098	0.125	-0.144	0.000	0.269	-0.905
2021	0.9%	0.009	0.009	0.009	0.000	0.000	0.278
2022	1.5%	0.015	0.015	0.015	0.000	0.000	0.335
2023	0.1%	0.001	0.001	0.001	0.000	0.000	0.209
2024	-1.4%	-0.014	-0.014	-0.014	0.000	0.000	0.055

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

Constant	-0.020			
Std Err of Y Est	0.040			
R Squared	0.444			
No. of Observations	41			
Degrees of Freedom	37			
X Coefficient(s)		0.187	0.209	0.103
Std Err of Coef.		0.075	0.061	0.044

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 2021; March 2022 UCLA Anderson Forecasts for 2022 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 2019. AY 2021 through AY 2024 are projections.

The constant term includes measured offsets of -0.020 that recognized annual changes in real benefit levels relative to nominal benefit levels and long-term economic growth.

*AY 2020 is preliminary and change is based on a comparison of 2020 accidents on 2019 policies to 2019 accidents on 2018 policies.

Projection of Indemnity Severity Trends by Accident Year
Based on Experience as of December 31, 2021

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	9,999	---	2.119	21,185	---
1991	10,950	9.5%	2.004	21,940	3.6%
1992	11,042	0.8%	1.937	21,390	-2.5%
1993	11,997	8.7%	1.926	23,103	8.0%
1994	12,961	8.0%	2.017	26,143	13.2%
1995	14,549	12.3%	1.879	27,335	4.6%
1996	16,438	13.0%	1.763	28,980	6.0%
1997	19,254	17.1%	1.582	30,457	5.1%
1998	21,126	9.7%	1.459	30,823	1.2%
1999	23,137	9.5%	1.352	31,280	1.5%
2000	24,617	6.4%	1.262	31,068	-0.7%
2001	27,106	10.1%	1.263	34,244	10.2%
2002	26,139	-3.6%	1.294	33,824	-1.2%
2003	25,903	-0.9%	1.290	33,416	-1.2%
2004	21,110	-18.5%	1.524	32,171	-3.7%
2005	19,134	-9.4%	1.749	33,473	4.0%
2006	20,822	8.8%	1.621	33,753	0.8%
2007	22,709	9.1%	1.563	35,487	5.1%
2008	24,699	8.8%	1.476	36,465	2.8%
2009	25,907	4.9%	1.468	38,019	4.3%
2010	25,287	-2.4%	1.440	36,415	-4.2%
2011	24,907	-1.5%	1.420	35,372	-2.9%
2012	24,274	-2.5%	1.403	34,047	-3.7%
2013	23,593	-2.8%	1.374	32,425	-4.8%
2014	24,398	3.4%	1.277	31,168	-3.9%
2015	24,679	1.1%	1.259	31,078	-0.3%
2016	24,033	-2.6%	1.243	29,885	-3.8%
2017	24,107	0.3%	1.211	29,193	-2.3%
2018	24,979	3.6%	1.180	29,469	0.9%
2019	26,643	6.7%	1.148	30,582	3.8%
2020	28,645	7.5%	1.110	31,790	3.9%
2021	29,445	2.8%	1.066	31,376	-1.3%

(6)	Estimated Annual Exponential Trend Based on 1990 to 2021:	0.9%
(7)	Estimated Annual Exponential Trend Based on 2005 to 2021:	-1.2%
(8)	Estimated Annual Exponential Trend Based on 2017 to 2021:	2.2%
	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 December 31, 2021

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	8,827	---	0.951	8,396	---
1991	9,516	7.8%	0.933	8,878	5.7%
1992	9,573	0.6%	0.901	8,628	-2.8%
1993	10,433	9.0%	0.884	9,220	6.9%
1994	11,439	9.6%	0.929	10,624	15.2%
1995	13,220	15.6%	0.920	12,168	14.5%
1996	14,299	8.2%	0.911	13,031	7.1%
1997	16,792	17.4%	0.905	15,197	16.6%
1998	20,430	21.7%	0.797	16,289	7.2%
1999	23,458	14.8%	0.691	16,206	-0.5%
2000	26,242	11.9%	0.635	16,660	2.8%
2001	31,235	19.0%	0.579	18,078	8.5%
2002	31,375	0.4%	0.601	18,859	4.3%
2003	30,034	-4.3%	0.631	18,940	0.4%
2004	27,647	-7.9%	0.834	23,062	21.8%
2005	28,514	3.1%	0.834	23,785	3.1%
2006	30,998	8.7%	0.831	25,754	8.3%
2007	34,504	11.3%	0.815	28,132	9.2%
2008	37,046	7.4%	0.812	30,084	6.9%
2009	38,979	5.2%	0.809	31,528	4.8%
2010	38,966	0.0%	0.806	31,423	-0.3%
2011	35,078 (c)	---	0.829	29,075 (c)	---
2012	32,820	-6.4%	0.875	28,727	-1.2%
2013	30,308	-7.7%	0.954	28,901	0.6%
2014	29,471	-2.8%	1.015	29,903	3.5%
2015	28,805	-2.3%	1.039	29,916	0.0%
2016	27,554	-4.3%	1.041	28,675	-4.1%
2017	27,433	-0.4%	1.042	28,578	-0.3%
2018	28,971	5.6%	1.039	30,090	5.3%
2019	29,371	1.4%	1.028	30,202	0.4%
2020	30,518	3.9%	1.016	31,009	2.7%
2021	30,081	-1.4%	1.008	30,323	-2.2%

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 December 31, 2021

(1)	MCCP Included				MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b)			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Accident Year	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change
2005	28,514	---	23,785	---	27,038	---	22,554	---
2006	30,998	8.7%	25,754	8.3%	29,085	7.6%	24,164	7.1%
2007	34,504	11.3%	28,132	9.2%	32,236	10.8%	26,283	8.8%
2008	37,046	7.4%	30,084	6.9%	33,835	5.0%	27,476	4.5%
2009	38,979	5.2%	31,528	4.8%	35,756	5.7%	28,921	5.3%
2010	38,966	0.0%	31,423	-0.3%	35,708	-0.1%	28,796	-0.4%
2011	38,407	-1.4%	31,834	1.3%	35,078	-1.8%	29,075	1.0%
2012	35,847	-6.7%	31,377	-1.4%	32,820	-6.4%	28,727	-1.2%
2013	33,186	-7.4%	31,645	0.9%	30,308	-7.7%	28,901	0.6%
2014	32,209	-2.9%	32,681	3.3%	29,471	-2.8%	29,903	3.5%
2015	31,370	-2.6%	32,581	-0.3%	28,805	-2.3%	29,916	0.0%
2016	29,930	-4.6%	31,148	-4.4%	27,554	-4.3%	28,675	-4.1%
2017	29,802	-0.4%	31,046	-0.3%	27,433	-0.4%	28,578	-0.3%
2018	31,489	5.7%	32,705	5.3%	28,971	5.6%	30,090	5.3%
2019	32,071	1.8%	32,979	0.8%	29,371	1.4%	30,202	0.4%
2020	33,438	4.3%	33,976	3.0%	30,518	3.9%	31,009	2.7%
2021	33,018	-1.3%	33,283	-2.0%	30,081	-1.4%	30,323	-2.2%

Estimated Annual Exponential Trend

Trend Based on 1990 to 2021:	4.9%	N/A
Trend Based on 2005 to 2021:	1.5%	1.3%
Trend Based on 2017 to 2021:	1.8%	1.5%
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 Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)
				On-Level Indemnity to
Accident	Developed Indemnity	Composite Indemnity	Composite Premium	Industry Average Filed
Year	Loss Ratio (a)	Adjustment Factor (b)	Adjustment Factor (c)	Pure Premium Ratio
				(1)×(2)÷(3)
1987	0.347	1.702	1.984	0.298
1988	0.332	1.677	1.739	0.320
1989	0.345	1.652	1.672	0.341
1990	0.400	1.325	1.555	0.341
1991	0.427	1.091	1.407	0.331
1992	0.352	1.151	1.280	0.317
1993	0.289	1.396	1.238	0.326
1994	0.328	1.460	1.400	0.343
1995	0.473	1.352	1.838	0.348
1996	0.532	1.263	1.901	0.353
1997	0.602	1.131	1.846	0.369
1998	0.654	1.043	1.854	0.368
1999	0.687	0.967	1.761	0.377
2000	0.595	0.903	1.393	0.385
2001	0.493	0.903	1.191	0.374
2002	0.367	0.925	0.918	0.370
2003	0.243	0.922	0.654	0.344
2004	0.145	1.263	0.588	0.312
2005	0.125	1.711	0.651	0.328
2006	0.161	1.682	0.837	0.324
2007	0.223	1.621	1.069	0.339
2008	0.283	1.522	1.292	0.333
2009	0.331	1.492	1.394	0.355
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.290
2018	0.220	1.180	0.902	0.287
2019	0.258	1.148	1.000	0.296
2020	0.277	1.110	1.061	0.290
2021	0.325	1.066	1.091	0.317

				Projections (d)
2022				0.314
2023				0.318
9/1/2023				0.317

(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 2019 and 2021 on-level ratios. The frequency growth estimates are based on the intra-class frequency changes for accident years 2020 and 2021 from Appendix B, Exhibit 3 and frequency model projections for accident years 2022 to 2024 from Exhibit 6.1. The annual indemnity severity growth estimates are from Exhibit 6.2.

On-Level Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2021

* On-level indemnity to industry average filed pure premium ratios (see Exhibit 7.1)
** The 9/1/2023 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2019 and 2021 years.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (e) (1)×(2)÷(3)
1987	0.285	0.836	1.984	0.120
1988	0.280	0.805	1.739	0.130
1989	0.299	0.782	1.672	0.140
1990	0.338	0.633	1.555	0.138
1991	0.355	0.542	1.407	0.137
1992	0.295	0.571	1.280	0.132
1993	0.243	0.684	1.238	0.134
1994	0.279	0.717	1.400	0.143
1995	0.414	0.707	1.838	0.159
1996	0.444	0.697	1.901	0.163
1997	0.500	0.691	1.846	0.187
1998	0.600	0.609	1.854	0.197
1999	0.661	0.527	1.761	0.198
2000	0.600	0.485	1.393	0.209
2001	0.536	0.442	1.191	0.199
2002	0.417	0.459	0.918	0.208
2003	0.269	0.481	0.654	0.198
2004	0.184	0.728	0.588	0.228
2005	0.181	0.845	0.651	0.236
2006	0.235	0.888	0.837	0.250
2007	0.333	0.871	1.069	0.271
2008	0.417	0.865	1.292	0.279
2009	0.492	0.853	1.394	0.301
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.306
2018	0.281	1.016	0.902	0.317
2019	0.311	1.012	1.000	0.315
2020	0.318	1.008	1.061	0.302
2021	0.356	1.007	1.091	0.329

	Projections (d)
2022	0.333
2023	0.338
9/1/2023	0.338

(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.
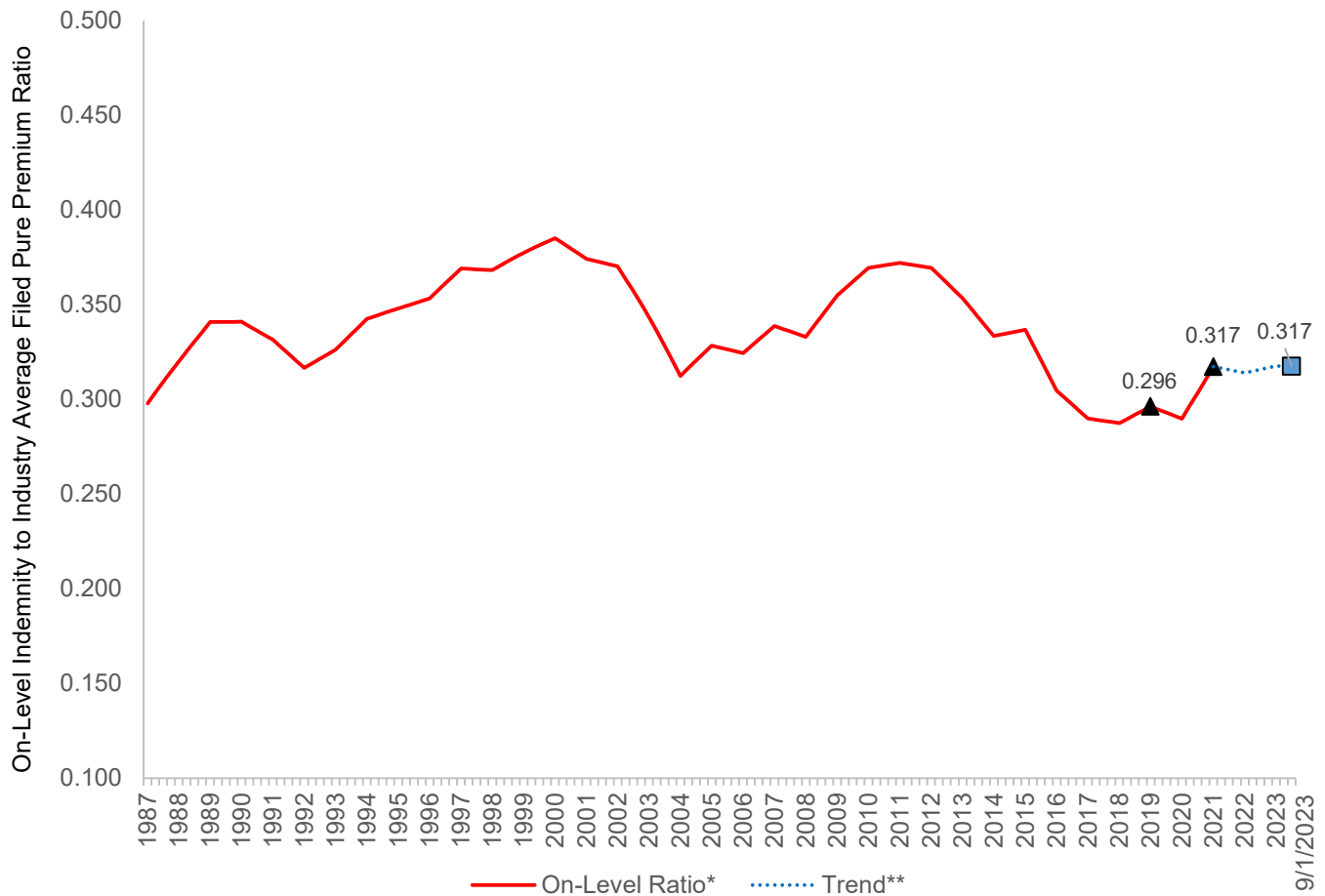
(b) See Exhibit 4.4.

(c) See Exhibit 5.2.

(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the intra-class frequency changes for accident years 2020 and 2021 from Appendix B, Exhibit 3 and frequency model projections for accident years 2022 to 2024 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 Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2021

* On-level medical to industry average filed pure premium ratios (see Exhibit 7.3)
** The 9/1/2023 medical to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2019 and 2021 years.
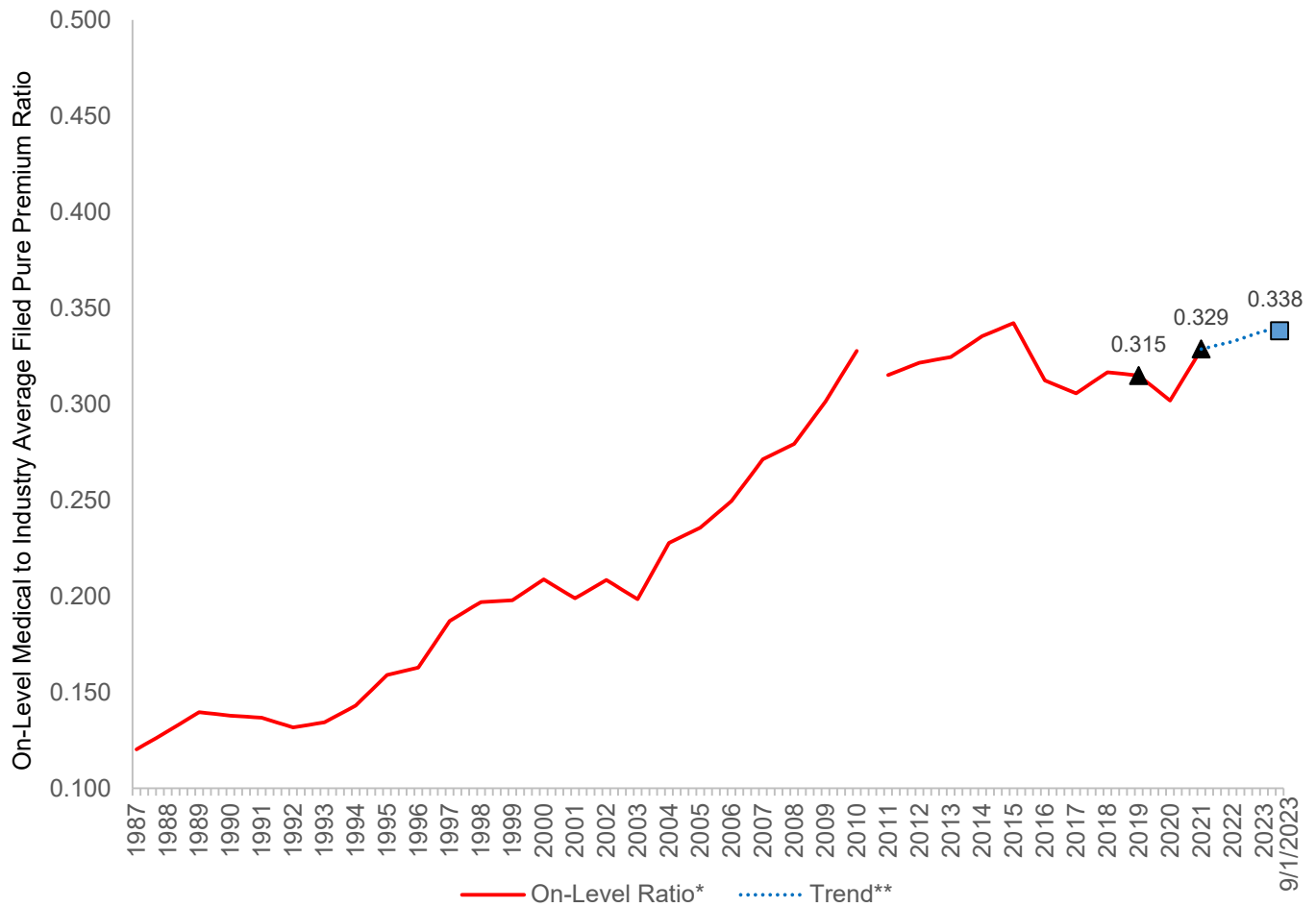
Indicated Loss to Industry Average Filed Pure Premium Ratios and Average Pure Premium Rate
For Policies with Effective Dates between September 1, 2022 and August 31, 2023
Based on Experience as of December 31, 2021

	Indemnity	Medical	Total
1. Projected Loss to Industry Average Filed Pure Premium Ratio (See Exhibits 7.1 and 7.3)	0.317	0.338	0.655
2. Projected Loss Adjustment Expense Factor (ALAE + MCCP + ULAE, See Appendix C)			1.321
3. Indicated Total Loss and Loss Adjustment Expense to Industry Average Filed Pure Premium Ratio (Excluding COVID-19 Claim Costs) (1) x (2)			0.865
4. Difference in Off-Balance Factor (See Section C, Appendix B of the WCIRB's September 1, 2022 Regulatory Filing)			1.5%
5. Indicated Difference from Industry Average Filed Pure Premium Rate per $100 of Payroll as of January 1, 2022 [(3) x [(4) + 1.0] - 1.0]			-12.2%
6. Industry Average Filed Pure Premium Rate per $100 of Payroll as of January 1, 2022			$1.77
7. Indicated Average Pure Premium Rate per $100 of Payroll for Policies with Effective Dates between September 1, 2022 and August 31, 2023 (Excluding COVID-19 Claim Costs) (6) x [1.0 + (5)]			$1.55
8. Estimated Cost of COVID-19 Claims on Policies with Effective Dates between September 1, 2022 and August 31, 2023 (See Section B, Appendix D)			0.5%
9. Indicated Average Pure Premium Rate per $100 of Payroll for Policies with Effective Dates between September 1, 2022 and August 31, 2023, including COVID-19 Claim Costs (7) x [1.0 + (8)]			$1.56

Section B
Appendix A
Loss Development Methodology

The pure premium rates effective September 1, 2022 are intended to reflect the final or ultimate cost of losses and loss adjustment expenses on all accidents that arise on policies incepting during the September 1, 2022 to August 31, 2023 period. The information shown in Section B, Exhibit 1 reflects paid and incurred (paid plus case reserves) loss amounts reported for each completed accident year as of December 31, 2021. However, since workers' compensation claims incurred in a particular year will be paid out over many years and pure premium rates are intended to reflect the ultimate cost of losses and loss adjustment expenses, the WCIRB develops the reported cost of claims for each accident year that are valued as of December 31, 2021 to a final, or ultimate, cost basis.

The WCIRB generally estimates the development of more current accident year losses based on the historical development patterns of more mature accident years. The development of both historical paid losses and incurred losses for each accident year is reviewed. The historical incurred loss development in each evaluation period is shown in Section B, Exhibits 2.1.1 and 2.1.2 for indemnity and 2.2.1 and 2.2.2 for medical. The historical paid loss development in each evaluation period is shown in Section B, Exhibits 2.3.1 and 2.3.2 for indemnity and 2.4.1 and 2.4.2 for medical.[1] These factors represent the year-to-year changes, based on successive December 31 evaluations, in the reported aggregate cost of all claims that occurred during a particular year. The changes in reported incurred losses may result from (a) claims that have occurred but had not yet been reported at the time of the prior evaluation, (b) reopening of previously closed claims as further disability payments or the need for further medical treatment arises, or (c) changes in the estimated cost of open claims as additional information becomes available or the claim is settled. Changes in the paid losses reported for each accident year occur as additional payments are made to injured workers for statutory indemnity benefits or for injured workers' medical treatments.

In addition to reported paid losses and case reserves, a bulk reserve for incurred but not reported (IBNR) losses is also reported to the WCIRB. This amount represents insurers' estimates of anticipated future losses that are in excess of the incurred losses reported to the WCIRB as of December 31, 2021. The WCIRB does not use reported IBNR to estimate the ultimate cost of each accident year's losses. Instead, the development of reported incurred losses (excluding IBNR reserves) and paid losses is reviewed and future loss development is projected based on these historical development patterns. This approach produces more accurate estimates of the ultimate cost of losses arising from a given accident year than estimates based solely on the IBNR amounts reported by insurers. The WCIRB has been using this method of projecting loss development based on the reported paid and incurred losses, excluding the IBNR reserves reported by insurers, for many years.

Based on a comprehensive analysis of historical loss development as well as other information relevant to estimating future development, the WCIRB projects the amount of losses reported for each accident year valued as of December 31, 2021 to an ultimate cost basis. The projected ultimate losses are derived based on selected annual loss development, or "age-to-age", factors for each evaluation period.

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[1] Beginning with policies incepting on or after July 1, 2010, the cost of medical cost containment programs (MCCP) is reported as allocated loss adjustment expense (ALAE) rather than as medical loss. The medical loss development factors shown in Section B, Exhibits 2.2, 2.4 and 2.6 for accident years 2009 and prior include MCCP costs reported as medical loss. The medical loss development factors shown in those exhibits for accident years 2012 and subsequent do not include any MCCP costs. For consistency of comparison, the medical loss development factors for accident years 2010 and 2011 shown in those exhibits are computed after moving the portion of MCCP paid costs reported as ALAE into medical loss.

Over the years, the WCIRB has used a number of methodologies to estimate future loss development. Since each methodology is predicated on a different set of underlying assumptions, no single methodology is appropriate for all conditions. As a result, the development methodology upon which the proposed pure premium rates are based is selected following the WCIRB's analysis of the underlying claims environment. This analysis includes a review of incurred and paid loss development and several system diagnostics that may impact incurred or paid loss development patterns.

Methodologies basing estimates of future loss development primarily on historical incurred age-to-age loss development factors may work well during periods of relatively consistent levels of case reserves. However, they are not appropriate when (a) there is a change in the average level of insurer case reserves, (b) incurred loss development is volatile, or (c) there are significant legislative or regulatory changes. Several prior WCIRB analyses of loss development methodologies have shown that (a) there is significantly more variability in incurred loss development patterns across insurer groups than in paid loss development patterns, (b) incurred loss development has historically been more volatile and cyclical than paid loss development, (c) retrospectively over the long term, projections based on incurred loss development have generally been less accurate and less stable than those based on paid loss development, (d) while the impact of statutory reform measures on payment patterns can be estimated and paid development factors adjusted accordingly, reform impacts on case reserves and incurred development factors are much more difficult to estimate and (e) while the change in reporting requirements for MCCP costs effective on policies incepting on or after July 1, 2010 can reliably be adjusted for in paid medical losses, the impact of the change on insurer case reserves is uncertain. As a result, the WCIRB has, for many years, been estimating future loss development primarily based on historical paid age-to-age development factors.

Following the implementation of Senate Bill No. 863 (SB 863), both paid and incurred loss development decreased. These decreases have also been related to an acceleration in the rate claims were settling over the last several years following SB 863 and a reduction in the utilization of pharmaceutical services, particularly opioids. As shown in Section B, Exhibits 2.2.1 and 2.2.2, incurred medical development for more mature accident years continues to be flat to declining in large part related to these factors continuing gradually being reflected in insurer case reserves.

For a number of years, the WCIRB has adjusted for many of the factors driving the recent loss development decreases, including accelerating claim settlement rates, reforms to lien filings from Senate Bill No. 1160 (SB 1160) and Assembly Bill No. 1244 (AB 1244) and recent pharmaceutical cost declines in its selected loss development methodology. In this filing, the WCIRB is also recommending adjusting loss development for the significant medical fee schedule changes adopted by the Division of Workers' Compensation (DWC) in 2021. While the WCIRB has a reasonable basis to reflect the impact of these factors on paid loss development, the WCIRB is not able to determine their impact on incurred loss development given that their impact on case reserve levels is difficult to measure and may differ significantly in timing and magnitude by insurer. In consideration of all these factors, the WCIRB continues to rely on paid loss development in its projections of future loss development.

Loss Development Methodology – Diagnostic Indicators
To assess the validity of the assumptions underlying the various methodologies, the WCIRB reviews a number of diagnostic indicators. Among the key indicators of loss development reviewed are the following:[2]

1. Ratio of Paid Losses to Incurred Losses. Exhibits 1.1 and 1.2 show the ratios of paid to incurred indemnity and medical losses by accident year at comparable evaluation periods. Changes in ratios of paid to incurred losses can be indicative of changes in the rate at which losses are paid, changes in case reserve levels, shifts in the types of claims, or any combination of these phenomena. After several years of stable ratios of paid to incurred losses, these ratios for both indemnity and medical

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[2] Given that COVID-19 claims are different from typical workers' compensation claims and are reviewed separately in this filing, they have been removed from the accident year 2020 and 2021 information shown in this Appendix.

decreased dramatically starting in the early 1990s, particularly at more mature evaluation periods, suggesting a slowdown in payment patterns. Paid-to-incurred ratios over the most recent calendar year declined modestly for more recent accident years and were generally stable for older accident years. Declines for more recent accident years particularly for medical are likely in part a result of a slowdown in the claim settlement process in 2020 as the pandemic emerged.

2. Accident Year Claim Settlement Ratios. The percentage of accident year estimated ultimate indemnity claims closed by evaluation period is shown in Exhibit 2. Following the implementation of SB 863, these ratios increased at a steady rate. The COVID-19 pandemic and resulting stay-at-home orders led to a significant slowdown in the claim settlement process beginning in the second quarter of 2020. Although the impact of the pandemic on the claim settlement process has moderated somewhat in 2021, the indemnity claim settlement rates for accident years 2018 through 2020 at the most recent evaluation continue to be lower than for the prior year. Changes in the claim settlement rates are generally a leading indicator of changes in paid loss development patterns and, if no adjustment for changes in claim settlement rates is made, paid loss development may be distorted.

3. Mix of Claims by Injury Type. Exhibit 3 shows the mix of claims by type of injury for accident years 2003 through 2020 (which is based on preliminary data). The shares of medical-only claims increased in 2017 which may be related to efforts to improve employer reporting of smaller first-aid claims. The distribution of indemnity claims among those involving permanent disability and those involving only temporary disability has been relatively stable over the last several years. This suggests that recent loss development patterns are not being significantly impacted by shifts in the mix of indemnity injury types. The share of indemnity claims for accident year 2020 increased significantly as there was a much greater reduction in the filing of non-COVID-19 medical-only claims than indemnity claims during the early part of the pandemic.

4. Quarterly Loss Development. Exhibits 4.1 through 4.4 show accident year loss development by quarter.[3] As shown in Exhibits 4.1 and 4.2, quarterly incurred indemnity and medical loss development has been generally flat over the most recent year. As shown in Exhibit 4.3, quarterly paid indemnity loss development has also been fairly flat over the most recent year. As shown in Exhibit 4.4, quarterly paid medical loss development generally increased over the most recent year. Some of this increase is related to the updates to medical fee schedules adopted by the DWC in 2021 that significantly increased evaluation and management and medical-legal costs in the last three quarters of 2021. As discussed below, the WCIRB recommends adjusting paid medical loss development for the impact of these fee schedule changes.

Selected Loss Development Methodologies
Based in part on a review of the diagnostic indicators discussed above, the WCIRB has developed ultimate losses for historical accident years to project the loss ratio for policies incepting between September 1, 2022 and August 31, 2023 as follows:

Indemnity Loss Development from 12 Months to 84 Months
As discussed above, the WCIRB continues to believe that historical paid development is a more appropriate basis for projecting future indemnity loss development for these development periods than historical incurred loss development. Section B, Exhibits 2.4.1 and 2.4.2 show the historical annual accident year paid indemnity loss development factors evaluated at successive December 31 evaluations.

After the COVID-19 pandemic and stay-at-home orders began in California in March 2020, the overall claim settlement process slowed and indemnity claim settlement rates began to reverse following the steady growth in claim settlement rates during the post-SB 863 period. As shown in Exhibit 2, claim

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[3] The medical loss development factors shown in Exhibits 4.2 and 4.4 for accident years 2012 and later exclude MCCP costs. The factors shown for accident years 2011 and prior include MCCP costs.

settlement rates for accident years 2018 through 2020 at the latest evaluation show decreases from the prior year. Although the impact of this slowdown has moderated over the most recent year and the estimated claim settlement rate for accident year 2021 is comparable to the pre-pandemic period, the WCIRB continues to believe the overall decline in claim settlement rates is impacting paid loss development patterns. A 2017 WCIRB study[4] found that during periods of significant claim settlement rate change, paid loss development patterns can be distorted and an adjustment to paid loss development based on the Berquist-Sherman actuarial methodology[5] generally increased the accuracy of the projection.

Given the continued declines in the rate of claim settlement, the WCIRB recommends basing indemnity loss development through 84 months on paid indemnity development adjusted for changing settlement rates based on the Berquist-Sherman approach. Under this approach, (a) settlement ratios are adjusted to a common level, (b) paid severities on both open and closed claims are adjusted to a level that reflects the adjusted settlement rates for the accident year at the specified evaluation, (c) paid losses on open and closed claims are restated based on the restated closed claims and restated paid severities and (d) adjusted paid development factors are recomputed at a common settlement rate. This methodology is consistent with the approach reflected in the last several pure premium rate filings. Section B, Exhibits 2.5.3 through 2.5.8 show the computation of projected indemnity loss development from 12 months through 84 months adjusted for the impact of changing claim settlement rates.

In the September 1, 2021 Pure Premium Rate Filing, in order to mitigate the impact of the pandemic and the stay-at-home period on the loss development projections, the WCIRB based the indemnity loss development projected from 12 months through 84 months on the average of the latest two years' (2019 and 2020) paid age-to-age factors. Given that the development emerging in 2021 is much less impacted by the pandemic than in 2020, the WCIRB is projecting indemnity loss development from 12 months through 84 months based on the latest year's paid age-to-age factor adjusted for changes in claim settlement rates, which is consistent with the approach used in prior pre-pandemic pure premium rate filings. The indemnity loss development projected on this basis is shown in Section B, Exhibit 2.5.1 and column 2 of Section B, Exhibit 3.1.

Indemnity Loss Development from 84 Months to 108 Months
In the WCIRB's 2017 study of the method to adjust paid loss development for changes in claim settlement rates, the WCIRB reviewed the applicability of this adjustment to more mature periods given that indemnity claim settlement rates had also increased during these periods. The WCIRB found that increases in claim settlement rates for older periods are generally not as significant as increases in less mature periods since significantly fewer claims are open during these periods and the Berquist-Sherman adjustment for changes to claim settlement rates applied to these periods was not significantly improving the accuracy of the projection. As a result, the WCIRB projects future indemnity development from 84 months through 108 months based on the unadjusted latest year paid age-to-age indemnity development factors. The indemnity development factors projected on this basis are shown in Section B, Exhibit 2.5.1 and column 2 of Section B, Exhibit 3.1.

Indemnity Loss Development from 108 Months to 288 Months
A 2012 study of longer-term loss development performed by the WCIRB indicated that due to significant random variability in age-to-age development for more mature periods, a longer-term average of paid development factors can increase the stability of the projections.[6] Therefore, the WCIRB has for a number of years projected paid indemnity development from 108 months to 288 months based on the average of the three most recent years' age-to-age paid indemnity loss development factors. The

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[4] See Item AC17-03-03 of the March 21, 2017 WCIRB Actuarial Committee Agenda.
[5] Berquist, James R. and Sherman, Richard E., "Loss Reserve Adequacy Testing: A Comprehensive, Systematic Approach," *Proceedings of the Casualty Actuarial Society*, PCAS, Volume LXIV, 1977, p.123.
[6] See Item AC11-12-04 of the March 20, 2012 WCIRB Actuarial Committee Agenda.

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indemnity development factors projected on this basis are shown in Section B, Exhibits 2.5.1 and 2.5.2 and column 2 of Section B, Exhibit 3.1.

Indemnity Loss Development from 288 Months to 444 Months

Increases in claim settlement rates also likely impact later period loss development as fewer claims being open in more mature periods for a particular accident year compared to prior years at the same maturity should lead to fewer future payments on that accident year being made. A 2020 WCIRB study of longer-term loss development showed that there is a strong correlation between changes in the proportion of ultimate claims open at a point in time and changes in later period paid loss development.[7] The study also showed that the correlation between these two measures was stronger when the difference between the accident years underlying the historical age-to-age factors and the accident year to be developed is greater. For example, to project accident year 2019 from 288 months to 444 months, age-to-age development data from accident years 1997 and prior are used (an over 20-year difference). If no adjustment to loss development is made, paid loss development utilized from these older accident years with a much larger share of open claims will likely overstate the expected payments to emerge on more recent accident years where claim settlement rates have increased and relatively fewer claims are open.

Although claim settlement rates for recent accident years have declined, these rates remain well above the levels underlying loss development from accident years aged 288 months and older. As a result, the WCIRB recommends adjusting paid loss development applied after 288 months for the recent changes in claim settlement rates impacting later period development using an approach consistent with that used in the last two pure premium rate filings.

Section B, Exhibits 2.5.9 through 2.5.12 show the adjustment applied to paid indemnity development from 288 months through 396 months for accident years 2020 and 2021. Item 1 of Section B, Exhibit 2.5.9 shows reported closed indemnity claim counts based on WCIRB aggregate financial data. Item 2 of Section B, Exhibit 2.5.9 shows projected ultimate indemnity claim counts based on the latest year indemnity claim count development factors (see Section B, Exhibit 2.5.3). Item 3 of Section B, Exhibit 2.5.9 shows projected ultimate indemnity claim settlement ratios based on Items 1 and 2. Item 4 of Section B, Exhibit 2.5.10 shows incremental indemnity claim disposal rates, which is equal to (a) the difference in the ultimate indemnity claim settlement ratio from the prior evaluation divided by (b) 1.0 minus the indemnity claim settlement ratio from the prior evaluation from Item 3 of Section B, Exhibit 2.5.9. This represents the rate of incremental claim closure compared to the total estimated (reported and not yet reported) number of open indemnity claims at the prior evaluation. A three-year average of this disposal rate is selected to compute the rate of open claims compared to prior open claims (i.e., 1.0 minus the selected disposal rate) to mitigate volatility in this adjustment.

Item 5 of Section B, Exhibit 2.5.10 shows the projected number of open indemnity claims. The first (italicized) figure shown for each historical accident year is based on reported indemnity claim count information while the remaining figures are based on the latest reported claim counts and the projected open claim rate computed in Item 4. Item 6 of Section B, Exhibit 2.5.11 shows the projected ratio of open indemnity claims to ultimate indemnity claims based on Item 5 of Section B, Exhibit 2.5.10 and Item 2 of Section B, Exhibit 2.5.9. The three (italicized) figures shown for each historical accident year are based on reported data while the remaining figures are projections. A three-year average of this ratio is selected to form the basis from which more recent accident years will compare.

Item 7 of Section B, Exhibit 2.5.11 shows the comparison of the projected ratio of open claims to the selected historical ratio of open claims based on Item 6. As shown for accident years 2020 and 2021, the ratio of open claims is projected to be significantly lower for these years compared to the historical data from which age-to-age development for each of these maturities is projected. Item 8 of Section B, Exhibit 2.5.12 shows the three-year average paid indemnity and medical age-to-age factors prior to the adjustment, which is based on Section B, Exhibits 2.3.2 and 2.4.2. Item 9 of Section B, Exhibit 2.5.12 shows the selected adjustment to paid loss development for the impact of claim settlement rate changes, which is based on Item 7 of Section B, Exhibit 2.5.11. The selected adjustment factors to loss

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[7] See Item AC19-08-05 of the August 4, 2020 WCIRB Actuarial Committee Agenda.

development are tempered to 40% of the actual change as the WCIRB found that only approximately 40% of the change in the proportion of open claims was predictive of the change in future paid development in the WCIRB's 2020 loss development study. Item 10 of Section B, Exhibit 2.5.12 shows the paid indemnity and medical age-to-age development factors for accident years 2020 and 2021 adjusted for the impact of claim settlement rate changes, which is based on Item 9 multiplied by the development portion (i.e., the age-to-age factor minus 1.0) of the factors in Item 8.

Indemnity claim count information needed to compute the adjustment shown in Section B, Exhibits 2.5.9 through 2.5.12 are only available through 396 months. To project indemnity development from 396 months through 444 months, the WCIRB applied this adjustment using the average projected-to-actual ratio of open claims for the 360-, 372-, and 384-month periods (Item 7 of Section B, Exhibit 2.5.11) for the later development periods. The age-to-age indemnity development factors projected on this basis from 288 months through 444 months are shown in Section B, Exhibit 2.5.2 and column 2 of Section B, Exhibit 3.1.

Indemnity Loss Development after 444 Months
Workers' compensation losses continue to show significant development beyond 444 months. The WCIRB uses an inverse power curve fitting approach to project the indemnity loss development beyond 444 months. The WCIRB has found that this approach to compute the loss development tail compared to other methods (a) significantly improves the stability of the loss development tail while not significantly impacting its accuracy, (b) utilizes more complete data based on cumulative development from more recent years as opposed to incremental development from much later periods and (c) does not require additional adjustments applied by the WCIRB as in other approaches.[8]

The WCIRB's most recent study of later-period loss development showed that a tail factor based on the inverse power curve fit to a four-year average of paid loss development was the most stable of the alternative methods reviewed.[9] The WCIRB also believes that the tail development factor should be derived based on the indemnity paid age-to-age factors with the adjustments for the impact of changes in claim settlement rates on latter period development as discussed above as tail development is likely also impacted by this phenomenon. Specifically, the WCIRB projected paid indemnity loss development after 444 months based on (a) fitting an inverse power curve to a four-year average of the 108-to-120 through 348-to-360 months paid indemnity age-to-age factors adjusted for changes in claim settlement rates based on the approach discussed above, (b) extrapolating the fitted factors to 80 development years, and (c) taking the cumulative product of the extrapolated factors after 444 months. The projected indemnity tail development factor computed on this basis is shown in Section B, Exhibit 2.5.2.

Medical Loss Development from 12 Months to 84 Months
As with indemnity losses, for many years, the WCIRB has been relying on historical paid medical loss development to project ultimate medical losses for these evaluation periods. Section B, Exhibits 2.4.1 and 2.4.2 show the historical annual accident year paid medical loss development factors evaluated at successive December 31 evaluations.

SB 1160 and AB 1244, which became effective in 2017, included a number of provisions related to liens and have reduced the number of lien filings significantly. The most recent information on lien filings provided by the DWC suggests a 70% reduction in liens from the pre-reform level.[10] A 2018 WCIRB study showed that liens historically represented a significant proportion of paid medical loss development, particularly at mid-maturities. As a result, the age-to-age development factors shown in Exhibits 2.6.1 and 2.6.2 for these periods include payments from liens in significantly greater volumes than are expected to emerge for more recent accident year claims. The WCIRB believes relying on the paid medical

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[8] See Item AC16-03-03 of the April 5, 2016 WCIRB Actuarial Committee Agenda.

[9] See Item AC19-08-05 of the August 1, 2019 WCIRB Actuarial Committee Agenda.

[10] See Exhibit M9.2 of Item AC21-03-01 of the March 16, 2021 WCIRB Actuarial Committee Agenda.

development from these periods without adjusting for the reductions in future lien filings will overstate the loss development projection.

The WCIRB has adjusted the cumulative loss development factors projected for 2016 and later to reflect the estimated impact of the SB 1160 and AB 1244 lien-related provisions based on the WCIRB's loss development study.[11] These adjustments, which are shown by accident year in Table 1, were based on a review of medical development with and without any lien payments using the WCIRB's medical transaction data and assuming 70% weight given to the projected medical development with no lien payments (to represent the 70% estimated reduction in lien filings) and 30% weight given to the projected medical development with lien payments. For development prior to 60 months, the projected cumulative loss development factor is based on the adjusted factor projected for 2017 at 60 months and the age-to-age development emerging on a post-SB 1160 and AB 1244 basis for 2017 and later. This approach is consistent with that reflected in the last several pure premium rate filings.

**Table 1: Adjustment to Cumulative Paid Medical
Development for SB 1160 & AB 1244 Lien Reforms**

Accident Year	Age at 12/31/2021	Adjustment to Reflect 70% Reduction in Lien Filings
2016	72	-1.1%
2017	60	-2.0%

In prior pure premium rate filings, the WCIRB adjusted paid medical loss development for the impact of the liens dismissed by the DWC in July 2017 pursuant to SB 1160. In 2021, the WCIRB reviewed the continued appropriateness of this adjustment to medical loss development.[12] The WCIRB's review found that this adjustment was based on reforms enacted a number of years ago and is no longer having a significant impact on the medical loss development projection. As a result, the WCIRB no longer recommends applying this adjustment to paid medical loss development.

Since 2013, pharmaceutical costs have decreased significantly. The recent decreases in pharmaceutical costs have been attributed to a number of factors including implementation of IMR and IBR as a result of SB 863, reductions in the number of spinal surgeries, reaction to the national opioid epidemic, anti-fraud efforts, changes in pharmaceutical reimbursement rates from the Medi-Cal based fee schedule and the new drug formulary adopted by the DWC effective January 1, 2018. A 2019 WCIRB study of the impact of the recent pharmaceutical cost declines on paid medical loss development showed that pharmaceutical costs represent a much larger proportion of later period development compared to earlier periods.[13] If no adjustment to loss development is made, more recent paid medical development emerging for older accident years may be distorted as the numerator of the age-to-age paid medical development factor will contain a much smaller volume of pharmaceutical payments than the denominator.

The WCIRB is correcting this potential distortion in the projected medical age-to-age factors using an approach that is detailed on Exhibits 5.1 and 5.2 and is consistent with that reflected in the last several pure premium rate filings. Exhibit 5.1 shows, for calendar years 2013 through 2018, the distribution of pharmaceutical payments by maturity level and calendar year and the difference in those shares by maturity from the calendar year 2018 level based on WCIRB medical transaction data. In adjusting paid medical loss development, the WCIRB assumed 2018 as the baseline level and adjusted calendar year 2013 through 2017 medical payments based on the difference between (a) the pharmaceutical share of medical service payments for that calendar year and (b) the pharmaceutical share for calendar year 2018 at the same maturity. The WCIRB reviewed this approach in 2021 and found that 2018 continued to be an appropriate baseline level in this adjustment as the sharp declines in pharmaceutical costs plateaued

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[11] See Item AC18-03-03 of the March 19, 2018 and March 18, 2019 WCIRB Actuarial Committee Agendas.

[12] See Item AC21-12-03 of the December 7, 2021 WCIRB Actuarial Committee Agenda.

[13] See Item AC19-06-03 of the June 14, 2019 WCIRB Actuarial Committee Agenda.

around 2018.[14] As shown in Exhibit 5.1, the differences in the pharmaceutical share from 2018 increase gradually by maturity up through approximately 96 months. After 96 months, the differences are somewhat volatile in large part due to the relative sparsity of payments at these maturities. As a result, the WCIRB based the adjustment after 96 months on the cumulative difference for all maturities older than 96 months.

The process shown in Exhibit 5.1 and described above contemplates calendar years 2013 and forward—periods for which the WCIRB has collected medical transaction data. To adjust payments made in calendar years 2012 and prior, the WCIRB assumed the 2013 pharmaceutical payment pattern approximated that for the earlier calendar years. Exhibit 5.2 shows the adjustment for earlier calendar years based on comparing the cumulative proportion of pharmaceutical costs for calendar year 2013 with that for calendar year 2018 at the same maturity.

The adjusted paid medical age-to-age factors are computed by adjusting pre-2018 medical payments to the 2018 pharmaceutical cost level by calendar year and development period based on the information shown in Exhibits 5.1 and 5.2. Once adjusted, the paid medical age-to-age factors are recomputed on an adjusted basis. The paid medical age-to-age factors adjusted on this basis are shown in Section B, Exhibits 2.4.1, 2.4.2 and 2.6.1. The WCIRB's 2021 review of medical loss development adjustments showed that this approach continues to have a significant impact on the medical loss development projection.[15]

Effective March 1, 2021, the DWC adopted significant changes to the Evaluation & Management (E&M) section of the Official Medical Fee Schedule (OMFS). Effective April 1, 2021, the DWC adopted a significant update to the Medical-Legal Fee Schedule (MLFS). These medical fee schedule changes impact medical services on a date-of-service basis rather than an accident date basis. As a result, they impact medical loss development on pre-2021 accident years emerging after the first quarter of 2021. As with other reforms that become effective on a date-of-service basis, if no adjustment is made, these changes may distort paid medical loss development emerging after the first quarter of 2021 as it is based on a mix of pre- and post-change payments. The WCIRB is adjusting for this potential distortion by adjusting all medical payments made prior to the first quarter of 2021 to the post-fee schedule changes level and computing the medical paid age-to-age factors based on the adjusted amounts.[16] In this way, age-to-age paid medical loss development factors are effectively "on-leveled" to a post-2021 OMFS and MLFS level.

The WCIRB's adjustment for the 2021 medical fee schedule changes uses the estimated impact of the changes based on the WCIRB's recent retrospective evaluation of these changes (discussed in Appendix B), which estimates that E&M office visit costs increased by 10% and medical-legal service costs increased by 39%.[17] In the WCIRB's review of the impact of these changes on medical loss development, the WCIRB found that these services differ significantly by accident year and maturity. For example, approximately 1% of accident year 2019 medical service costs evaluated at 12 months were for medical-legal services while approximately 11% of accident year 2013 medical service costs evaluated at 96 months were for medical-legal services. As a result, the WCIRB is varying this adjustment based on the estimated proportion of E&M and medical-legal services by accident year and maturity based on WCIRB medical transaction data. In addition, as discussed in the September 1, 2021 Pure Premium Rate Filing, while the WCIRB believes E&M office visit costs are roughly proportionate in medical costs not reflected in medical transaction data (such as settlements for future medical amounts), the WCIRB does not believe medical-legal service costs are similarly proportionate. As a result, the adjustments to loss development for the 2021 MLFS changes reflect medical legal services as a proportion of total medical costs rather than medical service costs reflected in medical transaction data. The paid medical age-to-age factors adjusted on this basis are shown in Section B, Exhibits 2.4.1, 2.4.2 and 2.6.1.

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[14] See Item AC21-12-03 of the December 7, 2021 WCIRB Actuarial Committee Agenda.

[15] See Item AC21-12-03 of the December 7, 2021 WCIRB Actuarial Committee Agenda.

[16] See Item AC21-12-10 of the December 9, 2021 WCIRB Actuarial Committee Agenda for more information.

[17] See Item AC22-04-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda for more information.

Changes in claim settlement rates can also significantly affect paid medical loss development. As discussed above, indemnity claim settlement rates have increased steadily over the last several years. As with indemnity loss development, the WCIRB believes an adjustment to paid medical loss development for the recent changes in claim settlement rates is appropriate. Section B, Exhibits 2.6.3 through 2.6.8 show the adjustment to medical paid loss development for changing claim settlement rates. The methodology used for medical paid development is analogous to that for indemnity, which involves adjustments to both open and closed claims and is applied to the age-to-age paid medical loss development factors adjusted as described above.

The WCIRB's selected age-to-age and cumulative paid medical development factors for development through 84 months, which have been adjusted for the impact of SB 1160 and AB 1244 provisions impacting medical losses, the recent decreases in pharmaceutical costs, the 2021 medical fee schedule changes, and changes in claim settlement rates are shown in Section B, Exhibit 2.6.1 and column 3 of Section B, Exhibit 3.2. As with indemnity, the WCIRB projects medical loss development from 12 months to 84 months using the latest year's age-to-age paid medical loss development factor adjusted as described above.

Medical Loss Development from 84 Months to 108 Months
The WCIRB projects future medical development from 84 months through 108 months based on the latest year's paid age-to-age medical development factor with adjustments for the decreases in pharmaceutical costs and the 2021 medical fee schedule changes as described above. The medical development factors projected on this basis are shown in Section B, Exhibit 2.6.1 and column 3 of Section B, Exhibit 3.2.

Medical Loss Development from 108 Months to 288 Months
As with indemnity, a 2011 WCIRB study indicated that a longer-term average of paid development factors can increase the stability of paid medical loss projections for more mature periods.[18] Therefore, the WCIRB has projected paid medical development from 108 months to 288 months using the average of the three most recent years' age-to-age paid medical loss development factors adjusted for the impact of decreases in pharmaceutical costs described above. In the WCIRB's review of the impact of the 2021 medical fee schedule changes, the WCIRB found that E&M and medical-legal services represent a small and generally declining share of all medical service payments at later maturities. As a result, the WCIRB is only applying this adjustment to medical paid development through 108 months, corresponding to accident years 2013 and later.[19] The medical development factors projected on this basis are shown in Section B, Exhibits 2.6.1 and 2.6.2 and column 3 of Section B, Exhibit 3.2.

Medical Loss Development from 288 Months to 444 Months
As also discussed above for indemnity development, the post-SB 863 acceleration in claim settlement rates also impacts later period loss development particularly, for medical losses which have significantly more payments in later periods compared to indemnity. The WCIRB adjusted paid medical loss development for periods after 288 months for recent changes in claim settlement rates impacting longer-term loss development using an approach similar to that applied for indemnity. Section B, Exhibits 2.5.9 through 2.5.12 show the computation of this adjustment applied to paid medical development (including the adjustment for the decreases in pharmaceutical costs), the results of which are also shown in Section B, Exhibit 2.6.2 and column 3 of Section B, Exhibit 3.2 from 288 months to 444 months.

Medical Loss Development after 444 Months
As with indemnity loss development, the WCIRB recommends using the inverse power curve fitting approach to project the medical loss development tail. Specifically, the WCIRB recommends projecting paid medical loss development after 444 months based on (a) fitting an inverse power curve to a four-

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[18] See Item AC11-12-04 of the December 1, 2011 WCIRB Actuarial Committee Agenda.
[19] See Item AC21-12-10 of the December 9, 2021 WCIRB Actuarial Committee Agenda.

year average of the 108-to-120 through 348-to-360 months paid medical age-to-age factors adjusted for the decreases in pharmaceutical costs and the impact of claim settlement rate changes on later period development, (b) extrapolating the fitted factors to 80 development years, and (c) taking the cumulative product of the extrapolated factors after 444 months. The projected medical tail development factor computed on this basis is shown in Section B, Exhibit 2.6.2.

Estimated Ultimate Loss Ratios
The age-to-age development factors selected for each evaluation period are combined in Section B, Exhibits 3.1 (for indemnity) and 3.2 (for medical) to produce a cumulative development factor for each period. These factors reflect the ultimate amount of losses anticipated for each accident year relative to the reported paid losses evaluated as of December 31, 2021. These cumulative factors are then applied to the reported (undeveloped) paid indemnity and adjusted paid medical loss ratios as of December 31, 2021 to project an ultimate loss ratio for each accident year.[20] (The adjusted paid and adjusted developed medical loss ratios shown in columns 2 and 5 of Section B, Exhibit 3.2 have been adjusted for the decreases in pharmaceutical costs and the 2021 medical fee schedule changes to be on a comparable basis with the adjusted medical loss development factors described above. These ratios are for the sole purpose of computing the indicated September 1, 2022 pure premium rate level and, as a result, do not reflect the actual WCIRB estimates of ultimate medical loss ratios for those accident years. Column 6 of Section B, Exhibit 3.2 shows, for informational purposes, the estimated ultimate medical loss ratio for each accident year.)

Summary of Alternative Loss Development Projections
As discussed above, the WCIRB is projecting future loss development primarily based on the latest historical year of paid development adjusted for SB 1160 and AB 1244, recent pharmaceutical cost declines, the 2021 medical fee schedule changes, and changes in claim settlement rates. For informational purposes, the WCIRB has computed alternative loss projections based on a number of alternative loss development projection methodologies that reflect underlying assumptions that differ from those reflected in the WCIRB's recommended loss development methodology. These alternative loss development projections are shown in Exhibits 6 through 13 and are discussed below.

