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WCIRB Actuarial Committee Meeting

March 16, 2021

Agenda

1. AC20-08-04: Impact of Economic Slowdown on Pure Premium Rate Indications
2. AC21-02-02: Pandemic Impact on 2020 Development
3. AC21-03-01: First Quarter 2021 Review of Diagnostics
4. AC21-03-05: Pandemic Impact on Premium Measures
5. AC21-03-02: 12/31/2020 Experience Review
6. AC21-03-03: Review of COVID-19 Claim Diagnostics
7. AC21-03-04: 9/1/2021 Filing – COVID-19 Claim Cost Projection

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01

Impact of Economic Slowdown on Pure Premium Rate Indications

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Impact of the Economic Slowdown on Pure Premium Rate Indications

- The magnitude of the current economic changes is unprecedented
  - Virtually all industries have been affected
    - The retail and hospitality sectors have been hardest hit
    - Changes in the industrial mix and wage level distribution can have large impacts

- For pure premium ratemaking, changes due solely to changing industrial mix should be excluded from projections
- WCIRB staff has estimated impacts of changing industrial mix and other factors for:
  - Average Wage
  - Claim Frequency
  - Claim Severity

Average Wage

- Current forecasts of average wage changes are from March 2021 UCLA and November 2020 Department of Finance

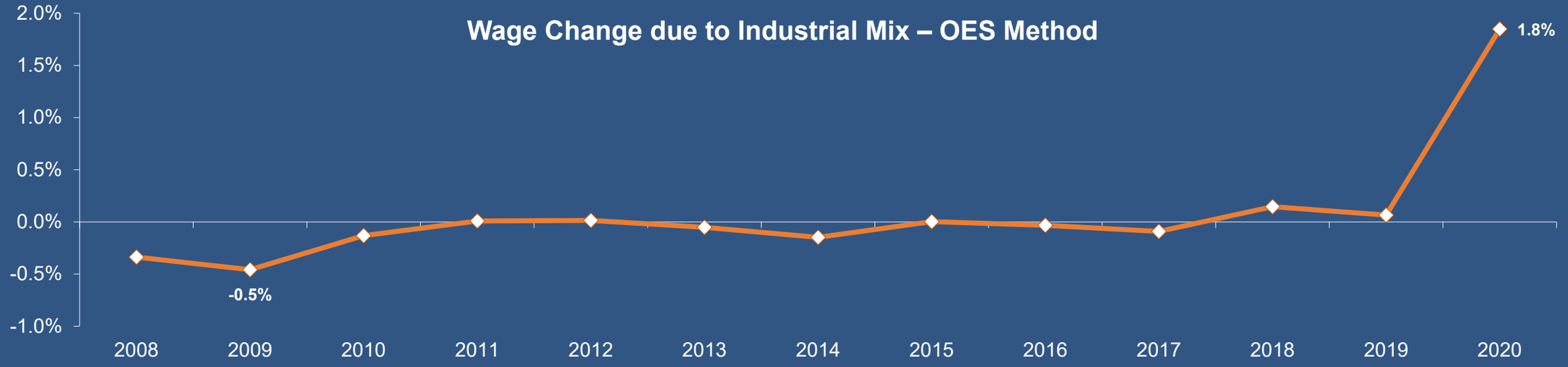
- The averages of these wage forecasts are:

2020	2021	2022	2023
7.9%	0.9%	1.8%	2.8%

- 2020 estimate artificially high due to uneven distribution of job losses by wage level
- 2021 - 2023 estimates lowered by projected reversals of these impacts
- Staff has developed two estimates of the impact of changing industrial mix on wage changes
  1) Based on BLS OES data through year end 2020
  2) Based on BLS QCEW wage data through 2019 and UCLA employment forecasts
- Staff has also developed a preliminary estimate of the impact of employment changes by wage level
  - Wage data at the employee level is from the American Community Survey (ACS)
  - Estimates of employment changes by wage level are from the Economic Policy Institute (EPI)

Industrial Mix Impact on Average Wage – OES Method

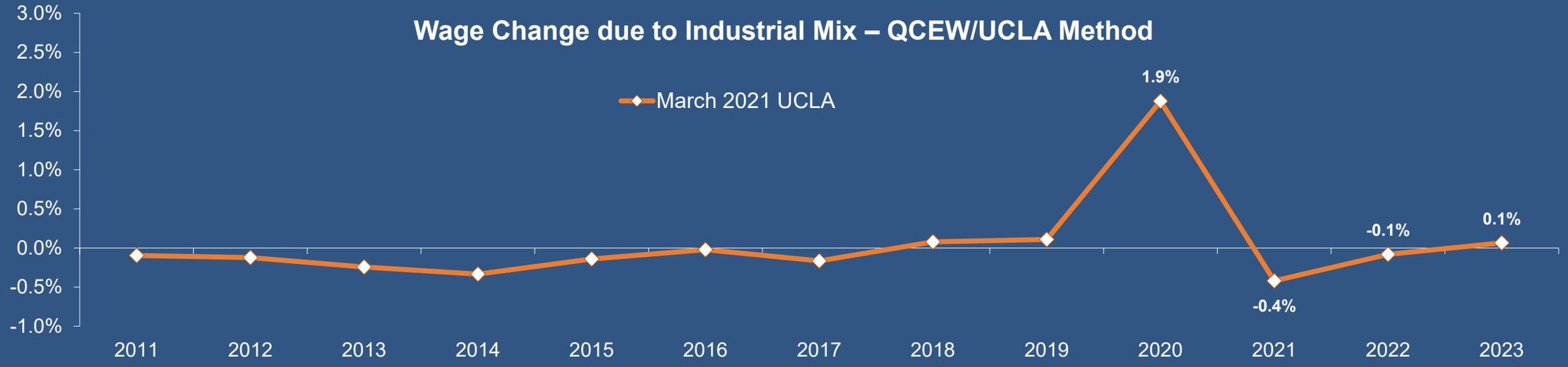
- This estimate is a reasonableness check of the QCEW/UCLA Method
  - This data set excludes agricultural and government employees
  - Forecasts are not available



Source: Bureau of Labor Statistics Occupational Employment Statistics

Industrial Mix Impact on Average Wage – QCEW/UCLA Method

- This estimate uses observed industrial wage relativities from QCEW data through 2019
- These relativities are extended into the future with industrial mix determined by UCLA forecasts



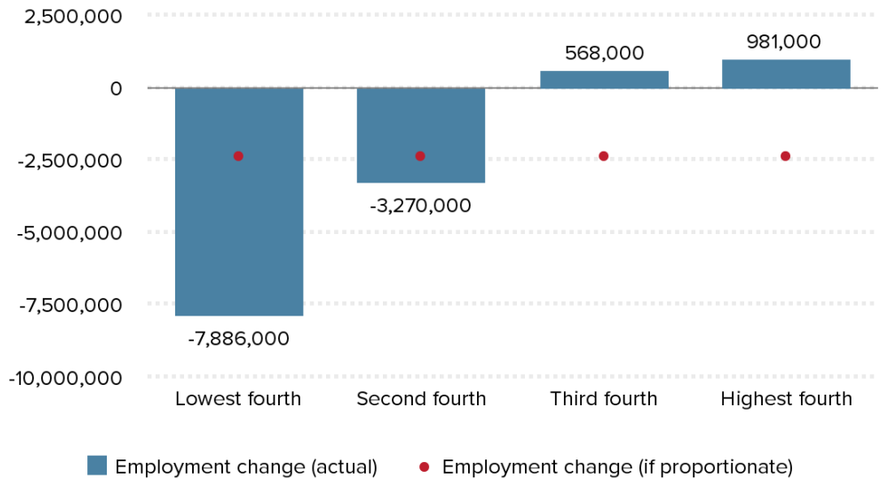
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages and UCLA Anderson Forecasts (March and June 2020)

Impact of Wage Level Distribution

- Employment changes during 2020 were not distributed evenly by wage level

Lowest-wage workers lost nearly 7.9 million jobs, while the highest-wage workers *gained* nearly a million

Employment change from 2019 to 2020, by wage level



Notes: Wages adjusted for inflation using the CPI-U-RS. Employment changes in blue are calculated between 2019 and 2020 in the quartiles set by the 2019 data. Red dots reflect employment changes in 2020 if they were proportionate to the 2019 employment shares. A small amount of noise was added to the wage data when setting wage quartiles to minimize clumping at particular values to ensure equal bin size.

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata.

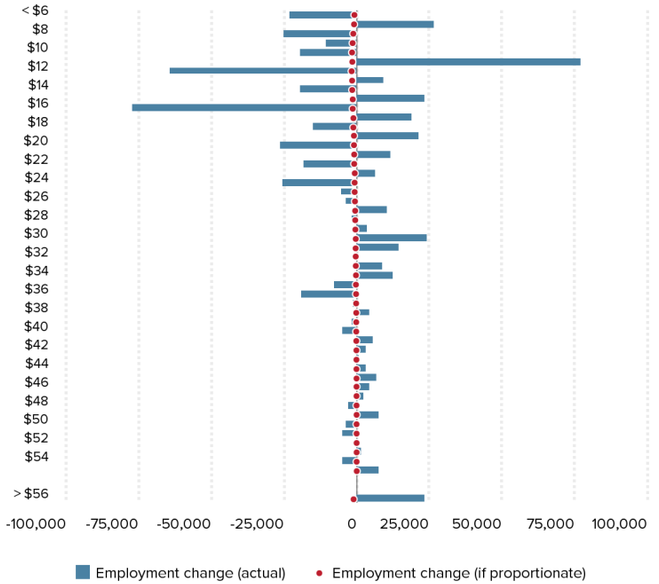
Economic Policy Institute

- These differences were used to compute a potential second adjustment
  - The overall employment distribution by industry was held constant
  - The distribution of employees by wage level within industries was changed to reflect this distribution
  - The impact of the changing wage distribution in 2020 was estimated at +5.9% (beyond the impact of shift in industrial mix)
  - This estimate is based on national data from the EPI's analysis of Current Population Survey data

Comparison With Prior Recessions

Job losses in the early 2000s recession appear unrelated to wage level

Employment change from 2001 to 2002, by wage level



Notes: Wages are adjusted for inflation using the CPI-U-RS. The bars represent how much average employment changed, on a monthly basis, for workers in hourly "wage bands" (i.e., levels) labeled by the midpoint value of the band. For example, the bar at $10 represents the monthly loss in jobs with hourly wages from $7.50 to $12.49 and the bar at $11 represents loss in jobs with hourly wages from $8.50 to $13.49. (The last bar represents jobs with wages $56 an hour or higher). This smoothing of employment into wage bands was used to clarify underlying trends. The dots are provided as benchmarks—they show how many jobs would have been lost at each wage level if jobs had contracted proportionately across the entire wage distribution. If a bar extends to the right of the zero axis, workers at that wage level actually gained jobs. If the bar extends left of the zero axis but does not extend beyond its dot, workers at that wage level lost jobs but fewer than they would have had jobs been shed proportionately to how many jobs were in that bin in 2001. Finally if the bar extends to the left of its dot, workers at that wage level lost jobs at a faster rate than would have occurred if the losses were proportionate.

Source: Authors' analysis of EPI Current Population Survey Extracts, Version 1.0.14 (2021), https://microdata.epi.org.

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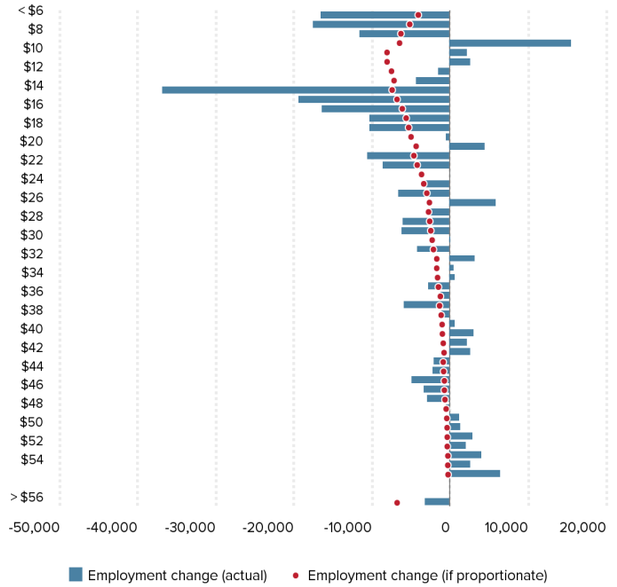
Job losses during the Great Recession are weakly related to wage level

Employment change from 2007 to 2010, by wage level



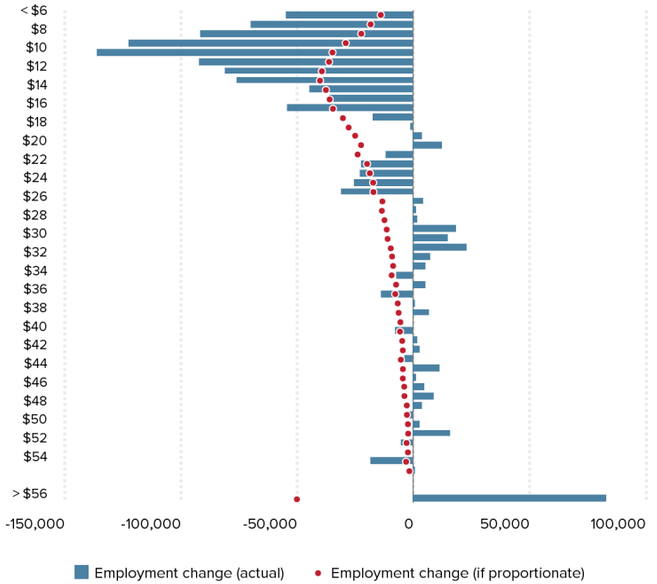
Notes: Wages are adjusted for inflation using the CPI-U-RS. The bars represent how much average employment changed, on a monthly basis, for workers in hourly "wage bands" (i.e., levels) labeled by the midpoint value of the band. For example, the bar at $10 represents the monthly loss in jobs with hourly wages from $7.50 to $12.49 and the bar at $11 represents loss in jobs with hourly wages from $8.50 to $13.49. (The last bar represents jobs with wages $56 an hour or higher.) This smoothing of employment into wage bands was used to clarify underlying trends. The dots are provided as benchmarks—they show how many jobs would have been lost at each wage level if jobs had contracted proportionately across the entire wage distribution. If a bar extends to the right of the zero axis, workers at that wage level actually gained jobs. If the bar extends left of the zero axis but does not extend beyond its dot, workers at that wage level lost jobs but fewer than they would have had jobs been shed proportionately to how many jobs were in that bin in 2007. Finally if the bar extends to the left of its dot, workers at that wage level lost jobs at a faster rate than would have occurred if the losses were proportionate.

Source: Authors' analysis of EPI Current Population Survey Extracts, Version 1.0.14 (2021), https://microdata.epi.org.

Economic Policy Institute

Lower-wage workers experienced job losses in far excess of the proportionate shares

Employment change from 2019 to 2020, by wage level



Notes: Wages are adjusted for inflation using the CPI-U-RS. The bars represent how much average employment changed, on a monthly basis, for workers in hourly "wage bands" (i.e., levels) labeled by the midpoint value of the band. For example, the bar at $10 represents the monthly loss in jobs with hourly wages from $7.50 to $12.49 and the bar at $11 represents the monthly loss in jobs with hourly wages from $8.50 to $13.49. (The last bar represents jobs with wages $56 an hour or higher.) This smoothing of employment into wage bands was used to clarify underlying trends. The dots are provided as benchmarks—they show how many jobs would have been lost at each wage level if jobs had contracted proportionately across the entire wage distribution. If a bar extends to the right of the zero axis, workers at that wage level actually gained jobs. If the bar extends left of the zero axis but does not extend beyond its dot, workers at that wage level lost jobs but fewer than they would have had jobs been shed proportionately to how many jobs were in that bin in 2019. Finally if the bar extends to the left of its dot, workers at that wage level lost jobs at a faster rate than would have occurred if the losses were proportionate.

Source: Authors' analysis of EPI Current Population Survey Extracts, Version 1.0.14 (2021), https://microdata.epi.org.

Economic Policy Institute

Potential Additional Wage Level Adjustment Calculation

	(A) Unadjusted Employment Distribution	(B) Unadjusted Average Wage	(C) Wage Level Adjusted Distribution	(D) Wage Level Adjusted Wage
Agriculture & Mining	2.4%	$33,368	2.3%	$35,807
Utilities & Construction	6.9%	$61,583	7.1%	$64,508
Manufacturing	8.7%	$77,297	9.0%	$81,152
Wholesale	2.7%	$66,341	2.7%	$69,967
Retail	10.5%	$40,517	10.0%	$44,364
Transportation & Warehousing	4.6%	$48,418	4.6%	$51,627
Information	2.9%	$107,857	3.1%	$112,641
Finance & Insurance	3.7%	$99,676	3.9%	$103,408
Real Estate	2.0%	$75,979	2.0%	$80,912
Professional Services	9.0%	$106,528	9.5%	$110,432
Administrative	4.4%	$41,408	4.2%	$44,592
Education	9.3%	$50,055	9.3%	$53,810
Health	12.6%	$63,289	12.7%	$67,423
Arts & Entertainment	2.8%	$41,517	2.7%	$45,911
Hospitality	8.4%	$25,989	7.7%	$28,367
Other Services	4.3%	$38,019	4.1%	$41,241
Public Administration	4.8%	$66,463	5.0%	$69,427
Total	100.0%	$60,643	100.0%	$65,129

- Total change = ∑(C x D)/∑(A x B) – 1 = 65,129/60,643 -1 = 7.4%
- Change with constant industry mix = ∑(A x D)/∑(A x B) -1 = 64,229/60,643 – 1 = 5.9%
- Implied industry mix impact = 1.074/1.059 – 1 = 1.4%

Average Wage Change Selections

- **1/1/2021 Filing**
  - 2020 change was adjusted for the difference between average and median wage changes during prior recessions
  - Direct adjustment for industry mix was unavailable due to inconsistencies between the timing of available forecasts

	2020	2021	2022	2023
March 2020 UCLA	1.5%	2.7%	4.4%	2.6%
April 2020 DoF	1.4%	2.6%	3.1%	3.4%
Average UCLA/DoF	1.5%	2.6%	3.8%	3.0%
Median vs Avg.	-0.8%			
Selection	0.7%	2.6%	3.8%	3.0%

Potential Average Wage Change Projections

- **Current Forecasts**

	2020	2021	2022	2023
March 2021 UCLA	9.6%	0.2%	1.7%	3.2%
November 2020 DoF	6.2%	1.7%	2.0%	2.5%
Average UCLA/DoF	7.9%	0.9%	1.8%	2.8%
Industry Mix Adjustment	-1.9%	0.4%	0.1%	-0.1%
Indication from Average	5.9%	1.3%	1.9%	2.7%
Indication from UCLA	7.5%	0.6%	1.8%	3.1%
Potential Wage Level Adjustment*	-5.9%	3.4%	2.2%	0.6%
Both Adjustments from Average	-0.4%	4.8%	4.1%	3.4%
Both Adjustments from UCLA	1.2%	4.0%	4.0%	3.7%

- ***Measured 5.9% wage level impact in 2020 is assumed to fully unwind.**
  - **55% in 2021**
  - **35% in 2022**
  - **15% in 2023**

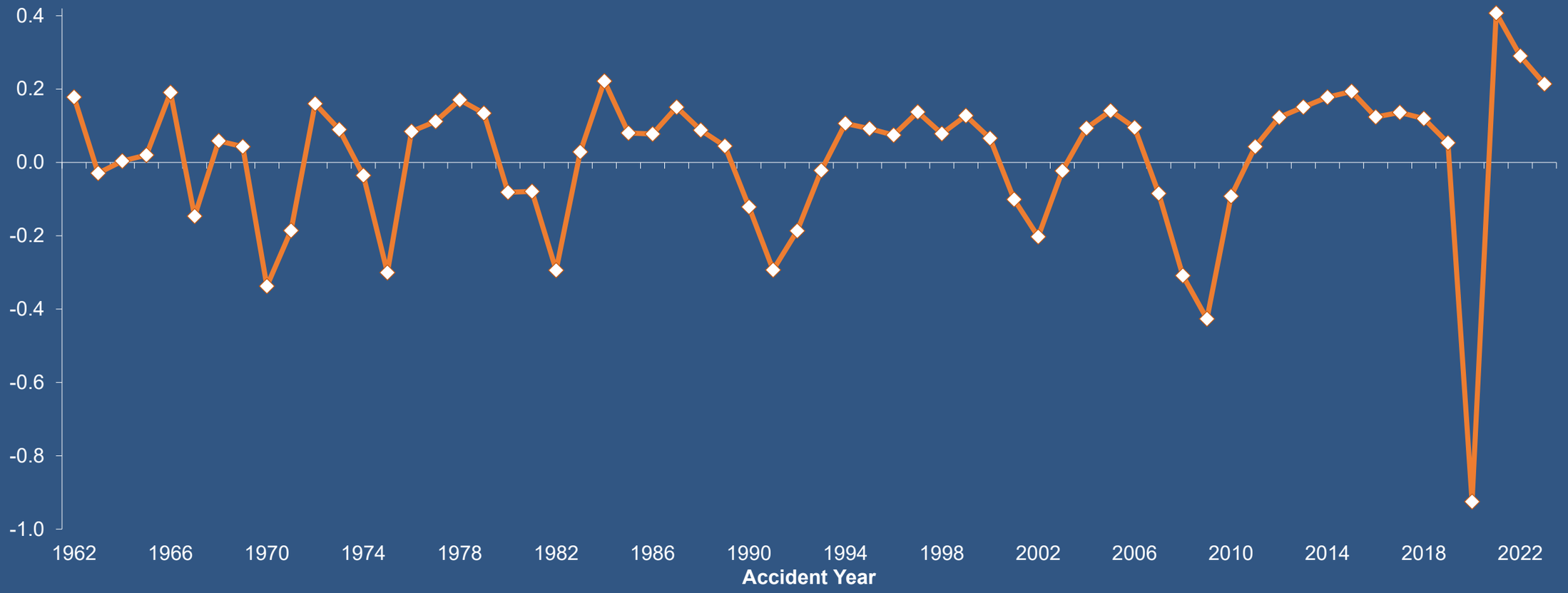
Claim Frequency

- The WCIRB frequency model predicts frequency changes that are adjusted for industrial mix
  - No separate adjustment is required

- Model predicted frequency changes are dependent on changes in economic conditions
  - Economic Variables: directly measure forecast economic changes
  - Cumulative Injury Index: has shown correlation with the economy during prior recessions

- The 2020 change in the economic variables is by far the largest of the series

Change in Economic Variables



Source: Bureau of Labor Statistics, UCLA Anderson Forecast, and WCIRB Frequency Model

Economic Variable Adjustments

- The WCIRB investigated potential caps of changes in the economic variables for the 1/1/2021 filing
- All caps of the economic variables worsened model fit
- No cap was selected
  - For reference: model fits with tested caps

Cap	0.10	0.15	0.20	0.25	0.30	0.35	0.40	Max Obs 0.4266
# capped (out of 58)	30	17	8	6	3	1	1	0
R-Squared	0.527	0.538	0.550	0.559	0.565	0.565	0.566	0.566
Reduction	-6.8%	-4.9%	-2.9%	-1.1%	-0.2%	-0.1%	0.0%	0.0%
p-value of Econ Vars	**0.131**	**0.079**	0.046	0.030	0.023	0.023	0.022	0.022

Cumulative Injury Index

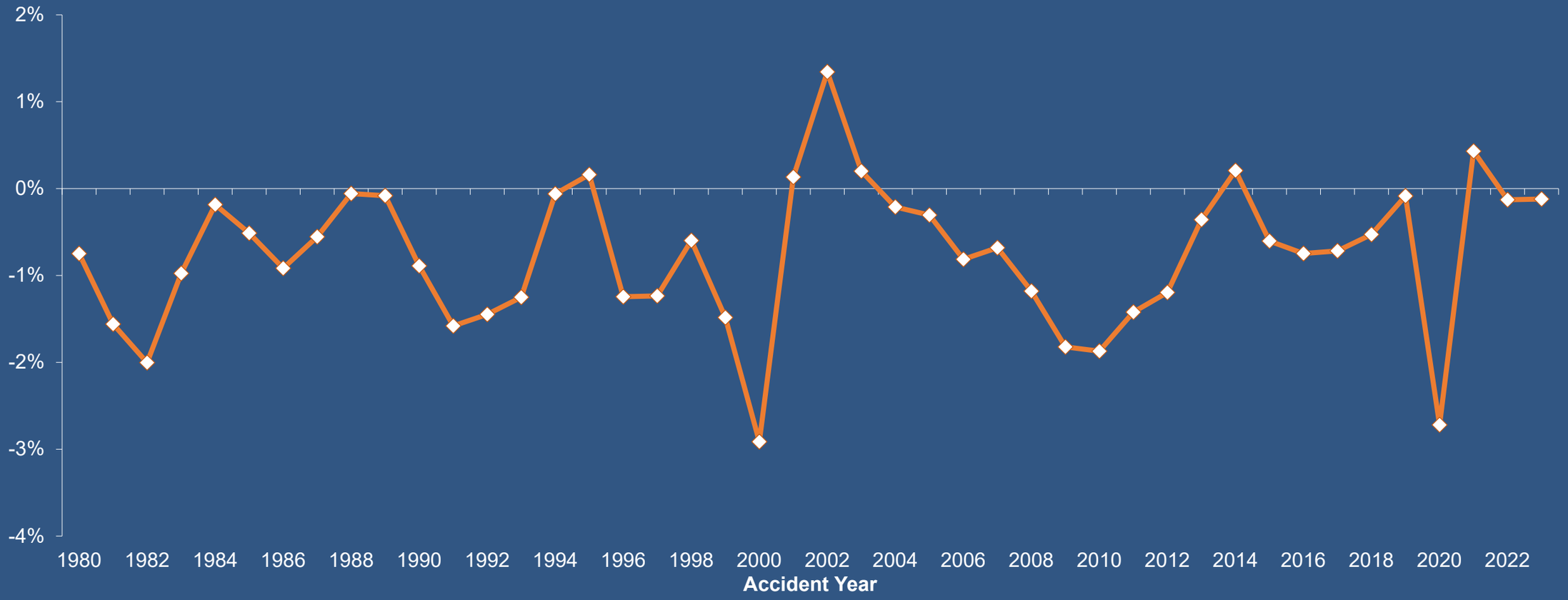
- Changes in the cumulative injury index are the most predictive element of the model
- No change in the cumulative injury index is normally assumed in the model
  - Past investigations of proxies and time series models were unsuccessful
  - Modeling will be revisited using transactional indemnity data
- The cumulative injury index increased significantly during previous recessions
- For the 1/1/2021 filing, an average of the latest two recession changes in the index were selected for projections
  - The resulting projections are shown below

AY	Assumed Change in Cumulative Injury Index	
	None	Two Recession Average
2020	0.000	0.109
2021	0.000	-0.004
2022	0.000	0.000
2023	0.000	0.000

Frequency Change	
None	Two Recession Average
-11.4%	-6.8%
2.4%	2.3%
1.2%	1.2%
0.3%	0.3%

- The 2020 change estimate is now available using aggregate data
- Given the limited impact on the 2021 projection and a lack of evidence of a large change in cumulative injury claims manifesting, staff does not recommend making this adjustment in the 9/1/21 Filing

Change in Frequency Due to Industrial Mix



Source: UCLA Anderson Forecast and WCIRB Frequency Model

Claim Severity

- WCIRB has developed estimates of changes in claim frequency due to industrial mix
- Estimates are based on USR data, where available
- For future years, historic industry severity relativities are used and count distributions are adjusted using forecasts of employment changes
    - This method implicitly assumes that industry frequency and severity relativities will continue

- These adjustments would be applied to data used to select trends

Change in Severity Due to Industrial Mix

Source: UCLA Anderson Forecast and USR Data

02

Pandemic Impact on 2020 Development

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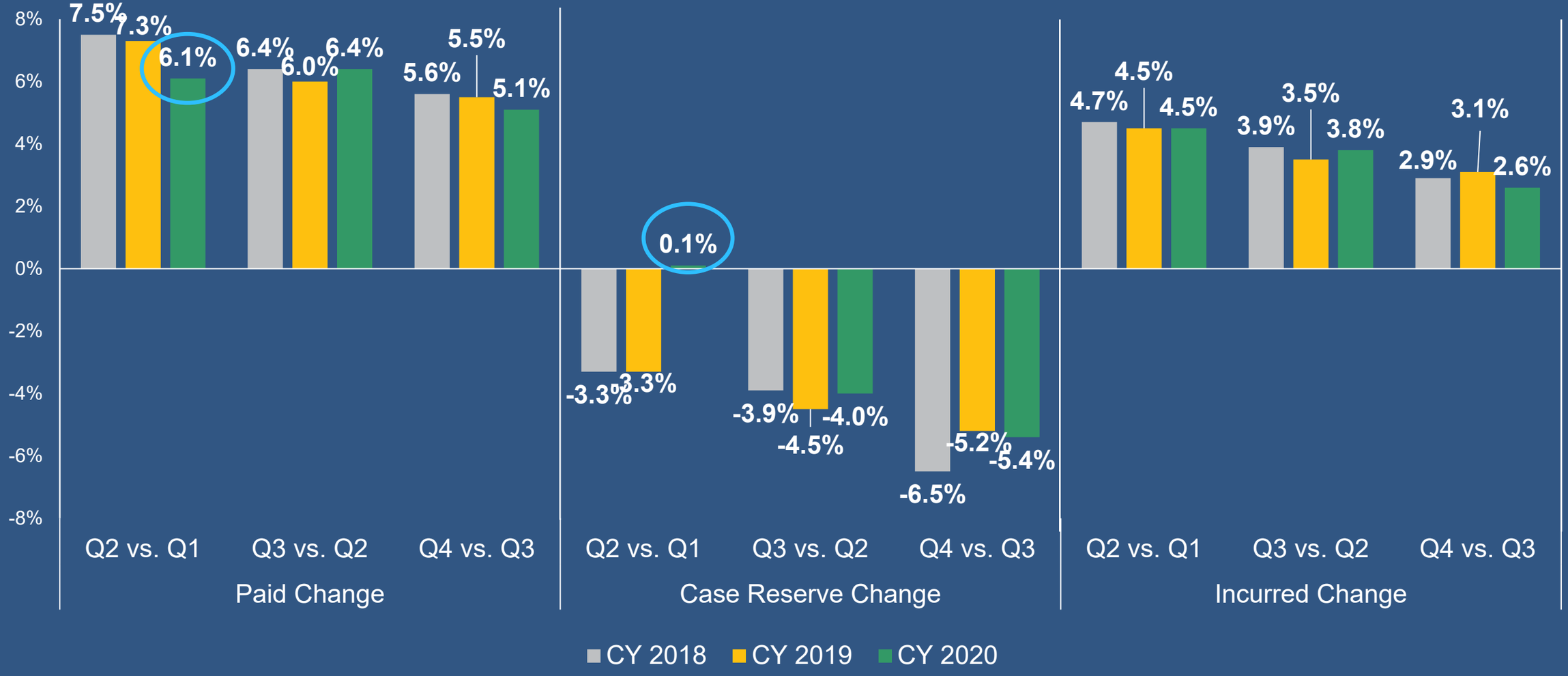
Loss Development in 2020

- First quarter 2020 development comparable to prior quarters
- Second quarter 2020 development impacted by slower claim activity during pandemic
  - Decrease in paid development
  - Increase in case reserves
  - Slowdown in claim settlement rates for AYs 2019 and prior
- Third quarter 2020 development showed somewhat of a more “typical” pattern
  - Claim settlement rates continued to emerge at lower levels
- Fourth quarter 2020 development similar to third quarter with more “typical” pattern

Quarterly Indemnity Change – 2nd through 6th Least Mature AYs (Exhibit 1.1)



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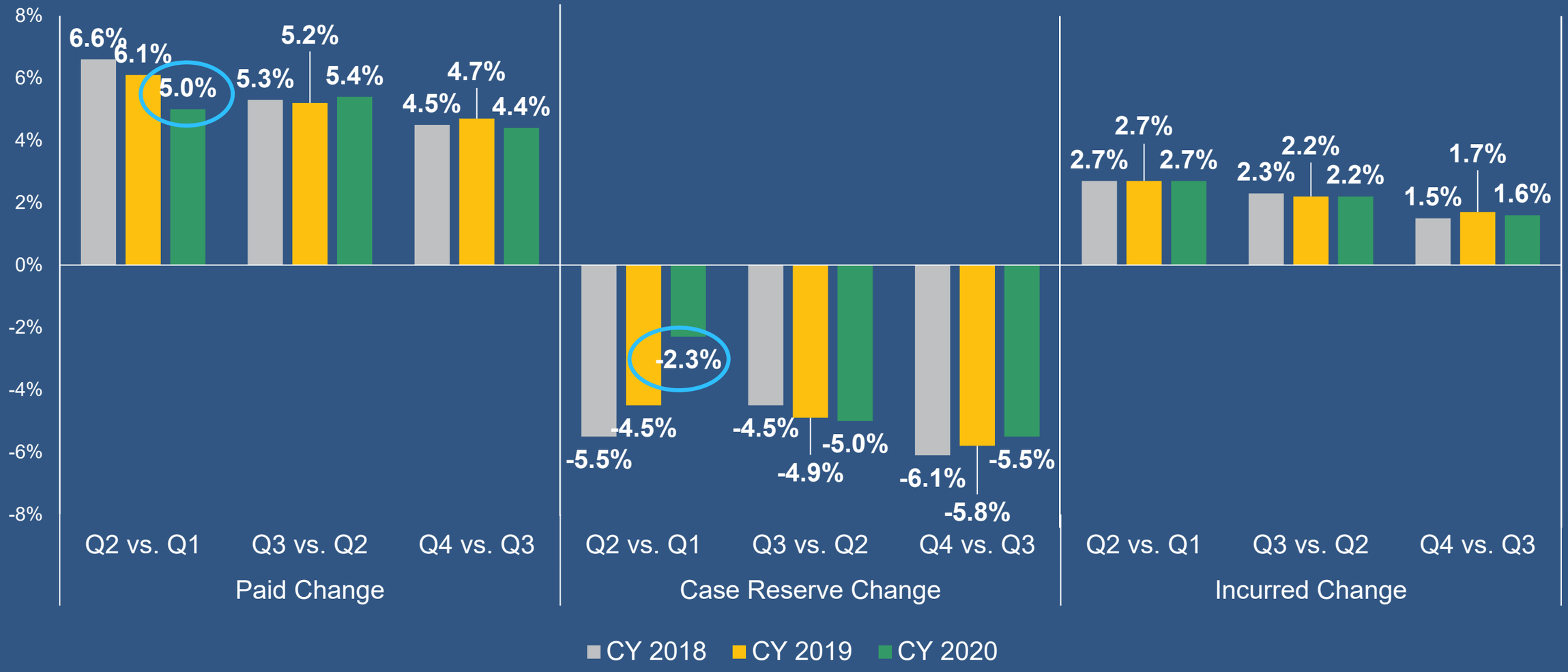
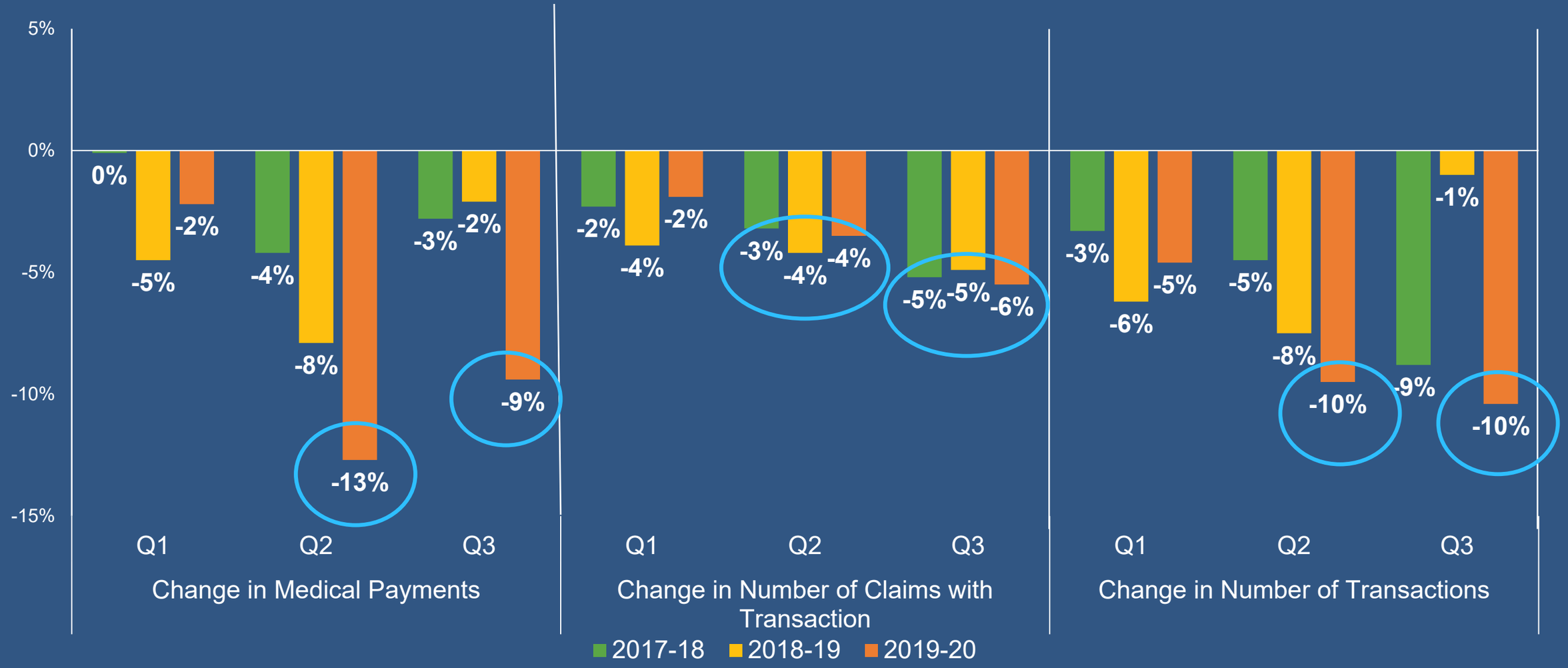
Source: WCIRB aggregate financial data

Quarterly Medical Change – 2nd through 6th Least Mature AYs (Exhibit 1.2)



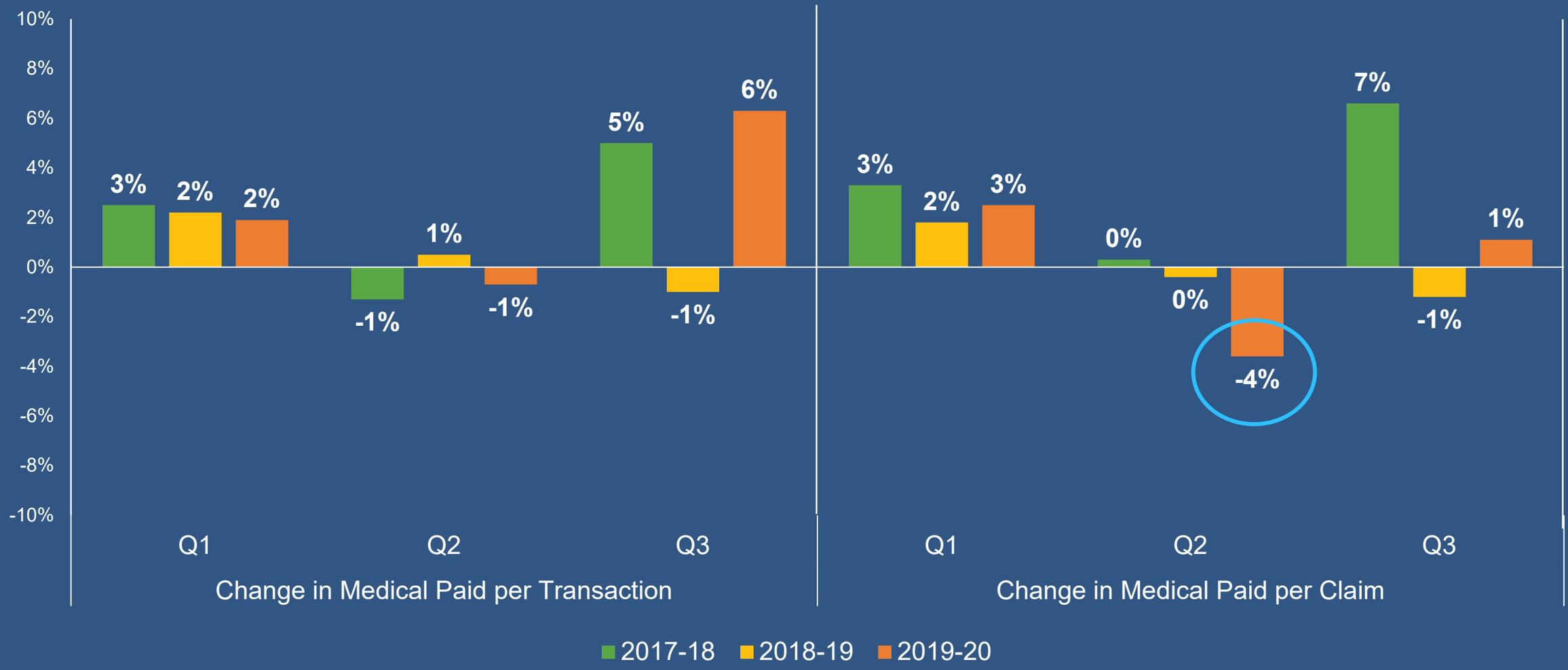
Source: WCIRB aggregate financial data

Quarterly Medical Payments – Change from Same Quarter of Prior Year – Excluding Most Recent Accident Year (Exhibit 4.1)



