

WCIRB Actuarial Committee Meeting

March 18, 2019

Agenda

1. Medical Analytics Working Group Meeting Summary
2. AC19-03-01: First Quarter 2019 Review of Diagnostics
3. AC18-03-03: Impact of SB 1160 & AB 1244 on Loss Development
4. AC19-03-03: Impact of Wage Inflation on Indemnity Benefits
5. AC19-03-02: 12/31/2018 Experience – Review of Methodologies

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Medical Analytics Working Group Meeting Summary

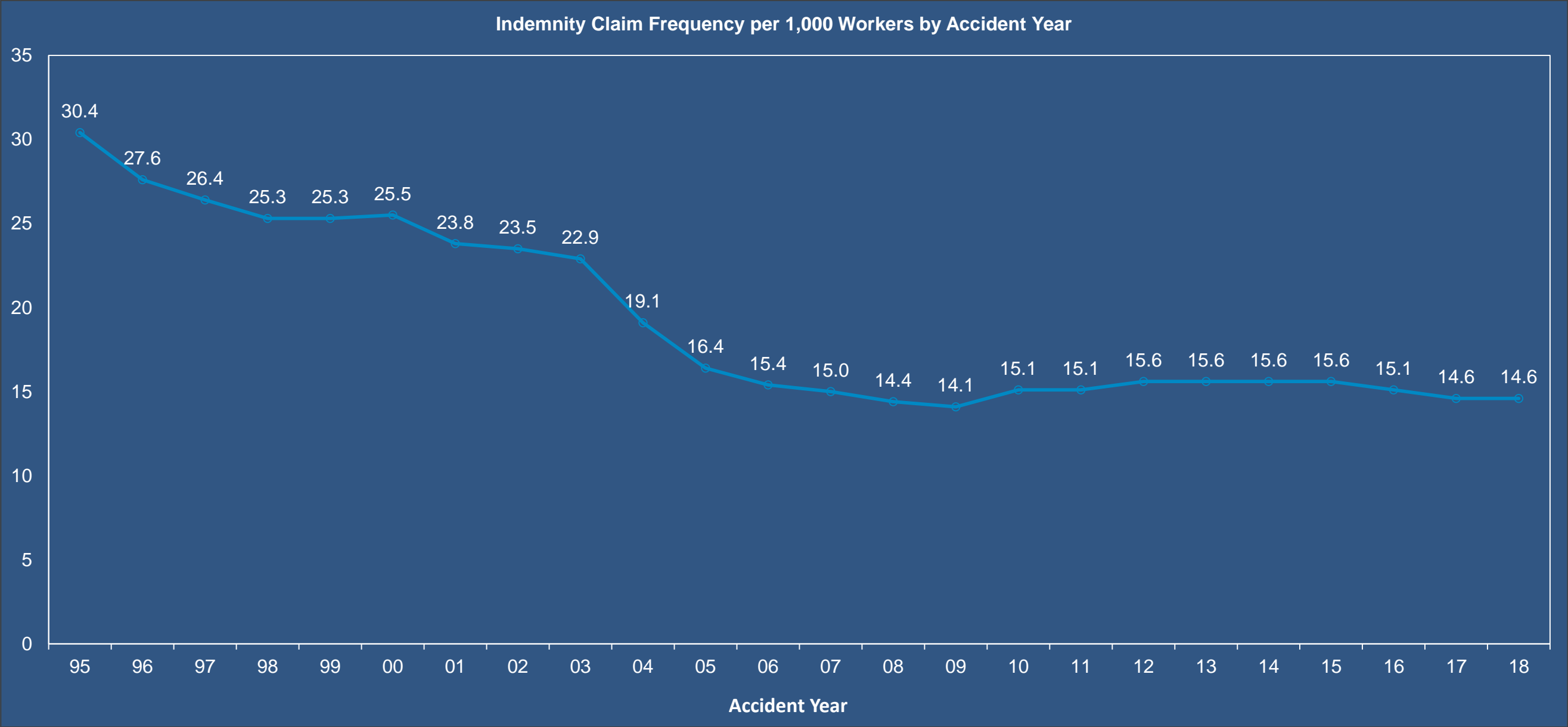


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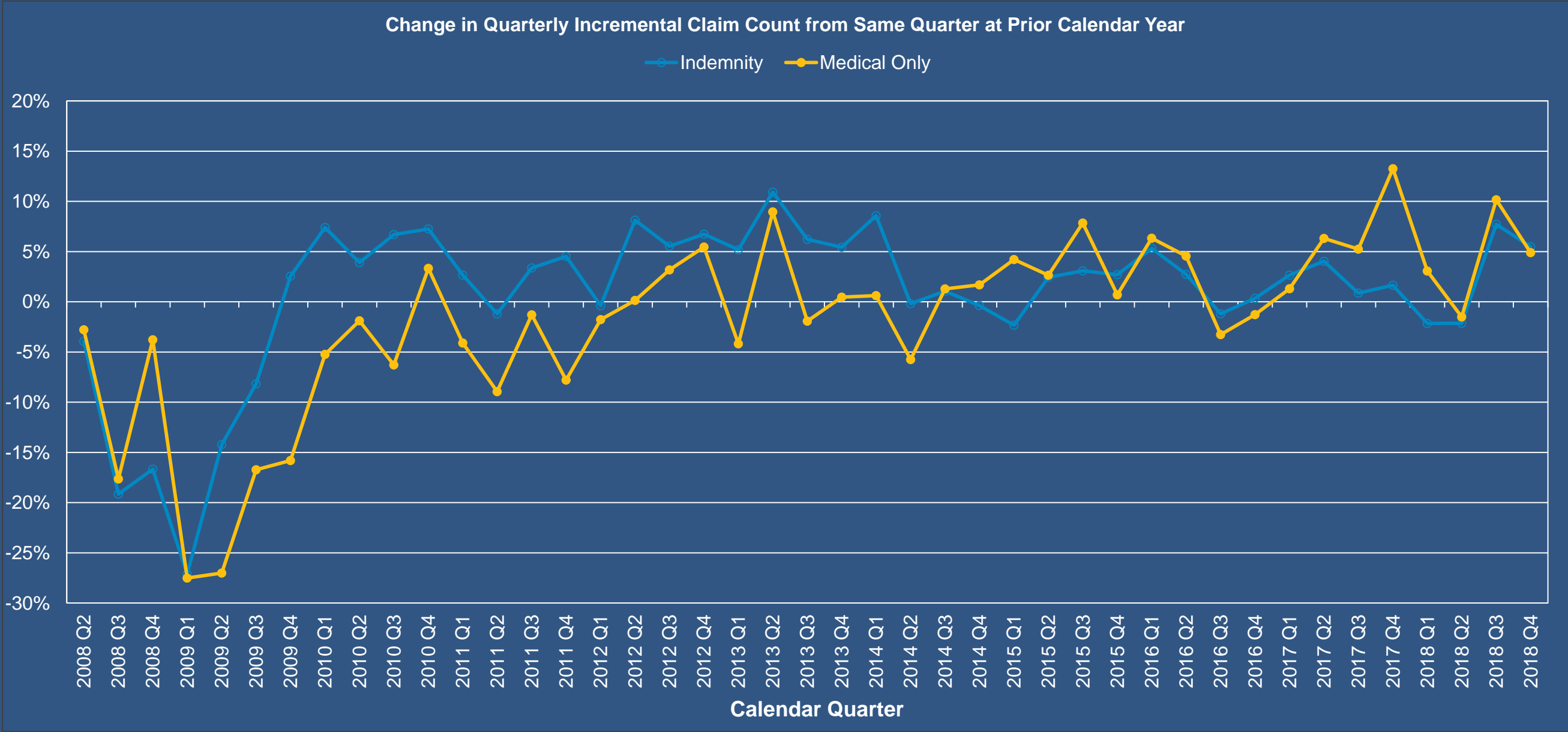
First Quarter 2019 Review of Diagnostics



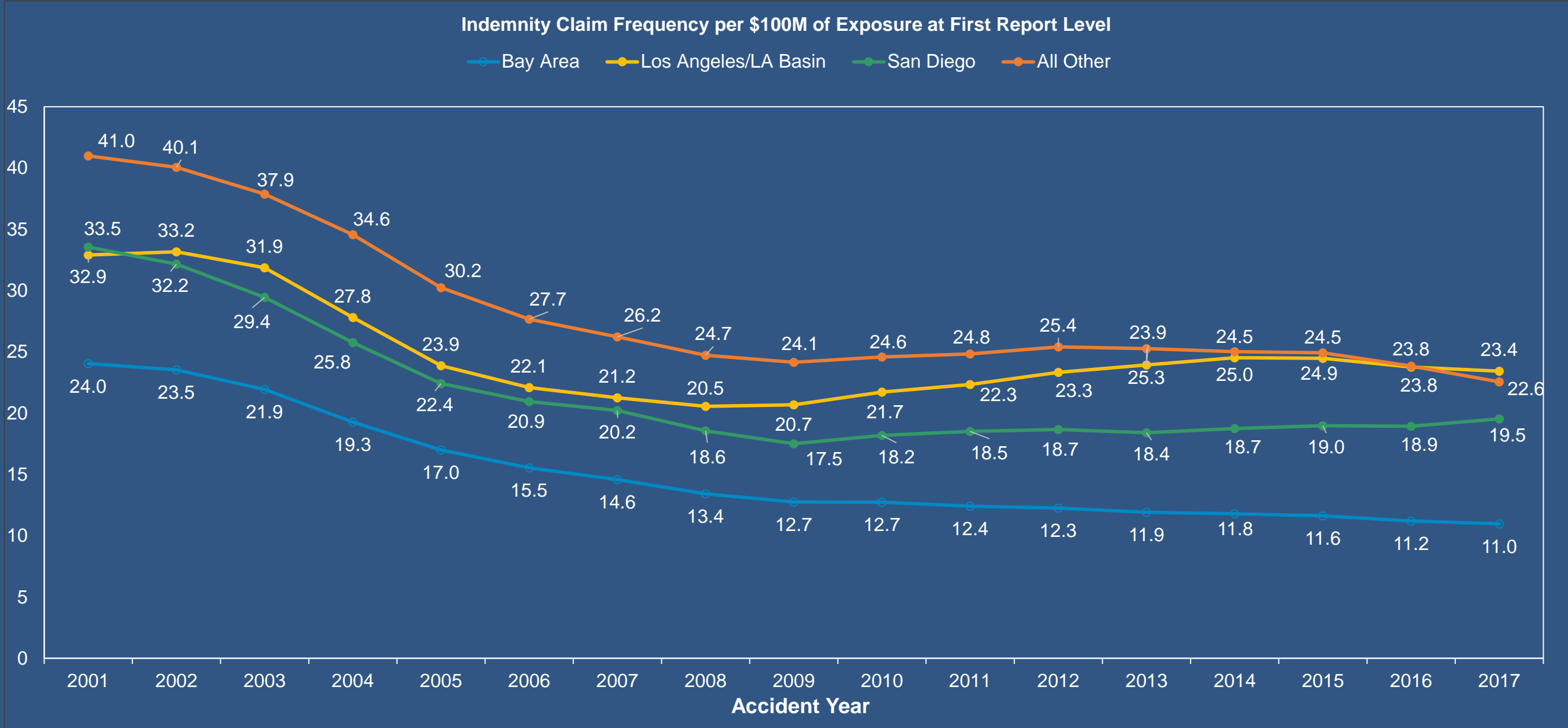
Indemnity Claim Frequency (Exhibit C6)



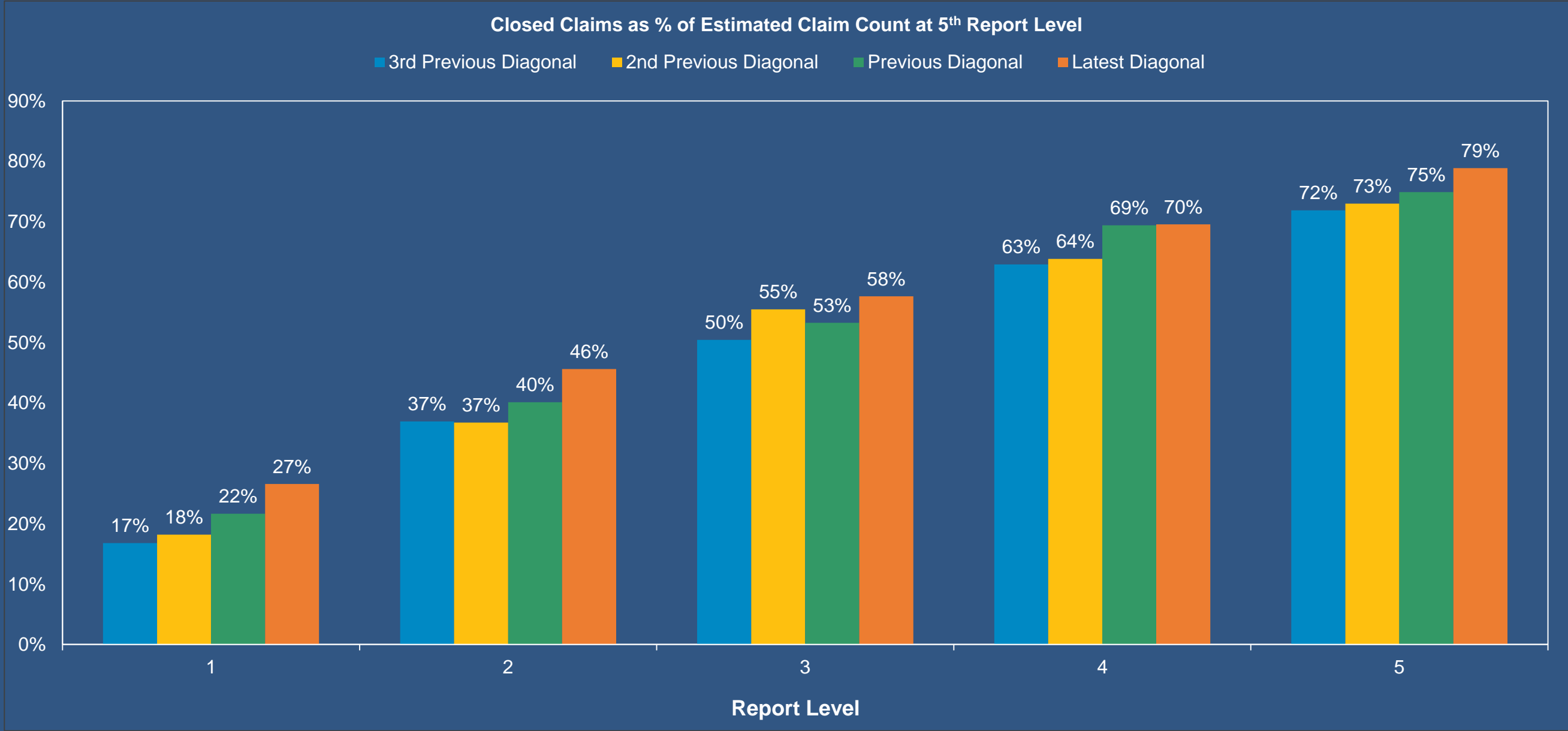
Changes in Incremental Claim Counts (Exhibit C11, Updated)



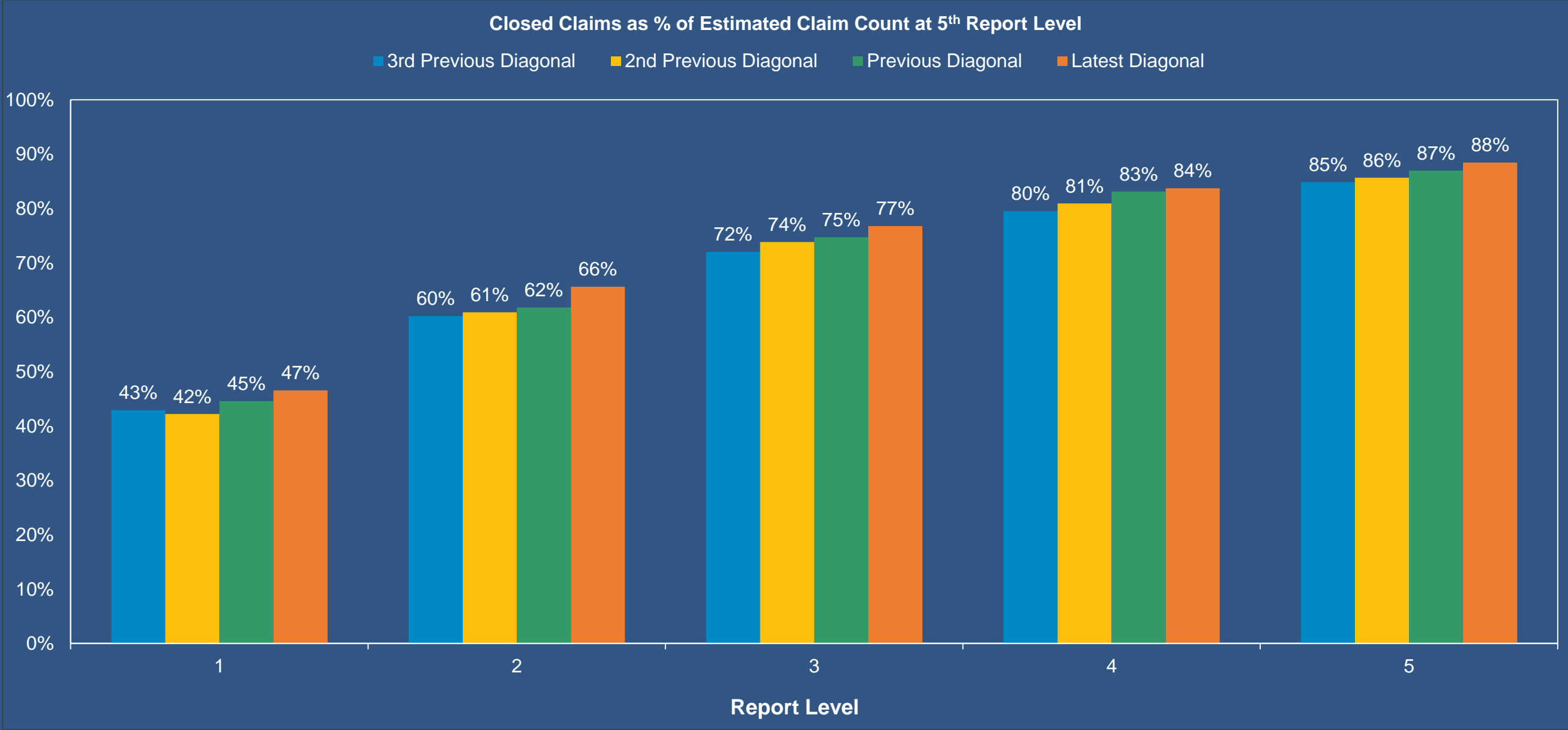
Indemnity Claim Frequency (Exhibit C21)



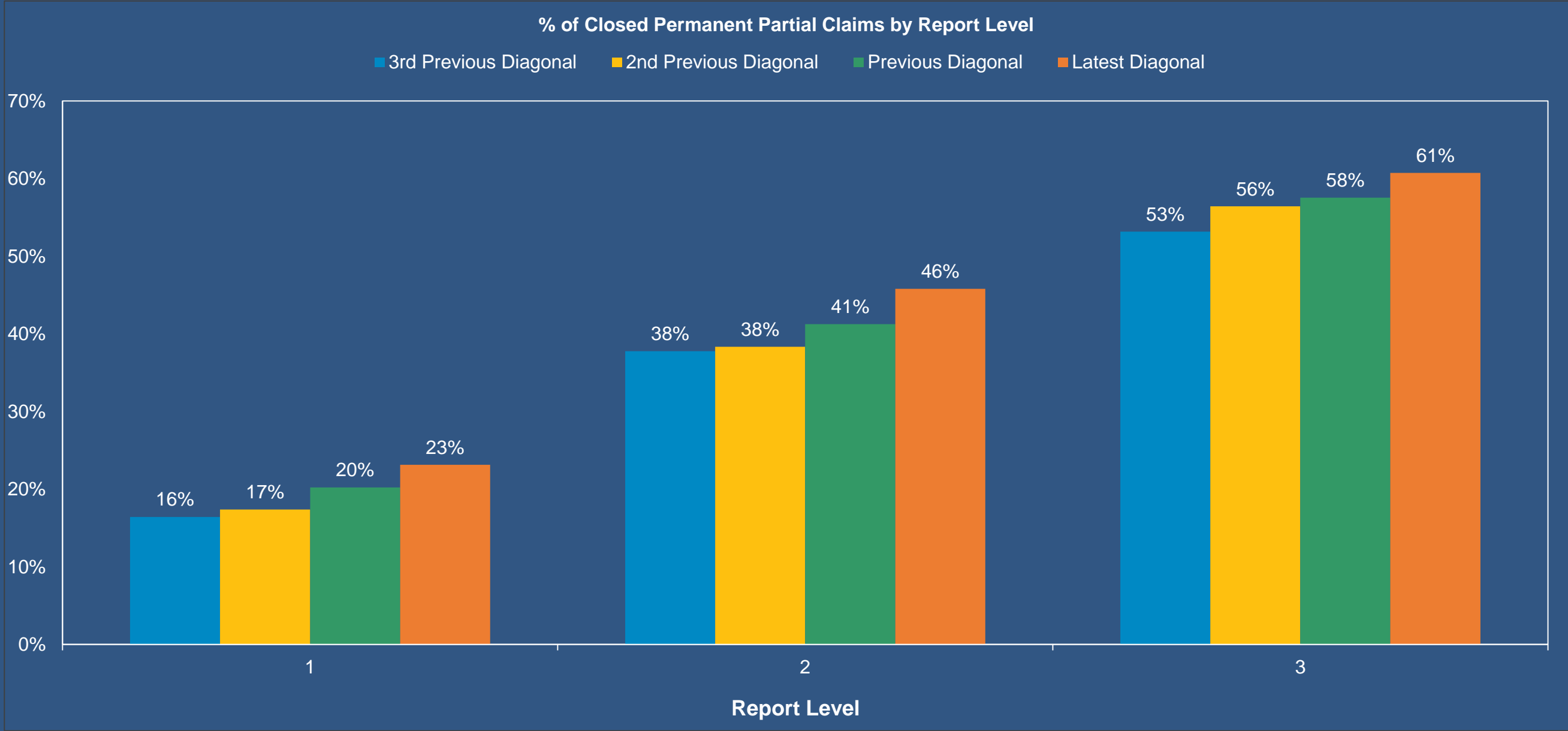
Percent Closed – Cumulative Trauma Indemnity Claims (Exhibit C2.2)



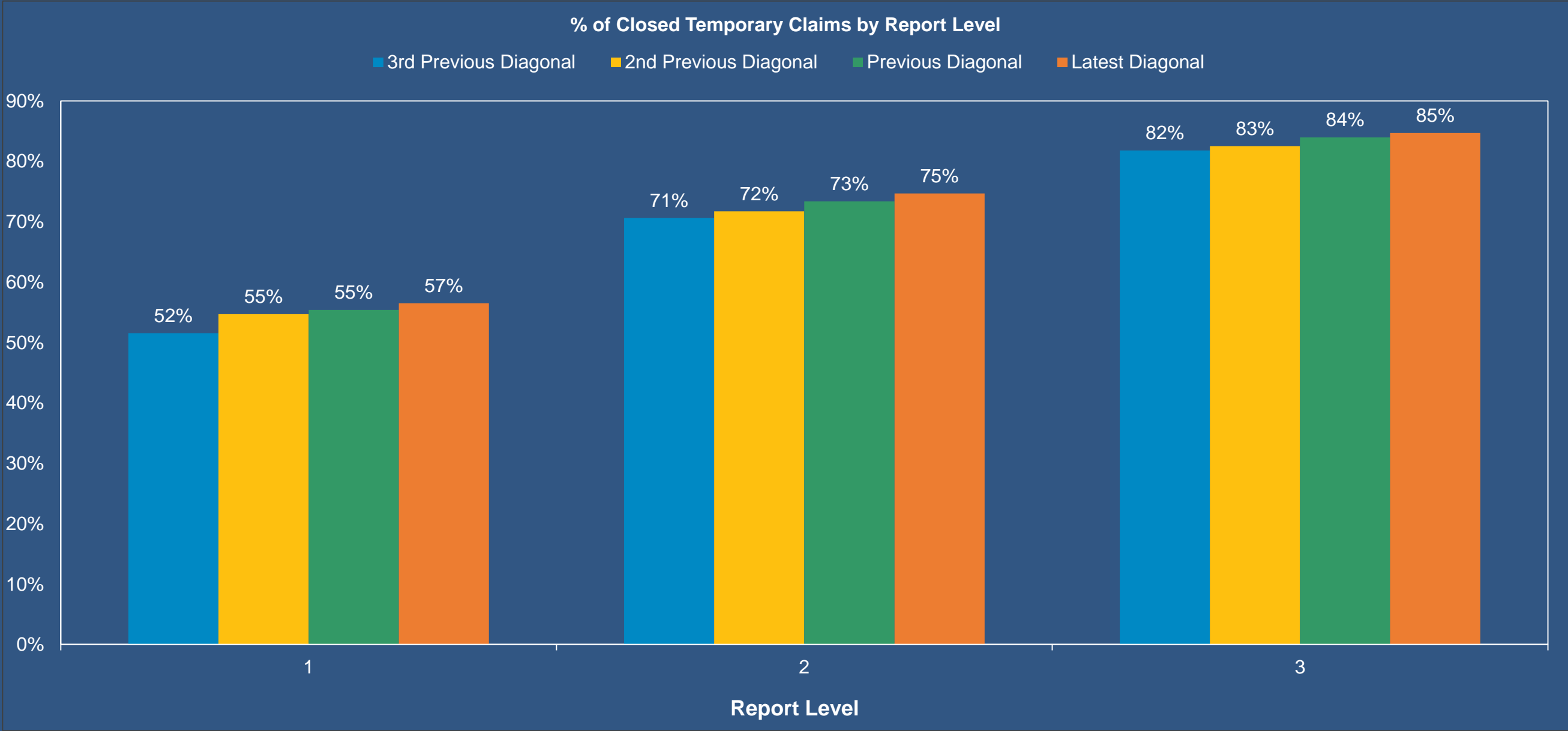
Percent Closed – Non-Cumulative Trauma Indemnity Claims (Exhibit C2.2)



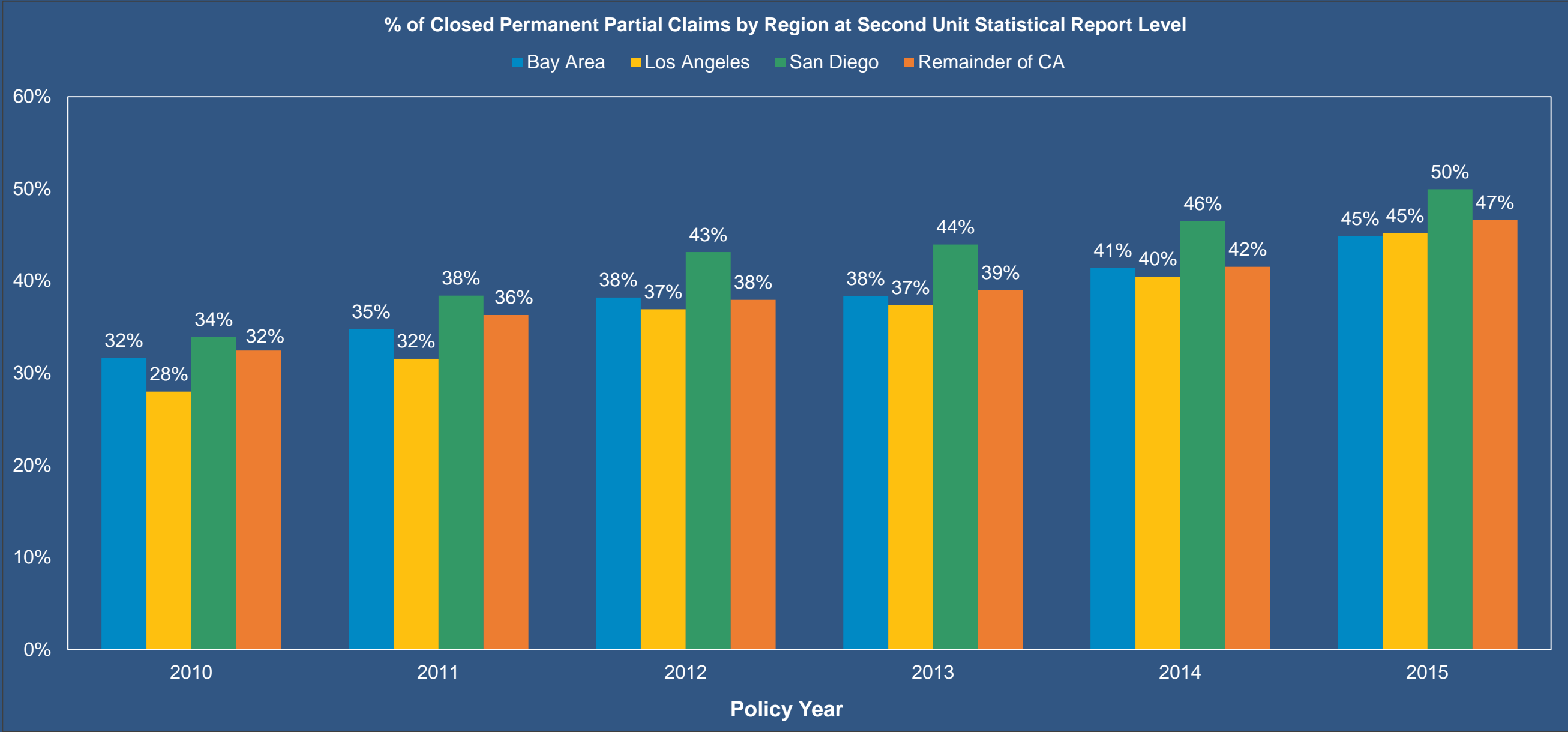
Percentage of PPD Claims Closed by Report Level (Exhibit M5)