Alternative Incurred Loss Development Projections[21]

Three-Year Average/Latest Year (Unadjusted) Incurred Loss Development
Exhibits 6.1 through 6.3 (average of the latest 3 years' factors) and 7.1 through 7.3 (latest year's factor) reflect projected future loss development patterns based on historical unadjusted incurred development methodologies. Incurred methodologies are not impacted by changing payment and settlement patterns to the same extent as are paid projections. Also, since the reported incurred amounts far exceed reported paid amounts for relatively immature accident year loss evaluations, incurred loss development is not as highly leveraged for the less mature accident years. However, incurred loss development can be distorted by changes in case reserve levels, can be significantly impacted by legislative or regulatory changes, judicial action, or changes in the definition of losses (e.g., the change in reporting requirements related to MCCP costs), shows greater variability across insurers than paid loss development, and can be significantly more volatile and cyclical than paid loss development. Furthermore, in retrospective analyses, unadjusted incurred loss development projections have generally been less accurate and less stable than the corresponding adjusted paid loss development projections.

The loss ratios projected under both unadjusted incurred loss development methodologies are below those based on the corresponding paid loss development methodologies. As discussed above, the WCIRB believes paid development to be a more stable and reliable basis to project future

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[20] Medical loss ratios shown in Section B, Exhibit 3.2 for accident years 2011 and subsequent do not reflect MCCP costs. Ratios shown for accident years 2010 and prior do reflect MCCP costs.

[21] All incurred loss development methodologies reflect a six-year average of incurred loss development applied after 108 months.

development than incurred development. In addition, given the potential impact of SB 1160 and AB 1244, recent pharmaceutical cost declines, the 2021 medical fee schedule changes, and the recent decreases in claim settlement rates on medical loss development, the WCIRB believes that some adjustment for the impact of these changes is appropriate. However, adjustments made to paid development cannot easily be applied to incurred loss development as the specific impact of shifts in development patterns on case reserve estimates and incurred patterns is less well-defined.

<u>Three-Year Average Incurred Loss Development Adjusted for Changes in Average Case Reserve Levels</u>
Incurred loss development projections can be distorted by changes in average case reserve levels. For a number of years, the WCIRB has included an alternative loss development projection which adjusts historical incurred loss development factors to a common case reserve adequacy level in computing future loss development. In 2018, the WCIRB reviewed the assumptions and approach to this methodology and developed several refinements to the traditional actuarial approach.[22] The WCIRB also found that although the method that adjusts incurred development to a common case reserve level should address shifts in average case reserves, it does not address the inherent volatility that has been observed in incurred loss development patterns. As a result, to mitigate this volatility, the WCIRB based this projection on the average of the three most recent age-to-age factors rather than the latest year's factor.

Exhibits 8.1 through 8.11 reflect projected future incurred loss development with adjustments to an estimated common average case reserve level based on the average of the latest three years' factors. Projections based on this methodology are generally consistent with the unadjusted incurred projections. As discussed above, the WCIRB believes paid development to be a more stable and reliable basis to project future development than incurred development.

<u>Alternative Paid Loss Development Projections</u>[23]

<u>Three-Year Average/Latest Year (Unadjusted) Paid Loss Development</u>
Paid projections are not dependent on case reserves and show less variability across insurers than incurred projections. In addition, unadjusted paid projections have generally over the long term shown to be more accurate and stable than the corresponding incurred projections in retrospective analyses. However, paid projections can be impacted by changing claim settlement and payment patterns and, inasmuch as a relatively small percentage of an accident year's ultimate losses are paid at early maturity levels, paid development projections for immature accident years are highly leveraged.

Exhibits 9.1 through 9.3 (average of the latest three years' factors) and 10.1 through 10.3 (latest year's factor) project future loss development based on historical unadjusted paid loss development. The projections using the WCIRB's selected methodology are slightly above the projections using these methodologies. As discussed, unadjusted paid projections can be significantly distorted by legislative changes, shifts in the mix of medical services and changes in claim settlement rates. Given the potential impact of SB 1160 and AB 1244, recent declines in pharmaceutical costs, the 2021 medical fee schedule changes, and recent changes in indemnity claim settlement rates on loss development patterns, the WCIRB believes it is appropriate to adjust for these factors.

<u>Latest Year Paid Loss Development Adjusted for Reforms</u>
Exhibits 11.1 and 11.2 reflect the latest year paid medical projections after adjustment for the impact of SB 1160 and AB 1244 lien filing related provisions, recent declines in pharmaceutical costs and the 2021 medical fee schedule changes but with no adjustment for changes in claim settlement rates through 84 months. The projection produced by this methodology is somewhat lower than that

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[22] See Item AC18-08-04 of the August 1, 2018 WCIRB Actuarial Committee Agenda.

[23] All paid loss development methodologies reflect a three-year average of paid loss development applied after 108 months and adjustments for the impact of changes in claim settlement rates on later period development applied after 288 months.

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recommended by the WCIRB. However, as discussed above, paid loss development can be significantly distorted when claim settlement rates are changing and the WCIRB believes the adjustment for the recent sharp decline in claim settlement rates based on the Berquist-Sherman approach is appropriate.

<u>Three-Year Average/Two-Year Average Paid Loss Development Adjusted for Changes in Claim Settlement Rates and Reforms</u>
As discussed above, the recent changes in claim settlement rates can significantly impact paid loss development patterns. However, adjustments for changes in claim settlement rates can be volatile depending on the underlying data and the treatment of partial payments inherent in workers' compensation claims.

Exhibits 12.1 through 12.3 (average of the latest three years' factors) and 13.1 through 13.3 (average of the latest two years' factors) reflect projected future paid loss development with adjustments to an estimated common claim settlement rate through 84 months as well as the adjustments for SB 1160 and AB 1244, recent pharmaceutical cost declines and the 2021 medical fee schedule changes recommended by the WCIRB for paid medical development. The projection using the WCIRB's selected methodology, which is based on the latest year of age-to-age factors including these adjustments, is slightly higher than the projections using these methodologies. The WCIRB recommends utilizing the latest year of development to be responsive to recent loss development patterns. In particular, the development emerging in 2020 may be significantly impacted by the pandemic and the WCIRB does not recommend averaging the development from this period with the latest year development emerging in 2021.

The projected loss ratios for policies incepting between September 1, 2022 and August 31, 2023 derived based on the loss development methodology selected by the WCIRB as well as each of the alternative loss development methodologies described above are shown in Table 2.

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Table 2: Projected Loss Ratios under Alternative Loss Development Methodologies

September 1, 2022 Filing Loss Development Methodology	Indemnity Loss Ratio	Medical Loss Ratio	Total Loss Ratio
Two-Year Average Paid Adjusted for Reforms and Changes in Claim Settlement Rates	**0.317**	**0.338**	**0.655**

Alternative Loss Development Methodologies[24]	Indemnity Loss Ratio	Medical Loss Ratio	Total Loss Ratio
Incurred Loss Development Methodologies			
Three-Year Average (Unadjusted)	0.295	0.285	0.580
Latest Year (Unadjusted)	0.287	0.283	0.570
Three-Year Average Adjusted for Changes in Case Reserve Levels	0.295	0.281	0.576
Paid Loss Development Methodologies			
Three-Year Average (Unadjusted)	0.313	0.334	0.647
Latest Year (Unadjusted)	0.306	0.343	0.649
Latest Year Adjusted for Reforms	---	0.330	---
Three-Year Average Adjusted for Reforms and Changes in Claim Settlement Rates	0.317	0.331	0.648
Two-Year Average Adjusted for Reforms and Changes in Claim Settlement Rates	0.316	0.329	0.645

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[24] All incurred loss development methodologies reflect a six-year average of incurred loss development applied after 108 months. All paid loss development methodologies reflect a three-year average of paid loss development applied after 108 months and adjustments for the impact of changes in claim settlement rates on later period development applied after 288 months as in the WCIRB's recommended methodology.

Ratios of Paid to Incurred Losses - Indemnity

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
1980										94.9%	95.7%	96.4%	96.8%	97.1%	97.5%	97.5%	97.8%	98.0%	98.2%
1981									94.4%	95.2%	96.1%	96.6%	97.2%	97.6%	97.8%	97.9%	98.2%	98.7%	98.8%
1982								92.6%	94.6%	95.6%	96.2%	96.7%	97.6%	97.8%	98.0%	98.1%	98.2%	98.5%	98.4%
1983							90.9%	93.7%	95.4%	96.4%	97.1%	97.7%	98.1%	98.3%	98.4%	98.5%	98.7%	98.8%	98.9%
1984						88.0%	92.0%	94.5%	95.7%	96.7%	97.5%	97.9%	98.2%	98.5%	98.7%	99.0%	99.0%	99.0%	99.1%
1985					82.1%	88.1%	92.4%	94.4%	96.0%	96.9%	97.4%	97.8%	98.2%	98.5%	98.7%	98.8%	98.9%	99.1%	99.1%
1986				71.7%	81.7%	88.4%	92.3%	94.5%	95.8%	96.8%	97.4%	97.9%	98.1%	98.6%	98.7%	98.9%	98.9%	99.0%	99.0%
1987			54.9%	72.1%	82.9%	88.6%	92.5%	94.7%	96.0%	97.0%	97.3%	98.0%	98.2%	98.4%	98.5%	98.7%	98.8%	98.8%	98.8%
1988		32.3%	55.1%	72.9%	83.0%	89.1%	92.9%	95.0%	96.2%	97.2%	97.9%	98.2%	98.2%	98.4%	98.6%	98.7%	98.9%	99.0%	99.0%
1989	14.9%	31.9%	56.5%	73.4%	83.8%	89.9%	93.2%	95.4%	96.5%	97.3%	97.7%	97.9%	98.1%	98.1%	98.2%	98.3%	98.8%	98.6%	98.8%
1990	17.0%	36.9%	59.8%	76.3%	86.1%	91.2%	94.3%	95.9%	96.9%	97.6%	97.9%	98.0%	98.1%	98.4%	98.6%	98.7%	98.8%	98.9%	99.0%
1991	17.7%	37.7%	60.4%	77.6%	86.7%	91.8%	94.3%	95.9%	96.6%	96.9%	97.1%	97.3%	97.5%	97.8%	98.0%	98.0%	98.3%	98.4%	98.5%
1992	18.3%	38.4%	63.3%	78.6%	87.0%	91.5%	94.1%	95.3%	96.1%	96.3%	96.7%	97.1%	97.2%	97.5%	97.5%	97.6%	98.0%	98.4%	98.5%
1993	18.5%	42.1%	65.3%	79.4%	87.1%	91.3%	93.3%	94.6%	95.1%	95.7%	96.2%	96.4%	96.8%	96.8%	97.0%	97.6%	98.0%	98.2%	98.4%
1994	20.4%	45.5%	68.3%	80.9%	87.3%	90.1%	91.8%	92.7%	93.4%	93.8%	94.4%	95.3%	95.6%	96.1%	97.0%	97.3%	97.5%	97.8%	97.9%
1995	21.9%	48.5%	70.1%	81.3%	86.3%	88.9%	90.2%	91.5%	91.9%	92.6%	93.8%	94.4%	94.9%	95.6%	96.0%	96.3%	96.6%	96.8%	97.1%
1996	24.5%	50.4%	70.5%	80.1%	85.0%	87.4%	88.8%	89.7%	90.9%	92.3%	93.3%	94.1%	95.0%	95.6%	96.1%	96.5%	96.7%	96.9%	97.3%
1997	25.1%	51.4%	69.4%	78.6%	83.1%	86.2%	88.0%	89.7%	91.7%	92.7%	93.6%	94.6%	95.2%	95.5%	96.0%	96.4%	96.8%	97.2%	97.5%
1998	26.5%	50.0%	67.5%	77.1%	81.8%	84.3%	86.9%	89.5%	91.2%	92.7%	93.7%	94.7%	95.3%	95.7%	96.2%	96.7%	97.2%	97.4%	97.7%
1999	27.5%	49.1%	66.1%	76.0%	80.8%	84.9%	88.4%	90.6%	92.3%	93.3%	94.4%	95.2%	95.8%	96.2%	96.6%	97.1%	97.4%	97.8%	98.1%
2000	26.8%	47.1%	65.1%	73.9%	80.9%	86.2%	89.3%	91.4%	92.9%	94.0%	94.8%	95.3%	95.8%	96.5%	96.8%	97.0%	97.4%	97.6%	97.9%
2001	25.6%	47.4%	63.0%	75.0%	82.8%	87.2%	89.8%	91.5%	92.8%	93.8%	94.4%	95.0%	95.5%	96.0%	96.5%	97.0%	97.3%	97.7%	98.0%
2002	25.6%	46.0%	64.6%	77.8%	84.9%	88.4%	90.9%	92.6%	93.5%	94.2%	95.0%	95.8%	96.3%	96.9%	97.2%	97.5%	97.9%	98.2%	98.3%
2003	25.6%	47.6%	67.9%	79.2%	84.7%	87.9%	89.7%	90.8%	91.8%	92.5%	93.6%	94.4%	95.1%	95.6%	96.1%	96.6%	96.9%	97.3%	97.7%
2004	26.1%	51.9%	68.1%	77.8%	83.4%	86.1%	87.9%	89.0%	90.6%	91.9%	93.1%	93.9%	94.6%	95.4%	95.9%	96.3%	96.7%	97.0%	
2005	31.4%	56.2%	70.1%	78.9%	82.8%	84.8%	86.5%	88.1%	90.4%	91.8%	93.1%	94.0%	94.7%	95.5%	96.0%	96.5%	96.8%		
2006	33.2%	56.5%	69.8%	77.2%	81.2%	84.1%	86.7%	89.0%	90.7%	92.2%	93.3%	94.4%	95.1%	95.9%	96.2%	96.8%			
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%	96.6%				
2008	36.0%	56.7%	68.7%	76.9%	82.3%	86.1%	88.7%	90.6%	92.0%	93.2%	94.4%	95.1%	95.5%	95.9%					
2009	35.5%	54.8%	68.5%	76.8%	82.5%	86.0%	89.1%	91.2%	92.7%	93.9%	94.8%	95.4%	95.9%						
2010	35.3%	55.8%	69.1%	78.2%	83.9%	87.6%	90.5%	92.5%	93.9%	94.8%	95.5%	96.2%							
2011	34.4%	55.2%	69.7%	77.9%	84.0%	88.1%	91.0%	93.0%	94.4%	95.2%	96.0%								
2012	35.8%	56.3%	70.3%	79.7%	85.3%	89.0%	91.5%	93.2%	94.0%	95.0%									
2013	34.3%	56.1%	71.7%	81.4%	87.2%	90.6%	92.6%	94.1%	95.2%										
2014	34.2%	56.6%	72.5%	81.7%	87.1%	90.6%	92.7%	94.1%											
2015	34.0%	56.7%	72.8%	82.2%	87.8%	90.5%	92.7%												
2016	34.8%	58.0%	73.9%	83.1%	87.5%	90.5%													
2017	34.8%	58.1%	73.5%	81.6%	86.8%														
2018	35.3%	57.8%	71.8%	81.0%															
2019	35.3%	56.9%	71.5%																
2020	35.9%	58.3%																	
2021	38.8%																		

Ratios of Paid to Incurred Losses - Indemnity

Accident Year	240	252	264	276	288	300	312	324	336	348	360	372	384	396	408	420	432	444	456
1980	98.2%	98.5%	98.6%	98.7%	98.7%	98.8%	98.9%	98.9%	99.2%	99.3%	99.4%								
1981	98.8%	98.9%	99.0%	98.9%	98.8%	98.8%	99.0%	99.1%	99.2%	99.2%	99.3%								
1982	98.6%	98.6%	98.6%	98.6%	98.8%	98.9%	99.1%	99.1%	99.1%	99.2%	99.2%								
1983	99.0%	98.8%	98.9%	99.0%	99.1%	99.2%	99.3%	99.4%	99.4%	99.4%	99.4%	99.4%	99.4%	99.5%	99.5%	99.5%	99.6%	99.6%	99.6%
1984	99.1%	99.1%	99.2%	99.2%	99.3%	99.4%	99.4%	99.4%	99.5%	99.5%	99.5%	99.6%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%
1985	99.1%	99.2%	99.3%	99.3%	99.4%	99.5%	99.5%	99.5%	99.6%	99.6%	99.6%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%		
1986	99.0%	99.1%	99.2%	99.2%	99.3%	99.4%	99.4%	99.3%	99.3%	99.4%	99.5%	99.6%	99.7%	99.7%	99.7%	99.7%			
1987	99.0%	99.1%	99.2%	99.3%	99.4%	99.3%	99.3%	99.4%	99.5%	99.5%	99.5%	99.5%	99.5%	99.6%	99.5%	99.6%			
1988	99.1%	99.1%	99.3%	99.3%	99.3%	99.3%	99.4%	99.4%	99.5%	99.5%	99.6%	99.6%	99.6%	99.6%	99.6%				
1989	99.0%	99.0%	99.1%	99.1%	99.3%	99.4%	99.5%	99.5%	99.5%	99.6%	99.6%	99.6%	99.7%	99.7%					
1990	99.1%	99.2%	99.2%	99.3%	99.4%	99.5%	99.6%	99.6%	99.6%	99.6%	99.7%	99.7%	99.8%						
1991	98.6%	98.8%	98.9%	99.0%	99.1%	99.2%	99.2%	99.3%	99.4%	99.4%	99.4%	99.5%							
1992	98.6%	98.7%	98.9%	98.9%	99.1%	99.2%	99.3%	99.3%	99.3%	99.3%	99.4%								
1993	98.6%	98.6%	98.8%	98.9%	99.0%	99.1%	99.2%	99.2%	99.4%	99.3%									
1994	98.1%	98.3%	98.4%	98.5%	98.7%	98.8%	98.8%	98.8%	99.0%										
1995	97.6%	97.8%	98.0%	98.2%	98.4%	98.6%	98.7%	98.8%											
1996	97.7%	97.9%	98.0%	98.3%	98.4%	98.6%	98.6%												
1997	97.7%	98.0%	98.2%	98.4%	98.6%	98.8%													
1998	97.8%	98.0%	98.2%	98.5%	98.5%														
1999	98.2%	98.2%	98.5%	98.7%															
2000	98.2%	98.2%	98.5%																
2001	98.3%	98.5%																	
2002	98.5%																		

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

Ratios of Paid to Incurred Losses - Medical*

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
1980										93.8%	93.9%	94.0%	93.6%	94.1%	94.3%	94.3%	95.0%	95.1%	95.4%
1981									92.3%	92.8%	94.0%	94.9%	93.9%	94.6%	95.0%	95.6%	96.0%	96.0%	95.9%
1982								90.7%	91.6%	92.9%	93.1%	93.4%	92.5%	93.1%	93.5%	93.0%	94.6%	94.8%	94.1%
1983							91.2%	92.4%	93.6%	94.2%	94.7%	95.1%	95.7%	95.9%	96.1%	96.0%	96.2%	96.3%	96.1%
1984						88.9%	91.0%	92.5%	93.4%	94.2%	94.6%	95.4%	96.0%	96.6%	96.7%	96.8%	96.8%	96.7%	96.7%
1985					86.4%	89.1%	90.9%	92.4%	93.5%	94.1%	94.3%	95.0%	95.8%	96.2%	96.3%	96.3%	96.3%	96.2%	96.4%
1986				80.5%	85.2%	88.9%	91.2%	92.2%	93.1%	93.6%	94.0%	94.8%	95.4%	95.9%	96.1%	96.0%	95.9%	95.3%	95.2%
1987			71.1%	79.9%	85.6%	88.6%	90.8%	91.8%	93.1%	93.4%	93.1%	94.3%	94.7%	95.1%	95.0%	94.9%	93.8%	94.0%	94.8%
1988		59.6%	71.7%	80.4%	85.7%	88.7%	90.8%	92.2%	93.7%	94.2%	95.0%	95.5%	95.3%	95.5%	95.4%	95.0%	95.1%	95.1%	95.3%
1989	34.1%	58.7%	72.4%	81.2%	86.5%	88.8%	91.0%	92.6%	93.4%	94.4%	94.9%	94.9%	94.6%	95.3%	93.4%	93.8%	94.2%	94.8%	94.7%
1990	34.2%	60.5%	73.3%	81.8%	87.3%	90.9%	93.0%	94.3%	94.9%	95.4%	95.4%	95.2%	94.9%	94.7%	94.7%	95.1%	95.3%	95.5%	95.3%
1991	34.3%	58.6%	72.2%	81.7%	87.3%	91.5%	92.9%	94.3%	94.7%	95.0%	94.9%	94.8%	94.6%	94.6%	94.7%	94.4%	94.8%	94.7%	94.8%
1992	34.9%	59.1%	73.3%	82.6%	87.8%	90.7%	92.8%	93.5%	93.9%	93.2%	93.3%	92.4%	92.4%	92.5%	93.2%	93.1%	93.6%	93.8%	94.1%
1993	35.9%	62.8%	75.2%	82.7%	87.2%	89.4%	91.3%	91.7%	91.1%	90.8%	90.1%	90.0%	90.1%	90.4%	90.1%	90.4%	90.8%	90.9%	
1994	35.7%	62.3%	76.2%	83.5%	87.7%	88.7%	89.5%	88.8%	88.4%	88.0%	87.7%	88.2%	88.3%	89.1%	90.0%	89.3%	89.3%	89.5%	90.1%
1995	37.0%	64.0%	74.5%	81.6%	84.6%	86.5%	85.6%	85.9%	84.6%	84.8%	85.0%	86.2%	86.1%	85.6%	85.8%	86.9%	87.5%	87.4%	89.2%
1996	38.9%	64.8%	76.0%	80.7%	84.2%	84.4%	84.5%	84.0%	84.6%	85.5%	86.0%	87.0%	87.2%	87.4%	87.8%	88.0%	88.9%	89.5%	90.3%
1997	38.1%	65.5%	75.3%	80.4%	82.1%	82.7%	82.1%	82.0%	83.2%	84.7%	85.0%	85.0%	85.9%	86.3%	86.6%	87.6%	88.4%	89.6%	91.1%
1998	39.2%	64.4%	73.4%	77.0%	78.5%	78.2%	79.7%	81.6%	82.8%	82.6%	83.8%	84.6%	85.0%	86.4%	86.9%	87.8%	88.2%	89.3%	90.1%
1999	38.6%	63.7%	71.3%	76.6%	78.1%	80.0%	82.1%	83.5%	83.5%	84.0%	85.1%	85.8%	86.8%	87.4%	87.9%	89.0%	90.5%	91.8%	93.1%
2000	36.9%	60.8%	71.1%	74.7%	78.1%	81.2%	83.4%	83.7%	84.9%	86.0%	86.3%	86.7%	87.0%	88.1%	89.1%	90.3%	91.7%	92.8%	93.7%
2001	36.1%	61.8%	69.7%	75.5%	79.9%	82.4%	83.6%	84.4%	84.7%	84.6%	85.3%	86.1%	87.1%	87.9%	89.4%	90.7%	92.2%	93.0%	93.6%
2002	35.3%	59.8%	69.6%	76.5%	81.9%	83.4%	84.8%	85.6%	86.1%	86.4%	86.9%	88.2%	89.0%	90.5%	91.8%	92.9%	93.8%	94.6%	95.3%
2003	36.0%	59.0%	69.2%	76.5%	80.7%	82.1%	83.4%	83.8%	84.1%	84.8%	86.6%	87.9%	89.2%	90.9%	92.1%	93.1%	93.5%	94.3%	95.4%
2004	33.8%	57.9%	68.3%	74.0%	77.7%	80.1%	80.8%	81.7%	83.2%	84.8%	86.5%	88.1%	89.5%	91.2%	92.5%	93.4%	94.3%	95.1%	
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%	93.1%	94.2%	95.1%		
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%	93.5%	94.5%			
2007	35.1%	56.8%	66.6%	72.9%	77.0%	79.5%	82.0%	83.9%	85.8%	88.1%	89.3%	90.9%	91.9%	93.4%	94.4%				
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%	84.3%	86.7%	88.8%	90.4%	91.4%	92.5%	93.5%						
2010	36.5%	55.8%	66.4%	74.3%	79.5%	83.4%	86.7%	89.2%	91.2%	92.4%	93.6%	94.9%							
2011	32.5%	52.1%	64.0%	71.9%	77.6%	82.6%	86.2%	89.1%	90.9%	92.5%	93.6%								
2012	32.5%	52.4%	64.7%	73.9%	80.1%	84.3%	87.7%	89.7%	91.2%	92.6%									
2013	32.2%	51.5%	65.7%	75.0%	81.4%	85.8%	88.7%	90.7%	92.6%										
2014	31.9%	53.1%	67.1%	76.3%	82.6%	86.5%	89.2%	91.2%											
2015	31.7%	53.1%	66.7%	76.3%	82.3%	85.9%	89.1%												
2016	32.6%	54.0%	67.7%	77.5%	82.5%	86.4%													
2017	33.2%	54.7%	68.2%	76.4%	82.0%														
2018	33.4%	54.8%	68.0%	77.2%															
2019	32.9%	53.2%	67.6%																
2020	31.5%	54.3%																	
2021	32.0%																		

Ratios of Paid to Incurred Losses - Medical*

Accident Year	240	252	264	276	288	300	312	324	336	348	360	372	384	396	408	420	432	444	456
1980	94.7%	95.0%	95.3%	93.9%	93.6%	93.0%	93.3%	93.5%	93.5%	93.1%	93.3%								
1981	95.7%	95.5%	94.9%	94.7%	94.8%	95.2%	95.6%	96.0%	96.2%	96.5%	96.8%								
1982	93.6%	93.5%	93.3%	93.1%	93.7%	94.3%	93.6%	93.6%	94.0%	94.3%	94.1%								
1983	95.8%	94.8%	95.4%	95.7%	95.7%	96.1%	95.9%	96.0%	96.2%	96.0%	96.1%	96.2%	96.3%	96.8%	97.3%	97.8%	98.0%	98.1%	98.2%
1984	96.5%	96.2%	96.4%	96.4%	96.6%	96.6%	96.6%	96.8%	96.9%	97.2%	97.2%	97.4%	97.8%	98.1%	98.2%	98.4%	98.5%	98.8%	98.9%
1985	96.1%	95.8%	95.9%	96.3%	96.6%	96.9%	96.9%	97.0%	97.0%	97.0%	97.0%	97.4%	97.7%	98.0%	98.1%	98.2%	98.4%	98.6%	
1986	95.3%	95.7%	95.7%	95.8%	95.7%	95.7%	95.6%	95.7%	95.6%	96.0%	96.3%	97.0%	97.3%	97.1%	98.0%	98.1%	98.1%		
1987	94.8%	95.4%	95.7%	95.1%	95.7%	95.5%	95.7%	95.9%	95.9%	96.1%	96.6%	96.8%	97.1%	96.8%	96.9%	97.3%			
1988	95.8%	95.7%	95.7%	95.8%	96.1%	96.1%	96.3%	96.5%	96.5%	96.9%	97.3%	97.7%	97.9%	97.9%	98.3%				
1989	94.7%	94.7%	94.7%	94.7%	94.9%	95.5%	95.6%	96.0%	96.4%	96.8%	97.2%	97.3%	97.8%	97.9%					
1990	95.1%	95.1%	95.4%	95.7%	95.9%	96.5%	96.6%	96.9%	97.2%	97.6%	98.0%	98.2%	98.5%						
1991	94.8%	95.1%	95.3%	95.6%	96.0%	96.2%	96.6%	97.0%	97.5%	97.8%	98.0%	98.2%							
1992	94.1%	94.3%	94.7%	94.8%	95.3%	95.8%	96.2%	96.7%	97.1%	97.5%	97.8%								
1993	90.5%	91.2%	92.3%	93.0%	93.9%	94.5%	95.1%	96.0%	96.6%	97.0%									
1994	90.5%	90.9%	91.6%	92.8%	93.9%	94.2%	94.4%	94.9%	95.5%										
1995	89.8%	91.0%	91.2%	93.1%	93.8%	94.5%	95.2%	95.6%											
1996	91.2%	92.1%	92.8%	93.9%	94.7%	95.3%	96.1%												
1997	91.9%	92.8%	93.6%	94.2%	95.0%	95.6%													
1998	91.3%	91.9%	92.5%	93.1%	93.7%														
1999	93.8%	94.7%	95.3%	95.9%															
2000	94.4%	95.0%	95.8%																
2001	94.6%	95.3%																	
2002	95.9%																		

* Paid medical for accident years 2011 and subsequent exlcude the paid cost of medical cost containment programs (MCCP). Paid medical for accident years 2010 and prior include paid MCCP costs.
Source: WCIRB quarterly calls for experience, excluding COVID-19 claims.

Estimated Ultimate Indemnity Claim Settlement Ratios

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
1996																	99.8%
1997																97.8%	98.1%
1998															97.5%	97.8%	98.0%
1999														97.0%	97.5%	97.7%	97.9%
2000													96.4%	96.9%	97.3%	97.6%	97.8%
2001												95.0%	95.8%	96.3%	96.7%	97.1%	97.5%
2002											94.4%	95.5%	96.1%	96.6%	97.1%	97.5%	97.8%
2003										93.6%	94.9%	95.7%	96.2%	96.8%	97.3%	97.7%	98.0%
2004									92.3%	94.1%	95.1%	95.8%	96.5%	97.1%	97.6%	98.0%	98.2%
2005								90.6%	92.9%	94.3%	95.3%	96.2%	96.8%	97.4%	97.8%	98.1%	98.4%
2006							87.9%	90.9%	92.8%	94.1%	95.4%	96.2%	96.9%	97.4%	97.8%	98.1%	
2007						84.3%	88.5%	91.1%	92.9%	94.6%	95.7%	96.5%	97.2%	97.7%	98.0%		
2008					78.4%	84.5%	88.3%	91.1%	93.4%	94.9%	95.9%	96.7%	97.3%	97.7%			
2009				69.6%	78.3%	84.1%	88.2%	91.5%	93.6%	95.0%	96.2%	96.9%	97.4%				
2010			59.1%	71.4%	79.8%	85.4%	89.7%	92.6%	94.4%	95.8%	96.6%	97.3%					
2011		44.5%	60.5%	72.6%	80.9%	86.6%	90.6%	93.3%	95.0%	96.1%	96.8%						
2012	20.8%	45.2%	61.7%	73.9%	82.2%	87.9%	91.5%	94.0%	95.3%	96.4%							
2013	20.5%	45.9%	62.9%	75.6%	84.0%	89.1%	92.6%	94.6%	95.8%								
2014	20.7%	46.9%	64.5%	77.2%	85.3%	90.1%	92.9%	94.7%									
2015	20.8%	48.4%	67.1%	79.5%	86.9%	90.6%	93.2%										
2016	21.7%	51.0%	69.6%	81.4%	87.3%	91.0%											
2017	23.9%	53.8%	71.7%	81.5%	87.4%												
2018	24.3%	54.0%	70.0%	80.3%													
2019	24.3%	51.6%	67.8%														
2020	23.4%	50.3%															
2021	24.5%																

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

Distribution of Estimated Ultimate Number of Claims by Injury Type

I. Distribution of Ultimate Number of Indemnity Claims

Accident Year	Permanent Indemnity	Temporary Indemnity	Total
2004	49.7%	50.3%	100%
2005	46.2%	53.8%	100%
2006	47.2%	52.8%	100%
2007	48.3%	51.7%	100%
2008	50.4%	49.6%	100%
2009	51.8%	48.2%	100%
2010	51.3%	48.7%	100%
2011	51.1%	48.9%	100%
2012	50.2%	49.8%	100%
2013	49.9%	50.1%	100%
2014	50.0%	50.0%	100%
2015	50.2%	49.8%	100%
2016	49.2%	50.8%	100%
2017	47.5%	52.5%	100%
2018	46.4%	53.6%	100%
2019	46.7%	53.3%	100%
2020*	*47.4%*	*52.6%*	*100%*

II. Distribution of Ultimate Number of All Claims

Accident Year	Permanent Indemnity**	Temporary Indemnity	Medical Only	Total
2004	15.6%	15.8%	68.6%	100%
2005	13.4%	15.7%	70.9%	100%
2006	13.6%	15.2%	71.2%	100%
2007	14.3%	15.3%	70.4%	100%
2008	15.5%	15.2%	69.3%	100%
2009	17.2%	16.0%	66.8%	100%
2010	17.7%	16.9%	65.4%	100%
2011	18.2%	17.4%	64.4%	100%
2012	18.3%	18.1%	63.6%	100%
2013	18.7%	18.8%	62.5%	100%
2014	18.7%	18.7%	62.6%	100%
2015	18.7%	18.5%	62.8%	100%
2016	18.3%	18.9%	62.8%	100%
2017	17.0%	18.8%	64.2%	100%
2018	16.6%	19.2%	64.2%	100%
2019	16.7%	19.1%	64.2%	100%
2020*	*19.5%*	*21.6%*	*58.9%*	*100%*

 * Accident year 2020 experience is partial in that it only reflects experience from policy year 2019.
** Permanent indemnity consists of the death, permanent total, and permanent partial injury types.

Source: WCIRB unit statistical data
***COVID-19 claims have been excluded

Quarterly Incurred Indemnity Loss Development Factors

Through December 31, 2021

Age in Months	Accident Year																					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
6/3	2.755	2.740	2.841	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	--	3.155
9/6	1.780	1.784	1.790	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
12/9	**1.518**	**1.500**	**1.520**	**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**	**1.597**	**--**	**1.561**
15/12	1.268	1.250	1.257	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	1.264	
18/15	1.188	1.184	1.206	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	1.168	
21/18	1.150	1.148	1.153	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	1.123	
24/21	**1.121**	**1.111**	**1.117**	**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**	**1.098**	
27/24	1.093	1.100	1.094	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		
30/27	1.074	1.082	1.064	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		
33/30	1.048	1.062	1.047	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		
36/33	**1.039**	**1.046**	**1.035**	**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**		
39/36	1.035	1.038	1.028	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			
42/39	1.034	1.030	1.023	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			
45/42	1.026	1.020	1.009	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	1.016			
48/45	**1.022**	**1.013**	**1.008**	**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**			
51/48	1.018	1.015	1.010	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				
54/51	1.013	1.009	1.007	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				
57/54	1.012	1.006	1.008	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				
60/57	**1.007**	**1.005**	**1.008**	**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**				
63/60	1.007	1.007	1.008	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					
66/63	1.005	1.006	1.011	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					
69/66	1.003	1.005	1.008	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					
72/69	**1.005**	**1.005**	**1.005**	**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**					
75/72	1.004	1.005	1.003	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						
78/75	1.003	1.007	1.005	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						
81/78	1.003	1.004	1.004	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						
84/81	**1.005**	**1.003**	**1.006**	**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**						
87/84	1.002	1.003	1.004	1.002	1.007	1.010	1.007	1.004	1.005	1.006	1.004	1.006	1.004	1.003	1.002							
90/87	1.003	1.003	1.003	1.004	1.008	1.008	1.008	1.008	1.004	1.005	1.005	1.005	1.004	1.004	1.003							
93/90	1.004	1.003	1.002	1.005	1.006	1.008	1.006	1.007	1.006	1.003	1.004	1.005	1.005	1.003	1.004							
96/93	**1.001**	**1.004**	**1.002**	**1.006**	**1.006**	**1.003**	**1.002**	**1.003**	**1.004**	**1.004**	**1.003**	**1.003**	**1.003**	**1.003**	**1.002**							

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

Quarterly Incurred Medical Loss Development Factors *
Through December 31, 2021

Age in Months	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
6/3	2.536	2.624	2.797	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	--	2.870
9/6	1.713	1.725	1.768	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	--	1.748
12/9	**1.463**	**1.447**	**1.570**	**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**
15/12	1.201	1.207	1.203	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	1.167	
18/15	1.123	1.144	1.151	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	
21/18	1.101	1.122	1.116	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	1.064	1.060	1.078	
24/21	**1.080**	**1.083**	**1.082**	**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**	
27/24	1.070	1.080	1.075	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	1.033		
30/27	1.058	1.070	1.051	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		
33/30	1.051	1.059	1.035	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		
36/33	**1.035**	**1.040**	**1.029**	**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**	**1.021**		
39/36	1.034	1.037	1.018	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			
42/39	1.036	1.026	1.019	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			
45/42	1.032	1.023	1.012	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			
48/45	**1.026**	**1.017**	**1.008**	**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**			
51/48	1.024	1.014	1.009	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				
54/51	1.017	1.016	1.010	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				
57/54	1.014	1.007	1.011	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	1.007	1.007				
60/57	**1.015**	**1.009**	**1.008**	**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**				
63/60	1.013	1.012	1.008	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					
66/63	1.010	1.012	1.015	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	1.006					
69/66	1.006	1.008	1.016	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					
72/69	**1.007**	**1.009**	**1.015**	**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**					
75/72	1.006	1.008	1.010	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						
78/75	1.008	1.012	1.010	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						
81/78	1.006	1.009	1.010	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						
84/81	**1.009**	**1.014**	**1.009**	**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**						
87/84	1.008	1.010	1.009	1.010	1.012	1.014	1.012	1.008	1.007	1.004	1.003	1.001	1.002	1.002	1.001							
90/87	1.008	1.008	1.009	1.012	1.009	1.009	1.013	1.008	1.006	1.006	1.003	1.006	1.006	1.001	1.004							
93/90	1.015	1.009	1.011	1.010	1.011	1.012	1.009	1.009	1.007	1.002	1.003	1.002	1.005	1.000	1.003							
96/93	**1.010**	**1.012**	**1.008**	**1.010**	**1.011**	**1.009**	**1.005**	**1.006**	**1.005**	**1.003**	**1.002**	**1.001**	**1.003**	**1.002**	**1.002**							

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

* 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 December 31, 2021

Age in Months	Accident Year																					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
6/3	4.170	4.461	4.720	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	5.082	--	5.097
9/6	2.283	2.369	2.443	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	--	2.445
12/9	**1.839**	**1.855**	**1.897**	**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**	**--**	**1.847**
15/12	1.538	1.552	1.550	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	1.505	
18/15	1.395	1.401	1.403	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	1.329	
21/18	1.303	1.303	1.311	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	1.242	
24/21	**1.256**	**1.258**	**1.260**	**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**	**1.190**	
27/24	1.203	1.200	1.205	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		
30/27	1.165	1.175	1.172	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	1.125		
33/30	1.130	1.142	1.136	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		
36/33	**1.103**	**1.115**	**1.111**	**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**		
39/36	1.081	1.092	1.087	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			
42/39	1.077	1.080	1.073	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	1.056			
45/42	1.063	1.064	1.056	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			
48/45	**1.055**	**1.053**	**1.046**	**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**			
51/48	1.043	1.044	1.036	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				
54/51	1.036	1.037	1.034	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				
57/54	1.037	1.030	1.028	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				
60/57	**1.027**	**1.026**	**1.024**	**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**				
63/60	1.024	1.021	1.022	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					
66/63	1.023	1.021	1.019	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					
69/66	1.020	1.017	1.016	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					
72/69	**1.018**	**1.016**	**1.016**	**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**					
75/72	1.015	1.014	1.012	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						
78/75	1.012	1.013	1.012	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						
81/78	1.011	1.012	1.011	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						
84/81	**1.013**	**1.010**	**1.010**	**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**						
87/84	1.008	1.010	1.009	1.008	1.009	1.012	1.014	1.013	1.010	1.012	1.010	1.011	1.010	1.007	1.006							
90/87	1.010	1.009	1.008	1.008	1.011	1.012	1.013	1.012	1.011	1.010	1.010	1.010	1.009	1.007	1.007							
93/90	1.008	1.008	1.007	1.008	1.012	1.011	1.011	1.012	1.010	1.010	1.009	1.009	1.008	1.007	1.006							
96/93	**1.006**	**1.007**	**1.007**	**1.007**	**1.008**	**1.011**	**1.011**	**1.008**	**1.010**	**1.010**	**1.009**	**1.010**	**1.007**	**1.007**	**1.007**							

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

Quarterly Paid Medical Loss Development Factors *

Through December 31, 2021

Age in Months	Accident Year																					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
6/3	5.518	6.168	7.221	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	4.986	--	6.111
9/6	2.356	2.432	2.694	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	--	2.238
12/9	**1.749**	**1.857**	**1.882**	**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**
15/12	1.514	1.547	1.554	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	1.425	1.432	1.434	
18/15	1.286	1.310	1.330	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	1.269	
21/18	1.192	1.219	1.211	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	1.192	
24/21	**1.149**	**1.159**	**1.154**	**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**	**1.150**	
27/24	1.121	1.128	1.123	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		
30/27	1.101	1.108	1.103	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		
33/30	1.086	1.089	1.077	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		
36/33	**1.069**	**1.076**	**1.061**	**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**		
39/36	1.060	1.061	1.049	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			
42/39	1.055	1.054	1.041	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			
45/42	1.047	1.044	1.036	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			
48/45	**1.044**	**1.037**	**1.032**	**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**			
51/48	1.037	1.034	1.031	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	1.030	1.027				
54/51	1.032	1.027	1.030	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				
57/54	1.027	1.024	1.024	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				
60/57	**1.026**	**1.021**	**1.023**	**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**				
63/60	1.022	1.019	1.019	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					
66/63	1.020	1.020	1.018	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					
69/66	1.019	1.018	1.016	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					
72/69	**1.016**	**1.017**	**1.018**	**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**					
75/72	1.014	1.015	1.015	1.014	1.018	1.020	1.019	1.019	1.018	1.018	1.018	1.015	1.015	1.013	1.014	1.012						
78/75	1.014	1.015	1.016	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						
81/78	1.013	1.014	1.013	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						
84/81	**1.013**	**1.012**	**1.012**	**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**						
87/84	1.010	1.012	1.012	1.012	1.014	1.013	1.015	1.017	1.013	1.013	1.011	1.012	1.010	1.008	1.008							
90/87	1.011	1.013	1.012	1.013	1.015	1.013	1.015	1.013	1.013	1.012	1.011	1.012	1.009	1.008	1.009							
93/90	1.011	1.012	1.011	1.013	1.013	1.012	1.014	1.014	1.013	1.011	1.010	1.009	1.010	1.006	1.007							
96/93	**1.008**	**1.010**	**1.010**	**1.009**	**1.013**	**1.015**	**1.016**	**1.011**	**1.012**	**1.010**	**1.009**	**1.009**	**1.009**	**1.006**	**1.007**							

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

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

I. Distribution of Pharma Payments by Development Year [1]

Age	Calendar Year					
---	2013	2014	2015	2016	2017	2018
12	5.8%	5.1%	4.1%	3.0%	2.3%	1.3%
24	9.0%	8.8%	6.6%	4.1%	3.2%	1.8%
36	12.3%	11.9%	9.6%	6.2%	5.0%	3.0%
48	14.7%	12.8%	10.4%	7.4%	5.9%	4.1%
60	16.4%	14.9%	11.3%	7.9%	6.4%	4.9%
72	20.0%	16.3%	13.7%	9.2%	7.1%	5.2%
84	22.7%	19.4%	15.0%	11.3%	8.3%	5.1%
96	25.8%	21.8%	17.7%	12.8%	11.1%	6.9%
108	26.9%	24.2%	18.7%	15.0%	10.6%	10.3%
120	29.7%	26.4%	22.2%	15.4%	14.0%	9.3%
132	30.5%	27.9%	22.7%	17.5%	12.9%	11.2%
144	30.7%	27.7%	24.4%	18.4%	15.7%	11.3%
156	35.4%	26.1%	23.7%	19.0%	16.9%	12.8%
168	38.5%	33.2%	22.9%	17.1%	15.7%	15.6%
180	37.5%	37.4%	29.2%	15.6%	13.6%	14.2%
192	32.2%	34.2%	31.0%	22.5%	12.1%	11.6%
204	37.3%	33.8%	28.2%	22.4%	17.4%	10.7%
216	35.7%	34.6%	27.5%	18.1%	16.8%	16.2%
228	28.1%	36.2%	31.6%	22.8%	16.0%	15.6%
240	38.1%	25.4%	30.1%	27.7%	18.4%	11.8%
252	40.4%	36.6%	20.4%	21.3%	24.5%	15.1%
264	44.0%	41.0%	33.2%	20.7%	16.2%	16.3%
276	47.6%	31.4%	28.4%	27.2%	16.7%	14.1%
288	38.4%	45.1%	27.1%	14.1%	19.9%	15.0%
300	26.9%	40.8%	45.0%	20.1%	12.8%	20.3%
312	31.0%	27.4%	34.7%	35.5%	16.5%	11.9%
324	29.6%	23.8%	23.9%	32.4%	31.5%	16.2%
336	43.4%	27.6%	22.4%	18.7%	24.8%	23.2%
348	37.0%	38.1%	31.1%	16.5%	16.8%	16.7%
360	31.1%	29.1%	25.8%	18.8%	13.7%	10.8%
372	40.7%	30.2%	27.7%	34.3%	23.0%	10.1%
384		23.1%	42.7%	33.3%	29.9%	33.8%
396			5.4%	36.3%	34.8%	45.6%
408				6.0%	34.6%	35.6%
420					3.9%	24.4%
432						2.1%
Total	15.6%	14.0%	11.1%	7.6%	5.9%	4.1%
108+	32.7%	29.8%	24.9%	18.6%	15.1%	12.7%

II. Difference in Pharma Payment Share Compared to Calendar Year 2018 [2]

Age	Calendar Year					
---	2013	2014	2015	2016	2017	2018
12	4.5%	3.8%	2.8%	1.7%	1.0%	0.0%
24	7.2%	7.0%	4.7%	2.3%	1.3%	0.0%
36	9.3%	8.9%	6.6%	3.2%	2.0%	0.0%
48	10.6%	8.7%	6.3%	3.3%	1.8%	0.0%
60	11.4%	10.0%	6.4%	3.0%	1.5%	0.0%
72	14.8%	11.0%	8.5%	4.0%	1.9%	0.0%
84	17.5%	14.2%	9.8%	6.2%	3.1%	0.0%
96	18.8%	14.9%	10.7%	5.9%	4.1%	0.0%
108	16.6%	13.9%	8.4%	4.7%	0.3%	0.0%
120	20.4%	17.1%	12.9%	6.1%	4.7%	0.0%
132	19.3%	16.7%	11.5%	6.3%	1.7%	0.0%
144	19.4%	16.5%	13.1%	7.1%	4.4%	0.0%
156	22.5%	13.3%	10.8%	6.1%	4.0%	0.0%
168	22.9%	17.6%	7.2%	1.5%	0.1%	0.0%
180	23.3%	23.2%	15.0%	1.5%	-0.6%	0.0%
192	20.7%	22.7%	19.5%	10.9%	0.5%	0.0%
204	26.6%	23.1%	17.5%	11.7%	6.7%	0.0%
216	19.5%	18.3%	11.3%	1.8%	0.6%	0.0%
228	12.6%	20.7%	16.0%	7.2%	0.5%	0.0%
240	26.3%	13.6%	18.3%	15.9%	6.5%	0.0%
252	25.3%	21.5%	5.4%	6.2%	9.4%	0.0%
264	27.7%	24.7%	17.0%	4.4%	-0.1%	0.0%
276	33.5%	17.2%	14.3%	13.0%	2.6%	0.0%
288	23.4%	30.2%	12.1%	-0.9%	4.9%	0.0%
300	6.5%	20.5%	24.6%	-0.3%	-7.5%	0.0%
312	19.1%	15.4%	22.8%	23.6%	4.6%	0.0%
324	13.4%	7.7%	7.7%	16.3%	15.3%	0.0%
336	20.2%	4.5%	-0.8%	-4.4%	1.7%	0.0%
348	20.2%	21.3%	14.3%	-0.2%	0.0%	0.0%
360	20.3%	18.3%	15.0%	8.1%	2.9%	0.0%
372	30.5%	20.0%	17.6%	24.1%	12.8%	0.0%
384		-10.7%	9.0%	-0.5%	-3.8%	0.0%
396			-40.2%	-9.3%	-10.9%	0.0%
408				-29.6%	-1.0%	0.0%
420					-20.5%	0.0%
432						0.0%
Total	11.5%	9.9%	6.9%	3.4%	1.7%	0.0%
108+	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%

III. Difference in Pharma Payment Share - Fixed Percentage for 108-Months & Later

Age	Calendar Year					
---	2013	2014	2015	2016	2017	2018
12	4.5%	3.8%	2.8%	1.7%	1.0%	0.0%
24	7.2%	7.0%	4.7%	2.3%	1.3%	0.0%
36	9.3%	8.9%	6.6%	3.2%	2.0%	0.0%
48	10.6%	8.7%	6.3%	3.3%	1.8%	0.0%
60	11.4%	10.0%	6.4%	3.0%	1.5%	0.0%
72	14.8%	11.0%	8.5%	4.0%	1.9%	0.0%
84	17.5%	14.2%	9.8%	6.2%	3.1%	0.0%
96	16.6%	14.9%	10.7%	5.9%	4.1%	0.0%
108	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
120	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
132	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
144	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
156	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
168	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
180	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
192	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
204	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
216	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
228	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
240	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
252	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
264	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
276	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
288	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
300	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
312	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
324	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
336	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
348	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
360	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
372	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
384	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%
396			12.2%	5.9%	2.4%	0.0%
408				5.9%	2.4%	0.0%
420					2.4%	0.0%
432						0.0%
Total	11.5%	9.9%	6.9%	3.4%	1.7%	0.0%
108+	20.0%	17.1%	12.2%	5.9%	2.4%	0.0%

Notes:
[1] Based on WCIRB medical transaction data.
[2] For Example, the 4.5% for 2013 at 12 moths is the difference between the 5.8% for 2013 at 12 months and the 1.3% for 2018 at 12 months from Item I.

Difference in Pharma Payment Share for Calendar Years 2012 and Prior Compared to Calendar Year 2018

Development Age	(A) CY2012&Prior[1]	(B) CY2018[2]	(C) Difference
0-12	5.8%	1.3%	4.5%
0 - 24	7.5%	1.5%	6.0%
0 - 36	8.7%	1.8%	6.9%
0 - 48	9.5%	2.1%	7.4%
0 - 60	10.1%	2.3%	7.8%
0 - 72	10.7%	2.4%	8.3%
0 - 84	11.3%	2.5%	8.7%
0 - 96	11.7%	2.7%	9.1%
0 - 108	12.2%	2.8%	9.3%
0 - 120	12.6%	2.9%	9.7%
0 - 132	13.1%	3.0%	10.0%
0 - 144	13.5%	3.1%	10.4%
0 - 156	14.0%	3.2%	10.7%
0 - 168	14.3%	3.4%	10.9%
0 - 180	14.5%	3.5%	11.1%
0 - 192	14.7%	3.5%	11.2%
0 - 204	14.9%	3.6%	11.3%
0 - 216	15.0%	3.7%	11.3%
0 - 228	15.1%	3.8%	11.3%
0 - 240	15.2%	3.8%	11.3%
0 - 252	15.3%	3.9%	11.4%
0 - 264	15.3%	3.9%	11.4%
0 - 276	15.4%	4.0%	11.4%
0 - 288	15.5%	4.0%	11.5%
0 - 300	15.5%	4.0%	11.5%
0 - 312	15.5%	4.0%	11.5%
0 - 324	15.5%	4.1%	11.5%
0 - 336	15.6%	4.1%	11.5%
0 - 348	15.6%	4.1%	11.5%
0 - 360	15.6%	4.1%	11.5%
0 - 372	15.6%	4.1%	11.5%
0 - 384	15.6%	4.1%	11.5%
0 - 396	15.6%	4.1%	11.5%
0 - 408	15.6%	4.1%	11.5%
0 - 420	15.6%	4.1%	11.5%
0 - 432	15.6%	4.1%	11.5%

Notes:
[1] Based on calendar year 2013 from Exhibit 6.1, Item I.
[2] Based on calendar year 2018 from Exhibit 6.1, Item I.

