

WCIRB Actuarial Committee Meeting

August 1, 2019

Agenda

1. AC17-12-02: Legislative Cost Monitoring
2. AC19-08-01: Third Quarter 2019 Review of Diagnostics
3. AC19-08-05: Review of Loss Development Tail Methodology
4. AC19-06-01: 3/31/2019 Experience – Review of Methodologies
5. AC19-08-04: Impact of Claim Settlement Rate Changes on ALAE Development
6. AC19-08-02: 1/1/2020 Filing – Loss Adjustment Expense Experience Review

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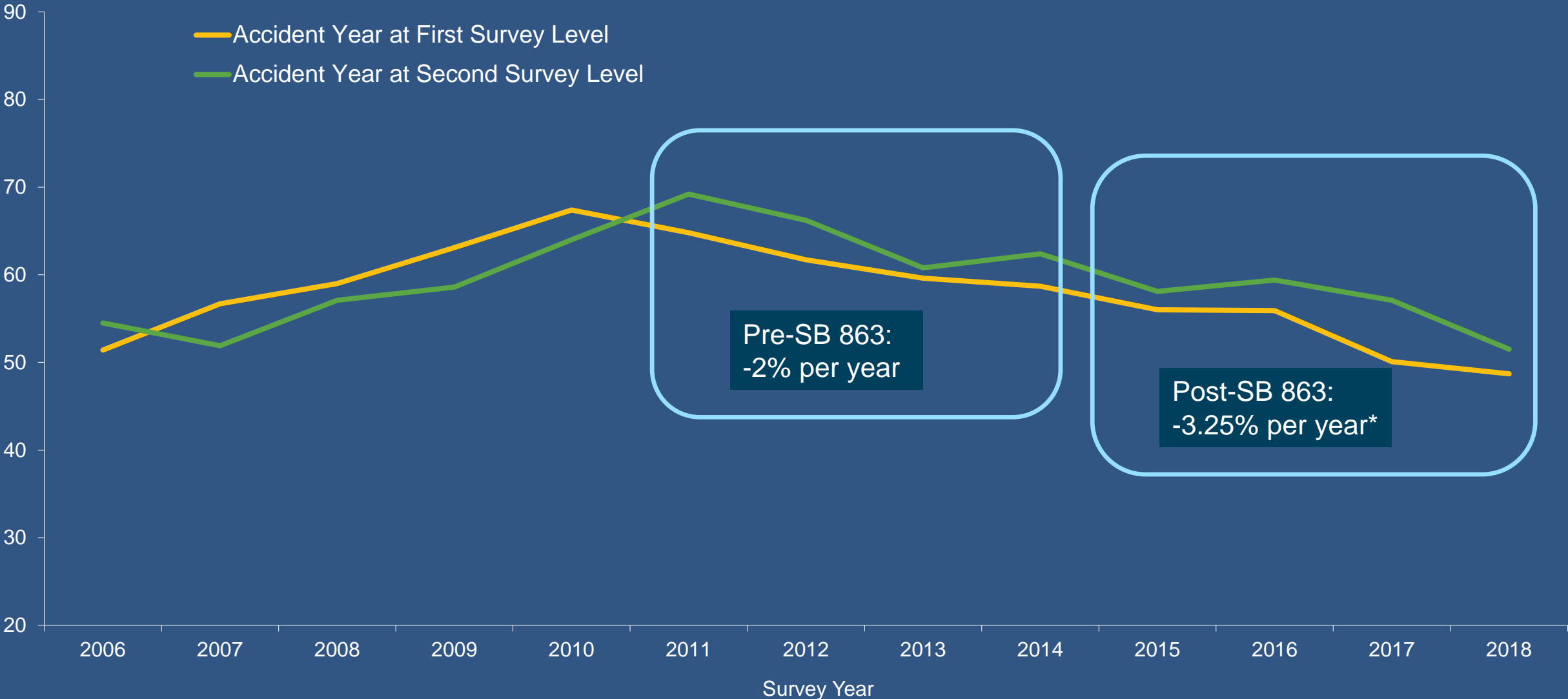
Legislative Cost Monitoring



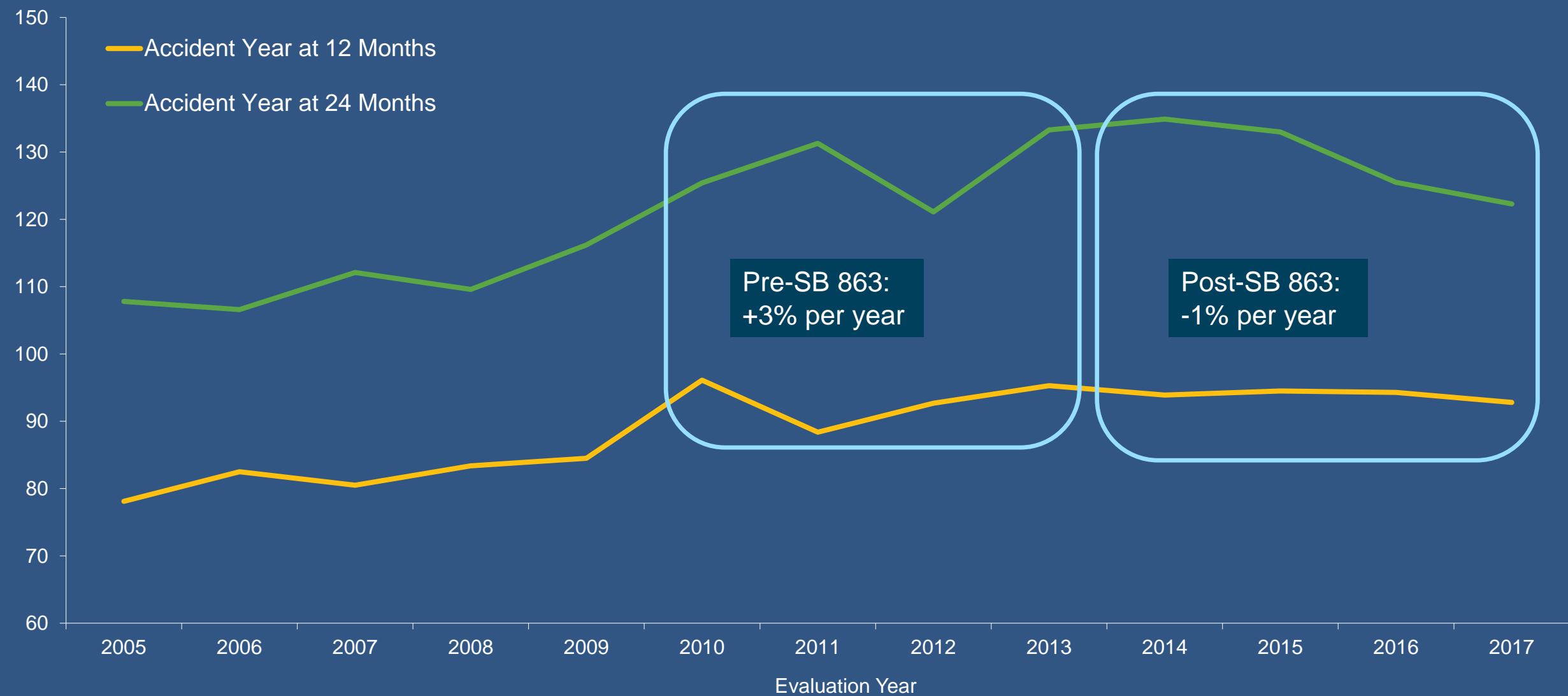
Review of SB 863 Impact to Indemnity Utilization

- Initial analysis of SB 863 impact on indemnity cost levels reviewed at 3/18/2019 meeting
- Staff recommended additional 10% on-level adjustment to 2013 & 2014 based on emerging experience
 - Based on estimated change in on-level indemnity severities compared to pre-SB 863 projections
- Committee suggested -10% adjustment may be upper bound on total impact
 - Recent indemnity cost levels also impacted by changing economic conditions and other factors
 - Recommended staff review components of indemnity (TD, PD) to devise more precise estimate

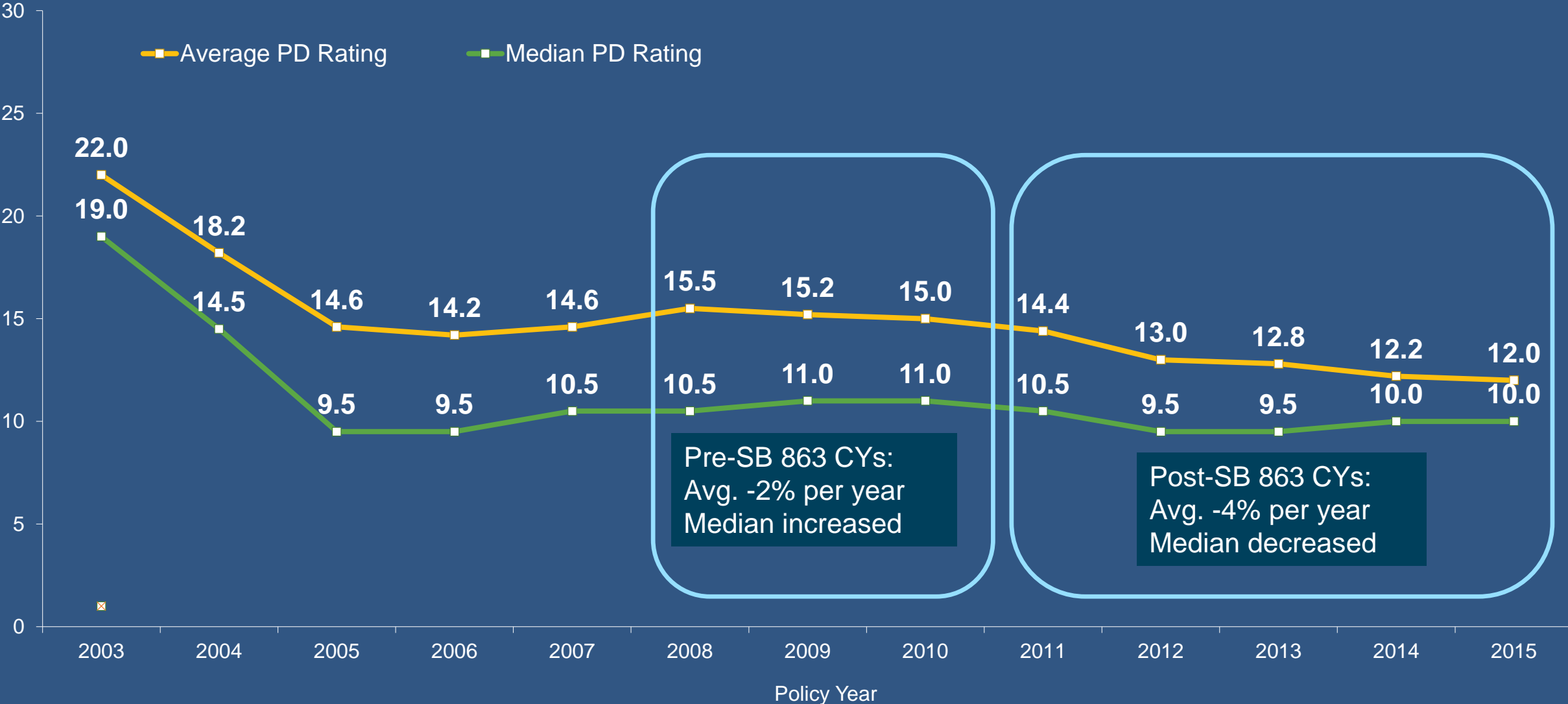
Average Weeks of TD Paid from PD Survey Data



Average Days of TD Paid from CWCI Data



Average and Median PD Rating at Second Report Level



SB 863 Impact to Indemnity Utilization – Recommendations

- Additional -5% decline in TD duration over last four years (2.5% of indemnity costs)
 - Prospective SB 863 estimate also included 5% reduction in TD duration
- Decrease in average PD rating assumed proportionate with TD duration decline (5% of PD or 2% of indemnity costs)
- Total reduction is 4.5% of indemnity costs
- TD & PD declines have occurred over 2012-2015
 - Staff recommends distributing total -4.5% adjustment uniformly over AYs 2012 to 2015 (-1.125% per year)
- Overall impact on indemnity trends is modest

SB 1160 UR Restrictions – Background

- Effective on injuries occurring on 1/1/2018 or after
- Treatment requests are automatically authorized without prospective UR if:
 - within 30 days of the DOI & meet specified conditions
- Conditions to be met:
 - Accepted body part or condition
 - Performed by a member of the Medical Provider Network (MPN) or Health Care Organization (HCO), or by a designated physician
 - Allowed for in MTUS
 - Not one of enumerated treatment types:
 - Non-emergency inpatient or outpatient surgery
 - Psychological treatment services
 - Home health care services
 - Imaging and radiology services (excluding x-rays)
 - Durable medical equipment ≥ \$250
 - Electrodiagnostic medicine
 - Pharmaceuticals not exempted by drug formulary
- WCIRB prospective evaluation in Amended 1/1/2017 Filing
 - 0.1% reduction in total PP from less UR (-2.5% on MCCP costs)
 - 0.1% increase in total PP from more medical services (+0.3% on medical costs)

Review of SB 1160 UR Restrictions – Analysis Based on 12/31/2018 Experience

- WCIRB's medical transaction data
 - Accident dates between 1/1 and 12/31 in 2016, 2017 and 2018
- Identified services excluded from the UR restrictions in the medical data
- Compared the medical service utilization and payments in 2018 vs. 2017
 - Transactions per claim, paid per transaction and paid per claim
 - Assess if there were increases in utilization of certain types of medical services in the first 30 days of treatment
 - Compare utilization of medical services in the first 30 days vs. after 30 days (1, 3 and 6 months)

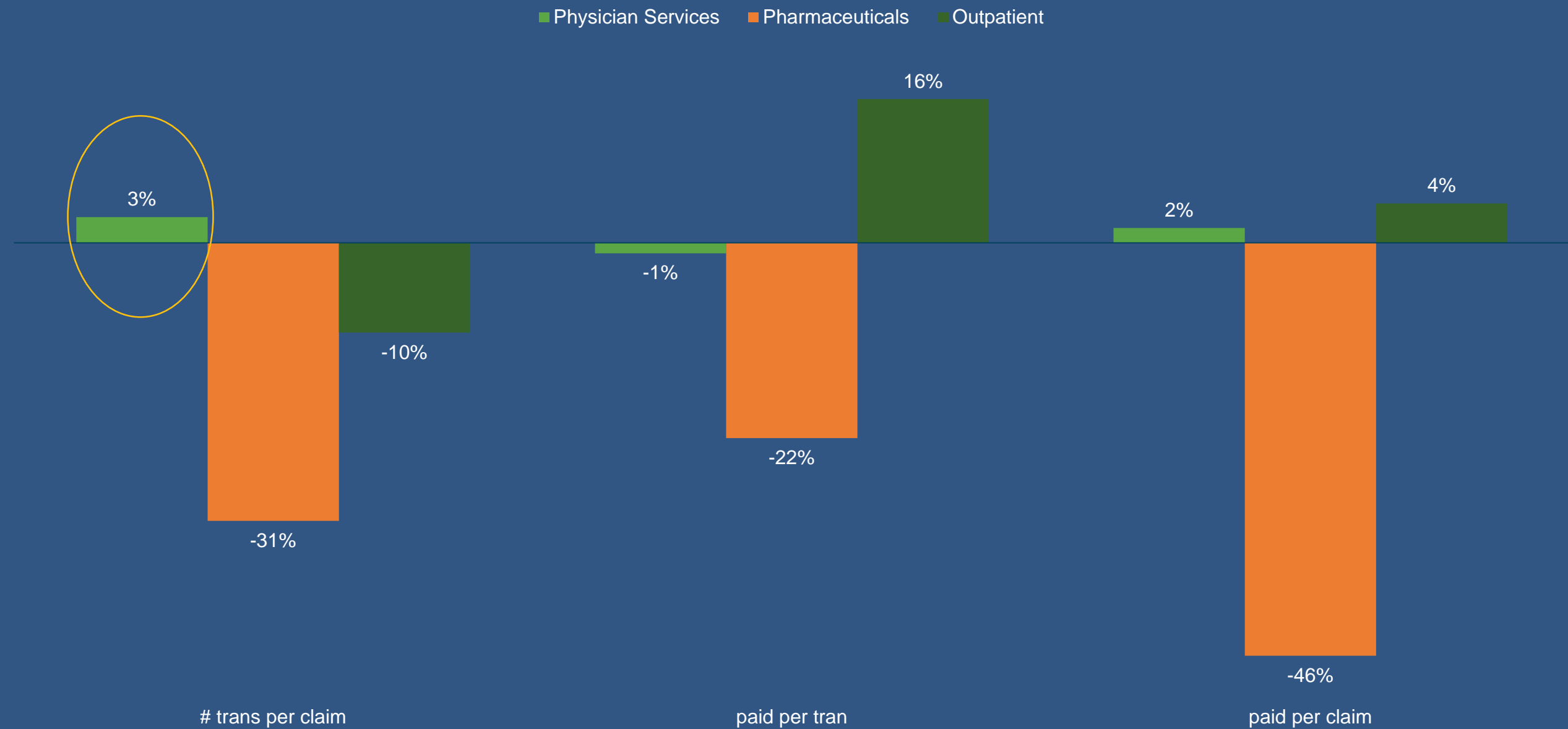
Total Medical Payments and Transactions: AY2018 vs. AY2017

As of July 7, 2019

- Within 30 days of the injury
 - Claim count: up by 2%
 - Total paid: up by 4%
 - Paid per transaction: up by 3%
 - Transactions per claim: down by 1%
 - Paid per claim: up by 2%
- Paid MCCP per indemnity claim: up by 8% for AY 2018 at 15 months

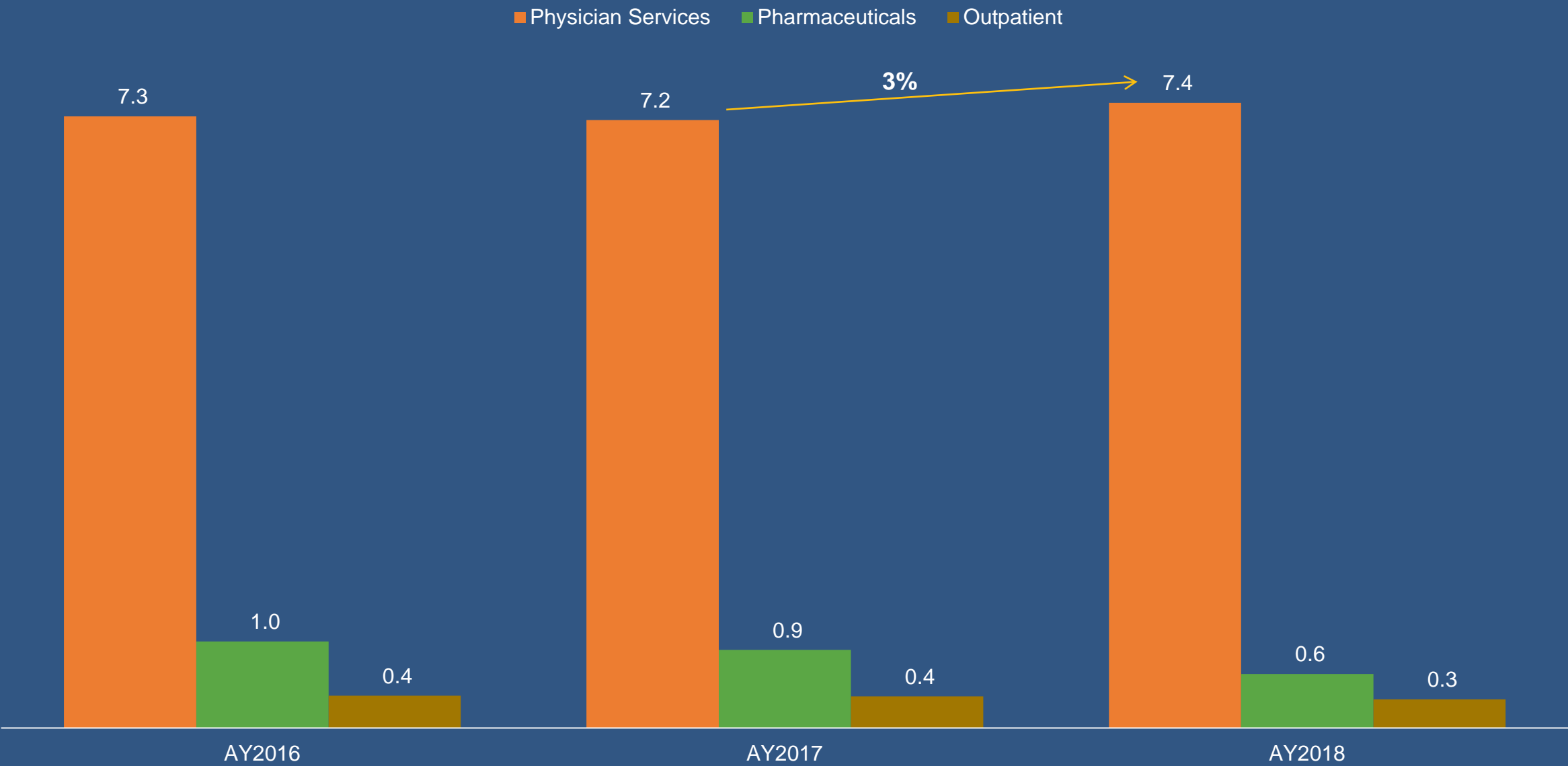
Changes in Transactions and Payments – Three Leading Types of Medical Services AY2018 vs. AY2017 (within 30 days of the accident date)

As of July 7, 2019



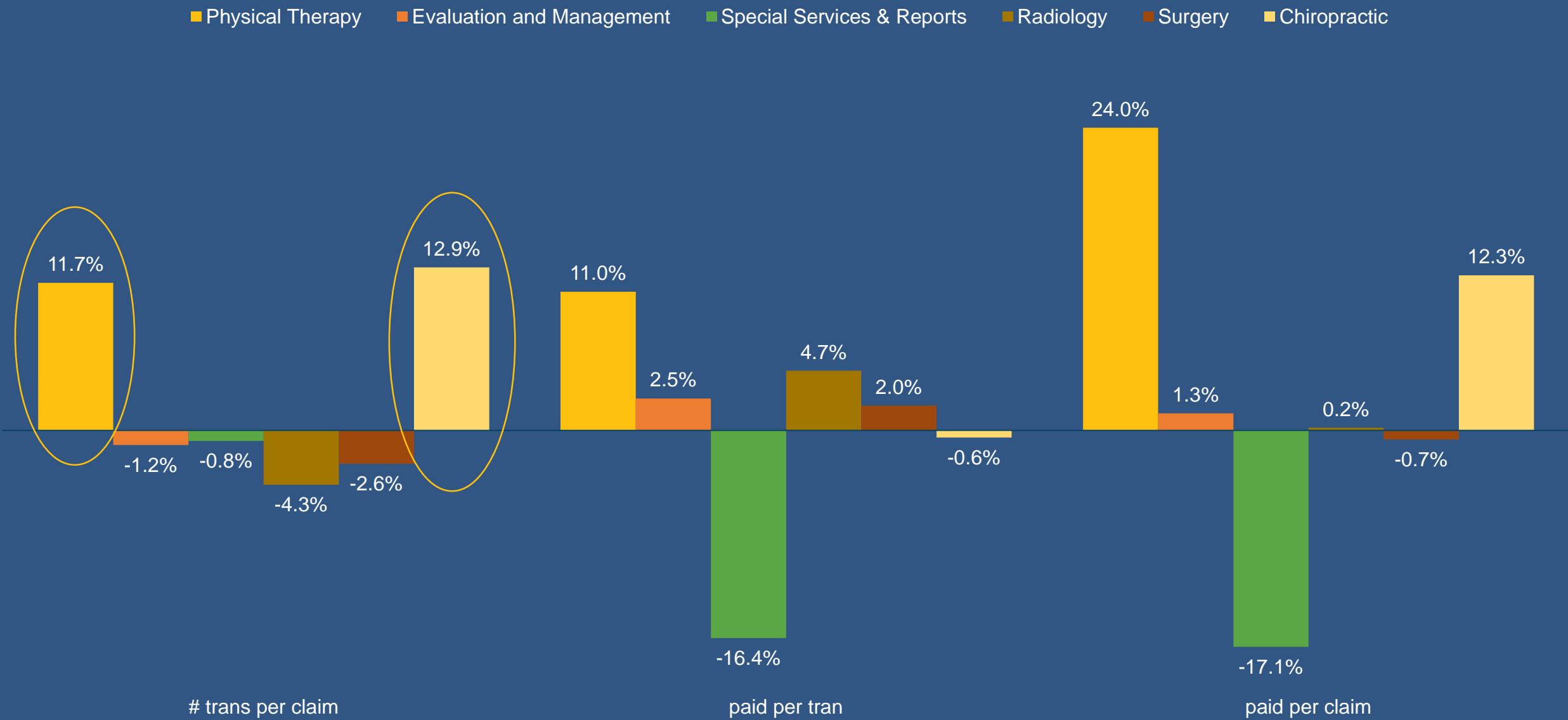
Number of Transactions per Claim – Three Leading Types of Medical Services (within 30 days of the accident date)

As of July 7, 2019



Changes in Transactions and Payments – Leading Types of Physician Services AY2018 vs. AY2017 (within 30 days of the accident date)

As of July 7, 2019



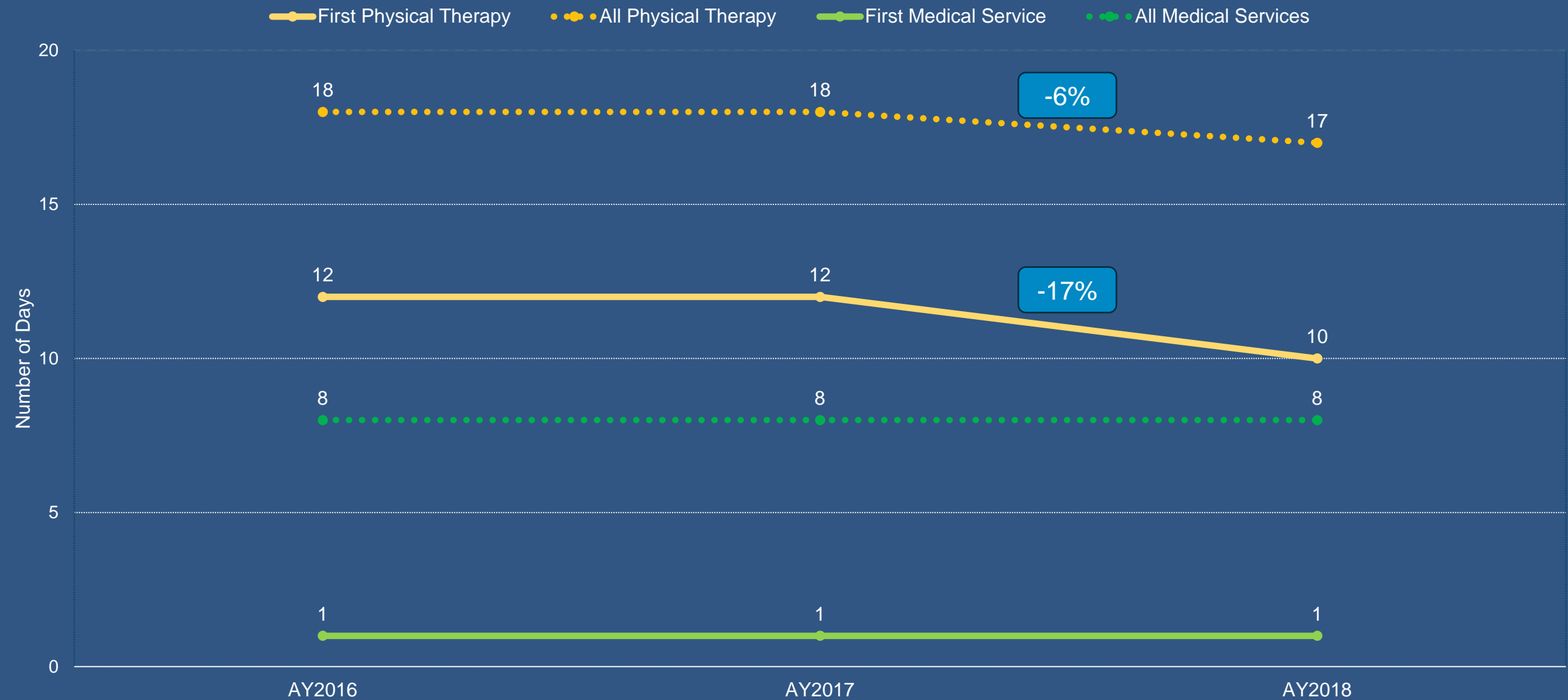
Number of Transactions per Claim – Leading Types of Physician Services (within 30 days of the accident date)

As of July 7, 2019



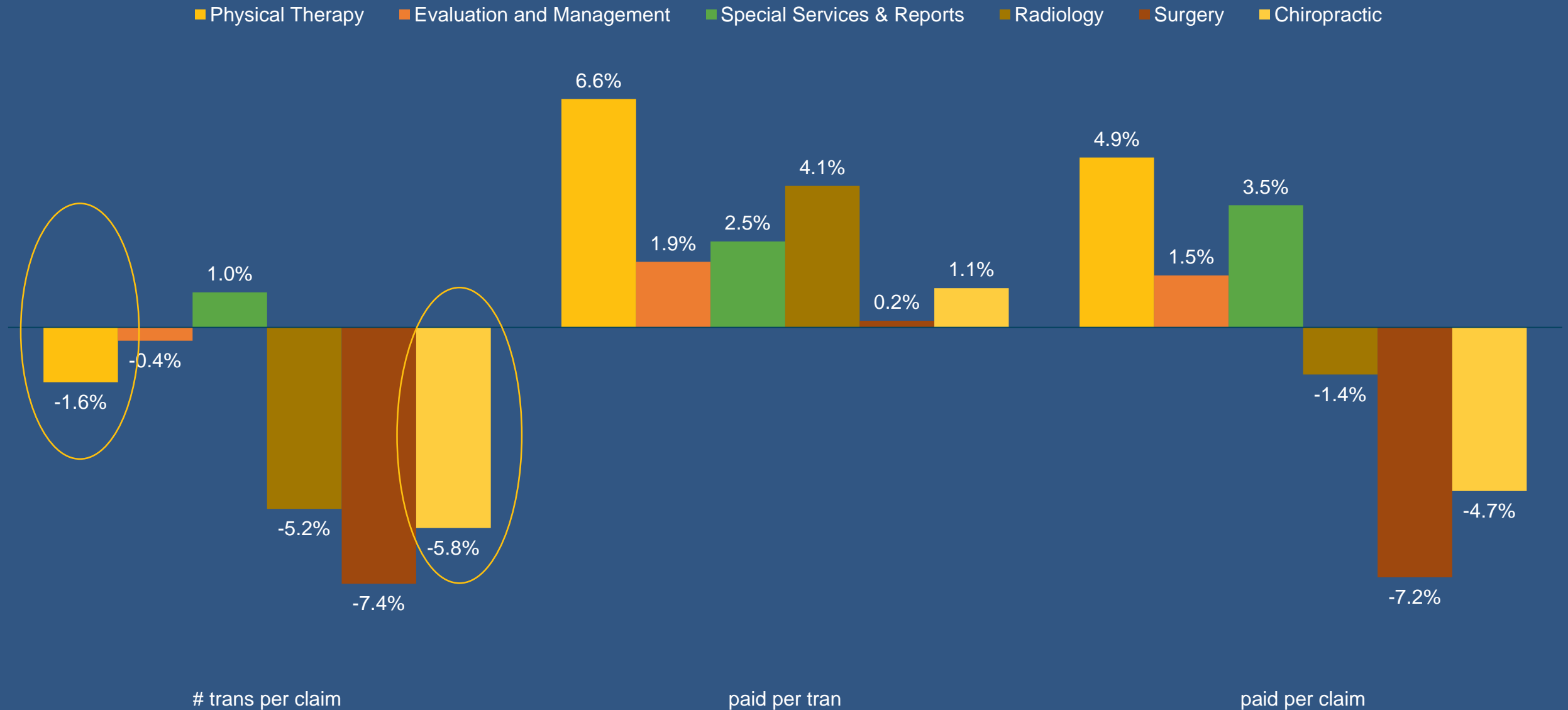
Changes in Median Time between Injury Date and Receipt of Physical Therapy (within 30 days of the accident date)

As of July 7, 2019



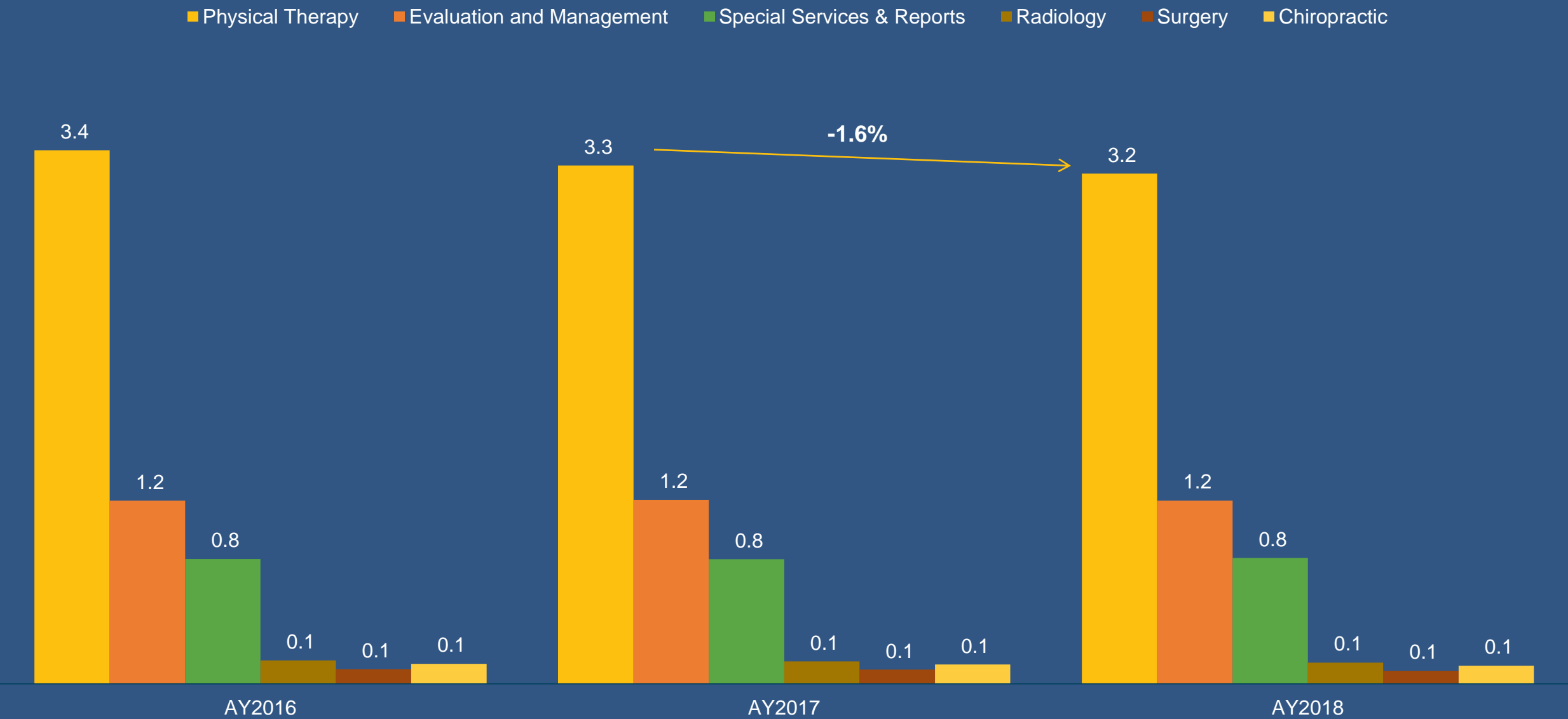
Changes in Transactions and Payments – Leading Types of Physician Services AY2018 vs. AY2017 (3 months after 30 days of the accident date)

As of July 7, 2019



Number of Transactions per Claim – Leading Types of Physician Services (3 months after 30 days of the accident date)

As of July 7, 2019



Changes in Transactions and Payments – Leading Types of Physician Services AY2018 vs. AY2017 (4 months after the accident date regardless of first 30 days)

As of July 7, 2019



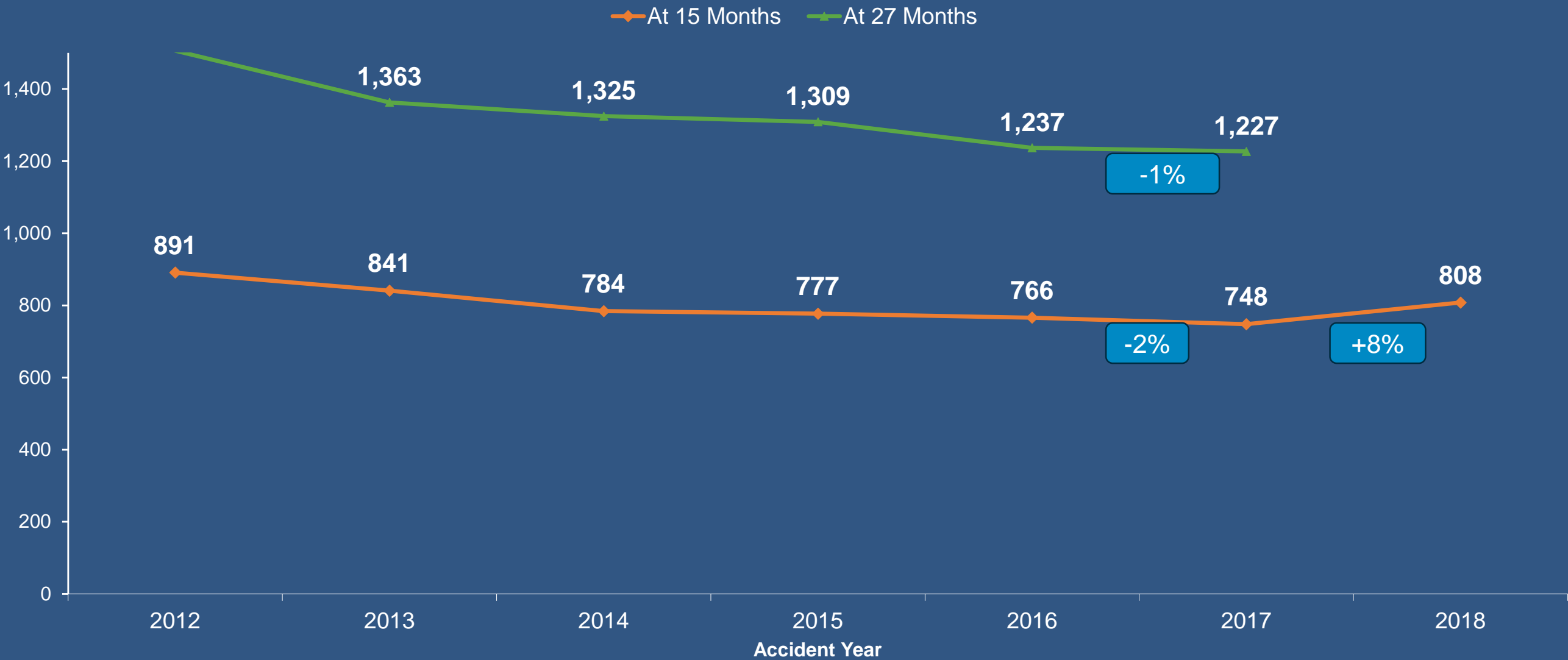
Number of Transactions per Claim – Leading Types of Physician Services (4 months after the accident date regardless of first 30 days)

As of July 7, 2019



Paid Medical Cost Containment Program Costs per Claim

As of March 31, 2019



Summary of Findings – Impact of SB 1160 UR Restrictions on Service Utilization and UR Costs

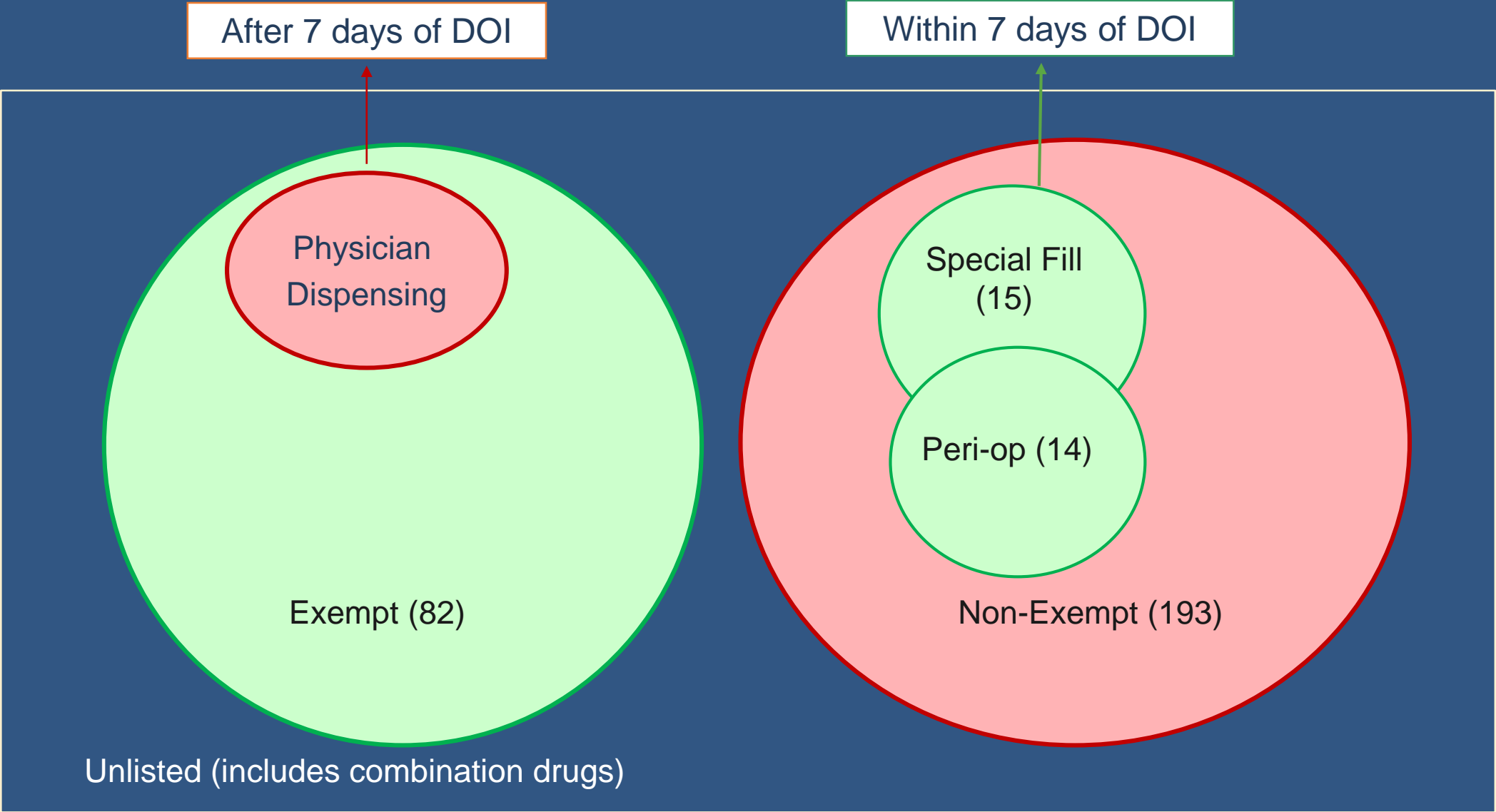
- Of all medical services, only physician services experienced an increase in utilization (+3%) in the first 30 days after the injury in 2018 compared to 2017
- The increased utilization of physician services was mostly driven by the increased utilization of physical therapy (+12%); yet utilization of physical therapies after the first 30 days declined slightly (-2%) in 2018
- The median time to receive 1st physical therapy within the first 30 days was shortened by 2 days in 2018, suggesting earlier utilization of physical therapy
- Overall, except for physical therapy, there was no indication of increased utilization of medical services throughout 2018 compared to prior years
- Staff recommends continuing to apply modest (0.3%) on-level factor to medical
- The paid MCCP cost per indemnity claim at 15-month experience increased (+8%) rather than decreased in 2018
- Staff recommends not applying any on-level adjustments from SB 1160 UR-related provisions

Overview of AB 1124 Drug Formulary – Analysis Based on 12/31/2018 Experience

- AB 1124 required the DWC to adopt an evidence-based drug formulary in the California workers' compensation system
- Primary goals of the Formulary:
 - Regulate prescribing of opioids
 - Reduce frictional costs (from UR and IMR) in the system
 - Ensure medically necessary and timely medications for injured workers
- The new MTUS Drug Formulary became effective January 1, 2018
- Preliminary cost impact analysis of the drug formulary for 7/1/2018 Pure Premium Rate Filing:
 - Impact on frictional costs (UR and IMR)
 - Approximately **-0.1%** of the total losses and LAE
 - Impact on pharmaceutical costs - opioids, compounds, physician dispensing and brand name drugs
 - Approximately **-0.4%** of the total losses and LAE (10% reduction in pharmaceutical costs)

MTUS Drug List – 275 Drug Ingredients (initial version)