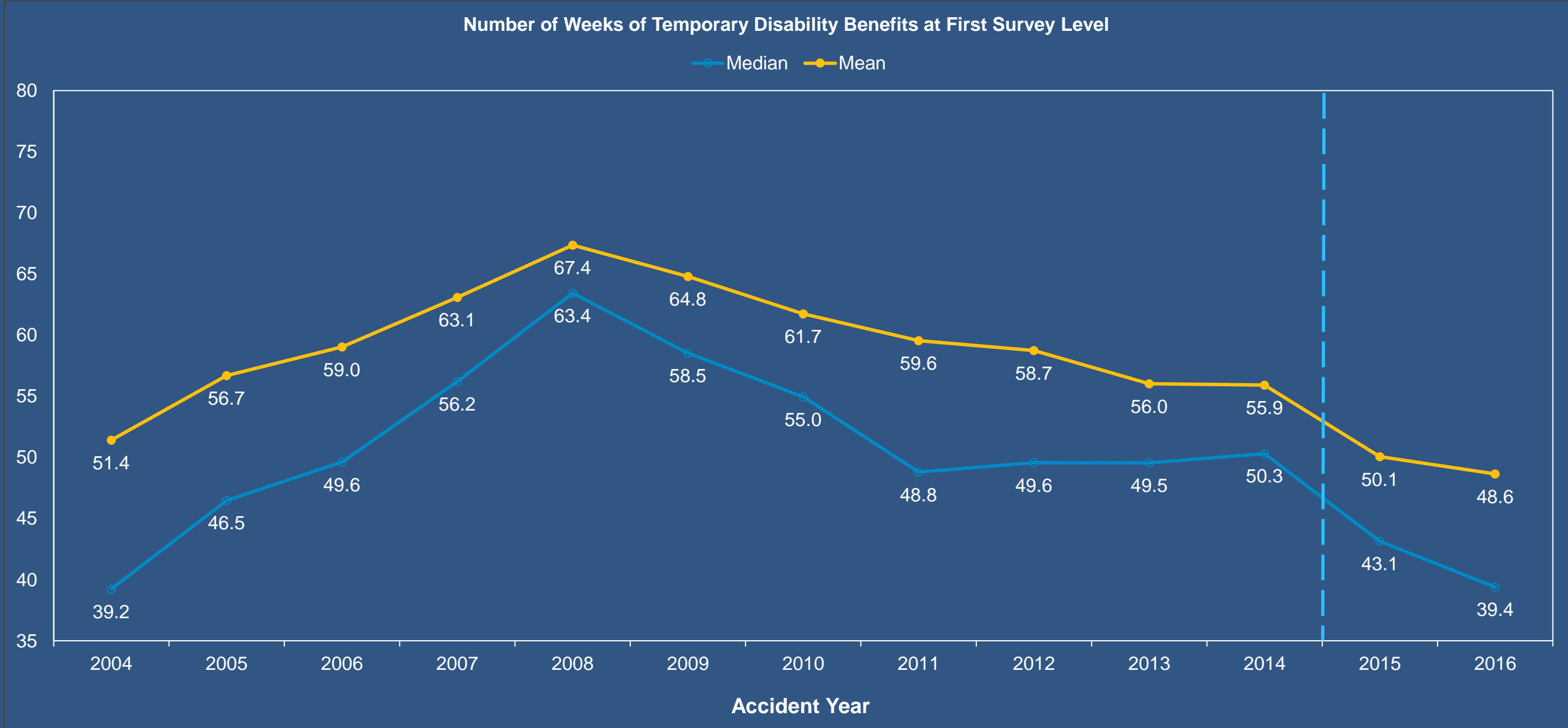
Percentage of Temporary Claims Closed by Report Level (Exhibit M5)



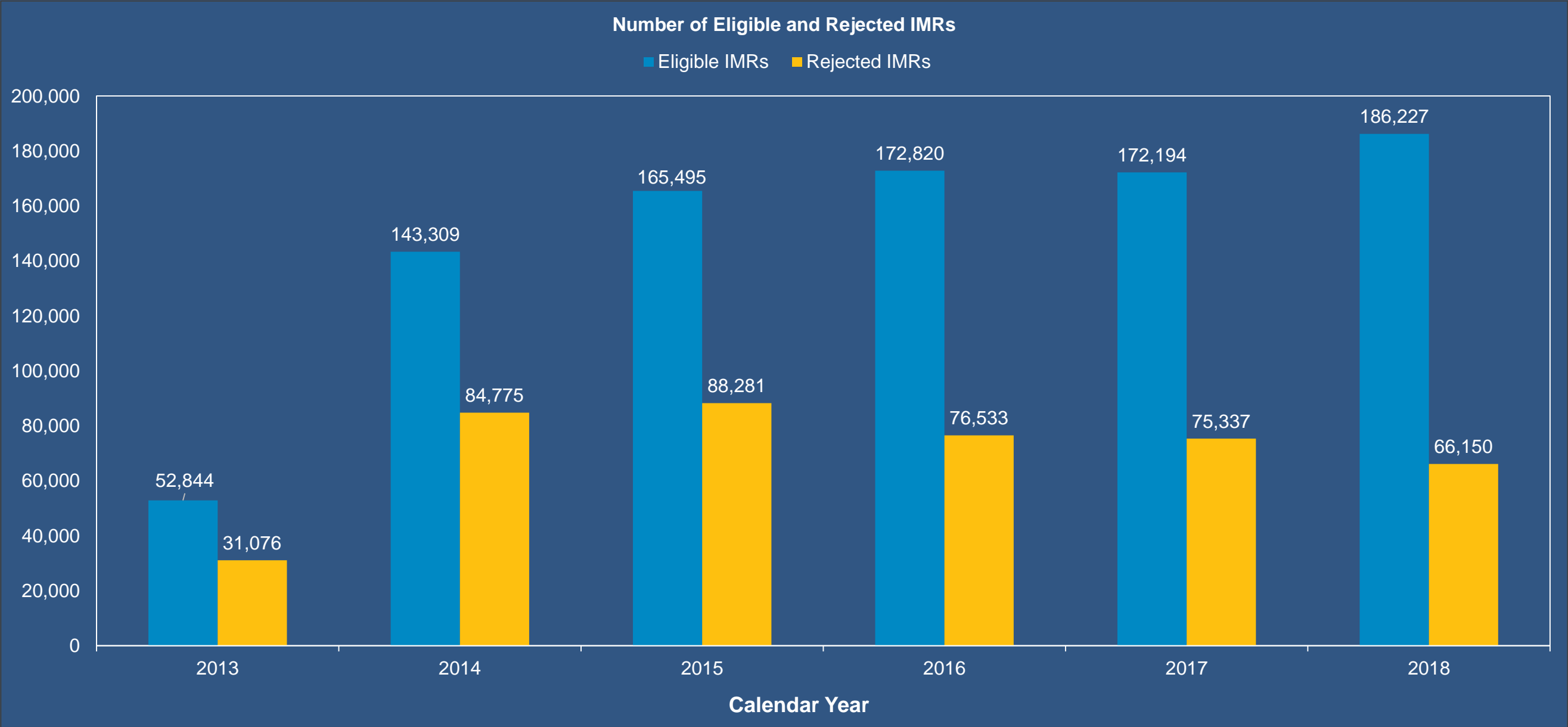
Percentage of PPD Claims Closed by Region (Exhibit M5)



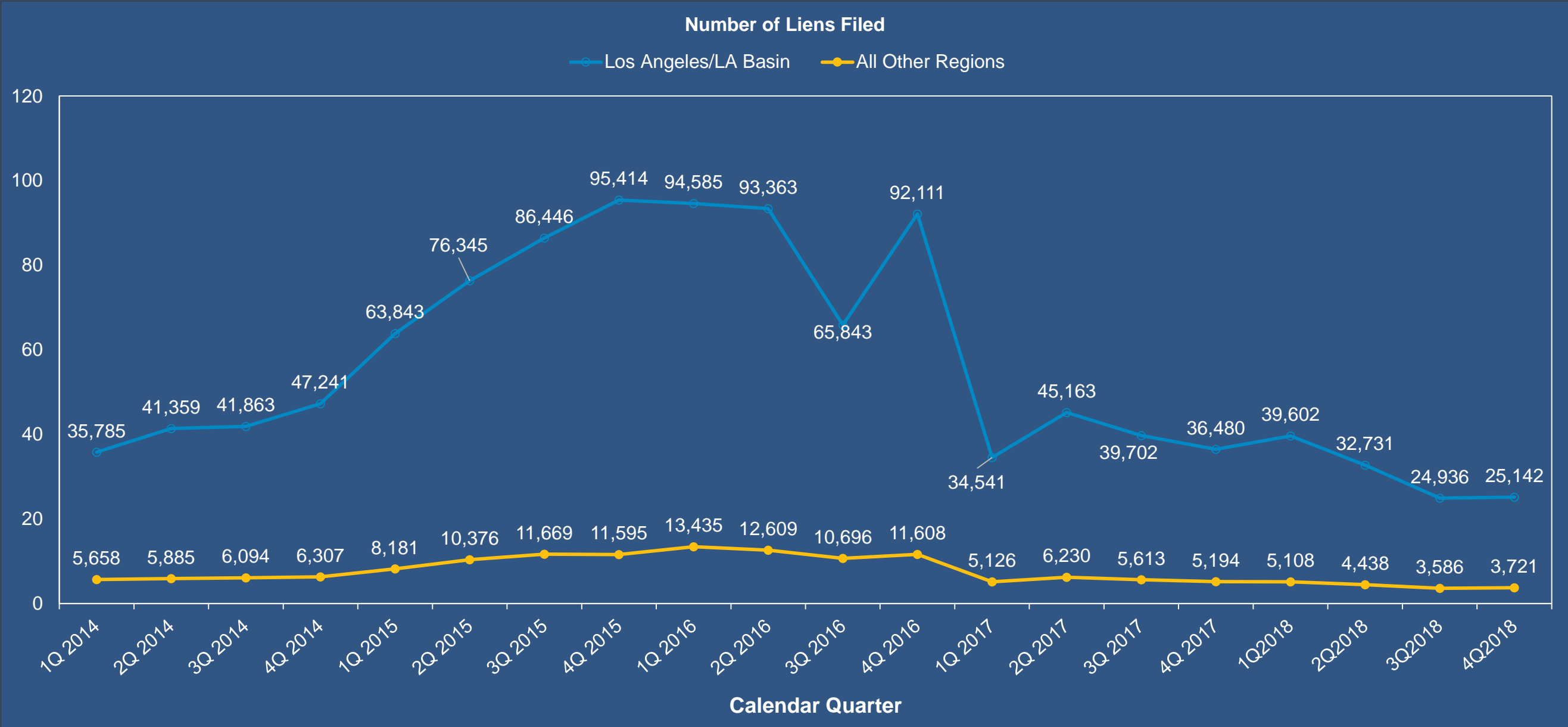
Temporary Disability Duration (Exhibit S10)



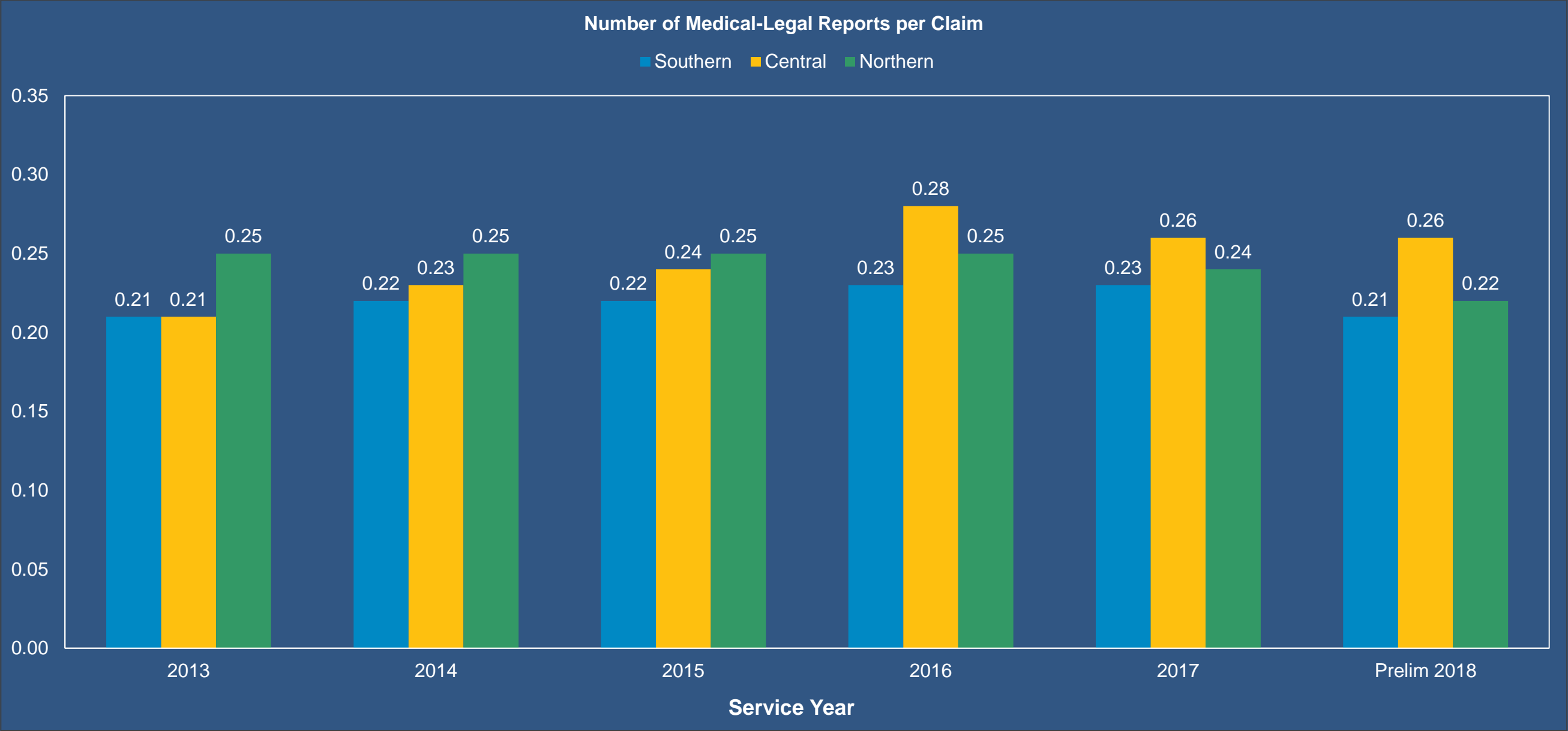
Independent Medical Review (Exhibit M14)



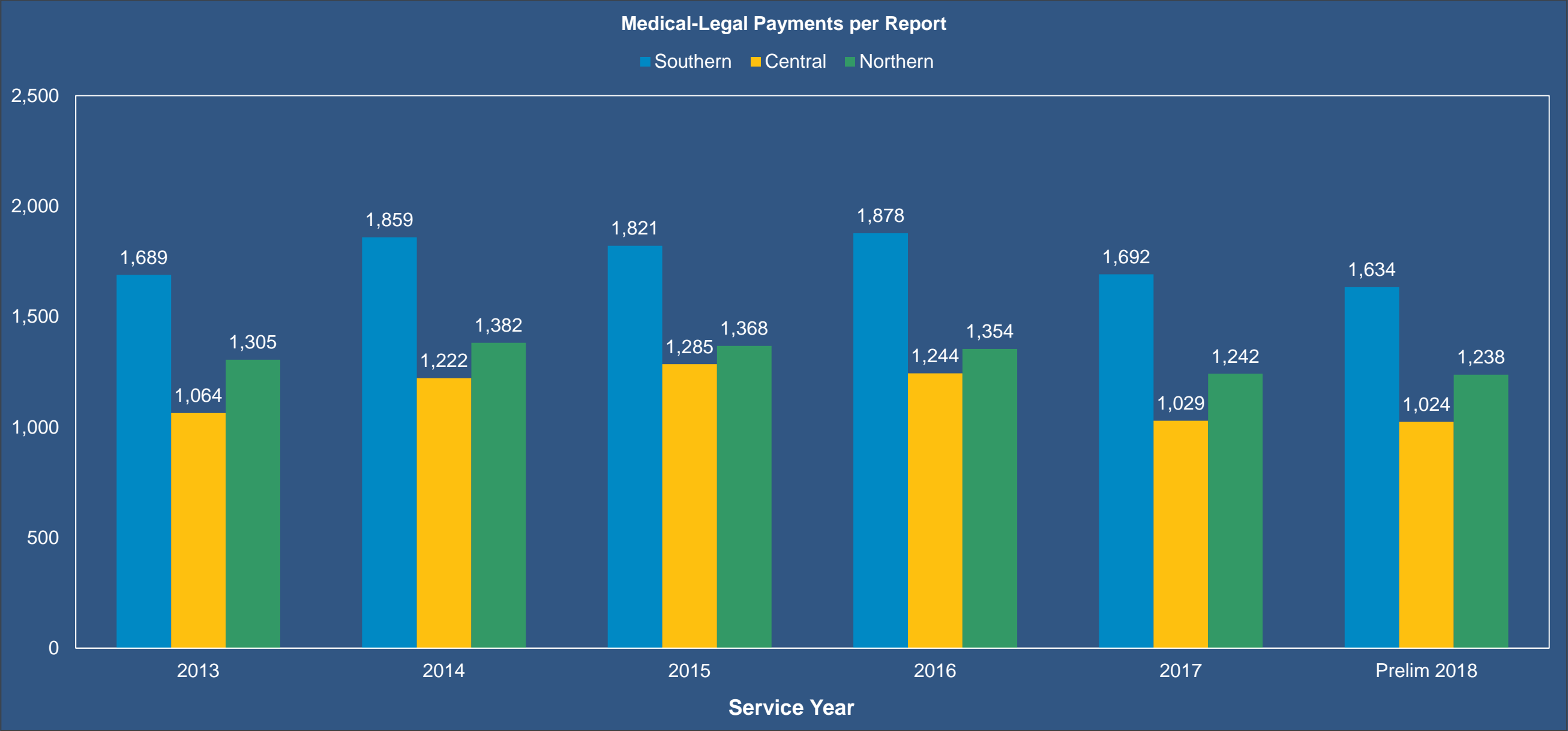
Filed Lien Counts (Exhibit M9.2)



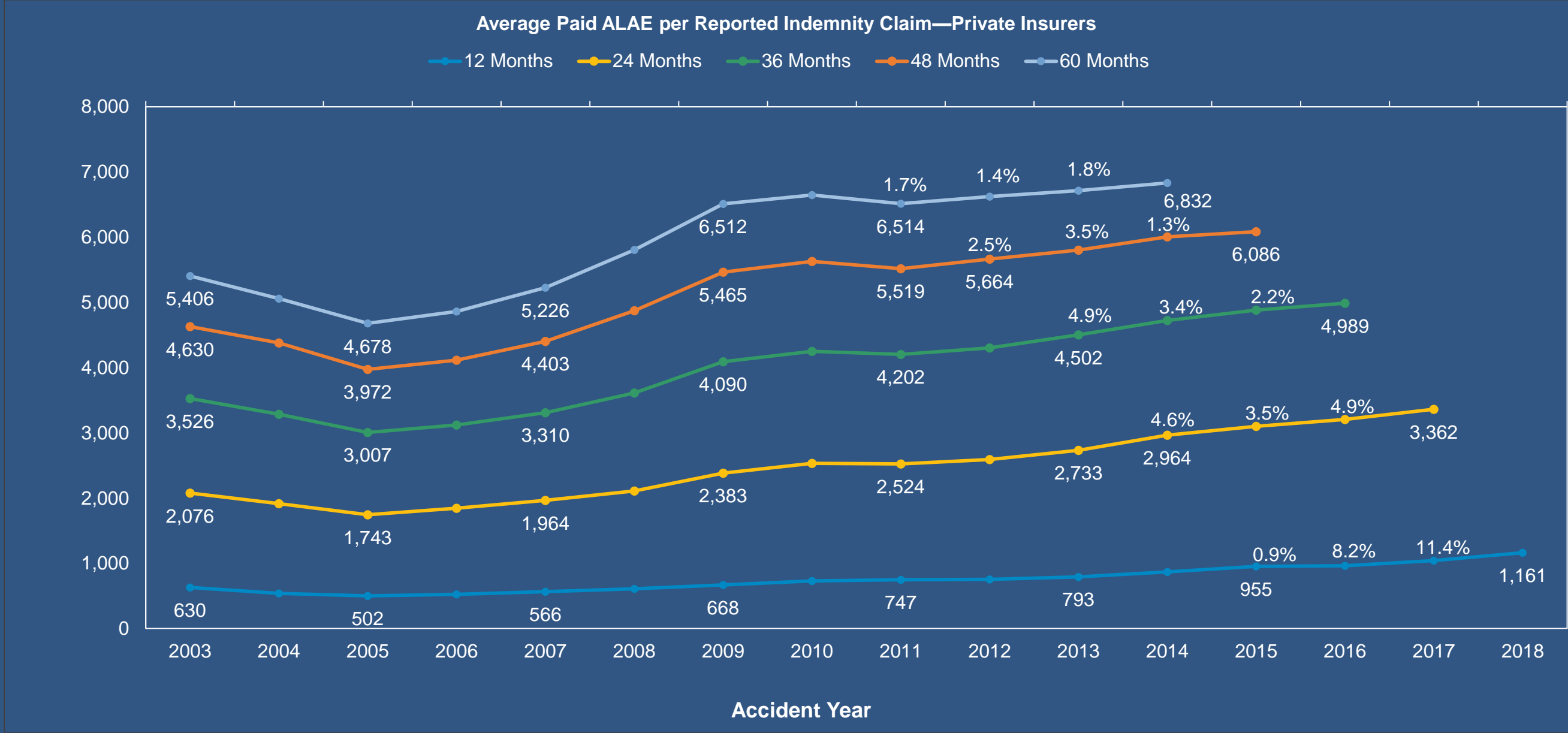
Medical-Legal Reports (Exhibit E13)



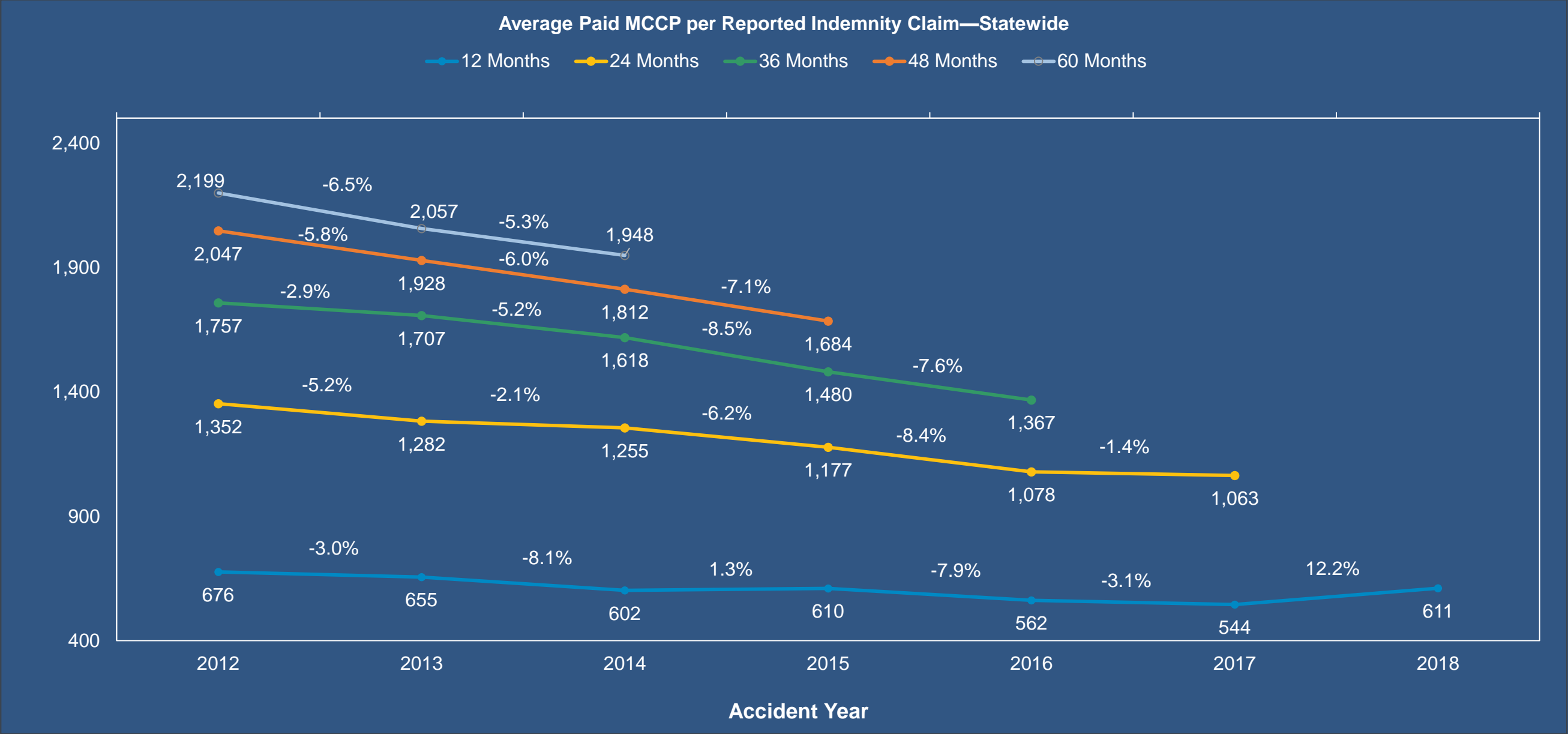
Medical-Legal Reports (Exhibit E13)