Source: WCIRB medical transaction data

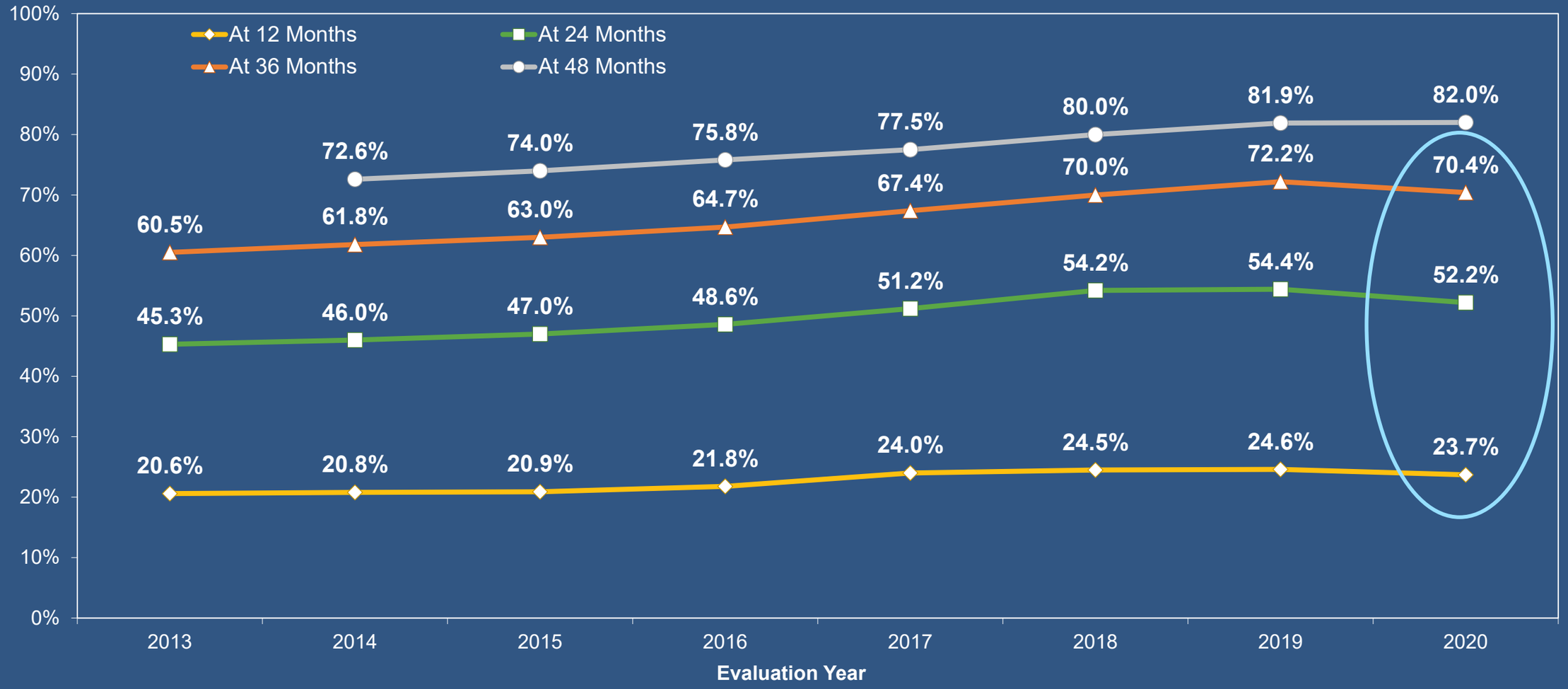
Quarterly Medical Payments – Change from Same Quarter of Prior Year – Excluding Most Recent Accident Year (Exhibit 4.2)



Source: WCIRB medical transaction data

Estimated Ultimate Indemnity Claim Settlement Ratios (Exhibit 7)

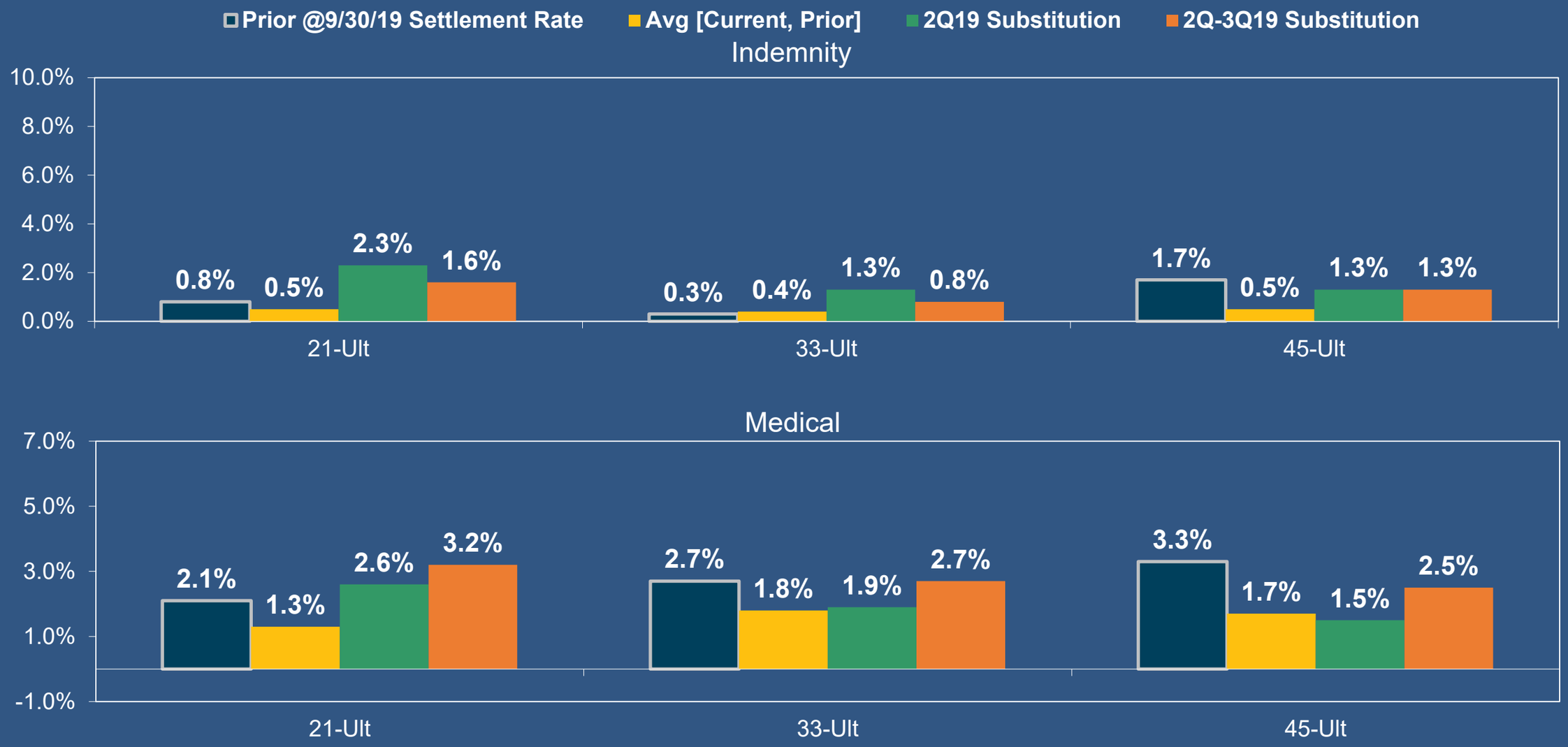
As of December 31, 2020



Source: WCIRB aggregate financial data and projections

Impact Compared to Current CDF – After Reflecting Claim Settlement Adjustments (Exhibit 10.3)

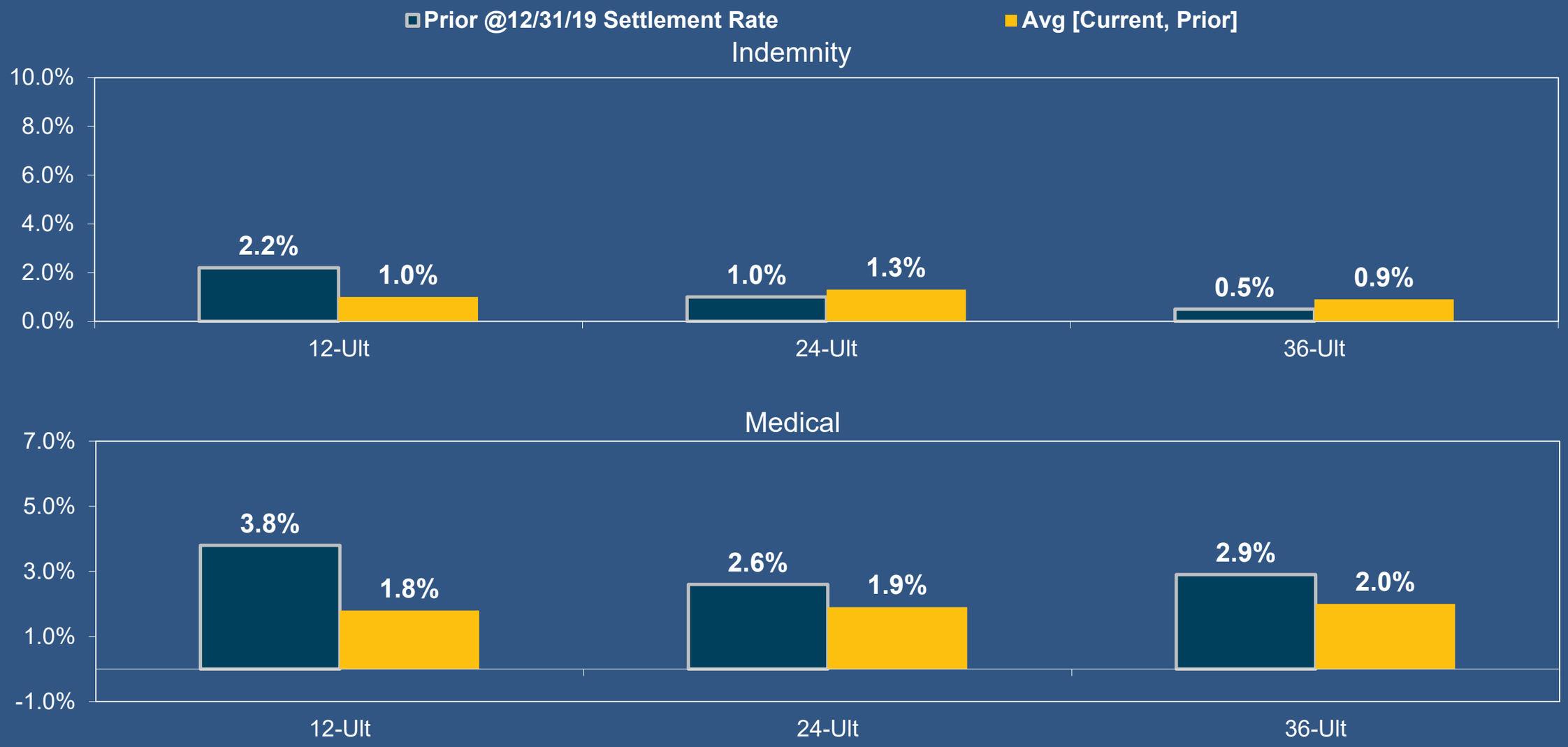
As of September 30, 2020



Note: % Impact = Adjusted LDF / Current LDF – 100%
Source: WCIRB aggregate financial data

Impact Compared to Current CDF – After Reflecting Claim Settlement Adjustments – Updated with 4Q 2020 Experience

As of December 31, 2020



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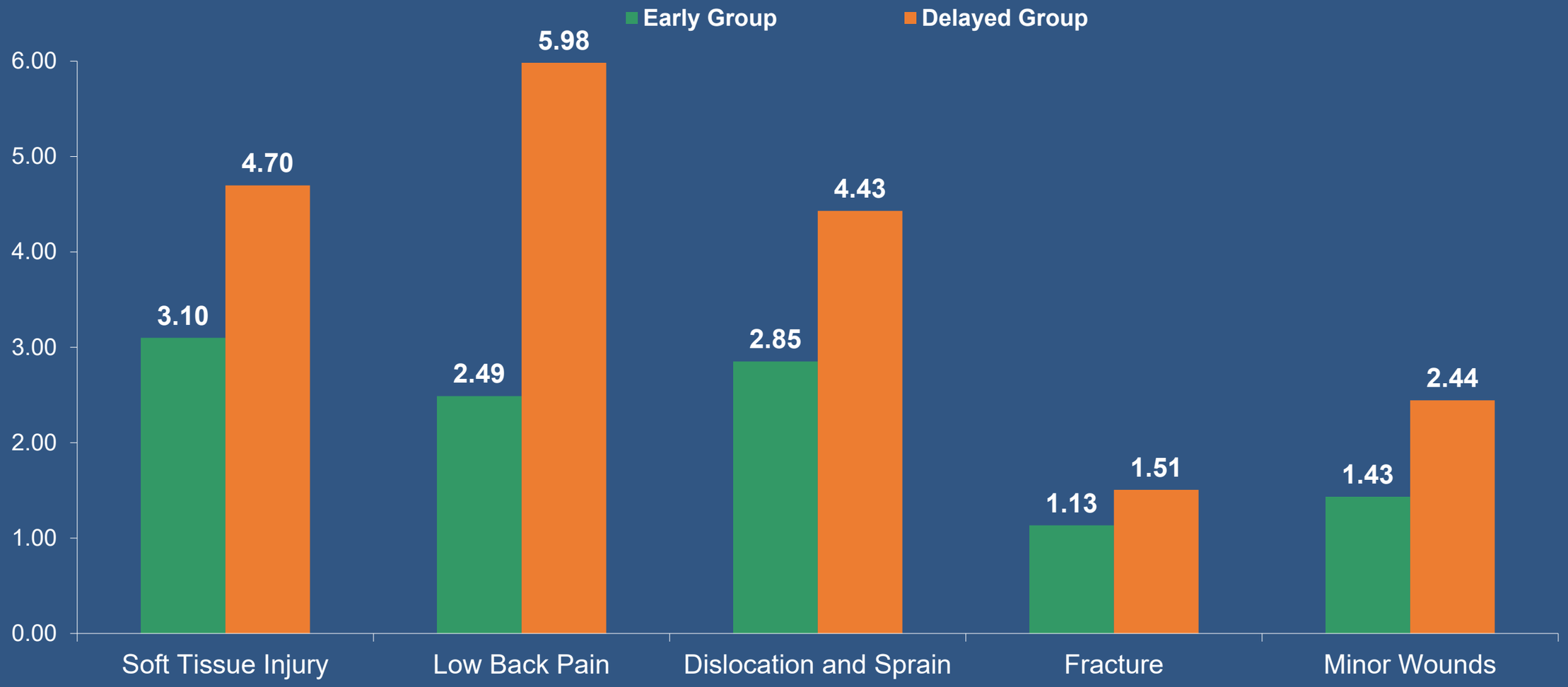
Note: % Impact = Adjusted LDF / Current LDF – 100%
Source: WCIRB aggregate financial data

Impact of Delays in Initial Treatment – Development of Median Paid Indemnity from 18 Months to 54 Months



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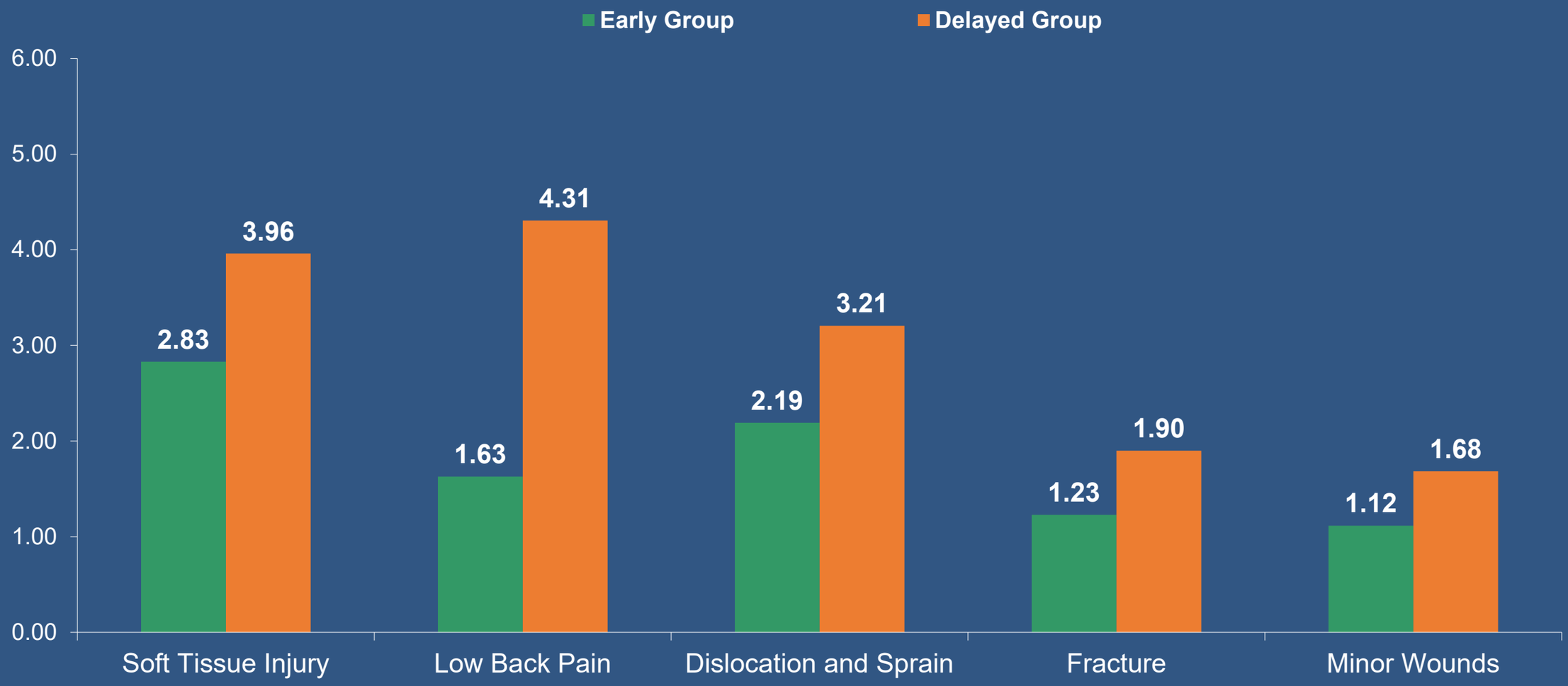
Source: *Cost Impacts of Medical Care Delays in the California Workers' Compensation System*

Impact of Delays in Initial Treatment – Development of Median Paid Medical from 18 Months to 54 Months



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Source: *Cost Impacts of Medical Care Delays in the California Workers' Compensation System*

03

First Quarter 2021 Review of Diagnostics

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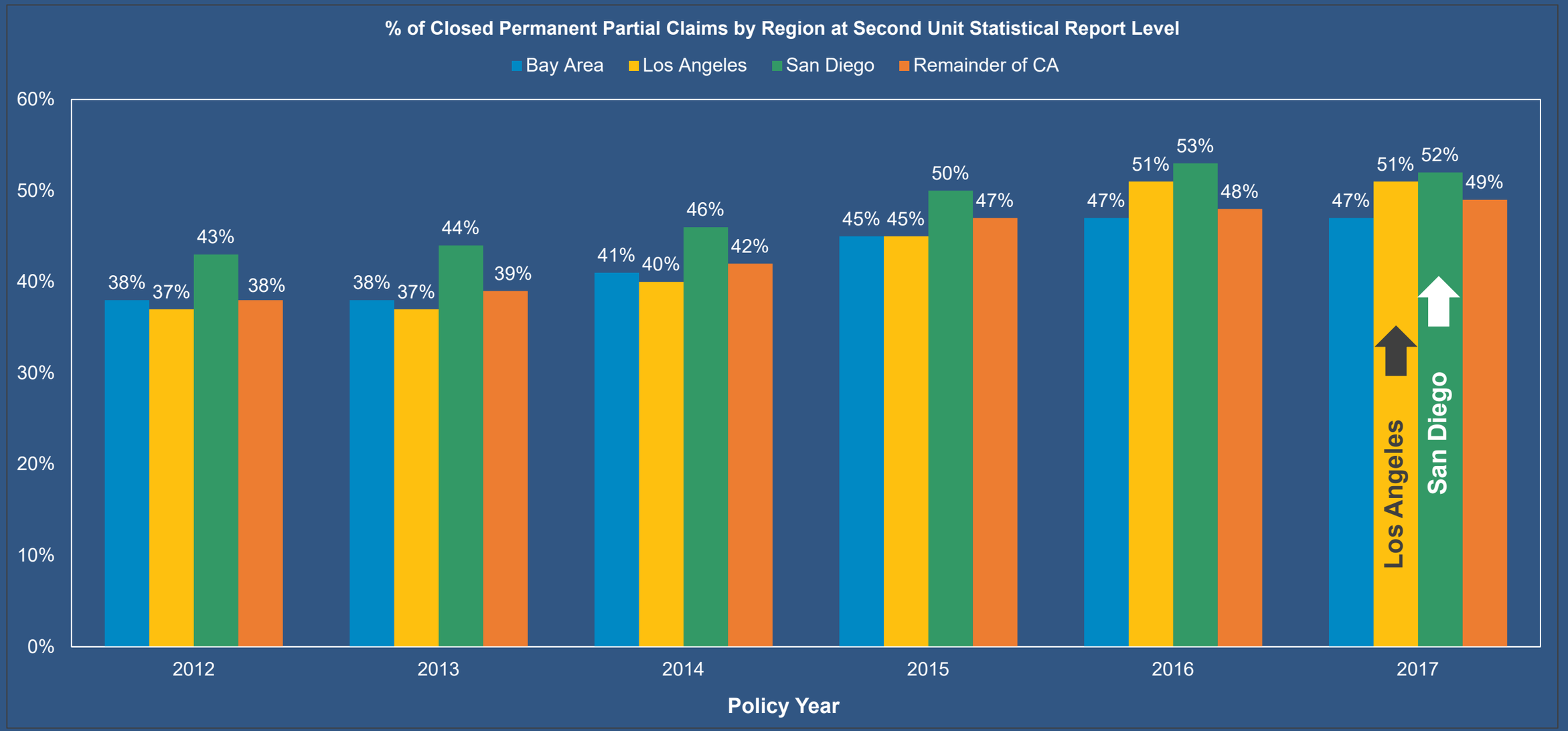
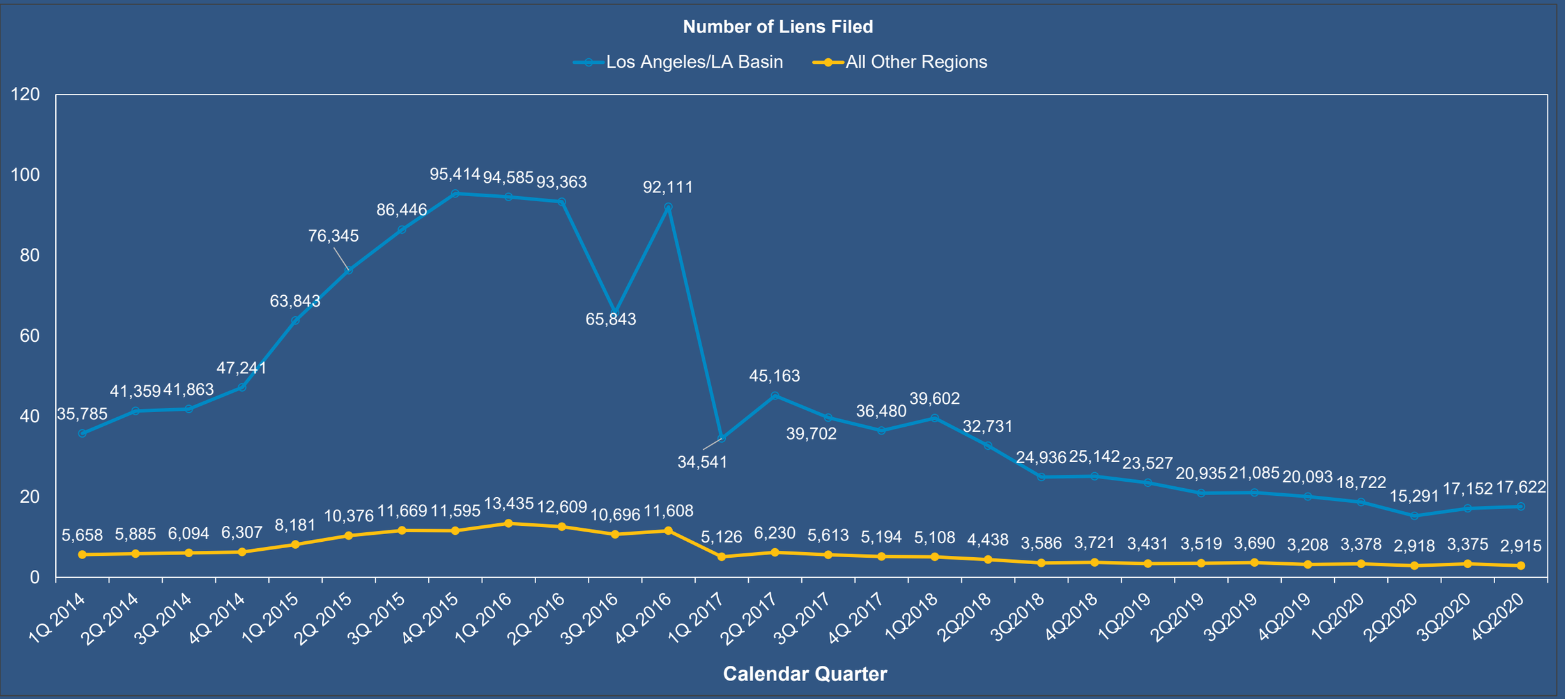
Percentage of PPD Claims Closed by Region (Exhibit M5)



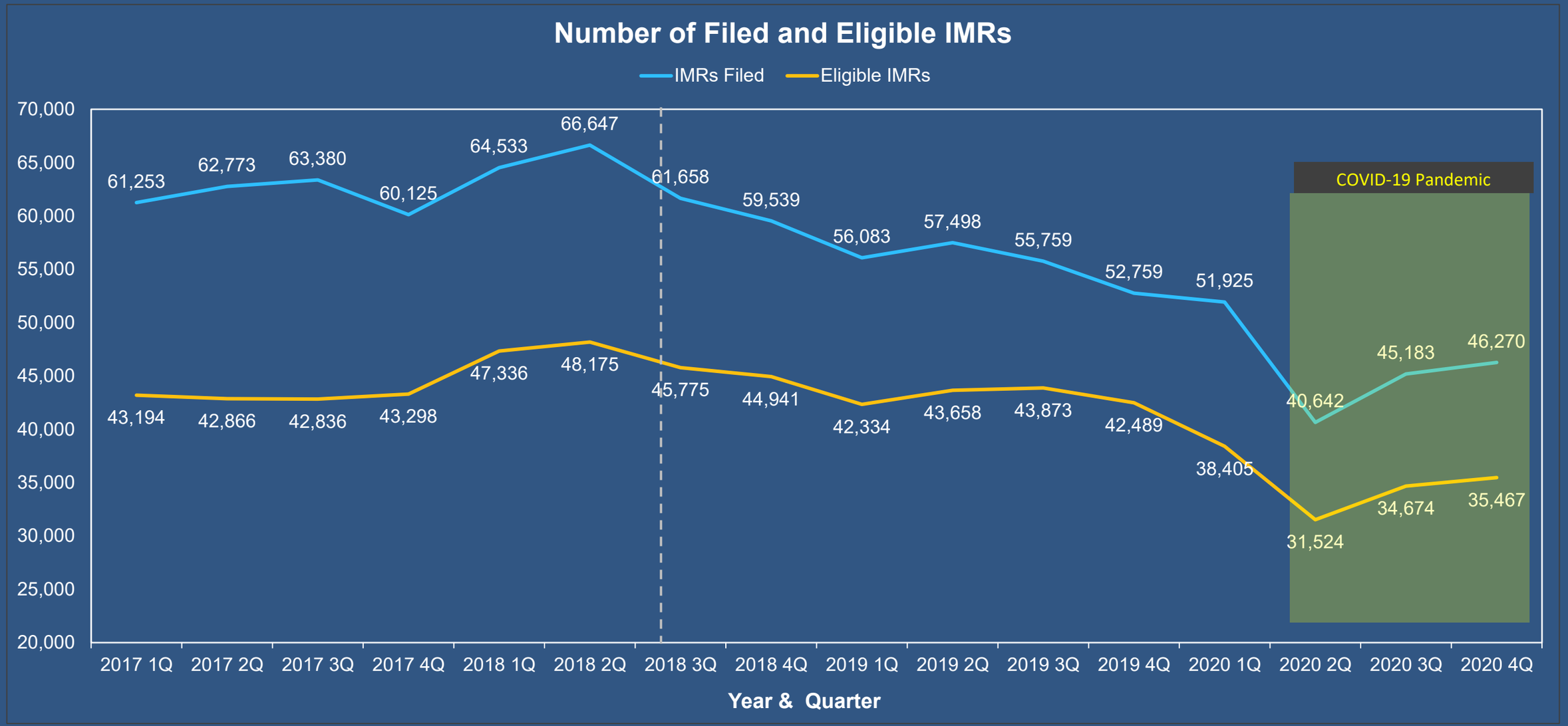
Source: WCIRB unit statistical data

Filed Lien Counts (Exhibit M9.2)



Source: Division of Workers' Compensation

Independent Medical Review (Exhibit M14)



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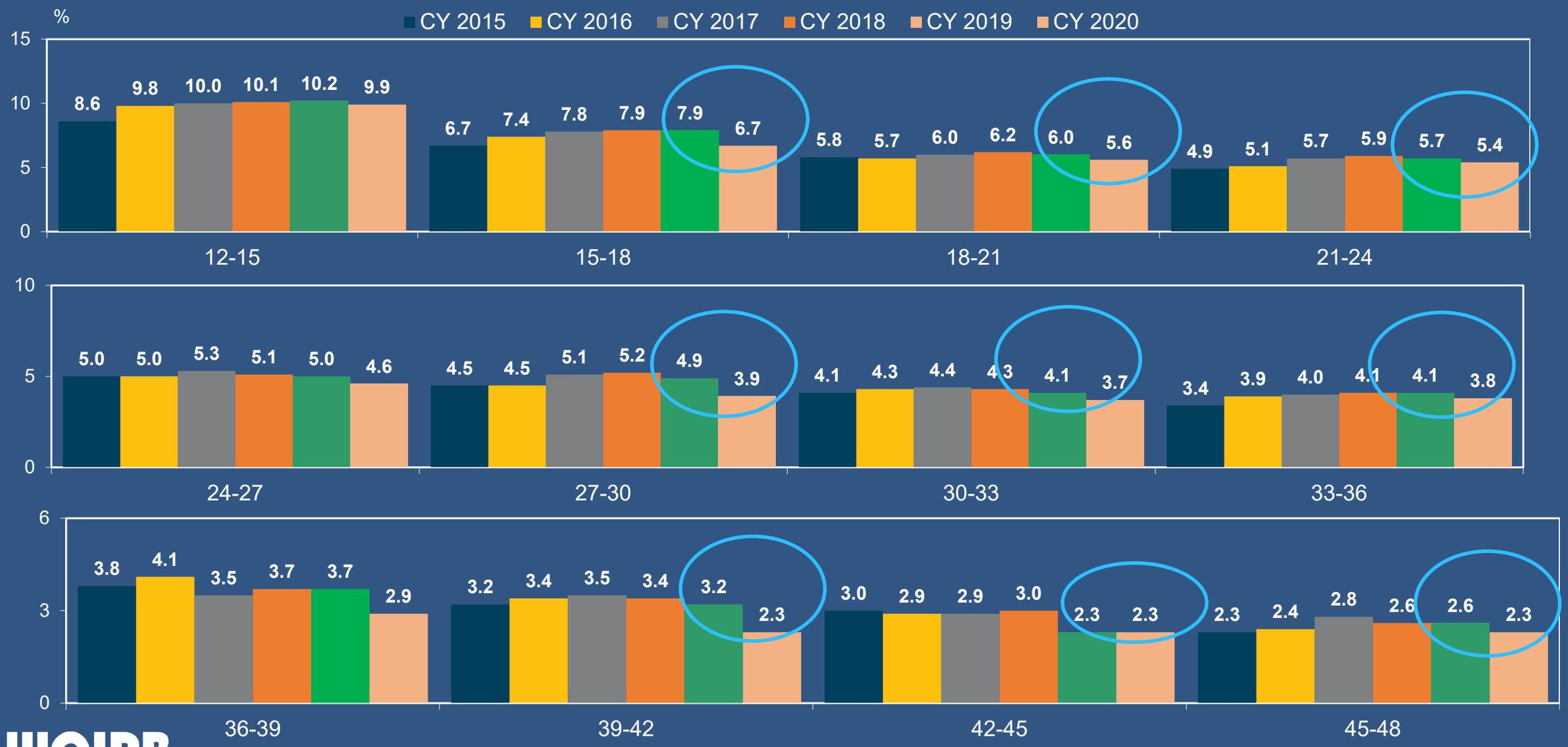
Source: DWC

Quarterly Incremental Change in Claim Settlement Ratios

As of December 31, 2020



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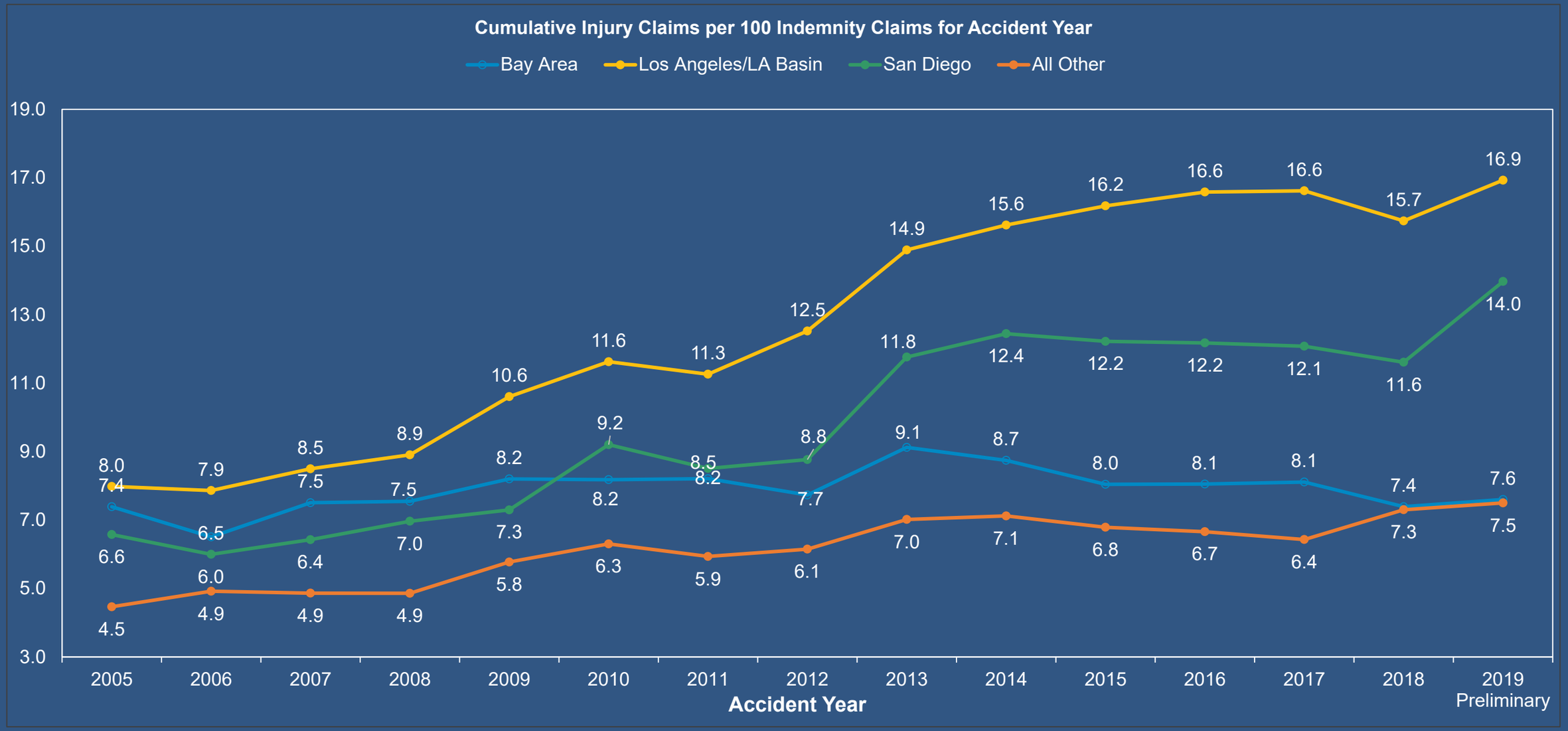
Source: WCIRB aggregate financial data

Claim Count Ratio by Region Based on USR at 1st Report Level (Exhibit C17)



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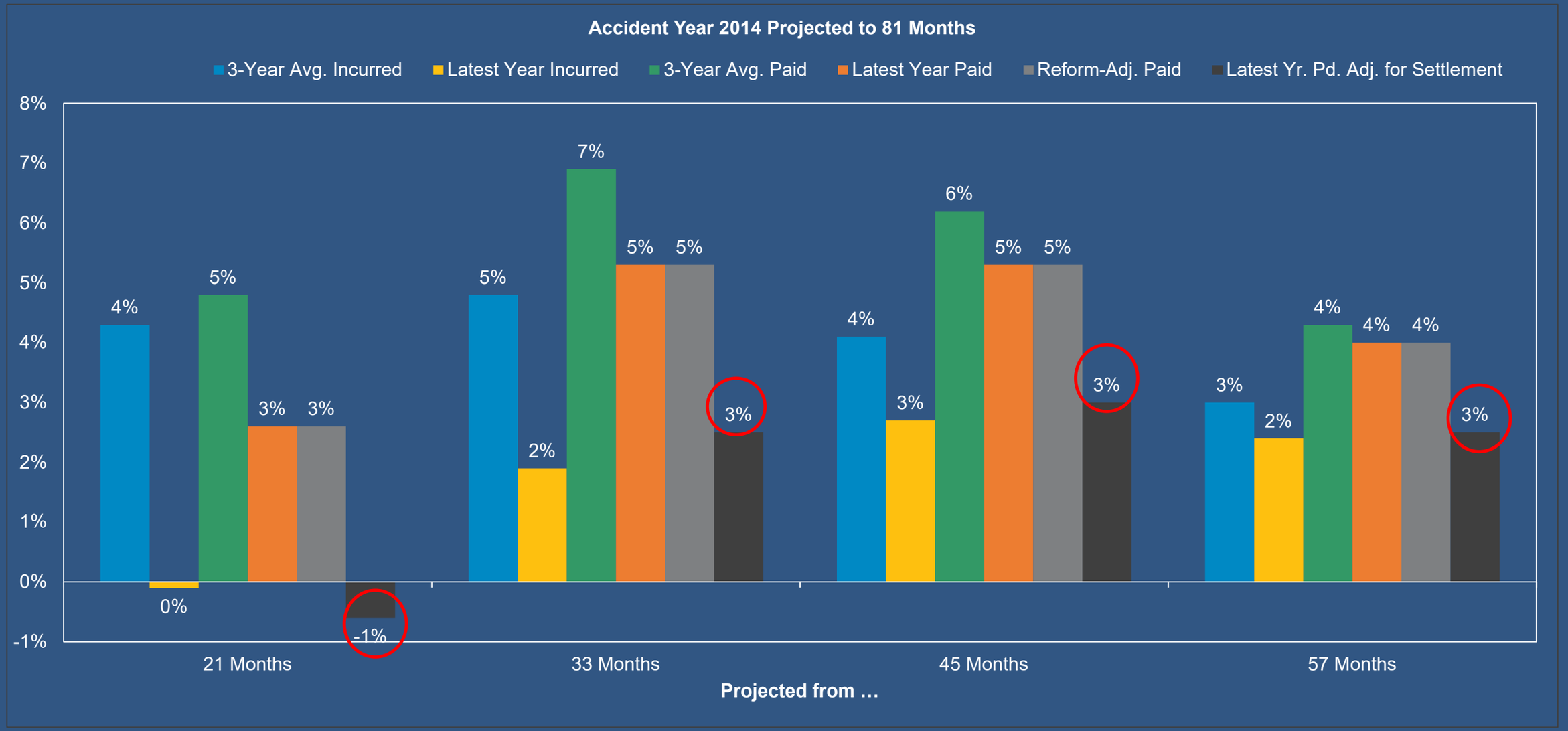
Source: WCIRB unit statistical data

Comparison of Projected Loss Ratios – Indemnity (Exhibit D6.1)



