

WCIRB Actuarial Committee Meeting

September 8, 2020

Agenda

1. Working Group Meeting Summaries
2. AC20-08-01: 6/30/2020 Experience Review
3. AC20-04-04: COVID-19 Crisis
4. AC20-08-02: 2020 Data Certification Form

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01

Working Group Meeting Summaries



02

6/30/2020 Experience Review

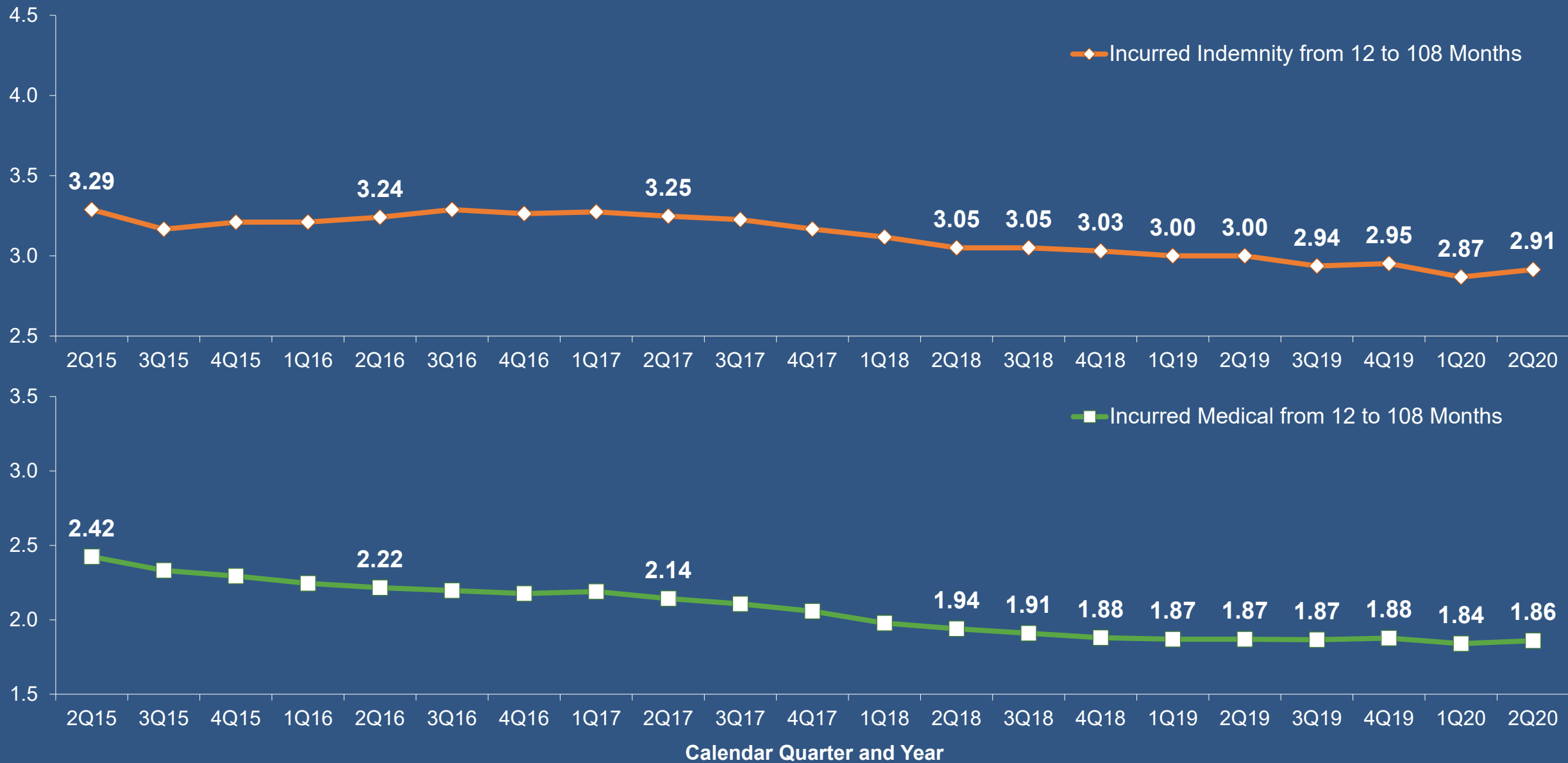


Summary of 6/30/2020 Experience

- 1/1/2021 Filing submitted on August 26 based on March 31, 2020 experience
- June 30 experience is predominantly during shelter-in-place period
- Atypical changes in June 30, 2020 data:
 - Slower claim count reporting
 - Decreases in payments, increases in case reserves
 - Decline in claim settlement rates
- June 30, 2020 data may not be appropriate to project future claim development