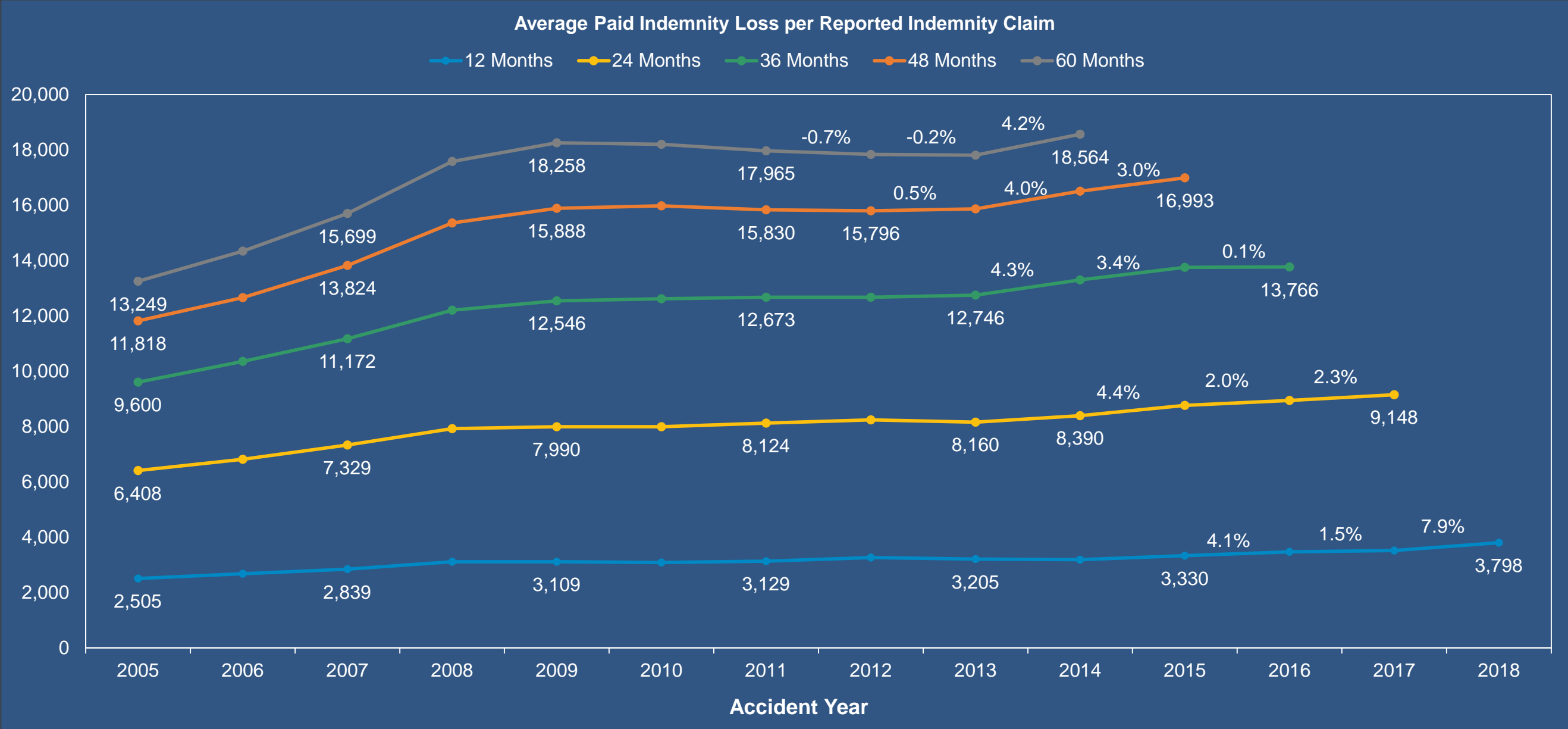
Paid ALAE per Indemnity Claim—Private Insurers (Exhibit E5, Updated)



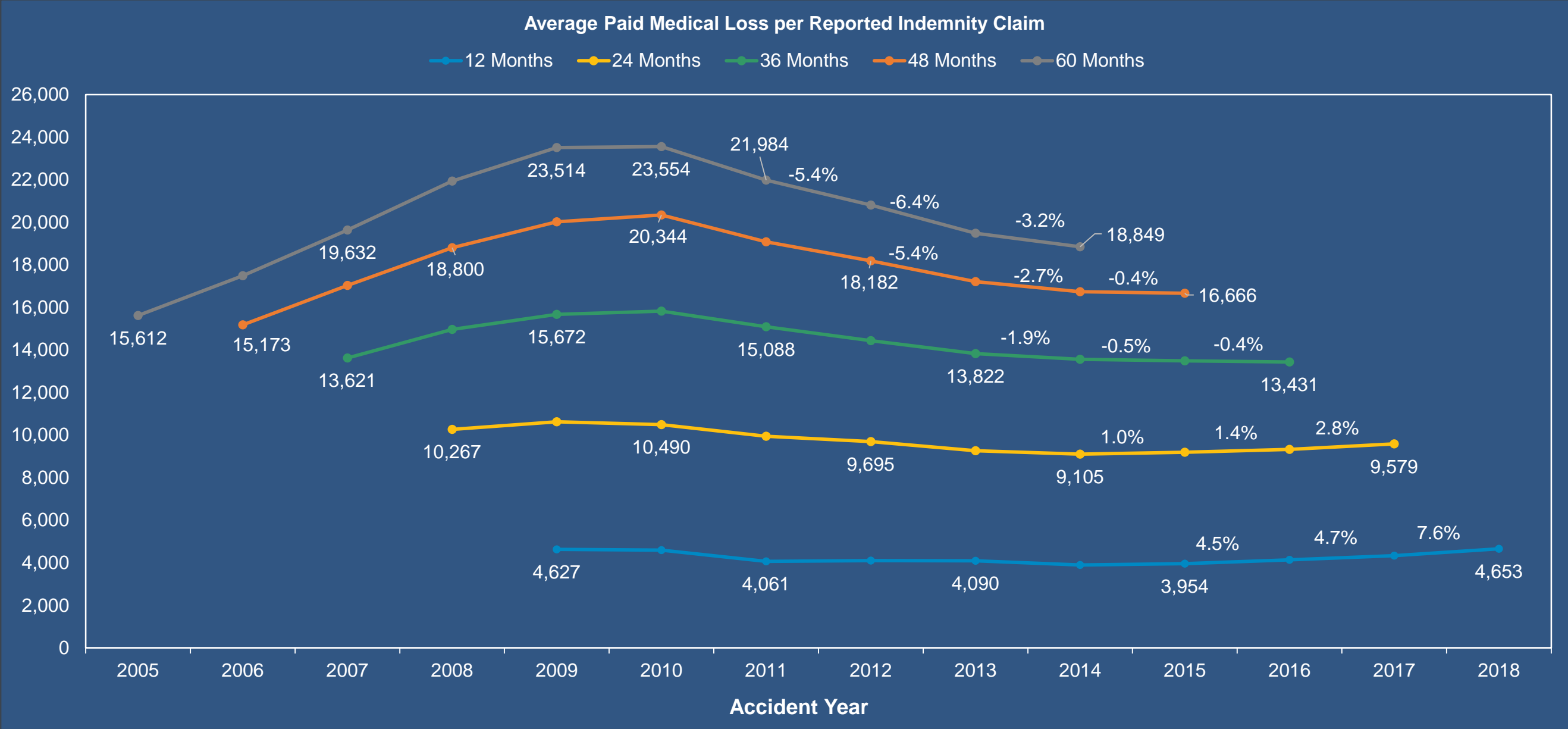
Paid MCCP per Indemnity Claim – Statewide (Exhibit E15, Updated)



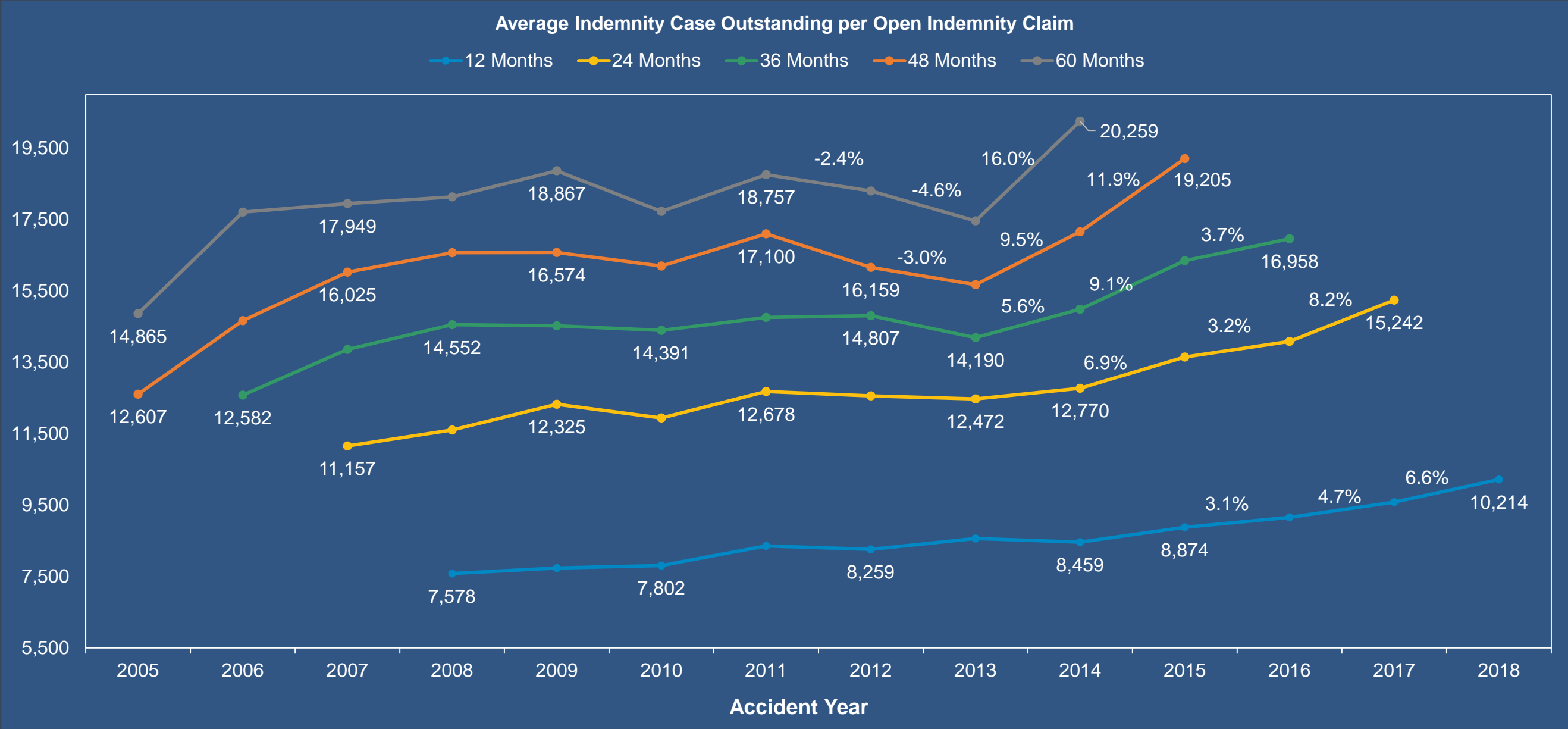
Severity – Paid Indemnity per Indemnity Claim (Exhibit S4.1, Updated)



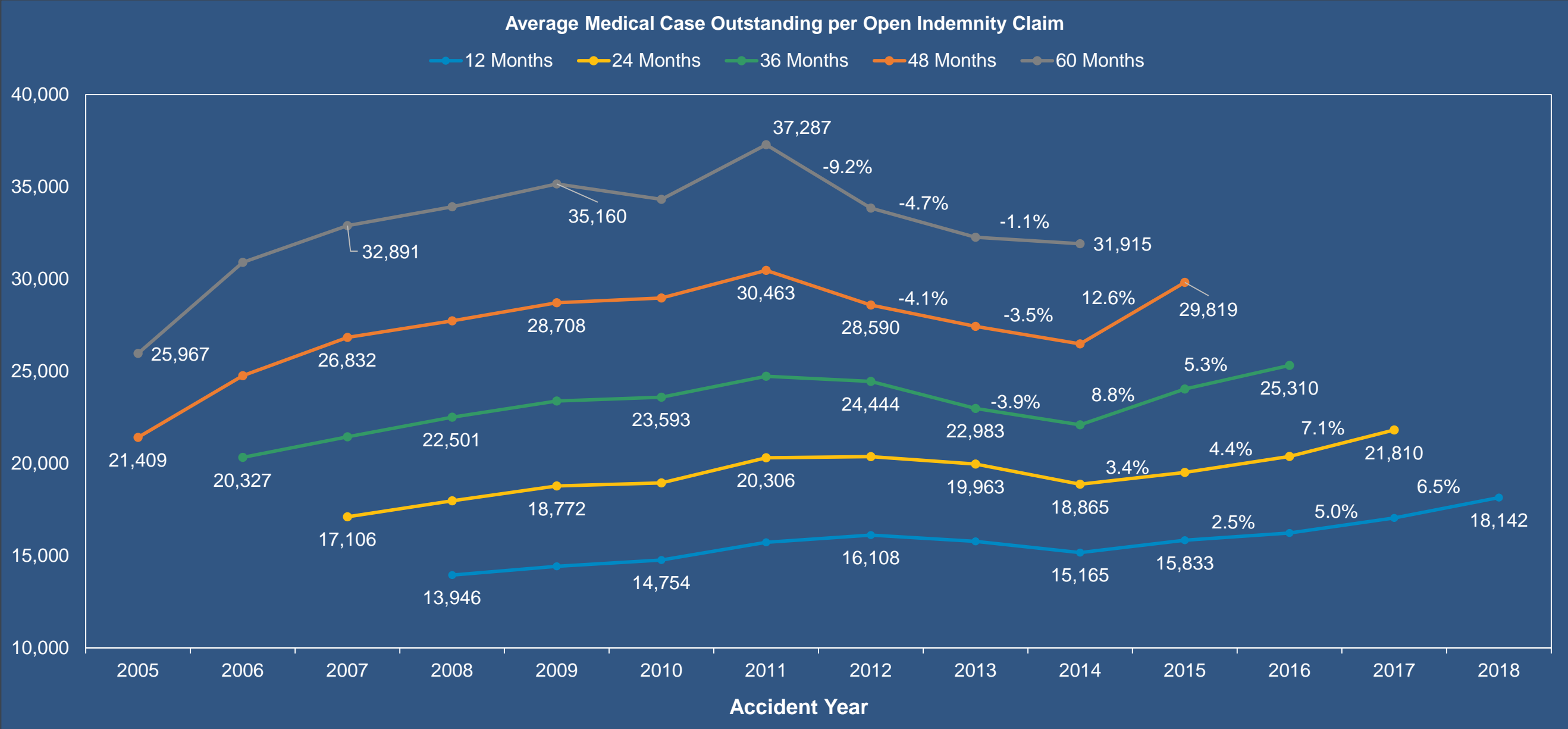
Severity – Paid Medical per Indemnity Claim (Exhibit S4.2, Updated)



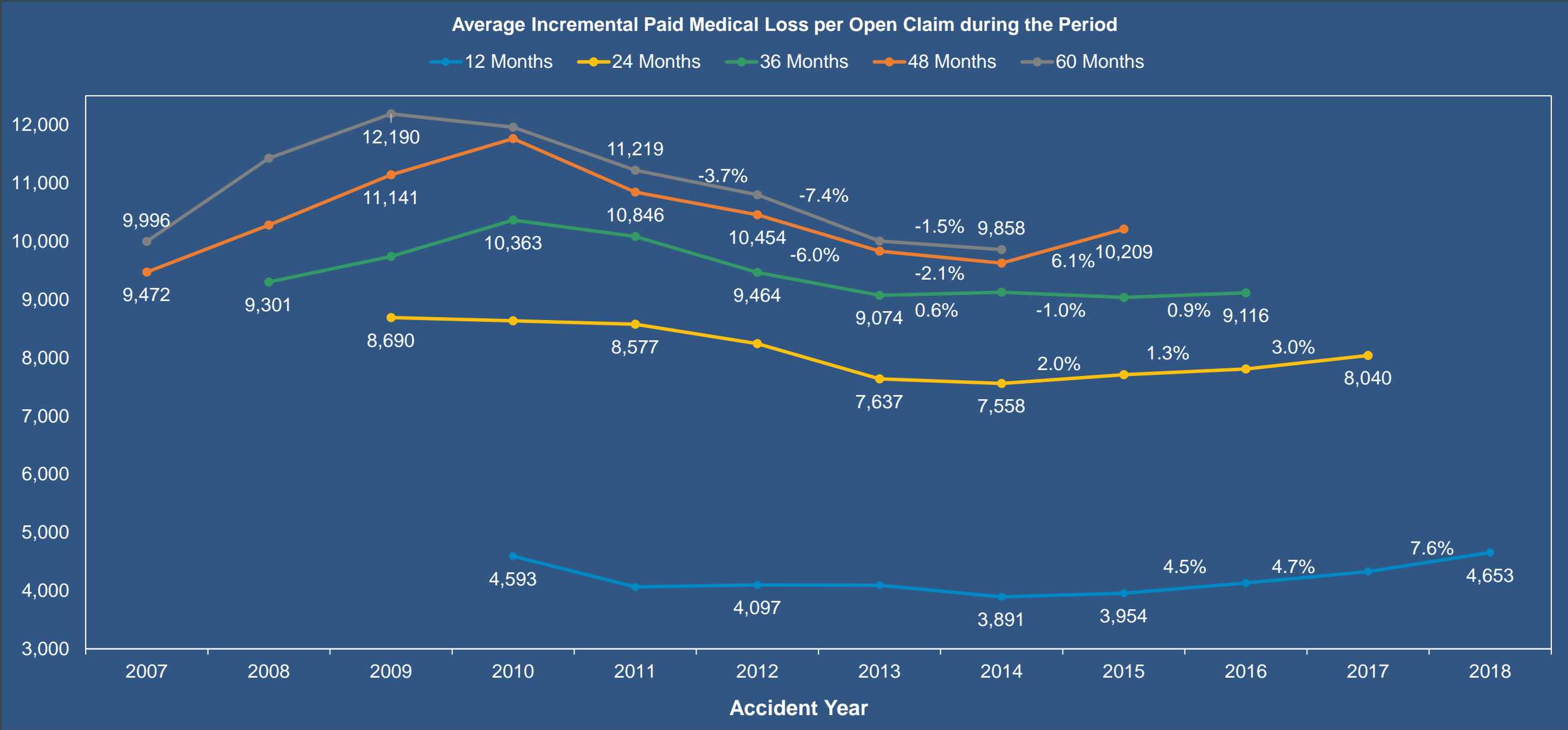
Severity – Indemnity Case Outstanding per Open Indemnity Claim (Exhibit S3.1, Updated)



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



Severity – Incremental Paid Medical per Open Claim During the Period (Exhibit S6.2, Updated)

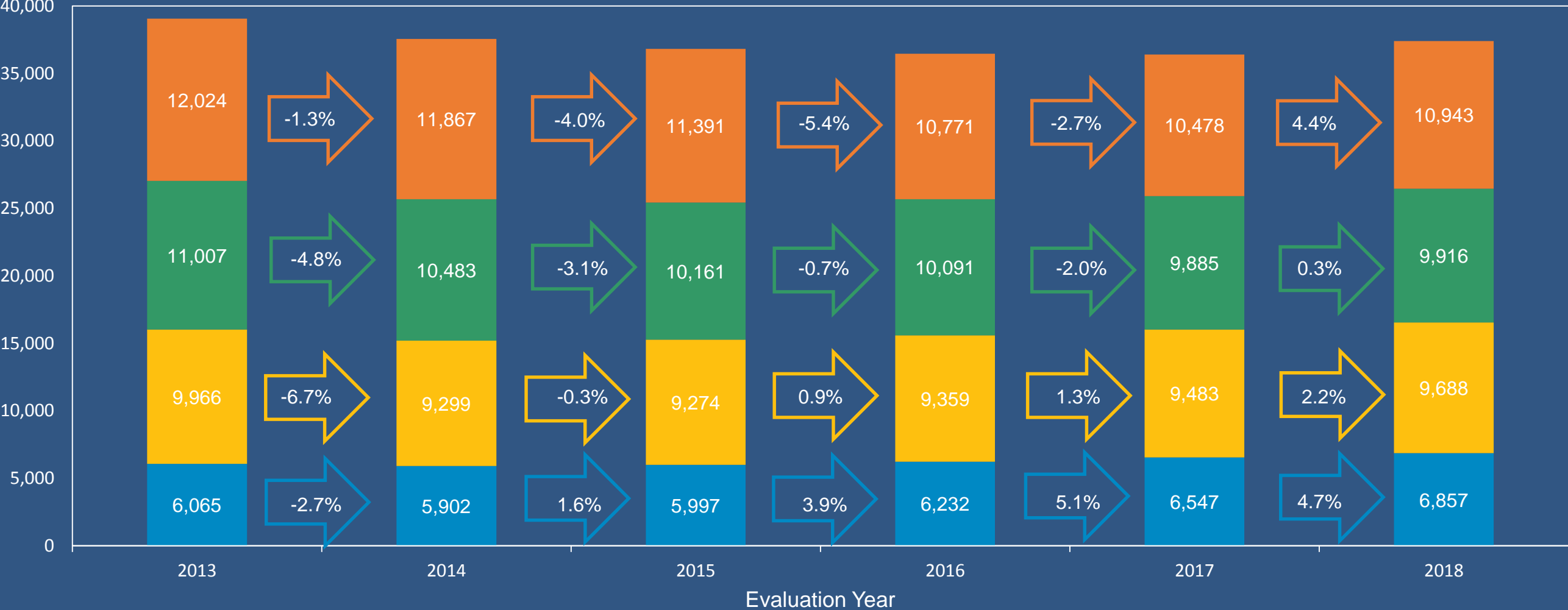


Severity – Incremental Paid Medical per Open Indemnity Claim During the Development Period (Exhibit S7, Updated)

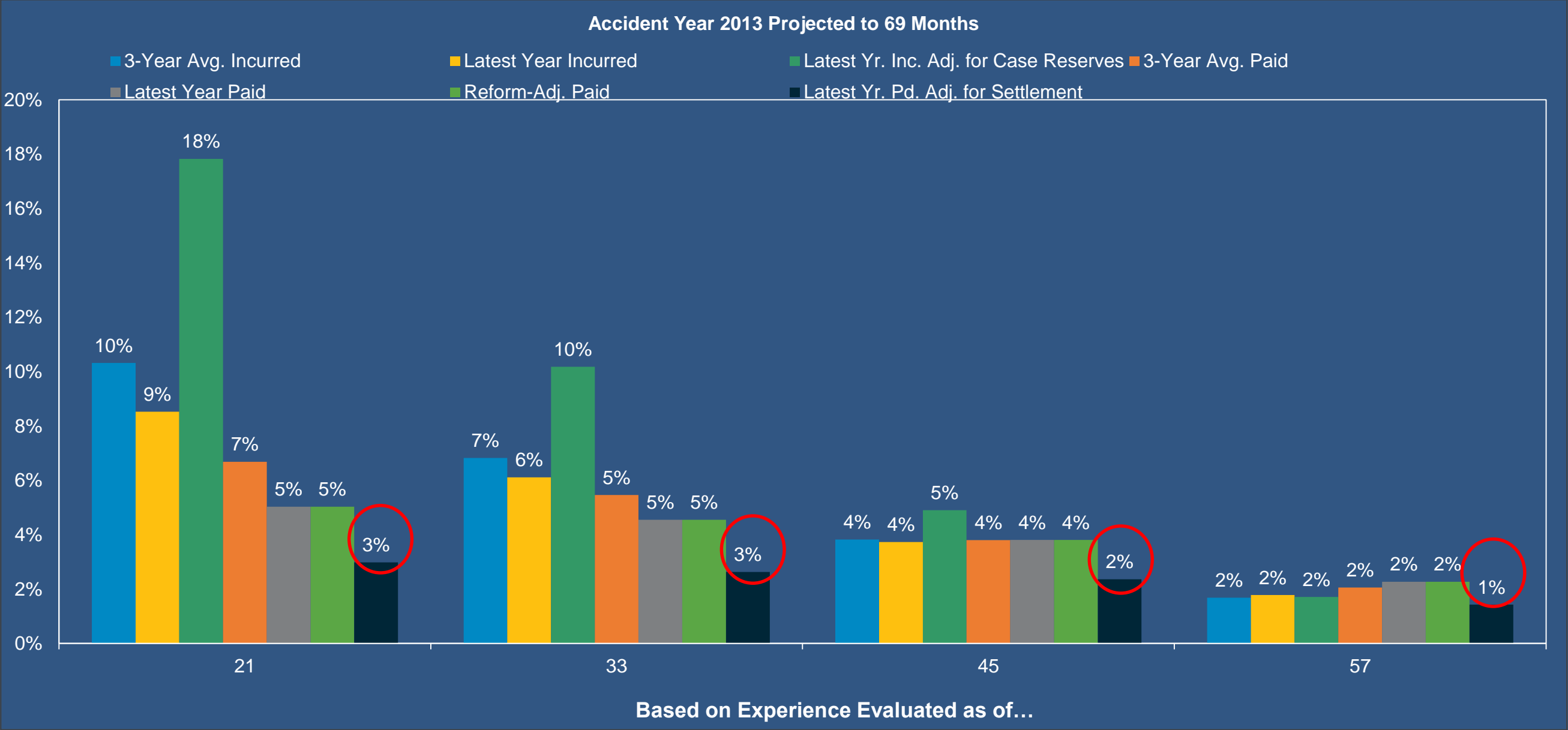
As of December 31, 2018

Average Paid Medical per Open Indemnity Claim during the Development Period

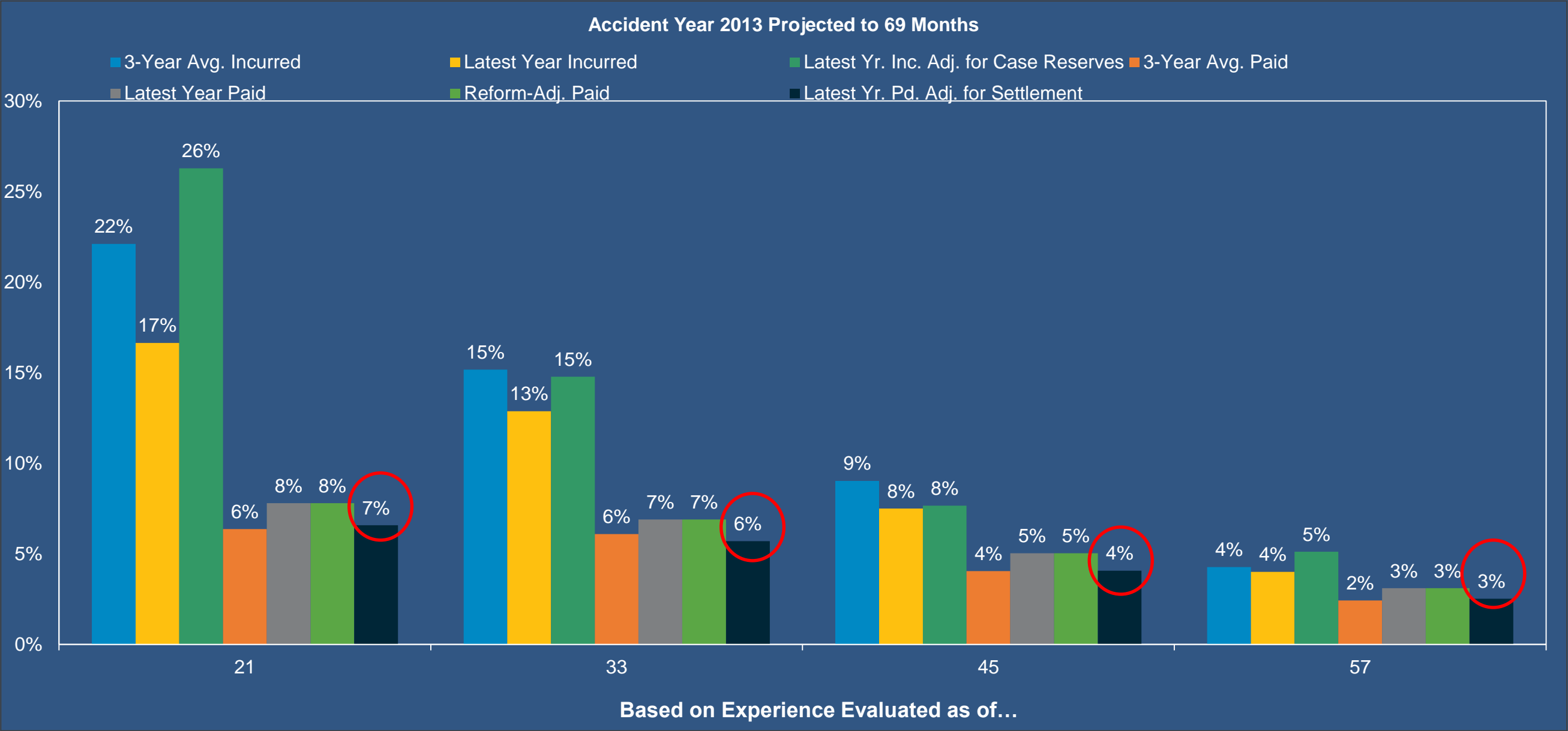
0-to-12 Months 12-to-24 Months 24-to-36 Months 36-to-48 Months



Comparison of Projected Loss Ratios and September 30, 2018 Experience – Indemnity (Exhibit D6.2)