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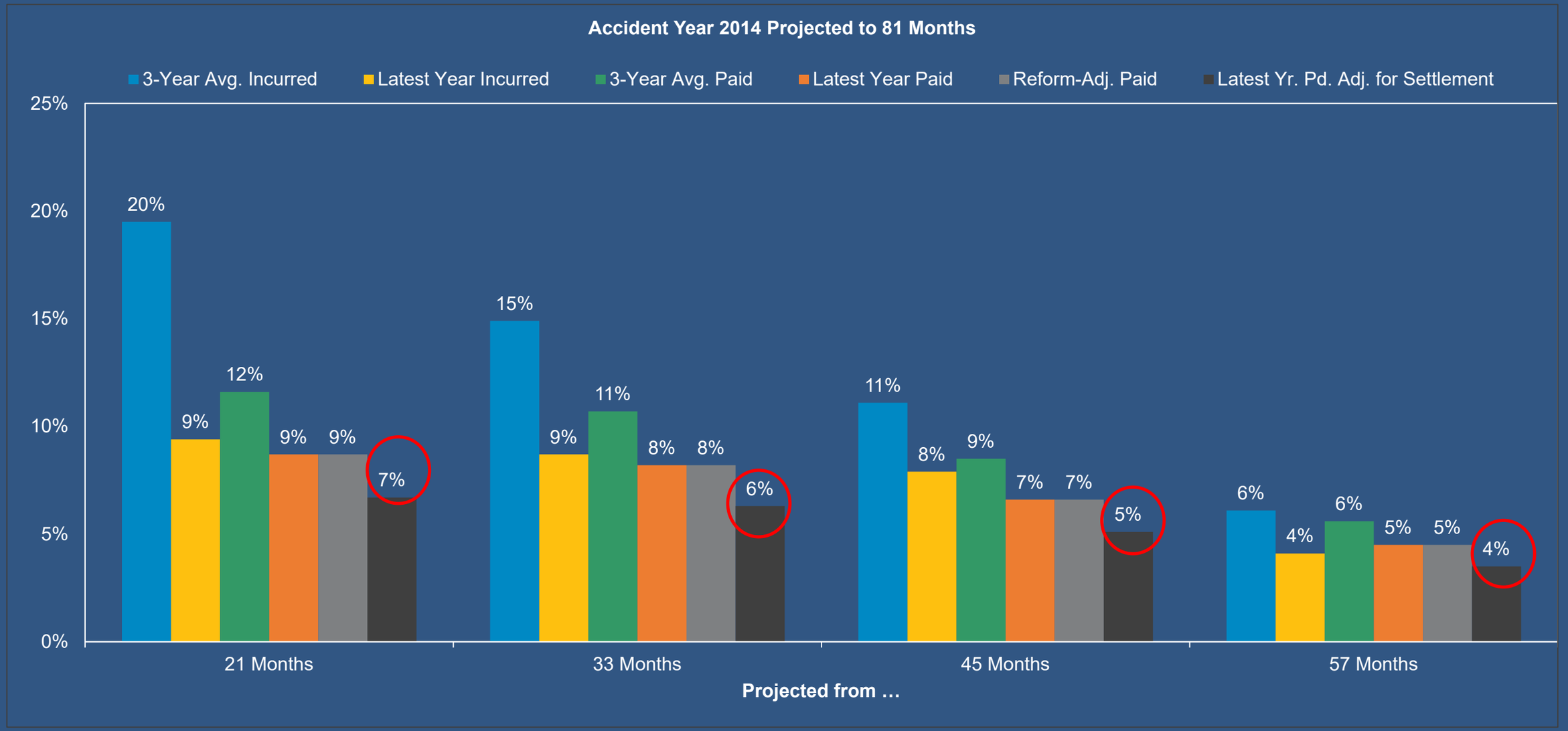
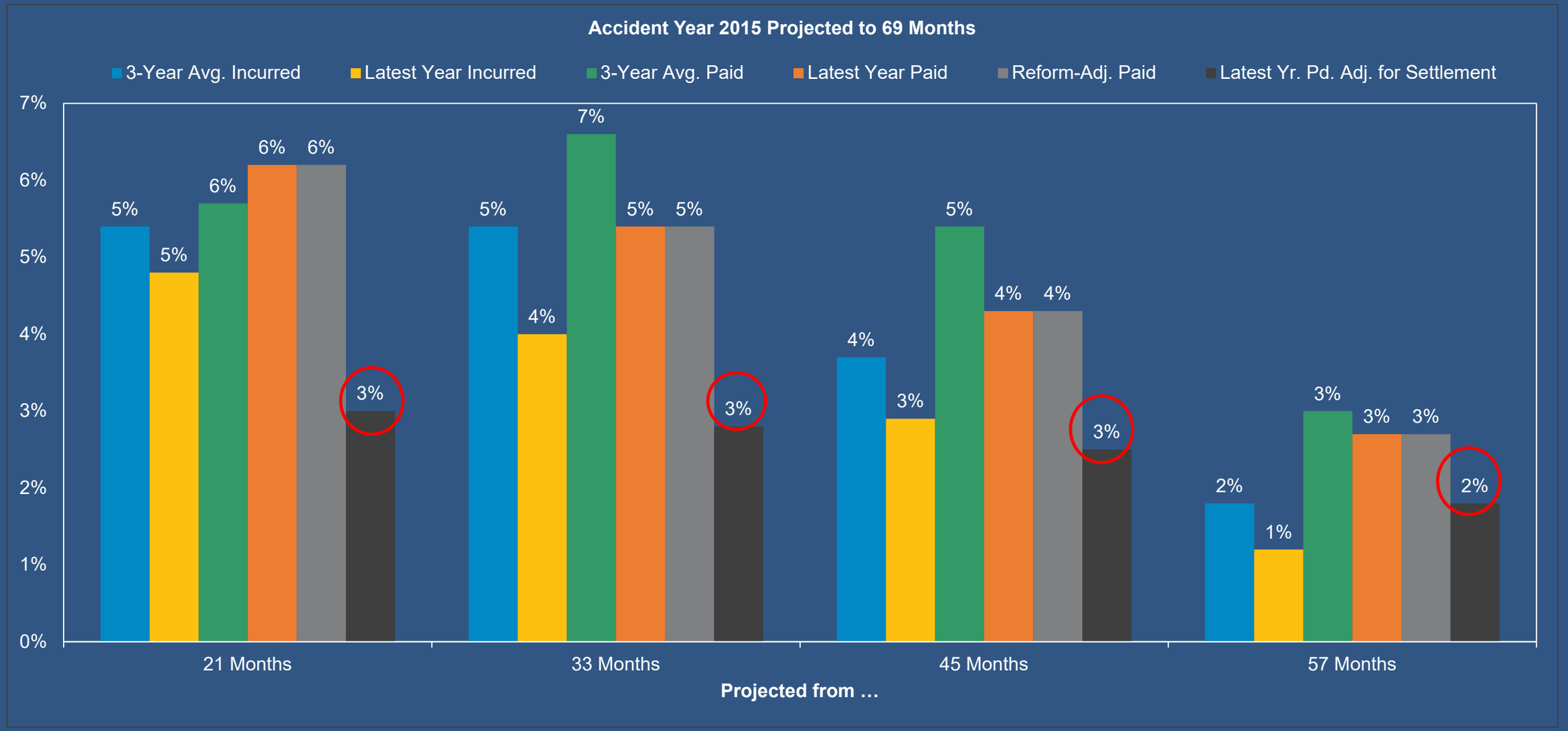
Source: WCIRB aggregate financial data

Comparison of Projected Loss Ratios – Medical (Exhibit D6.1)



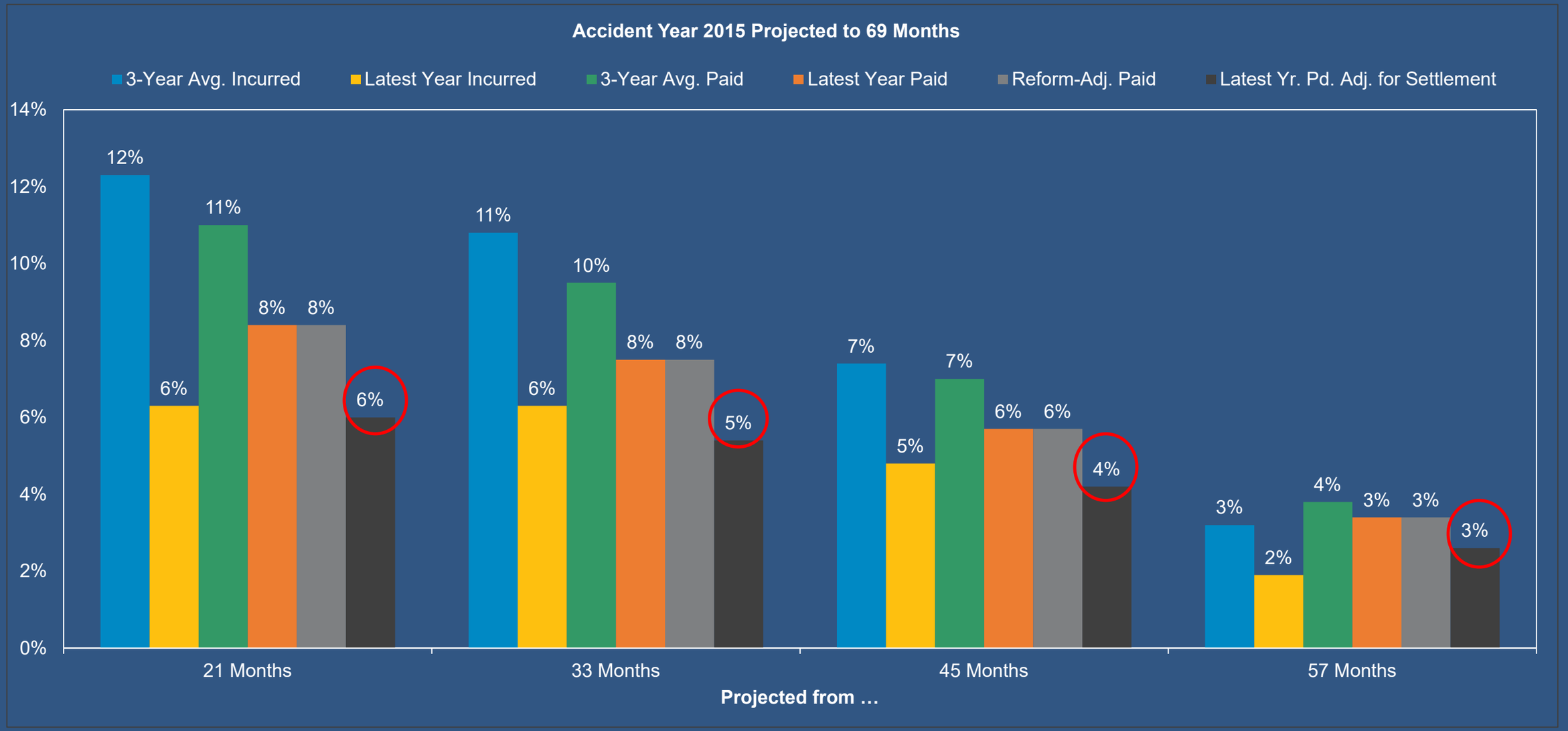
Source: WCIRB aggregate financial data

Comparison of Projected Loss Ratios – Indemnity (Exhibit D6.2)



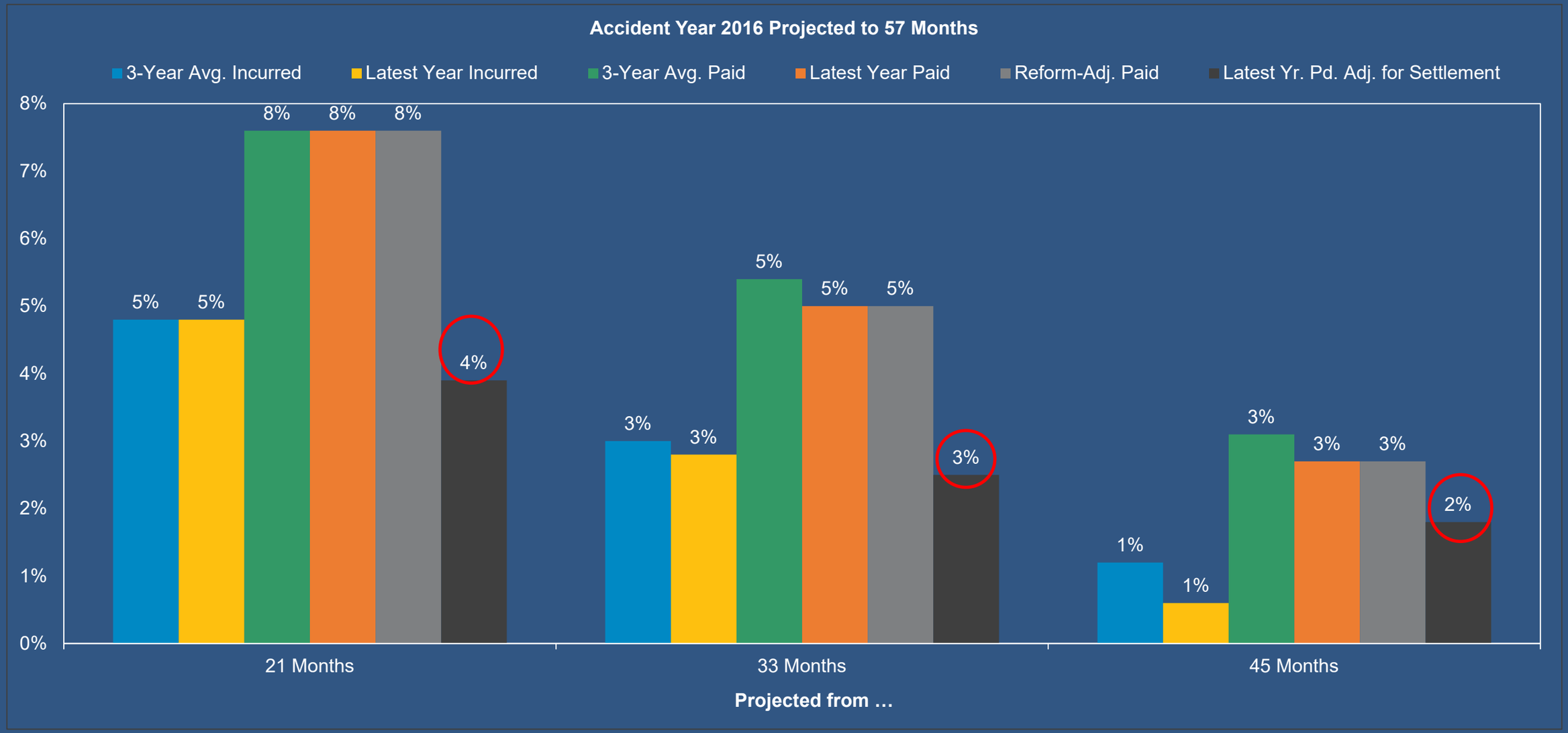
Source: WCIRB aggregate financial data

Comparison of Projected Loss Ratios – Medical (Exhibit D6.2)



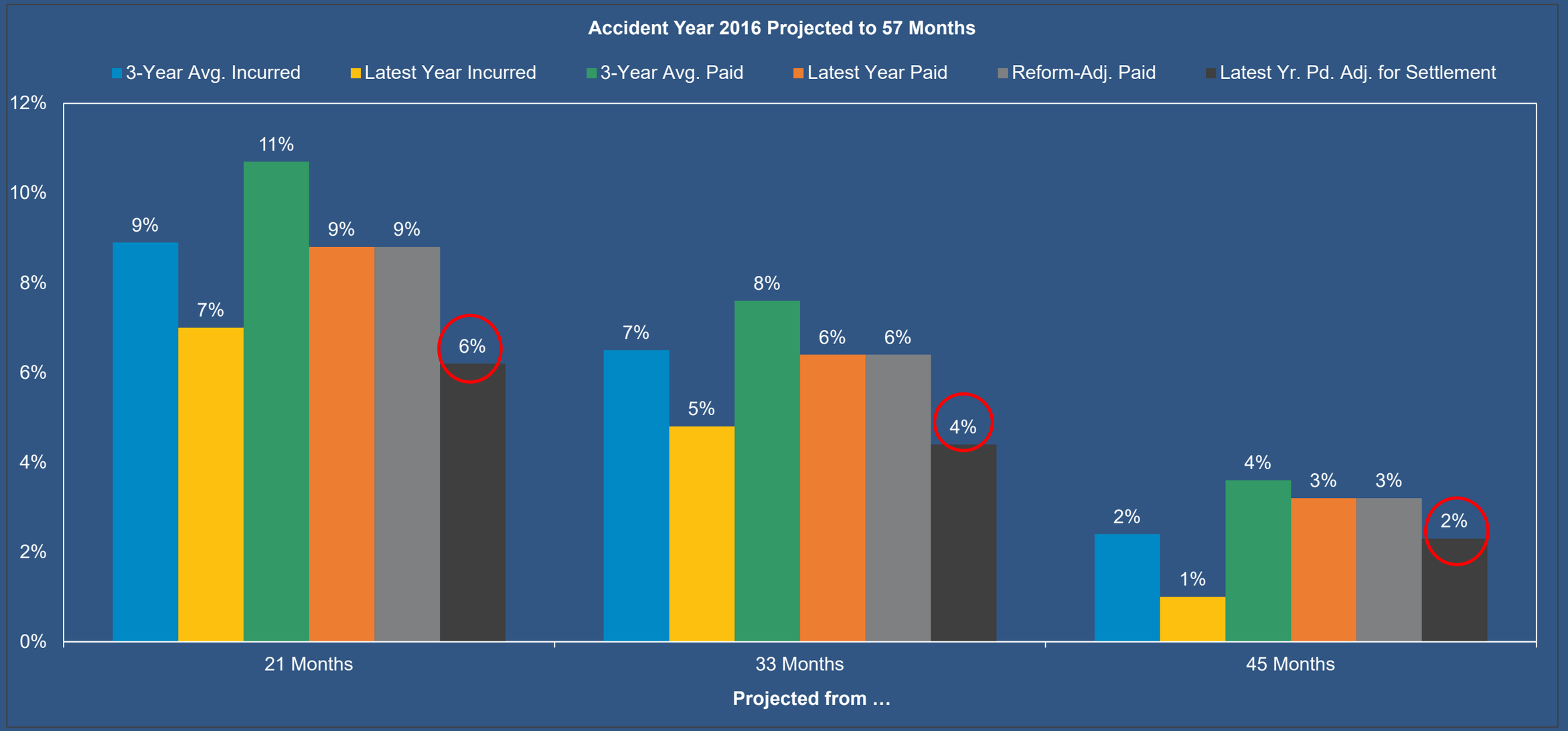
Source: WCIRB aggregate financial data

Comparison of Projected Loss Ratios – Indemnity (Exhibit D6.3)



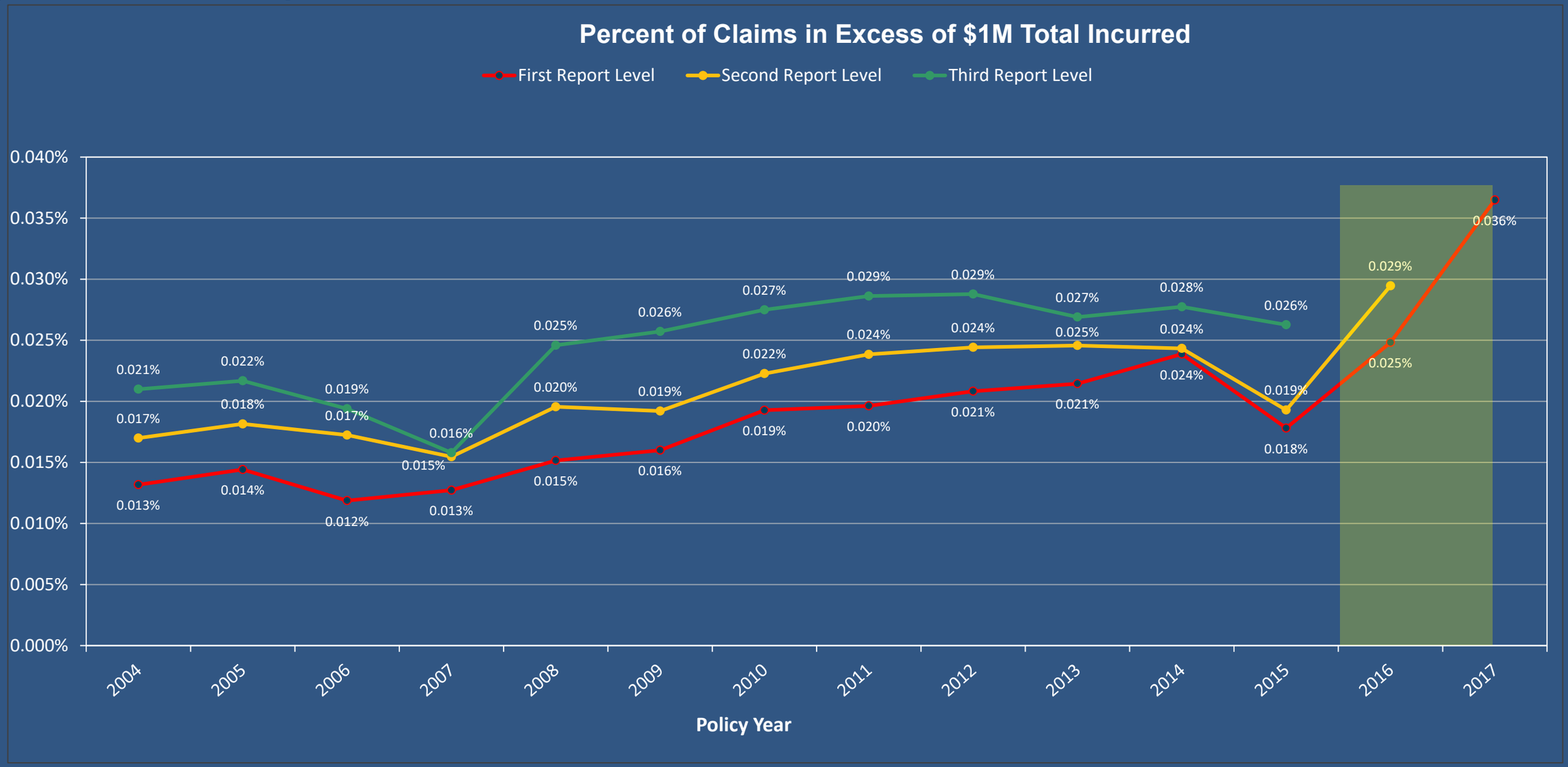
Source: WCIRB aggregate financial data

Comparison of Projected Loss Ratios – Medical (Exhibit D6.3)



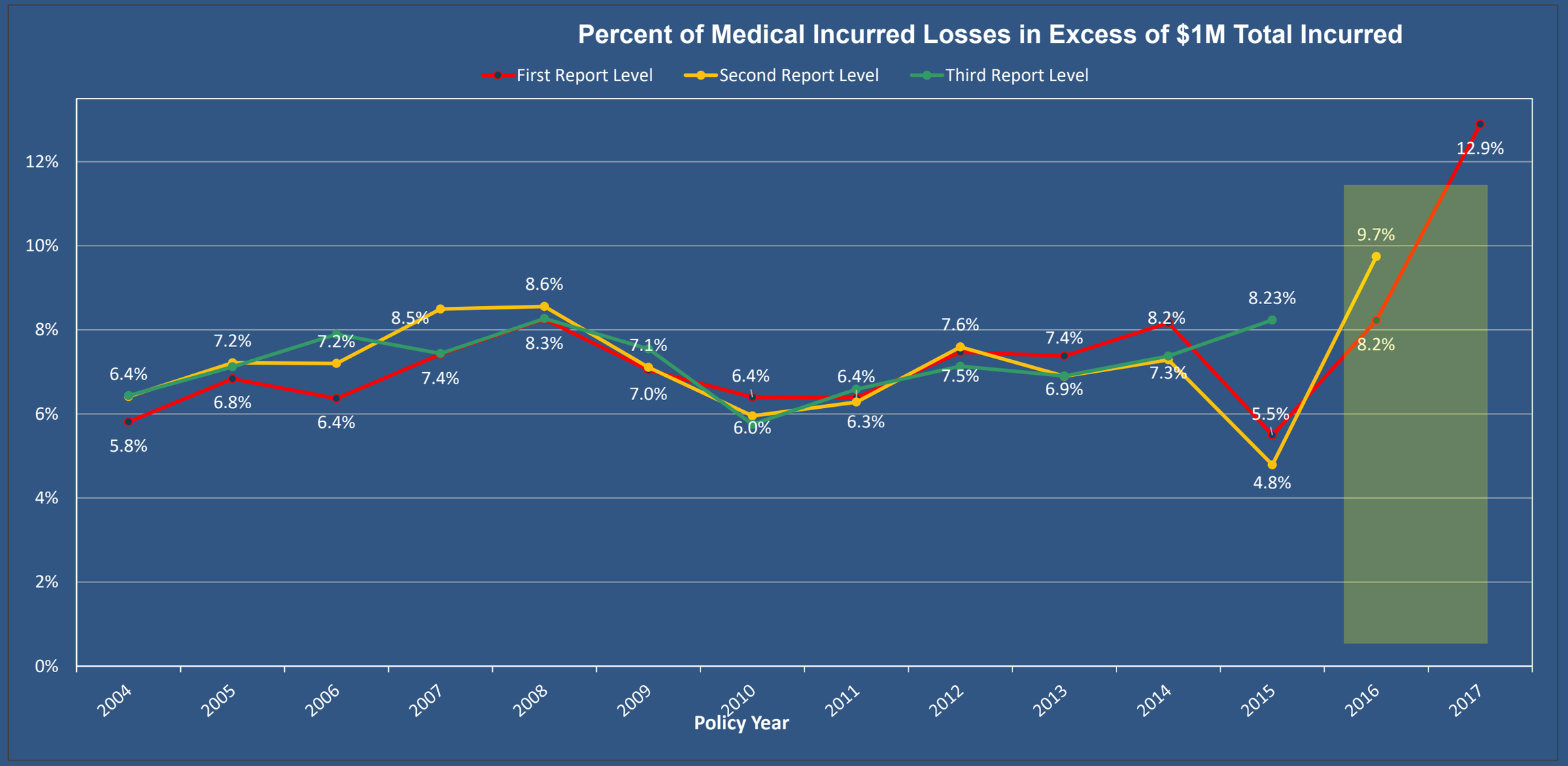
Source: WCIRB aggregate financial data

Large Claims (Exhibit S16.3)



Source: WCIRB unit statistical data

Large Claims (Exhibit S16.3)



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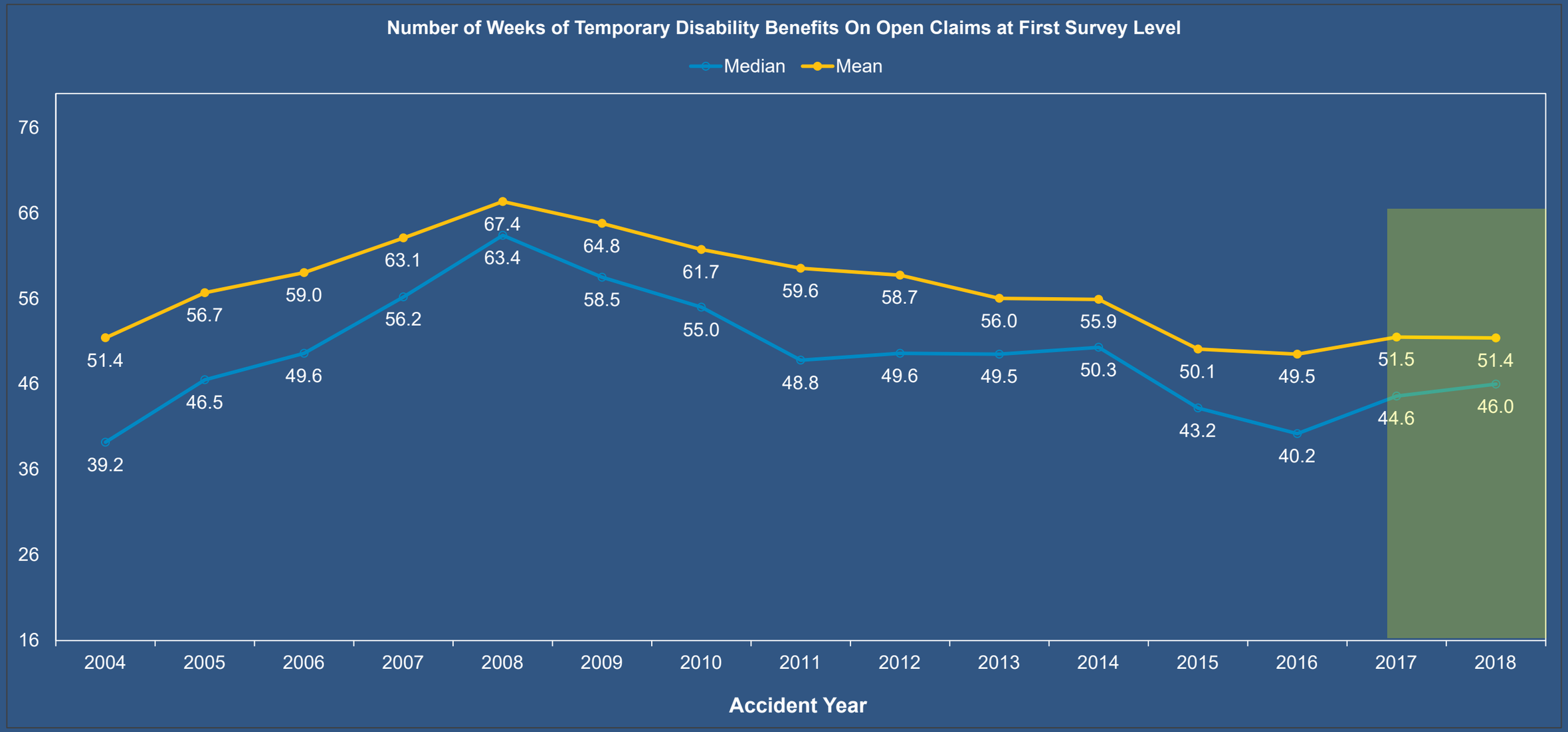
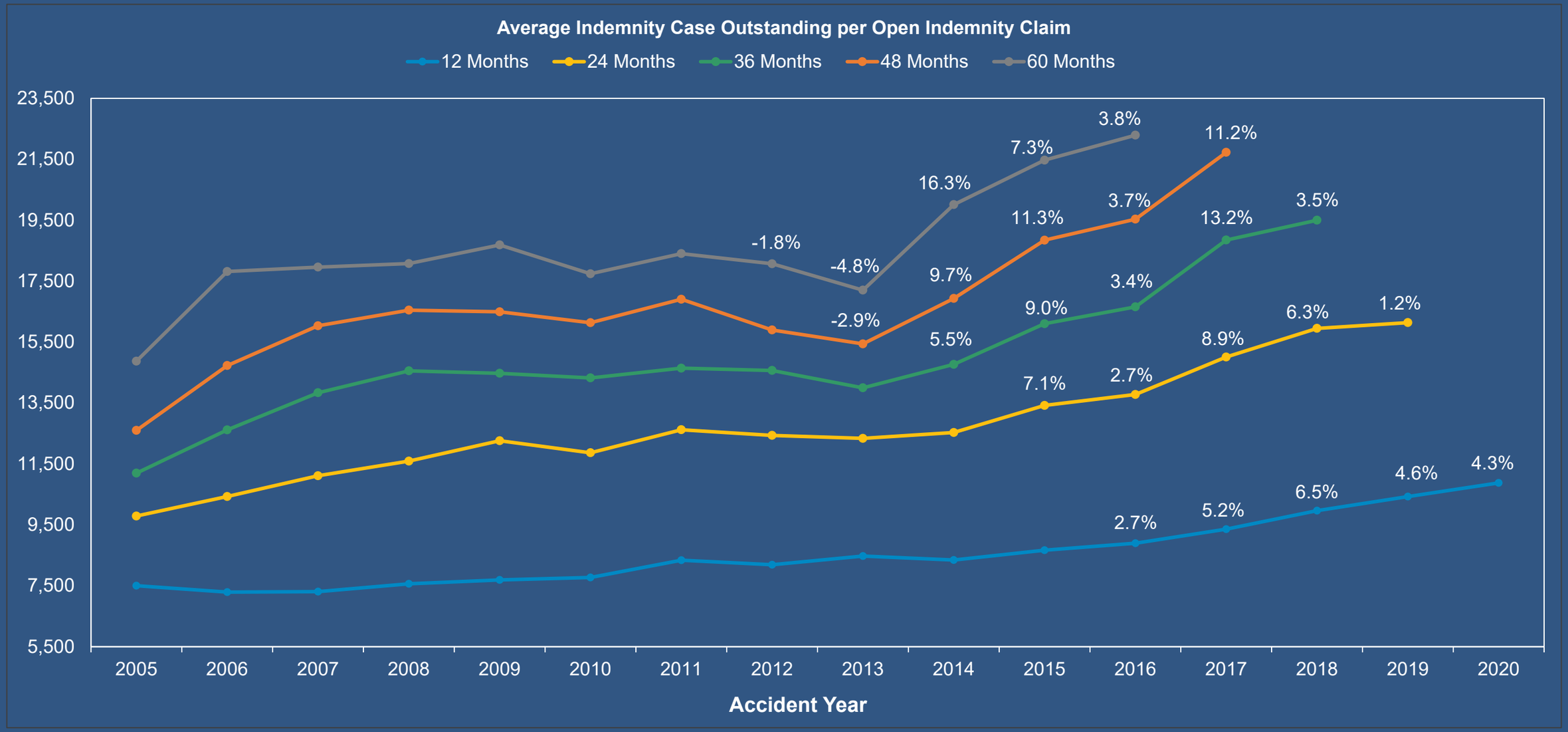
Source: WCIRB unit statistical data

Temporary Disability Duration on Permanent Disability Claims (Exhibit S10 Updated)



Source: WCIRB permanent disability survey (first survey level).

Severity – Indemnity Case Outstanding per Open Indemnity Claim (Exhibit S3.1 Updated)



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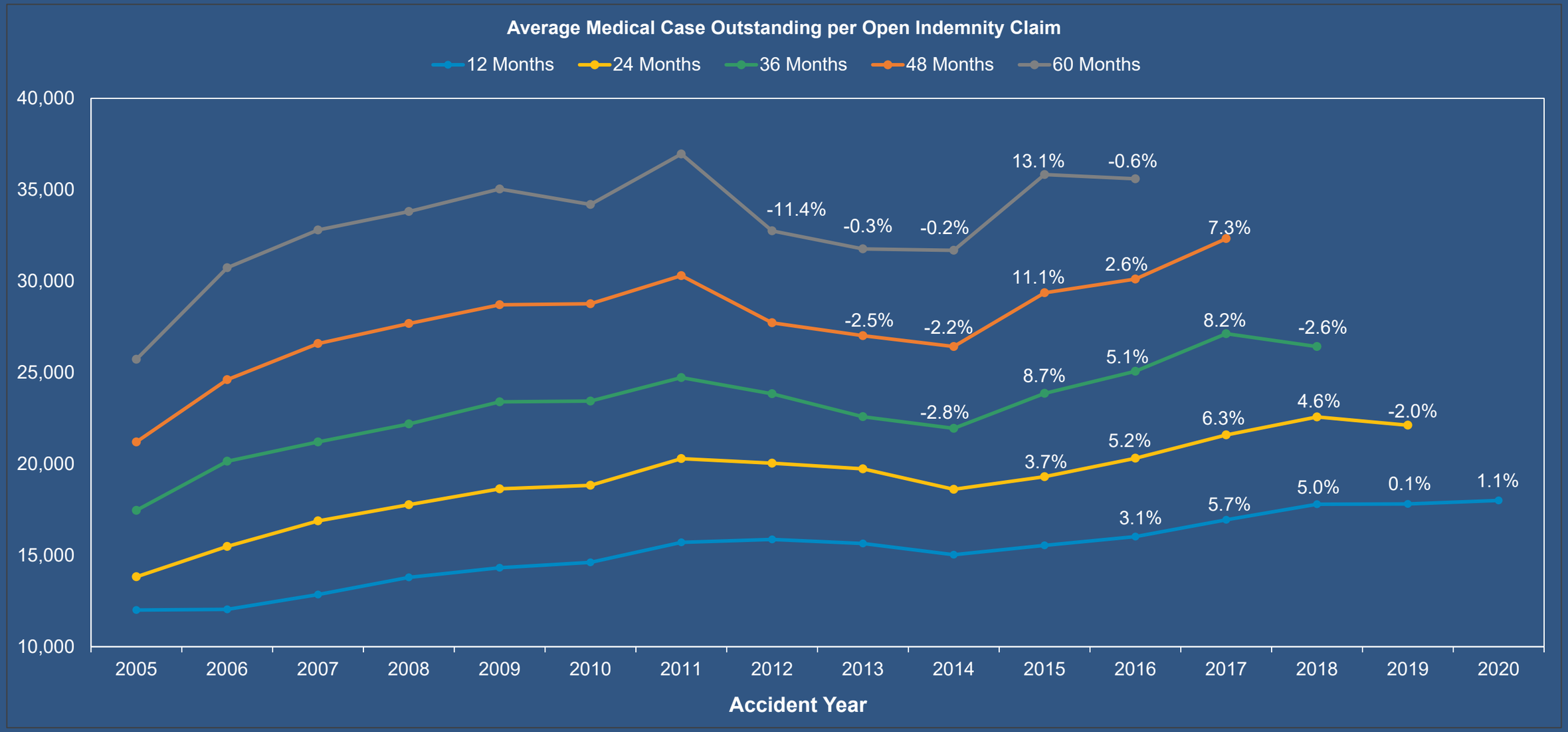
Source: WCIRB aggregate financial data excluding COVID-19 claims

Severity – Medical Case Outstanding per Open Indemnity Claim (Exhibit S3.2 Updated)



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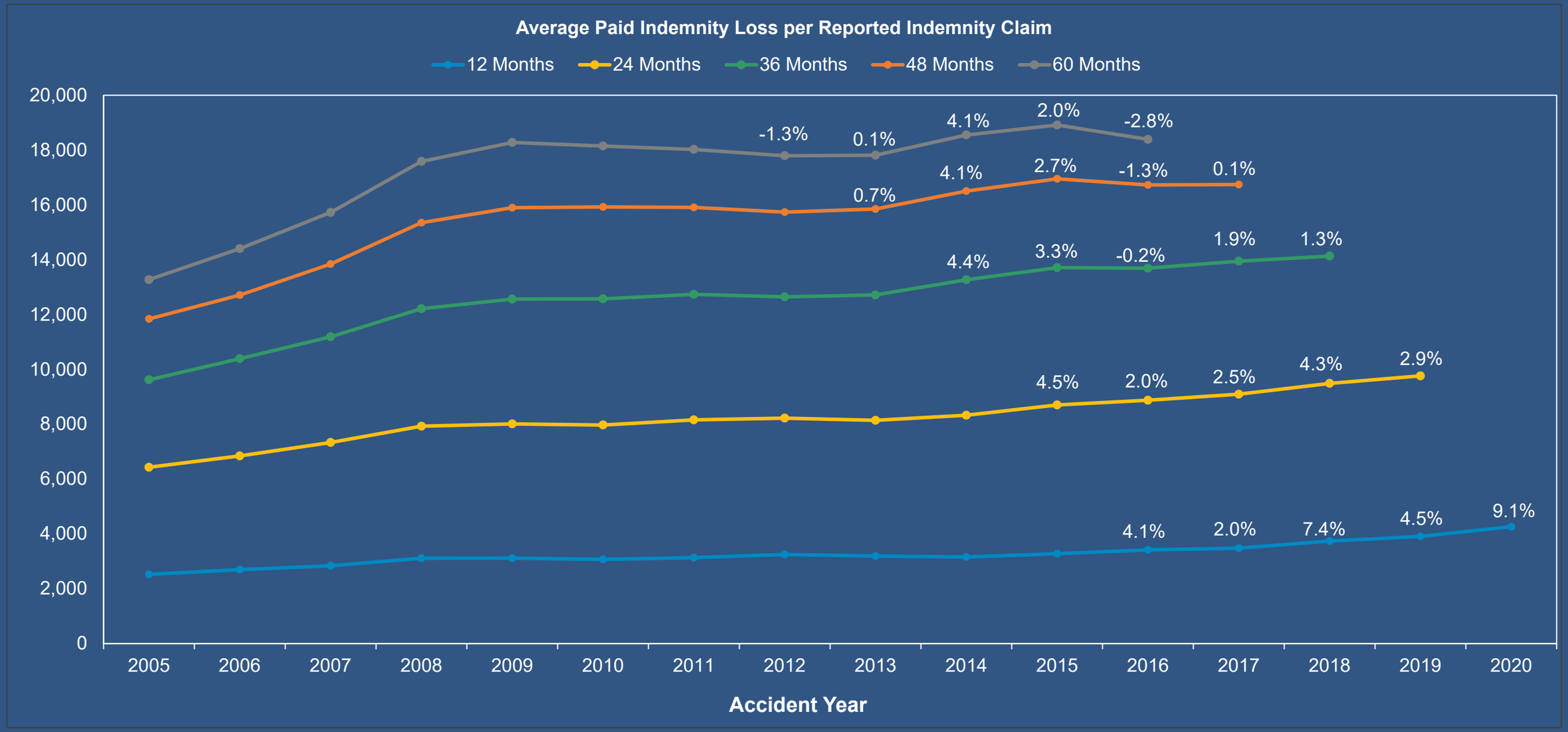
Source: WCIRB aggregate financial data excluding COVID-19 claims