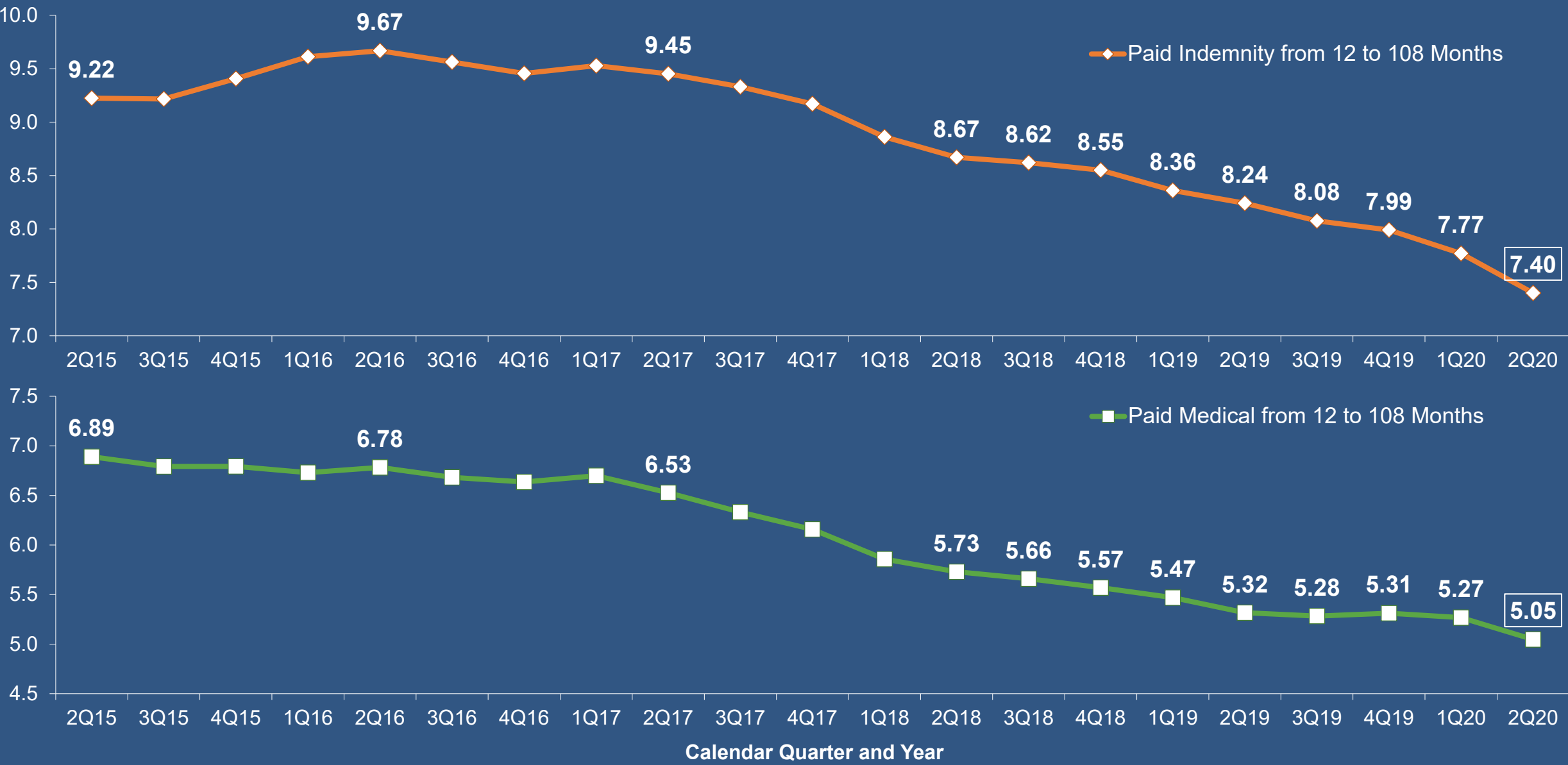
Cumulative Incurred Development from 12 to 108 Months