Comparison of Projected Loss Ratios and September 30, 2018 Experience – Medical (Exhibit D6.2)



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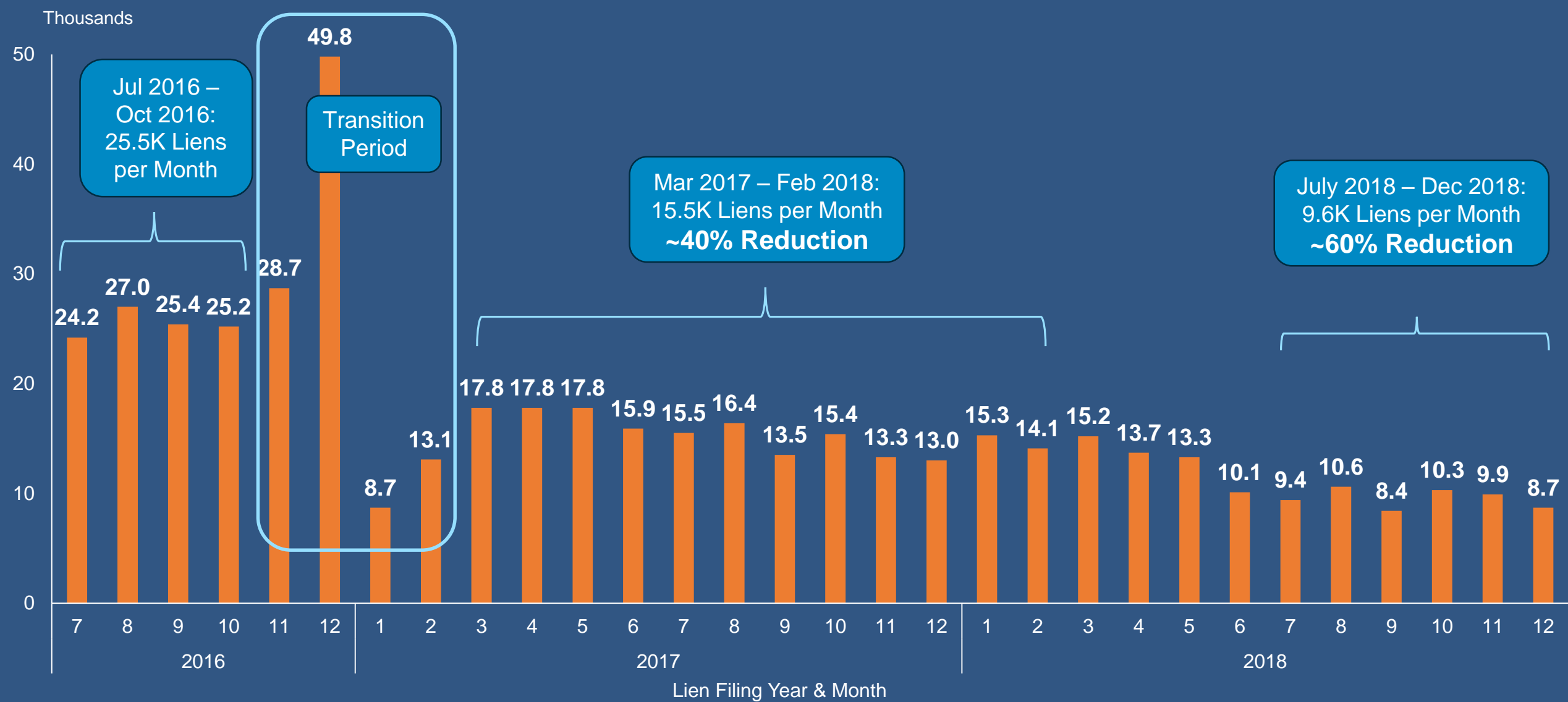
Impact of SB 1160 and AB 1244 on Loss Development



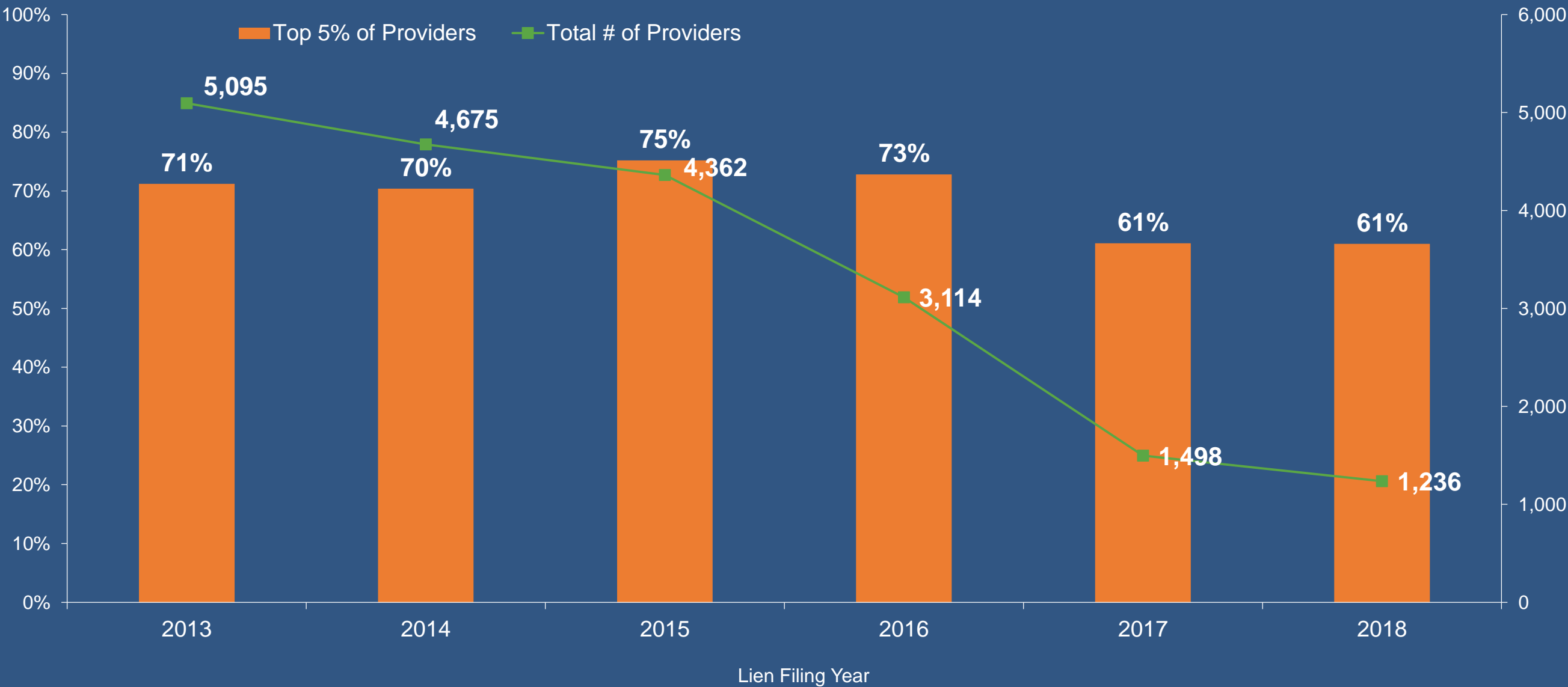
SB 1160 & AB 1244 Overview

- SB 1160 & AB 1244 enacted in 2016
- Include several provisions related to lien filings
 - Requires declaration under penalty of perjury filed with all new liens
 - Cannot assign liens to a third party
 - Stay on liens from indicted providers (AB 1244 provides consolidated process to resolve these liens)
- Effective on all liens filed after 1/1/2017
 - Declaration required for outstanding (post-1/1/2013) liens by 7/1/2017
 - Lien stay for indicted providers will also impact outstanding liens
- WCIRB reflected a 40% reduction in future lien filings (-2.4% in total costs) in January 1, 2019 Filing
 - Adjustment applied to cumulative paid medical loss development
 - CDI reflected 50% reduction in 1/1/19 Filing decision based on emerging data
 - Diagnostic information has shown a further decline in lien filings in 2018

Recent Lien Filings



Concentration of Medical Lien Filing Counts by Provider (Exhibit 1.1)



Average Paid Medical per Lien Transaction (Exhibit 1.2)



Cumulative Paid Medical Factor Adjustment (Exhibit 2)

Age*	Age-to-240 Factor, All Medical Services A	Age-to-240 Factor, Excl. Liens B	Adjustment to Cumulative Factor w/ 40% Lien Reduction C	Adjustment to Cumulative Factor w/ 50% Lien Reduction D	Adjustment to Cumulative Factor w/ 60% Lien Reduction E
72	1.269	1.249	0.994	0.992	0.990
60	1.358	1.319	0.989	0.986	0.983
48	1.505	1.436	0.981	0.977	0.972
36	1.769	1.648	0.973	0.966	0.959
24	2.337	2.137	0.966	0.957	0.949
12	4.876	4.424	0.963	0.954	0.944

Source: WCIRB medical transaction data for the average of the latest three calendar years.

$C = (B \times 40\% + A \times 60\%) / A$

$D = (B \times 50\% + A \times 50\%) / A$

$E = (B \times 60\% + A \times 40\%) / A$

*Year-end evaluations were used, but adjustment would be pro-rated for other evaluations (15 months, etc.).

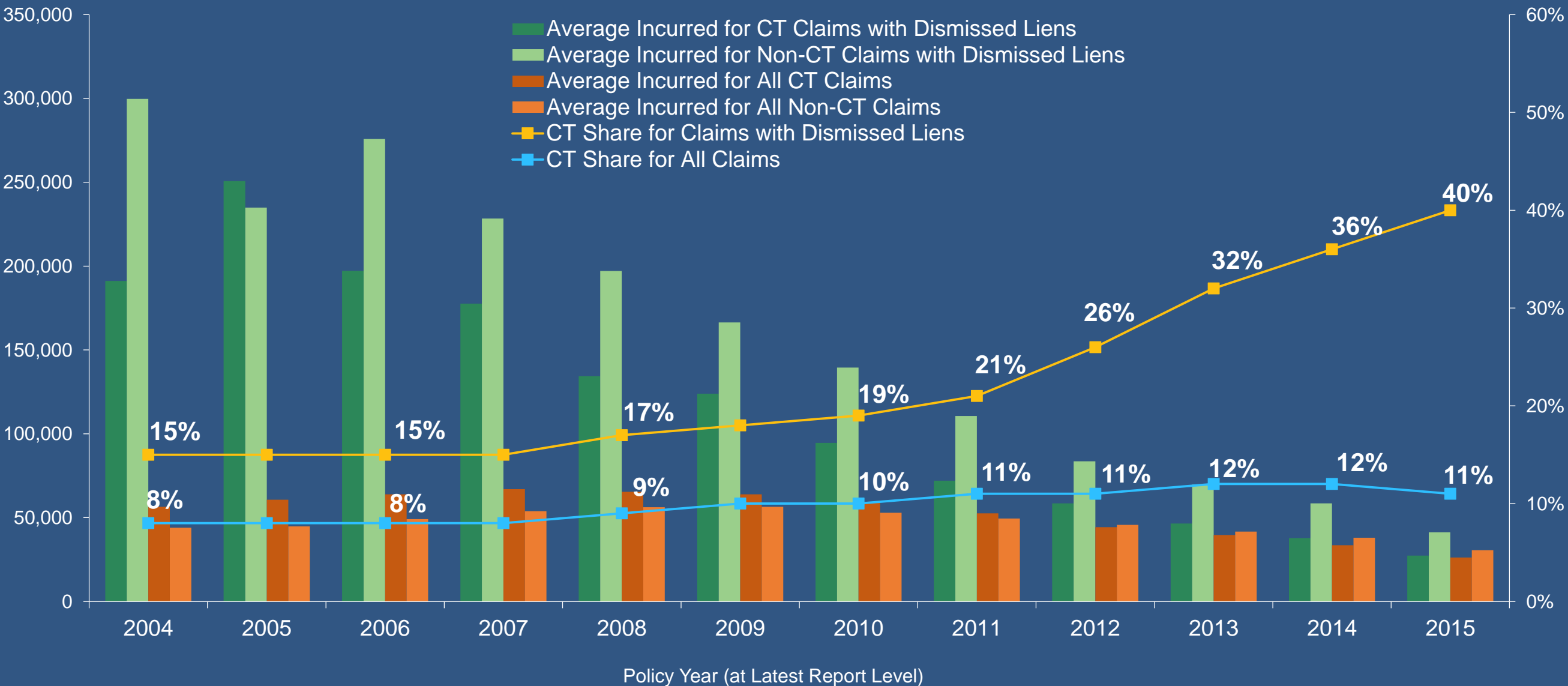
Summary & Recommendations

- Lien filings in the last two quarters of 2018 are the lowest in many years and fairly consistent from month to month
- The continued decline in lien filings, particularly for the latest two quarters of 2018, suggests a 60% reduction in lien filings
- Staff recommends updating the adjustments to cumulative paid medical loss development based on a 60% reduction in lien filings (a 0.6 point drop in medical loss ratio based on 12/31/18 experience)

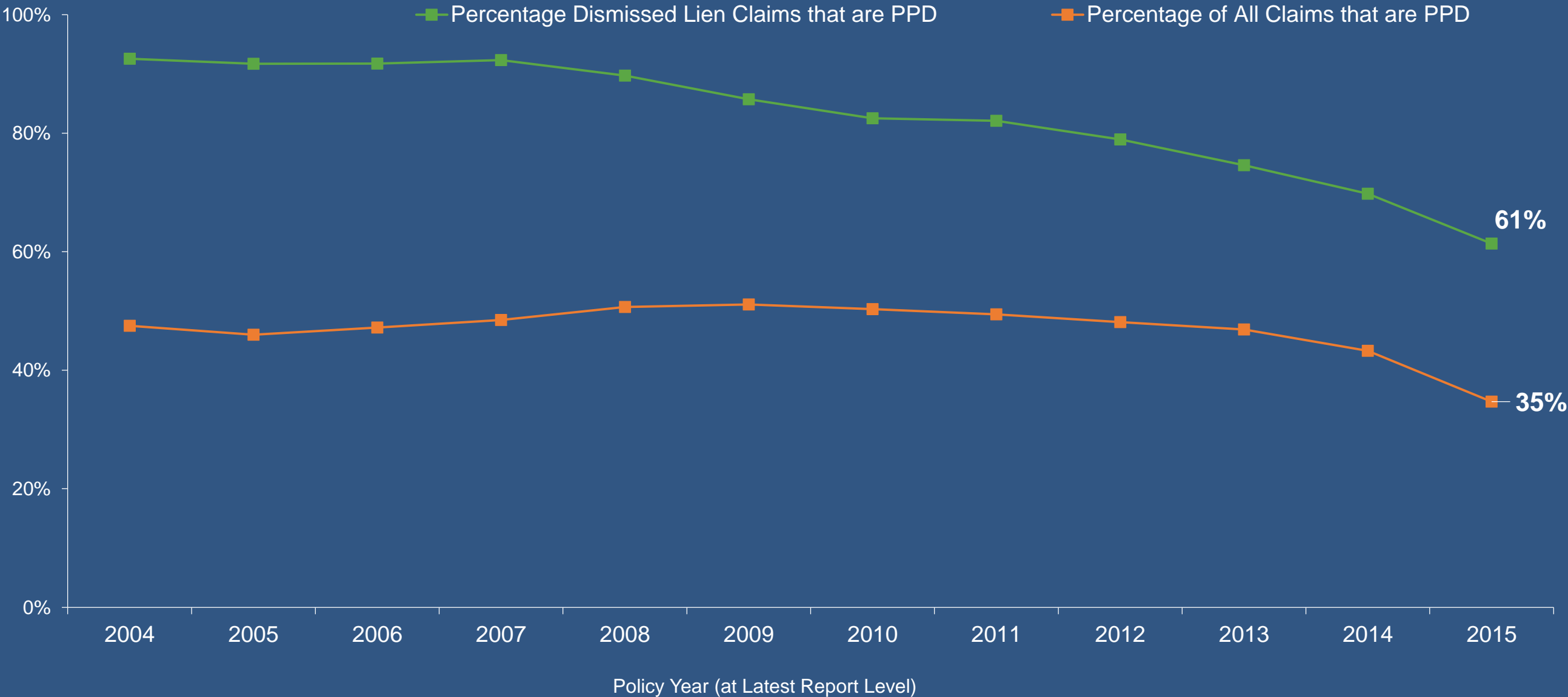
Review of Liens Dismissed by the DWC

- In August 2017, DWC dismissed approx. 292,000 liens with no declarations filed
- Potential impact of these lien dismissals on medical loss development has been reviewed at prior meetings
 - Adjustment for the dismissed liens is applied to age-to-age paid medical development
- Additional information has been obtained from the DWC that has allowed a better linking to WCIRB claim and medical transaction data
- Approximately 68,000 of dismissed liens were linked to WCIRB data with this new data
- Characteristics of the dismissed liens have been reviewed based on the additional information provided for the linking
- Staff does not believe any change to the loss development adjustment is warranted

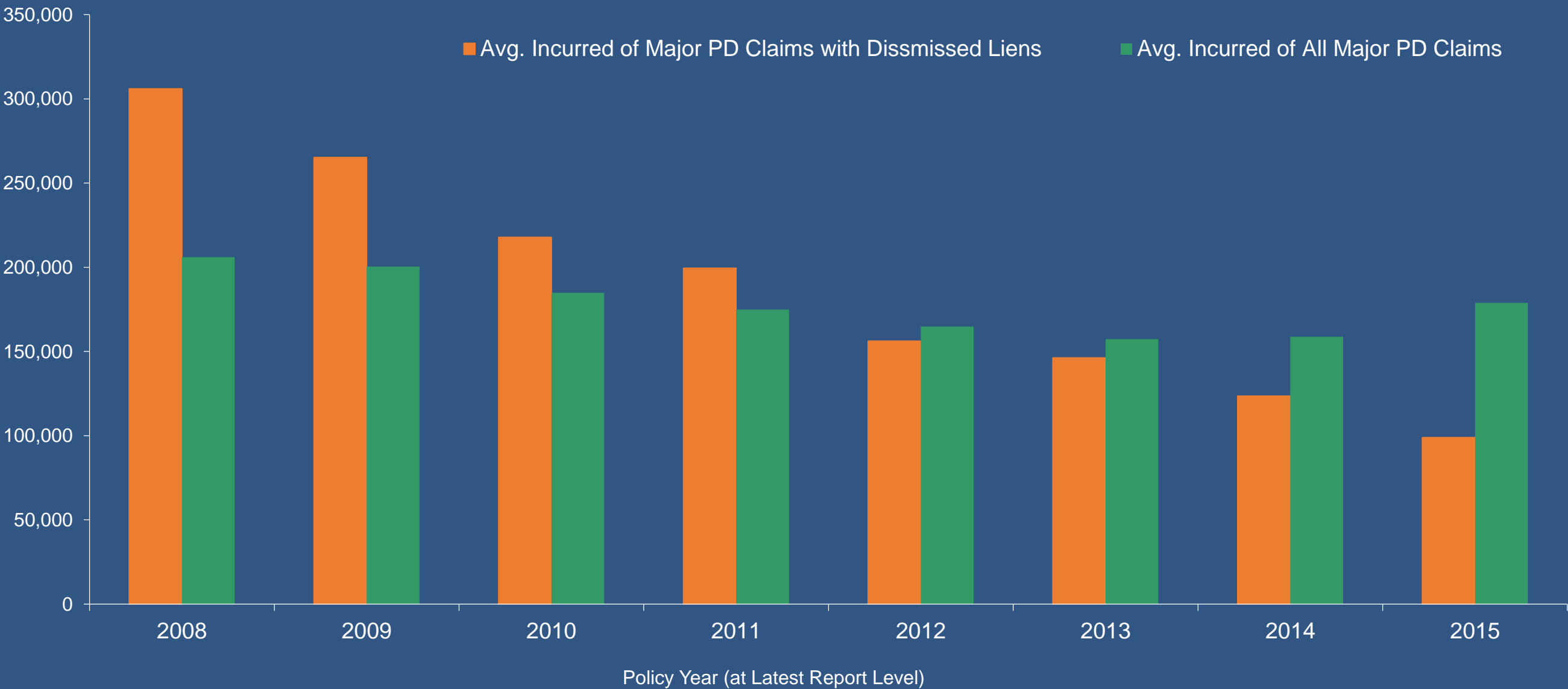
Indemnity Claims by CT (Cumulative Trauma) and Non-CT (Exhibit 3.1)



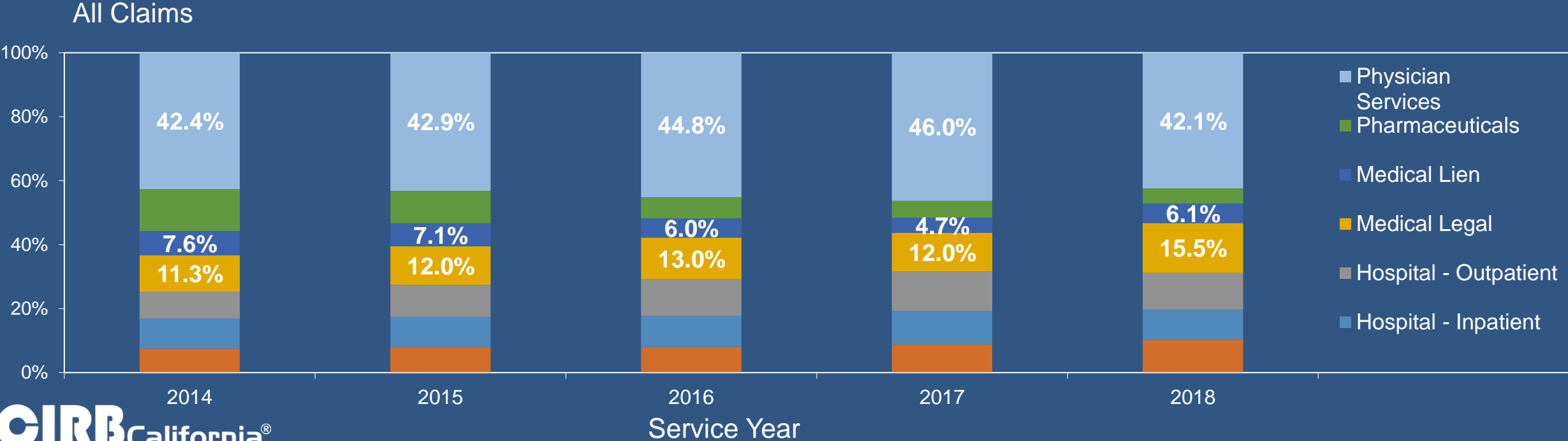
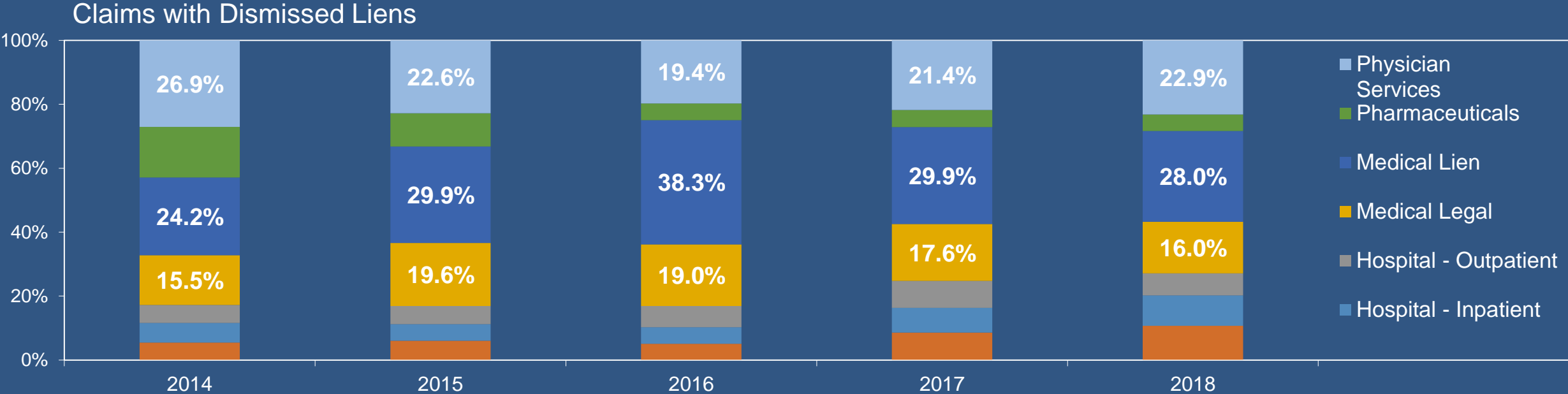
Proportion of Indemnity Claims by Injury Type (Exhibit 3.2)



Claim Severities by Injury Type (Exhibit 3.2)



Share of Medical Payments by Procedure Type (Exhibit 3.3)



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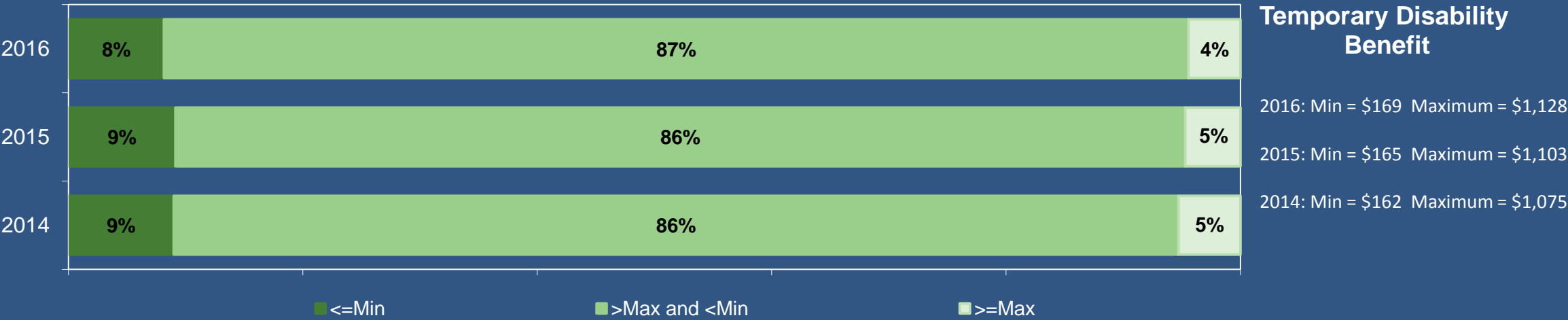
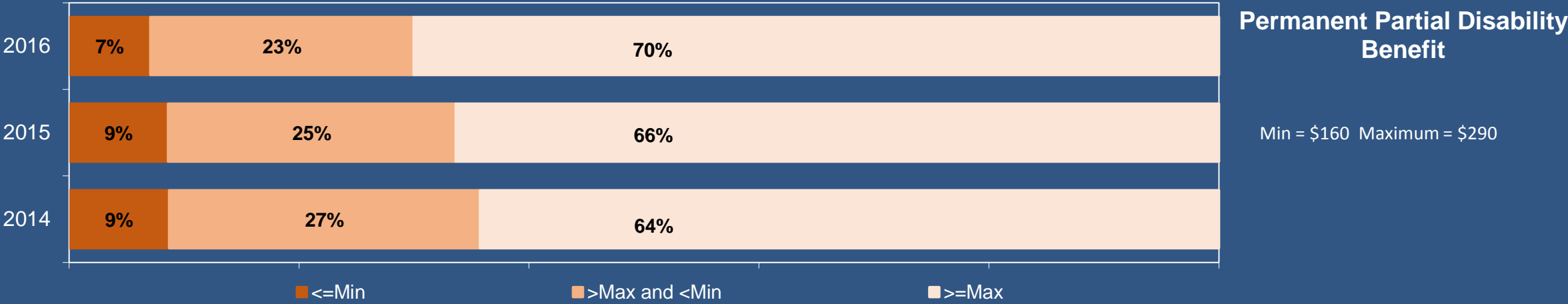
Impact of Wage Inflation on Indemnity Benefits