As of January 2018

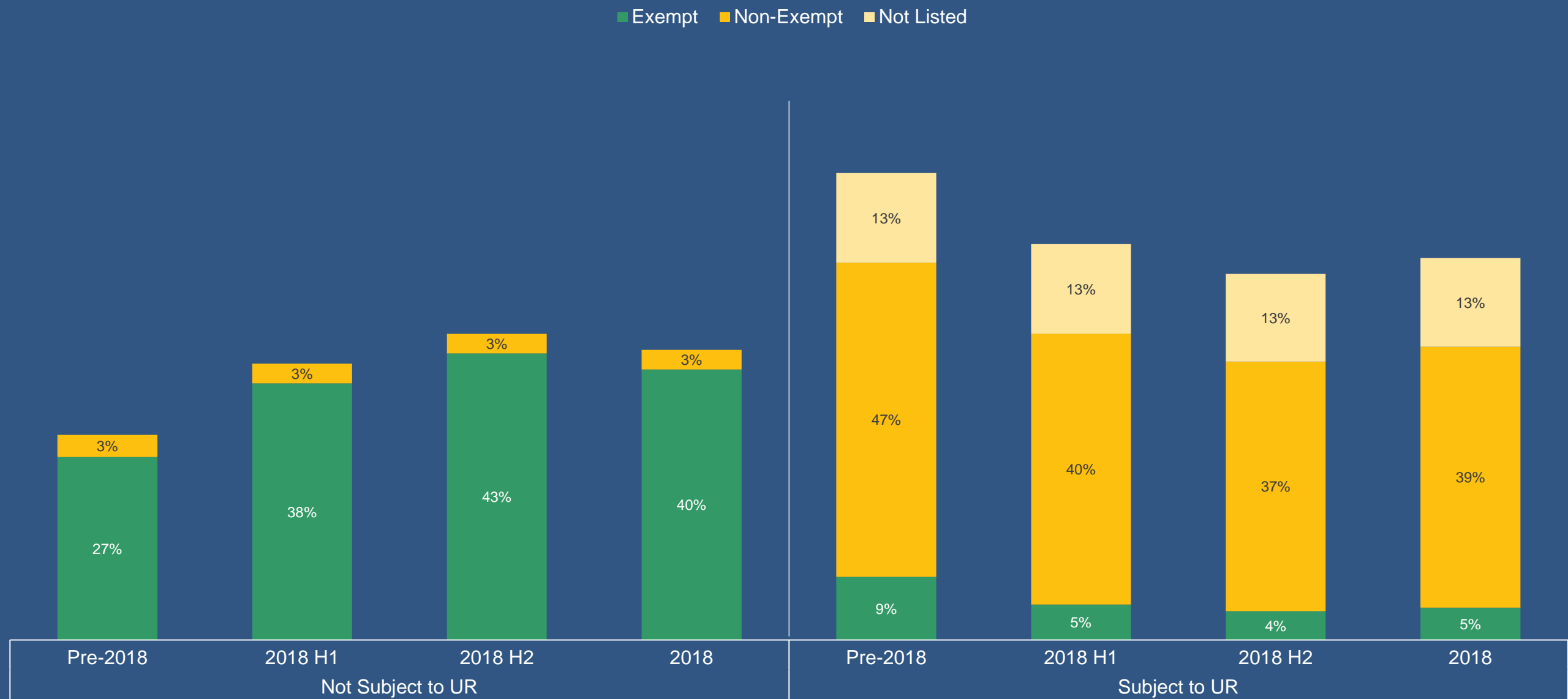


Changes Made to the MTUS Drug List

- MTUS drug list has been updated quarterly to reflect changes in the MTUS treatment guidelines
- Drugs added and deleted from the MTUS list since 1/1/2018 for treatment of:
 - Eye disorders
 - Chronic pain and those addressed in the Opioid Guidelines
 - Traumatic brain injury (effective 2/15/2019)
 - Post-traumatic stress disorder (effective 8/1/2019)
- The Pharmacy Therapeutics Committee plans to add a unique drug identifier to facilitate drug mapping

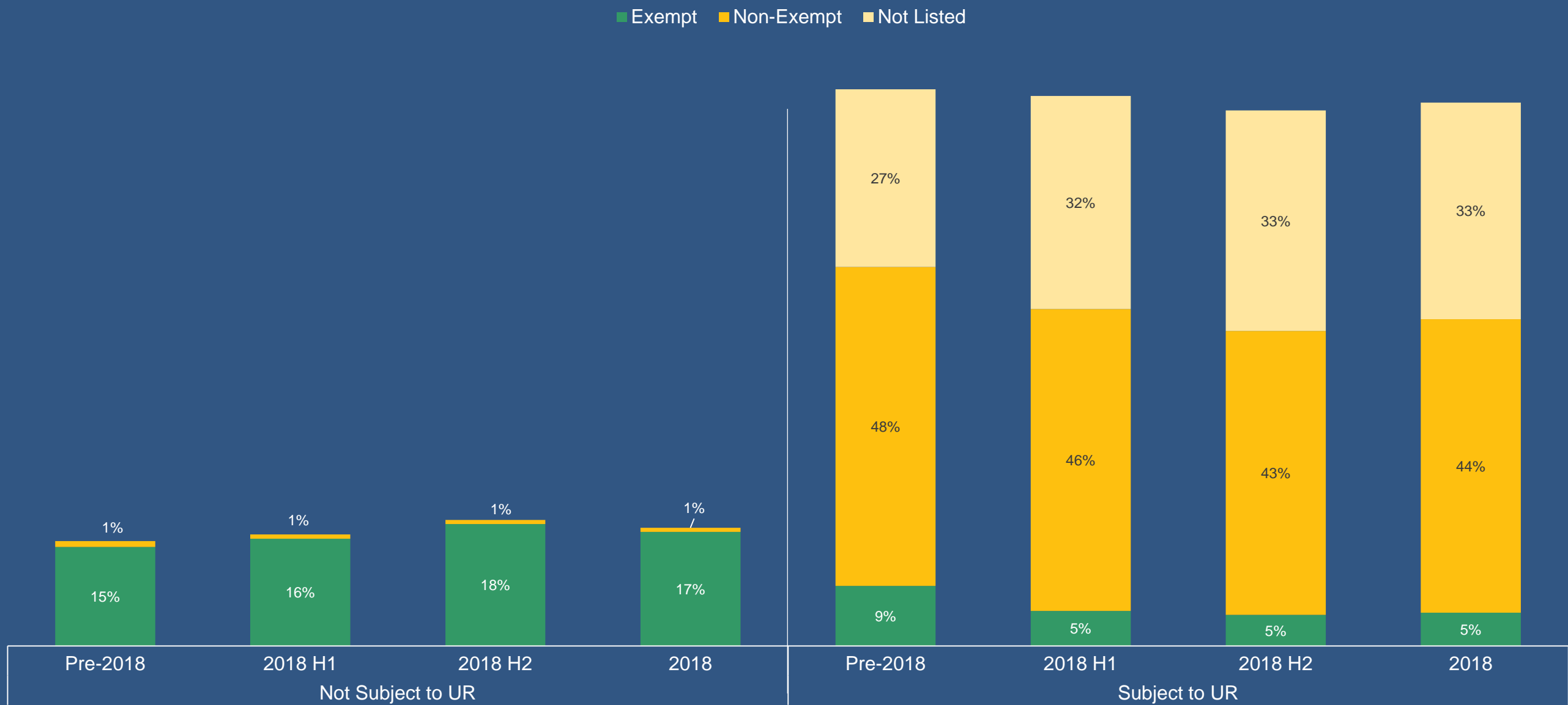
Share of Pharmaceutical Transactions by the Drug Formulary Category

As of July 7, 2019



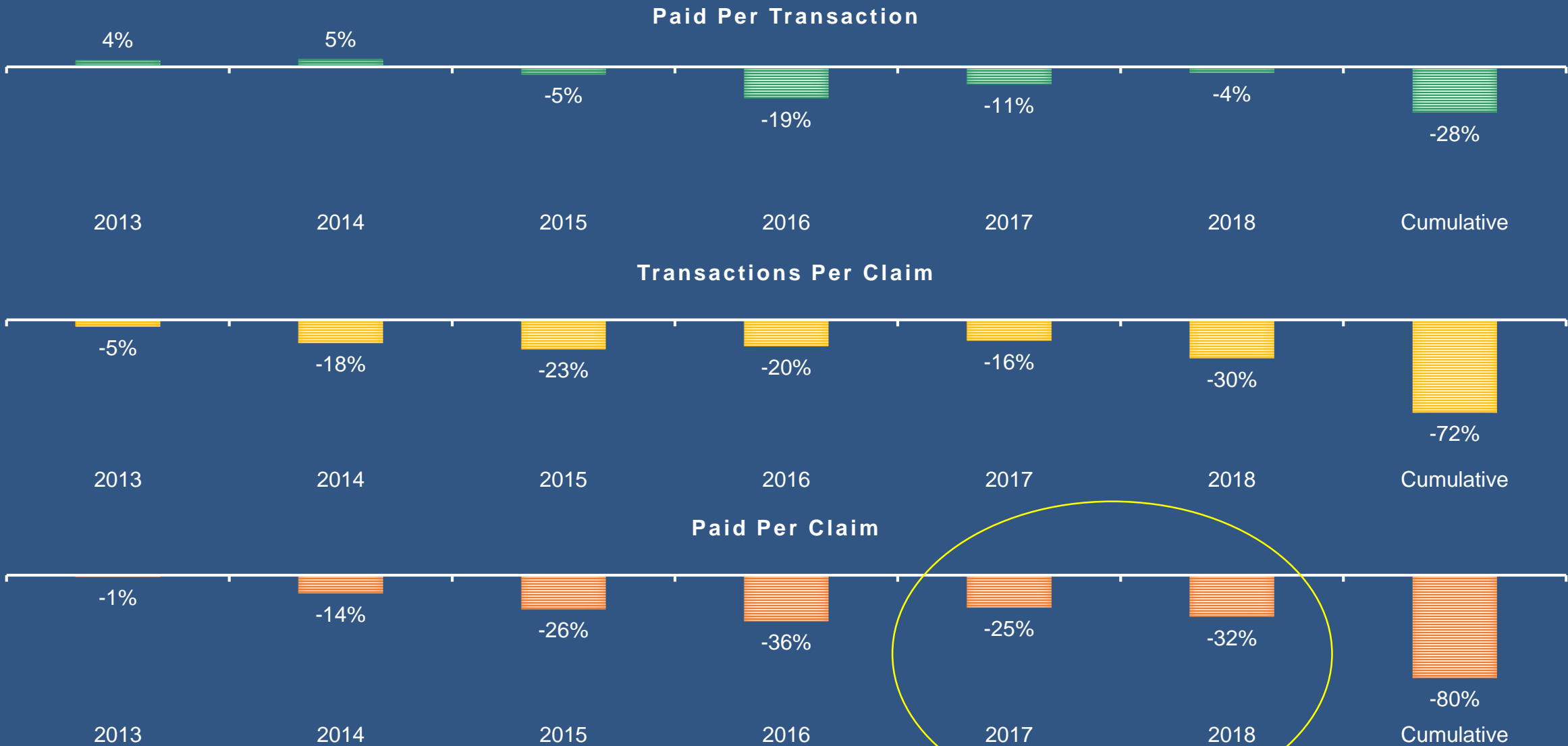
Share of Pharmaceutical Payments by the Drug Formulary Category

As of July 7, 2019



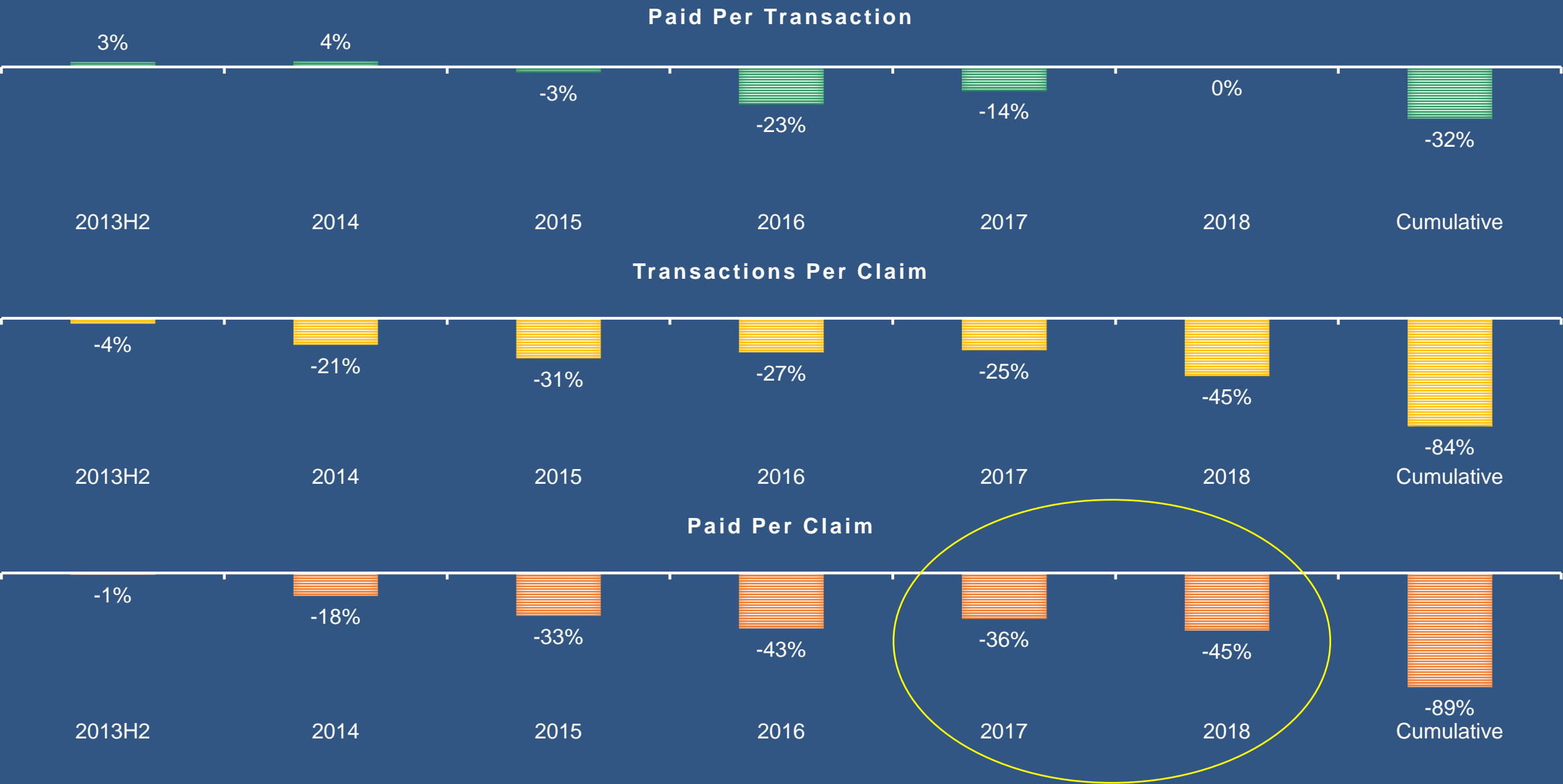
% Change in *Pharmaceutical* Cost per Claim

As of April 7, 2019



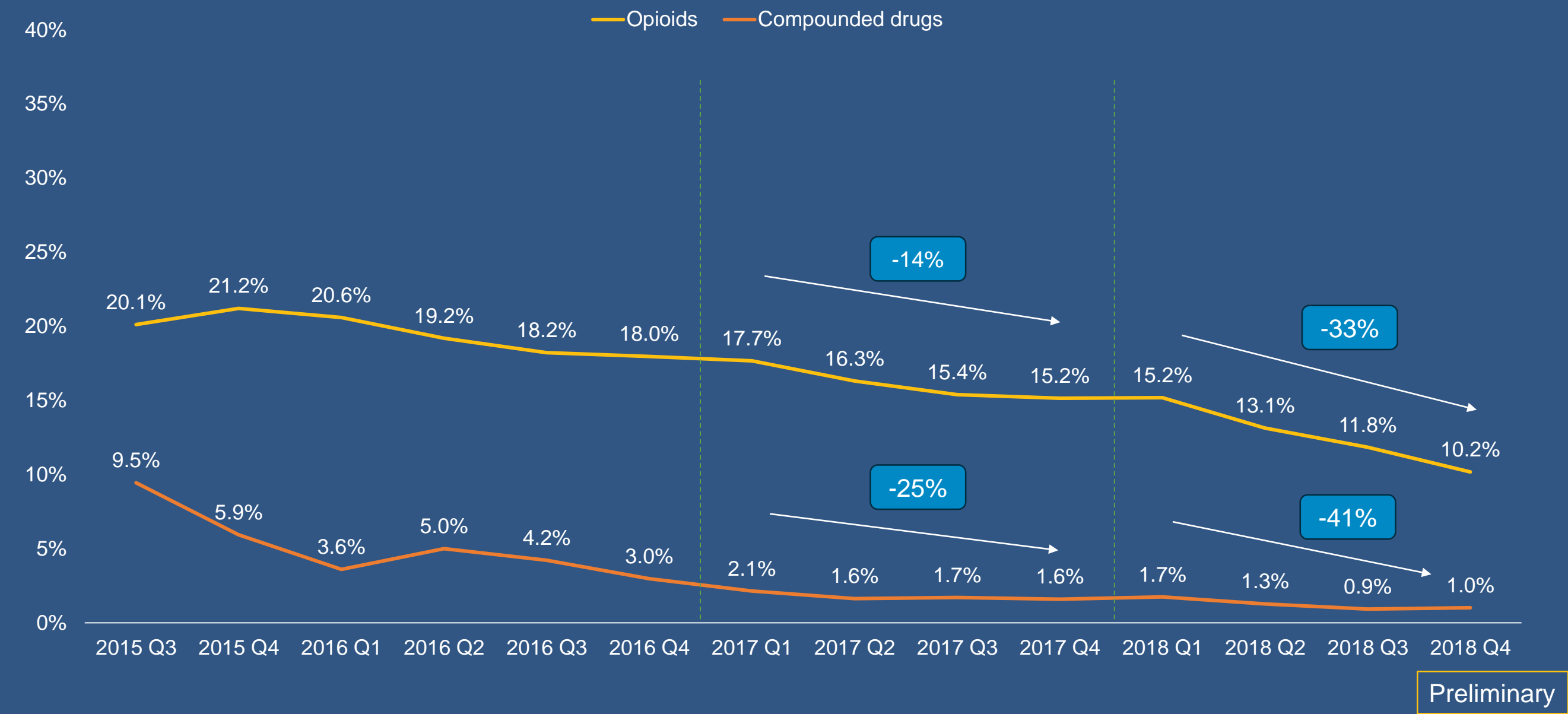
% Change in *Opioid* Cost per Claim

As of April 7, 2019



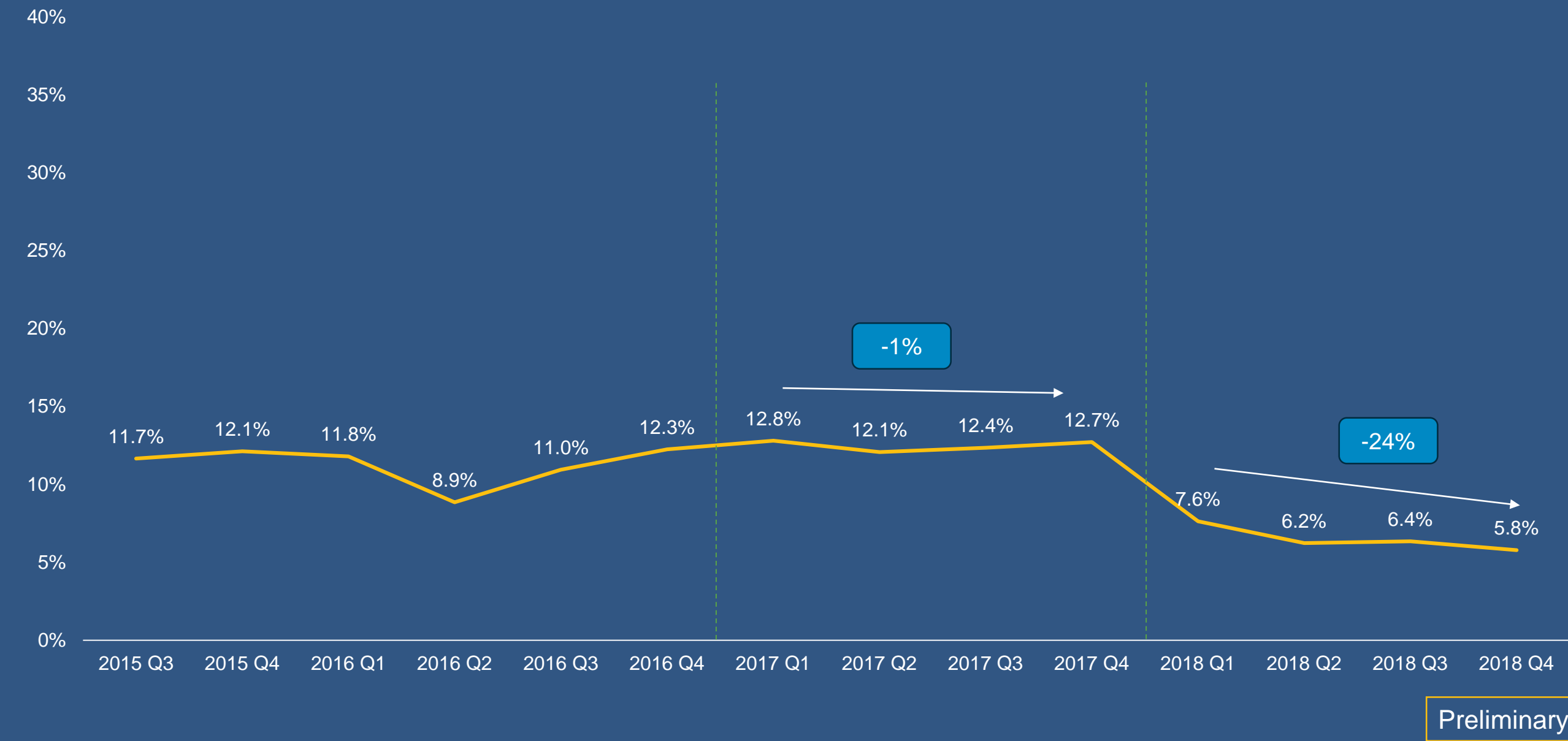
Share of All Drug Payments to Opioids and Compounded drugs

As of July 7, 2019



Share of All Drug Payments to Physician-Dispensed Drugs Subject to UR (excl. opioids and compounded drugs)

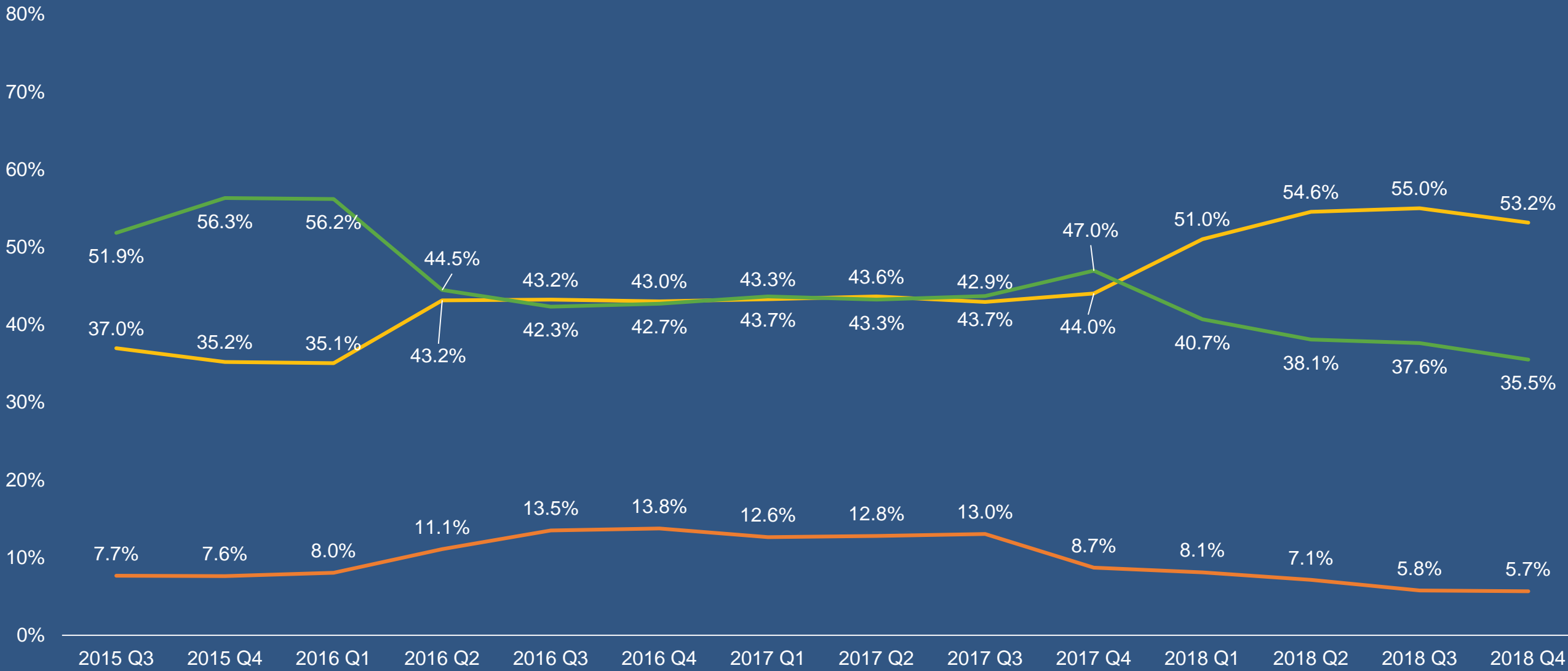
As of July 7, 2019



Share of All Drug Payments to Brand Name vs. Generics

As of July 7, 2019

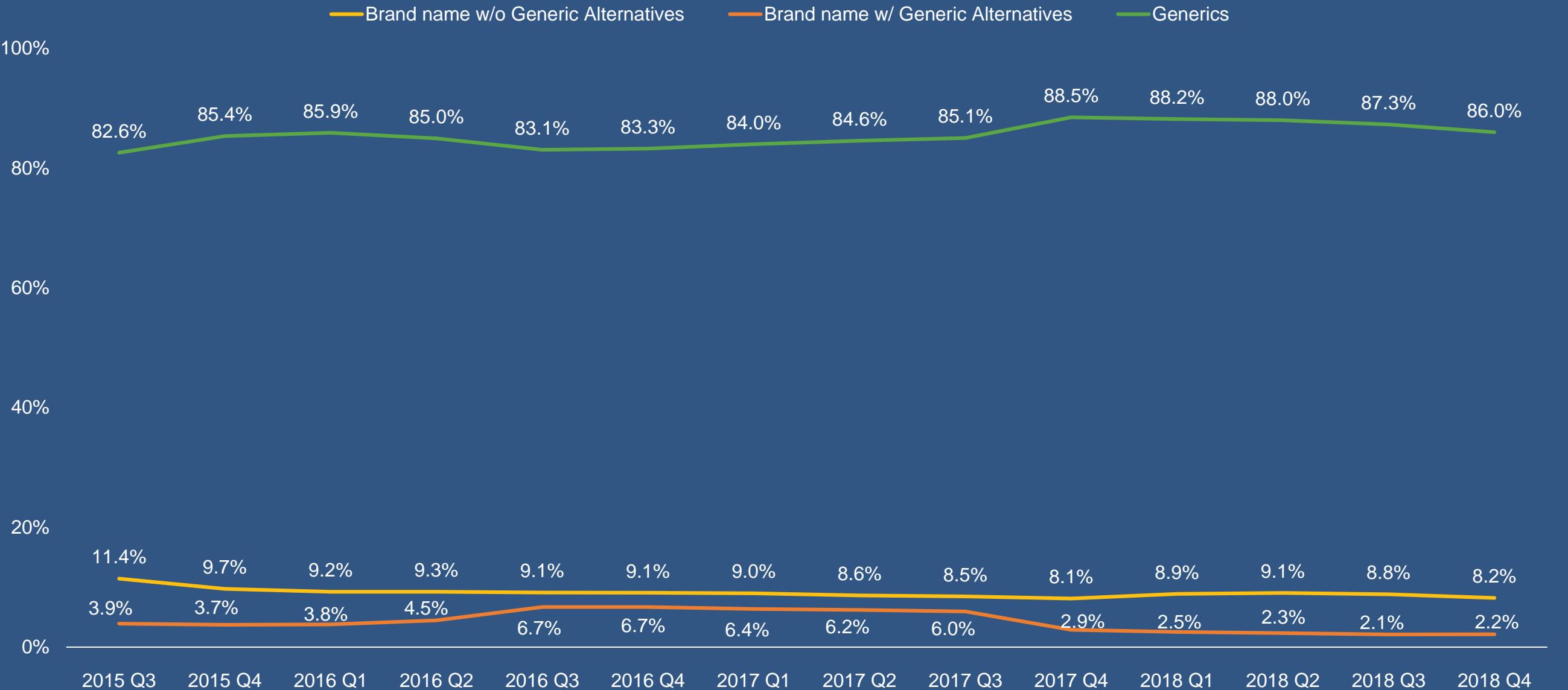
Brand name w/o Generic Alternatives Brand name w/ Generic Alternatives Generics



Preliminary

Share of All Drug Prescriptions: Brand Name vs. Generics

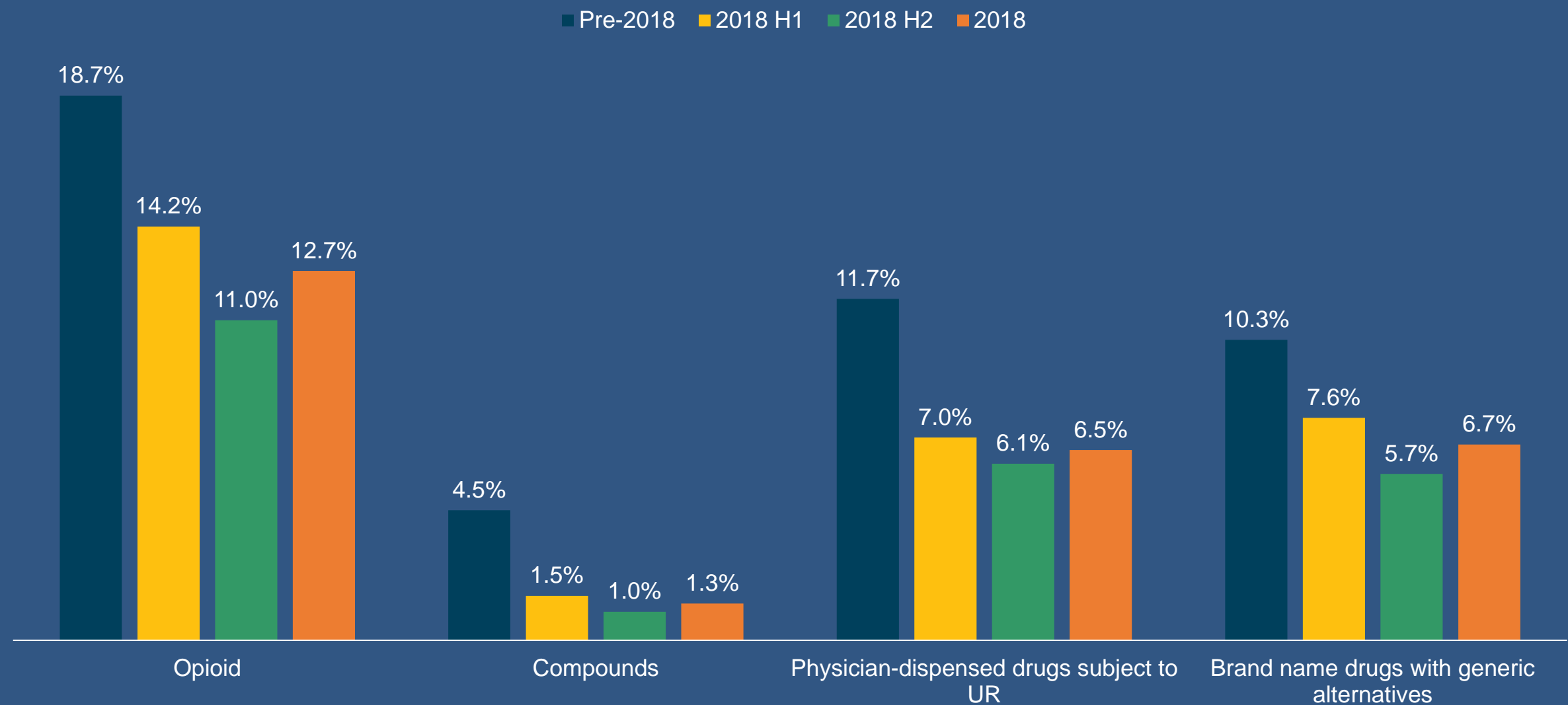
As of July 7, 2019



Preliminary

Summary of Share of Total Drug Payments by Prescribing Category

As July 7, 2019



Summary of Findings – the Drug Formulary

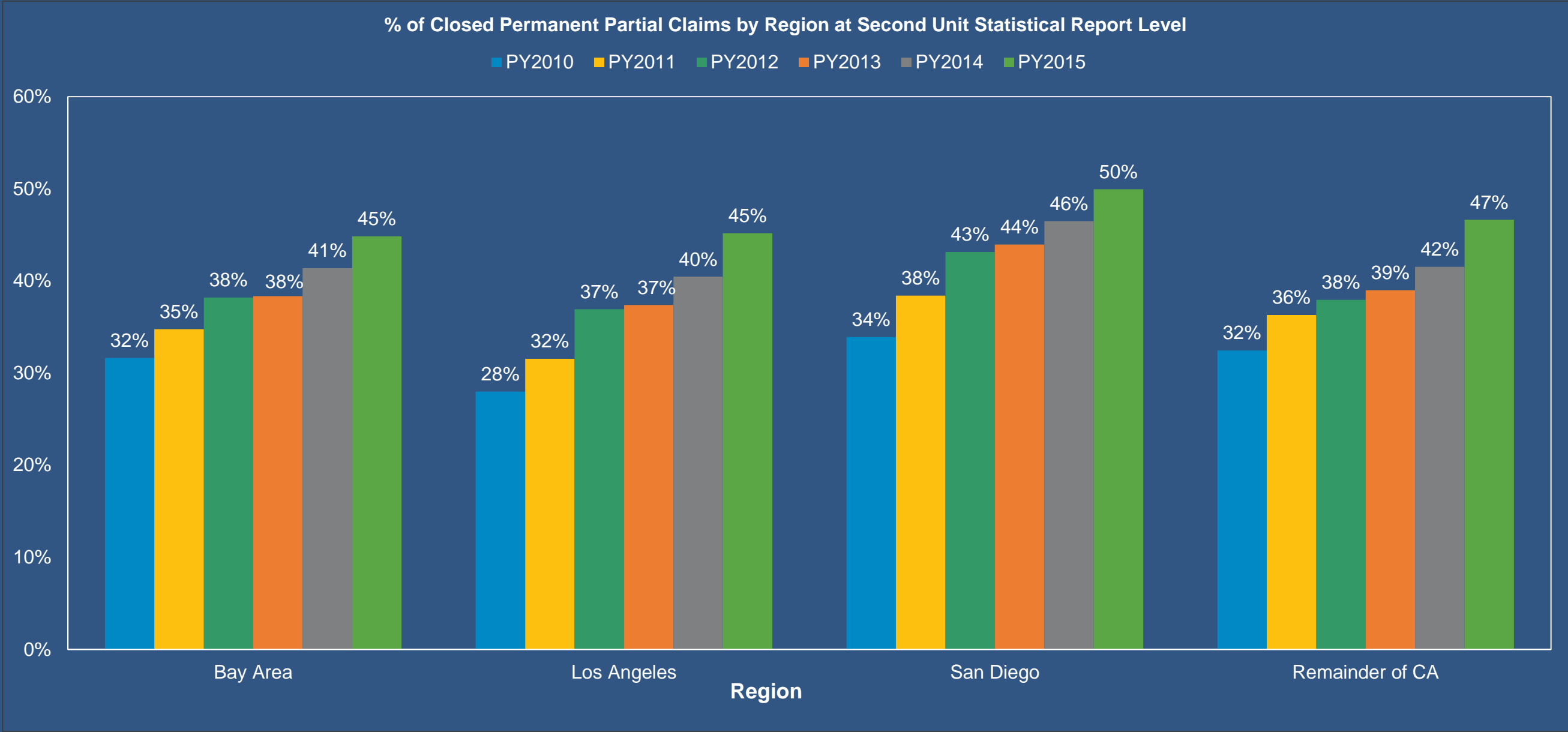
- Impact on Frictional Costs
 - The prescriptions of exempt drugs increased by 23% while the prescriptions of non-exempt declined by 17% in 2018 compared to pre-2018 level
 - The trends indicate a significant increase in the prescriptions of drugs not subject to UR post-reform, potentially reducing the UR requests
 - Medical cost containment costs increased sharply in 2018 instead of decreasing
- Impact on Pharmaceutical Costs
 - The shares of pharmaceutical payments to opioids, compounds, physician-dispensed and brand name drugs (when generic alternatives are available) continued to decline, and the decline was accelerated in 2018 compared to 2017
 - The acceleration in the reduced costs of the four pharmaceutical components in 2018 is indicative of the impact of drug formulary
- Impact on Pure Premium Rates – Staff Recommendations
 - Continue to apply an on-level adjustment based on a 10% reduction in pharmaceutical costs resulting from implementation of the drug formulary
 - Do not apply any on-level adjustments to reflect reductions in utilization review costs

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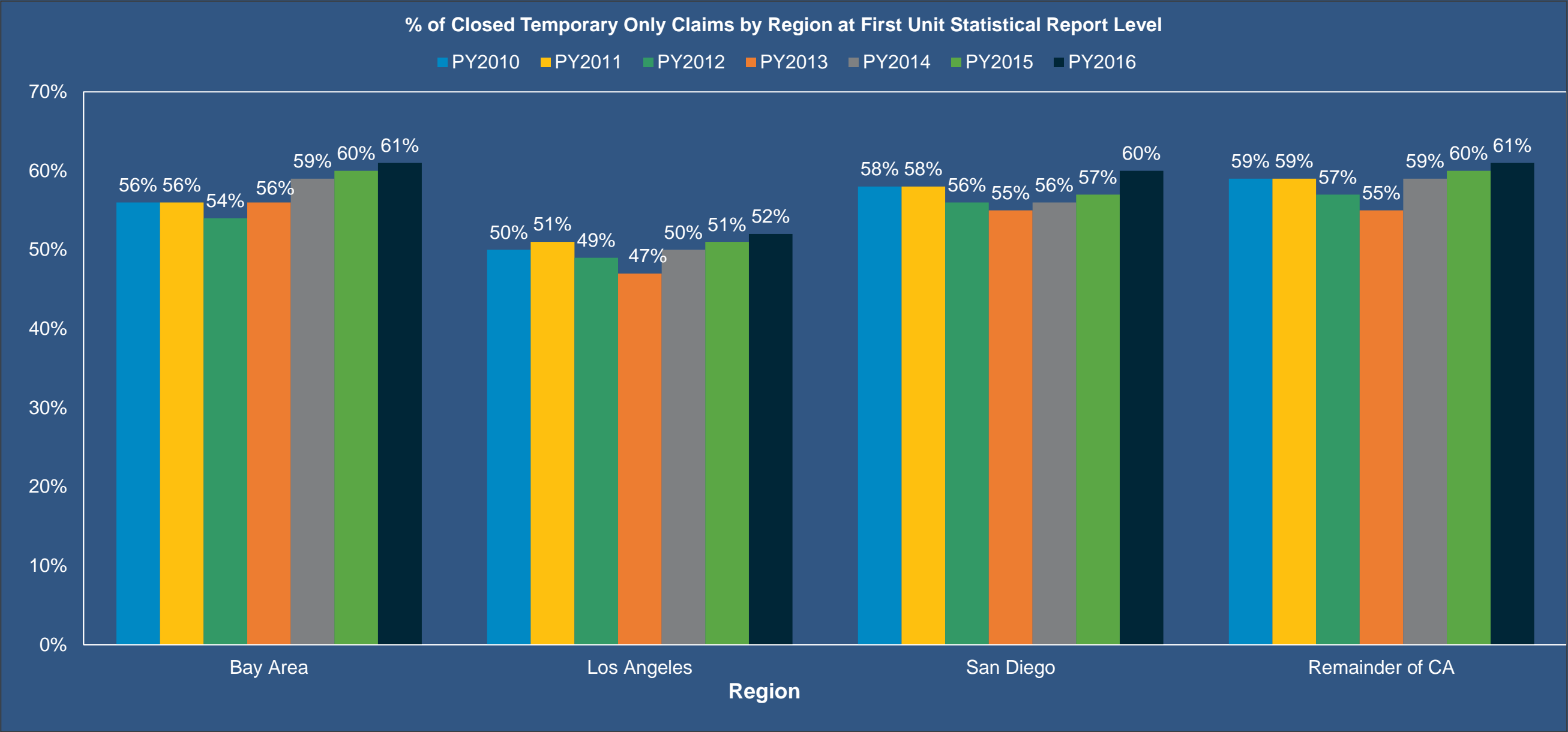
Third Quarter 2019 Review of Diagnostics



Percentage of PPD Claims Closed by Region (Exhibit M5)

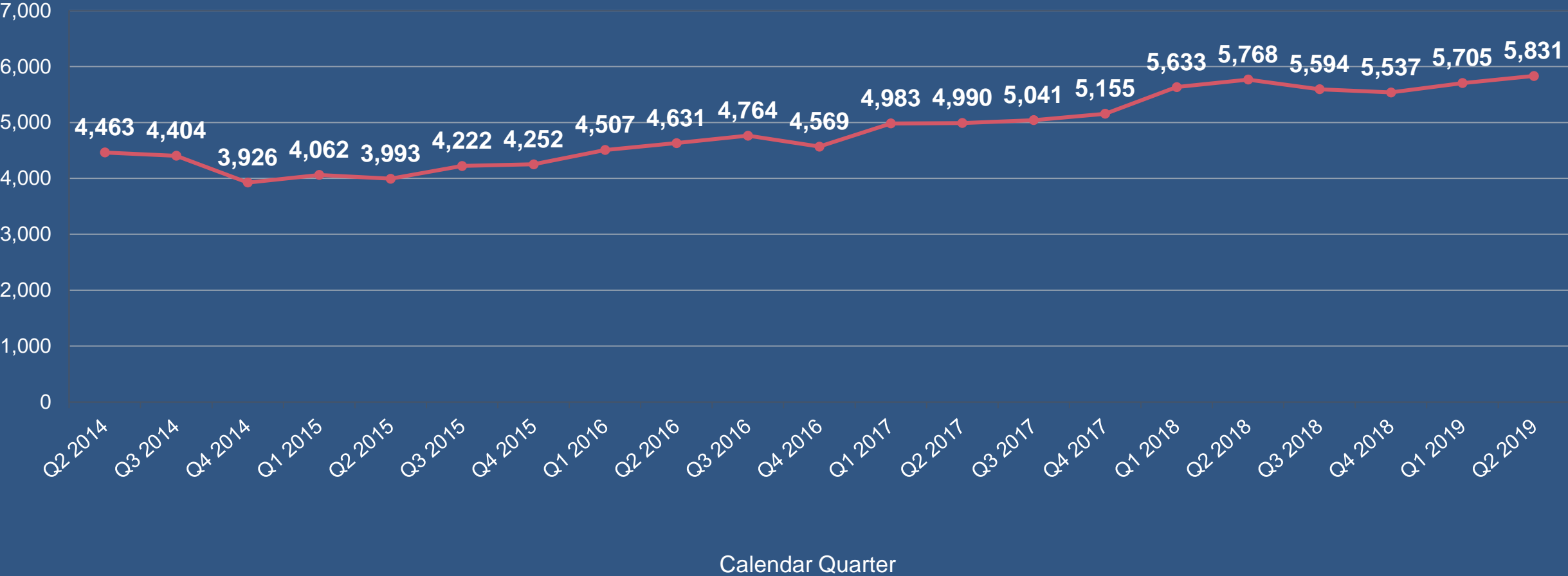


Percentage of Temporary Only Claims Closed by Region (Exhibit M5)

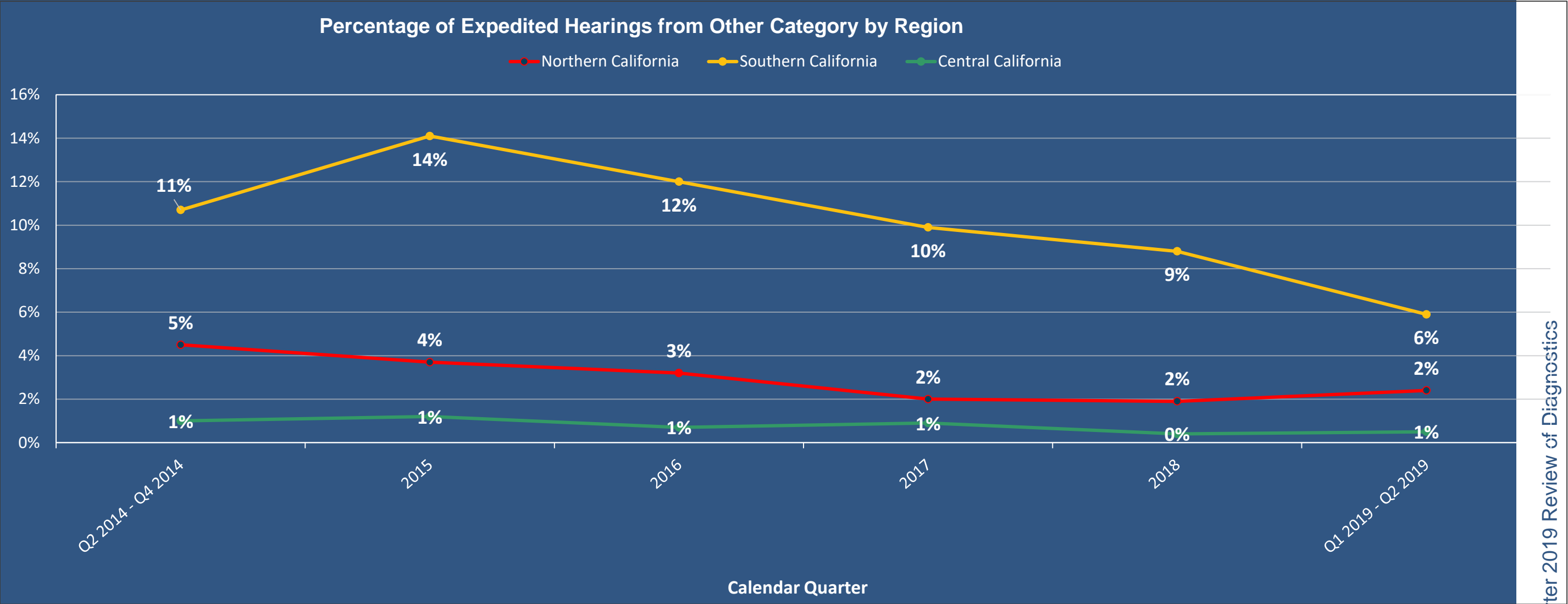


Expedited Hearings (Exhibit M8.1)

