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WCIRB Actuarial Committee Meeting

March 21, 2024

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6. AC24-03-02: 12/31/2023 Experience Review

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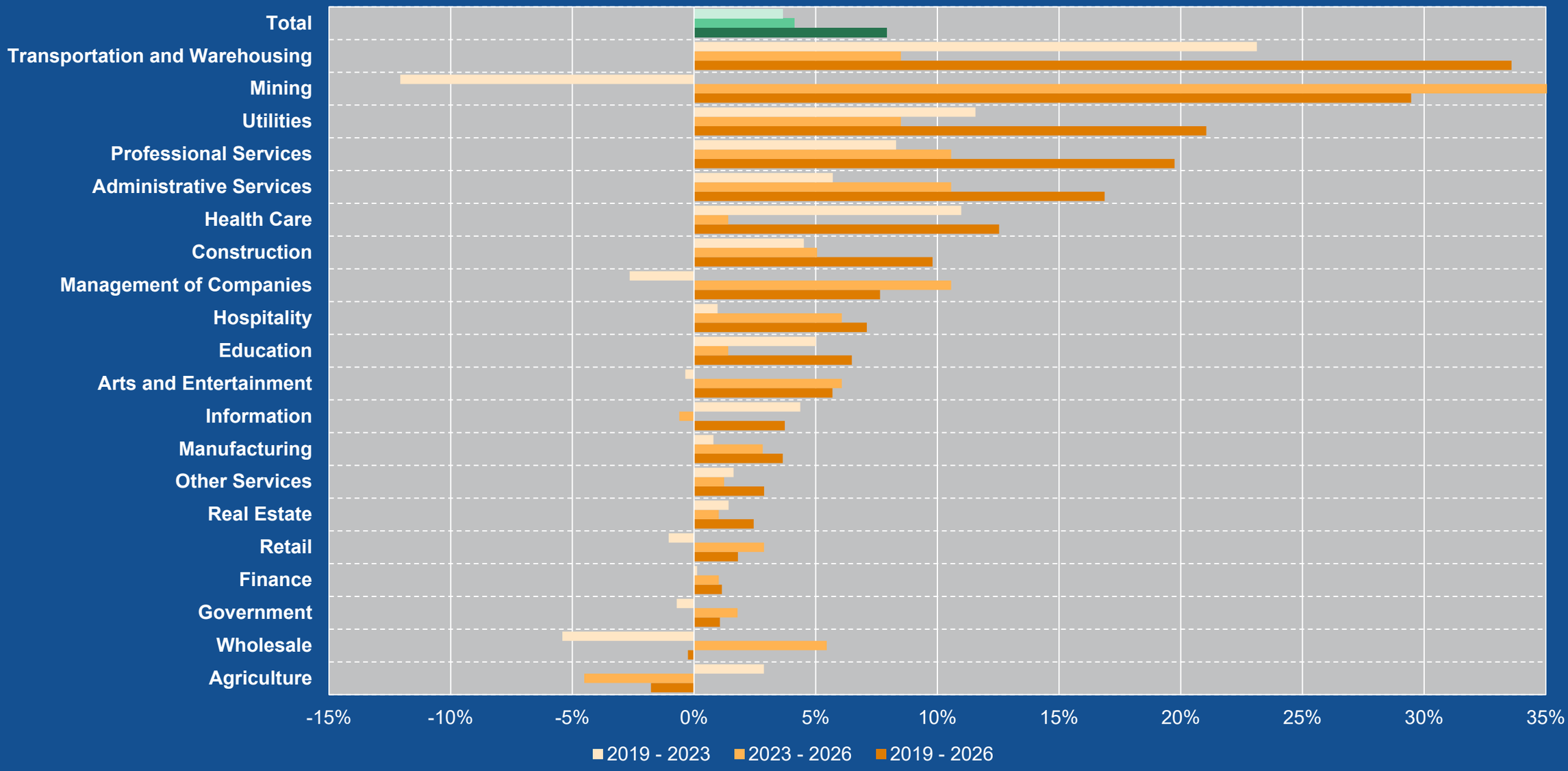
01

Impact of Economic Slowdown on Pure Premium Rate Indications

Cumulative Changes in Employment by Industry



Source: March 2024 UCLA Forecast

Industry Share of Employment

Industry	Industry Share of Total Employment by Year								Percent Point Change from 2019						
	2019	2020	2021	2022	2023	2024	2025	2026	2020	2021	2022	2023	2024	2025	2026
Transportation and Warehousing	3.6%	4.1%	4.3%	4.4%	4.3%	4.4%	4.4%	4.5%	0.4%	0.6%	0.7%	0.7%	0.7%	0.8%	0.9%
Professional Services	7.5%	7.9%	7.9%	7.9%	7.8%	7.9%	8.1%	8.3%	0.4%	0.4%	0.4%	0.3%	0.4%	0.6%	0.8%
Health Care	13.6%	14.4%	14.3%	14.1%	14.5%	14.4%	14.2%	14.2%	0.8%	0.8%	0.5%	1.0%	0.8%	0.7%	0.6%
Administrative Services	6.4%	6.4%	6.5%	6.6%	6.5%	6.6%	6.7%	6.9%	0.0%	0.2%	0.2%	0.1%	0.2%	0.4%	0.5%
Construction	5.0%	5.2%	5.2%	5.0%	5.0%	5.0%	5.1%	5.0%	0.2%	0.2%	0.1%	0.0%	0.1%	0.1%	0.1%
Utilities	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Mining	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Management of Companies	1.4%	1.5%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	0.0%	0.0%
Education	2.1%	2.1%	2.1%	2.1%	2.2%	2.2%	2.1%	2.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Arts and Entertainment	1.8%	1.3%	1.4%	1.7%	1.8%	1.8%	1.8%	1.8%	-0.6%	-0.5%	-0.1%	-0.1%	0.0%	0.0%	0.0%
Hospitality	9.5%	7.7%	8.2%	8.9%	9.3%	9.5%	9.5%	9.5%	-1.9%	-1.4%	-0.6%	-0.2%	0.0%	0.0%	-0.1%
Real Estate	1.7%	1.7%	1.7%	1.7%	1.7%	1.6%	1.6%	1.6%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%
Information	3.2%	3.2%	3.3%	3.4%	3.2%	3.2%	3.1%	3.0%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	-0.1%
Other Services	3.2%	2.9%	3.0%	3.1%	3.2%	3.2%	3.2%	3.1%	-0.4%	-0.3%	-0.1%	-0.1%	0.0%	-0.1%	-0.2%
Finance	3.0%	3.2%	3.1%	3.0%	2.9%	2.9%	2.9%	2.8%	0.2%	0.1%	0.0%	-0.1%	-0.1%	-0.2%	-0.2%
Agriculture	2.4%	2.5%	2.4%	2.3%	2.4%	2.3%	2.2%	2.2%	0.1%	0.0%	0.0%	0.0%	-0.1%	-0.2%	-0.2%
Wholesale	3.9%	3.9%	3.8%	3.7%	3.6%	3.5%	3.6%	3.6%	0.0%	-0.1%	-0.2%	-0.3%	-0.4%	-0.3%	-0.3%
Manufacturing	7.4%	7.6%	7.5%	7.4%	7.2%	7.2%	7.2%	7.1%	0.2%	0.0%	-0.1%	-0.2%	-0.3%	-0.3%	-0.3%
Retail	9.2%	9.1%	9.2%	8.9%	8.8%	8.6%	8.6%	8.7%	-0.1%	0.0%	-0.3%	-0.4%	-0.6%	-0.6%	-0.5%
Government	14.5%	15.0%	14.4%	14.0%	13.9%	13.9%	13.8%	13.6%	0.5%	-0.2%	-0.6%	-0.6%	-0.6%	-0.8%	-0.9%

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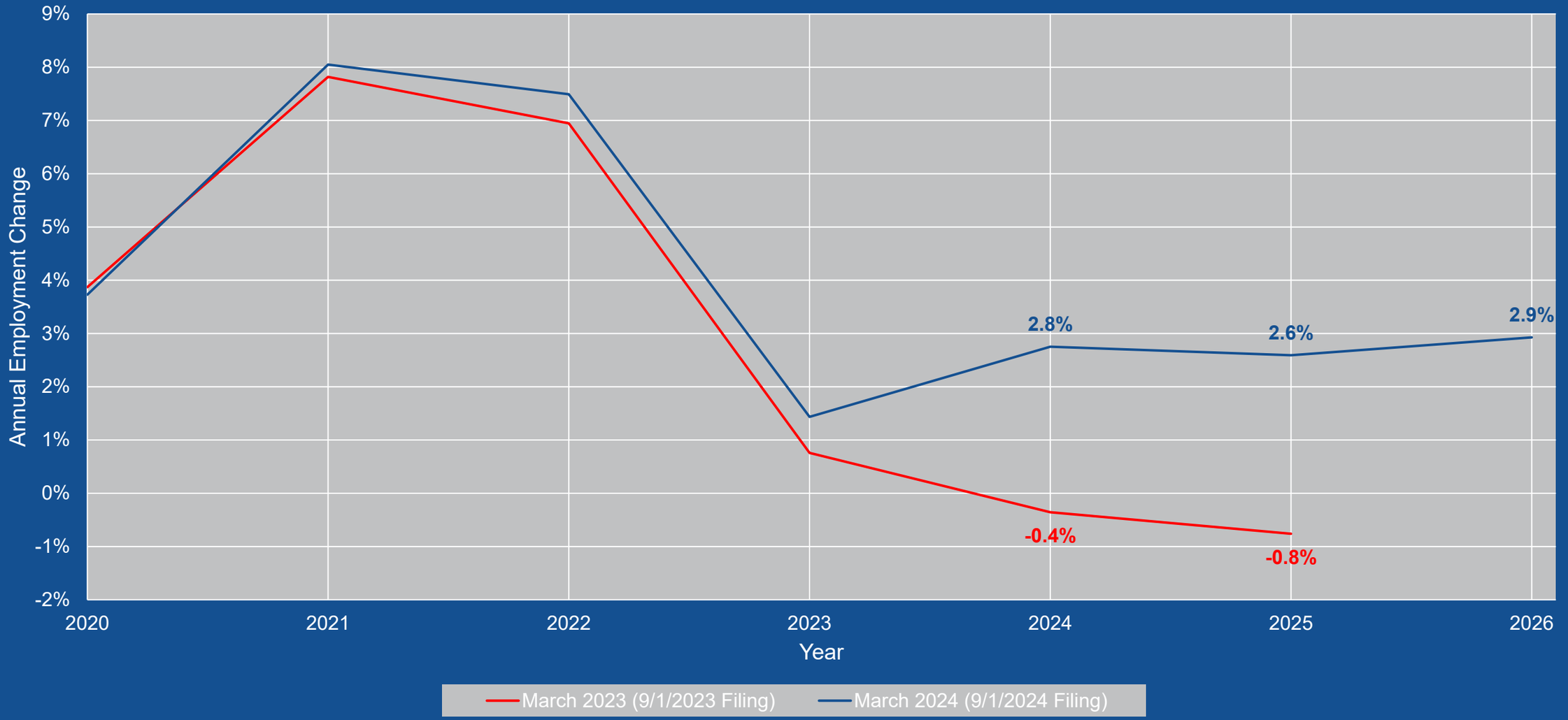
Source: March 2024 UCLA Forecast

Annual Employment Change by Forecast
Transportation & Warehousing



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Source: March 2023 and March 2024 UCLA Forecasts

Annual Employment Change by Forecast Information

Source: March 2023 and March 2024 UCLA Forecasts

Average Wage

- Current forecasts of average wage changes are from March 2024 UCLA and November 2023 Department of Finance

- The averages of these wage forecasts are:

Source	2020	2021	2022	2023	2024	2025	2026
Average/ Observed	11.4%	7.7%	-1.1%	3.2%	5.1%	3.7%	3.7%
UCLA					6.7%	3.6%	3.7%
DoF					3.4%	3.7%	3.7%

- Wage change selections for 2022 and prior are used only to on-level historic data
- These values are prior to any adjustments

Wage Level Mix Adjustments

- Observed average wage changes in 2020 and 2021 were abnormally high
- These wage changes were partly caused by changing distributions of employees at differing wage levels within industries
  - In 2020, employees at the lowest wage levels were most likely to be laid off
  - In 2021, employees entering or re-entering the workforce were largely able to bypass employment at the lowest wage level due to demand in the labor market
  - In both cases, the impact was that the observed change in the average wage was artificially high

- To account for this distortion, observed wage changes were adjusted using measured impacts from either the American Community Survey (ACS) or Current Population Survey (CPS)
- The impacts were derived by holding both industrial mix and industry/wage quartile wages constant while allowing the distribution of workers by wage level within industries to vary year to year

- Staff recommends continuing to use these measurements to adjust observed wage changes

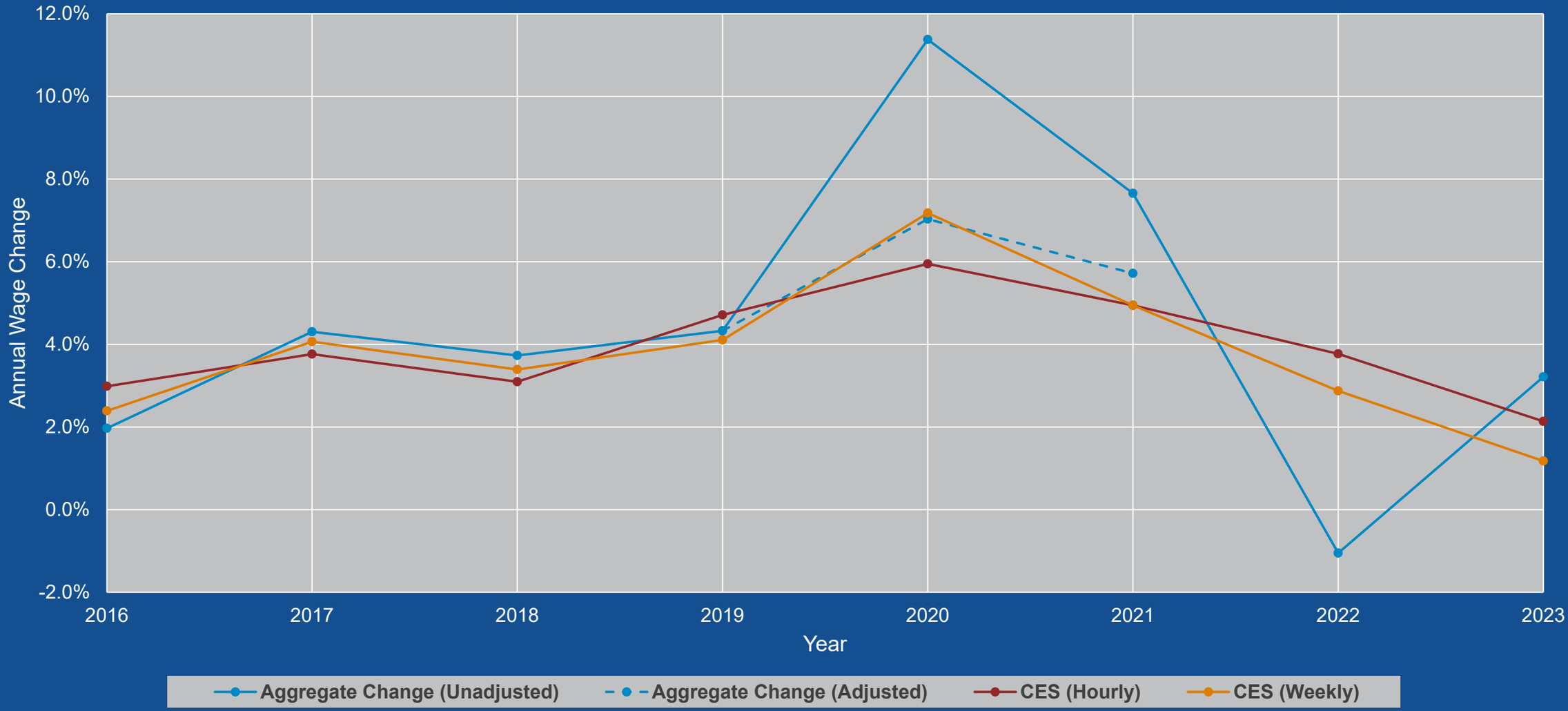
Wage Level Distribution Impact in 2022

- Staff investigated making an analogous adjustment for the observed 2022 wage change using survey data
  - This data resulted in an overall 2022 wage change that was inconsistent with observed wage changes from other sources

Source	2020	2021	2022
Historic	11.4%	7.7%	-1.1%
ACS/CPS	9.9%	8.1%	8.0%

  - Additionally, the measured adjustment was directionally inconsistent with the small observed wage change in 2022 (i.e., the -1.1% change would be adjusted downward)
- As in the 9/1/2023 filing, staff does not recommend making this adjustment for the 2022 wage change
  - Staff instead recommended the use of an alternate wage series

Comparison of Historic Wage Change Series

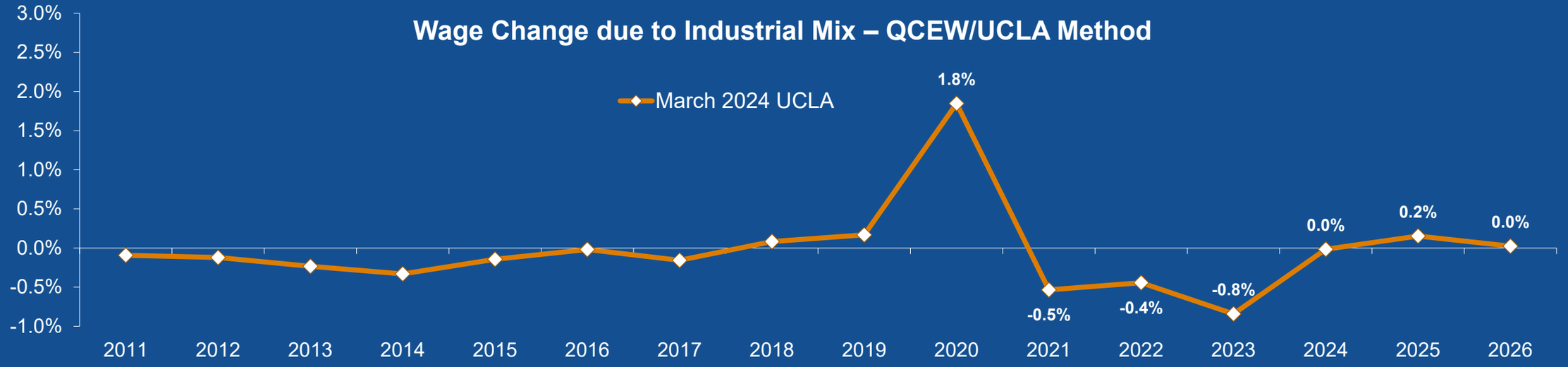


Statewide Average Wage Change: 2022 Recommendation

- Staff recommends using the average of the two CES wage change series
  - In the 9/1/2023 filing, the average of the observed value (at the time) of 0.5% and the CES Hourly series was selected
  - Use of only CES series was considered in the prior filing, but ultimately some weight was given to the historic value
    - The further decline and sign change in the historic 2022 wage change led staff to believe that its inclusion is no longer appropriate

Industrial Mix Impact on Average Wage – QCEW/UCLA Method

- This estimate uses observed industrial wage relativities from QCEW data through 2022
- These relativities are extended into the future with industrial mix determined by UCLA forecasts



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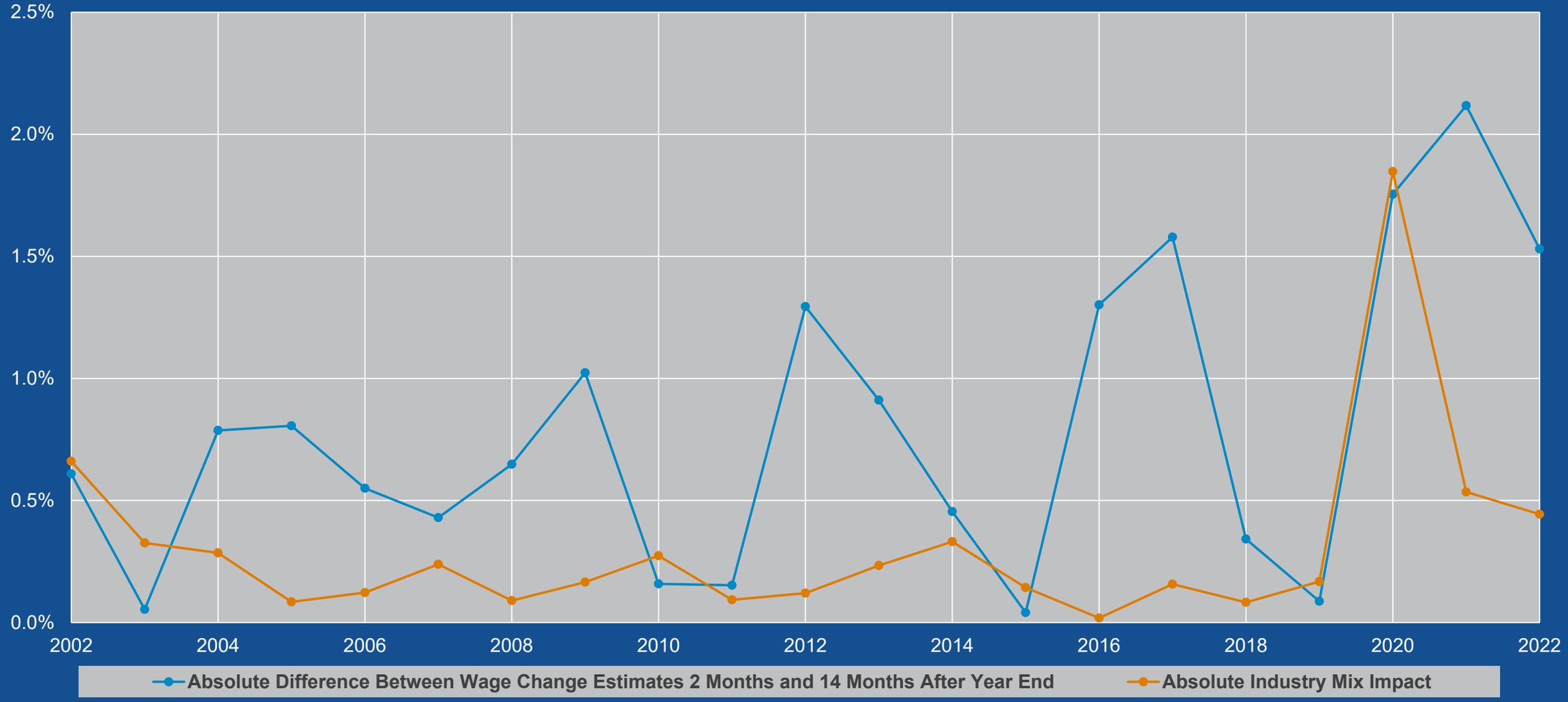
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages and UCLA Anderson Forecast

Application of Industry Mix Adjustment

- In general, staff recommends using historic or forecast values of wage changes without adjustment for industry mix
  - In stable economic conditions, the impact is small and within measurement error of the wage change itself
  - For historic wage changes, staff recommends applying the adjustment when its magnitude exceeds 0.3%
    - This cutoff was calculated as twice the average magnitude of the 2011-2019 time period
  - Staff does not recommend making the adjustment to forecast wage changes as the adjustments are typically smaller than the volatility of the forecasts
    - For this reason, staff also recommends treating the most recent measured wage change (i.e., the 2023 wage change for the 9/1/2024 filing) as a forecast value and not applying the adjustment

Comparison of Magnitude of Industry Mix Impact and Difference in Historic Wage Change Measurements



Summary of Staff Recommendations

Item	Recommendation	Change from Prior Filing
Source of Unadjusted Wage Change (excluding 2022)	Measured value for historic years. Average of UCLA and DoF forecasts for future years.	No change.
Source of 2022 Wage Change	Average of CES Hourly and CES Weekly Wage Series.	CES Weekly Series used in lieu of historic measured value.
Wage Level Adjustment	Measured adjustment based on ACS survey data applied to 2020 and 2021.	No change.
Industry Mix Adjustment	Apply to historic years when adjustment is greater than 0.3%. No adjustment to forecast years or most recent historic year.	Specific cutoff for use in historic years. No adjustment to most recent historic year.

Selected and Recommended Average Wage Changes

	Filing	2020	2021	2022	2023	2024	2025	2026
Unadjusted	9/1/2021	9.6%	0.9%	1.8%	2.8%			
	9/1/2022	11.4%	8.0%	2.7%	2.0%	2.0%		
	9/1/2023	11.3%	7.7%	2.2%	4.3%	2.9%	2.7%	
	9/1/2024	11.4%	7.7%	3.4%	3.2%	5.1%	3.7%	3.7%
Industry Mix	9/1/2021	-1.9%	0.4%					
	9/1/2022	-1.8%	0.3%	0.5%	-0.3%	-0.1%		
	9/1/2023	-1.9%	0.5%	0.5%				
	9/1/2024	-1.8%	0.5%	0.4%				
Wage Level	9/1/2021	-4.3%	1.4%	1.0%	0.4%			
	9/1/2022	-3.9%	-1.8%	1.6%	1.1%	0.5%		
	9/1/2023	-3.9%	-1.8%					
	9/1/2024	-3.9%	-1.8%					
Adjusted	9/1/2021	2.9%	2.8%	2.9%	3.2%			
	9/1/2022	5.1%	6.3%	4.9%	2.8%	2.5%		
	9/1/2023	4.9%	6.3%	2.7%	4.3%	2.9%	2.7%	
	9/1/2024	5.1%	6.3%	3.8%	3.2%	5.1%	3.7%	3.7%

Note: 2022 wage changes in 9/1/2023 and 9/1/2024 filings are derived from alternate data series.