As of June 30, 2020



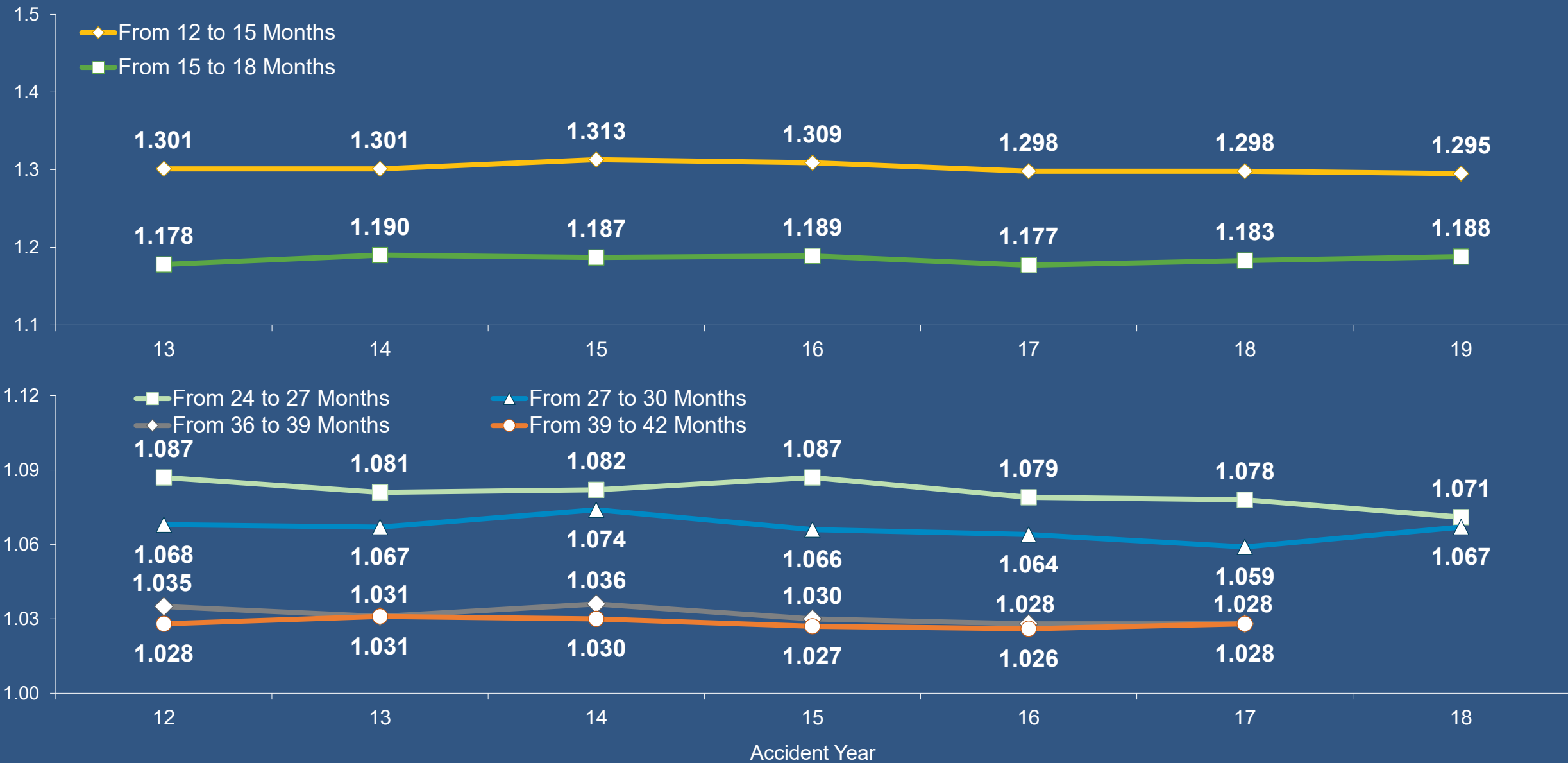
Cumulative Paid Development from 12 to 108 Months