Impact of Wage Inflation on Indemnity Benefits

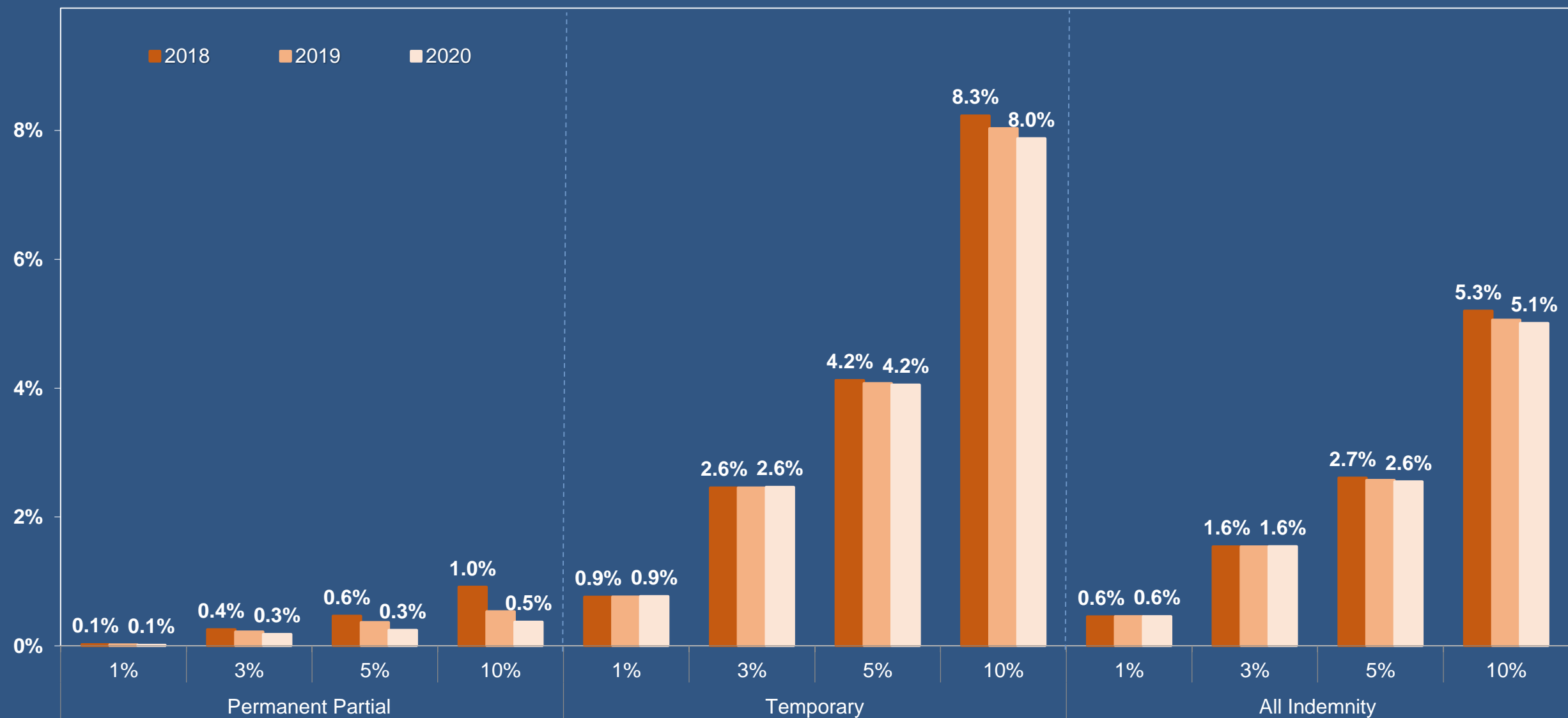
- CDI Decision on 1/1/2019 Filing raised concerns with the adjustment for wage inflation in indemnity benefits potentially overstating indemnity severity trend projections
- Current WCIRB approach models the impact of wage inflation on indemnity using:
 - Claimant weekly wages
 - Statutory benefit caps
 - Distributions of costs by injury type and benefit type
- Current approach assumes a fixed (linear) relationship between wage inflation and indemnity benefit increases
 - May be appropriate for benefits that are capped at high amounts and indexed with inflation by statute (TD)
 - Impact distorted over time for benefits capped at low amounts and not indexed (PPD)
 - Data and linear regression parameters updated periodically (last updated in 2012)

Weekly Benefit Minimums of Maximums of Injured Workers – PD Claims

Accident Years 2014 to 2016



Estimated Cost Impact of Wage Inflation – By Benefit Type (Exhibit 2)



Impact of Wage Inflation on Historical Accident Years (Exhibit 3)

				Estimated Impact of Wage Inflation on Indemnity Benefit	
Accident Year	Maximum TD Benefit	Maximum PPD Benefit	Wage Inflation	Regression Method	Trending Weekly Wage from Prior AY
2014	\$1,075	\$290	3.3%	1.7%	1.6%
2015	\$1,103	\$290	4.4%	2.3%	2.2%
2016	\$1,128	\$290	1.9%	1.0%	1.0%

Impact of Wage Inflation on Indemnity Benefits – Recommendations

- Update the regression model more frequently (once a year) with latest available claims and wage data
- Update the impact on historical years by the next annual pure premium rate filing
- Continue to assume a constant relationship between wage inflation and indemnity benefit levels for the projection period
 - Although some evidence of distortion on the PPD impact exists, PPD benefits represent a very minor share of the total impact on indemnity
 - Keeping the model parameters more current should mitigate any distortion

05

12/31/2018
Experience –
Review of
Methodologies



Preliminary Summary of December 31, 2018 Experience

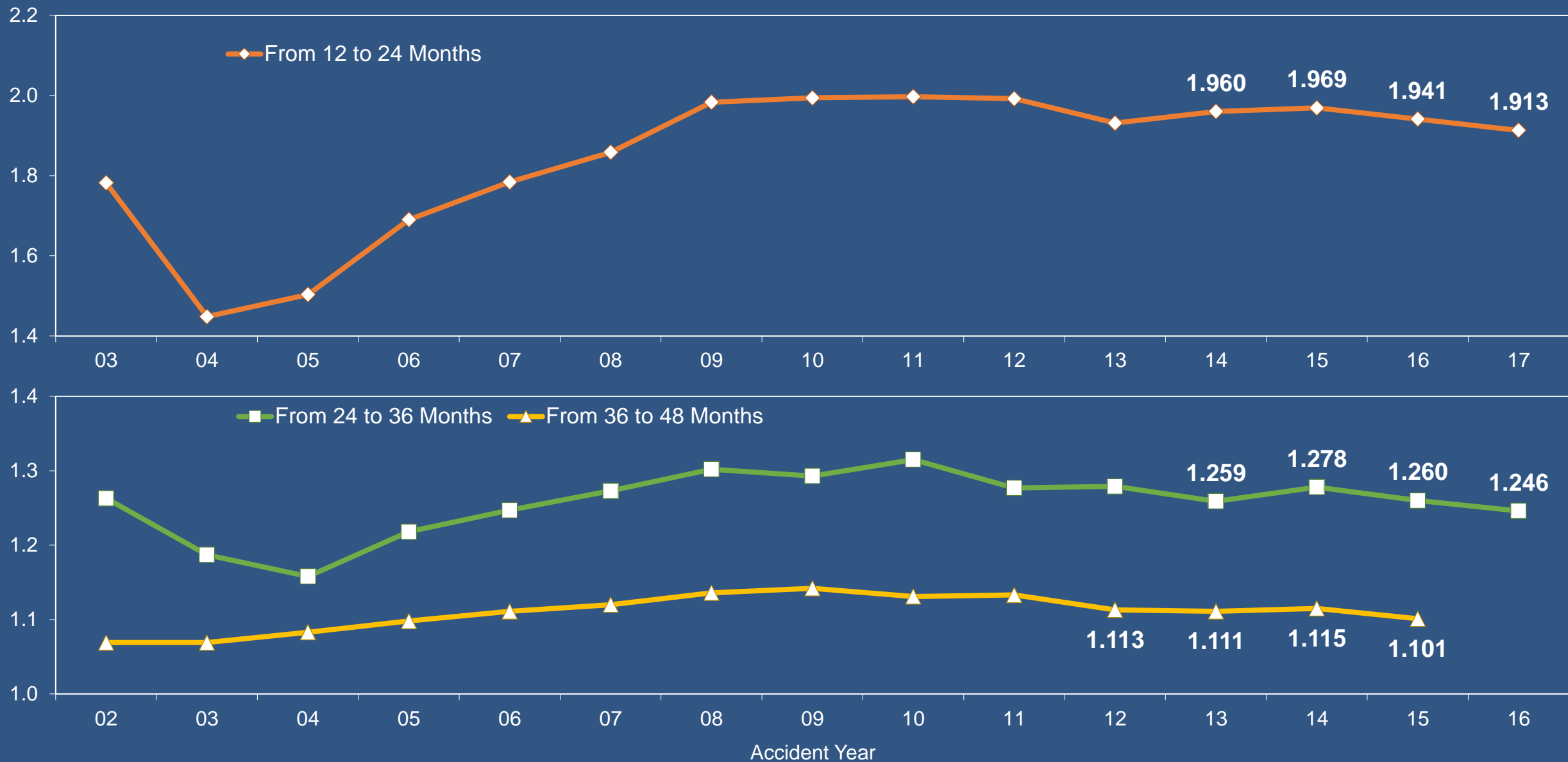
- Almost 100% of market reflected
- Same methodologies as in 1/1/2019 Filing
 - Reflects adjustment for SB 1160 based on 40% lien reduction
- Projected loss ratio for 7/1/2019 to 12/31/2019 policy period: 0.537
- 3 point decrease from projection based on 9/30/2018 experience (0.568)
- 5 point decrease from 1/1/2019 Filing projection based on 3/31/2018 experience (0.588)
- 2 point decrease from CDI Decision on 1/1/2019 Filing (0.556)

Approximate Change in Loss Ratio Projection

Factor	Approx. Change in Percentage Points	
	From 1/1/2019 Filing	From 12/5/2018 Agenda
Lower Loss Development	-3.0	-1.0
Inclusion of 2018 Accident Year	-0.5	-0.5
Updated Wage Forecast	-0.5	-0.5
Updated Frequency Trends	-0.5	-0.5
Trend to July 1, 2019 Policy Period	-0.5	-0.5
Total (to 3/19/2019 Agenda)	-5.0	-3.0

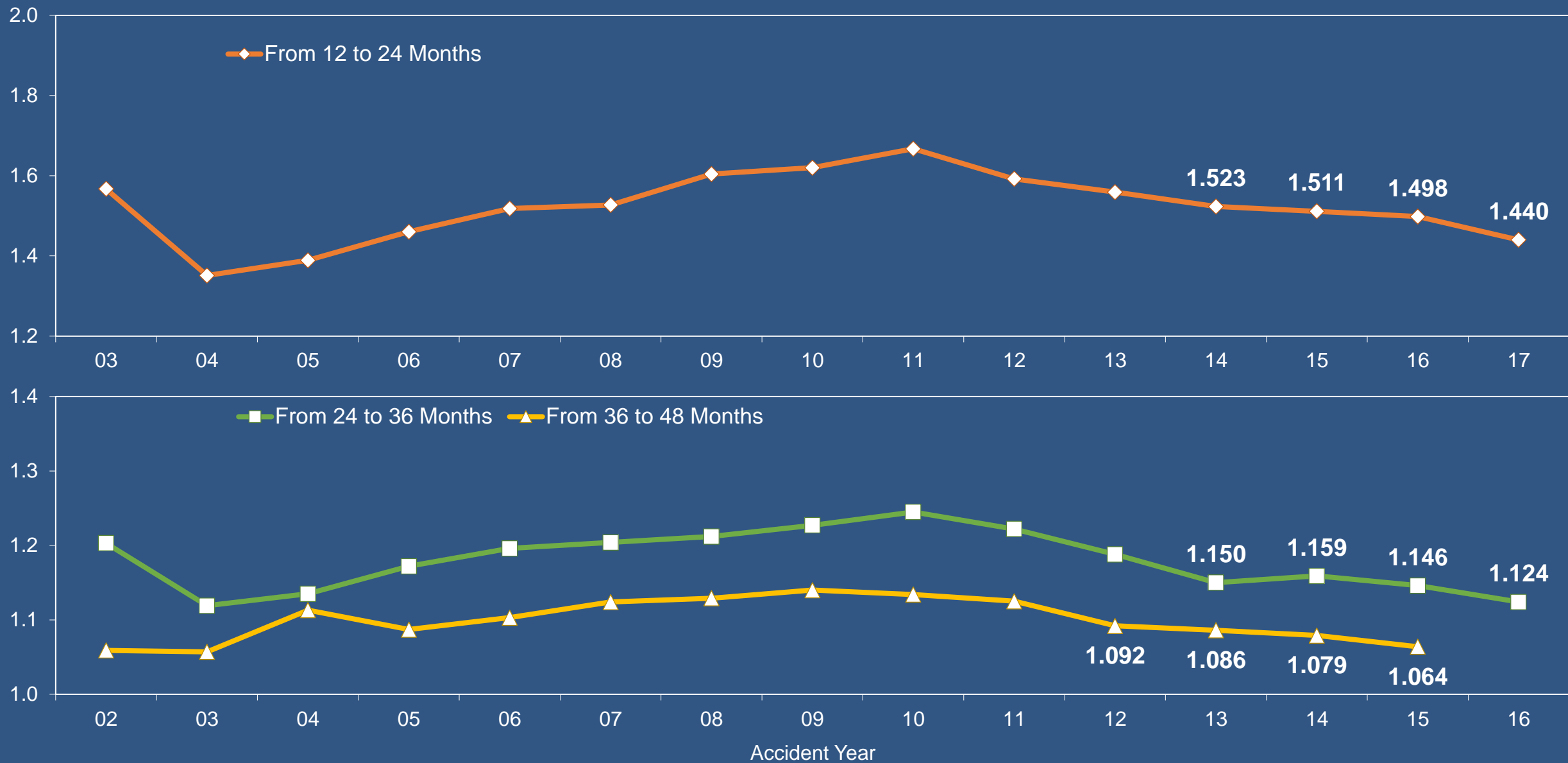
Incurred Indemnity Development (Exhibit 2.1.1)

As of December 31, 2018



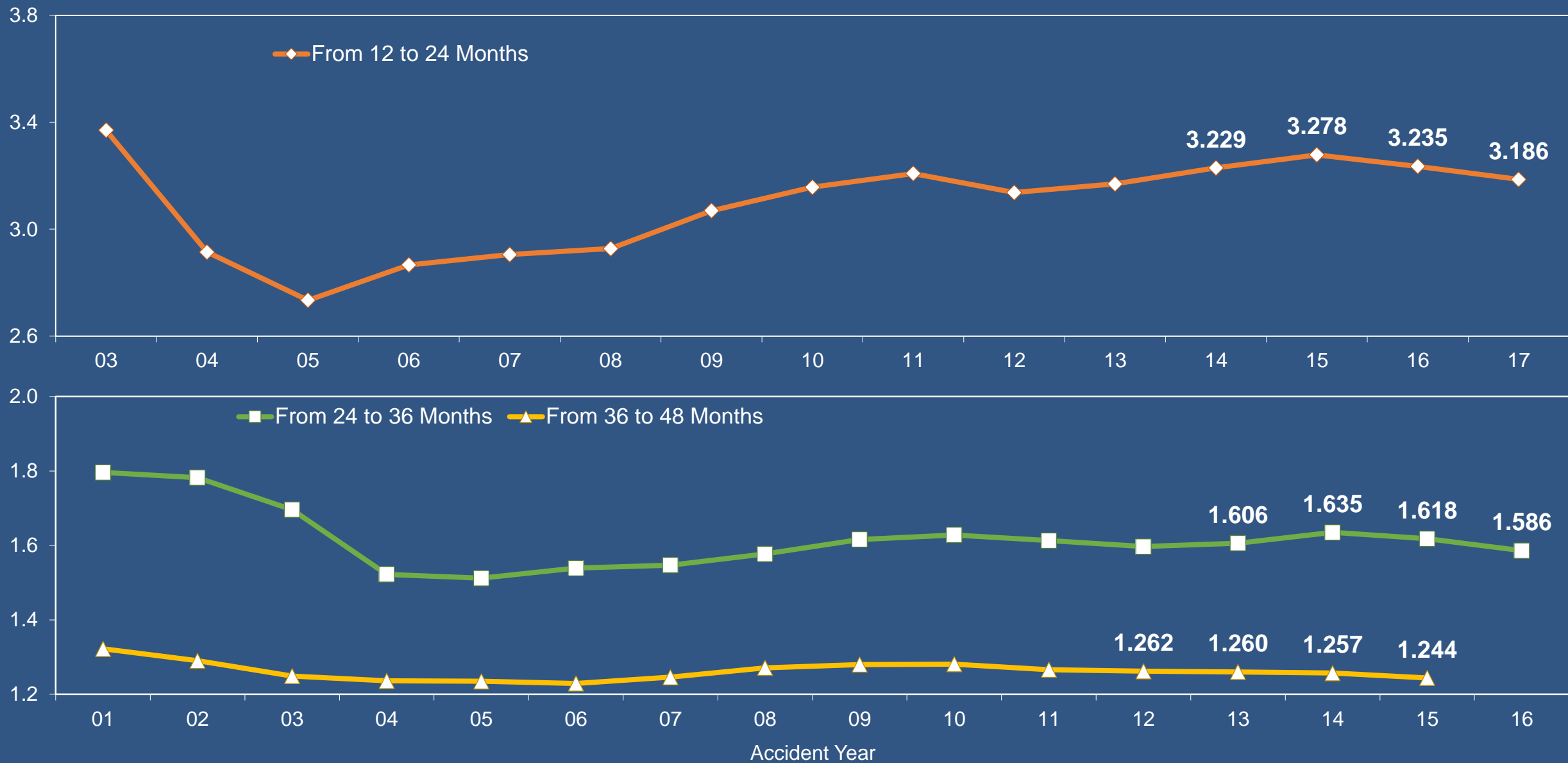
Incurred Medical Development (Exhibit 2.1.2)

As of December 31, 2018



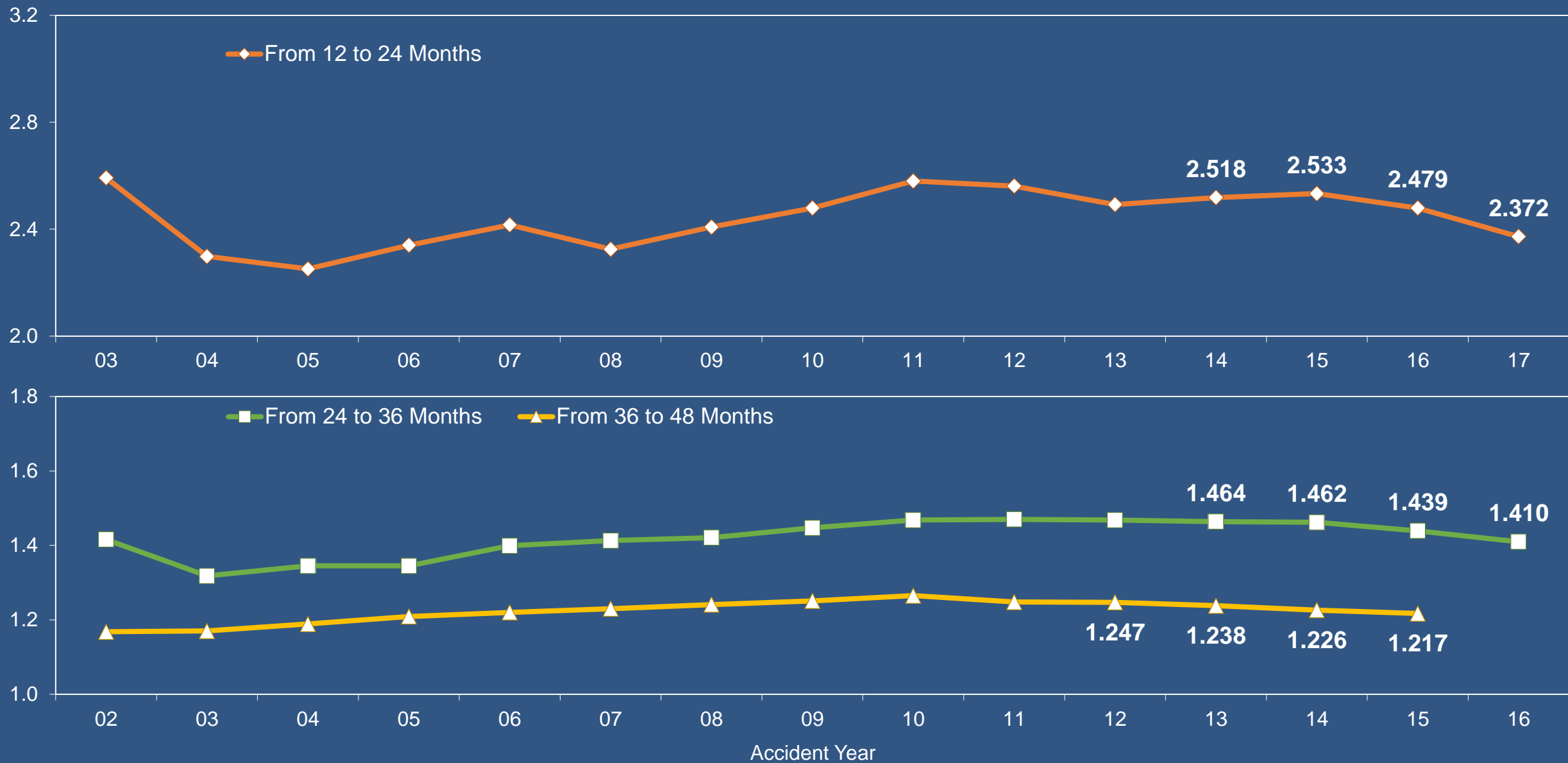
Paid Indemnity Development (Exhibit 2.3.1)

As of December 31, 2018



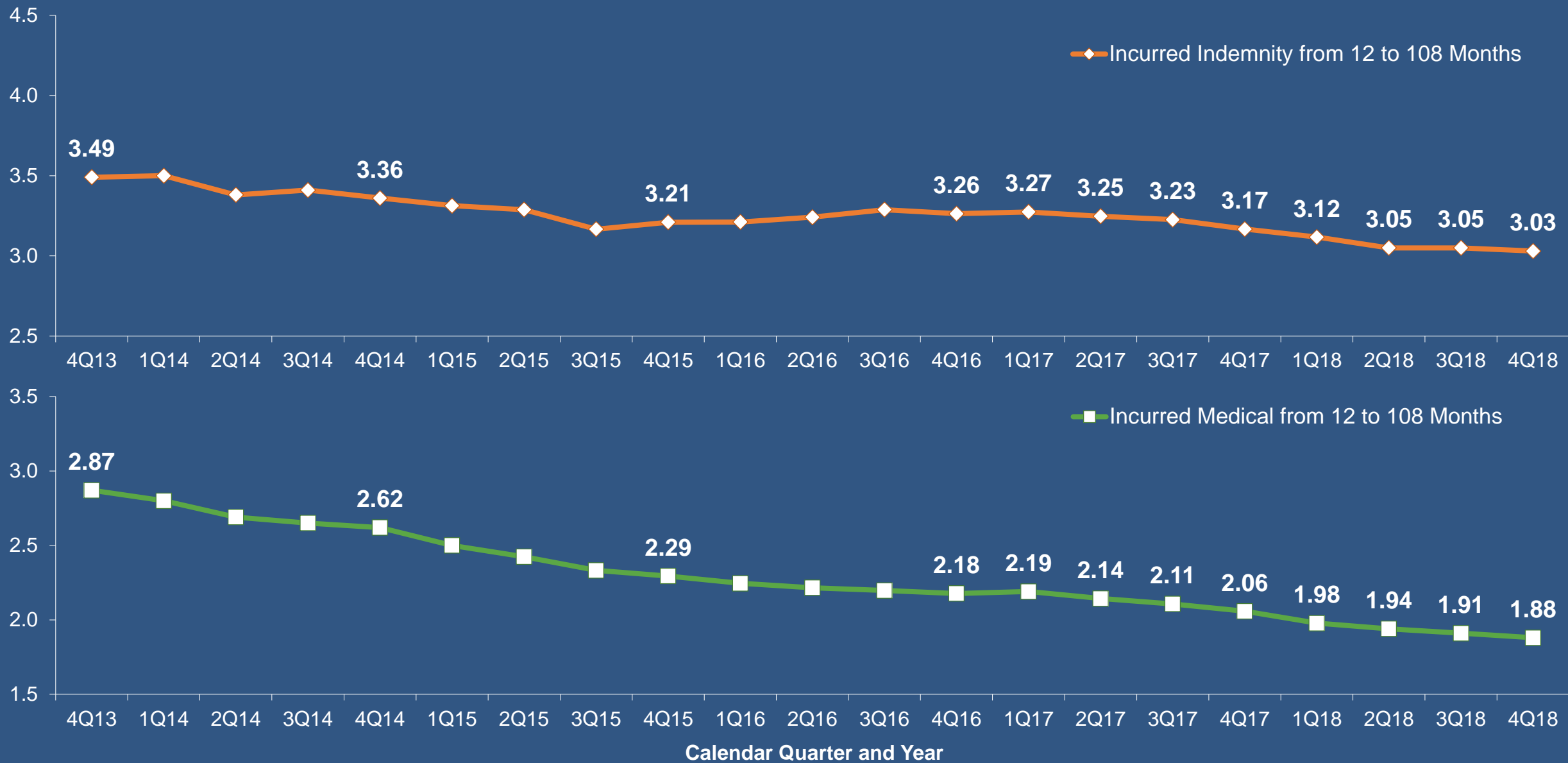
Paid Medical Development (Exhibit 2.4.2)

As of December 31, 2018



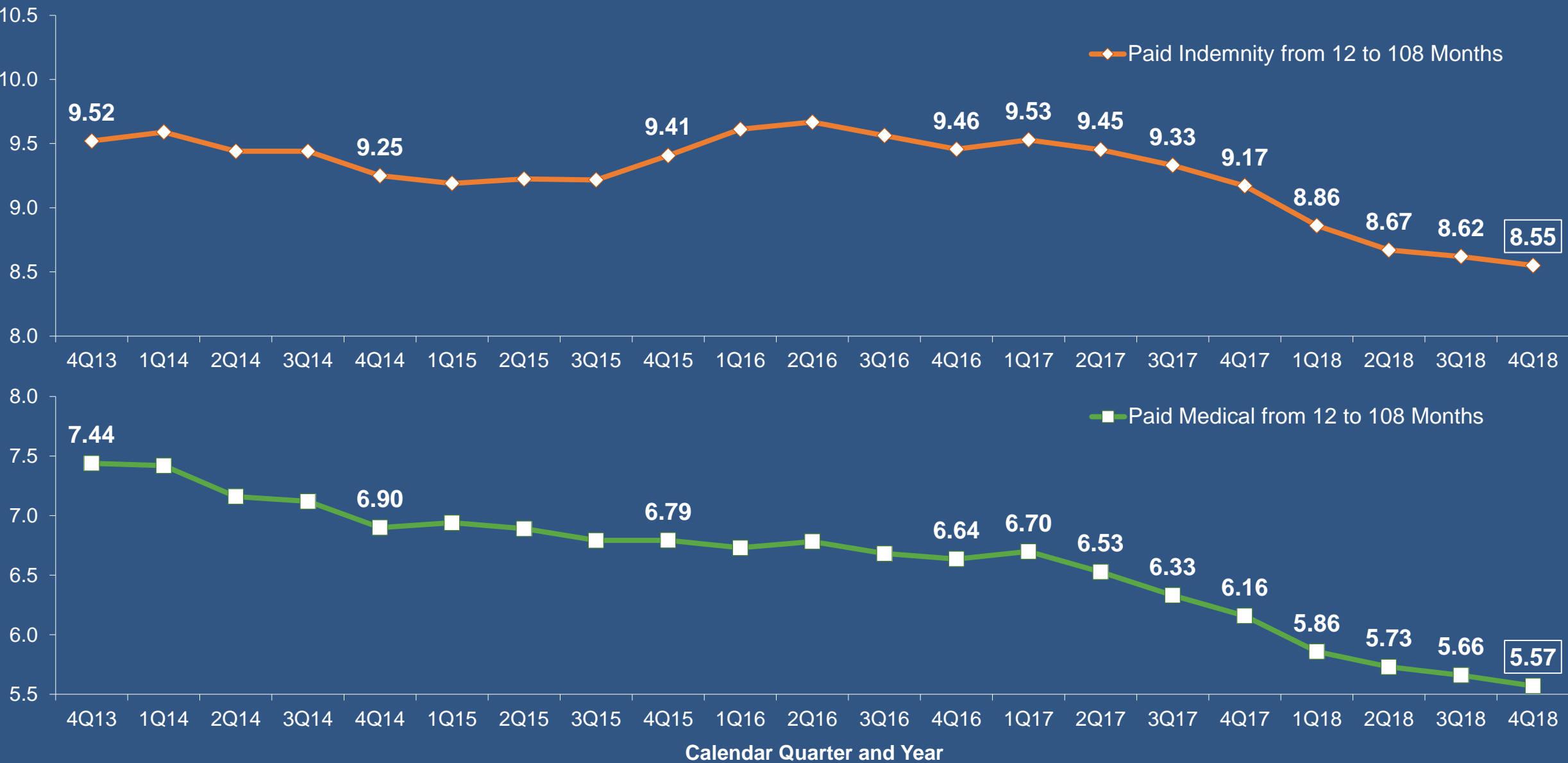
Cumulative Incurred Development from 12 to 108 Months