Developed Loss Ratio Unadjusted 3-Year Average Incurred Development Factors
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
Accident Year	Reported Incurred Loss Ratio Ex IBNR (a)	Annual Development Factor (b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Reported Incurred Loss Ratio Ex IBNR (a)	Annual Development Factor (c)	Cumulative Development Factor	Developed Loss Ratio (5) x (7)	Total Developed Loss Ratio (4) + (8)
2010	0.305	1.006	1.031	0.314	0.452	1.002	0.992	0.448	0.762
2011	0.281	1.005	1.036	0.292	0.385	1.002	0.994	0.383	0.675
2012	0.250	1.007	1.043	0.261	0.329	1.005	0.999	0.328	0.590
2013	0.210	1.009	1.053	0.221	0.260	1.005	1.004	0.261	0.481
2014	0.198	1.010	1.064	0.210	0.230	1.006	1.010	0.232	0.442
2015	0.191	1.013	1.078	0.206	0.215	1.010	1.020	0.219	0.425
2016	0.178	1.018	1.097	0.195	0.201	1.011	1.031	0.207	0.403
2017	0.179	1.027	1.127	0.202	0.204	1.021	1.052	0.215	0.417
2018	0.184	1.045	1.178	0.216	0.213	1.029	1.083	0.231	0.447
2019	0.195	1.089	1.283	0.250	0.224	1.050	1.137	0.255	0.505
2020	0.164	1.233	1.582	0.259	0.202	1.117	1.270	0.257	0.516
2021	0.098	1.874	2.964	0.291	0.157	1.449	1.841	0.290	0.580

(a)   Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.
(b)   Based on Section B, Exhibit 2.1.
(c)   Based on Section B, Exhibit 2.2.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Incurred Development Factors
Based on Experience as of December 31, 2021**

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.314	1.465	1.267	0.363
2011	0.292	1.444	1.157	0.364
2012	0.261	1.426	1.030	0.362
2013	0.221	1.395	0.900	0.342
2014	0.210	1.277	0.829	0.324
2015	0.206	1.259	0.791	0.328
2016	0.195	1.243	0.818	0.297
2017	0.202	1.211	0.857	0.286
2018	0.216	1.180	0.902	0.283
2019	0.250	1.148	1.000	0.287
2020	0.259	1.110	1.061	0.271
2021	0.291	1.066	1.091	0.284

Projected (d)

2022	0.292
2023	0.296
9/1/2023	0.295

(a)   See Exhibit 6.1.
(b)   Based on Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Incurred Development Factors
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.448	0.814	1.267	0.288
2011	0.383	0.837	1.157	0.277
2012	0.328	0.877	1.030	0.279
2013	0.261	0.962	0.900	0.278
2014	0.232	1.014	0.829	0.284
2015	0.219	1.039	0.791	0.288
2016	0.207	1.041	0.818	0.264
2017	0.215	1.042	0.857	0.261
2018	0.231	1.057	0.902	0.271
2019	0.255	1.048	1.000	0.267
2020	0.257	1.035	1.061	0.250
2021	0.290	1.038	1.091	0.275

				Projected (d)
2022				0.281
2023				0.285
9/1/2023				0.285

(a) See Exhibit 6.1.
(b) Based on Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth estimates are from Section B, Exhibit 6.4.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

Developed Loss Ratio Unadjusted Latest Year Incurred Development Factors
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
Accident Year	Reported Incurred Loss Ratio Ex IBNR (a)	Annual Development Factor (b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Reported Incurred Loss Ratio Ex IBNR (a)	Annual Development Factor (c)	Cumulative Development Factor	Developed Loss Ratio (5) x (7)	Total Developed Loss Ratio (4) + (8)
2010	0.305	1.006	1.031	0.314	0.452	1.002	0.992	0.448	0.762
2011	0.281	1.005	1.036	0.292	0.385	1.002	0.994	0.383	0.675
2012	0.250	1.007	1.043	0.261	0.329	1.005	0.999	0.328	0.590
2013	0.210	1.009	1.053	0.221	0.260	1.005	1.004	0.261	0.481
2014	0.198	1.007	1.060	0.209	0.230	1.001	1.005	0.231	0.441
2015	0.191	1.011	1.072	0.205	0.215	1.010	1.015	0.218	0.423
2016	0.178	1.017	1.090	0.194	0.201	1.007	1.022	0.205	0.400
2017	0.179	1.026	1.119	0.201	0.204	1.017	1.039	0.212	0.413
2018	0.184	1.043	1.167	0.214	0.213	1.027	1.067	0.228	0.442
2019	0.195	1.083	1.264	0.246	0.224	1.054	1.125	0.253	0.499
2020	0.164	1.231	1.556	0.255	0.202	1.124	1.265	0.256	0.510
2021	0.098	1.820	2.831	0.278	0.157	1.446	1.829	0.288	0.565

(a)   Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

(b)   Based on Section B, Exhibit 2.1.

(c)   Based on Section B, Exhibit 2.2.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted Latest Year Incurred Development Factors
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.314	1.465	1.267	0.363
2011	0.292	1.444	1.157	0.364
2012	0.261	1.426	1.030	0.362
2013	0.221	1.395	0.900	0.342
2014	0.209	1.277	0.829	0.323
2015	0.205	1.259	0.791	0.326
2016	0.194	1.243	0.818	0.295
2017	0.201	1.211	0.857	0.284
2018	0.214	1.180	0.902	0.280
2019	0.246	1.148	1.000	0.283
2020	0.255	1.110	1.061	0.267
2021	0.278	1.066	1.091	0.271

				Projected (d)
2022				0.284
2023				0.287
9/1/2023				0.287

(a)   See Exhibit 7.1.
(b)   Based on Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted Latest Year Incurred Development Factors
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.448	0.814	1.267	0.288
2011	0.383	0.837	1.157	0.277
2012	0.328	0.877	1.030	0.279
2013	0.261	0.962	0.900	0.278
2014	0.231	1.014	0.829	0.283
2015	0.218	1.039	0.791	0.286
2016	0.205	1.041	0.818	0.261
2017	0.212	1.042	0.857	0.258
2018	0.228	1.057	0.902	0.267
2019	0.253	1.048	1.000	0.265
2020	0.256	1.035	1.061	0.249
2021	0.288	1.038	1.091	0.274

				Projected (d)
2022				0.278
2023				0.283
9/1/2023				0.283

(a) See Exhibit 7.1.
(b) Based on Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth estimates are from Section B, Exhibit 6.4.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

A. Indemnity Case Reserves Per Open Claim

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156
						Evaluated as of (in months)							
2003													
2004													34,766
2005												30,565	33,298
2006											30,609	31,755	34,584
2007										30,971	32,402	34,776	42,022
2008									29,573	32,578	35,161	39,185	44,544
2009								25,561	28,696	31,504	35,801	39,960	43,524
2010							21,839	24,453	27,222	31,313	35,185	37,003	
2011						20,571	22,814	25,445	28,452	32,095	33,098		
2012					18,157	20,642	24,012	27,858	32,536	35,373			
2013				15,463	17,262	19,532	23,230	26,404	28,197				
2014			14,738	16,901	19,863	22,088	24,955	28,050					
2015		13,434	16,135	18,844	21,481	24,275	26,414						
2016	8,920	13,799	16,646	19,452	22,230	24,665							
2017	9,334	14,951	18,710	21,552	23,832								
2018	9,925	15,830	19,369	21,461									
2019	10,362	16,095	18,883										
2020	10,898	15,680											
2021	10,088												

B. Average Paid Indemnity per Closed Claim

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156
						Evaluated as of (in months)							
2003													
2004													17,964
2005												15,993	16,374
2006											17,218	17,701	18,146
2007										18,063	18,722	19,222	19,699
2008									19,239	19,976	20,641	21,167	21,640
2009								19,443	20,404	21,212	21,900	22,329	22,719
2010							18,408	19,629	20,489	21,182	21,655	22,129	
2011						16,888	18,411	19,543	20,389	20,947	21,385		
2012					15,149	17,049	18,341	19,377	20,057	20,537			
2013				12,971	15,432	17,097	18,228	19,048	19,579				
2014			10,169	13,766	16,330	17,926	18,996	19,741					
2015		6,175	10,884	14,494	16,892	18,271	19,248						
2016	2,493	6,545	11,035	14,480	16,452	17,800							
2017	2,589	6,647	11,145	14,345	16,459								
2018	2,874	7,039	11,385	14,614									
2019	3,156	7,059	11,430										
2020	3,301	7,747											
2021	3,255												

C. Annual Change of Average Paid Indemnity per Closed Claim

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156
						Evaluated as of (in months)							
2004													
2005													-8.8%
2006												10.7%	10.8%
2007											8.7%	8.6%	8.6%
2008										10.6%	10.2%	10.1%	9.8%
2009									6.1%	6.2%	6.1%	5.5%	5.0%
2010								1.0%	0.4%	-0.1%	-1.1%	-0.9%	
2011							0.0%	-0.4%	-0.5%	-1.1%	-1.2%		
2012						1.0%	-0.4%	-0.8%	-1.6%	-2.0%			
2013					1.9%	0.3%	-0.6%	-1.7%	-2.4%				
2014				6.1%	5.8%	4.8%	4.2%	3.6%					
2015			7.0%	5.3%	3.4%	1.9%	1.3%						
2016		6.0%	1.4%	-0.1%	-2.6%	-2.6%							
2017	3.8%	1.6%	1.0%	-0.9%	0.0%								
2018	11.0%	5.9%	2.2%	1.9%									
2019	9.8%	0.3%	0.4%										
2020	4.6%	9.7%											
2021	-1.4%												

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

D. Indemnity Case Reserves per Open Claim Adjusted by Paid Indemnity Severity Trend (a)

Accident Year						Evaluated as of (in months)							
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													34,416
2005												26,743	31,370
2006											26,648	29,598	34,765
2007										31,113	28,977	32,141	37,740
2008									27,708	34,408	31,945	35,395	41,458
2009								27,627	29,386	36,536	33,894	37,338	43,524
2010							25,261	27,891	29,508	36,485	33,516	37,003	
2011						23,401	25,265	27,768	29,363	36,080	33,098		
2012					21,936	23,625	25,169	27,533	28,885	35,373			
2013				19,048	22,345	23,692	25,014	27,065	28,197				
2014			16,799	20,216	23,645	24,840	26,069	28,050					
2015		12,498	17,981	21,286	24,460	25,318	26,414						
2016	7,725	13,247	18,230	21,264	23,823	24,665							
2017	8,023	13,454	18,411	21,066	23,832								
2018	8,909	14,249	18,809	21,461									
2019	9,782	14,287	18,883										
2020	10,230	15,680											
2021	10,088												

E. Indemnity Open Claim Counts

Accident Year						Evaluated as of (in months)							
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													5,156
2005												5,095	4,155
2006											5,938	4,777	3,873
2007										6,746	5,257	4,243	3,354
2008									7,792	6,037	4,695	3,716	2,990
2009								9,368	7,053	5,369	4,067	3,270	2,721
2010							11,639	8,417	6,240	4,670	3,633	2,906	
2011						15,299	10,659	7,540	5,497	4,251	3,428		
2012					21,337	14,547	10,015	7,021	5,301	4,157			
2013				31,092	20,346	13,648	9,167	6,592	4,989				
2014			46,882	30,335	19,343	12,975	9,118	6,614					
2015		68,990	45,451	28,071	17,667	12,539	8,977						
2016	82,167	66,353	42,595	25,875	17,467	12,330							
2017	82,057	62,998	39,565	25,887	17,468								
2018	82,414	64,115	42,990	28,235									
2019	84,008	68,474	47,403										
2020	74,501	61,315											
2021	80,488												

F. Total Indemnity Case Reserves Adjusted by Paid Indemnity Severity Trend (in $000) (b)

Accident Year						Evaluated as of (in months)							
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													177,450
2005												136,260	130,344
2006											158,238	141,392	134,643
2007										209,896	152,332	136,376	126,581
2008									215,899	207,723	149,983	131,527	123,958
2009								258,811	207,258	196,162	137,848	122,094	118,430
2010							294,016	234,757	184,126	170,381	121,763	107,531	
2011						358,028	269,309	209,364	161,417	153,374	113,459		
2012					468,045	343,683	252,070	193,309	153,121	147,046			
2013				592,250	454,636	323,343	229,310	178,415	140,674				
2014			787,563	613,243	457,374	322,295	237,693	185,520					
2015		862,246	817,238	597,526	432,131	317,466	237,121						
2016	634,775	878,985	776,494	550,211	416,109	304,120							
2017	658,328	847,547	728,436	545,338	416,298								
2018	734,206	913,553	808,579	605,956									
2019	821,764	978,320	895,118										
2020	762,166	961,428											
2021	811,993												

(a) Latest evaluation of each accident year is unadjusted. Evaluations prior to the latest evaluation are determined by adjusting the latest accident year average indemnity case reserves by a different annual change applied at each individual accident year and maturity based on the change in paid losses per closed claim for that age and maturity (Item C)

(b) Each amount is derived as the product of the indemnity open claim counts (Item E) and the adjusted average indemnity case reserves per open claim (Item D).

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

G. Paid Indemnity Loss on All Claims

Accident Year	Evaluated as of (in months)												
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													3,134,075
2005												2,454,838	2,486,727
2006											2,515,991	2,556,622	2,587,903
2007										2,622,539	2,673,988	2,716,164	2,750,507
2008									2,650,459	2,711,407	2,759,601	2,799,740	2,828,655
2009								2,487,332	2,564,114	2,623,118	2,673,399	2,702,997	2,737,240
2010							2,445,950	2,539,300	2,608,779	2,664,711	2,699,987	2,732,464	
2011						2,294,762	2,423,260	2,522,841	2,588,235	2,630,752	2,672,639		
2012					2,217,975	2,411,534	2,535,022	2,622,666	2,682,253	2,728,239			
2013				2,101,634	2,372,009	2,542,830	2,654,116	2,729,206	2,783,414				
2014			1,821,284	2,286,842	2,581,483	2,765,176	2,872,159	2,949,475					
2015		1,214,368	1,964,288	2,442,842	2,733,463	2,892,085	3,013,343						
2016	391,402	1,266,305	2,008,210	2,470,793	2,724,256	2,889,066							
2017	409,528	1,304,679	2,047,467	2,476,618	2,747,823								
2018	446,352	1,388,321	2,118,370	2,589,100									
2019	473,735	1,451,367	2,249,074										
2020	453,986	1,342,170											
2021	513,715												

H. Adjusted Total Indemnity Incurred (in $000) (c)

Accident Year	Evaluated as of (in months)												
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													3,311,524
2005												2,591,098	2,617,071
2006											2,674,229	2,698,015	2,722,546
2007										2,832,435	2,826,320	2,852,540	2,877,088
2008									2,866,358	2,919,130	2,909,585	2,931,267	2,952,613
2009								2,746,143	2,771,372	2,819,280	2,811,246	2,825,091	2,855,670
2010							2,739,966	2,774,057	2,792,905	2,835,092	2,821,750	2,839,995	
2011						2,652,791	2,692,569	2,732,205	2,749,653	2,784,126	2,786,098		
2012					2,686,020	2,755,217	2,787,092	2,815,975	2,835,375	2,875,285			
2013				2,693,883	2,826,646	2,866,173	2,883,427	2,907,621	2,924,088				
2014			2,608,848	2,900,085	3,038,858	3,087,471	3,109,852	3,134,995					
2015		2,076,614	2,781,526	3,040,368	3,165,594	3,209,551	3,250,463						
2016	1,026,177	2,145,291	2,784,703	3,021,005	3,140,365	3,193,186							
2017	1,067,856	2,152,227	2,775,903	3,021,956	3,164,121								
2018	1,180,558	2,301,874	2,926,949	3,195,056									
2019	1,295,499	2,429,687	3,144,192										
2020	1,216,152	2,303,598											
2021	1,325,708												

I. Indemnity Incurred Loss Development Factors Based on Adjusted Total Indemnity Incurred

Accident Year	Age-to-Age Development (in months):											
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												1.010
2006											1.009	1.009
2007										0.998	1.009	1.009
2008									1.018	0.997	1.007	1.007
2009								1.009	1.017	0.997	1.005	1.011
2010							1.012	1.007	1.015	0.995	1.006	
2011						1.015	1.015	1.006	1.013	1.001		
2012					1.026	1.012	1.010	1.007	1.014			
2013				1.049	1.014	1.006	1.008	1.006				
2014			1.112	1.048	1.016	1.007	1.008					
2015		1.339	1.093	1.041	1.014	1.013						
2016	2.091	1.298	1.085	1.040	1.017							
2017	2.015	1.290	1.089	1.047								
2018	1.950	1.272	1.092									
2019	1.875	1.294										
2020	1.894											
Latest Year	1.894	1.294	1.092	1.047	1.017	1.013	1.008	1.006	1.014	1.001	1.006	1.011
3-Yr Average	1.906	1.285	1.088	1.043	1.016	1.009	1.009	1.006	1.014	0.998	1.006	1.009

(c) Each amount is the sum of the adjusted total indemnity case reserves (Item F) and the total indemnity paid losses (Item G).

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

J. Indemnity Incurred Loss Development Factors (d)

Accident Year	Age-to-Age Development (in months):											
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												1.006
2006											1.004	1.005
2007										1.005	1.007	1.010
2008									1.009	1.006	1.007	1.006
2009								1.015	1.009	1.010	1.005	1.008
2010							1.017	1.012	1.012	1.006	1.004	
2011						1.022	1.018	1.011	1.008	1.007		
2012					1.041	1.023	1.015	1.013	1.007			
2013				1.055	1.032	1.021	1.013	1.007				
2014			1.114	1.059	1.029	1.016	1.011					
2015		1.260	1.102	1.047	1.027	1.017						
2016	1.941	1.245	1.095	1.047	1.026							
2017	1.911	1.241	1.089	1.043								
2018	1.901	1.228	1.083									
2019	1.900	1.231										
2020	1.820											

K. Impact of Adjustments to Common Case Reserve Level (e)

Accident Year	Age-to-Age Development (in months):											
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												0.44%
2006											0.50%	0.41%
2007										-0.67%	0.24%	-0.11%
2008									0.89%	-0.89%	0.04%	0.17%
2009								-0.53%	0.79%	-1.23%	-0.03%	0.30%
2010							-0.41%	-0.54%	0.34%	-1.06%	0.21%	
2011						-0.67%	-0.33%	-0.46%	0.43%	-0.61%		
2012					-1.45%	-1.16%	-0.50%	-0.60%	0.68%			
2013				-0.50%	-1.71%	-1.42%	-0.42%	-0.15%				
2014			-0.24%	-1.09%	-1.27%	-0.83%	-0.33%					
2015		6.32%	-0.78%	-0.60%	-1.26%	-0.41%						
2016	7.73%	4.23%	-0.88%	-0.67%	-0.89%							
2017	5.45%	3.94%	0.01%	0.42%								
2018	2.58%	3.55%	0.82%									
2019	-1.27%	5.09%										
2020	4.09%											

L. Indemnity Incurred Loss Development Factors Adjusted for Changes in Case Reserve Adequacy (f)

Accident Year	Age-to-Age Development (in months):											
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												1.010
2006											1.009	1.009
2007										0.998	1.009	1.009
2008									1.018	0.997	1.007	1.008
2009								1.009	1.017	0.998	1.005	1.011
2010							1.012	1.007	1.015	0.995	1.006	
2011						1.015	1.016	1.006	1.012	1.001		
2012					1.026	1.011	1.011	1.007	1.014			
2013				1.050	1.014	1.005	1.009	1.005				
2014			1.112	1.047	1.016	1.008	1.008					
2015		1.340	1.092	1.041	1.014	1.013						
2016	2.091	1.299	1.085	1.039	1.017							
2017	2.015	1.290	1.088	1.047								
2018	1.950	1.272	1.092									
2019	1.876	1.294										
2020	1.894											
3-Year Average	1.907	1.285	1.088	1.042	1.016	1.009	1.009	1.006	1.014	0.998	1.006	1.009

(d) Development factors are from the same insurer mix as those which have been adjusted for case reserve level adequacy and applied in the calculation of the development factors in Item I.

(e) Each factor represents the change in age-to-age development factors from Item J to those in Item I.

(f) Each factor is the product of [1.0 + the impact of adjustments to common case reserve level (Item K)] and [the incurred indemnity age-to-age development factors from Section B, Exhibit 2.1.1].

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

A. Medical Case Reserves Per Open Indemnity Claim

Accident Year	|	12	24	36	48	60	72	84	96	108	120	132	144	156
								Evaluated as of (in months)						
2003														
2004														88,664
2005													86,320	88,762
2006												76,055	79,802	90,129
2007											76,173	88,274	92,947	104,784
2008										70,025	76,697	85,653	96,408	101,169
2009									58,163	65,241	73,783	88,102	96,395	99,673
2010								46,598	52,746	58,932	67,952	73,994	73,872	
2011							42,439	48,753	55,212	64,231	68,817	72,887		
2012						33,263	39,602	46,017	55,644	62,970	68,585			
2013					26,998	31,782	37,122	44,789	51,828	54,414				
2014				21,854	26,302	31,342	37,352	42,983	48,706					
2015			19,322	23,901	29,293	35,713	40,843	44,389						
2016		16,002	20,274	24,952	29,872	35,371	39,775							
2017		16,890	21,478	26,882	32,017	37,043								
2018		17,706	22,377	26,207	29,970									
2019		17,711	22,029	24,762										
2020		18,070	21,200											
2021		17,955												

B. Average Paid Medical Loss Per Closed Indemnity Claim (a)

Accident Year	|	12	24	36	48	60	72	84	96	108	120	132	144	156
								Evaluated as of (in months)						
2003														
2004														19,938
2005													20,059	20,767
2006												21,379	22,292	23,044
2007											23,145	24,215	25,140	25,920
2008										24,316	25,505	26,592	27,566	28,292
2009									24,762	26,154	27,615	28,676	29,257	29,829
2010								23,411	25,265	26,627	27,708	28,584	29,303	
2011							20,199	22,395	24,043	25,217	25,970	26,653		
2012						17,018	19,366	21,057	22,371	23,351	23,874			
2013					13,575	16,467	18,502	19,887	20,820	21,502				
2014				10,041	13,641	16,347	18,136	19,285	20,096					
2015			6,243	10,432	13,856	16,236	17,713	18,699						
2016		2,709	6,472	10,500	13,516	15,523	16,797							
2017		2,833	6,660	10,653	13,476	15,468								
2018		2,982	6,975	11,110	13,999									
2019		3,422	6,734	10,799										
2020		2,902	7,022											
2021		2,960												

C. Annual Change of Average Paid Medical per Closed Claim (b)

Accident Year	|	12	24	36	48	60	72	84	96	108	120	132	144	156
								Evaluated as of (in months)						
2004														
2005														4.2%
2006													11.1%	11.0%
2007												13.3%	12.8%	12.5%
2008											10.2%	9.8%	9.7%	9.2%
2009										7.6%	8.3%	7.8%	6.1%	5.4%
2010									3.4%	3.2%	3.2%	3.0%	3.0%	
2011								4.1%	4.2%	4.0%	3.4%	3.1%		
2012							-3.9%	-4.2%	-4.7%	-5.1%	-5.1%			
2013						-3.2%	-4.5%	-5.6%	-6.9%	-7.9%				
2014					0.5%	-0.7%	-2.0%	-3.0%	-3.5%					
2015				3.9%	1.6%	-0.7%	-2.3%	-3.0%						
2016			3.7%	0.7%	-2.5%	-4.4%	-5.2%							
2017		4.5%	2.9%	1.5%	-0.3%	-0.4%								
2018		5.3%	4.7%	4.3%	3.9%									
2019		14.7%	-3.4%	-2.8%										
2020		-15.2%	4.3%											
2021		2.0%												

(a) Paid medical per closed claim severities for accident year 2010 and 2011 only reflect the paid cost of medical cost containment programs (MCCP) attributable to policies with effective dates prior to July 1, 2010.

(b) The annual changes for accident year 2010, 2011 and 2012 are based on paid medcial per total claim for consistency and do not compare to the severities in item B.

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

D. Medical Case Reserves per Open Claim Adjusted by Paid Medical Severity Trend (c)

Accident Year	____					Evaluated as of (in months)							
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													66,624
2005												49,181	69,394
2006											51,183	54,656	77,001
2007										56,796	57,972	61,639	86,611
2008									53,979	62,586	63,661	67,588	94,538
2009								52,765	58,059	67,765	68,652	71,734	99,673
2010							50,094	54,581	59,907	69,921	70,723	73,872	
2011						47,701	52,165	56,865	62,287	72,284	72,887		
2012					40,754	45,857	49,987	54,220	59,094	68,585			
2013				29,063	39,435	43,813	47,210	50,462	54,414				
2014			23,024	29,203	39,148	42,945	45,780	48,706					
2015		18,848	23,920	29,665	38,882	41,943	44,389						
2016	16,433	19,537	24,076	28,936	37,173	39,775							
2017	17,180	20,107	24,428	28,850	37,043								
2018	18,088	21,056	25,474	29,970									
2019	20,754	20,330	24,762										
2020	17,602	21,200											
2021	17,955												

E. Total Medical Case Reserves Adjusted by Paid Medical Severity Trend (in $000) (d)

Accident Year						Evaluated as of (in months)							
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													343,519
2005												250,580	288,334
2006											303,930	261,093	298,223
2007										383,155	304,764	261,534	290,494
2008									420,606	377,831	298,890	251,157	282,669
2009								494,312	409,491	363,829	279,207	234,571	271,211
2010							583,042	459,402	373,818	326,525	256,937	214,673	
2011						729,803	556,048	428,743	342,410	307,277	249,858		
2012					869,586	667,091	500,621	380,686	313,258	285,107			
2013				903,643	802,345	597,952	432,791	332,645	271,470				
2014			1,079,392	885,881	757,256	557,207	417,422	322,144					
2015		1,300,287	1,087,176	832,731	686,939	525,923	398,479						
2016	1,350,275	1,296,356	1,025,513	748,708	649,308	490,428							
2017	1,409,730	1,266,716	966,480	746,836	647,065								
2018	1,490,709	1,349,982	1,095,137	846,195									
2019	1,743,470	1,392,086	1,173,804										
2020	1,311,341	1,299,868											
2021	1,445,180												

F. Paid Medical Loss on All Claims

Accident Year						Evaluated as of (in months)							
	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													3,907,407
2005												3,491,388	3,556,887
2006											3,571,735	3,644,695	3,699,550
2007										3,797,715	3,881,670	3,957,827	4,015,905
2008									3,777,045	3,879,298	3,950,339	4,016,191	4,065,475
2009								3,542,896	3,657,286	3,744,829	3,816,220	3,864,167	3,918,705
2010							3,474,816	3,620,239	3,726,187	3,814,829	3,880,852	3,928,225	
2011						3,074,361	3,257,494	3,394,371	3,490,651	3,553,844	3,608,249		
2012					2,807,566	3,050,522	3,220,624	3,344,124	3,421,355	3,488,471			
2013				2,494,455	2,816,173	3,029,244	3,174,544	3,265,069	3,337,911				
2014			2,090,423	2,559,597	2,867,261	3,083,190	3,215,626	3,321,369					
2015		1,511,127	2,174,090	2,646,375	2,939,847	3,123,597	3,261,472						
2016	635,386	1,575,859	2,221,404	2,657,991	2,920,908	3,108,821							
2017	689,003	1,635,479	2,275,534	2,679,363	2,957,309								
2018	731,426	1,740,082	2,398,079	2,869,843									
2019	729,167	1,711,560	2,444,134										
2020	618,803	1,542,343											
2021	680,756												

(c) Latest evaluation of each accident year is unadjusted. Evaluations prior to the latest evaluation are determined by adjusting the latest accident year average medical case reserves by a different annual change applied at each individual accident year and maturity based on the change in paid losses per closed claim for that age and maturity (Item C)

(d) Each amount is derived as the product of the indemnity open claim counts (Exhibit 8.2, Item E) and the adjusted average medical case reserves per open claim (Item D).

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

G. Adjusted Total Medical Incurred (in $000) (e)

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156
2003													
2004													4,250,925
2005												3,741,968	3,845,221
2006											3,875,664	3,905,788	3,997,773
2007										4,180,870	4,186,434	4,219,361	4,306,399
2008									4,197,651	4,257,129	4,249,229	4,267,348	4,348,144
2009								4,037,208	4,066,777	4,108,658	4,095,426	4,098,737	4,189,916
2010							4,057,857	4,079,641	4,100,005	4,141,353	4,137,789	4,142,898	
2011						3,804,164	3,813,542	3,823,113	3,833,061	3,861,121	3,858,107		
2012					3,677,152	3,717,613	3,721,245	3,724,810	3,734,614	3,773,578			
2013				3,398,098	3,618,517	3,627,196	3,607,335	3,597,714	3,609,381				
2014			3,169,815	3,445,478	3,624,518	3,640,397	3,633,048	3,643,513					
2015		2,811,415	3,261,266	3,479,106	3,626,786	3,649,520	3,659,952						
2016	1,985,661	2,872,215	3,246,917	3,406,699	3,570,216	3,599,250							
2017	2,098,733	2,902,195	3,242,014	3,426,199	3,604,374								
2018	2,222,135	3,090,064	3,493,215	3,716,038									
2019	2,472,637	3,103,647	3,617,938										
2020	1,930,144	2,842,211											
2021	2,125,936												

H. Medical Incurred Loss Development Factors Based on Adjusted Total Medical Incurred

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												1.028
2006											1.008	1.024
2007										1.001	1.008	1.021
2008									1.014	0.998	1.004	1.019
2009								1.007	1.010	0.997	1.001	1.022
2010							1.005	1.005	1.010	0.999	1.001	
2011						1.002	1.003	1.003	1.007	0.999		
2012					1.011	1.001	1.001	1.003	1.010			
2013				1.065	1.002	0.995	0.997	1.003				
2014			1.087	1.052	1.004	0.998	1.003					
2015		1.160	1.067	1.042	1.006	1.003						
2016	1.446	1.130	1.049	1.048	1.008							
2017	1.383	1.117	1.057	1.052								
2018	1.391	1.130	1.064									
2019	1.255	1.166										
2020	1.473											
Latest Yea	1.473	1.166	1.064	1.052	1.008	1.003	1.003	1.003	1.010	0.999	1.001	1.022
3-Yr Avera	1.373	1.138	1.057	1.047	1.006	0.998	1.000	1.003	1.009	0.998	1.002	1.021

I. Medical Incurred Loss Development Factors (f)

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												0.999
2006											1.001	1.006
2007										1.008	1.001	1.003
2008									1.005	1.002	1.005	0.999
2009								1.007	1.006	1.008	1.001	1.003
2010							1.012	1.007	1.009	1.004	0.998	
2011						1.014	1.009	1.009	1.001	1.003		
2012					1.031	1.015	1.014	1.005	1.005			
2013				1.039	1.021	1.014	1.006	1.001				
2014			1.078	1.035	1.027	1.011	1.010					
2015		1.146	1.064	1.029	1.018	1.007						
2016	1.498	1.124	1.045	1.031	1.017							
2017	1.440	1.117	1.051	1.027								
2018	1.449	1.110	1.054									
2019	1.452	1.124										
2020	1.446											

(e) Each amount is the sum of the adjusted total medical case reserves (Item E) and the total medical paid losses (Item F).
(f) Development factors are from the same insurer mix as those which have been adjusted for case reserve level adequacy and applied in the calculation of the development factors in Item H.

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

J. Impact of Adjustments to Common Case Reserve Level (g)

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												2.90%
2006											0.71%	1.78%
2007										-0.65%	0.64%	1.71%
2008									0.96%	-0.42%	-0.08%	2.04%
2009								0.01%	0.46%	-1.12%	-0.04%	1.97%
2010							-0.63%	-0.23%	0.07%	-0.51%	0.29%	
2011						-1.17%	-0.63%	-0.60%	0.66%	-0.38%		
2012					-1.95%	-1.39%	-1.33%	-0.28%	0.55%			
2013				2.52%	-1.83%	-1.91%	-0.86%	0.25%				
2014			0.85%	1.68%	-2.22%	-1.30%	-0.70%					
2015		1.19%	0.27%	1.26%	-1.17%	-0.38%						
2016	-3.43%	0.55%	0.43%	1.61%	-0.88%							
2017	-3.99%	-0.02%	0.59%	2.39%								
2018	-4.05%	1.82%	0.90%									
2019	-13.57%	3.75%										
2020	1.81%											

K. Medical Incurred Loss Development Factors Adjusted for Changes in Case Reserve Adequacy (h)

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156
2004												
2005												1.028
2006											1.008	1.024
2007										1.001	1.007	1.021
2008									1.015	0.998	1.004	1.019
2009								1.007	1.011	0.997	1.001	1.023
2010							1.006	1.006	1.011	1.000	1.002	
2011						1.004	1.004	1.004	1.009	1.000		
2012					1.011	1.001	1.001	1.003	1.011			
2013				1.065	1.003	0.995	0.997	1.004				
2014			1.088	1.052	1.004	0.998	1.003					
2015		1.160	1.067	1.043	1.006	1.003						
2016	1.447	1.130	1.050	1.048	1.008							
2017	1.383	1.117	1.057	1.052								
2018	1.390	1.130	1.064									
2019	1.255	1.166										
2020	1.472											
3-Year Average	1.372	1.138	1.057	1.047	1.006	0.999	1.001	1.004	1.010	0.999	1.002	1.021

(g) Each factor represents the change in age-to-age development factors from Item I to those in Item H.
(h) Each factor is the product of [1.0 + the impact of adjustments to common case reserve level (Item J)] and [the incurred Medical age-to-age development factors from Section B, Exhibit 2.2.1].

Source: Accident year experience of insurers with available claim count data, excluding COVID-19 claims.

Developed Loss Ratio 3-Year Average Incurred Development Factors
Adjusted for Changes in Average Case Reserve Levels
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
Accident Year	Reported Incurred Loss Ratio Ex IBNR (a)	Annual Development Factor (b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Reported Incurred Loss Ratio Ex IBNR (a)	Annual Development Factor (c)	Cumulative Development Factor	Developed Loss Ratio (5) x (7)	Total Developed Loss Ratio (4) + (8)
2010	0.305	1.009	1.033	0.315	0.452	1.021	1.011	0.457	0.772
2011	0.281	1.006	1.040	0.293	0.385	1.002	1.013	0.390	0.683
2012	0.250	0.998	1.038	0.260	0.329	0.999	1.012	0.333	0.593
2013	0.210	1.014	1.052	0.221	0.260	1.010	1.022	0.265	0.486
2014	0.198	1.006	1.059	0.209	0.230	1.004	1.026	0.236	0.445
2015	0.191	1.009	1.068	0.204	0.215	1.001	1.026	0.221	0.425
2016	0.178	1.009	1.077	0.192	0.201	0.999	1.025	0.206	0.398
2017	0.179	1.016	1.094	0.196	0.204	1.006	1.031	0.211	0.407
2018	0.184	1.043	1.141	0.209	0.213	1.047	1.080	0.231	0.440
2019	0.195	1.088	1.241	0.242	0.224	1.057	1.141	0.256	0.498
2020	0.164	1.285	1.595	0.261	0.202	1.138	1.298	0.262	0.524
2021	0.098	1.906	3.042	0.298	0.157	1.372	1.782	0.280	0.579

(a) Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

(b) Age-to-age factors for developing accident years 2010 to 2021 were adjusted for changes in indemnity case reserve levels based on 3-year average selections (see Exhibit 8.4, Item L).

(c) Age-to-age factors for developing accident years 2010 to 2021 were adjusted for changes in medical case reserve levels based on 3-year average selections (see Exhibit 8.8, Item K).

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using 3-Year Average Incurred Development Factors
Adjusted for Changes in Average Case Reserve Levels
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.315	1.465	1.267	0.364
2011	0.293	1.444	1.157	0.365
2012	0.260	1.426	1.030	0.360
2013	0.221	1.395	0.900	0.342
2014	0.209	1.277	0.829	0.322
2015	0.204	1.259	0.791	0.324
2016	0.192	1.243	0.818	0.292
2017	0.196	1.211	0.857	0.277
2018	0.209	1.180	0.902	0.274
2019	0.242	1.148	1.000	0.278
2020	0.261	1.110	1.061	0.273
2021	0.298	1.066	1.091	0.291

Projected (d)

2022				0.291
2023				0.295
9/1/2023				0.295

(a)   See Exhibit 8.9.
(b)   Based on Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using 3-Year Average Incurred Development Factors
Adjusted for Changes in Average Case Reserve Levels
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.457	0.814	1.267	0.293
2011	0.390	0.837	1.157	0.282
2012	0.333	0.877	1.030	0.283
2013	0.265	0.962	0.900	0.284
2014	0.236	1.014	0.829	0.288
2015	0.221	1.039	0.791	0.290
2016	0.206	1.041	0.818	0.262
2017	0.211	1.042	0.857	0.256
2018	0.231	1.057	0.902	0.270
2019	0.256	1.048	1.000	0.268
2020	0.262	1.035	1.061	0.256
2021	0.280	1.038	1.091	0.267

Projected (d)

2022	0.277
2023	0.281
9/1/2023	0.281

(a) See Exhibit 8.9.
(b) Based on Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth estimates are from Section B, Exhibit 6.4.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

Developed Loss Ratio Unadjusted 3-Year Average Paid Development Factors
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
Accident Year	Reported Paid Loss Ratio (a)	Annual Development Factor (b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Reported Paid Loss Ratio (a)	Annual Development Factor (c)	Cumulative Development Factor	Developed Loss Ratio (5) x (7)	Total Developed Loss Ratio (4) + (8)
2010	0.293	1.012	1.090	0.320	0.429	1.014	1.214	0.520	0.840
2011	0.270	1.013	1.103	0.298	0.360	1.014	1.232	0.444	0.742
2012	0.238	1.016	1.121	0.267	0.304	1.017	1.253	0.381	0.648
2013	0.200	1.018	1.141	0.228	0.240	1.020	1.278	0.307	0.535
2014	0.186	1.023	1.167	0.217	0.210	1.024	1.309	0.275	0.492
2015	0.177	1.030	1.202	0.213	0.192	1.034	1.353	0.259	0.472
2016	0.161	1.042	1.252	0.202	0.173	1.045	1.414	0.245	0.447
2017	0.156	1.063	1.331	0.207	0.168	1.067	1.509	0.253	0.460
2018	0.149	1.111	1.478	0.220	0.165	1.105	1.667	0.275	0.495
2019	0.140	1.221	1.805	0.252	0.152	1.190	1.984	0.301	0.553
2020	0.095	1.548	2.794	0.267	0.110	1.399	2.776	0.304	0.571
2021	0.038	3.043	8.502	0.323	0.050	2.406	6.678	0.336	0.660

(a)   Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

(b)   Age-to-age factors are selected as three-year averages based on Section B, Exhibit 2.5.

(c)   Age-to-age factors are selected as three-year averages based on Section B, Exhibit 2.6. These factors have not been adjusted for any reforms.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Paid Development Factors
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.217	1.277	0.829	0.334
2015	0.213	1.259	0.791	0.339
2016	0.202	1.243	0.818	0.307
2017	0.207	1.211	0.857	0.293
2018	0.220	1.180	0.902	0.288
2019	0.252	1.148	1.000	0.289
2020	0.267	1.110	1.061	0.279
2021	0.323	1.066	1.091	0.316

Projected (d)

2022				0.309
2023				0.313
9/1/2023				0.313

(a)   See Exhibit 9.1.
(b)   Based on Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Paid Development Factors
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.520	0.814	1.267	0.334
2011	0.444	0.837	1.157	0.321
2012	0.381	0.877	1.030	0.325
2013	0.307	0.962	0.900	0.328
2014	0.275	1.014	0.829	0.336
2015	0.259	1.039	0.791	0.340
2016	0.245	1.041	0.818	0.312
2017	0.253	1.042	0.857	0.308
2018	0.275	1.057	0.902	0.322
2019	0.301	1.048	1.000	0.315
2020	0.304	1.035	1.061	0.297
2021	0.336	1.038	1.091	0.320

Projected (d)

2022	0.328
2023	0.334
9/1/2023	0.334

(a)   See Exhibit 9.1.
(b)   Based on Section B, Exhibit 4.4.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth estimates are from Section B, Exhibit 6.4.
(e)   Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Developed Loss Ratio Unadjusted Latest Year Paid Development Factors
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
Accident Year	Reported Paid Loss Ratio (a)	Annual Development Factor (b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Reported Paid Loss Ratio (a)	Annual Development Factor (c)	Cumulative Development Factor	Developed Loss Ratio (5) x (7)	Total Developed Loss Ratio (4) + (8)
2010	0.293	1.012	1.090	0.320	0.429	1.014	1.214	0.520	0.840
2011	0.270	1.013	1.103	0.298	0.360	1.014	1.232	0.444	0.742
2012	0.238	1.016	1.121	0.267	0.304	1.017	1.253	0.381	0.648
2013	0.200	1.018	1.141	0.228	0.240	1.020	1.278	0.307	0.535
2014	0.186	1.020	1.164	0.216	0.210	1.022	1.306	0.274	0.490
2015	0.177	1.027	1.195	0.212	0.192	1.033	1.349	0.259	0.470
2016	0.161	1.042	1.246	0.201	0.173	1.044	1.409	0.244	0.445
2017	0.156	1.060	1.320	0.206	0.168	1.064	1.499	0.251	0.457
2018	0.149	1.110	1.466	0.218	0.165	1.104	1.655	0.273	0.491
2019	0.140	1.222	1.791	0.250	0.152	1.197	1.981	0.300	0.550
2020	0.095	1.550	2.776	0.265	0.110	1.428	2.829	0.310	0.575
2021	0.038	2.956	8.206	0.312	0.050	2.492	7.049	0.355	0.667

(a) Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

(b) Age-to-age factors are selected as latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors based on Section B, Exhibit 2.5.

(c) Age-to-age factors are selected as latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors based on Section B, Exhibit 2.6.

These factors have not been adjusted for any reforms.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted Latest Year Paid Development Factors
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.201	1.243	0.818	0.305
2017	0.206	1.211	0.857	0.291
2018	0.218	1.180	0.902	0.285
2019	0.250	1.148	1.000	0.287
2020	0.265	1.110	1.061	0.277
2021	0.312	1.066	1.091	0.305

		Projected (d)
2022		0.303
2023		0.306
9/1/2023		0.306

(a) See Exhibit 10.1.
(b) Based on Section B, Exhibit 4.1.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted Latest Year Paid Development Factors
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.520	0.814	1.267	0.334
2011	0.444	0.837	1.157	0.321
2012	0.381	0.877	1.030	0.325
2013	0.307	0.962	0.900	0.328
2014	0.274	1.014	0.829	0.335
2015	0.259	1.039	0.791	0.339
2016	0.244	1.041	0.818	0.311
2017	0.251	1.042	0.857	0.306
2018	0.273	1.057	0.902	0.320
2019	0.300	1.048	1.000	0.315
2020	0.310	1.035	1.061	0.303
2021	0.355	1.038	1.091	0.338

				Projected (d)
2022				0.337
2023				0.343
9/1/2023				0.343

(a)   See Exhibit 10.1.
(b)   Based on Section B, Exhibit 4.4.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021
      on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes
      for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for
      accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth
      estimates are from Section B, Exhibit 6.4.
(e)   Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior
      do reflect paid MCCP costs.

Developed Loss Ratios Adjusted for the Impact of Reforms
Based on Paid Latest Year Selections
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)
			Medical		
				Adjusted	
Accident Year	Paid Loss Ratio (a)	Paid Loss Ratio (b)	Annual Development Factor (c)	Cumulative Development Factor	Developed Loss Ratio (2) x (4)
2010	0.429	0.398	1.015	1.226	0.488
2011	0.360	0.338	1.015	1.245	0.421
2012	0.304	0.288	1.019	1.268	0.366
2013	0.240	0.238	1.022	1.296	0.309
2014	0.210	0.212	1.022	1.324	0.281
2015	0.192	0.196	1.033	1.368	0.268
2016	0.173	0.179	1.032	1.412	0.253
2017	0.168	0.174	1.054	1.488	0.258
2018	0.165	0.171	1.101	1.638	0.280
2019	0.152	0.156	1.192	1.953	0.304
2020	0.110	0.111	1.420	2.773	0.309
2021	0.050	0.051	2.466	6.838	0.346

(a)   Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

(b)   See Section B, Exhibit 3.2, Column (2).

(c)   Based on Section B, Exhibit 2.6.1 and includes adjustments for SB 1160, recent pharmaceutical cost declines, and the 2021 medical fee schedule changes.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms
Based on Paid Latest Year Selections
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.253	1.012	0.818	0.313
2017	0.258	1.015	0.857	0.306
2018	0.280	1.016	0.902	0.315
2019	0.304	1.012	1.000	0.308
2020	0.309	1.008	1.061	0.293
2021	0.346	1.007	1.091	0.320

				Projected (d)
2022				0.324
2023				0.330
9/1/2023				0.330

(a)   See Exhibit 11.1.
(b)   Based on Section B, Exhibit 4.4.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021
      on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes
      for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for
      accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth
      estimates are from Section B, Exhibit 6.4.
(e)   Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior
      do reflect paid MCCP costs.

Developed Loss Ratios Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 3-Year Average Selections
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Indemnity				Medical				
							Adjusted			
Accident Year	Reported Paid Loss Ratio (a)	Annual Development Factor (b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Paid Loss Ratio (a)	Paid Loss Ratio (c)	Annual Development Factor (d)	Cumulative Development Factor	Developed Loss Ratio (6) x (8)	Total Developed Loss Ratio (4) + (9)
2010	0.293	1.012	1.090	0.320	0.429	0.398	1.015	1.226	0.488	0.808
2011	0.270	1.013	1.103	0.298	0.360	0.338	1.015	1.245	0.421	0.719
2012	0.238	1.016	1.121	0.267	0.304	0.288	1.019	1.268	0.366	0.632
2013	0.200	1.018	1.141	0.228	0.240	0.238	1.022	1.296	0.309	0.537
2014	0.186	1.023	1.167	0.217	0.210	0.212	1.026	1.329	0.282	0.499
2015	0.177	1.030	1.202	0.213	0.192	0.196	1.035	1.375	0.270	0.482
2016	0.161	1.037	1.247	0.201	0.173	0.179	1.031	1.417	0.254	0.455
2017	0.156	1.060	1.321	0.206	0.168	0.174	1.056	1.496	0.260	0.465
2018	0.149	1.117	1.476	0.220	0.165	0.171	1.110	1.660	0.283	0.503
2019	0.140	1.247	1.841	0.257	0.152	0.156	1.207	2.004	0.312	0.569
2020	0.095	1.559	2.869	0.274	0.110	0.111	1.404	2.813	0.313	0.587
2021	0.038	2.988	8.574	0.326	0.050	0.051	2.384	6.706	0.340	0.666

(a)   Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

(b)   Age-to-age factors for developing accident years 2016 to 2021 were adjusted for changes in claim settlement rates based on 3-year average selections (see Section B, Exhibit 2.5.8, Item Q).

(c)   See Section B, Exhibit 3.2, Column (2).

(d)   Based on Section B, Exhibit 2.6.1 and includes adjustments for SB 1160, recent pharmaceutical cost declines, and the 2021 medical fee schedule changes. Age-to-age factors for developing accident years 2016 to 2021 were adjusted for changes in claim settlement rates based on 3-year average selections (see Section B, Exhibit 2.6.8, Item R).

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 3-Year Average Selections
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.217	1.277	0.829	0.334
2015	0.213	1.259	0.791	0.339
2016	0.201	1.243	0.818	0.306
2017	0.206	1.211	0.857	0.291
2018	0.220	1.180	0.902	0.287
2019	0.257	1.148	1.000	0.295
2020	0.274	1.110	1.061	0.286
2021	0.326	1.066	1.091	0.318

Projected (d)

2022	0.314
2023	0.317
9/1/2023	0.317

(a) See Exhibit 12.1.
(b) Based on Section B, Exhibit 4.1.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 3-Year Average Selections
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.282	0.990	0.829	0.337
2015	0.270	1.009	0.791	0.344
2016	0.254	1.012	0.818	0.314
2017	0.260	1.015	0.857	0.308
2018	0.283	1.016	0.902	0.319
2019	0.312	1.012	1.000	0.316
2020	0.313	1.008	1.061	0.298
2021	0.340	1.007	1.091	0.314

Projected (d)

2022	0.325
2023	0.331
9/1/2023	0.331

(a) See Exhibit 12.1.
(b) Based on Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth estimates are from Section B, Exhibit 6.4.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Developed Loss Ratios Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 2-Year Average Selections
Based on Experience as of December 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Indemnity				Medical				
							Adjusted			
Accident Year	Reported Paid Loss Ratio (a)	Annual Development Factor (b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Paid Loss Ratio (a)	Paid Loss Ratio (c)	Annual Development Factor (d)	Cumulative Development Factor	Developed Loss Ratio (6) x (8)	Total Developed Loss Ratio (4) + (9)
2010	0.293	1.012	1.090	0.320	0.429	0.398	1.015	1.226	0.488	0.808
2011	0.270	1.013	1.103	0.298	0.360	0.338	1.015	1.245	0.421	0.719
2012	0.238	1.016	1.121	0.267	0.304	0.288	1.019	1.268	0.366	0.632
2013	0.200	1.018	1.141	0.228	0.240	0.238	1.022	1.296	0.309	0.537
2014	0.186	1.022	1.166	0.217	0.210	0.212	1.024	1.326	0.281	0.498
2015	0.177	1.028	1.198	0.212	0.192	0.196	1.032	1.368	0.268	0.480
2016	0.161	1.037	1.242	0.200	0.173	0.179	1.030	1.408	0.252	0.452
2017	0.156	1.058	1.314	0.205	0.168	0.174	1.053	1.483	0.258	0.462
2018	0.149	1.118	1.469	0.218	0.165	0.171	1.108	1.644	0.281	0.499
2019	0.140	1.249	1.834	0.256	0.152	0.156	1.206	1.983	0.309	0.565
2020	0.095	1.556	2.855	0.272	0.110	0.111	1.409	2.794	0.311	0.584
2021	0.038	2.984	8.520	0.324	0.050	0.051	2.404	6.718	0.340	0.664

(a) Based on Section B, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

(b) Age-to-age factors are selected as two-year averages for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors based on Section B, Exhibit 2.5. Age-to-age factors for developing accident years 2016 to 2021 were adjusted for changes in claim settlement rates based on two-year average selections (see Section B, Exhibit 2.5.8, Item Q).

(c) See Section B, Exhibit 3.2, Column (2).

(d) Based on Section B, Exhibits 2.6.1 and includes adjustments for SB 1160, recent pharmaceutical cost declines, and the 2021 medical fee schedule changes. Age-to-age factors for developing accident years 2016 to 2021 were adjusted for changes in claim settlement rates based on two-year average selections (see Section B, Exhibit 2.6.8, Item R).

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 2-Year Average Selections
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.217	1.277	0.829	0.334
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.289
2018	0.218	1.180	0.902	0.286
2019	0.256	1.148	1.000	0.294
2020	0.272	1.110	1.061	0.285
2021	0.324	1.066	1.091	0.316

				Projected (d)
2022				0.312
2023				0.316
9/1/2023				0.316

(a) See Exhibit 13.1.
(b) Based on Section B, Exhibit 4.1.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021
     on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes
     for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for
     accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth
     estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 2-Year Average Selections
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.336
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.305
2018	0.281	1.016	0.902	0.316
2019	0.309	1.012	1.000	0.313
2020	0.311	1.008	1.061	0.296
2021	0.340	1.007	1.091	0.314

	Projected (d)
2022	0.324
2023	0.329
9/1/2023	0.329

(a) See Exhibit 13.1.
(b) Based on Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth estimates are from Section B, Exhibit 6.4.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Section B
Appendix B
Trending Methodology

The pure premium rates effective September 1, 2022 are intended to reflect the final, or ultimate, cost of losses and loss adjustment expenses on all accidents that arise on policies incepting between September 1, 2022 and August 31, 2023. Appendix A discusses the process of developing the losses reported for each historical accident year as of December 31, 2021 to an ultimate cost basis. This Appendix discusses the process of adjusting and trending these historical accident year costs to the levels anticipated on claims covered by policies incepting between September 1, 2022 and August 31, 2023.

Trending historical costs to the level underlying policies incepting between September 1, 2022 and August 31, 2023 involves three phases. First, the losses incurred during each historical accident year are adjusted for specific, quantifiable cost level changes that have occurred since that time. Second, each year's historical earned premium is adjusted to the premium that would have been earned at the industry average filed pure premium rate level as of January 1, 2022 and at the average wages expected to be in effect during the time the premium on policies incepting between September 1, 2022 and August 31, 2023 is earned. Third, future changes in these adjusted cost levels are projected, or trended, from the time of the latest available experience to September 1, 2023, which is the approximate midpoint of the experience period during which the pure premium rates for policies incepting between September 1, 2022 and August 31, 2023 will apply.

The COVID-19 pandemic has had a significant impact on the workers' compensation insurance system. Exhibit 1 shows a summary of COVID-19 claim counts and paid and incurred costs evaluated as of December 31, 2021. As shown in Exhibit 1, several thousand claims arising out of a diagnosis of COVID-19 have been filed for accident years 2020 and 2021 totaling over $390 million in incurred costs as of December 31, 2021. Although the WCIRB believes there will be some costs associated with COVID-19 claims on policies incepting between September 1, 2022 and August 31, 2023, the costs from accident year 2020 and 2021 claims reflect earlier and different periods of the pandemic and may not be indicative of costs incurred during this policy period which will predominantly include exposure in 2023 and 2024. As a result, the WCIRB has excluded COVID-19 claims from the exhibits in this Section that include accident years 2020 and 2021 based on the data reported on the WCIRB's Quarterly Call for Experience. The WCIRB's estimated cost of claims arising from a COVID-19 diagnosis on policies incepting between September 1, 2022 and August 31, 2023 is discussed separately in Appendix D.

Adjustment of Losses to an On-Level Basis
Section B, Exhibits 4.1 through 4.4 show the adjustment of historical loss amounts to a consistent, or on-level cost basis. Section B, Exhibit 4.1 details the on-leveling adjustments to indemnity losses. Section B, Exhibits 4.2 through 4.4 detail the on-leveling adjustments to medical losses.

<u>On-Level Adjustments to Indemnity Losses</u>
For each historical accident year, losses are adjusted to reflect the cost impact of legislative and regulatory changes and judicial action. These adjustments reflect changes in statutory benefit amounts, measurable structural reforms that have been enacted by the legislature, regulatory changes and the impact of judicial action. The adjustments made to each year's indemnity losses to reflect these changes are shown in Section B, Exhibit 4.1.

Section B, Exhibit 4.1, columns 1 and 2 show the estimated impact of statutory benefit changes, regulatory changes and judicial action on indemnity claim severity (column 1) and claim frequency (column 2). The adjustments for the impact of these changes on claim severity are based on the WCIRB's model used to assess the cost impact of statutory changes on indemnity benefits based on underlying

distributions of claims by injury type, benefit type and injured worker weekly wages.[1] These adjustments reflect WCIRB prospective estimates of the cost impact of each change as well as further refinements from WCIRB reassessments based on more current data emerging subsequent to the occurrence of the legislative, regulatory or judicial action. The estimates of the impact of benefit changes on claim frequency are based on a WCIRB econometric analysis of the effect of a number of economic, demographic and claims-related variables on the frequency of indemnity claims in California.[2]

Senate Bill No. 863 (SB 863) increased permanent disability benefits effective January 1, 2013 and January 1, 2014 and provided for a number of structural reforms to the California workers' compensation benefit delivery system. The on-leveling adjustments shown in Section B, Exhibit 4.1 reflect the estimated impact of the measurable components of SB 863 related to indemnity benefits based on the WCIRB's most recent retrospective cost evaluations of SB 863.[3] In addition to the measurable components of SB 863 related to permanent disability benefits, provisions of SB 863 related to independent medical review, independent bill review, medical provider network strengthening and others have reduced the duration of claims which also affects indemnity cost levels. Based on the WCIRB's latest retrospective evaluation of SB 863, the WCIRB estimates a total 4.5% decrease in indemnity costs from these factors, which is distributed uniformly over accident years 2012 through 2015 (i.e., 1.25% per year), as reflected in column 1 of Section B, Exhibit 4.1.