Severity – Paid Indemnity per Indemnity Claim (Exhibit S4.1 Updated)



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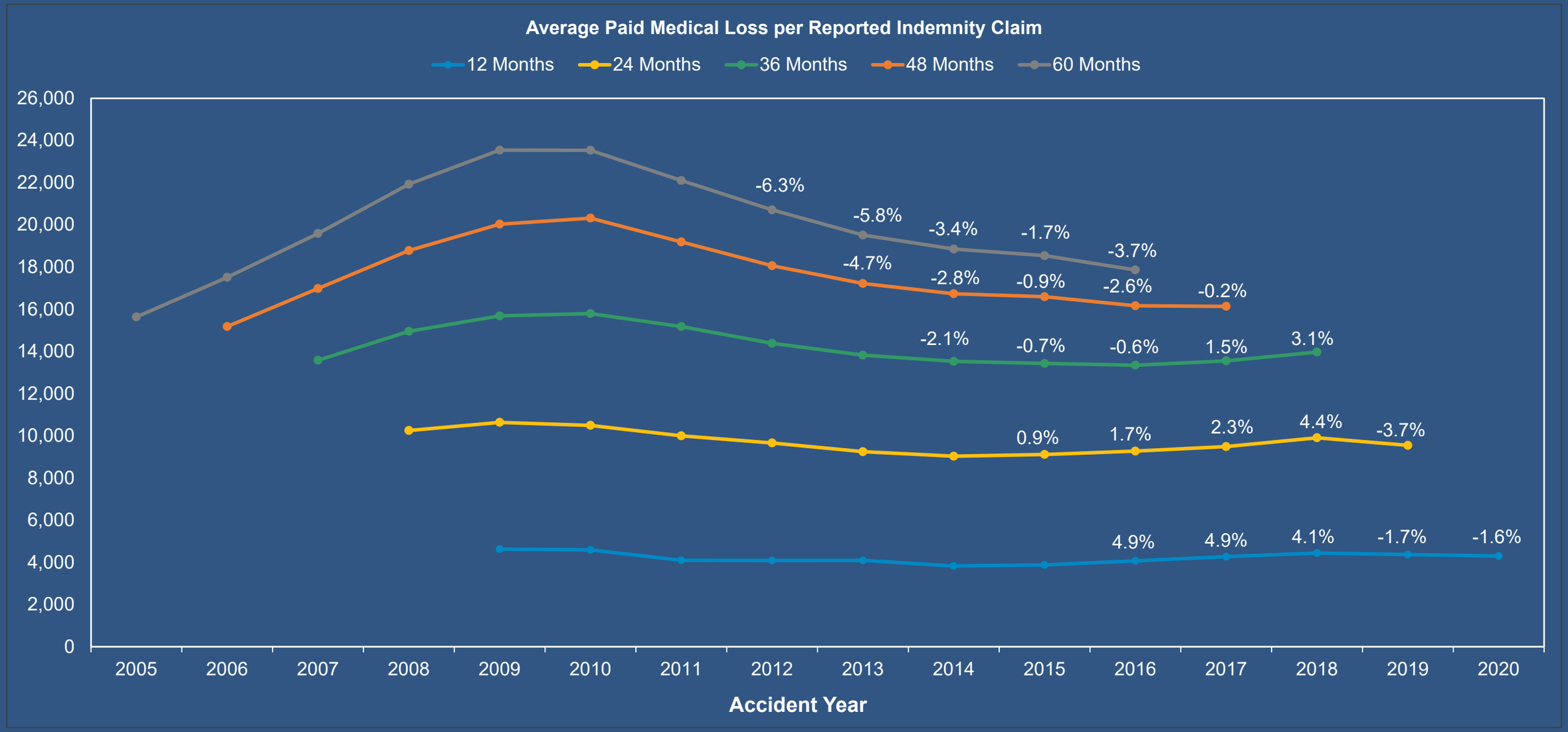
Source: WCIRB aggregate financial data excluding COVID-19 claims

Severity – Paid Medical per Indemnity Claim (Exhibit S4.2 Updated)



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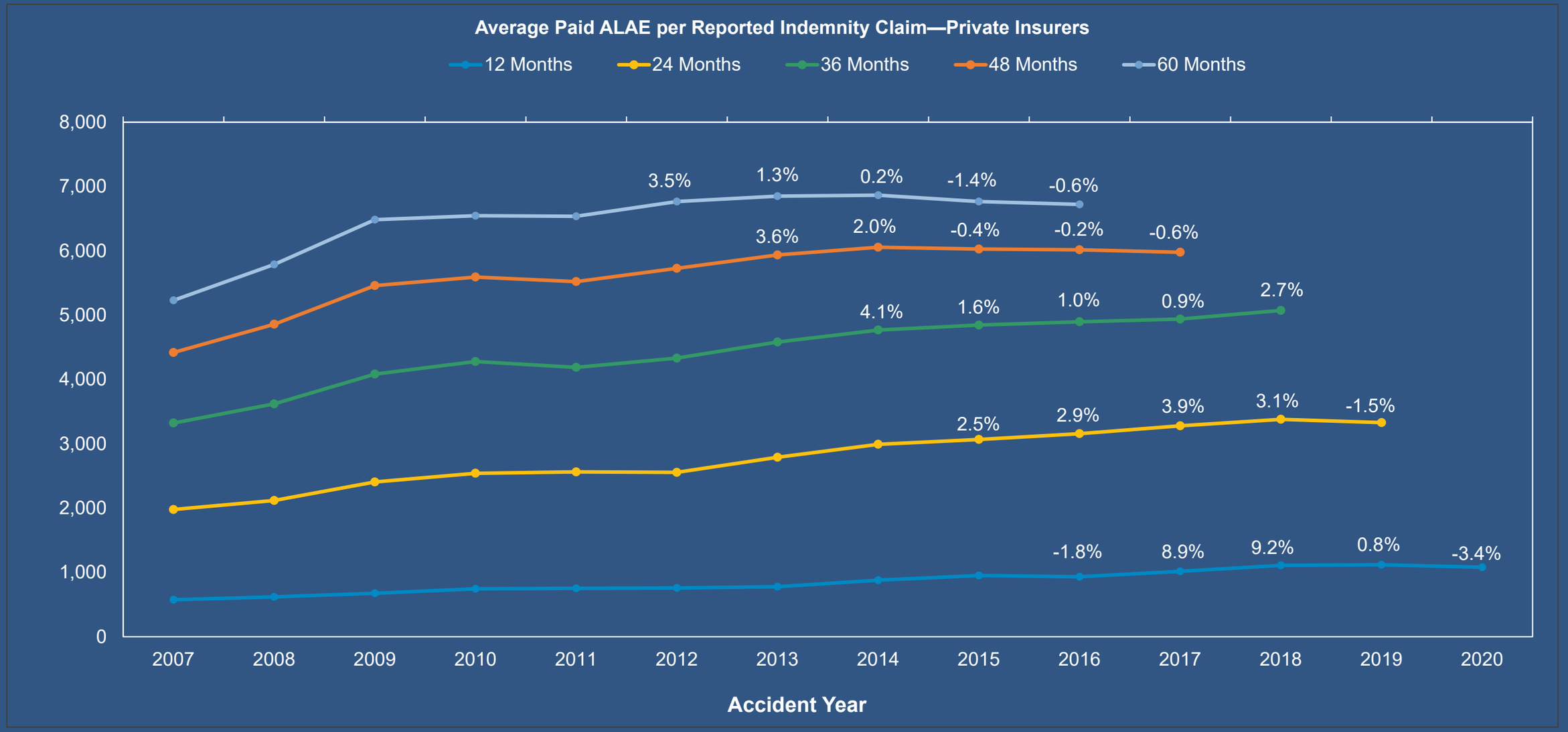
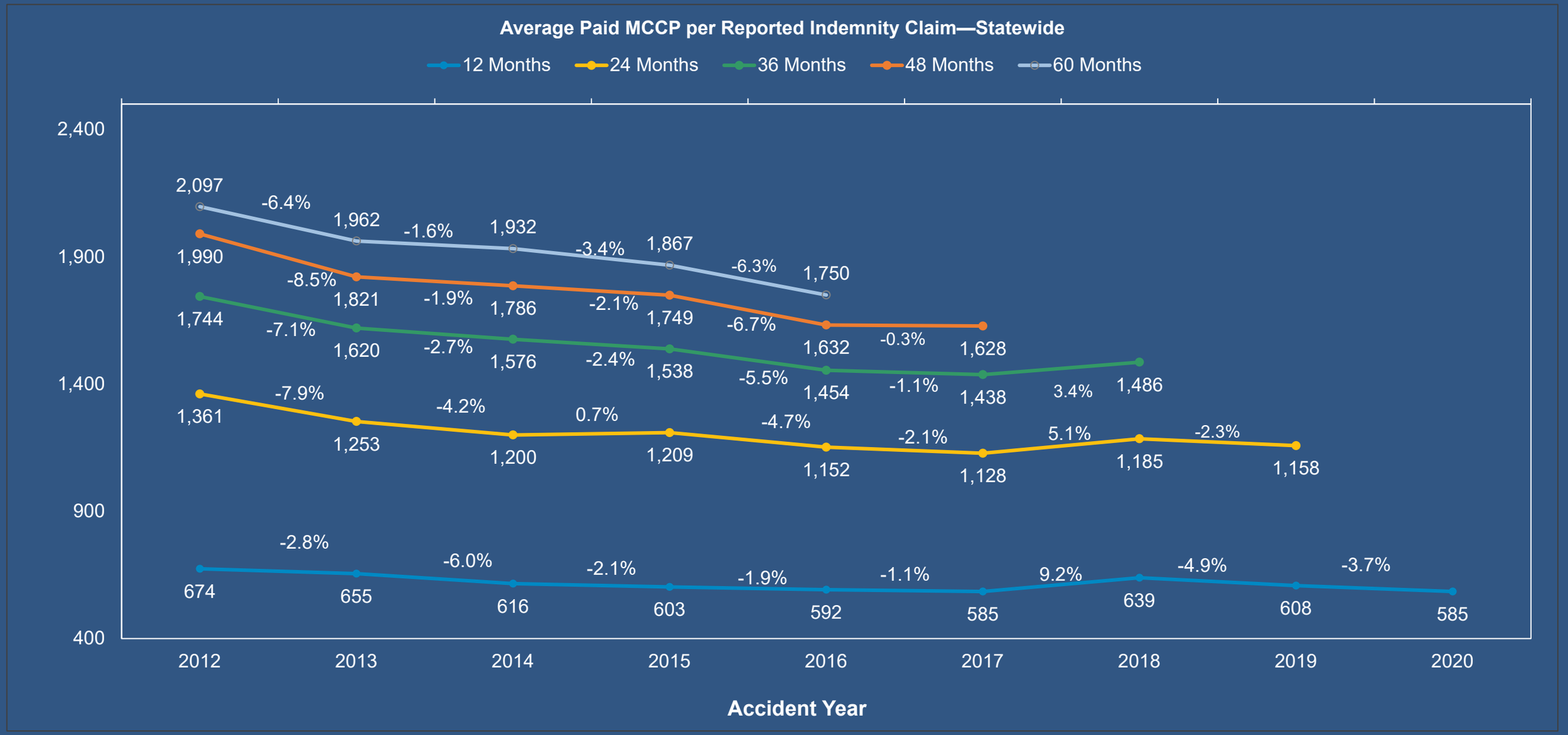
Source: WCIRB aggregate financial data excluding COVID-19 claims

Paid ALAE per Indemnity Claim – Private Insurers (Exhibit E5 updated)



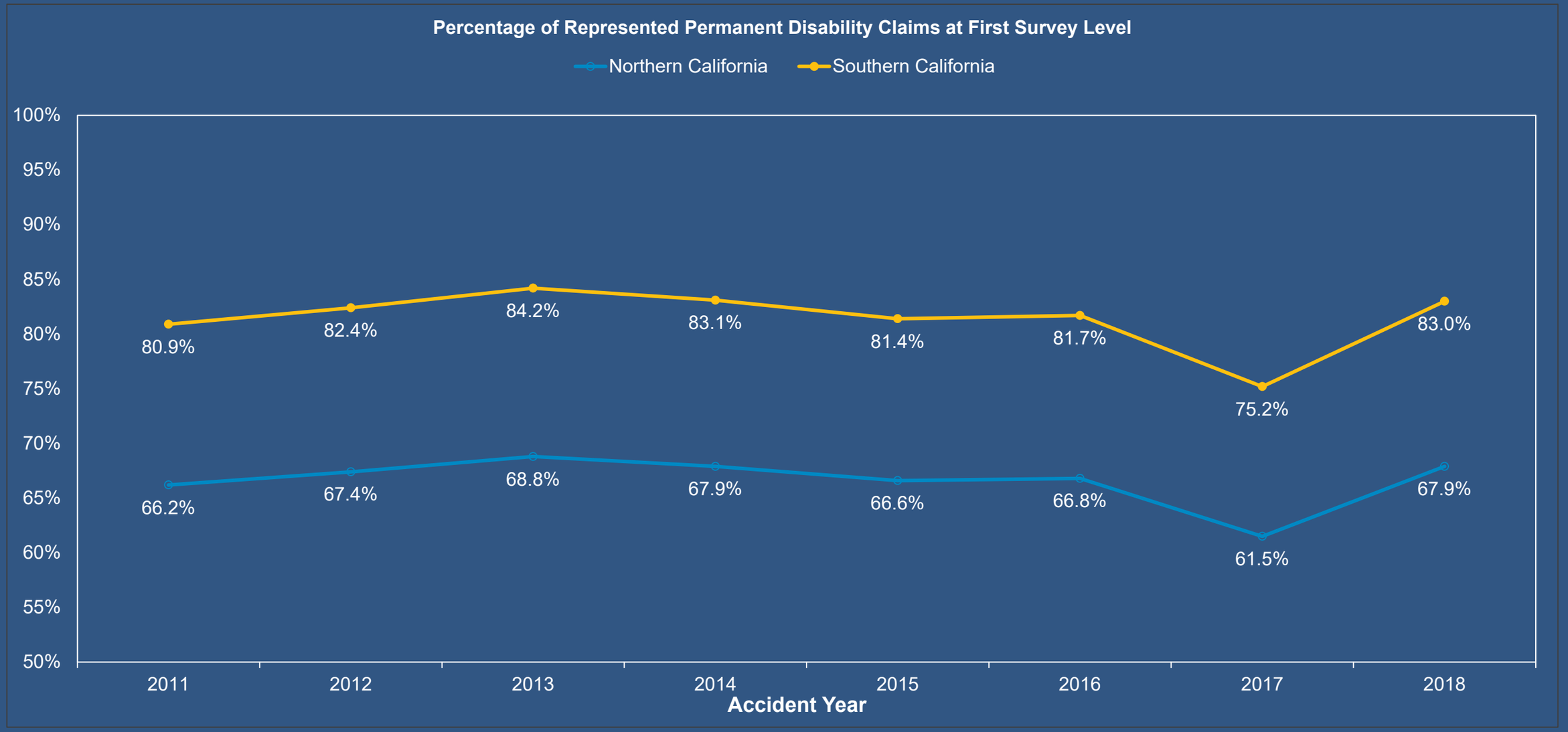
Source: WCIRB aggregate financial data excluding COVID-19 claims

Paid MCCP per Indemnity Claim – Statewide (Exhibit E15)



Source: WCIRB aggregate financial data. 2020 excludes COVID-19 claims.

Represented Permanent Disability Claims (Exhibit E7)



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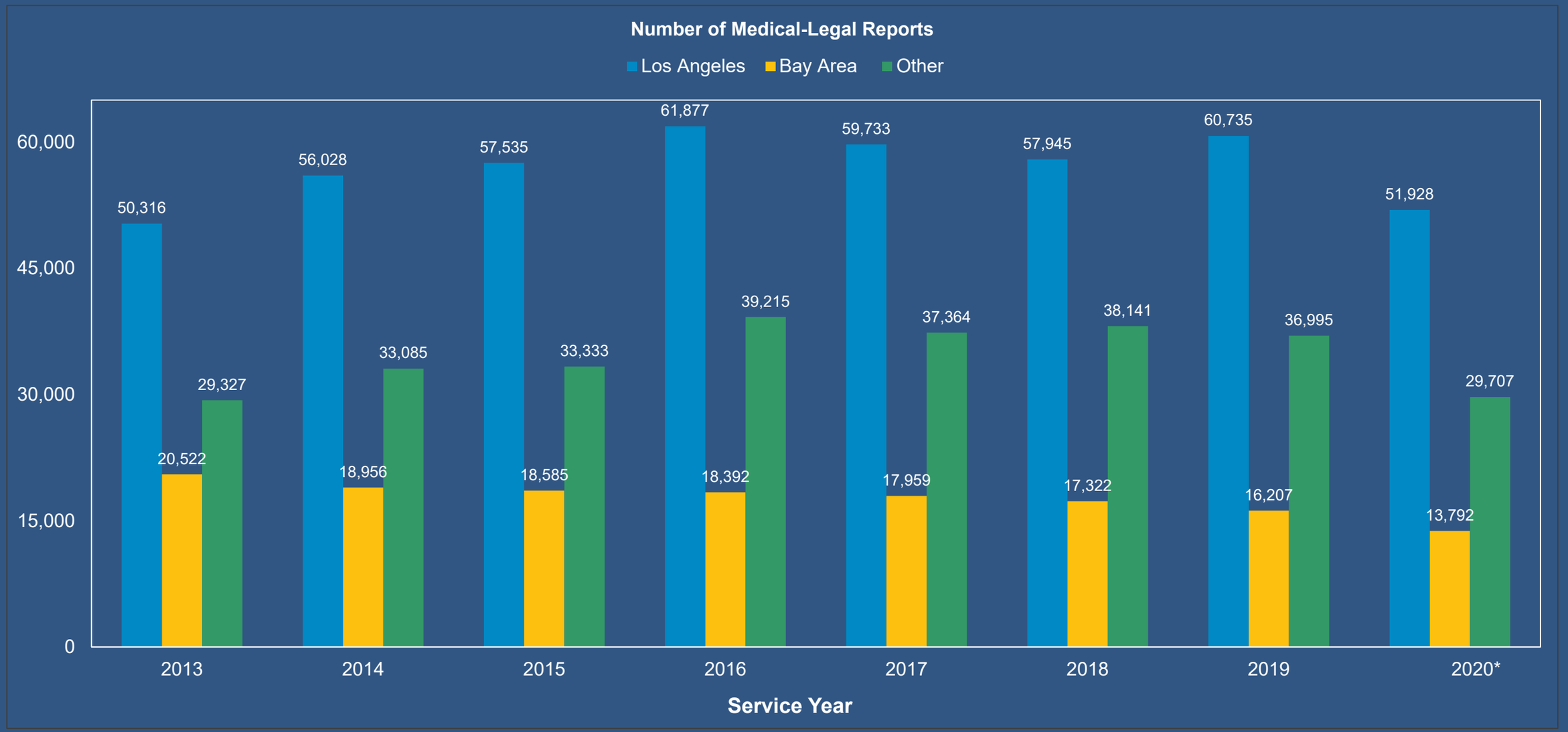
Source: WCIRB Permanent Disability Claim Survey

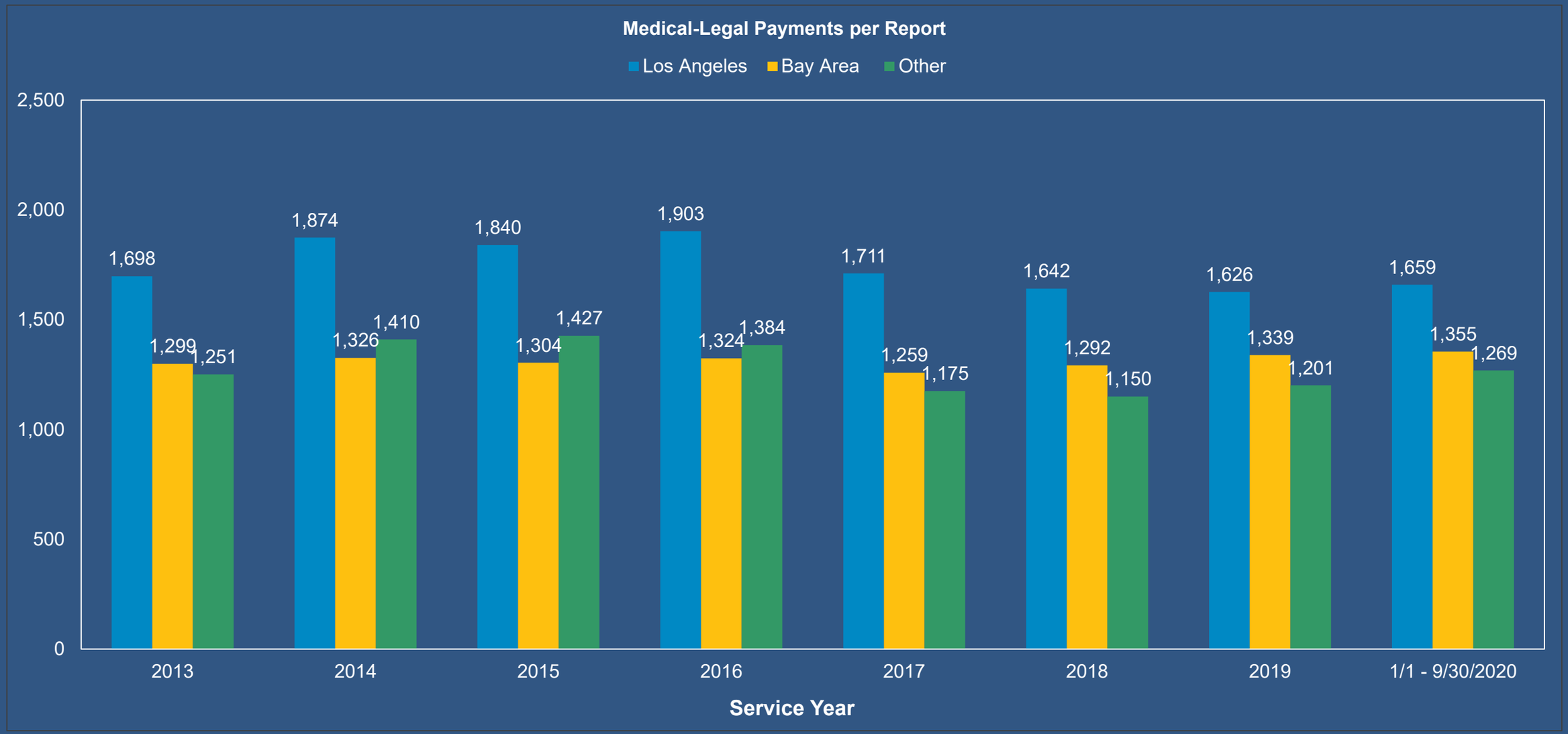
Medical-Legal Reports – Number of Medical Legal Reports (Exhibit E13.1)



S* - Estimated based on data reported through September 30, 2020.

Source: WCIRB medical transaction data

Medical-Legal Reports – Payment per Report (Exhibit E13.3)



Source: WCIRB medical data call

04

Pandemic Impact on Premium Measures

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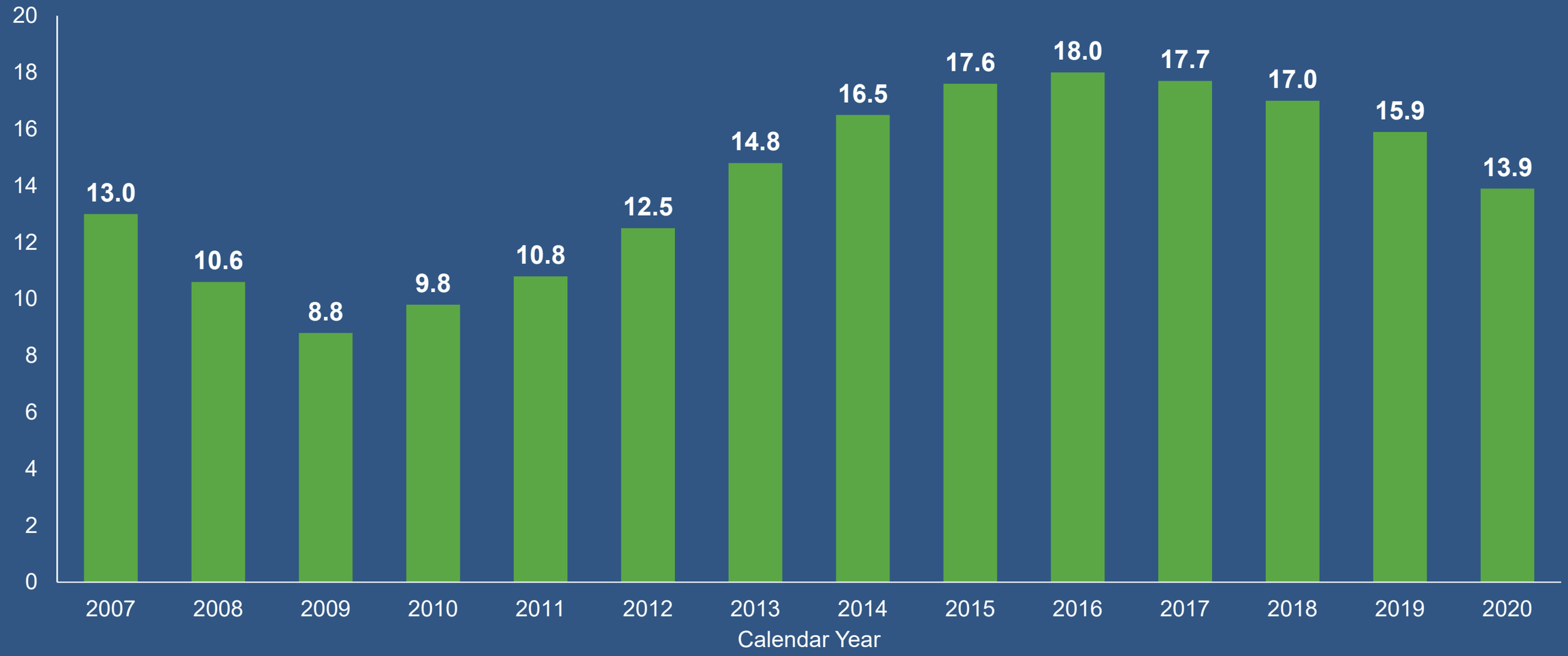
Insurer Written Premium (in $Billions)

As of December 31, 2020



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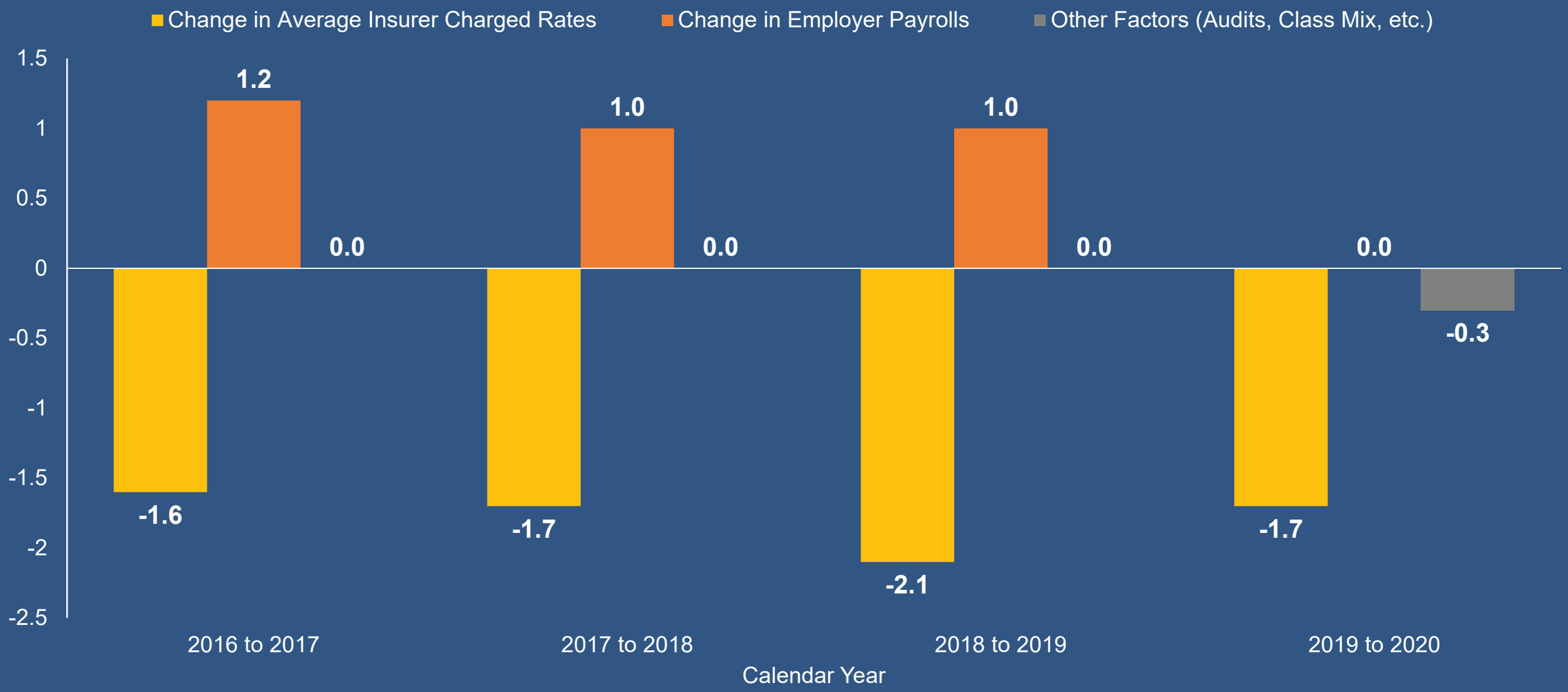
Source: WCIRB aggregate financial data

Drivers of Written Premium Changes (in $Billions)

As of December 31, 2020



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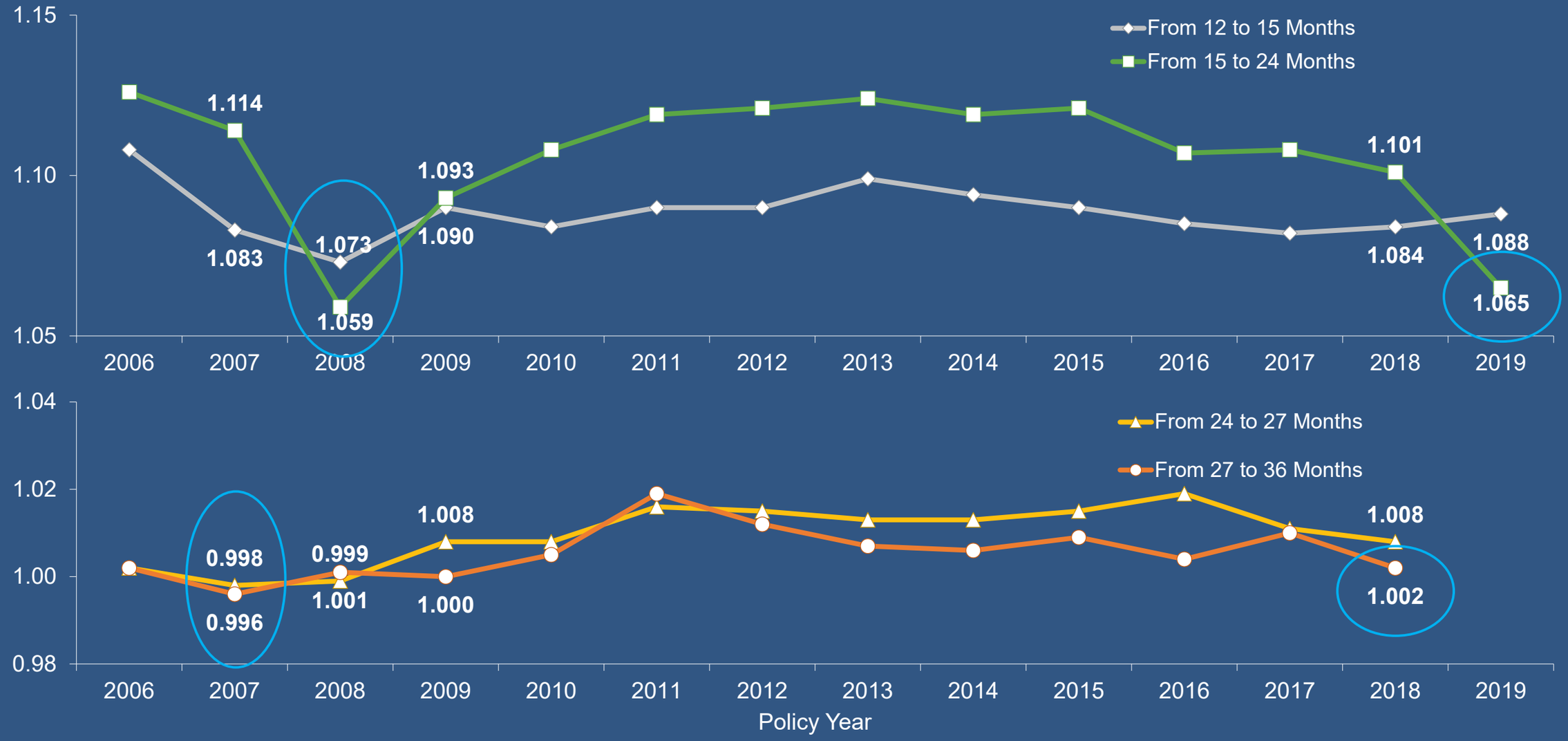
Source: WCIRB aggregate financial data

Development of Insurer Written Premium (Exhibit 1)

As of December 31, 2020



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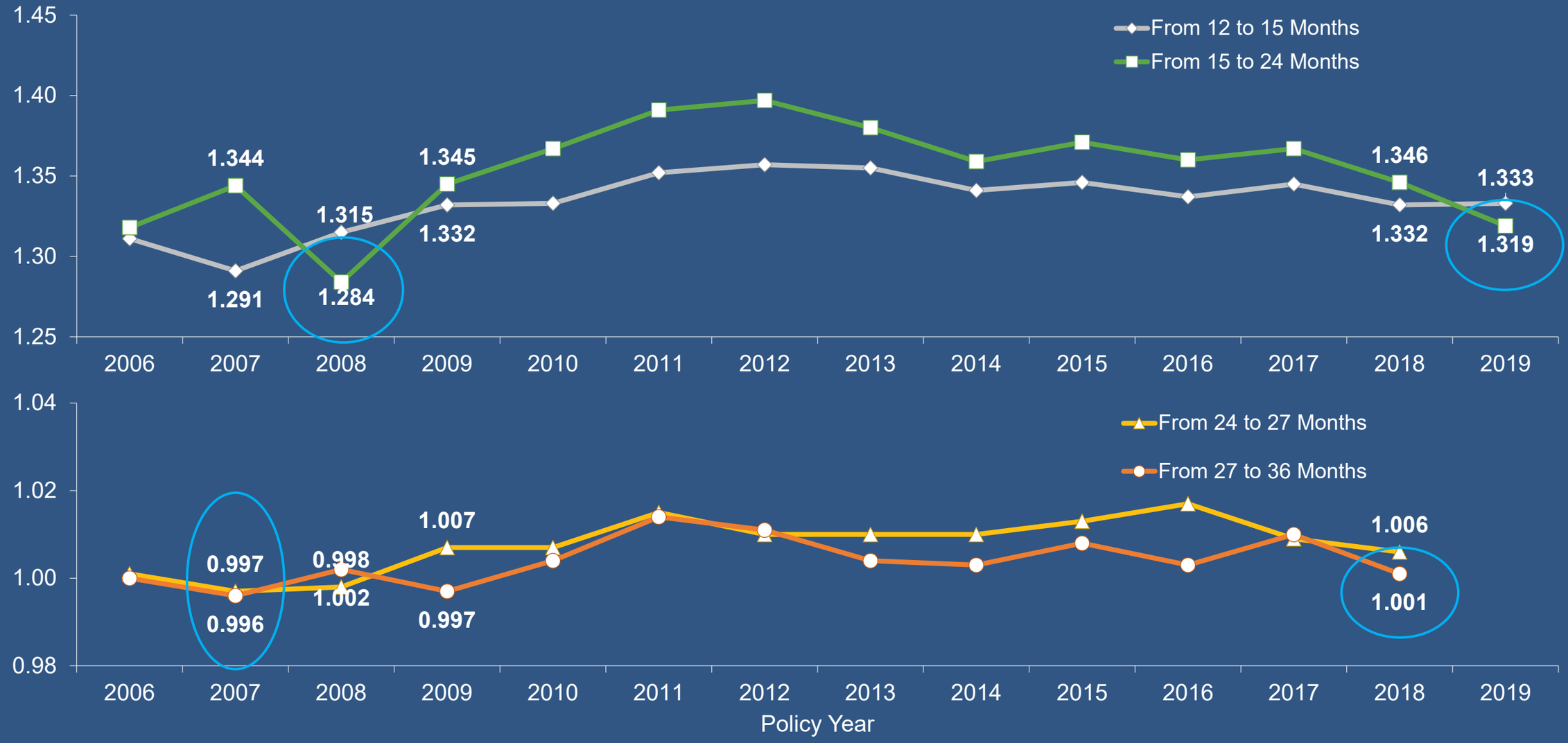
Source: WCIRB aggregate financial data

Development of Insurer Earned Premium (Exhibit 2)

As of December 31, 2020



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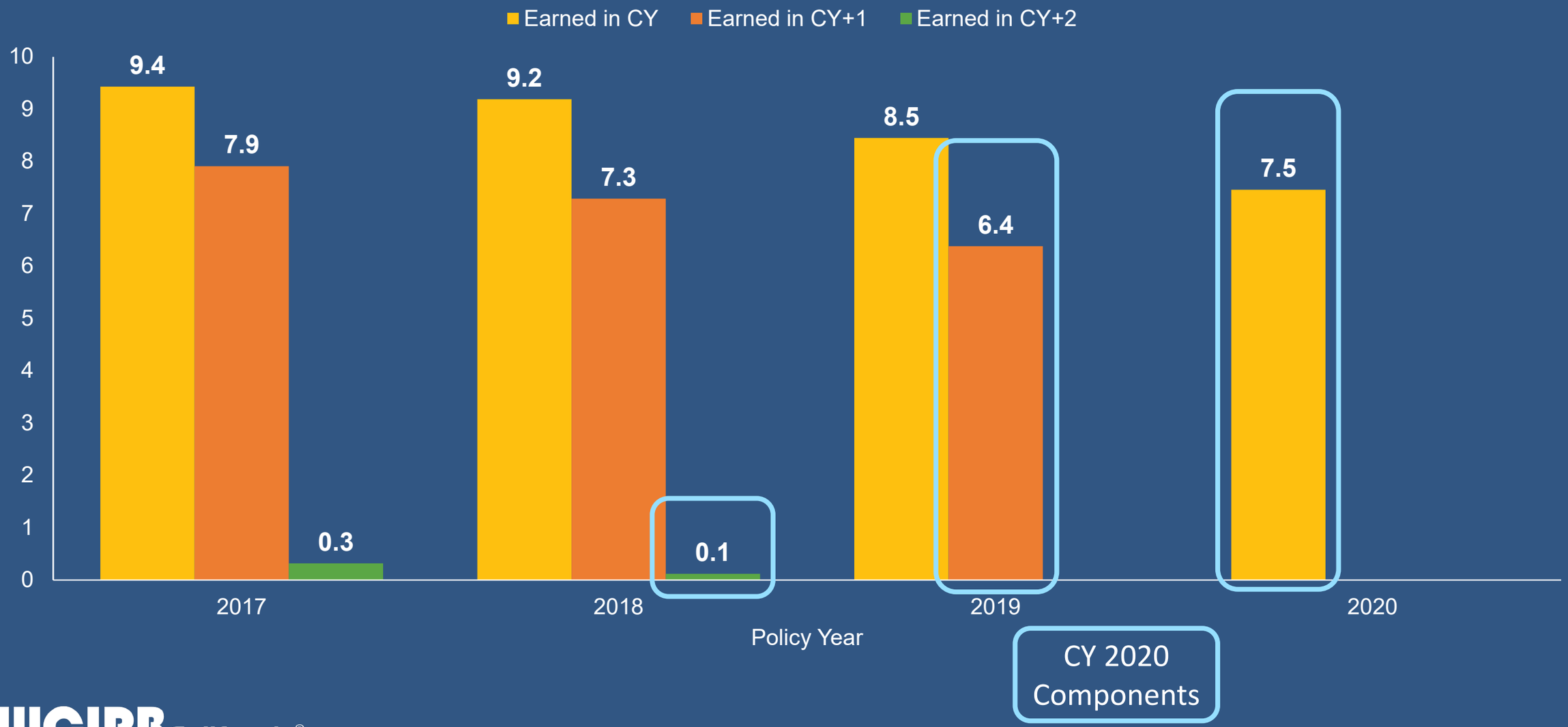
Source: WCIRB aggregate financial data

Pandemic Impact on Premium Measures

Insurer Earned Premium Policy Year Comparison (in $Billions)

As of December 31, 2020



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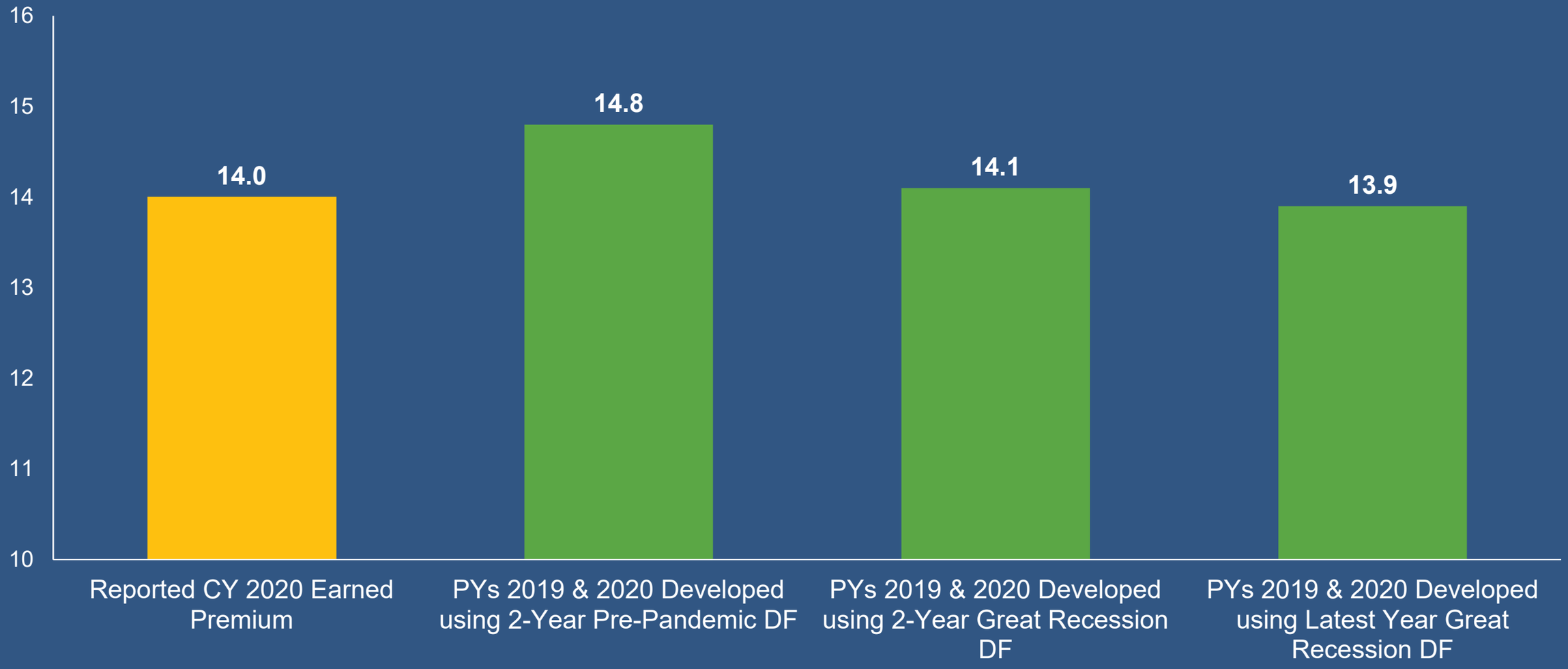
Source: WCIRB aggregate financial data

Alternative Projections of AY 2020 Premium Base (in $Billions)

As of December 31, 2020



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Source: WCIRB aggregate financial data

Summary

- Adjustment to premium amounts similar to Great Recession approach is challenging
  - Adjustment was made in hindsight (in 2011 during recovery period)
  - Great Recession was more gradual; 2020 downturn more sudden
- Calendar year 2020 earned premium already reflects some impact of the economic downturn
  - Insurance Commissioner directed insurers to return premiums for reduced risk during SIP period
  - Low PY 2019 development in CY 2020 was due to reduced exposure in CY 2020
  - Alternative bases using Great Recession development result in similar EP amounts to reported
- Projections for 2020 include several other issues (wage level adjustments, claim frequency, COVID claims, etc.)