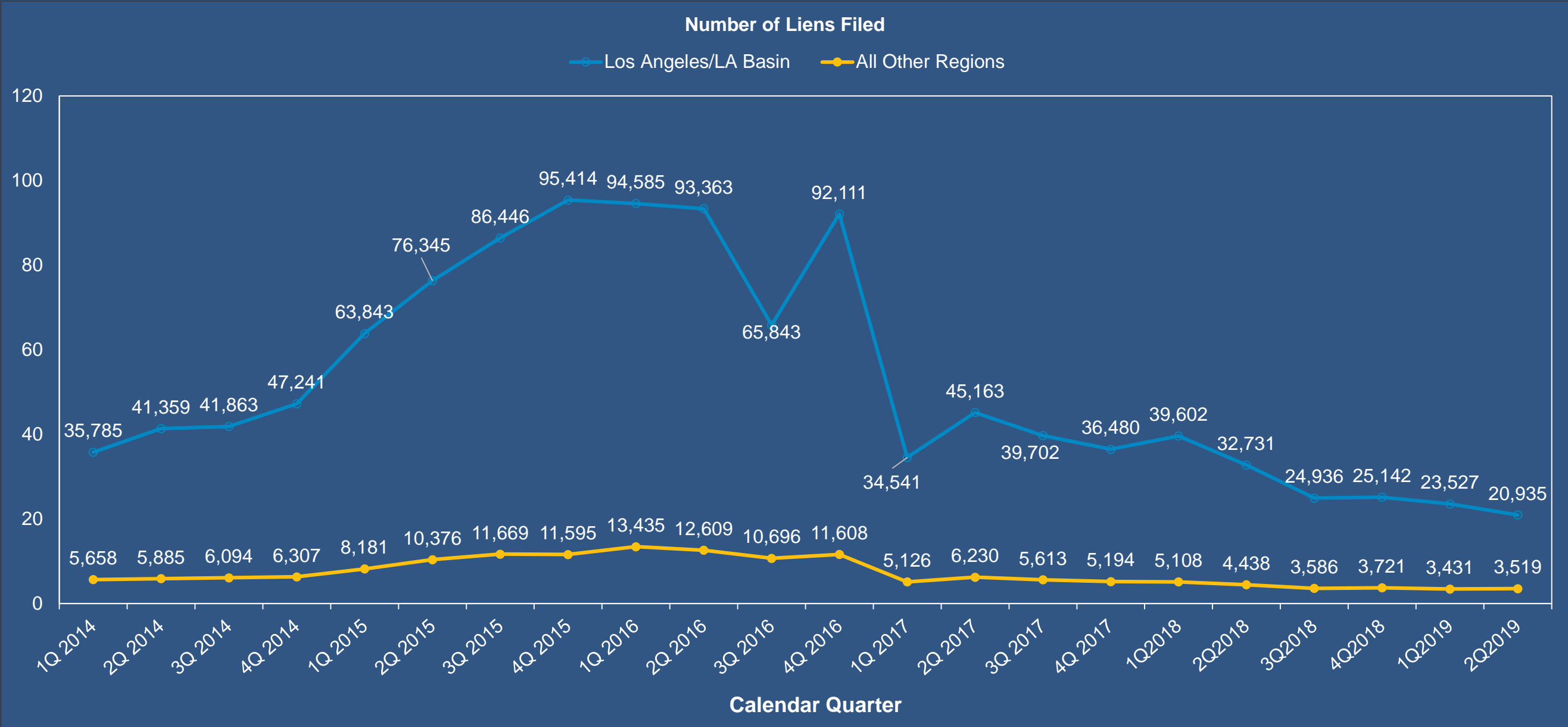
Number of Statewide Expedited Hearings



Expedited Hearings – Other Than Medical Treatment & TD by Region (Exhibit M8.2)

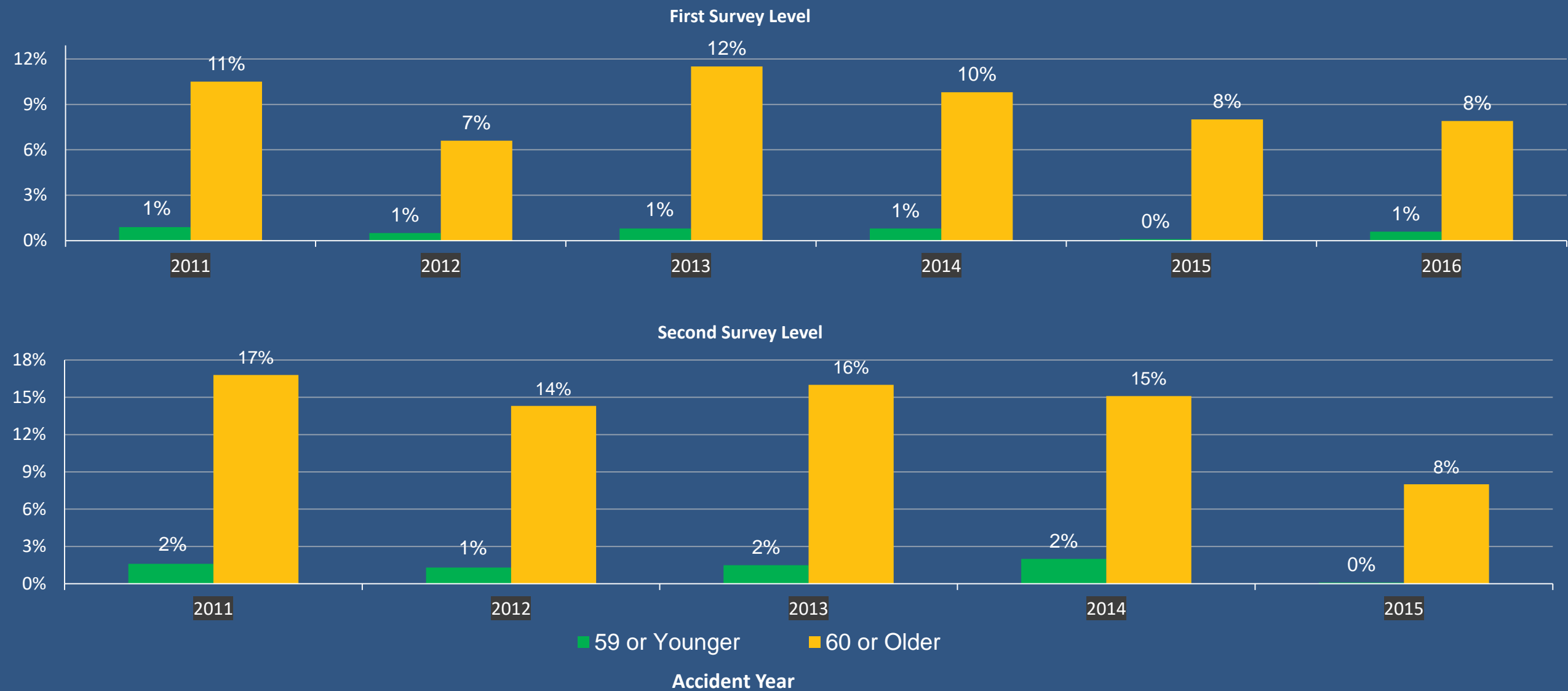


Filed Lien Counts (Exhibit M9.1)

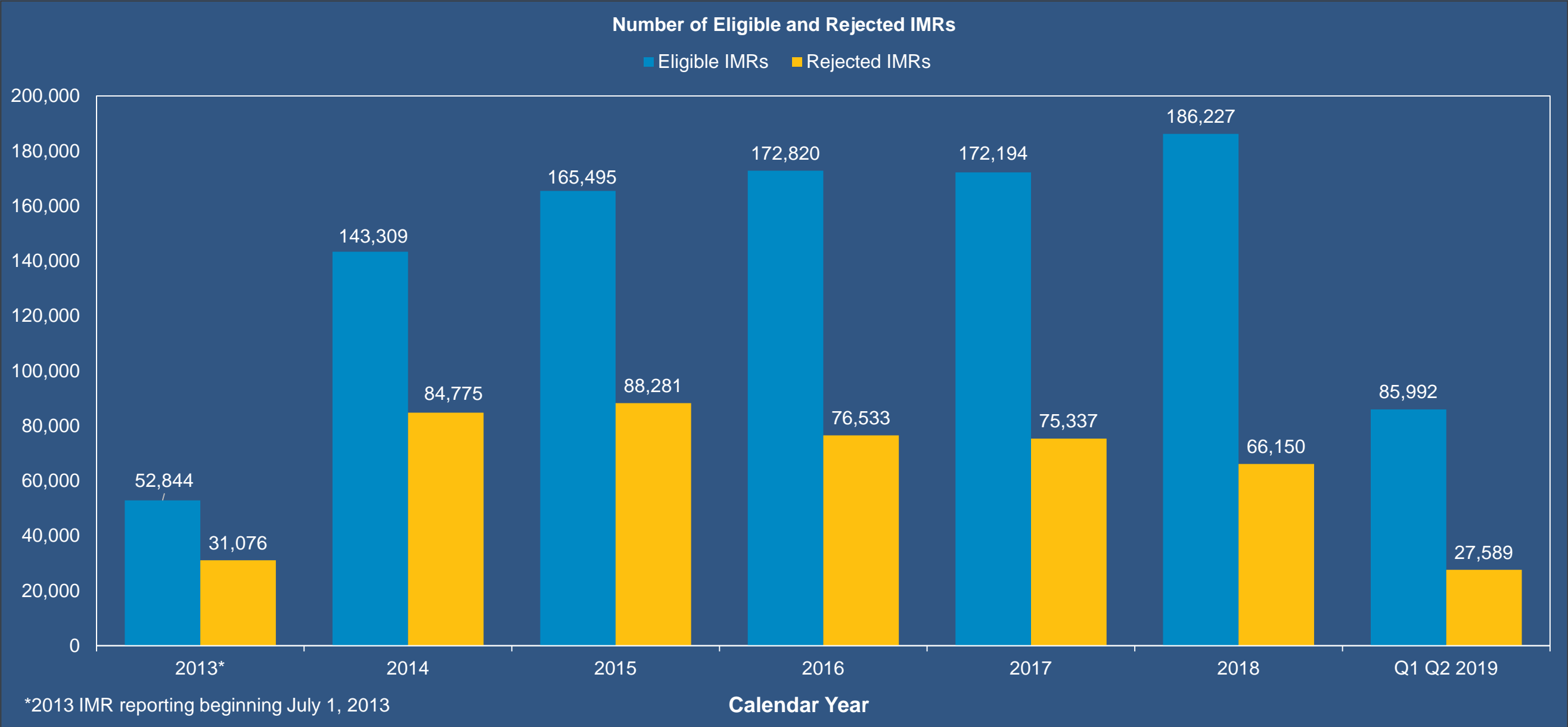


Medicare Set-Asides by Age Interval (Exhibit M10.1)

Percent of Permanent Disability Claims Involving Set-aside by Age Range

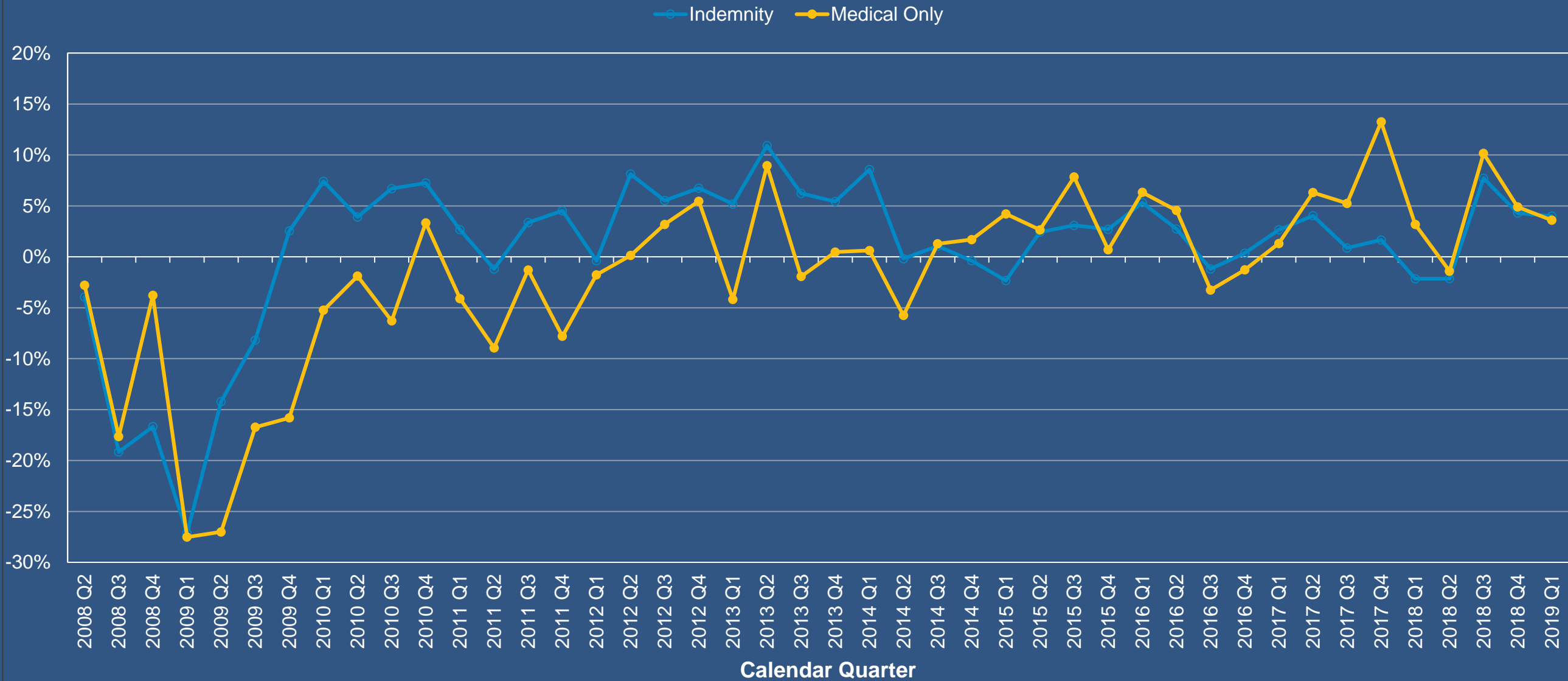


Independent Medical Review (Exhibit M14)

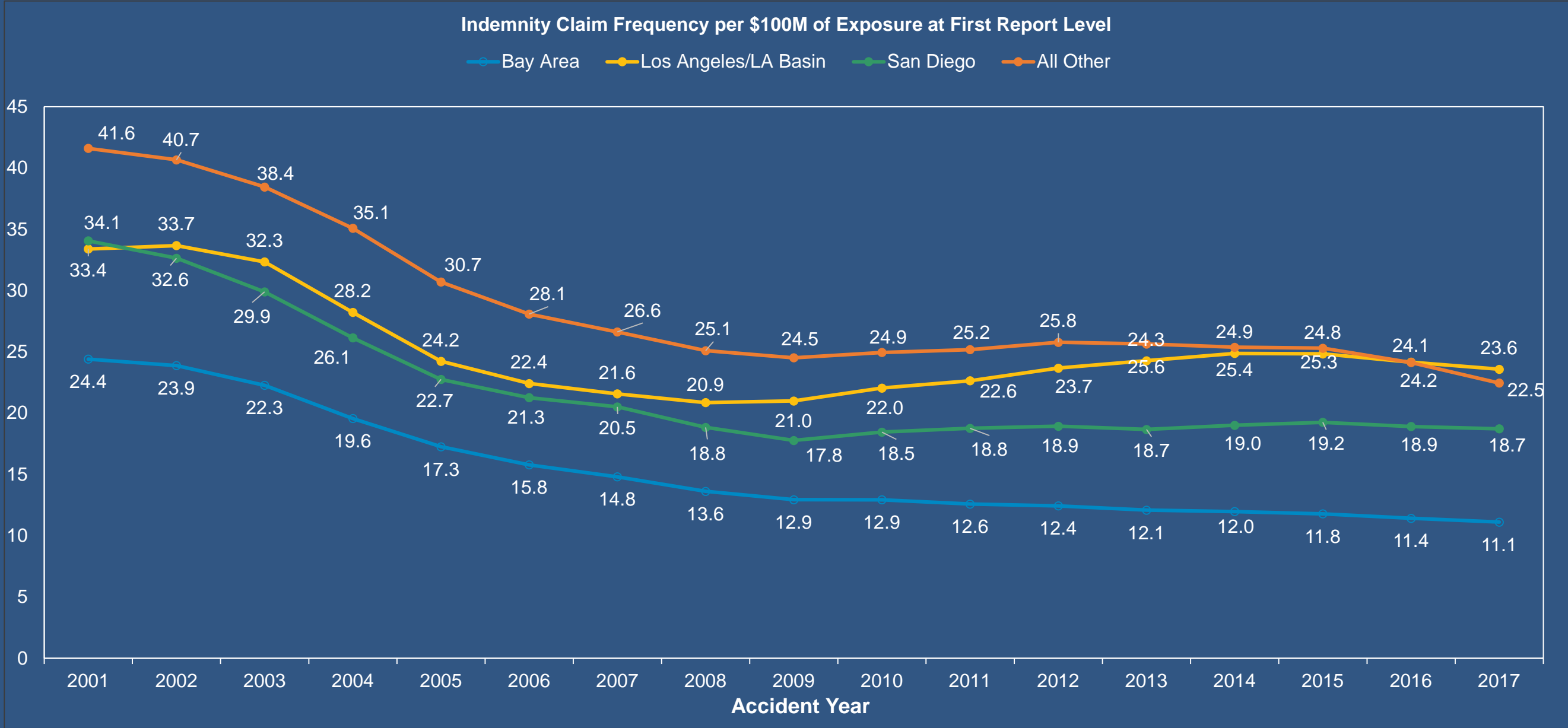


Changes in Incremental Claim Counts (Exhibit C11)

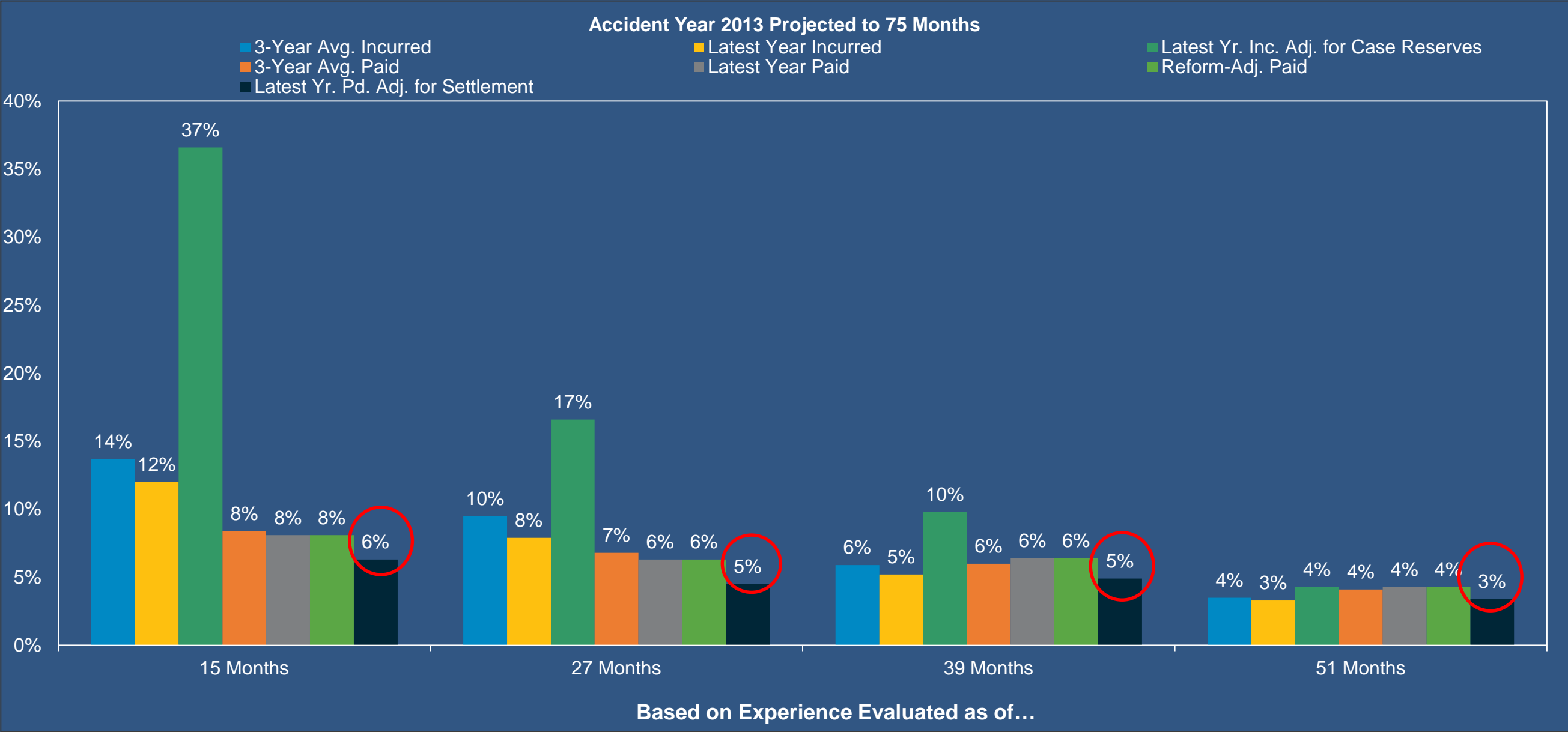
Change in Quarterly Incremental Claim Count from Same Quarter at Prior Calendar Year



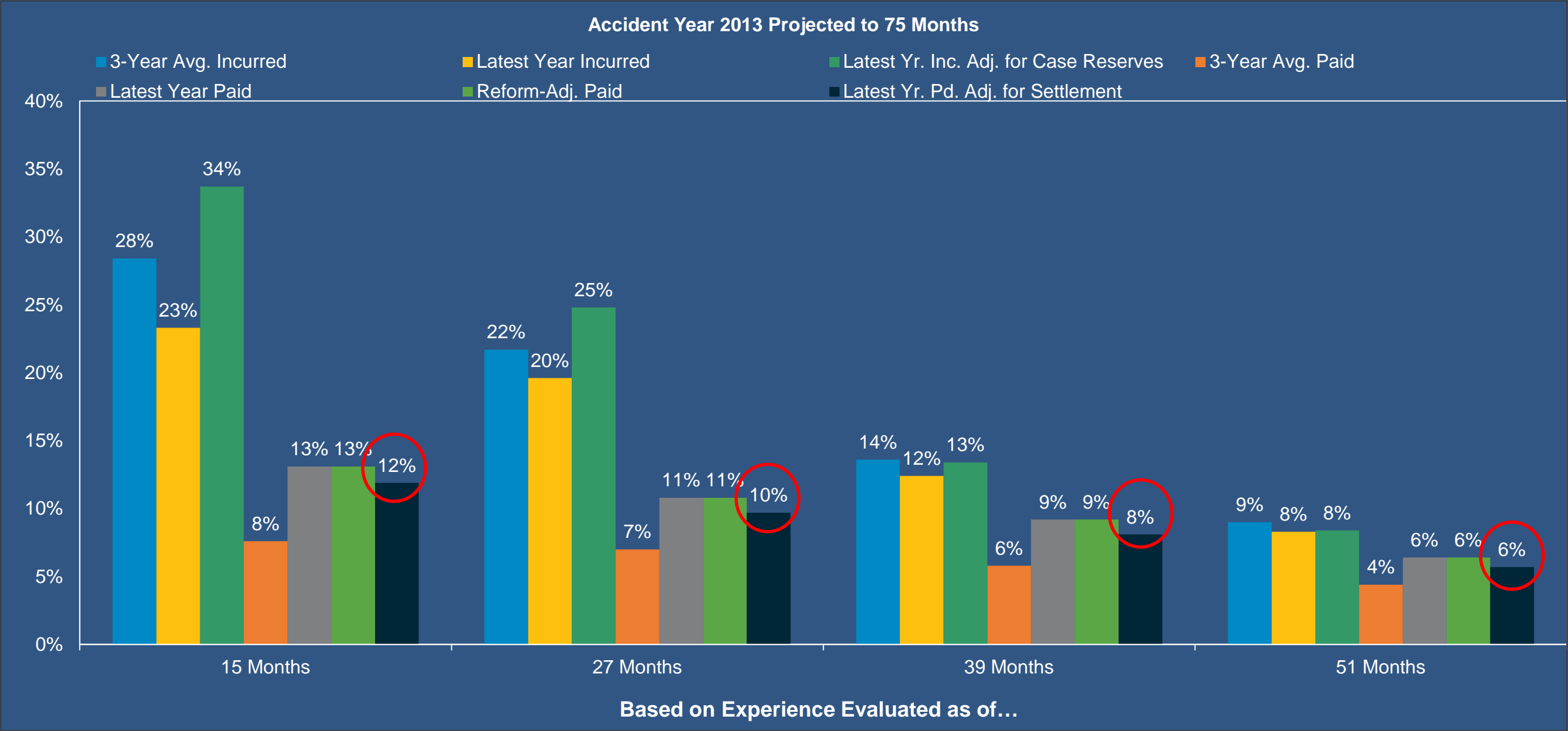
Indemnity Claim Frequency (Exhibit C21.1)



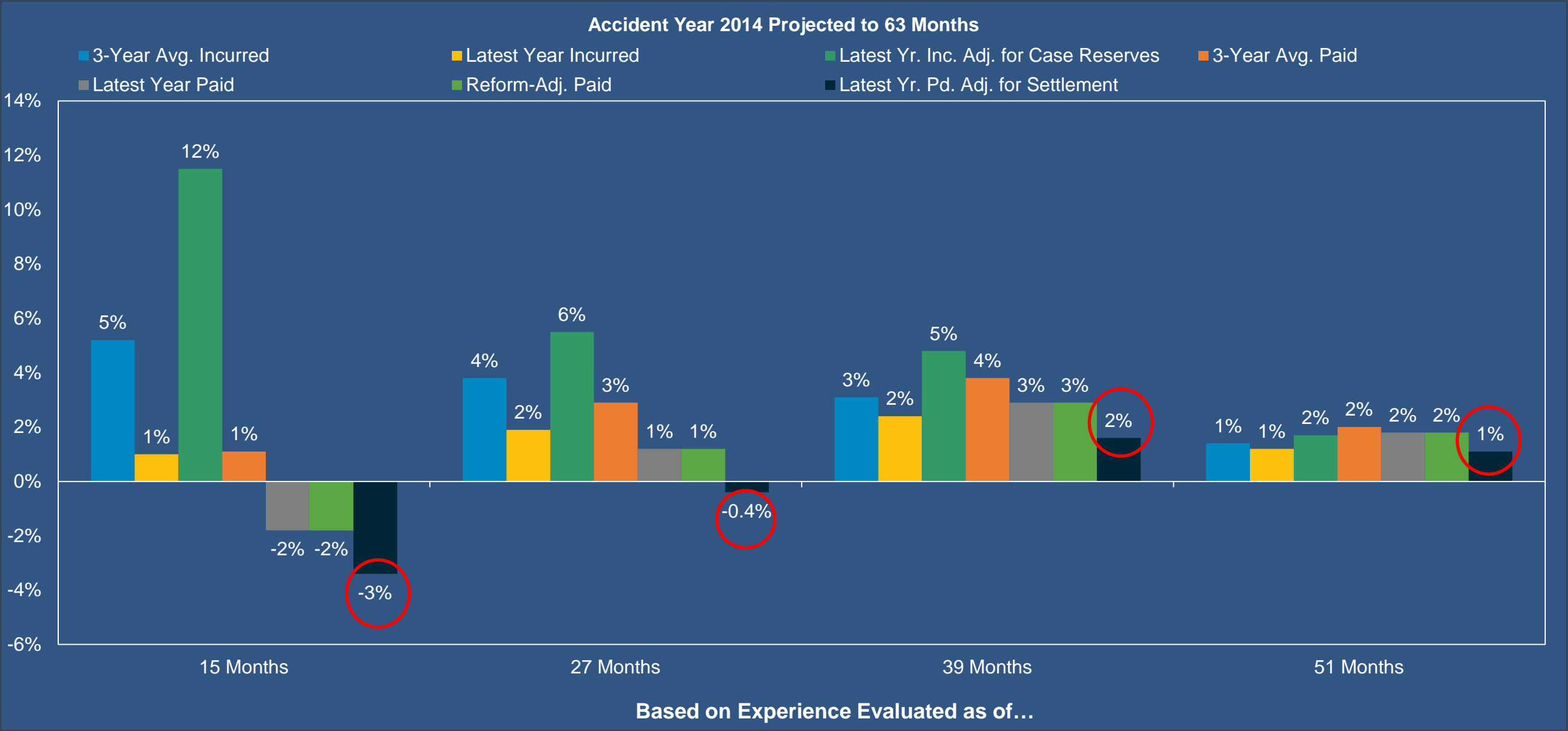
Comparison of Projected Loss Ratios and March 31, 2019 Experience – Indemnity (Exhibit D6.1)



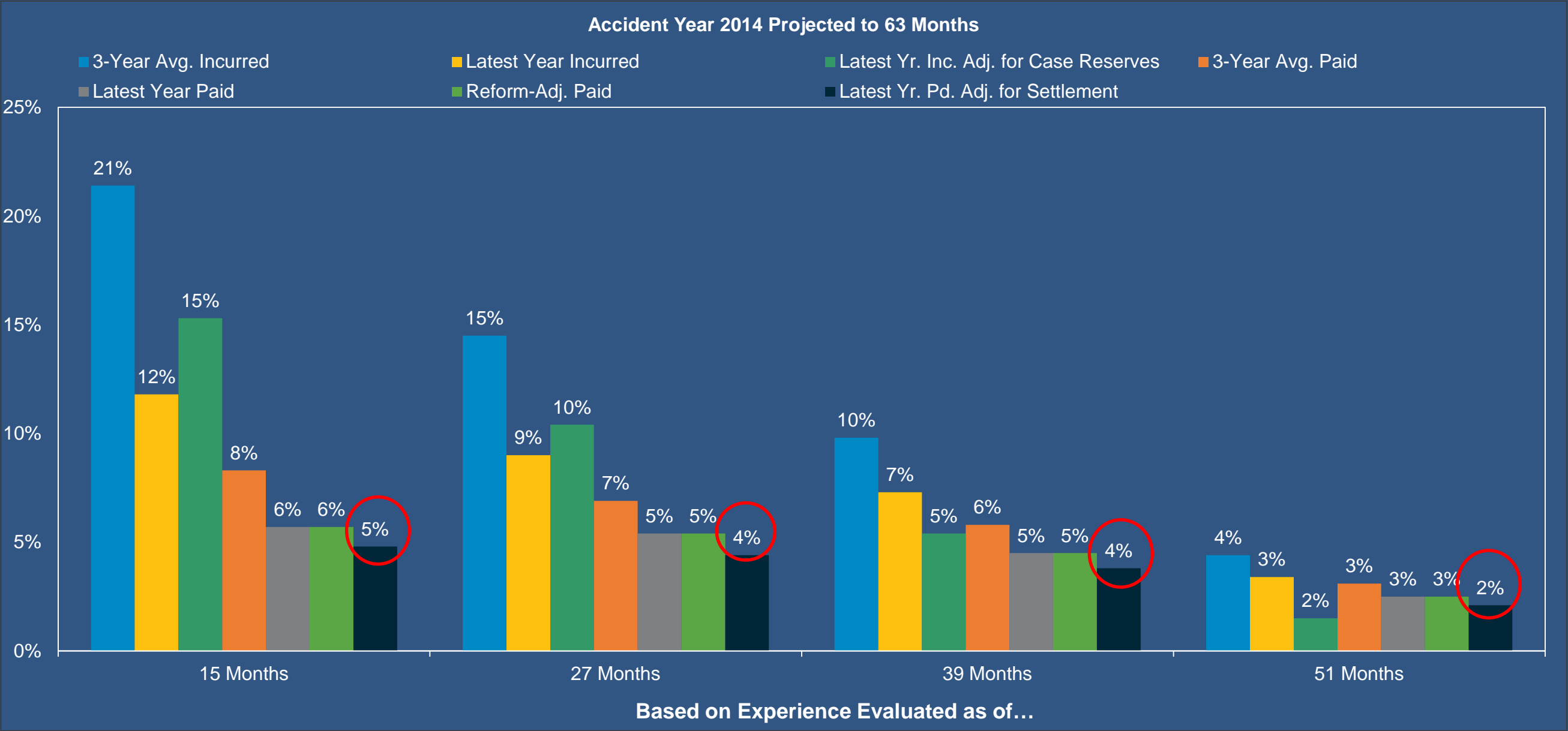
Comparison of Projected Loss Ratios and March 31, 2019 Experience – Medical (Exhibit D6.1)



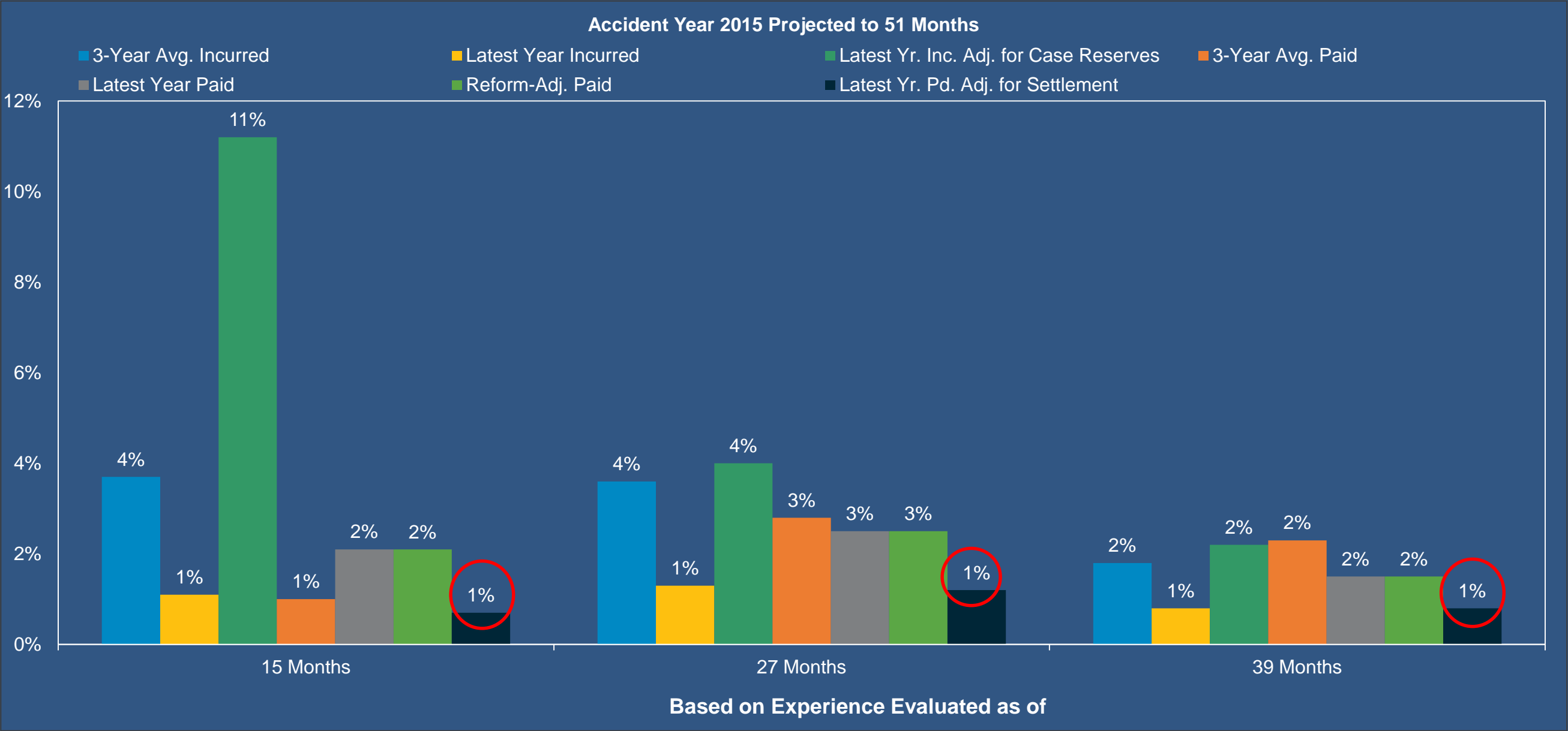
Comparison of Projected Loss Ratios and March 31, 2019 Experience – Indemnity (Exhibit D6.2)



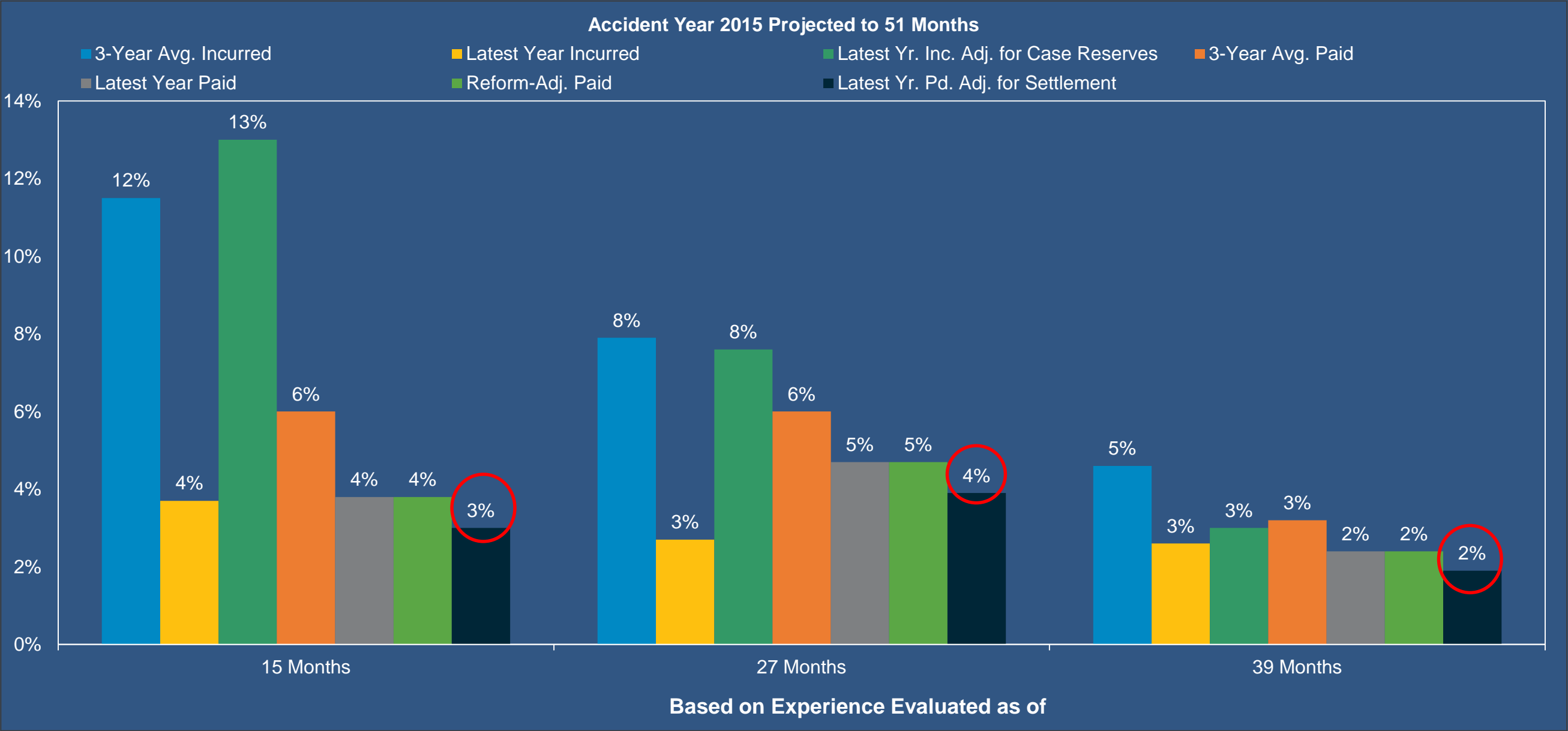
Comparison of Projected Loss Ratios and March 31, 2019 Experience – Medical (Exhibit D6.2)



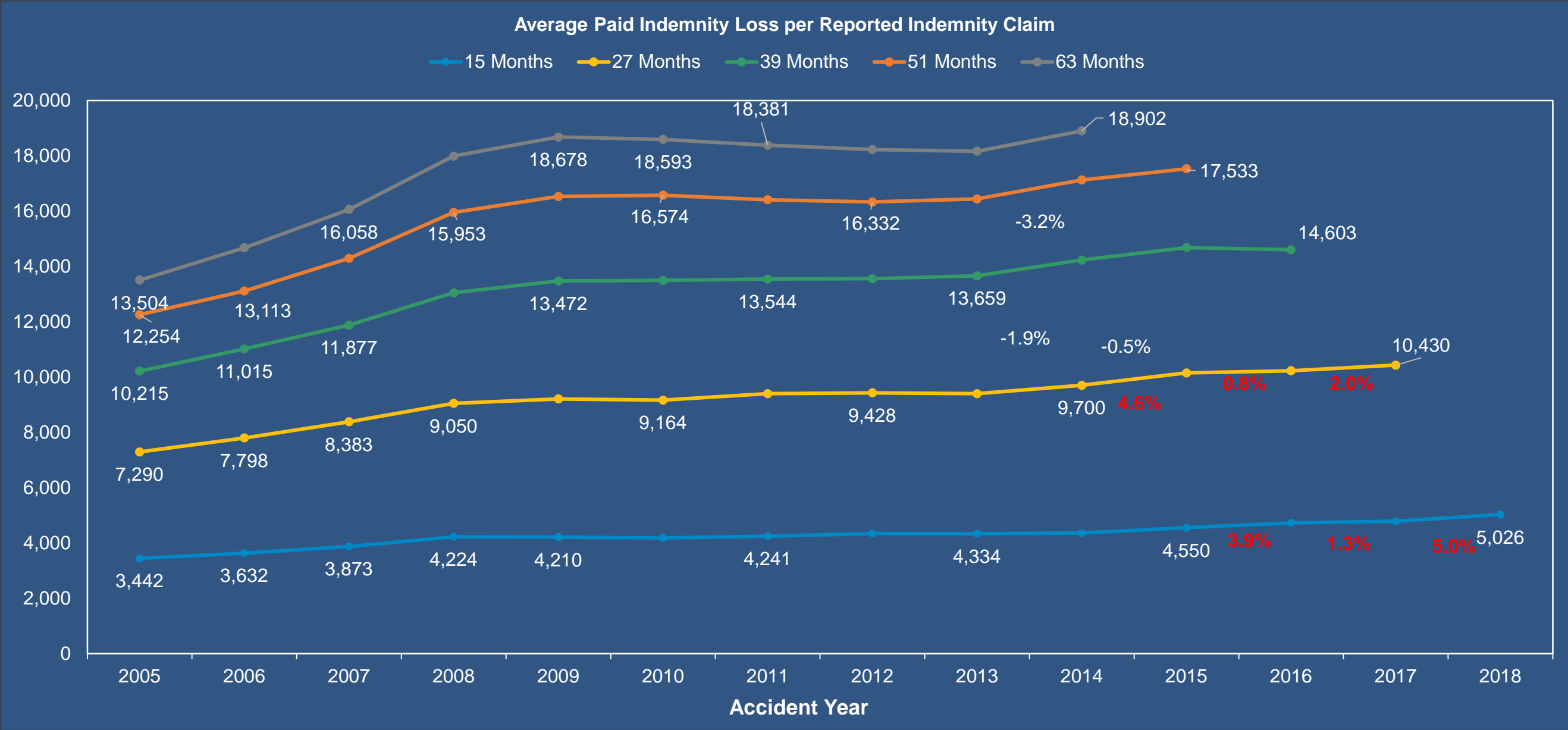
Comparison of Projected Loss Ratios and March 31, 2019 Experience – Indemnity (Exhibit D6.3)



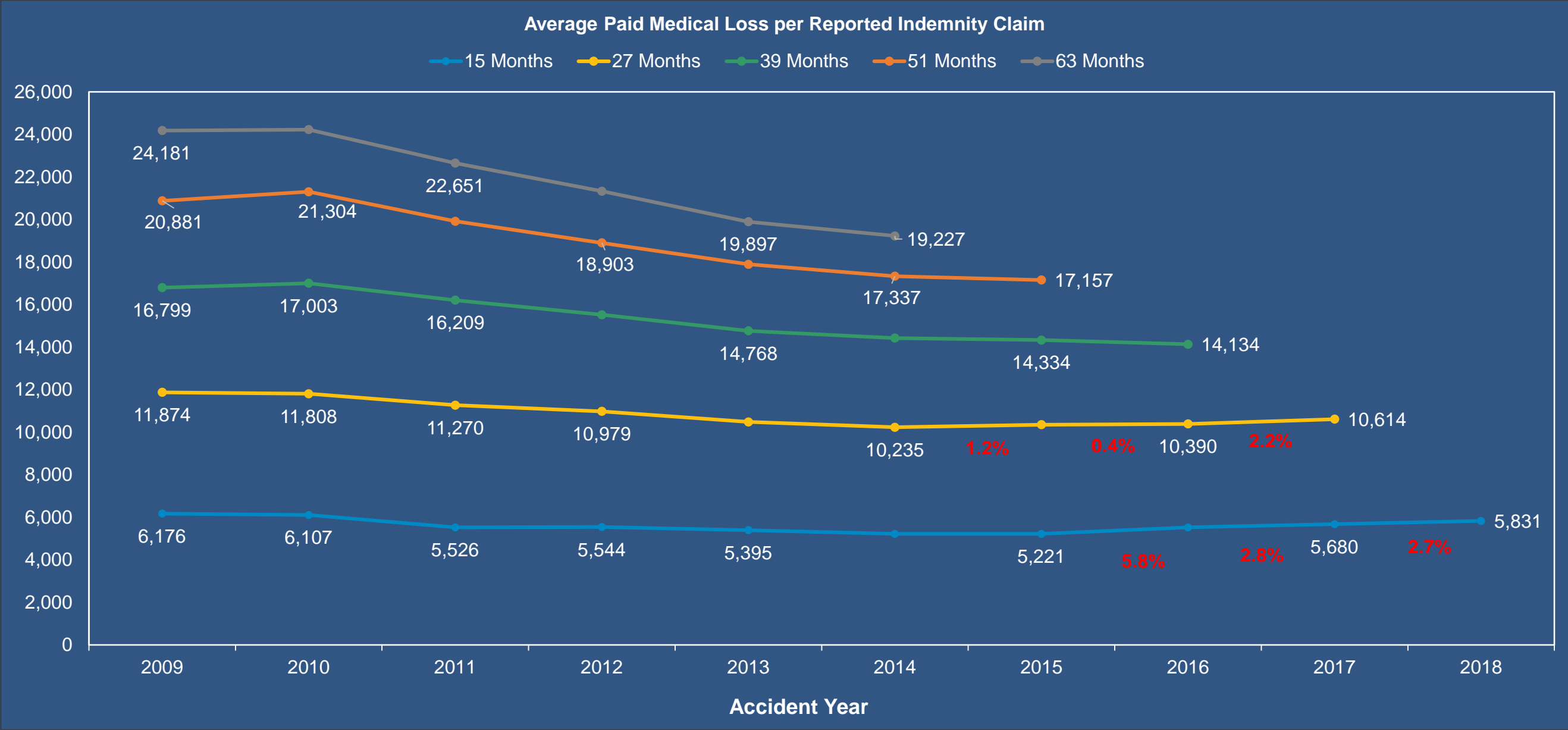
Comparison of Projected Loss Ratios and March 31, 2019 Experience – Medical (Exhibit D6.3)