Each year, weekly minimum and maximum temporary disability (TD) and permanent total disability (PTD) benefits are increased for inflation by the Division of Workers' Compensation (DWC) per California statute. The increases in these benefits are statutorily based on increases in the state average weekly wage (SAWW) for employees covered by unemployment insurance benefits for the annual period ending March 31 of the prior year. The on-leveling adjustments shown in column 1 of Section B, Exhibit 4.1 reflect the impact of historical changes in weekly minimum and maximum TD and PTD benefits and forecasts based on forecast changes in average wage levels and the WCIRB's legislative evaluation model.

Statutory benefits are expressed as a percentage of an injured worker's weekly wage with specified minimum and maximum amounts. Consequently, as wages increase, the cost of indemnity benefits will also increase even without a statutory benefit change. Column 3 of Section B, Exhibit 4.1 shows the estimated annual impact of wage inflation on indemnity benefits. These estimates have been computed based on the pre-injury weekly wages of injured workers, the legislatively scheduled benefits for each year and the estimated annual changes in average California wages as shown in Section B, Exhibit 5.1.[4] For accident years with available WCIRB unit statistical data (2019 and prior), these estimates are based on the actual claims and wage inflation data for these years while the estimates for accident years 2020 and subsequent are based on the WCIRB's legislative evaluation model updated with the latest available data.[5] With the sharp increase in wage inflation discussed below with respect to premium on-level adjustments, the impacts shown in Column 3 of Section B, Exhibit 4.1 are greater for the 2020, 2021 and 2022 years than in recent prior years.

<u>On-Level Adjustments to Medical Losses</u>
Section B, Exhibits 4.2 through 4.4 show the adjustment of medical losses to an on-level basis. Section B, Exhibit 4.2 shows the impact of non-legislative factors on medical costs. For many years, the Official Medical Fee Schedule (OMFS) has regulated the amounts paid to physicians for many workers'

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[1] See Item AC13-12-02 of the December 4, 2013 WCIRB Actuarial Committee Agenda for a more complete discussion of the WCIRB's legislative evaluation model.

[2] Brooks, Ward, "California Workers Compensation Benefit Utilization – A Study of Changes in Frequency and Severity in Response to Changes in Statutory Workers Compensation Benefit Levels," *Proceedings of the Casualty Actuarial Society*, Volume LXXXVI, 1999, pp. 80-262.

[3] See *Senate Bill No. 863 WCIRB Cost Monitoring Report – 2016 Retrospective Evaluation*, WCIRB, November 2016 and *Research Brief – SB 863 Cost Monitoring Update*, WCIRB, October 2019 for the WCIRB's most recent retrospective cost evaluations of SB 863.

[4] This wage inflation adjustment approach is discussed in greater detail later in this Appendix with respect to premium adjustments.

[5] See Item AC19-03-03 of the March 18, 2019 WCIRB Actuarial Committee Agenda for more information on these adjustments.

compensation medical procedures. As of April 1, 1999, many inpatient hospital procedures became subject to the Inpatient Hospital Fee Schedule. Fees for other medical services, such as pharmaceuticals and outpatient facility fees, later also became subject to fee schedules with the enactment of Senate Bill No. 228 (SB 228) effective January 1, 2004. As shown in Section B, Exhibit 4.2, column 1, almost 90% of medical costs are directly or indirectly[6] subject to fee schedules. Column 3 of Section B, Exhibit 4.2 shows the average impact of fee schedule changes on total medical costs by accident year.

The impacts shown in column 3 of Section B, Exhibit 4.2 are primarily based on the WCIRB's cost analysis of the fee schedule changes developed at the time the schedule was implemented. A number of California medical fee schedules are updated regularly by the DWC to reflect regular inflationary changes to the underlying Medicare fees on which the fee schedules are based. These updates have generally been modest and relatively consistent over time. As a result, the WCIRB has typically not reflected these updates in the on-leveling of medical losses and instead has considered them a component of the residual "on-level" medical severity trend. However, the WCIRB reviews these updates when they are adopted to determine if any atypical and significant changes should be explicitly reflected in the medical on-level adjustments. A WCIRB review of fee schedule updates adopted by the DWC since the September 1, 2021 Pure Premium Rate Filing found that these changes should not significantly and atypically impact overall medical cost levels and, as a result, the WCIRB did not reflect them in the medical on-level adjustments included in Section B, Exhibit 4.2.

Effective March 1, 2021, the DWC adopted significant changes to the Evaluation & Management (E&M) section of the OMFS related to office visits. In the WCIRB's September 1, 2021 Pure Premium Rate Filing, the WCIRB prospectively estimated that the March 1, 2021 changes to the E&M section of the OMFS would increase E&M office visit service costs by 15%. Earlier this year, the WCIRB performed a retrospective evaluation of the March 1, 2021 OMFS changes based on medical payments made subsequent to implementation of the changes.[7] The review showed that E&M office visit service costs increased by 10% compared to the 15% reflected in the WCIRB's prospective estimate, resulting in an approximate 1.6% increase in total medical costs. As discussed in Appendix A, given the date-of-service nature of these changes, the WCIRB is reflecting them in adjustments to the medical loss development projection for accident years 2013 and later. For accident years 2012 and prior, the impact of these changes based on the WCIRB's retrospective estimate is reflected in the medical on-level adjustments shown in Section B, Exhibit 4.2.

Effective April 1, 2021, the DWC adopted a significant update to the Medical-Legal Fee Schedule (MLFS). In the September 1, 2021 Pure Premium Rate Filing, the WCIRB prospectively estimated that the April 1, 2021 changes to the MLFS would increase medical-legal service costs by 22%. Earlier this year, the WCIRB performed a retrospective evaluation of the April 1, 2021 MLFS changes based on payments made during the first nine months the new MLFS was in effect.[8] The review showed that medical-legal costs increased by 39% compared to the 22% reflected in the WCIRB's prospective estimate, resulting in an approximate 2.5% increase in total medical costs. The sharp increase in medical-legal costs compared to the WCIRB's prospective estimate was primarily driven by a significantly higher-than-projected increase in the costs for record review. As discussed in Appendix A, given that the impact of these changes varied depending on the age of the claim, the WCIRB is reflecting these impacts in adjustments to the medical loss development projection for accident years 2013 and later. For accident years 2012 and prior, the impact of these changes based on the WCIRB's retrospective estimate is reflected in the medical on-level adjustments shown in Section B, Exhibit 4.2.

Some workers' compensation medical costs are not subject to fee schedules. The portion of each historical accident year's medical losses that is not subject to fee schedules is adjusted to reflect the anticipated general medical cost level during the period in which the proposed pure premium rates will be

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[6] Payments made directly to injured workers as part of claim settlements are assumed to be indirectly affected by existing medical fee schedules.

[7] See Item AC22-04-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda.

[8] See Item AC22-04-04 of the April 14, 2022 WCIRB Actuarial Committee Agenda.

in effect. The cost adjustments used in this analysis are shown in column 4 of Section B, Exhibit 4.2. The historical values are based on the "Medical Care" component of the Consumer Price Index as published by the U.S. Bureau of Labor Statistics and the California Department of Finance. Projected values are based on the average of California Department of Finance forecasts of medical inflation for the Los Angeles and San Francisco regions. Section B, Exhibit 4.2, column 6 shows the combined impact of fee schedule changes and general medical inflation on non-fee schedule regulated medical cost components by accident year.

Legislative changes and judicial actions also impact the cost of medical benefits. Section B, Exhibit 4.3 shows the impact of these changes or actions on medical costs. The factors in column 1 of Section B, Exhibit 4.3 reflect the impact on the average medical costs per claim of legislative, regulatory, or judicial action not otherwise reflected. These adjustment factors include the WCIRB's estimated impact of SB 863 on overall medical cost levels (-17%),[9] offset by the estimated impact already reflected in the WCIRB's adjustments to loss development for recent pharmaceutical cost declines (-4%),[10] and distributed over accident years 2011 to 2015, which is consistent with the adjustment reflected in the last several pure premium rate filings.

Senate Bill No. 1160 (SB 1160) and Assembly Bill No. 1244 (AB 1244), which took effect in 2017, included a number of provisions related to lien filings. The WCIRB's review of pre-pandemic lien filing information provided by the DWC suggests that lien filings decreased by approximately 70% compared to the level experienced shortly before the enactment of SB 1160 and AB 1244, resulting in an approximate 4.2% reduction in medical costs.[11] Given that the impact of SB 1160 and AB 1244 for more recent accident years is substantially reflected in the adjustments to loss development discussed in Appendix A, only the portion of the reform impact not reflected in projected loss development is adjusted for in the factors shown in column 1 of Section B, Exhibit 4.3. These adjustment factors are based on the estimated proportion of ultimate medical losses paid prior to January 1, 2017 for each accident year.

SB 1160 also included provisions restricting the use of utilization review for medical services provided within the first 30 days from the date of injury beginning January 1, 2018, with some exceptions. The WCIRB's most recent retrospective evaluation of SB 1160 shows some evidence of additional medical treatment being provided within the first 30 days of an injury for 2018 injuries, particularly for physical therapy services.[12] As a result and given that the reforms are substantially reflected in the emerging experience for accident year 2018, the WCIRB has reflected the estimated impact of 0.3% on medical costs in column 1 of Section B, Exhibit 4.3 to on-level 2017 and prior accident years.

The Medical Treatment Utilization Schedule Drug Formulary (Formulary) was adopted by the DWC effective in 2018 pursuant to Assembly Bill No. 1124. The WCIRB's most recent retrospective evaluation of the Formulary shows that pharmaceutical costs declined in 2018 at an approximate 10% greater rate than the rate of decline experienced shortly before the effective date of the Formulary.[13] As a result and given that the reforms are substantially reflected in the emerging experience, the WCIRB has reflected the estimated impact of -0.6% on medical costs in column 1 of Section B, Exhibit 4.3 to on-level 2017 and prior accident years.

The factors shown in column 2 of Section B, Exhibit 4.3 reflect the impact on medical costs of the changes in the frequency of indemnity claims as a result of statutory benefit changes. The combined impact of legislative changes on overall medical costs is shown in column 3 of Section B, Exhibit 4.3.

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[9] See *Senate Bill No. 863 WCIRB Cost Monitoring Report – 2016 Retrospective Evaluation,* WCIRB, November 17, 2016.

[10] See Appendix A for the discussion of the adjustment to loss development for recent pharmaceutical cost declines.

[11] See Exhibit M9.2 of Item AC21-03-01 of the March 16, 2021 WCIRB Actuarial Committee Agenda.

[12] See Item AC17-12-02 of the August 1, 2019 WCIRB Actuarial Committee Agenda.

[13] See Item AC17-12-02 of the August 1, 2019 WCIRB Actuarial Committee Agenda and *Cost Impact of California's Drug Formulary – Two-Year Checkup*, WCIRB, February 2021.

Section B, Exhibit 4.4 shows the combined impact of both measurable legislative and non-legislative changes on medical costs. Column 4 of Section B, Exhibit 4.4 shows the medical on-level factor that is used to adjust each historical accident year's estimated ultimate medical losses to an on-level basis.

Adjustments of Premium to an On-Level Basis
Historical earned premium amounts reflect the wage levels, rates and other premium adjustments underlying the workers' compensation policies with exposure during the calendar year. Section B, Exhibits 5.1 and 5.2 show the adjustments used to convert these historical calendar year earned premium amounts to a consistent, on-level basis.

Workers' compensation rates are expressed as a percentage of payroll. Thus, the earned premium for a particular year reflects the wages paid by California employers during that year. In order for the proposed pure premium rates to provide for losses and loss adjustment expenses arising from policies incepting between September 1, 2022 and August 31, 2023, each historical year's earned premium is adjusted to the anticipated average wage level applicable to policies incepting during this period. Since a historical premium level is used as the basis of the trending projection, forecast adjustments in average wages are intended to reflect changes in the average wage of the "typical" California worker performing the same job year-to-year.

Section B, Exhibit 5.1 shows the wage level adjustment factors. The historical values through 2020 shown in column 1 of Section B, Exhibit 5.1 are based on Bureau of Labor Statistics data for California as compiled by the UCLA Anderson School of Business (UCLA). The estimated changes in annual California wages shown in column 1 of Section B, Exhibit 5.1 for 2021 and later are based on an average of those produced by UCLA[14] (as of March 2022) and the California Department of Finance[15] (as of November 2021). A 2018 WCIRB analysis of the wage forecast methodology showed that blending these two wage forecasts significantly improves the accuracy and reduces the volatility of the wage level projection.[16]

The COVID-19 pandemic resulted in a sudden and significant slowdown in the California economy in 2020. The average wage changes shown in column 1 of Section B, Exhibit 5.1 are generally based on changes in total wages and salaries compared to changes in total employment. During a recession, the mix of industries can shift significantly and impact measures of average wages since a different average wage level underlies each industry. In addition, the loss of lower wage, generally less experienced employees within industries during an economic slowdown can drive measures of average wages artificially upward since job losses for these workers disproportionately impact employment levels compared to the amount of wages and salaries. In particular for the pandemic-related economic slowdown, the reductions in employment levels were greatest in the hospitality and entertainment industries which tend to have lower-than-average wages. Data from the Economic Policy Institute (EPI) also shows that job losses in 2020 within industries have disproportionately impacted lower wage workers and this continued to a lesser degree in 2021.[17] As a result, the wage level changes shown in column 1 of Section B, Exhibit 5.1 for 2020 and later may not be fully reflective of the wage level change for the "typical" California worker performing the same job year-to-year.

To more accurately reflect the wage level change for the "typical" California worker, the WCIRB applied two adjustments to the average wage level changes shown in column 1 of Section B, Exhibit 5.1. The first adjustment is to remove the impact of shifts in the industry mix on average wage levels. This adjustment is based on a review of forecast changes in employment by industry and the average wage within industries based on UCLA data on employment levels and wages by industry. This analysis shows that differences in employment losses by industry in California artificially inflated average wages by 1.8% in 2020. Conversely, the average wage level for 2021 was artificially deflated by 0.3% as a result of modest

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[14] The index is based on the ratio of total statewide wages and salaries divided by total civilian employment.

[15] The California Department of Finance produces an economic forecast typically in April and November of each year to assist in preparation of the California state budget.

[16] See Item AC17-12-03 of the March 19, 2018 WCIRB Actuarial Committee Agenda.

[17] Current Population Survey Extracts, Version 1.0.15, Economic Policy Institute, 2021. https://microdata.epi.org

recoveries in these industries in 2021. The average wage level forecast by UCLA for 2022 is forecast to be approximately 0.5% understated in 2022 as a result of anticipated further recoveries in these industries, with modest changes in industrial mix forecast to impact average wages in 2023 and 2024.[18] WCIRB estimated average wage growth percentages for 2020 through 2024 shown in column 2 of Section B, Exhibit 5.1 have been adjusted to correct for these impacts of shifting industrial mix.

To adjust for shifts in wage levels within industries, the WCIRB reviewed estimated changes in the wage level distribution within industry based on American Community Survey (ACS) data as well as Current Population Survey (CPS) data provided by the EPI.[19] The computation of this adjustment is shown in Exhibits 2.1 to 2.6.[20] Exhibits 2.1 and 2.4 show the estimated changes in employment by industry based on UCLA Anderson School of Business data for 2020 and 2021, respectively. Exhibits 2.2 and 2.5 show the computation of the statewide average wage using observed levels of industry mix, wage distribution within industry and average wage by industry and wage quartile based on ACS data for 2020 (Exhibit 2.2) and CPS data for 2021 (Exhibit 2.5).[21] This step calculates the industry-level employment changes by wage quartile. Exhibits 2.3 and 2.6 show the computation of the impact of shifts in the wage distribution within industry based on the information computed in Exhibits 2.1 and 2.2 for 2020 and Exhibits 2.4 and 2.5 for 2021. To isolate the impact of intra-industry wage distribution changes, the statewide average wage is calculated using observed industry mix and average wages by industry and quartile. The resulting average wage reflects only changes in the wage distribution within industries, as the only difference between this value and the observed value is the distribution of employees by wage level within industries. As shown in Exhibits 2.3 and 2.6, the estimated impact of the changing wage distributions within industries on 2020 and 2021 average wages is 3.9% and 1.8%, respectively.

While the 2020 and 2021 changes in the statewide average wage is inflated by the loss of lower wage employees within industries, changes in future years would likely be deflated by the return of at least some of these lower wage employees. While there is general consensus among economists that many of these workers will return to the workforce, detailed forecasts of this type are not available at this time. A prevailing thought among economists is that much of the low wage employment will return, but due to acceleration in automation trends and other factors, some of the change in the wage distribution is likely permanent.[22] As a result, the WCIRB believes that not all of the total 5.8% impact of shifts in wage levels within industries will unwind by 2024. Instead, the WCIRB judgmentally assumed that the impact will unwind based on the midpoint of (a) a full unwinding approach and (b) an unwinding approach that is proportionate with the projected unwinding of shifts in the industrial mix in 2022 through 2024. The WCIRB also judgmentally distributed the unwinding impact by year with 50% in 2022, 35% in 2023 and 15% in 2024. The impact of this adjustment by year along with the impact of the adjustment for shifting industrial mix is shown in Table 1. These adjustments are generally consistent with the approach used in the WCIRB's September 1, 2021 Pure Premium Rate Filing.

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[18] See Item AC20-08-04 of the March 21, 2022 WCIRB Actuarial Committee Agenda.

[19] This data set is updated monthly by the Census Bureau and underlies the headline monthly jobs report.

[20] Also see Item AC20-08-04 of the March 21, 2022 WCIRB Actuarial Committee Agenda.

[21] ACS data for 2021 is not yet available.

[22] https://www.brookings.edu/blog/up-front/2020/11/16/new-but-narrow-job-pathways-for-americas-unemployed-and-low-wage-workers/
https://www.kornferry.com/insights/articles/the-jobs-that-arent-coming-back
https://www.cnbc.com/2021/03/22/how-low-wage-work-could-get-even-worse-in-post-pandemic-future.html

Table 1: Adjustment for Shifts in Average Wage Levels within Industries

Year	Unadjusted Average Wage Change	Average Wage Change Adjusted for Industry Mix	Adjustment for Shifts in Average Wage Levels	Average Wage Change Adjusted for Industry and Wage Level Mix
2020	11.4%	9.4%	-3.9%	5.1%
2021	8.0%	8.3%	-1.8%	6.3%
2022	2.7%	3.3%	1.6%	4.9%
2023	2.0%	1.7%	1.1%	2.8%
2024	2.0%	1.9%	0.5%	2.5%

Column 2 of Section B, Exhibit 5.1 shows the 2020 and later year projected average wage changes adjusted as described above. Column 3 of Section B, Exhibit 5.1 shows the factor to on-level each year's historical premium for the impact of changes in wage levels based on columns 1 and 2 of Section B, Exhibit 5.1. (These adjusted wage level changes are also reflected in the adjustment to indemnity benefits for the impact of changes in average wages shown in column 3 of Section B, Exhibit 4.1.)

The amount of premium generated during a particular year is based on the rates charged by insurers during that year. Section B, Exhibit 5.2, columns 2a, 2b and 2c show the adjustment of each year's historical premium to the level reflected in the industry average filed pure premium rates as of January 1, 2022. The earned premium amounts shown in Section B, Exhibit 1 and reflected in the loss ratios shown in Section B, Exhibits 3.1 and 3.2 are based on the final rates charged by insurers—including the impact of most rating plan adjustments such as schedule rating.[23] To compute the indicated difference from the industry average filed pure premium rate as of January 1, 2022, the premium generated for each year at the industry average charged rates is adjusted to reflect the premium that would have been generated had the industry average filed pure premium rates as of January 1, 2022 been charged during that year.

Column 2a of Section B, Exhibit 5.2 shows the ratio of the industry average charged rate to the advisory pure premium rate for each calendar year subsequent to the implementation of competitive rating in 1995. Column 2b of Section B, Exhibit 5.2 shows the factors needed to adjust the earned premium for each calendar year to the industry average filed pure premium rate level as of January 1, 2022. The factors reflect both the historical changes in advisory pure premium rates that are needed to adjust each year's earned premium to the September 1, 2021 advisory pure premium rate level and an additional factor to adjust from the September 1, 2021 advisory pure premium rate level to the industry average filed pure premium rate level as of January 1, 2022. Column 2c of Section B, Exhibit 5.2 shows the combined effect of all these rate adjustments, which are the factors needed to adjust each year's earned premium to the premium that would have been earned had the industry average filed pure premium rates as of January 1, 2022 been charged during that year.

In addition to adjustments for changes in wage and rate levels, historical premiums are also adjusted to remove the impact of surcharge premium generated under the Minimum Rate Law through 1995, reflect changes in the average experience modification and reflect the current experience rating off-balance correction factor. These adjustments, which are shown in columns 3, 4 and 5 of Section B, Exhibit 5.2, are based on the WCIRB's unit statistical and experience rating data.

Premium is reported to the WCIRB on a calendar year basis, reflecting all premiums earned during that calendar year on policies from any year, while losses are reported on an accident year basis, reflecting the cost of claims on policies in force during that year. Generally, these two bases overlap to a considerable degree. However, when audits on older policy years have a highly atypical effect on premiums booked during the current year, the use of unadjusted calendar year earned premium can distort accident year loss ratios. The Great Recession of 2008-2009 significantly impacted audit

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[23] These premiums do not reflect the impact of deductible credits, retrospective rating plan adjustments, terrorism charges or COVID-19 premium charges.

premiums on 2007 and 2008 policies that were booked in 2009 and 2010. To adjust for the distortions created by the Great Recession, premiums earned in calendar years 2007 through 2010 are adjusted to an estimated "accident year" basis. These adjustments, which are shown in column 6 of Section B, Exhibit 5.2, are computed 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.[24]

The COVID-19 pandemic and resultant economic slowdown significantly impacted exposure levels in 2020. The WCIRB recently studied the impact of this economic slowdown on calendar year 2020 and 2021 earned premiums to determine if an adjustment to on-level premium similar to that applied during the Great Recession years was appropriate.[25] The WCIRB's study found that, similar to the Great Recession, there were atypical amounts of return premiums on 2019 policies that were earned in calendar year 2021. To adjust for the distortions created by the pandemic, premiums earned in calendar years 2020 and 2021 are adjusted to an estimated "accident year" basis using a process similar to that used for the Great Recession years. This adjustment assumes development on policy year 2020 premiums will emerge somewhat lower than the typical pattern due to the impact of the pandemic while development on policy year 2021 premiums will emerge at a level similar to the pre-pandemic period. These adjustments are shown in column 6 of Section B, Exhibit 5.2.

Section B, Exhibit 5.2, column 7 shows the combined on-level factor for each year that reflects the impact of all the premium adjustments applied by the WCIRB.

Trending Methodology – Diagnostic Indicators
To assess the validity of the assumptions underlying the various trending methodologies, the WCIRB reviews a number of diagnostic indicators. Among the key indicators of the trending methodology reviewed are the following:

1. <u>Indemnity Claim Frequency Changes</u>. Exhibit 3 shows the WCIRB's estimated changes in indemnity claim frequency.[26] Frequency changes for accident year 2021 are based on changes in reported indemnity claim counts evaluated at 12 months compared to changes in statewide employment levels. Frequency changes for accident years 2020 and prior are based on the ratio of reported indemnity claim counts to reported exposure adjusted to a common wage level based on WCIRB unit statistical data. After a period of steady decline driven in large part by reforms and the Great Recession, indemnity claim frequency increased sharply during the immediate post-recession recovery period from 2010 through 2012. The WCIRB has published several studies of the frequency changes during this period which have also been discussed in prior pure premium rate filings.[27] From 2013 to 2019, indemnity claim frequency was on average flat to modestly declining. Indemnity claim frequency decreased significantly in 2020 in large part related to the COVID-19 pandemic and stay-at-home orders and the sharp and sudden downturn in the economy. The preliminary measure of accident year 2021 indemnity claim frequency shows a significant increase for 2021, likely in part related to the economic recovery and in particular a potential return of smaller indemnity claims that were not being filed in 2020 during the early period of the pandemic.

2. <u>Impact of Shifts in Industrial Mix on Claim Frequency</u>. Changes in industrial mix can significantly impact measures of indemnity claim frequency. The lower section of Exhibit 3 shows historical changes in indemnity claim frequency adjusted for changes in industrial mix ("intra-class"). Shifts in industrial mix, influenced by the Great Recession recovery in construction employment and long-term shifts in the California economy to a lower relative frequency, service-based economy, generally

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[24] See Item AC11-06-02 of the June 3, 2011 and August 3, 2011 WCIRB Actuarial Committee Agendas for a more complete discussion of this computation.

[25] See Item AC21-03-05 of the March 21, 2022 WCIRB Actuarial Committee Agenda.

[26] COVID-19 claims are excluded.

[27] See *Analysis of Changes in Indemnity Claim Frequency*, WCIRB, August 2012 and updates to this report published in 2013, 2015 and 2016.

contributed to annual declines from 1% to 2% in indemnity claim frequency through 2019. After adjusting for these impacts, "intra-class" indemnity claim frequency changes are generally 1% to 2% higher than the actual observed changes. Shifts in industrial mix caused by the COVID-19-related economic downturn contributed to a more significant decline in indemnity claim frequency for 2020. This shift also impacted measures of indemnity and medical severities for accident year 2020 as the average claim costs within the industries that suffered greater job losses, driven by differences in wage levels and the mix of injuries within those industries, are somewhat lower than average.[28]

3. <u>Changes in Reported Claim Severities</u>. Exhibits 4.1 and 4.2 show changes in average incurred indemnity and average incurred medical per indemnity claim, respectively. Exhibits 4.3, 4.4, and 4.5 show changes in average paid indemnity and average paid medical per indemnity claim and average paid medical per claim, respectively. Exhibits 4.6 and 4.7 show changes in average outstanding indemnity case reserves and average outstanding medical case reserves per open indemnity claim, respectively. Exhibits 4.8 and 4.9 show changes in average paid indemnity and paid medical per closed indemnity claim, respectively.[29] The information shown in Exhibits 4.1 through 4.9 are based on December 31 evaluations of claim experience.

As shown in Exhibits 4.1, 4.3, 4.6 and 4.8, changes in average indemnity severities have been generally modest in the pre-pandemic period despite the increases to permanent disability benefits enacted pursuant to SB 863 and growth in average wages impacting indemnity benefits. As shown in Exhibits 4.2, 4.4, 4.5, 4.7 and 4.9, average medical severities have been generally flat to declining prior to the pandemic, which is in part attributable to SB 863, SB 1160 and AB 1244, the dramatic reductions in pharmaceutical costs and efforts to fight medical provider fraud. Modest changes in average paid and incurred severities for both indemnity and medical are also likely attributable to simplifications of the claims process and accelerations in the rate claims have been settling following the SB 863 and subsequent reforms.

The COVID-19 pandemic has had a dramatic impact on average claim costs for accident year 2020, even after excluding COVID-19 claims. As shown in Exhibits 4.1 and 4.3, incurred and paid indemnity severities increased at a more significant rate for accident year 2020 compared to the recent history. Some of this increase is related to shifts in average wage levels of injured workers during the economic slowdown, as job losses were largest for lower wage industries and lower wage workers within industries. Some of this increase is likely also related to the stay-at-home orders and economic slowdown resulting in a reduction in the proportion of smaller indemnity claims filed during the early pandemic period. Changes in incurred and paid indemnity severities for accident year 2021 at 12 months are more modest, likely in part related to a proportion of smaller indemnity claims being filed closer to the pre-pandemic period.

As shown in Exhibit 4.4, average paid medical per indemnity claim increased for accident year 2020 at 24 months after a flat change reported at 12 months. As discussed in the WCIRB's September 1, 2021 Pure Premium Rate Filing, early estimates of accident year 2020 average medical costs may have been impacted by deferral or delay in more costly noncritical medical services during the pandemic. The change in average paid medical per indemnity claim for accident year 2021 at 12 months is relatively flat. As discussed for indemnity above, average medical severities in 2020 and 2021 are likely also related to temporary shifts in the mix of indemnity claims with a reduction in proportion of smaller claims being filed during the early parts of the pandemic in 2020. As shown in Exhibits 4.2 and 4.5, average incurred and paid medical per reported claim (which includes medical-

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[28] See Item AC20-08-04 of the March 21, 2022 WCIRB Actuarial Committee Agenda. The WCIRB estimates that average indemnity severities are approximately 1.5% higher and average medical severities are approximately 1.2% higher for accident year 2020 due to shifts in industry mix during the pandemic.

[29] COVID-19 claims are excluded from these exhibits. Also, the amounts shown in Exhibits 4.7 and 4.9 for accident years 2010 and 2011 reflect only the amount of MCCP costs that were reported as medical losses for these years and as a result are not comparable to each other or the amounts reported for other years.

only claims) show significant increases in 2020 as decreases in the number of medical-only claims filed for 2020 were disproportionately larger than the decline in the number of indemnity claims. These severities generally declined in 2021 as the proportion of medical-only claims increased.

4. <u>Changes in Projected Ultimate and On-level Claim Severities</u>. Section B, Exhibit 6.2 shows accident year indemnity severities on an estimated ultimate and on-level basis. Section B, Exhibits 6.3 and 6.4 show accident year medical severities on an estimated ultimate and on-level basis.[30] As shown in Section B, Exhibits 6.2 and 6.4, after several years of significant increases in indemnity and medical claim severities following the 2002 through 2004 reforms, changes in ultimate claim severities significantly moderated during the Great Recession and leading into the transition to SB 863. As shown in Section B, Exhibit 6.2, on-level indemnity severities declined in 2010 through 2017 but increased moderately in 2018 through 2020. As discussed above, the decrease in the average on-level indemnity severity for 2021 may be related to temporary shifts in the types of indemnity claims being filed, with 2021 reflecting a more typical distribution of smaller indemnity claims compared to the early pandemic period in 2020.

As shown in Section B, Exhibit 6.4, average medical severities declined in 2012 through 2016, in large part related to the SB 863 provisions affecting medical costs. The medical severities adjusted to an on-level basis that include adjustments to reflect the estimated impact of SB 863 for this period show more modest changes. Average on-level medical severities increased moderately in 2018 through 2020, suggesting that the dampening impact of SB 863 and other recent reforms on average medical costs may be moderating. As discussed above, the decrease in the average on-level medical severity for 2021 is likely related to shifts in the mix of smaller indemnity claims with a lower-than-typical proportion of smaller indemnity claims being filed during the early pandemic period in 2020.

Selected Trending Methodologies
In order for the proposed pure premium rates to reflect the cost of benefits incurred on policies incepting between September 1, 2022 and August 31, 2023, the historical estimated ultimate loss ratios, adjusted to an on-level basis, are trended to a level underlying this policy period. Specifically, the on-level ratios are trended to September 1, 2023—the approximate average date of experience on policies incepting between September 1, 2022 and August 31, 2023.

For many years, the WCIRB has separately analyzed changes in claim frequency and the average cost, or severity, of claims when considering the appropriate loss trends. Claim frequency and claim severity are affected by differing underlying forces. Trending methods that separately trend for frequency and severity allow for separate assumptions on each component and are particularly appropriate in environments in which historical loss ratios have been volatile or during periods of transition in which some judgment about future trends may be appropriate. These methods rely on accurate projections of frequency and severity and assume that frequency and severity changes are not highly correlated.

In 2012, the WCIRB conducted a retrospective evaluation of trending methodologies with an emphasis on the appropriateness of trending frequency and severity separately relative to applying a combined loss ratio trend during varying claims environments.[31] The study noted that during the 2002 through 2004 reform transition period, trending methods based on separate projections of claim frequency and claim severity were more accurate than those based on trending historical on-level loss ratios. Updated studies conducted in 2017 and 2018 to include additional periods showed that methods based on separate frequency and severity trends continued to be more accurate than those based on a combined loss ratio trend in these periods as well.[32]

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[30] As discussed in Section B, for consistency of comparison, Section B, Exhibit 6.4 shows estimated ultimate medical severities for accident years 2005 and later both including all medical cost containment program (MCCP) costs and excluding all MCCP costs.
[31] See Item AC12-12-02 of the December 5, 2012 WCIRB Actuarial Committee Agenda.
[32] See Item AC12-12-02 of the August 2, 2017 WCIRB Actuarial Committee Agenda.

Based in part on a review of the diagnostic information above and prior WCIRB retrospective studies of trending methodologies, the WCIRB continues to believe a trending approach based on separate projections of growth in claim frequency and growth in the average severity of claims is appropriate. Although the correlation between claim frequency changes and claim severity changes may be stronger in the current pandemic environment compared to the pre-pandemic period, given the recent volatility in projected on-level loss ratios, the WCIRB believes it is important to review claim frequency and severity trends separately as each trend is likely impacted by different forces.

<u>Indemnity Claim Frequency Projections</u>
The WCIRB's projected change in claim frequency for accident year 2020 (which is applied to the 2019 on-level loss ratio in the WCIRB's selected trending methodology as discussed below) is based on preliminary WCIRB unit statistical data. This measure compares changes in indemnity claim counts (excluding COVID-19 claims) from accident year 2019 (from 2018 policies) to accident year 2020 (from 2019 policies) adjusted to a common classification mix level to changes in insured payroll adjusted to a common wage level earned over these years. The wage level adjustments include the WCIRB's recommended adjustments for the shifts in industrial mix and wage levels within industries discussed above. This results in a projected "intra-class" claim frequency change of -9.3% for accident year 2020, which is shown in Exhibit 3. As discussed above, this significant decline in claim frequency is likely related to the sharp and sudden change in exposures during the stay-at-home period of the pandemic and a reduced filing of smaller indemnity claims in 2020.

The WCIRB's projected change in claim frequency for accident year 2021 is based on the preliminary claim frequency change as of 12 months, which is consistent with the approach used in the last several pure premium rate filings. This measure is estimated as the ratio of changes in reported indemnity claim counts (excluding COVID-19 claims) from accident year 2020 to accident year 2021 as of December 31, 2021 adjusted to an "intra-class" level for estimated shifts in industrial mix impacting claim frequency relative to changes in statewide employment adjusted for estimated shifts in industrial mix impacting exposure levels. The WCIRB's 2021 analysis of claim frequency projections suggested that this approach of using actual frequency information for the most current year was more accurate compared to the change forecast based on the WCIRB's indemnity claim frequency model and comparable in accuracy to other approaches reviewed.[33] This results in a projected "intra-class" claim frequency change of 7.9% for accident year 2021, which is shown in Exhibit 3. The WCIRB believes using the actual claim frequency information for accident year 2021 is of particular importance in this filing given the sharp frequency decline in 2020 and the significant shifts in exposure levels and the mix of injuries occurring during the pandemic period. Combined, the WCIRB projects a frequency change of -2.2% from accident year 2019 to 2021 which is comparable to claim frequency changes shortly before the pandemic.

Section B, Exhibit 6.1 shows projected changes in indemnity claim frequency for accident years 2022 through 2024 based on the WCIRB's econometric frequency model used for a number of years in WCIRB pure premium rate filings.[34] This model projects indemnity frequency changes as a function of changes in indemnity benefit levels, economic variables and other factors, but excludes the impact of projected future changes in the mix of industry classifications.[35] The model also reflects a number of refinements to the underlying parameters based on a comprehensive review of claim frequency projections performed by the WCIRB in 2021.[36] The frequency changes shown in Section B, Exhibit 6.1 are based on the ratio of indemnity claim counts to unit statistical reported exposure. Frequency changes for accident years 2019 and prior are based on the full accident year, while the frequency change for accident year 2020 is partial in that it reflects accident year 2020 claims arising on 2019 policies compared to accident year 2019 claims arising on 2018 policies. Given the partial nature of the accident year 2020 information and that it

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[33] See Item AC21-12-07 of the December 9, 2021 WCIRB Actuarial Committee Agenda.

[34] Brooks, Ward, "California Workers Compensation Benefit Utilization – A Study of Changes in Frequency and Severity in Response to Changes in Statutory Workers Compensation Benefit Levels," *Proceedings of the Casualty Actuarial Society*, Volume LXXXVI, 1999, pp. 80-262.

[35] By modeling industrial mix-adjusted, or "intra-class" frequency, the WCIRB's model in effect controls for historical shifts in classification mix.

[36] See Item AC21-12-07 of the December 9, 2021 WCIRB Actuarial Committee Agenda.

is significantly impacted by the pandemic and generally not used in the projections contained in this filing, the frequency forecasts shown in Section B, Exhibit 6.1 are based on the WCIRB's model fit to the 2019 and prior years.

The frequency model forecasts for 2022 through 2024 reflect changes in economic data based on the March 2022 UCLA forecast. As shown in Section B, Exhibit 6.1, the WCIRB's indemnity claim frequency model projects an overall modest increase for 2022 through 2024 which are reflective of a steady forecast recovery in the economy. During the recovery following the Great Recession, indemnity claim frequency increased at a more significant rate compared to that projected for the recovery from this pandemic-related downturn. However, the WCIRB believes these projections to be reasonable given the steady relatively modest growth in the model's economic variable projected for 2022 through 2024 is reflective of the forty-year history of the relationship between employment and claim frequency as measured by the model and is well within the parameters of the model's fit.

Indemnity Severity Projection and Trended Loss Ratio
The WCIRB projects average future indemnity severity growth based on a review of longer-term and shorter-term indemnity severity trends as well as changes in the underlying claims environment. Longer-term trends are less volatile and include both reform periods and post-reform periods as well as more developed accident years but include older accident years that may not be highly indicative of the current claims environment. Shorter-term trends examine the most recent period which may be more indicative of the current claims environment but include less developed accident years and may be skewed by recent transitional effects such as reforms that may not be appropriate to project into the future.

Over the long-term, on-level indemnity severities have grown at a modest rate of approximately 1% per year since 1990. However, as shown in Section B, Exhibit 6.2, on-level indemnity severity growth is below 0% from 2010 through 2017. Some of the decline is likely related to the Great Recession and the economic recovery while some of the decline is likely the result of reductions in temporary disability duration and average permanent disability rating partly driven by acceleration in the rate that claims were settling.

Since 2017, on-level indemnity severities increased by an average rate of approximately 2% per year. On-level indemnity severities declined modestly in 2021 but, as discussed above, the WCIRB believes this may be in part related to shifts in the proportion of smaller indemnity claims caused by the pandemic. General growth in on-level indemnity severities since 2017 suggests that indemnity severities will continue to grow over the next few years. As a result, the WCIRB has selected a 1.0% average annual on-level indemnity severity trend, while somewhat lower than the average annual change over the last five years, gives some consideration to the prior period of modestly declining on-level indemnity severities. This average annual indemnity severity trend is consistent with that reflected in the WCIRB's January 1, 2021 and September 1, 2021 Pure Premium Rate Filings.

In prior pure premium rate filings, the WCIRB has applied its selected frequency and average annual on-level severity trends to the average of the most recent two accident years. As discussed above, the COVID-19 pandemic has significantly impacted exposure, premium and claim cost levels for accident year 2020. Although COVID-19 claims have been excluded from the accident year 2020 information included in this filing, the economic slowdown significantly impacted classification mix, the number of claims filed, medical services delivered and the overall claims process. Given these significant and likely temporary impacts in various cost components, the WCIRB does not believe that accident year 2020 is an appropriate basis to project the loss ratio for policies incepting between September 1, 2022 and August 31, 2023. The experience for accident year 2021 appears to be less severely impacted by the pandemic as the economy has begun to gradually recover and medical delivery and claims processes have begun to return to a more typical state. However, the accident year 2021 loss ratio is based on projections of costs from 12 months which relies more heavily on accurate loss development projections compared to more mature accident years. The WCIRB believes averaging the projection based on the accident year 2021 loss ratio with a projection based on a more mature loss ratio is appropriate. As a result, the WCIRB is basing the projected loss ratio for policies incepting between September 1, 2022 and

August 31, 2023 by applying the recommended trending rates discussed above to the accident year 2019 and 2021 on-level loss ratios.

Section B, Exhibit 7.1 shows the projected indemnity loss ratio for policies incepting between September 1, 2022 and August 31, 2023 based on the accident year 2019 and 2021 on-level indemnity ratios adjusted by the WCIRB's selected frequency projections and the average annual on-level indemnity severity trend projection of 1% per year. The indemnity loss ratio projected using the WCIRB's recommended trending methodology is 0.317.

Medical Severity Projection and Trended Loss Ratio
As with indemnity severities, the WCIRB has for a number of years based projected on-level medical severity growth on a review of longer-term and more recent medical severity trends. For medical in particular, losses will be paid over a very extended period as, for example, over one-half of policy year 2023 losses are estimated to be paid in 2026 or later and over one-quarter are estimated to be paid in 2031 or later. Medical cost levels are impacted by when services are provided rather than by when the injury occurred. As a result, it is particularly important to consider both long-term and short-term medical severity trends in the projection of medical severity growth.

Since 1990, on-level medical severity growth in California has averaged approximately 5% per year. This long-term average trend includes periods of reforms in which medical severities have been flat to declining and "post-reform" periods of sharp medical severity growth. Over the last several years, on-level medical severity growth has been modest but generally positive. As shown in Section B, Exhibit 6.4, average medical severity growth over the last five years has been approximately 1.5% per year. The longer-term average rate of growth since 2005 is generally consistent with that trend at 1.4% per year. On-level medical severities show a modest decrease in 2021 but, as with indemnity, the WCIRB believes this to be in part driven by pandemic-related shifts in the mix of smaller indemnity claims being filed.

As discussed above, the WCIRB believes consideration of both long-term and short-term trends should be given in selecting an average annual medical severity trend. Although the reforms of SB 863, SB 1160, and AB 1124 have resulted in significant decreases to average medical costs; these reforms were implemented a number of years ago. Absent reform, average medical costs have grown sharply in California in the past. In addition, the workers' compensation system is currently in a period of transition to the post-pandemic environment and the impact of that transition on medical costs is uncertain. Given these considerations, the WCIRB selected an average annual medical severity trend of 1.5%, which corresponds with the approximate average rate of growth in from 2017 through 2021 and is generally consistent with the longer-term average rate of growth since 2005.

Section B, Exhibit 7.3 shows the medical loss ratio for policies incepting between September 1, 2022 and August 31, 2023 based on the accident year 2019 and 2021 on-level medical ratios adjusted by the WCIRB's selected frequency projections and the average annual medical severity trend projection of 1.5% per year. As shown in Section B, Exhibit 7.3 the medical loss ratio projected using the WCIRB's selected methodology is 0.338.

Summary of Alternative Trending Projections
The WCIRB's selected loss trending methodology is based on an average of projections of the 2019 and 2021 on-level ratios adjusted for the selected forecasts of changes in indemnity claim frequency and indemnity and medical claim severities. For informational purposes, the WCIRB has computed alternative loss projections based on a number of alternative loss trending methodologies reflecting underlying assumptions that differ from those reflected in the WCIRB's selected trending methodology. These alternative trending projections are shown in Exhibits 5 through 11 and are discussed below.

Separate Frequency and Severity Projections Applied to a Single Year
Exhibits 5.1 and 5.2 show an alternative trend projection based on applying the WCIRB's selected frequency changes and the average annual on-level severity trend assumptions of 1.0% for indemnity and 1.5% for medical to the on-level loss ratio for the latest year (2021). Projections from the latest

available accident year can be more responsive to recent trends. This methodology produces a projection somewhat higher than the WCIRB's recommended methodology of trending from accident years 2019 and 2021. As discussed above, given that accident year 2021 is based on information evaluated as of 12 months, the WCIRB believes averaging the projection based on the latest year with that based on a more mature (pre-pandemic) year is appropriate.

Exhibits 6.1 and 6.2 show an alternative trend projection based on applying the WCIRB's selected frequency and severity changes to the on-level loss ratio for accident year 2019 only. This methodology was the basis of the trending approach used in the WCIRB's September 1, 2021 Pure Premium Rate Filing. This methodology produces a projection somewhat lower than the WCIRB's recommended methodology of trending from accident years 2019 and 2021. The WCIRB believes utilizing the latest year is appropriate to be responsive to recent trends.

Separate Frequency and Severity Projections Using Severity Trends Based on Long-Term Rates of Growth
Exhibits 7.1 and 7.2 show a trend projection based on applying the WCIRB's selected frequency changes and annual severity trend assumptions of 0.9% for indemnity and 4.9% for medical, based on the approximate average long-term (1990 to 2021) annual rates of growth in on-level indemnity and medical claim severities, to the on-level loss ratios for 2019 and 2021. This methodology produces a medical projection significantly higher than that produced by the WCIRB's selected methodology, which gives consideration to both the longer-term and more recent severity trends as well as changes in the underlying claims environment due to COVID-19. Given the impact of the pandemic and to be also responsive to recent severity trends, the WCIRB believes its selected severity trends, which give consideration to several factors including short-term and long-term severity trends, are appropriate.

Separate Frequency and Severity Projections Using Severity Trends Based on Short-Term Rates of Growth
Exhibits 8.1 and 8.2 show a trend projection based on applying the WCIRB's selected frequency changes and average annual severity trend assumptions of 2.1% for indemnity and 1.5% for medical, based on the approximate average short-term (2017 to 2021) annual rates of growth in on-level indemnity and medical claim severities, to the on-level loss ratios for 2019 and 2021. This methodology produces an indemnity projection somewhat higher than that produced by the WCIRB's selected methodology, which gives consideration to both the longer-term and more recent severity trends as well as changes in the underlying claims environment due to COVID-19. Given the impact of the pandemic and the uncertainty surrounding severity trends in the post-pandemic period, the WCIRB believes its selected severity trends, which give consideration to several factors including short-term and long-term severity trends, are appropriate.

Separate Frequency and Severity Projections Using Alternative Medical Severity Trend
Exhibit 9 shows a trend projection based on applying the WCIRB's selected frequency changes and an average annual medical severity trend assumption of 1.0% to the on-level loss ratios for 2019 and 2021, which is the medical severity projection reflected in the WCIRB's September 1, 2021 Pure Premium Rate Filing. This methodology produces a medical projection somewhat lower than that produced by the WCIRB's selected methodology, which bases the medical severity trend projection on a review of longer-term and more recent severity trends as well as changes in the underlying claims environment due to COVID-19. Given the generally increasing medical loss development emerging over the most recent year as well as increases in average medical severity since 2017, projections of average medical severity trends have increased. As a result, the WCIRB believes its selected medical severity trend is appropriate.

Trend Projections Based on On-Level Loss Ratios
Methods projecting future trends based on the historical on-level loss ratios may be appropriate when the historical ratios show a fairly stable trend or there is reason to believe that recent frequency and severity trends are highly correlated. They do not require knowledge or projection of separate frequency and severity components but rely more heavily on the accuracy of loss development and on-leveling adjustments. In the WCIRB's studies of trending methodologies, these methods performed well during the

2008 to 2011 recession period when historical on-level ratios were fairly stable and frequency and severity changes differed from projections but did not perform well during transition periods when loss ratios were more volatile.

Exhibits 10.1 and 10.2 provide projections based on applying an exponential trend based on the 1990 through 2021 on-level indemnity and medical loss ratios shown in Section B, Exhibits 7.1 and 7.3 to the on-level loss ratios for 2019 and 2021. This alternative trending methodology produces projections above those based on the WCIRB's selected methodology. Exhibits 11.1 and 11.2 provide projections based on applying an exponential trend based on the 2017 through 2021 on-level indemnity and medical loss ratios shown in Section B, Exhibits 7.1 and 7.3 to the on-level loss ratios for 2019 and 2021. This alternative trending methodology produces projections generally consistent with those based on the WCIRB's selected methodology. As discussed above, the WCIRB believes the approach of separately analyzing frequency and severity is appropriate in the current environment given the uncertainty in projecting costs during the COVID-19 pandemic for which the frequency and severity of claims are likely impacted by different forces. In addition, recent on-level loss ratios have been volatile and do not show the steady exponential growth consistent with the assumptions of this methodology.

The loss ratio projections for policies incepting between September 1, 2022 and August 31, 2023 derived based on the trending methodology recommended by the WCIRB as well as each of the alternative trending methodologies described above are shown in Table 2.

Table 2: Projected Loss Ratios Under Alternative Trending Methodologies

September 1, 2022 Filing Trending Methodology	Indemnity Loss Ratio	Medical Loss Ratio	Total Loss Ratio
Separate Projections of Frequency and Severity, Using WCIRB's Selected Frequency Changes and 1.0% Indemnity and 1.5% Medical Severity Trends, Applied to 2019 and 2021	**0.317**	**0.338**	**0.655**

Alternative Trending Methodologies	Indemnity Loss Ratio	Medical Loss Ratio	Total Loss Ratio
Separate Projections of WCIRB's Selected Frequency and Severity Trends Applied to 2021	0.329	0.344	0.673
Separate Projections of WCIRB's Selected Frequency and Severity Trends Applied to 2019	0.306	0.332	0.638
Separate Projections of WCIRB's Selected Frequency and Long-Term (1990 to 2021) Severity Trends Applied to 2019 and 2021	0.317	0.375	0.692
Separate Projections of WCIRB's Selected Frequency and Short-Term (2017 to 2021) Severity Trends Applied to 2019 and 2021	0.330	0.338	0.668
Separate Projections of WCIRB's Selected Frequency and 1% Medical Severity Trends Applied to 2019 and 2021	---	0.333	---
1990 to 2021 On-Level Loss Ratio Exponential Trend Applied to 2019 and 2021	0.303	0.361	0.664
2017 to 2021 On-Level Loss Ratio Exponential Trend Applied to 2019 and 2021	0.325	0.332	0.657

Summary of COVID-19 Claim Information as of December 31, 2021

AY2020 @12/31/2021	Based on 100% of the Market			Average per Indemnity Claim			Average per Total Claim		
	COVID-19 Claims	4Q-2021 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	83,239,550	1,425,409,763	5.8%	$4,473	$9,606	$10,342	$3,095	$4,053	$4,133
Ind. Reserves	81,834,839	1,043,262,941	7.8%	$4,397	$7,031	$7,409	$3,043	$2,967	$2,960
Ind. Incurred	165,074,389	2,468,672,704	6.7%	$8,870	$16,637	$17,751	$6,138	$7,020	$7,093
Med. Paid	67,533,620	1,609,876,577	4.2%	$3,629	$10,849	$11,885	$2,511	$4,578	$4,749
Med. Reserves	88,057,906	1,387,925,758	6.3%	$4,731	$9,354	$10,016	$3,274	$3,947	$4,002
Med. Incurred	155,591,526	2,997,802,335	5.2%	$8,360	$20,203	$21,901	$5,786	$8,525	$8,751
ALAE Paid	21,464,026	612,332,333	3.5%	$1,153	$4,127	$4,553	$798	$1,741	$1,819
MCCP	4,343,989	151,957,238	2.9%	$233	$1,024	$1,137	$162	$432	$455
Paid on Med-Only Claims	5,029,023	240,851,369	2.1%						
Ind. Paid on Open Ind. Claims	83,239,550	1,425,409,763	5.8%						
Med. Paid on Open Ind. Claims	81,834,839	1,043,262,941	7.8%						
AY2020 Claim Counts									
# of Open Indemnity Claims	1,930	63,245	3.1%						
# of Med-Only Claims	8,282	203,281	4.1%						
# of Indemnity Claims	18,611	148,384	12.5%						
Total Number of Claims	26,893	351,665	7.6%						

AY2021 @12/31/2021	Based on 100% of the Market			Average per Indemnity Claim			Average per Total Claim		
	COVID-19 Claims	4Q-2021 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	10,081,708	523,796,770	1.9%	$1,834	$4,266	$4,380	$1,183	$1,620	$1,632
Ind. Reserves	19,187,363	831,179,975	2.3%	$3,491	$6,770	$6,923	$2,252	$2,571	$2,580
Ind. Incurred	29,269,071	1,354,976,745	2.2%	$5,325	$11,036	$11,304	$3,435	$4,192	$4,212
Med. Paid	10,279,812	691,035,438	1.5%	$1,870	$5,628	$5,804	$1,206	$2,138	$2,163
Med. Reserves	32,206,797	1,477,387,085	2.2%	$5,859	$12,033	$12,322	$3,779	$4,571	$4,592
Med. Incurred	42,486,609	2,168,422,523	2.0%	$7,729	$17,661	$18,127	$4,986	$6,708	$6,755
ALAE Paid	3,028,594	189,441,774	1.6%	$551	$1,543	$1,589	$355	$586	$592
MCCP	650,715	67,126,864	1.0%	$118	$547	$567	$76	$208	$211
Paid on Med-Only Claims	812,171	174,187,362	0.5%						
Ind. Paid on Open Ind. Claims	10,081,708	523,796,770	1.9%						
Med. Paid on Open Ind. Claims	19,187,363	831,179,975	2.3%						
AY2021 Claim Counts									
# of Open Indemnity Claims	1,429	81,917	1.7%						
# of Med-Only Claims	3,025	200,460	1.5%						
# of Indemnity Claims	5,497	122,778	4.5%						
Total Number of Claims	8,522	323,238	2.6%						

Source: WCIRB accident year experience calls.