02

Indemnity Claim Frequency Model

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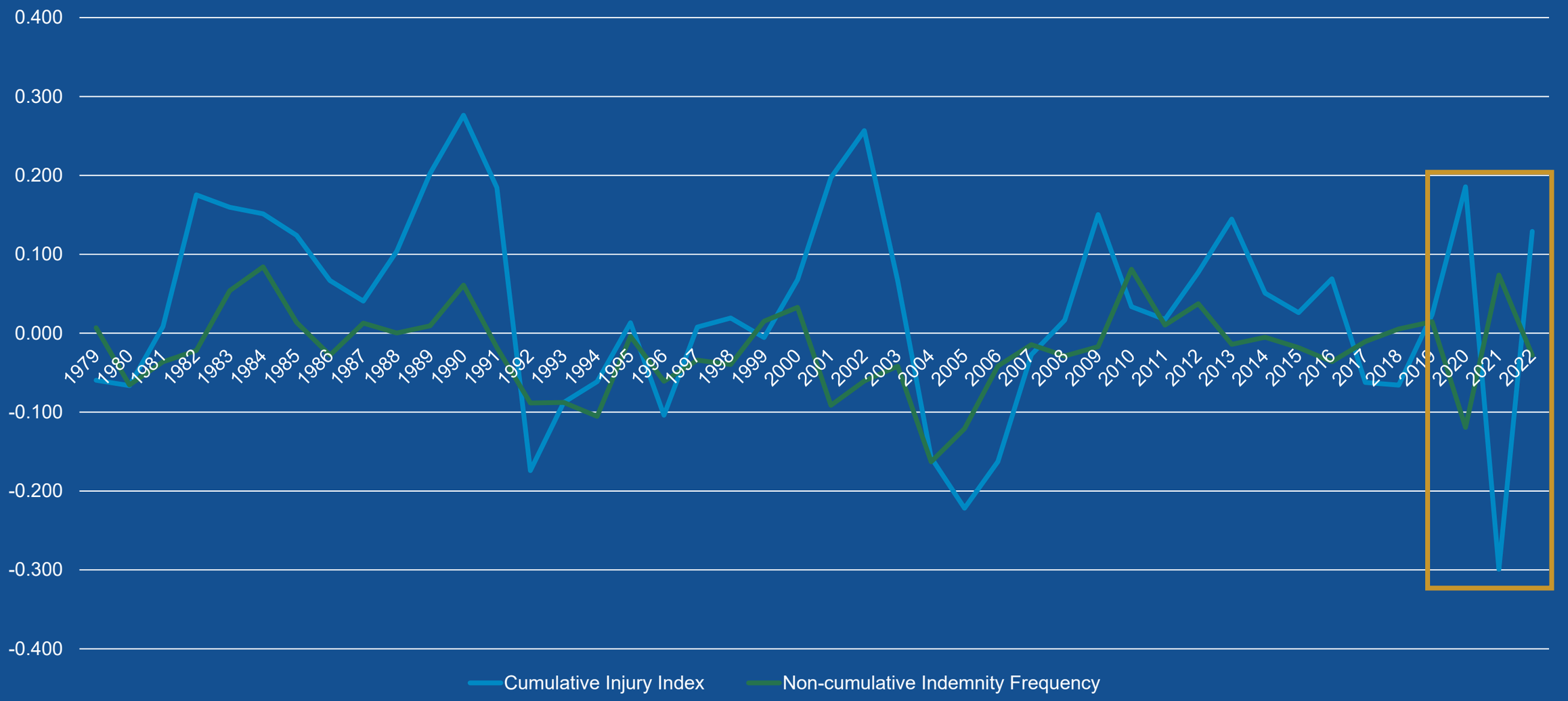
Background

- For many years, the WCIRB has relied on an econometric model to estimate:
  - Impact of changes in benefit level on indemnity claim frequency
  - Project future changes in indemnity claim frequency
- In 2021, performed a comprehensive review of the model which found:
  - Linear model performs well
  - Small changes to structure of variables within the model
  - Include all data available for best predictions
  - Using a times series forecast of the cumulative injury index (CII) or tempering the constant improves the accuracy of the model predictions compared to applying the full model with a forecast of no change in the CII
- Challenges since the completion of study:
  - Outliers larger than what we had seen previously
  - Instability in the long-term relationships estimated in the model

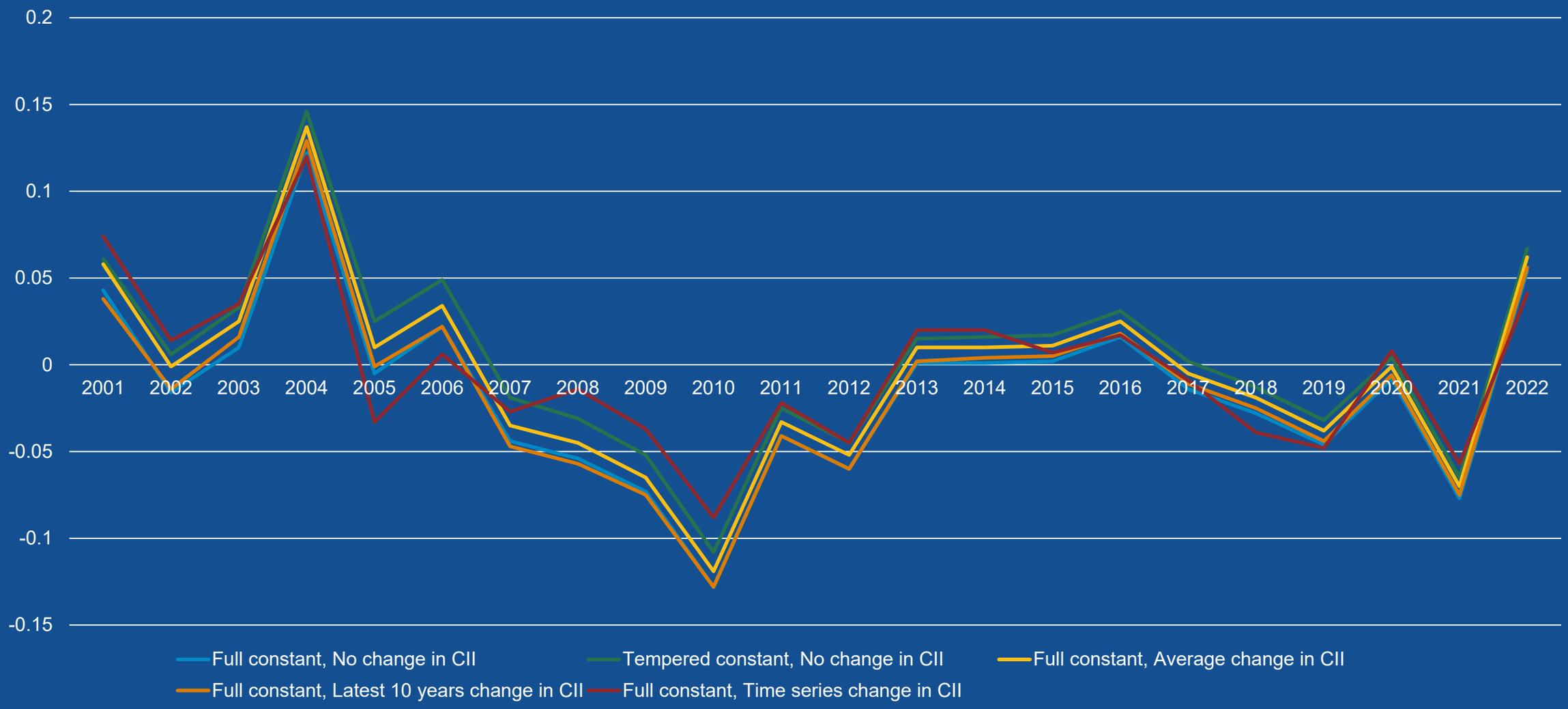
Objectives of Discussion

- Select recommended implementation of frequency model for 9/1/24 rate filing
- Assumptions:
  - Use of model constant and forecast for the CII
  - Which years to consider outliers
- Wage adjustments will be discussed in the item on Impact of Economic Downturns on Pure Premium Rate Indications
- In 2022, implemented most recommendations from 2021 review of model
  - Has the data begun to return to typical patterns?
  - Has our recent experience changed our understanding of best practices for implementation of the frequency model?

Log Differences in the CII and Non-cumulative Indemnity Claim Frequency



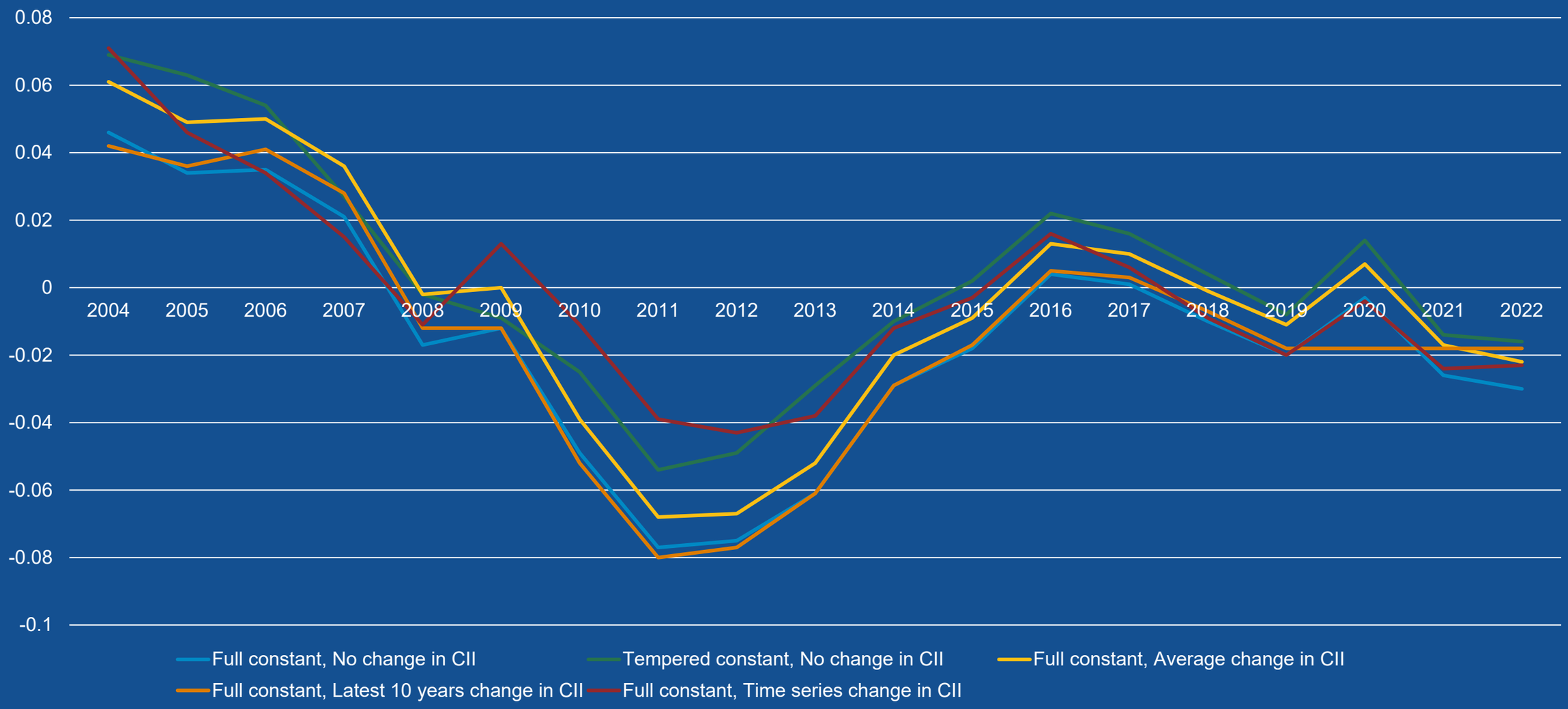
Performance of Alternative Forecasts—MSE of One Year Out Predictions



MSE for One Year Out for Alternatives for the Constant and Forecast Changes in the CII

	Full Constant, No change in CII	Tempered constant, No change in CII	Full constant, Average change in CII	Full constant, Latest 10 years change in CII	Full constant, Time series change in CII
MSE (All Years)	0.00281	0.00268	0.00277	0.00290	0.00206
MSE (Excluding Pandemic Years)	0.00278	0.00264	0.00275	0.00289	0.00212
	Improvement				
MSE (All Years)		-4.6%	-1.3%	3.2%	-26.8%
MSE (Excluding Pandemic Years)		-4.8%	-0.9%	4.0%	-23.8%

Performance of Alternative Forecasts—MSE of Predictions for Average of Four Projection Years



MSE for Average of Projection Years for Alternatives for the Constant and Forecast Changes in the CII

	Full Constant, No change in CII	Tempered constant, No change in CII	Full constant, Average change in CII	Full constant, Latest 10 years change in CII	Full constant, Time series change in CII
MSE (All Years)	0.00138	0.00109	0.00132	0.00142	0.00083
MSE (Excluding Pandemic Years)	0.00154	0.00126	0.00151	0.00162	0.00092
	Improvement				
MSE (All Years)		-20.8%	-4.4%	2.6%	-39.8%
MSE (Excluding Pandemic Years)		-18.4%	-1.7%	5.3%	-40.5%

Current Data and Forecasts

					Projected Change		
AY	Economic Variable	CII Forecast	Long Term Average CII		Time Series CII Forecast	Long Term Average CII	Tempered Constant
2023	-0.096	0.074	0.036		-0.0165	-0.0297	-0.0294
2024	-0.058	0.039	0.036		-0.0246	-0.0258	-0.0257
2025	0.182	0.021	0.036		-0.0067	-0.0013	-0.0014
2026	-0.023	0.014	0.036		-0.0298	-0.0219	-0.0221
2023-2026					-0.0755	-0.0766	-0.0765

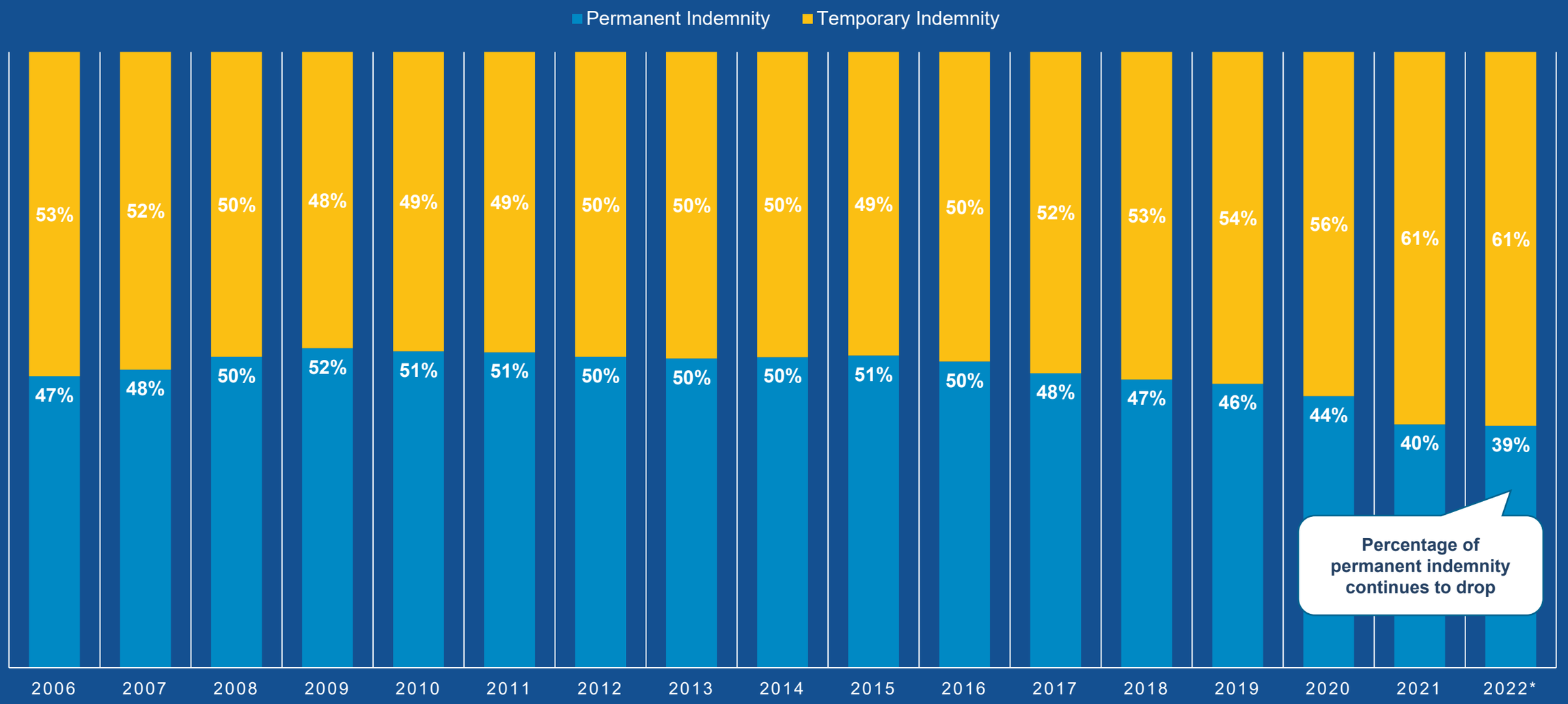
Summary of Staff Recommendations

Item	Recommendation	Change from Prior Filing
Years used to parameterize the model	Exclude AYs 2020, 2021 and 2022 from the model	Excluding the newest available year in addition to 2020 and 2021
Constant term and forecast for CII	Use the full model constant and project the change in the CII using a time series model	Previously used a tempered constant and a forecast of no change in CII

03

First Quarter 2024 Review of Diagnostics

Distribution of Estimated Ultimate Number of Indemnity Claims by Injury Type (Exhibit M4)



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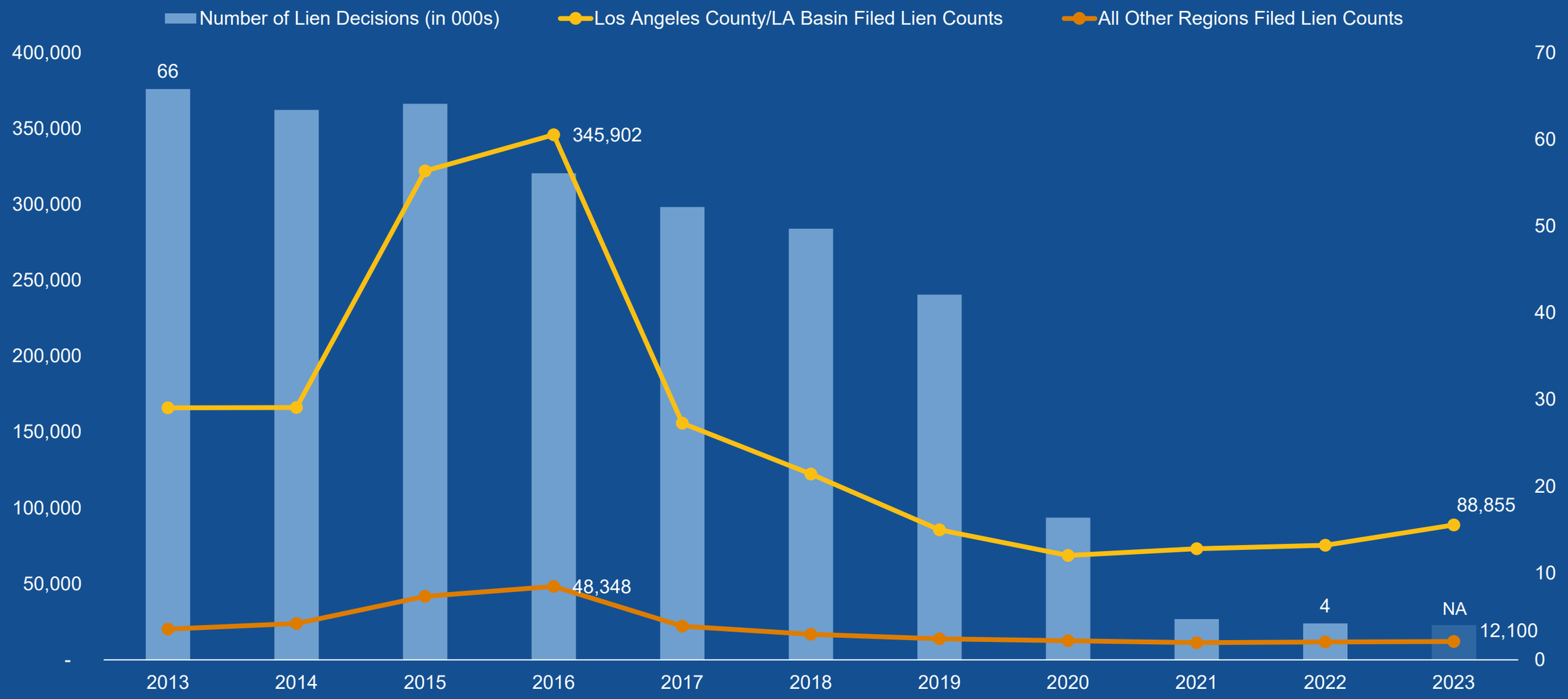
* Accident year 2022 experience is partial in that it only reflects experience from policy year 2021
Source: WCIRB Unit Statistical Data excluding COVID-19 claims

Number of Division of Workers' Compensation (DWC) Lien Decisions and Number of Filed Lien Counts (Exhibit M9)



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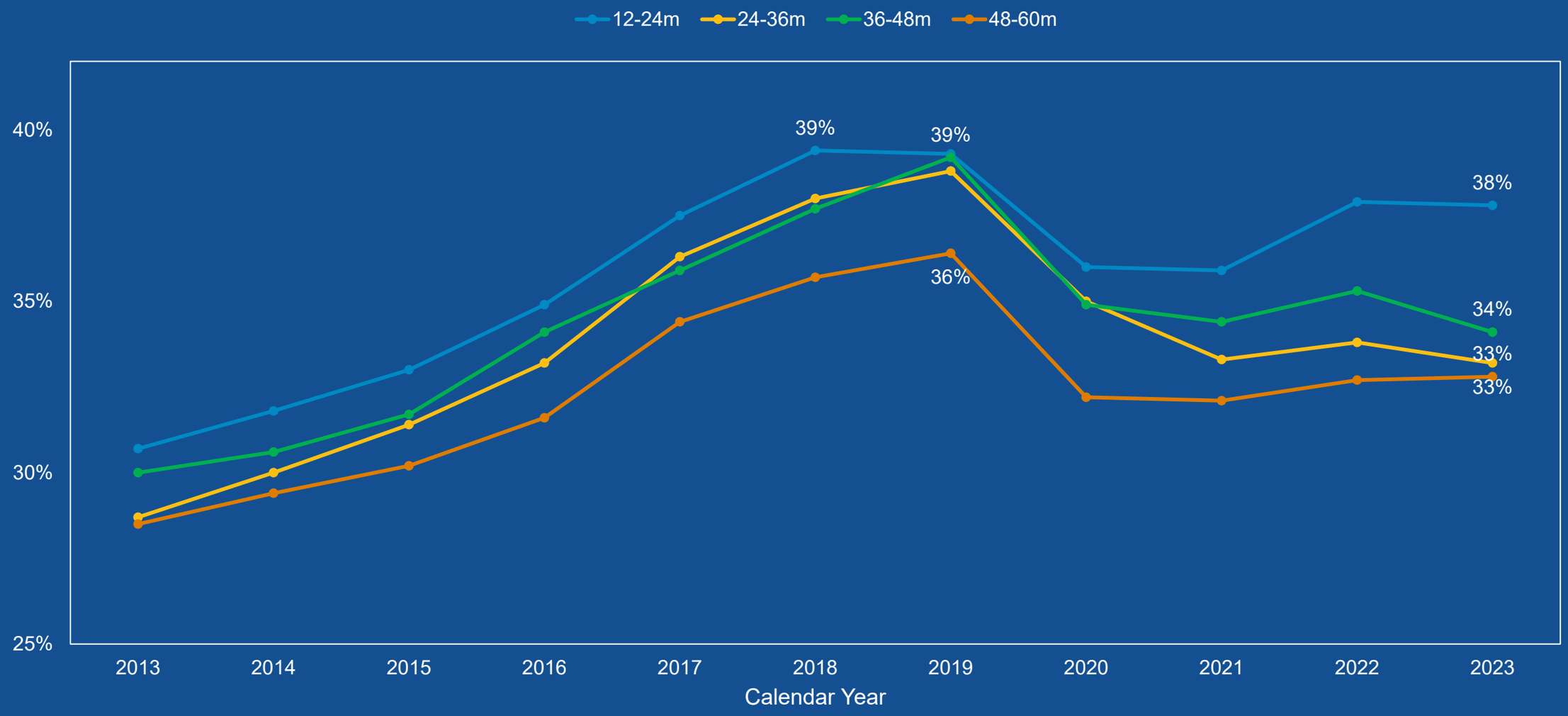
Source: EAMS Liens Data and DWC via Commission on Health and Safety & Workers' Compensation 2023 Annual Report

Ratio of Incremental Closed Indemnity Claims to Prior Open Indemnity Claims (Exhibit C3.1)



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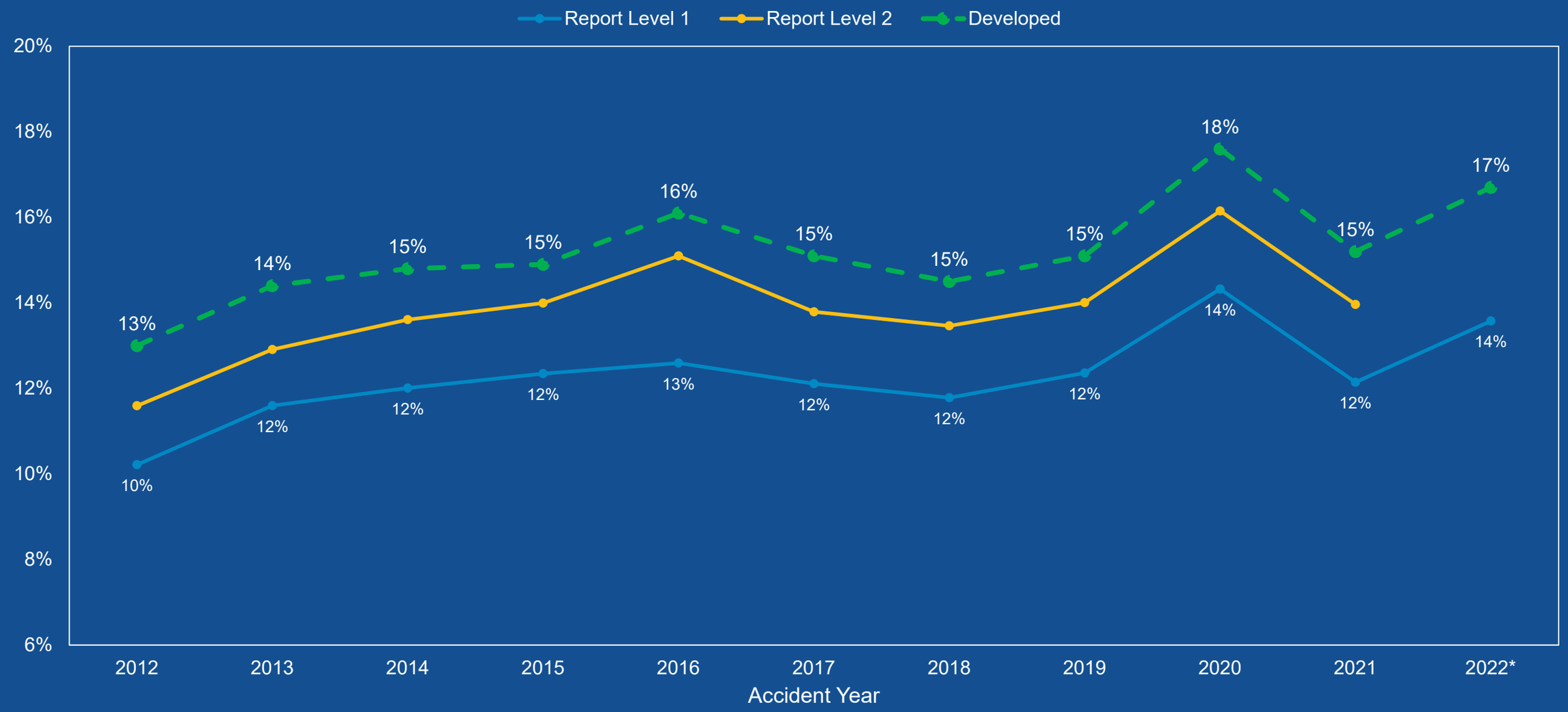
Source: WCIRB quarterly calls for experience, excluding COVID-19 claims

Cumulative Injury Share of Total Indemnity Claim Count (Exhibit C15)