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

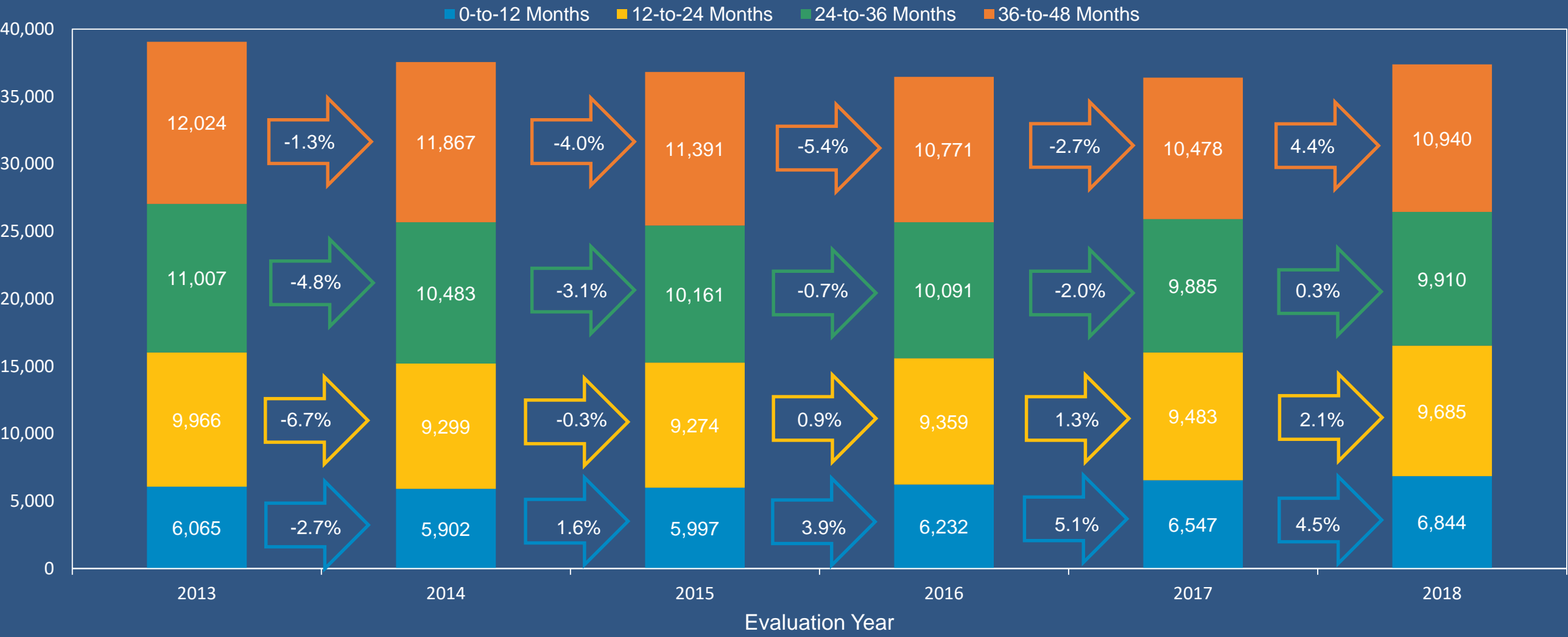


Severity – Paid Medical per Indemnity Claim (Exhibit S4.2)



Severity – Incremental Paid Medical per Open Indemnity Claim During the Development Period (Exhibit S7 as of December 31, 2018)

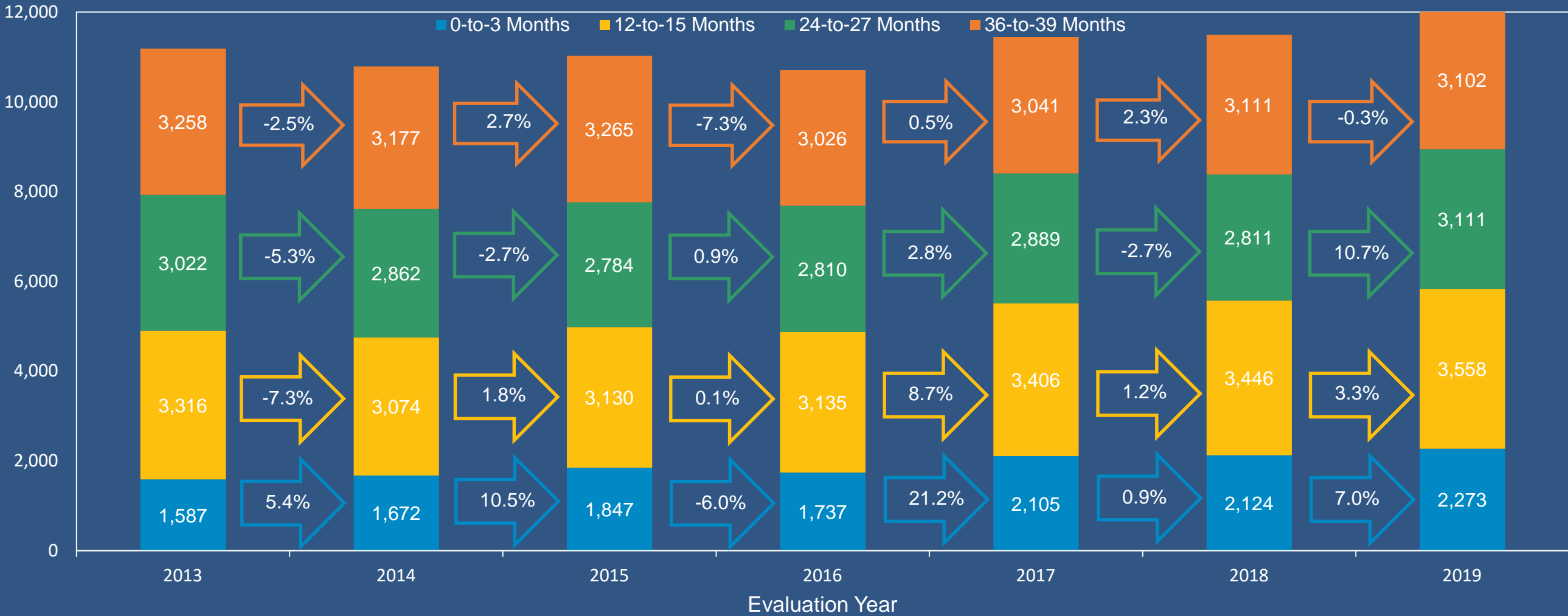
Average Paid Medical per Open Indemnity Claim during the Development Period



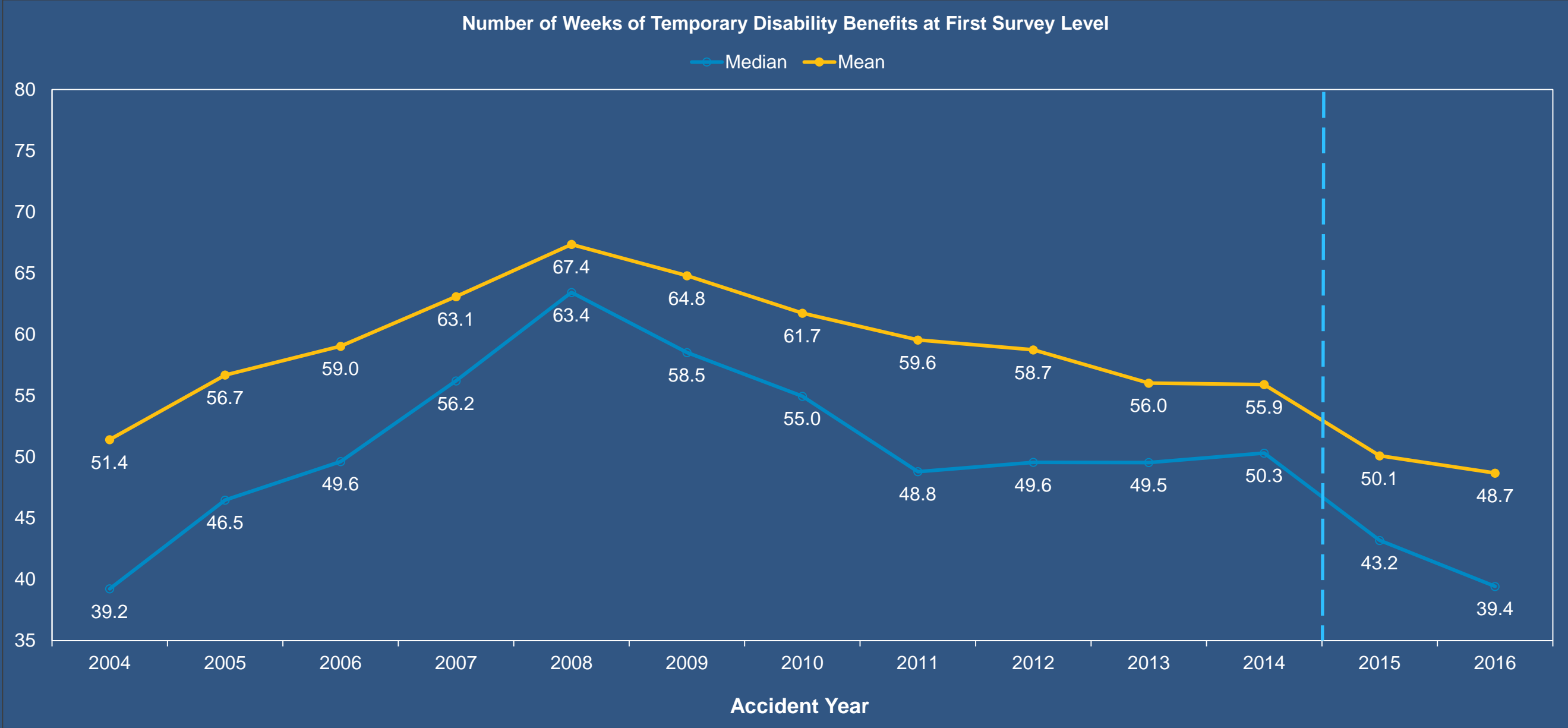
Severity – Incremental Paid Medical per Open Indemnity Claim During the Development Period (Exhibit S7 as of March 31, 2019)

As of March 31, 2019

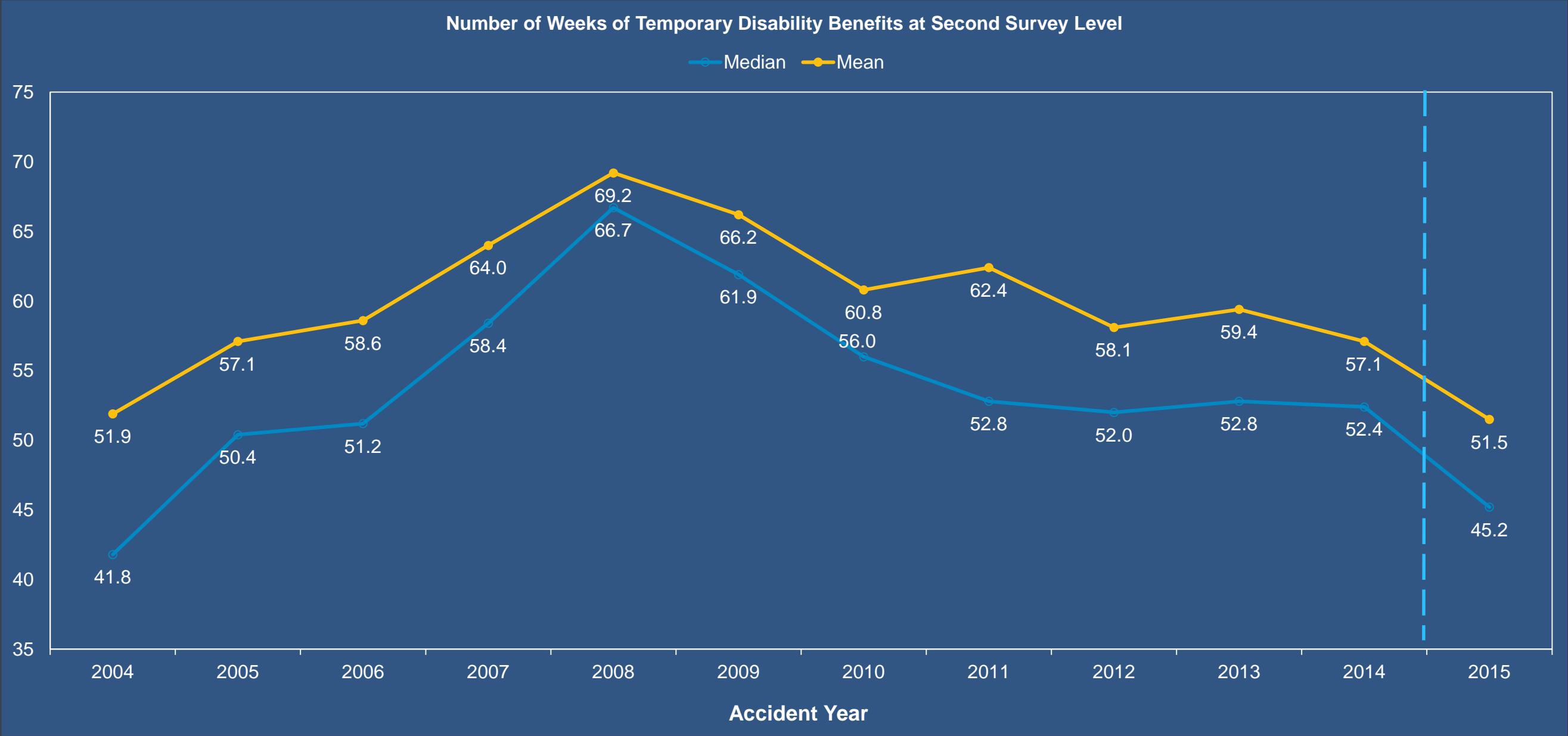
Average Paid Medical per Open Indemnity Claim during the Development Period



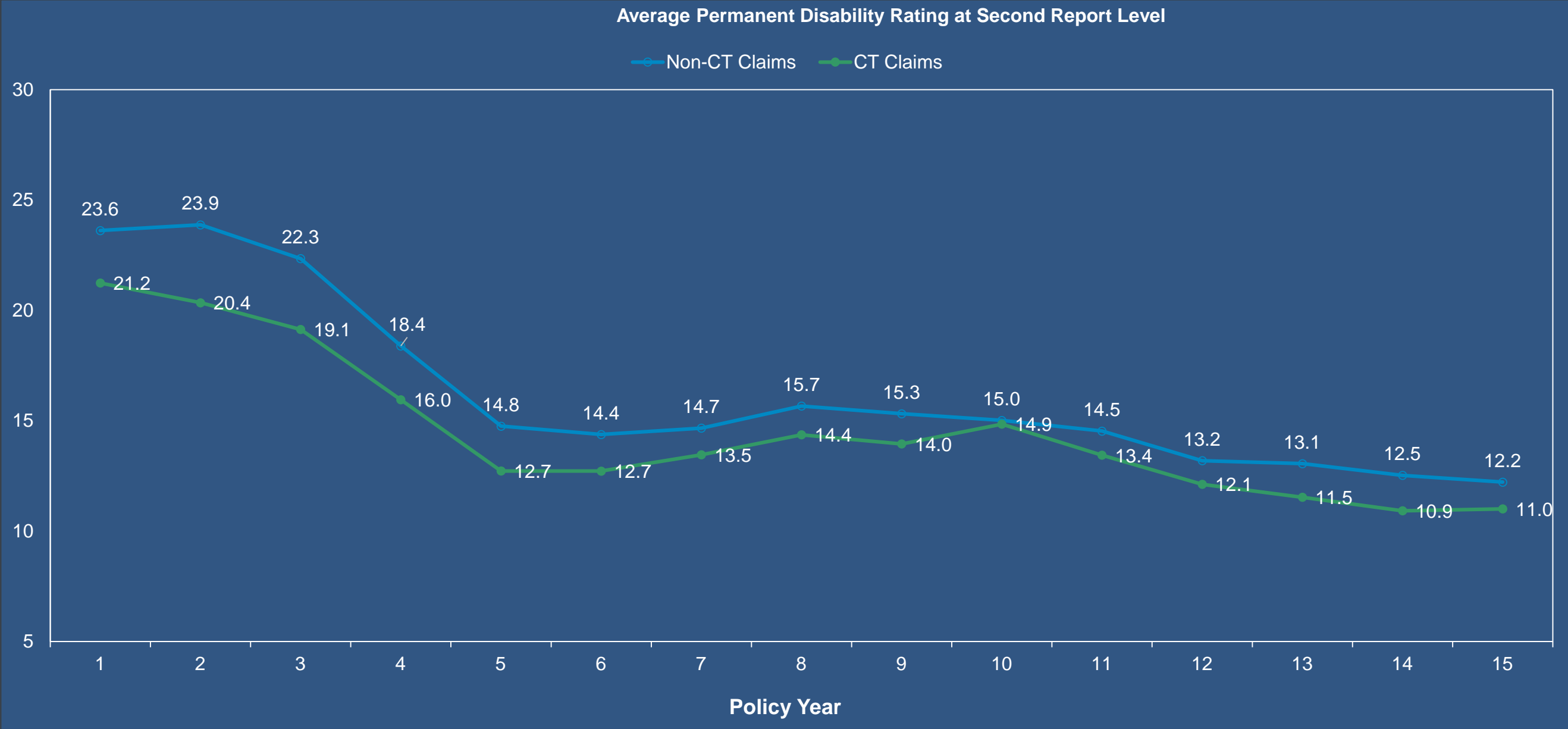
Temporary Disability Duration on Permanent Disability Claims (Exhibit S10.2)



Temporary Disability Duration on Permanent Disability Claims (Exhibit S10.2)

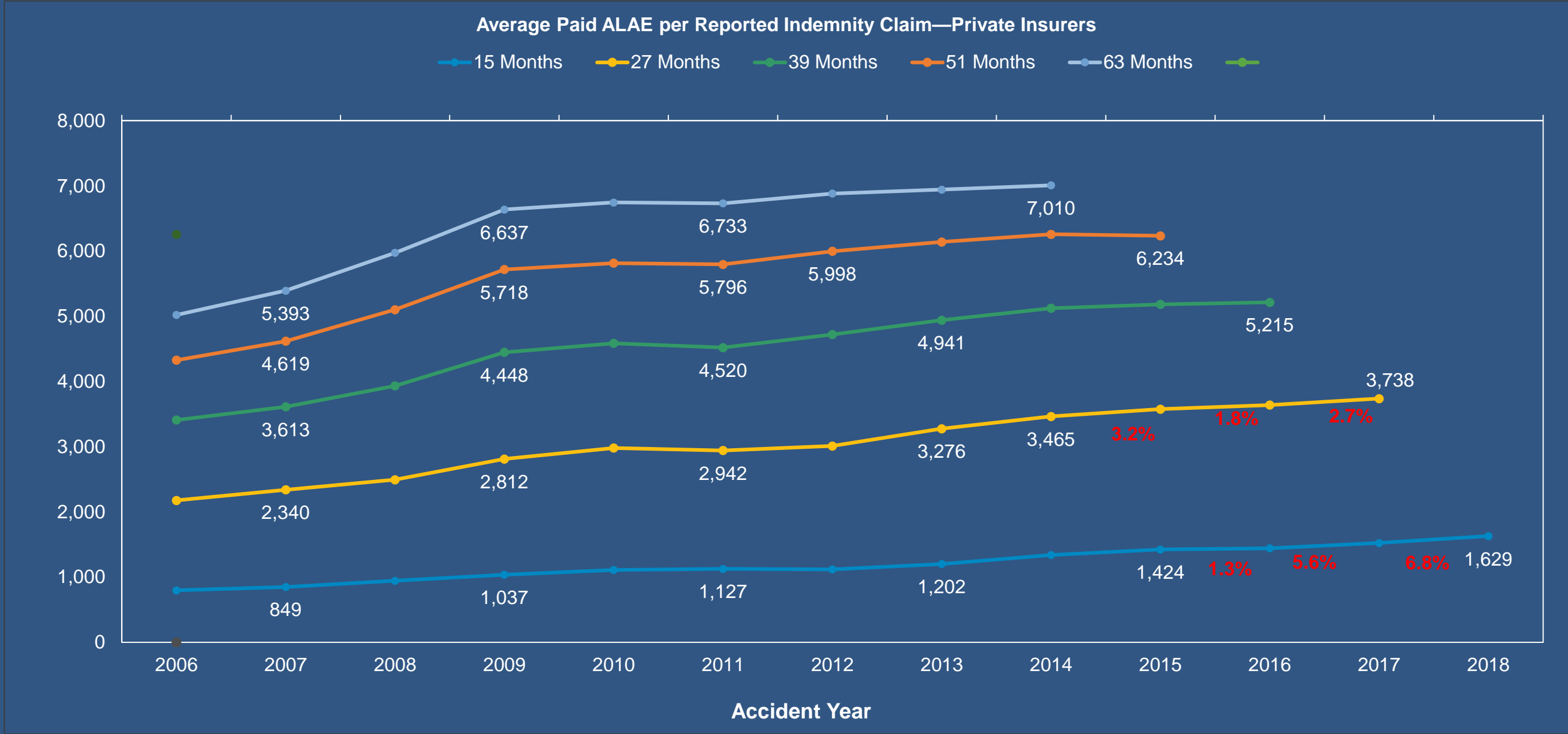


Average Permanent Disability Rating (Exhibit S11)

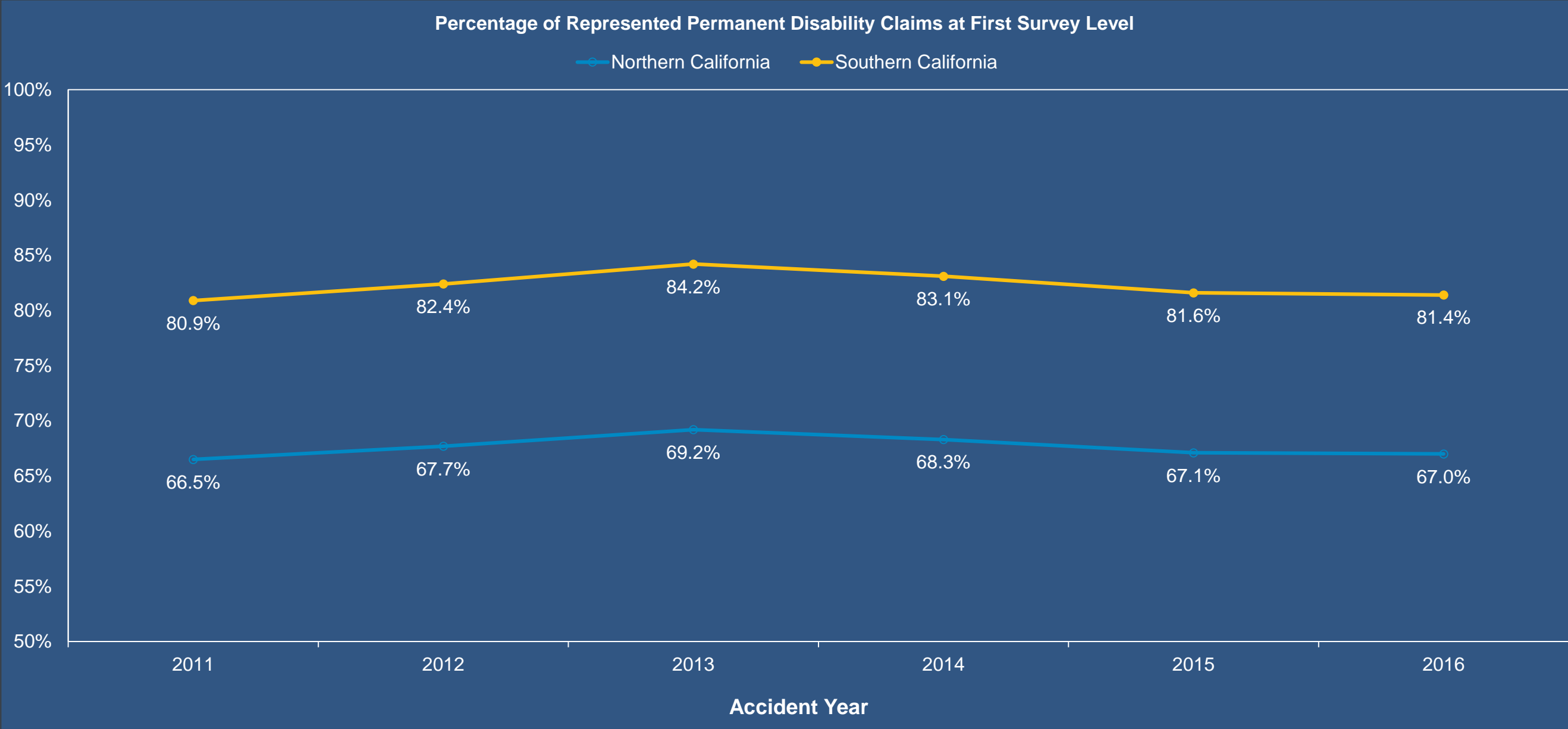


Paid ALAE per Indemnity Claim – Private Insurers

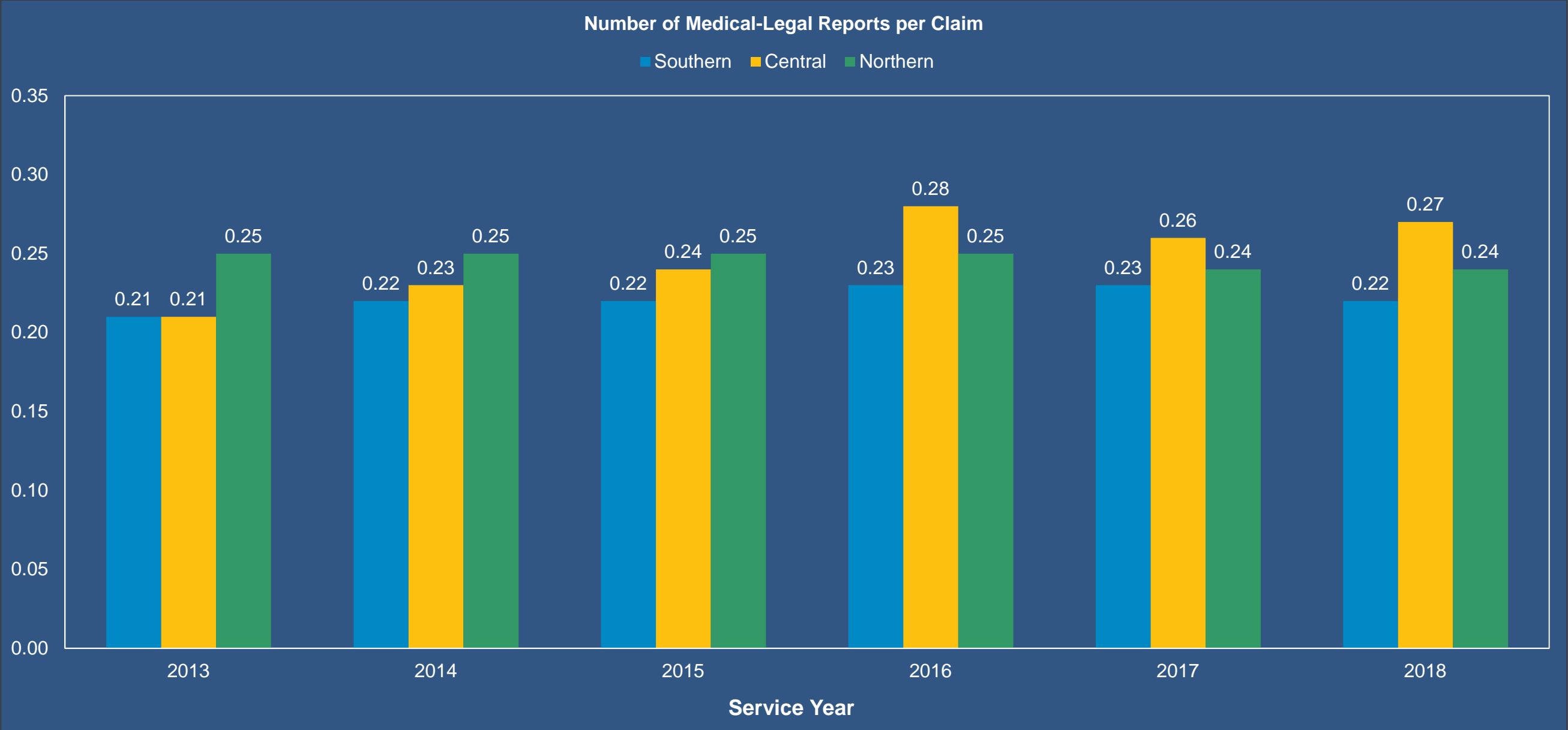
(Exhibit E5)



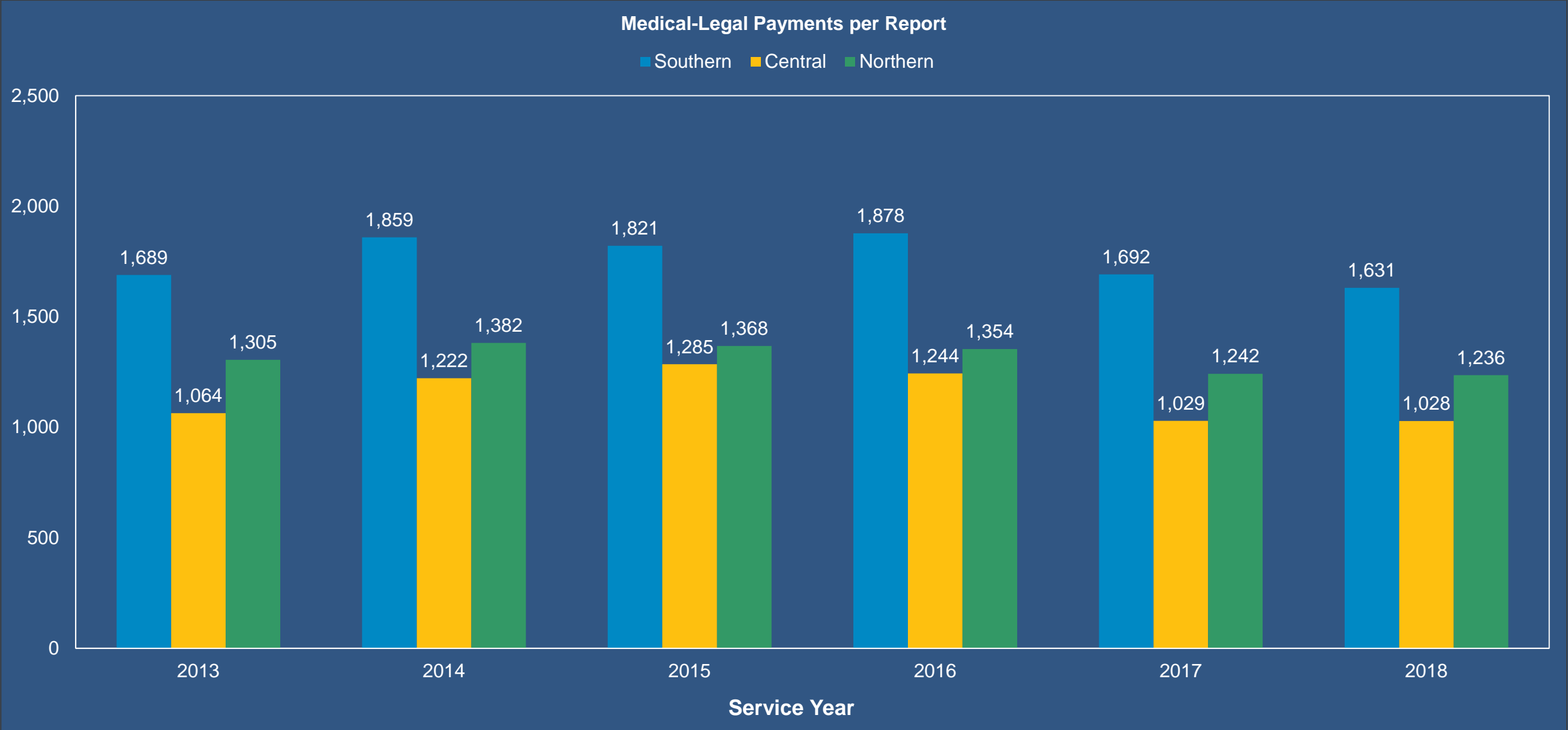
Represented Permanent Disability Claims (Exhibit E7)



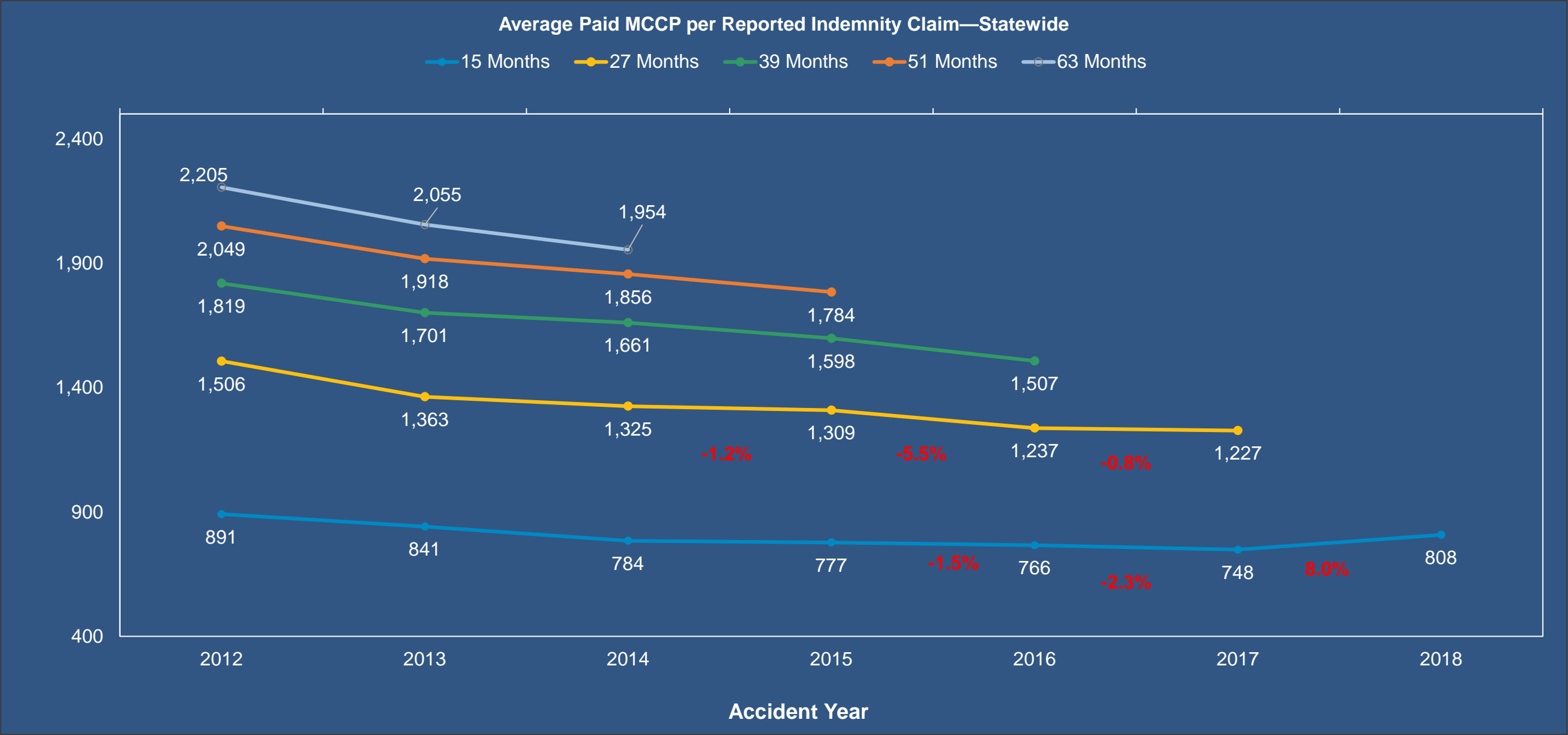
Medical-Legal Reports – Number of Reports per Claim (Exhibit E13)



Medical-Legal Reports – Payments per Report (Exhibit E13)



Paid MCCP per Indemnity Claim – Statewide (Exhibit E15)



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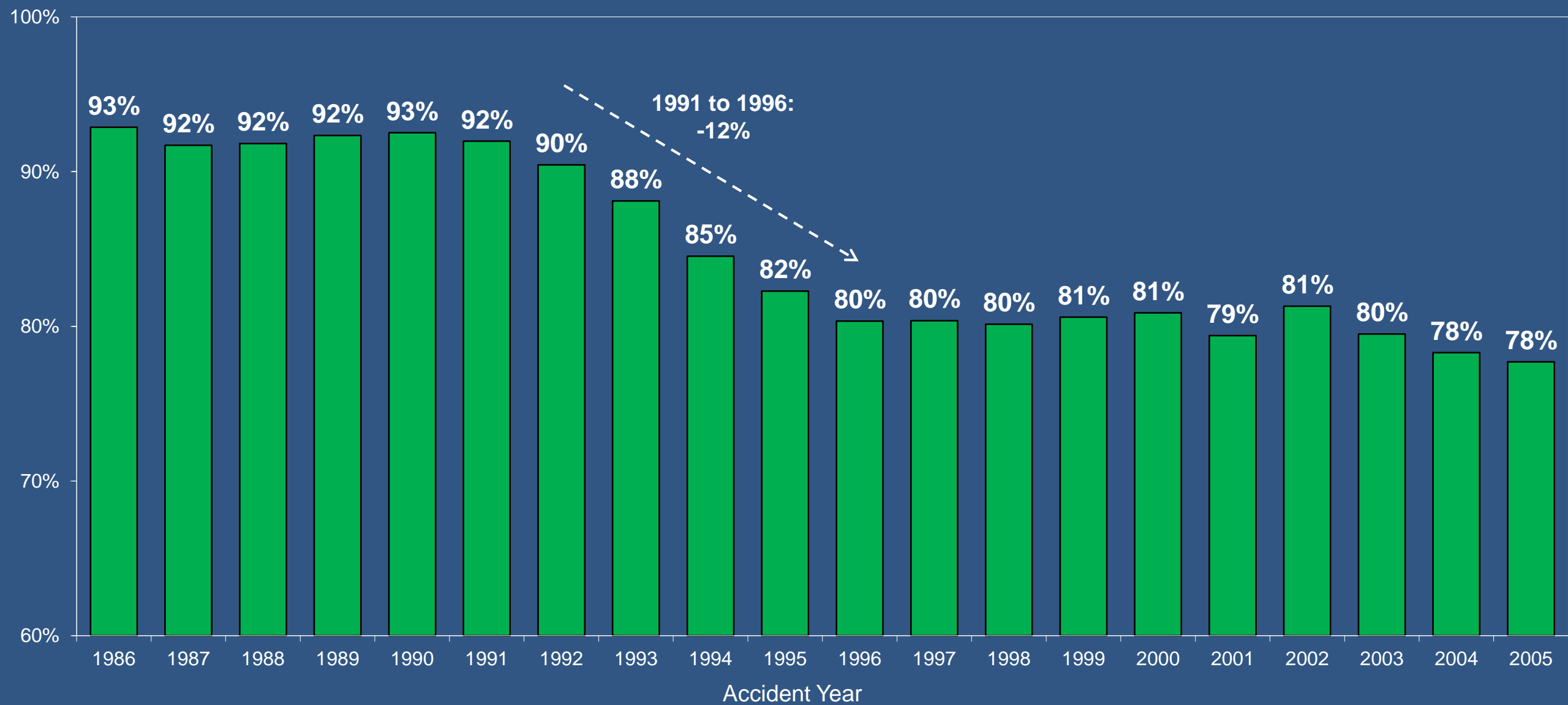
Review of Loss Development Tail Methodology



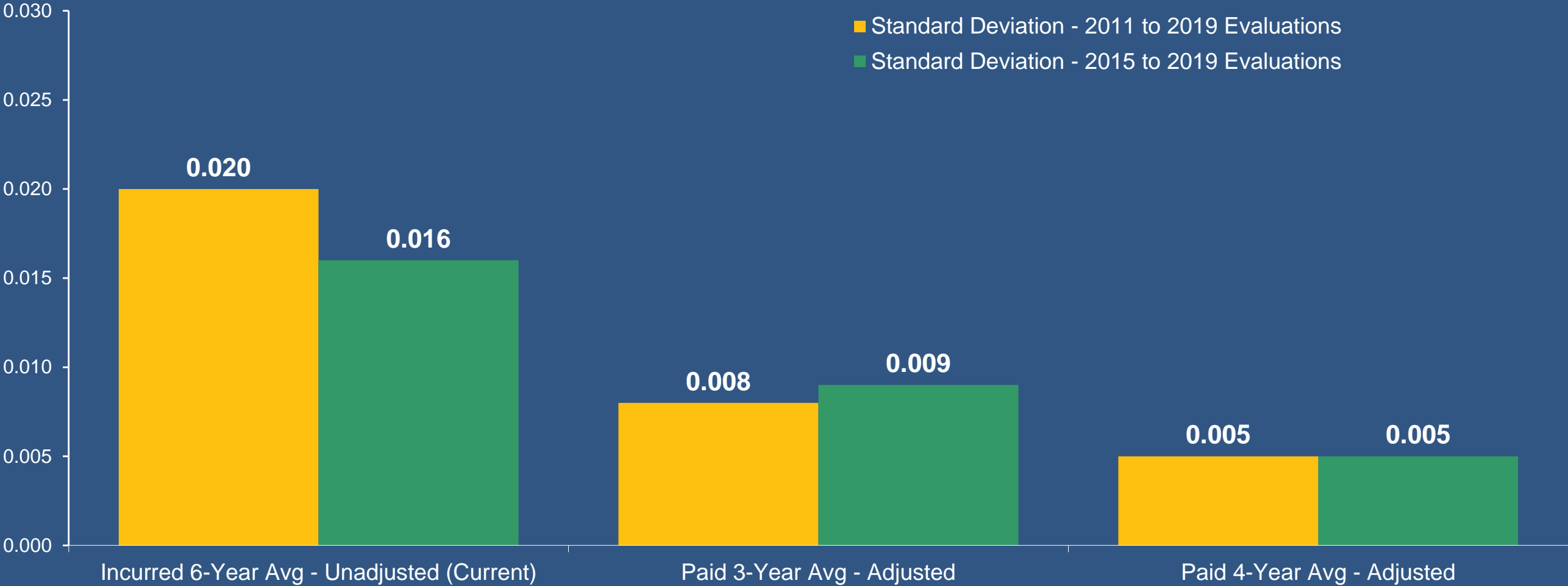
Current Tail Development Methodology

- 6-year average incurred development applied from 255 to 411 months
 - Incurred development used in lieu of paid due to dramatic shift in payment pattern in mid-1990s (2014 study)
 - Use of pre-1998 accident year paid age-to-age factors driving sharp differences in paid and incurred projections
- Tail factor after 411 months based on inverse power curve fit to incurred development (2016 study)
 - Fit to 6-year average of 111-to-123 through 339-to-351 factors
 - Extrapolated to 80 development years
 - Latest 3 CYs excluded based on anomalous incurred development over last several years
- At 3/18/2019 meeting, Committee expressed concern with incurred tail development given recent anomalous pattern
 - Recommended review of approaches including paid development prior to next annual filing
- Very little indemnity development in tail so staff study focuses on medical development