As of June 30, 2020



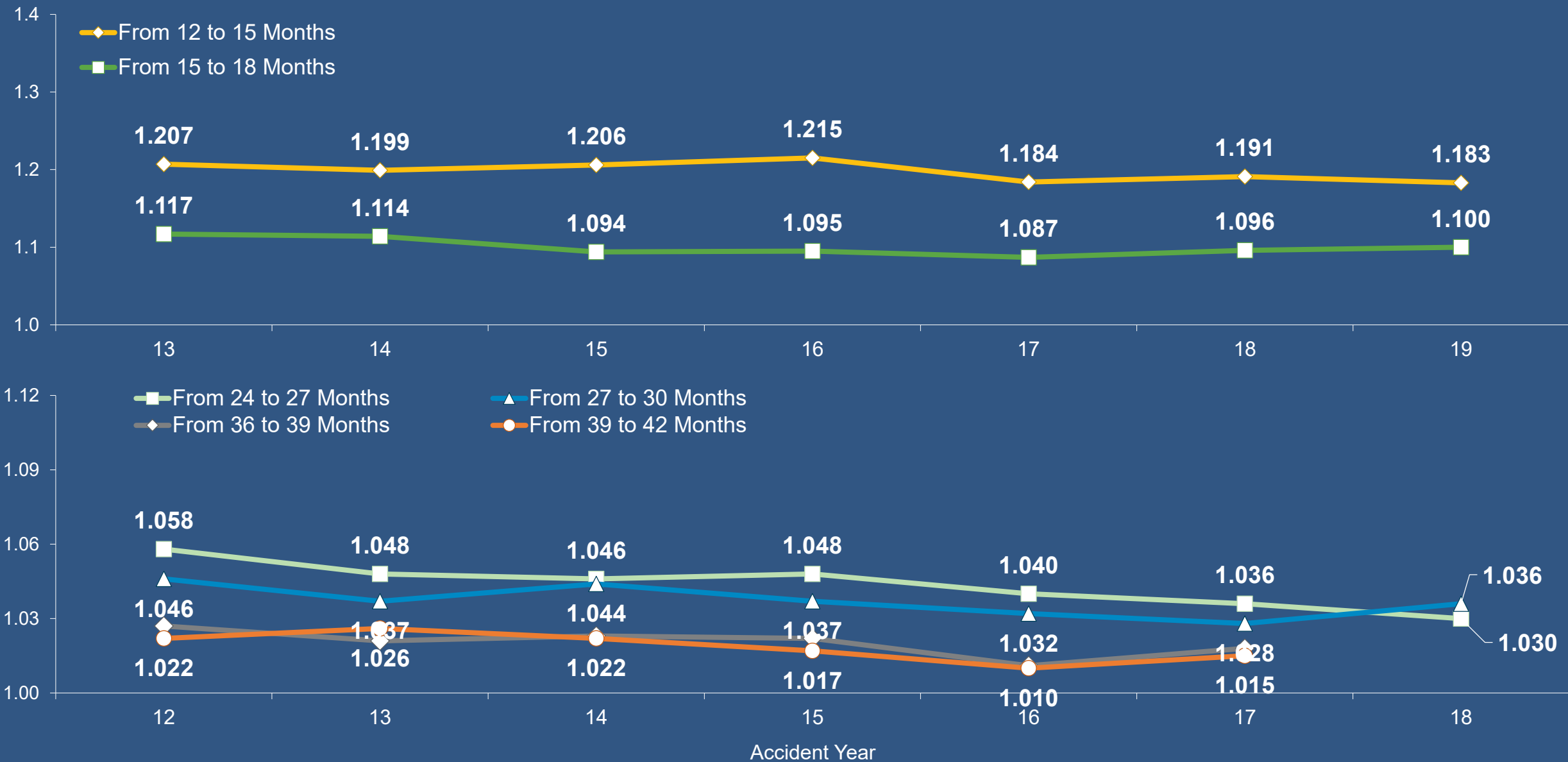
Incurred Indemnity Quarterly Development (Exhibit 4.1)