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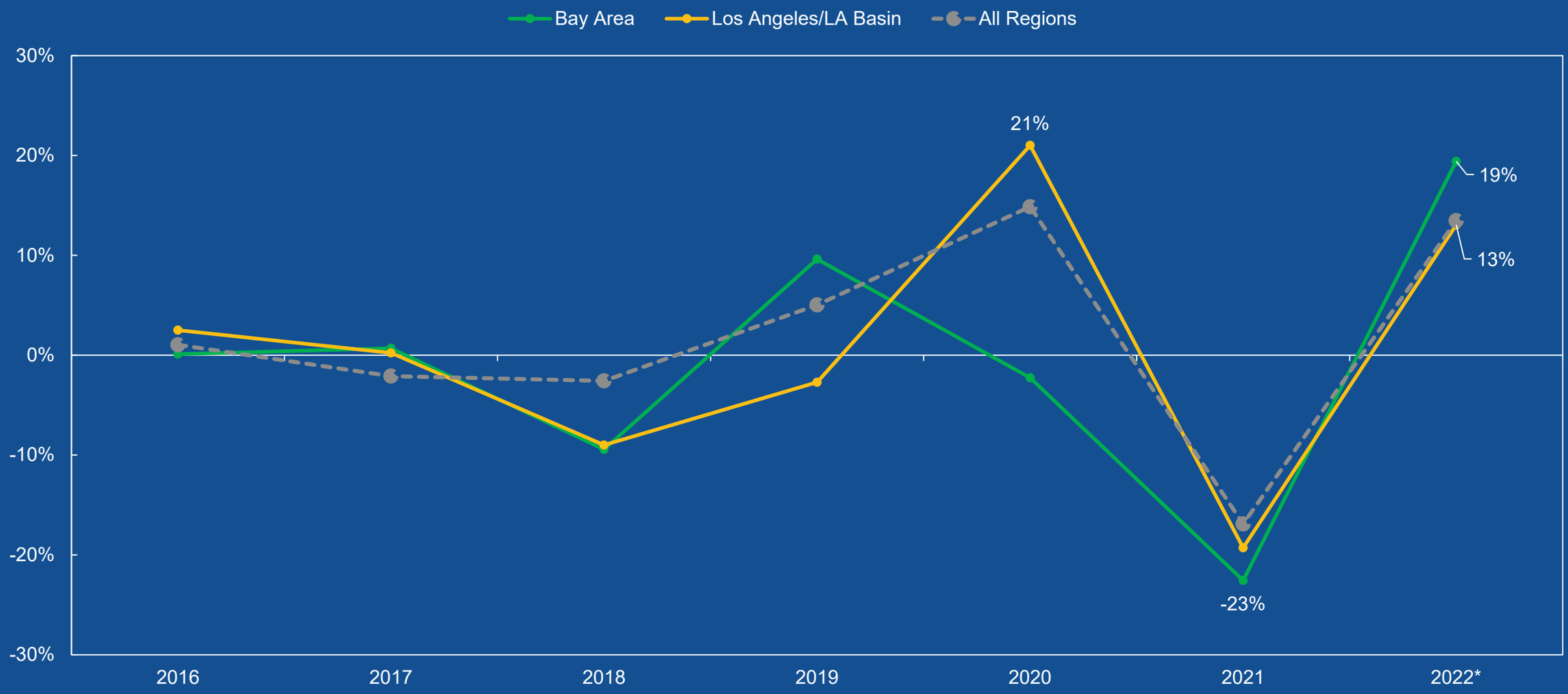
*Accident year 2022 is based on preliminary partial data
Cumulative injury claims include occupational disease
Source: WCIRB Unit Statistical Data, excluding COVID-19 claims

Annual Change of Cumulative Injury Claims per 100 Indemnity Claims (Exhibit C17)



*Accident year 2022 is based on preliminary partial data
Cumulative injury claims include occupational disease
Source: WCIRB Unit Statistical Data, excluding COVID-19 claims

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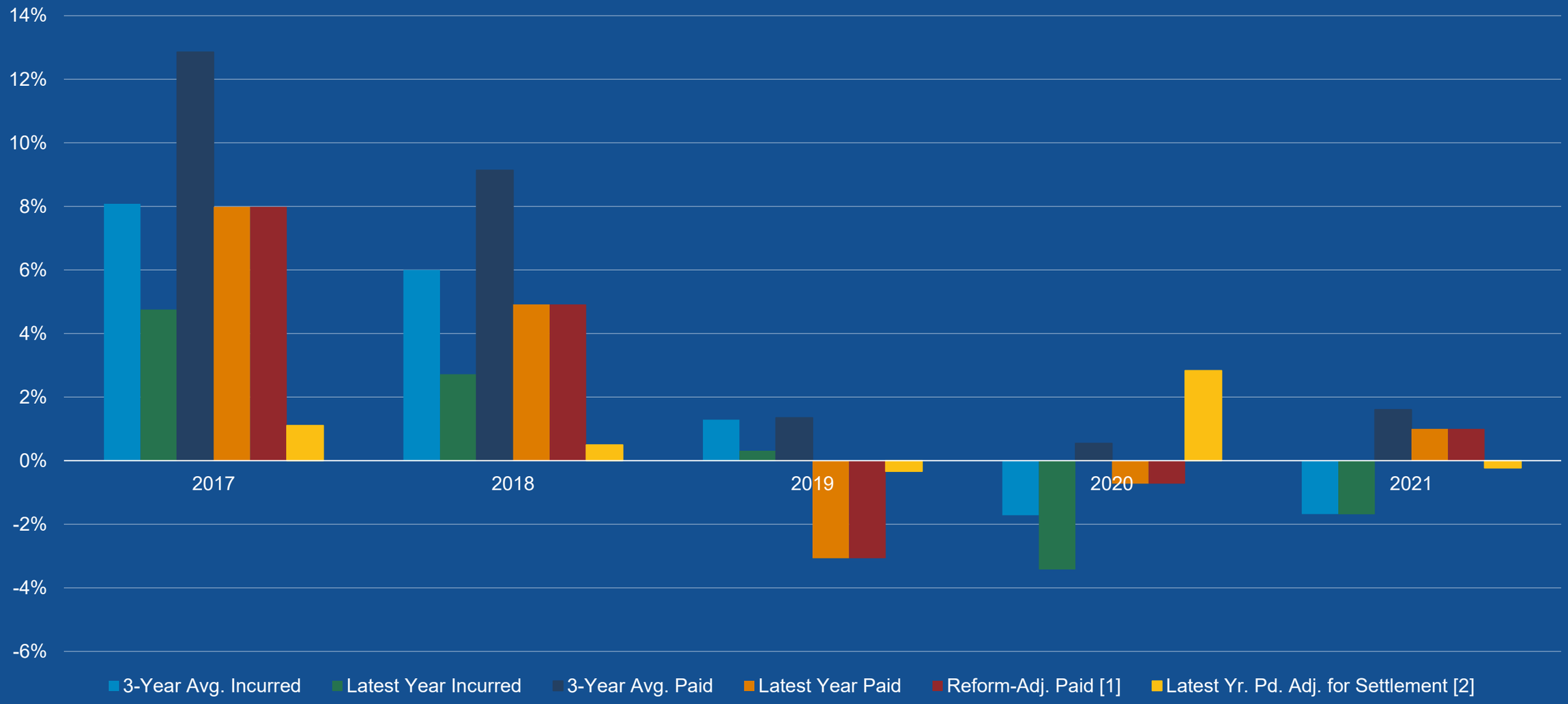
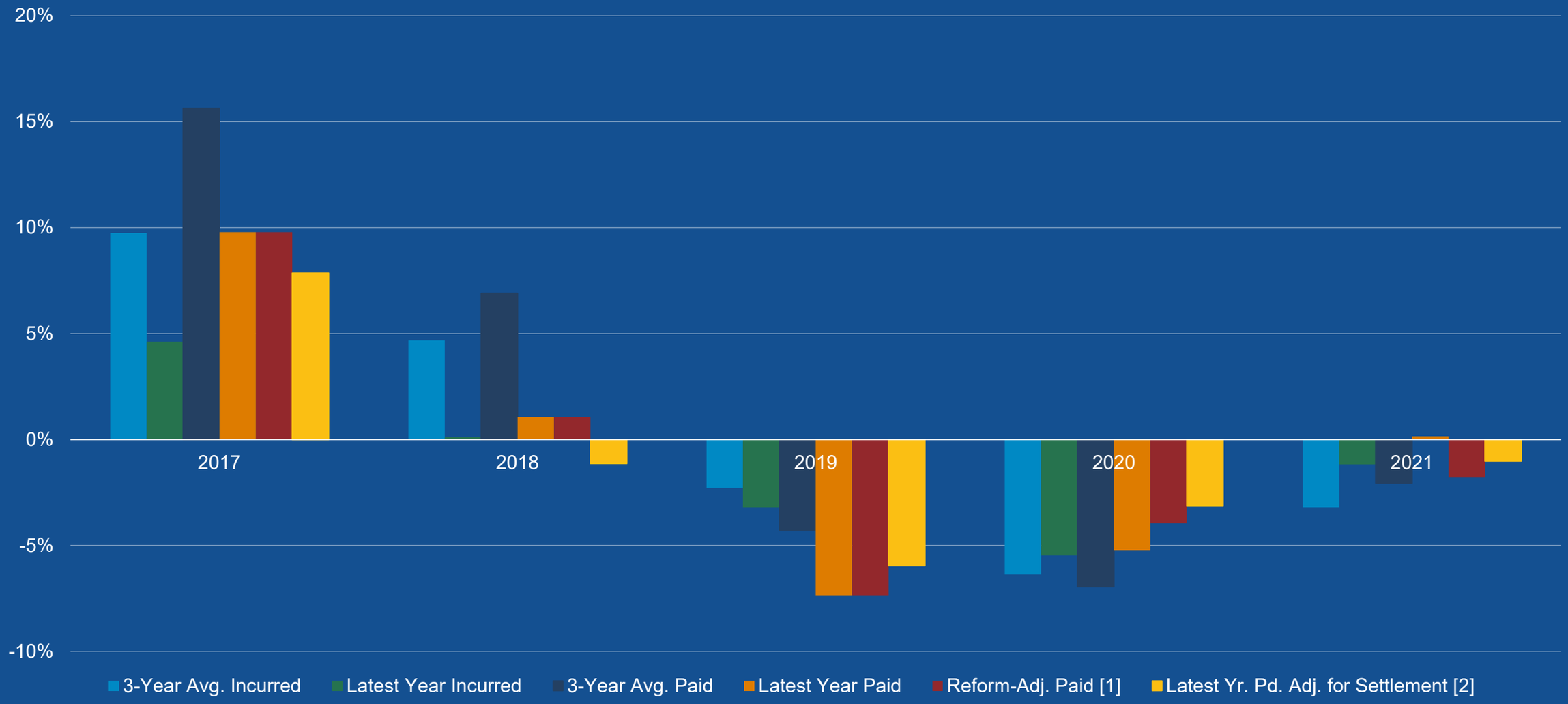
Comparison of Indemnity Loss Ratios Projected from Age 21 to Actual as of September 30, 2023 (Exhibit D6)



[1] The Reform-Adjusted Paid Methodology reflects adjustments for SB 1160 lien reforms. Factors are also adjusted for the impact of pharmaceutical cost reductions to bring the historical payments to the current pharmaceutical cost level.
[2] The Latest Year Claim-Settlement Methodology for projecting ultimate loss ratios also contemplates adjustments for reforms.
Source: WCIRB quarterly experience calls, excluding COVID-19 claims.

Comparison of Medical Loss Ratios Projected from Age 21 to Actual as of September 30, 2023 (Exhibit D6)



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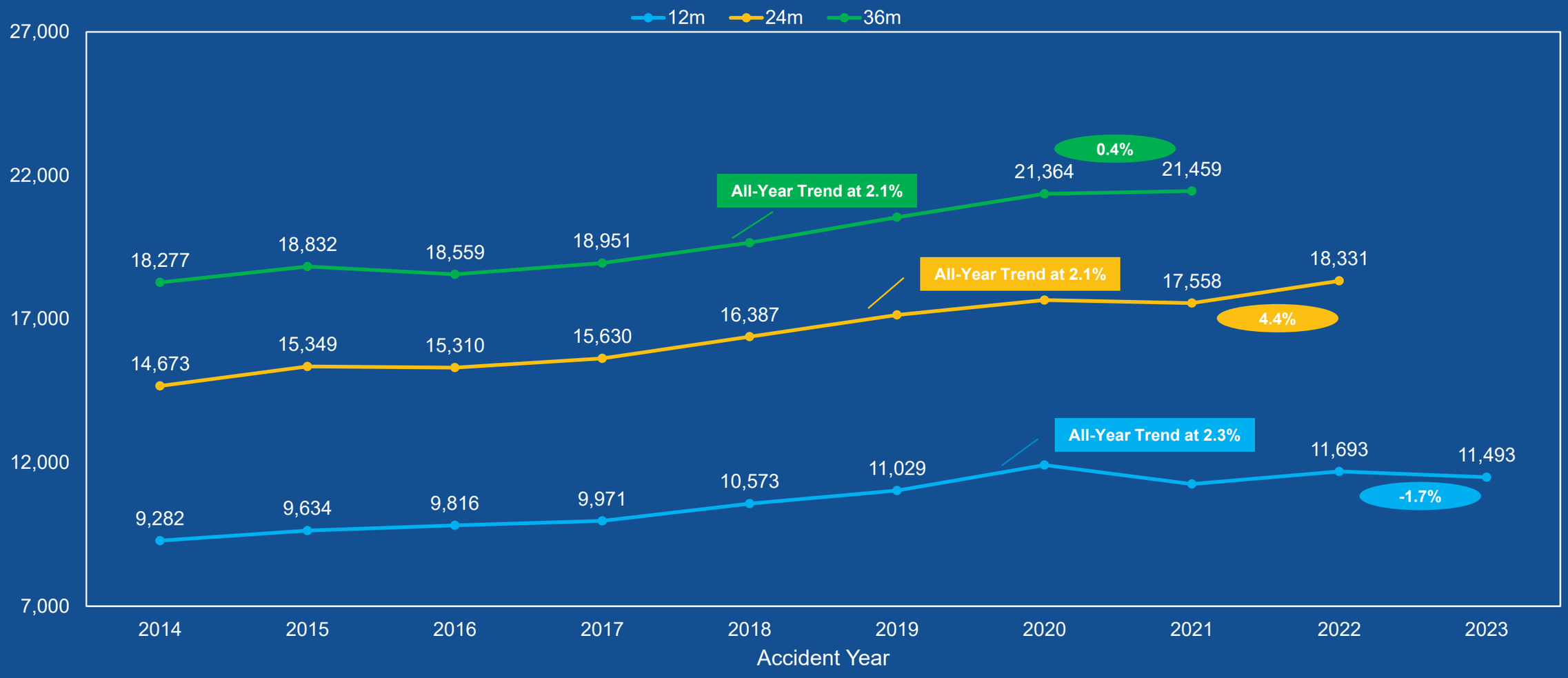
[2] The Latest Year Claim-Settlement Methodology for projecting ultimate loss ratios also contemplates adjustments for reforms.
Source: WCIRB quarterly experience calls, excluding COVID-19 claims.

Average Incurred Indemnity Loss per Reported Indemnity Claim (Exhibit S2.1)



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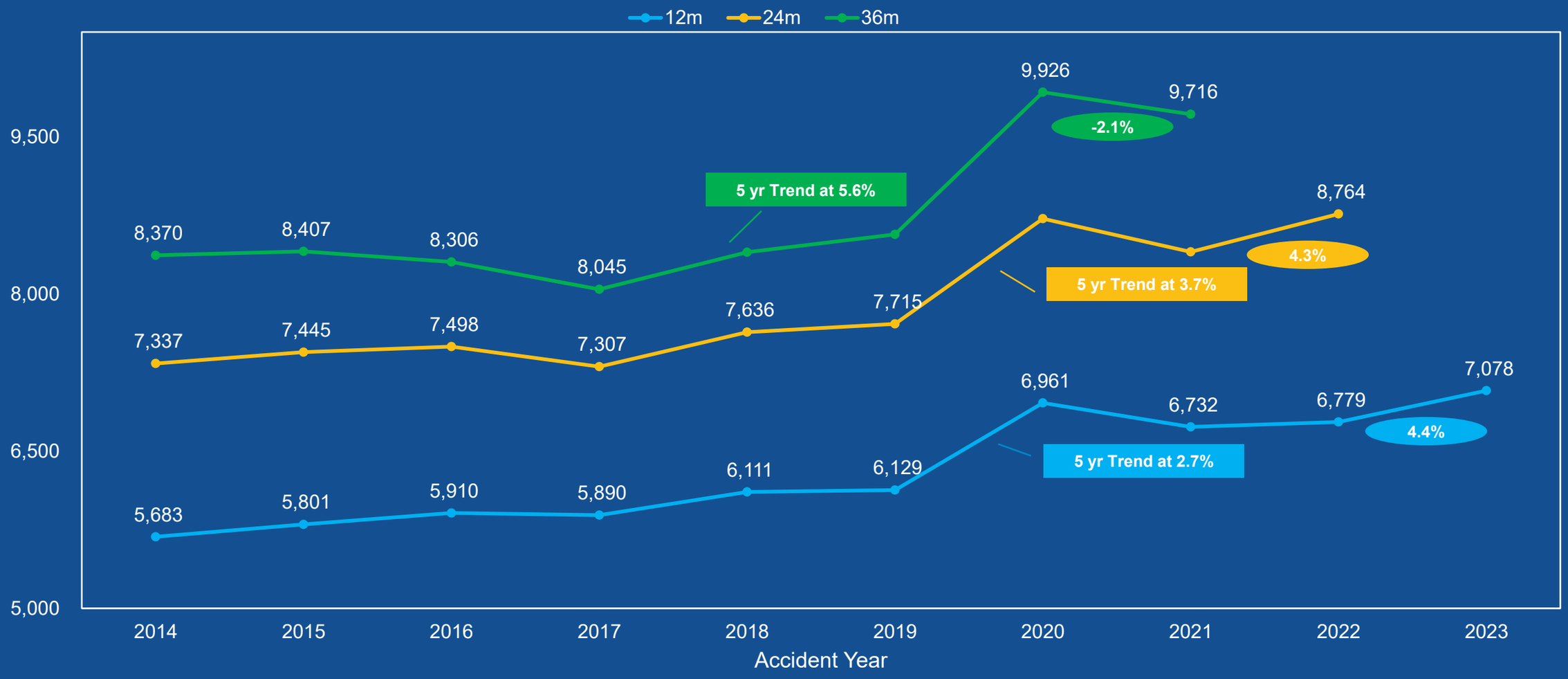
Source: WCIRB quarterly calls for experience excluding COVID-19 claims

Average Incurred Medical Loss per Reported Claim (Exhibit S2.2)



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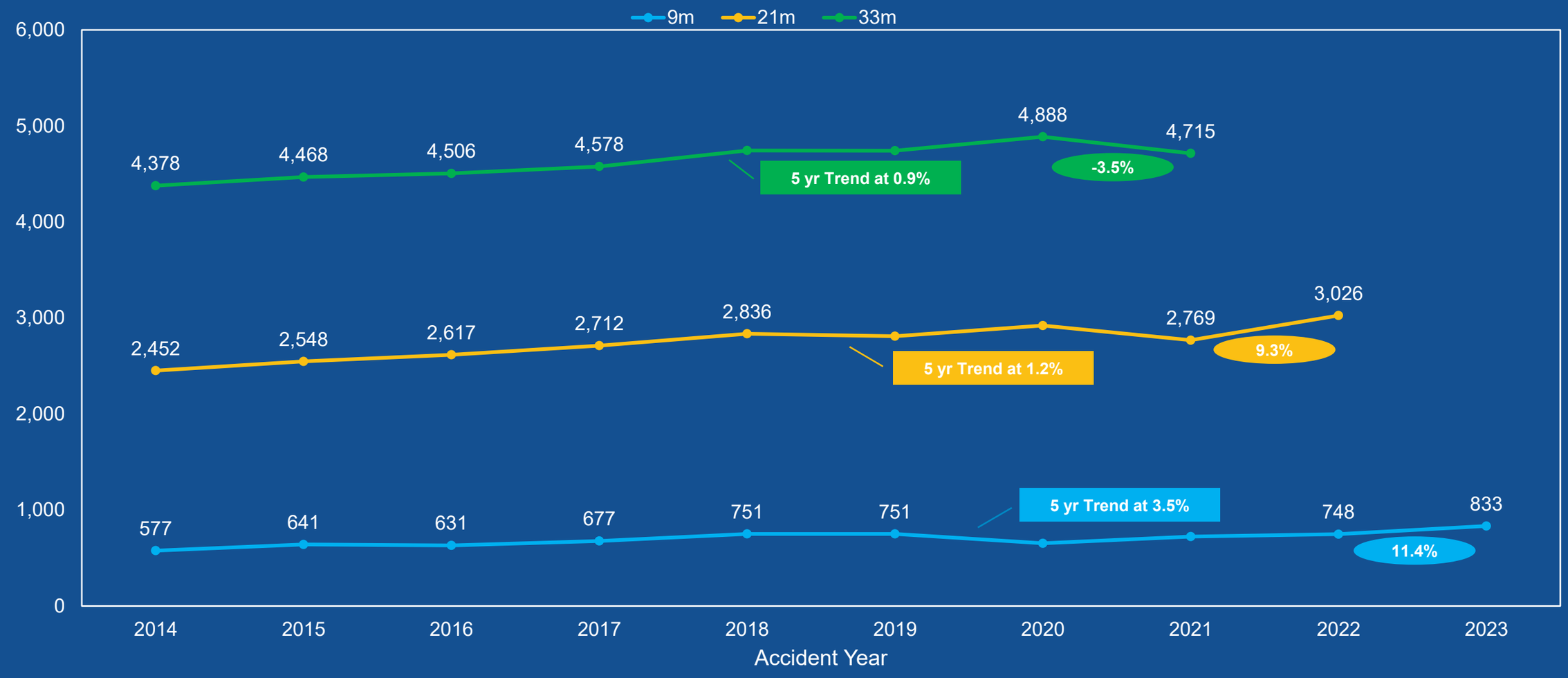
Source: WCIRB quarterly calls for experience excluding COVID-19 claims

Average Paid ALAE per Reported Indemnity Claim (Exhibit E5)



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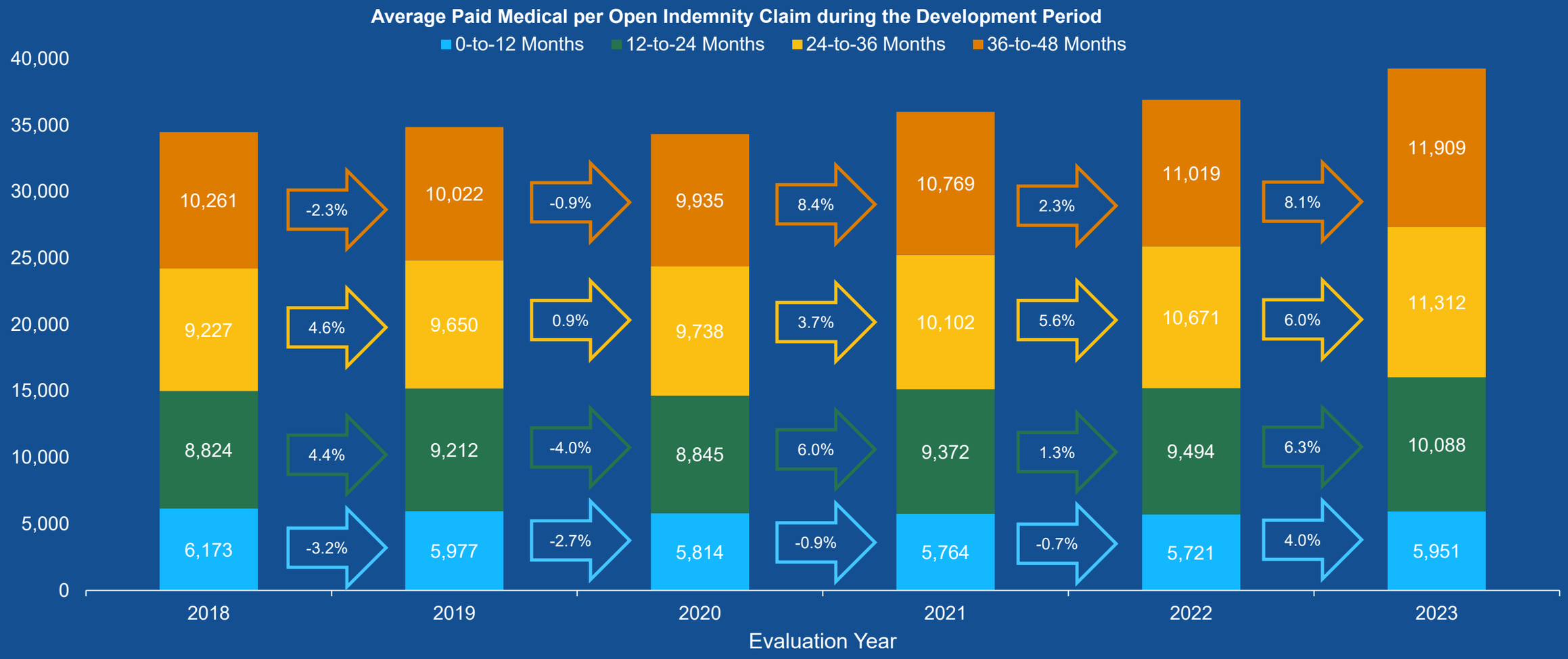
Source: WCIRB quarterly calls for experience excluding COVID-19 claims

Severity – Incremental Paid Medical per Open Indemnity Claim During the Development Period (Exhibit S7)



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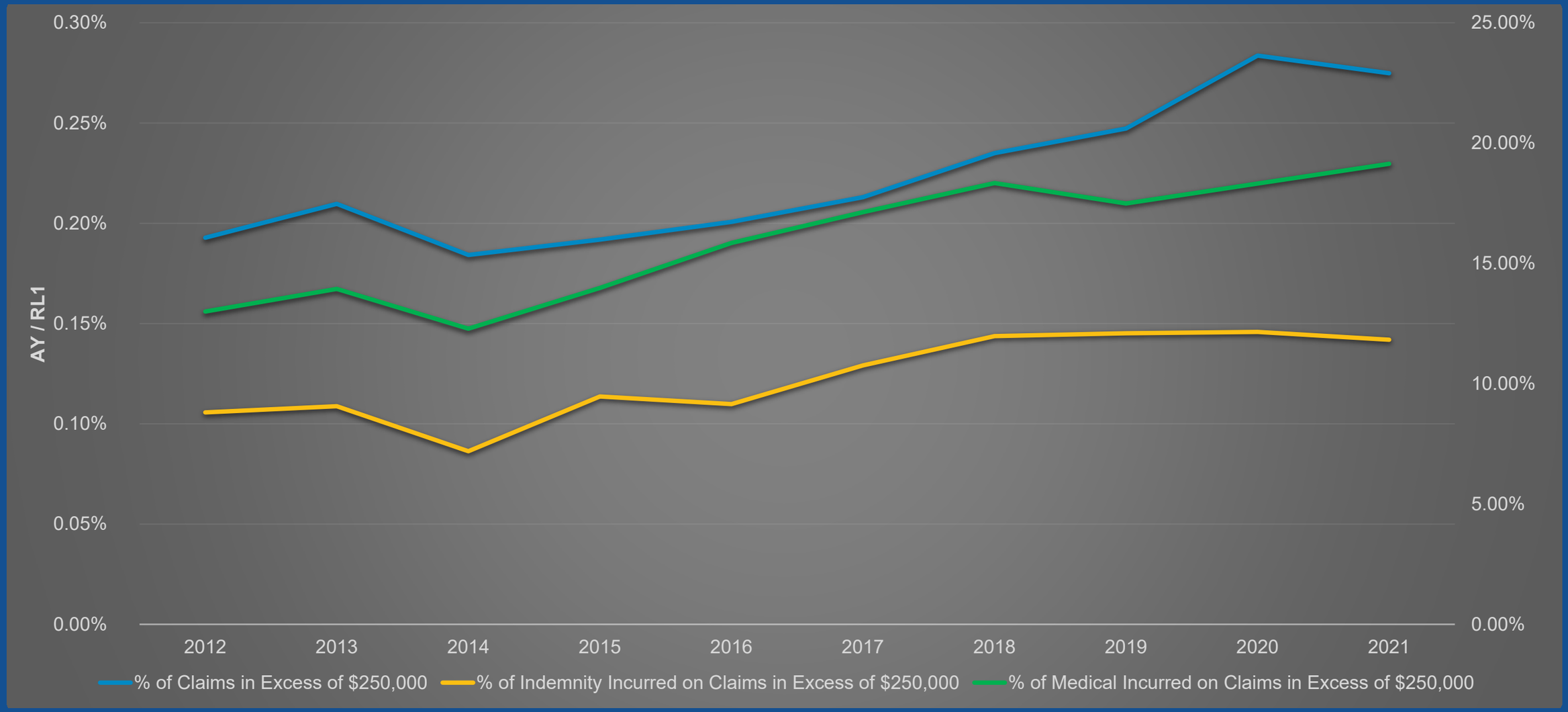
Source: WCIRB quarterly calls for experience excluding COVID-19 claims