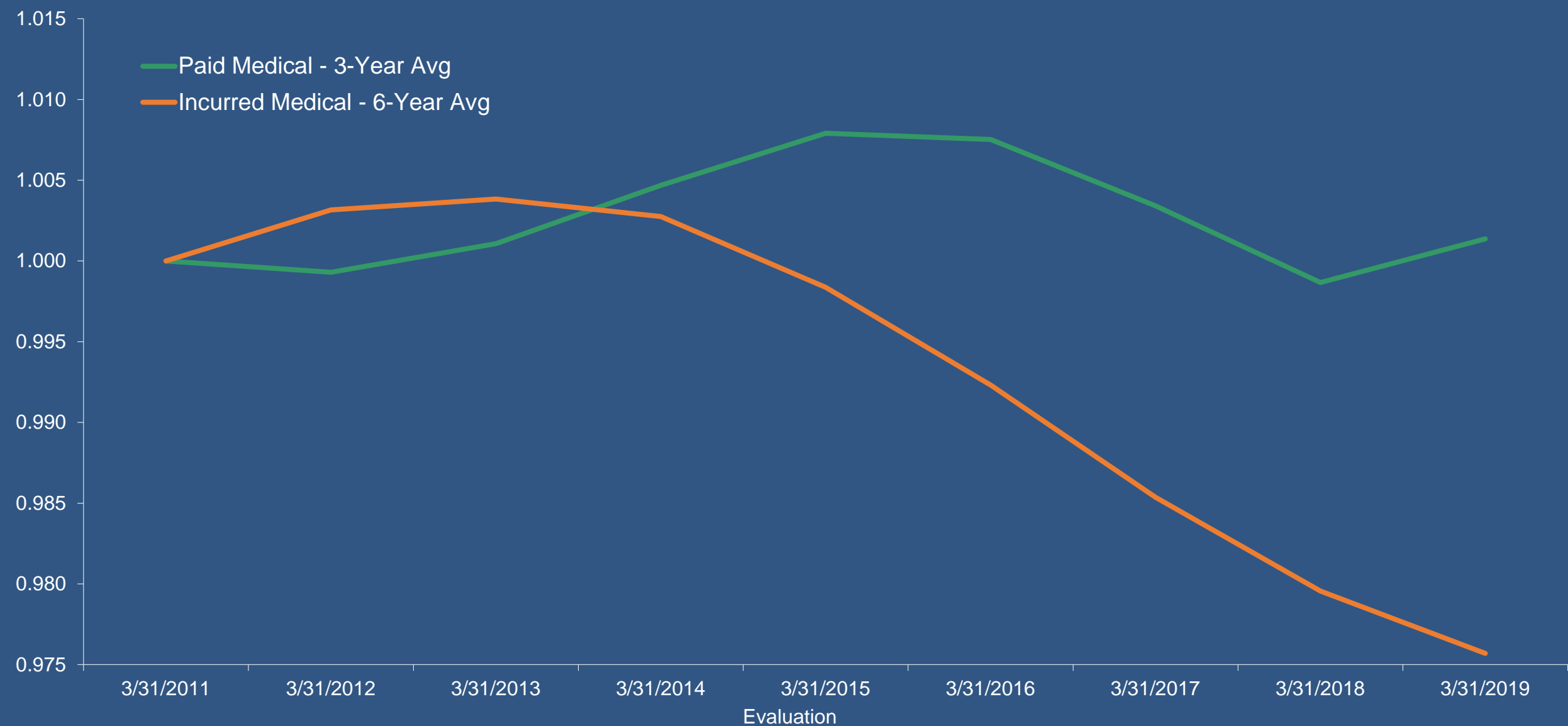
Basis of 2014 Methodology Change – Paid Medical @ 84 Months as % of Paid Medical @ 168 Months



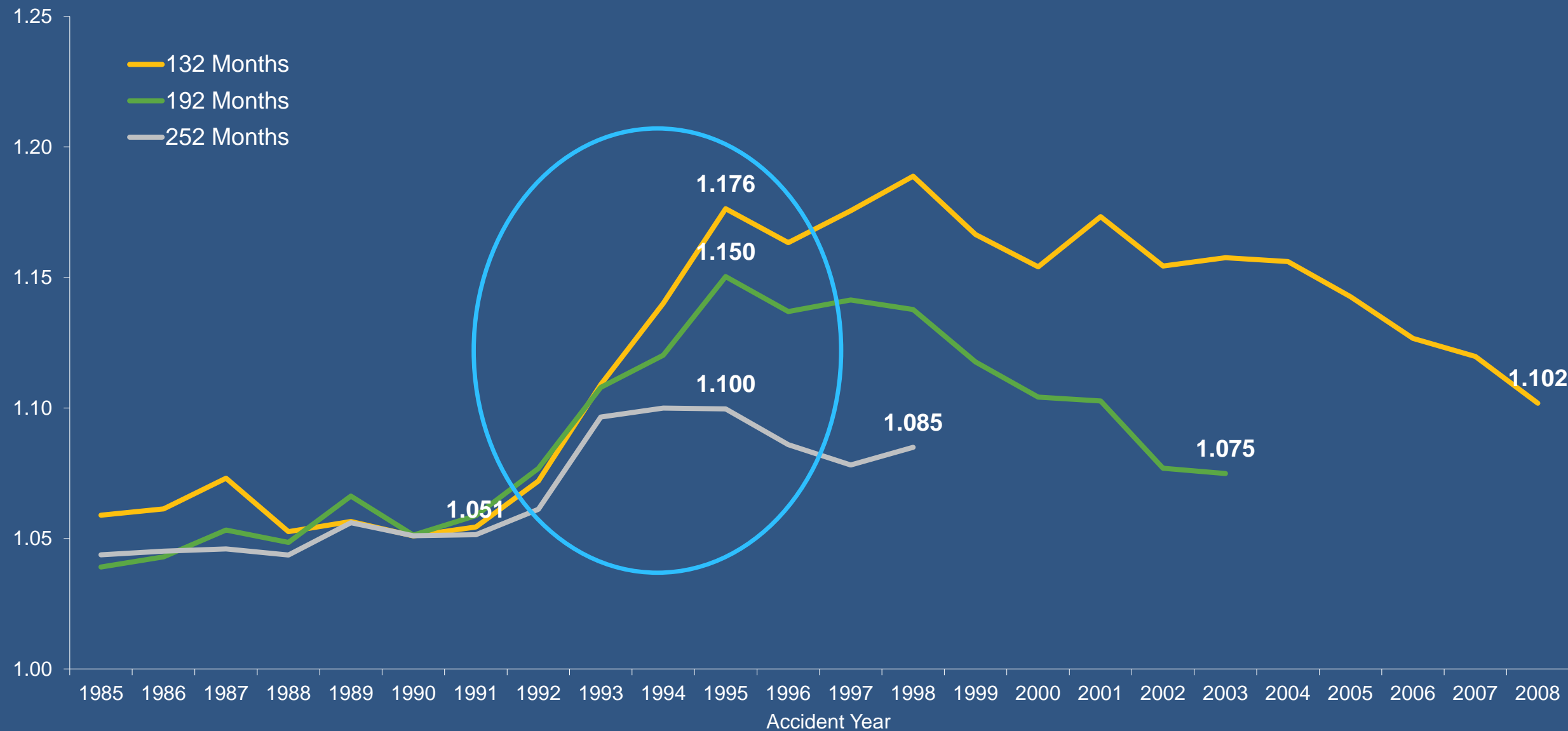
Review of Alternative Medical Tail Development Fits (Exhibit 1.2)



Medical 255-to-351 Factors Indexed to 3/31/2011 Evaluation



Medical Incurred to Paid Ratios (Exhibit 2.2)



Review of Tail Development Methodology

- Paid 351-to-Ult. factors significantly more stable than incurred factors
 - 4-year average somewhat more stable than 3-year average
- Paid 255-to-351 factors also more stable than incurred
- Accuracy of later term development factors difficult to assess
- Significant shift in incurred to paid ratio in mid-1990s
- Recent ratios have decreased but not to 1990s level
- Impact of shifting to using paid for all development beyond 255 months still significant

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3/31/2019
Experience –
Review of
Methodologies



Updated Summary of 3/31/2019 Experience

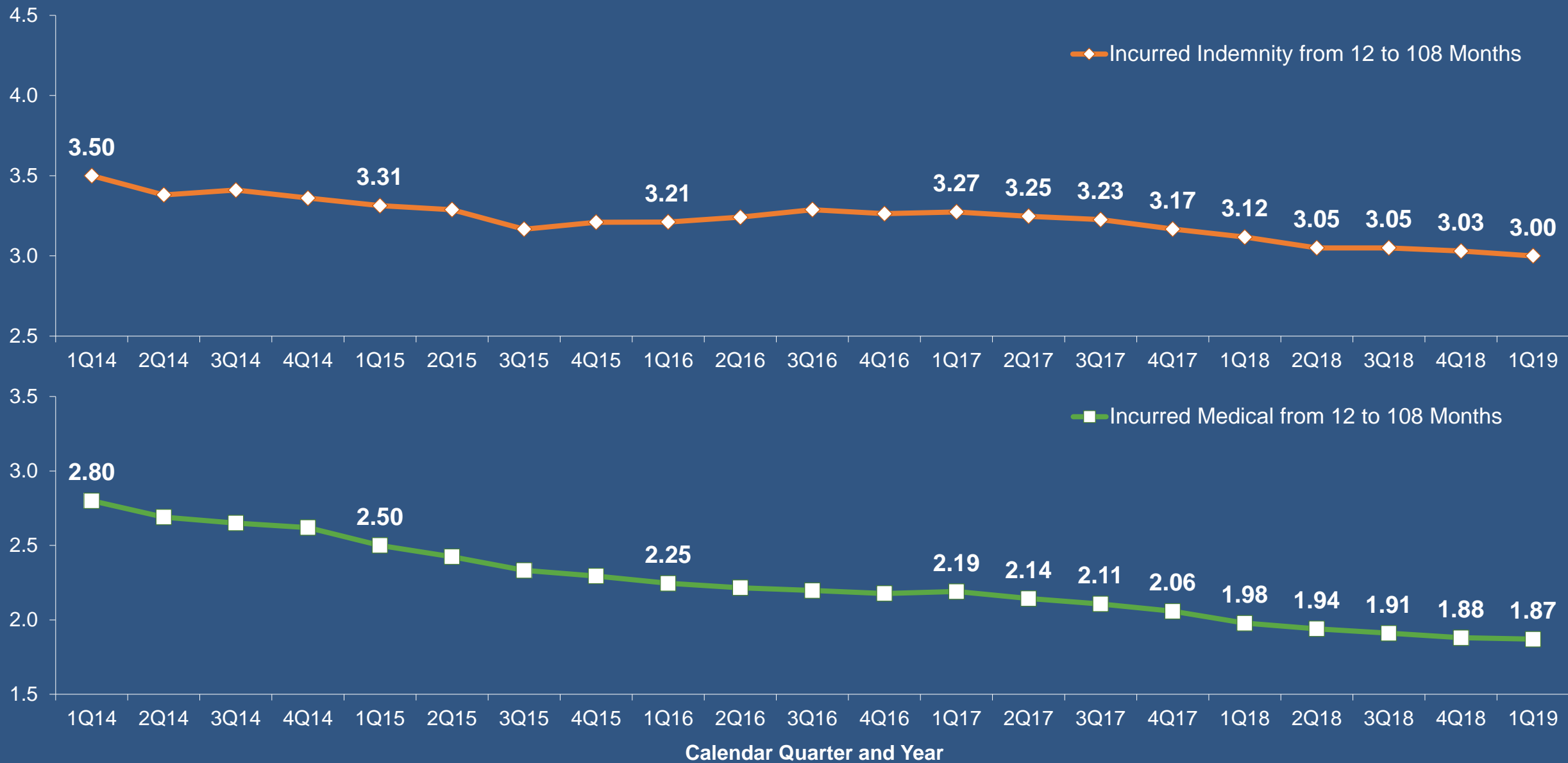
- Approximately 100% of market reflected
- Methodologies generally consistent with 6/14/2019 Agenda and 1/1/2019 Filing
 - Includes adjustment to medical loss development for pharmaceutical cost declines (adopted at 6/14/2019 meeting)
 - Medical paid-to-date loss ratios and on-level factors also updated to be consistent with adjustment
 - Impact of wage inflation on indemnity on-leveling updated with latest modeled and actual data (per 3/18/2019 meeting)
- Projected loss ratio for 2020 policies: 0.560
 - Includes impact of Drug Formulary as separate adjustment to projected medical loss ratio
- 6 point decrease from 1/1/2019 Filing projection based on 3/31/2019 experience
- 1 point increase from 6/14/2019 Agenda projection (0.549) driven by refined medical loss development methodology

Approximate Change in Loss Ratio Projection

Factor	Change in Percentage Points From 1/1/2019 Filing	Change in Percentage Points From 4/2/2019 Agenda
Lower Loss Development Emergence	-3.5	-0.5
Inclusion of 2018 Accident Year	-1.0	---
Updated Wage Forecast	+0.5	+0.5
Updated Frequency Trends	-0.5	---
Trend to Policy Year 2020	-2.0	-1.5
Medical Loss Development Methodology Adjustments	-0.3	---
Reflect Impact of Drug Formulary	-0.2	---
Refined Medical Loss Development Method	+1.0	+1.0
Total (to 6/14/2019 Agenda)	-6.0	-0.5

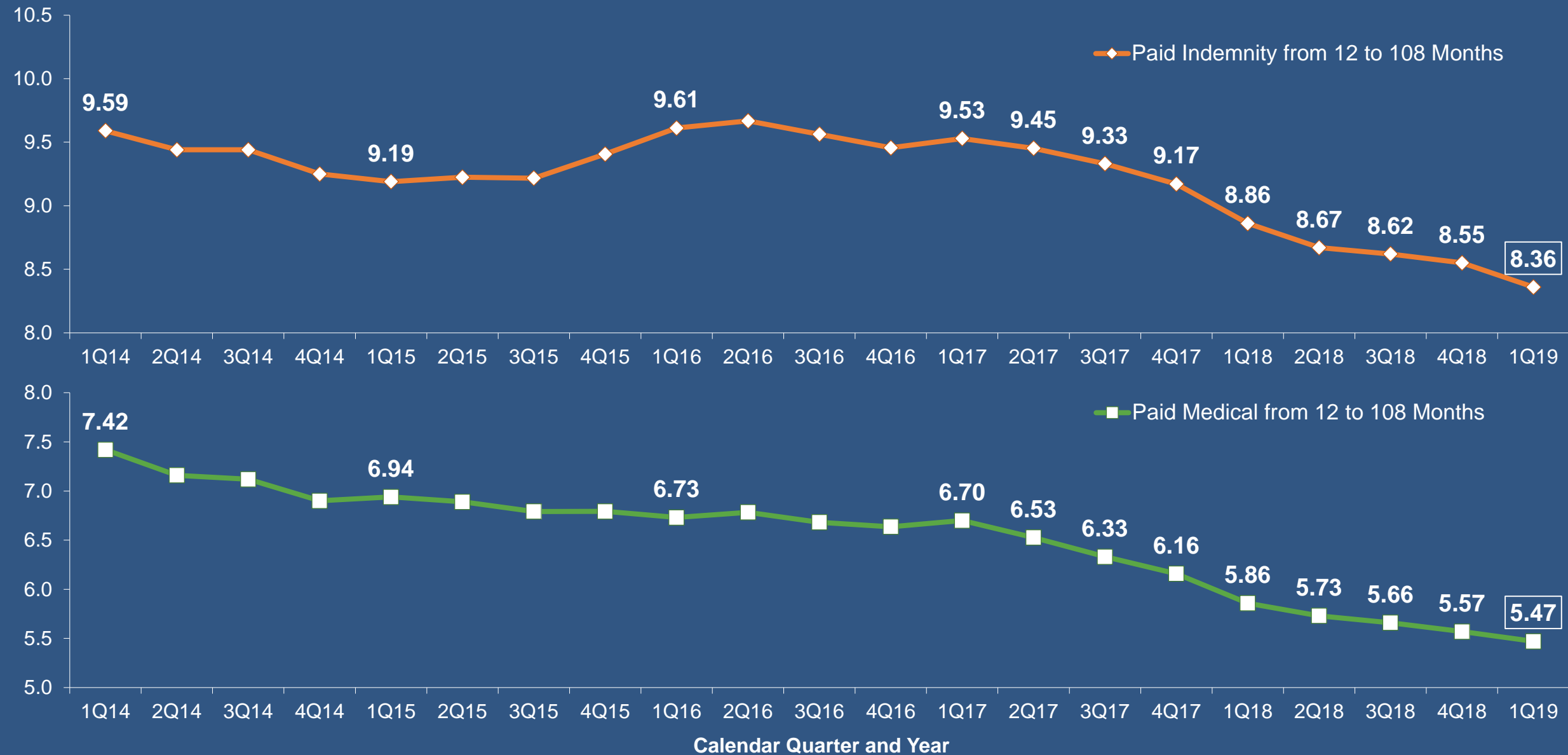
Cumulative Incurred Development from 12 to 108 Months

As of March 31, 2019



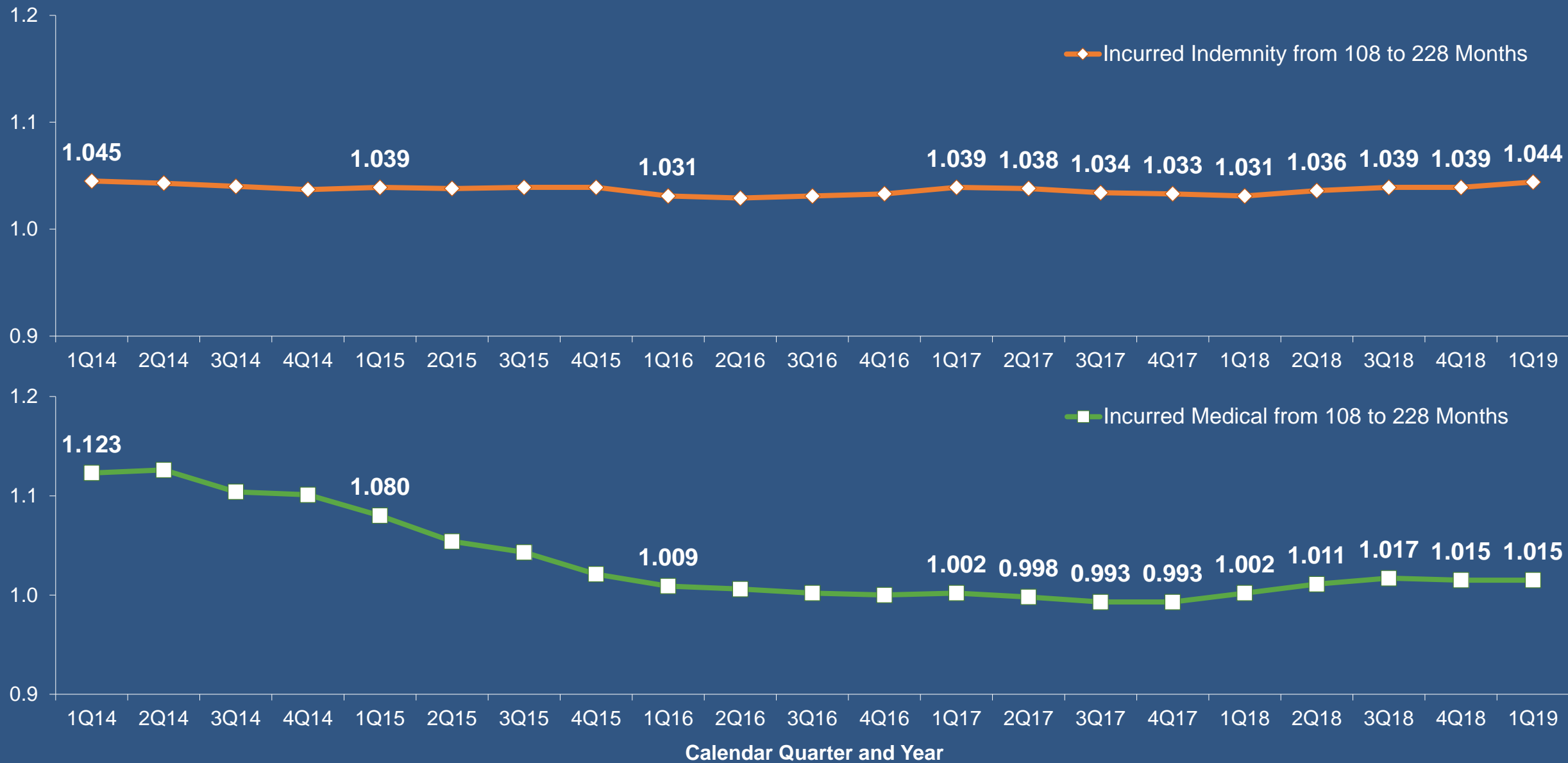
Cumulative Paid Development from 12 to 108 Months

As of March 31, 2019



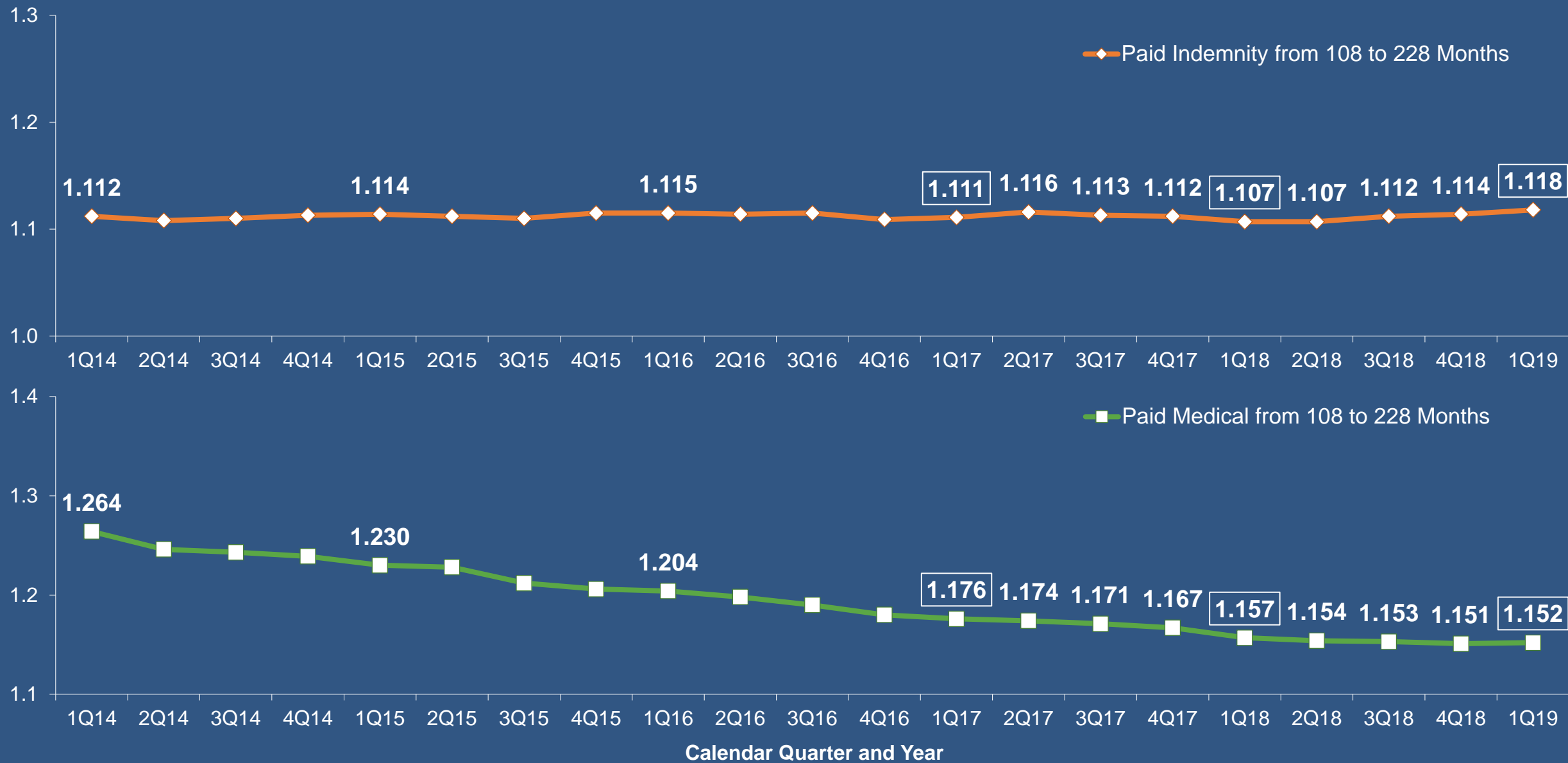
Cumulative Incurred Development from 108 to 228 Months

As of March 31, 2019



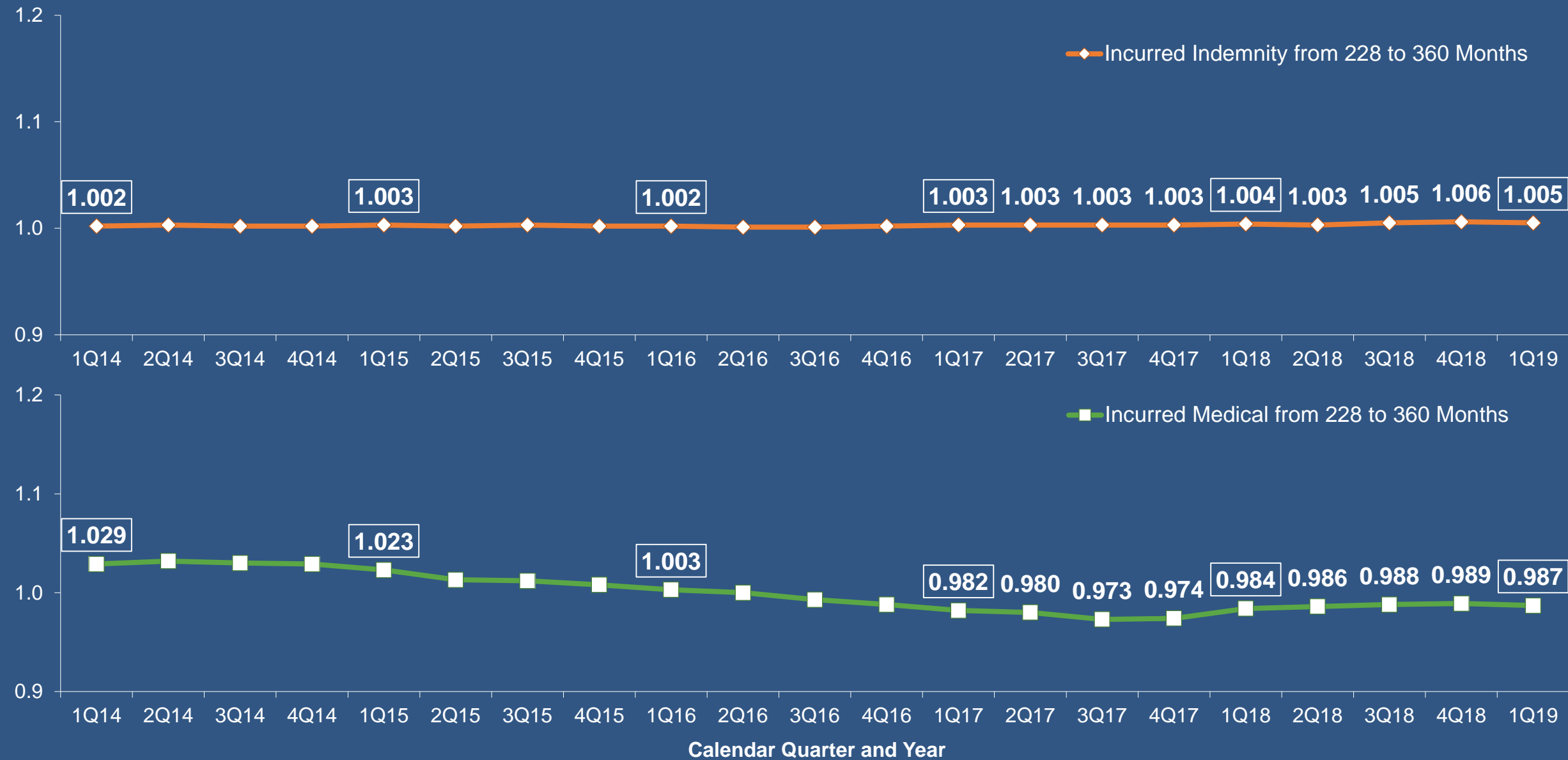
Cumulative Paid Development from 108 to 228 Months

As of March 31, 2019



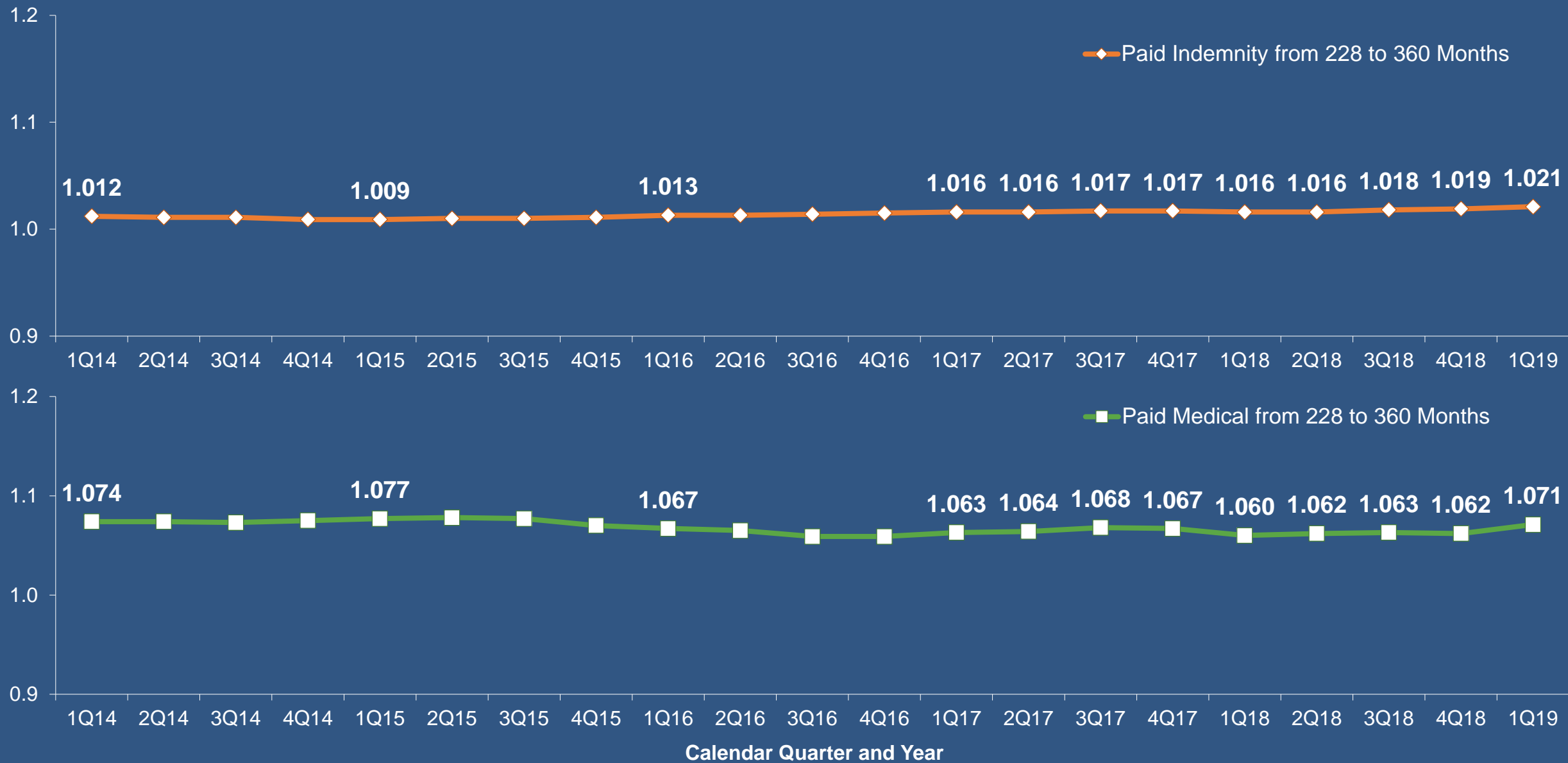
Cumulative Incurred Development from 228 to 360 Months

As of March 31, 2019



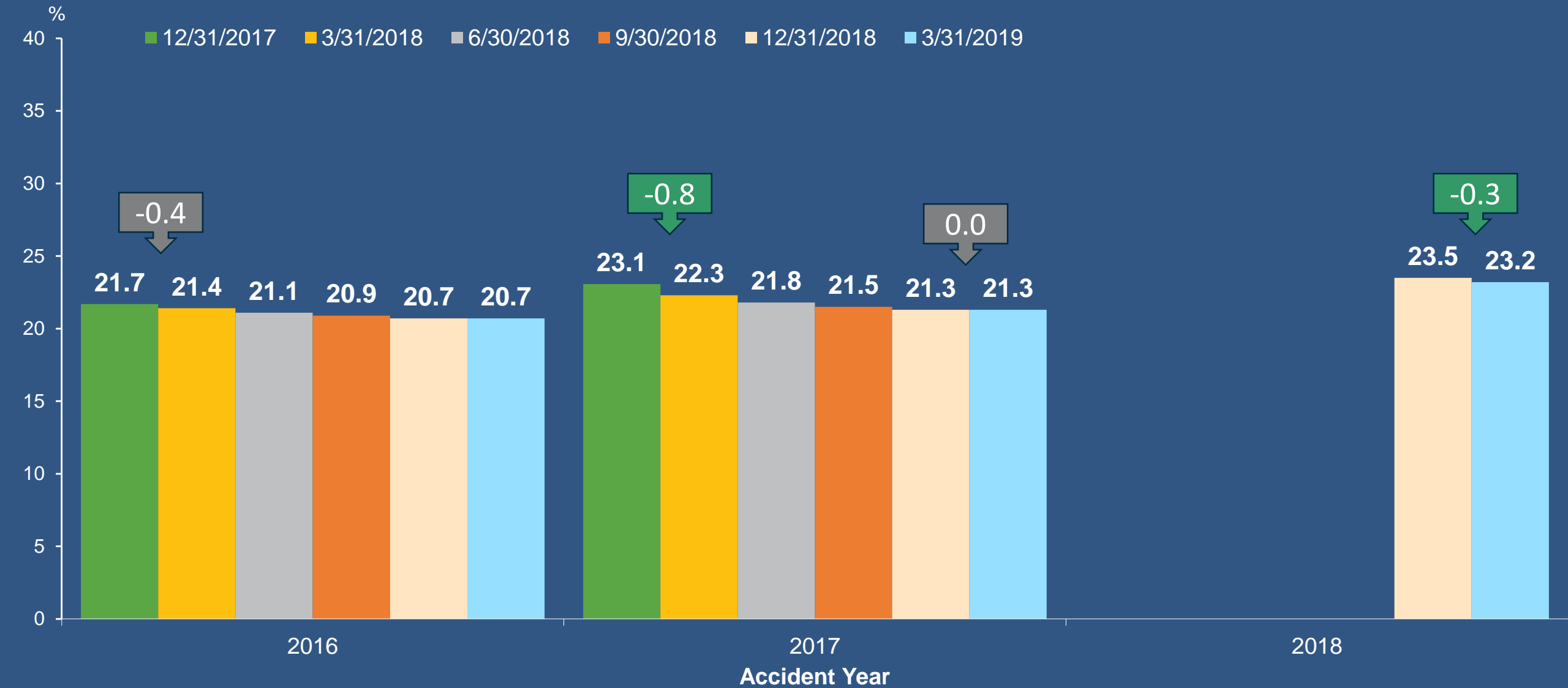
Cumulative Paid Development from 228 to 360 Months

As of March 31, 2019



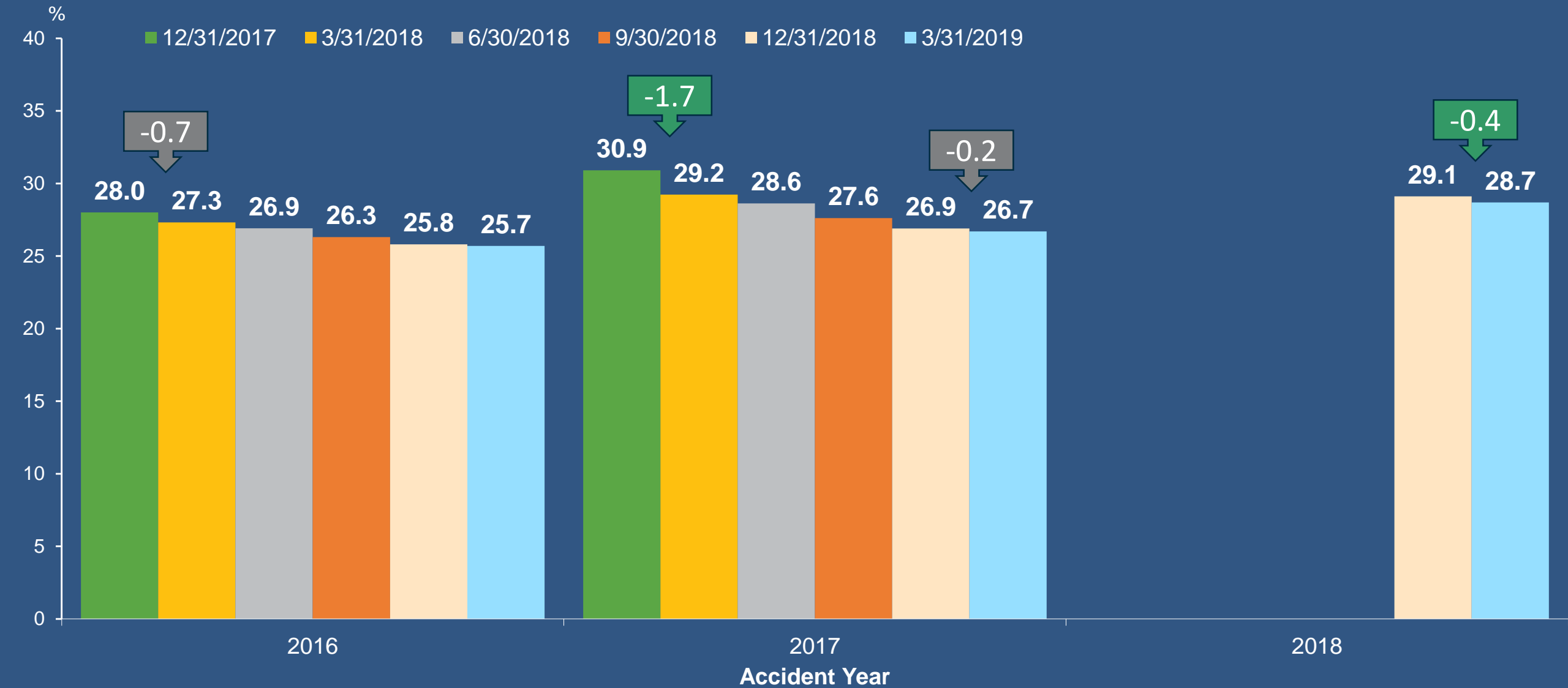
Projected Ultimate Indemnity Loss Ratios (Exhibit 3.1)

As of March 31, 2019



Projected Ultimate Medical Loss Ratios (Exhibit 3.2)

As of March 31, 2019



Note: All loss ratios are adjusted to the loss development methodology reflected in the 8/1/2019 Agenda and may not be comparable to the actual loss ratios projected at that time.
Source: WCIRB aggregate financial data

Alternative Loss Development Methodologies (Item AC19-08-03)

Incurred Methods

- Unadjusted Incurred Projections
 - Best with stable case reserve levels and incurred patterns
 - Can be distorted by changing reserve levels
 - ★ Incurred development more volatile and cyclical than paid development
 - Performed poorly during transition periods
 - ★ Greater variability across insurers than paid method
 - ★ Difficult to impute reform adjustments
 - Treatment of MCCP in medical reserves unknown
 - Recent case reserve levels have significantly decreased

Alternative Loss Development Methodologies (Item AC19-08-03)

Incurred Methods

- Incurred Adjusted for Changes in Case Reserve Levels
 - Best with clear evidence of changing case reserve levels
 - Unclear how to impute reform impacts
 - Recent updates reduced reliance on assumptions and improved accuracy of adjustment
 - ★ Method can be very volatile with constantly shifting reserve levels (3-year average is used)
 - ★ Current projection not significantly different from unadjusted incurred projections
 - Average case reserves for *less* mature periods returning to more typical increases
 - Average case reserves for *more* mature periods continue to decline
- Insurer Mix-Adjusted Incurred
 - Best with clear evidence of shifting market shares impacting incurred patterns
 - Issues with lack of transparency and application of statewide method to individual insurer experience
 - ★ Current projection consistent with unadjusted incurred projection

Alternative Loss Development Methodologies (Item AC19-08-03)

Paid Methods

- Unadjusted Paid Projections
 - Best with stable payment patterns
 - Can be distorted by changing settlement rates or reforms
 - Generally outperformed unadjusted incurred during transition periods
 - Less variability in paid patterns across insurers than in incurred patterns
 - ★ Recent changes in paid development likely related to reforms, fraud, pharmaceutical savings, and claim settlement changes
- Reform-Adjusted Paid (Including Pharmaceutical Adjustments)
 - Best with clear evidence of reform impact on payment patterns
 - ★ Liens and pharmaceutical costs paid much later than other types of medical services
 - SB 1160 adjustments reflect impact of liens on medical development patterns
 - ★ Adjustment for recent pharmaceutical cost declines correct distortions in reported age-to-age development

Alternative Loss Development Methodologies (Item AC19-08-03)

Paid Methods

- Claim Settlement Rate-Adjusted Paid
 - Best with clear evidence of changes in claim settlement rates affecting loss development
 - ★ Improved projection during periods of significant settlement rate change
 - Primary assumptions of method reasonable based on review in 2017
 - ★ Claim settlement rates have increased significantly last several years
- Insurer Mix-Adjusted Paid
 - Best with clear evidence of shifting market shares impacting paid patterns
 - Issues with lack of transparency and application of statewide method to individual insurer experience
 - ★ Current projection slightly lower than unadjusted paid projection
- Bornhuetter-Ferguson (BF) Adjusted Paid
 - Best when early loss development is highly leveraged and volatile
 - Requires assumptions of trend and on-leveling in expected loss ratio projection
 - ★ Reviewed in 2016 and found to be generally less accurate than chain-ladder method historically
 - ★ Current projection generally consistent with comparable chain-ladder projection