As of June 30, 2020



Incurred Medical Quarterly Development (Exhibit 4.2)

As of June 30, 2020



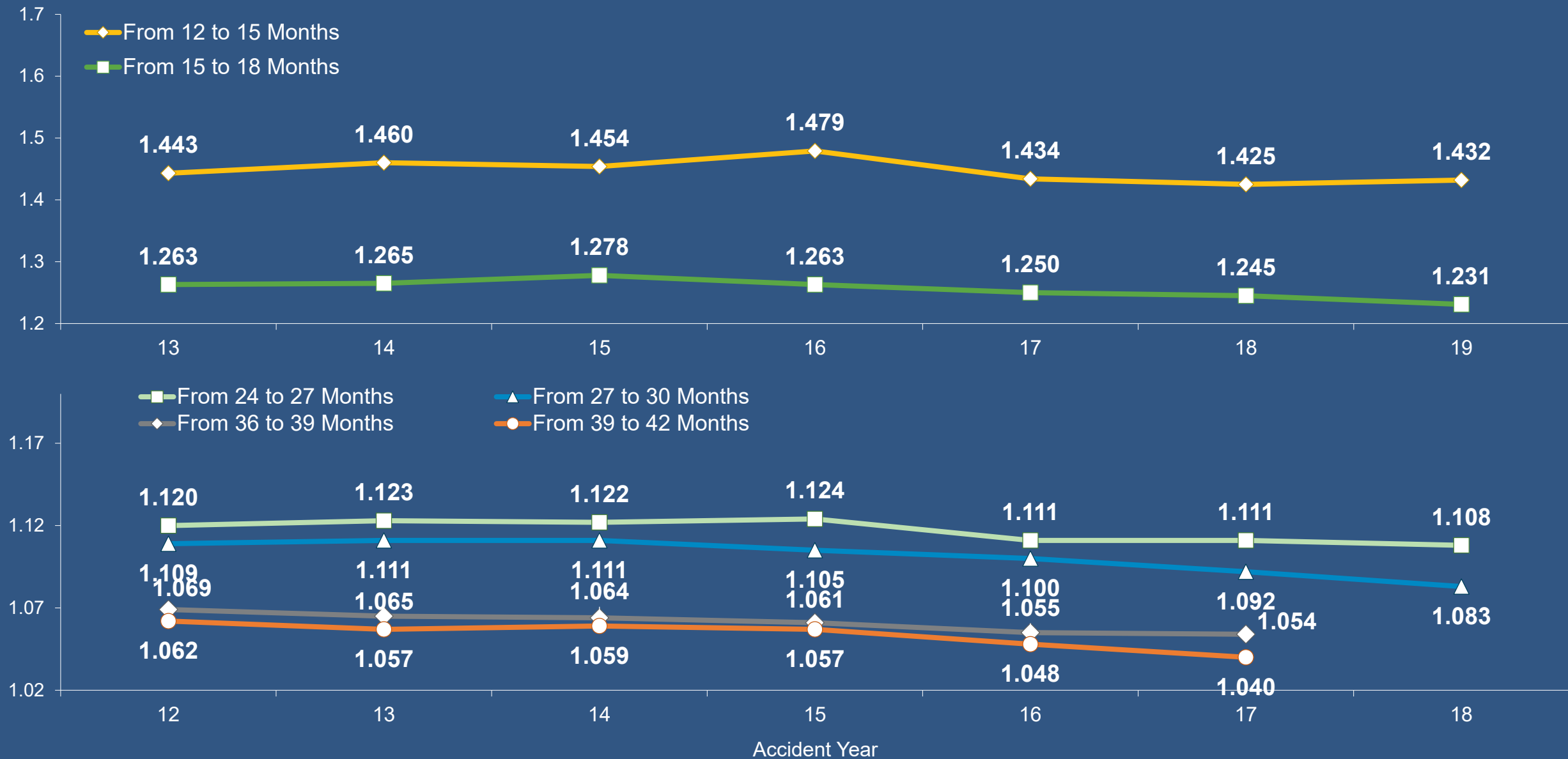
Paid Indemnity Quarterly Development (Exhibit 4.3)