% of Claims and % Incurred on Claims in Excess of $250,000 (Exhibit S16.1)



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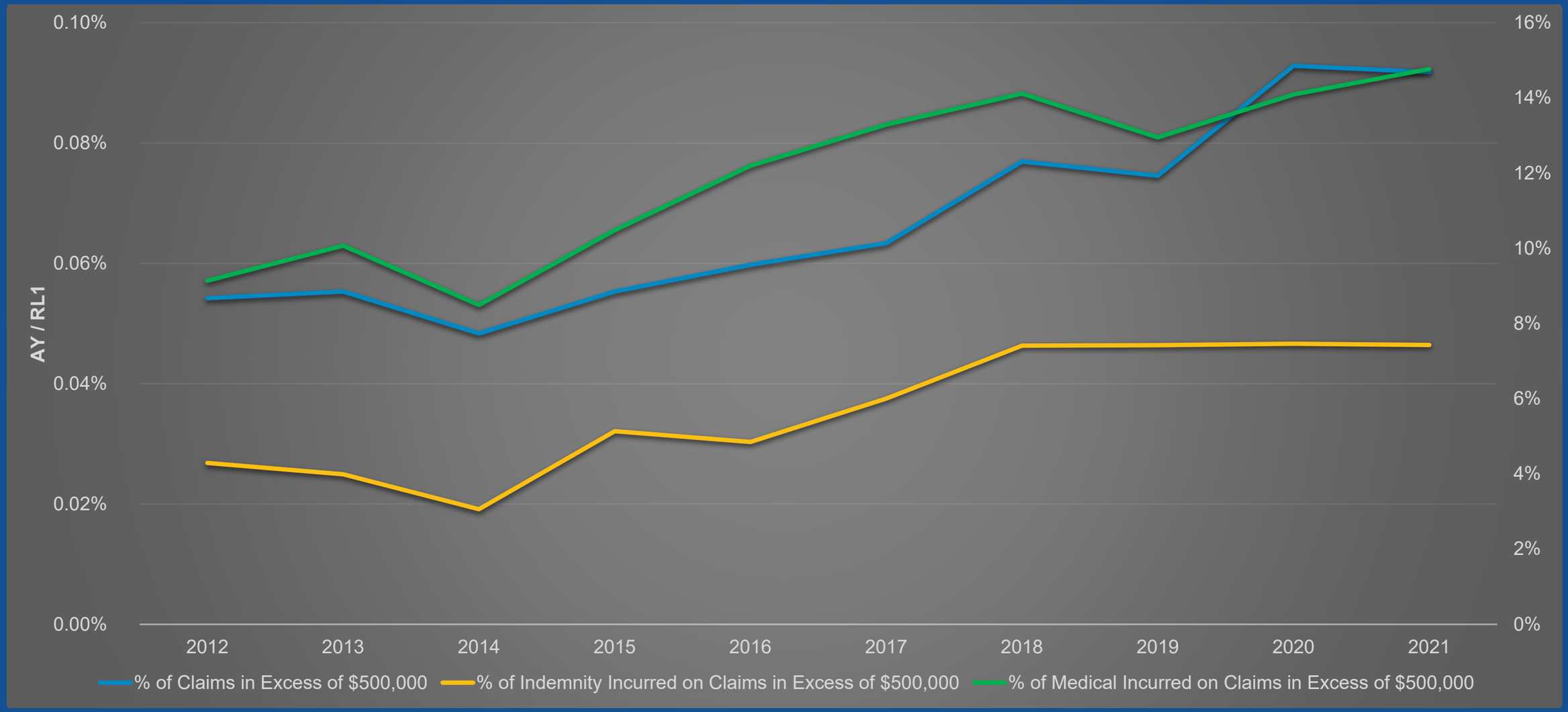
Source: WCIRB Unit Statistical Data, excluding COVID-19 claims

% of Claims and % Incurred on Claims in Excess of $500,000 (Exhibit S16.2)



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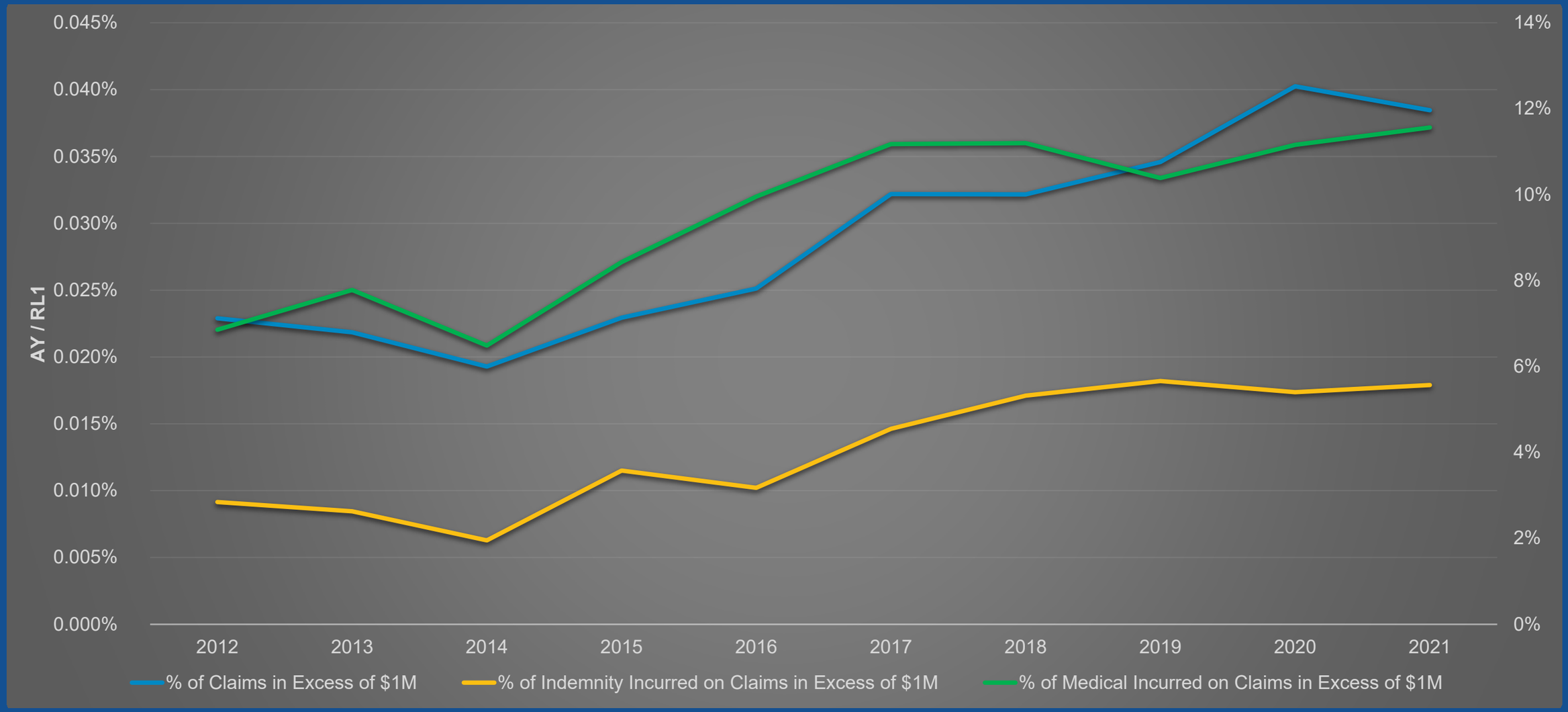
Source: WCIRB Unit Statistical Data, excluding COVID-19 claims

% of Claims and % Incurred on Claims in Excess of $1,000,000 (Exhibit S16.3)



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Source: WCIRB Unit Statistical Data, excluding COVID-19 claims

04

Impact of Injury Type Mix Shifts on Development and Trend

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Impact of Injury Type Mix Shifts
Background

- Shift in injury type mix since 2016
  - Increase in proportion of temporary-only claims
  - Decrease in proportion of permanent disability claims
- Injury types have different average costs and development patterns
- → Assess claim mix, development patterns by injury type; review impact on LDFs and severity trends

Impact of Injury Type Mix Shifts

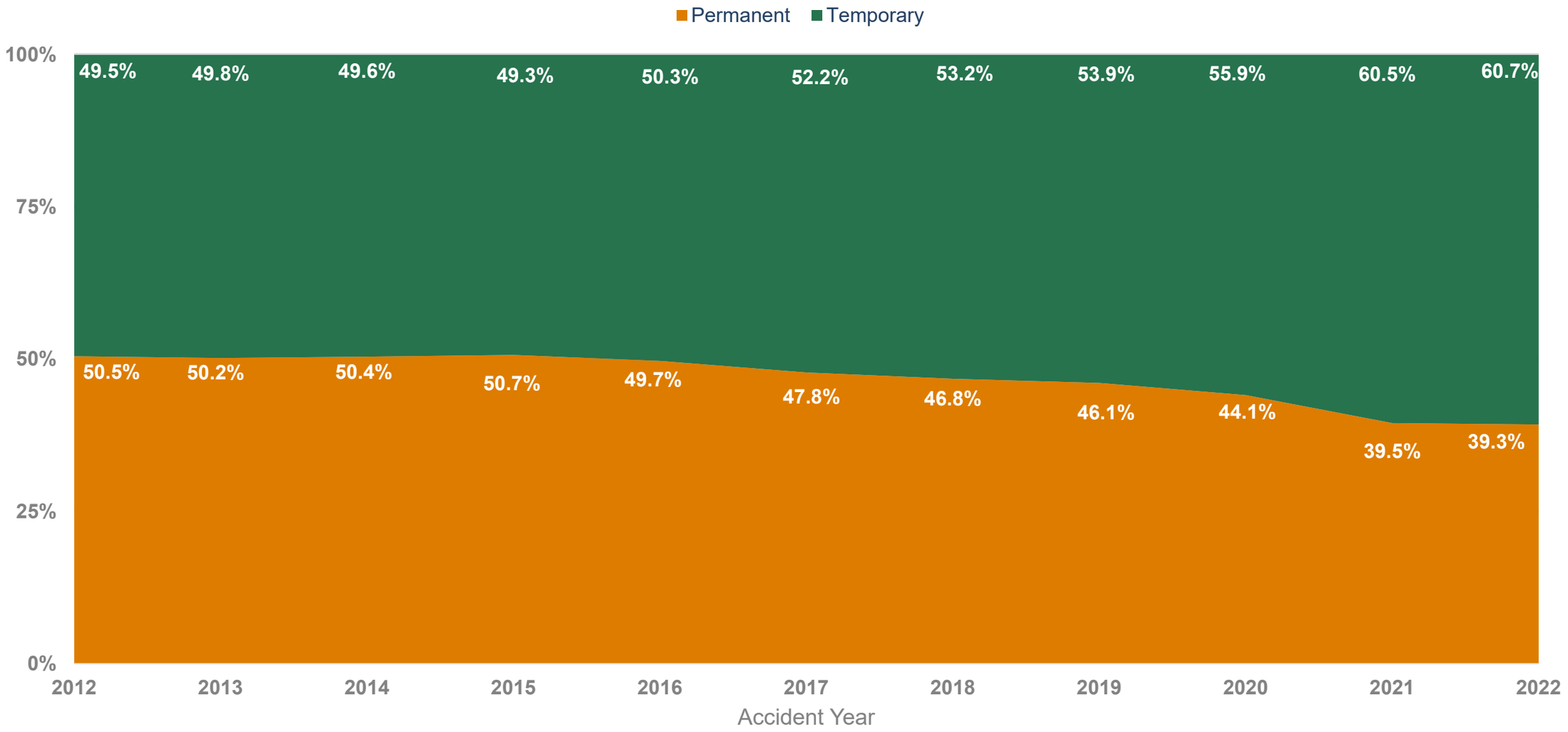
Approach

- Injury type often changes during claim lifetime
- → Leads to inconsistent review of injury type development patterns if not adjusted
- In this study, injury type is fixed at Report Level 1 for development triangles
  - Allows consistent “tracking” of claims
  - Consistent with maturity for reported loss ratios in ratemaking (12 and 24 months)

Injury Type Mix	Injury Type at RL1	Injury Type at RL2	Injury Type at RL3
Example PY 2019 Claim, Actual	*Medical-Only*	*Temporary-Only*	*Permanent Partial*
Development Triangle	*Medical-Only*	*Medical-Only*	*Medical-Only*
Ultimate Injury Type	*???*	*???*	*???*