05

12/31/2020 Experience Review

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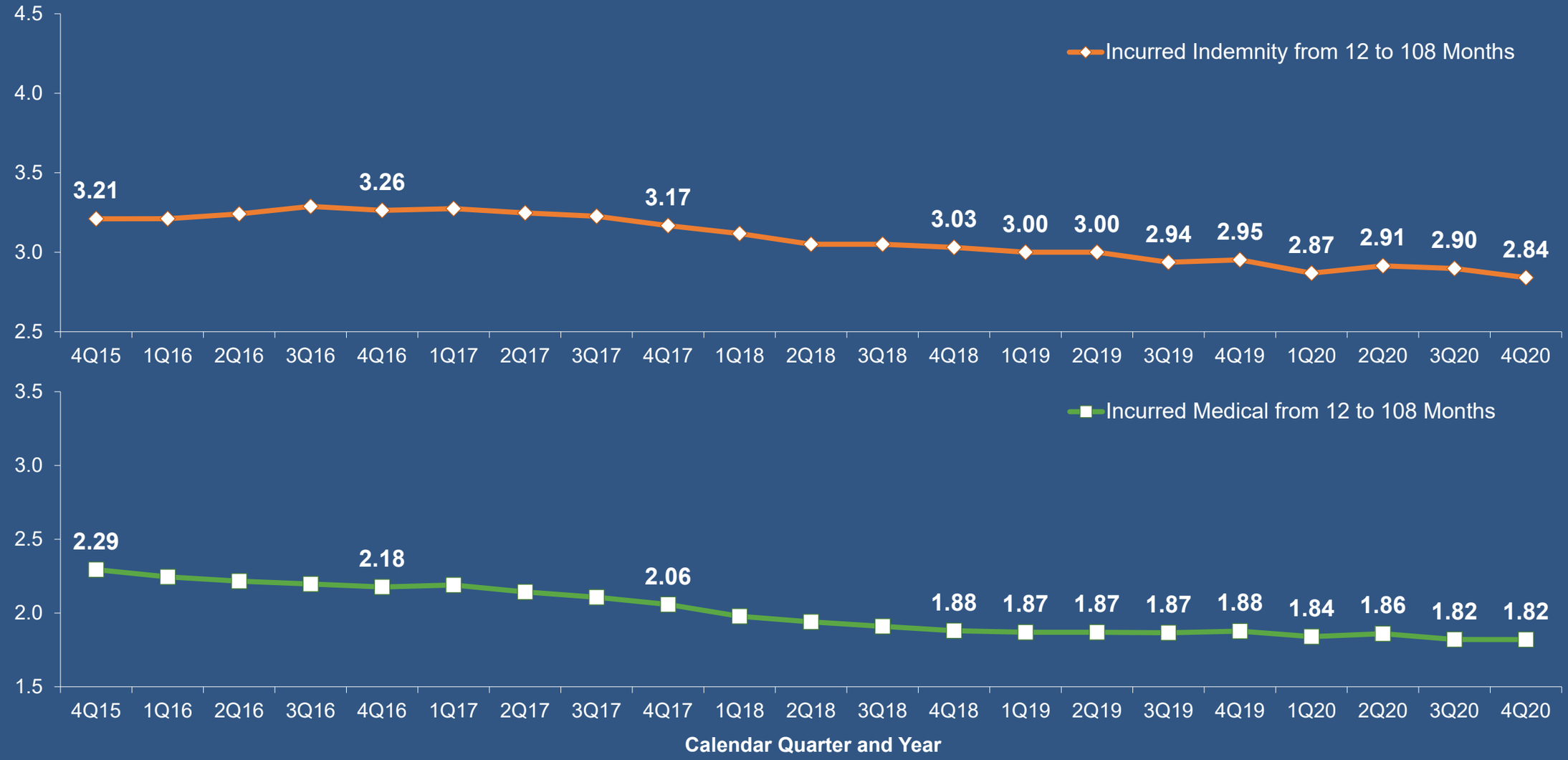
Preliminary Summary of 12/31/2020 Experience (Excluding COVID-19)

- 98% of market included
- 12/31/2020 experience summary
  - Paid and incurred development more consistent with longer-term trends
  - Claim settlement rates on AY 2018 and 2019 continuing to slow
- Areas to address for 9/1/2021 Filing (ex-COVID)
  - Development of 2020 and prior AYs (impact of treatment delays)
  - Economic changes impacting wage level and claim frequency
  - Premium measures as a basis for AY 2020
  - Frequency trend projections
  - Severity trend projections
  - AY 2020 as a basis for 9/1/2021 loss ratio projection
  - New medical-legal fee schedule

Cumulative Incurred Development from 12 to 108 Months

As of December 31, 2020



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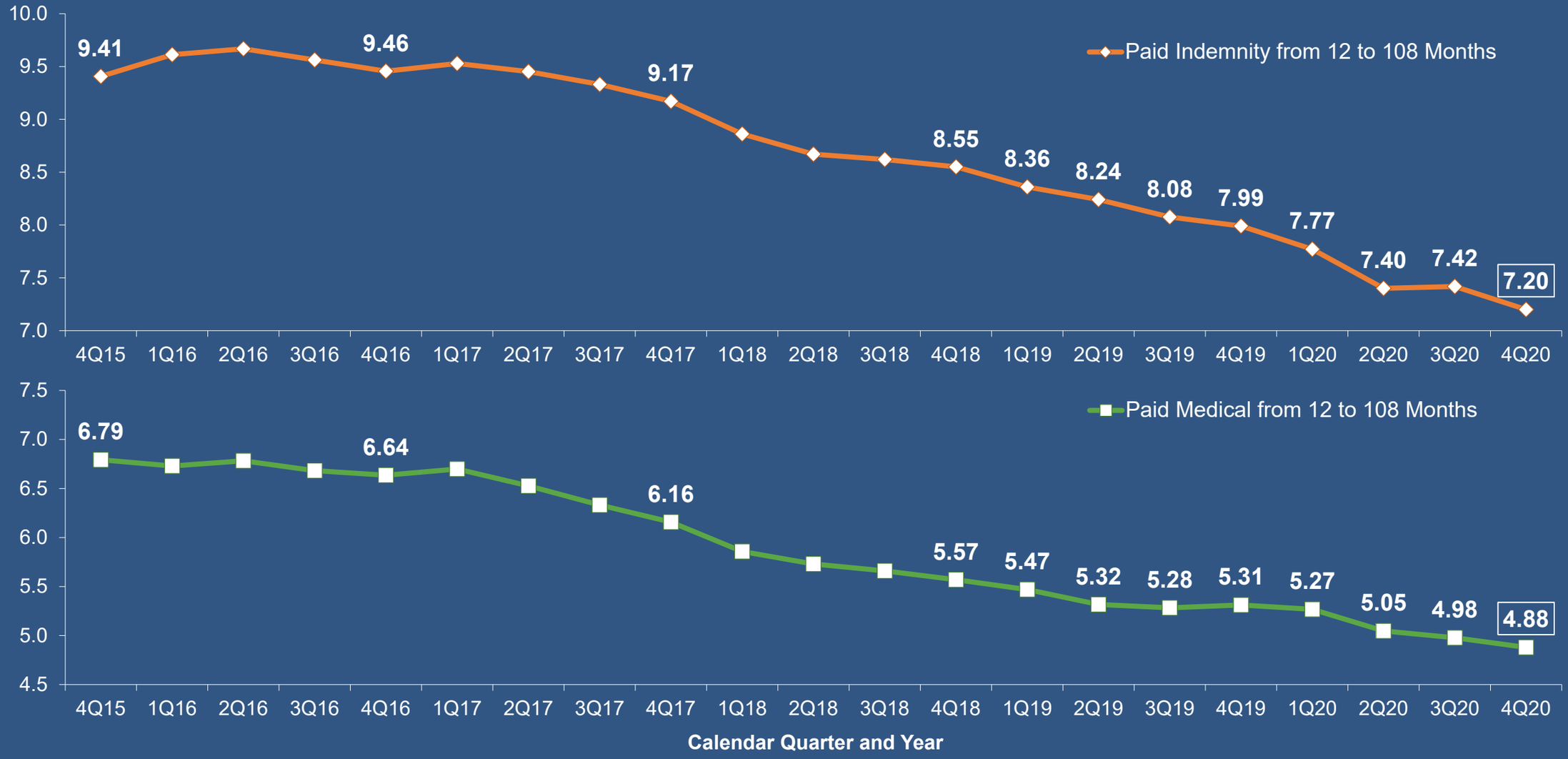
Source: WCIRB aggregate financial data

Cumulative Paid Development from 12 to 108 Months

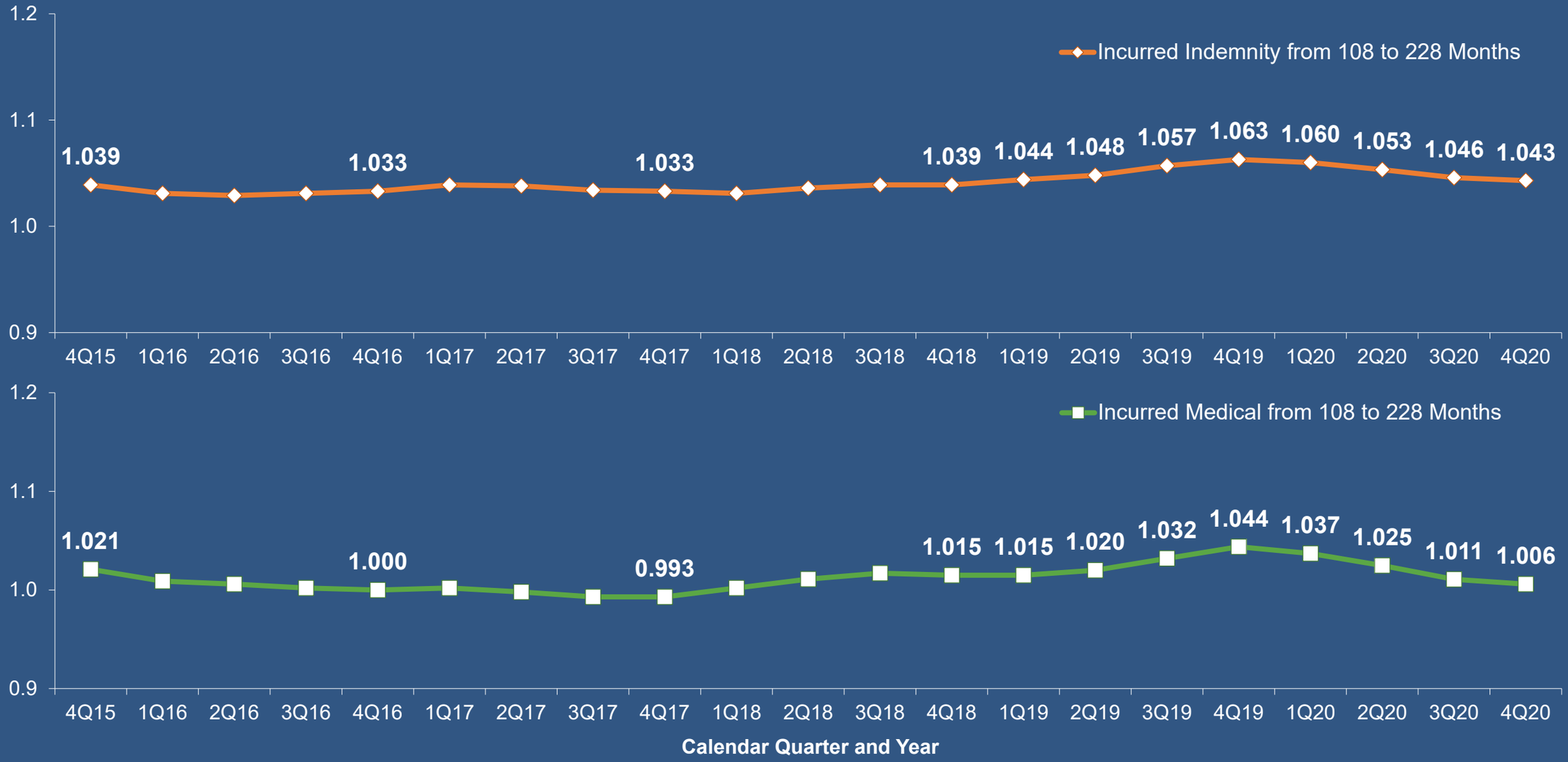
As of December 31, 2020



Source: WCIRB aggregate financial data

Cumulative Incurred Development from 108 to 228 Months

As of December 31, 2020



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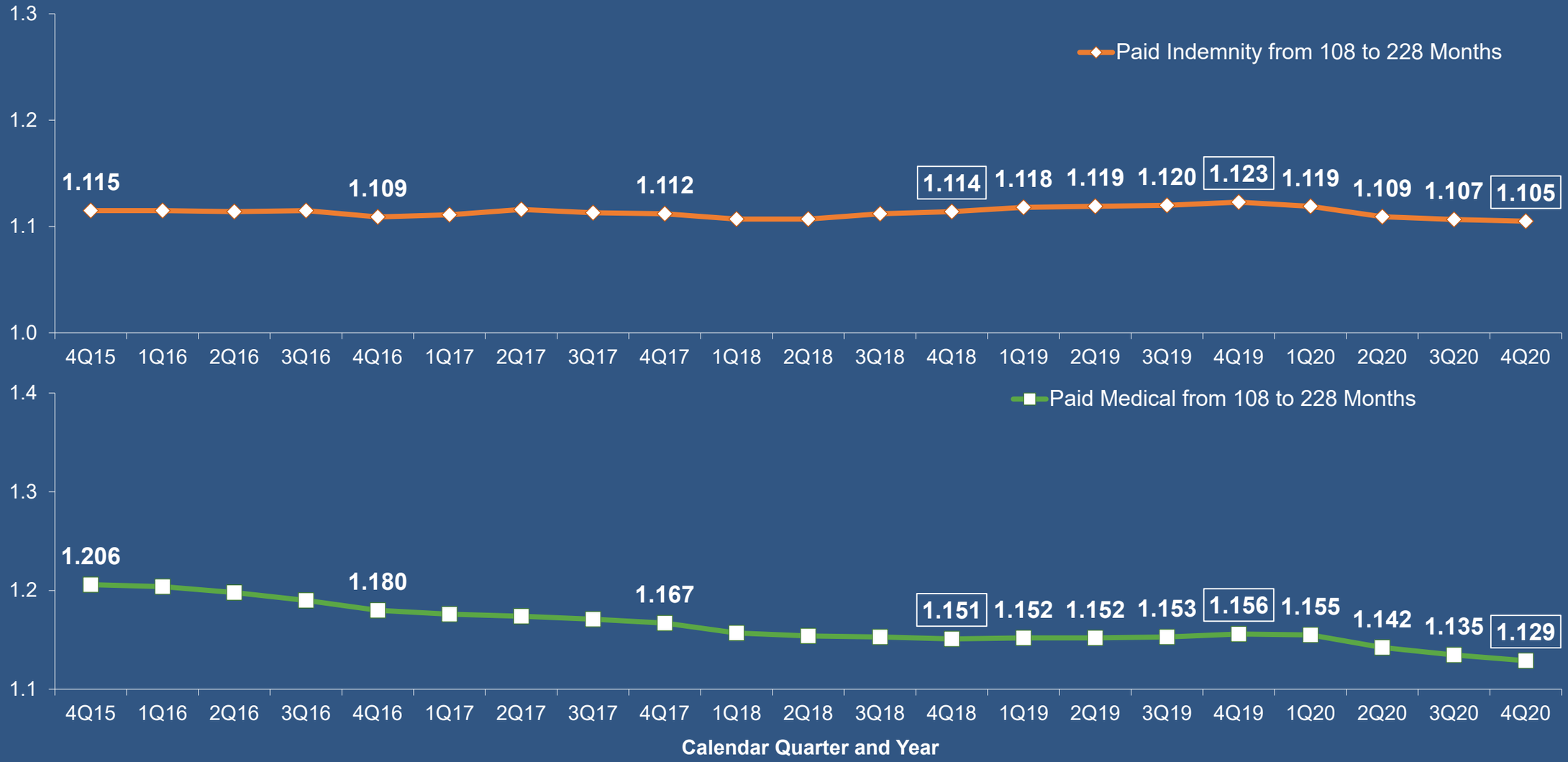
Source: WCIRB aggregate financial data

Cumulative Paid Development from 108 to 228 Months

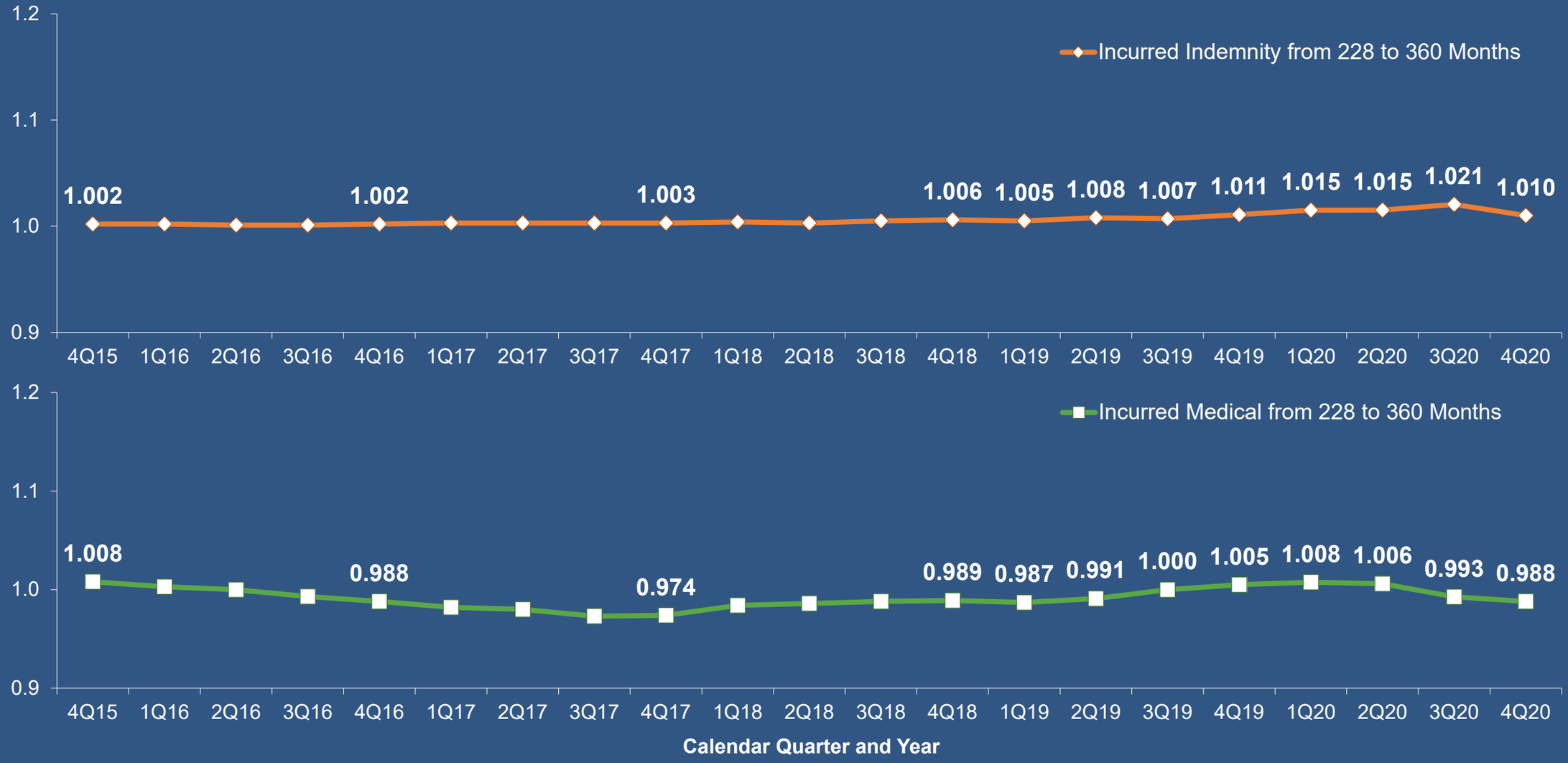
As of December 31, 2020



Source: WCIRB aggregate financial data

Cumulative Incurred Development from 228 to 360 Months

As of December 31, 2020



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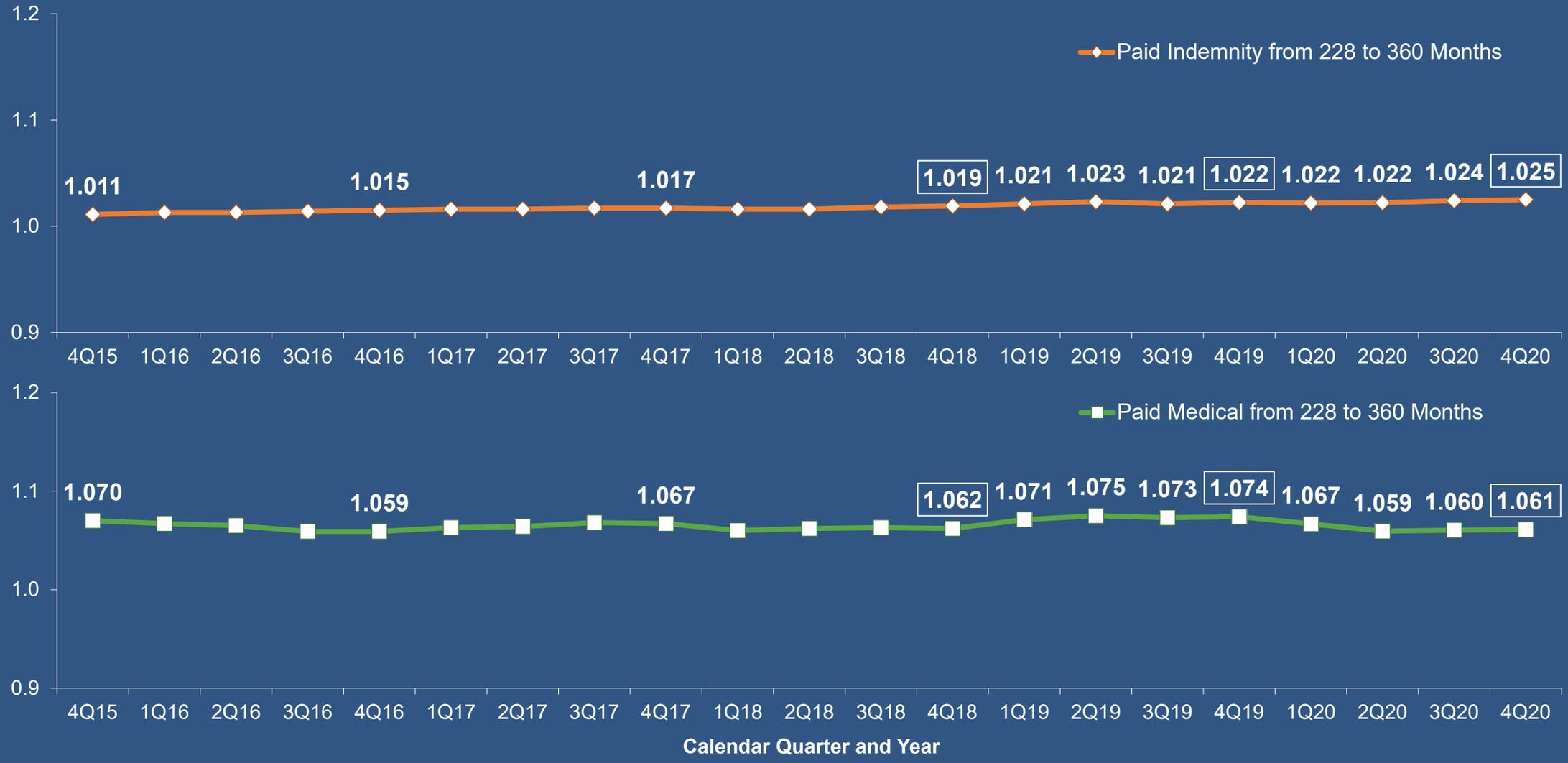
Source: WCIRB aggregate financial data

Cumulative Paid Development from 228 to 360 Months

As of December 31, 2020



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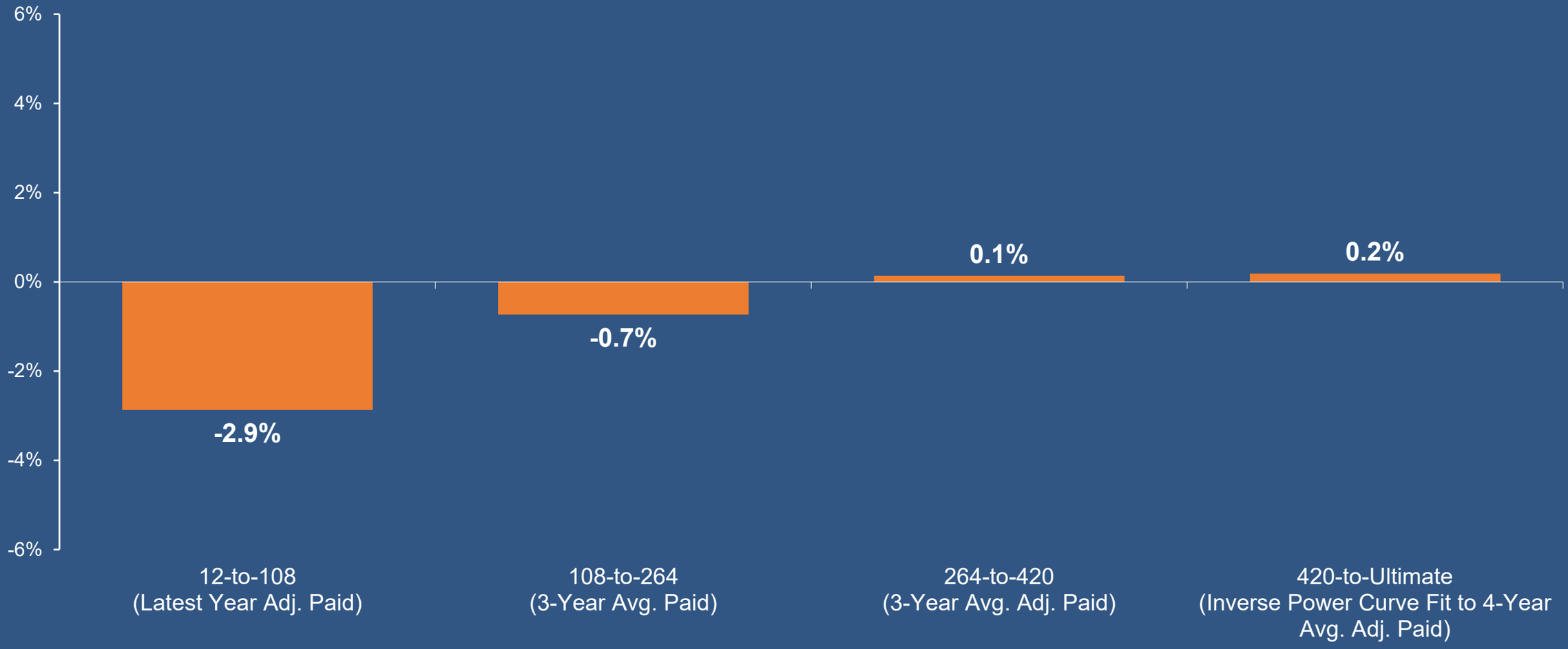
Source: WCIRB aggregate financial data

Change in Projected Medical Development Factor
3/31/2020 to 12/31/2020 Experience



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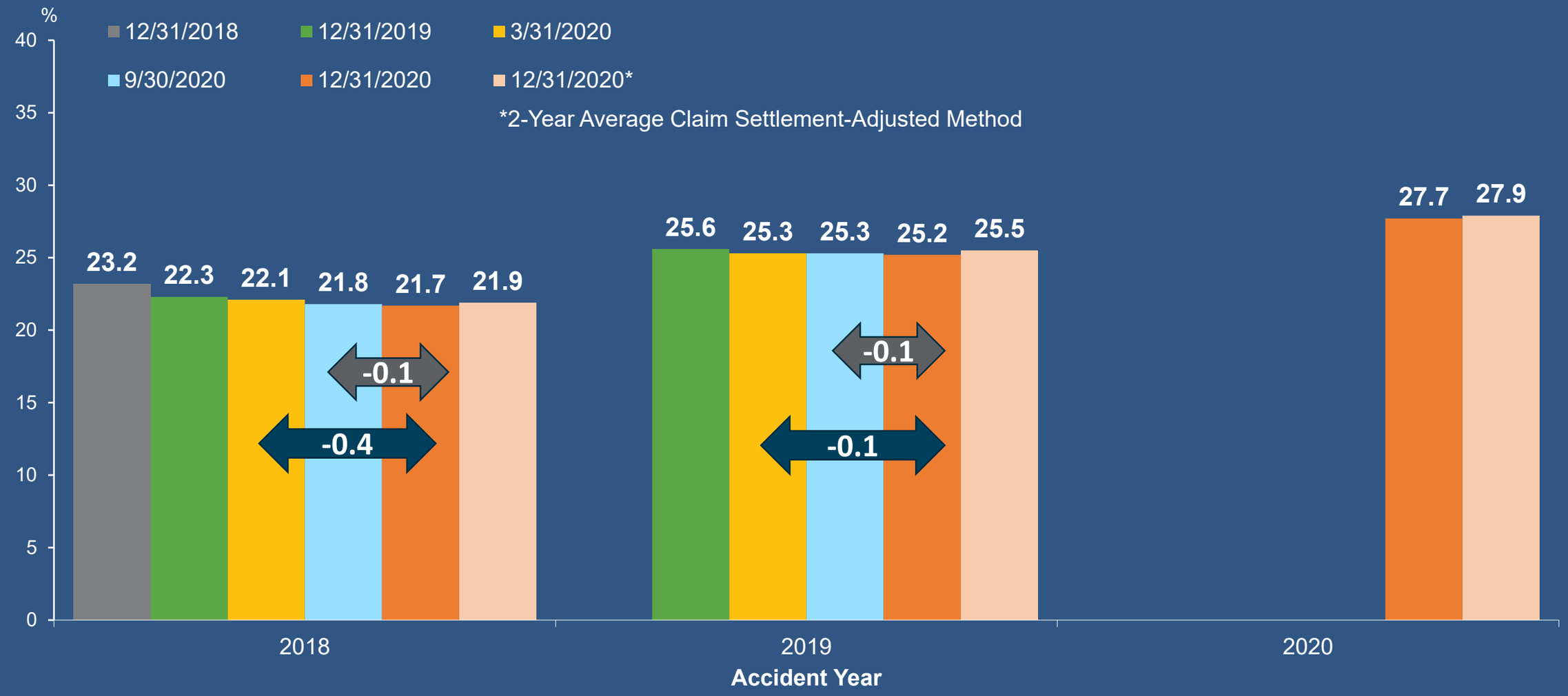
Source: WCIRB aggregate financial data

Developed Indemnity Loss Ratios (Exhibit 3.1)

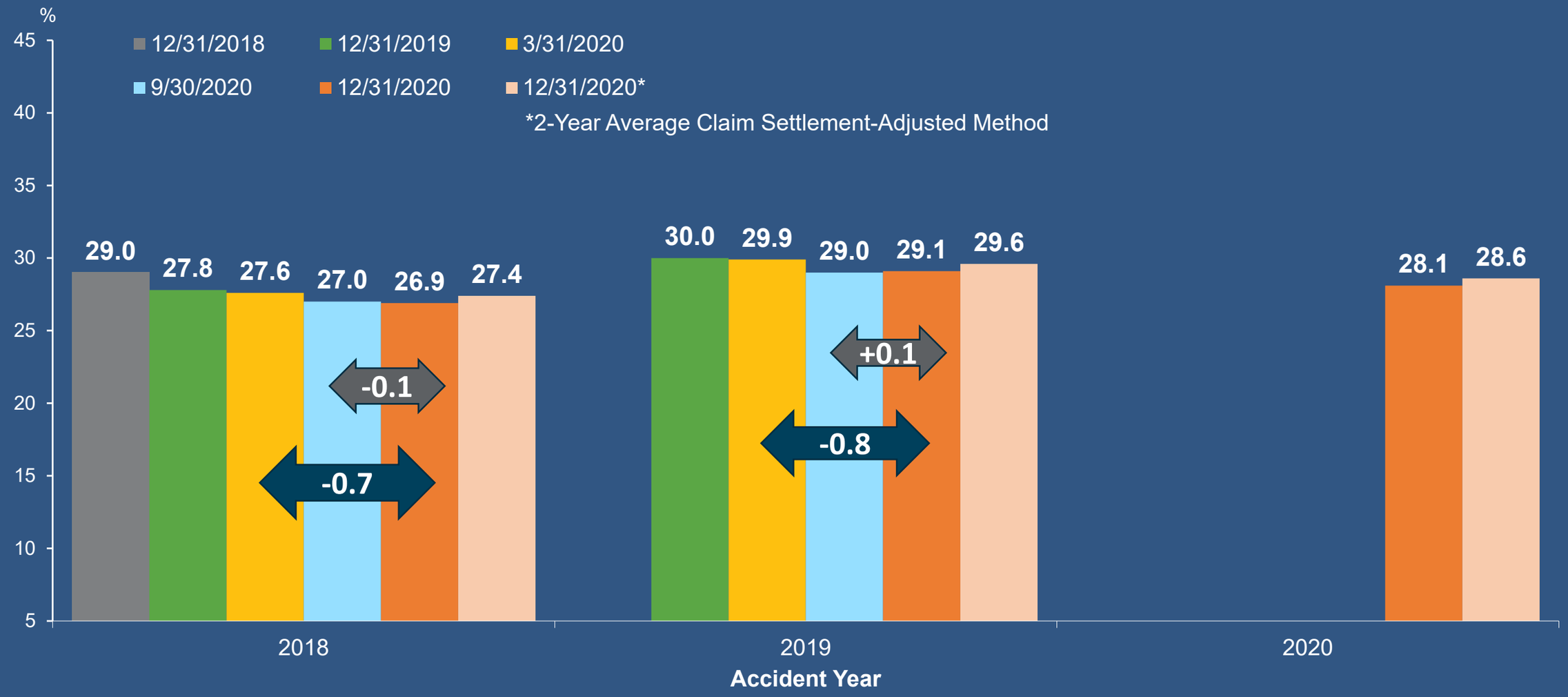
As of December 31, 2020



Note: All loss ratios are adjusted to the loss development methodology reflected in the March 16, 2021 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

Developed Medical Loss Ratios (Exhibit 3.2)

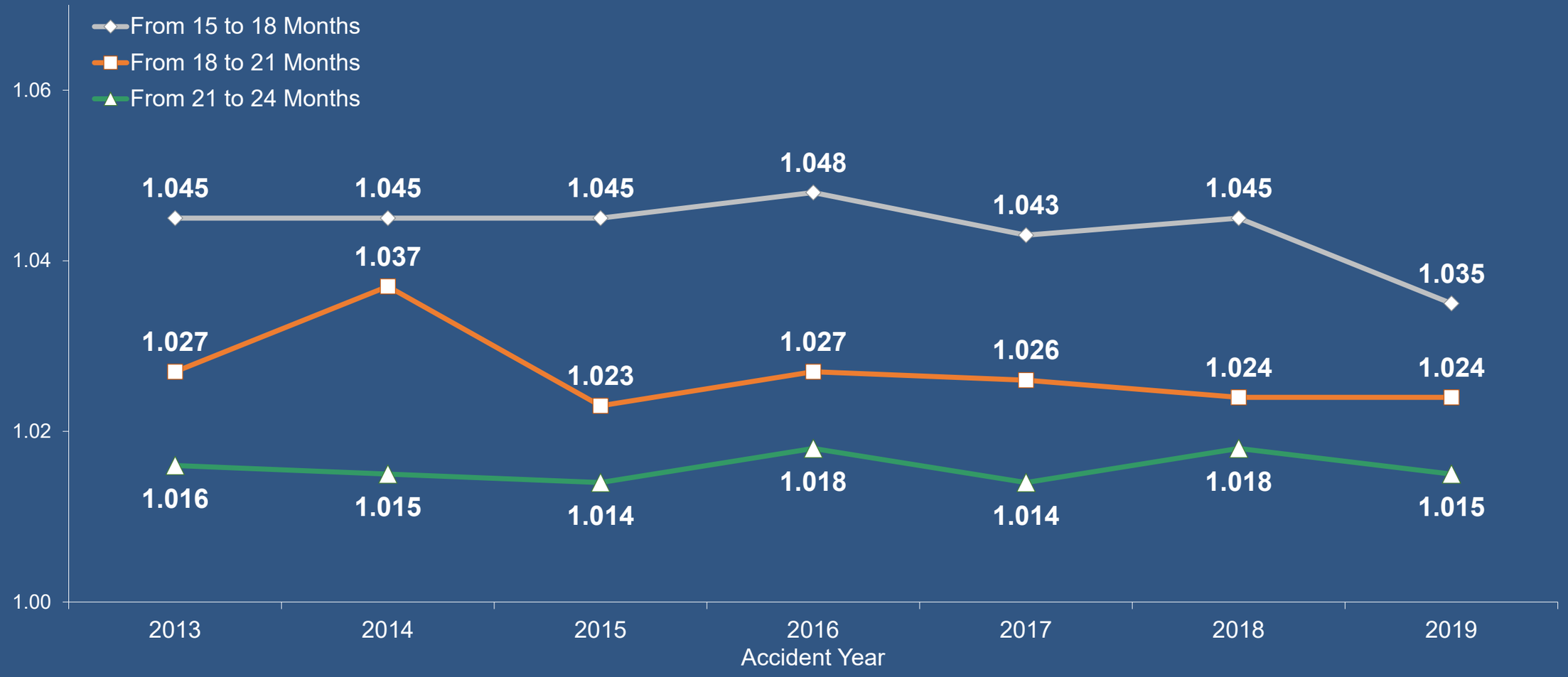
As of December 31, 2020



Note: All loss ratios are adjusted to the loss development methodology reflected in the December 8, 2020 Actuarial Committee Agenda and may not be comparable to the actual loss ratios projected at that time.
Source: WCIRB aggregate financial data excluditng COVID-19 claims