Medical Age-to-Age Factors Indexed to 1990

12 to 24 Months

As of December 31, 2018



Medical Age-to-Age Factors Indexed to 1990

48 to 60 Months

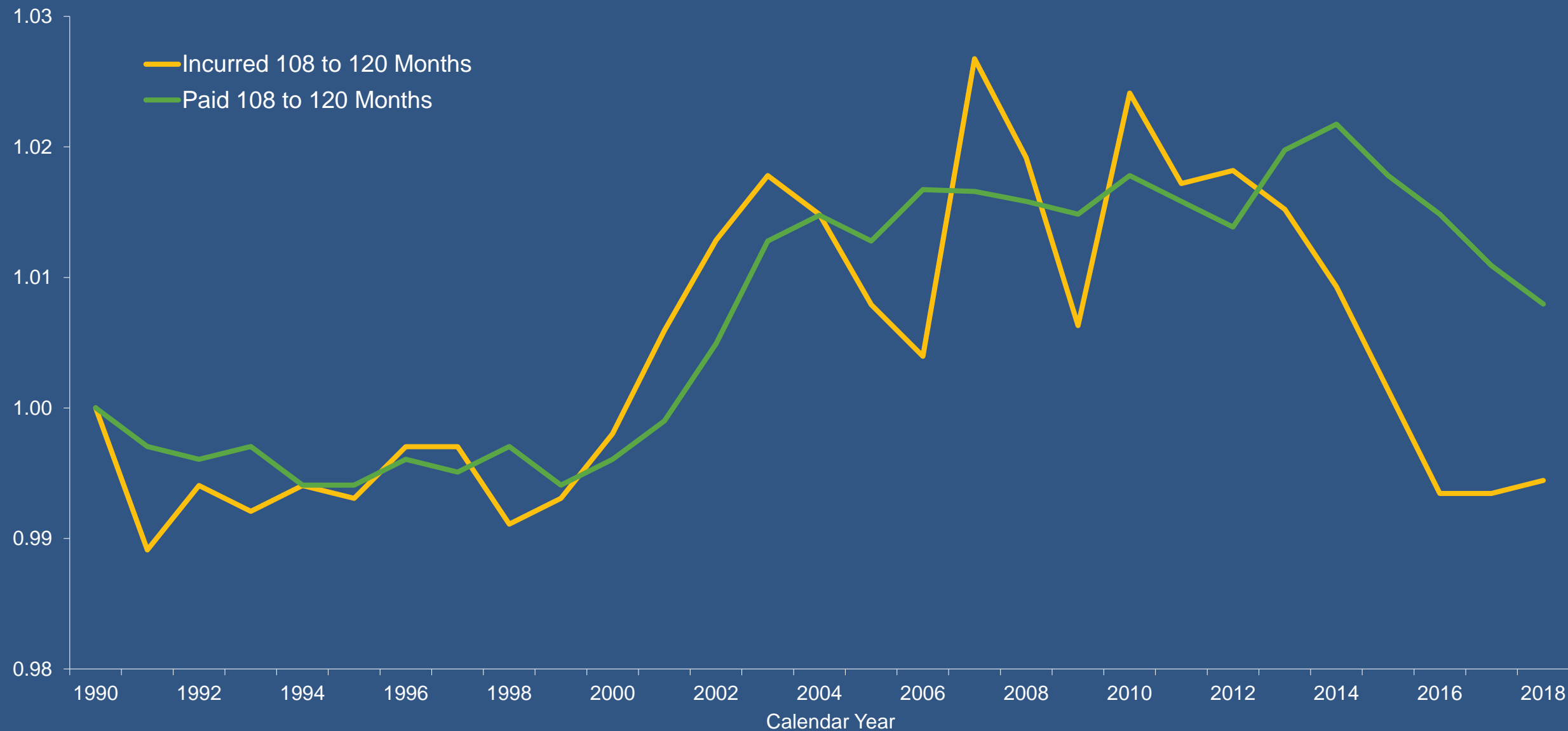
As of December 31, 2018



Medical Age-to-Age Factors Indexed to 1990

108 to 120 Months

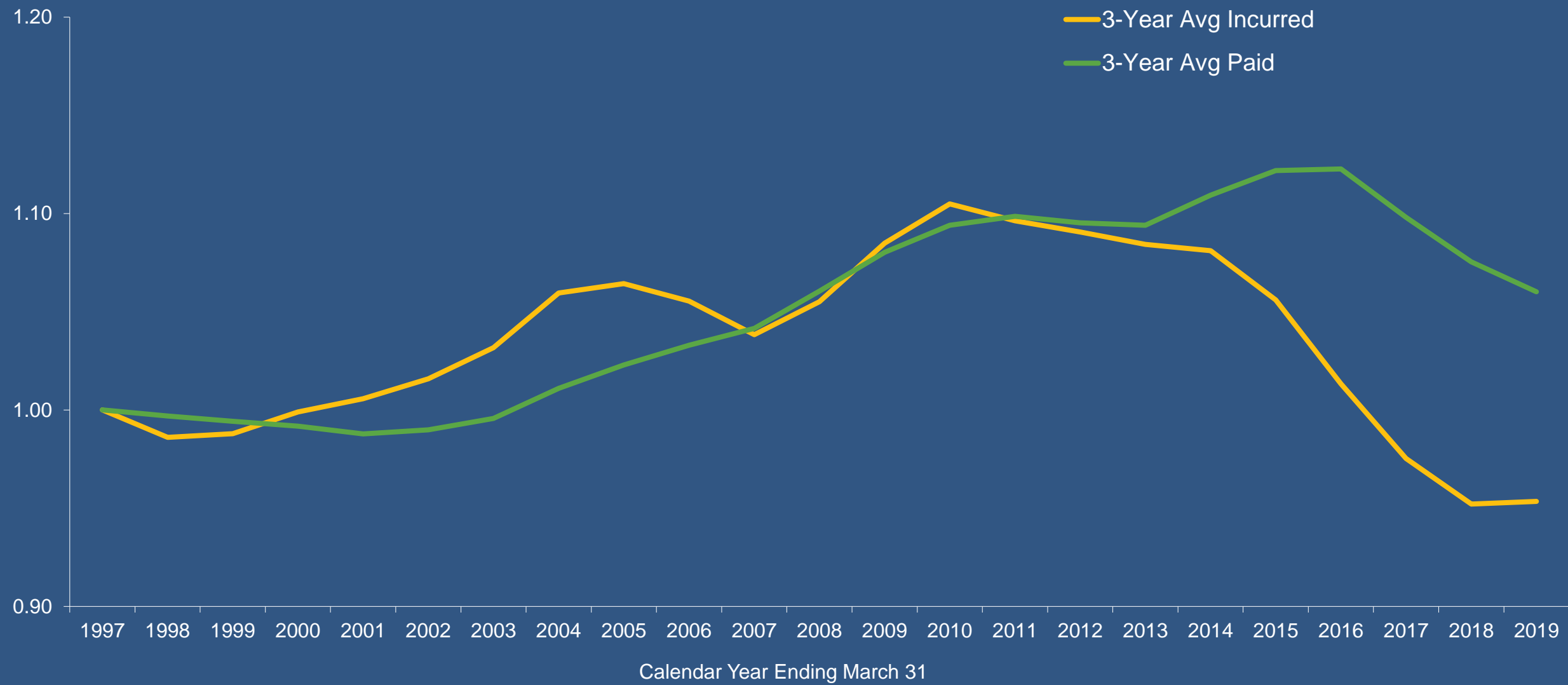
As of December 31, 2018



Medical Age-to-Age Factors Indexed to 1997

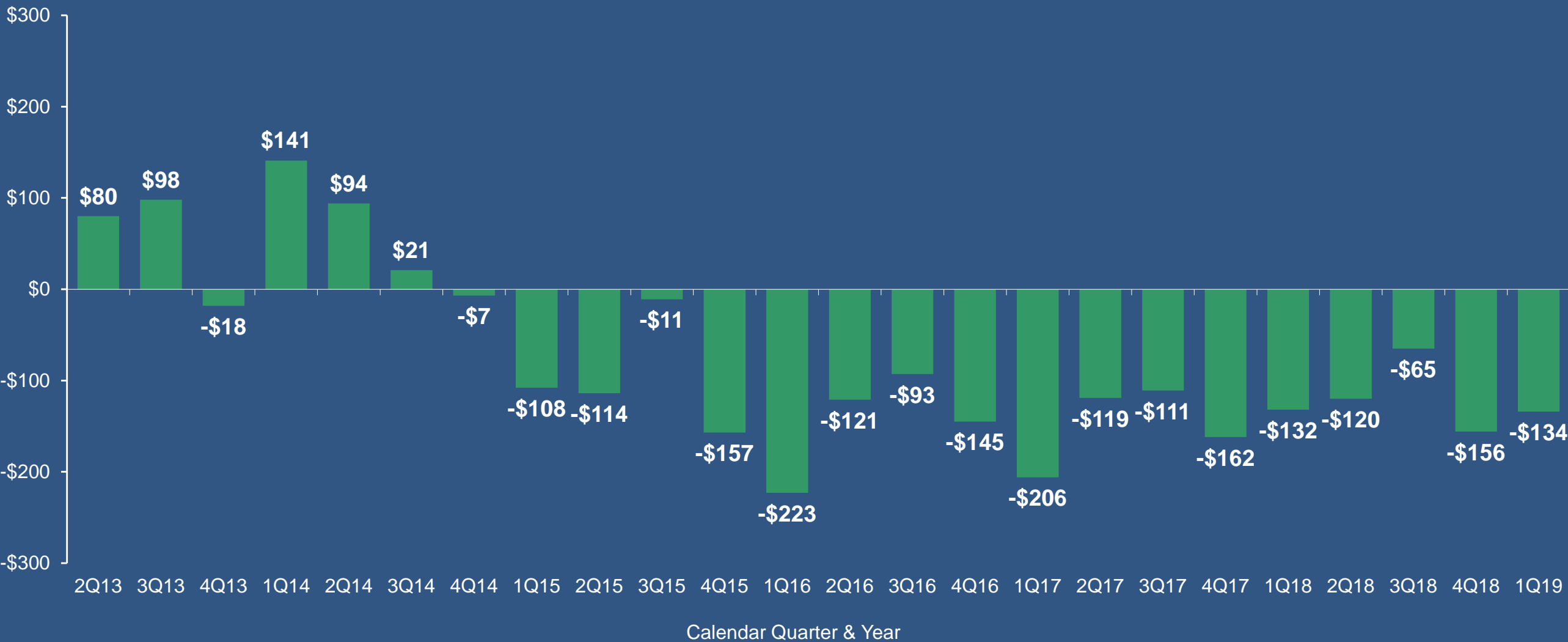
111 to 231 Months

As of March 31, 2019



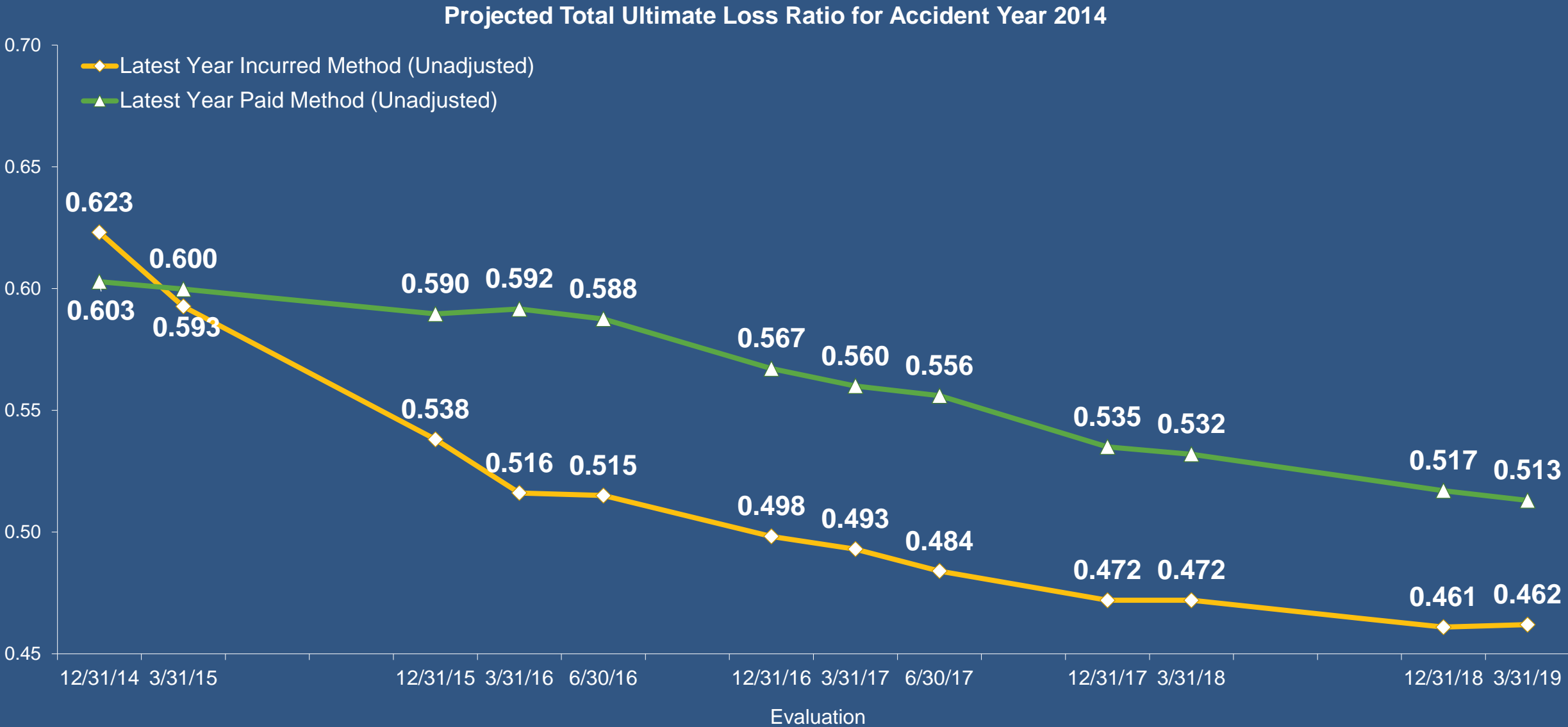
Change in Total Medical Case Reserves by Quarter

As of March 31, 2019



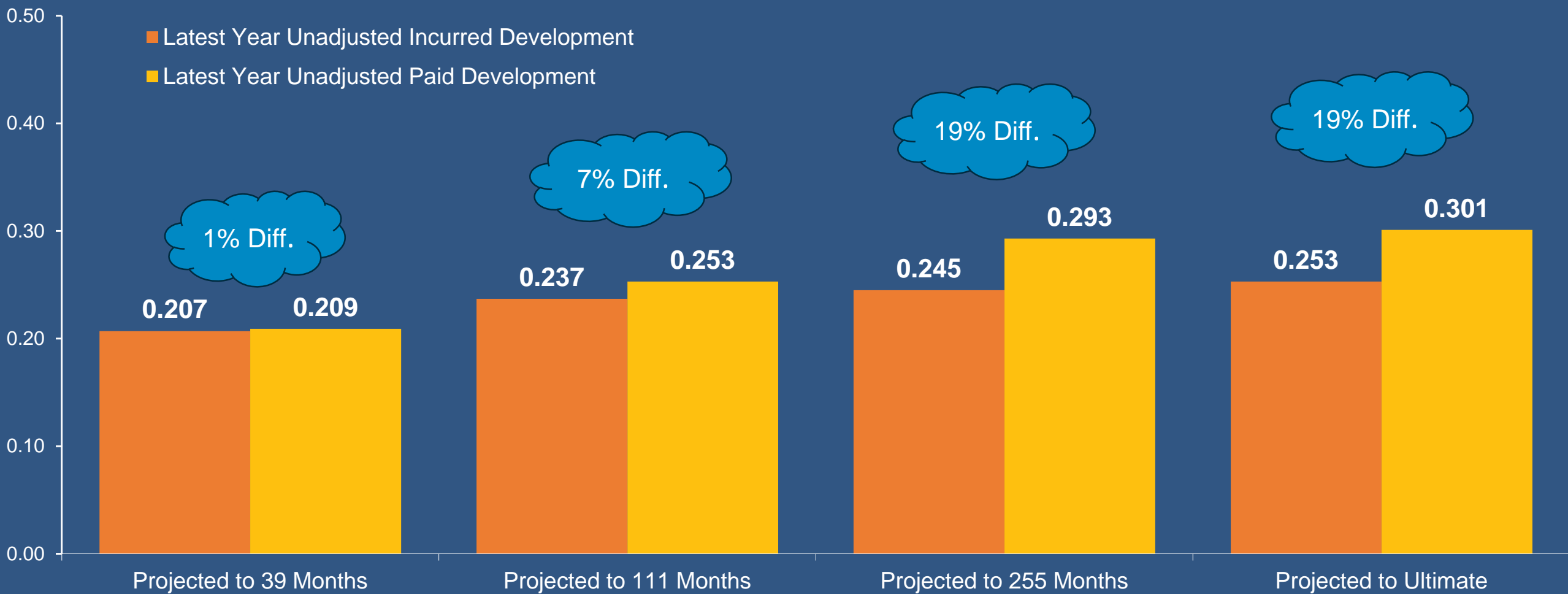
Paid vs. Incurred Methodology Comparison

As of March 31, 2019



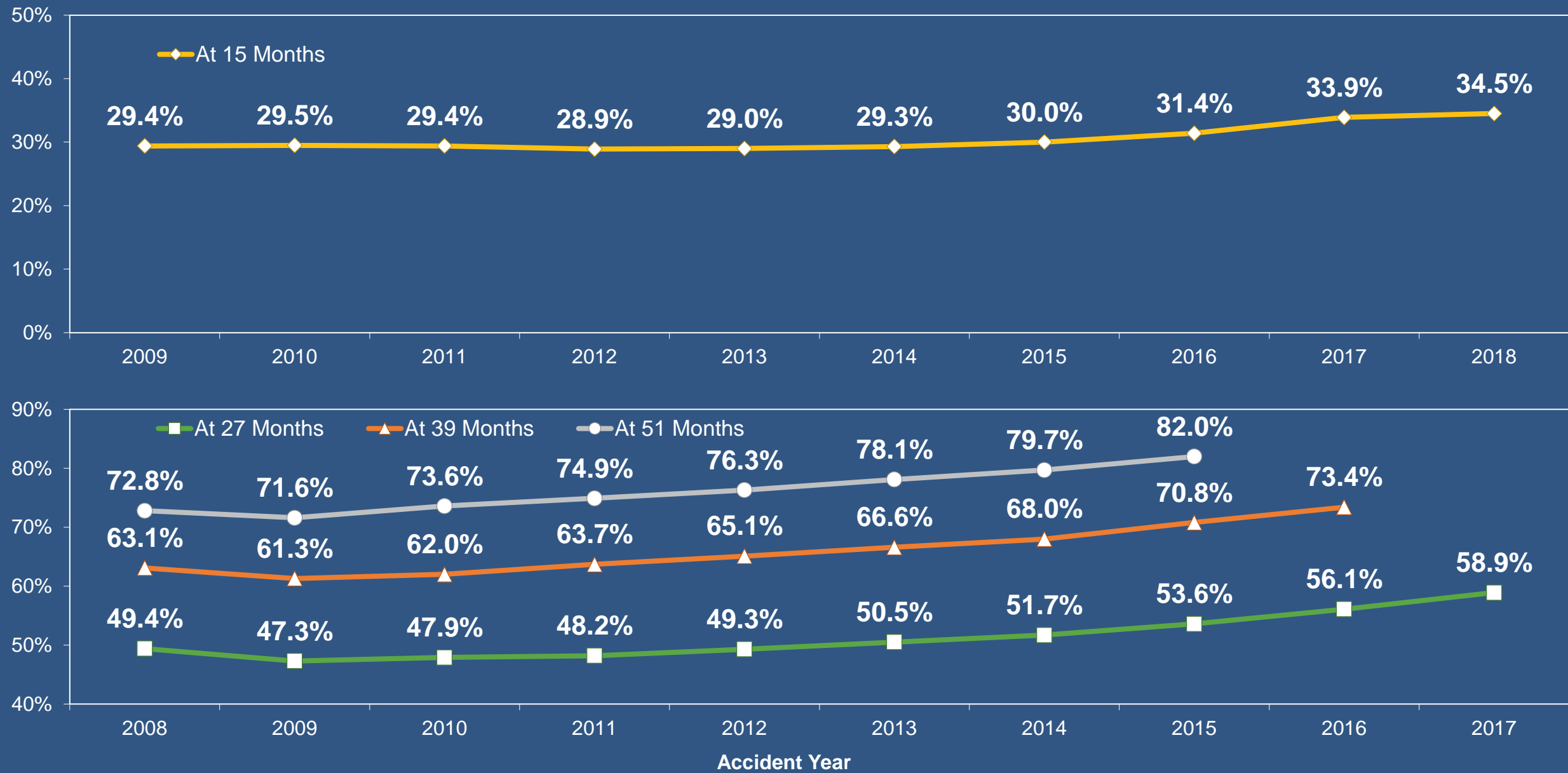
Comparison of Paid and Incurred Projections for AY 2018 Medical

As of March 31, 2019



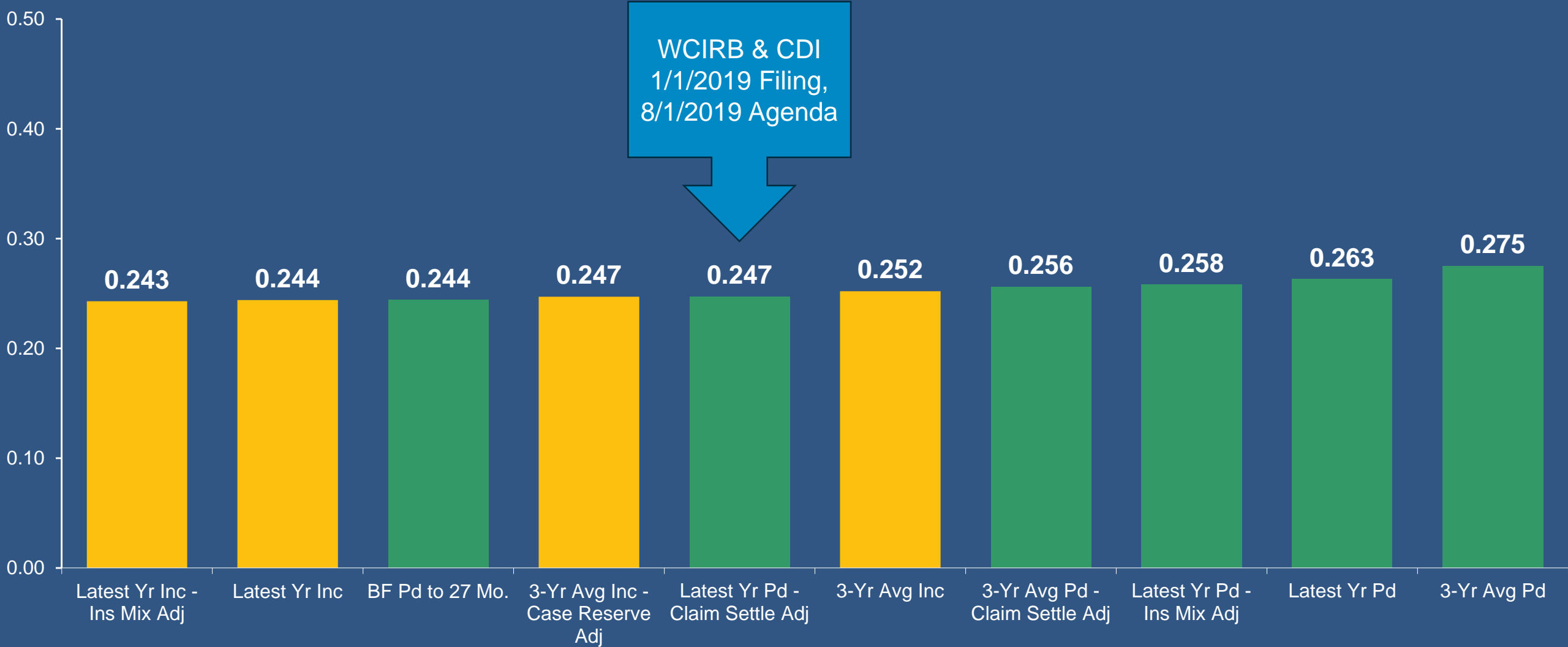
Ultimate Indemnity Claim Settlement Ratios (Exhibit 11.2)

As of March 31, 2019



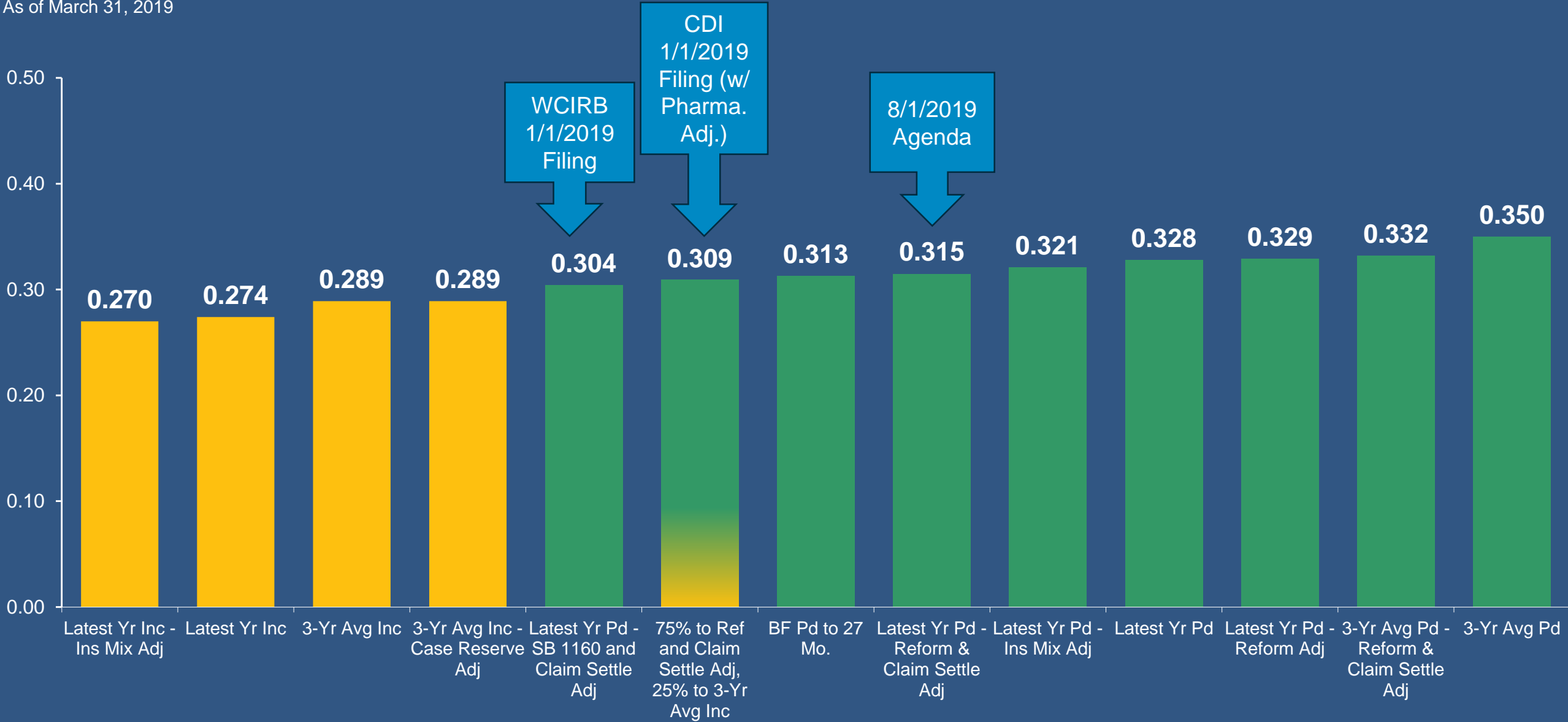
Projected Indemnity On-Level Loss Ratios under Alternative Development Methods

As of March 31, 2019



Projected Medical On-Level Loss Ratios under Alternative Development Methods

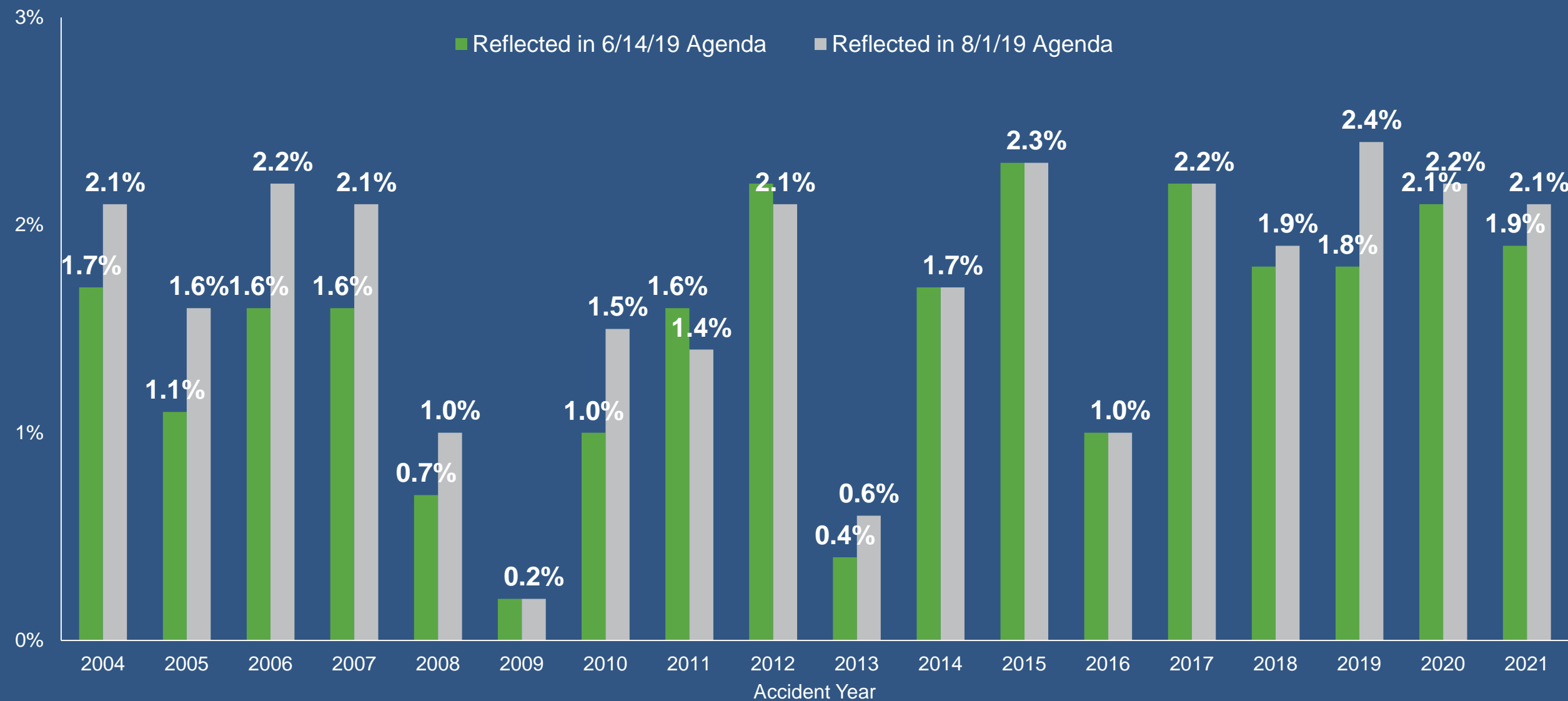
As of March 31, 2019



Impact of Wage Inflation in Indemnity Benefits

- Impact of wage inflation on indemnity benefits reviewed at 3/18/2019 meeting
- Committee recommendations:
 - Replace regression model estimates for historical accident years with actual data
 - Update regression model parameters annually for latest unit statistical data and injury type distribution
- 8/1/2019 Agenda reflects updates to historical data for 2005 to 2017 and updated model for 2018 and later

Adjustment for Wage Inflation in Indemnity On-leveling



Adjustment for Pharmaceutical Cost Decline – Impact on On-Leveling

- Paid medical loss development now reflects adjustments for recent pharmaceutical cost declines
- Payments made prior to 2018 adjusted to the 2018 pharma. cost level in age-to-age factors
- Medical paid-to-date loss ratios also need to be adjusted similarly
 - Ensures adjusted age-to-age factors are applied to a consistent base
 - This in effect “on-levels” paid loss ratios for the pharmaceutical cost declines
 - Adjustment is applied in same way as age-to-age factor adjustment
- Recent pharma. cost decrease is included in some of the current on-level adjustments for SB 863 medical utilization changes
- Staff reviewed the current on-level factors as to not double count the pharma. cost decrease

Adjustment for SB 863 Medical Utilization in On-Leveling

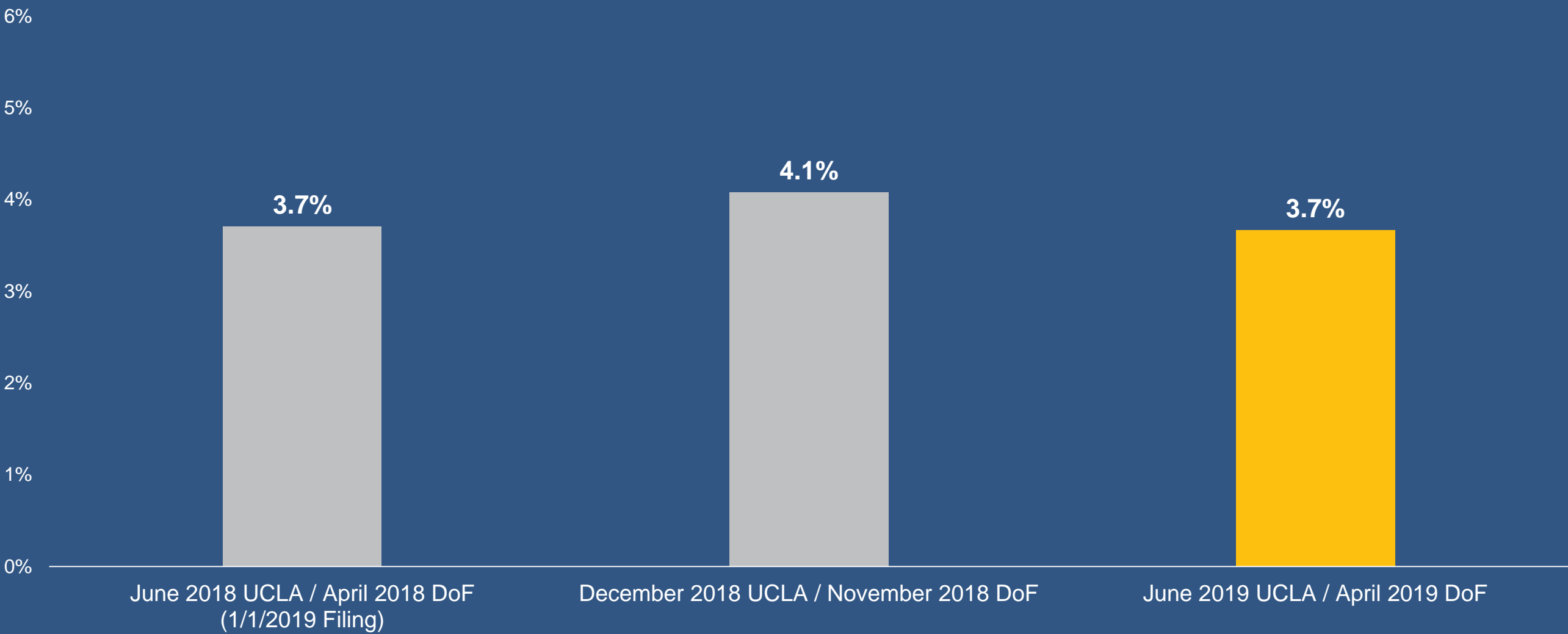
- A. Total SB 863 medical utilization savings: \$1.8B (17% of medical costs)
- B. Total pharma. savings 2013-2018: \$0.7B
- C. Total WCIRB pharma. utilization change 2013-2018 (annualized): -14%
- D. Total NCCI pharma. utilization change 2013-2016 (annualized): -7%
- E. Estimated % of pharma. decrease attributable to SB 863 ($1.0 - D / C$): 50%
- F. Total pharma. savings attributable to SB 863 to exclude from on-leveling ($E * A$): \$0.4B (4%)

Accident Year	Total Impact	Excl. Pharma Impact
2011	-3%	-2%
2012	-4%	-3%
2013	-5%	-4%
2014	-3%	-2.5%
2015	-2%	-1.5%
Total	-17%	-13%

Average Annual Wage Level Change Forecast (Exhibit 5.1)

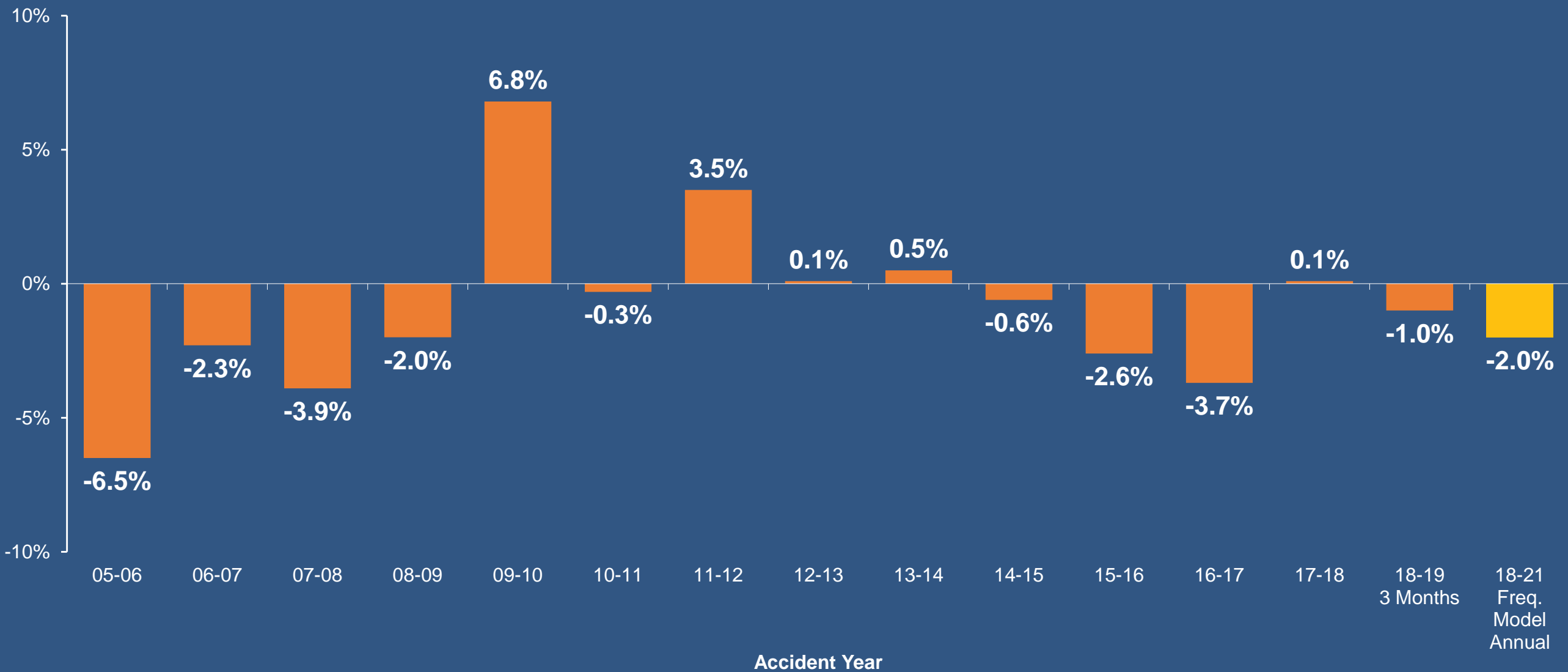
As of June/April 2019

Annualized Wage Level Change from
Average of Latest Two Accident Years to Projected Policy Period



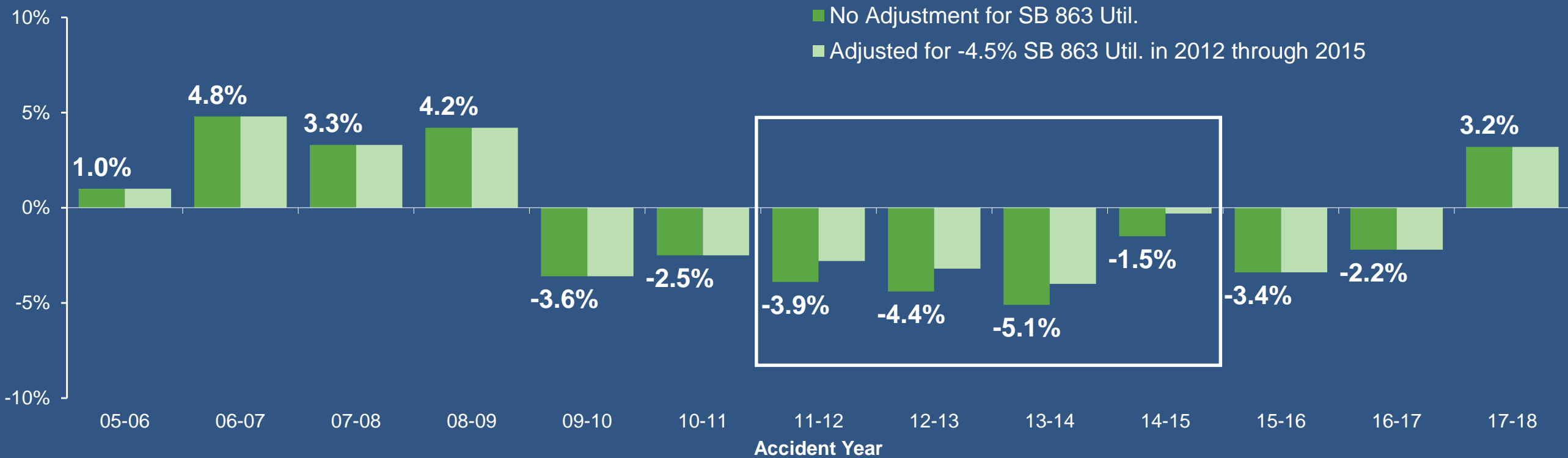
Projected Changes in Indemnity Claim Frequency (Exhibits 6.1 & 12)

As of March 31, 2019



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

As of March 31, 2019



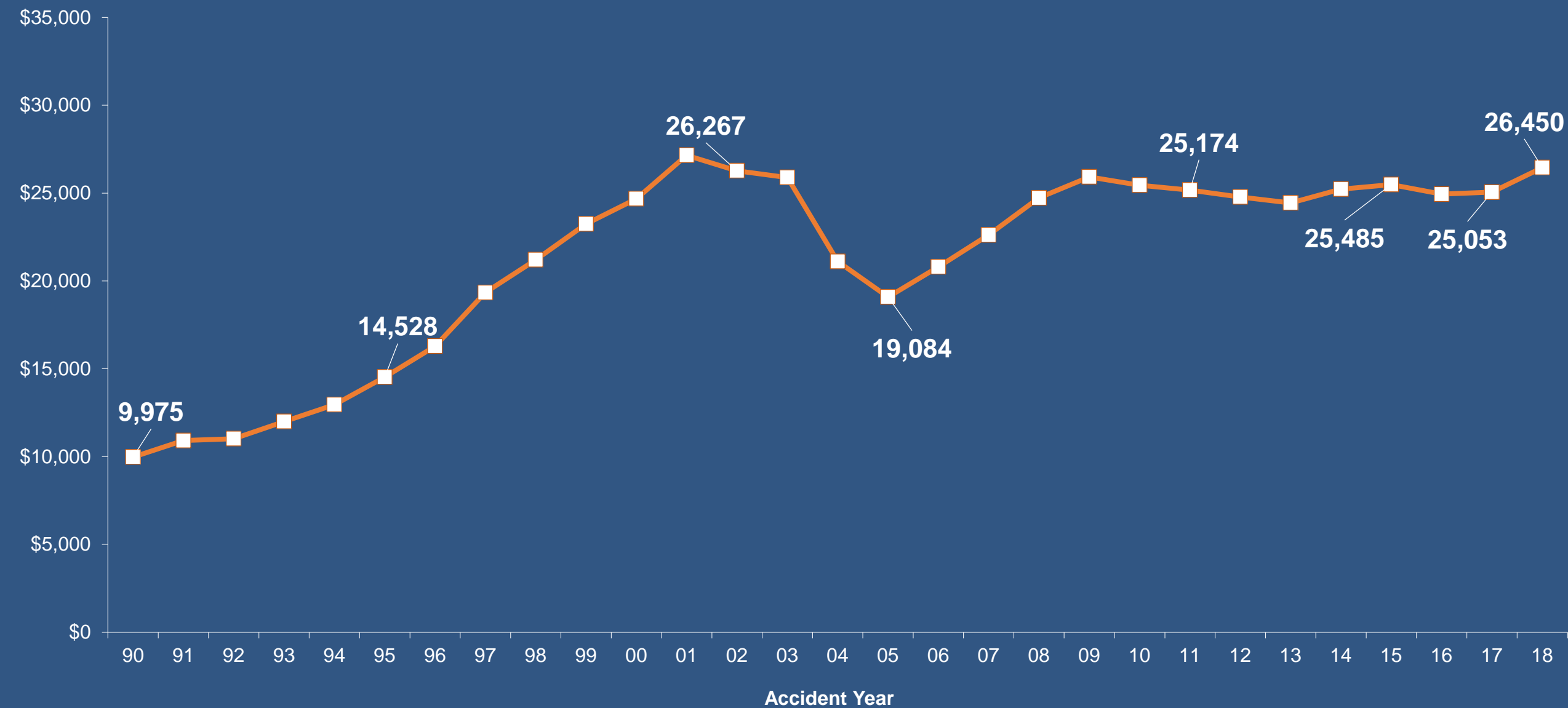
Annual Exponential Trend Based on:

- 1990 to 2018: +1.2%; +1.3% (w/ SB 863 Adj.)
- 2005 to 2018: -1.6%; -1.1% (w/ SB 863 Adj.)
- 2014 to 2018: -1.4%; -1.1% (w/ SB 863 Adj.)