Share of Estimated Ultimate Indemnity Counts

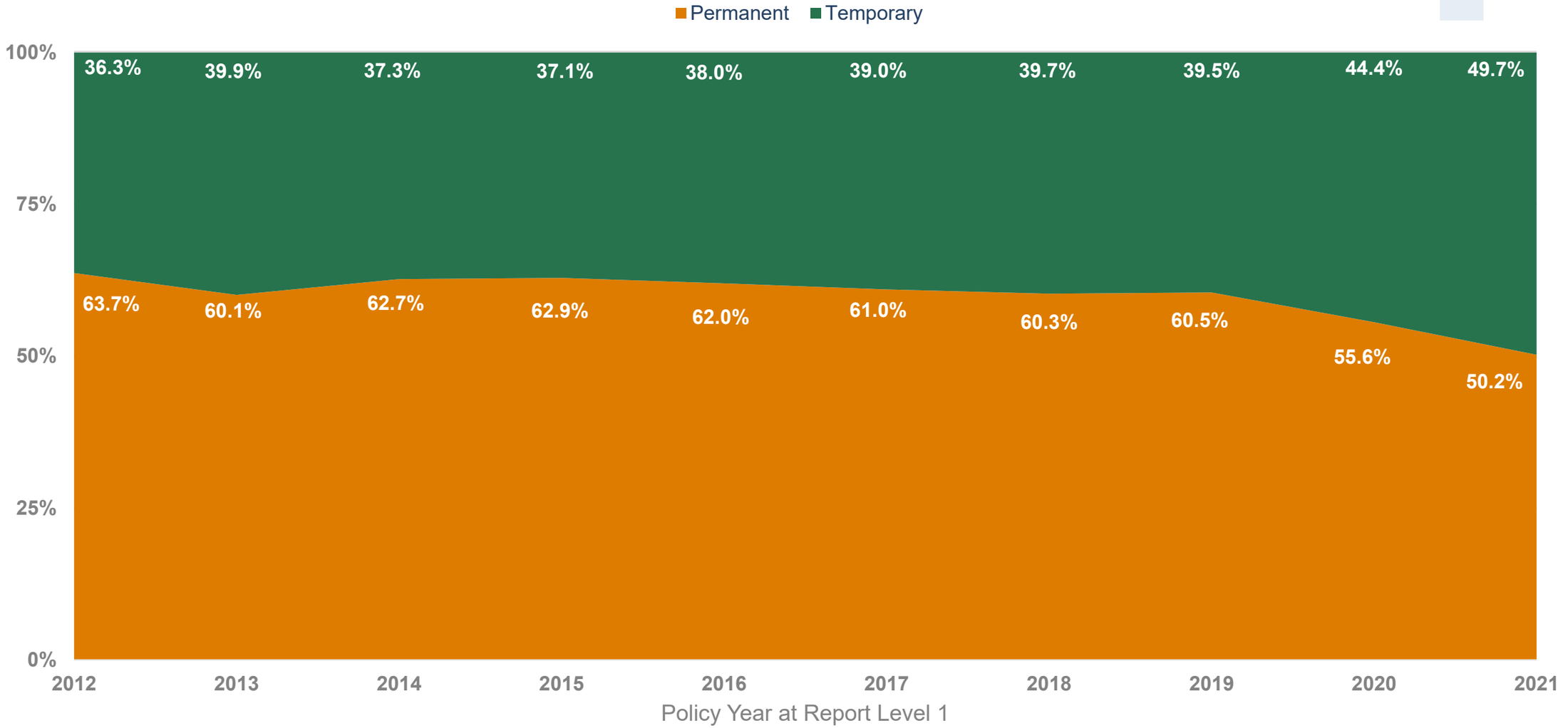
By Accident Year and Injury Type



Source: WCIRB unit statistical data, excluding COVID-19 claims

Share of Incurred Indemnity by Injury Type

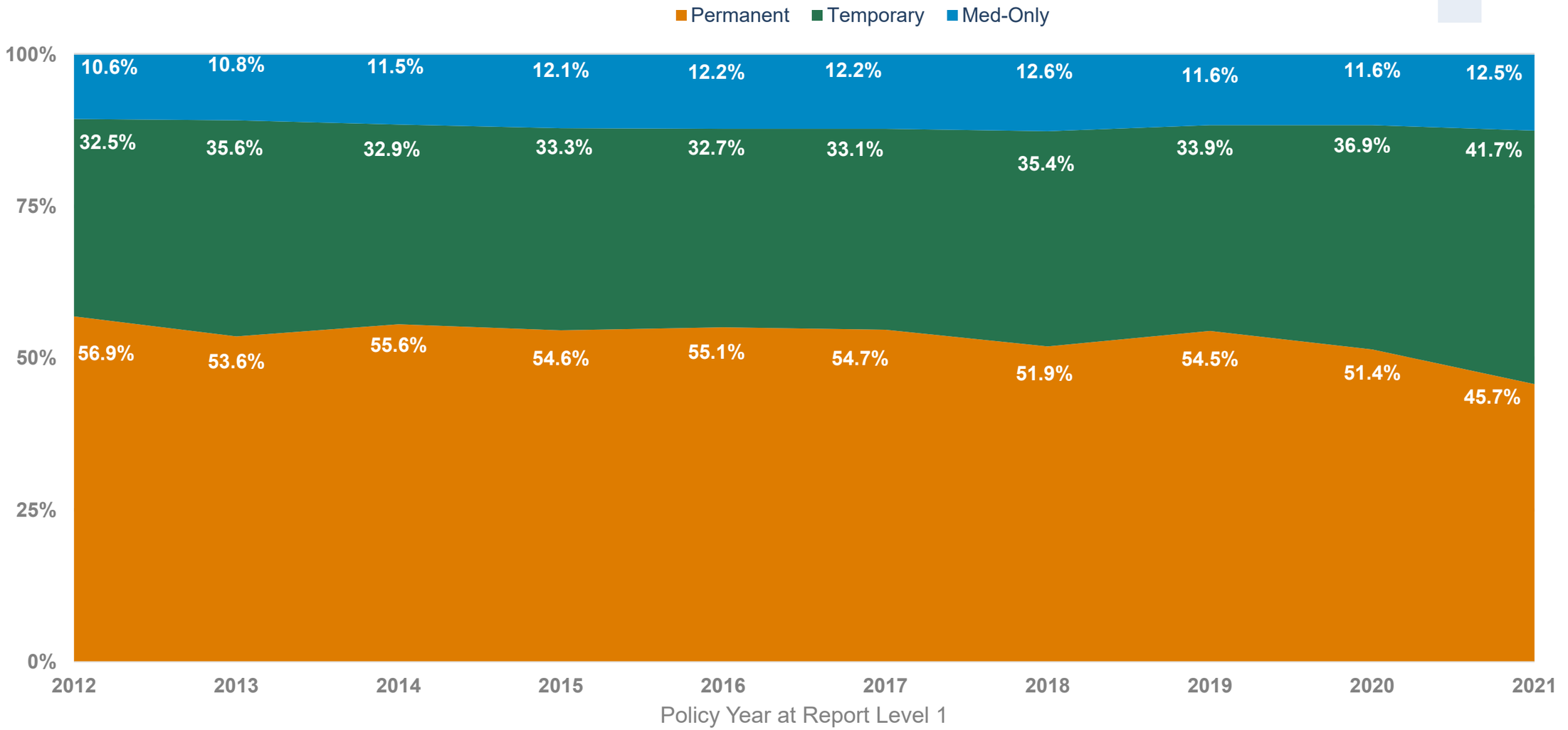
By Policy Year at RL1



Source: WCIRB unit statistical data

Share of Incurred Medical by Injury Type

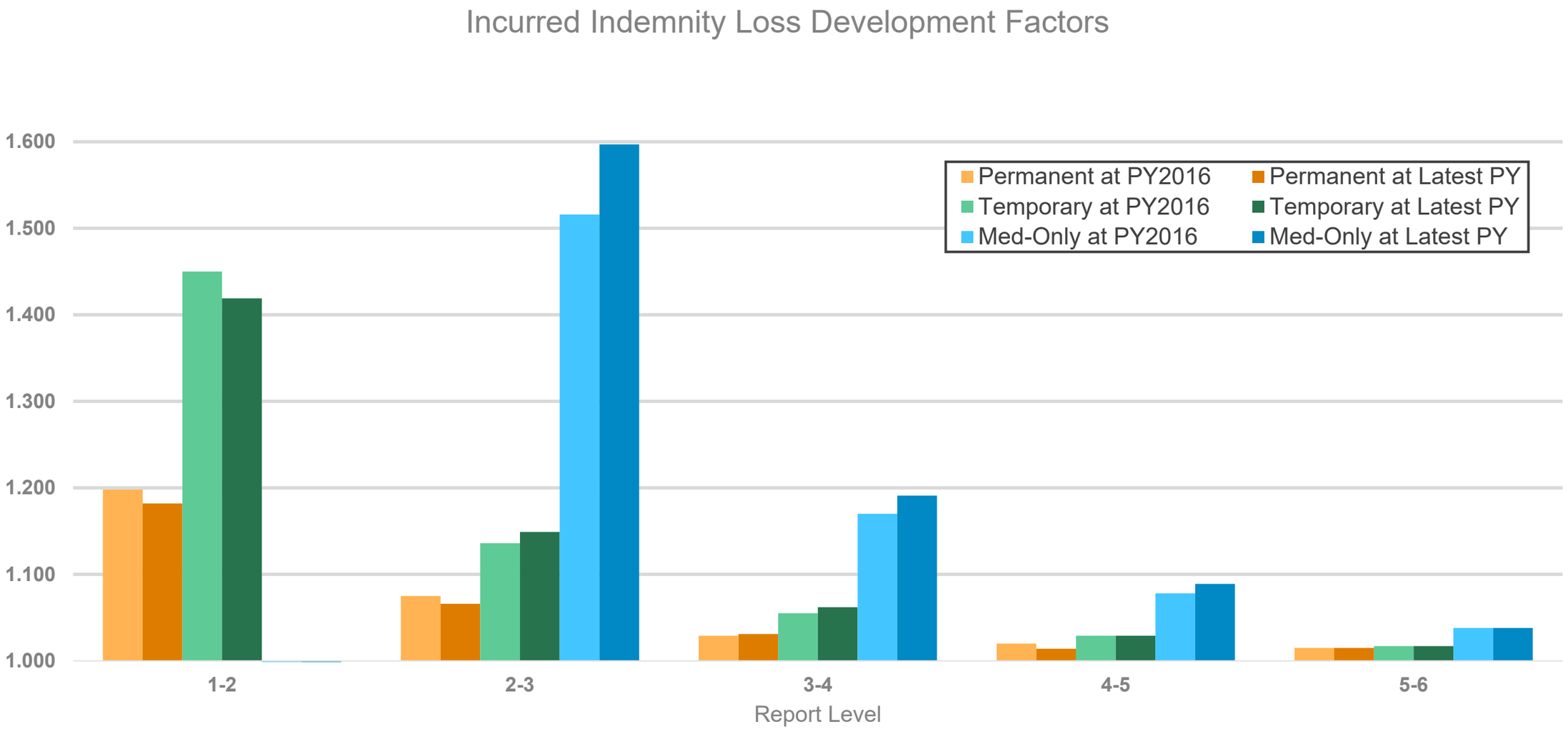
By Policy Year at RL1



Source: WCIRB unit statistical data

Loss Development Factors by Injury Type

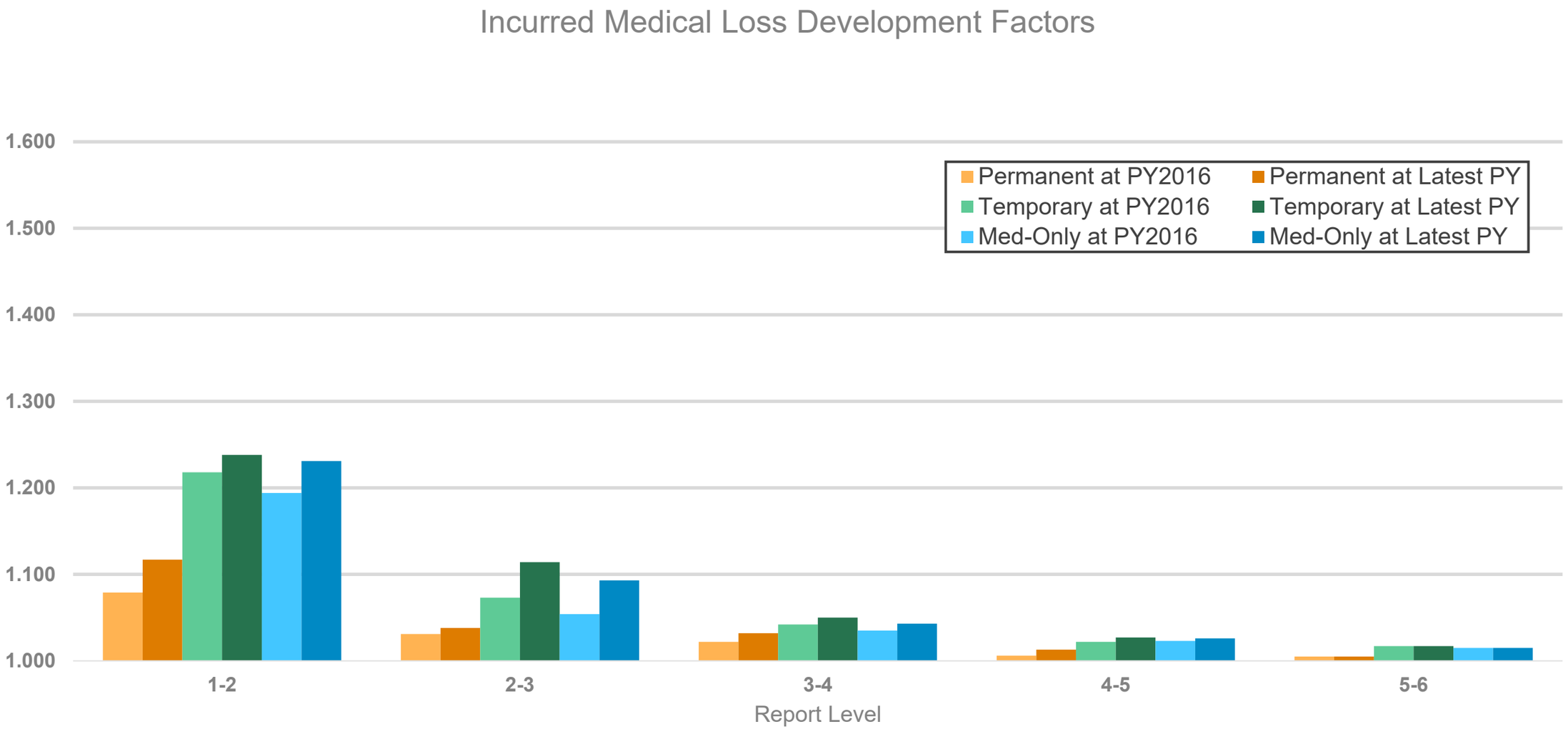
Incurred Indemnity



Source: WCIRB unit statistical data

Loss Development Factors by Injury Type

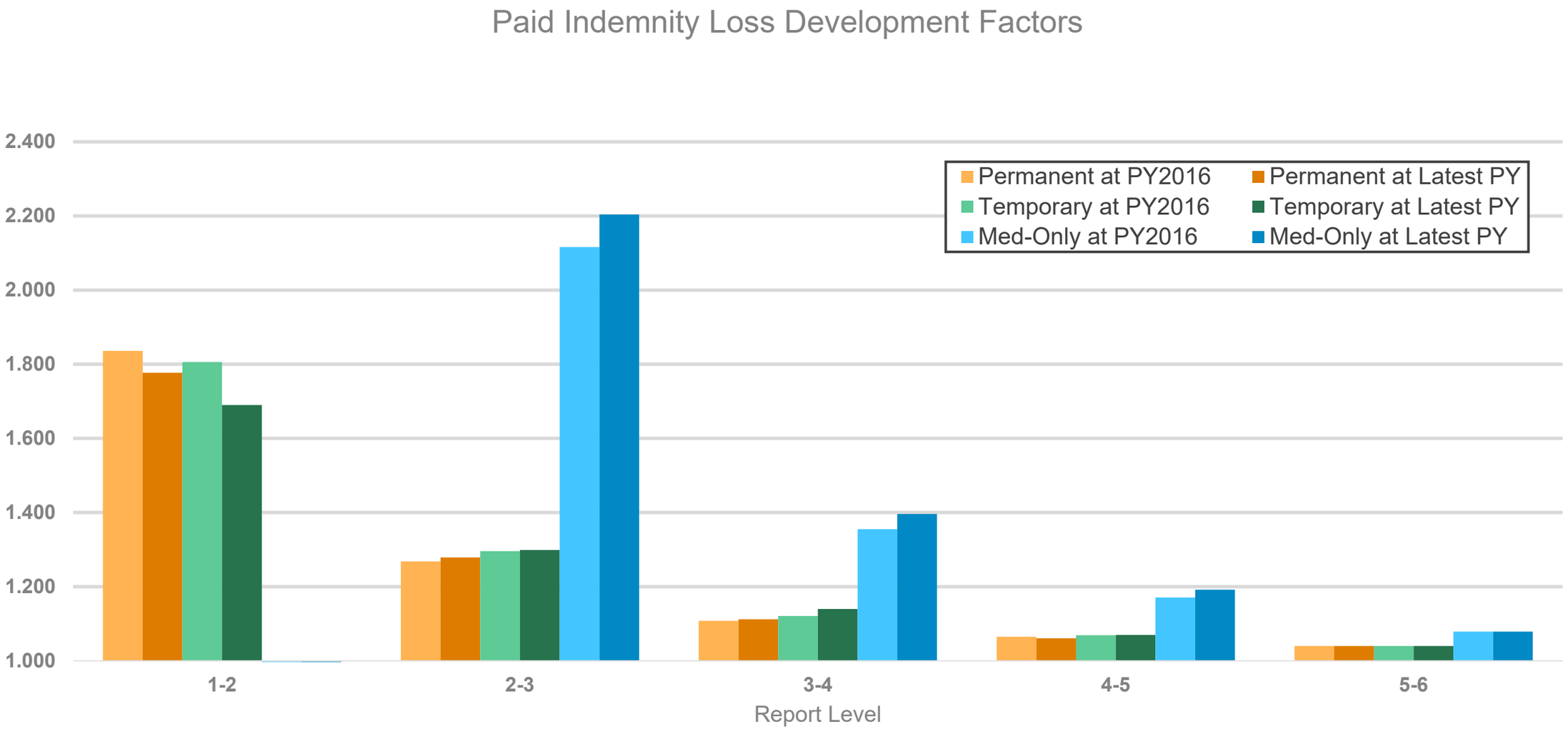
Incurred Medical



Source: WCIRB unit statistical data

Loss Development Factors by Injury Type

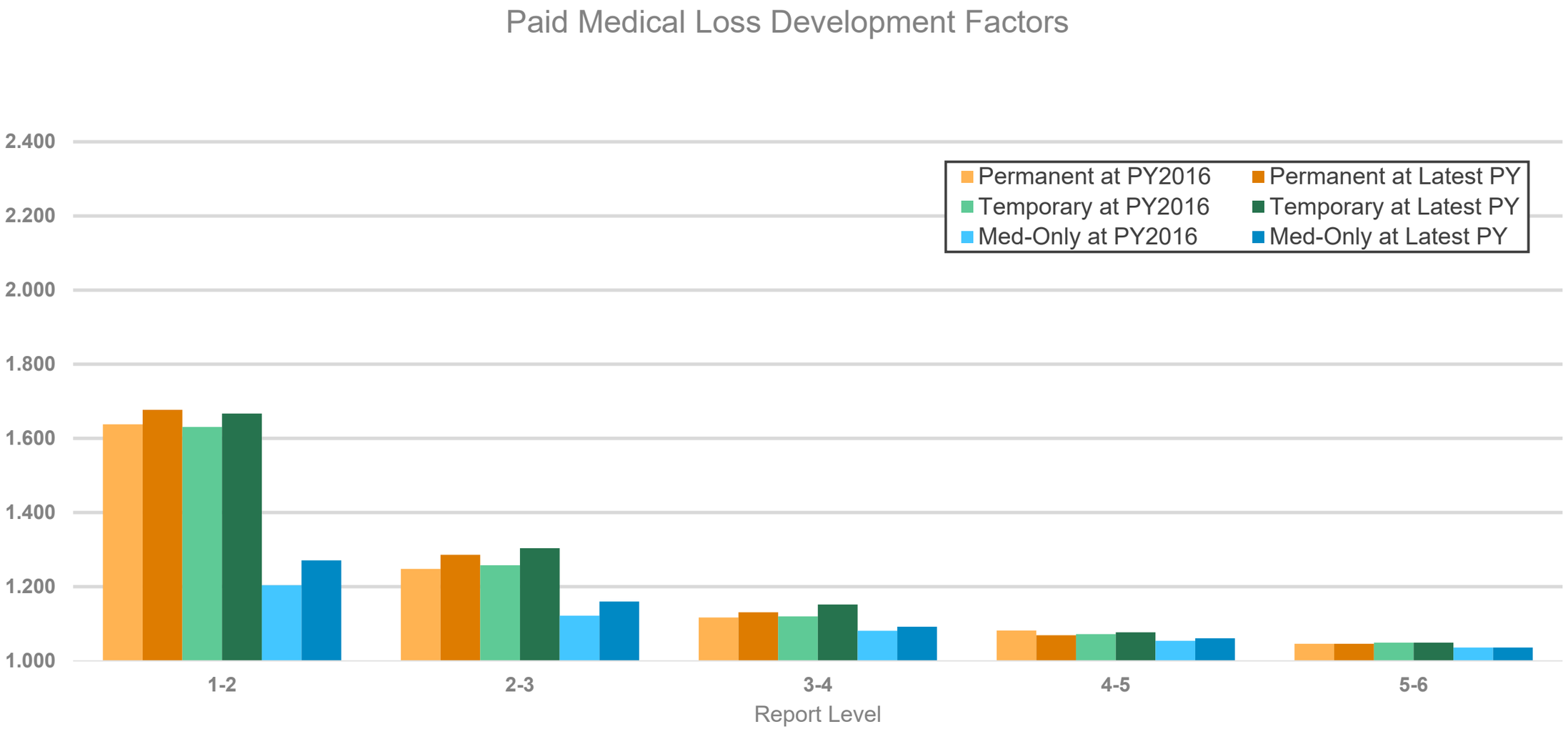
Paid Indemnity



Source: WCIRB unit statistical data

Loss Development Factors by Injury Type

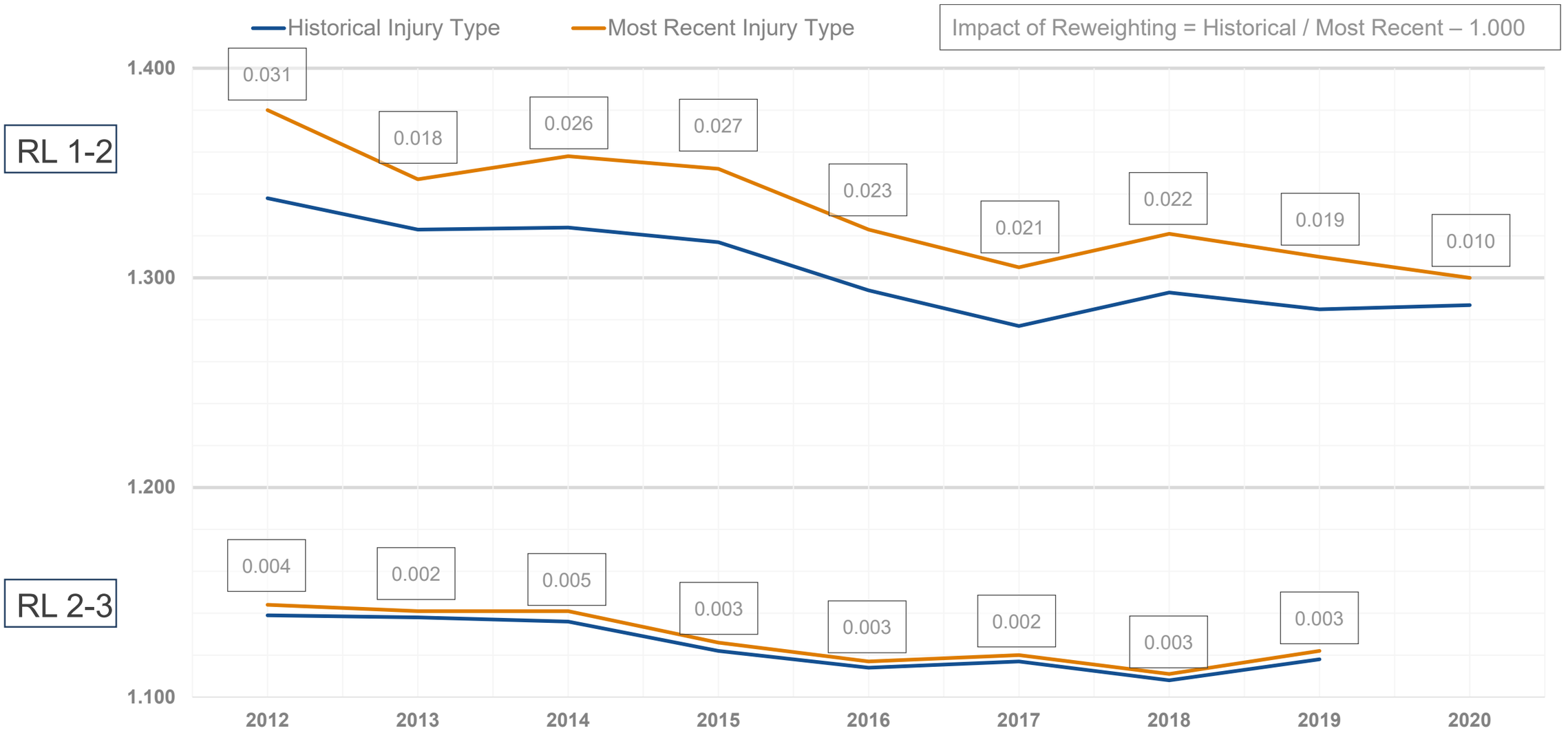
Paid Medical



Source: WCIRB unit statistical data

Incurred Indemnity Development Factors

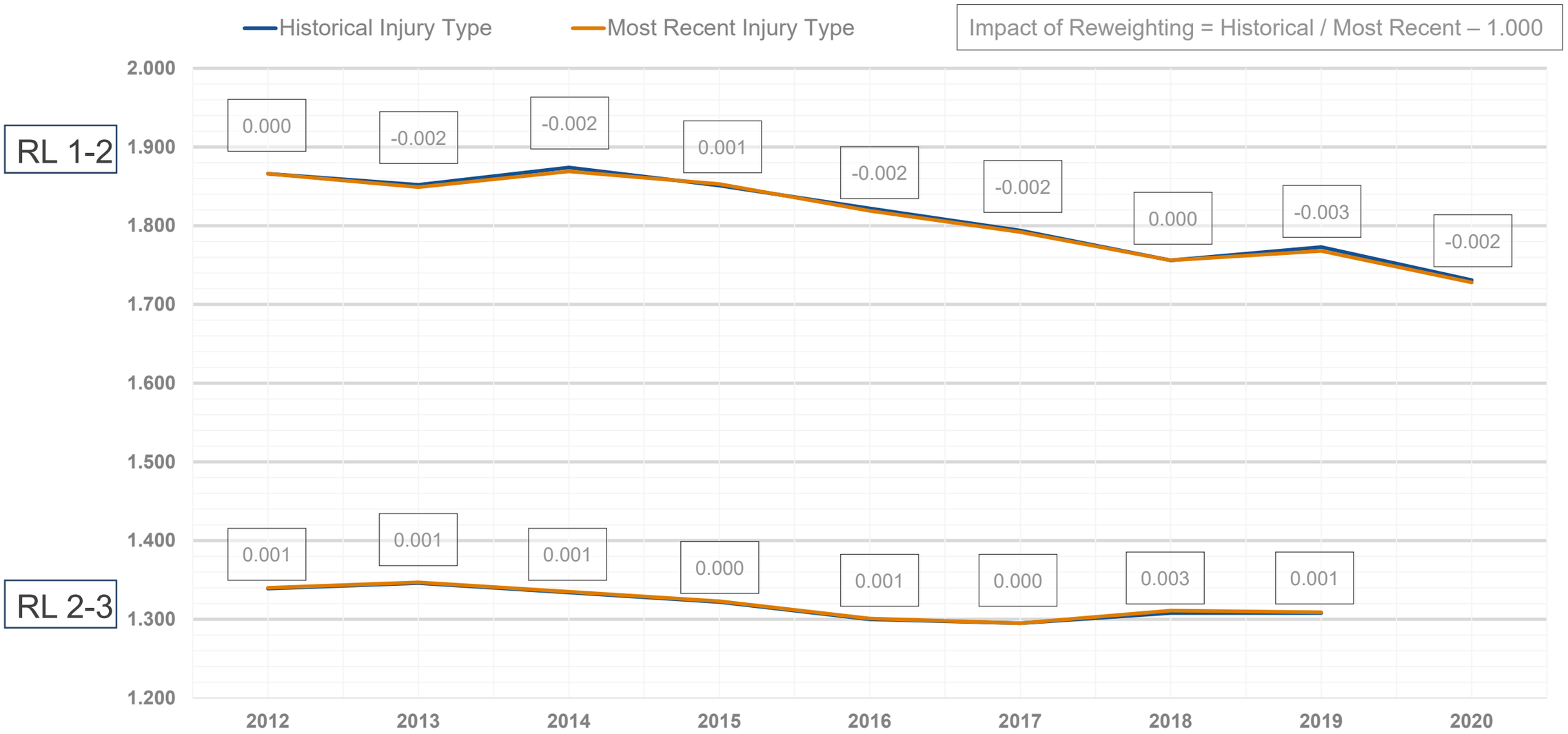
Effect of Re-Weighting By Most Recent Injury Type



Source: WCIRB unit statistical data

Paid Indemnity Development Factors

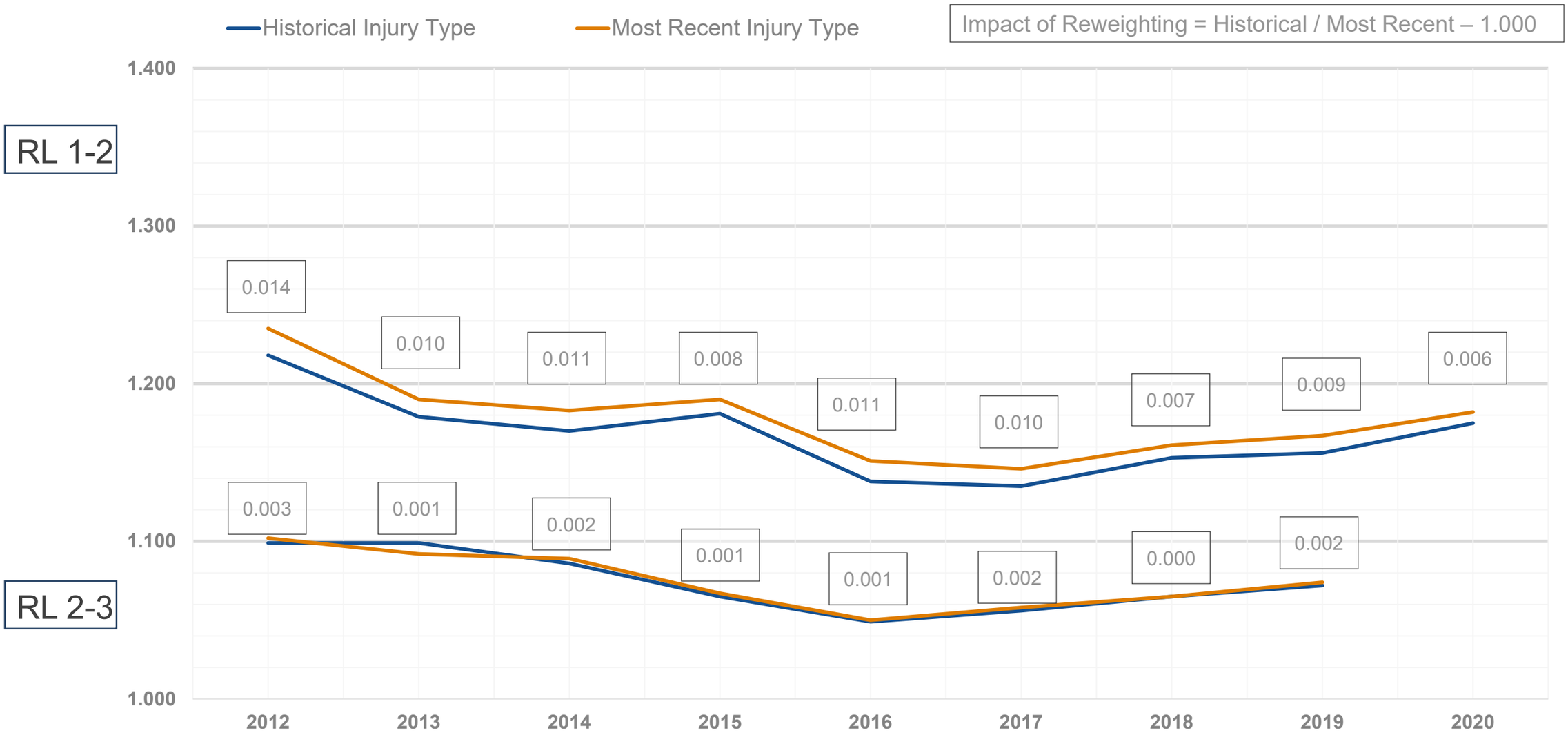
Effect of Re-Weighting By Most Recent Injury Type



Source: WCIRB unit statistical data

Incurred Medical Development Factors

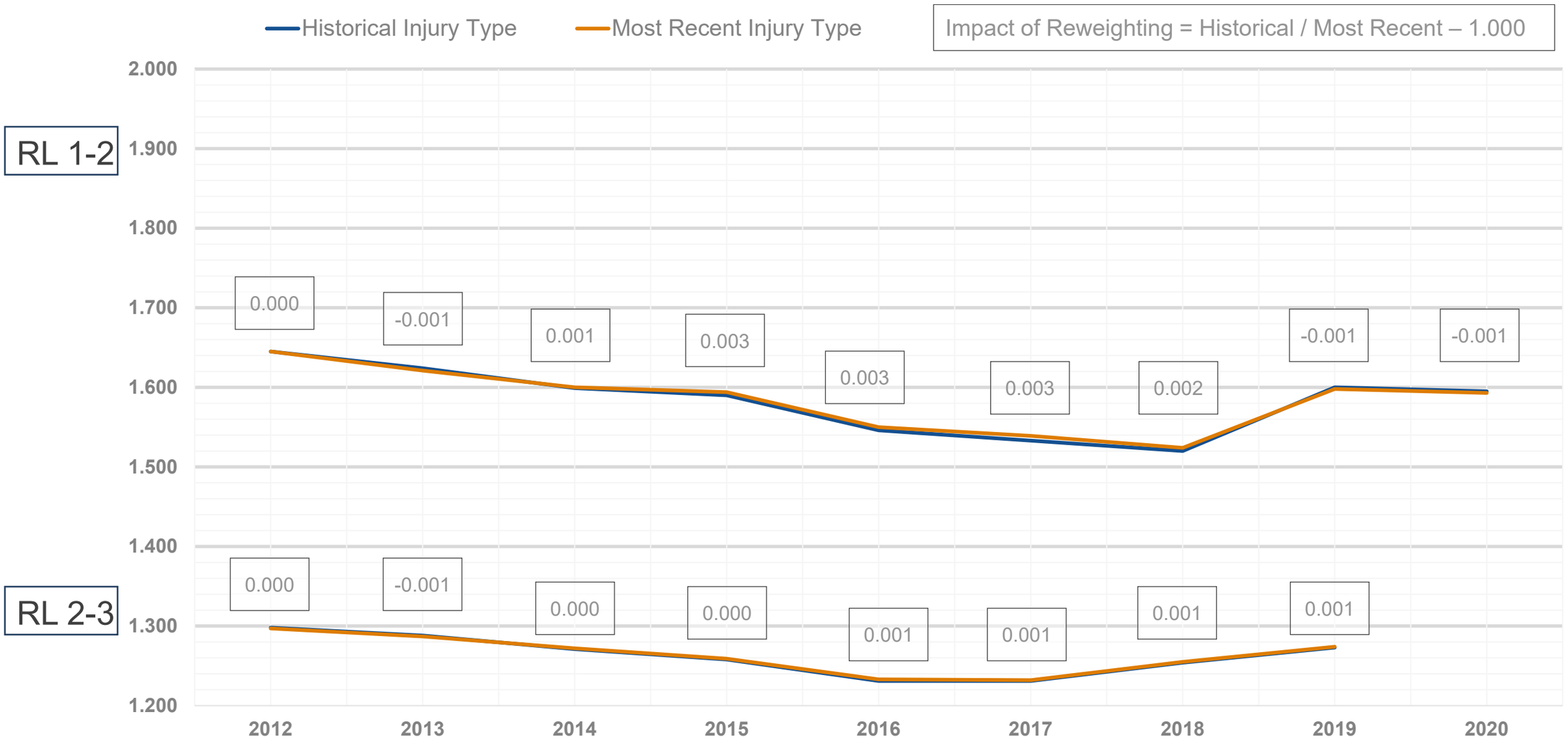
Effect of Re-Weighting By Most Recent Injury Type



Source: WCIRB unit statistical data

Paid Medical Development Factors

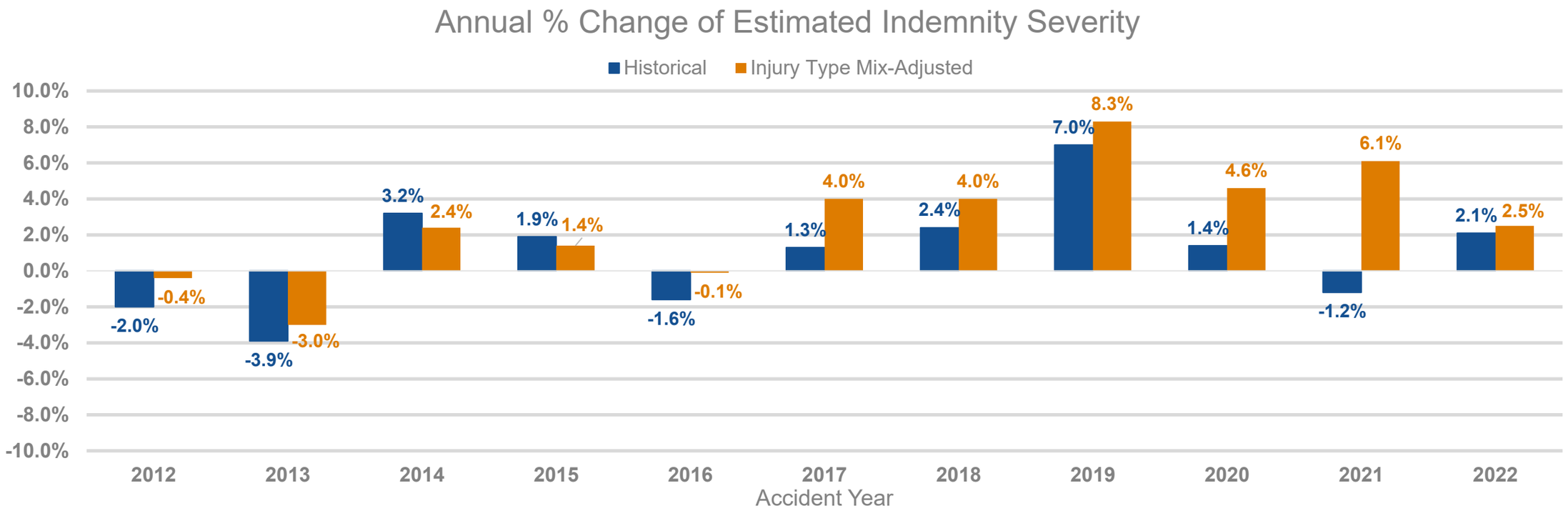
Effect of Re-Weighting By Most Recent Injury Type