As of December 31, 2018



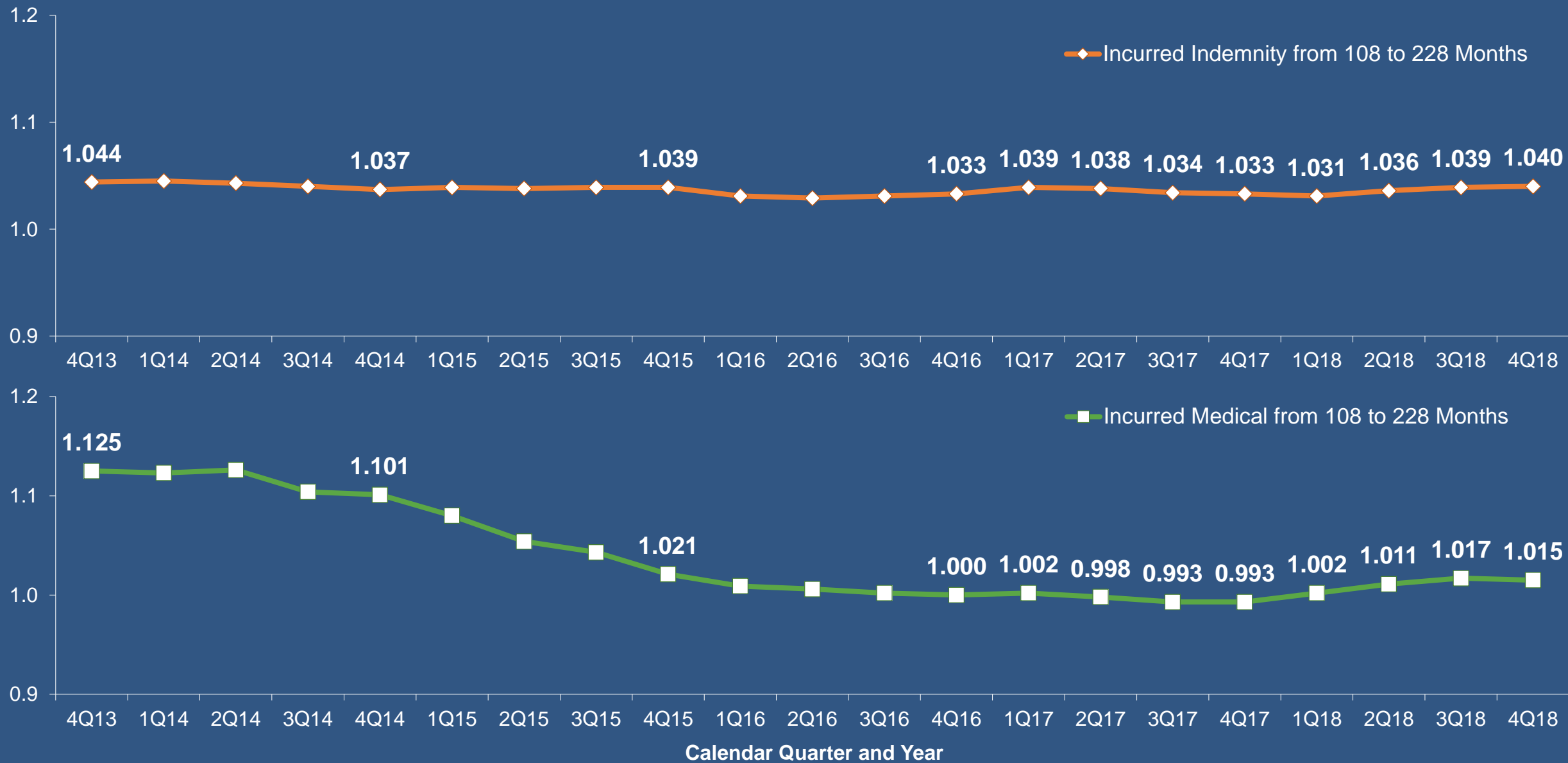
Cumulative Paid Development from 12 to 108 Months

As of December 31, 2018



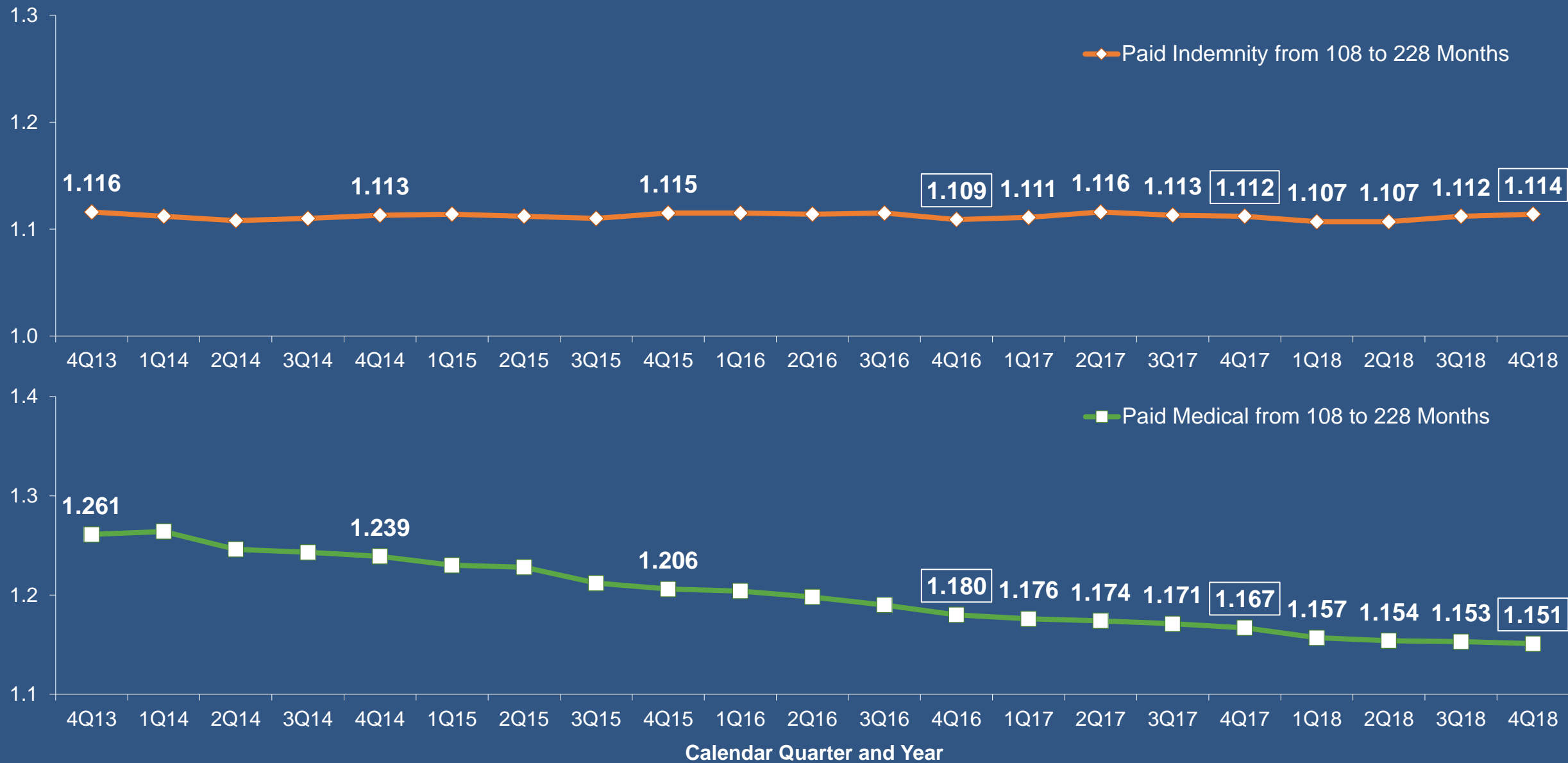
Cumulative Incurred Development from 108 to 228 Months

As of December 31, 2018



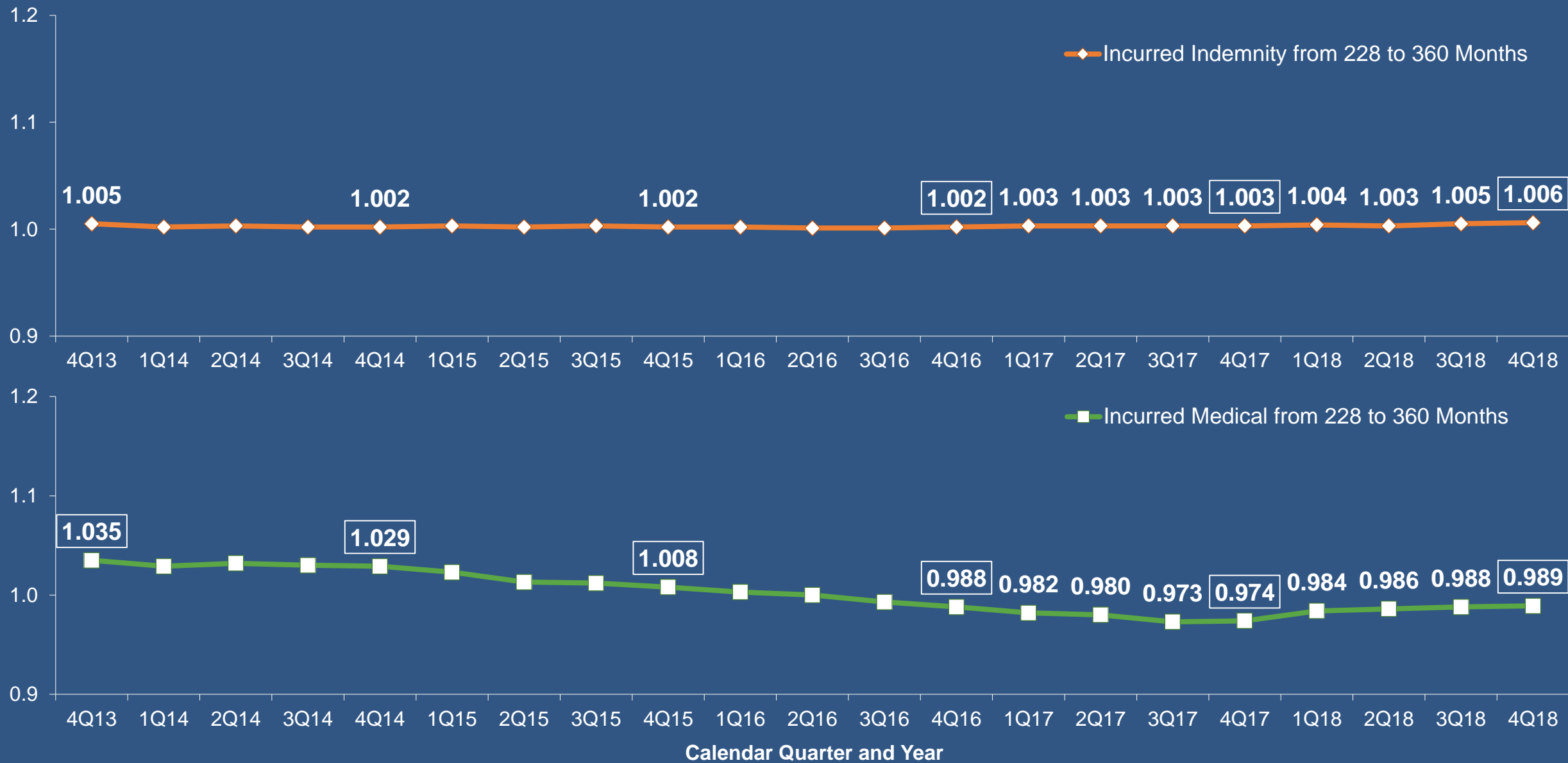
Cumulative Paid Development from 108 to 228 Months

As of December 31, 2018



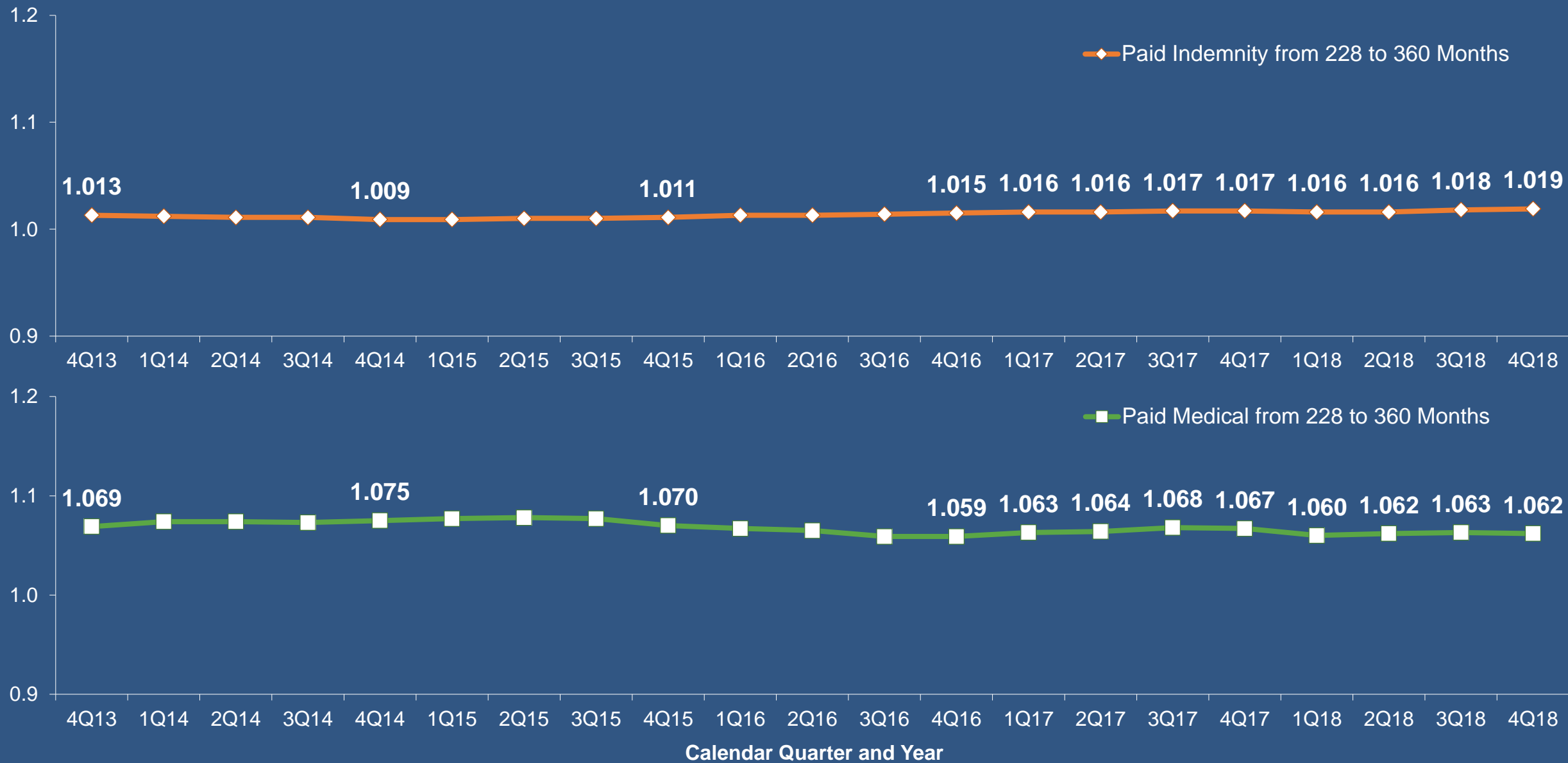
Cumulative Incurred Development from 228 to 360 Months

As of December 31, 2018



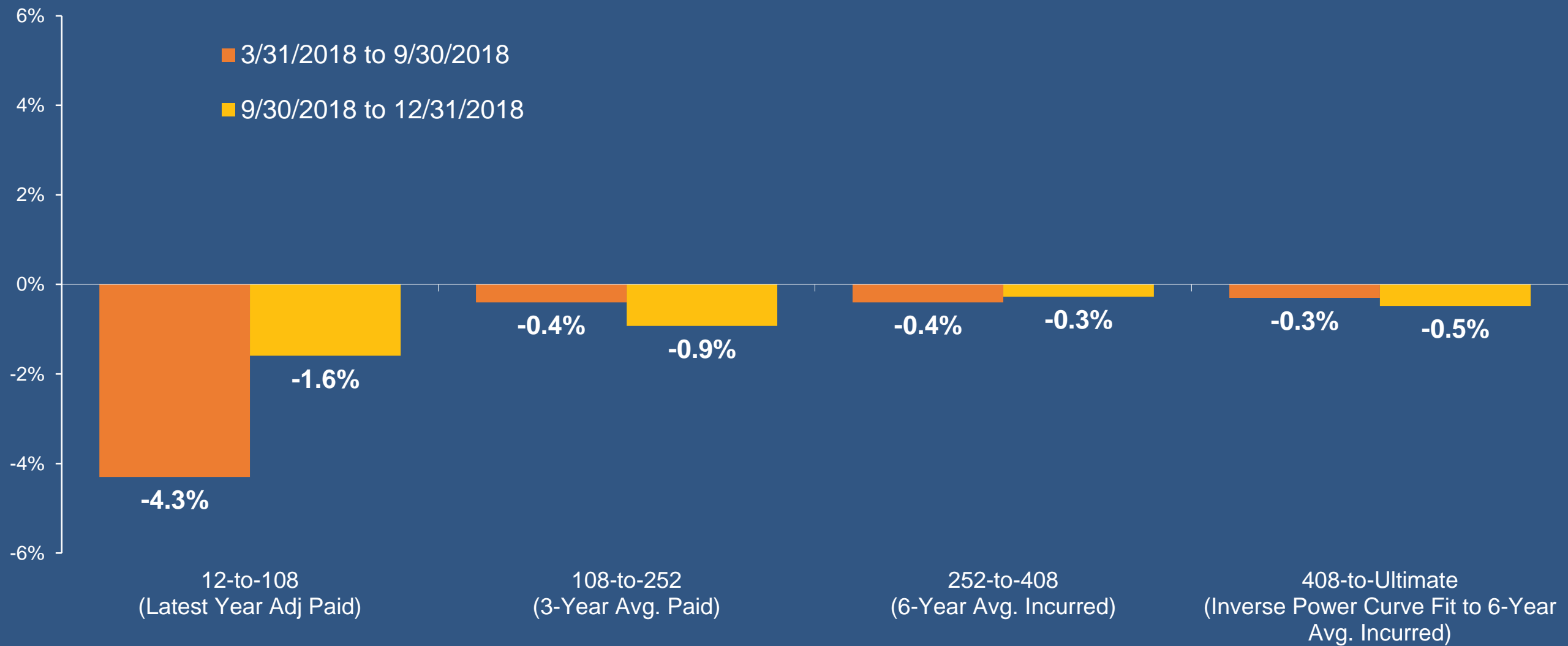
Cumulative Paid Development from 228 to 360 Months

As of December 31, 2018



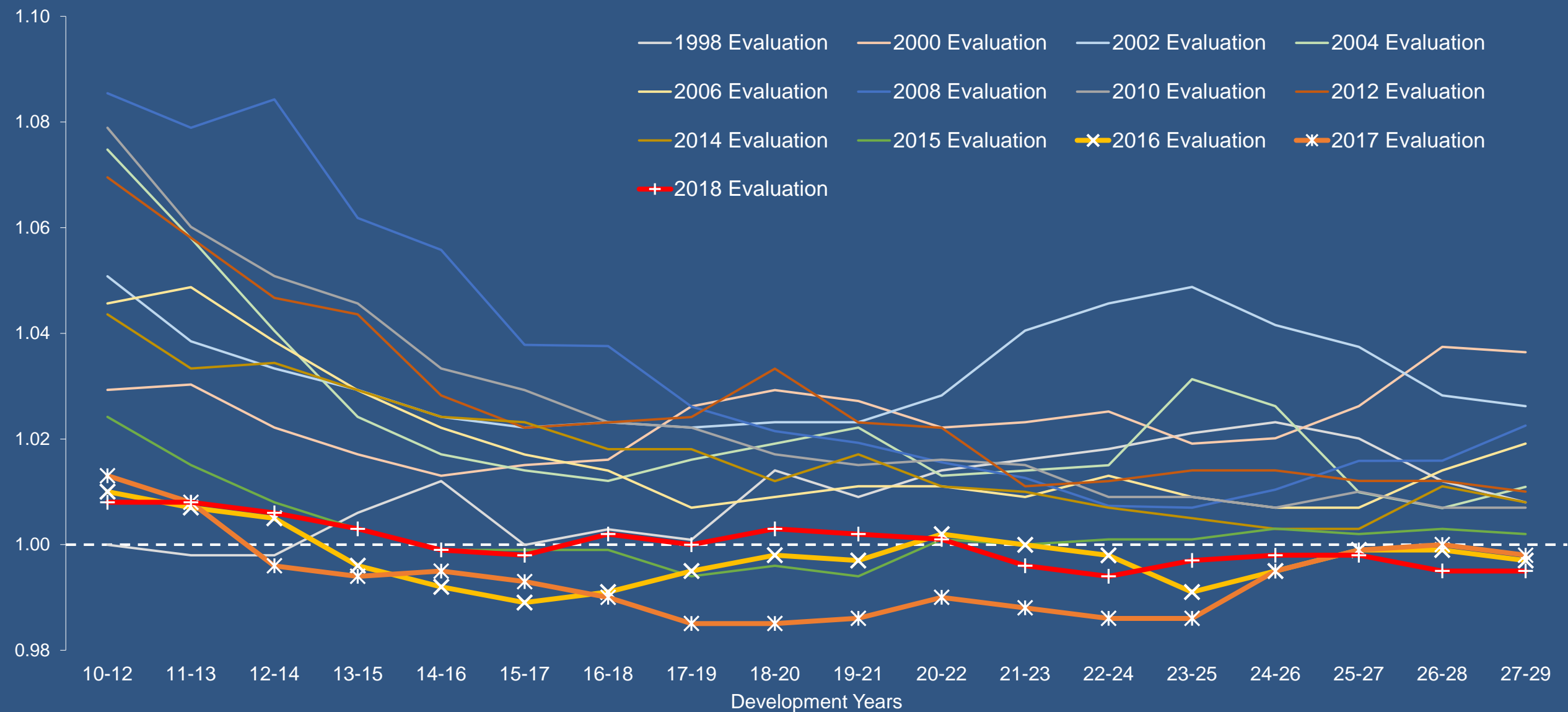
Change in Projected Medical Development Factor

3/31/2018 to 12/31/2018 Experience



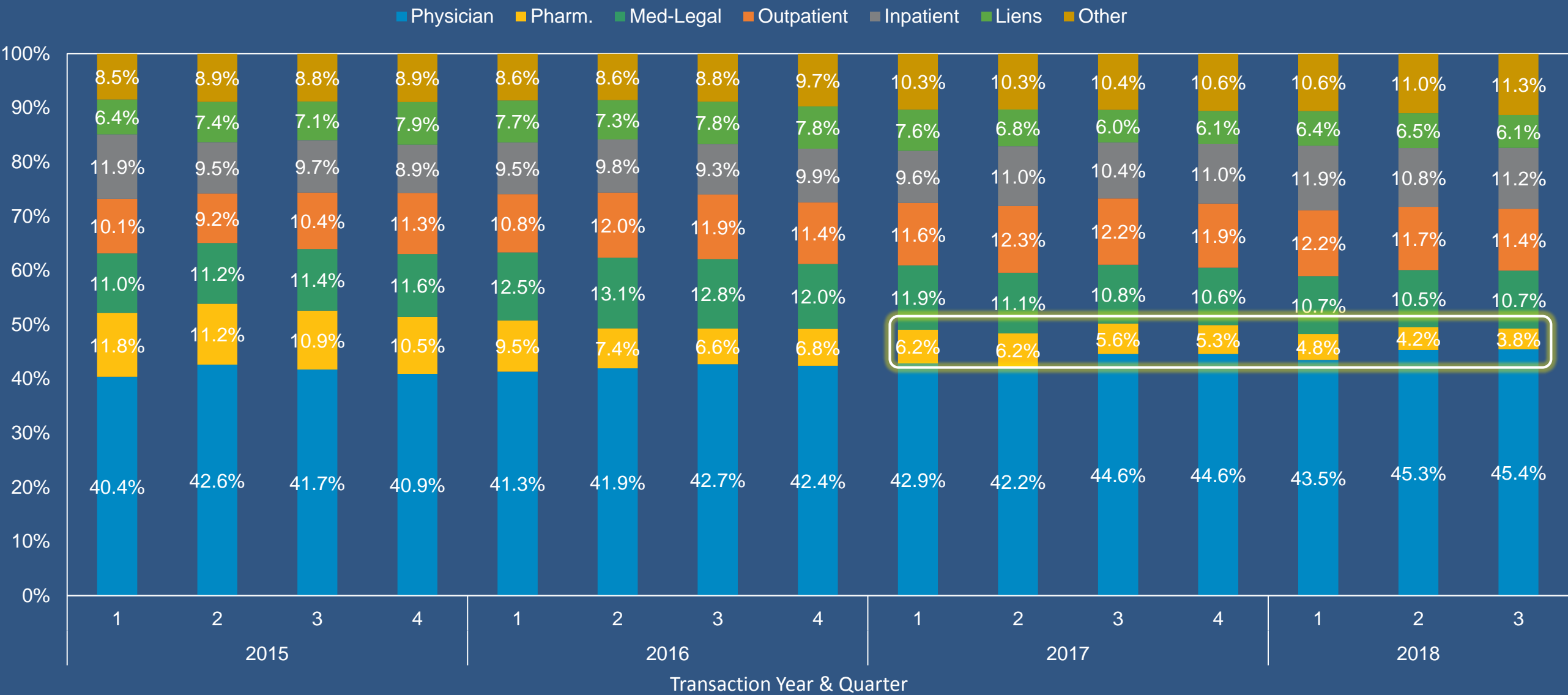
Incurred Medical Age-to-Age Factors at December 31 Evaluations