Exhibit 2.1: Employment Changes and Distribution by Industry - March 2022 UCLA Forecast

Industry	Employment 2019	Employment 2020	A Employment Change	B Distribution 2019	B Distribution 2020
Agriculture & Mining	445,025	427,050	-4.0%	2.5%	2.6%
Utilities & Construction	942,219	912,856	-3.1%	5.3%	5.5%
Manufacturing	1,326,892	1,261,367	-4.9%	7.4%	7.6%
Wholesale	691,867	643,417	-7.0%	3.9%	3.9%
Retail	1,657,267	1,523,175	-8.1%	9.3%	9.2%
Transportation & Warehousing	647,439	669,661	3.4%	3.6%	4.0%
Information	562,658	528,175	-6.1%	3.2%	3.2%
Finance & Insurance	538,987	535,632	-0.6%	3.0%	3.2%
Real Estate	302,405	280,226	-7.3%	1.7%	1.7%
Prof. Services & Mgmt. of Companies	1,587,912	1,548,245	-2.5%	8.9%	9.4%
Administrative	1,134,080	1,048,372	-7.6%	6.4%	6.3%
Education	383,240	347,885	-9.2%	2.1%	2.1%
Health	2,424,985	2,383,598	-1.7%	13.6%	14.4%
Arts & Entertainment	329,813	206,679	-37.3%	1.8%	1.2%
Hospitality	1,706,570	1,270,055	-25.6%	9.6%	7.7%
Other	576,533	472,992	-18.0%	3.2%	2.9%
Public Administration	2,596,933	2,486,833	-4.2%	14.5%	15.0%
All Industries	17,854,825	16,546,217	-7.3%	100%	100%

Source: March 2022 UCLA Forecast

Exhibit 2.2: Derivation of Baseline Average Wage
2019 UCLA Industry Distribution, 2019 ACS Wages by Quartile, and 2019 ACS Wage Distribution

	B	C				D				E
	2019 Industry Distribution	2019 ACS Quartile Distribution				2019 ACS Average Wage by Quartile				Total
Industry		1	2	3	4	1	2	3	4	
Agriculture & Mining	2.5%	44.6%	34.2%	13.1%	8.1%	9.86	17.74	30.19	75.34	20.53
Utilities & Construction	5.3%	17.6%	25.4%	33.1%	23.9%	9.77	18.31	31.43	69.58	33.39
Manufacturing	7.4%	18.7%	24.8%	25.7%	30.8%	10.21	18.40	31.42	83.07	40.14
Wholesale	3.9%	21.2%	27.9%	28.1%	22.8%	10.22	18.41	31.09	84.06	35.22
Retail	9.3%	38.9%	30.1%	18.7%	12.4%	9.88	18.03	30.32	86.24	25.62
Transportation & Warehousing	3.6%	26.2%	30.3%	30.1%	13.4%	9.86	18.24	31.07	74.58	27.45
Information	3.2%	9.9%	13.9%	27.8%	48.4%	9.29	18.84	32.43	98.51	60.21
Finance & Insurance	3.0%	9.4%	19.6%	30.5%	40.4%	9.56	18.64	31.81	94.16	52.31
Real Estate	1.7%	19.1%	24.7%	27.5%	28.8%	9.01	18.42	31.34	97.90	43.02
Prof. Services & Mgmt. of Companies	8.9%	8.2%	13.0%	26.6%	52.2%	9.22	18.56	32.52	88.51	58.01
Administrative	6.4%	36.6%	30.5%	21.8%	11.2%	9.91	18.05	30.71	77.15	24.45
Education	2.1%	17.2%	23.1%	34.6%	25.1%	9.48	18.73	31.91	63.83	33.02
Health	13.6%	21.4%	26.6%	26.5%	25.4%	9.83	18.27	31.27	83.25	36.43
Arts & Entertainment	1.8%	30.5%	29.4%	24.1%	16.0%	9.08	18.19	30.84	88.64	29.70
Hospitality	9.6%	51.9%	29.9%	13.4%	4.8%	9.47	17.91	29.67	78.94	18.05
Other	3.2%	35.5%	31.3%	22.5%	10.6%	9.24	18.10	30.83	71.27	23.47
Public Administration	14.5%	15.0%	19.7%	33.2%	32.2%	9.44	18.91	32.20	61.67	35.66
All Industries	100%	24.9%	24.9%	25.5%	24.6%	9.68	18.29	31.44	80.35	34.79

Column E Calculation Hospitality $18.05 = \sum (C \times D) = 51.9\% \times 9.47 + 29.9\% \times 17.91 + 13.4\% \times 29.67 + 4.8\% \times 78.94$

All Industries $34.79 = \sum (B \times E)$

Source: March 2022 UCLA Forecast (Column B)
2019 ACS Data Set (Columns C and D)

Exhibit 2.3: Derivation of Wage Level Adjusted Average Wage
2019 UCLA Industry Distribution, 2019 ACS Wages by Quartile, and Balanced 2020 ACS Wage Distribution

	B	F				D				G
	2019 Industry Distribution	2020 ACS Quartile Distribution				2019 ACS Average Wage by Quartile				Total
Industry		1	2	3	4	1	2	3	4	
Agriculture & Mining	2.5%	44.8%	30.9%	16.0%	8.4%	9.86	17.74	30.19	75.34	21.02
Utilities & Construction	5.3%	14.0%	26.7%	31.9%	27.5%	9.77	18.31	31.43	69.58	35.40
Manufacturing	7.4%	16.9%	24.5%	25.9%	32.7%	10.21	18.40	31.42	83.07	41.51
Wholesale	3.9%	20.1%	28.6%	28.0%	23.3%	10.22	18.41	31.09	84.06	35.62
Retail	9.3%	35.4%	31.4%	20.1%	13.1%	9.88	18.03	30.32	86.24	26.54
Transportation & Warehousing	3.6%	24.0%	32.4%	30.0%	13.6%	9.86	18.24	31.07	74.58	27.74
Information	3.2%	9.4%	11.0%	26.1%	53.5%	9.29	18.84	32.43	98.51	64.15
Finance & Insurance	3.0%	8.2%	19.3%	29.3%	43.2%	9.56	18.64	31.81	94.16	54.37
Real Estate	1.7%	16.8%	24.9%	31.1%	27.2%	9.01	18.42	31.34	97.90	42.45
Prof. Services & Mgmt. of Companies	8.9%	7.1%	12.0%	26.2%	54.6%	9.22	18.56	32.52	88.51	59.76
Administrative	6.4%	33.5%	31.0%	22.5%	13.0%	9.91	18.05	30.71	77.15	25.87
Education	2.1%	14.9%	21.7%	35.9%	27.5%	9.48	18.73	31.91	63.83	34.47
Health	13.6%	19.6%	26.3%	26.8%	27.3%	9.83	18.27	31.27	83.25	37.88
Arts & Entertainment	1.8%	28.2%	25.7%	27.9%	18.2%	9.08	18.19	30.84	88.64	31.98
Hospitality	9.6%	48.2%	30.0%	15.7%	6.1%	9.47	17.91	29.67	78.94	19.39
Other	3.2%	33.1%	31.1%	24.3%	11.4%	9.24	18.10	30.83	71.27	24.35
Public Administration	14.5%	14.1%	17.7%	33.9%	34.3%	9.44	18.91	32.20	61.67	36.74
All Industries	100%	22.9%	24.5%	26.2%	26.4%	9.68	18.28	31.41	80.26	36.13

Column G Calculation

Hospitality $19.39 = \sum (F \times D) = 48.2\% \times 9.47 + 30.0\% \times 17.91 + 15.7\% \times 29.67 + 6.1\% \times 78.94$

All Industries $36.13 = \sum (B \times G)$

Impact of Changes in Intra-Industry Wage Level $3.9\% = J / E - 1 = 36.13 / 34.79 - 1$

Source: March 2022 UCLA Forecast (Column B)
2020 ACS Data Set (Column F)
2019 ACS Data Set (Column D)

Exhibit 2.4: Employment Changes and Distribution by Industry - March 2022 UCLA Forecast

			A	B	
	Employment		Employment	Distribution	
Industry	2020	2021	Change	2020	2021
Agriculture & Mining	427,050	439,825	3.0%	2.6%	2.6%
Utilities & Construction	912,856	945,311	3.6%	5.5%	5.6%
Manufacturing	1,261,367	1,259,192	-0.2%	7.6%	7.5%
Wholesale	643,417	644,692	0.2%	3.9%	3.8%
Retail	1,523,175	1,576,150	3.5%	9.2%	9.3%
Transportation & Warehousing	669,661	709,672	6.0%	4.0%	4.2%
Information	528,175	542,917	2.8%	3.2%	3.2%
Finance & Insurance	535,632	531,978	-0.7%	3.2%	3.2%
Real Estate	280,226	278,314	-0.7%	1.7%	1.6%
Prof. Services & Mgmt. of Companies	1,548,245	1,602,305	3.5%	9.4%	9.5%
Administrative	1,048,372	1,084,978	3.5%	6.3%	6.4%
Education	347,885	353,985	1.8%	2.1%	2.1%
Health	2,383,598	2,425,390	1.8%	14.4%	14.4%
Arts & Entertainment	206,679	219,175	6.0%	1.2%	1.3%
Hospitality	1,270,055	1,346,842	6.0%	7.7%	8.0%
Other	472,992	481,233	1.7%	2.9%	2.9%
Public Administration	2,486,833	2,427,000	-2.4%	15.0%	14.4%
All Industries	16,546,217	16,868,958	2.0%	100%	100%

Source: March 2022 UCLA Forecast

Exhibit 2.5: Derivation of Baseline Average Wage
2020 UCLA Industry Distribution, 2020 CPS Wages by Quartile, and 2020 CPS Wage Distribution

	B	C				D				E
	2020	2020 CPS Quartile Distribution				2020 CPS Average Wage by Quartile				
Industry	Industry Distribution	1	2	3	4	1	2	3	4	Total
Agriculture & Mining	2.6%	53.9%	24.2%	12.8%	9.1%	12.55	18.35	30.80	62.17	20.78
Utilities & Construction	5.5%	16.0%	28.2%	33.3%	22.5%	12.91	19.54	30.55	63.31	31.98
Manufacturing	7.6%	19.8%	22.5%	25.6%	32.1%	12.80	19.40	30.34	77.71	39.61
Wholesale	3.9%	26.0%	28.8%	25.3%	19.9%	12.99	19.34	30.76	79.29	32.51
Retail	9.2%	40.3%	32.8%	17.4%	9.4%	13.17	18.97	29.88	72.33	23.57
Transportation & Warehousing	4.0%	28.0%	33.7%	25.2%	13.2%	13.13	19.58	31.26	69.08	27.24
Information	3.2%	9.3%	18.4%	25.7%	46.7%	11.71	19.85	32.02	88.17	54.10
Finance & Insurance	3.2%	8.5%	17.7%	31.8%	42.0%	12.88	19.69	31.02	73.78	45.44
Real Estate	1.7%	16.9%	26.8%	24.5%	31.9%	12.20	19.84	31.28	68.33	36.81
Prof. Services & Mgmt. of Companies	9.4%	6.1%	13.3%	29.4%	51.2%	12.67	19.70	31.79	81.81	54.64
Administrative	6.3%	34.8%	36.0%	20.1%	9.1%	12.96	19.21	29.41	76.41	24.29
Education	2.1%	15.8%	23.8%	32.9%	27.5%	12.86	19.72	31.41	63.85	34.61
Health	14.4%	22.9%	24.8%	24.3%	28.0%	13.20	19.40	31.10	67.59	34.33
Arts & Entertainment	1.2%	33.8%	27.1%	21.8%	17.3%	12.45	19.52	30.06	89.86	31.59
Hospitality	7.7%	59.2%	23.1%	12.9%	4.8%	12.78	19.15	29.81	59.53	18.68
Other	2.9%	38.1%	30.4%	18.5%	13.1%	11.59	19.73	31.63	61.20	24.24
Public Administration	15.0%	17.1%	19.5%	32.9%	30.5%	13.03	19.55	31.11	60.52	34.75
All Industries	100%	25.5%	24.5%	24.9%	25.0%	12.88	19.38	30.89	71.97	33.75

Column E Calculation Hospitality 18.68 = ∑(C x D) = 59.2% x 12.78 + 23.1% x 19.15 + 12.9% x 29.81 + 4.8% x 59.53

All Industries 33.75 = ∑(B x E)

Source: March 2022 UCLA Forecast (Column B)
2019 EPI CPS Data Set (Columns C and D)

Exhibit 2.6: Derivation of Wage Level Adjusted Average Wage
2020 UCLA Industry Distribution, 2020 CPS Wages by Quartile, and 2021 CPS Wage Distribution

Industry	B 2020 Industry Distribution	F 2021 CPS Quartile Distribution				D 2020 CPS Average Wage by Quartile				G Total
		1	2	3	4	1	2	3	4	Total
Agriculture & Mining	2.6%	42.3%	30.7%	18.3%	8.8%	12.55	18.35	30.80	62.17	22.03
Utilities & Construction	5.5%	13.1%	28.4%	38.1%	20.3%	12.91	19.54	30.55	63.31	31.77
Manufacturing	7.6%	14.9%	25.6%	26.1%	33.3%	12.80	19.40	30.34	77.71	40.69
Wholesale	3.9%	19.6%	31.6%	30.0%	18.8%	12.99	19.34	30.76	79.29	32.81
Retail	9.2%	36.0%	33.3%	19.9%	10.8%	13.17	18.97	29.88	72.33	24.81
Transportation & Warehousing	4.0%	24.8%	37.5%	25.0%	12.8%	13.13	19.58	31.26	69.08	27.25
Information	3.2%	9.4%	15.0%	27.0%	48.6%	11.71	19.85	32.02	88.17	55.54
Finance & Insurance	3.2%	9.1%	18.6%	31.8%	40.6%	12.88	19.69	31.02	73.78	44.65
Real Estate	1.7%	16.7%	28.4%	29.4%	25.4%	12.20	19.84	31.28	68.33	34.25
Prof. Services & Mgmt. of Companies	9.4%	6.2%	13.7%	30.5%	49.7%	12.67	19.70	31.79	81.81	53.79
Administrative	6.3%	33.2%	32.1%	23.4%	11.3%	12.96	19.21	29.41	76.41	26.00
Education	2.1%	11.6%	22.5%	34.8%	31.1%	12.86	19.72	31.41	63.85	36.73
Health	14.4%	16.8%	28.0%	27.2%	28.1%	13.20	19.40	31.10	67.59	35.06
Arts & Entertainment	1.2%	31.4%	26.8%	26.6%	15.3%	12.45	19.52	30.06	89.86	30.85
Hospitality	7.7%	46.4%	35.2%	13.1%	5.3%	12.78	19.15	29.81	59.53	19.74
Other	2.9%	28.0%	34.5%	24.9%	12.6%	11.59	19.73	31.63	61.20	25.63
Public Administration	15.0%	13.5%	19.8%	35.4%	31.2%	13.03	19.55	31.11	60.52	35.56
All Industries	100%	21.0%	26.5%	27.3%	25.1%	12.88	19.37	30.88	71.94	34.37

Column G Calculation Hospitality $19.74 = \sum (F \times D) = 46.4\% \times 12.78 + 35.2\% \times 19.15 + 13.1\% \times 29.81 + 5.3\% \times 59.53$

All Industries $34.37 = \sum (B \times G)$

Impact of Changes in Intra-Industry Wage Level $1.8\% = J / E - 1 = 34.37 / 33.75 - 1$

Source: March 2022 UCLA Forecast (Column B)
2021 EPI ACS Data Set (Column F)
2020 CPS Data Set (Column D)

California Workers' Compensation
Estimated Indemnity Claim Frequency by Accident Year

Year-to-Year Change: Overall

Year-to-Year Change: Intra-Class
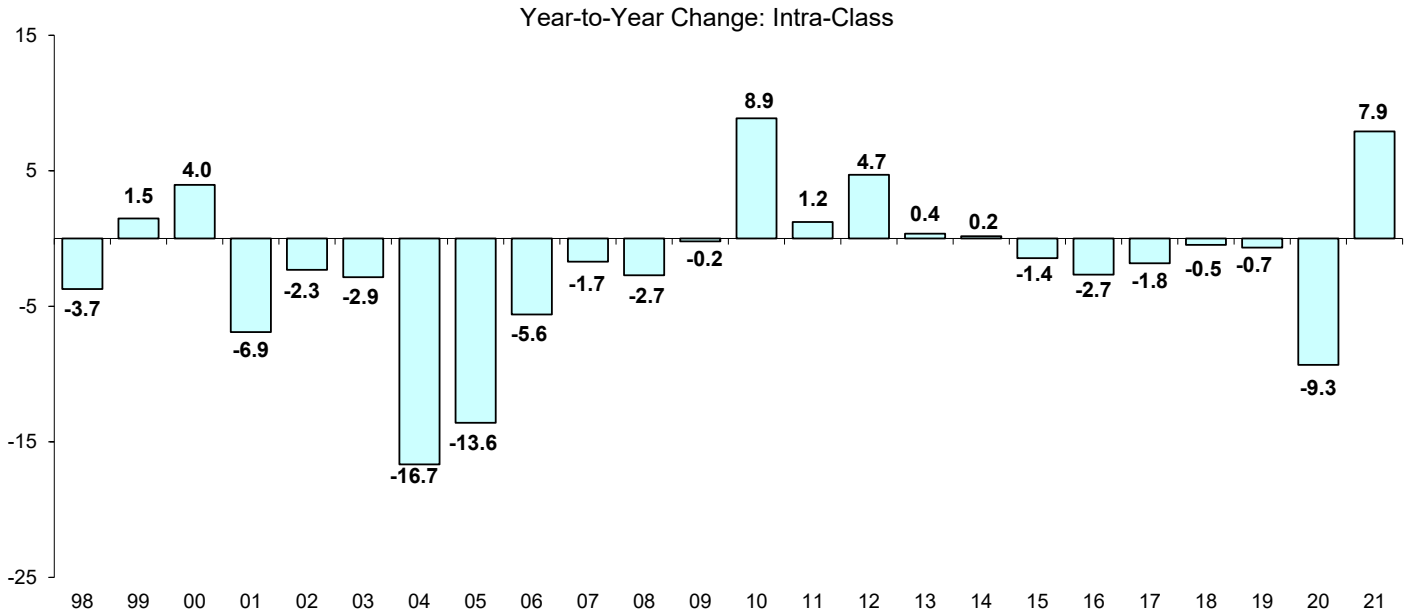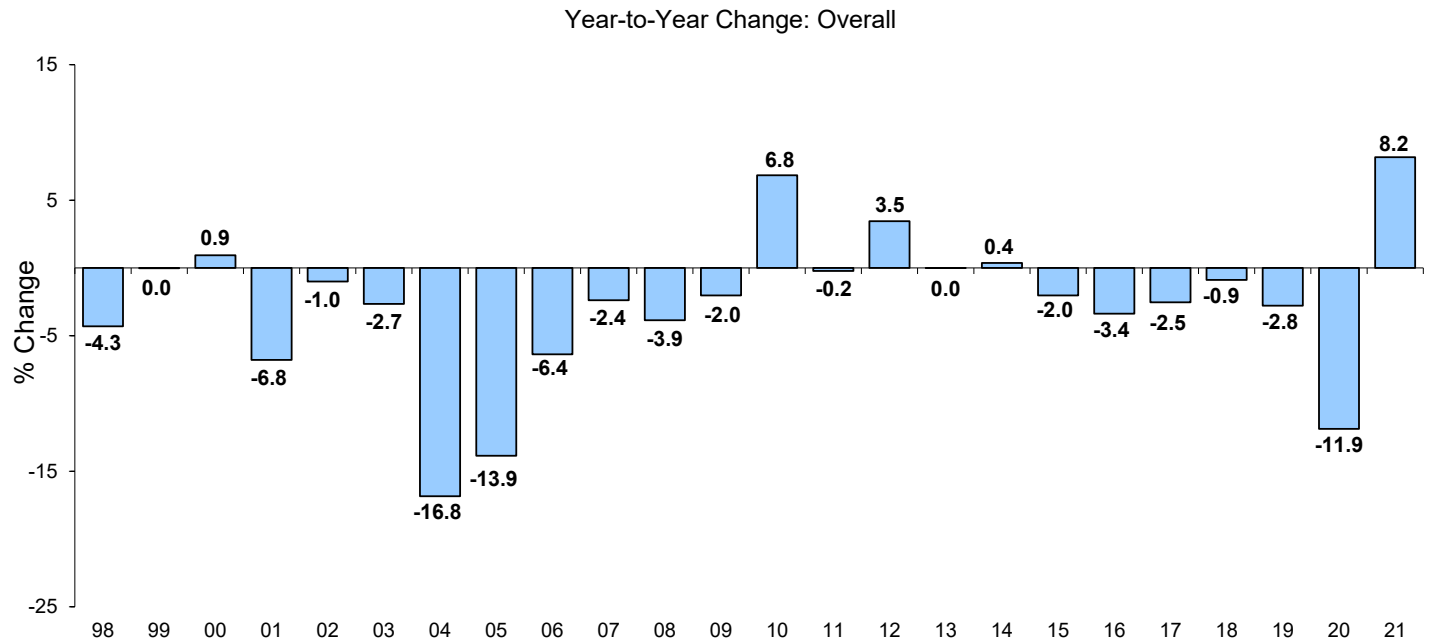
Note:

The 2021 estimate is based on a comparison of claim counts based on WCIRB accident year experience
as of December 31, 2021 relative to the estimated change in statewide employment. Experience excludes
COVID-19 claims. Prior years are based on unit statistical data.

Average Incurred Indemnity Loss per Reported Indemnity Claim
As of December 31, 2021

Accident Year	\	\	\	\	Evaluated as of (in months):	\	\	\	\	\
	12	24	36	48	60	72	84	96	108	120
1996										16,696
1997									18,948	19,004
1998								20,899	20,962	21,043
1999							22,377	22,496	22,644	22,783
2000						23,116	23,273	23,531	23,716	23,831
2001					24,366	24,778	25,308	25,670	25,930	26,102
2002				22,541	23,227	23,985	24,420	24,716	24,975	25,238
2003			19,910	21,333	22,518	23,279	23,816	24,262	24,661	25,051
2004		13,799	16,014	17,311	18,019	18,791	19,294	19,844	20,206	20,515
2005	8,000	11,356	13,674	14,978	16,000	16,834	17,482	17,986	18,268	18,493
2006	8,032	12,054	14,847	16,422	17,700	18,608	19,249	19,652	19,928	20,104
2007	8,156	12,900	16,192	18,033	19,216	20,118	20,855	21,287	21,527	21,758
2008	8,575	13,914	17,737	19,938	21,324	22,212	22,810	23,220	23,472	23,688
2009	8,732	14,560	18,317	20,698	22,154	23,092	23,597	24,032	24,373	24,607
2010	8,746	14,277	18,213	20,368	21,603	22,484	23,016	23,377	23,674	23,937
2011	9,141	14,781	18,230	20,310	21,346	22,085	22,536	22,938	23,180	23,368
2012	9,181	14,689	17,990	19,697	20,856	21,649	22,137	22,465	22,755	22,891
2013	9,383	14,527	17,684	19,441	20,407	21,027	21,427	21,681	21,814	
2014	9,282	14,668	18,266	20,158	21,285	21,856	22,193	22,422		
2015	9,632	15,340	18,823	20,636	21,555	22,078	22,426			
2016	9,817	15,309	18,553	20,169	21,044	21,548				
2017	9,970	15,630	18,953	20,479	21,296					
2018	10,565	16,379	19,651	21,133						
2019	11,022	17,140	20,524							
2020	11,904	17,751								
2021	11,304									

Accident Year	\	\	\	\	Annual Change	\	\	\	\	\
	12	24	36	48	60	72	84	96	108	120
1997										13.8%
1998									10.6%	10.7%
1999								7.6%	8.0%	8.3%
2000							4.0%	4.6%	4.7%	4.6%
2001						7.2%	8.7%	9.1%	9.3%	9.5%
2002					-4.7%	-3.2%	-3.5%	-3.7%	-3.7%	-3.3%
2003				-5.4%	-3.1%	-2.9%	-2.5%	-1.8%	-1.3%	-0.7%
2004			-19.6%	-18.9%	-20.0%	-19.3%	-19.0%	-18.2%	-18.1%	-18.1%
2005		-17.7%	-14.6%	-13.5%	-11.2%	-10.4%	-9.4%	-9.4%	-9.6%	-9.9%
2006	0.4%	6.1%	8.6%	9.6%	10.6%	10.5%	10.1%	9.3%	9.1%	8.7%
2007	1.6%	7.0%	9.1%	9.8%	8.6%	8.1%	8.3%	8.3%	8.0%	8.2%
2008	5.1%	7.9%	9.5%	10.6%	11.0%	10.4%	9.4%	9.1%	9.0%	8.9%
2009	1.8%	4.6%	3.3%	3.8%	3.9%	4.0%	3.4%	3.5%	3.8%	3.9%
2010	0.2%	-1.9%	-0.6%	-1.6%	-2.5%	-2.6%	-2.5%	-2.7%	-2.9%	-2.7%
2011	4.5%	3.5%	0.1%	-0.3%	-1.2%	-1.8%	-2.1%	-1.9%	-2.1%	-2.4%
2012	0.4%	-0.6%	-1.3%	-3.0%	-2.3%	-2.0%	-1.8%	-2.1%	-1.8%	-2.0%
2013	2.2%	-1.1%	-1.7%	-1.3%	-2.2%	-2.9%	-3.2%	-3.5%	-4.1%	
2014	-1.1%	1.0%	3.3%	3.7%	4.3%	3.9%	3.6%	3.4%		
2015	3.8%	4.6%	3.0%	2.4%	1.3%	1.0%	1.1%			
2016	1.9%	-0.2%	-1.4%	-2.3%	-2.4%	-2.4%				
2017	1.6%	2.1%	2.2%	1.5%	1.2%					
2018	6.0%	4.8%	3.7%	3.2%						
2019	4.3%	4.6%	4.4%							
2020	8.0%	3.6%								
2021	-5.0%									

	\	\	\	\	Annual Trend*	\	\	\	\	\
All-Year	2.3%	2.0%	1.3%	0.7%	0.1%	-0.1%	-0.2%	-0.1%	0.3%	0.9%
R^2	0.951	0.807	0.398	0.106	0.003	0.005	0.009	0.002	0.019	0.145
5-Year	3.8%	4.0%	2.3%	0.9%	0.7%	0.4%	-0.1%	-1.4%	-2.6%	-1.2%
R^2	0.758	0.988	0.803	0.497	0.315	0.115	0.003	0.615	0.979	0.495

*Trend is based on an exponential distribution.

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

Average Incurred Medical Loss per Reported Claim
As of December 31, 2021

Accident Year	_Evaluated as of (in months):_									
	12	24	36	48	60	72	84	96	108	120
2000										8,305
2001									9,602	9,943
2002								9,912	10,209	10,492
2003							9,118	9,513	9,856	10,136
2004						7,282	7,730	8,057	8,312	8,528
2005					6,472	7,007	7,393	7,722	7,971	8,124
2006				6,770	7,303	7,781	8,146	8,463	8,638	8,733
2007			6,906	7,726	8,340	8,904	9,346	9,628	9,792	9,832
2008		6,515	7,801	8,783	9,568	10,129	10,512	10,775	10,880	10,925
2009	5,217	7,320	8,864	10,041	10,874	11,465	11,776	11,952	12,032	12,093
2010	5,446	7,620	9,298	10,462	11,178	11,634	11,902	12,029	12,116	12,223
2011	5,575	7,854	9,342	10,348	10,988	11,313	11,460	11,562	11,654	11,659
2012	5,719	7,798	9,046	9,774	10,273	10,569	10,718	10,864	10,919	10,956
2013	5,827	7,742	8,713	9,384	9,717	9,905	10,031	10,081	10,071	
2014	5,683	7,340	8,374	8,969	9,249	9,481	9,577	9,657		
2015	5,803	7,448	8,412	8,904	9,138	9,285	9,331			
2016	5,913	7,501	8,306	8,629	8,872	9,008				
2017	5,892	7,310	8,069	8,439	8,648					
2018	6,110	7,655	8,418	8,841						
2019	6,141	7,730	8,578							
2020	6,988	8,751								
2021	6,755									

Accident Year	Annual Change									
	12	24	36	48	60	72	84	96	108	120
2001										19.7%
2002									6.3%	5.5%
2003								-4.0%	-3.5%	-3.4%
2004							-15.2%	-15.3%	-15.7%	-15.9%
2005						-3.8%	-4.4%	-4.2%	-4.1%	-4.7%
2006					12.8%	11.0%	10.2%	9.6%	8.4%	7.5%
2007				14.1%	14.2%	14.4%	14.7%	13.8%	13.4%	12.6%
2008			13.0%	13.7%	14.7%	13.7%	12.5%	11.9%	11.1%	11.1%
2009		12.4%	13.6%	14.3%	13.7%	13.2%	12.0%	10.9%	10.6%	10.7%
2010	4.4%	4.1%	4.9%	4.2%	2.8%	1.5%	1.1%	0.6%	0.7%	1.1%
2011	2.4%	3.1%	0.5%	-1.1%	-1.7%	-2.8%	-3.7%	-3.9%	-3.8%	-4.6%
2012	2.6%	-0.7%	-3.2%	-5.5%	-6.5%	-6.6%	-6.5%	-6.0%	-6.3%	-6.0%
2013	1.9%	-0.7%	-3.7%	-4.0%	-5.4%	-6.3%	-6.4%	-7.2%	-7.8%	
2014	-2.5%	-5.2%	-3.9%	-4.4%	-4.8%	-4.3%	-4.5%	-4.2%		
2015	2.1%	1.5%	0.5%	-0.7%	-1.2%	-2.1%	-2.6%			
2016	1.9%	0.7%	-1.3%	-3.1%	-2.9%	-3.0%				
2017	-0.4%	-2.6%	-2.9%	-2.2%	-2.5%					
2018	3.7%	4.7%	4.3%	4.8%						
2019	0.5%	1.0%	1.9%							
2020	13.8%	13.2%								
2021	-3.3%									

	Annual Trend*									
All-Year	1.9%	1.0%	0.4%	0.7%	1.5%	2.1%	2.1%	1.9%	1.9%	2.4%
R^2	0.843	0.325	0.033	0.046	0.128	0.246	0.274	0.268	0.304	0.421
5-Year	4.2%	3.7%	0.5%	-0.8%	-2.7%	-3.8%	-5.1%	-5.6%	-4.5%	-0.3%
R^2	0.785	0.685	0.135	0.269	0.967	0.954	0.972	0.990	0.876	0.008

*Trend is based on an exponential distribution.

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

Average Paid Indemnity Loss per Reported Indemnity Claim
As of December 31, 2021

Accident Year	Evaluated as of (in months):									
	12	24	36	48	60	72	84	96	108	120
1996										15,461
1997									17,405	17,598
1998								18,740	19,122	19,493
1999							19,780	20,388	20,877	21,249
2000						19,912	20,775	21,480	22,032	22,396
2001					20,104	21,646	22,737	23,513	24,078	24,491
2002				17,405	19,711	21,192	22,182	22,884	23,341	23,769
2003			13,334	16,892	19,051	20,446	21,366	22,030	22,629	23,160
2004		6,996	10,909	13,466	15,027	16,155	16,950	17,652	18,288	18,843
2005	2,501	6,398	9,584	11,799	13,227	14,260	15,098	15,816	16,484	16,965
2006	2,672	6,814	10,351	12,656	14,333	15,607	16,654	17,466	18,071	18,542
2007	2,836	7,324	11,160	13,801	15,678	17,080	18,201	19,012	19,626	20,152
2008	3,106	7,914	12,190	15,319	17,549	19,114	20,229	21,042	21,595	22,086
2009	3,109	7,997	12,535	15,862	18,236	19,854	21,027	21,922	22,590	23,116
2010	3,069	7,965	12,568	15,915	18,136	19,708	20,849	21,625	22,227	22,691
2011	3,117	8,111	12,662	15,817	17,921	19,422	20,481	21,317	21,859	22,215
2012	3,243	8,203	12,618	15,701	17,755	19,252	20,219	20,906	21,380	21,720
2013	3,186	8,128	12,693	15,822	17,775	19,032	19,835	20,382	20,765	
2014	3,150	8,312	13,242	16,466	18,527	19,803	20,563	21,095		
2015	3,279	8,700	13,706	16,963	18,927	19,975	20,790			
2016	3,418	8,885	13,712	16,756	18,419	19,496				
2017	3,474	9,077	13,920	16,714	18,494					
2018	3,730	9,462	14,106	17,125						
2019	3,885	9,742	14,681							
2020	4,269	10,342								
2021	4,380									

Accident Year	Annual Change									
	12	24	36	48	60	72	84	96	108	120
1997										13.8%
1998									9.9%	10.8%
1999								8.8%	9.2%	9.0%
2000							5.0%	5.4%	5.5%	5.4%
2001						8.7%	9.4%	9.5%	9.3%	9.4%
2002					-2.0%	-2.1%	-2.4%	-2.7%	-3.1%	-2.9%
2003				-2.9%	-3.3%	-3.5%	-3.7%	-3.7%	-3.1%	-2.6%
2004			-18.2%	-20.3%	-21.1%	-21.0%	-20.7%	-19.9%	-19.2%	-18.6%
2005		-8.5%	-12.2%	-12.4%	-12.0%	-11.7%	-10.9%	-10.4%	-9.9%	-10.0%
2006	6.9%	6.5%	8.0%	7.3%	8.4%	9.4%	10.3%	10.4%	9.6%	9.3%
2007	6.1%	7.5%	7.8%	9.0%	9.4%	9.4%	9.3%	8.8%	8.6%	8.7%
2008	9.5%	8.1%	9.2%	11.0%	11.9%	11.9%	11.1%	10.7%	10.0%	9.6%
2009	0.1%	1.0%	2.8%	3.5%	3.9%	3.9%	3.9%	4.2%	4.6%	4.7%
2010	-1.3%	-0.4%	0.3%	0.3%	-0.5%	-0.7%	-0.8%	-1.4%	-1.6%	-1.8%
2011	1.6%	1.8%	0.8%	-0.6%	-1.2%	-1.5%	-1.8%	-1.4%	-1.7%	-2.1%
2012	4.0%	1.1%	-0.3%	-0.7%	-0.9%	-0.9%	-1.3%	-1.9%	-2.2%	-2.2%
2013	-1.7%	-0.9%	0.6%	0.8%	0.1%	-1.1%	-1.9%	-2.5%	-2.9%	
2014	-1.1%	2.3%	4.3%	4.1%	4.2%	4.1%	3.7%	3.5%		
2015	4.1%	4.7%	3.5%	3.0%	2.2%	0.9%	1.1%			
2016	4.2%	2.1%	0.0%	-1.2%	-2.7%	-2.4%				
2017	1.6%	2.2%	1.5%	-0.2%	0.4%					
2018	7.4%	4.2%	1.3%	2.5%						
2019	4.1%	3.0%	4.1%							
2020	9.9%	6.2%								
2021	2.6%									

	Annual Trend*									
All-Year	2.8%	2.5%	1.8%	1.1%	0.5%	0.2%	0.1%	0.1%	0.4%	1.0%
R^2	0.897	0.922	0.609	0.234	0.046	0.007	0.002	0.005	0.038	0.160
5-Year	6.2%	3.8%	1.7%	0.6%	0.7%	0.7%	0.5%	-0.9%	-2.1%	-0.7%
R^2	0.977	0.973	0.854	0.452	0.262	0.344	0.169	0.451	0.983	0.227

*Trend is based on an exponential distribution.

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

Average Paid Medical Loss per Indemnity Claim
As of December 31, 2021

Accident Year	12	24	36	48	60	72	84	96	108	120
					Evaluated as of (in months):					
2003										23,032
2004									20,333	21,313
2005								19,819	21,103	21,986
2006							20,953	22,402	23,411	24,260
2007						21,814	23,766	25,210	26,301	27,161
2008					21,918	24,427	26,286	27,689	28,690	29,507
2009				19,999	23,507	26,043	27,861	29,187	30,171	30,945
2010			15,800	20,321	23,540	25,892	27,667	28,857	29,760	30,491
2011		9,927	15,075	19,066	21,965	24,194	25,678	26,812	27,596	28,115
2012	4,087	9,654	14,378	18,060	20,708	22,556	23,875	24,826	25,429	25,922
2013	4,051	9,177	13,730	17,110	19,394	20,947	21,981	22,622	23,124	
2014	3,808	8,995	13,473	16,666	18,793	20,282	21,209	21,923		
2015	3,886	9,116	13,430	16,605	18,551	19,753	20,665			
2016	4,073	9,270	13,355	16,170	17,868	19,071				
2017	4,259	9,478	13,535	16,116	17,907					
2018	4,442	9,890	13,949	16,892						
2019	4,363	9,546	13,939							
2020	4,346	10,068								
2021	4,326									

Accident Year	12	24	36	48	60	72	84	96	108	120
					Annual Change					
2004										-7.5%
2005									3.8%	3.2%
2006								13.0%	10.9%	10.3%
2007							13.4%	12.5%	12.3%	12.0%
2008						12.0%	10.6%	9.8%	9.1%	8.6%
2009					7.3%	6.6%	6.0%	5.4%	5.2%	4.9%
2010				1.6%	0.1%	-0.6%	-0.7%	-1.1%	-1.4%	-1.5%
2011**			-4.6%	-6.2%	-6.7%	-6.6%	-7.2%	-7.1%	-7.3%	-7.8%
2012**		-2.7%	-4.6%	-5.3%	-5.7%	-6.8%	-7.0%	-7.4%	-7.9%	-7.8%
2013	-0.9%	-4.9%	-4.5%	-5.3%	-6.3%	-7.1%	-7.9%	-8.9%	-9.1%	
2014	-6.0%	-2.0%	-1.9%	-2.6%	-3.1%	-3.2%	-3.5%	-3.1%		
2015	2.0%	1.3%	-0.3%	-0.4%	-1.3%	-2.6%	-2.6%			
2016	4.8%	1.7%	-0.6%	-2.6%	-3.7%	-3.5%				
2017	4.6%	2.2%	1.3%	-0.3%	0.2%					
2018	4.3%	4.3%	3.1%	4.8%						
2019	-1.8%	-3.5%	-0.1%							
2020	-0.4%	5.5%								
2021	-0.4%									

	12	24	36	48	60	72	84	96	108	120
					Annual Trend*					
All-Year	1.3%	0.4%	-1.2%	-2.5%	-3.3%	-2.8%	-1.4%	0.5%	2.3%	3.4%
R^2	0.561	0.079	0.464	0.805	0.869	0.576	0.141	0.012	0.235	0.540
5-Year	0.1%	1.7%	1.2%	0.0%	-2.1%	-3.9%	-5.4%	-6.9%	-6.7%	-3.5%
R^2	0.009	0.666	0.809	0.001	0.928	0.953	0.951	0.983	0.953	0.613

*Trend is based on an exponential distribution.

**Entries for accident years 2010 and 2011 only reflect the paid cost of medical cost containment programs attributable to policies with effective dates prior to July 1, 2010. Entries for accident years 2012 and subsequent exclude the paid cost of medical cost containment programs.

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

Average Paid Medical Loss per Claim**
As of December 31, 2021

Accident Year	Evaluated as of (in months):								
	12	24	36	48	60	72	84	96	108	120

Accident Year	12	24	36	48	60	72	84	96	108	120
2000										7,145
2001									8,131	8,415
2002								8,476	8,780	9,053
2003							7,587	7,962	8,279	8,587
2004						5,816	6,228	6,567	6,902	7,208
2005					5,064	5,542	5,939	6,298	6,674	6,931
2006				4,933	5,609	6,152	6,606	7,026	7,320	7,567
2007			4,606	5,635	6,414	7,068	7,647	8,078	8,402	8,660
2008		3,712	5,201	6,401	7,388	8,174	8,752	9,189	9,506	9,760
2009	1,944	4,076	5,792	7,263	8,445	9,304	9,913	10,359	10,687	10,936
2010	1,986	4,201	6,099	7,703	8,847	9,669	10,295	10,715	11,028	11,284
2011	1,824	4,090	5,997	7,469	8,528	9,340	9,884	10,299	10,584	10,772
2012	1,846	4,046	5,834	7,210	8,200	8,890	9,377	9,727	9,948	10,129
2013	1,865	3,972	5,720	7,021	7,902	8,485	8,882	9,126	9,313	
2014	1,819	3,901	5,619	6,837	7,635	8,193	8,537	8,803		
2015	1,839	3,957	5,609	6,793	7,523	7,977	8,315			
2016	1,927	4,047	5,618	6,685	7,323	7,780				
2017	1,956	4,000	5,499	6,445	7,095					
2018	2,040	4,196	5,727	6,827						
2019	2,020	4,109	5,795							
2020	2,201	4,749								
2021	2,163									

Accident Year	Annual Change								

Accident Year	12	24	36	48	60	72	84	96	108	120
2001										17.8%
2002									8.0%	7.6%
2003								-6.1%	-5.7%	-5.1%
2004							-17.9%	-17.5%	-16.6%	-16.1%
2005						-4.7%	-4.6%	-4.1%	-3.3%	-3.8%
2006					10.8%	11.0%	11.2%	11.6%	9.7%	9.2%
2007				14.2%	14.4%	14.9%	15.8%	15.0%	14.8%	14.4%
2008			12.9%	13.6%	15.2%	15.6%	14.4%	13.8%	13.1%	12.7%
2009		9.8%	11.4%	13.5%	14.3%	13.8%	13.3%	12.7%	12.4%	12.1%
2010	2.1%	3.1%	5.3%	6.1%	4.8%	3.9%	3.9%	3.4%	3.2%	3.2%
2011	-8.1%	-2.6%	-1.7%	-3.0%	-3.6%	-3.4%	-4.0%	-3.9%	-4.0%	-4.5%
2012	1.2%	-1.1%	-2.7%	-3.5%	-3.8%	-4.8%	-5.1%	-5.6%	-6.0%	-6.0%
2013	1.1%	-1.8%	-1.9%	-2.6%	-3.6%	-4.6%	-5.3%	-6.2%	-6.4%	
2014	-2.5%	-1.8%	-1.8%	-2.6%	-3.4%	-3.4%	-3.9%	-3.5%		
2015	1.1%	1.4%	-0.2%	-0.6%	-1.5%	-2.6%	-2.6%			
2016	4.7%	2.3%	0.2%	-1.6%	-2.7%	-2.5%				
2017	1.6%	-1.1%	-2.1%	-3.6%	-3.1%					
2018	4.3%	4.9%	4.2%	5.9%						
2019	-1.0%	-2.1%	1.2%							
2020	9.0%	15.6%								
2021	-1.7%									

	Annual Trend*								

	12	24	36	48	60	72	84	96	108	120
All-Year	1.1%	0.8%	0.7%	1.3%	2.2%	3.0%	3.0%	2.8%	2.8%	3.2%
R^2	0.476	0.302	0.138	0.167	0.254	0.398	0.420	0.390	0.423	0.526
5-Year	2.8%	3.5%	0.8%	-0.6%	-2.5%	-3.2%	-4.3%	-5.0%	-3.7%	0.6%
R^2	0.792	0.624	0.433	0.126	0.987	0.982	0.982	0.992	0.790	0.025

*Trend is based on an exponential distribution.

**All entries reflect the paid cost of medical cost containment programs.

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

Average Indemnity Case Outstanding per Open Indemnity Claim

Accident Year	\	\	\	\	Evaluated as of (in months):	\	\	\	\	\
	12	24	36	48	60	72	84	96	108	120
1998										
1999										
2000										
2001										
2002										23,230
2003									26,695	30,003
2004								23,264	25,187	29,202
2005							20,635	23,410	25,547	27,311
2006						20,210	22,066	24,699	26,490	27,401
2007					17,882	19,717	23,641	26,270	27,922	30,971
2008				16,509	18,030	20,570	22,937	25,584	29,573	32,578
2009			14,441	16,463	18,639	20,855	22,402	25,561	28,696	31,504
2010		11,853	14,319	16,125	17,732	19,664	21,839	24,453	27,222	31,313
2011	8,312	12,609	14,672	16,999	18,592	20,571	22,814	25,445	28,452	32,095
2012	8,188	12,444	14,592	15,927	18,157	20,642	24,012	27,858	32,536	35,373
2013	8,471	12,338	14,000	15,463	17,262	19,532	23,230	26,404	28,197	
2014	8,337	12,513	14,738	16,901	19,863	22,088	24,955	28,050		
2015	8,684	13,434	16,135	18,844	21,481	24,275	26,414			
2016	8,920	13,799	16,646	19,452	22,230	24,665				
2017	9,334	14,951	18,710	21,552	23,832					
2018	9,925	15,830	19,369	21,461						
2019	10,362	16,095	18,883							
2020	10,898	15,680								
2021	10,088									

Accident Year	\	\	\	\	Annual Change	\	\	\	\	\
	12	24	36	48	60	72	84	96	108	120
1999										
2000										
2001										
2002										
2003										29.2%
2004									-5.6%	-2.7%
2005								0.6%	1.4%	-6.5%
2006							6.9%	5.5%	3.7%	0.3%
2007						-2.4%	7.1%	6.4%	5.4%	13.0%
2008					0.8%	4.3%	-3.0%	-2.6%	5.9%	5.2%
2009				-0.3%	3.4%	1.4%	-2.3%	-0.1%	-3.0%	-3.3%
2010			-0.8%	-2.1%	-4.9%	-5.7%	-2.5%	-4.3%	-5.1%	-0.6%
2011		6.4%	2.5%	5.4%	4.9%	4.6%	4.5%	4.1%	4.5%	2.5%
2012	-1.5%	-1.3%	-0.5%	-6.3%	-2.3%	0.3%	5.3%	9.5%	14.4%	10.2%
2013	3.5%	-0.8%	-4.1%	-2.9%	-4.9%	-5.4%	-3.3%	-5.2%	-13.3%	
2014	-1.6%	1.4%	5.3%	9.3%	15.1%	13.1%	7.4%	6.2%		
2015	4.2%	7.4%	9.5%	11.5%	8.1%	9.9%	5.8%			
2016	2.7%	2.7%	3.2%	3.2%	3.5%	1.6%				
2017	4.6%	8.3%	12.4%	10.8%	7.2%					
2018	6.3%	5.9%	3.5%	-0.4%						
2019	4.4%	1.7%	-2.5%							
2020	5.2%	-2.6%								
2021	-7.4%									

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

Average Medical Case Outstanding per Open Indemnity Claim

Accident Year	_Evaluated as of (in months):_									
	12	24	36	48	60	72	84	96	108	120
1998										
1999										
2000										
2001										
2002										64,232
2003									58,741	69,746
2004								49,949	58,525	72,874
2005							43,050	52,570	63,596	73,017
2006						37,902	45,267	56,155	64,957	70,780
2007					32,773	40,133	50,962	60,303	68,787	76,173
2008				27,639	33,739	42,044	50,655	60,345	70,025	76,697
2009			23,293	28,590	34,880	41,929	48,953	58,163	65,241	73,783
2010		18,850	23,496	28,817	34,295	40,053	46,598	52,746	58,932	67,952
2011	15,637	20,255	24,732	30,386	37,203	42,439	48,753	55,212	64,231	68,817
2012	15,934	20,173	24,047	28,051	33,263	39,602	46,017	55,644	62,970	68,585
2013	15,581	19,674	22,539	26,998	31,782	37,122	44,789	51,828	54,414	
2014	14,976	18,537	21,854	26,302	31,342	37,352	42,983	48,706		
2015	15,563	19,322	23,901	29,293	35,713	40,843	44,389			
2016	16,002	20,274	24,952	29,872	35,371	39,775				
2017	16,890	21,478	26,882	32,017	37,043					
2018	17,706	22,377	26,207	29,970						
2019	17,711	22,029	24,762							
2020	18,070	21,200								
2021	17,955									

Accident Year	_Annual Change_									
	12	24	36	48	60	72	84	96	108	120
1999										
2000										
2001										
2002										
2003										8.6%
2004									-0.4%	4.5%
2005								5.2%	8.7%	0.2%
2006							5.1%	6.8%	2.1%	-3.1%
2007						5.9%	12.6%	7.4%	5.9%	7.6%
2008					2.9%	4.8%	-0.6%	0.1%	1.8%	0.7%
2009				3.4%	3.4%	-0.3%	-3.4%	-3.6%	-6.8%	-3.8%
2010			0.9%	0.8%	-1.7%	-4.5%	-4.8%	-9.3%	-9.7%	-7.9%
2011		7.5%	5.3%	5.4%	8.5%	6.0%	4.6%	4.7%	9.0%	1.3%
2012	1.9%	-0.4%	-2.8%	-7.7%	-10.6%	-6.7%	-5.6%	0.8%	-2.0%	-0.3%
2013	-2.2%	-2.5%	-6.3%	-3.8%	-4.4%	-6.3%	-2.7%	-6.9%	-13.6%	
2014	-3.9%	-5.8%	-3.0%	-2.6%	-1.4%	0.6%	-4.0%	-6.0%		
2015	3.9%	4.2%	9.4%	11.4%	13.9%	9.3%	3.3%			
2016	2.8%	4.9%	4.4%	2.0%	-1.0%	-2.6%				
2017	5.6%	5.9%	7.7%	7.2%	4.7%					
2018	4.8%	4.2%	-2.5%	-6.4%						
2019	0.0%	-1.6%	-5.5%							
2020	2.0%	-3.8%								
2021	-0.6%									

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

Average Paid Indemnity Loss per Closed Indemnity Claim

Accident Year	\underline{12}	\underline{24}	\underline{36}	\underline{48}	\underline{60}	\underline{72}	\underline{84}	\underline{96}	\underline{108}	\underline{120}
					Evaluated as of (in months):					
1998										
1999										
2000										
2001										
2002										20,833
2003									19,415	20,035
2004								14,814	15,618	16,489
2005							12,323	13,180	14,225	14,916
2006						12,428	13,647	14,894	15,777	16,535
2007					11,758	13,480	15,068	16,251	17,195	18,063
2008				10,676	13,227	15,526	17,003	18,259	19,239	19,976
2009			7,852	11,258	14,274	16,389	18,101	19,443	20,404	21,212
2010		4,150	8,065	11,819	14,657	16,703	18,408	19,629	20,489	21,182
2011	1,655	4,477	8,609	12,227	14,926	16,888	18,411	19,543	20,389	20,947
2012	1,831	5,034	9,142	12,589	15,149	17,049	18,341	19,377	20,057	20,537
2013	2,112	5,357	9,537	12,971	15,432	17,097	18,228	19,048	19,579	
2014	2,128	5,625	10,169	13,766	16,330	17,926	18,996	19,741		
2015	2,340	6,175	10,884	14,494	16,892	18,271	19,248			
2016	2,493	6,545	11,035	14,480	16,452	17,800				
2017	2,589	6,647	11,145	14,345	16,459					
2018	2,874	7,039	11,385	14,614						
2019	3,156	7,059	11,430							
2020	3,301	7,747								
2021	3,255									

Accident Year	\underline{12}	\underline{24}	\underline{36}	\underline{48}	\underline{60}	\underline{72}	\underline{84}	\underline{96}	\underline{108}	\underline{120}
					Annual Change					
1999										
2000										
2001										
2002										
2003										-3.8%
2004									-19.6%	-17.7%
2005								-11.0%	-8.9%	-9.5%
2006							10.7%	13.0%	10.9%	10.9%
2007						8.5%	10.4%	9.1%	9.0%	9.2%
2008					12.5%	15.2%	12.8%	12.4%	11.9%	10.6%
2009				5.5%	7.9%	5.6%	6.5%	6.5%	6.1%	6.2%
2010			2.7%	5.0%	2.7%	1.9%	1.7%	1.0%	0.4%	-0.1%
2011		7.9%	6.7%	3.5%	1.8%	1.1%	0.0%	-0.4%	-0.5%	-1.1%
2012	10.6%	12.4%	6.2%	3.0%	1.5%	1.0%	-0.4%	-0.8%	-1.6%	-2.0%
2013	15.3%	6.4%	4.3%	3.0%	1.9%	0.3%	-0.6%	-1.7%	-2.4%	
2014	0.7%	5.0%	6.6%	6.1%	5.8%	4.8%	4.2%	3.6%		
2015	10.0%	9.8%	7.0%	5.3%	3.4%	1.9%	1.3%			
2016	6.5%	6.0%	1.4%	-0.1%	-2.6%	-2.6%				
2017	3.8%	1.6%	1.0%	-0.9%	0.0%					
2018	11.0%	5.9%	2.2%	1.9%						
2019	9.8%	0.3%	0.4%							
2020	4.6%	9.7%								
2021	-1.4%									

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

Average Medical Paid per Closed Indemnity Claim*

Accident Year	\bar{12}	\bar{24}	\bar{36}	\bar{48}	\bar{60}	\bar{72}	\bar{84}	\bar{96}	\bar{108}	\bar{120}
	12	24	36	48	60	72	84	96	108	120
1998										
1999										
2000										
2001										
2002										20,220
2003									17,944	18,774
2004								14,785	15,913	17,217
2005							13,723	14,990	16,655	17,965
2006						13,974	15,702	17,479	18,871	20,192
2007					13,534	15,690	18,080	19,994	21,649	23,145
2008				12,323	15,333	18,576	20,756	22,694	24,316	25,505
2009			9,371	13,298	17,215	20,202	22,704	24,762	26,154	27,615
2010		5,623	9,765	14,243	17,901	20,768	23,411	25,265	26,627	27,708
2011	2,100	5,224	9,673	13,862	17,233	20,199	22,395	24,043	25,217	25,970
2012	2,331	5,611	9,965	13,763	17,018	19,366	21,057	22,371	23,351	23,874
2013	2,399	5,723	9,969	13,575	16,467	18,502	19,887	20,820	21,502	
2014	2,376	5,793	10,041	13,641	16,347	18,136	19,285	20,096		
2015	2,503	6,243	10,432	13,856	16,236	17,713	18,699			
2016	2,709	6,472	10,500	13,516	15,523	16,797				
2017	2,833	6,660	10,653	13,476	15,468					
2018	2,982	6,975	11,110	13,999						
2019	3,422	6,734	10,799							
2020	2,902	7,022								
2021	2,960									