Agenda Selected: **-0.5%**

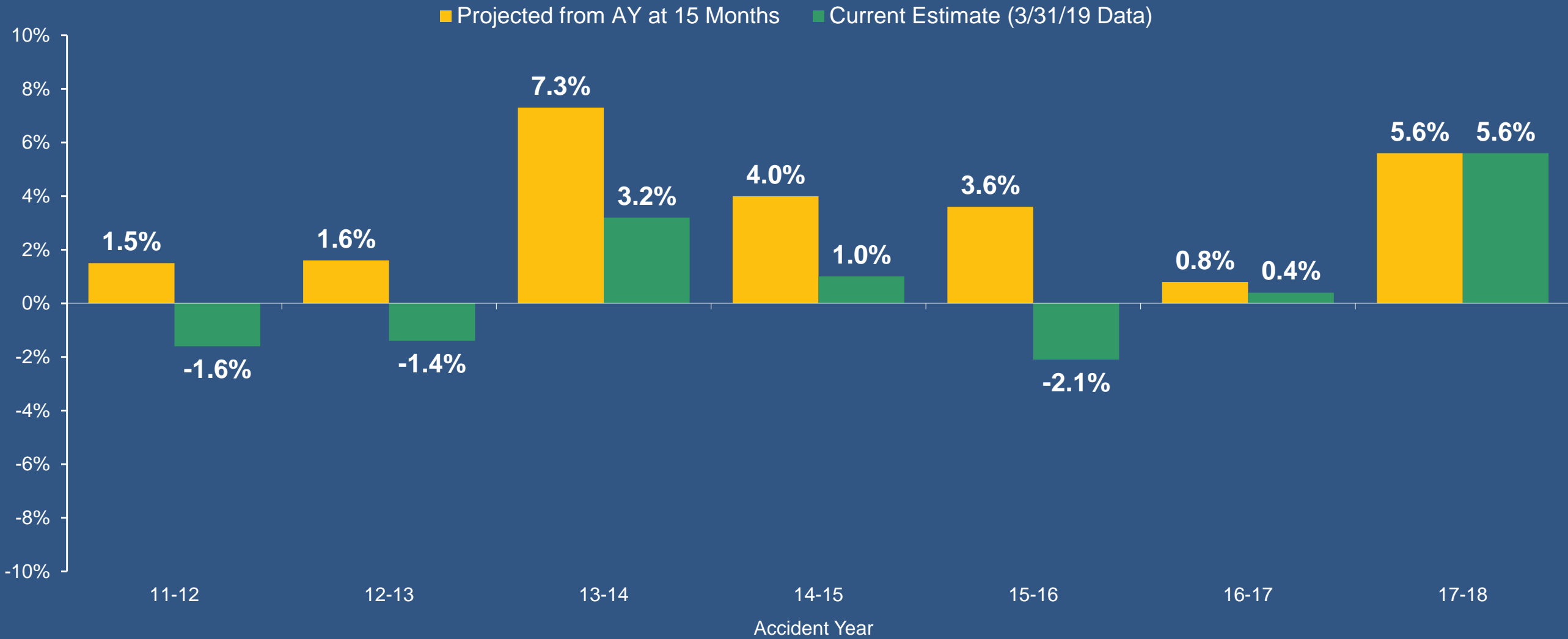
Ultimate Indemnity per Indemnity Claim

As of March 31, 2019



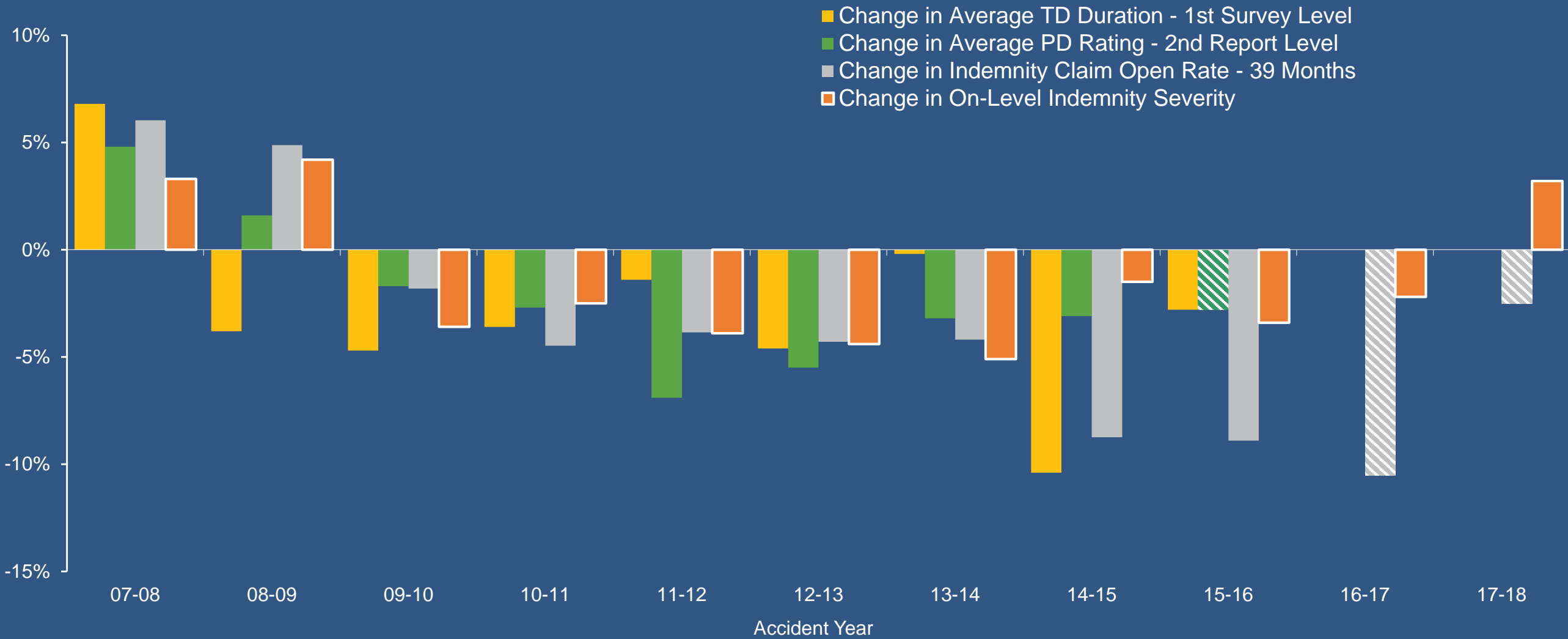
Indemnity Severity Changes Projected from 15 Months Compared to Current

As of March 31, 2019



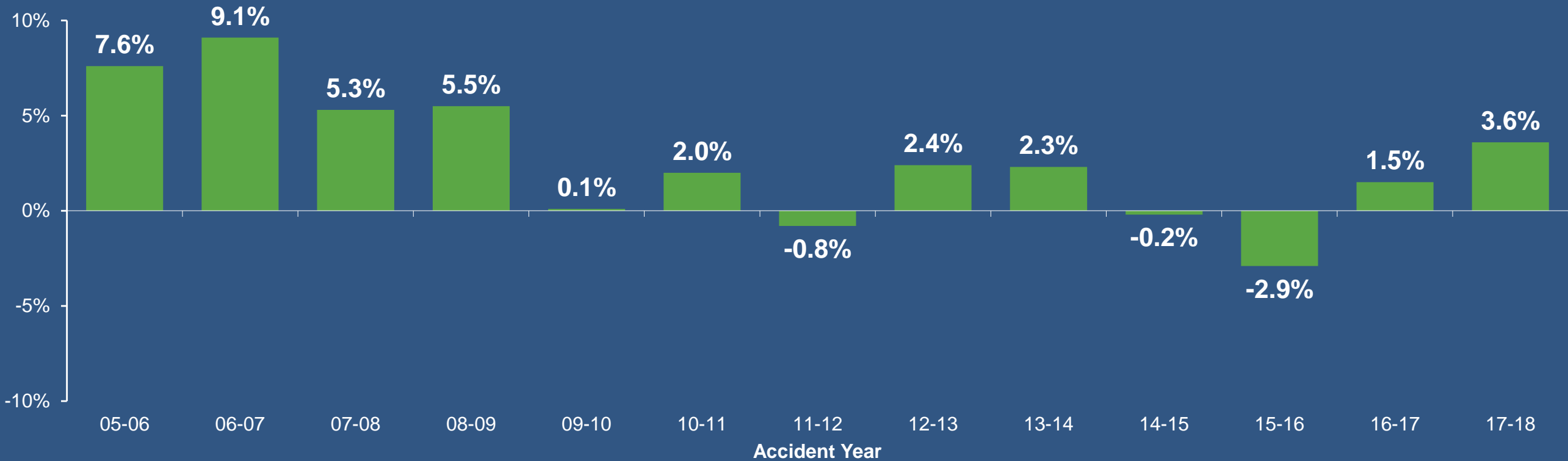
Factors Impacting Indemnity Cost Trends

As of March 31, 2019



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

As of March 31, 2019



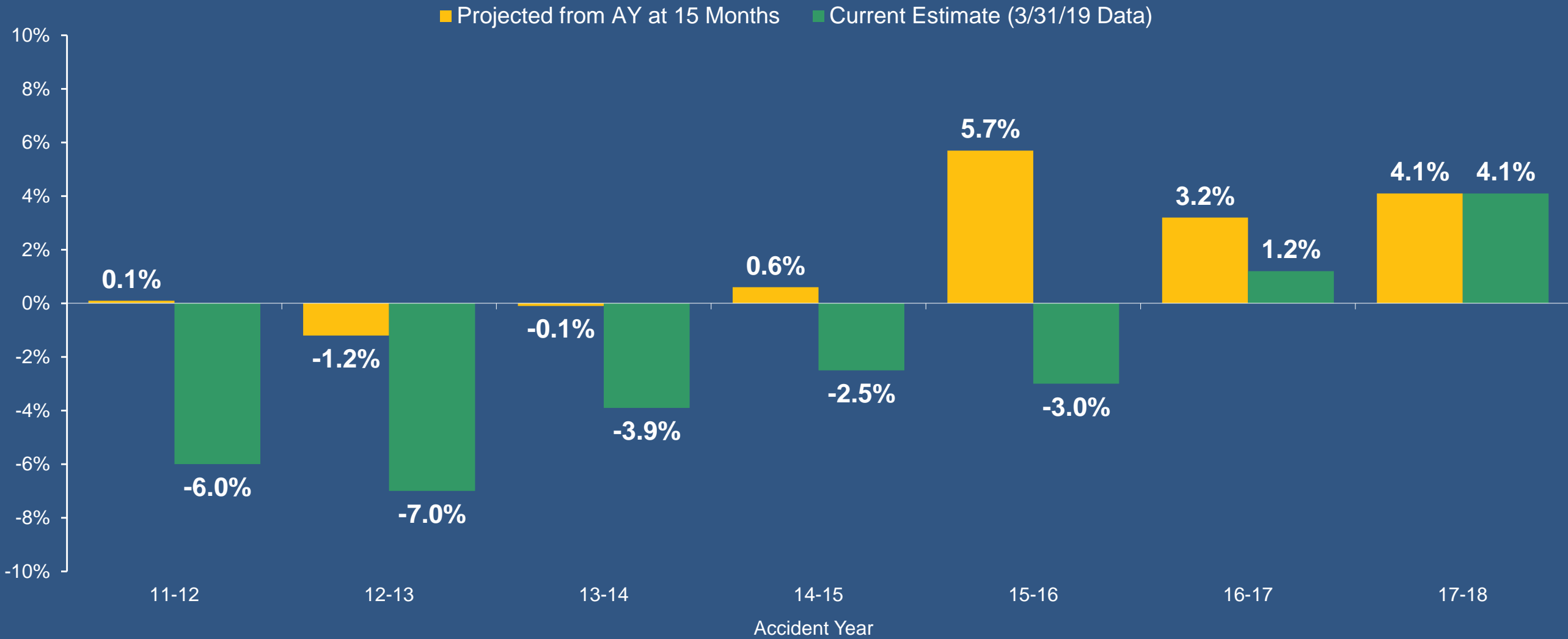
Annual Exponential Trend Based on:

- 1990 to 2018 (Incl. MCCP): +5.8%
- 2005 to 2018: +2.1%
- 2014 to 2018: +0.2%

Agenda Selected: 2.5%

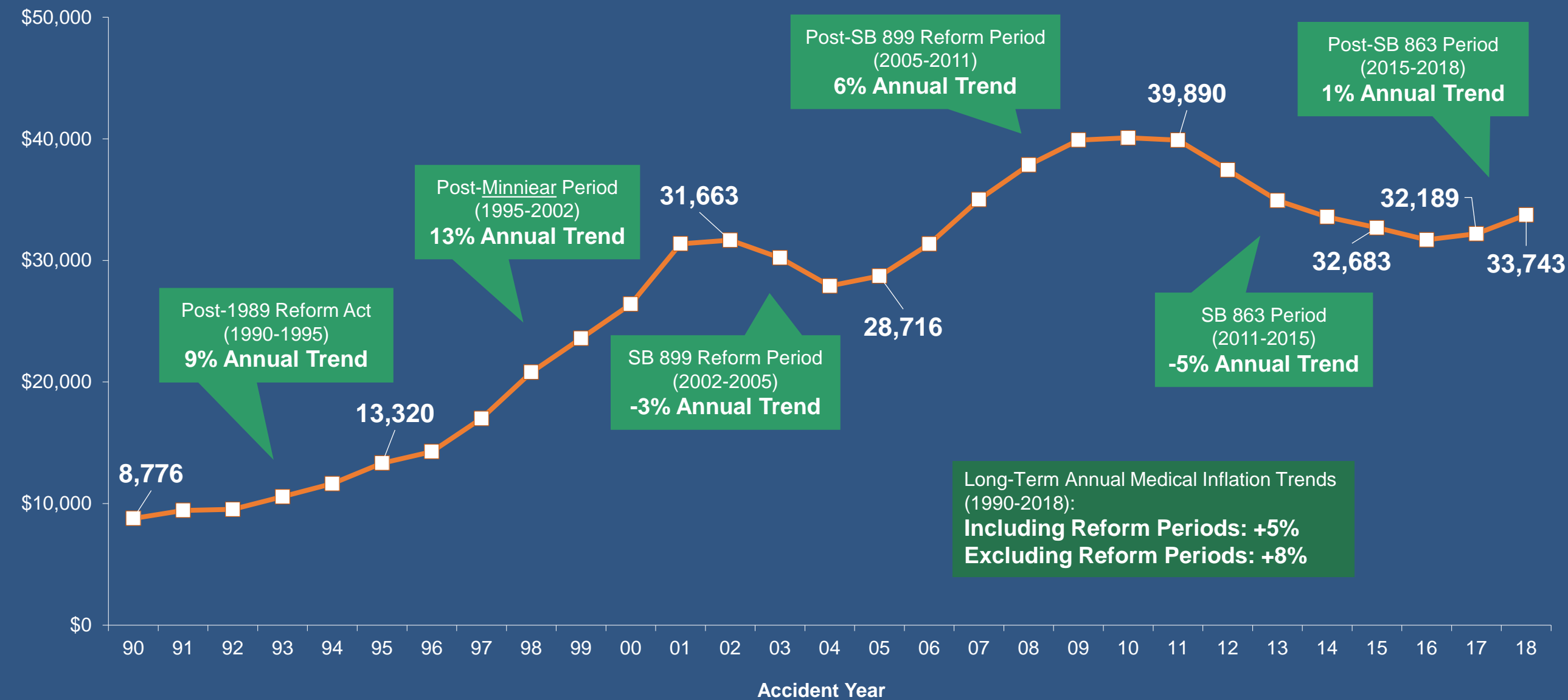
Medical Severity Changes Projected from 15 Months Compared to Current

As of March 31, 2019



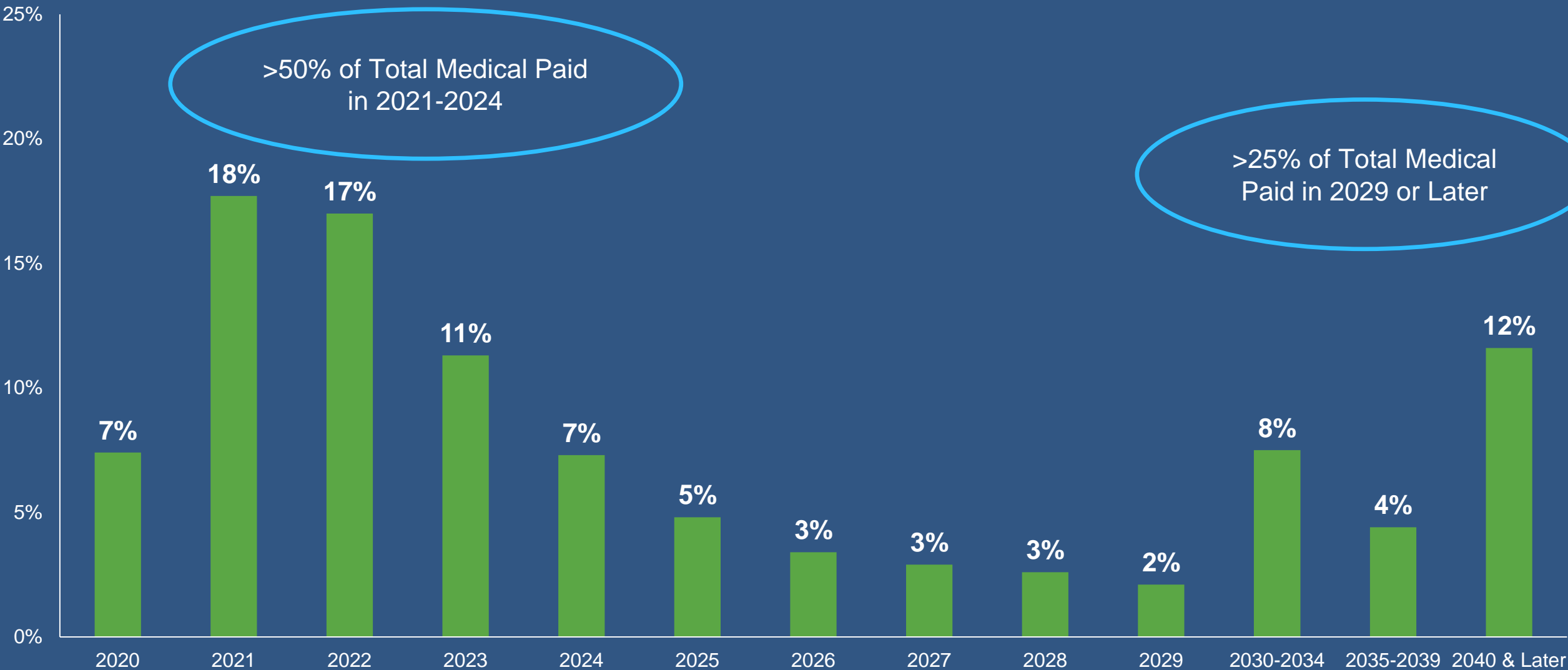
Ultimate Medical per Indemnity Claim (Exhibits 6.3 & 6.4)

As of March 31, 2019



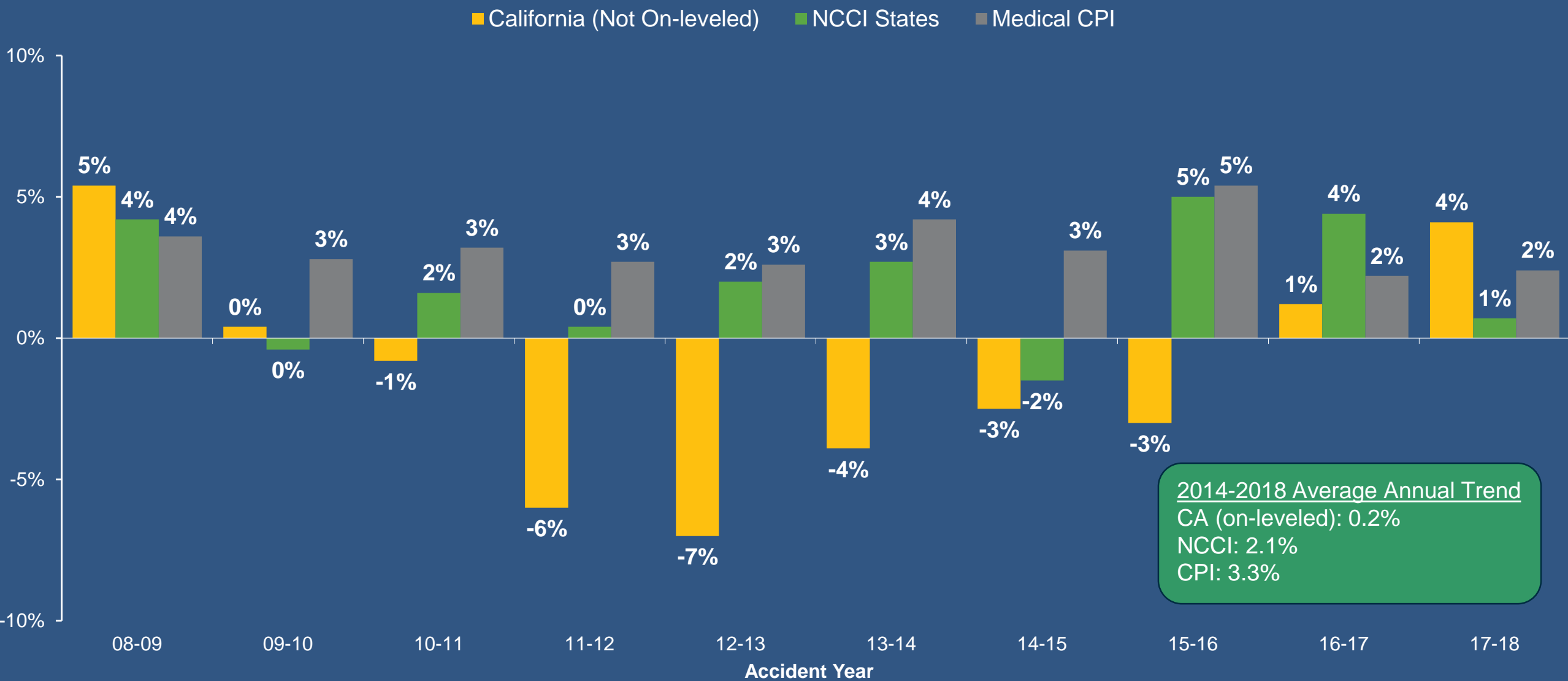
Policy Year 2020 – Estimated Medical Paid by Year

As of December 31, 2018



Comparison of Medical Severity Changes

As of March 31, 2019



Alternative Trending Methodologies (Item AC19-08-03)

- Separate Frequency & Severity Trends Projections
 - Best during periods when loss ratios are volatile
 - Frequency and severity are affected by differing underlying forces
 - ★ Allows for separate assumptions and judgment about future trends
 - Assumes frequency & severity not highly correlated
 - Performed well during 2002-2004 reform and SB 863 transition periods but not recession period
 - Also performed well in most recent study of trending methods
 - Recent modest frequency decreases consistent with model forecasts
 - ★ On-level severities beginning to increase after several flat years following reforms
 - Other jurisdiction medical severities have been modest
 - Trending from two-year average generally outperformed latest year method in recent review

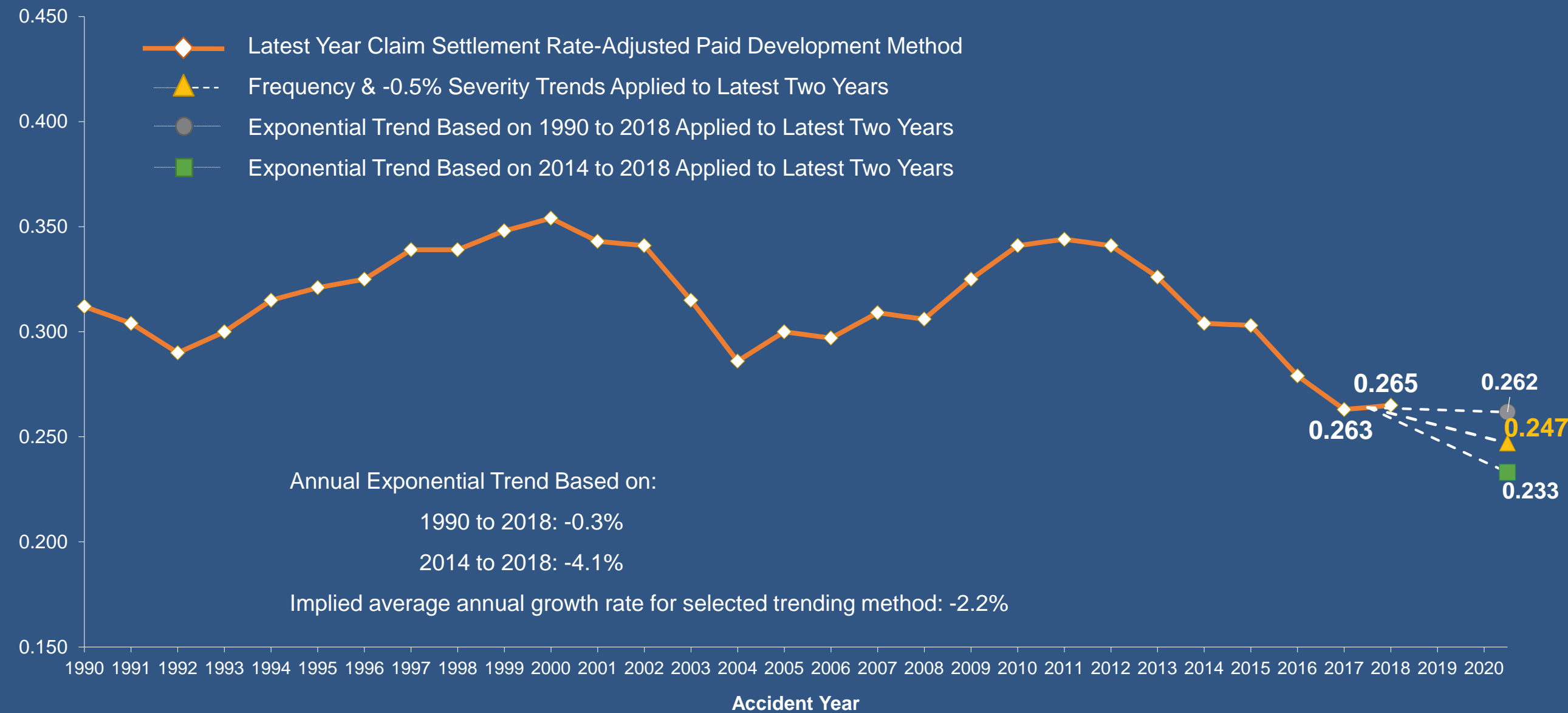
Alternative Trending Methodologies (Item AC19-08-03)

- Loss Ratio Trend Projections

- Best during periods with stable loss ratio trends
- Historical loss ratios fit reasonably well to exponential curve
- Rely on accurate on-leveling adjustments
- Performed well during recent recession period
- Did not perform well during 2002 to 2004 reform and SB 863 transition periods when trends moderate
- Generally not as accurate as frequency & severity method in most recent trending study
- Recent trends have moderated with SB 863 & SB 1160 reforms
- ★ Current loss ratio projections consistent with separate frequency & severity projections when similar periods to select trends are used
- Trending from two-year average generally outperformed latest year method in recent review

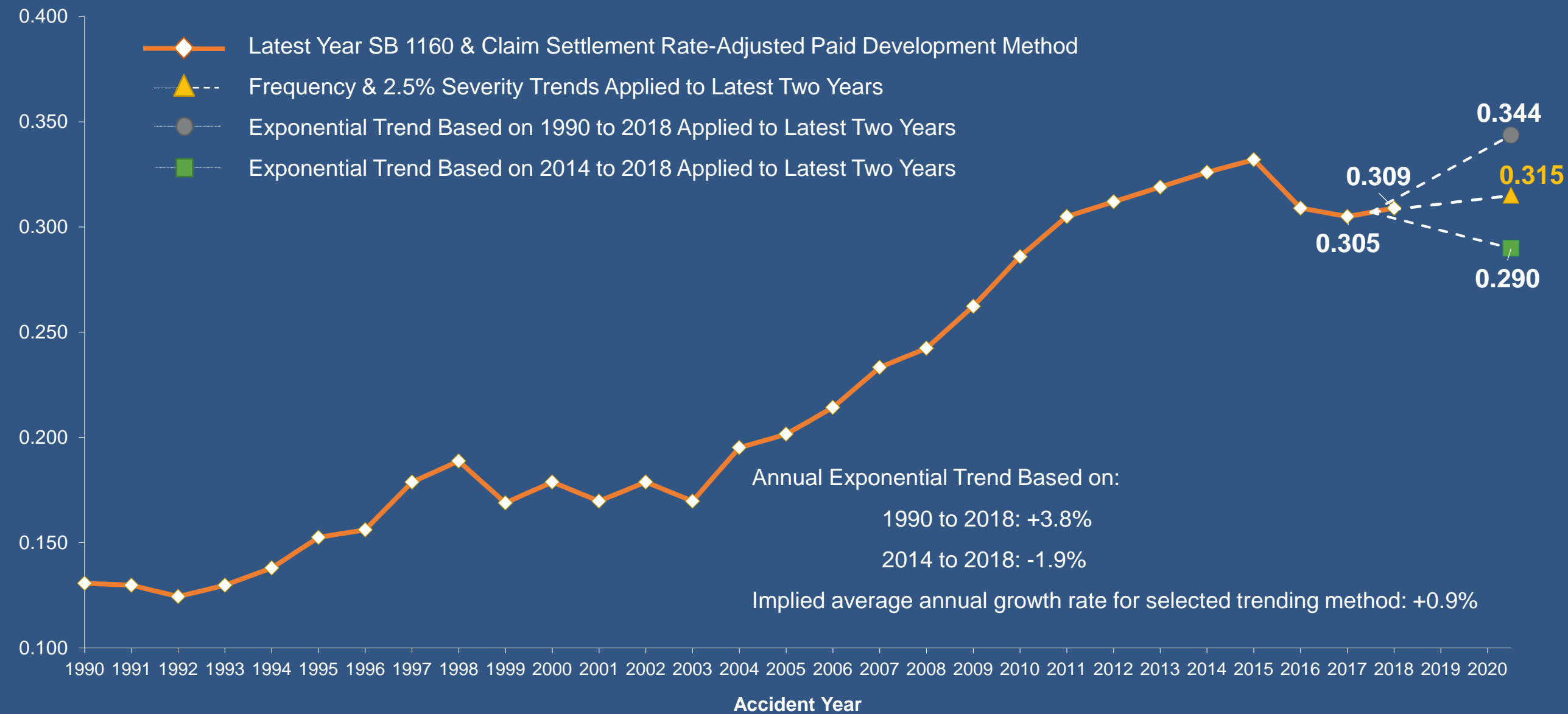
Projected On-Level Indemnity Loss Ratios (Exhibit 7.1)

As of March 31, 2019



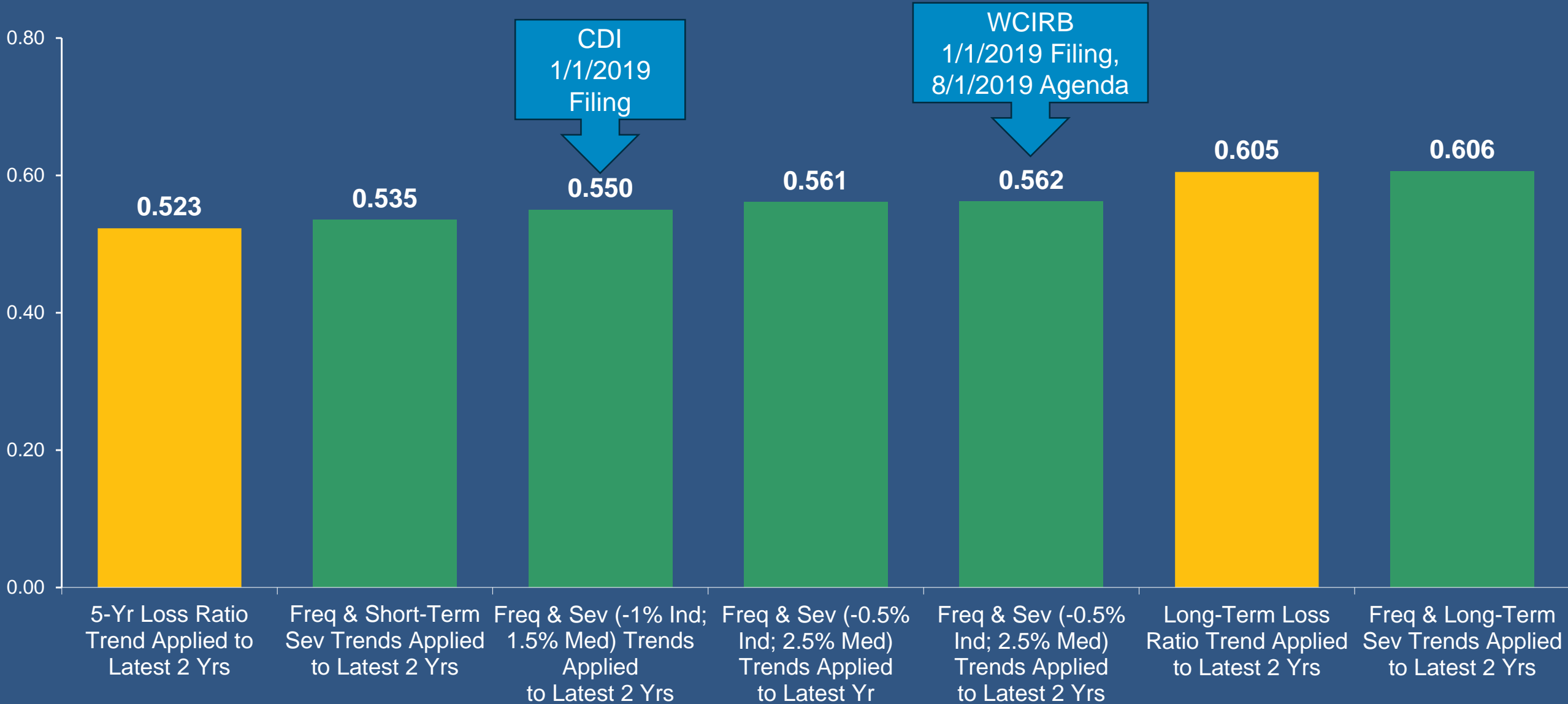
Projected On-Level Medical Loss Ratios (Exhibit 7.3)

As of March 31, 2019



Projected On-Level Loss Ratios under Alternative Trending Methods

As of March 31, 2019



05

Impact of Claim Settlement Rate Changes on ALAE Development



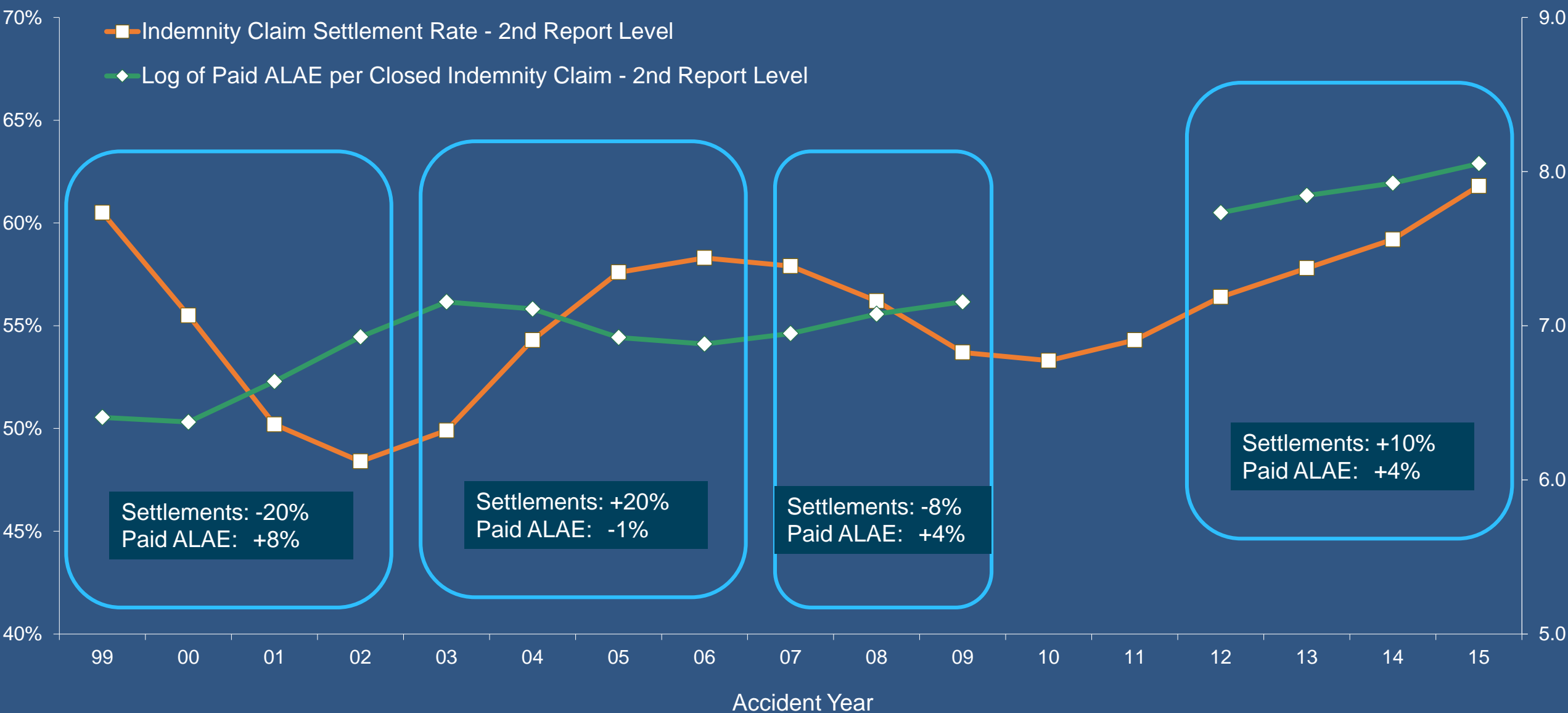
Background

- Claim settlement rates have accelerated sharply for the last several years
 - Berquist-Sherman adjustments to loss development for settlement rate change have improved paid loss projections
- Medical development also adjusted for SB 1160 lien reforms since medical liens paid much later
- In 1/1/2019 Filing Decision, CDI recommended studying impact on ALAE development
- Phases of staff's review:
 - Appropriateness of Berquist-Sherman type adjustment to ALAE
 - Impact of claim settlement changes on later ALAE development
 - Impact of SB 1160 lien reforms on ALAE development

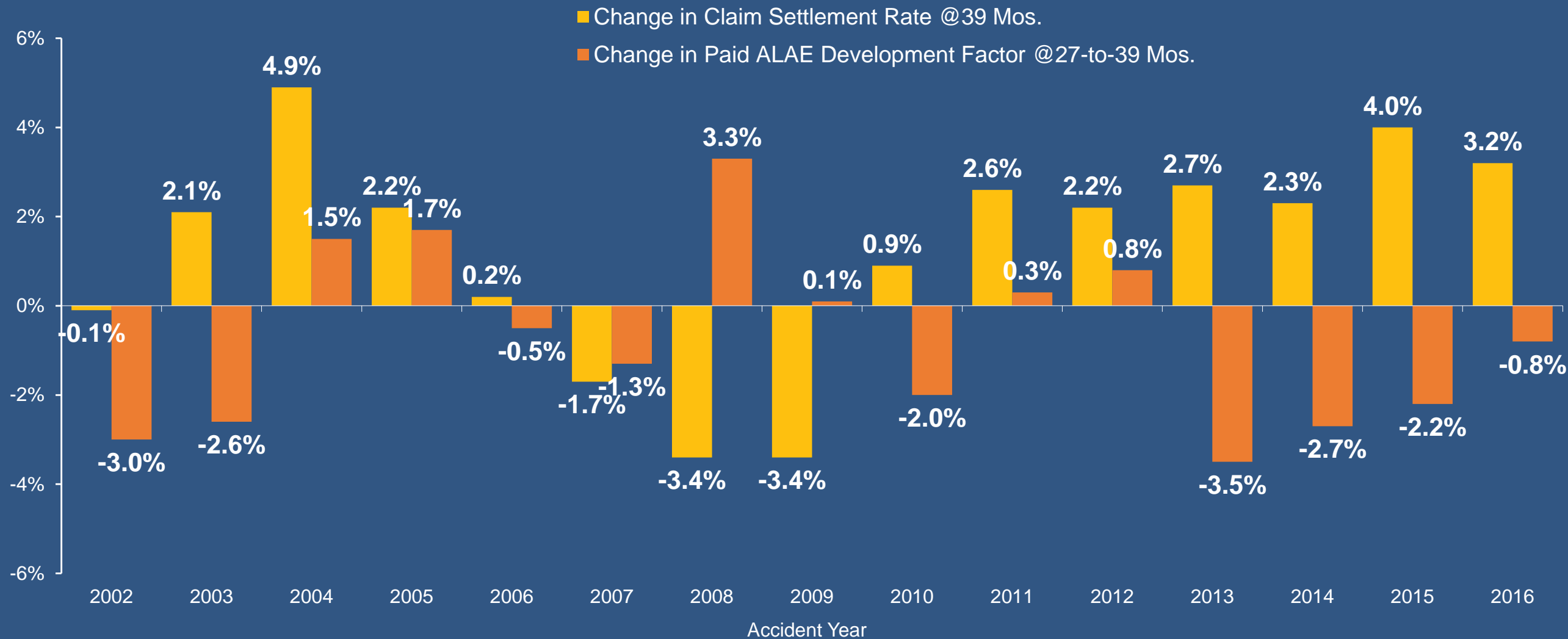
Berquist-Sherman Claim Settlement Rate Adjustment

- Primary assumptions of Berquist-Sherman approach:
 - Significant payment comes with claim settlement
 - Change in claim settlements distorts age-to-age factors since more or less settlement payments are made
 - Claim settlement rate correlated with average paid per closed claim (smaller claims closed first)
- Issues with applying to paid ALAE development:
 - Paid ALAE on open or closed claims not available in aggregate data calls
 - Claim settlement may not occur with large ALAE payment contrary to losses

Comparison of Claim Settlement Rate to Paid ALAE on Closed Claims (Exhibit 1.2)



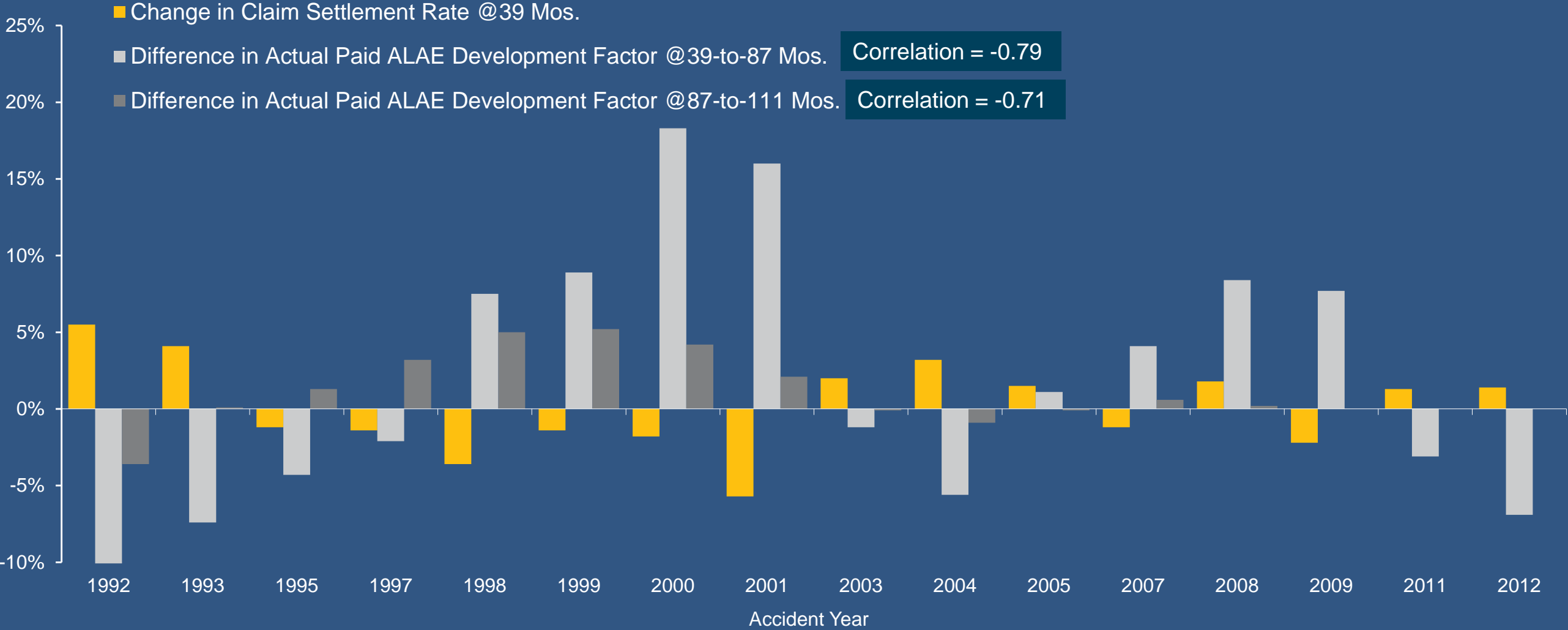
Comparison of Claim Settlement Rate Change to Prior Period Paid ALAE Development (Exhibit 2.1)



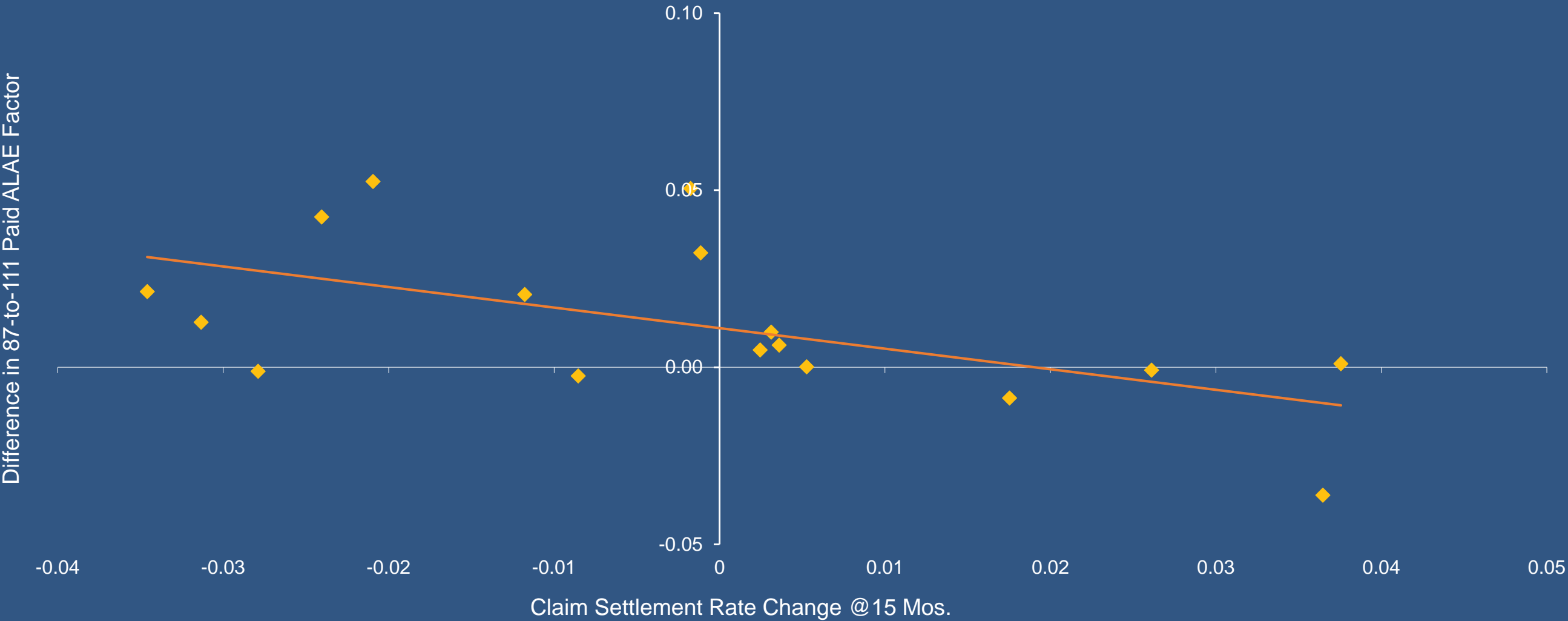
Claim Settlement Rate Impact on ALAE Development

- Berquist-Sherman approach not viable for paid ALAE
- Claim settlement rate change may still impact future paid ALAE development
- Reviewed in 2015 for medical development
 - Some negative correlation between settlement rate change and later paid medical development
 - Relationship not very strong or consistent
- Approach updated to review paid ALAE development
 - Change in early period claim settlement rate above 1.5 points considered “significant”
 - Compared to difference in paid ALAE development for AY compared to projected based on same CY of claim settlement rate change

Comparison of Claim Settlement Rate Change to Future Period Paid ALAE Development (Exhibits 3 and 5)



Comparison of Claim Settlement Rate Change to Future Period Paid ALAE Development



Adjusting Future ALAE Development for Claim Settlement Changes

- Staff compared linear relationship between claim settlement rate change and future paid ALAE development change
 - 15-month settlement change compared to 15-to-39 development, 39-to-63, etc. up to 111 months
 - 27-month settlement change compared to 39-to-63 development, etc. up to 111 months
- Adj. R-squareds were modest but not insignificant
 - Very consistent across periods other than one anomalous period
 - Average of 0.38
- Impact after 111 months estimated assuming impact decreases by 50% each period (from observed results)
- Overall results:
 - 15-month settlement change of +1% results in **-6.3%** change in 15-to-Ult. paid ALAE factor
 - 27-month settlement change of +1% results in **-2.6%** change in 27-to-Ult. paid ALAE factor
- Given modest R-squared, could judgmentally temper based on average R-squared (38%)
 - 15-month settlement change of +1% results in **-2.4%** change in 15-to-Ult. paid ALAE factor
 - 27-month settlement change of +1% results in **-1.0%** change in 27-to-Ult. paid ALAE factor
- Would only apply during periods of significant claim settlement rate change

Impact of SB 1160 Lien Reforms on ALAE Development

- SB 1160 effective in 2017 included a number of provisions related to lien filings
- Current estimates show 60% reduction in lien filings
 - Based on prospective estimate, this results in 9.6% decrease in ALAE costs
- 1/1/2019 Filing reflects SB 1160 savings as adjustment to projected ALAE ratio
 - Savings to medical (3.6%) reflected primarily in loss development adjustments
- Some savings in emerging ALAE costs
 - Staff judgmentally tempered total 9.6% savings based on current % of ultimate ALAE paid for AYs 2017 and 2018
- Staff reviewed alternative adjustments to ALAE development or on-leveling
- Detailed data on lien impact on ALAE development not available

Impact of SB 1160 Lien Reforms on ALAE Development

- Alternative #1 – Assume impact on ALAE development proportional to medical (scaled by 9.6% / 3.6%)
 - Results in overall impact greater than 9.6% estimated by WCIRB
 - Does not reflect potential impact of SB 1160 dampening emerging paid ALAE development

Component	27-Ult. Adj.	39-Ult. Adj.	51-Ult. Adj.	63-Ult. Adj.	75-Ult. Adj.
Medical	-4.8%	-3.7%	-2.5%	-1.5%	-0.7%
ALAE	-12.8%	-9.9%	-6.7%	-4.0%	-1.9%