As of December 31, 2018



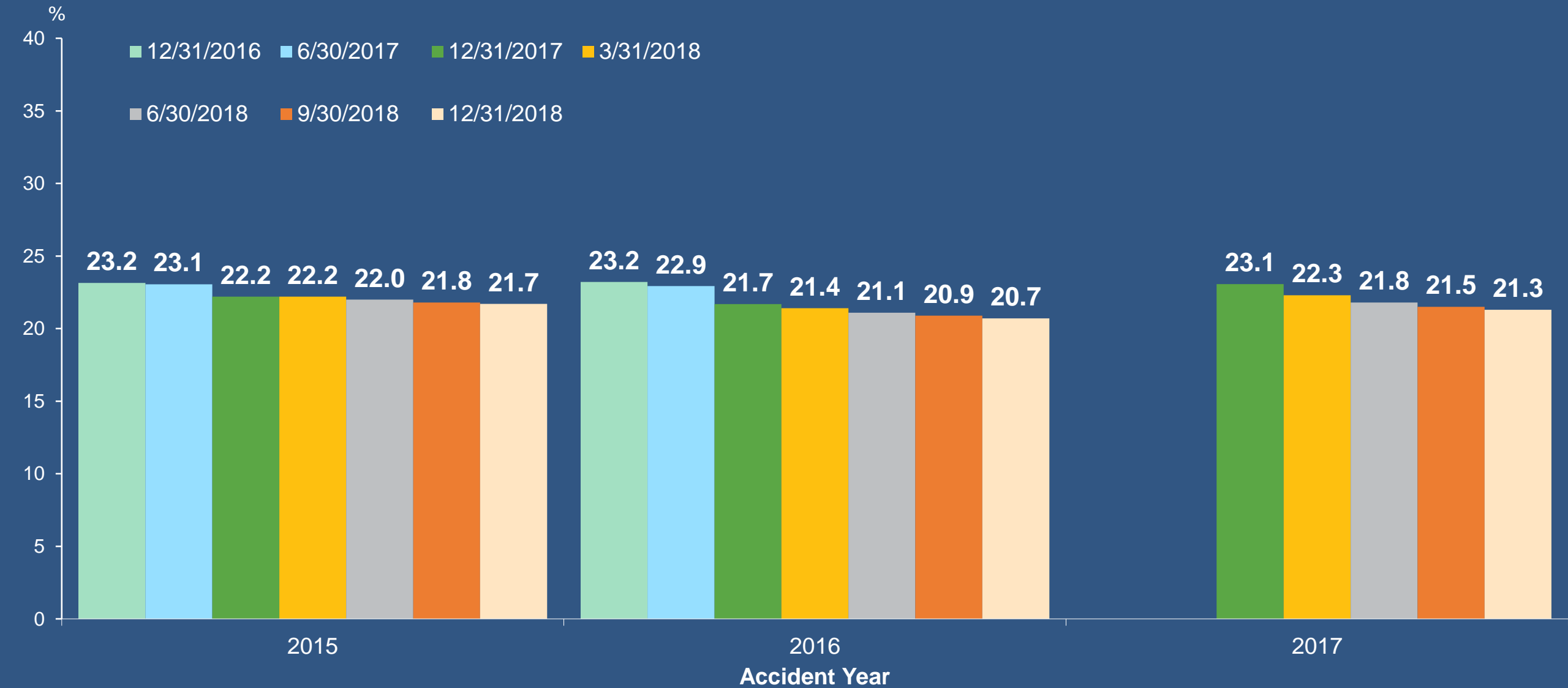
Proportion of Medical Paid by Category

As of September 30, 2018



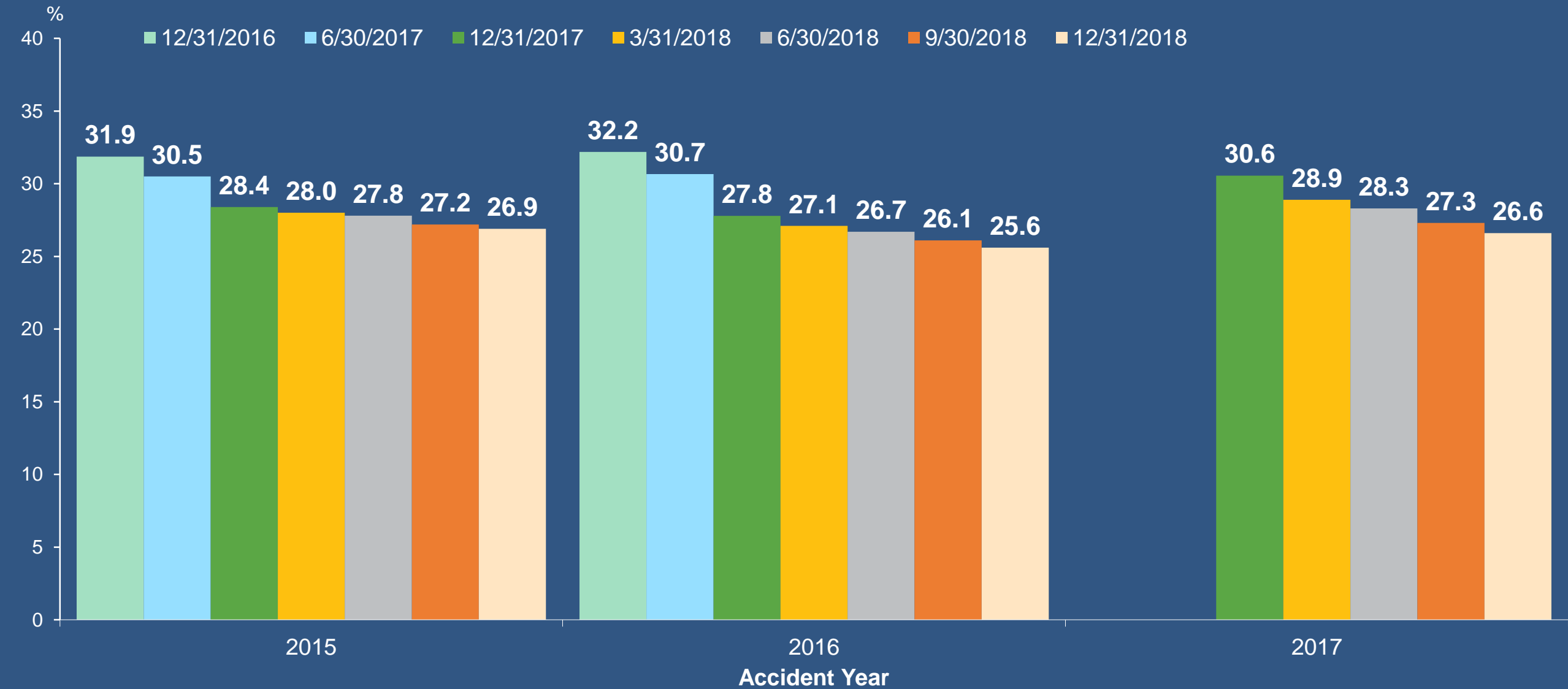
Projected Ultimate Indemnity Loss Ratios (Exhibit 3.1)

As of December 31, 2018



Projected Ultimate Medical Loss Ratios (Exhibit 3.2)

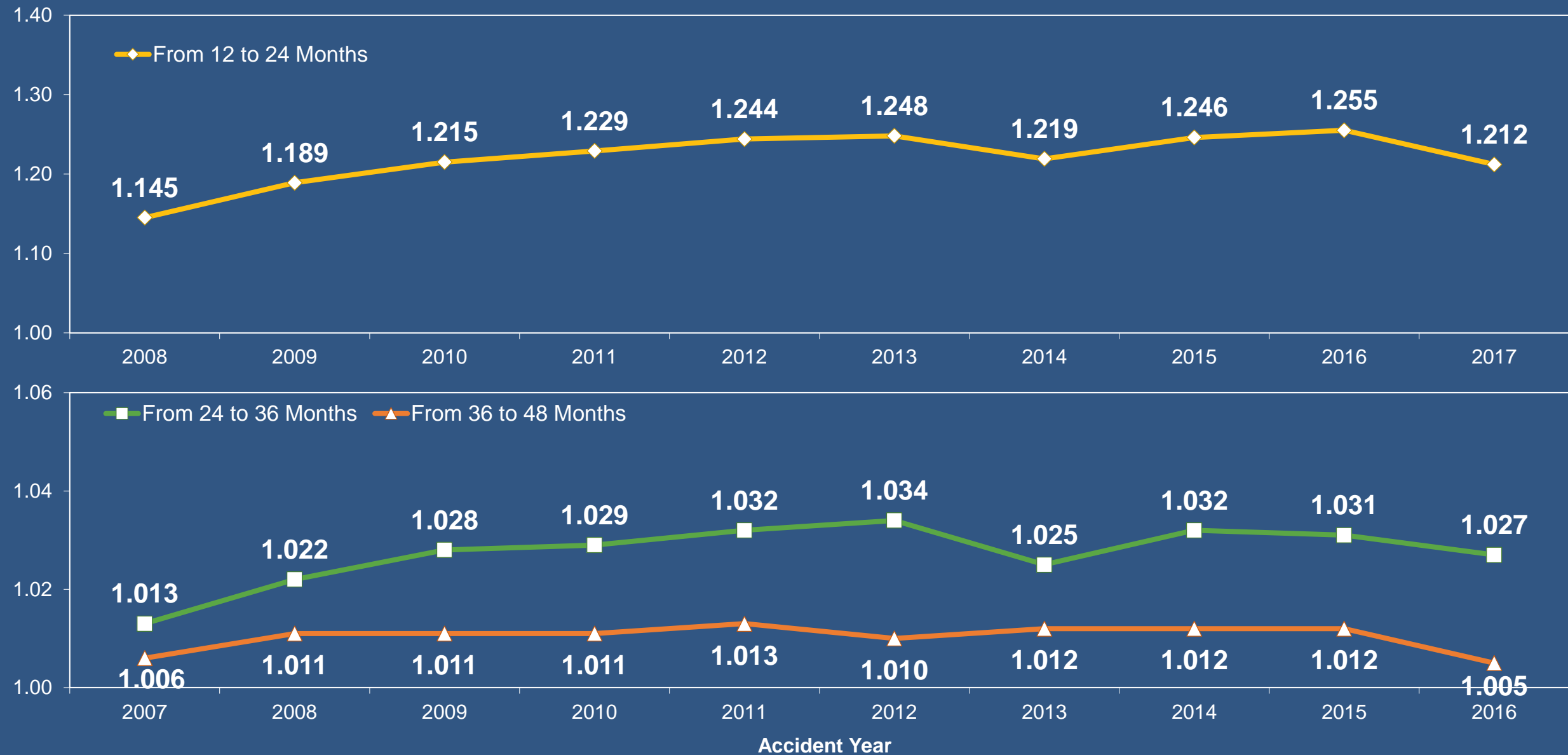
As of December 31, 2018



Note: All loss ratios are adjusted to the loss development methodology reflected in the 12/5/2018 Agenda and may not be comparable to the actual loss ratios projected at that time.
Source: WCIRB aggregate financial data

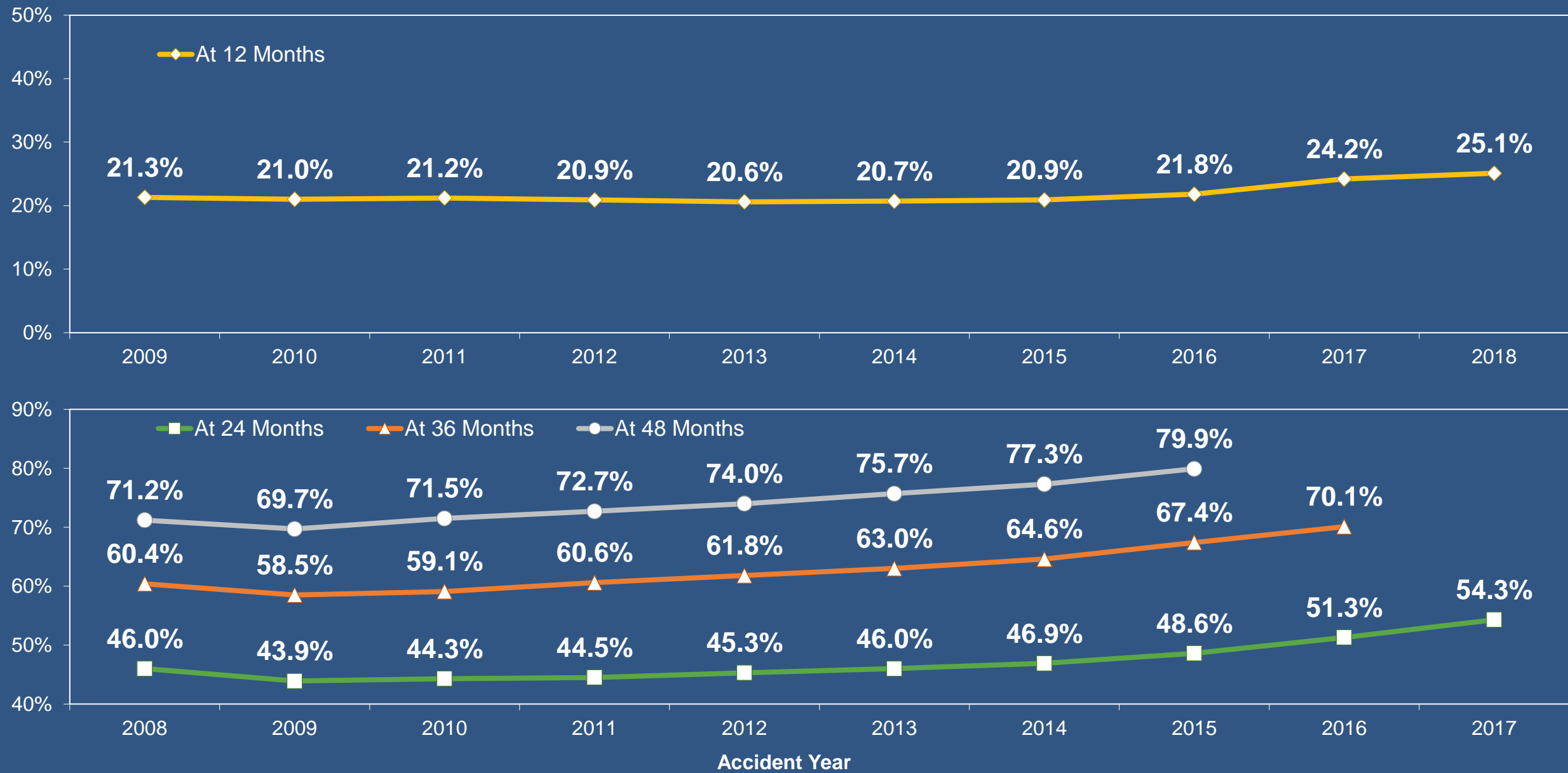
Indemnity Claim Count Development (Exhibit 10.1)

As of December 31, 2018



Ultimate Indemnity Claim Settlement Ratios (Exhibit 11.2)

As of December 31, 2018



Cumulative Wage Level Change Forecast (Exhibit 5.1)

2017 to 4/1/2020

As of December/November 2018

20%

15%

10%

5%

0%

10.9%

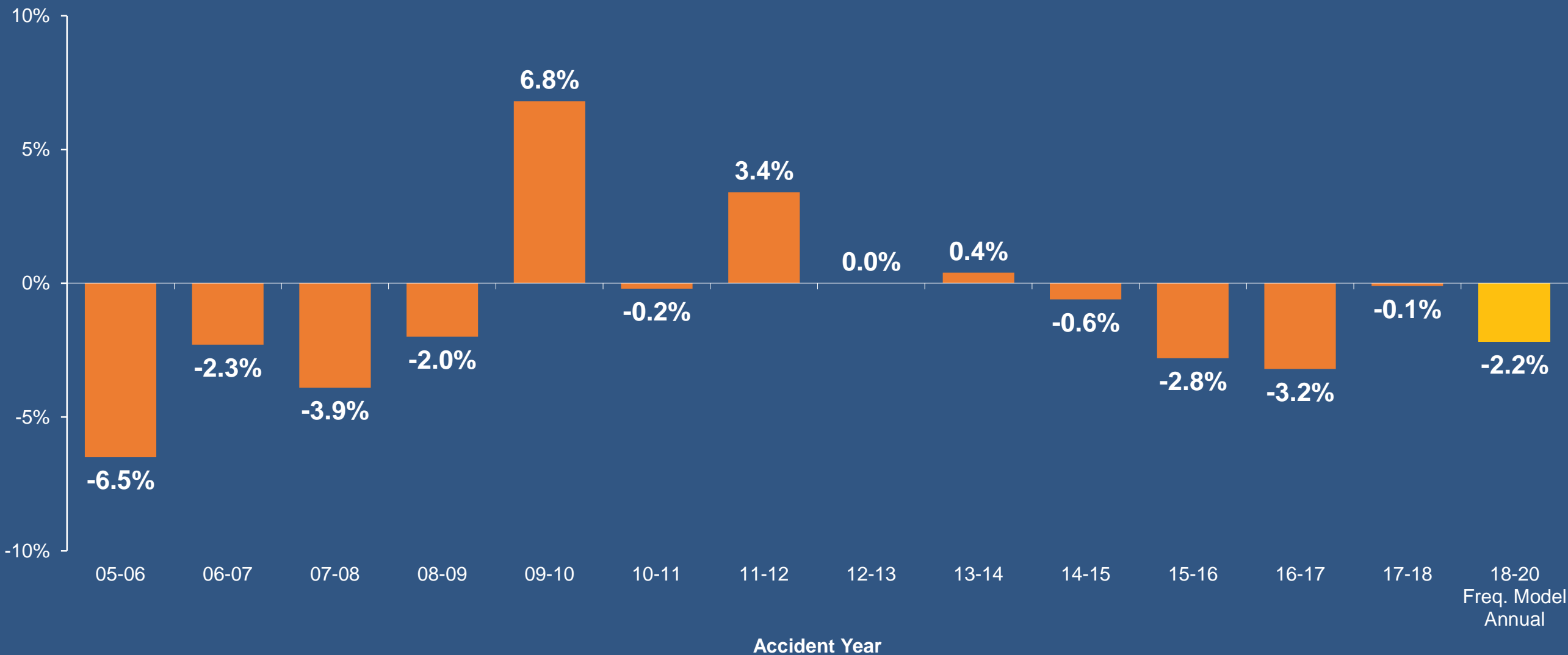
11.8%

June 2018 UCLA / April 2018 DoF (1/1/2019 Filing)

December 2018 UCLA / November 2018 DoF

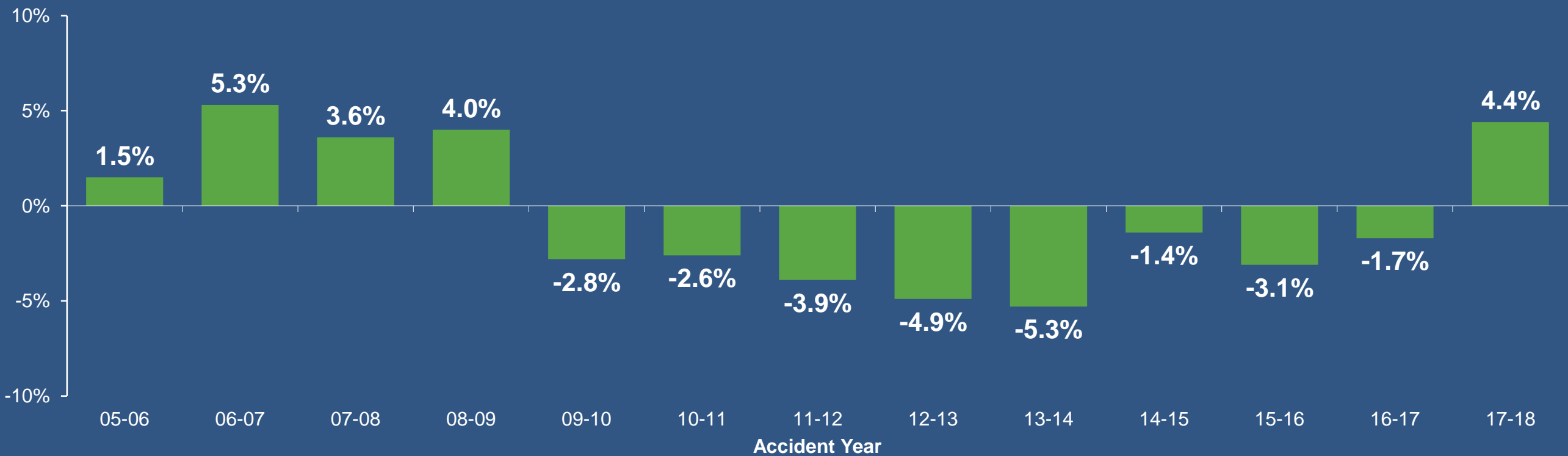
Projected Changes in Indemnity Claim Frequency (Exhibits 6.1 & 12)

As of December 31, 2018



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

As of December 31, 2018



Annual Exponential Trend Based on:

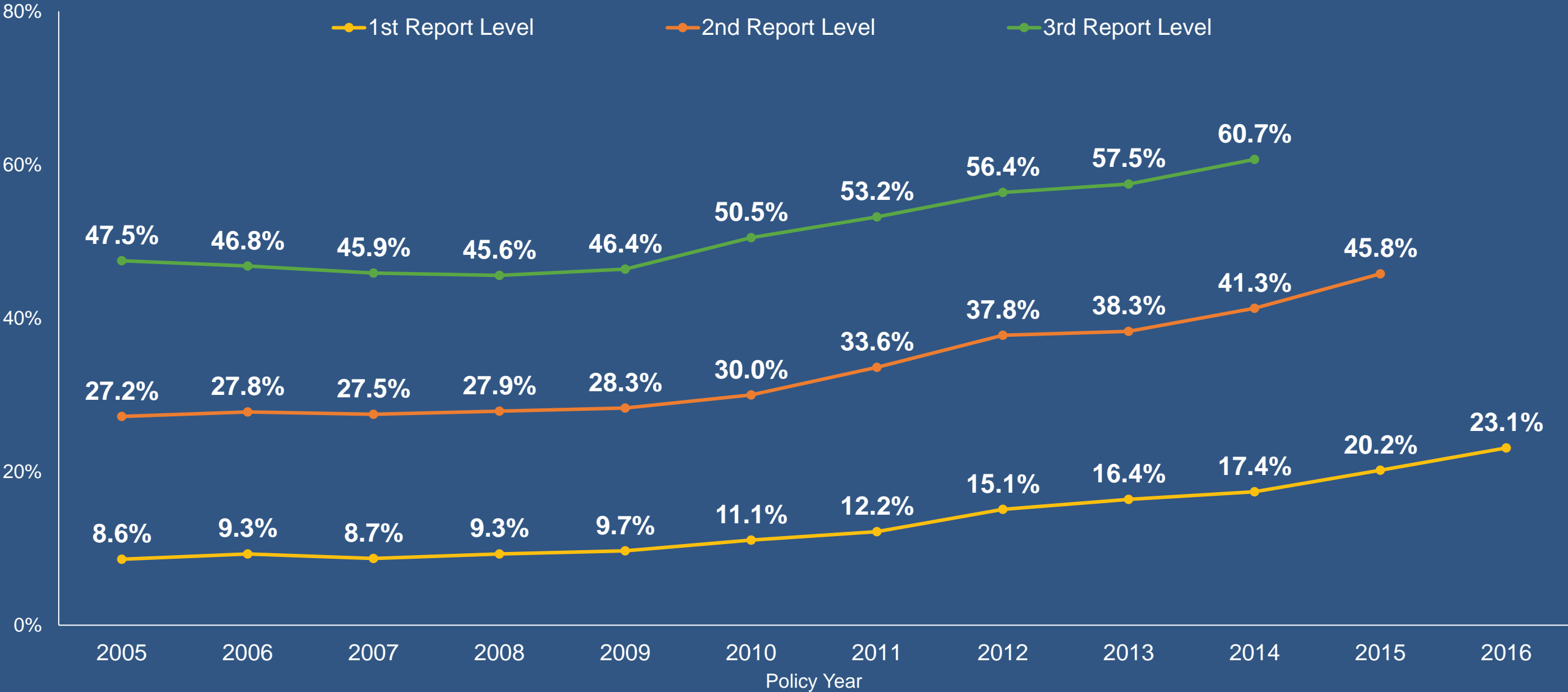
- 1990 to 2018: +1.3%
- 2005 to 2018: -1.4%
- 2014 to 2018: -0.9%

Agenda Selected: **-0.5%**

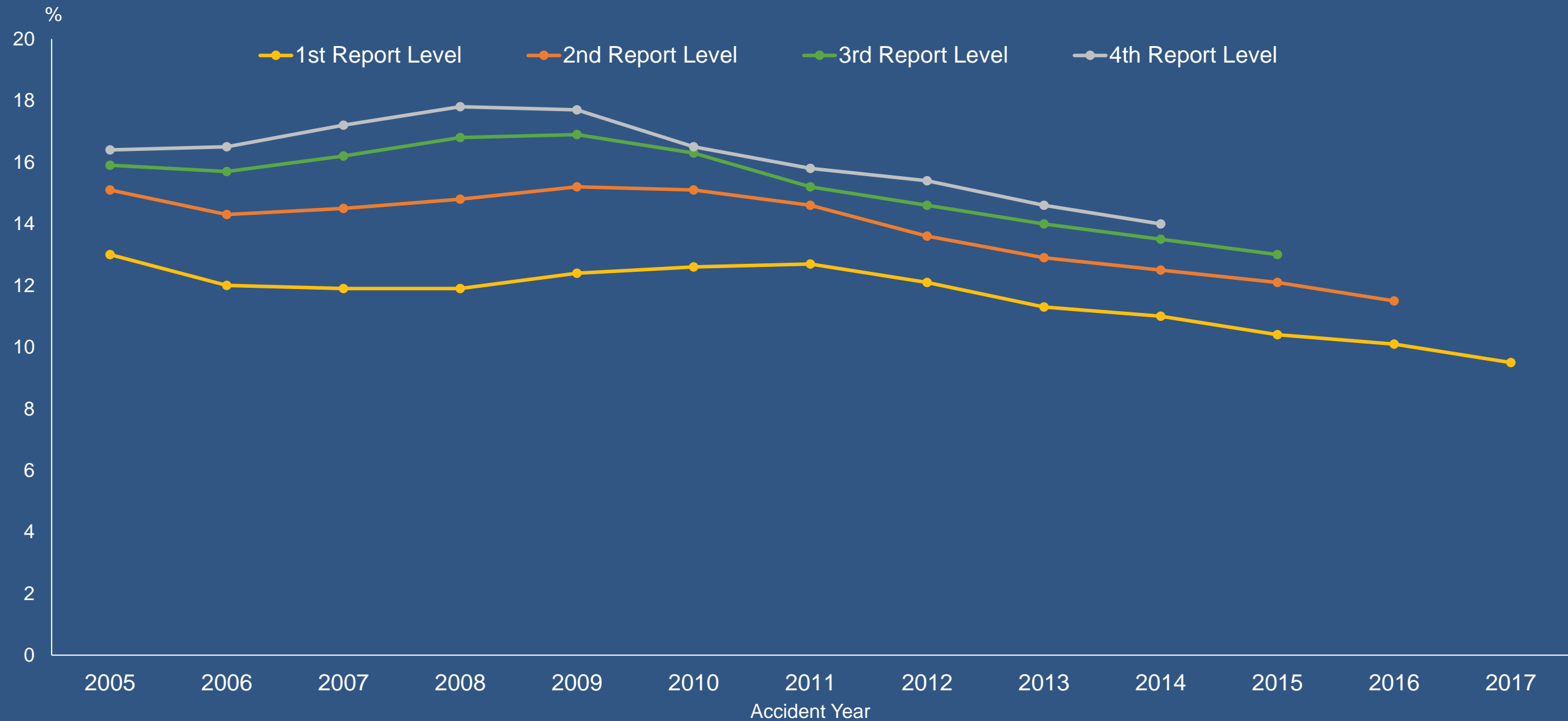
Review of SB 863 Impact on Indemnity Cost Levels (Item AC17-12-02)

- Committee reviewed updated SB 863 cost monitoring information at December 5, 2018 meeting
 - Increases in weekly PD min. and max. and changes to PD rating computation emerged as expected
 - Overall indemnity costs flat, likely due to SB 863 reforms impacting duration of indemnity payments
 - Accelerated closure of PD claims
 - Decrease in average PD rating based on unit statistical data
 - Decrease in TD duration
- Staff reviewed the overall impact of SB 863 on indemnity cost levels using an approach similar to the adjustments for medical