Accident Year	12	24	36	48	60	72	84	96	108	120
					Annual Change					
1999										
2000										
2001										
2002										
2003										-7.2%
2004									-11.3%	-8.3%
2005								1.4%	4.7%	4.3%
2006							14.4%	16.6%	13.3%	12.4%
2007						12.3%	15.1%	14.4%	14.7%	14.6%
2008					13.3%	18.4%	14.8%	13.5%	12.3%	10.2%
2009				7.9%	12.3%	8.8%	9.4%	9.1%	7.6%	8.3%
2010*			--	--	--	--	--	--	--	--
2011*		--	--	--	--	--	--	--	--	--
2012*	--	--	--	--	--	--	--	--	--	--
2013	2.9%	2.0%	0.0%	-1.4%	-3.2%	-4.5%	-5.6%	-6.9%	-7.9%	
2014	-0.9%	1.2%	0.7%	0.5%	-0.7%	-2.0%	-3.0%	-3.5%		
2015	5.3%	7.8%	3.9%	1.6%	-0.7%	-2.3%	-3.0%			
2016	8.3%	3.7%	0.7%	-2.5%	-4.4%	-5.2%				
2017	4.5%	2.9%	1.5%	-0.3%	-0.4%					
2018	5.3%	4.7%	4.3%	3.9%						
2019	14.7%	-3.4%	-2.8%							
2020	-15.2%	4.3%								
2021	2.0%									

* Entries for accident years 2010 and 2011 only reflect the paid cost of medical cost containment programs attributable to policies with effective dates prior to July 1, 2010. Entries for accident year 2012 and forward exclude the paid cost of medical cost containment programs.
Source: WCIRB quarterly calls for experience, excluding COVID-19 claims.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2021
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.290
2018	0.220	1.180	0.902	0.287
2019	0.258	1.148	1.000	0.296
2020	0.277	1.110	1.061	0.290
2021	0.325	1.066	1.091	0.317

	Projected (d)
2022	0.325
2023	0.329
9/1/2023	0.329

(a)   See Section B, Exhibit 3.1.
(b)   See Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual indemnity severity trend from Section B, Exhibit 6.2, and projected frequency trends for accident years 2022 to 2024 from Section B, Exhibit 6.1; these trends were then separately applied to the 2021 on-level ratio.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2021
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.306
2018	0.281	1.016	0.902	0.317
2019	0.311	1.012	1.000	0.315
2020	0.318	1.008	1.061	0.302
2021	0.356	1.007	1.091	0.329

				Projected (d)
2022				0.338
2023				0.344
9/1/2023				0.344

(a) See Section B, Exhibit 3.2.
(b) See Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual medical severity trend from Section B, Exhibit 6.4, and projected frequency trends for accident years 2022 to 2024 from Section B, Exhibit 6.1; these trends were then separately applied to the 2021 on-level ratio.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2019
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.290
2018	0.220	1.180	0.902	0.287
2019	0.258	1.148	1.000	0.296
2020	0.277	1.110	1.061	0.290
2021	0.325	1.066	1.091	0.317

	Projected (d)
2022	0.303
2023	0.306
9/1/2023	0.306

(a)   See Section B, Exhibit 3.1.
(b)   See Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019
on-level ratio. The frequency growth estimates are based on the actual intra-class frequency changes
for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for
accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual indemnity severity growth
estimates are from Section B, Exhibit 6.2.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2019
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.306
2018	0.281	1.016	0.902	0.317
2019	0.311	1.012	1.000	0.315
2020	0.318	1.008	1.061	0.302
2021	0.356	1.007	1.091	0.329

	Projected (d)
2022	0.327
2023	0.332
9/1/2023	0.332

(a)	See Section B, Exhibit 3.2.
(b)	See Section B, Exhibit 4.4.
(c)	See Section B, Exhibit 5.2.
(d)	The trending projection is based on frequency and severity growth separately applied to the 2019 on-level ratio. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1. The annual medical severity growth estimates are from Section B, Exhibit 6.4.
(e)	Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Long-Term Severity Trends
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.290
2018	0.220	1.180	0.902	0.287
2019	0.258	1.148	1.000	0.296
2020	0.277	1.110	1.061	0.290
2021	0.325	1.066	1.091	0.317

Projected (d)

2022	0.314
2023	0.317
9/1/2023	0.317

(a) See Section B, Exhibit 3.1.
(b) See Section B, Exhibit 4.1.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Item Section B, Exhibit 6.1. The annual indemnity severity growth estimates are based on the 1990-2021 annual indemnity severity trend of 0.9%.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Long-Term Severity Trends
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.306
2018	0.281	1.016	0.902	0.317
2019	0.311	1.012	1.000	0.315
2020	0.318	1.008	1.061	0.302
2021	0.356	1.007	1.091	0.329

	Projected (d)
2022	0.355
2023	0.373
9/1/2023	0.375

(a)   See Section B, Exhibit 3.2.
(b)   See Section B, Exhibit 4.4.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Item Section B, Exhibit 6.1. The annual medical severity growth estimates are based on the 1990-2021 annual medical severity trend of 4.9%.
(e)   Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Short-Term Severity Trends
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.290
2018	0.220	1.180	0.902	0.287
2019	0.258	1.148	1.000	0.296
2020	0.277	1.110	1.061	0.290
2021	0.325	1.066	1.091	0.317

Projected (d)

2022	0.322
2023	0.329
9/1/2023	0.330

(a)   See Section B, Exhibit 3.1.
(b)   See Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Item Section B, Exhibit 6.1. The annual indemnity severity growth estimates are based on the 2017-2021 annual indemnity severity trend of 2.2%.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Short-Term Severity Trends
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.306
2018	0.281	1.016	0.902	0.317
2019	0.311	1.012	1.000	0.315
2020	0.318	1.008	1.061	0.302
2021	0.356	1.007	1.091	0.329

				Projected (d)
2022				0.333
2023				0.338
9/1/2023				0.338

(a) See Section B, Exhibit 3.2.
(b) See Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) The trending projection is based on frequency and severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Item Section B, Exhibit 6.1. The annual medical severity growth estimates are based on the 2017-2021 annual medical severity trend of 1.5%.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and 1% Severity Trends
Applied to Accident Years 2019 and 2021
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.306
2018	0.281	1.016	0.902	0.317
2019	0.311	1.012	1.000	0.315
2020	0.318	1.008	1.061	0.302
2021	0.356	1.007	1.091	0.329

		Projected (d)
2022		0.329
2023		0.333
9/1/2023		0.333

(a)   See Section B, Exhibit 3.2.
(b)   See Section B, Exhibit 4.4.
(c)   See Section B, Exhibit 5.2.
(d)   The trending projection is based on frequency and 1% severity growth separately applied to the 2019 and 2021 on-level ratios. The frequency growth estimates are based on the actual intra-class frequency changes for accident years 2020 and 2021 from Section B, Appendix B, Exhibit 3, and frequency model projections for accident years 2022 through 2024 from Section B, Exhibit 6.1.
(e)   Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Long-Term Exponential Loss Ratio Trend
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
1990	0.400	1.325	1.555	0.341
1991	0.427	1.091	1.407	0.331
1992	0.352	1.151	1.280	0.317
1993	0.289	1.396	1.238	0.326
1994	0.328	1.460	1.400	0.343
1995	0.473	1.352	1.838	0.348
1996	0.532	1.263	1.901	0.353
1997	0.602	1.131	1.846	0.369
1998	0.654	1.043	1.854	0.368
1999	0.687	0.967	1.761	0.377
2000	0.595	0.903	1.393	0.385
2001	0.493	0.903	1.191	0.374
2002	0.367	0.925	0.918	0.370
2003	0.243	0.922	0.654	0.344
2004	0.145	1.263	0.588	0.312
2005	0.125	1.711	0.651	0.328
2006	0.161	1.682	0.837	0.324
2007	0.223	1.621	1.069	0.339
2008	0.283	1.522	1.292	0.333
2009	0.331	1.492	1.394	0.355
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.290
2018	0.220	1.180	0.902	0.287
2019	0.258	1.148	1.000	0.296
2020	0.277	1.110	1.061	0.290
2021	0.325	1.066	1.091	0.317

Projected (d)

2022				0.304
2023				0.303
9/1/2023				0.303

(a) See Section B, Exhibit 3.1.
(b) See Section B, Exhibit 4.1.
(c) See Section B, Exhibit 5.2.
(d) These on-level ratios were projected by separately applying an exponential trend of approximately -0.4% based on the 1990 to 2021 on-level indemnity to industry average filed pure premium ratios to the 2019 and 2021 on-level indemnity to industry average filed pure premium ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Long-Term Exponential Loss Ratio Trend
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)	(5) On-Level Medical to Industry Average Filed Pure Premium Ratio (f)
1990	0.338	0.633	1.555	0.138	0.138
1991	0.355	0.542	1.407	0.137	0.137
1992	0.295	0.571	1.280	0.132	0.132
1993	0.243	0.684	1.238	0.134	0.134
1994	0.279	0.717	1.400	0.143	0.143
1995	0.414	0.707	1.838	0.159	0.159
1996	0.444	0.697	1.901	0.163	0.163
1997	0.500	0.691	1.846	0.187	0.187
1998	0.600	0.609	1.854	0.197	0.197
1999	0.661	0.527	1.761	0.198	0.198
2000	0.600	0.485	1.393	0.209	0.209
2001	0.536	0.442	1.191	0.199	0.199
2002	0.417	0.459	0.918	0.208	0.208
2003	0.269	0.481	0.654	0.198	0.198
2004	0.184	0.728	0.588	0.228	0.228
2005	0.181	0.845	0.651	0.236	0.236
2006	0.235	0.888	0.837	0.250	0.250
2007	0.333	0.871	1.069	0.271	0.271
2008	0.417	0.865	1.292	0.279	0.279
2009	0.492	0.853	1.394	0.301	0.301
2010	0.488	0.851	1.267	0.328	0.328
2011	0.421	0.865	1.157	0.315	0.345
2012	0.366	0.905	1.030	0.322	0.351
2013	0.309	0.945	0.900	0.325	0.355
2014	0.281	0.990	0.829	0.335	0.366
2015	0.268	1.009	0.791	0.342	0.373
2016	0.252	1.012	0.818	0.312	0.339
2017	0.258	1.015	0.857	0.306	0.332
2018	0.281	1.016	0.902	0.317	0.344
2019	0.311	1.012	1.000	0.315	0.344
2020	0.318	1.008	1.061	0.302	0.331
2021	0.356	1.007	1.091	0.329	0.361

Projected (d)

2022				0.346
2023				0.359
9/1/2023				0.361

(a) See Section B, Exhibit 3.2.
(b) See Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) These on-level ratios were projected by separately applying an exponential trend of approximately 3.7%
     based on the 1990 to 2021 on-level medical to industry average filed pure premium ratios (including MCCP costs)
     to the 2019 and 2021 on-level medical to industry average filed pure premium ratios.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior
     do reflect paid MCCP costs.
(f) Medical costs include the MCCP cost for all accident years for selecting the loss ratio trend.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Short-Term Exponential Loss Ratio Trend
Based on Experience as of December 31, 2021

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 Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2010	0.320	1.465	1.267	0.369
2011	0.298	1.444	1.157	0.372
2012	0.267	1.426	1.030	0.369
2013	0.228	1.395	0.900	0.353
2014	0.216	1.277	0.829	0.333
2015	0.212	1.259	0.791	0.337
2016	0.200	1.243	0.818	0.305
2017	0.205	1.211	0.857	0.290
2018	0.220	1.180	0.902	0.287
2019	0.258	1.148	1.000	0.296
2020	0.277	1.110	1.061	0.290
2021	0.325	1.066	1.091	0.317

	Projected (d)
2022	0.318
2023	0.324
9/1/2023	0.325

(a)   See Section B, Exhibit 3.1.
(b)   See Section B, Exhibit 4.1.
(c)   See Section B, Exhibit 5.2.
(d)   These on-level ratios were projected by separately applying an exponential trend of approximately 1.9% based on the 2017 to 2021 on-level indemnity to industry average filed pure premium ratios to the 2019 and 2021 on-level indemnity to industry average filed pure premium ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Short-Term Exponential Loss Ratio Trend
Based on Experience as of December 31, 2021

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2010	0.488	0.851	1.267	0.328
2011	0.421	0.865	1.157	0.315
2012	0.366	0.905	1.030	0.322
2013	0.309	0.945	0.900	0.325
2014	0.281	0.990	0.829	0.335
2015	0.268	1.009	0.791	0.342
2016	0.252	1.012	0.818	0.312
2017	0.258	1.015	0.857	0.306
2018	0.281	1.016	0.902	0.317
2019	0.311	1.012	1.000	0.315
2020	0.318	1.008	1.061	0.302
2021	0.356	1.007	1.091	0.329

Projected (d)

2022	0.328
2023	0.331
9/1/2023	0.332

(a) See Section B, Exhibit 3.2.
(b) See Section B, Exhibit 4.4.
(c) See Section B, Exhibit 5.2.
(d) These on-level ratios were projected by separately applying an exponential trend of approximately 1.0% based on the 2017 to 2021 on-level medical to industry average filed pure premium ratios to the 2019 and 2021 on-level medical to industry average filed pure premium ratios.
(e) Accident years 2011 and subsequent do not reflect paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Section B
Appendix C
Projected Loss Adjustment Expense Ratio

Section 11730 of the California Insurance Code provides that the advisory pure premium rates include a provision for loss adjustment expenses (LAE). As detailed in this Appendix, the WCIRB projects LAE on policies incepting between September 1, 2022 and August 31, 2023 at 32.1% of losses.

LAE is incurred by insurers in investigating, administering, and settling workers' compensation claims. These expenses include the costs associated with handling claims that can be directly allocated to a particular claim (allocated loss adjustment expenses or ALAE) as well as costs associated with handling claims that cannot be directly allocated to a particular claim (unallocated loss adjustment expenses or ULAE).

Beginning with policies incepting on or after July 1, 2010, the *California Workers' Compensation Uniform Statistical Reporting Plan—1995* (USRP) requires that the cost of medical cost containment programs (MCCP) be reported as ALAE rather than as medical loss. As a result, projections of MCCP costs are included in the projection of ALAE rather than in the projected on-level medical loss ratio. The projections of MCCP costs as well as the cost of ULAE and ALAE (excluding MCCP costs) for policies incepting between September 1, 2022 and August 31, 2023 are discussed separately below.

Review of Historical LAE Ratios
Exhibit 1 shows ratios of calendar year paid ALAE[1] and paid ULAE to paid losses on a statewide basis and by type of insurer through calendar year 2020.[2] There are significant differences in LAE ratios by type of insurer. In particular, ratios of paid ULAE to paid losses for the State Compensation Insurance Fund (State Fund) have been much higher than those for the private insurers. Additionally, prior to calendar year 2013, the paid ULAE ratios of private insurers with workers' compensation business written primarily in California had been more than double the ratios of insurers with significant writings in other states (national insurers), while ratios of paid ALAE to paid losses for California-focused private insurers had been much more comparable to those for national insurers.

As noted in prior pure premium rate filings, reported ULAE amounts for national insurers are typically based on apportioning countrywide ULAE amounts to California. In addition, national insurers more frequently write policies on a large deductible basis or make use of third-party administrators (TPA) to handle claims. As a result, the amount of ULAE costs apportioned to California by national insurers in prior years were not fully reflective of the complexity of the claims process in California and did not include all ULAE related to claims-handling costs on a first-dollar basis. However, national insurers tend to be larger in size and a 2014 WCIRB study showed that economies of scale is also a contributor to the lower ULAE ratios reported for national insurers.[3]

In 2015, the WCIRB studied the ULAE costs reported for California to better understand differences in ULAE ratios between insurers and to more appropriately project future ULAE cost levels in advisory pure

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[1] Ratios of paid ALAE to losses for calendar years 2010 through 2012 are affected by changes in the definition of MCCP costs to be reported as ALAE instead of medical losses for policies incepting on or after July 1, 2010. No adjustment for MCCP costs was made to the ratios shown in Exhibit 1.

[2] Calendar year 2021 LAE information is not yet available. Calendar year 2020 paid ULAE to paid loss ratios include COVID-19 claims inasmuch as ULAE on COVID-19 claims cannot be separated from other ULAE amounts.

[3] See Item AC14-08-08 of the August 5, 2014 WCIRB Actuarial Committee Agenda for more information.

premium rates.[4] As a result of this analysis, the WCIRB modified its Data Call for Direct California Workers' Compensation Experience Expense Information (Expense Call) to collect additional information from insurers to more accurately reflect ULAE costs related to large deductible policies or claims handled by TPA. Countrywide information on this basis has been reported by insurers to the WCIRB beginning with the 2015 Expense Call. The additional information reported on the WCIRB's Expense Call related to ULAE costs includes (a) negative "service fee" type adjustments that are sometimes reflected in reported countrywide ULAE but may not be appropriate to reflect when projecting future advisory pure premium rates, (b) losses on claims on large deductible policies and/or handled by TPA for which the associated claims handling costs are not reported in countrywide ULAE amounts, and (c) various countrywide loss and ULAE amounts consistent with what is reported by insurers on the Insurance Expense Exhibit.

The approach used by the WCIRB to derive the ratios of California paid ULAE to paid losses for calendar years 2015 and subsequent[5] shown in Exhibit 1 and the paid ULAE amounts used to project the ratio of ULAE to loss involves several components. First, the reported negative "service fee" type adjustments to ULAE were added back into the reported countrywide paid ULAE amount. Second, countrywide paid losses on large deductible policies and/or claims handled by TPA for which the associated claims handling costs were not reported in countrywide paid ULAE were subtracted from the countrywide paid losses. This adjustment was applied to losses gross or net of deductible amounts depending on whether the insurer reported ULAE costs on a gross or net basis. Third, the adjusted countrywide paid ULAE ratio was derived based on the ratio of adjusted countrywide paid ULAE previously computed as described above to the computed adjusted countrywide paid losses. Fourth, the adjusted countrywide paid ULAE was derived by multiplying the adjusted countrywide paid ULAE ratio by the reported countrywide paid losses.

In 2017, the WCIRB reviewed a number of alternative bases of apportioning countrywide ULAE to California and determined that open indemnity claim counts were more highly correlated with paid ULAE and more responsive to the longer duration of claims in California than the alternative bases reviewed.[6] As a result, beginning with the WCIRB's 2017 Expense Call, the WCIRB collects information on countrywide indemnity claim counts open at the end of the previous calendar year. In addition, for a number of the larger national insurers, the WCIRB collected similar information in order to apportion calendar year 2016 adjusted countywide paid ULAE to California based on open indemnity claim counts. The ULAE amounts for calendar years 2016 and subsequent reflected in the ULAE ratios shown in Exhibit 1 and in the projected ULAE ratio were determined using open indemnity claim counts to apportion insurers' countrywide ULAE to California.

For a number of insurers, the negative "service fee" type adjustments to ULAE do not apply and the reported countrywide ULAE reflects all claims handling costs on large deductible policies or related to claims handled by TPA. In these instances, the approach described above simplifies to apportioning the reported countrywide ULAE to California based on California's share of the insurer's countrywide open indemnity claim counts. Although the WCIRB believes open indemnity claim counts is a reasonable basis to apportion countrywide ULAE to California, some insurers may have a more comprehensive method to derive the California ULAE. As a result, for these insurers, the California paid ULAE as reported on the WCIRB's Expense Call was used in deriving the ratios of California paid ULAE to paid losses for calendar years 2015 and subsequent shown in Exhibit 1 and the paid ULAE amounts used to project the ratio of ULAE to loss in lieu of the formulaic approach discussed above.

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[4] See Item AC15-03-07 of the March 30, 2015, June 12, 2015 and August 6, 2015 WCIRB Actuarial Committee Agendas for more information.
[5] In addition, ULAE ratios for calendar years 2013 and 2014 have been partially adjusted for these issues based on information provided by several large national insurers for these calendar years.
[6] See Item AC17-09-02 of the September 5, 2017 WCIRB Actuarial Committee Agenda.

ULAE Projection

Since the January 1, 2013 Pure Premium Rate Filing, the WCIRB has based its ULAE projection on reported calendar year paid ULAE amounts rather than incurred ULAE amounts. ULAE projections based on incurred ULAE amounts can be significantly distorted by changes in reserves related to older accident years and paid ULAE ratios have been relatively more stable than incurred ULAE ratios. In addition, it is unclear to what extent the adjustments to reported countrywide paid ULAE amounts discussed above affect ULAE reserves.

As shown in Exhibit 1, there are significant differences in the historical LAE experience of State Fund compared to that of private insurers. Unlike many other insurers, State Fund makes extensive use of in-house defense counsel. Consistent with the requirements of the USRP, State Fund attempts to reassign the cost of in-house defense counsel to accident year and calendar year ALAE amounts. However, given State Fund's somewhat atypical ALAE and ULAE ratios, it is not clear if the reassigned in-house defense counsel costs are consistent with the reported defense costs of insurers that rely primarily on outside defense counsel. For several years, the WCIRB has based the projected ratio of ULAE to loss primarily on statewide experience but using average ULAE costs based only on private insurer experience to address these concerns.

Exhibit 2 shows the average calendar year paid ULAE per open indemnity claim for private insurers. Average paid ULAE per open indemnity claim for calendar years 2016 and subsequent have been adjusted as described above and, as a result, are not comparable to the ULAE severities for prior years. (Average paid ULAE for per open indemnity claim for calendar years 2013 through 2015 reflect partial adjustments for the issues discussed above and are also not comparable to other periods.) ULAE paid per open indemnity claim for 2019 is approximately 9% lower than that for 2018. This decrease could be partly related to efforts from insurers to settle larger, more complex claims faster over the last several years but could also be related to year-to-year variation in average paid ULAE. ULAE paid per open indemnity claim for 2020 is significantly higher than that for 2019. However, the 2020 ULAE is likely significantly impacted by the pandemic and, inasmuch as ULAE on COVID-19 claims cannot be separated from other ULAE amounts, includes ULAE related to COVID-19 claims.

As in the last several pure premium rate filings, the WCIRB is basing the projected ratio of ULAE to loss based on a method that relates ULAE to the number of open indemnity claims averaged with a method that relates ULAE to paid losses. In 2020, the WCIRB conducted a study of these approaches and found that paid ULAE amounts continue to be well correlated with both open indemnity claim counts and paid loss amounts.[7]

Exhibits 3.1 through 3.5 show the projection of the ratio of ULAE to loss based on the relationship of calendar year paid ULAE to the number of indemnity claims open at the beginning of the calendar year using a methodology consistent with that used in the September 1, 2021 Pure Premium Rate Filing. Average calendar year paid ULAE is based on private insurer experience, while all other information was computed on a statewide basis. This methodology assumes that ULAE paid for a year is a function of the volume of claims handled by claims adjusters during that year and that the timing of the payment of ULAE costs on policies incepting between September 1, 2022 and August 31, 2023 will be consistent with the timing of loss payments.

Projected changes in open indemnity claim counts, as shown in Exhibits 3.1 through 3.4, are based on recent claim settlement patterns and the WCIRB's selected indemnity claim frequency changes (see Appendix B for a discussion of selected indemnity claim frequency changes). The projections of open indemnity claim counts shown in Exhibit 3.3 are based on the prior number of open indemnity claims for the

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[7] See Item AC20-12-02 of the December 11, 2020 WCIRB Actuarial Committee Agenda.

accident year multiplied by 1.0 minus the incremental claim settlement rate based on the latest year claim settlement pattern as shown in column 7 of Exhibit 3.3. In the WCIRB's 2020 study of ULAE projection methodologies, the WCIRB found that this method was more accurate than the alternative methods reviewed.[8] The projected number of ultimate indemnity claims for accident years 2022 and 2023 as shown in column 10 of Exhibit 3.3 are based on applying the WCIRB's projected frequency changes to the ultimate indemnity claim counts for accident years 2019 and 2021. This trending approach is consistent with that utilized for losses as discussed in Appendix B.[9]

The WCIRB is projecting future growth in paid ULAE per open indemnity claim to the period underlying policies incepting between September 1, 2022 and August 31, 2023 based on the annual changes in average California wages. This trending approach assumes average ULAE costs, which are primarily for claims adjuster salaries, grow at a rate comparable to that for statewide average wages. The wage projections used are based on the average of those produced by the UCLA Anderson School of Business and California Department of Finance forecasts (see Section B, Exhibit 5.1), as adjusted for the impact of the pandemic-related economic slowdown on the mix of industries and mix of wage levels within industries as discussed in Appendix B. Consistent with the last several pure premium rate filings, these projected growth rates are then applied to each of the paid ULAE severities for two calendar years averaged to project average ULAE costs for calendar years 2022 through 2024. Given that calendar year 2020 ULAE is distorted by the pandemic and the inclusion of COVID-19 claims, calendar years 2018 and 2019 average paid ULAE were used in this approach to project future average ULAE severities.

The projected number of open indemnity claims is multiplied by the projected average ULAE per open indemnity claim to produce the projected ULAE for calendar years 2022 through 2024. The projected ULAE for policies incepting between September 1, 2022 and August 31, 2023 is based on a weighted average of calendar years 2022 through 2024, trended an additional 2.9 years to reflect the approximate average loss payment date on policies incepting between September 1, 2022 and August 31, 2023.[10] The projected ratio of ULAE to loss for policies incepting between September 1, 2022 and August 31, 2023 computed on this basis, as shown in Exhibit 3.5, is 14.5%.

The methodology presented in Exhibits 3.1 through 3.5 reflects only the relationship between ULAE paid amounts and the number of indemnity claims that were open in the beginning of the year and does not reflect potential differences in the cost of handling a serious claim relative to a less costly claim. Prior WCIRB studies have shown that paid ULAE is also correlated with paid loss amounts, which are reflective of differences in claim values. As in the September 1, 2021 Pure Premium Rate Filing, the WCIRB is using a paid loss-based methodology to project the ULAE to loss ratio for policies incepting between September 1, 2022 and August 31, 2023 based on the average of two calendar year paid ULAE to paid loss ratios. Given the pandemic-related issues with the calendar year 2020 ULAE as discussed above, the private insurer paid ULAE to paid loss ratios for calendar years 2018 and 2019 were selected in this approach. These ratios are shown in Exhibit 1. The projected ratio of ULAE to loss for policies incepting between September 1, 2022 and August 31, 2023 based on this approach is 13.9%.

The WCIRB's ULAE projection is based on an average of the projections based on (a) the relationship between calendar year paid ULAE (for private insurers) and the number of open indemnity claims (see Exhibit 3.5) and (b) the average of the calendar year 2018 and 2019 paid ULAE to paid loss ratios for

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[8] See Item AC20-12-02 of the December 11, 2020 WCIRB Actuarial Committee Agenda.

[9] Given that calendar years 2019 and 2021 were used to project the future number of indemnity claims, the premium used to determine the projected losses shown in line 5 of Exhibit 3.5 is based on the average of the premium from calendar years 2019 and 2021.

[10] The average loss payment date is estimated based on the projected loss development factors shown in Section B, Exhibits 2.5.1 and 2.6.1 at the point at which an estimated 50% of indemnity and medical losses have been paid.

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private insurers (see Exhibit 1). The WCIRB's projected ratio of ULAE to loss for policies incepting between September 1, 2022 and August 31, 2023 using this methodology is 14.2%.

Summary of Alternative ULAE Projections
For informational purposes, the WCIRB has computed alternative projections of ratios of ULAE to loss based on alternative methodologies reflecting underlying assumptions that differ from those reflected in the WCIRB's selected methodology. These alternative projections of ratios of ULAE to loss are shown in Exhibits 1 and 4 and are discussed below.

Calendar Year Paid ULAE Projection Trended a Single Year
Exhibit 4 shows a projection based on the relationship of ULAE paid to the number of open indemnity claims in which the projected ULAE is based on the WCIRB's projected trends applied to calendar year 2019 only. The projection based on this methodology is somewhat lower than that based on the analogous methodology recommended by the WCIRB which applies the trend to the average of two calendar years (2018 and 2019). In order to reduce volatility in year-to-year changes in average ULAE costs, the WCIRB recommends basing the ULAE projection on the average of two calendar years.

Calendar Year Ratios of ULAE to Loss
In addition to the WCIRB's recommended methodology that bases the ULAE projection in part on the average of the calendar year 2018 and 2019 paid ULAE to paid loss ratios, Table 1 shows alternative ULAE projections based on the paid ULAE to paid loss ratio for calendar year 2019 only and for the average of the latest two calendar years (2019 and 2020). In order to reduce volatility in year-to-year changes in average ULAE costs, the WCIRB recommends basing the ULAE projection on the average of two calendar years. Furthermore, the WCIRB does not recommend using the calendar year 2020 ULAE to loss ratio in the projection given it is significantly impacted by the pandemic.

The ULAE to loss ratio projections for policies incepting between September 1, 2022 and August 31, 2023 derived using each of these alternative ULAE projection methodologies as well as the WCIRB's selected methodology are shown in Table 1.

Table 1: ULAE to Loss Ratio Projections

ULAE Projection Methodologies	Statewide with Private Insurer Average ULAE
September 1, 2022 Filing Methodology	
Paid ULAE Per Open Indemnity Claim Applied to 2018 and 2019	14.5%
Calendar Year 2018 and 2019 Paid ULAE to Loss Ratios	13.9%
Average of Open Indemnity Claim-Based and Paid Loss-Based Projections	**14.2%**
Alternative Methodologies	
Paid ULAE Per Open Indemnity Claim Applied to 2019 Only	13.6%
Calendar Year 2019 Paid ULAE to Loss Ratio	13.0%
Latest Two Calendar Year Paid ULAE to Loss Ratios	14.4%

ALAE Projection – Excluding MCCP Costs
The WCIRB is projecting the ALAE to loss ratio for policies incepting between September 1, 2022 and August 31, 2023 using a methodology that projects future ALAE as a function of the anticipated future statewide number of indemnity claims and average private insurer ALAE per indemnity claim, which is consistent with the methodology reflected in the last several pure premium rate filings. The projections of ALAE discussed in this section are exclusive of MCCP costs, which are discussed separately below.

The COVID-19 pandemic has had a significant impact on the workers' compensation system including the filing of thousands of claims arising out of a diagnosis of COVID-19 for accident years 2020 and 2021. As shown in Appendix B, Exhibit 1, significant ALAE and MCCP costs have been paid on COVID-19 claims as of December 31, 2021. The WCIRB believes these claims reflect the uniqueness of the COVID-19 pandemic and may not be indicative of ALAE, MCCP or other claim costs that will incur on policies incepting between September 1, 2022 and August 31, 2023. As a result, as with the loss projections, the WCIRB has excluded COVID-19 claims from the ALAE and MCCP cost information for accident years 2020 and 2021 included in this Appendix.

Effective January 1, 2013, Senate Bill No. 863 (SB 863) created the process of independent medical review (IMR) and independent bill review (IBR) to resolve medical treatment and billing disputes. Prior to January 1, 2016, the cost of IMR and IBR reports paid had been included in paid MCCP costs reported in ALAE. Beginning with IMR and IBR reports paid on or after January 1, 2016, the USRP requires that the cost of these reports no longer be included in reported MCCP costs although such costs continue to be required to be reported as ALAE. As a result, ALAE excluding MCCP costs paid in 2016 and later include the cost of IMR and IBR while ALAE excluding MCCP costs paid prior to 2016 do not include IMR and IBR costs. In order to review ALAE excluding MCCP costs on a comparable basis, as in the last several pure premium rate filings, the WCIRB adjusted all pre-2016 payments of ALAE excluding MCCP costs to include the cost of IMR and IBR for all periods. This adjustment was based on information on the number and average cost of an IMR and IBR obtained from the Division of Workers' Compensation (DWC). This adjustment is reflected in the paid ALAE amounts and projections of ratios of ALAE to loss included in this Appendix. (A similar adjustment is made to MCCP costs, which is discussed separately below.)

Exhibit 5.1 shows average paid ALAE per reported indemnity claim by accident year for private insurers. The change in average ALAE costs at the latest evaluation for accident years 2018 through 2020 have increased from the prior evaluation, likely in part as a result of the slowdown in the claim settlement process during the pandemic. Exhibit 5.2 shows ratios of paid ALAE to paid losses for private insurers. These ratios have been generally consistent for the pre-pandemic years. The accident year 2020 and 2021 ratios shown in Exhibit 5.2 are lower than the pre-pandemic period. This is also likely related to a slowdown in the claims resolution process during the pandemic.

Exhibit 6 shows estimated ultimate ALAE per indemnity claim for private insurers based on private insurers' reported ALAE amounts and indemnity claim counts by accident year as of December 30, 2021, the selected paid ALAE development for private insurers from Exhibit 8.1 and projected indemnity claim count development analogous to that shown in Exhibit 8.3 for private insurers. Exhibit 7 shows the ratio of accident year incremental paid ALAE to indemnity claims inventory by payment year for private insurers. Recent changes in average ALAE costs on both an ultimate accident year and calendar year basis have been modest.

Exhibits 8.1 through 8.4 show the projected ratio of ALAE to loss for policies incepting between September 1, 2022 and August 31, 2023 based on the projected changes in the frequency of indemnity claims and projected average ALAE cost per indemnity claim. Given State Fund's LAE characteristics discussed with respect to ULAE above, as with the projection of ULAE, the WCIRB is projecting the ALAE provision based on a combination of statewide claim and loss experience and private insurer average ALAE costs.

As discussed in Appendix A, indemnity claim settlement rates increased steadily for several years following the implementation of SB 863 and up to the onset of the pandemic. Recently, the slowdown of the claim resolution process during the pandemic has resulted in declining indemnity claim settlement rates for more recent accident years. As discussed in Appendix A, the WCIRB has reflected adjustments to paid indemnity and medical loss development for the impact of changes in claim settlement rates. In 2019 and 2020, the WCIRB studied the potential impact of claim settlement rate changes on paid ALAE

development which found that significant negative correlation exists between changes in claim settlement rates in earlier periods and the ALAE development that emerges for the accident year in later periods.[11] For example, during a period of significant claim settlement increase, the WCIRB's study found that future paid ALAE development for that accident year emerged lower than otherwise projected. As a result, the WCIRB is reflecting an adjustment to paid ALAE development for the impact of claim settlement rate changes.

The adjustment to paid ALAE development, which is developed using an approach similar to that used in the last two pure premium rate filings, is based on a linear regression model applied to periods with significant claim settlement rate changes (1.5 points or greater) compared to the change in future cumulative paid ALAE development. To ensure this adjustment is reflected in a manner responsive to claim settlement rate changes for each accident year and maturity, the linear regression results from the cumulative approach are adjusted to an incremental age-to-age basis based on the incremental difference from the cumulative adjustment at the prior age. Table 2 shows the adjustments to paid ALAE development based on the regression model through 72 months.

**Table 2 – Adjustment to ALAE Development
based on 1 Point of Settlement Rate Change**

Age	Indicated Cumulative Adjustment from Regression Model[12]	Selected Age-to-Age Adjustment
72	-1.1%	**-1.1%**
60	-1.6%	**-0.5%**
48	-2.0%	**-0.4%**
36	-2.7%	**-0.6%**
24	-3.6%	**-0.9%**
12	-7.0%	**-3.4%**

The WCIRB recommends that the adjustment factors shown in Table 2 only be applied to the projected age-to-age ALAE development if the claim settlement rate for the accident year at that evaluation changed by 1.5 points or greater in absolute value.[13] As shown in Appendix A, Exhibit 3, indemnity claim settlement rates for accident year 2019 at the latest evaluation decreased by 1.5 points or greater over the prior year, while accident year 2018 and 2019 claim settlement rates at the prior (December 31, 2020) evaluation increased by more than 1.5 points over the prior year. As a result, the WCIRB adjusted paid ALAE age-to-age development projected for these accident years and evaluations based on the values shown in Table 2, as shown in Table 3. The adjusted paid ALAE age-to-age development factors shown in Table 3 are also used to project cumulative paid ALAE development for accident years prior to that age (i.e., the adjusted factors shown in Table 3 are also used to project ALAE development for accident year 2021 after 12 months and accident year 2020 after 24 months).

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[11] See Item AC19-08-04 of the August 1, 2019 and August 4, 2020 WCIRB Actuarial Committee Agendas.

[12] Each figure was computed based on the regression model results applied to March 31 evaluations and interpolated for December 31 evaluations.

[13] The 1.5-point threshold is based on a 2017 WCIRB review of historical claim settlement rate changes compared to changes in loss development patterns. See Item AC17-03-03 of the March 21, 2017 WCIRB Actuarial Committee Agenda.

Table 3 – Adjustment to Paid ALAE Development for Claim Settlement Rate Changes

Age	Evaluated as of 12/31/2020			Evaluated as of 12/31/2021		
	Settlement Rate Point Change	Unadjusted Age-to-Age Factor	Adjusted Age-to-Age Factor	Settlement Rate Point Change	Unadjusted Age-to-Age Factor	Adjusted Age-to-Age Factor
72	0.5	1.048	N/A	0.4	1.044	N/A
60	0.4	1.071	N/A	0.1	1.069	N/A
48	0.1	1.117	N/A	-1.2	1.114	N/A
36	**-1.7**	1.218	1.232	**-2.2**	1.227	1.246
24	**-2.4**	1.533	1.566	-1.3	1.573	N/A
12	-0.9	3.654	N/A	1.1	3.945	N/A

Consistent with prior pure premium rate filings, the WCIRB is projecting future ALAE development through 360 months based on the latest year's age-to-age paid ALAE development, adjusted for changes in claim settlement rates as discussed above. The long-term ALAE "tail" development factor applied after 360 months is based on fitting an inverse power curve to the historical paid ALAE development factors. Specifically, the inverse power curve was fit to the average of the latest three years' paid ALAE development factors for the 108-to-120-month through 348-to-360-month period, with the ALAE tail development factor based on the fitted curve values through 65 development years. The ALAE development factors selected by the WCIRB are shown in Exhibit 8.1 based on private insurer experience. (Exhibit 8.2 shows, for informational purposes, private insurer paid ALAE age-to-age factors on a quarterly basis.)

As discussed for losses in Appendix B, the COVID-19 pandemic has significantly impacted exposure, premium and claim cost levels for accident year 2020. Although COVID-19 claims have been excluded from the accident year 2020 information included in this filing, due to the unique and temporary impact of the pandemic on accident year 2020, the WCIRB does not believe that accident year 2020 is an appropriate basis to project the ALAE to loss ratio for policies incepting between September 1, 2022 and August 31, 2023. However, projected accident year 2021 ALAE is based on ALAE reported as of 12 months and relies heavily on projected future ALAE development. The WCIRB believes basing the ALAE projection on a more mature year in addition to the latest year, consistent with prior pure premium rate filings, is appropriate. As a result, the WCIRB is basing the projected ALAE to loss ratio for policies incepting between September 1, 2022 and August 31, 2023 by applying its recommended trending rates to accident years 2019 and 2021. This trending approach is consistent with that utilized for losses as discussed in Appendix B.

The estimated ultimate number of indemnity claims shown in Exhibit 8.4 is projected based on the number of indemnity claims reported as of December 31, 2021, the latest year historical claim reporting pattern (see Exhibit 8.3) and the projected growth in indemnity claims based on the WCIRB's projected growth in intra-class indemnity claim frequency (see Appendix B for a discussion of projected indemnity claim frequency changes). These projected claim frequency changes are applied to the ultimate indemnity claims projected for accident years 2019 and 2021.[14]

The estimated ultimate ALAE per indemnity claim shown in Exhibit 8.4 is based on private insurers' experience (see Exhibit 6). As in the last several pure premium rate filings, the WCIRB has based the projected ALAE severity trend on the approximate average of the longer-term (since 2008) and shorter-term (2017 to 2021) average rates of growth in (a) estimated ultimate ALAE per indemnity claim for private insurers (Exhibit 6) and (b) incremental paid ALAE per open indemnity claim for private insurers

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[14] Given that accident years 2019 and 2021 were used to project the future number of indemnity claims, the premium used to determine the projected losses shown in line (b) of Exhibit 8.4 is based on the average of the premium from calendar years 2019 and 2021.

(Exhibit 7). This approach results in an annual average ALAE severity growth projection of 1.0%, which is consistent with the projected ALAE severity trend reflected in the September 1, 2021 Pure Premium Rate Filing. The projected ALAE per indemnity claim for policies incepting between September 1, 2022 and August 31, 2023 is based on the selected 1.0% ALAE severity trend applied to the accident year 2019 and accident year 2021 ultimate ALAE per indemnity claim.

The WCIRB believes the ALAE projections based on projected indemnity claim counts and estimated growth in ALAE per indemnity claim are reasonable bases upon which to project future ALAE inasmuch as (a) changes in ALAE have shown to be reasonably well-correlated with changes in indemnity claim counts, (b) the method is responsive to changes in ALAE costs per indemnity claim, and (c) the method is responsive to anticipated future changes in claim frequency. In addition, during a study of ALAE projection methodologies, the WCIRB found that ALAE projections based on this methodology continued to be more accurate than those baes on other alternative methods tested.[15] Exhibit 8.4 shows the projected ratio of ALAE (excluding MCCP costs) to loss on this basis, prior to the impact of Senate Bill No. 1160 (SB 1160) and Assembly Bill No. 1244 (AB 1244), of 14.7%.

SB 1160 and AB 1244 included a number of provisions related to lien filings that became effective in 2017. Liens incur significant ALAE costs in addition to the settlement costs paid to the lien claimant. As discussed in Appendix B, the WCIRB estimates a 70% reduction in lien filings resulted from SB 1160 and AB 1244, which corresponds to an approximate 11.2% reduction in ALAE (excluding MCCP) costs. Given that liens are generally filed relatively late in the life of claims, accident year 2017 and forward paid ALAE costs as of December 31, 2021 are only partially affected by the SB 1160 and AB 1224 lien reform provisions. In addition, SB 1160 and AB 1244 have also impacted the recent decreases in paid ALAE development for older accident years. In order to only reflect the impact of the reforms that is not yet reflected in the emerging ALAE data, the WCIRB is reflecting a 2.8% reduction in ALAE costs in the projections of the ALAE ratio.[16] This adjustment, which is consistent with the approach reflected in the last several pure premium rate filings and is shown on line (g) of Exhibit 8.4, is based on judgmentally tempering the full estimated impact of -11.2% by the estimated average proportion of ultimate ALAE costs for accident years 2017 and 2018 that have emerged as of December 31, 2021 (75%). As shown on line (h) of Exhibit 8.4, the projected ratio of ALAE (excluding MCCP costs) to loss, after reflecting the impact of SB 1160 and AB 1244, is 14.3%.

Summary of Alternative ALAE (excluding MCCP Costs) Projections
For informational purposes, the WCIRB has computed alternative ALAE to loss ratio projections based on a number of alternative methodologies reflecting underlying assumptions that differ from those reflected in the WCIRB's recommended methodology. These alternative ALAE to loss ratio projections are shown in Exhibits 9 and 10 and are discussed below.

<u>Projected Ultimate ALAE Per Indemnity Claim and Future Number of Indemnity Claims Based on Two-Year Average Adjusted Paid ALAE Development</u>
Exhibits 9.1 and 9.2 show a method that projects the ALAE to loss ratio based on changes in indemnity claim frequency and ALAE severities in which the paid ALAE is developed using the average of the latest two years' paid ALAE age-to-age factors with adjustments for changes in claim settlement rates. This approach was utilized in the WCIRB's September 1, 2021 Pure Premium Rate Filing to mitigate the impact of the pandemic period paid ALAE development emerging in 2020. This projection is generally consistent with that based on the WCIRB's selected ALAE projection methodology which projects paid ALAE development based on the latest year development factors. Given the potential impact of the pandemic on paid ALAE development emerging in 2020, the WCIRB recommends using the latest year

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[15] See Item AC14-12-02 of the December 3, 2014 WCIRB Actuarial Committee Agenda.

[16] In that medical bill disputes that would otherwise result in a filed lien are continuing to be pursued with insurer claim personnel, the WCIRB is not recommending an adjustment to the ULAE projection to reflect the SB 1160 and AB 1244 reduction in liens.

(2021) paid ALAE development, which is consistent with the approach used in prior pre-pandemic pure premium rate filings.

Projected Ultimate ALAE Per Indemnity Claim and Future Number of Indemnity Claims with Trend Applied to the 2019 Only
Exhibit 10 shows a method that projects the ALAE to loss ratio based on changes in indemnity claim frequency and ALAE severities which applies the WCIRB's projected frequency and ALAE severity trends to the projected ultimate ALAE per indemnity claim and ultimate indemnity claim counts for accident year 2019 only. This approach, which excludes the experience of the years impacted by the pandemic, was utilized in the WCIRB's September 1, 2021 Pure Premium Rate Filing in light of the pandemic's impact on accident year 2020. This projection is slightly lower that based on the WCIRB's selected ALAE projection methodology which is based on projecting from accident years 2019 and 2021. As discussed above, the WCIRB believes using the latest year (2021) in the projection is appropriate to be responsive to recent ALAE costs.

The projections of ratios of ALAE to loss for policies incepting between September 1, 2022 and August 31, 2023 derived from each of these alternative ALAE projection methodologies (after reflecting the impact of SB 1160 and AB 1244) as well as the WCIRB's selected methodology are shown in Table 4.

Table 4: ALAE (Excluding MCCP Costs) to Loss Ratio Projections

ALAE Projection Methodologies	**Statewide with Private Insurer Average ALAE**
September 1, 2022 Filing Methodology	
Projected Ultimate ALAE Per Indemnity Claim – Latest Year Adjusted Paid ALAE Development – Trend Applied to 2019 and 2021	**14.3%**
Alternative Methodologies	
Projected Ultimate ALAE Per Indemnity Claim – Two-Year Average Adjusted Paid ALAE Development – Trend Applied to 2019 and 2021	14.2%
Projected Ultimate ALAE Per Indemnity Claim – Latest Year Adjusted Paid ALAE Development – Trend Applied to 2019	14.1%

Projection of MCCP Costs
As discussed above, beginning with policies incepting on or after July 1, 2010, MCCP costs are reported as ALAE rather than as medical loss. In that MCCP costs are fundamentally different than other ALAE costs, which are to a large extent related to litigation, the WCIRB continues to project the provision for MCCP costs separately from other ALAE costs. As with ALAE excluding MCCP costs, COVID-19 claims have been excluded from MCCP costs for accident years 2020 and 2021.

Beginning in 2016, the cost of IMR and IBR is no longer reported in MCCP as a component of ALAE. As a result, MCCP costs paid in 2016 and later do not include the cost of IMR and IBR while MCCP costs paid prior to 2016 include IMR and IBR costs. For consistency of comparison, similar to ALAE excluding MCCP costs, the WCIRB adjusted all pre-2016 MCCP payments to exclude the cost of IMR and IBR for all periods based on information obtained from the DWC on IMR and IBR determinations made prior to 2016 by accident year. This adjustment is reflected in the paid MCCP cost amounts and projections of ratios of MCCP costs to loss included in this Appendix. In this way, MCCP cost payment patterns can be reviewed on a consistent basis.

Exhibit 11 shows average paid MCCP per reported indemnity claim by accident year. Exhibit 12 shows estimated ultimate accident year MCCP per indemnity claim. Exhibit 13 shows calendar year paid MCCP costs per indemnity claims inventory (measured as the sum of indemnity claims open at the beginning of the calendar year and indemnity claims opened during the calendar year). Changes in average MCCP costs have been very modest over the last several years.

Exhibits 14.1 and 14.2 show the projection of MCCP costs on a statewide basis based on reported MCCP paid costs through December 31, 2021. The methodology used to project MCCP costs is very similar to the WCIRB's methodology used to project ALAE excluding MCCP costs by applying selected frequency and severity trends to the accident year 2019 and 2021 projected ultimate indemnity claim counts and ultimate MCCP per indemnity claim. Reported accident year MCCP paid costs were developed to an ultimate basis using (a) latest-year paid MCCP age-to-age development factors through 120 months and (b) the cumulative medical loss development factors based on December 31, 2021 experience after 120 months.[17]

The projected MCCP cost severity trend was based on the approximate average of the annual rates of growth in (a) ultimate accident year MCCP costs per indemnity claim from 2012 through 2021 shown in Exhibit 12 and (b) calendar year MCCP costs per open indemnity claim from 2009 through 2020 shown in Exhibit 13, which is consistent with the approach used in the last several pure premium rate filings. This approach results in an annual MCCP severity growth projection of -1.0% annually, which is consistent with the MCCP severity trend reflected in the September 1, 2021 Pure Premium Rate Filing.

Inasmuch as the previously discussed factors impacting State Fund's ULAE and ALAE excluding MCCP cost experience do not impact State Fund's MCCP cost experience, the WCIRB's MCCP cost projection reflects statewide MCCP experience. As shown in Exhibit 14.2, the WCIRB's projected ratio of MCCP costs to loss for policies incepting between September 1, 2022 and August 31, 2023 based on this approach is 3.6%.

Summary of Alternative MCCP Cost Projections
For informational purposes, the WCIRB has computed alternative MCCP cost to loss ratio projections based on a number of alternative methodologies reflecting underlying assumptions that differ from those reflected in the WCIRB's recommended methodology. These alternative MCCP cost to loss ratio projections are shown in Exhibits 15 and 16 and are discussed below.

Projected Ultimate MCCP Cost Per Indemnity Claim and Future Number of Indemnity Claims Based on Two-Year Average Paid MCCP Cost Development
Exhibit 15 shows a method that projects the MCCP cost to loss ratio based on changes in indemnity claim frequency and MCCP cost severities in which the paid MCCP costs is developed using the average of the latest two years' paid MCCP cost age-to-age factors. This approach was utilized in the WCIRB's September 1, 2021 Pure Premium Rate Filing to mitigate the impact of the pandemic period paid MCCP cost development emerging in 2020. This projection is generally consistent with that based on the WCIRB's selected MCCP cost projection methodology which projects paid MCCP cost development based on the latest year. Given the potential impact of the pandemic on paid MCCP cost development emerging in 2020, the WCIRB recommends using the latest year (2021) paid MCCP cost development, which is consistent with the approach used in prior pre-pandemic pure premium rate filings.

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[17] As discussed in prior pure premium rate filings, paid MCCP costs reported in medical losses cannot be completely separated from other paid medical costs prior to accident year 2012.

<u>Projected Ultimate MCCP Cost Per Indemnity Claim and Future Number of Indemnity Claims with Trend
Applied to Accident Year 2019 Only</u>
Exhibit 16 shows a method that projects the MCCP cost to loss ratio based on changes in indemnity claim
frequency and MCCP cost severities which applies the WCIRB's projected frequency and MCCP cost
severity trends to the projected ultimate indemnity claim counts and ultimate MCCP costs per indemnity
claim for accident year 2019 only. This approach was utilized in the WCIRB's September 1, 2021 Pure
Premium Rate Filing given the impact of the pandemic on accident year 2020. This projection is generally
consistent with that based on the WCIRB's selected MCCP cost projection methodology which is based
on projecting from accident years 2019 and 2021. As discussed with respect to the projection of ALAE
excluding MCCP costs above, the WCIRB believes using the latest year (2021) in the projection is
appropriate to be responsive to recent MCCP costs.

The projections of the ratios of MCCP costs to loss derived from each of these alternative MCCP cost
projection methodologies as well as the WCIRB's selected methodology are shown in Table 5.

Table 5: MCCP Cost to Loss Ratio Projections

MCCP Cost Projection Method	Statewide
September 1, 2022 Filing Methodology Projected Ultimate MCCP Per Indemnity Claim – Latest Year Paid MCCP Development – Trend Applied to 2019 and 2021	**3.6%**
Alternative Methodologies	
Projected Ultimate MCCP Per Indemnity Claim – Two-Year Average Paid MCCP Development – Trend Applied to 2019 and 2021	3.5%
Projected Ultimate MCCP Per Indemnity Claim – Latest Year Paid MCCP Development – Trend Applied to 2019	3.5%

Based on the methodologies discussed above, the WCIRB projects a total provision of LAE to loss of
32.1% for policies incepting between September 1, 2022 and August 31, 2023.

Summary of Paid LAE Ratios by Insurer Type

Paid ALAE to Paid Loss Ratios[1]

CY	State Fund	CA Private Insurers	National	Statewide	Private Insurers
2010	5.9%	14.1%	15.5%	13.3%	15.3%
2011	5.9%	15.9%	17.3%	14.9%	17.2%
2012	6.3%	15.2%	19.1%	16.2%	18.6%
2013	5.9%	15.4%	20.0%	17.0%	19.5%
2014	8.4%	17.8%	21.3%	19.0%	20.8%
2015	10.1%	18.0%	22.6%	20.5%	22.0%
2016	11.0%	17.9%	22.4%	20.4%	21.6%
2017	10.8%	19.8%	22.7%	20.9%	22.3%
2018	11.4%	19.5%	23.0%	21.1%	22.4%
2019	12.9%	17.8%	22.8%	20.9%	22.0%
2020	11.5%	17.9%	23.4%	21.0%	22.5%
2020 excl. COVID-19	11.5%	17.9%	23.5%	21.0%	22.6%

Paid ULAE to Paid Loss Ratios

CY	State Fund	CA Private Insurers	National	Statewide	Private Insurers
2010	27.9%	17.3%	6.4%	12.3%	7.9%
2011	28.9%	15.9%	6.5%	11.9%	7.7%
2012	45.0% [2]	15.0%	6.4%	14.8% [2]	7.5%
2013 [3]	21.8%	16.3%	8.5%	11.7%	9.4%
2014 [3]	28.8%	14.7%	7.7%	11.6%	8.6%
2015 [4]	35.1%	14.8%	10.2%	13.9%	10.9%
2016 [4]	37.6%	14.2%	12.8%	15.9%	13.0%
2017 [4]	25.6%	16.1%	14.1%	15.8%	14.4%
2018 [4]	24.8%	14.9%	14.8%	16.1%	14.8%
2019 [4]	21.3%	14.4%	12.8%	14.1%	13.0%
2020 [4]	17.6%	15.3%	15.8%	16.0%	15.8%

Paid LAE to Paid Loss Ratios

CY	State Fund	CA Private Insurers	National	Statewide	Private Insurers
2010	33.8%	31.4%	22.0%	25.6%	23.3%
2011	34.8%	31.8%	23.8%	26.8%	24.8%
2012	51.3% [2]	30.3%	25.5%	31.0% [2]	26.1%
2013 [3]	27.7%	31.7%	28.5%	28.6%	28.9%
2014 [3]	37.2%	32.5%	29.0%	30.6%	29.4%
2015 [4]	45.2%	32.8%	32.8%	34.4%	32.8%
2016 [4]	48.6%	32.1%	35.2%	36.3%	34.7%
2017 [4]	36.4%	36.0%	36.9%	36.7%	36.7%
2018 [4]	36.2%	34.4%	37.8%	37.1%	37.2%
2019 [4]	34.2%	32.2%	35.6%	35.0%	35.1%
2020 [4]	29.1%	33.2%	39.3%	37.0%	38.3%

Notes: [1] Medical Cost Containment Program (MCCP) costs on claims covered by policies incepting prior to July 1, 2010 are considered medical loss; those on claims covered by policies incepting July 1, 2010 and beyond are considered allocated loss adjustment expenses.