- Alternative #2 – Reflect as on-level adjustment to ALAE
 - ALAE paid prior to 12/31/2016 on-leveled for full impact of SB 1160
 - Difficult to assess how much of emerging ALAE development reflects SB 1160
- Alternative #3 – Continue to reflect as separate adjustment to ALAE ratio
 - -7.2% as of 3/31/2019 based on 25% tempering
 - Does not reflect potential impact of SB 1160 dampening emerging paid ALAE development

06

1/1/2020 Filing – Loss Adjustment Expense Experience Review



Adjustments to ULAE

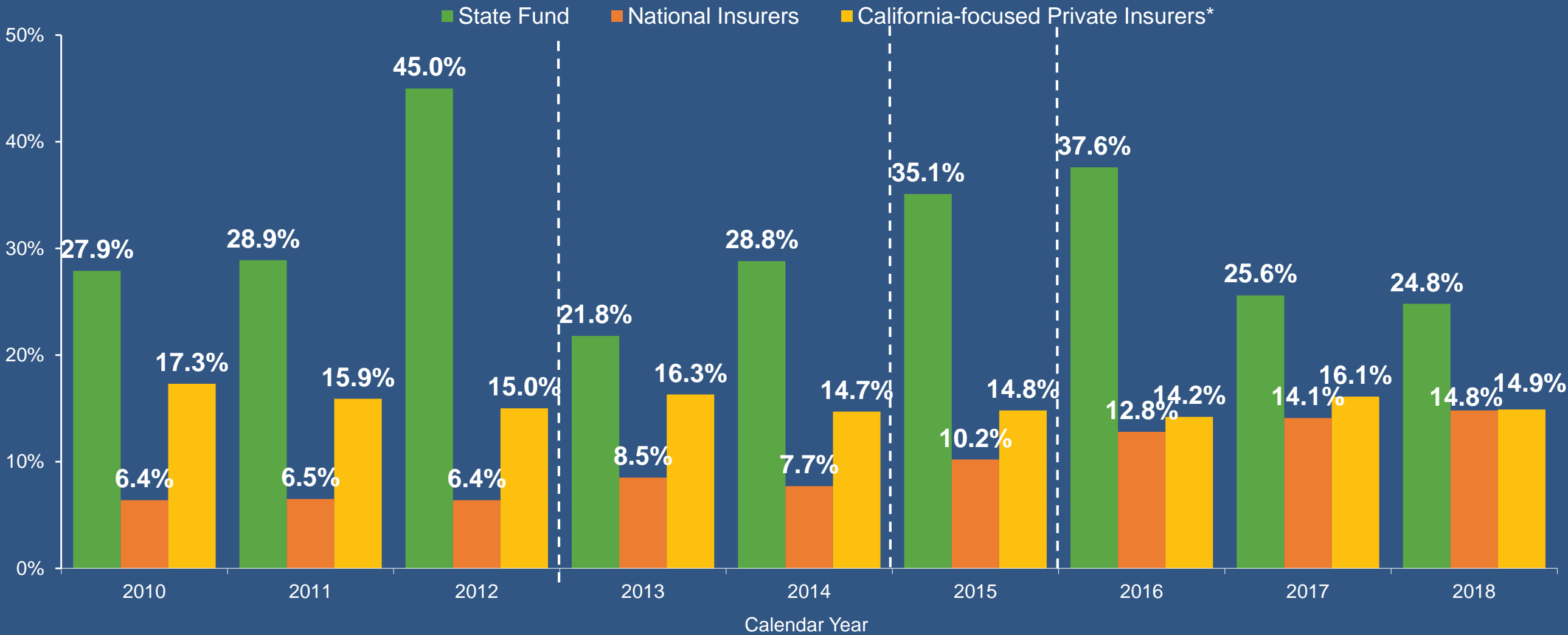
- Changes to 2015 Expense Call to collect:
 - Negative “service fee”-type adjustments to CW ULAE
 - Losses on deductible policies or handled by TPA in which associated ULAE not in reported CW amounts
 - Various CW amounts consistent with IEE
 - ULAE for 2015 and forward adjusted for ratemaking using this information
 - ULAE for 2013 & 2014 partially adjusted based on information provided by several large national insurers
- Changes to 2017 Expense Call to collect:
 - CW indemnity claim counts open as of the 12/31 of the prior calendar year
 - ULAE for 2016 and forward apportioned to CA based on open indemnity claim counts

Computation of Adjusted ULAE for CA for 2016 to 2018

1.	CW ULAE Adjusted For Negatives	=	[CW Paid ULAE] + [Amount of Negative ULAE Adjustment]
2.	Adjusted CW Losses	=	[CW Paid Losses] – [Loss for Claims not in ULAE from Deduct. Policies] – [Loss for Claims not in ULAE from Non-Deduct. Policies]
3.	Adjusted CW ULAE Ratio	=	$\frac{[\text{CW ULAE Adjusted for Negatives}]}{[\text{Adjusted CW Losses}]}$
4.	Adjusted CW Paid ULAE	=	[Adjusted CW ULAE Ratio] x [CW Gross Paid Losses]
5.	Adjusted CA Paid ULAE	=	$\frac{[\text{Adjusted CW Paid ULAE}] \times [\text{CA Open Indemnity Claim Counts}]}{[\text{CW Open Indemnity Claim Counts}]}$

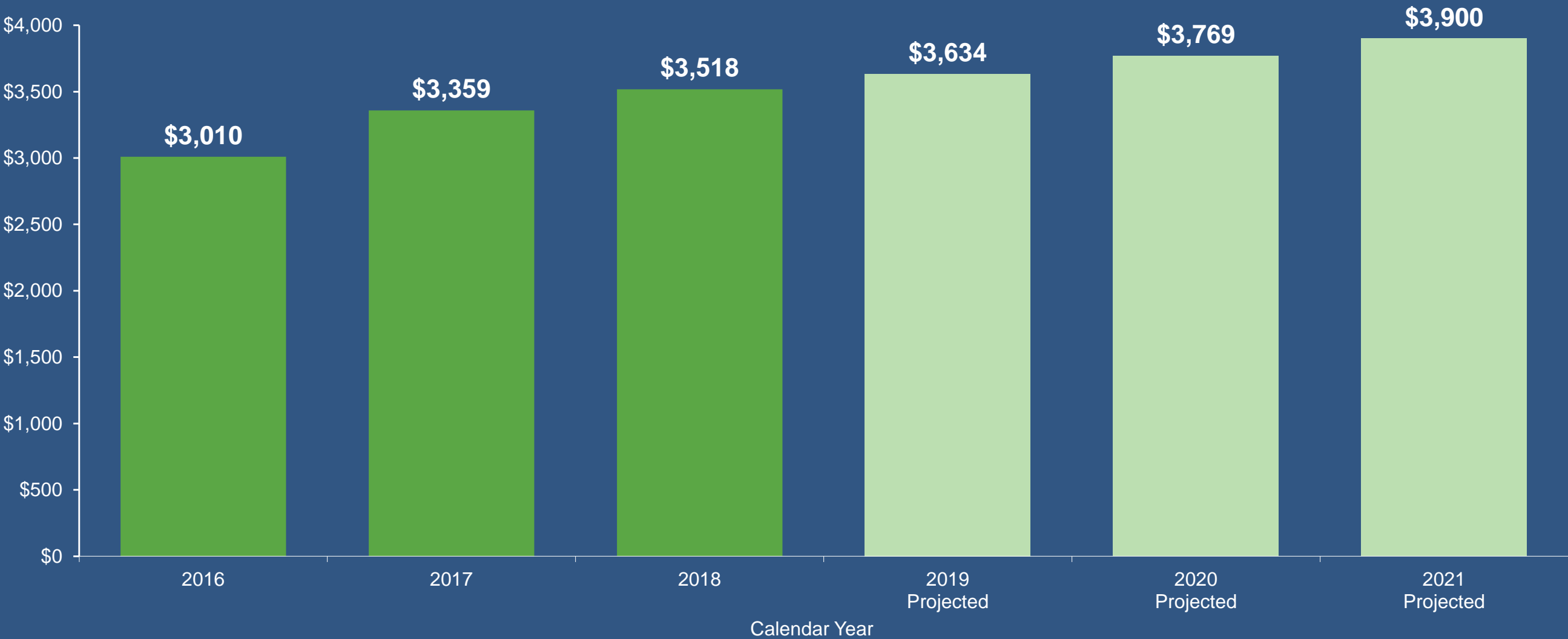
Ratios of Paid ULAE to Paid Losses (Exhibit 1)

As of December 31, 2018



Paid ULAE per Open Indemnity Claim – Private Insurers (Exhibit 2)

As of December 31, 2017



ULAE Projection Methodology

Open Indemnity Claim-based Projection

- Open Indemnity Claims at Beginning of Calendar Year
 - Projected using WCIRB frequency forecasts and recent reporting and closure patterns
- Calendar Year Paid ULAE per Open Indemnity Claim
 - Data based on private insurers only
 - Future values projected using blend of UCLA Anderson and CA Department of Finance average wage level changes
 - Changes in historical ULAE severities not used until sufficient data based on the new approach is available
- Projected Policy Year 2020 ULAE
 - Trend to future CYs based on average of CYs 2017 & 2018
 - (# of open indemnity claims) X (paid ULAE per open indemnity claim)
 - Paid ULAE per open claim projected out 3.0 years to approx. average ULAE payment date on 2020 policies

ULAE Projection Methodology

Paid Loss-based Projection

- Calendar Year Paid ULAE Ratio to Premium
- Paid Loss Ratio to Premium
 - Projected using paid loss development projections
- Paid ULAE Ratio to Paid Losses
 - Data based on private insurers only
 - $(\text{Paid ULAE to premium ratio}) / (\text{paid loss to premium ratio})$
 - Projected using average of CYs 2017 & 2018
- Projected Policy Year 2020 ULAE to Loss Ratio
 - $\text{Projected ULAE ratio to premium} = (\text{projected paid ULAE to paid loss ratio}) \times (\text{projected paid loss to premium ratio})$
 - Average of CYs 2020 and 2021
 - Divide by projected policy year 2020 loss ratio

Projections of ULAE to Loss

January 1, 2019 Filing Projection

Method	ULAE Projection
Paid ULAE per Open Indemnity Claim	14.9%
Paid ULAE to Paid Losses	12.2%
Average of Two Projection Methods	13.6%

Policy Year 2020 Projection

Method	ULAE Projection
Paid ULAE per Open Indemnity Claim	15.6%
Paid ULAE to Paid Losses	13.9%
Average of Two Projection Methods	14.8%

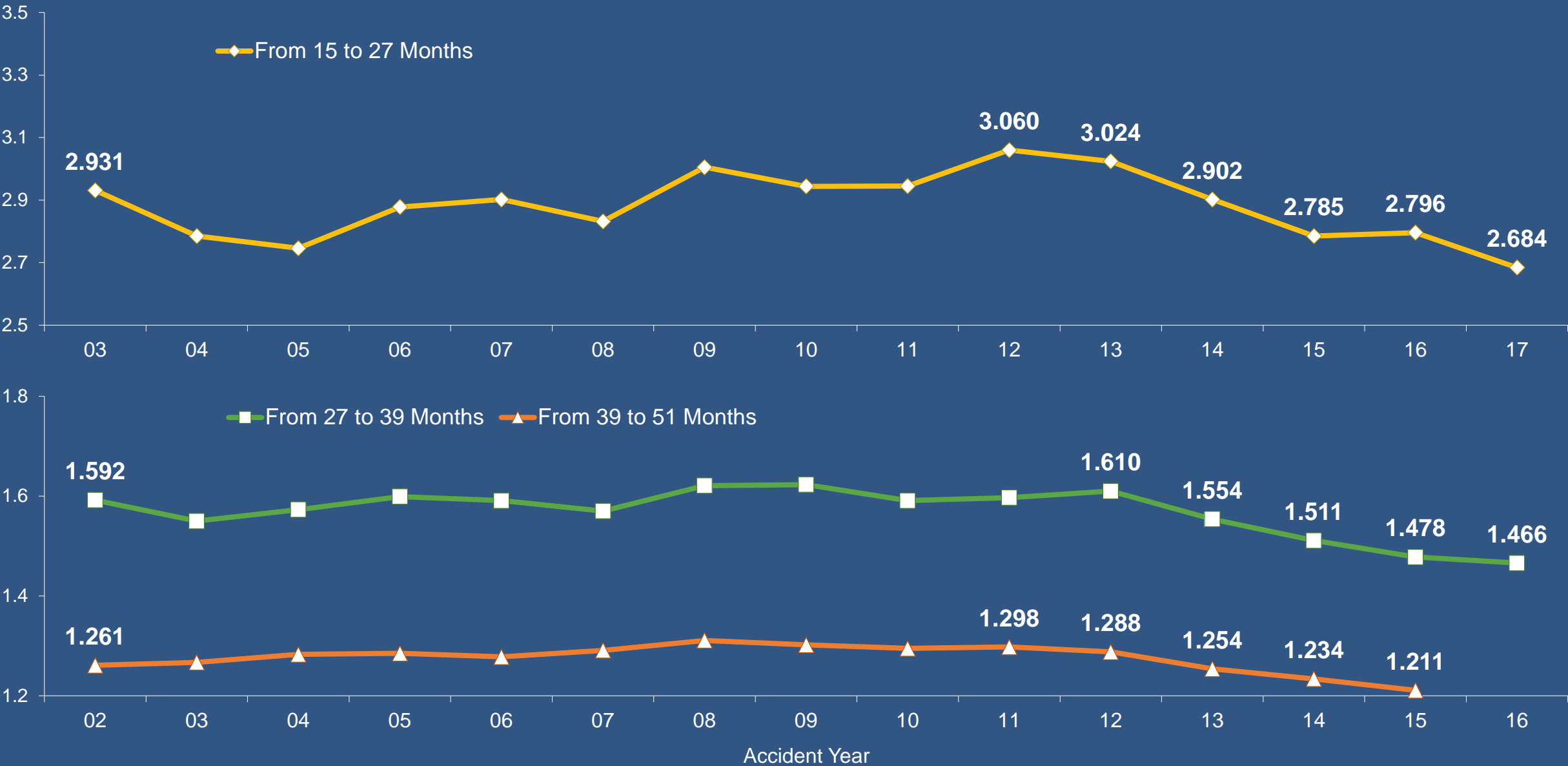
Projected ULAE to Loss Under Alternative Methods

Policy Year 2020 Projection

Method	ULAE Projection
Average of Open Indemnity Claim-based and Paid Loss-based Projections	14.8%
Paid ULAE per Open Indemnity Claim Applied to the Latest Two Years	15.6%
Paid ULAE to Paid Losses Applied to the Latest Two Years	13.9%
Paid ULAE per Open Indemnity Claim Applied to the Latest Year	15.7%
Paid ULAE to Paid Losses Applied to the Latest Year	13.9%
Paid ULAE per Weighted Open Indemnity Claim Applied to the Latest Two Years	15.1%
Latest Two Calendar Year Paid ULAE to Loss Ratios	14.6%
Latest Calendar Year Paid ULAE to Loss Ratio	14.8%

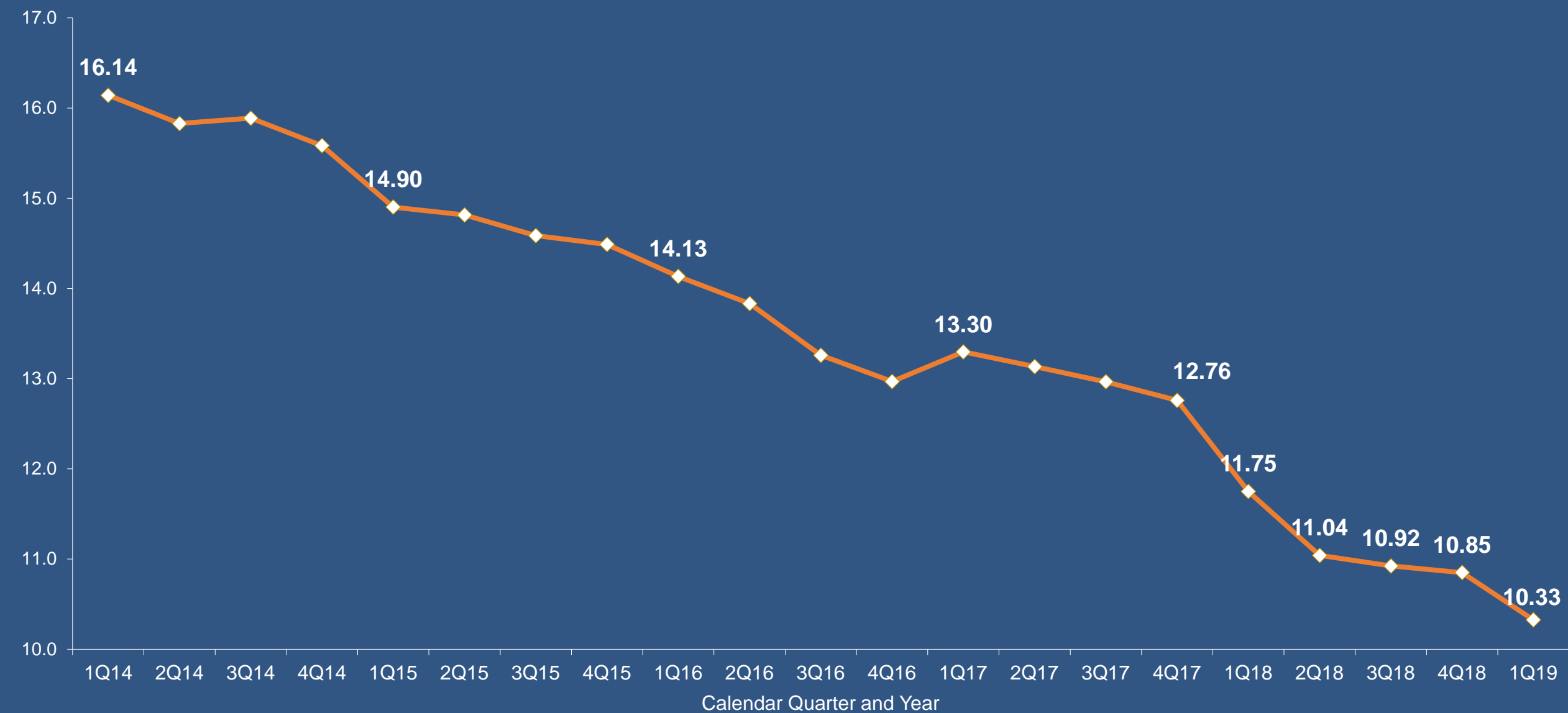
Paid ALAE Development – Private Insurers (Exhibit 11.1)

As of March 31, 2019



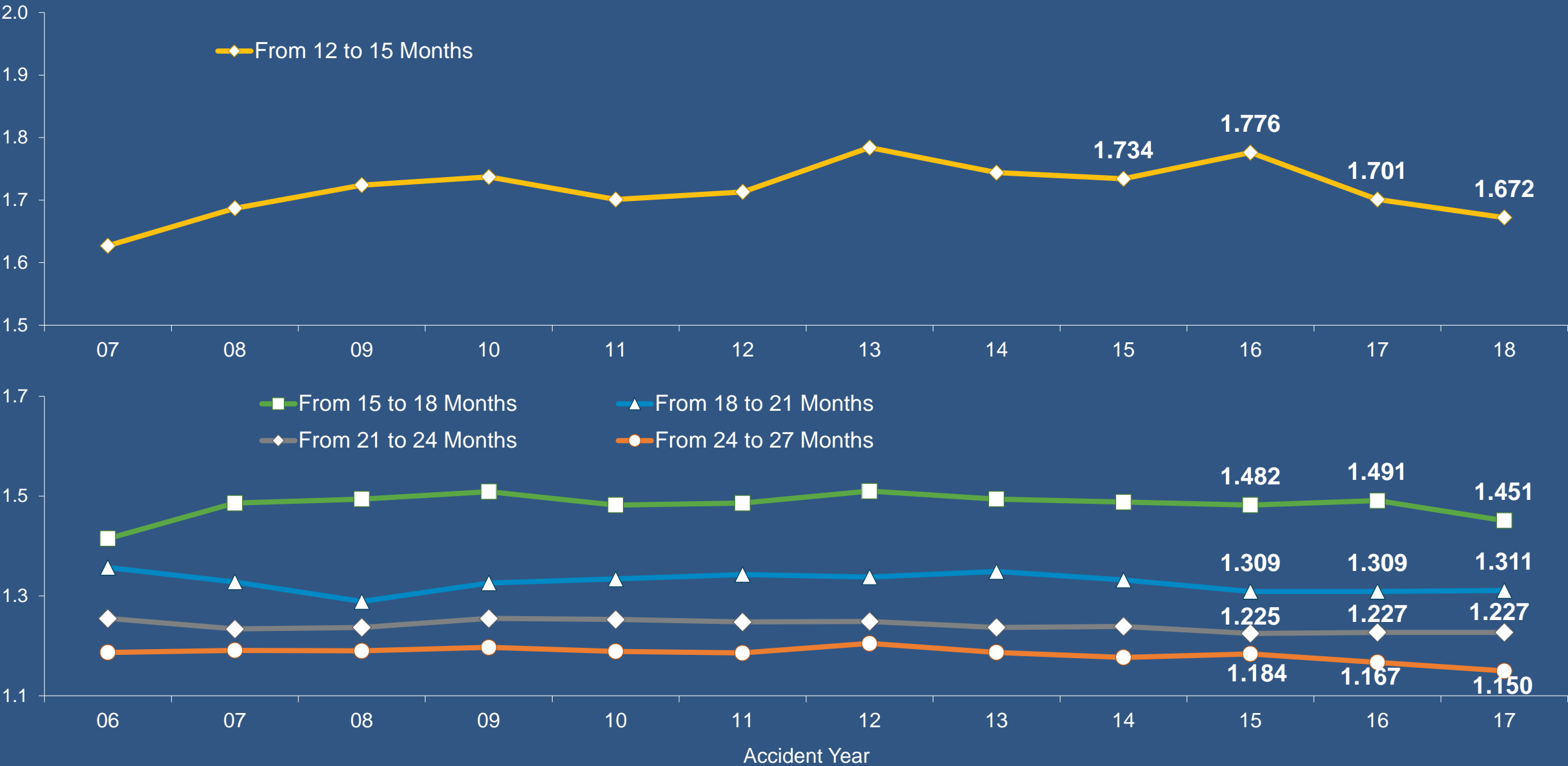
Cumulative Paid ALAE Development from 12 to 90 Months

As of March 31, 2019



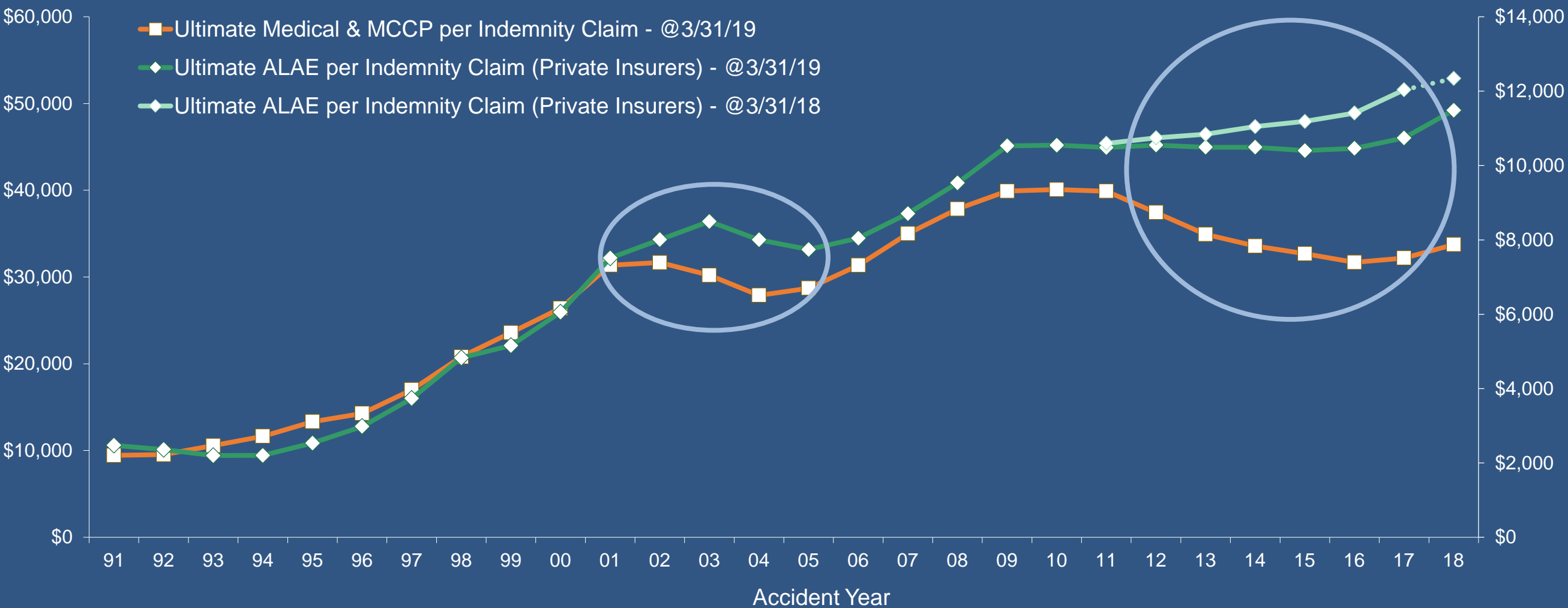
Paid ALAE Quarterly Development – Private Insurers (Exhibit 11.2)

As of March 31, 2019



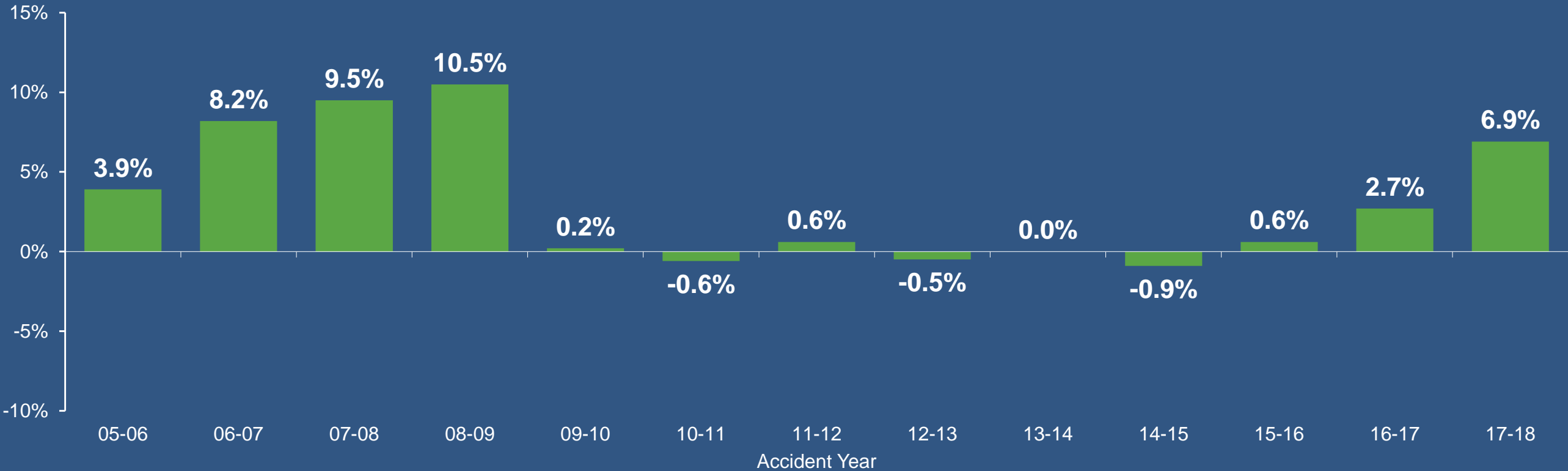
Ultimate Medical and ALAE per Indemnity Claim

As of March 31, 2019



Projected Changes in Ultimate ALAE Severity – Private Insurers (Exhibit 9)

As of March 31, 2019



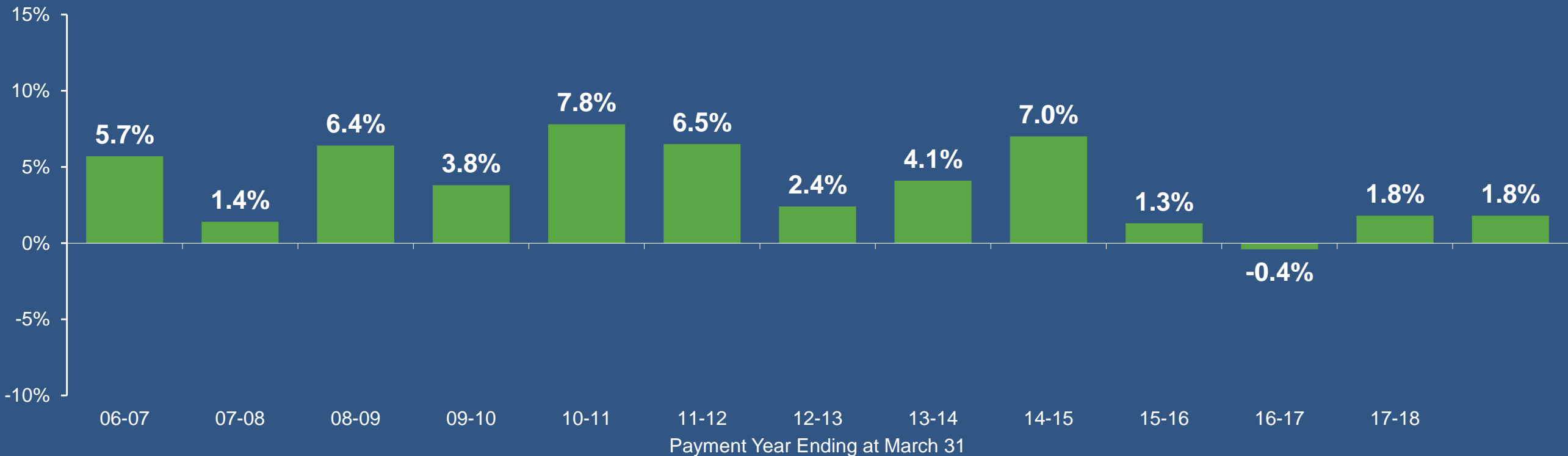
Annual Exponential Trend Based on:

2005 to 2018: +2.3%

2014 to 2018: +2.2%

Change in Incremental Paid ALAE per Open Indemnity Claim – Private Insurers (Exhibit 10)

As of March 31, 2019



Annual Exponential Trend Based on:

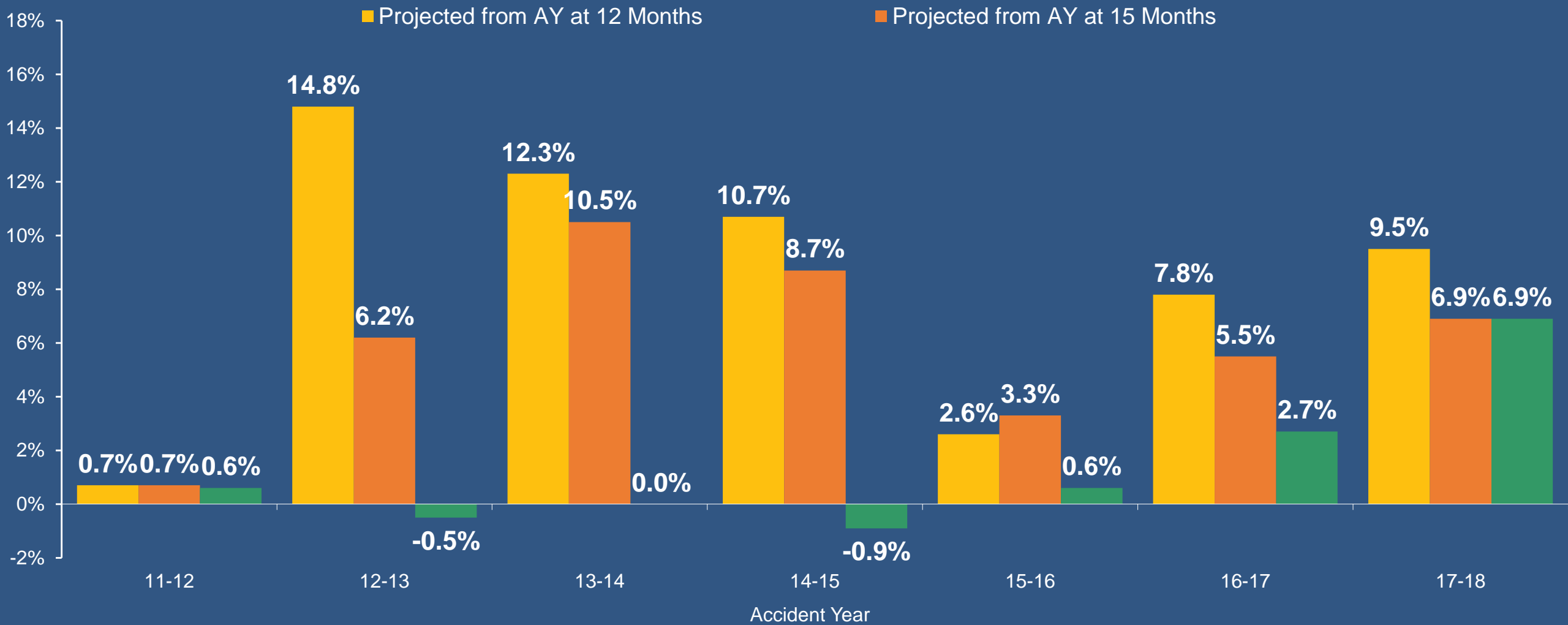
2006 to 2019: +4.0%

2014 to 2019: +1.4%

Agenda Selected ALAE Severity Trend: +2.5%

ALAE Severity Changes Projected from 12 Months Compared to Current

As of March 31, 2019



ALAE Projection Methodology

- Accident Year Ultimate Indemnity Claim Counts
 - Latest year development
 - Projected using WCIRB frequency forecasts
- Accident Year Ultimate ALAE per Indemnity Claim
 - Data based on private insurers only
 - Latest year development with inverse power curve tail
 - Projected using average of ultimate ALAE per indemnity claim and incremental paid ALAE per open indemnity claim for both long-term and short-term periods
- Projected Policy Year 2020 ALAE
 - (Projected # of ultimate indemnity claims) X (projected ultimate ALAE per indemnity claim)
 - Projection from latest two accident years
- Initial projected ratio reduced for savings from SB 1160 & AB 1244 not yet significantly reflected in emerging ALAE costs
 - 9.6% full savings to ALAE
 - 7.2% adjustment reflected, assuming 25% of savings in AYs 2017 & 2018 (based on cumulative paid LDFs)

Projected ALAE (Excl. MCCP) to Loss Under Alternative Methods

January 1, 2019 Filing Projection

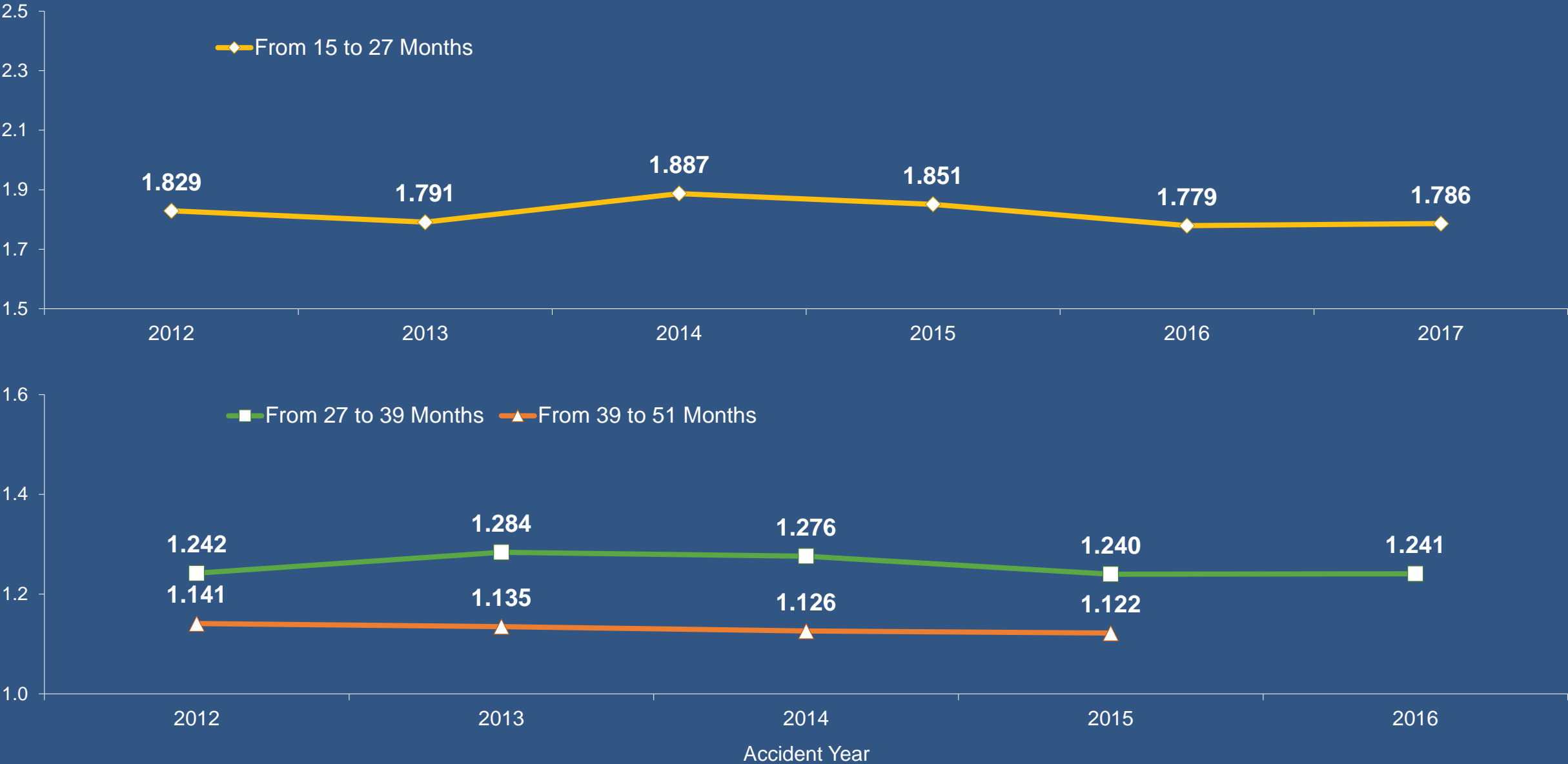
Method	ALAE Projection
Projected Ultimate ALAE per Indemnity Claim – Trend from Latest Two Years	18.9%

Policy Year 2020 Projection

Method	ALAE Projection
Projected Ultimate ALAE per Indemnity Claim – Trend from Latest Two Years	17.4%
Projected Ultimate ALAE per Indemnity Claim – Trend from Latest Year	18.0%
Latest Year Paid ALAE Ratio Development Compared to Losses – Trend from Latest Two Years	17.8%
Latest Year Paid ALAE to Paid Indemnity Development Compared to Losses – Trend from Latest Two Years	15.8%

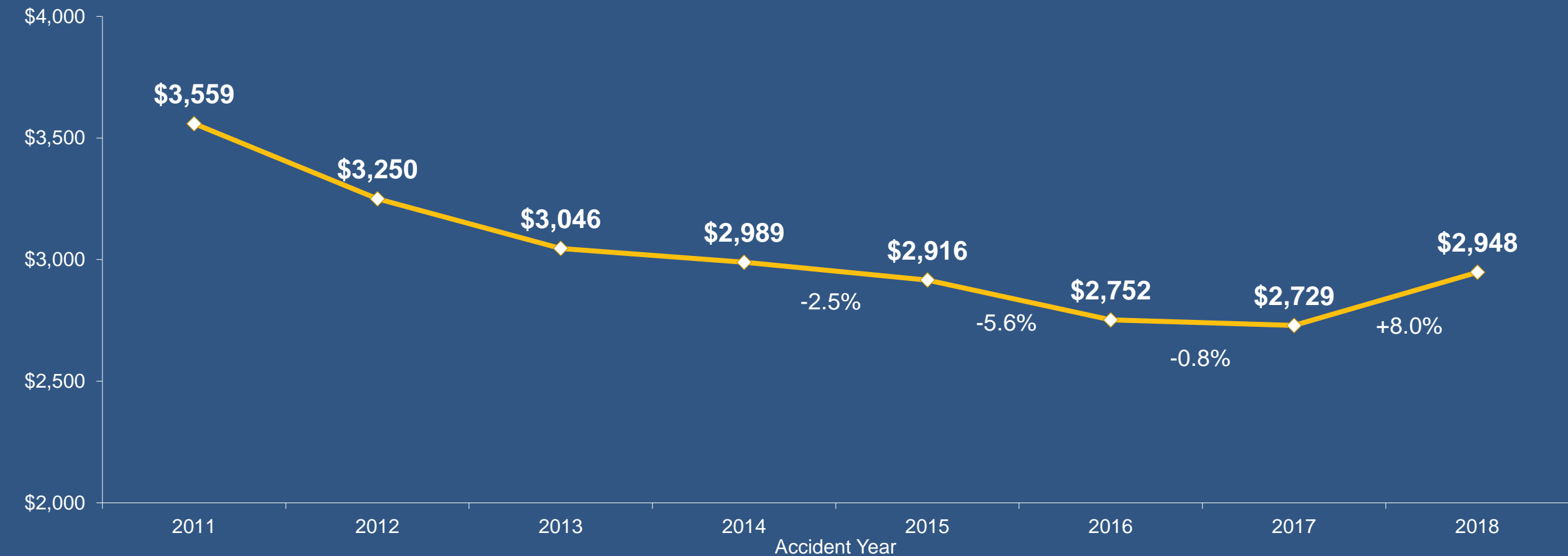
Paid MCCP Development (Exhibit 18.1)

As of March 31, 2019



Projected Ultimate MCCP per Indemnity Claim (Exhibit 16)

As of March 31, 2019



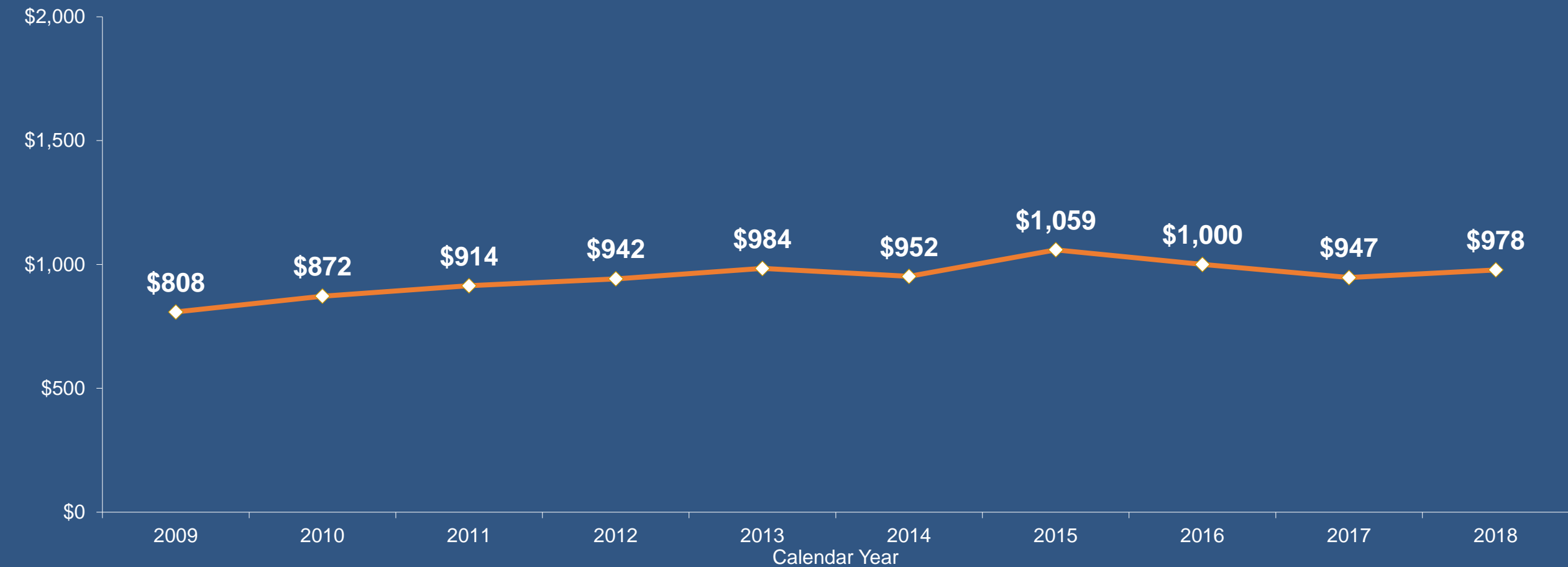
Annual Exponential Trend Based on:

2012 to 2018: -2.1%

2014 to 2018: -0.9%

Calendar Year Paid MCCP per Indemnity Claims Inventory (Exhibit 17)

As of December 31, 2018



Annual Exponential Trend Based on:
2009 to 2018: +1.9%
Agenda Selected MCCP Severity Trend: 0%

MCCP Projection Methodology

- MCCP methodology based on that for ALAE
 - Statewide data used
 - Development based on latest-year paid MCCP through 87 months and paid medical after 87 months
 - Trend based on average changes in CY MCCP per open claim and ultimate AY MCCP per indemnity claim
- Initial projected ratio reduced for savings from Drug Formulary not yet significantly reflected in emerging MCCP costs
 - 2.6% full savings to MCCP
 - 2.0% adjustment reflected, assuming 25% of savings in AYs 2017 & 2018 (based on cumulative paid LDFs)

Projected ALAE (Excl. MCCP) to Loss Under Alternative Methods

January 1, 2019 Filing Projection

Method	MCCP Projection
Projected Ultimate MCCP per Indemnity Claim – Trend from Latest Two Years	4.0%

Policy Year 2020 Projection

Method	MCCP Projection
Projected Ultimate MCCP per Indemnity Claim – Trend from Latest Two Years	4.4%
Projected Ultimate MCCP per Indemnity Claim – Trend from Latest Year	4.6%
Projected Ultimate MCCP per Indemnity Claim – Trend Based on CY Paid MCCP per Open Indemnity Claim Applied to Latest Two Years	4.1%
Projected Ultimate MCCP per Indemnity Claim – Trend Based on AY Ultimate MCCP per Open Indemnity Claim Applied to Latest Two Years	4.6%

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