Indemnity Claim Count Quarterly Development (Exhibit 8.2)

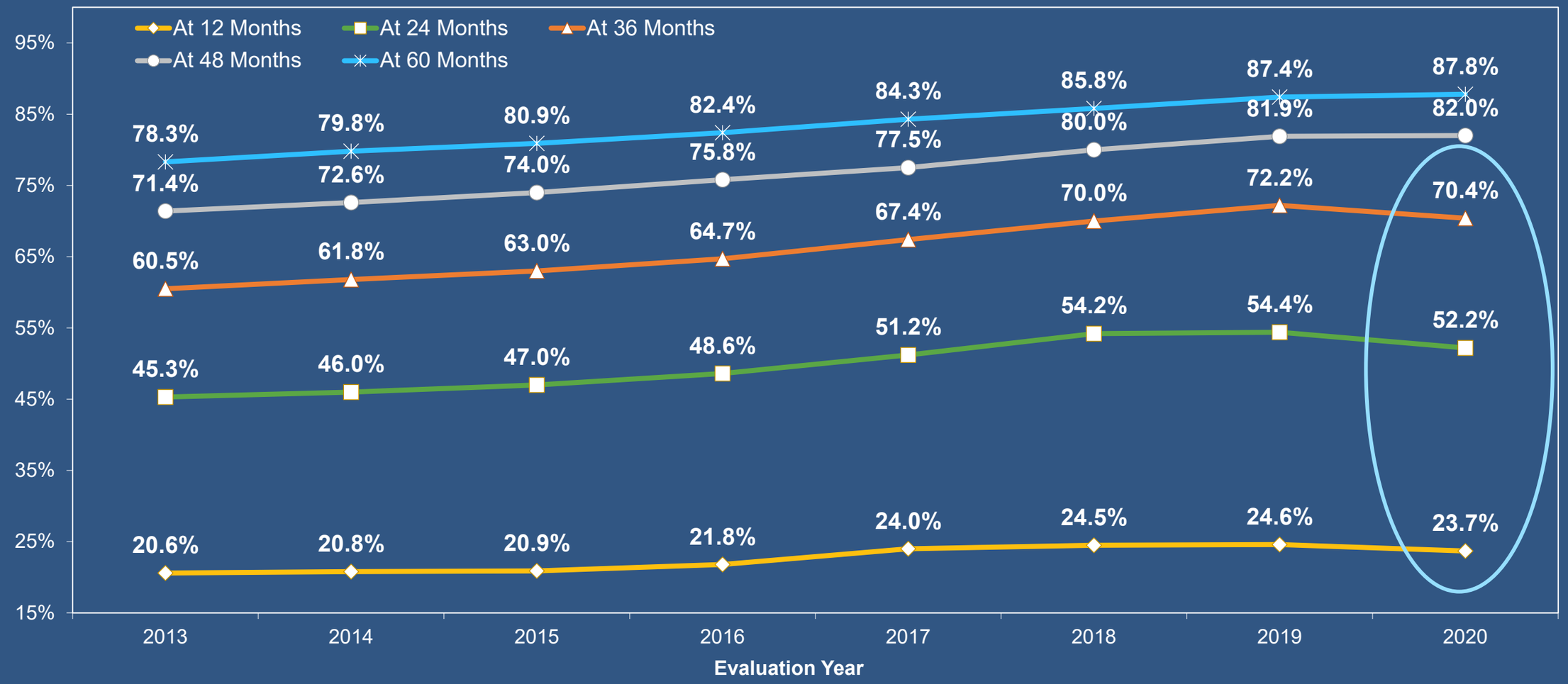
As of December 31, 2020



Source: WCIRB aggregate financial data

Estimated Ultimate Indemnity Claim Settlement Ratios (Exhibit 9.2)

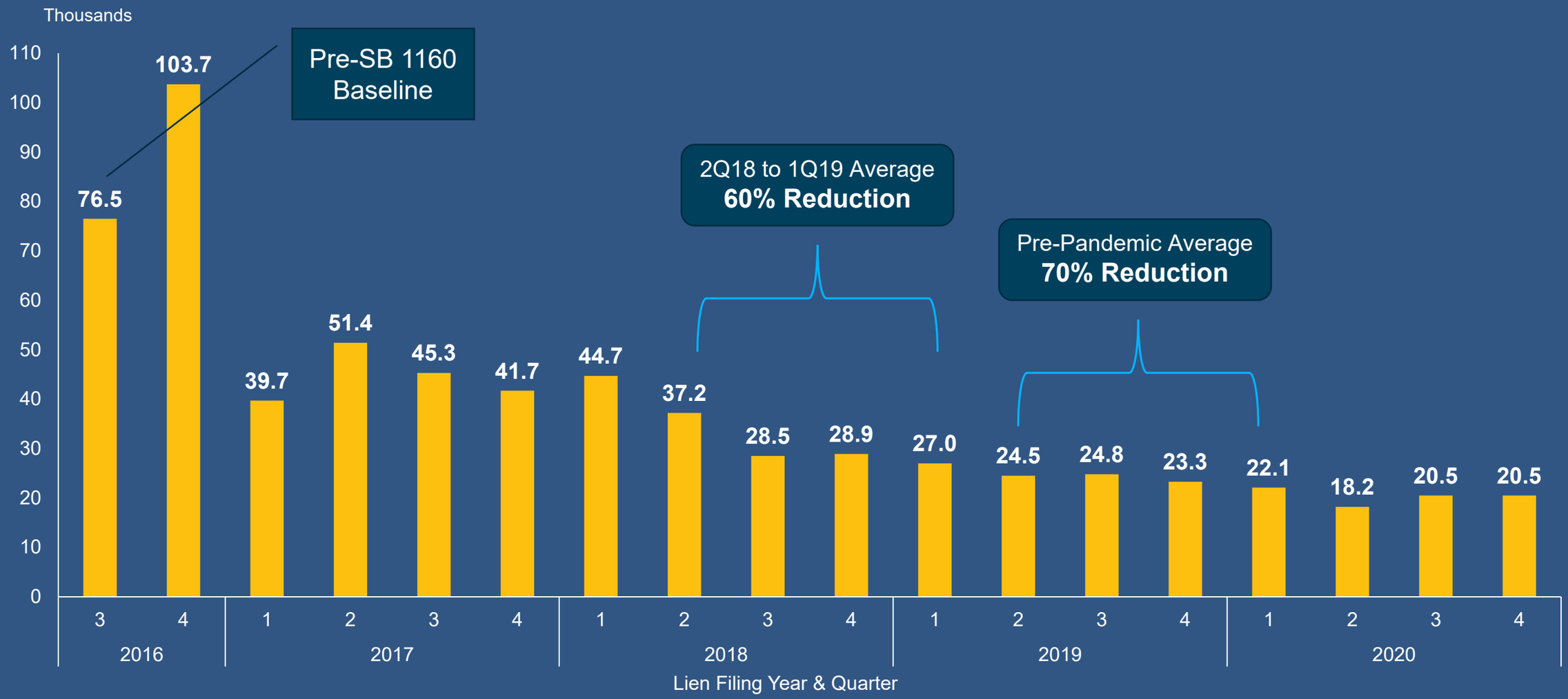
As of December 31, 2020



Source: WCIRB aggregate financial data and projections excluding COVID-19 claims

Number of Lien Filings

As of December 31, 2020



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Source: DWC EAMS data

Adjustment to Medical Development for SB 1160

Accident Years	Age @12/31/20	Adjustment Based on 60% Reduction (Current)	Adjustment Based on 70% Reduction
2015	72	-1.0%	-1.1%
2016	60	-1.7%	-2.0%
2017 to 2020	48 & Prior	-2.8%	-3.2%

Review of Medical Fee Schedule Changes

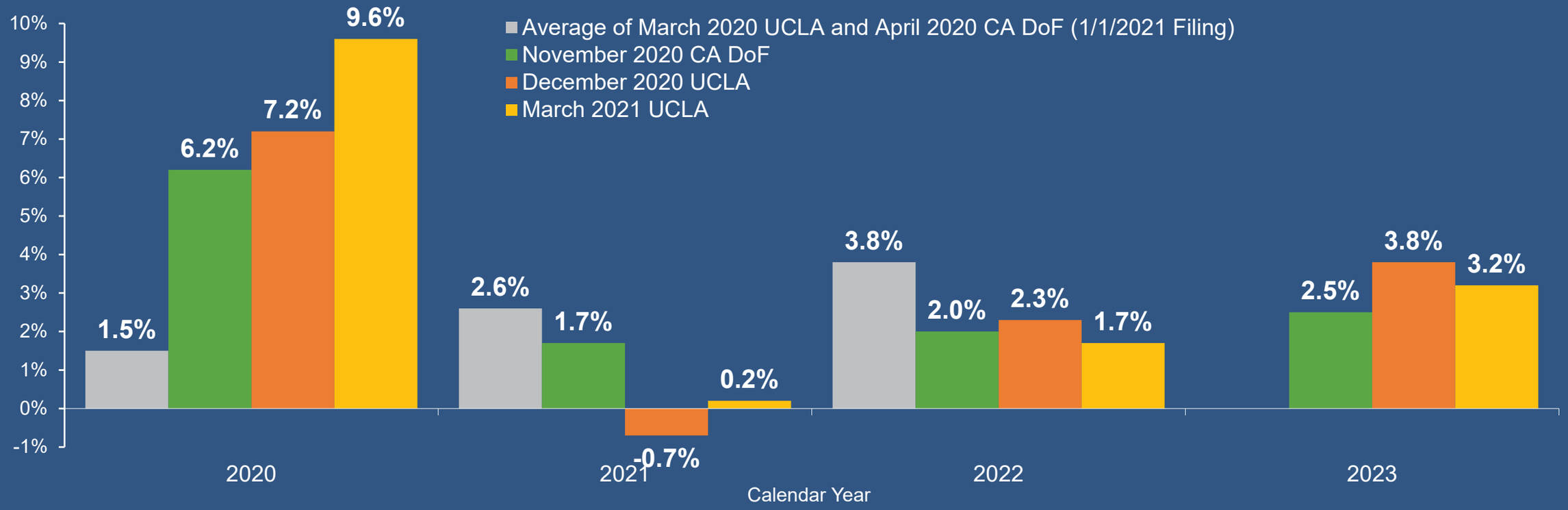
- At 12/5/2019 meeting, the Committee recommended staff review updates to medical fee schedules adopted by the DWC for any significant changes impacting medical costs
- Staff has conducted initial review of fee schedule updates published by DWC through February 2021
  - Changes in physician fees (E&M) based on Medicare updates to be reviewed at 4/15/2021 meeting
  - New medical-legal fee schedule effective 4/1/2021 to be reviewed at 4/15/2021 meeting
- Staff compared change in average medical cost after updating fee schedule using 2019 (pre-pandemic) mix of services
- No unusual changes significantly impacting medical severities discovered from updates reviewed
- Staff also not recommending any adjustments to medical on-level factors for Drug Formulary impact after recent retrospective evaluation

Review of Medical Fee Schedule Changes – Impact on Medical Severities

Fee Schedule	Effective Date	Update Type	Impact on Medical Services
Inpatient	12/1/2020	Regular inflation update	0.2%
HCPCS	1/1/2021	Updates for ambulance services, milage update	< 0.1%
DMEPOS	1/1/2021	Regular inflation update	< -0.1%
Path/Lab	1/1/2021	Regular inflation update	< 0.1%
Outpatient	3/1/2021	Regular inflation update	0.4%
Physician	3/1/2021	E&M changes, other Medicare updates	TBD
Medical-legal	4/1/2021	Major fee schedule update	TBD

Average Annual Wage Level Change Forecast (Exhibit 5.1)

As of March 2021



Average Annual Change Projection from 2019:

1/1/2021 Filing (w/ -0.8% adjustment to 2020):	**2.4%**
3/16/2021 Agenda (w/ -0.8% adjustment to 2020):	**2.8%**
Updated with March 2021 UCLA & Class Mix Adj.:	**3.1%**

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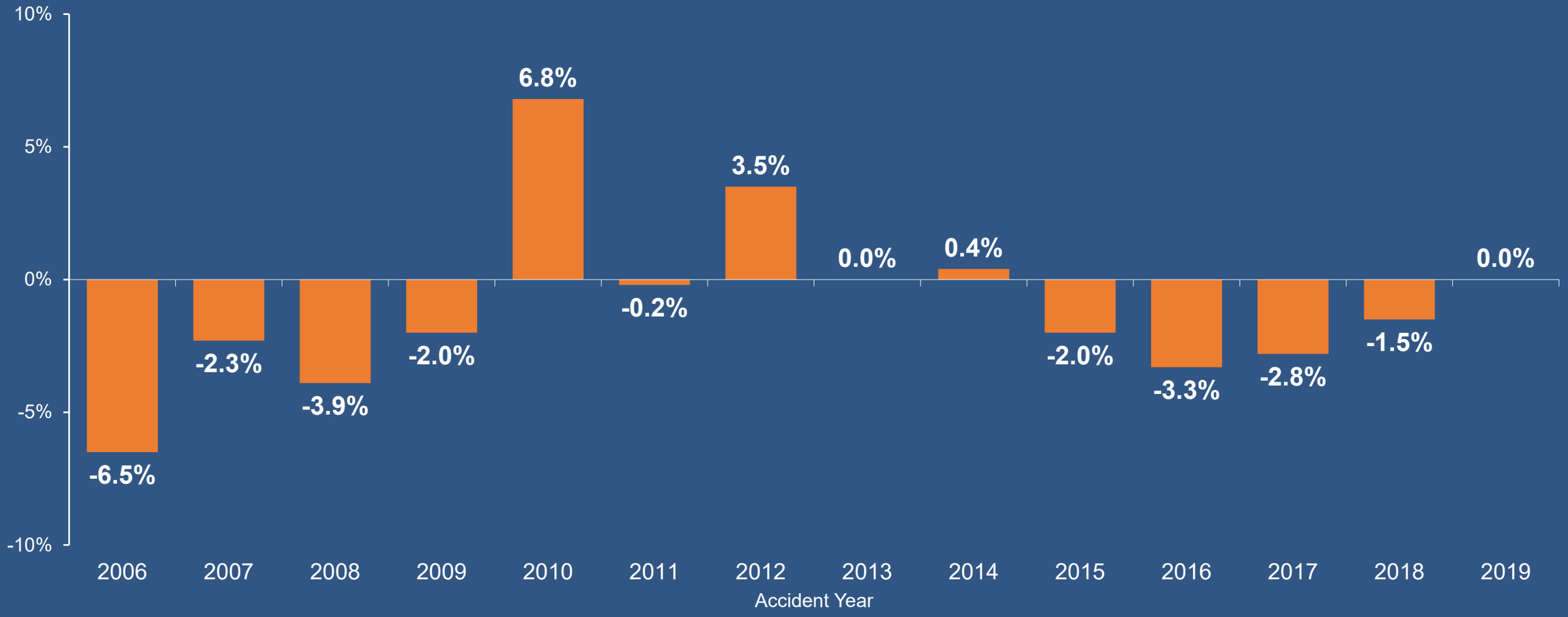
Source: UCLA Anderson School of Business and California Department of Finance forecasts

Historical Changes in Indemnity Claim Frequency (Exhibit 10 Revised)

As of December 31, 2020



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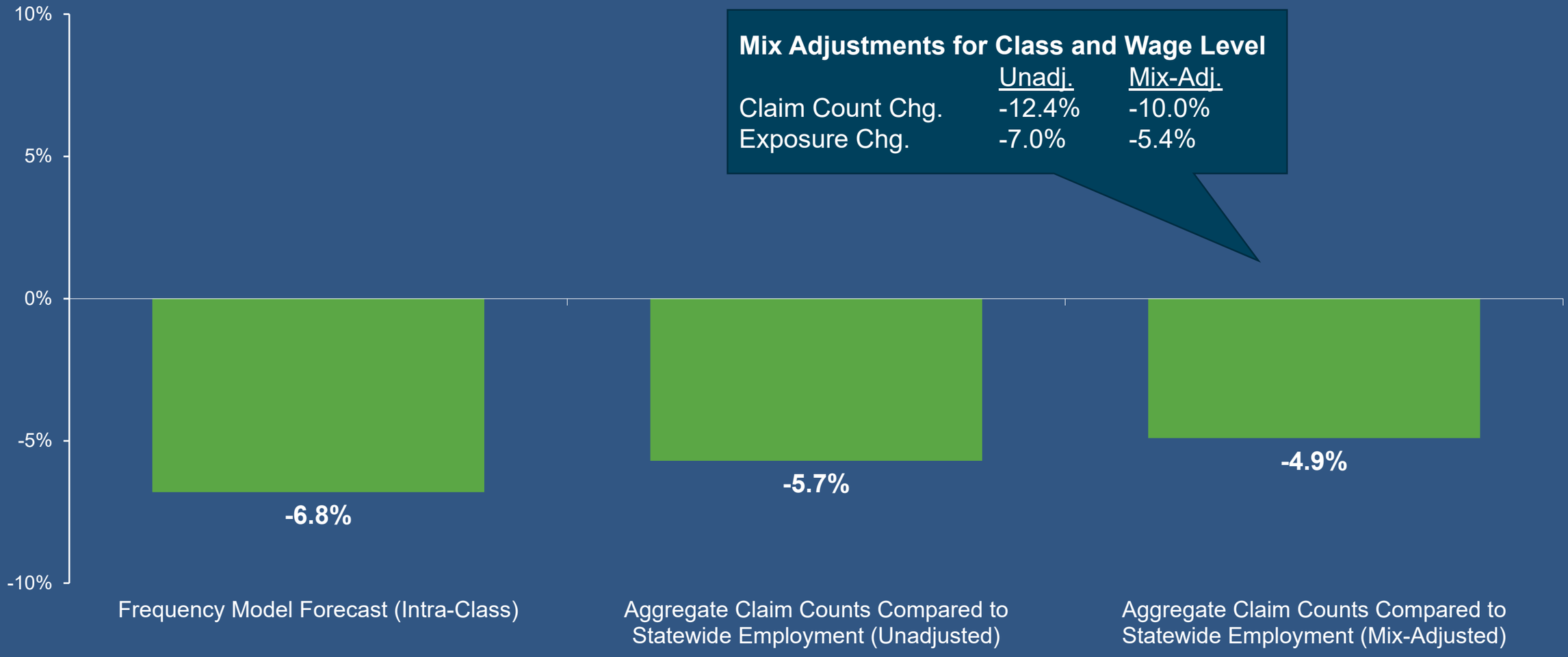
Source: Unit statistical indemnity claim counts compared to reported insured payroll.

Accident Year 2020 Indemnity Claim Frequency Change (Ex-COVID)

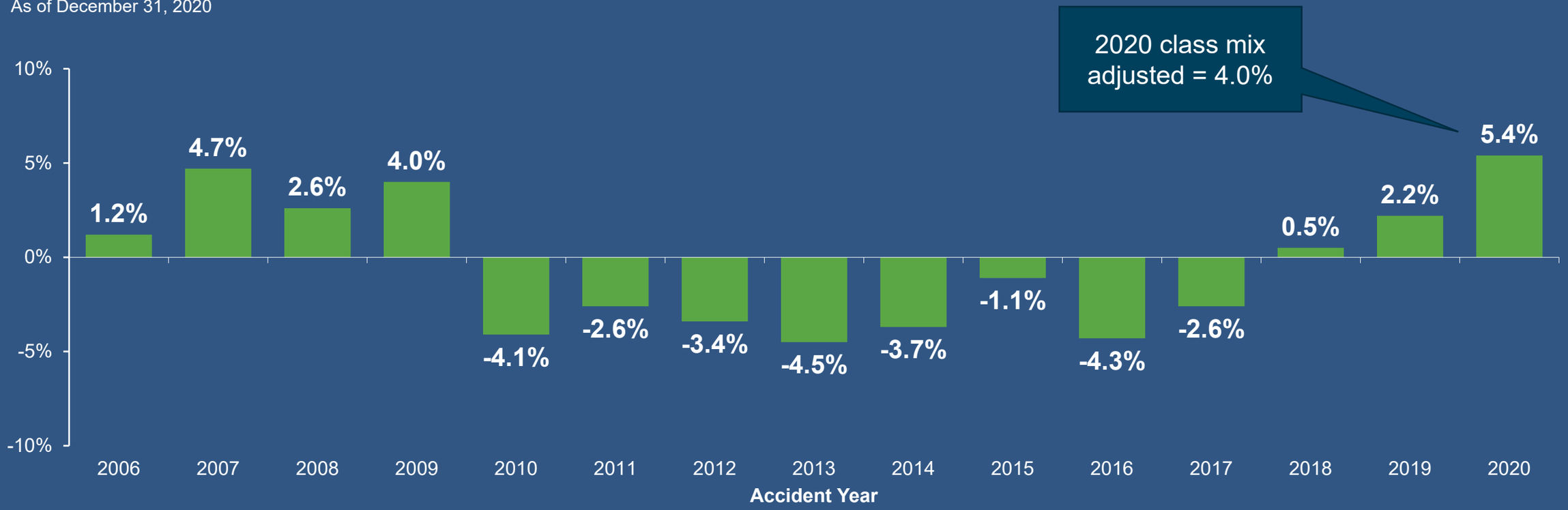
As of December 31, 2020



Source: WCIRB aggregate financial data and UCLA Anderson forecast as of December 2020.

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

As of December 31, 2020



Annual Exponential Trend Based on:

1990 to 2020: 1.0%

2005 to 2020: -1.4%

2016 to 2020: 1.4% (Class Mix Adj. = 1.1%)

1/1/2021 Filing Selected: 1.0%

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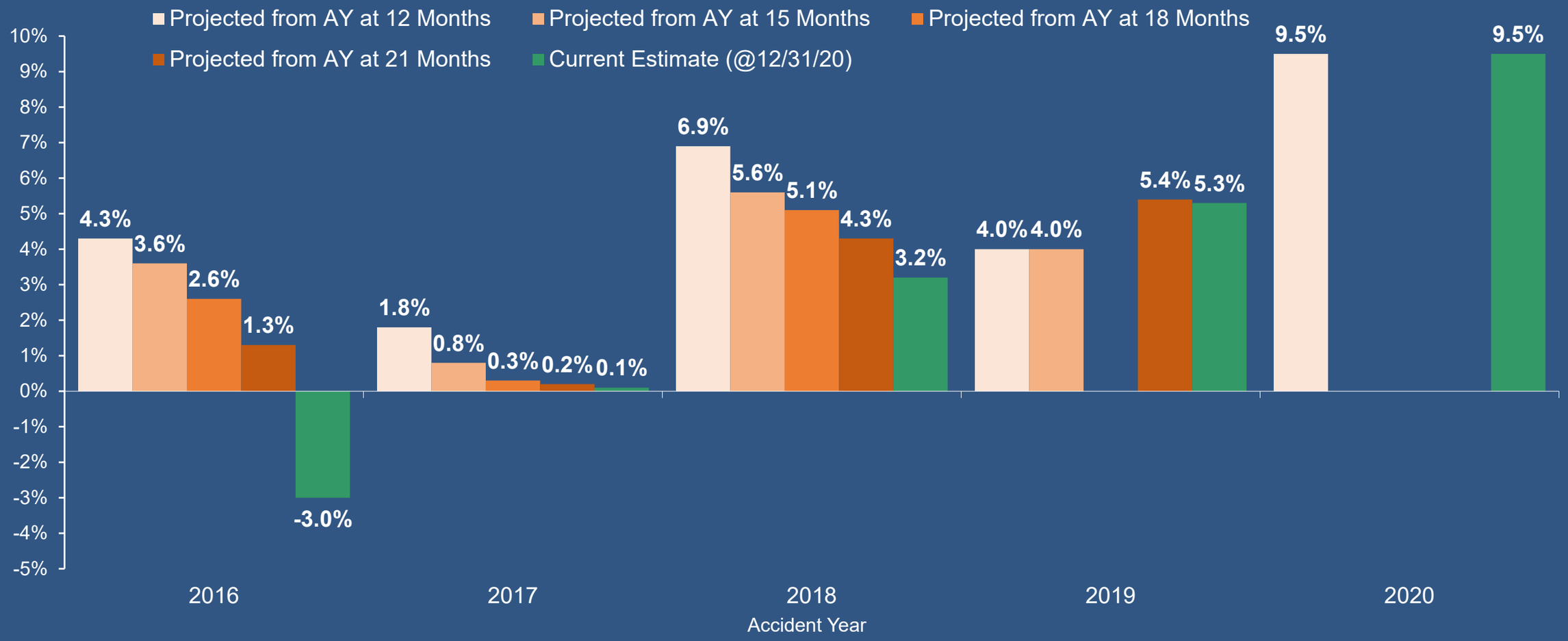
Source: WCIRB aggregate financial data excluding COVID-19 claims and projections

Indemnity Severity Changes Projected from Early Evaluations Compared to Current

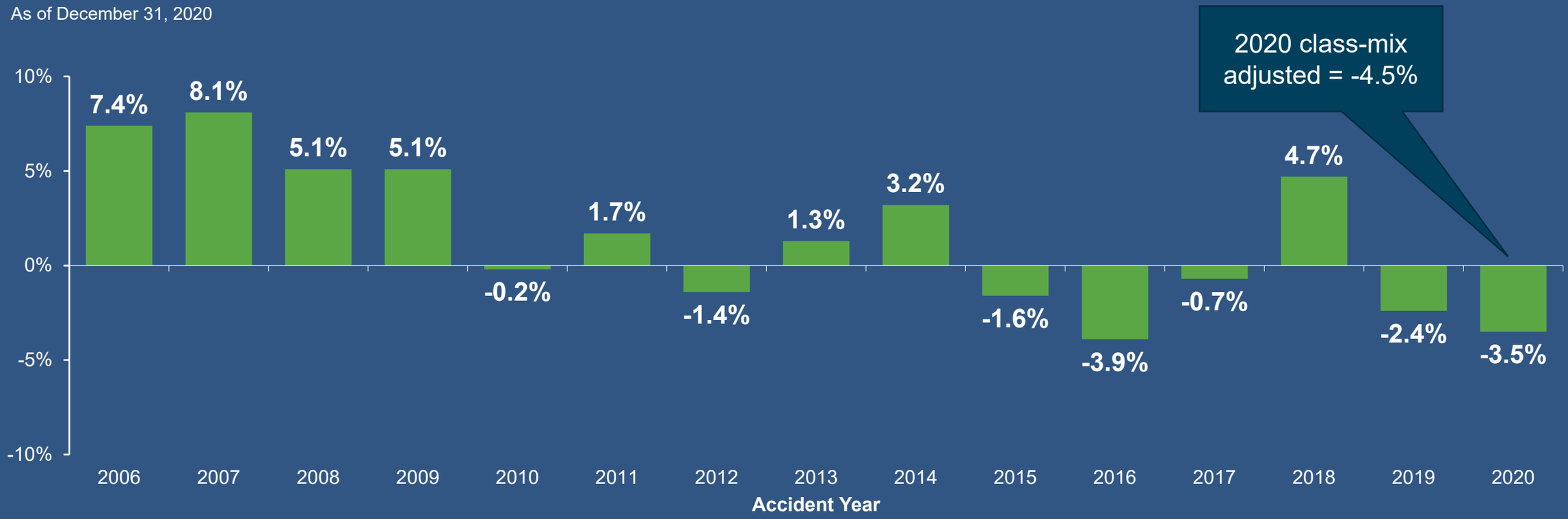
As of December 31, 2020



Source: WCIRB aggregate financial data excluding COVID-19 claims

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

As of December 31, 2020



Annual Exponential Trend Based on:

1990 to 2020 (Incl. MCCP): 5.1%

2005 to 2020: 1.1%

2016 to 2020: -0.2% (Class Mix Adj. = -0.4%)

1/1/2021 Filing Selected: 2.5%

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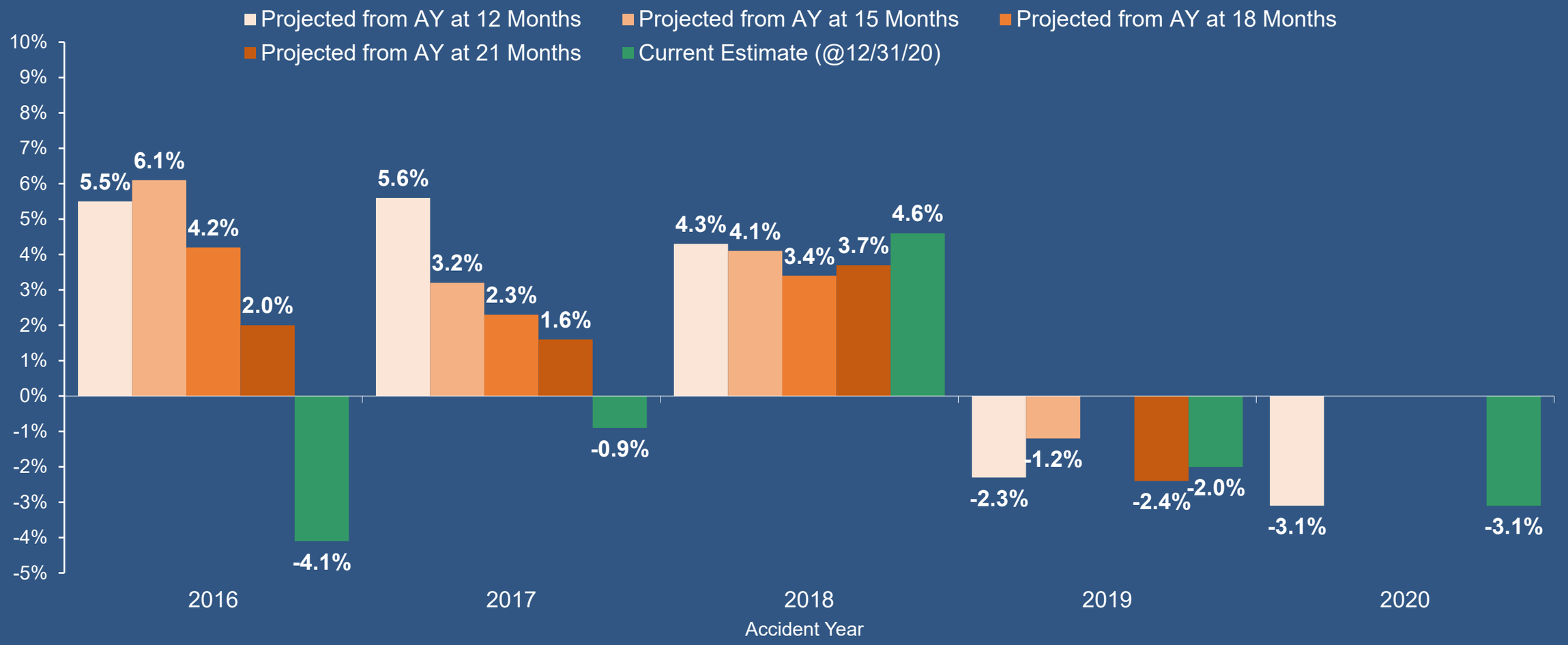
Source: WCIRB aggregate financial data excluding COVID-19 claims and projections. Excludes MCCP costs.

Medical Severity Changes Projected from Early Evaluations Compared to Current

As of December 31, 2020



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Source: WCIRB aggregate financial data excluding COVID-19 claims

06

Review of COVID-19 Claim Diagnostics

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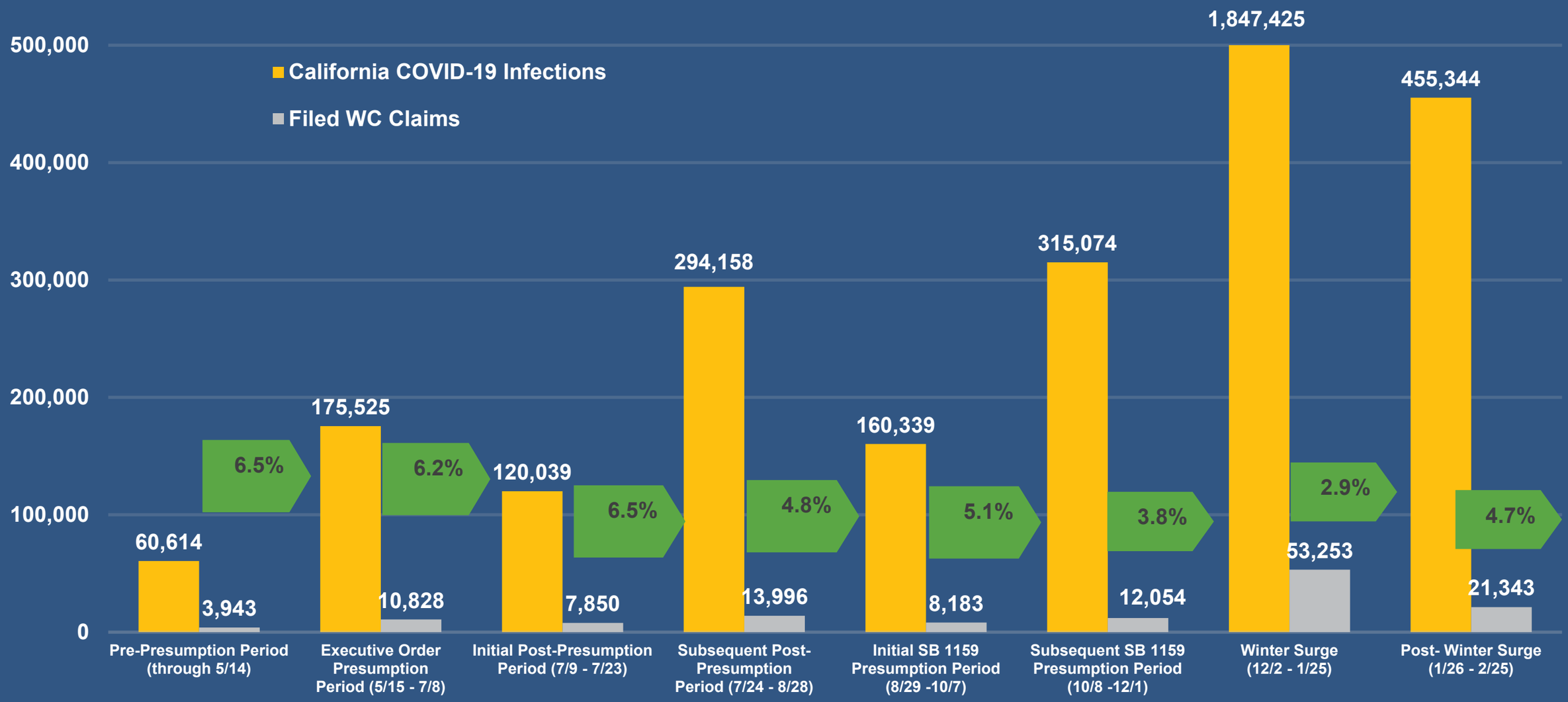
Filed Workers' Compensation COVID-19 Claims Relative to California Infections



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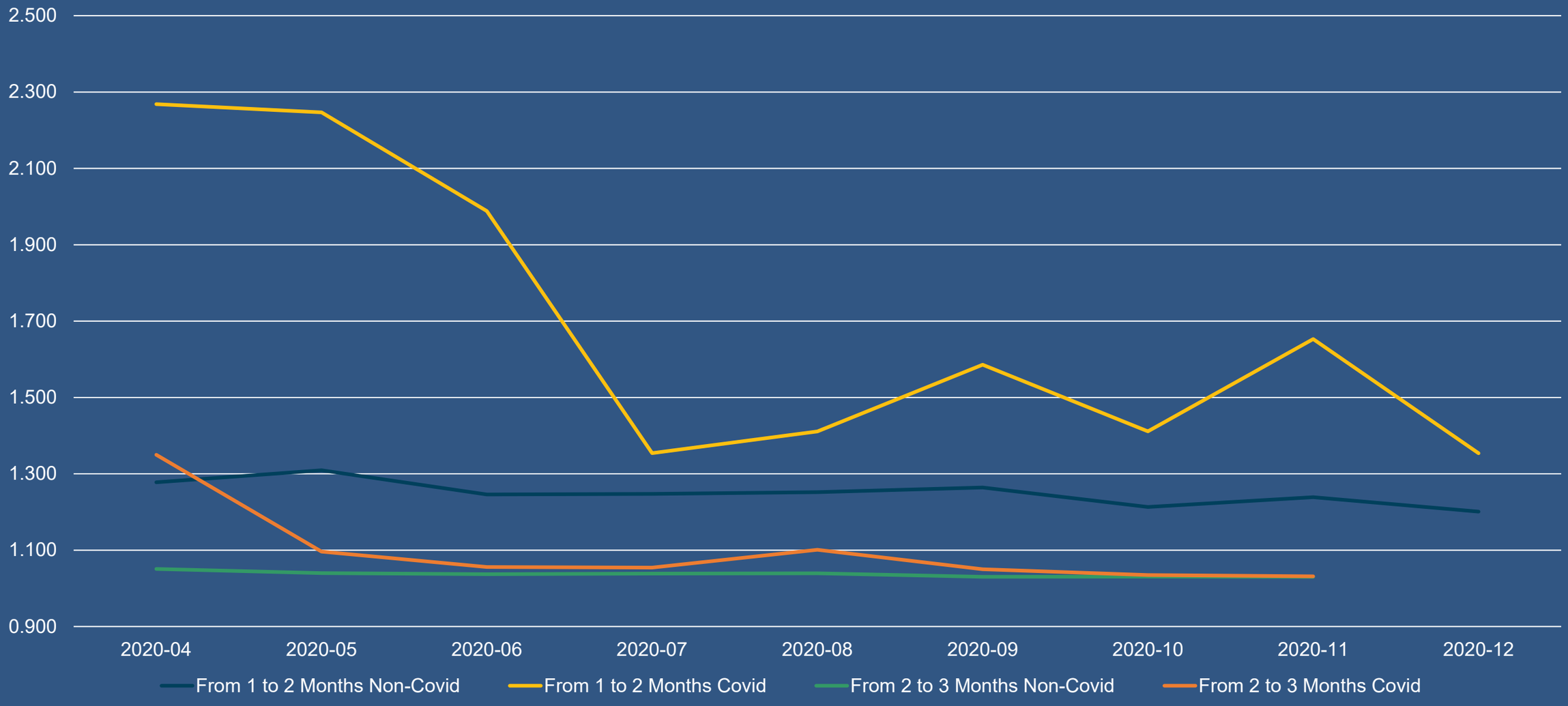
Source: DWC and COVID Tracking Project. Infection counts reflect data 7 days prior to the DWC claim counts to reflect the typical delays in workers' compensation claim filings..