Proportion of PD Claims Closed

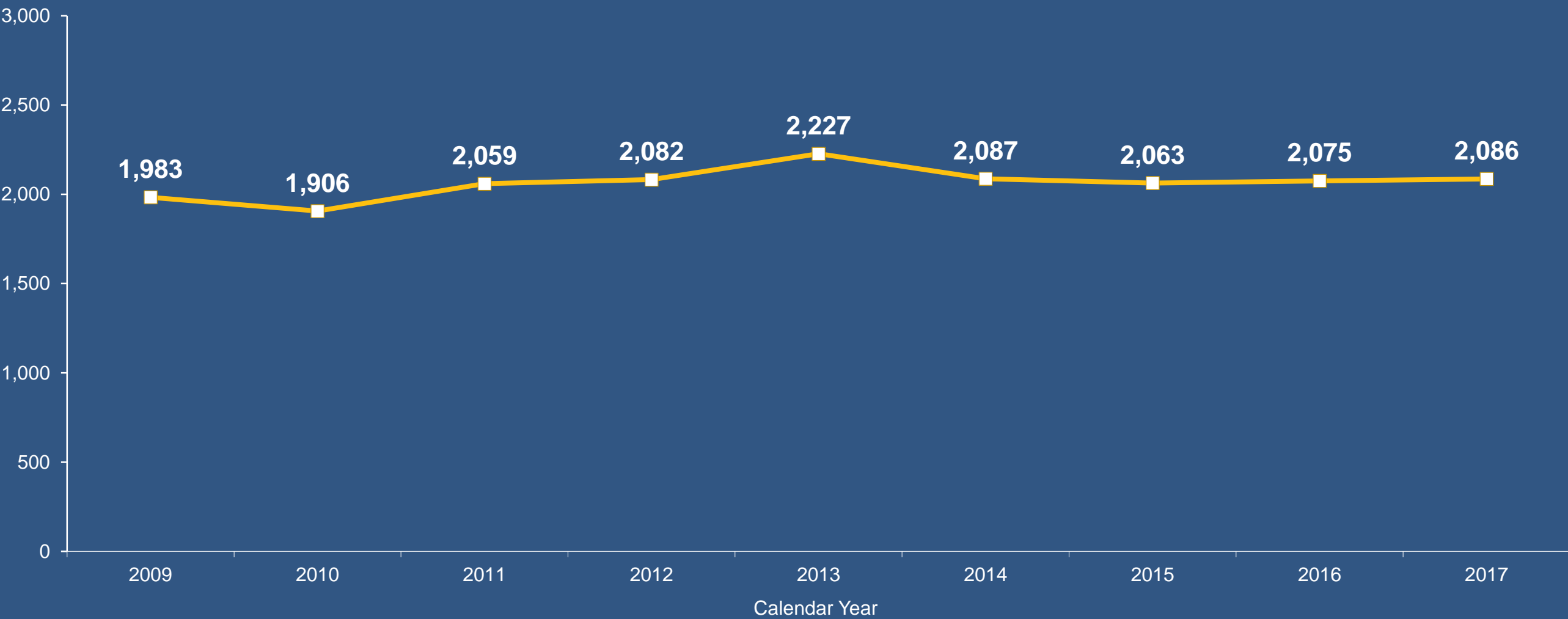


Average PD Ratings Based on Unit Statistical Data

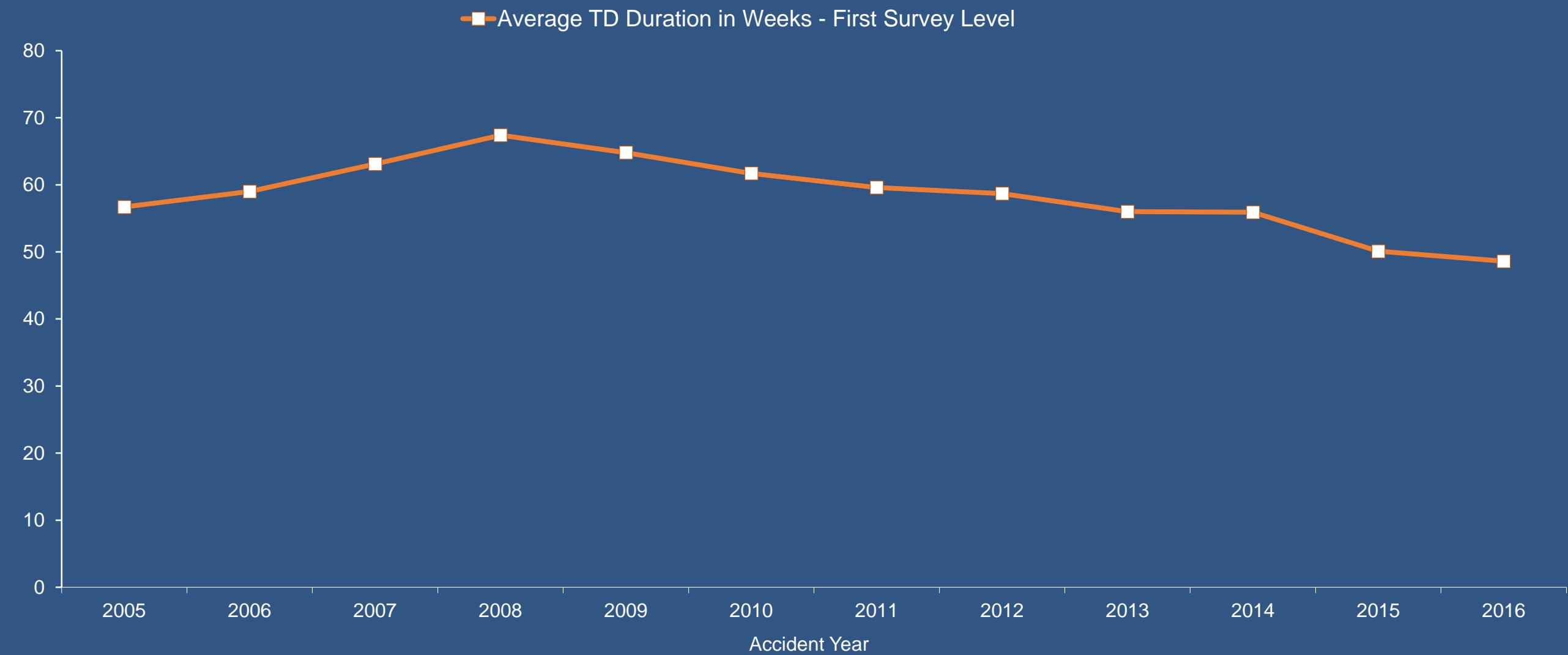


Note: 2017 diagonal is preliminary

PPD Benefit Payments per Open Indemnity Claim



Temporary Disability Duration

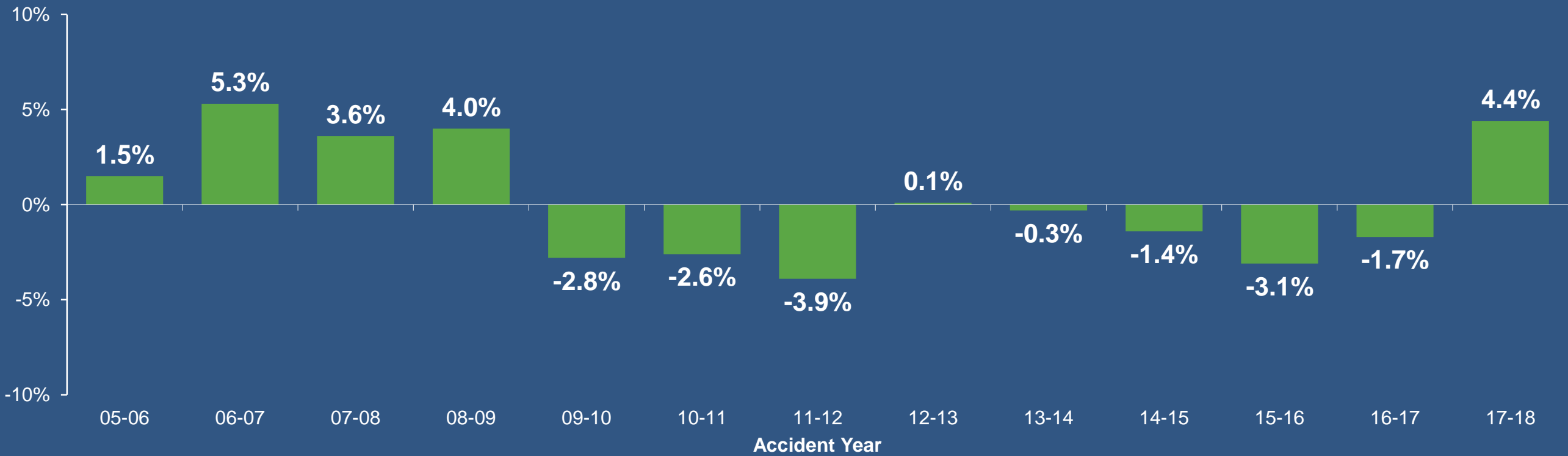


Review of SB 863 Impact on Indemnity Cost Levels

Accident Year	SB 863 Projected Change A	On-level Adjustments Not Related to SB 863 B	Projected Combined Growth $C = (1+A) \times (1+B) - 1$	Actual Change as of 12/31/2018 D	Difference $E = (1+D) / (1+C) - 1$	Recommended Adjustment F
2013	+1.9%	+1.1%	+3.0%	-2.0%	-4.9%	-5%
2014	+6.9%	+1.8%	+8.8%	+3.0%	-5.3%	-5%
Total	+9.0%	+2.9%	+12.1%	+0.9%	-9.9%	-10%

Projected Changes in On-Level Indemnity Severity – After Adjustment for SB 863 on Indemnity Cost Levels

As of December 31, 2018



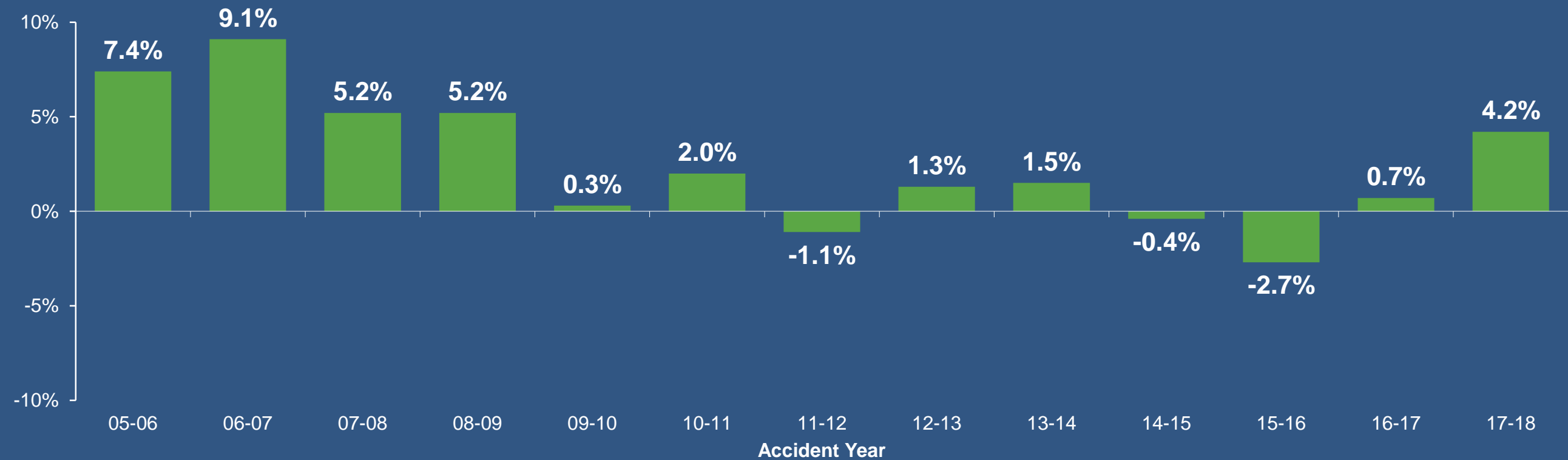
Annual Exponential Trend Based on:

- 1990 to 2018: +1.7%
- 2005 to 2018: -0.4%
- 2014 to 2018: -0.8%

Agenda Selected: -0.5%

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

As of December 31, 2018



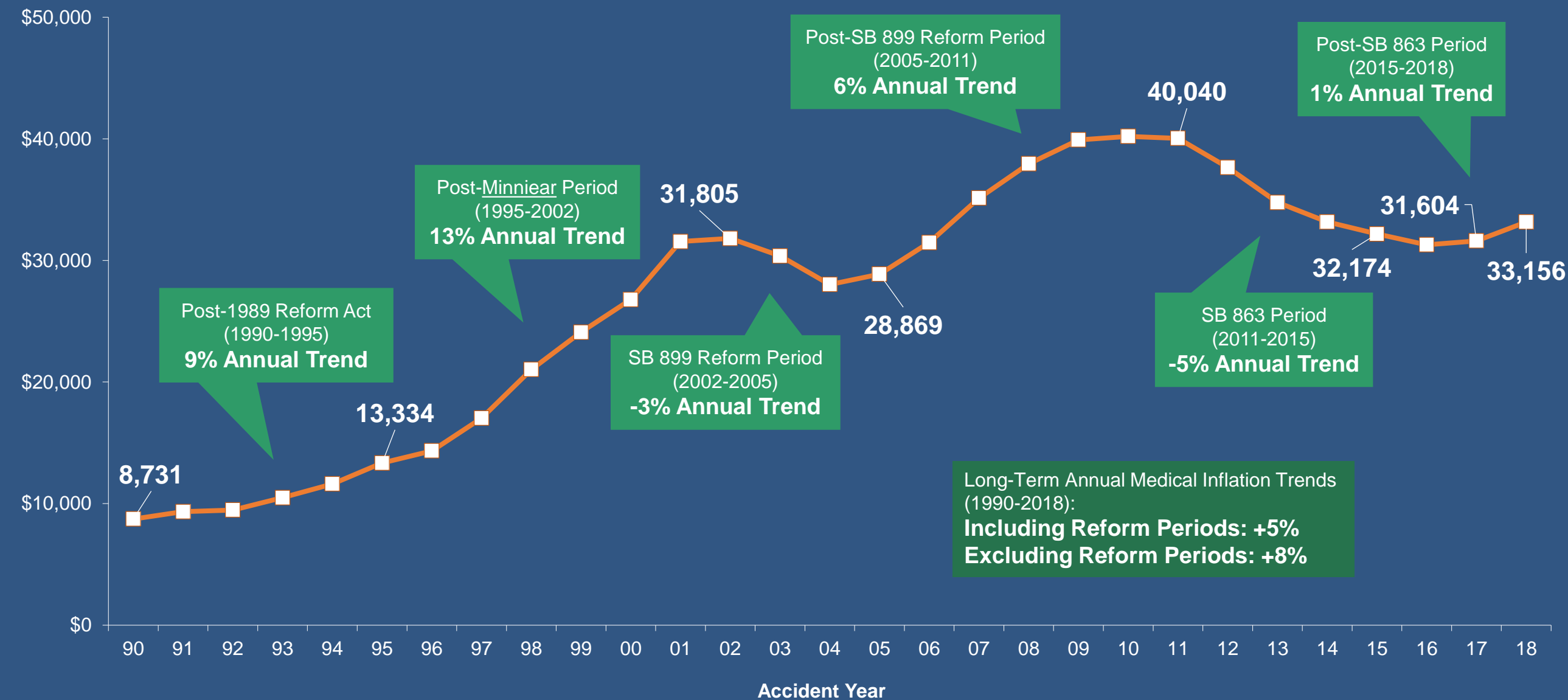
Annual Exponential Trend Based on:

- 1990 to 2018 (Incl. MCCP): +5.7%
- 2005 to 2018: +1.8%
- 2014 to 2018: 0.1%

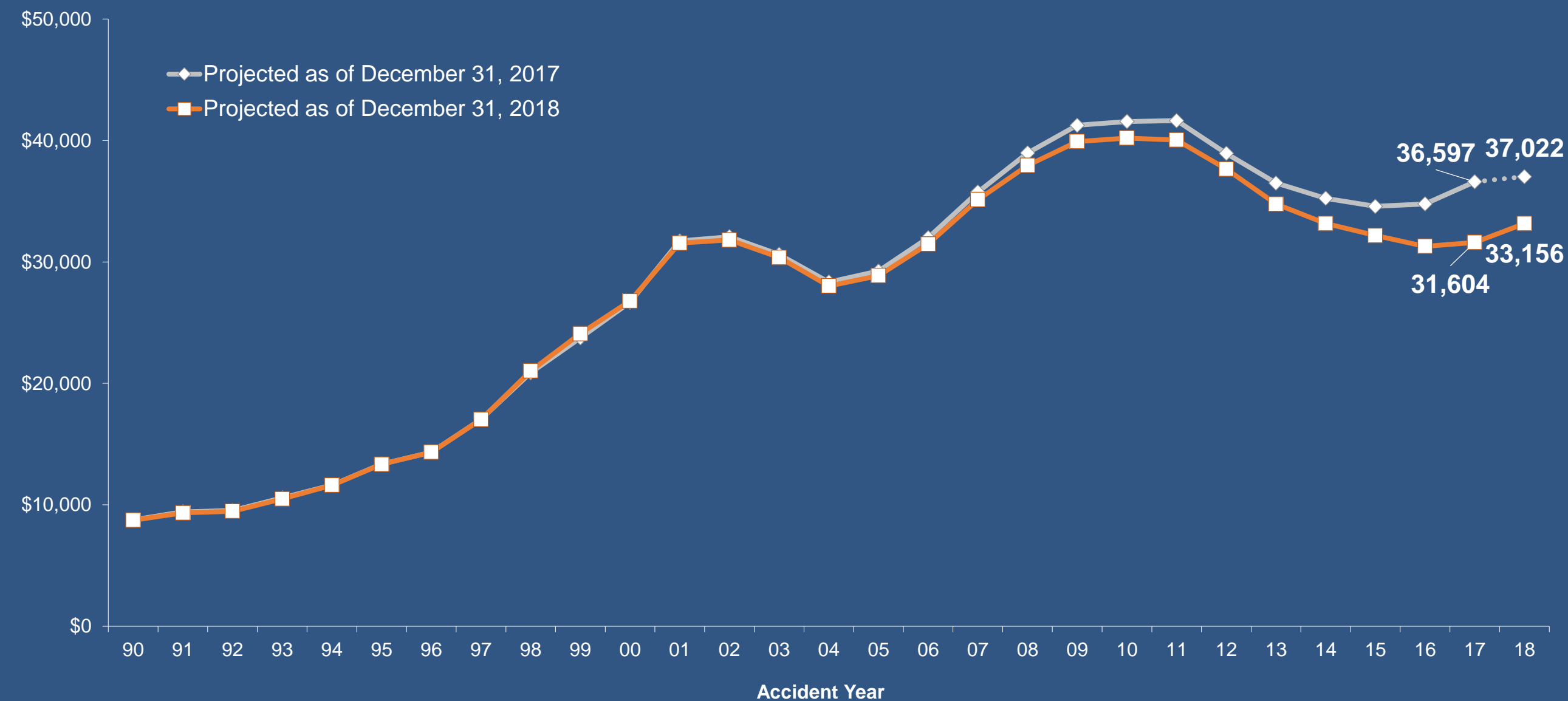
Agenda Selected: 2.5%

Ultimate Medical per Indemnity Claim (Exhibits 6.3 & 6.4)

As of December 31, 2018

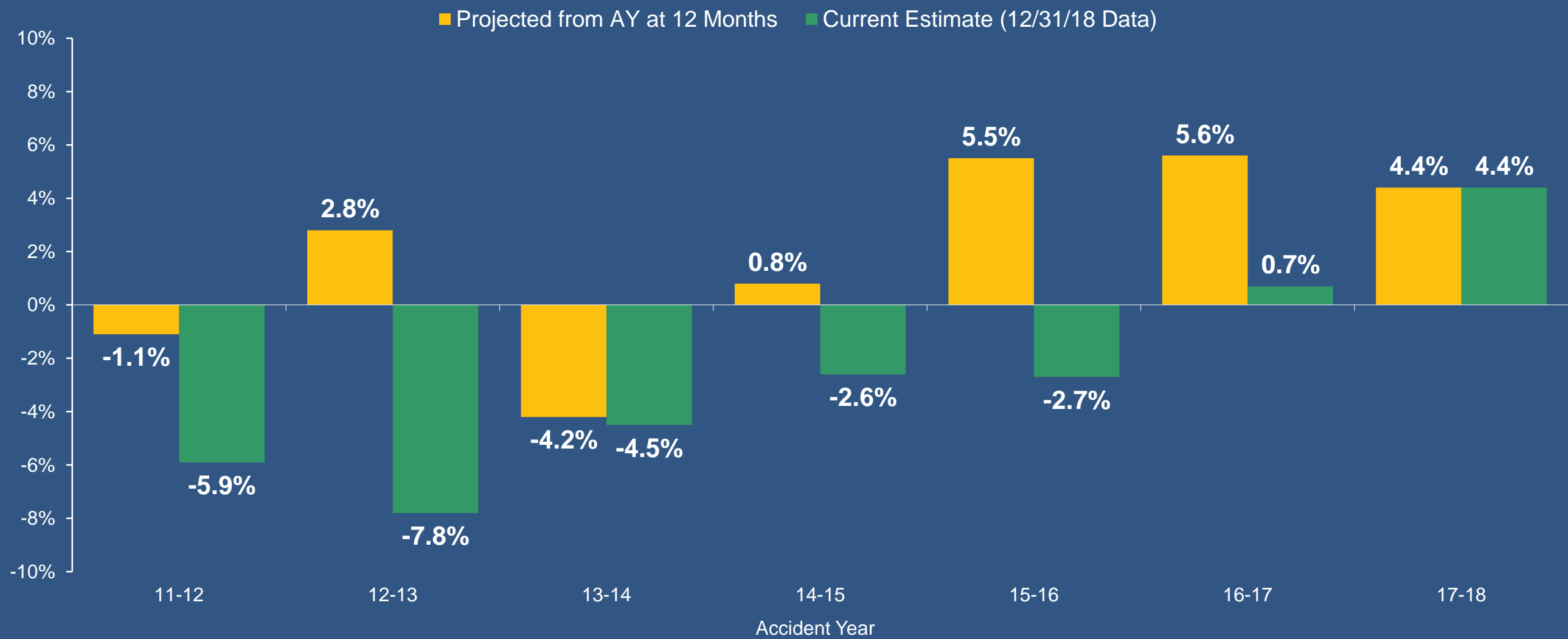


Ultimate Medical per Indemnity Claim (Exhibits 6.3 & 6.4)



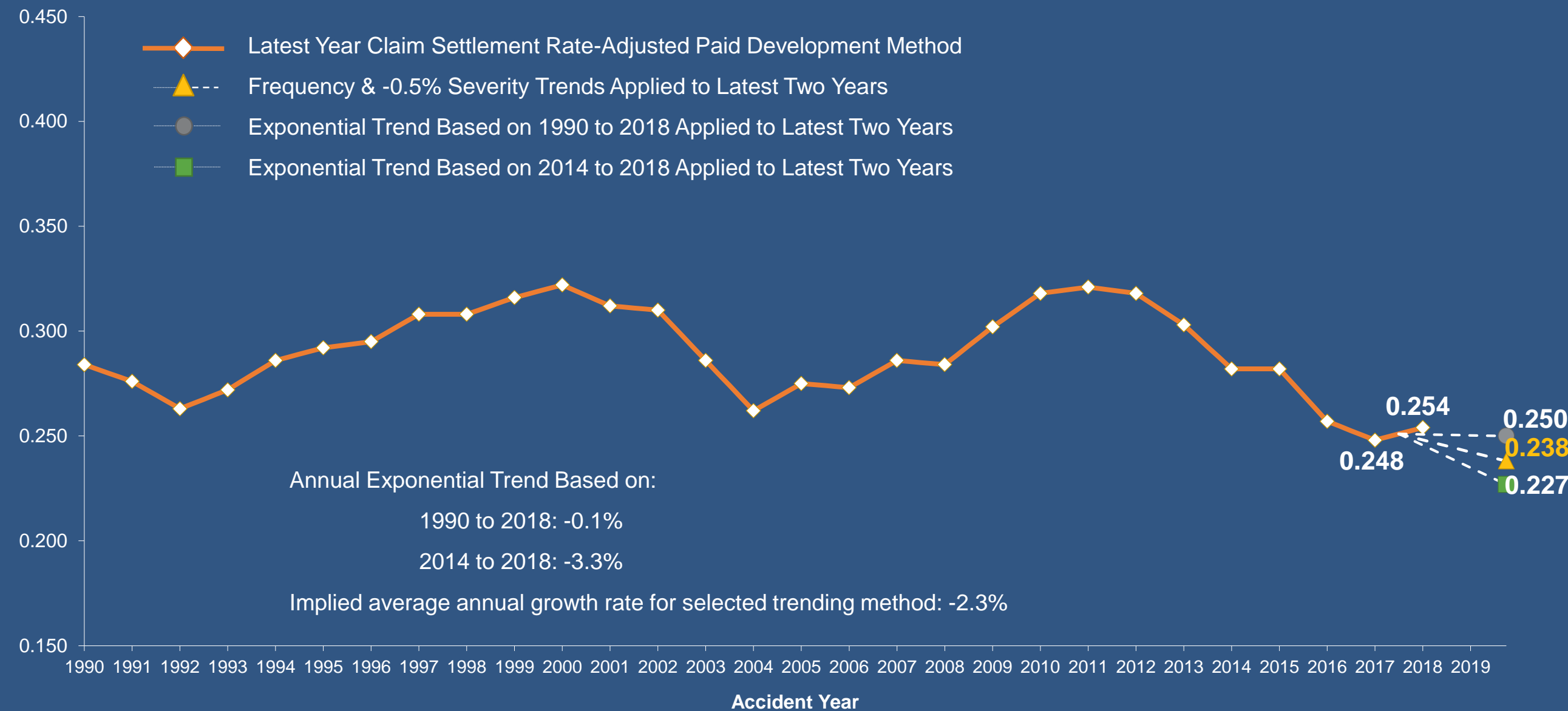
Medical Severity Changes Projected from 12 Months Compared to Current

As of December 31, 2018



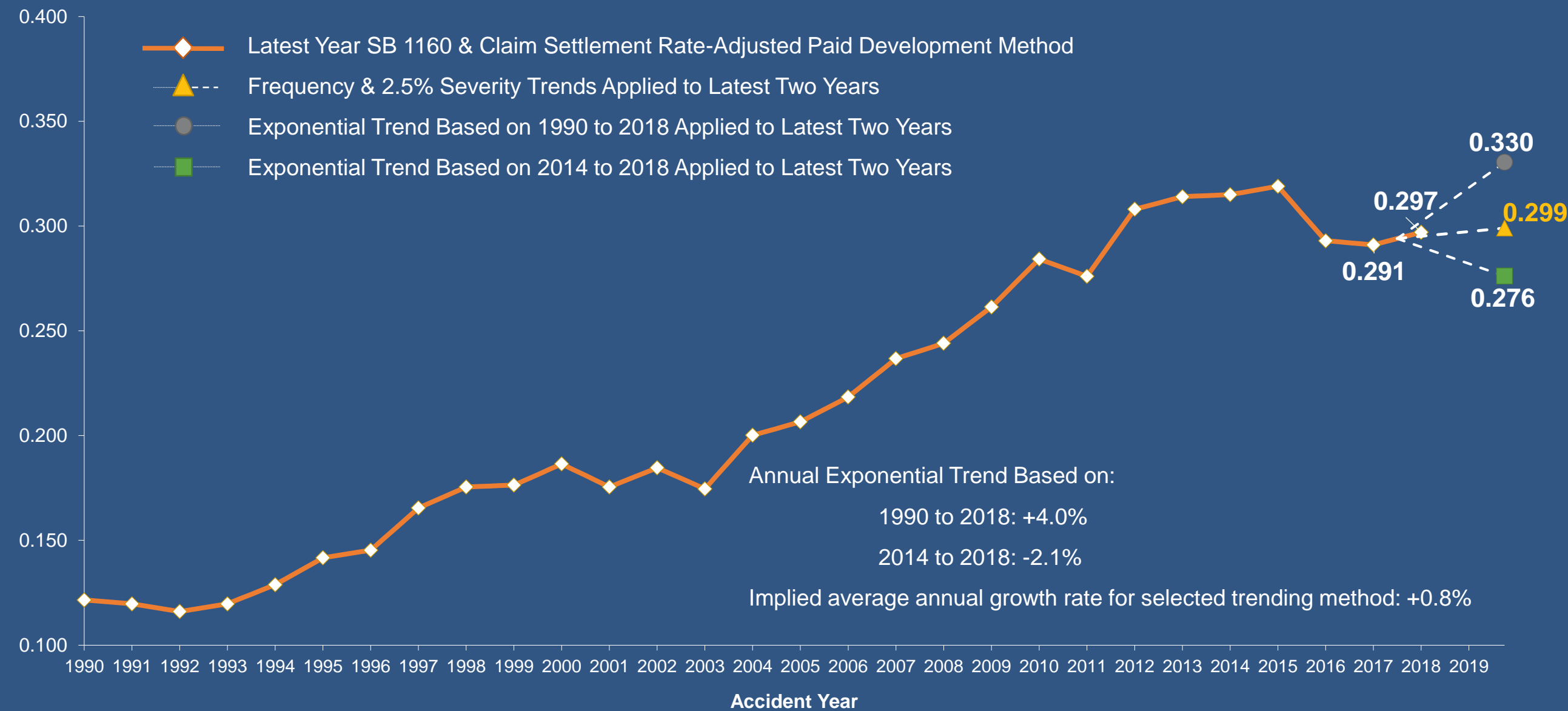
Projected On-Level Indemnity Loss Ratios (Exhibit 7.1)

As of December 31, 2018



Projected On-Level Medical Loss Ratios (Exhibit 7.3)

As of December 31, 2018



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