[2] 2012 figure includes a one-time adjustment made by State Compensation Insurance Fund to reallocate liabilities related to pension benefits.

[3] 2013 and 2014 ratios included information submitted by several large national insurers to more appropriately reflect ULAE costs related to deductible policies and third party administrators.

[4] Reflects adjustments based on the Expense Call for ULAE costs related to deductible policies and third-party administrators. 2015 adjusted ratio is based on apportioning adjusted countrywide paid ULAE to California using paid losses. 2016 to 2020 adjusted ratios are based on apportioning adjusted countrywide paid ULAE to California using open indemnity claim counts.

Source: WCIRB expense calls and quarterly calls for experience.

Calendar Year ULAE Paid per Open Indemnity Claim - Private Insurers

Calendar Year	ULAE Paid[1] (in Millions)	Number of Open Indemnity Claims at Beginning of the Year[2]	Number of Indemnity Claims Reported During Year[3]	ULAE Paid per Open Indemnity Claim[4]	Annual Change
	(1)	(2)	(3)	(4)	(5)
2010	432	257,439	107,734	1,676	---
2011	450	267,152	116,356	1,684	0.5%
2012	474	279,015	122,080	1,698	0.8%
2013 [5]	644	294,011	131,749	2,192	---
2014 [5]	598	307,227	133,061	1,947	-11.2%
2015 [6]	774	311,158	140,302	2,486	---
2016 [6]	948	314,808	139,941	3,010	---
2017 [6]	1,045	311,196	145,909	3,359	11.6%
2018 [6]	1,076	304,634	146,120	3,531	5.1%
2019 [6]	947	294,351	149,143	3,219	-8.8%
2020 [6]	1,061	289,557	148,273	3,663	13.8%

Notes:

[1] Calendar year ULAE paid is based on WCIRB expense calls. All figures in each calendar year contain information from the same combination of private insurers that submitted both the ULAE and claim count data for that calendar year. Therefore, each calendar year may contain a different mix of private insurers.

[2],[3] Based on WCIRB accident year experience calls. Column (3) is for information only.

[4] Column (1) / Column (2) x 1,000,000.

[5] 2013 and 2014 paid ULAE included information submitted by several large national insurers to more appropriately reflect ULAE costs related to deductible policies and third party administrators.

[6] Reflects adjustments for ULAE costs related to deductible policies and third-party administrators based on the Expense Call. 2015 paid ULAE is based on apportioning adjusted countrywide paid ULAE to California using paid losses. 2016 to 2020 paid ULAE are based on apportioning adjusted countrywide paid ULAE to California using open indemnity claim counts.

Source: WCIRB expense calls and quarterly calls for experience. COVID-19 claims are included given that ULAE on COVID-19 claims cannot be separated from other ULAE.

Reported Indemnity Claim Count Development - Statewide

Age-to-Age Development (in months):

Accident Year	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	168-180	180-192	192-204	204-216
1993															1.000	1.000	1.000
1994														1.000	1.000	1.000	1.000
1995													1.000	1.004	1.001	1.000	1.000
1996												1.001	1.001	1.000	1.000	1.000	1.000
1997											1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998										1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
1999									1.002	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000
2000								0.998	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2001							0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002						1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003					1.008	0.998	0.999	0.999	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004				1.000	0.999	1.000	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005			1.004	1.000	1.001	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006		1.013	1.005	1.002	1.001	1.000	1.005	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2007	1.125	1.015	1.006	1.004	1.002	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000			
2008	1.153	1.023	1.011	1.005	1.003	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000				
2009	1.194	1.029	1.011	1.006	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000					
2010	1.220	1.030	1.011	1.006	1.004	1.002	1.001	1.000	1.001	1.000	1.000						
2011	1.230	1.033	1.014	1.007	1.002	1.001	1.001	1.001	1.000	1.000							
2012	1.241	1.035	1.013	1.005	1.003	1.001	1.001	1.000	1.001								
2013	1.240	1.031	1.010	1.004	1.002	1.002	1.001	1.001									
2014	1.239	1.027	1.010	1.004	1.002	1.000	1.001										
2015	1.236	1.027	1.006	1.003	1.002	1.001											
2016	1.244	1.029	1.007	1.003	1.002												
2017	1.220	1.023	1.007	1.003													
2018	1.226	1.024	1.007														
2019	1.222	1.028															
2020	1.220																

Age-to-Age Development Factors

	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	168-180	180-192	192-204	204-216
@12/31/20	1.222	1.024	1.007	1.003	1.002	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
@12/31/21	1.220	1.028	1.007	1.003	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Age-to-Ultimate

	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	168-180	180-192	192-204	204-216
@12/31/20	1.271	1.040	1.016	1.009	1.006	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.003	1.003	1.002
@12/31/21	1.279	1.048	1.020	1.013	1.010	1.008	1.007	1.006	1.005	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003

Estimated Percent of Ultimate Indemnity Claims Reported

	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	168-180	180-192	192-204	204-216
@12/31/20	78.7%	96.1%	98.4%	99.1%	99.4%	99.7%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.8%
@12/31/21	78.2%	95.4%	98.1%	98.7%	99.0%	99.2%	99.3%	99.4%	99.5%	99.6%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%

Age-to-Age Development (in months):

Accident Year	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
1989				1.000	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	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1991		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
1992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000								
1998	1.000	1.000	1.000	1.000	1.000	1.000									
1999	1.000	1.000	1.000	1.000	1.000										
2000	1.000	1.000	1.000	1.000											
2001	1.000	1.000	1.000												
2002	1.000	1.000													
2003	1.000														

Age-to-Age Development Factors

	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
@12/31/20	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
@12/31/21	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Age-to-Ultimate

	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
@12/31/20	1.002	1.002	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	
@12/31/21	1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000

Estimated Percent of Ultimate Indemnity Claims Reported

	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
@12/31/20	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%
@12/31/21	99.7%	99.7%	99.7%	99.8%	99.8%	99.8%	99.8%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%

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

Reported Indemnity Claim Closing Rate - Statewide

Accident Year	\- Evaluated as of (in months):																
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
1993															98.4%	98.5%	98.6%
1994														97.8%	98.0%	98.2%	98.3%
1995													96.9%	97.2%	97.5%	97.6%	97.8%
1996												95.9%	96.3%	96.7%	96.9%	97.1%	97.3%
1997											95.6%	96.0%	96.5%	96.8%	97.0%	97.2%	97.5%
1998										95.0%	95.6%	96.3%	96.7%	97.0%	97.3%	97.6%	97.7%
1999									93.9%	94.8%	95.7%	96.3%	96.7%	97.1%	97.5%	97.7%	97.9%
2000								91.7%	93.1%	94.4%	95.3%	96.0%	96.4%	97.0%	97.3%	97.6%	97.9%
2001							87.9%	90.4%	92.3%	93.6%	94.6%	95.4%	96.1%	96.6%	97.0%	97.4%	97.7%
2002						84.6%	88.3%	90.9%	92.5%	93.8%	94.8%	95.9%	96.4%	96.9%	97.4%	97.7%	98.1%
2003					79.4%	84.8%	88.4%	90.7%	92.5%	93.8%	95.2%	95.9%	96.4%	97.0%	97.5%	97.9%	98.3%
2004				73.0%	80.7%	85.4%	88.3%	90.7%	92.5%	94.4%	95.4%	96.1%	96.8%	97.3%	97.8%	98.2%	98.5%
2005			63.5%	74.7%	81.3%	85.5%	88.5%	90.9%	93.2%	94.5%	95.5%	96.4%	97.0%	97.6%	98.0%	98.4%	98.6%
2006		50.3%	64.5%	74.7%	81.5%	85.7%	88.8%	91.3%	93.0%	94.3%	95.5%	96.4%	97.1%	97.6%	98.0%	98.3%	
2007	27.1%	49.8%	63.6%	73.6%	80.3%	84.7%	88.9%	91.4%	93.2%	94.8%	96.0%	96.8%	97.4%	97.9%	98.2%		
2008	27.6%	48.1%	61.8%	72.2%	79.3%	85.1%	88.9%	91.5%	93.7%	95.1%	96.2%	97.0%	97.6%	97.9%			
2009	26.7%	46.3%	60.1%	70.8%	79.2%	84.6%	88.6%	91.8%	93.8%	95.3%	96.4%	97.1%	97.6%				
2010	27.0%	46.9%	60.7%	72.5%	80.5%	85.8%	90.1%	92.8%	94.7%	96.0%	96.9%	97.5%					
2011	27.5%	47.2%	62.0%	73.4%	81.4%	86.9%	90.9%	93.6%	95.3%	96.3%	97.0%						
2012	27.7%	48.1%	63.3%	74.8%	82.8%	88.3%	92.1%	94.4%	95.8%	96.7%							
2013	26.9%	48.4%	64.4%	76.4%	84.7%	89.9%	93.2%	95.1%	96.3%								
2014	26.9%	49.5%	65.8%	78.1%	86.2%	90.7%	93.5%	95.3%									
2015	27.3%	50.5%	68.3%	80.6%	87.8%	91.3%	93.8%										
2016	28.2%	53.4%	71.0%	82.4%	88.2%	91.7%											
2017	30.4%	56.2%	73.1%	82.5%	88.2%												
2018	31.2%	56.3%	71.4%	81.3%													
2019	31.1%	54.0%	69.1%														
2020	29.9%	52.8%															
2021	31.4%																

Reported Closing Rate

	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
@12/31/20	29.9%	54.0%	71.4%	82.5%	88.2%	91.3%	93.5%	95.1%	95.8%	96.3%	96.9%	97.1%	97.6%	97.9%	98.0%	98.4%	98.5%
@12/31/21	31.4%	52.8%	69.1%	81.3%	88.2%	91.7%	93.8%	95.3%	96.3%	96.7%	97.0%	97.5%	97.6%	97.9%	98.2%	98.3%	98.6%

Estimated Percent Closed[1]

	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
@12/31/20	23.6%	51.9%	70.2%	81.8%	87.7%	91.0%	93.2%	94.9%	95.5%	96.1%	96.7%	96.9%	97.3%	97.7%	97.8%	98.1%	98.2%
@12/31/21	24.5%	50.3%	67.7%	80.3%	87.4%	90.9%	93.2%	94.7%	95.8%	96.3%	96.7%	97.2%	97.3%	97.6%	98.0%	98.1%	98.3%

Accident Year	\- Evaluated as of (in months):															
	216	228	240	252	264	276	288	300	312	324	336	348	360	372	384	396
1989				99.3%	99.4%	99.4%	99.4%	99.5%	99.5%	99.5%	99.6%	99.6%	99.6%	99.6%	99.7%	99.7%
1990			99.2%	99.2%	99.2%	99.3%	99.3%	99.3%	99.4%	99.4%	99.4%	99.4%	99.5%	99.5%	99.5%	
1991		98.9%	99.0%	99.0%	99.1%	99.1%	99.1%	99.2%	99.2%	99.2%	99.3%	99.3%	99.3%	99.4%		
1992	98.8%	98.9%	98.9%	99.0%	99.0%	99.0%	99.1%	99.1%	99.2%	99.2%	99.2%	99.3%	99.3%			
1993	98.6%	98.8%	98.8%	98.9%	98.9%	99.0%	99.0%	99.1%	99.1%	99.2%	99.2%	99.3%				
1994	98.4%	98.5%	98.6%	98.6%	98.7%	98.8%	98.8%	98.9%	98.9%	99.0%	99.1%					
1995	97.9%	98.0%	98.1%	98.2%	98.3%	98.4%	98.4%	98.5%	98.6%	98.6%						
1996	97.4%	97.6%	97.7%	97.8%	97.8%	98.0%	98.0%	98.1%	98.2%							
1997	97.6%	97.7%	97.9%	98.0%	98.1%	98.2%	98.3%	98.4%								
1998	97.9%	98.0%	98.2%	98.3%	98.5%	98.6%	98.7%									
1999	98.1%	98.4%	98.5%	98.7%	98.8%	98.9%										
2000	98.1%	98.3%	98.6%	98.7%	98.8%											
2001	98.0%	98.2%	98.5%	98.7%												
2002	98.3%	98.6%	98.8%													
2003	98.5%	98.8%														
2004	98.7%															

Reported Closing Rate

	216	228	240	252	264	276	288	300	312	324	336	348	360	372	384	396
@12/31/20	98.5%	98.6%	98.5%	98.7%	98.8%	98.6%	98.3%	98.1%	98.6%	99.0%	99.2%	99.3%	99.3%	99.5%	99.7%	
@12/31/21	98.7%	98.8%	98.8%	98.7%	98.8%	98.9%	98.7%	98.4%	98.2%	98.6%	99.1%	99.3%	99.3%	99.4%	99.5%	99.7%

Estimated Percent Closed[1]

	216	228	240	252	264	276	288	300	312	324	336	348	360	372	384	396
@12/31/20	98.3%	98.4%	98.3%	98.5%	98.7%	98.4%	98.2%	98.0%	98.5%	98.9%	99.2%	99.2%	99.3%	99.5%	99.7%	
@12/31/21	98.4%	98.5%	98.5%	98.5%	98.6%	98.7%	98.5%	98.3%	98.0%	98.5%	99.0%	99.2%	99.3%	99.4%	99.5%	99.7%

Note:[1] Estimated precent closed is the product of (a) the Estimated Percent of Ultimate Indemnity Claims Reported (Exhibit 3.1) and (b) the Reported Closing Rate.

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

Selected Ultimate Indemnity Claim Reporting and Closure Patterns - Statewide

Selected Indemnity Claim Reporting and Closure Patterns as of December 31 of

Year	2020 Percent Reported[1] (1)	2021 Percent Reported[1] (2)	2020 Percent Closed[2] (3)	2021 Percent Closed[2] (4)	2020 Opening Rate[3] (5)	2021 Opening Rate[3] (6)	Incremental Closing Rate[4] (7)
1	78.7%	78.2%	23.6%	24.5%	55.1%	53.6%	46.4%
2	96.1%	95.4%	51.9%	50.3%	44.2%	45.1%	18.3%
3	98.4%	98.1%	70.2%	67.7%	28.2%	30.3%	31.3%
4	99.1%	98.7%	81.8%	80.3%	17.3%	18.4%	34.5%
5	99.4%	99.0%	87.7%	87.4%	11.7%	11.6%	32.8%
6	99.7%	99.2%	91.0%	90.9%	8.6%	8.3%	29.7%
7	99.7%	99.3%	93.2%	93.2%	6.5%	6.1%	28.8%
8	99.8%	99.4%	94.9%	94.7%	4.9%	4.7%	27.8%
9	99.8%	99.5%	95.5%	95.8%	4.2%	3.7%	24.5%
10	99.8%	99.6%	96.1%	96.3%	3.7%	3.3%	21.7%
11	99.8%	99.7%	96.7%	96.7%	3.1%	3.0%	19.1%
12	99.8%	99.7%	96.9%	97.2%	2.9%	2.5%	19.9%
13	99.8%	99.7%	97.3%	97.3%	2.4%	2.4%	16.8%
14	99.8%	99.7%	97.7%	97.6%	2.1%	2.1%	13.9%
15	99.7%	99.7%	97.8%	98.0%	1.9%	1.7%	16.3%
16	99.7%	99.7%	98.1%	98.1%	1.6%	1.7%	14.3%
17	99.8%	99.7%	98.2%	98.3%	1.5%	1.4%	14.7%
18	99.8%	99.7%	98.3%	98.4%	1.5%	1.3%	15.7%
19	99.8%	99.7%	98.3%	98.5%	1.4%	1.2%	16.9%
20	99.8%	99.7%	98.3%	98.5%	1.5%	1.2%	15.6%
21	99.8%	99.8%	98.5%	98.5%	1.3%	1.3%	12.4%
22	99.8%	99.8%	98.7%	98.6%	1.2%	1.2%	11.1%
23	99.8%	99.8%	98.4%	98.7%	1.4%	1.1%	8.2%
24	99.9%	99.8%	98.2%	98.5%	1.7%	1.3%	5.9%
25	99.9%	99.9%	98.0%	98.3%	1.9%	1.6%	3.3%
26	99.9%	99.9%	98.5%	98.0%	1.4%	1.8%	4.3%
27	99.9%	99.9%	98.9%	98.5%	1.0%	1.4%	3.3%
28	100.0%	99.9%	99.2%	99.0%	0.8%	0.9%	7.4%
29	100.0%	100.0%	99.2%	99.2%	0.7%	0.7%	3.7%
30	100.0%	100.0%	99.3%	99.3%	0.7%	0.7%	4.0%
31	100.0%	100.0%	99.5%	99.4%	0.5%	0.6%	4.2%
32	100.0%	100.0%	99.7%	99.5%	0.3%	0.5%	5.8%
33		100.0%		99.7%		0.3%	7.3%

Cumulative Indemnity Claim Counts as of December 31, 2021

AY	Reported (8)	Open (9)	Estimated Ultimate[5] (10)	Annual Change
1989	222,087	670	222,087	
1990	248,001	1,191	248,012	
1991	248,319	1,583	248,347	
1992	197,212	1,385	197,257	
1993	155,288	1,161	155,358	
1994	142,805	1,347	142,908	
1995	134,045	1,857	134,156	
1996	131,214	2,416	131,363	
1997	137,074	2,200	137,269	
1998	147,258	1,954	147,519	
1999	148,417	1,583	148,696	
2000	161,441	1,862	161,792	
2001	185,330	2,432	185,770	
2002	189,404	2,291	189,892	
2003	184,187	2,256	184,684	
2004	158,960	2,070	159,389	
2005	139,527	1,948	139,904	
2006	133,175	2,231	133,542	
2007	130,152	2,278	130,494	
2008	122,781	2,577	123,109	
2009	113,494	2,721	113,817	
2010	118,280	2,955	118,643	
2011	120,745	3,601	121,146	
2012	128,106	4,267	128,586	
2013	136,235	5,056	136,905	
2014	140,972	6,632	141,811	
2015	144,998	8,977	146,011	
2016	148,191	12,330	149,392	
2017	148,580	17,468	150,075	
2018	151,186	28,235	153,120	
2019	153,193	47,403	156,197	
2020	129,773	61,315	136,063	-9.3%
2021	117,281	80,488	150,049	7.9%

			Projected[6]	
2022			153,623	1.5%
2023			153,853	0.1%
Total	5,067,711	318,740		

Notes:

[1] See Exhibit 3.1.

[2] See Exhibit 3.2.

[3] Column (1) - Column (3) for 12/31/2020 and Column (2) - Column (4) for 12/31/2021.

[4] 1.0 minus ratio of Column (6) claim opening rate for accident year YYYY at 12/31/2021 to Column (5) claim opening rate for accident year YYYY at 12/31/2020.

[5] Estimated based on number of reported indemnity claims (excluding COVID-19 claims) as of December 31, 2021 (Column (8)) and selected reporting pattern on Column (2).

[6] Estimated based on applying projected frequency trends to accident years 2019 and 2021 estimated ultimate indemnity claim counts. Frequency trends for 2020 and 2021 are the actual "intra-class" changes from Section B, Appendix B, Exhibit 3. Frequency trends for accident years 2022 through 2024 are based on the projected growth in intra-class indemnity claim frequency from Section B, Exhibit 6.1.

Estimated Number of Open Indemnity Claims - Statewide
Based on Selected Reporting and Incremental Closing Rates

AY	Estimated Number of Reported Indemnity Claims[1]		Estimated Number of Open Indemnity Claims[2]	
	@12/31/22	@12/31/23	@12/31/22	@12/31/23
	(1)	(2)	(3)	(4)
1989	222,087	222,087	621	575
1990	248,012	248,012	1,104	1,023
1991	248,336	248,347	1,492	1,382
1992	197,234	197,248	1,327	1,250
1993	155,323	155,340	1,115	1,068
1994	142,844	142,876	1,297	1,246
1995	134,059	134,095	1,719	1,656
1996	131,255	131,269	2,337	2,163
1997	137,113	137,156	2,105	2,036
1998	147,310	147,351	1,890	1,809
1999	148,433	148,485	1,490	1,442
2000	161,488	161,505	1,710	1,610
2001	185,368	185,422	2,163	1,986
2002	189,442	189,481	2,008	1,785
2003	184,209	184,246	1,904	1,668
2004	158,960	158,979	1,720	1,451
2005	139,528	139,528	1,642	1,364
2006	133,182	133,183	1,903	1,604
2007	130,135	130,142	1,953	1,666
2008	122,787	122,771	2,158	1,850
2009	113,513	113,519	2,344	1,962
2010	118,306	118,326	2,457	2,117
2011	120,776	120,802	2,885	2,399
2012	128,160	128,193	3,454	2,767
2013	136,395	136,452	3,960	3,206
2014	141,117	141,282	5,005	3,921
2015	145,146	145,296	6,480	4,890
2016	148,356	148,507	8,782	6,339
2017	148,868	149,034	12,279	8,745
2018	151,595	151,889	18,978	13,341
2019	154,224	154,642	31,033	20,859
2020	133,446	134,345	42,113	27,570
2021	143,112	147,163	65,788	45,185
Projected				
2022	120,074	146,521	82,405	67,355
2023		120,254		82,528
Total	5,220,193	5,373,747	321,620	323,819

Notes:

[1], [2] Estimated based on the projected number of indemnity claims as of 12/31/2021
(Columns 9 and 10 of Exhibit 3.3) and selected reporting and incremental closing rate
(Column (2) and Column (7) of Exhibit 3.3).

Projected Ratio of ULAE to Loss - Statewide
Based on Estimated Calendar Year ULAE Paid per Open Indemnity Claim for Private Insurers
Trend Applied to 2018 and 2019
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Calendar Year	Number of Open Indemnity Claims at Beginning of the Year (1)	ULAE Paid per Open Indemnity Claim (2)	ULAE Paid ($000) (3)
2010	360,624	1,676	604,510
2011	360,339	1,684	606,894
2012	360,391	1,698	612,112
2013	365,706	2,192	801,569
2014	366,420	1,947	713,493
2015	367,925	2,486	914,731
2016	370,782	3,010	1,116,097
2017	362,328	3,359	1,217,236
2018	350,417	3,531	1,237,191
2019	334,060	3,219	1,075,218
2020	322,967	3,663	1,182,898
Projected			
2021	316,177	3,855	1,218,839
2022	318,740	4,044	1,288,927
2023	321,620	4,157	1,336,988
2024	323,819	4,260	1,379,418

(4) Projected ULAE Paid ($000): 1,470,047

(5) Average of Calendar Years 2019 and 2021 Earned Premium ($000): 14,817,986

(6) Projected Loss to Industry Average Filed Pure Premium Ratio: 0.655

(7) Weighted Premium Adjustment Factor for Earned Premium on Line (5): 1.042

(8) Projected Losses ($000): (5) x (6) x (7) 10,113,424

(9) Projected Ratio of ULAE to Losses: (4)/(8) 14.5%

Notes:
(1) Calendar years 2010 to 2022 are based on WCIRB accident year experience calls. 2023 to 2024 open claim counts are based on incremental indemnity claim closing rates (see Total of Columns (3) to (4) of Exhibit 3.4).
(2) Calendar years 2010 to 2020 are from column (4) of Exhibit 2. Calendar years 2021 to 2024 are projected based on applying the California average annual wage level changes selected by the WCIRB, to the ULAE paid per open indemnity claim from averaging 2018 and 2019.
(3) Column (1) x Column (2).
(4) Weight average of calendar years 2022 with 5.6%, 2023 with 72.2% and 2024 with 22.2%, projected 2.9 years to the approximate average midpoint of ultimate ULAE payments on September 1, 2022 to August 31, 2023 policies, based on applying the average annual change of 3.2% from 2023 to 2025 derived from the information published by the UCLA Anderson School of Business and the California Department of Finance.
(5) Based on the reported calendar years 2019 and 2021 earned premium excluding COVID-19 premium charges from the same group of insurers that reported the number of open indemnity claims in calendar year 2021
(6) See Exhibit 8 of Section B.
(7) See Exhibit 5.2 of Section B. Based on a weighting of calendar years 2019 and 2021.

Projected Ratio of ULAE to Loss - Statewide
Based on Estimated Calendar Year ULAE Paid per Open Indemnity Claim for Private Insurers
Trend Applied to 2019
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Calendar Year	Number of Open Indemnity Claims at Beginning of the Year (1)	ULAE Paid per Open Indemnity Claim (2)	ULAE Paid ($000) (3)
2010	360,624	1,676	604,510
2011	360,339	1,684	606,894
2012	360,391	1,698	612,112
2013	365,706	2,192	801,569
2014	366,420	1,947	713,493
2015	367,925	2,486	914,731
2016	370,782	3,010	1,116,097
2017	362,328	3,359	1,217,236
2018	350,417	3,531	1,237,191
2019	334,060	3,219	1,075,218
2020	322,967	3,663	1,182,898
Projected			
2021	316,177	3,597	1,137,313
2022	318,740	3,774	1,202,872
2023	321,620	3,880	1,247,841
2024	323,819	3,976	1,287,442

(4) Projected ULAE Paid ($000):   1,374,068

(5) Average of Calendar Years 2019 and 2021 Earned Premium ($000):   14,817,986

(6) Projected Loss to Industry Average Filed Pure Premium Ratio: 0.655

(7) Weighted Premium Adjustment Factor for Earned Premium on Line (5):   1.042

(8) Projected Losses ($000): (5) x (6) x (7)   10,113,424

(9) Projected Ratio of ULAE to Losses: (4)/(8)   13.6%

Notes:
   (1) Calendar years 2010 to 2022 are based on WCIRB accident year experience calls. 2023 to 2024 open claim counts are based on incremental indemnity claim closing rates (see Total of Columns (3) to (4) of Exhibit 3.4).
   (2) Calendar years 2010 to 2020 are from column (4) of Exhibit 2. Calendar years 2021 to 2024 are projected based on applying the California average annual wage level changes selected by the WCIRB to the 2019 ULAE paid per open indemnity claim.
   (3) Column (1) x Column (2).
   (4) Weight average of calendar years 2022 with 5.6%, 2023 with 72.2% and 2024 with 22.2%, projected 2.9 years to the approximate average midpoint of ultimate ULAE payments on September 1, 2022 to August 31, 2023 policies, based on applying the average annual change of 3.2% from 2023 to 2025 derived from the information published by the UCLA Anderson School of Business and the California Department of Finance.
   (5) Based on the reported calendar years 2019 and 2021 earned premium excluding COVID-19 premium charges from the same group of insurers that reported the number of open indemnity claims in calendar year 2021
   (6) See Exhibit 8 of Section B.
   (7) See Exhibit 5.2 of Section B. Based on a weighting of calendar years 2019 and 2021.

Average Paid ALAE per Reported Indemnity Claim - Private Insurers
As of December 30, 2021

Accident Year	_____ Evaluated as of (in months): _____									
	12	24	36	48	60	72	84	96	108	120
2000								4,521	4,709	4,900
2001							5,480	5,704	5,977	6,144
2002						5,673	5,944	6,260	6,454	6,614
2003					5,475	5,917	6,315	6,597	6,809	7,015
2004				4,369	5,062	5,577	5,955	6,223	6,437	6,644
2005			3,023	3,987	4,698	5,219	5,591	5,899	6,162	6,330
2006		1,853	3,126	4,127	4,876	5,436	5,865	6,184	6,410	6,622
2007	575	1,978	3,323	4,419	5,230	5,864	6,378	6,697	6,978	7,190
2008	619	2,118	3,620	4,859	5,789	6,501	6,986	7,387	7,671	7,884
2009	675	2,406	4,083	5,460	6,484	7,203	7,783	8,196	8,490	8,718
2010	745	2,541	4,279	5,593	6,547	7,290	7,870	8,243	8,515	8,703
2011	753	2,563	4,188	5,522	6,537	7,325	7,837	8,186	8,422	8,579
2012	758	2,554	4,320	5,708	6,746	7,431	7,867	8,187	8,402	8,538
2013	777	2,790	4,582	5,936	6,851	7,418	7,817	8,059	8,219	
2014	879	2,992	4,769	6,056	6,864	7,392	7,740	7,949		
2015	951	3,067	4,846	6,032	6,772	7,227	7,528			
2016	933	3,157	4,901	6,023	6,700	7,129				
2017	1,016	3,281	4,942	5,966	6,616					
2018	1,111	3,382	5,052	6,143						
2019	1,121	3,320	5,060							
2020	1,073	3,423								
2021	1,031									

	Annual Change									
Year	12	24	36	48	60	72	84	96	108	120
2001								26.2%	26.9%	25.4%
2002							8.5%	9.7%	8.0%	7.6%
2003						4.3%	6.2%	5.4%	5.5%	6.1%
2004					-7.5%	-5.7%	-5.7%	-5.7%	-5.5%	-5.3%
2005				-8.7%	-7.2%	-6.4%	-6.1%	-5.2%	-4.3%	-4.7%
2006			3.4%	3.5%	3.8%	4.2%	4.9%	4.8%	4.0%	4.6%
2007		6.8%	6.3%	7.1%	7.3%	7.9%	8.7%	8.3%	8.8%	8.6%
2008	7.8%	7.1%	8.9%	9.9%	10.7%	10.9%	9.5%	10.3%	9.9%	9.7%
2009	8.9%	13.6%	12.8%	12.4%	12.0%	10.8%	11.4%	11.0%	10.7%	10.6%
2010	10.4%	5.6%	4.8%	2.4%	1.0%	1.2%	1.1%	0.6%	0.3%	-0.2%
2011	1.1%	0.9%	-2.1%	-1.3%	-0.1%	0.5%	-0.4%	-0.7%	-1.1%	-1.4%
2012	0.7%	-0.3%	3.1%	3.4%	3.2%	1.4%	0.4%	0.0%	-0.2%	-0.5%
2013	2.5%	9.2%	6.1%	4.0%	1.6%	-0.2%	-0.6%	-1.6%	-2.2%	
2014	13.2%	7.2%	4.1%	2.0%	0.2%	-0.3%	-1.0%	-1.4%		
2015	8.1%	2.5%	1.6%	-0.4%	-1.3%	-2.2%	-2.7%			
2016	-1.8%	2.9%	1.1%	-0.1%	-1.1%	-1.4%				
2017	8.9%	3.9%	0.8%	-1.0%	-1.2%					
2018	9.3%	3.1%	2.2%	3.0%						
2019	0.9%	-1.8%	0.2%							
2020	-4.2%	3.1%								
2021	-4.0%									

Note: All paid ALAE exclude the paid cost of medical cost containment programs.

Source: WCIRB accident year experience calls excluding COVID-19 claims.

Ratio of Paid ALAE to Paid Loss - Private Insurers
As of December 31, 2021

Accident				Evaluated as of (in months):						
Year	12	24	36	48	60	72	84	96	108	120
2000								0.108	0.108	0.109
2001							0.120	0.121	0.122	0.123
2002						0.134	0.136	0.137	0.138	0.139
2003					0.140	0.144	0.146	0.147	0.148	0.149
2004				0.149	0.154	0.157	0.159	0.160	0.160	0.160
2005			0.130	0.142	0.148	0.152	0.154	0.155	0.155	0.155
2006		0.106	0.125	0.136	0.142	0.146	0.148	0.149	0.150	0.150
2007	0.070	0.106	0.123	0.134	0.140	0.145	0.147	0.147	0.148	0.149
2008	0.066	0.104	0.123	0.134	0.140	0.144	0.145	0.147	0.148	0.149
2009	0.072	0.117	0.135	0.145	0.150	0.152	0.155	0.156	0.157	0.158
2010	0.080	0.125	0.142	0.148	0.151	0.155	0.158	0.159	0.160	0.160
2011	0.087	0.131	0.144	0.153	0.159	0.164	0.166	0.167	0.168	0.168
2012	0.086	0.131	0.151	0.163	0.170	0.173	0.174	0.175	0.176	0.176
2013	0.091	0.147	0.164	0.173	0.178	0.180	0.182	0.183	0.183	
2014	0.104	0.159	0.170	0.176	0.179	0.181	0.183	0.183		
2015	0.112	0.158	0.170	0.174	0.177	0.179	0.180			
2016	0.106	0.160	0.172	0.177	0.181	0.182				
2017	0.111	0.163	0.172	0.177	0.179					
2018	0.115	0.162	0.173	0.176						
2019	0.116	0.161	0.172							
2020	0.104	0.152								
2021	0.101									

Accident				Annual Change						
Year	12	24	36	48	60	72	84	96	108	120
2001								11.2%	12.7%	12.2%
2002							13.1%	13.8%	13.4%	13.1%
2003						6.8%	7.2%	7.3%	6.9%	7.3%
2004					10.0%	9.5%	9.3%	8.7%	8.1%	7.7%
2005				-5.0%	-4.0%	-3.2%	-3.4%	-3.2%	-2.8%	-3.2%
2006			-3.9%	-4.1%	-4.3%	-4.3%	-4.0%	-3.6%	-3.7%	-3.1%
2007		-0.3%	-1.5%	-1.6%	-1.0%	-0.7%	-0.5%	-1.2%	-0.9%	-1.1%
2008	-4.8%	-1.2%	0.1%	0.3%	-0.1%	-0.4%	-1.3%	-0.4%	-0.1%	0.2%
2009	7.8%	12.1%	9.5%	8.2%	7.1%	5.7%	6.8%	6.4%	6.2%	6.1%
2010	12.1%	6.4%	5.0%	2.0%	0.9%	1.9%	1.7%	1.8%	1.6%	1.3%
2011	8.0%	4.8%	1.6%	3.0%	5.0%	5.6%	5.6%	5.1%	4.9%	4.8%
2012	-0.5%	0.7%	5.2%	6.7%	6.7%	5.4%	4.5%	4.6%	4.8%	4.8%
2013	5.6%	12.2%	8.6%	6.2%	4.8%	4.5%	4.7%	4.7%	4.4%	
2014	14.1%	7.8%	3.1%	1.9%	0.6%	0.4%	0.4%	-0.1%		
2015	8.3%	-0.5%	0.1%	-1.2%	-1.1%	-0.9%	-1.6%			
2016	-5.7%	1.2%	1.6%	1.8%	2.1%	1.4%				
2017	4.8%	1.9%	-0.2%	-0.1%	-0.9%					
2018	3.7%	-0.4%	0.6%	-0.5%						
2019	0.5%	-0.8%	-0.8%							
2020	-9.8%	-5.5%								
2021	-3.6%									

Note: All paid ALAE exclude the paid cost of medical cost containment programs. Accident years 2010 and prior paid loss include the paid cost of medical cost containment programs.

Source: WCIRB accident year experience calls excluding COVID-19 claims.

Estimated Ultimate ALAE per Indemnity Claim - Private Insurers

Based on Latest Year Paid ALAE Development Adjusted for Changes in Claim Settlement Rates

Acc. Year	Paid ALAE[1] @12/31/21 (in $000) (1)	Cumulative Development Factors[2] (2)	Estimated Ultimate ALAE (in $000) (3)=(1)x(2)	Indemnity Claim Counts @12/31/21 (4)	Cumulative Count Development Factors[3] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate ALAE per Indemnity Claim (7)=(3)/(6)x1000	Annual Change (8)
1994	221,307	1.042	230,704	104,494	1.001	104,600	2,206	---
1995	245,100	1.046	256,274	100,183	1.001	100,298	2,555	15.8%
1996	292,171	1.049	306,407	101,241	1.001	101,385	3,022	18.3%
1997	369,305	1.052	388,461	104,492	1.002	104,674	3,711	22.8%
1998	507,704	1.056	536,176	112,224	1.002	112,455	4,768	28.5%
1999	558,316	1.059	591,395	116,131	1.002	116,391	5,081	6.6%
2000	662,547	1.063	704,608	117,909	1.003	118,216	5,960	17.3%
2001	788,993	1.068	842,438	113,660	1.003	113,987	7,391	24.0%
2002	827,894	1.072	887,510	112,173	1.003	112,538	7,886	6.7%
2003	839,044	1.076	903,061	108,423	1.004	108,829	8,298	5.2%
2004	721,147	1.081	779,274	99,507	1.004	99,908	7,800	-6.0%
2005	680,932	1.086	739,496	97,306	1.004	97,716	7,568	-3.0%
2006	747,948	1.094	817,962	104,212	1.004	104,674	7,814	3.3%
2007	825,742	1.100	908,457	107,253	1.004	107,735	8,432	7.9%
2008	879,202	1.109	975,009	105,357	1.005	105,844	9,212	9.2%
2009	913,262	1.119	1,021,896	100,546	1.005	101,034	10,114	9.8%
2010	966,134	1.131	1,092,949	108,257	1.005	108,834	10,042	-0.7%
2011	979,692	1.143	1,119,369	112,678	1.006	113,328	9,877	-1.6%
2012	1,037,168	1.159	1,201,630	121,192	1.006	121,971	9,852	-0.3%
2013	1,049,525	1.179	1,237,834	127,696	1.008	128,675	9,620	-2.4%
2014	1,038,006	1.205	1,251,182	130,577	1.009	131,727	9,498	-1.3%
2015	1,017,315	1.240	1,261,803	135,133	1.010	136,523	9,242	-2.7%
2016	999,633	1.295	1,294,426	140,215	1.012	141,877	9,124	-1.3%
2017	934,729	1.384	1,293,897	141,271	1.015	143,364	9,025	-1.1%
2018	885,918	1.542	1,366,132	144,206	1.019	146,891	9,300	3.0%
2019	738,915	1.920	1,418,730	146,017	1.027	149,926	9,463	1.7%
2020	420,948	3.020	1,271,342	122,070	1.058	129,208	9,840	4.0%
2021	111,702	11.915	1,330,964	108,371	1.307	141,635	9,397	-4.5%

	Estimated Annual Exponential Trend Based on:		R^2
	2008 to 2021	-0.4%	0.165
	2017 to 2021	1.4%	0.482
	Average:	0.5%	

Notes:
　[1] All paid ALAE exclude the paid cost of medical cost containment programs.
　[2] Based on the latest year paid ALAE age-to-age development from Exhibit 8.1 adjusted for change in claim settlement ratios.
　[3] Based on analogous Exhibit 8.3, applicable to private insurers only.

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

Ratio of Accident Year Incremental Paid ALAE[1] to Indemnity Claims Inventory[2]
By Payment Year - Private Insurers

Acc. Year	Payment Year Ending December 31														
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1989	923	1,167	1,027	1,221	1,236	1,525	1,530	1,368	1,669	1,784	1,517	1,655	3,290	1,703	1,520
1990	1,086	1,406	1,138	1,341	1,386	1,584	1,777	1,496	1,551	1,906	1,680	1,736	1,932	1,733	1,799
1991	1,203	1,481	1,384	1,577	1,308	1,678	1,541	1,714	1,431	2,136	2,035	1,944	1,997	1,739	2,064
1992	1,507	1,647	1,477	1,718	1,434	1,579	1,633	1,501	1,925	1,596	1,738	1,977	1,997	1,914	1,526
1993	1,677	1,945	1,450	1,732	1,788	1,932	1,934	1,802	2,095	2,240	2,053	2,206	2,157	1,890	1,665
1994	1,748	1,864	1,389	1,514	1,774	1,830	1,812	1,804	1,775	1,862	1,587	1,781	1,518	1,624	1,437
1995	1,771	1,866	1,682	2,022	1,602	1,996	2,144	1,998	2,179	2,434	1,956	2,105	2,076	1,880	1,542
1996	2,003	2,040	1,938	1,755	1,868	2,035	2,244	2,008	2,174	2,144	1,921	2,174	2,188	1,677	1,462
1997	2,463	2,343	2,268	2,196	2,281	2,489	2,350	1,951	2,303	2,173	2,355	2,420	2,244	1,809	2,123
1998	2,405	2,426	2,374	2,398	2,338	2,401	2,362	2,306	2,324	2,453	2,509	2,536	1,976	2,035	1,915
1999	2,526	2,468	2,806	2,659	2,600	2,662	2,452	2,130	2,322	2,433	2,199	2,138	2,037	1,707	1,705
2000	2,658	2,699	2,806	2,773	2,781	2,841	2,670	2,530	2,798	2,669	2,449	2,382	2,074	2,155	1,860
2001	2,918	2,644	2,756	2,707	2,730	2,841	3,113	3,290	3,044	2,801	2,592	2,591	2,588	2,260	1,952
2002	3,081	2,881	2,976	2,949	3,029	2,959	3,285	3,428	3,193	3,171	3,024	2,962	2,974	2,733	2,253
2003	3,077	3,014	3,007	3,226	3,208	3,518	3,604	3,687	3,582	3,229	2,942	2,858	2,871	3,112	2,433
2004	2,919	3,062	3,170	3,256	3,156	3,084	3,462	3,556	3,487	3,113	2,948	2,971	2,852	2,525	2,480
2005	2,493	2,877	3,084	3,227	3,286	3,267	3,580	3,568	3,562	3,669	3,387	3,501	3,187	3,182	3,044
2006	1,815	2,675	2,969	3,220	3,478	3,468	3,489	3,511	3,566	3,193	3,184	3,068	2,765	2,524	2,401
2007	572	1,987	2,752	3,155	3,398	3,572	3,756	3,671	3,745	3,518	3,478	3,545	3,240	2,981	2,895
2008		620	2,095	2,976	3,480	3,559	3,716	3,840	3,952	3,698	3,708	3,654	3,761	3,314	3,094
2009			674	2,380	3,307	3,620	3,797	3,964	4,048	3,871	3,843	3,809	3,627	3,551	3,387
2010				746	2,542	3,411	3,684	3,888	4,137	4,351	4,029	3,934	3,800	3,829	2,886
2011					766	2,569	3,342	3,825	4,120	4,428	4,150	4,008	3,844	3,451	3,293
2012						773	2,593	3,610	4,036	4,260	4,181	3,924	4,171	3,944	3,473
2013							791	2,844	3,691	3,931	4,092	3,917	4,103	3,755	3,568
2014								909	3,031	3,631	3,964	3,935	4,111	4,000	3,535
2015									923	2,969	3,754	3,932	4,045	3,982	3,750
2016										933	3,137	3,887	4,029	4,036	3,898
2017											1,016	3,276	3,909	3,936	3,869
2018												1,111	3,334	3,922	3,913
2019													1,121	3,237	3,886
2020														1,081	3,414
2021															1,031
ALAE per Claim	1,979	2,047	2,160	2,318	2,480	2,563	2,639	2,797	2,906	2,918	2,946	2,974	2,992	2,983	2,924
Annual Change	3.4%	3.4%	5.5%	7.3%	7.0%	3.4%	3.0%	6.0%	3.9%	0.4%	1.0%	0.9%	0.6%	-0.3%	-2.0%

Estimated Annual Exponential Trend Based on Payment Year:		R^2
2008-2021	2.9%	0.837
2017-2021	-0.1%	0.041
Average:	1.4%	

[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Indemnity claims inventory is the sum of indemnity claims open as of January 1 of Year N and newly-reported indemnity claims between January 1 of year N and December 31 of year N.

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

Paid Allocated Loss Adjustment Expense Development - Private Insurers
As of December 31, 2021

Accident Year	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	168-180	180-192	192-204
							Age-to-Age Development (in months):									
1995	3.401	1.698	1.258	1.180	1.081	1.058	1.038	1.031	1.025	1.021	1.020	1.017	1.016	1.011	1.012	1.008
1996	3.147	1.569	1.330	1.132	1.081	1.061	1.049	1.036	1.033	1.028	1.022	1.018	1.014	1.010	1.009	1.010
1997	2.994	1.675	1.231	1.132	1.092	1.067	1.052	1.042	1.035	1.027	1.021	1.017	1.013	1.012	1.012	1.010
1998	3.591	1.608	1.248	1.163	1.105	1.076	1.071	1.045	1.032	1.024	1.021	1.017	1.014	1.014	1.012	1.012
1999	3.351	1.720	1.319	1.158	1.116	1.086	1.064	1.042	1.034	1.029	1.021	1.018	1.016	1.013	1.013	1.010
2000	4.051	1.752	1.315	1.183	1.121	1.090	1.053	1.042	1.033	1.025	1.021	1.019	1.015	1.014	1.012	1.011
2001	3.939	1.768	1.357	1.182	1.118	1.078	1.054	1.039	1.028	1.024	1.020	1.017	1.017	1.014	1.011	1.009
2002	3.927	1.784	1.315	1.171	1.101	1.074	1.046	1.032	1.026	1.021	1.018	1.017	1.013	1.012	1.009	1.007
2003	4.109	1.707	1.324	1.159	1.107	1.062	1.045	1.034	1.029	1.023	1.020	1.017	1.013	1.010	1.008	1.007
2004	4.040	1.713	1.319	1.169	1.101	1.069	1.048	1.036	1.030	1.025	1.020	1.015	1.012	1.010	1.008	1.006
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	1.010	1.009	1.007
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	1.008	1.006	
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	1.008		
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				
2010	4.300	1.737	1.342	1.190	1.120	1.076	1.049	1.033	1.023	1.017	1.010					
2011	4.225	1.729	1.351	1.196	1.109	1.072	1.045	1.030	1.019	1.014						
2012	4.338	1.773	1.344	1.174	1.105	1.060	1.042	1.026	1.018							
2013	4.542	1.706	1.297	1.161	1.085	1.056	1.032	1.022								
2014	4.322	1.635	1.285	1.139	1.081	1.048	1.029									
2015	4.041	1.630	1.255	1.128	1.071	1.044										
2016	4.254	1.603	1.240	1.117	1.069											
2017	3.979	1.546	1.218	1.114												
2018	3.767	1.533	1.227													
2019	3.654	1.573														
2020	3.945															
Latest Year																
Age-to-Age	3.945	1.573	1.227	1.114	1.069	1.044	1.029	1.022	1.018	1.014	1.010	1.011	1.009	1.008	1.006	1.007
Cumulative	11.742	2.976	1.892	1.542	1.384	1.295	1.240	1.205	1.179	1.159	1.143	1.131	1.119	1.109	1.100	1.094
Adjusted[1]	11.915	3.020	1.920	1.542	1.384	---	---	---	---	---	---	---	---	---	---	---
2-Year Arithmetic Average																
Age-to-Age	3.800	1.553	1.223	1.116	1.070	1.046	1.031	1.024	1.019	1.016	1.012	1.012	1.010	1.008	1.008	1.007
Cumulative	11.304	2.975	1.916	1.567	1.405	1.313	1.255	1.218	1.189	1.168	1.150	1.136	1.123	1.113	1.104	1.096
Adjusted[1]	11.576	3.047	1.940	1.567	1.405	---	---	---	---	---	---	---	---	---	---	---

Accident Year	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
							Age-to-Age Development (in months):									
1989	1.005	1.004	1.004	1.003	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.003	1.003	1.005	1.002	1.002
1990	1.005	1.004	1.002	1.003	1.003	1.003	1.003	1.003	1.002	1.003	1.002	1.002	1.002	1.002	1.001	
1991	1.004	1.002	1.003	1.003	1.003	1.003	1.003	1.002	1.003	1.003	1.002	1.002	1.002	1.002		
1992	1.002	1.005	1.004	1.003	1.003	1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.002			
1993	1.007	1.006	1.006	1.006	1.005	1.005	1.005	1.004	1.004	1.003	1.003	1.002				
1994	1.008	1.007	1.006	1.006	1.005	1.005	1.004	1.005	1.003	1.003	1.003					
1995	1.009	1.009	1.008	1.008	1.008	1.006	1.008	1.005	1.004	1.003						
1996	1.009	1.008	1.007	1.007	1.006	1.007	1.005	1.004	1.003							
1997	1.008	1.008	1.007	1.007	1.006	1.005	1.004	1.004								
1998	1.010	1.010	1.008	1.006	1.005	1.004	1.003									
1999	1.010	1.008	1.006	1.005	1.004	1.004										
2000	1.009	1.007	1.006	1.004	1.004											
2001	1.008	1.007	1.005	1.004												
2002	1.007	1.005	1.004													
2003	1.006	1.004														
2004	1.005															
Latest Year																
Age-to-Age	1.005	1.004	1.004	1.004	1.004	1.004	1.003	1.004	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.002
Cumulative[2]	1.086	1.081	1.076	1.072	1.068	1.063	1.059	1.056	1.052	1.049	1.046	1.042	1.040	*1.039*	*1.037*	
2-Year Arithmetic Average																
Age-to-Age	1.006	1.005	1.005	1.004	1.004	1.004	1.004	1.004	1.004	1.003	1.003	1.002	1.002	1.002	1.002	1.002
Cumulative[2]	1.089	1.083	1.078	1.073	1.069	1.065	1.060	1.057	1.052	1.049	1.046	1.043	1.040	*1.039*	*1.037*	

Note:

[1] The paid ALAE factors are adjusted for significant changes in claim settlement rates for age-to-age development through 84 months. See Item AC19-08-04 of the August 4, 2020 WCIRB Actuarial Committee Agenda.

[2] Factors in italics are based on powertail fit to the "3-Year Arithmetic Average" factors.

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

Quarterly Paid ALAE Loss Development Factors[1] - Private Insurers

Age in Months	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
3 - 6		7.976	7.570	5.434	9.136	8.769	8.693	8.584	6.234	9.866	8.946	8.934	8.191	7.886	---	9.325
6 - 9	2.427	3.016	2.765	2.630	3.023	3.176	3.213	3.058	3.163	3.173	3.144	3.064	3.161	3.137	---	3.190
9 - 12	2.022	2.078	2.021	2.034	2.077	2.165	2.115	2.133	2.158	2.107	2.101	2.137	2.091	2.132	---	2.061
12 - 15	1.653	1.627	1.687	1.724	1.737	1.701	1.713	1.784	1.744	1.734	1.776	1.701	1.672	1.664	1.703	
15 - 18	1.415	1.486	1.494	1.509	1.482	1.486	1.510	1.494	1.488	1.482	1.491	1.451	1.442	1.432	1.461	
18 - 21	1.357	1.328	1.289	1.326	1.334	1.343	1.338	1.349	1.332	1.309	1.309	1.311	1.289	1.261	1.312	
21 - 24	1.255	1.234	1.237	1.255	1.253	1.248	1.249	1.237	1.239	1.225	1.227	1.227	1.213	1.216	1.209	
24 - 27	1.187	1.191	1.190	1.197	1.189	1.186	1.205	1.187	1.177	1.184	1.167	1.150	1.150	1.159		
27 - 30	1.165	1.167	1.172	1.170	1.158	1.163	1.160	1.156	1.151	1.142	1.132	1.129	1.123	1.131		
30 - 33	1.128	1.119	1.135	1.138	1.133	1.131	1.130	1.123	1.116	1.110	1.109	1.099	1.101	1.109		
33 - 36	1.107	1.103	1.111	1.114	1.113	1.108	1.104	1.101	1.095	1.088	1.092	1.084	1.078	1.083		
36 - 39	1.093	1.090	1.097	1.094	1.091	1.095	1.093	1.085	1.085	1.073	1.068	1.061	1.063			
39 - 42	1.083	1.086	1.096	1.082	1.083	1.081	1.081	1.077	1.072	1.062	1.062	1.055	1.057			
42 - 45	1.063	1.069	1.069	1.074	1.069	1.068	1.070	1.061	1.057	1.054	1.049	1.047	1.050			
45 - 48	1.057	1.059	1.063	1.064	1.062	1.059	1.057	1.055	1.051	1.046	1.043	1.039	1.040			
48 - 51	1.050	1.050	1.052	1.053	1.053	1.051	1.050	1.047	1.041	1.036	1.034	1.031				
51 - 54	1.049	1.050	1.049	1.050	1.048	1.048	1.046	1.042	1.035	1.034	1.031	1.030				
54 - 57	1.038	1.043	1.045	1.043	1.040	1.043	1.038	1.035	1.031	1.027	1.025	1.027				
57 - 60	1.037	1.038	1.039	1.039	1.037	1.036	1.035	1.031	1.028	1.026	1.023	1.022				
60 - 63	1.032	1.032	1.034	1.034	1.032	1.031	1.031	1.025	1.024	1.021	1.019					
63 - 66	1.030	1.031	1.033	1.031	1.032	1.029	1.028	1.022	1.021	1.019	1.018					
66 - 69	1.027	1.029	1.028	1.028	1.028	1.024	1.024	1.021	1.017	1.015	1.017					
69 - 72	1.025	1.028	1.026	1.026	1.023	1.023	1.021	1.018	1.018	1.014	1.014					
72 - 75	1.022	1.023	1.023	1.022	1.021	1.020	1.019	1.018	1.016	1.013						
75 - 78	1.020	1.023	1.022	1.022	1.020	1.019	1.016	1.015	1.013	1.011						
78 - 81	1.019	1.020	1.020	1.020	1.017	1.017	1.015	1.011	1.010	1.011						
81 - 84	1.018	1.019	1.018	1.017	1.016	1.014	1.013	1.012	1.009	1.009						
84 - 87	1.016	1.016	1.016	1.015	1.014	1.014	1.013	1.012	1.009							
87 - 90	1.015	1.015	1.016	1.014	1.012	1.012	1.011	1.008	1.007							
90 - 93	1.014	1.014	1.014	1.012	1.012	1.011	1.009	1.006	1.007							
93 - 96	1.013	1.013	1.013	1.012	1.010	1.011	1.009	1.007	1.006							
96 - 99	1.012	1.011	1.011	1.010	1.010	1.010	1.010	1.008								
99 - 102	1.012	1.012	1.011	1.009	1.009	1.008	1.007	1.004								
102 - 105	1.012	1.011	1.009	1.009	1.008	1.004	1.004	1.005								
105 - 108	1.010	1.010	1.008	1.008	1.007	1.007	1.006	1.005								
108 - 111	1.009	1.009	1.008	1.008	1.007	1.008	1.007									
111 - 114	1.009	1.008	1.007	1.007	1.006	1.005	1.002									
114 - 117	1.008	1.007	1.007	1.007	1.005	1.002	1.005									
117 - 120	1.008	1.007	1.006	1.006	1.006	1.006	1.006									
120 - 123	1.007	1.006	1.006	1.005	1.006	1.006										

[1] All paid allocated loss adjustment expense exclude the paid cost of medical cost containment programs.