Comparison of Monthly Claim Reporting to WCIRB

As of Feb. 23, 2021



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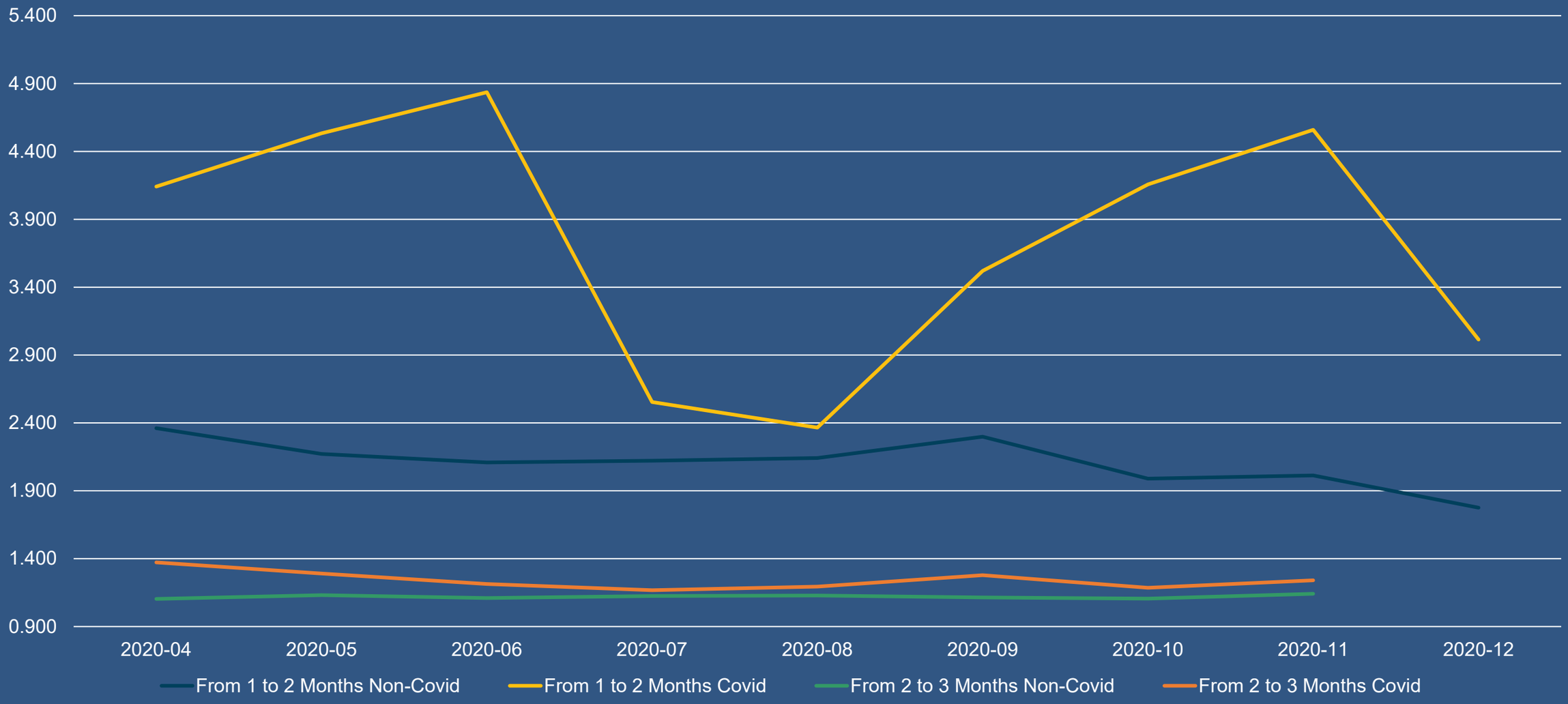
Source: FROI records from WCIRB indemnity transaction data

Comparison of Monthly Indemnity Claim Reporting to WCIRB

As of Feb. 23, 2021



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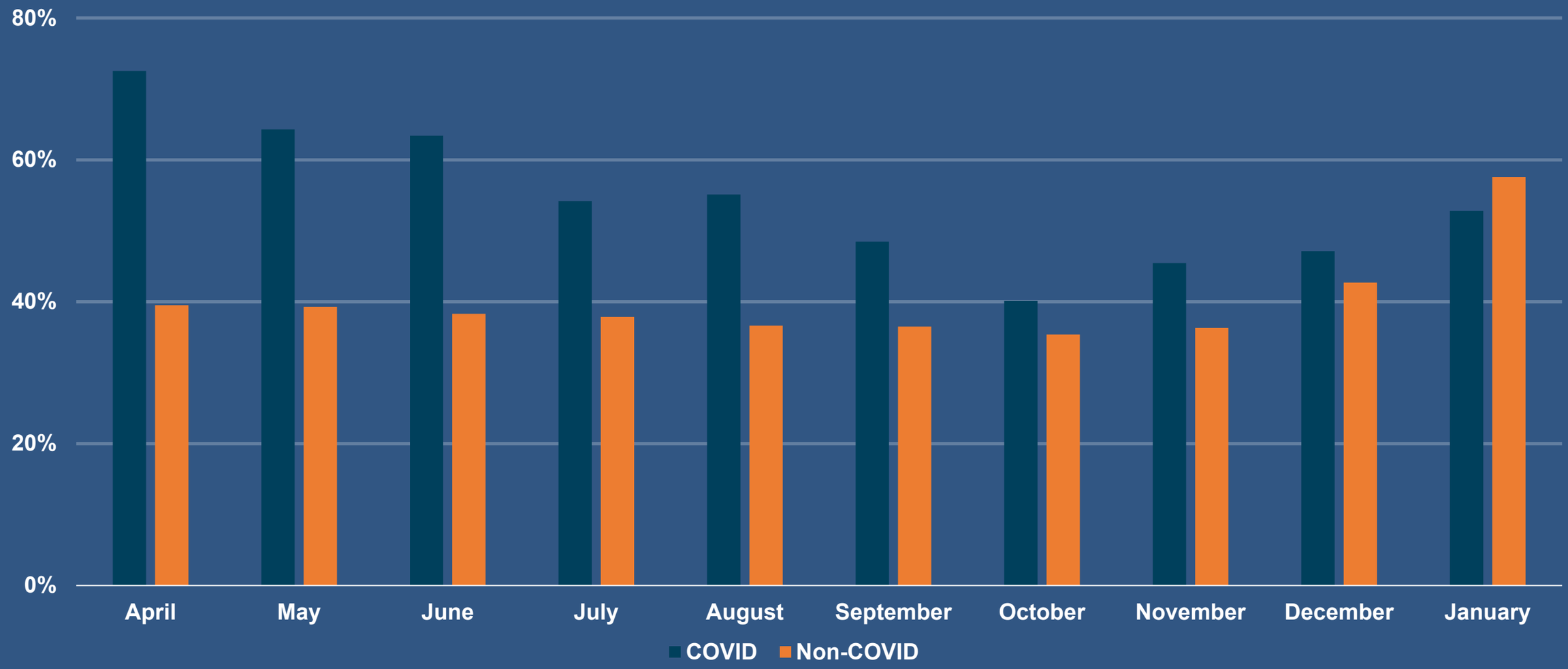
Source: FROI and SROI records from WCIRB indemnity transaction data

Share of Claims Classified as Indemnity by Accident Month—COVID-19 vs. Non-COVID-19

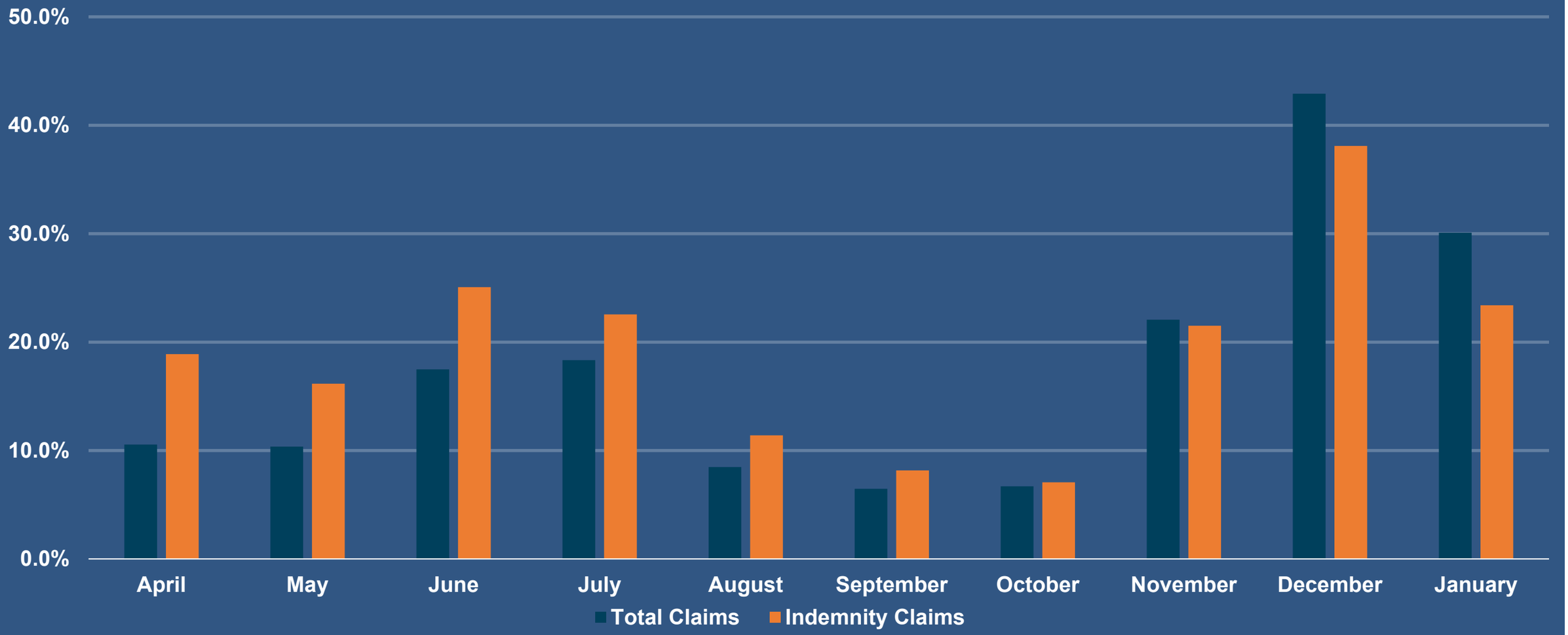
As of Feb. 23, 2021



Source: FROI and SROI records from WCIRB indemnity transaction data

Reported COVID-19 Claims by Accident Month as a Share of Total and Indemnity Claims

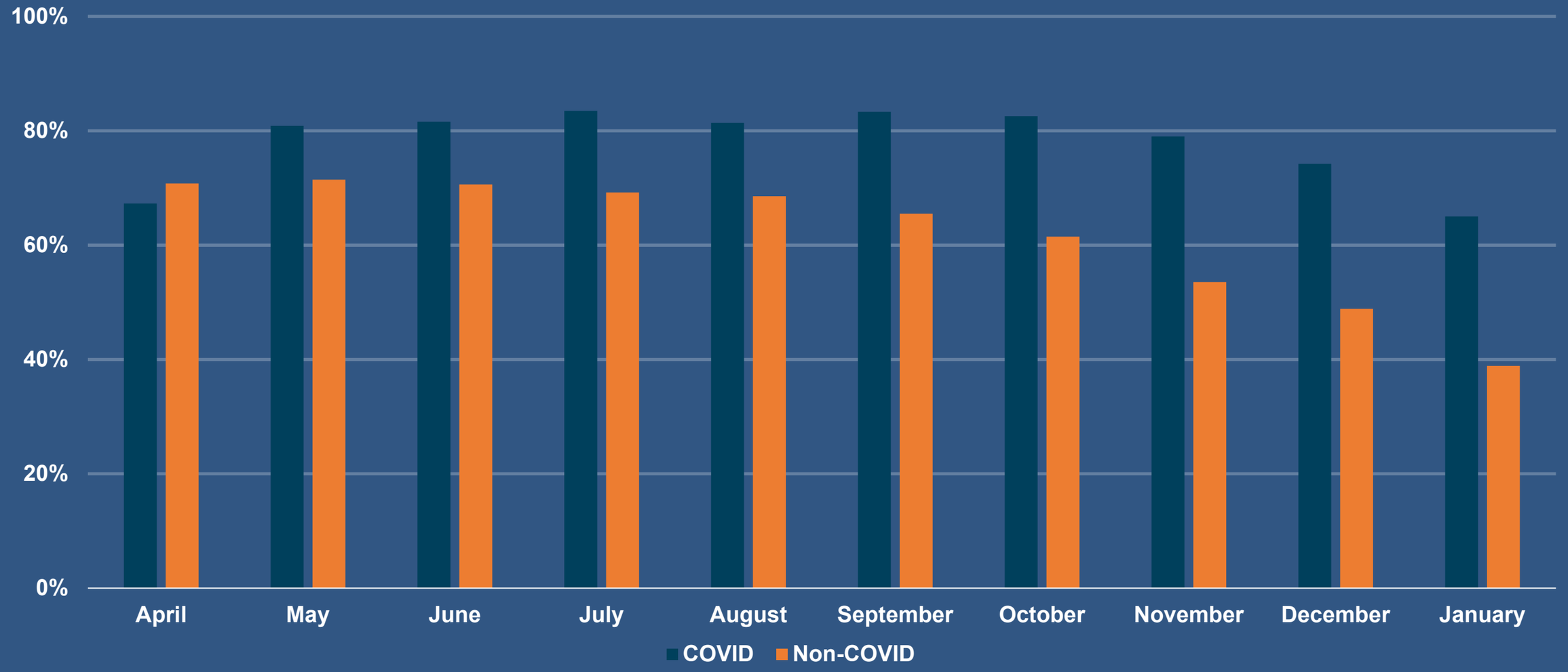
As of Feb. 23, 2021



Source: FROI and SROI records from WCIRB indemnity transaction data

Claim Closing Rate by Accident Month — COVID-19 vs. Non-COVID-19 Claims

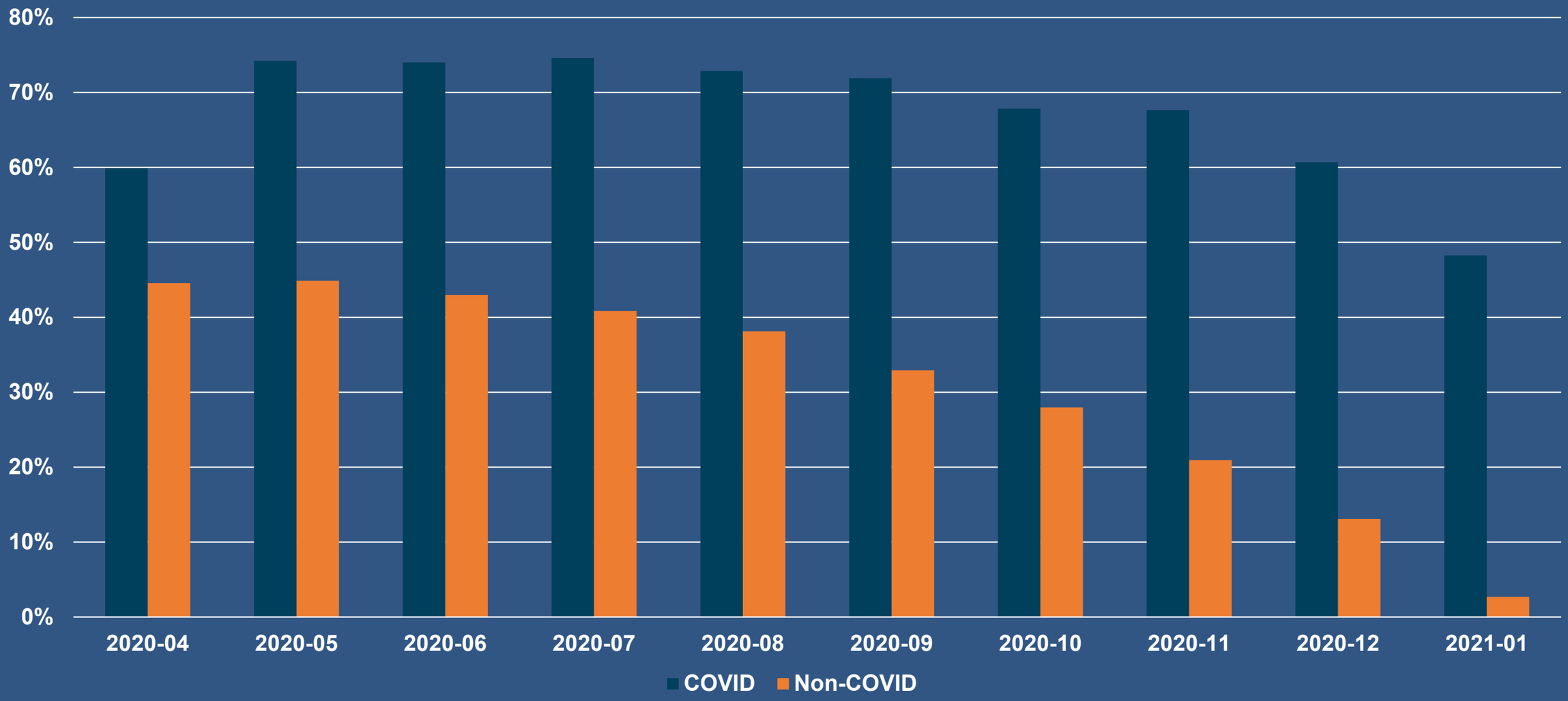
As of Feb. 23, 2021



Source: FROI and SROI records from WCIRB indemnity transaction data

Indemnity Claim Closing Rate by Accident Month — COVID-19 vs. Non-COVID-19 Claims

As of Feb. 23, 2021



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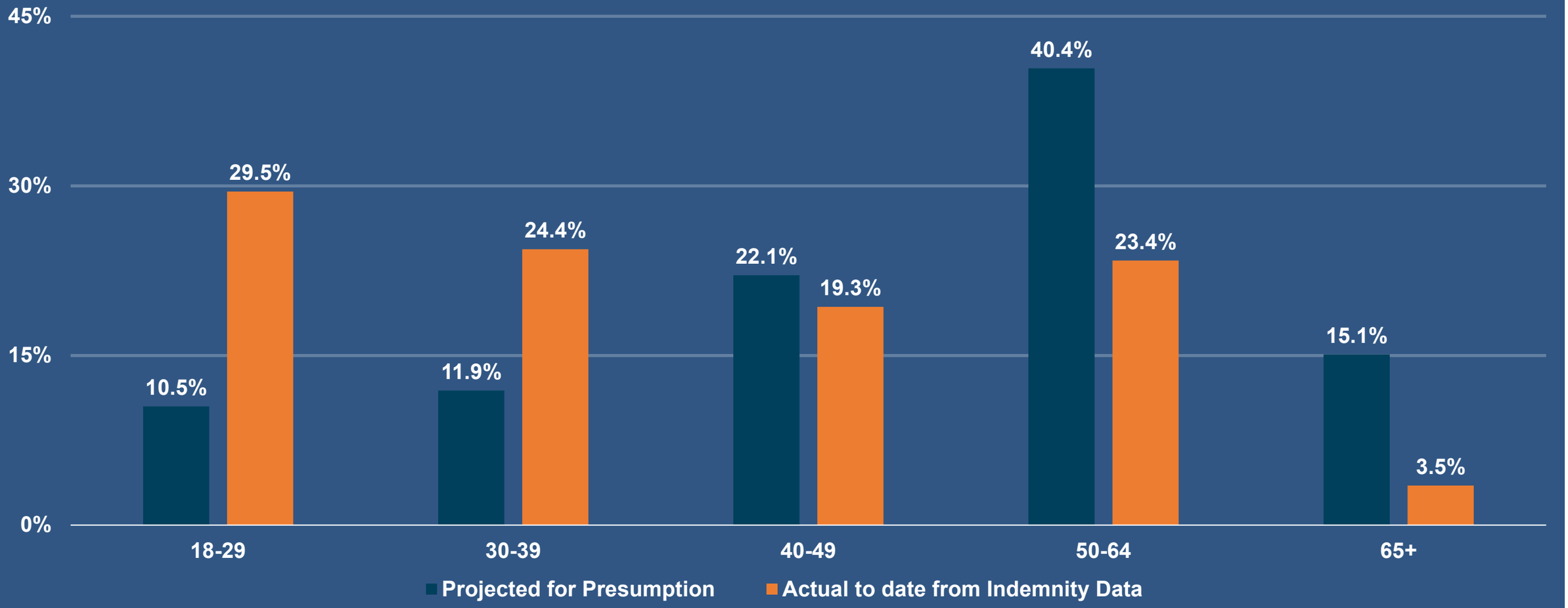
Source: FROI and SROI records from WCIRB indemnity transaction data

Comparison of Projected Age Distribution in Presumption Analysis to Observed Age Distribution

As of Feb. 23, 2021



Source: FROI records from WCIRB indemnity transaction data

Share of Total Claims due to COVID-19 by Industry

As of Feb. 23, 2021

Industry	Share of Claims due to COVID
Health Care	44%
Public Administration	30%
Finance	29%
Clerical	21%
Education	19%
Outside Sales	17%
Accomodation & Food Services	16%
Retail	12%
Manufacturing	12%
Transportation	12%
Administrative Services	11%
Other Services	11%
Unknown	9%
Arts & Entertainment	9%
Real Estate	9%
Agriculture & Mining	9%
Professional Services	8%
Utilities & Construction	8%
Wholesale	8%
Information	6%
Total	16%

Source: FROI records from WCIRB indemnity transaction data for claims from March 2020 through February 2021

Comparison of Distribution of COVID Claims by Industry reported to the WCIRB (includes denied claims)

As of Feb. 23, 2021

Industry Code	Industry Code Description	As of 2/23/2021	As of 8/31/2020
62	Health Care	33%	41%
48	Transportation	12%	7%
31	Manufacturing	10%	11%
44	Retail	8%	7%
72	Accomodation & Food Services	8%	6%
8810	Clerical	7%	4%
23	Construction	5%	5%
42	Wholesale	3%	3%
56	Administrative Services	3%	2%
11	Agriculture	2%	5%
8742	Outside Sales	1%	1%
81	Other Services	1%	2%
53	Real Estate	1%	1%
61	Education	1%	1%
54	Professional Services	1%	1%
52	Finance	1%	1%
71	Arts & Entertainment	1%	1%
92	Public Administration	0%	0%
51	Information	0%	0%
21	Mining	0%	0%
22	Utilities	0%	0%

Source: FROI records from WCIRB indemnity transaction data

Comparison of Distribution of COVID Claims by Industry reported to WCIS (includes denied claims)

As of Feb. 26, 2021

Industry Code	Industry Description	Feb. 23, 2021	Aug. 28, 2021
62	Health Care and Social Assistance	33%	39%
92	Public Administration	19%	18%
48	Transportation and Warehousing	7%	5%
44	Retail Trade	6%	6%
31	Manufacturing	6%	7%
72	Accommodation and Food Services	6%	5%
42	Wholesale Trade	5%	3%
8810		4%	4%
23	Construction	3%	3%
11	Agriculture, Forestry, Fishing and Hunting	2%	3%
56	Administrative and Support and Waste Management and Remediation Services	2%	2%
61	Educational Services	2%	1%
81	Other Services (except Public Administration)	1%	1%
8742		1%	1%
54	Professional, Scientific, and Technical Services	1%	1%
53	Real Estate and Rental and Leasing	1%	1%
52	Finance and Insurance	1%	0%
71	Arts, Entertainment, and Recreation	0%	0%
22	Utilities	0%	0%
51	Information	0%	0%
21	Mining, Quarrying, and Oil and Gas Extraction	0%	0%
55	Management of Companies and Enterprises	0%	0%

Source: FROI records reported to WCIS

Industries with Significant Changes in Non-COVID-19 Claim Share

As of Feb. 23, 2021

Agriculture and Mining

Manufacturing

Utilities and Construction

- Claims at 3 Months for 2020 Q2-Q4 Compared to Prior 4 Quarters
- Share Increased or Decreased by More Than 1 Point

Accommodation and Food Services

Educational Services

Arts, Entertainment and Recreation

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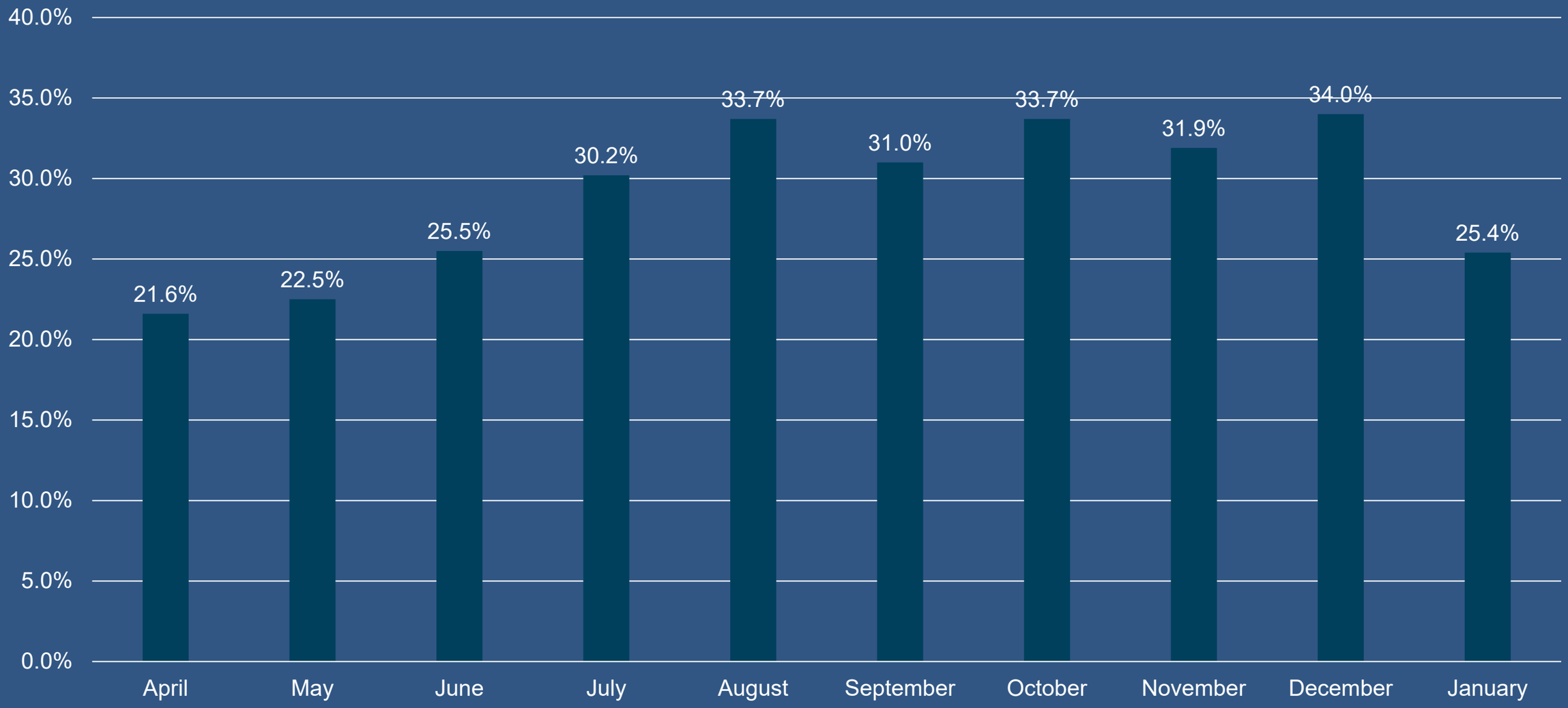
Source: FROI records from WCIRB indemnity transaction data

Denial Rates by Accident Month for COVID Claims

As of Feb, 23 2021



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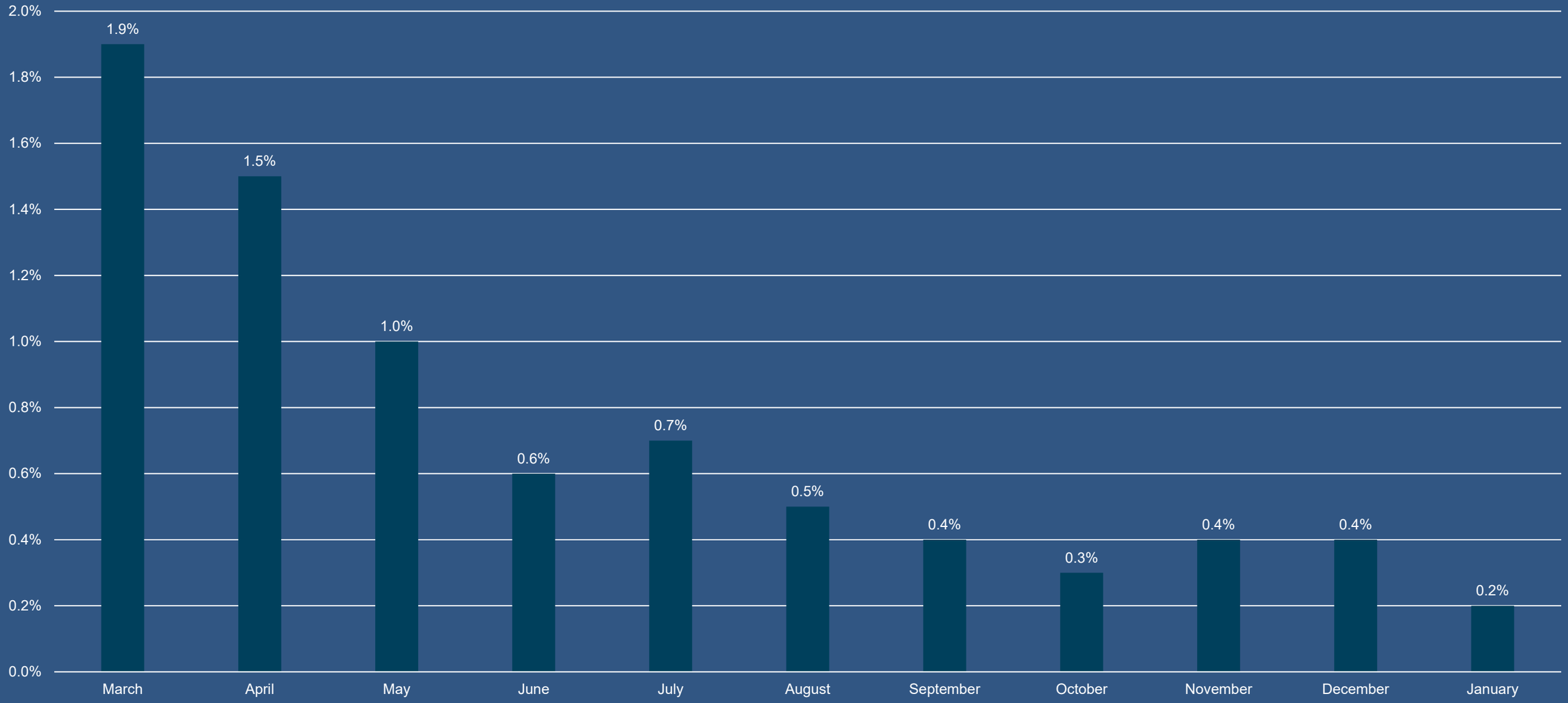
Source: FROI records from WCIRB indemnity transaction data

Share of COVID-19 Claims with an Employee Date of Death by Accident Month

As of Feb. 23, 2021



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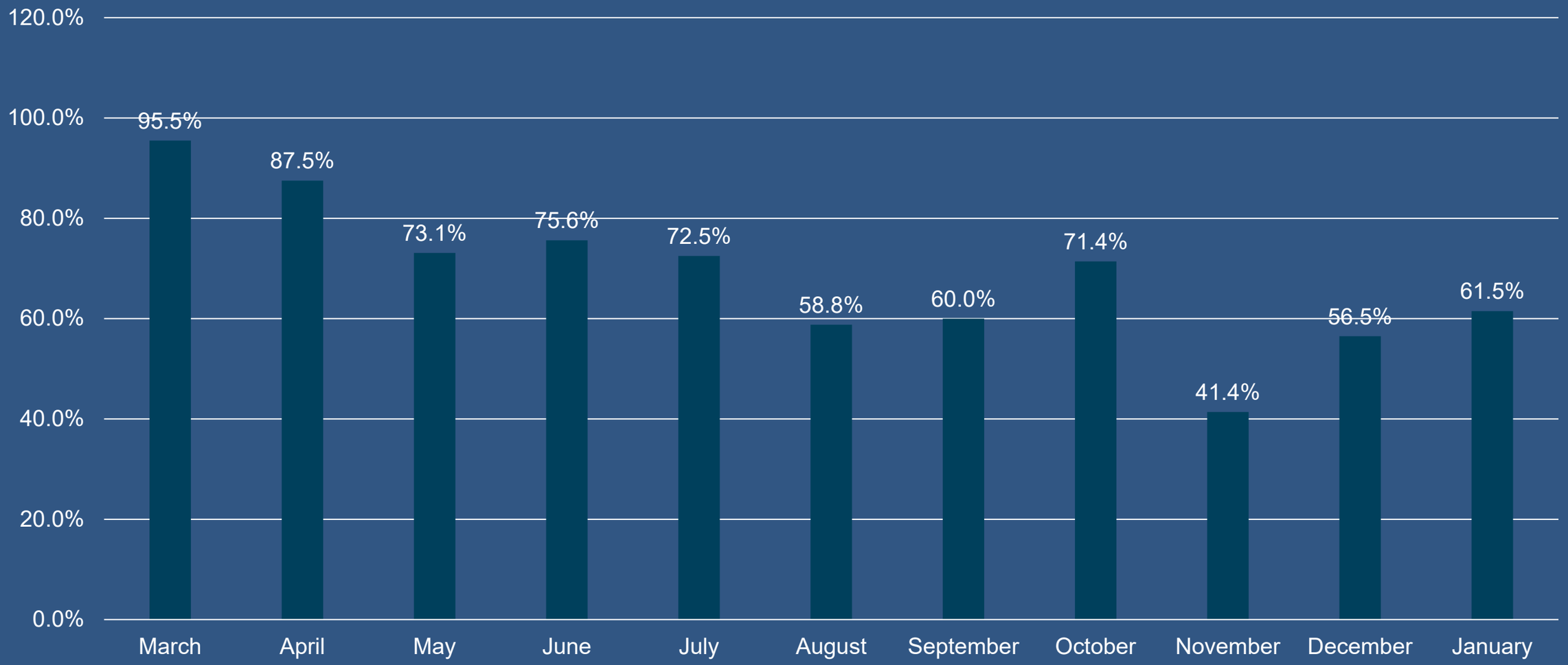
Source: FROI records from WCIRB indemnity transaction data

Share of COVID-19 Claims with an Employee Date of Death which were reported to the Claims Administrator after the Date of Death by Accident Month

As of Feb. 23, 2021



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Source: FROI records from WCIRB indemnity transaction data

When are COVID-19 Fatality Claims First Reported to the Employer?

As of Feb. 23, 2021

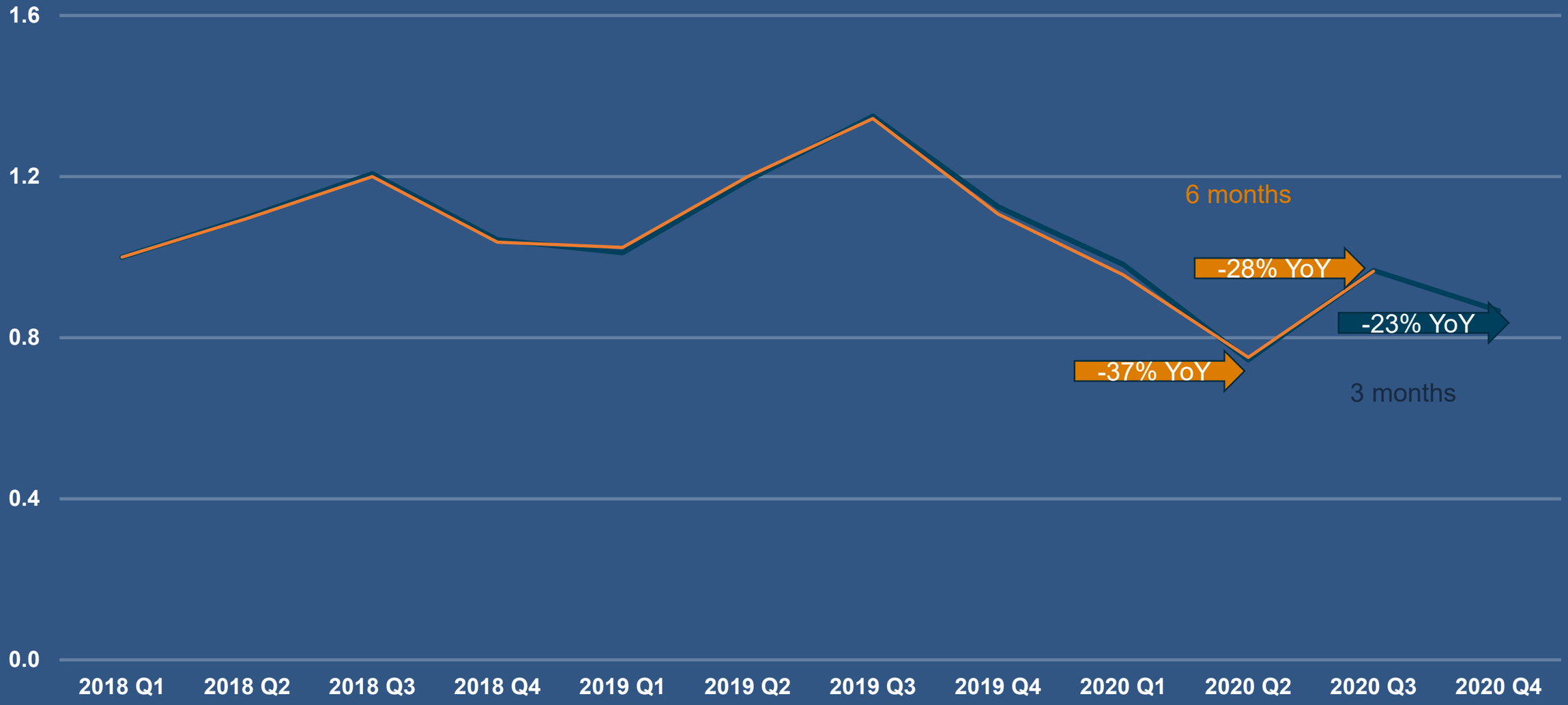
Month of Fatality

Month Claim Reported to Employer	March	April	May	June	July	August	September	October	November	December	January
March	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
April	100%	48%	22%	0%	0%	0%	6%	0%	0%	0%	0%
May	0%	52%	29%	17%	4%	3%	0%	0%	0%	0%	0%
June	0%	0%	49%	17%	4%	0%	0%	0%	0%	0%	0%
July	0%	0%	0%	67%	38%	9%	6%	0%	0%	0%	0%
August	0%	0%	0%	0%	55%	63%	17%	0%	0%	0%	0%
September	0%	0%	0%	0%	0%	25%	33%	29%	0%	2%	0%
October	0%	0%	0%	0%	0%	0%	39%	43%	7%	0%	0%
November	0%	0%	0%	0%	0%	0%	0%	29%	33%	0%	0%
December	0%	0%	0%	0%	0%	0%	0%	0%	60%	38%	5%
January	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%	75%

Source: FROI records from WCIRB indemnity transaction data

Total Non-COVID-19 Claims Reported by AQ Relative to the Number Reported in 2018 Q1

As of Feb. 23, 2021



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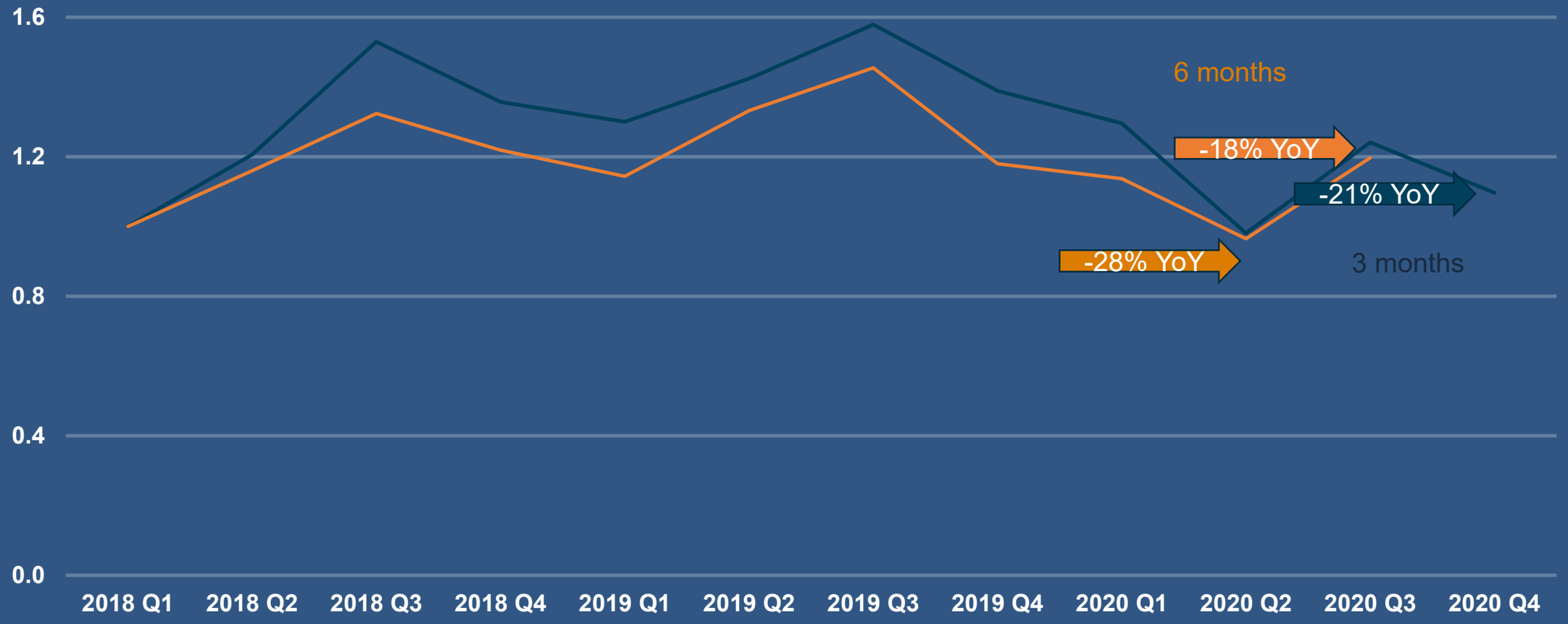
Source: FROI records from WCIRB indemnity transaction data

Non-COVID-19 Indemnity Claims Reported by AQ Relative to the Number Reported in 2018 Q1