Source: WCIRB unit statistical data

Estimated Ultimate Indemnity Severity Trend

Historical vs. Injury Type Mix-Adjusted

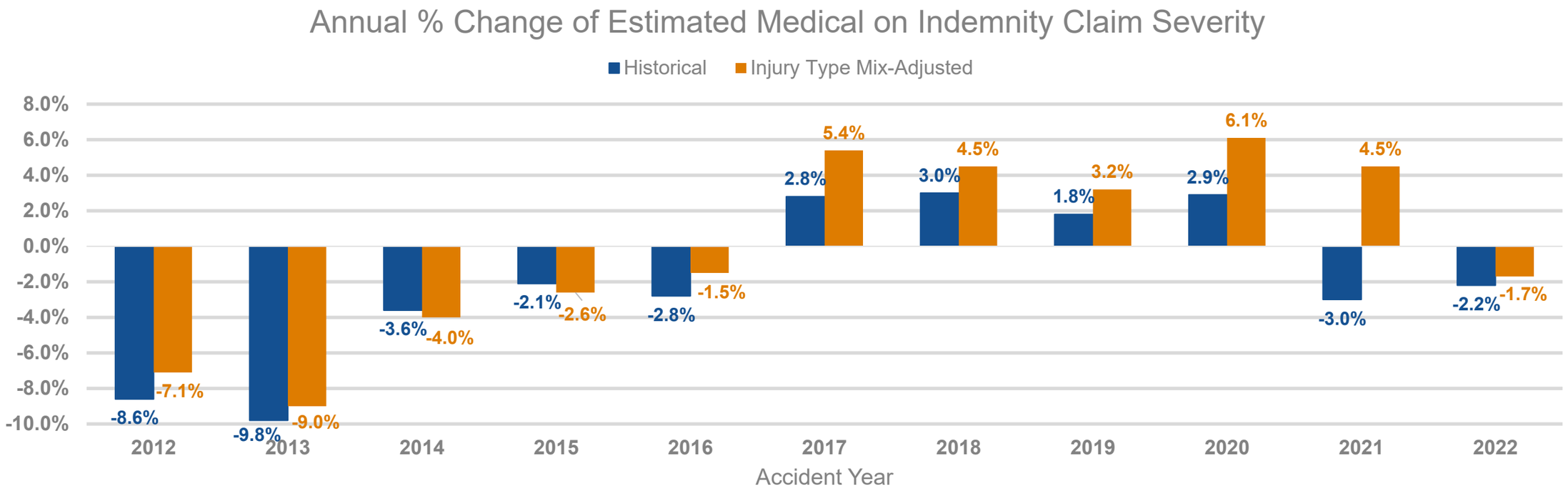


Annual Exponential Severity Trend Based On:	Historical	Injury Type Mix-Adjusted
Last 10 Years	1.9%	3.9%
Last 5 Years	1.8%	5.4%
2015 to 2019	2.2%	4.0%

Source: WCIRB unit statistical data, excluding COVID-19 claims

Estimated Ultimate Medical on Indemnity Claim Severity Trend

Historical vs. Injury Type Mix-Adjusted



Annualized Exponential Ultimate Severity Trend Based On:	Historical	Injury Type Mix-Adjusted
Last 10 Years	0.3%	2.3%
Last 5 Years	-0.1%	3.4%
2015 to 2019	1.5%	3.3%

Source: WCIRB unit statistical data, excluding COVID-19 claims

Impact of Injury Type Mix Shifts
Summary

- Impact to loss development projections is not significant
  - Staff believes no adjustment to LDFs for the injury type mix shift is needed
- Potential impact to severity trend, depending on future shifts in mix of injury types:
  - Adjusted changes are about 2 percentage points higher per year during mix shift period
  - Stable mix going forward → Unadjusted severities may understate severity trend projections
  - Mix shift continues → Severity trends with some mix shift “baked in” may be appropriate

05

Treatment of COVID-19 Claims in Ratemaking

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COVID-19 Cost Projection History

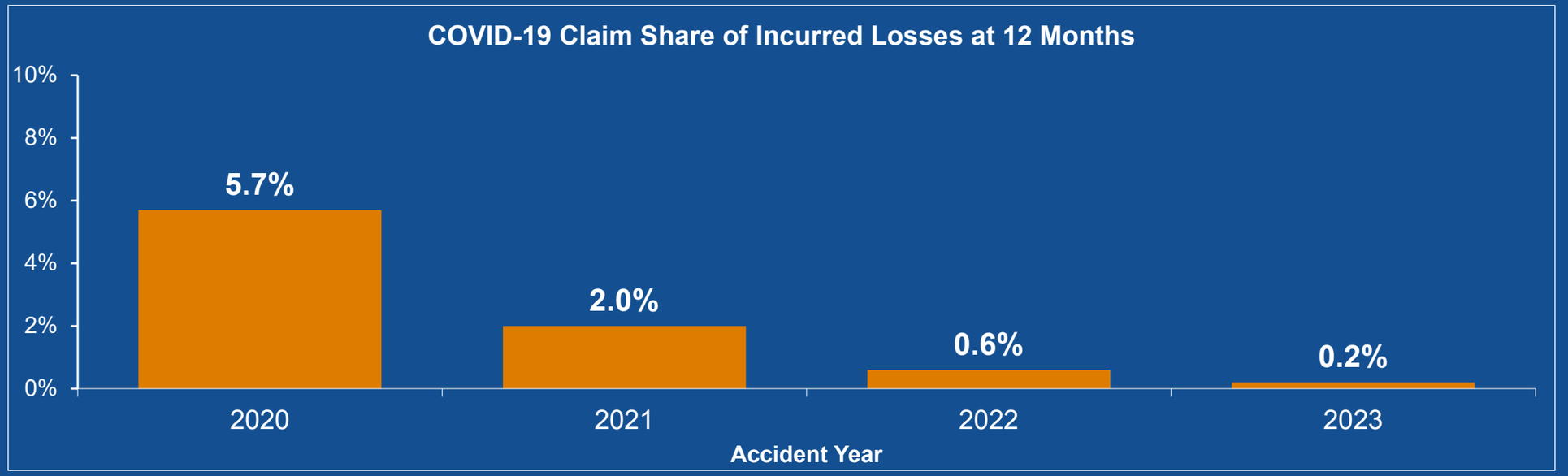
- 1/1/2021 Filing
  - Included 3.8% COVID-19 cost provision
  - Cost varied by industry based on relative infection rates available
- 9/1/2021 Filing
  - No COVID-19 cost provision given infection rates were plateauing
  - AY 2020 not included in projections
- 9/1/2022 Filing
  - Included 0.5% COVID-19 cost provision ($0.008 to every classification)
  - COVID-19 claim experience excluded from AY 2021 and classification relativities
  - AY 2019 and 2021 used as basis of projection
- 9/1/2023 Filing
  - COVID-19 claim experience excluded from AY 2021 and 2022 and classification relativities
  - No COVID-19 cost provision as it is representing a small and declining share of costs

COVID-19 Claim Treatment in Experience Rating

- COVID-19 claims have been excluded from experience modifications after pandemic began
- 9/1/2024 Regulatory Filing – WCIRB proposed including COVID-19 claims occurring 9/1/2024 and later
- If approved, ELRs will be adjusted starting with 9/1/2025 Regulatory Filing

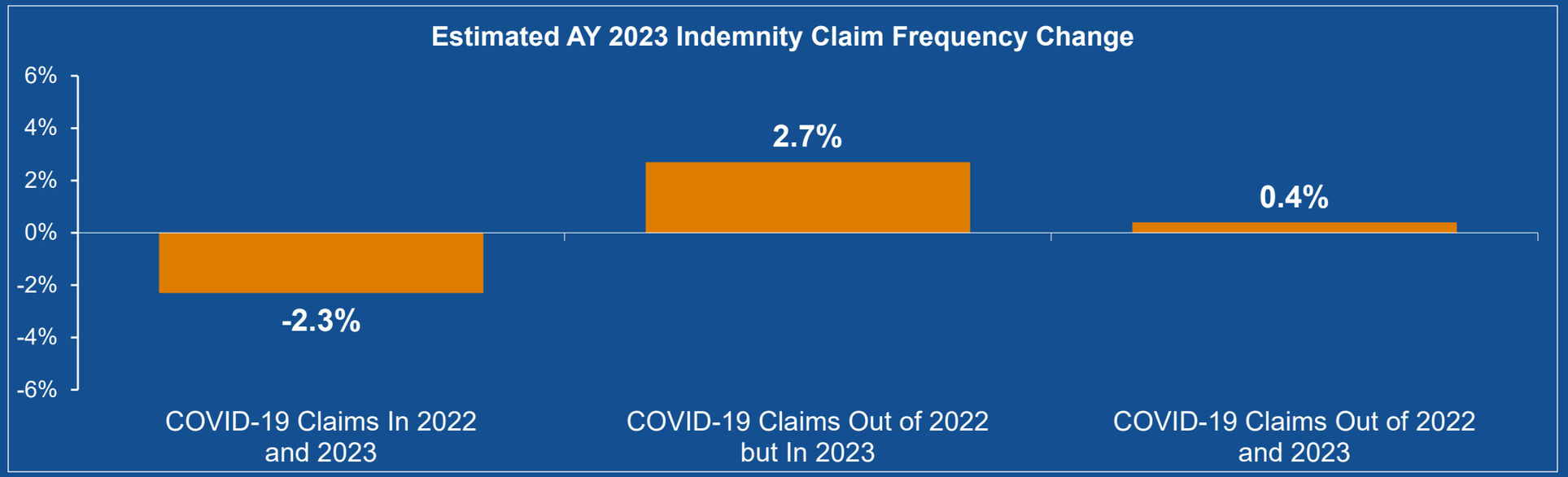
COVID-19 Claim Treatment in Aggregate Ratemaking

- COVID-19 claims and premium charges have been excluded from AY 2020 to 2022 in aggregate ratemaking
  - Represent earlier and different periods of the pandemic



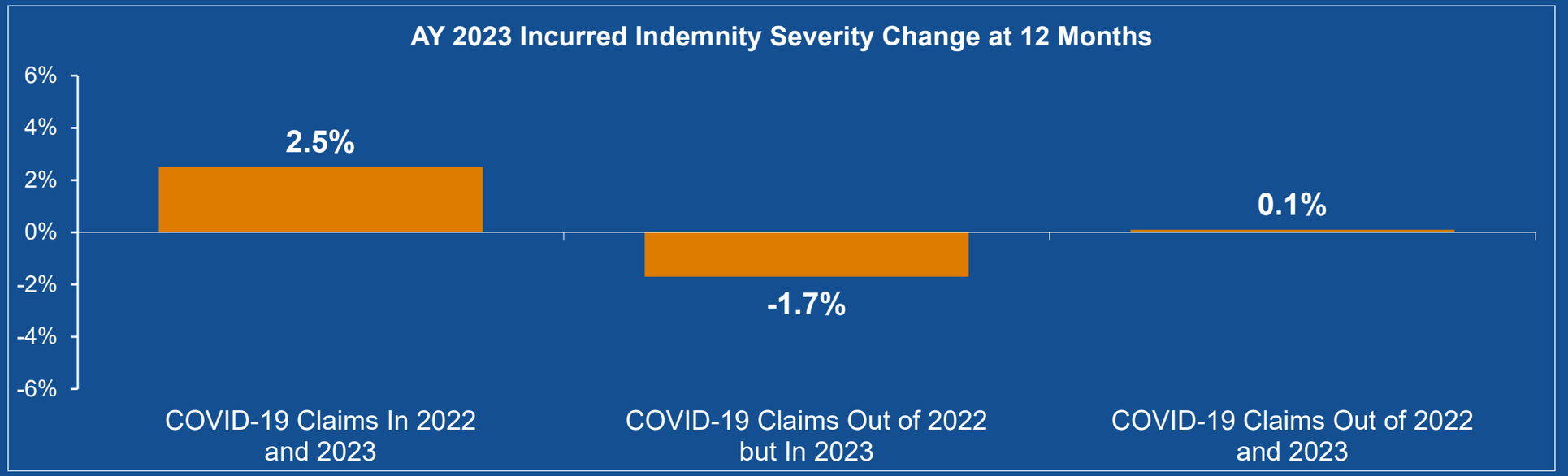
- **Staff recommends including COVID-19 claims and premium charges in reported loss and LAE ratios starting with AY 2023**
- Impact on reported 2023 paid loss ratio at 12 months is negligible (0.0001)

COVID-19 Claim Treatment in Frequency Trends

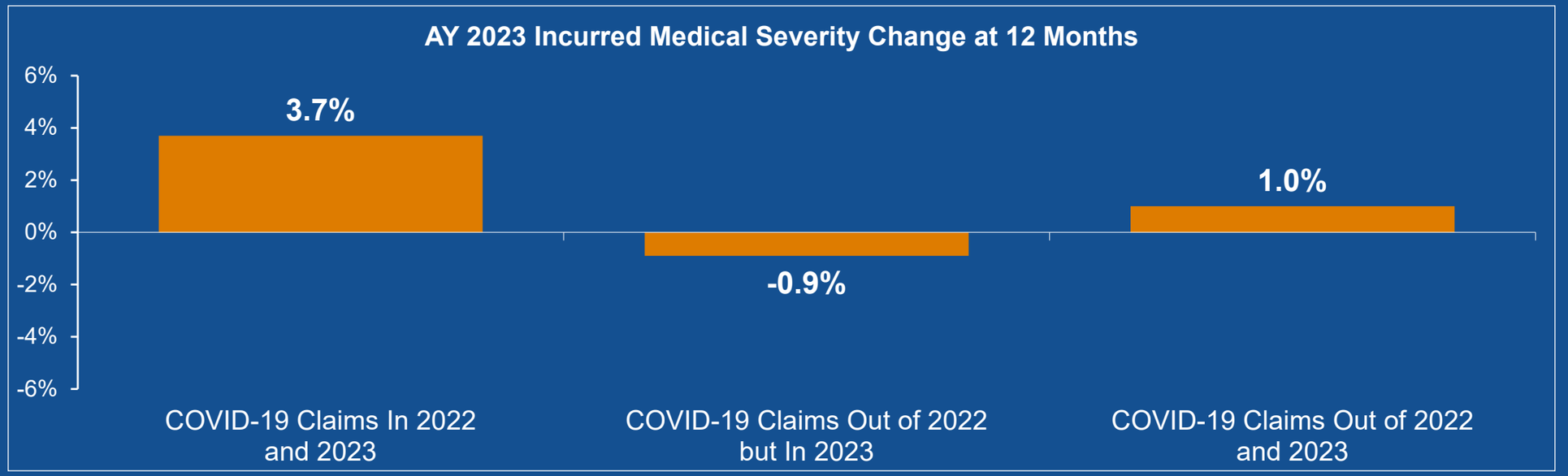


- **Staff recommends continuing to review frequency trends excluding COVID-19 claims for AY 2023 and reevaluate for AY 2024**

COVID-19 Claim Treatment in Severity Trends



COVID-19 Claim Treatment in Severity Trends



- **Staff recommends reviewing severity trends with and without COVID-19 claims until the impact of including them is immaterial**

COVID-19 Claim Treatment in Classification Ratemaking

- Classification relativities have excluded COVID-19 claims when pandemic period data is used
  - Separate adjustment to classification rates applied in years where there was a COVID-19 cost load
- Relative risk of COVID-19 claims in earlier parts of pandemic not necessarily indicative of the future
- **Staff recommends including COVID-19 claims in classification ratemaking starting with AY 2023, to be consistent with aggregate ratemaking**

COVID-19 Claim Treatment in Research Studies

- Treatment of COVID-19 in research studies dependent on the topic of the study
- Staff plans to provide specific language in the Conditions and Limitations section of each research report that makes clear where COVID-19 claim experience is included or excluded

06

12/31/2023
Experience Review

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Summary of 12/31/2023 Experience

- Approximately 100% of market included
- Loss development projection based on latest year reform-adjusted paid method
  - No claim settlement rate adjustment for early period development
  - SB 1160 adjustment to paid medical development fully unwound
- COVID-19 claims included in AY 2023
- Premiums and losses on-leveled to September 1, 2024 policy period
- Trend from AY 2022 and 2023
- Key insights:
  - Early period paid and incurred medical development continuing to increase
  - Claim frequency emerging generally consistent with projections
  - Indemnity and medical severity changes increasing from prior projections
  - AY 2023 emerging lower than trend from AY 2021
- Projected loss ratio using 12/31/2023 experience is 0.756
  - 0.730 before reflecting 9/1/2023 advisory PPR change, which compares to 0.755 reflected in 9/1/2023 Filing

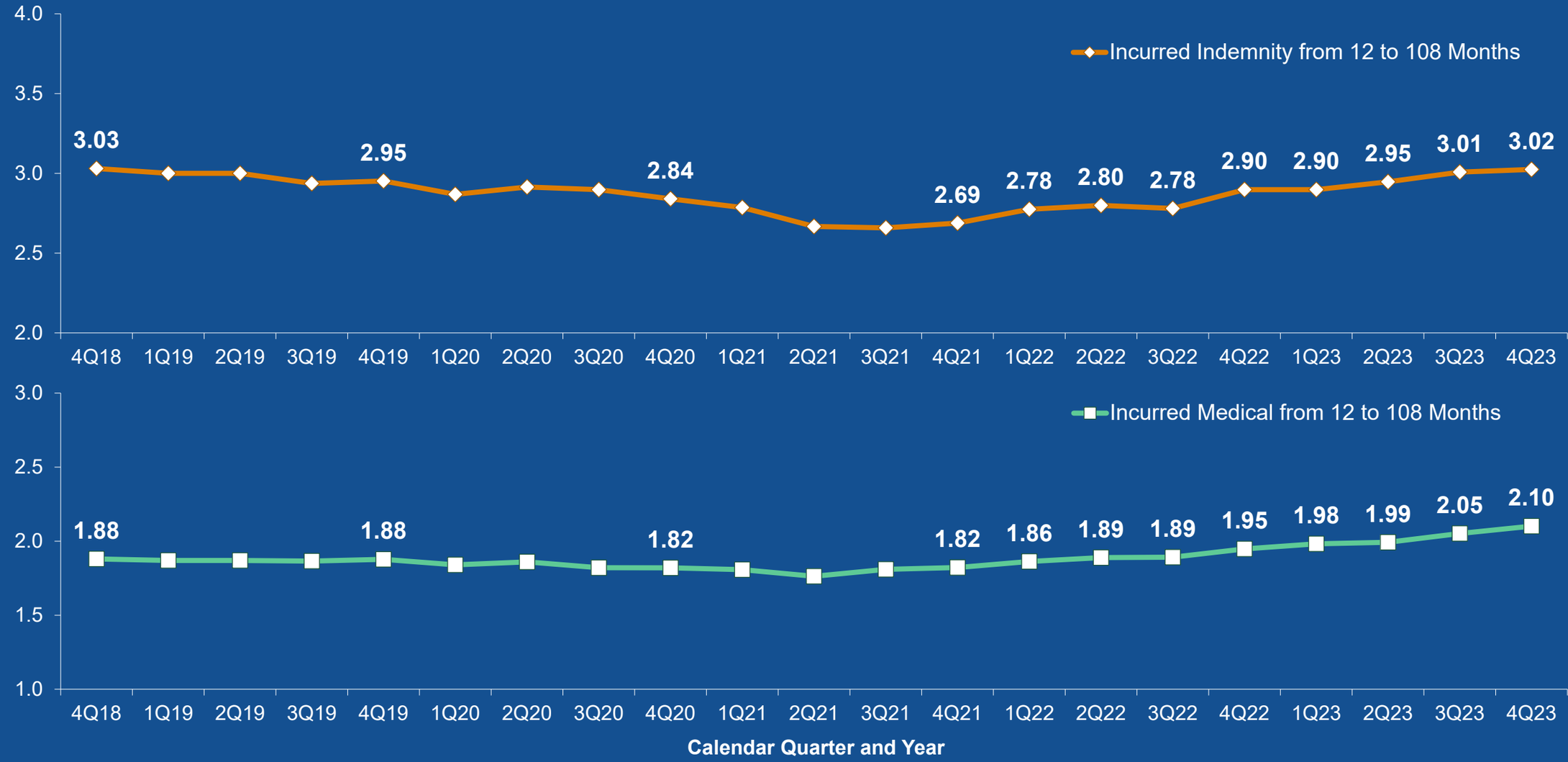
Approximate Percentage Point Change in Loss Ratio Projection

As of December 31, 2023

Factor	Change from 9/1/2023 Filing	Change from 12/5/2023 Agenda
Loss Development Projection	2.0	0.5
Loss Development Methodology (Claim Settlement Rate Adj.)	-0.5	N/A
Updated Wage Level Forecasts	-0.5	-0.5
Updated Frequency Trends	0.5	1.0
Use of AY 2023 in Trend	-3.0	-3.0
Trend to 9/1/2024 Policy Period	-1.0	-1.0
Total to 3/21/2024 Agenda	**-2.5**	**-3.0**

Cumulative Incurred Development from 12 to 108 Months

As of December 31, 2023



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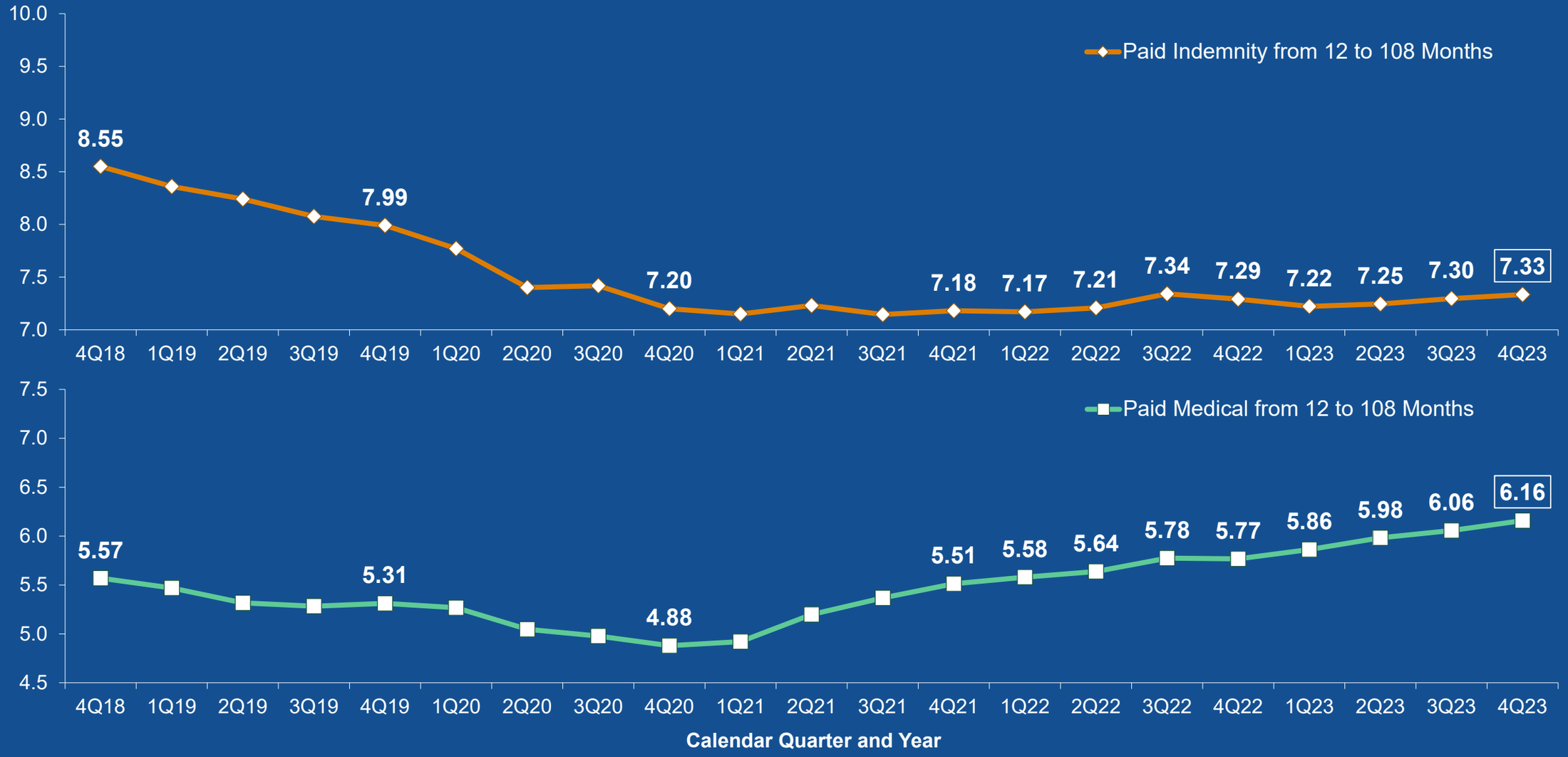
Source: WCIRB Aggregate Financial Data

Cumulative Paid Development from 12 to 108 Months

As of December 31, 2023



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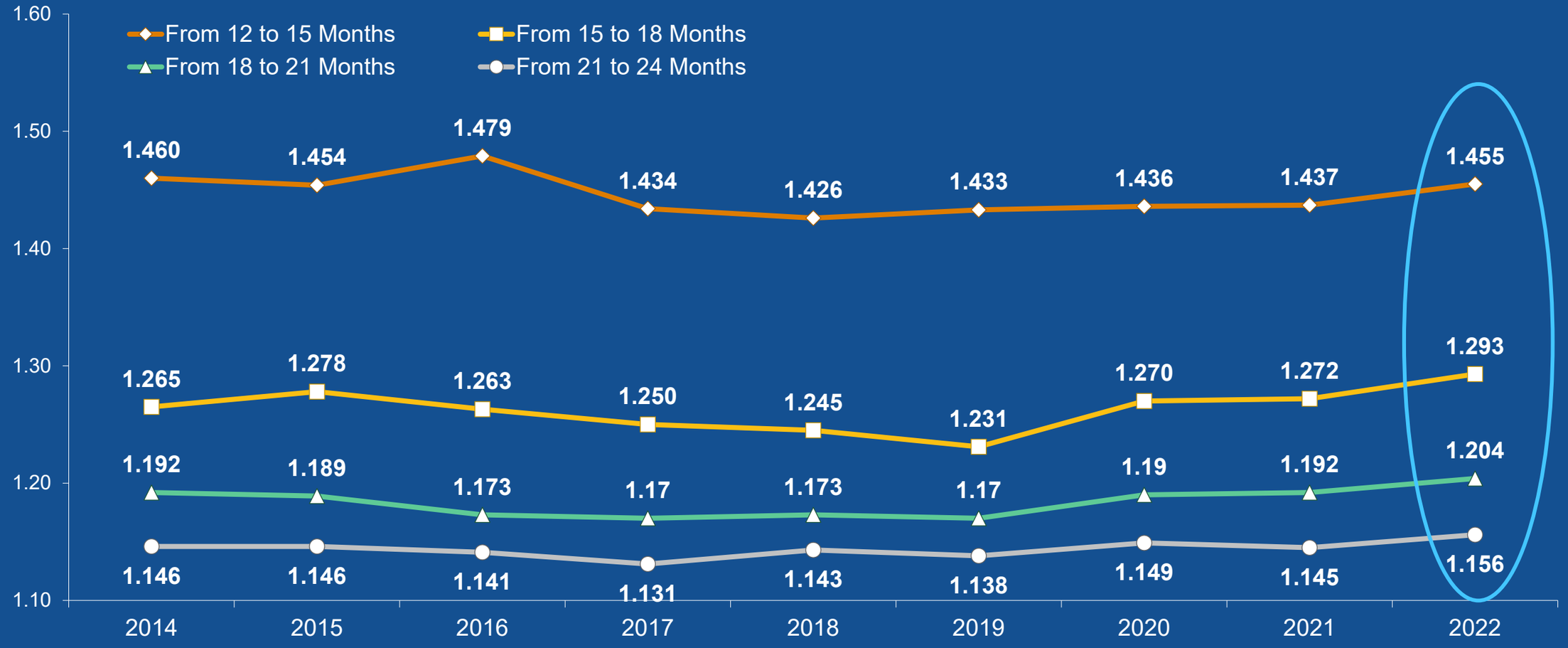
Source: WCIRB Aggregate Financial Data

Paid Medical Development (Exhibit 9.4)