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

Reported Indemnity Claim Count Development - Statewide

Accident Age-to-Age Development (in months):

Year	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	168-180	180-192	192-204
1993															1.000	1.000
1994														1.000	1.000	1.000
1995													1.000	1.004	1.001	1.000
1996												1.001	1.001	1.000	1.000	1.000
1997											1.000	1.000	1.000	1.000	1.000	1.000
1998										1.000	1.000	1.000	1.001	1.000	1.000	1.000
1999									1.002	1.000	1.000	1.000	1.000	1.000	1.001	1.000
2000								0.998	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
2001							0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002						1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003					1.008	0.998	0.999	0.999	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2004				1.000	0.999	1.000	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005			1.004	1.000	1.001	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006		1.013	1.005	1.002	1.001	1.000	1.005	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2007	1.125	1.015	1.006	1.004	1.002	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000		
2008	1.153	1.023	1.011	1.005	1.003	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000			
2009	1.194	1.029	1.011	1.006	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000				
2010	1.220	1.030	1.011	1.006	1.004	1.002	1.001	1.000	1.001	1.000	1.000					
2011	1.230	1.033	1.014	1.007	1.002	1.001	1.001	1.001	1.000	1.000						
2012	1.241	1.035	1.013	1.005	1.003	1.001	1.001	1.000	1.001							
2013	1.240	1.031	1.010	1.004	1.002	1.002	1.001	1.001								
2014	1.239	1.027	1.010	1.004	1.002	1.000	1.001									
2015	1.236	1.027	1.006	1.003	1.002	1.001										
2016	1.244	1.029	1.007	1.003	1.002											
2017	1.220	1.023	1.007	1.003												
2018	1.226	1.024	1.007													
2019	1.222	1.028														
2020	1.220															

I. Age-to-Age (Latest Year)

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	168-180	180-192	192-204
1.220	1.028	1.007	1.003	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000

II. Age-to-Ultimate

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	168-180	180-192	192-204
1.279	1.048	1.020	1.013	1.010	1.008	1.007	1.006	1.005	1.004	1.003	1.003	1.003	1.003	1.003	1.003

Accident Age-to-Age Development (in months):

Year	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
1989				1.000	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	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1991		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
1992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000								
1998	1.000	1.000	1.000	1.000	1.000	1.000									
1999	1.000	1.000	1.000	1.000	1.000										
2000	1.000	1.000	1.000	1.000											
2001	1.000	1.000	1.000												
2002	1.000	1.000													
2003	1.000														

I. Age-to-Age (Latest Year)

216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

II. Age-to-Ultimate

216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372	372-384	384-396	
1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000

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

Projected Ratio of ALAE[1] to Losses - Statewide
Based on Private Insurers ALAE Severity using Latest Year Paid ALAE Development
Adjusted for Changes in Claim Settlement Rates
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Acc. Year	Indemnity Claim Counts @12/31/21	Cumulative Count Development Factors[2]	Estimated Ultimate Ind. Counts	Estimated Ult. ALAE per Indemnity Claim[3]	Estimated Ult. ALAE (in $000)
	(1)	(2)	(3)=(1)x(2)	(4)	(5)=(3)x(4)
1994	142,805	1.001	142,908	2,206	315,196
1995	134,045	1.001	134,156	2,555	342,785
1996	131,214	1.001	131,363	3,022	397,010
1997	137,072	1.001	137,267	3,711	509,417
1998	147,238	1.002	147,499	4,768	703,261
1999	148,416	1.002	148,695	5,081	755,535
2000	161,441	1.002	161,792	5,960	964,335
2001	185,329	1.002	185,769	7,391	1,372,960
2002	193,825	1.003	194,324	7,886	1,532,502
2003	184,187	1.003	184,684	8,298	1,532,498
2004	158,960	1.003	159,389	7,800	1,243,225
2005	139,490	1.003	139,867	7,568	1,058,484
2006	133,124	1.003	133,491	7,814	1,043,146
2007	130,085	1.003	130,427	8,432	1,099,803
2008	122,710	1.003	123,038	9,212	1,133,395
2009	113,313	1.003	113,635	10,114	1,149,352
2010	117,906	1.003	118,267	10,042	1,187,682
2011	120,305	1.003	120,704	9,877	1,192,231
2012	127,527	1.004	128,004	9,852	1,261,074
2013	135,509	1.005	136,176	9,620	1,309,992
2014	140,626	1.006	141,463	9,498	1,343,663
2015	144,994	1.007	146,007	9,242	1,349,453
2016	148,191	1.008	149,392	9,124	1,362,989
2017	148,580	1.010	150,075	9,025	1,354,456
2018	151,186	1.013	153,120	9,300	1,424,064
2019	153,193	1.020	156,197	9,463	1,478,073
2020	129,773	1.048	136,063	9,840	1,338,800
2021	117,281	1.279	150,002	9,397	1,409,590

Projected Based on 2019 and 2021:

	Ult. Ind. Counts[4]	Ult. ALAE per Ind. Counts[5]	Ultimate ALAE[6]
2022	153,599	9,620	1,477,675
2023	153,753	9,717	1,493,948
9/1/2023	153,392	9,733	1,492,914

(a) Projected ALAE Incurred ($000):		1,492,914
(b) Average of Calendar Year 2019 and 2021 Earned Premium[7] ($000):		14,817,986
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[8]:		0.655
(d) Weighted Premium Adjustment Factor for Earned Premium on Line (b) [9]:		1.042
(e) Projected Losses ($000): (b) x (c) x (d)		10,113,424
(f) Ratio of ALAE to Losses Prior to Impact of SB 1160 and AB 1244: (a)/(e)		14.8%
(g) Impact of SB 1160 and AB 1244[10]		-2.8%
(h) Projected Ratio of ALAE to Losses after Impact of SB 1160 and AB 1244: (f) x [1.0 + (g)]		14.3%

Notes:

[1] All paid ALAE exclude the paid cost of medical cost containment programs.

[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 8.3.

[3] Based on estimated ultimate ALAE per indemnity for private insurers from Exhibit 6. AY2020 and AY2021 data excluded COVID-19 claims.

[4] Estimated based on projected frequency trends for accident years 2020 to 2024. Frequency trends for 2020 and 2021 are the actual "intra-class" changes from Section B, Appendix B, Exhibit 3. Frequency trends for accident years 2022 through 2024 are based on the projected growth in intra-class indemnity claim frequency from Section B, Exhibit 6.1. These frequency trends were then applied to the accident year 2019 and 2021 ultimate indemnity claim counts.

[5] Severities are projected by applying an annual growth rate of 1.0%, which is based on the approximate average of the private insurers selected rate of growth in (i) estimated ultimate accident year ALAE severities from Exhibit 6 and (ii) paid ALAE per open indemnity claim from Exhibit 7, to the average of 2019 and 2021 ultimate ALAE severity.

[6] Column(3) x Column(4) / 1,000.

[7] Based on the reported earned premium for calendar year 2019 and 2021 excluding COVID-19 premium charges from the same group of insurers that reported the indemnity claim counts in column (1) by accident year as of December 31, 2021.

[8] See Exhibit 8 of Section B.

[9] See Exhibit 5.2 of Section B. Based on a weighting of calendar years 2019 and 2021.

[10] Based on the WCIRB's most recent evaluation of SB 1160 and AB 1244 reflecting a 70% reduction in lien filings, offset by 75% to reflect the impact of the reforms in the emerging ALAE data.

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

Estimated Ultimate ALAE per Indemnity Claim - Private Insurers
Based on 2-Year Average Paid ALAE Development Adjusted for Changes in Claim Settlement Rates

Acc. Year	Paid ALAE[1] @12/31/21 (in $000) (1)	Cumulative Development Factors[2] (2)	Estimated Ultimate ALAE (in $000) (3)=(1)x(2)	Indemnity Claim Counts @12/31/21 (4)	Cumulative Count Development Factors[3] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate ALAE per Indemnity Claim (7)=(3)/(6)x1000	Annual Change (8)
1994	221,307	1.043	230,716	104,494	1.001	104,600	2,206	---
1995	245,100	1.046	256,287	100,183	1.001	100,298	2,555	15.8%
1996	292,171	1.049	306,423	101,241	1.001	101,385	3,022	18.3%
1997	369,305	1.052	388,675	104,492	1.002	104,674	3,713	22.9%
1998	507,704	1.057	536,470	112,224	1.002	112,455	4,771	28.5%
1999	558,316	1.060	592,014	116,131	1.002	116,391	5,086	6.6%
2000	662,547	1.065	705,346	117,909	1.003	118,216	5,967	17.3%
2001	788,993	1.069	843,320	113,660	1.003	113,987	7,398	24.0%
2002	827,894	1.073	888,440	112,173	1.003	112,538	7,895	6.7%
2003	839,044	1.078	904,457	108,423	1.004	108,829	8,311	5.3%
2004	721,147	1.083	780,867	99,507	1.004	99,908	7,816	-6.0%
2005	680,932	1.089	741,377	97,306	1.004	97,716	7,587	-2.9%
2006	747,948	1.096	819,635	104,212	1.004	104,674	7,830	3.2%
2007	825,742	1.104	911,672	107,253	1.004	107,735	8,462	8.1%
2008	879,202	1.113	978,460	105,357	1.005	105,844	9,244	9.2%
2009	913,262	1.123	1,026,021	100,546	1.005	101,034	10,155	9.9%
2010	966,134	1.136	1,097,904	108,257	1.005	108,834	10,088	-0.7%
2011	979,692	1.150	1,126,670	112,678	1.006	113,328	9,942	-1.4%
2012	1,037,168	1.168	1,211,257	121,192	1.006	121,971	9,931	-0.1%
2013	1,049,525	1.189	1,248,364	127,696	1.008	128,675	9,702	-2.3%
2014	1,038,006	1.218	1,264,294	130,577	1.009	131,727	9,598	-1.1%
2015	1,017,315	1.255	1,276,885	135,133	1.010	136,523	9,353	-2.6%
2016	999,633	1.313	1,312,407	140,215	1.012	141,877	9,250	-1.1%
2017	934,729	1.405	1,313,098	141,271	1.015	143,364	9,159	-1.0%
2018	885,918	1.567	1,388,273	144,206	1.019	146,891	9,451	3.2%
2019	738,915	1.940	1,433,570	146,017	1.027	149,926	9,562	1.2%
2020	420,948	3.047	1,282,490	122,070	1.058	129,208	9,926	3.8%
2021	111,702	11.576	1,293,077	108,371	1.307	141,635	9,130	-8.0%

Notes:
[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Based on the 2-year average paid ALAE age-to-age development from Exhibit 8.1 adjusted for change in claim settlement ratios.
[3] Based on analogous Exhibit 8.3, applicable to private insurers only.

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

Projected Ratio of ALAE[1] to Losses - Statewide
Based on Private Insurers ALAE Severity using 2-Year Average Paid ALAE Development
Adjusted for Changes in Claim Settlement Rates
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Acc. Year	Indemnity Claim Counts @12/31/21 (1)	Cumulative Count Development Factors[2] (2)	Estimated Ultimate Ind. Counts (3)=(1)x(2)	Estimated Ult. ALAE per Indemnity Claim[3] (4)	Estimated Ult. ALAE (in $000) (5)=(3)x(4)
1994	142,805	1.001	142,908	2,206	315,212
1995	134,045	1.001	134,156	2,555	342,802
1996	131,214	1.001	131,363	3,022	397,030
1997	137,072	1.001	137,267	3,713	509,696
1998	147,238	1.002	147,499	4,771	703,646
1999	148,416	1.002	148,695	5,086	756,326
2000	161,441	1.002	161,792	5,967	965,345
2001	185,329	1.002	185,769	7,398	1,374,398
2002	193,825	1.003	194,324	7,895	1,534,107
2003	184,187	1.003	184,684	8,311	1,534,867
2004	158,960	1.003	159,389	7,816	1,245,767
2005	139,490	1.003	139,867	7,587	1,061,176
2006	133,124	1.003	133,491	7,830	1,045,280
2007	130,085	1.003	130,427	8,462	1,103,695
2008	122,710	1.003	123,038	9,244	1,137,407
2009	113,313	1.003	113,635	10,155	1,153,992
2010	117,906	1.003	118,267	10,088	1,193,066
2011	120,305	1.003	120,704	9,942	1,200,007
2012	127,527	1.004	128,004	9,931	1,271,177
2013	135,509	1.005	136,176	9,702	1,321,135
2014	140,626	1.006	141,463	9,598	1,357,745
2015	144,994	1.007	146,007	9,353	1,365,583
2016	148,191	1.008	149,392	9,250	1,381,923
2017	148,580	1.010	150,075	9,159	1,374,557
2018	151,186	1.013	153,120	9,451	1,447,144
2019	153,193	1.020	156,197	9,562	1,493,533
2020	129,773	1.048	136,063	9,926	1,350,539
2021	117,281	1.279	150,002	9,130	1,369,466

Projected Based on 2019 and 2021:

	Ult. Ind. Counts[4]	Ult. ALAE per Ind. Counts[5]	Ultimate ALAE[6]
2022	153,599	9,536	1,464,760
2023	153,753	9,632	1,480,947
9/1/2023	153,392	9,648	1,479,923

(a) Projected ALAE Incurred ($000):   1,479,923
(b) Calendar Year 2019 and 2021 Earned Premium[7] ($000):   14,817,986
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[8]:   0.655
(d) Premium Adjustment Factor for Calendar Year 2019 and 2021[9]:   1.042
(e) Projected Losses ($000): (b) x (c) x (d)   10,113,424
(f) Ratio of ALAE to Losses Prior to Impact of SB 1160 and AB 1244: (a)/(e)   14.6%
(g) Impact of SB 1160 and AB 1244[10]   -2.8%
(h) Projected Ratio of ALAE to Losses after Impact of SB 1160 and AB 1244:
    (f) x [1.0 + (g)]   14.2%

Notes:
[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 8.3.
[3] Based on estimated ultimate ALAE per indemnity for private insurers from Exhibit 9.1.
[4] Estimated based on projected frequency trends for accident years 2020 to 2024. Frequency trends for 2020 and 2021 are the actual "intra-class" changes from Section B, Appendix B, Exhibit 3. Frequency trends for accident years 2022 through 2024 are based on the projected growth in intra-class indemnity claim frequency from Section B, Exhibit 6.1. These frequency trends were then applied to the accident year 2019 and 2021 ultimate indemnity claim counts.
[5] Severities are projected by applying an annual growth rate of 1.0%, which is based on the approximate average of the private insurers selected rate of growth in (i) estimated ultimate accident year ALAE severities from Exhibit 6 and (ii) paid ALAE per open indemnity claim from Exhibit 7, to the average of 2019 and 2021 ultimate ALAE severity.
[6] Column(3) x Column(4) / 1,000.
[7] Based on the reported earned premium for calendar year 2019 and 2021 from the same group of insurers that reported the indemnity claim counts in column (1) by accident year as of December 31, 2021.
[8] See Exhibit 8 of Section B.
[9] See Exhibit 5.2 of Section B. Based on a weighting of calendar years 2019 and 2021.
[10] Based on the WCIRB's most recent evaluation of SB 1160 and AB 1244 reflecting a 70% reduction in lien filings, offset by 75% to reflect the impact of the reforms in the emerging ALAE data.

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

Projected Ratio of ALAE[1] to Losses - Statewide
Based on Private Insurers ALAE Severity using Latest Year Paid ALAE Development
Adjusted for Changes in Claim Settlement Rates - Trend Applied to 2019
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Acc. Year	Indemnity Claim Counts @12/31/21 (1)	Cumulative Count Development Factors[2] (2)	Estimated Ultimate Ind. Counts (3)=(1)x(2)	Estimated Ult. ALAE per Indemnity Claim[3] (4)	Estimated Ult. ALAE (in $000) (5)=(3)x(4)
1994	142,805	1.001	142,908	2,206	315,196
1995	134,045	1.001	134,156	2,555	342,785
1996	131,214	1.001	131,363	3,022	397,010
1997	137,072	1.001	137,267	3,711	509,417
1998	147,238	1.002	147,499	4,768	703,261
1999	148,416	1.002	148,695	5,081	755,535
2000	161,441	1.002	161,792	5,960	964,335
2001	185,329	1.002	185,769	7,391	1,372,960
2002	193,825	1.003	194,324	7,886	1,532,502
2003	184,187	1.003	184,684	8,298	1,532,498
2004	158,960	1.003	159,389	7,800	1,243,225
2005	139,490	1.003	139,867	7,568	1,058,484
2006	133,124	1.003	133,491	7,814	1,043,146
2007	130,085	1.003	130,427	8,432	1,099,803
2008	122,710	1.003	123,038	9,212	1,133,395
2009	113,313	1.003	113,635	10,114	1,149,352
2010	117,906	1.003	118,267	10,042	1,187,682
2011	120,305	1.003	120,704	9,877	1,192,231
2012	127,527	1.004	128,004	9,852	1,261,074
2013	135,509	1.005	136,176	9,620	1,309,992
2014	140,626	1.006	141,463	9,498	1,343,663
2015	144,994	1.007	146,007	9,242	1,349,453
2016	148,191	1.008	149,392	9,124	1,362,989
2017	148,580	1.010	150,075	9,025	1,354,456
2018	151,186	1.013	153,120	9,300	1,424,064
2019	153,193	1.020	156,197	9,463	1,478,073
2020	129,773	1.048	136,063	9,840	1,338,800
2021	117,281	1.279	150,002	9,397	1,409,590

Projected Based on 2019:

	Ult. Ind. Counts[4]	Ult. ALAE per Ind. Counts[5]	Ultimate ALAE[6]
2022	154,998	9,750	1,511,172
2023	155,230	9,847	1,528,567
9/1/2023	154,859	9,863	1,527,442

(a) Projected ALAE Incurred ($000):	1,527,442
(b) Calendar Year 2019 Earned Premium[7] ($000):	16,120,058
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[8]:	0.655
(d) Premium Adjustment Factor for Calendar Year 2019[9]:	1.000
(e) Projected Losses ($000): (b) x (c) x (d)	10,562,613
(f) Ratio of ALAE to Losses Prior to Impact of SB 1160 and AB 1244: (a)/(e)	14.5%
(g) Impact of SB 1160 and AB 1244[10]	-2.8%
(h) Projected Ratio of ALAE to Losses after Impact of SB 1160 and AB 1244: (f) x [1.0 + (g)]	14.1%

Notes:

[1] All paid ALAE exclude the paid cost of medical cost containment programs.

[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 8.3.

[3] Based on estimated ultimate ALAE per indemnity for private insurers from Exhibit 6.

[4] Estimated based on projected frequency trends for accident years 2020 to 2024. Frequency trends for 2020 and 2021 are the actual "intra-class" changes from Section B, Appendix B, Exhibit 3. Frequency trends for accident years 2022 through 2024 are based on the projected growth in intra-class indemnity claim frequency from Section B, Exhibit 6.1. These frequency trends were then applied to the accident year 2019 ultimate indemnity claim counts.

[5] Severities are projected by applying an annual growth rate of 1.0%, which is based on the approximate average of the private insurers selected rate of growth in (i) estimated ultimate accident year ALAE severities from Exhibit 6 and (ii) paid ALAE per open indemnity claim from Exhibit 7, to the 2019 ultimate ALAE severity.

[6] Column(3) x Column(4) / 1,000.

[7] Based on the reported earned premium for calendar year 2019 from the same group of insurers that reported the indemnity claim counts in column (1) by accident year as of December 31, 2021.

[8] See Exhibit 8 of Section B.

[9] See Exhibit 5.2 of Section B.

[10] Based on the WCIRB's most recent evaluation of SB 1160 and AB 1244 reflecting a 70% reduction in lien filings, offset by 75% to reflect the impact of the reforms in the emerging ALAE data.

Average Paid MCCP per Reported Indemnity Claim - Statewide
As of December 31, 2021

Accident Year	Evaluated as of (in months):							
	12	24	36	48	60	72	84	96
2012	674	1,361	1,744	1,990	2,097	2,208	2,299	2,351
2013	655	1,253	1,620	1,821	1,962	2,079	2,141	2,181
2014	616	1,200	1,576	1,786	1,937	2,017	2,078	2,116
2015	603	1,209	1,538	1,750	1,865	1,931	1,986	
2016	592	1,152	1,453	1,628	1,726	1,808		
2017	585	1,125	1,429	1,601	1,718			
2018	639	1,178	1,459	1,648				
2019	610	1,145	1,467					
2020	582	1,132						
2021	567							

Accident Year	Annual Change							
	12	24	36	48	60	72	84	96
2013	-2.8%	-7.9%	-7.1%	-8.5%	-6.4%	-5.8%	-6.9%	-7.2%
2014	-6.0%	-4.2%	-2.7%	-1.9%	-1.3%	-3.0%	-2.9%	-3.0%
2015	-2.1%	0.7%	-2.4%	-2.1%	-3.7%	-4.2%	-4.4%	
2016	-1.9%	-4.7%	-5.5%	-6.9%	-7.5%	-6.4%		
2017	-1.1%	-2.3%	-1.7%	-1.7%	-0.5%			
2018	9.1%	4.7%	2.1%	2.9%				
2019	-4.6%	-2.8%	0.5%					
2020	-4.5%	-1.1%						
2021	-2.6%							

Source: WCIRB accident year experience calls excluding COVID-19 claims.

Estimated Ultimate MCCP per Indemnity Claim - Statewide
Based on Latest Year Paid MCCP Development

Accident Year	Paid MCCP @12/31/21 (in $000) (1)	Cumulative Development Factors[1] (2)	Estimated Ultimate MCCP (3)=(1)x(2)	Indemnity Claim Counts @12/31/21 (4)	Cumulative Count Development Factors[2] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate MCCP per Indemnity Claim (7)=(3)/(6) x 1000	Annual change
2012	307,729	1.268	390,217	127,527	1.004	128,004	3,048	---
2013	299,849	1.284	384,901	135,509	1.005	136,176	2,826	-7.3%
2014	297,744	1.304	388,138	140,626	1.006	141,463	2,744	-2.9%
2015	288,112	1.329	382,915	144,994	1.007	146,007	2,623	-4.4%
2016	268,213	1.367	366,685	148,191	1.008	149,392	2,455	-6.4%
2017	255,420	1.433	365,940	148,580	1.010	150,075	2,438	-0.7%
2018	249,346	1.540	383,944	151,186	1.013	153,120	2,507	2.8%
2019	224,708	1.749	392,993	153,193	1.020	156,197	2,516	0.3%
2020	147,613	2.300	339,451	129,773	1.048	136,063	2,495	-0.8%
2021	66,476	5.452	362,453	117,281	1.279	150,002	2,416	-3.1%

Estimated Annual Exponential Trend Based on:

2012 to 2021	-2.1%
2017 to 2021	-0.2%

Notes:
[1] Based on latest year paid MCCP development through 120 months from Exhibit 14.2. 120-to-ultimate is based on selected paid medical development factors from Exhibit 3.2 of Section B.
[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 8.3.

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

Paid MCCP per Indemnity Claims Inventory[1] by Calendar Year - Statewide

Calendar Year	Paid MCCP per Indemnity Claim Adjusted to Remove IMR/IBR Fees	Year-to-Year Change
2008	$848	---
2009	$808	-4.7%
2010	$872	7.9%
2011	$914	4.8%
2012	$942	3.0%
2013	$984	4.5%
2014	$964	-2.1%
2015	$1,034	7.3%
2016	$1,032	-0.2%
2017	$944	-8.6%
2018	$948	0.4%
2019	$928	-2.1%
2020	$897	-3.3%

Estimated Annual Exponential Trend Based on:

2009-2020	0.8%
R^2	0.161

[1] Indemnity claims inventory is the sum of indemnity claims open as of January 1 of Year N and newly-reported indemnity claims between January 1 of year N and December 31 of year N.

Source: WCIRB expense calls, aggregate indemnity and medical cost calls, and quarterly calls for experience excluding COVID-19 claims.

Paid MCCP Development Factors - Statewide
Quarterly Development

Age in Months	Accident Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
3 - 6	5.599	5.796	6.047	5.652	6.118	5.561	5.864	5.288	---	5.896
6 - 9	2.356	2.432	2.402	2.457	2.407	2.395	2.335	2.354	---	2.181
9 - 12	1.763	1.773	1.771	1.742	1.725	1.776	1.825	1.780	---	1.765
12 - 15	1.476	1.412	1.456	1.468	1.480	1.444	1.420	1.419	1.439	
15 - 18	1.277	1.253	1.299	1.282	1.244	1.254	1.242	1.239	1.266	
18 - 21	1.171	1.157	1.194	1.177	1.170	1.155	1.148	1.165	1.154	
21 - 24	1.128	1.121	1.128	1.120	1.125	1.122	1.117	1.121	1.128	
24 - 27	1.083	1.099	1.096	1.096	1.086	1.091	1.084	1.096		
27 - 30	1.077	1.081	1.073	1.073	1.076	1.071	1.065	1.081		
30 - 33	1.051	1.068	1.045	1.062	1.054	1.057	1.054	1.057		
33 - 36	1.045	1.054	1.036	1.047	1.053	1.052	1.042	1.050		
36 - 39	1.047	1.053	1.033	1.040	1.036	1.045	1.043			
39 - 42	1.036	1.043	1.026	1.039	1.032	1.030	1.034			
42 - 45	1.036	1.035	1.025	1.029	1.028	1.025	1.027			
45 - 48	1.031	1.027	1.019	1.028	1.026	1.023	1.026			
48 - 51	1.031	1.023	1.025	1.019	1.020	1.025				
51 - 54	1.025	1.023	1.025	1.020	1.016	1.018				
54 - 57	1.022	1.019	1.018	1.015	1.014	1.015				
57 - 60	1.017	1.016	1.016	1.014	1.013	1.014				
60 - 63	1.015	1.015	1.012	1.011	1.013					
63 - 66	1.016	1.016	1.013	1.010	1.012					
66 - 69	1.014	1.012	1.011	1.009	1.010					
69 - 72	1.011	1.012	1.009	1.007	1.013					
72 - 75	1.009	1.010	1.009	1.007						
75 - 78	1.010	1.009	1.007	1.009						
78 - 81	1.007	1.006	1.010	1.007						
81 - 84	1.009	1.006	1.005	1.005						
84 - 87	1.008	1.006	1.003							

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

Paid MCCP Development Factors - Statewide
Annual Development

Accident Year	Age-to-Age Development (in months):								
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120
2012	2.491	1.281	1.160	1.097	1.055	1.043	1.023	1.014	1.012
2013	2.292	1.341	1.168	1.082	1.061	1.031	1.020	1.016	
2014	2.446	1.364	1.144	1.087	1.043	1.031	1.020		
2015	2.476	1.306	1.143	1.069	1.038	1.029			
2016	2.423	1.294	1.128	1.064	1.048				
2017	2.336	1.300	1.129	1.075					
2018	2.262	1.268	1.136						
2019	2.296	1.315							
2020	2.371								

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-Ult[1]
Latest Year	2.371	1.315	1.136	1.075	1.048	1.029	1.020	1.016	1.012	
Age-to-Ult	5.452	2.300	1.749	1.540	1.433	1.367	1.329	1.304	1.284	1.268

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-Ult[1]
2-Year Average	2.333	1.291	1.132	1.069	1.043	1.030	1.020	1.015	1.012	
Age-to-Ult	5.204	2.230	1.727	1.525	1.427	1.368	1.328	1.303	1.284	1.268

Note: [1] 120-to-Ult. is based on selected paid medical 120-to-ultimate development factor on Exhibit 3.2 of Section B.

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

Projected Ratio of MCCP to Losses - Statewide
Projected Ultimate MCCP per Inemnity Claim based on Latest Year Paid MCCP Development
Trend Applied to 2019 and 2021
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Year	Paid MCCP @12/31/21 (in $000) (1)	Cumulative Development Factors[1] (2)	Estimated Ultimate MCCP (3)=(1)x(2)	Indemnity Claim Counts @12/31/21 (4)	Cumulative Count Development Factors[2] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate MCCP per Indemnity Claim (7)=(3)/(6) x 1000
2013	299,849	1.284	384,901	135,509	1.005	136,176	2,826
2014	297,744	1.304	388,138	140,626	1.006	141,463	2,744
2015	288,112	1.329	382,915	144,994	1.007	146,007	2,623
2016	268,213	1.367	366,685	148,191	1.008	149,392	2,455
2017	255,420	1.433	365,940	148,580	1.010	150,075	2,438
2018	249,346	1.540	383,944	151,186	1.013	153,120	2,507
2019	224,708	1.749	392,993	153,193	1.020	156,197	2,516
2020	147,613	2.300	339,451	129,773	1.048	136,063	2,495
2021	66,476	5.452	362,453	117,281	1.279	150,002	2,416

Projected Based on 2-Year Average of 2019 and 2021:

	Ultimate MCCP[5]	Ult. Ind. Counts[3]	Ult.MCCP per Ind. Counts[4]
2022	371,206	153,599	2,417
2023	367,861	153,753	2,393
9/1/2023	366,383	153,392	2,389

(a) Projected MCCP ($000):		366,383
(b) Calendar Year 2019 and 2021 Earned Premium[6] ($000):		14,817,986
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[7]:		0.655
(d) Premium Adjustment Factor for Calendar Year 2019 and 2021[8]:		1.042
(e) Projected Losses ($000): (b) x (c) x (d)		10,113,424
(f) Projected Ratio of MCCP to Losses: (a)/(e)		3.6%

Notes:
[1] Based on latest year paid MCCP development through 120 months from Exhibit 14.2. 120-to-ultimate development factor is based on selected paid medical development factors from Exhibit 3.2 of Section B.
[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 8.3.
[3] Estimated based on projected frequency trends for accident years 2020 to 2024. Frequency trends for 2020 and 2021 are the actual "intra-class" changes from Section B, Appendix B, Exhibit 3. Frequency trends for accident years 2022 through 2024 are based on the projected growth in intra-class indemnity claim frequency from Section B, Exhibit 6.1. These frequency trends were then applied to the accident year 2019 and 2021 ultimate indemnity claim counts.
[4] Severity is projected by applying an annual growth rate of -1.0% based on the average of the longer-term average rates of growth in ultimate MCCP per indemnity claim from Exhibit 12 and calendar year MCCP paid per open claim from Exhibit 13 to the ultimate MCCP severity estimated from averaging 2019 and 2021.
[5] Column(6) x Column(7) / 1,000.
[6] Based on the reported earned premium for calendar year 2019 and 2021 excluding COVID-19 premium charges from the same group of insurers that reported the paid MCCP in column (1) and the indemnity claim counts in column (4) by accident year as of December 31, 2021.
[7] See Exhibit 8 of Section B.
[8] See Exhibit 5.2 of Section B. Based on a weighting of calendar years 2019 and 2021.

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

Projected Ratio of MCCP to Losses - Statewide
Projected Ultimate MCCP per Indemnity Claim based on 2-Year Average Year Paid MCCP Development
Trend Applied to 2019 and 2021
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Year	Paid MCCP @12/31/21 (in $000) (1)	Cumulative Development Factors[1] (2)	Estimated Ultimate MCCP (3)=(1)x(2)	Indemnity Claim Counts @12/31/21 (4)	Cumulative Count Development Factors[2] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate MCCP per Indemnity Claim (7)=(3)/(6) x 1000
2013	299,849	1.284	384,901	135,509	1.005	136,176	2,826
2014	297,744	1.303	387,936	140,626	1.006	141,463	2,742
2015	288,112	1.328	382,714	144,994	1.007	146,007	2,621
2016	268,213	1.368	366,864	148,191	1.008	149,392	2,456
2017	255,420	1.427	364,380	148,580	1.010	150,075	2,428
2018	249,346	1.525	380,316	151,186	1.013	153,120	2,484
2019	224,708	1.727	388,064	153,193	1.020	156,197	2,484
2020	147,613	2.230	329,205	129,773	1.048	136,063	2,420
2021	66,476	5.204	345,925	117,281	1.279	150,002	2,306

Projected Based on 2-Year Average of 2019 and 2021:

	Ultimate MCCP[5]	Ult. Ind. Counts[3]	Ult.MCCP per Ind. Counts[4]
2022	360,477	153,599	2,347
2023	357,229	153,753	2,323
9/1/2023	355,794	153,392	2,320

(a) Projected MCCP ($000):		355,794
(b) Average of Calendar Years 2019 and 2021 Earned Premium[6] ($000):		14,817,986
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[7]:		0.655
(d) Premium Adjustment Factor[8]:		1.042
(e) Projected Losses ($000): (b) x (c) x (d)		10,113,424
(f) Projected Ratio of MCCP to Losses: (a)/(e)		3.5%

Notes:
[1] Based on 2-year average paid MCCP development through 120 months from Exhibit 14.2. 120-to-ultimate development factor is based on selected paid medical development factors from Exhibit 3.2 of Section B.
[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 8.3.
[3] Estimated based on projected frequency trends for accident years 2020 to 2024. Frequency trends for 2020 and 2021 are the actual "intra-class" changes from Section B, Appendix B, Exhibit 3. Frequency trends for accident years 2022 through 2024 are based on the projected growth in intra-class indemnity claim frequency from Section B, Exhibit 6.1. These frequency trends were then applied to the accident year 2019 and 2021 ultimate indemnity claim counts.
[4] Severity is projected by applying an annual growth rate of -1.0% based on the average of the longer-term average rates of growth in ultimate MCCP per indemnity claim from Exhibit 12 and calendar year MCCP paid per open claim from Exhibit 13 to the ultimate MCCP severity estimated from averaging 2019 and 2021.
[5] Column(6) x Column(7) / 1,000.
[6] Based on the reported earned premium for calendar year 2019 and 2021 excluding COVID-19 premium charges from the same group of insurers that reported the paid MCCP in column (1) and the indemnity claim counts in column (4) by accident year as of December 31, 2021.
[7] See Exhibit 8 of Section B.
[8] See Exhibit 5.2 of Section B. Based on a weighting of calendar years 2019 and 2021.

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

Projected Ratio of MCCP to Losses - Statewide
Projected Ultimate MCCP per Indemnity Claim based on Latest Year Paid MCCP Development
Trend Applied to 2019
for Policies with Effective Dates between September 1, 2022 and August 31, 2023

Accident Year	Paid MCCP @12/31/21 (in $000) (1)	Cumulative Development Factors[1] (2)	Estimated Ultimate MCCP (3)=(1)x(2)	Indemnity Claim Counts @12/31/21 (4)	Cumulative Count Development Factors[2] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate MCCP per Indemnity Claim (7)=(3)/(6) x 1000
2013	299,849	1.284	384,901	135,509	1.005	136,176	2,826
2014	297,744	1.304	388,138	140,626	1.006	141,463	2,744
2015	288,112	1.329	382,915	144,994	1.007	146,007	2,623
2016	268,213	1.367	366,685	148,191	1.008	149,392	2,455
2017	255,420	1.433	365,940	148,580	1.010	150,075	2,438
2018	249,346	1.540	383,944	151,186	1.013	153,120	2,507
2019	224,708	1.749	392,993	153,193	1.020	156,197	2,516
2020	147,613	2.300	339,451	129,773	1.048	136,063	2,495
2021	66,476	5.452	362,453	117,281	1.279	150,002	2,416

Projected Based on 2019:

	Ultimate MCCP[5]	Ult. Ind. Counts[3]	Ult.MCCP per Ind. Counts[4]
2022	378,394	154,998	2,441
2023	374,985	155,153	2,417
9/1/2023	373,479	154,789	2,413

(a) Projected MCCP ($000):		373,479
(b) Calendar Year 2019 Earned Premium[6] ($000):		16,120,058
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[7]:		0.655
(d) Premium Adjustment Factor for Calendar Year 2019[8]:		1.000
(e) Projected Losses ($000): (b) x (c) x (d)		10,562,613
(f) Projected Ratio of MCCP to Losses: (a)/(e)		3.5%

Notes:
[1] Based on latest year paid MCCP development through 120 months from Exhibit 14.2. 120-to-ultimate development factor is based on selected paid medical development factors from Exhibit 3.2 of Section B.
[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 8.3.
[3] Estimated based on projected frequency trends for accident years 2020 to 2024. Frequency trends for 2020 and 2021 are the actual "intra-class" changes from Section B, Appendix B, Exhibit 3. Frequency trends for accident years 2022 through 2024 are based on the projected growth in intra-class indemnity claim frequency from Section B, Exhibit 6.1. These frequency trends were then applied to the accident year 2019 ultimate indemnity claim counts.
[4] Severity is projected by applying an annual growth rate of -1.0% based on the average of the longer-term average rates of growth in ultimate MCCP per indemnity claim from Exhibit 12 and calendar year MCCP paid per open claim from Exhibit 13 to the 2019 ultimate MCCP severity.
[5] Column(6) x Column(7) / 1,000.
[6] Based on the reported earned premium for calendar year 2019 from the same group of insurers that reported the paid MCCP in column (1) and the indemnity claim counts in column (4) by accident year as of December 31, 2021.
[7] See Exhibit 8 of Section B.
[8] See Exhibit 5.2 of Section B.

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

Section B
Appendix D
COVID-19 Claim Cost Projection

The COVID-19 pandemic began to emerge in early 2020. On May 6, 2020, Governor Newsom issued Executive Order N-62-20 (Executive Order) providing a rebuttable presumption of compensability of COVID-19 workers' compensation claims for all workers directed by their employer to work outside their home. On September 17, 2020, Senate Bill No. 1159 (SB 1159) was signed into law. Among other provisions, SB 1159 codified the presumption of compensability of COVID-19 claims in the Governor's Executive Order that applied through July 5, 2020 to workers directed to work outside their home. In addition, SB 1159 provides for a similar disputable presumption to apply from July 6, 2020 to January 1, 2023 to COVID-19 claims of first responders and certain healthcare workers as well as to the claims of other workers directed to work outside the home if the worker's employer suffers a COVID-19 "outbreak."

Even before the Governor's Executive order was issued, many COVID-19 workers' compensation claims were filed in California, largely by healthcare workers and first responders. Subsequent to when the legal presumptions were established, thousands of COVID-19 claims continued to be filed. Exhibit 1 shows the COVID-19 share of all workers' compensation indemnity claims by accident month. As shown in Exhibit 1, the COVID-19 share of all indemnity claims was high in the early months of the pandemic when some segments of the economy were essentially closed down and many workers were working at home. The share of COVID-19 claims dropped in the summer of 2020, as the economy began to reopen and statewide infection rates were relatively low, before increasing dramatically late in the year with the "winter surge." With the rollout of the vaccines and lower statewide infection rates, the COVID-19 share of all indemnity claims was low in the spring and summer of 2021, before surging with the emergence of the Delta and Omicron variants later in 2021. In January 2022, more than 40% of all indemnity claims were COVID-19 claims.

In the January 1, 2021 Pure Premium Rate Filing, the WCIRB estimated the cost of COVID-19 claims incurred on 2021 policies at $0.06 per $100 of payroll. The projection was based on several model forecasts of future California hospitalization and death rates, severity projections that were based on the severity characteristics of similar claims and opinions of medical and claims experts as to the characteristics of COVID-19 claims. Exhibit 2 compares the projected cost of COVID-19 claims by accident year as reflected in the January 1, 2021 Pure Premium Rate Filing with the WCIRB's estimate of the ultimate cost of COVID-19 claims by accident year based on reported COVID-19 claim costs as of December 31, 2021. As shown in Exhibit 2, with the successful rollout of the vaccines beginning in early 2021, emerging COVID-19 claim costs through 2021 are somewhat below the projections reflected in the January 1, 2021 Pure Premium Rate Filing.

In the September 1, 2021 Pure Premium Filing, the WCIRB again reviewed the potential cost of future COVID-19 claims. The rate of COVID-19 claims was low at the time the filing was made in April 2021 (see Exhibit 1). Also, external models and published research at the time were indicating that the U.S. population would potentially be nearing herd immunity by the summer of 2021 and that COVID-19 fatalities would plateau. As a result, the WCIRB did not recommend a provision be included to reflect the estimated cost of COVID-19 claims to be incurred on policies incepting between September 1, 2021 and August 31, 2022.

While COVID-19 claim rates remained low in the spring of 2021, with the later emergence of the Delta and Omicron variants, more than 100,000 workers' compensation claims have been filed in California since the WCIRB's September 1, 2021 filing was made.[1] In addition, most infectious disease experts expect COVID-19 to become endemic and continue to infect individuals for the foreseeable future. As a result, the WCIRB reviewed the currently available information on forecasts of future COVID-19 rates to

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[1] Based on Division of Workers' Compensation information as of April 21, 2022. Includes insured and self-insured claims and denied claims.

ascertain the potential impact of COVID-19 claim costs on policies incepting between September 1, 2022 and August 31, 2023.

Projection Approach

Limited forecasts are available for COVID-19 infection, hospitalization and death rates for late 2022 and 2023. In March 2022, the Rockefeller Foundation published a study on COVID-19 based on a collaboration of a number of epidemiologists, physicians and researchers.[2] The study included a projection of U.S. COVID-19 fatalities from March 2022 through February 2023 under an optimistic scenario (estimated at 10% likely), an intermediate scenario (estimated at 50% likely) and a pessimistic scenario (estimated at 40% likely). In addition, the Institute for Health Metrics and Evaluation (IHME) has forecasts available of COVID-19 fatalities in California from March 1, 2022 through July 31, 2022.[3] The Rockefeller Foundation and IHME forecasts are summarized in Table 1 below.

Table 1 – Forecast of COVID-19 Fatalities in California

Source	Projection for U.S.	Projection for California	Ratio of Projected to Actual Fatalities in California Prior Year
Institute of Health Metrics and Evaluation (IHME)	52K deaths (March 2022 through July 2022)	4.5K deaths (March 2022 through July 2022)	38% of actual deaths in the same period in 2021[4]
The Rockefeller Foundation (intermediate scenario)	30K to 100K deaths (March 2022 through February 2023)	3.6K to 12K deaths (March 2022 through February 2023)[5]	11% to 35% of actual deaths in the preceding 12 months[6]

Projections of future COVID-19 costs involve a high level of uncertainty. Most of all, it is unclear what variants might emerge and how infectious or severe they might be. However, California potentially has a higher population immunity than in the past due to vaccinations, boosters and infections, particularly among healthcare and other frontline workers. Conversely, changes in mitigation measures, such as reduced mask wearing, plus more workers working at their employer's premises, may increase exposure to COVID-19. In addition, the effects of "long COVID" are still largely unknown.

Exhibit 3 shows the estimated ratios of the cost of COVID-19 claims as a percentage of total losses and loss adjustment expenses. The estimates shown for 2020 and 2021 are based on the projected ultimate cost of COVID-19 claims for those years (see Exhibit 2) as a percentage of the projected cost of non-COVID-19 claims. The alternative projections shown for the September 1, 2022 through August 31, 2023 policy period represent the projected cost of COVID-19 claims as a percentage of projected cost of non-COVID-19 claims. The projected COVID-19 claim costs are calculated by applying the ratios of the forecast California fatalities to the actual fatalities for the same period twelve months earlier shown in the last column of Table 1 to the estimated cost of California workers' compensation COVID-19 claims for

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[2] Rockefeller Foundation's Report: https://www.rockefellerfoundation.org/report/getting-to-and-sustaining-the-next-normal-a-roadmap-for-living-with-covid/.

[3] IHME's projections (updated as of April 7, 2022): https://covid19.healthdata.org/united-states-of-america?view=cumulative-deaths&tab=trend.

[4] The ratio was comparing the IHME's projected deaths from March through July 2022 in California to the actual deaths from March through July 2021 in California.

[5] The California estimate was imputed by the WCIRB from the U.S. estimate.

[6] The ratio was comparing the projected deaths by Rockefeller Foundation from March 2022 through February 2023 in California to the actual deaths from March 2021 through February 2022 in California.

accident year 2021. In this way, the WCIRB assumed the relationship between COVID-19 California fatalities and COVID-19 workers' compensation claim costs in 2021 will continue in the future.[7]

Exhibit 3 shows projections based on the low intermediate, high intermediate and pessimistic Rockefeller Foundation forecasts. Also shown in Exhibit 3 is the IHME forecast, which is very close to the projection based on the high intermediate Rockefeller forecast. The WCIRB recommends a COVID-19 cost provision of 0.5% of projected non-COVID-19 losses. The WCIRB's recommendation is based on the average of the Rockefeller Foundation's high intermediate forecast and the IHME forecast with a judgmental tempering of 40%. A tempering of 40% was selected to reflect that the period September 1, 2022 advisory pure premium rates will be in effect is well after the time period reflected in both the Rockefeller Foundation and IHME forecasts as well as after AY 2021, the basis used for the this projection. With higher population vaccination and prior infection rates as well as greater use of emerging COVID-19 therapeutics, the severity of COVID-19 claims is likely to be less during the projection period than during 2021 and early 2022.

The WCIRB's recommended provision of 0.5% for COVID-19 claim costs translates to an additive adjustment of $0.008 per $100 of payroll. In that COVID-19 claim costs do not necessarily vary by classification proportionately with other workers' compensation claim costs, the WCIRB recommends applying this amount as an additive adjustment to advisory pure premium rates rather than a multiplicative factor. As a result, the WCIRB's proposed September 1, 2022 advisory pure premium rate for each classification included in Section A includes a $0.008 provision to reflect the cost of COVID-19 claims projected to be incurred on September 1, 2022 to August 31, 2023 policies.
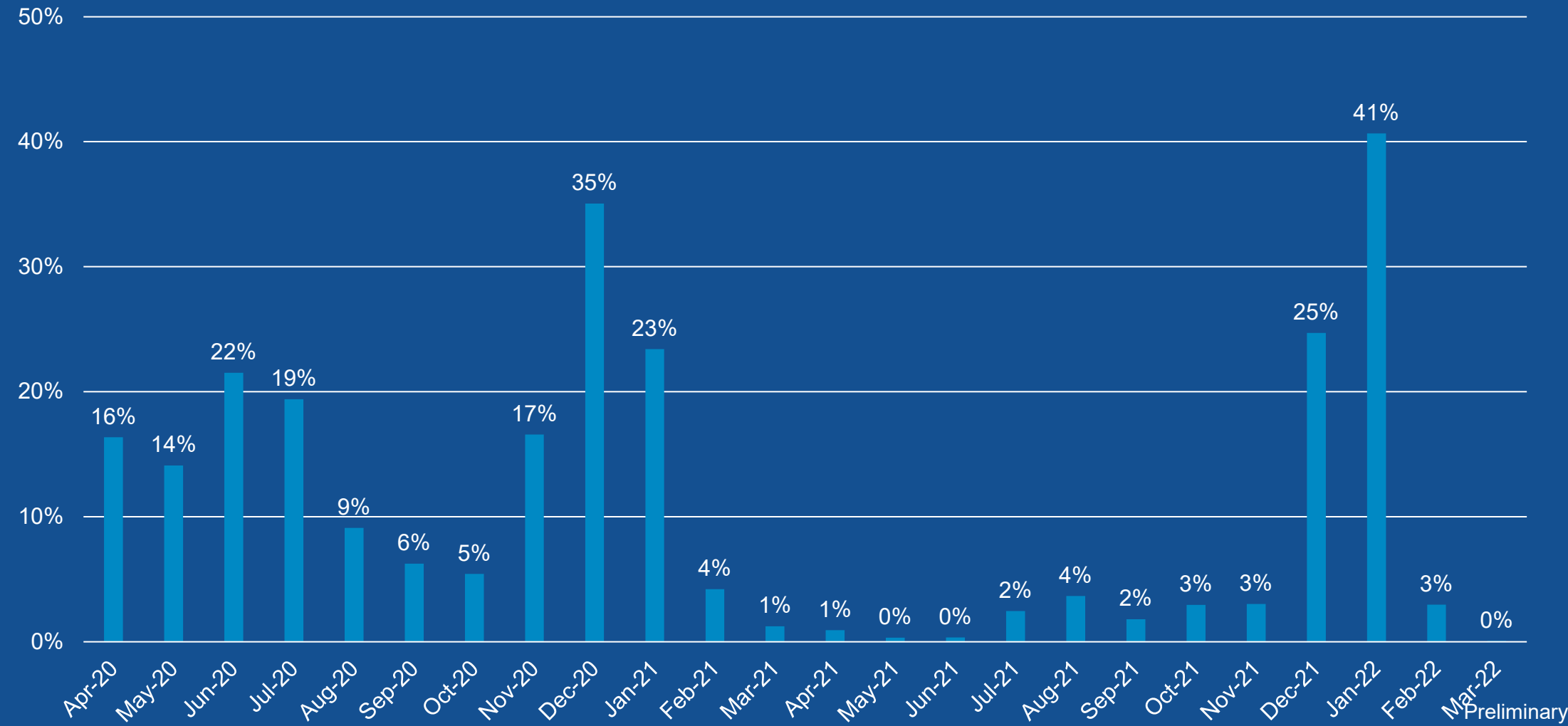
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[7] Accident year 2021 was used in that the typical COVID-19 claim severity for 2021 was believed to be more indicative of COVID-19 claim severities to be incurred on September 1, 2022 to August 31, 2023 policies compared to accident year 2020, which represented the early part of the pandemic and prior to the rollout of vaccines.
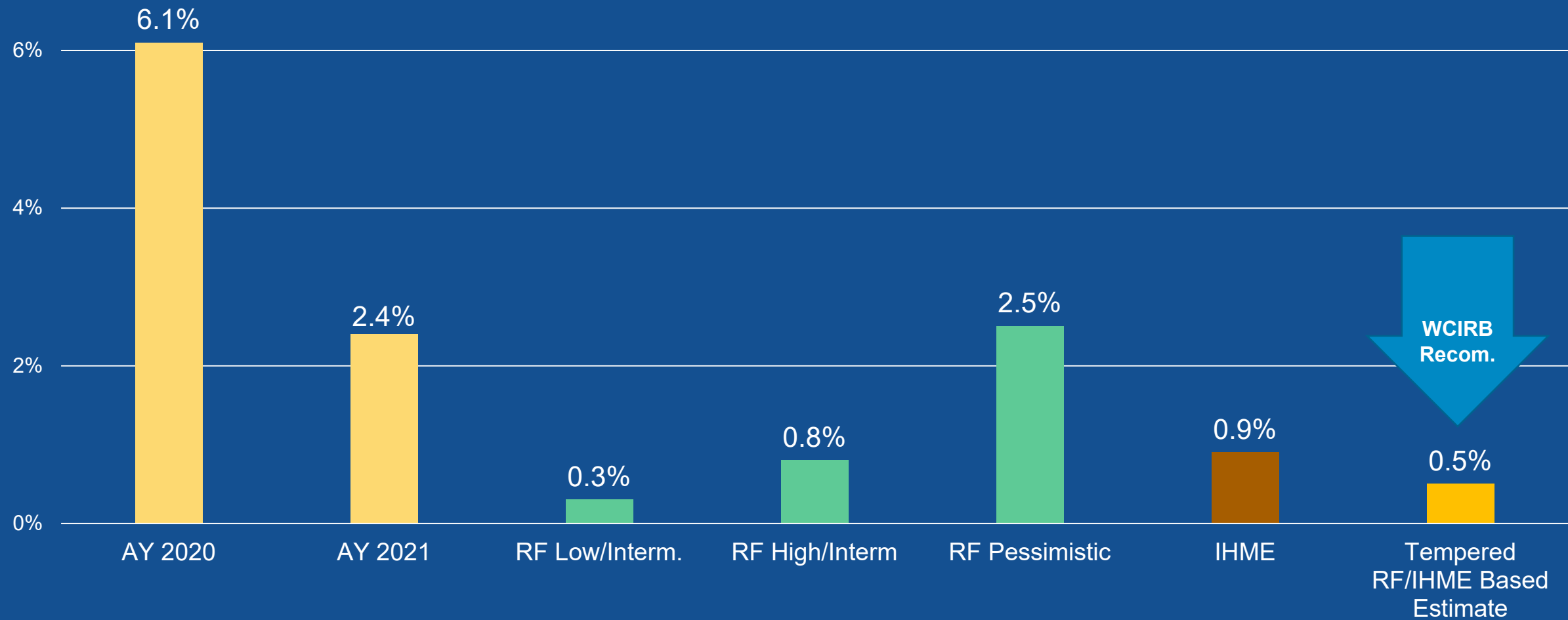
Estimated Cost of COVID-19 Claims as Percent of Total Losses & LAE

6.1% — AY 2020

2.4% — AY 2021

0.3% — RF Low/Interm.

0.8% — RF High/Interm

2.5% — RF Pessimistic

0.9% — IHME

WCIRB Recom.

0.5% — Tempered RF/IHME Based Estimate

------------------ 9/1/2022 – 8/31/23 Policy Period Projections ------------------

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