As of Feb. 23, 2021



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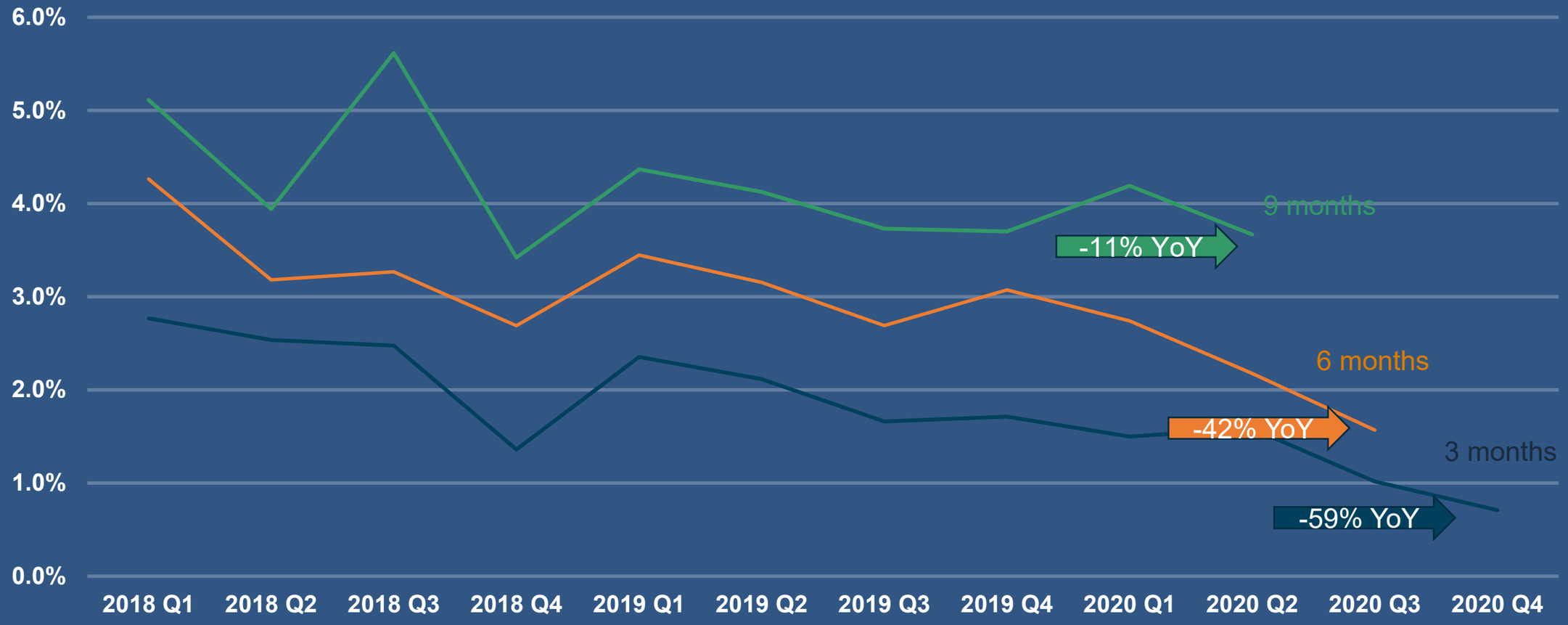
Source: FROI and SROI records from WCIRB indemnity transaction data

CT Indemnity Claims Reported as a Share of Indemnity Claims Reported by AQ

As of Feb. 23, 2021



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Source: FROI and SROI records submitted by participants in the voluntary program from WCIRB indemnity transaction data

Summary of the COVID-19 Pandemic Impact on Medical Treatment Patterns (Updated through February 2021 and COVID-19 Claims Excluded)

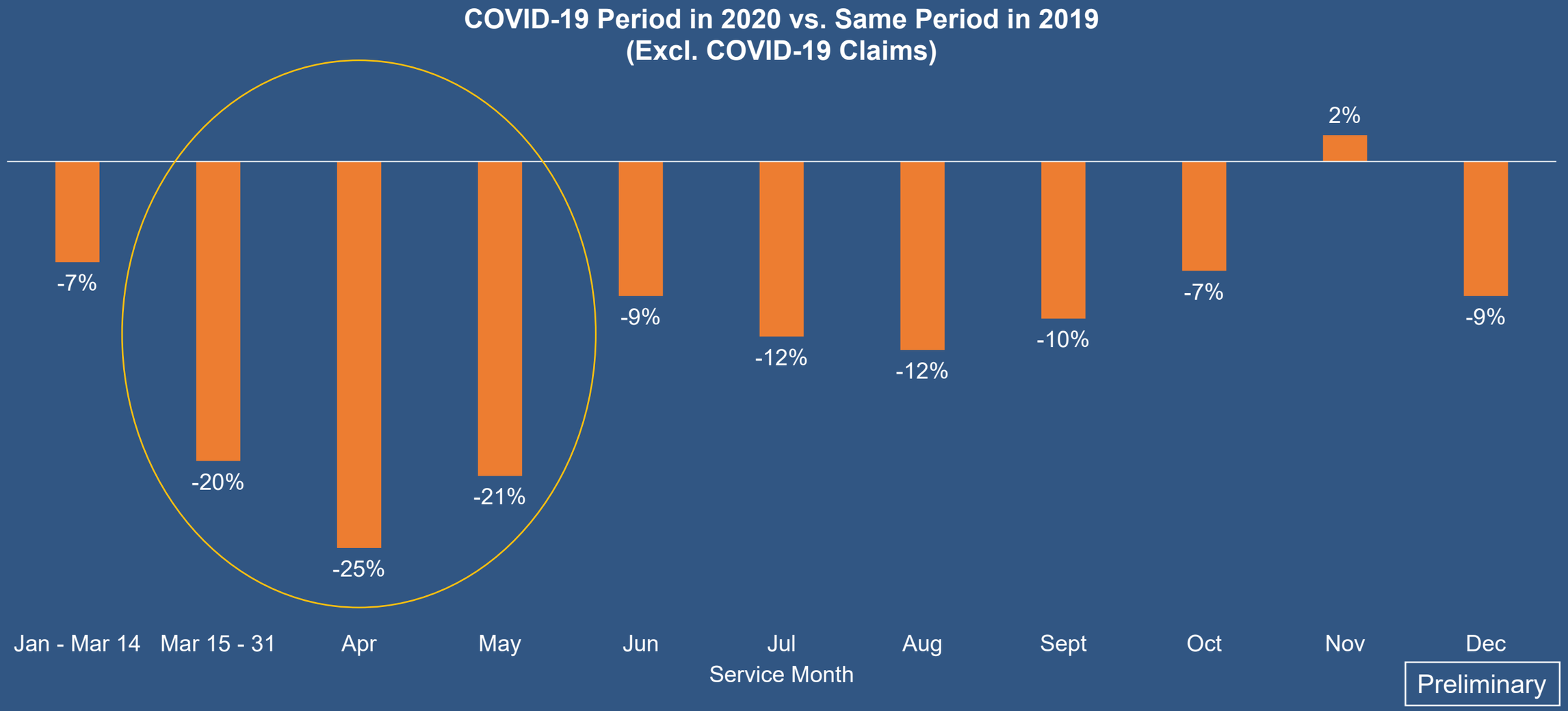
- Overall medical services:
  - March - May: slowdown in service utilization and medical cost per clam
  - June - Oct: service utilization rebounded

- Pharmaceutical use and costs increased through August and started to stabilize in September
  - Mostly non-opioids
  - Use of opioids continued to decrease throughout the pandemic

- Increased use of telemedicine services started to stabilize in 3Q2020

Impact of COVID-19 Pandemic on Number of Active Claims

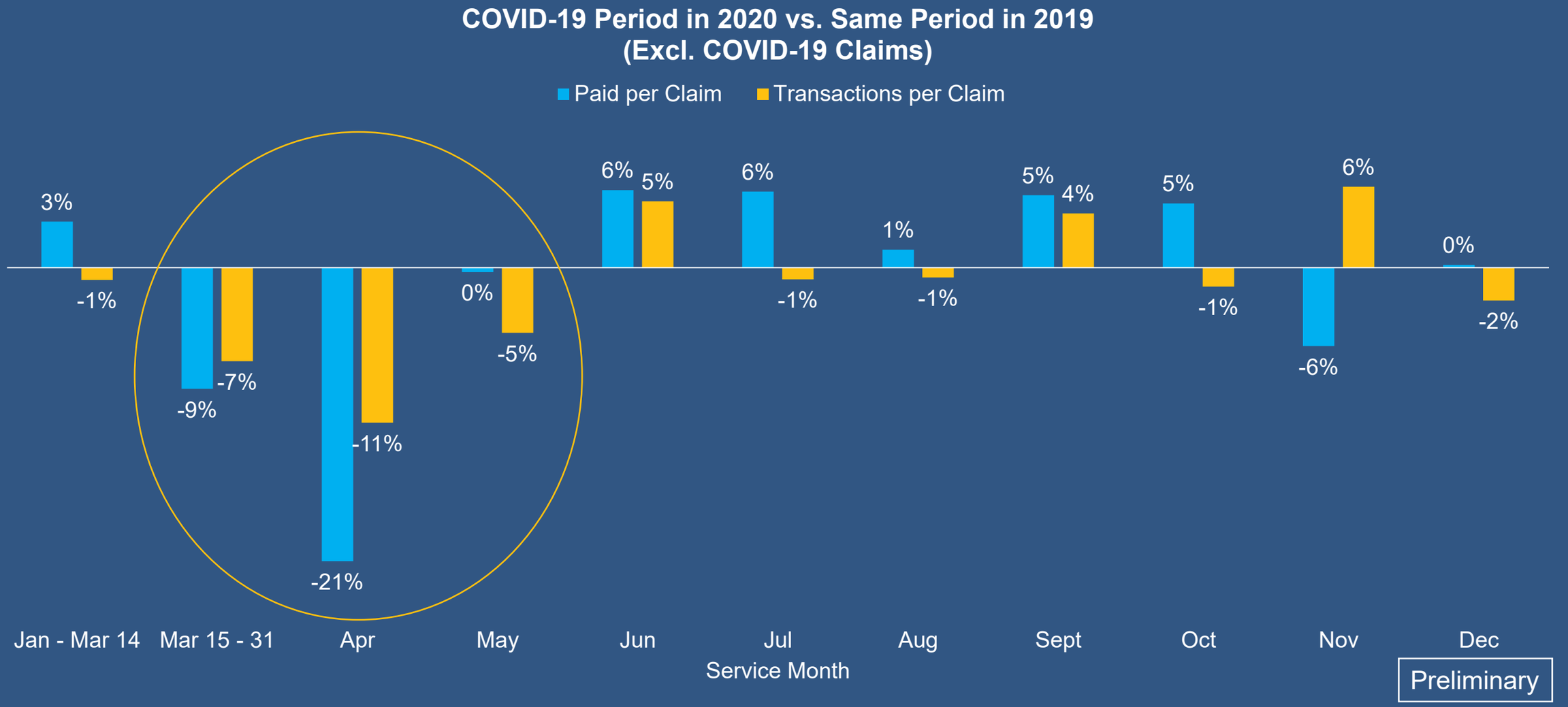
As of March 1, 2021



Source: WCIRB medical transaction data from insurers who submit monthly data.

Impact of COVID-19 Pandemic on Overall Medical Services

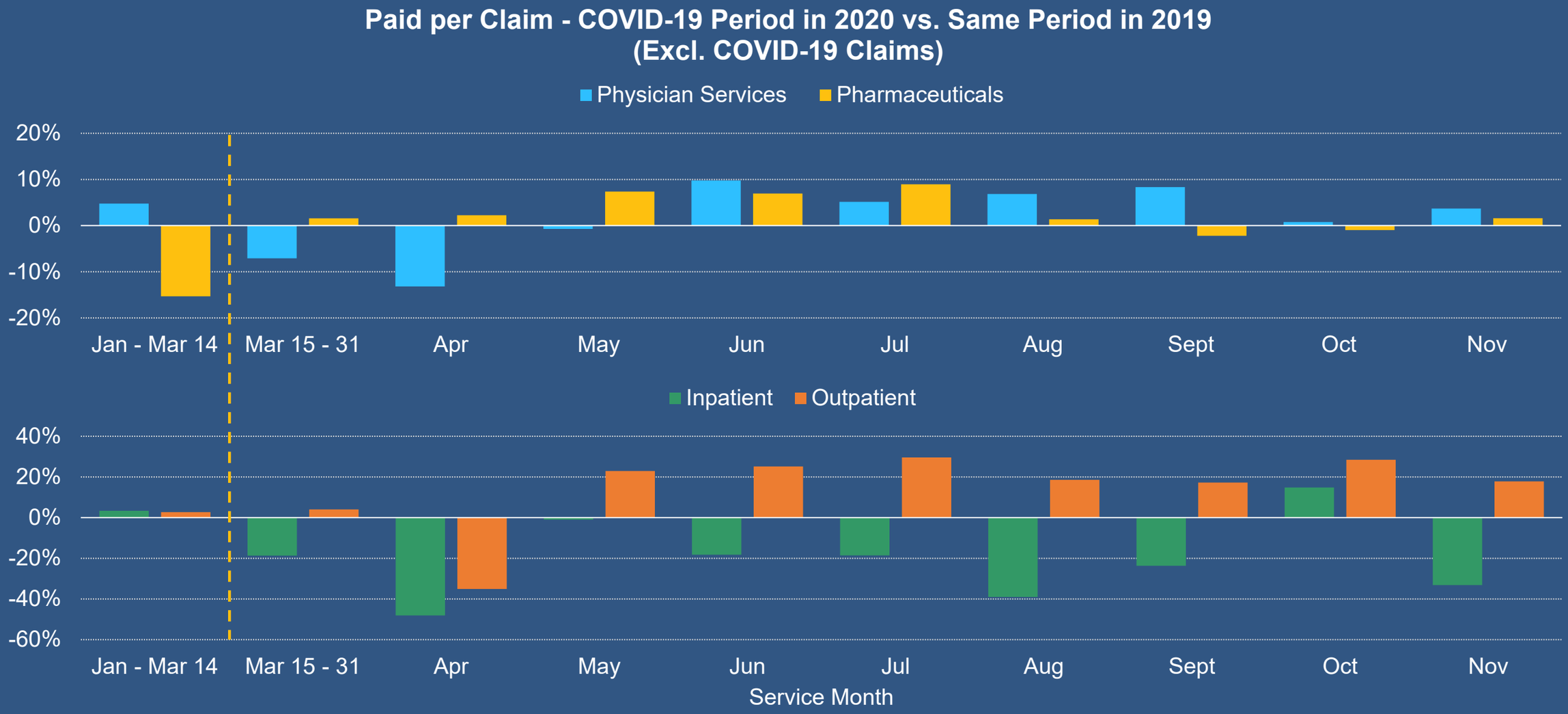
As of March 1, 2021



Source: WCIRB medical transaction data from insurers who submit monthly data.

Leading Types of Medical Services – Medical Severity

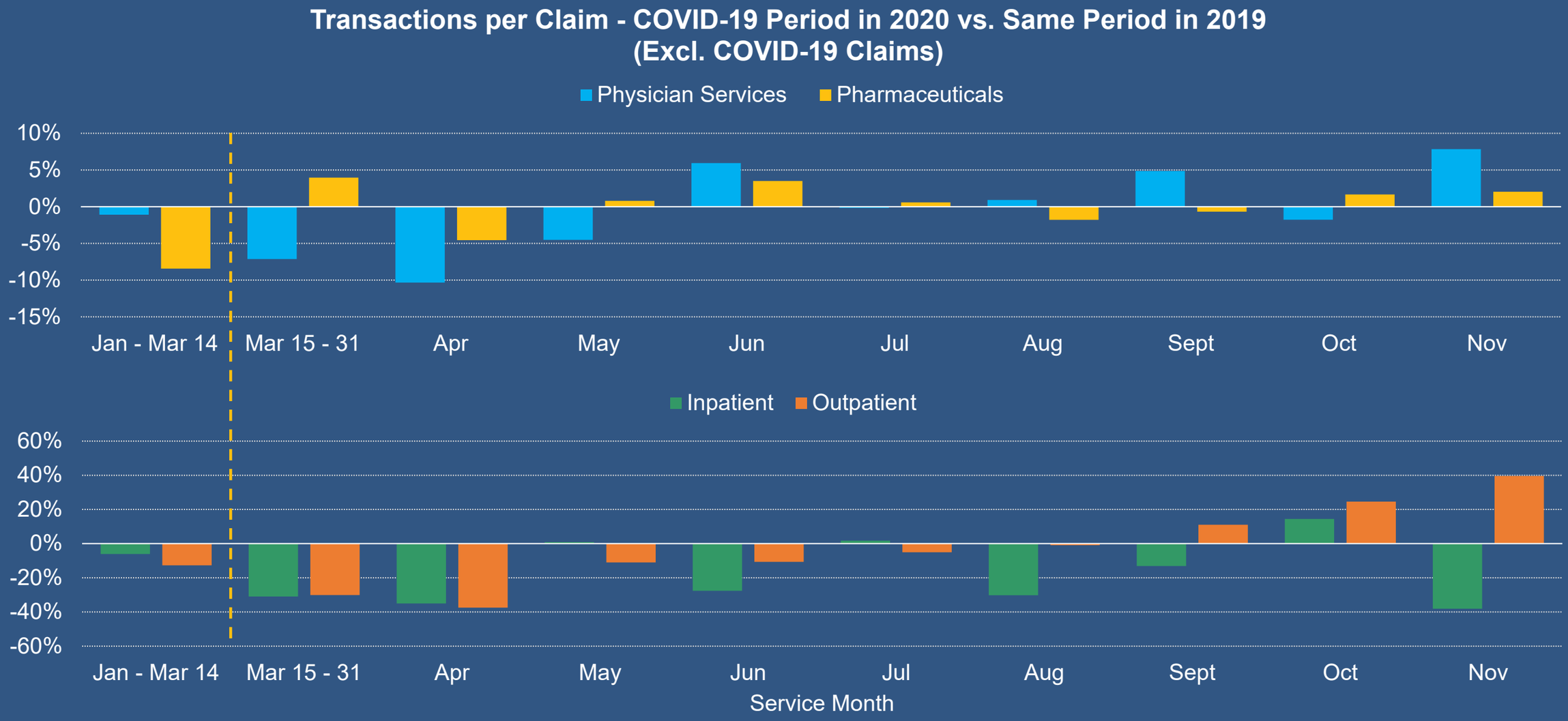
As of March 1, 2021



Source: WCIRB medical transaction data from insurers who submit monthly data.

Leading Types of Medical Services – Service Utilization

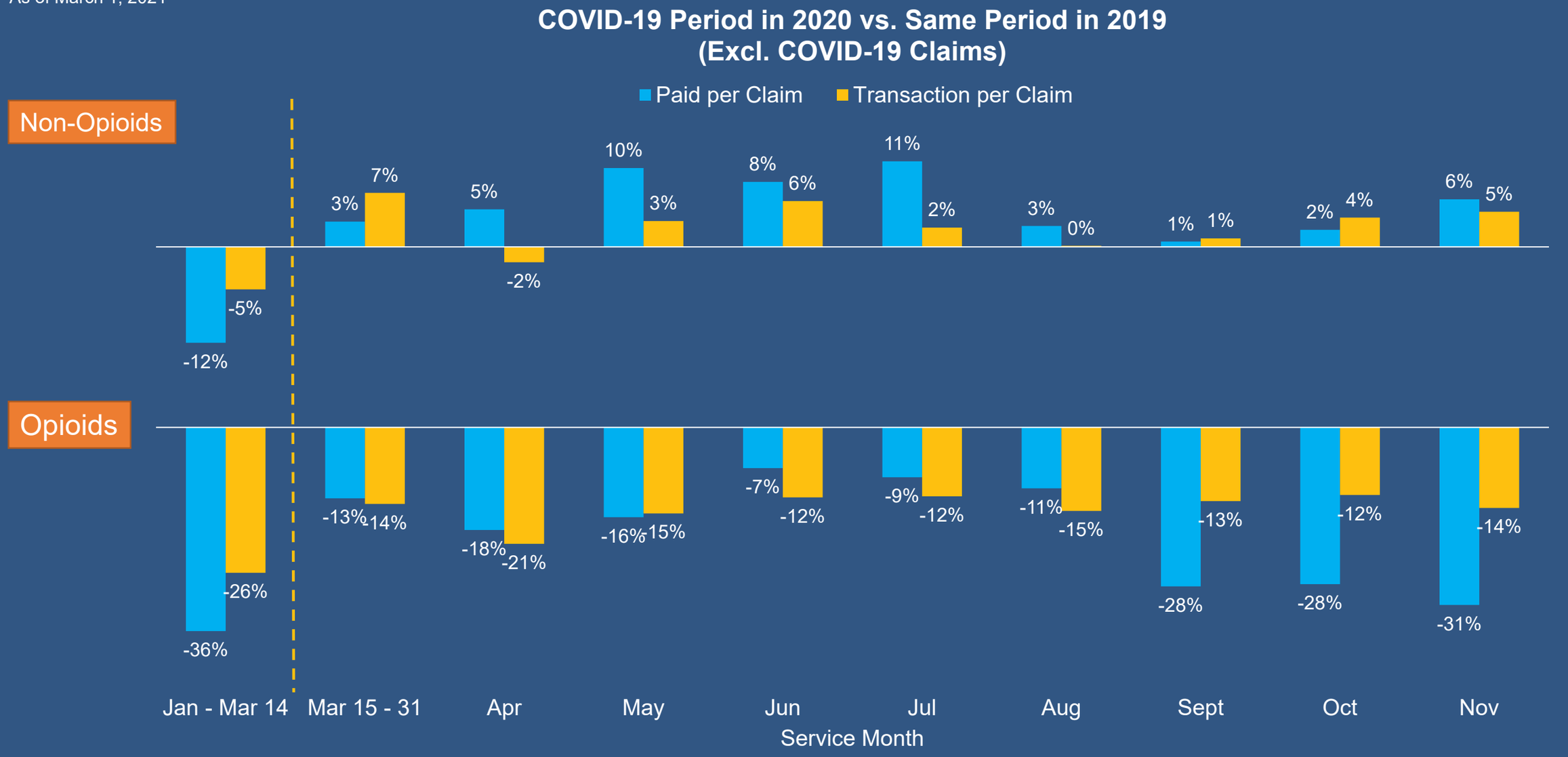
As of March 1, 2021



Source: WCIRB medical transaction data from insurers who submit monthly data.

Impact on Opioid and Non-Opioid Cost and Utilization

As of March 1, 2021



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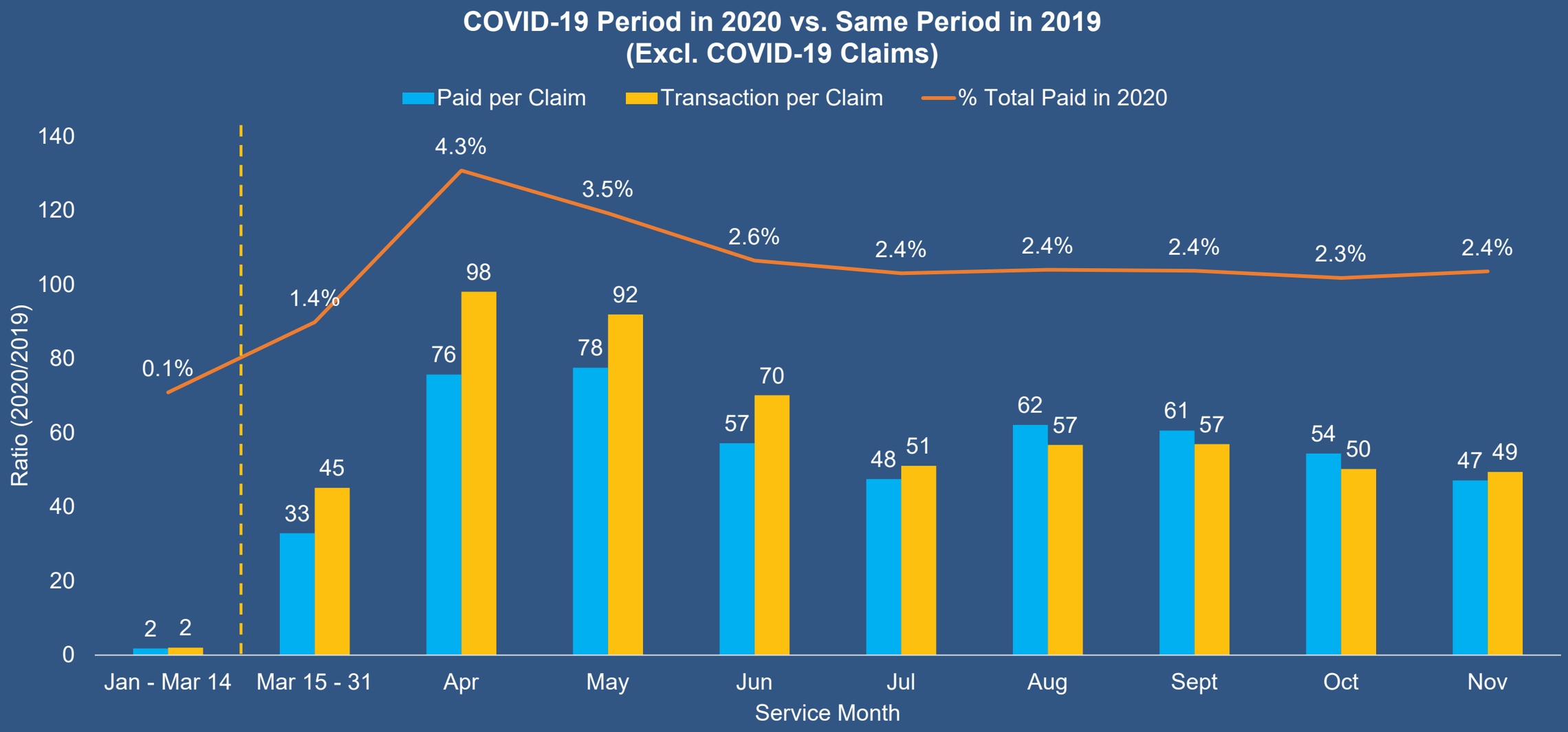
Source: WCIRB medical transaction data from insurers who submit monthly data.

Changes in Telemedicine Services

As of March 1, 2021



Source: WCIRB medical transaction data from insurers who submit monthly data.

07

9/1/2021 Filing – COVID-19 Claim Cost Projection

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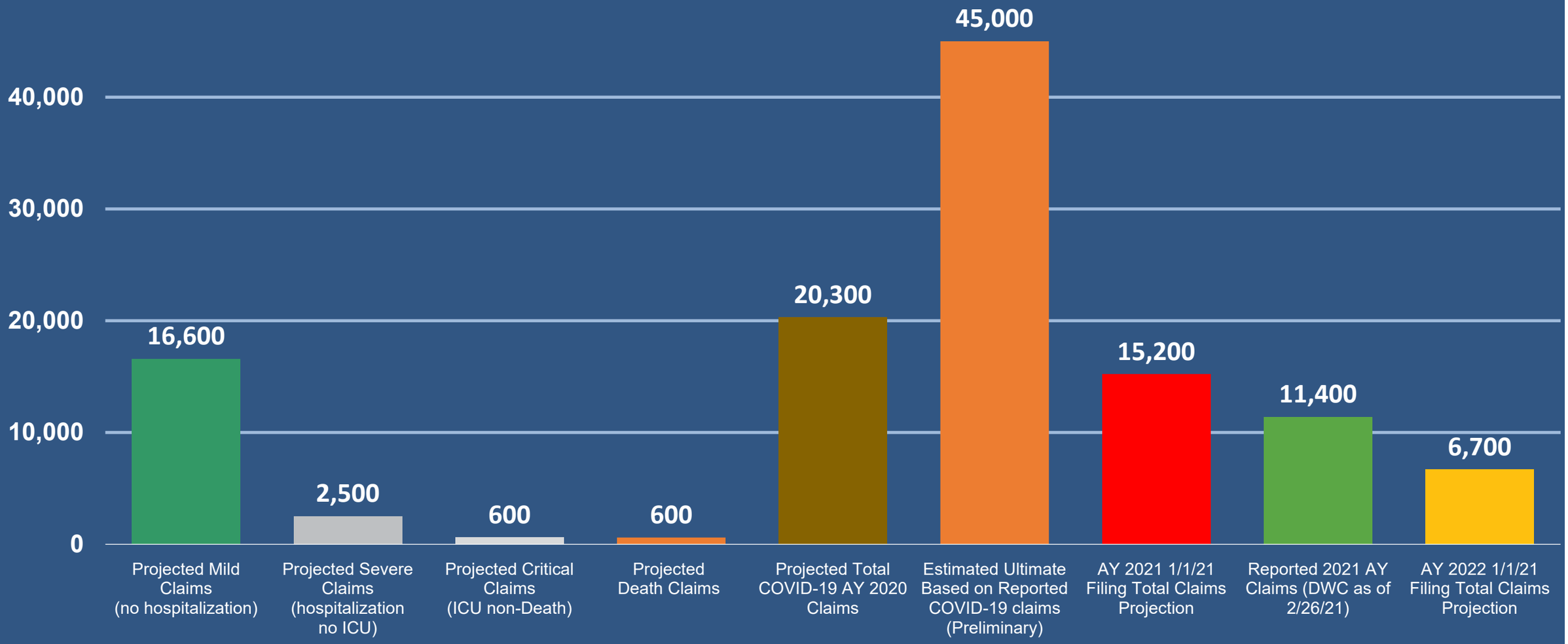
Projected Accident Year 2020 California Workers' Compensation COVID-19 Claim Counts — Insured Employers Only



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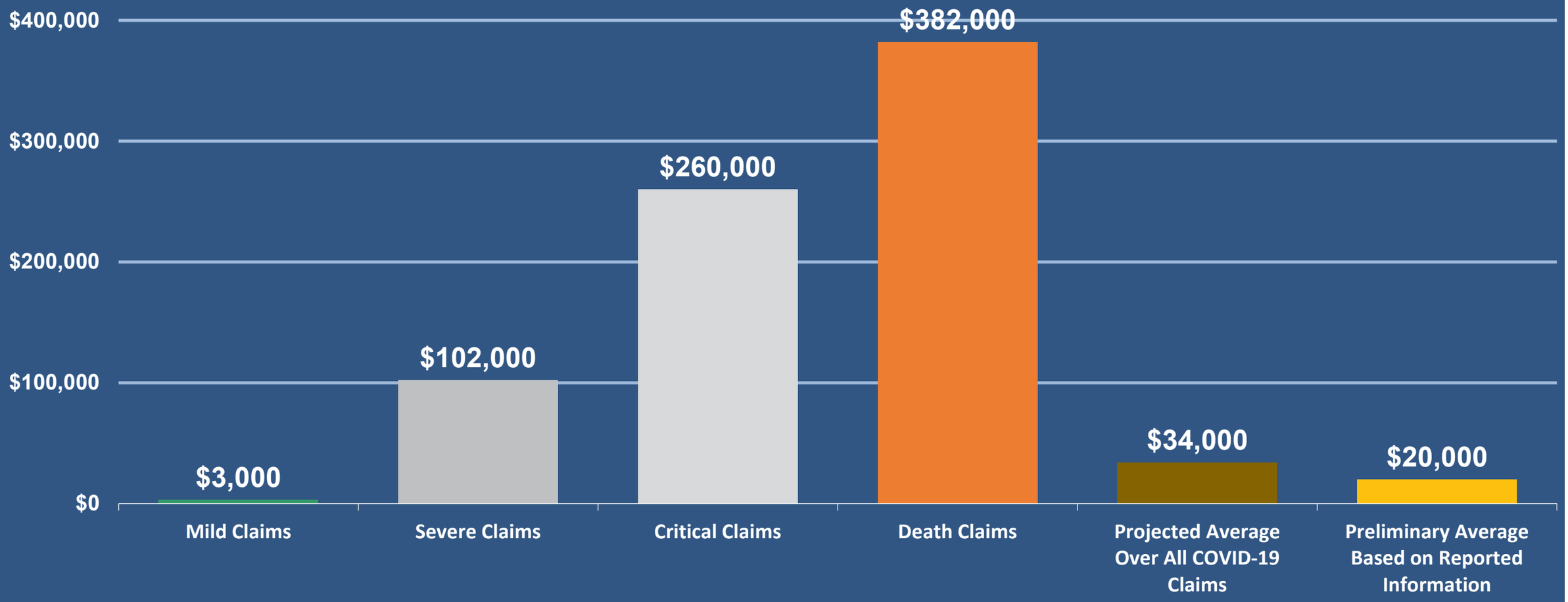
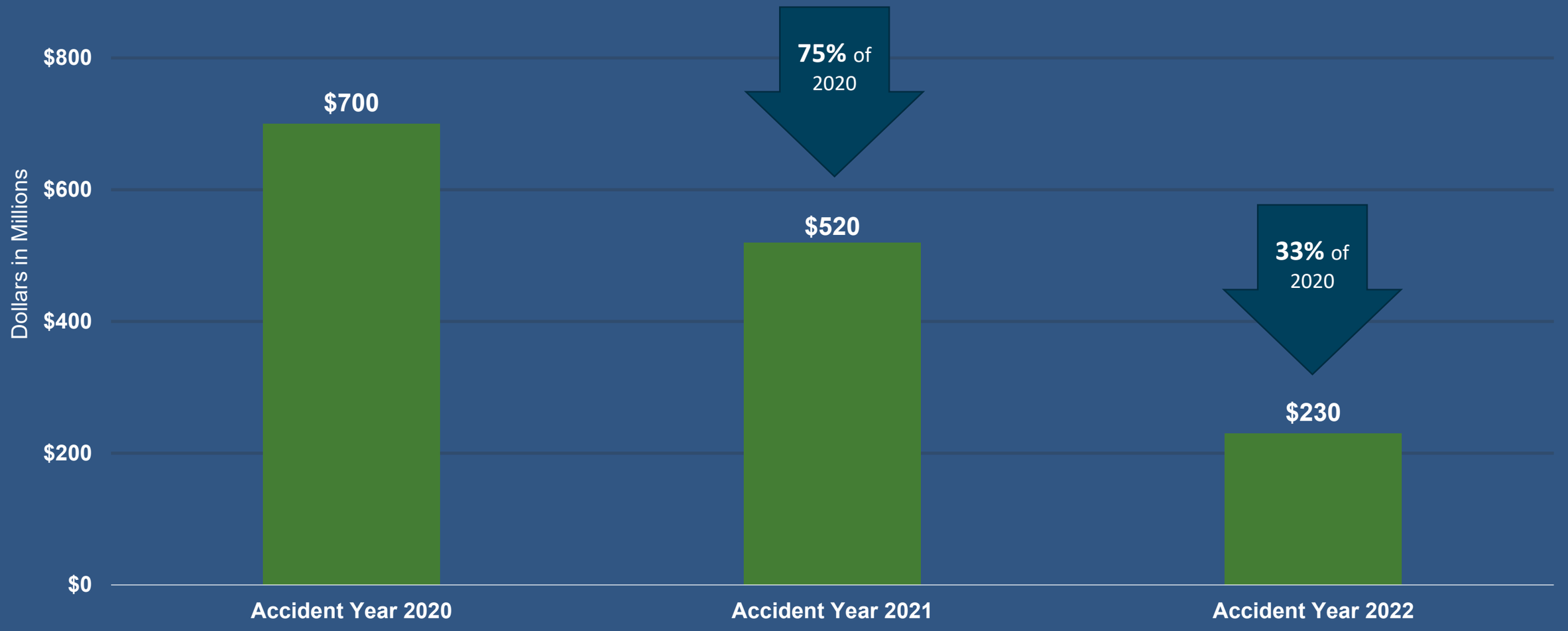
Sources: WCIRB January 1, 2021 Pure Premium Rate Filing, WCIRB indemnity transaction data reported through February 2021 (excluding denied claims), WCIRB aggregate financial calls and DWC.

Projected Accident Year 2020 California Workers' Compensation COVID-19 Claim Severity — Insured Employers Only



Sources: January 1, 2021 Pure Premium Rate Filing and WCIRB aggregate financial calls. Severity amounts include indemnity, medical and loss adjustment expenses.

Projected Cost of COVID-19 Claims — Insured Employers Only



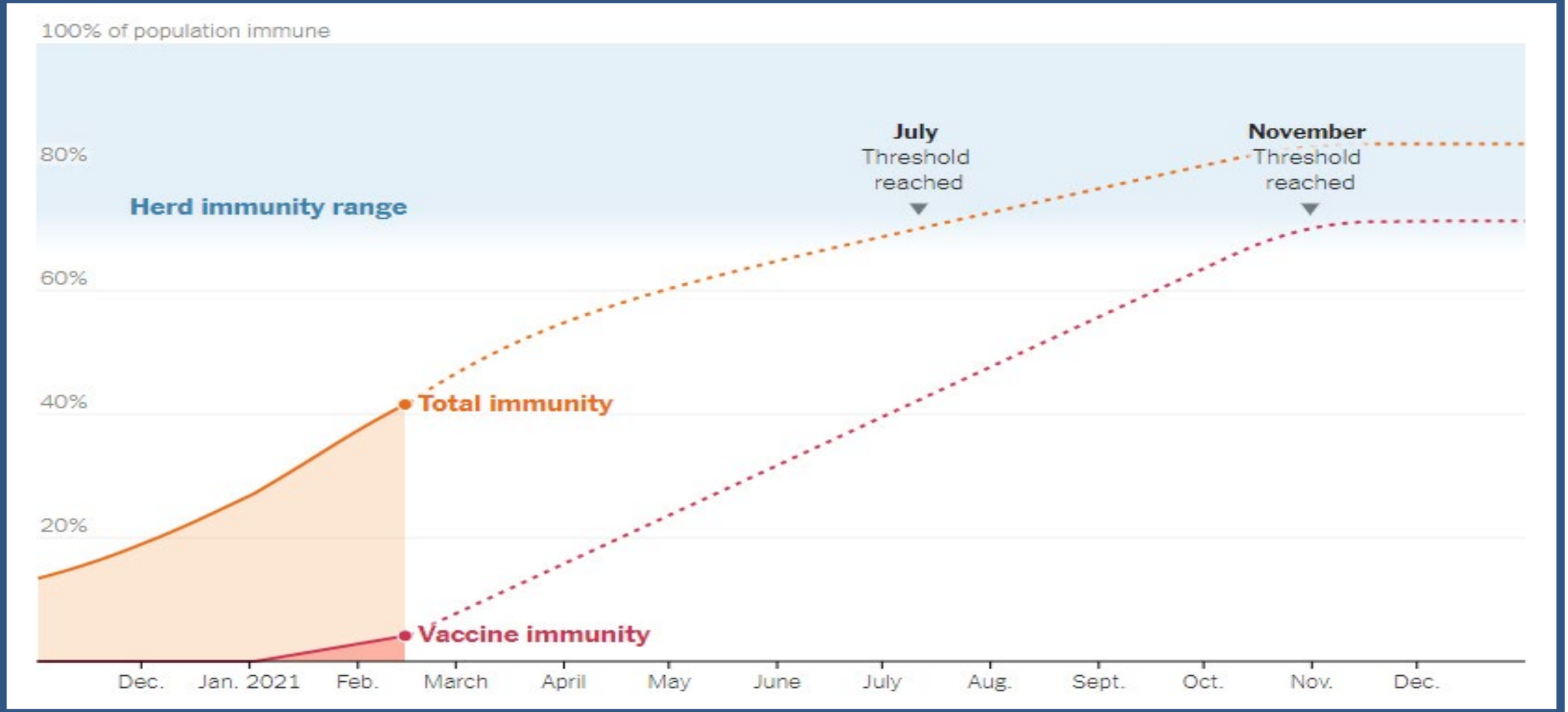
Source: January 1, 2021 Pure Premium Rate Filing..

Forecasts for COVID-19 in 2021

- Limited forecasts for COVID-19 cases available beyond four weeks into the future
- Three published forecasts for COVID-19 in 2021 indicated a small number of COVID deaths would occur after summer 2021
  - Potentially near herd immunity (60-80% of the population immune) via vaccination and infections by end of summer (July-August)
  - Immunity would last at least through 2021
  - COVID-19 deaths and hospitalizations may drop to low levels even before summer (May-July 2021)
    - High-risk individuals prioritized for vaccinations
    - Vaccinations accelerated
    - New vaccines getting approved
  - Key forecasts for CA and the U.S.
    - IHME: 62k deaths in California by July 1, 2021 (plateau starting in June)
    - YYG-MIT: 600k deaths in the U.S. through end of 2021 (deaths negligible after July)
    - Herd immunity modeling: 100k in the U.S. between mid-Feb and July, when herd immunity is achieved
- Limited evidence of a significant COVID-19 exposure on policies incepting on or after September 1, 2021

Source: IHME COVID-19 Projection. COVID-19 projections at: https://covid19-projections.com/path-to-herd-immunity/; When Could the United States Reach Herd Immunity? It's Complicated. NYT, Feb 20, 2021. https://www.nytimes.com/interactive/2021/02/20/us/us-herd-immunity-covid.html?action=click&module=Top%20Stories&pgtype=Homepage

Modeled Path to Herd Immunity



Source: When Could the United States Reach Herd Immunity? It's Complicated. NYT, Feb 20, 2021. https://www.nytimes.com/interactive/2021/02/20/us/us-herd-immunity-covid.html?action=click&module=Top%20Stories&pgtype=Homepage

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1221 Broadway, Suite 900
Oakland, CA 94612
888.CA.WCIRB (888.229.2472)