As of December 31, 2023



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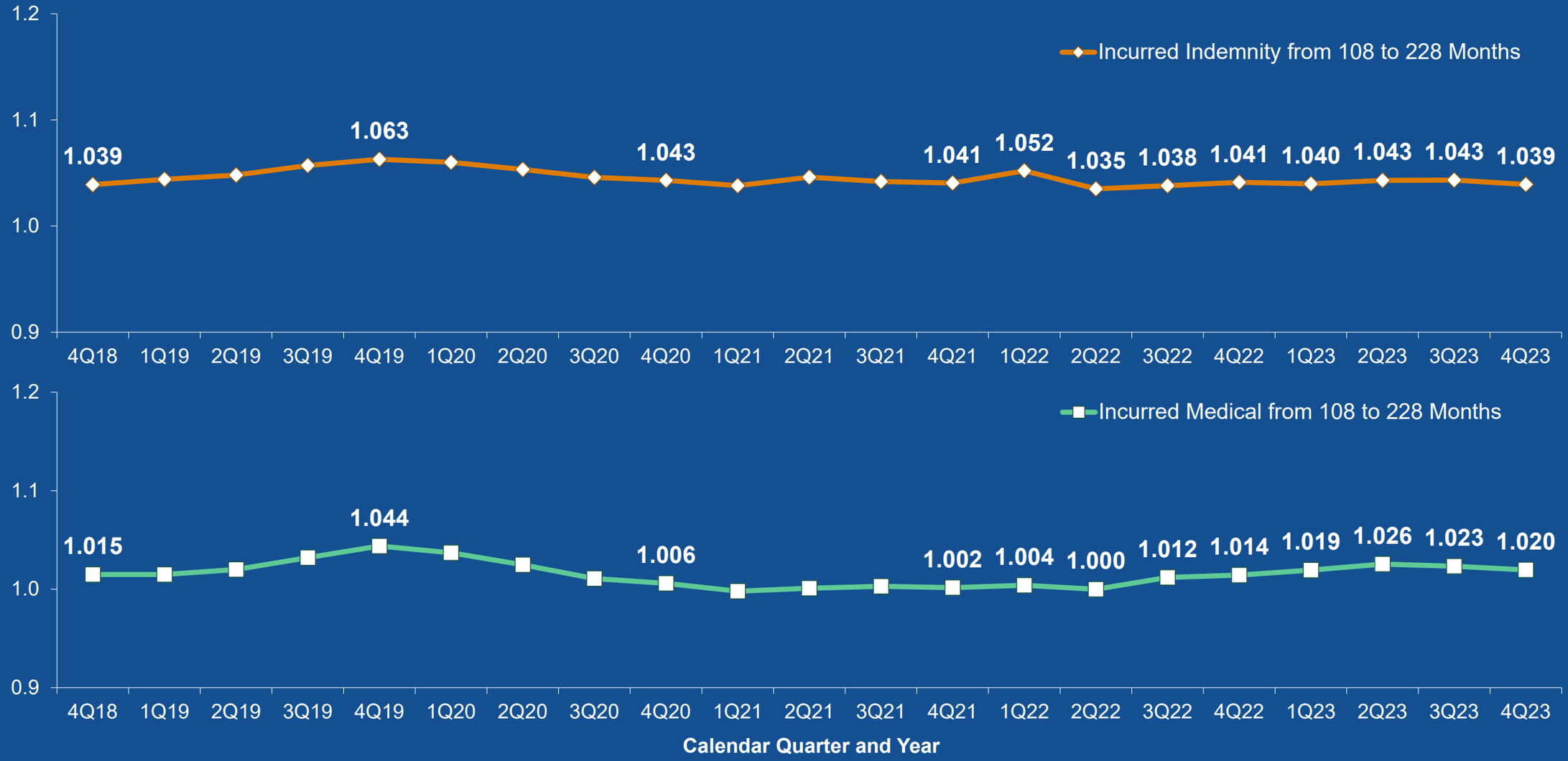
Source: WCIRB Aggregate Financial Data

Cumulative Incurred Development from 108 to 228 Months

As of December 31, 2023



WCIRB California™
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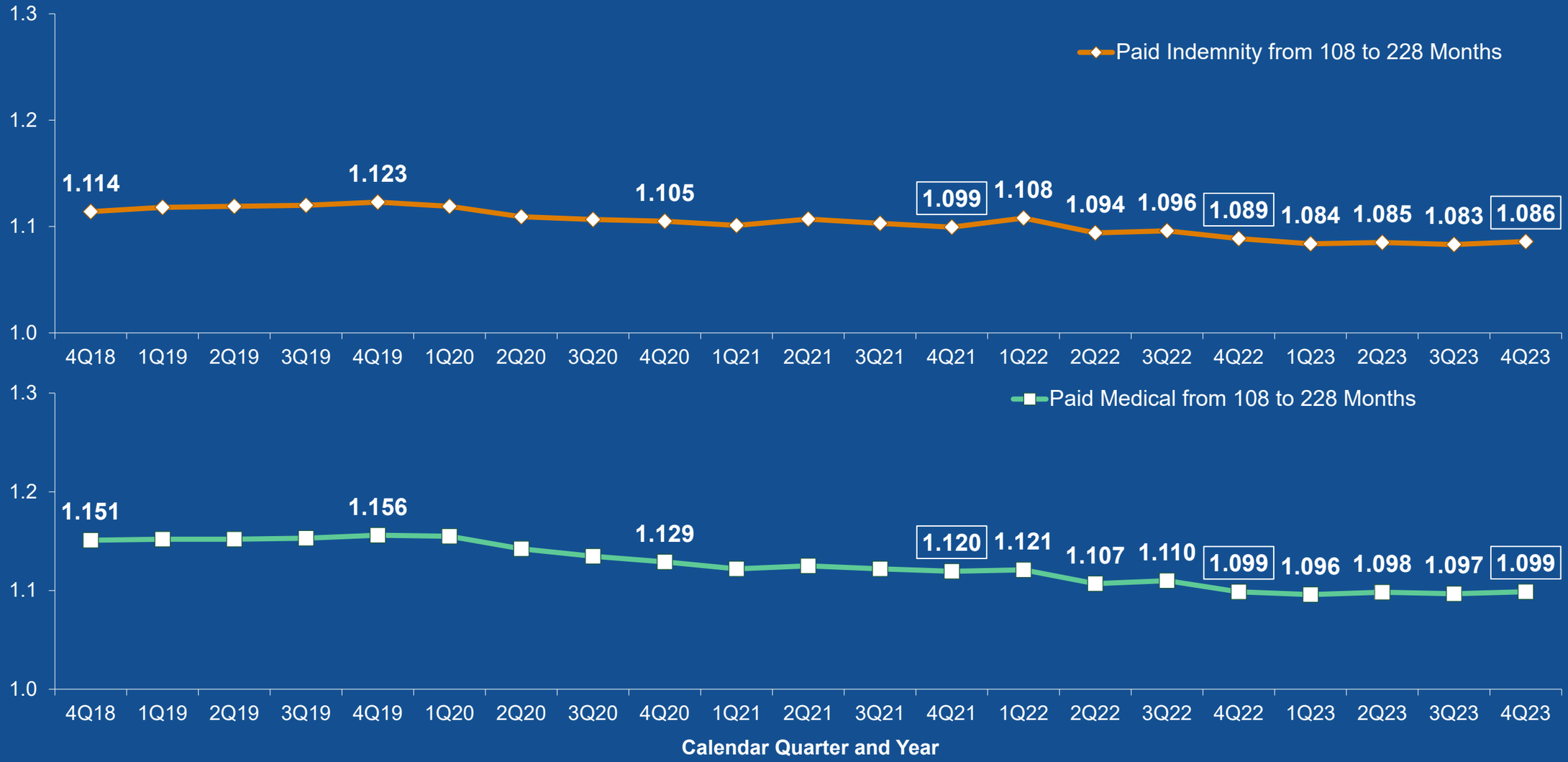
Source: WCIRB Aggregate Financial Data

Cumulative Paid Development from 108 to 228 Months

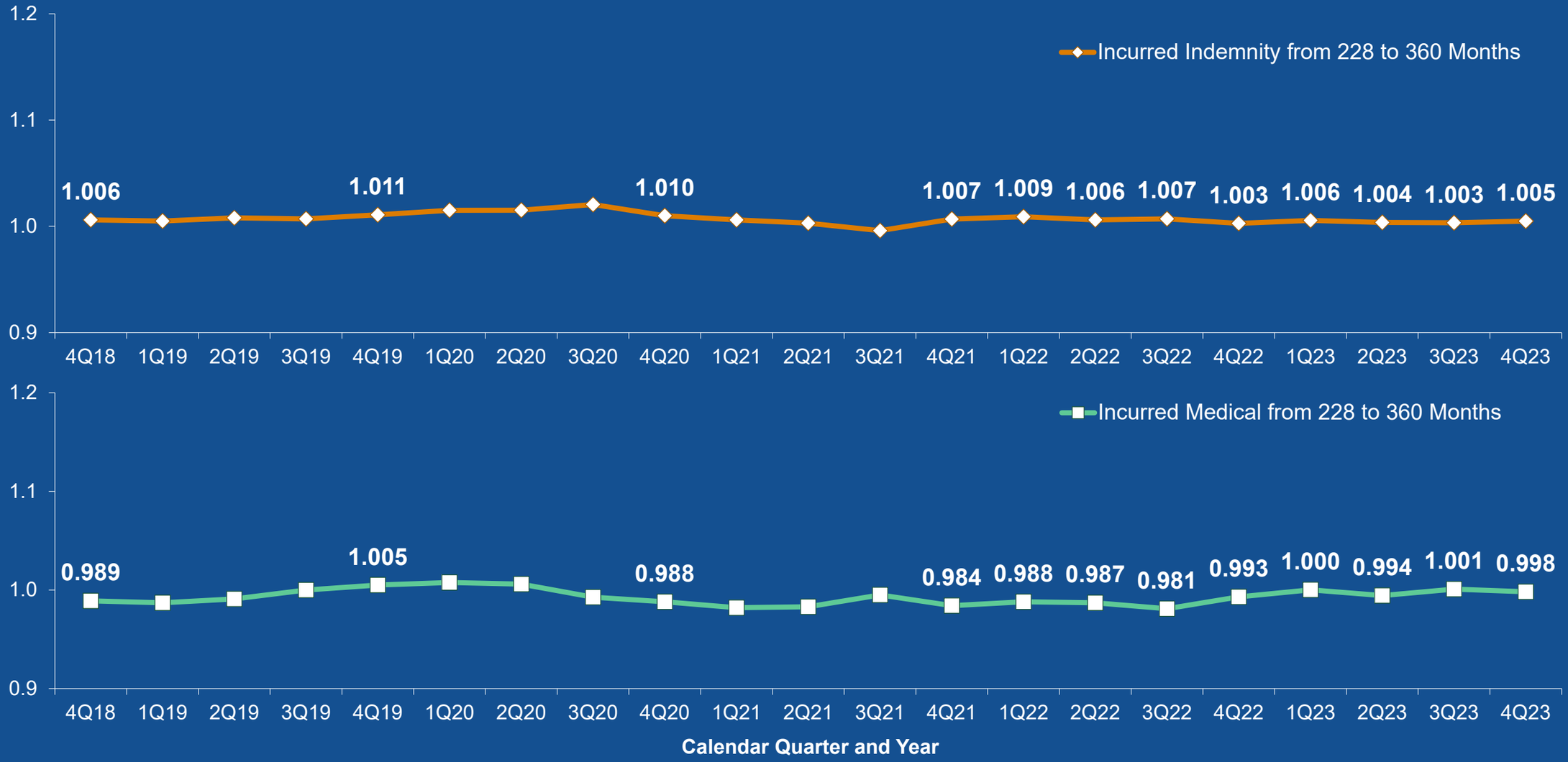
As of December 31, 2023



Source: WCIRB Aggregate Financial Data

Cumulative Incurred Development from 228 to 360 Months

As of December 31, 2023



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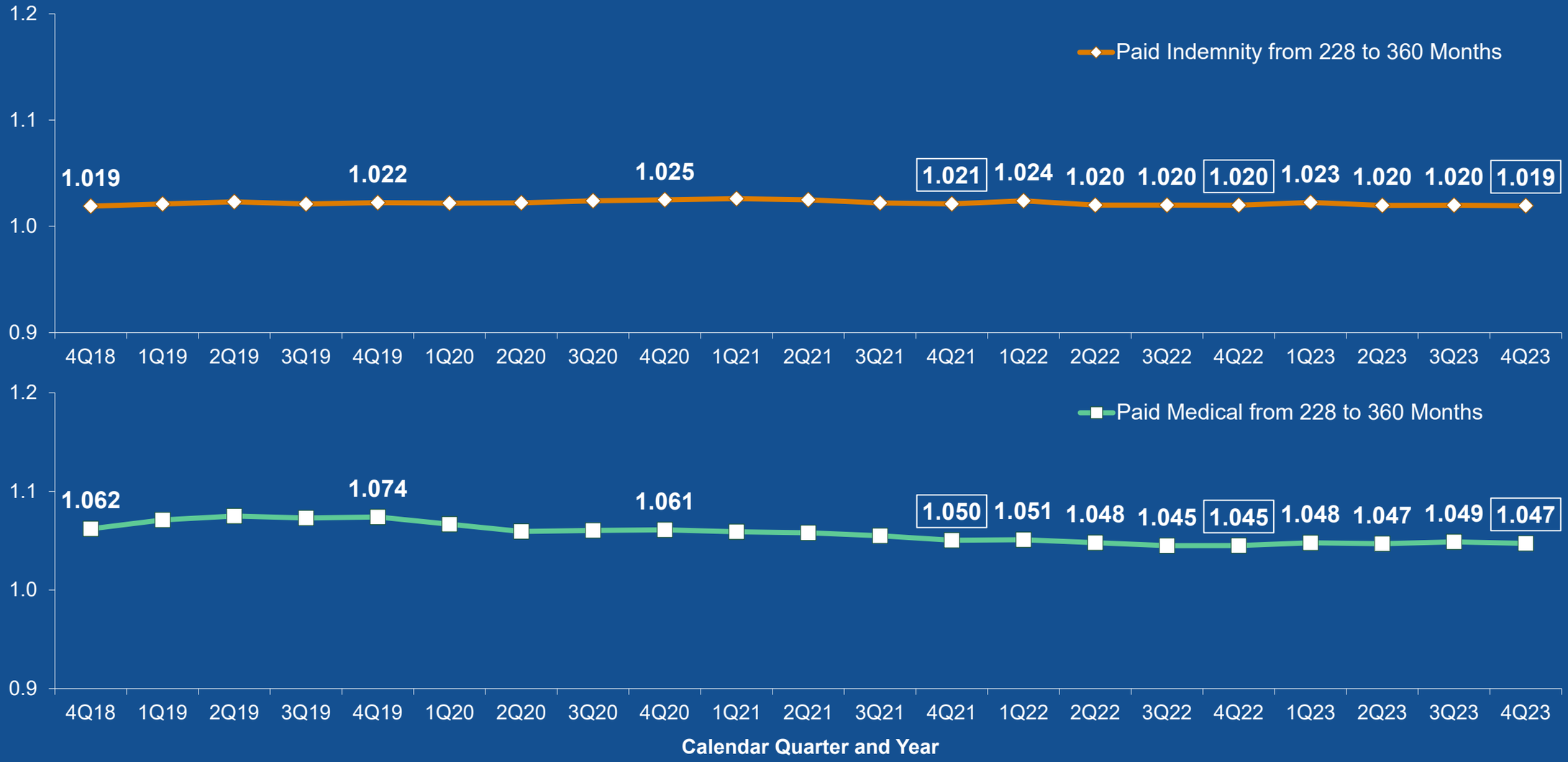
Source: WCIRB Aggregate Financial Data

Cumulative Paid Development from 228 to 360 Months

As of December 31, 2023



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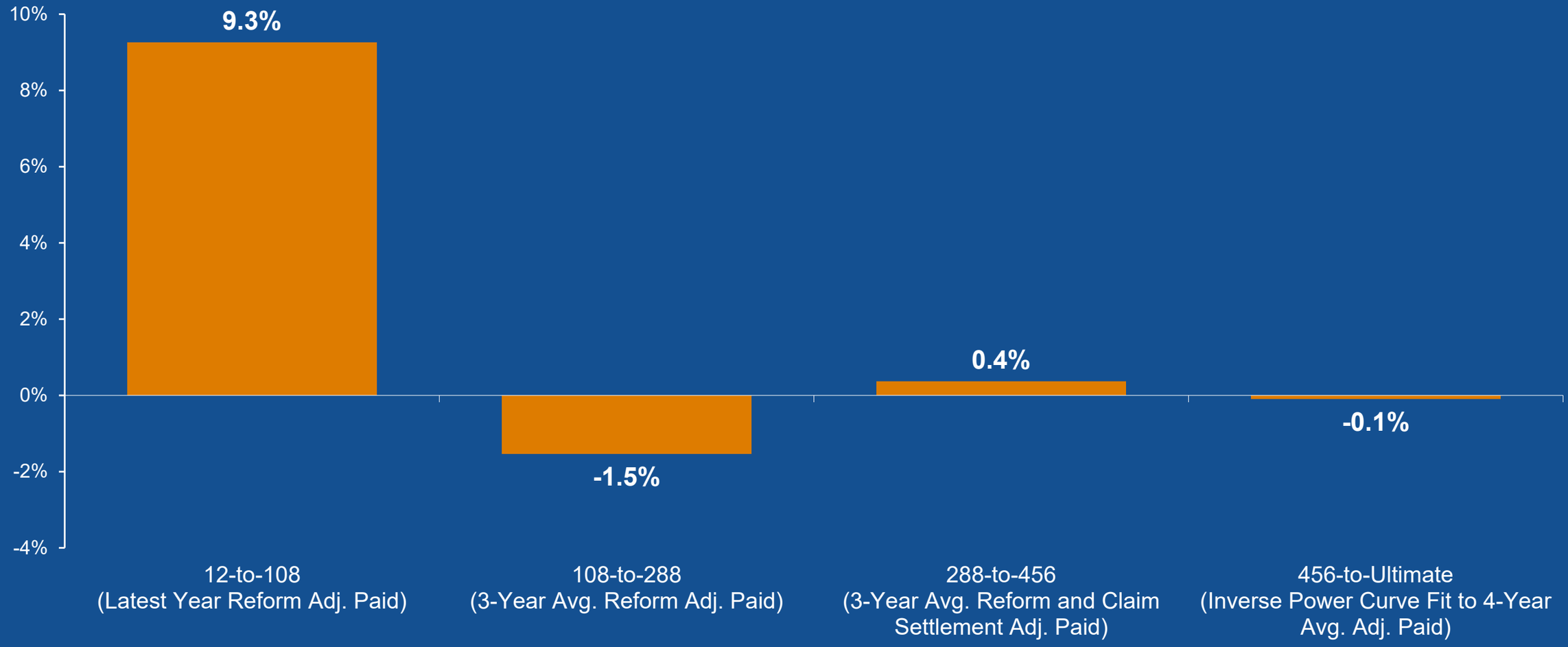
Source: WCIRB Aggregate Financial Data

Change in Projected Medical Development Factor for AY 2022

12/31/2022 to 12/31/2023 Experience

As of December 31, 2023



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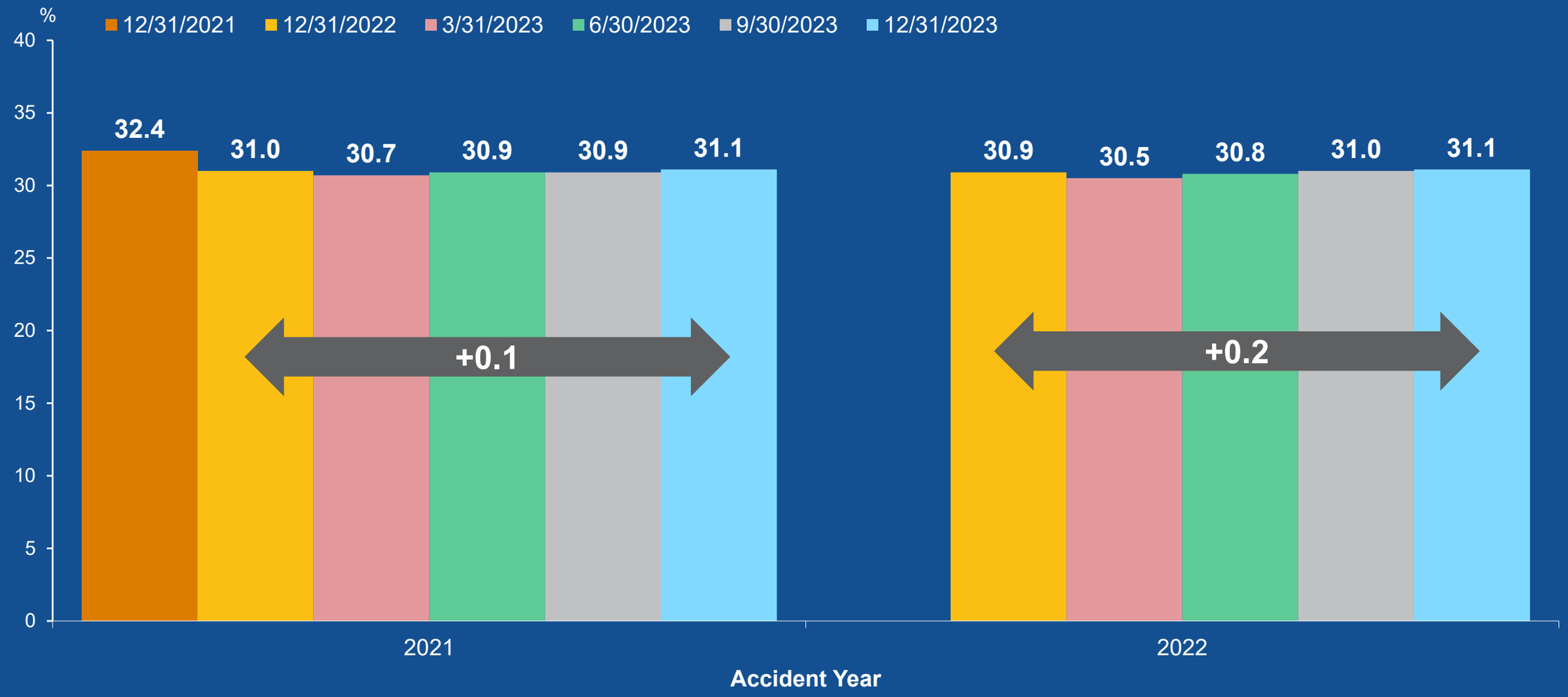
Source: WCIRB Aggregate Financial Data

Developed Indemnity Loss Ratios (Exhibit 3.1)

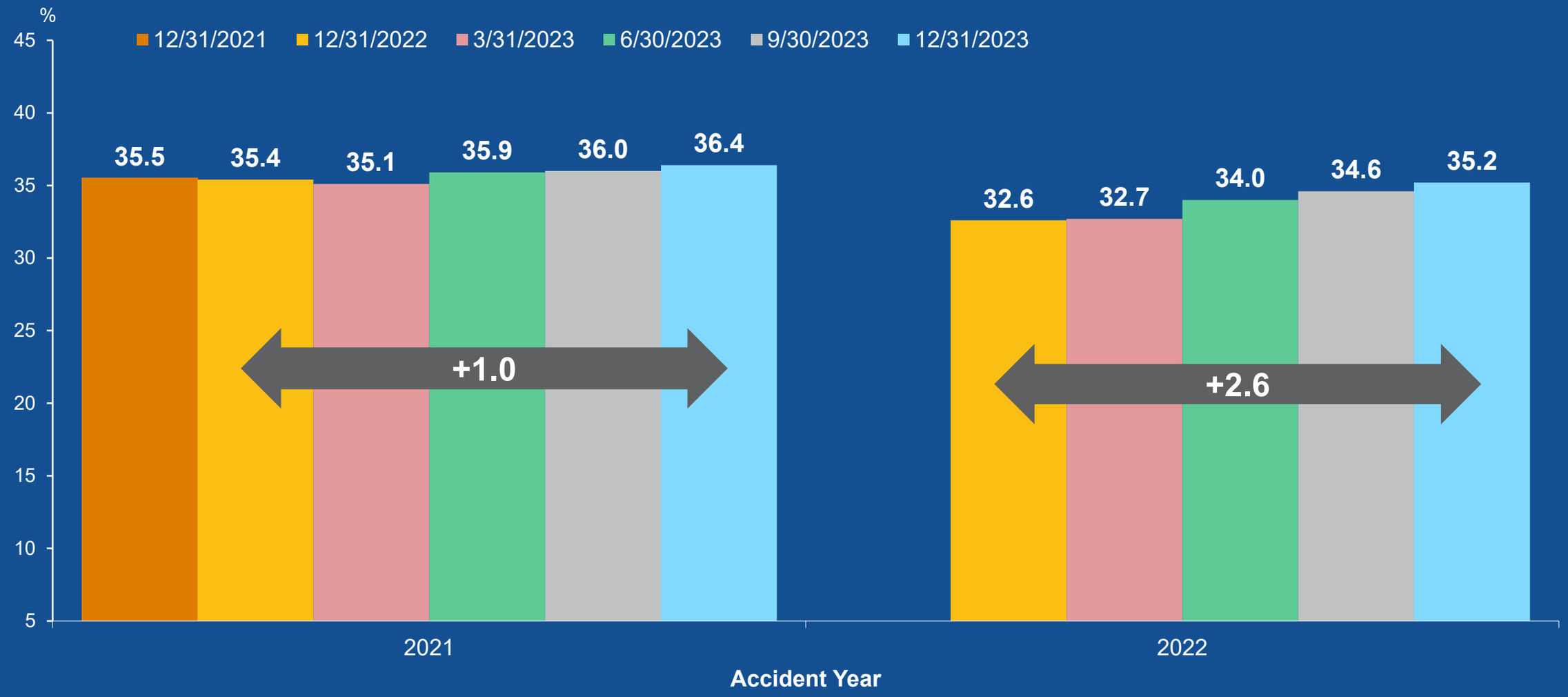
As of December 31, 2023



Note: All loss ratios are adjusted to the loss development methodology reflected in the Actuarial Committee Agenda and may not be comparable to the actual loss ratios projected at that time.
Source: WCIRB Aggregate Financial Data excluding COVID-19 claims for accident years 2020 to 2022

Developed Medical Loss Ratios (Exhibit 3.2)

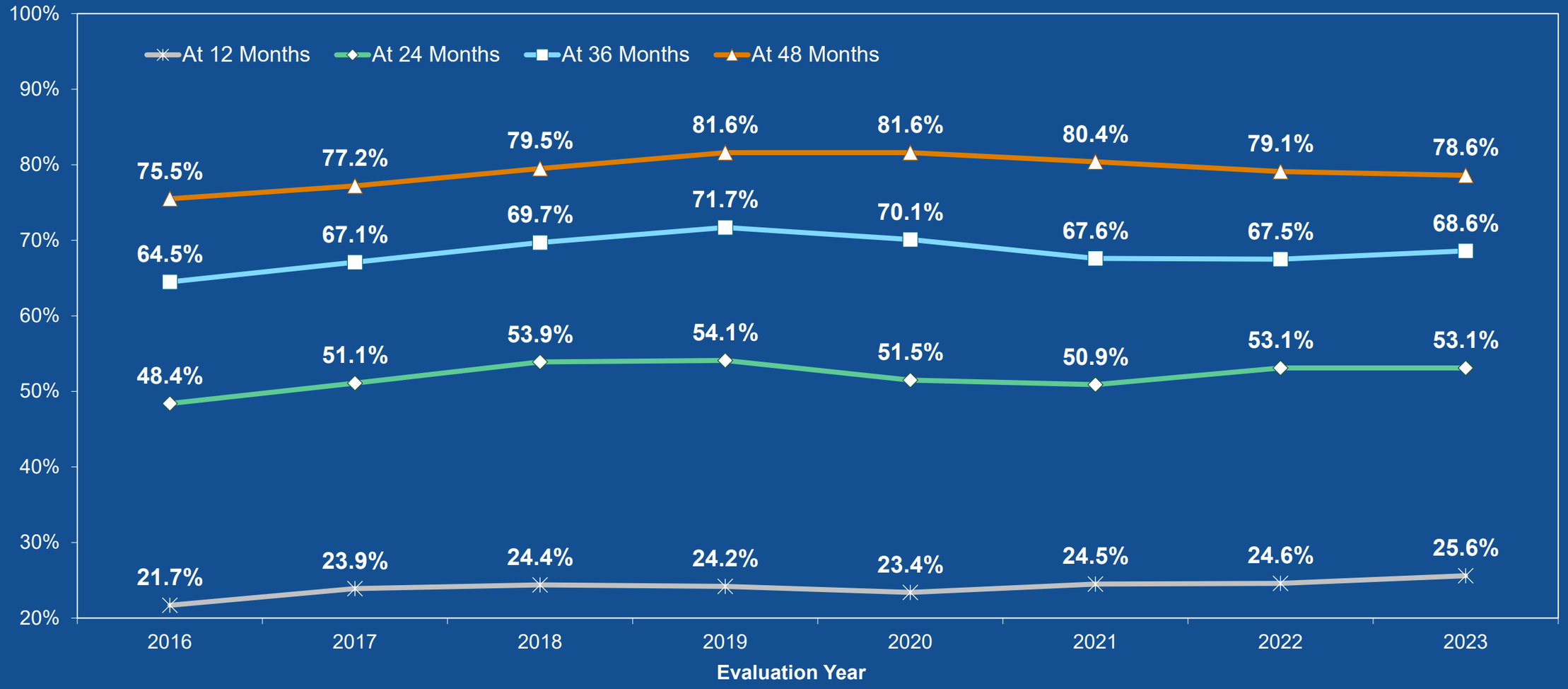
As of December 31, 2023



Note: All loss ratios are adjusted to the loss development methodology reflected in the Actuarial Committee Agenda and may not be comparable to the actual loss ratios projected at that time.
Source: WCIRB Aggregate Financial Data excluding COVID-19 claims for accident years 2020 to 2022

Estimated Ultimate Indemnity Claim Settlement Ratios (Exhibit 11.2)

As of December 31, 2023



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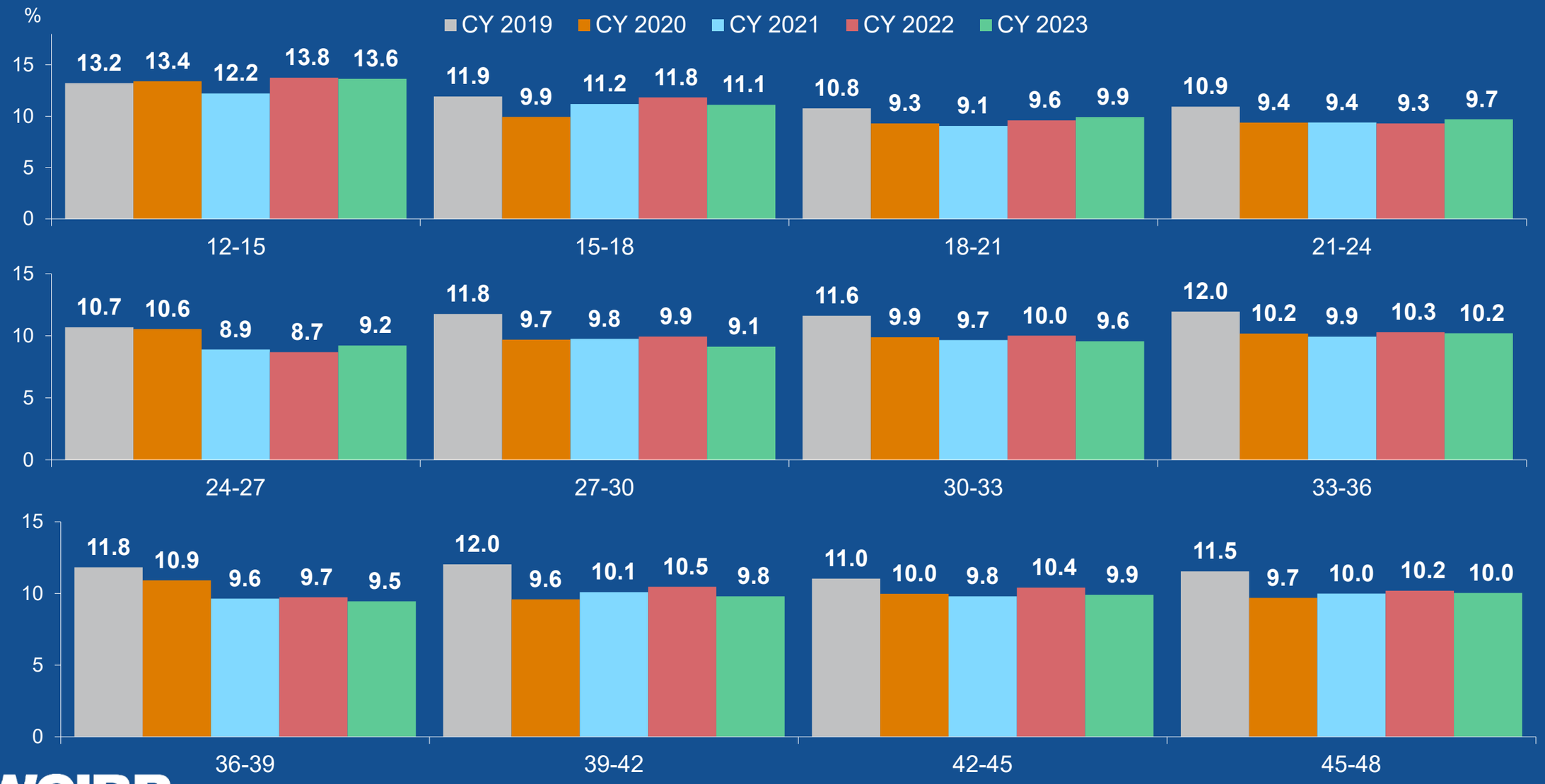
Source: WCIRB Aggregate Financial Data and projections excluding COVID-19 claims for accident years 2020 to 2022

Incremental Closed Indemnity Claims Compared to Prior Open Claims

As of December 31, 2023



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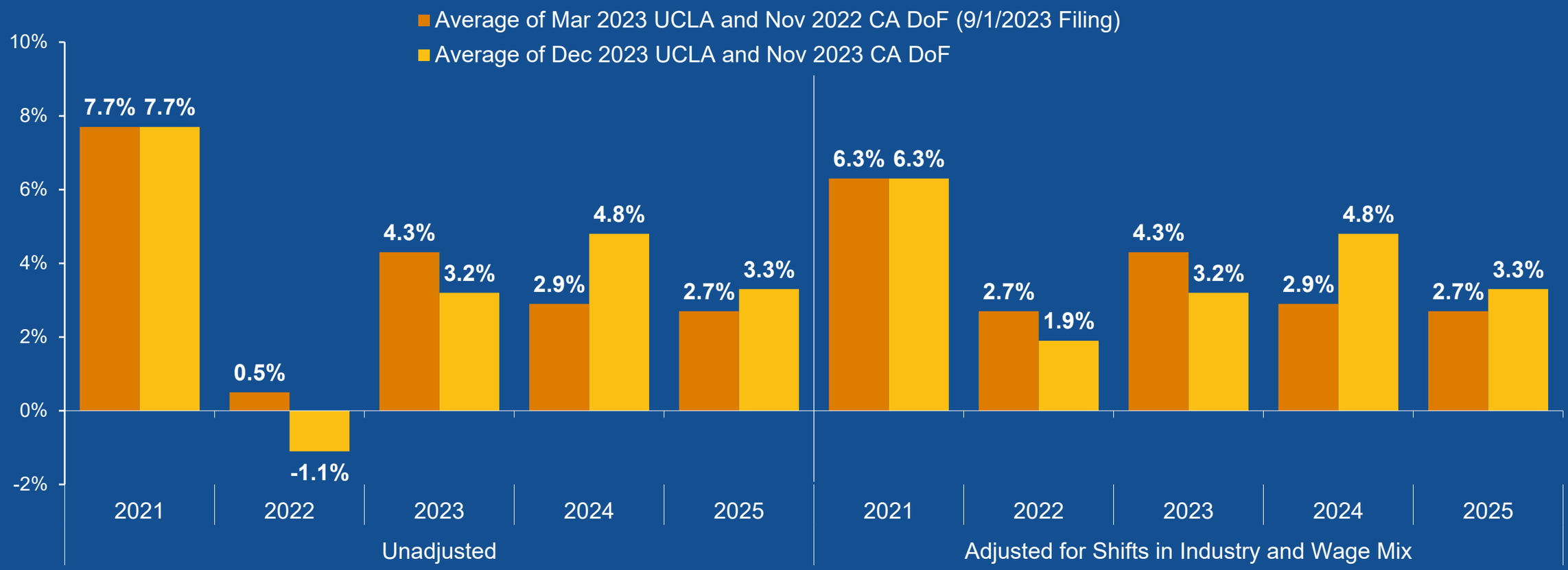
Source: WCIRB Aggregate Financial Data excluding COVID-19 claims

Average Wage Level Change Forecast (Exhibit 5.1)

As of December 2023



Average Annual Adjusted Wage Change Projection from 2021:

9/1/2023 Filing: **3.3%**

Updated Forecast: **3.3%**

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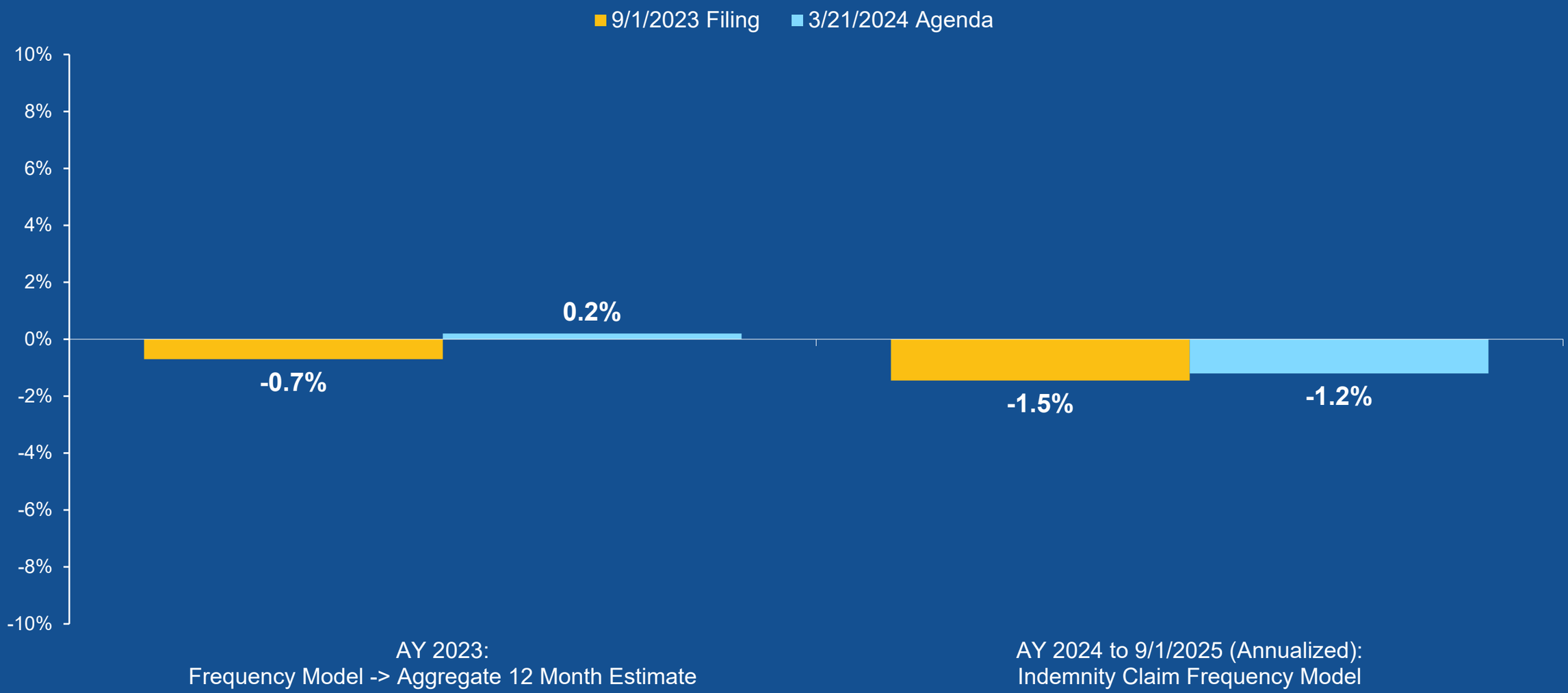
Source: UCLA Anderson School of Business and California Department of Finance Forecasts

Estimated Intra-Class Indemnity Claim Frequency Changes (Exhibits 6.1 and 12)

As of December 31, 2023



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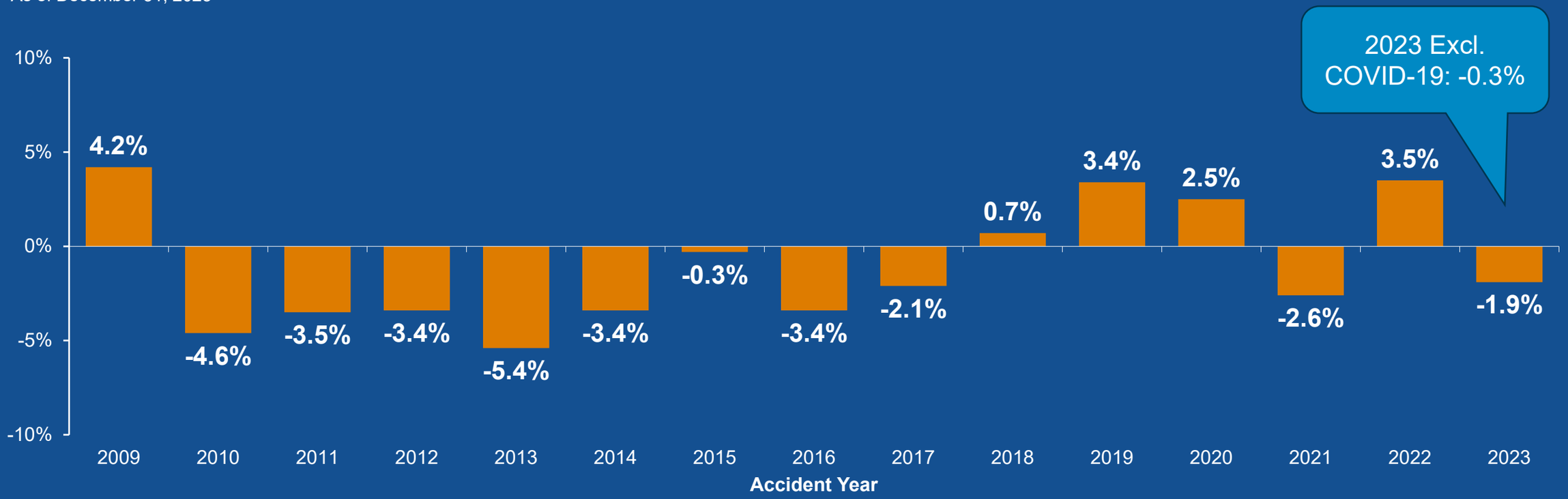
Source: WCIRB Unit Statistical Data, Aggregate Financial Data and UCLA Anderson Forecast, excluding COVID-19 claims

Projected Changes in On-Level Indemnity Severity (Exhibit 6.2)

As of December 31, 2023



Annual Exponential Trend Based on:

1990 to 2023: 0.7%

2005 to 2023: -1.1%

2019 to 2023: 0.4%

9/1/2023 Filing Selected: 1.0%

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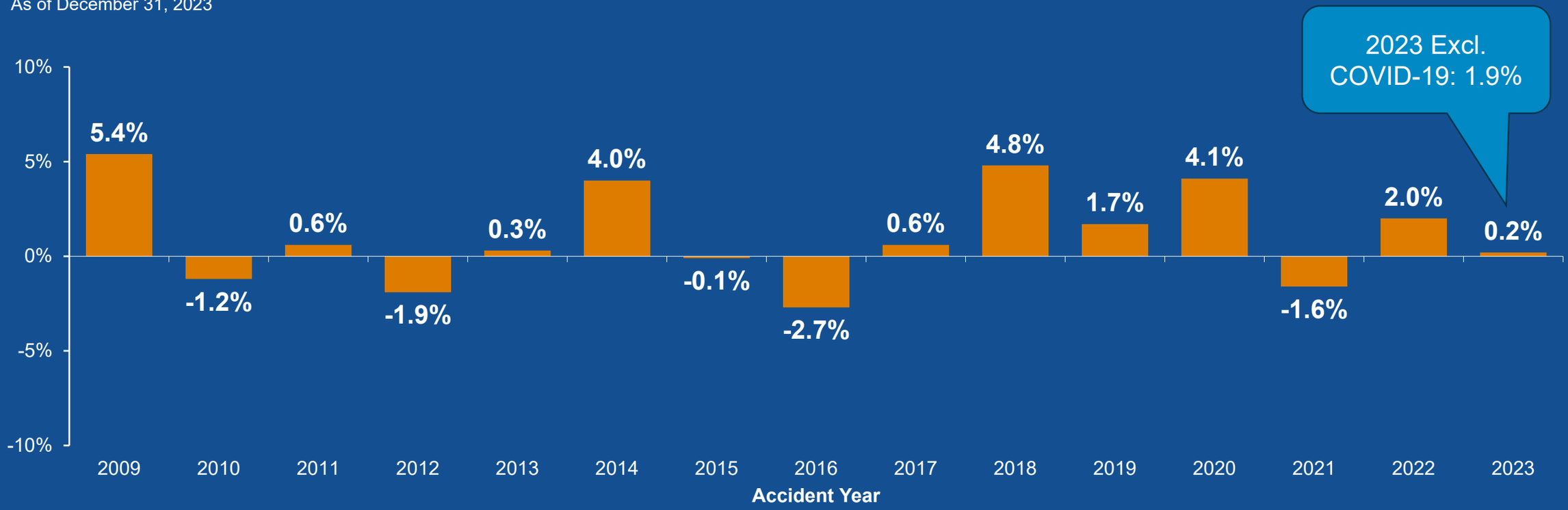
Source: WCIRB Aggregate Financial Data excluding COVID-19 claims for accident years 2020 to 2022

Projected Changes in On-Level Medical Severity (Exhibit 6.4)

As of December 31, 2023



Annual Exponential Trend Based on:

1990 to 2022 (including MCCP): 4.5%

2005 to 2023: 1.4%

2019 to 2023: 1.0%

9/1/2023 Filing Selected: 1.5%

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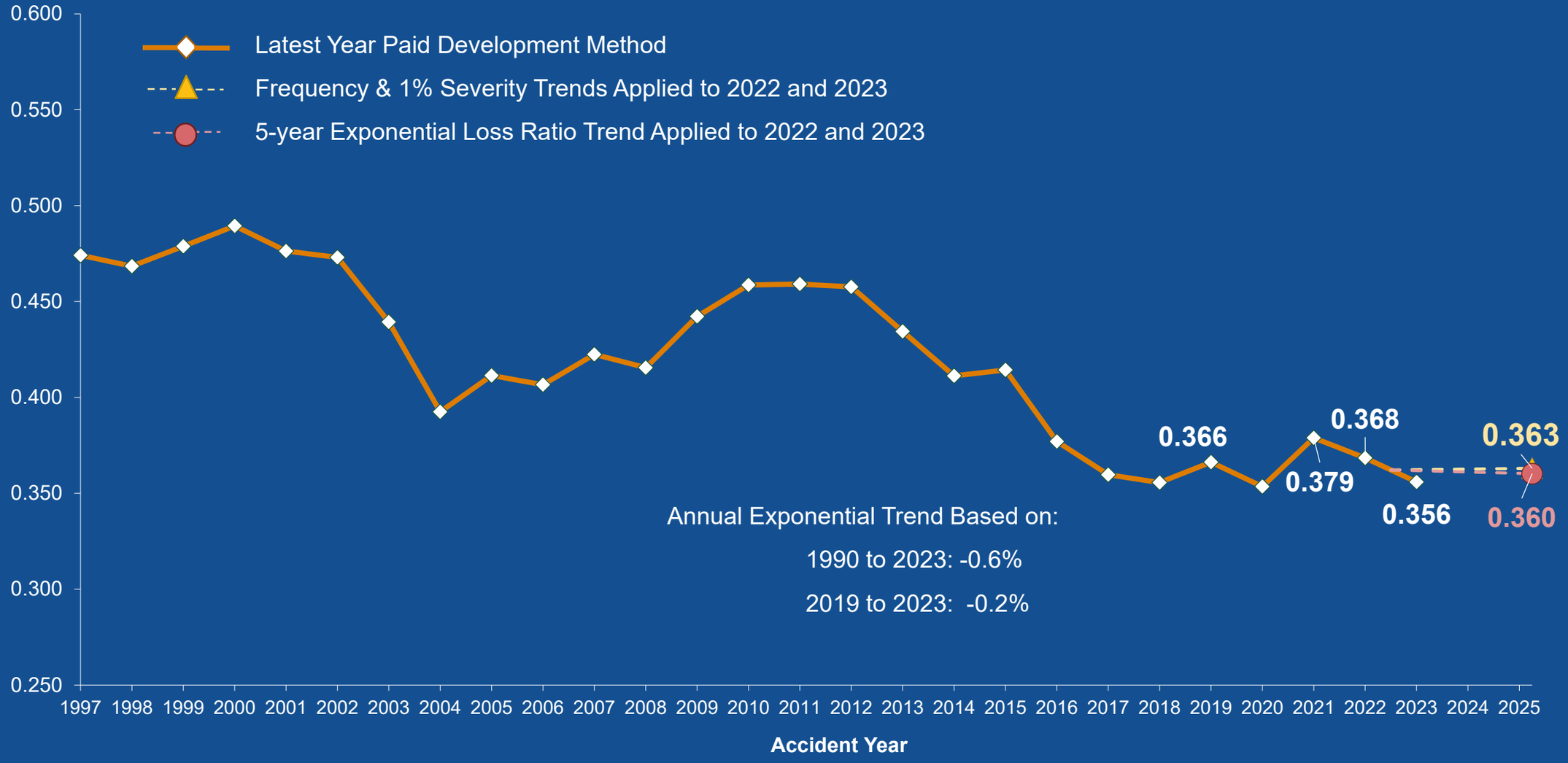
Source: WCIRB Aggregate Financial Data excluding COVID-19 claims for accident years 2020 to 2022. MCCP costs are excluded from accident years 2011 and prior.

Projected On-Level Indemnity Loss Ratios (Exhibit 7.1)

As of December 31, 2023



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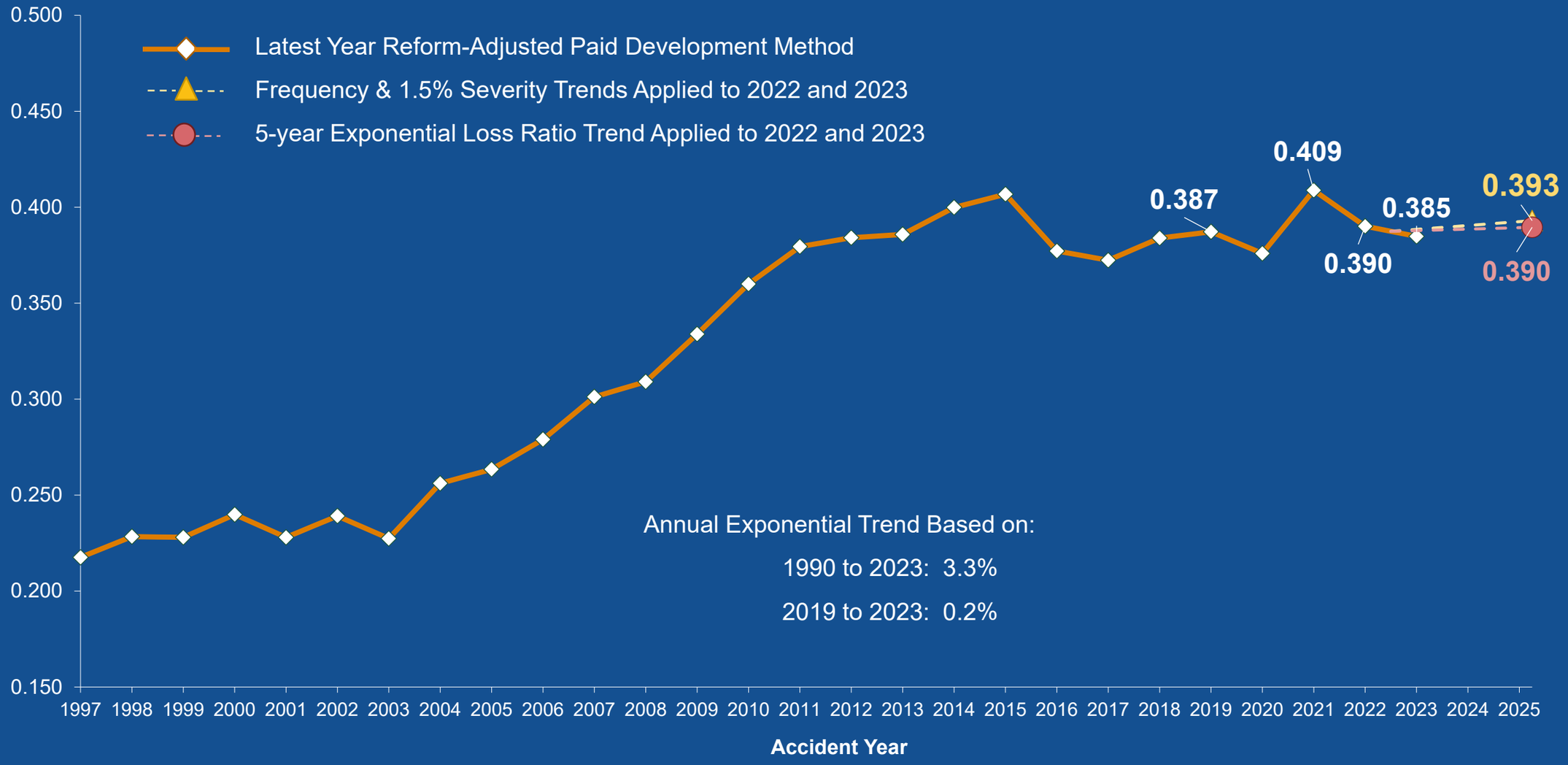
Source: WCIRB Aggregate Financial Data excluding COVID-19 claims for 2020 to 2022

Projected On-Level Medical Loss Ratios (Exhibit 7.3)

As of December 31, 2023



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Source: WCIRB Aggregate Financial Data excluding COVID-19 claims for 2020 to 2022

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