As of June 30, 2020



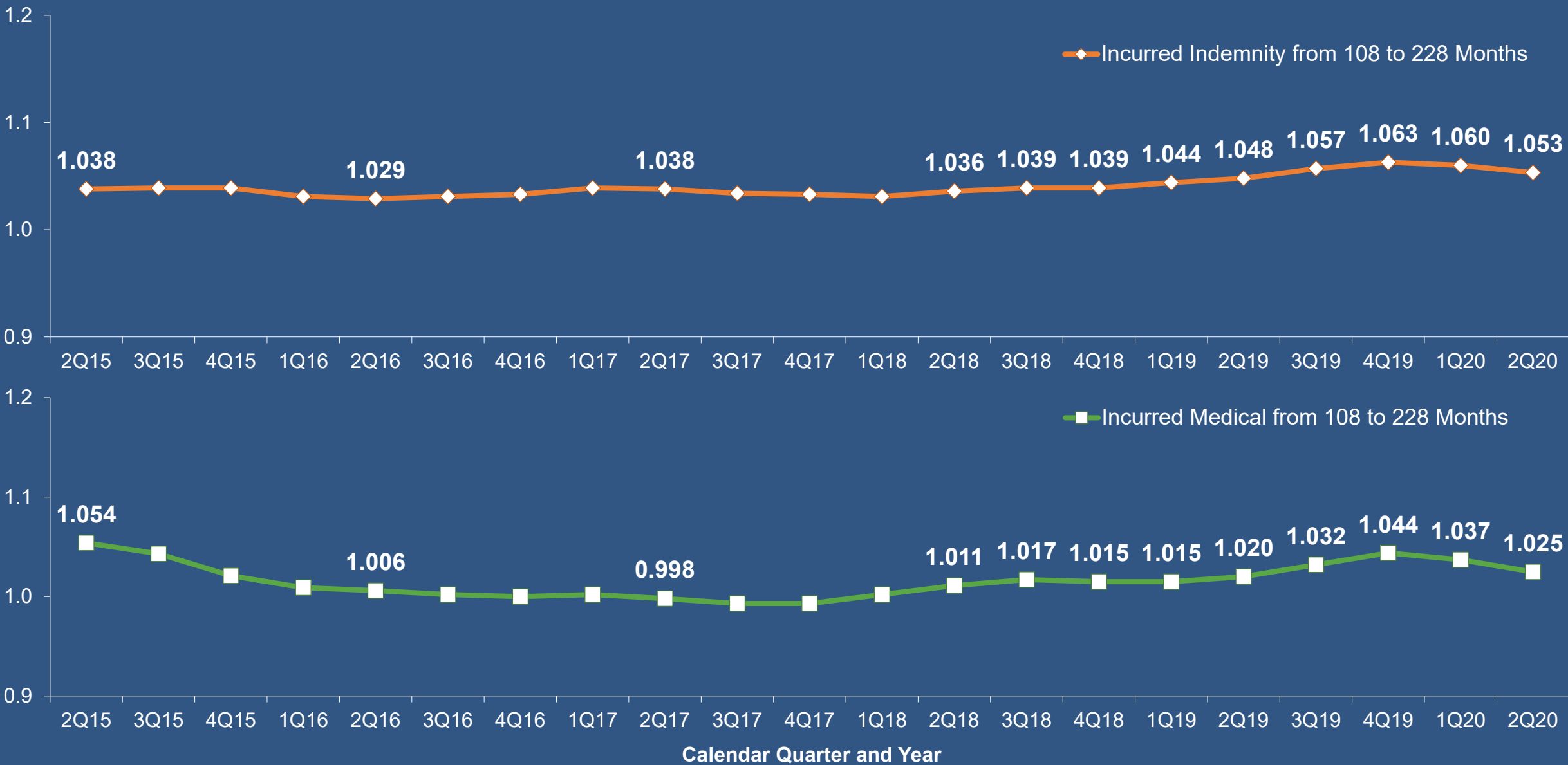
Paid Medical Quarterly Development (Exhibit 4.4)

As of June 30, 2020



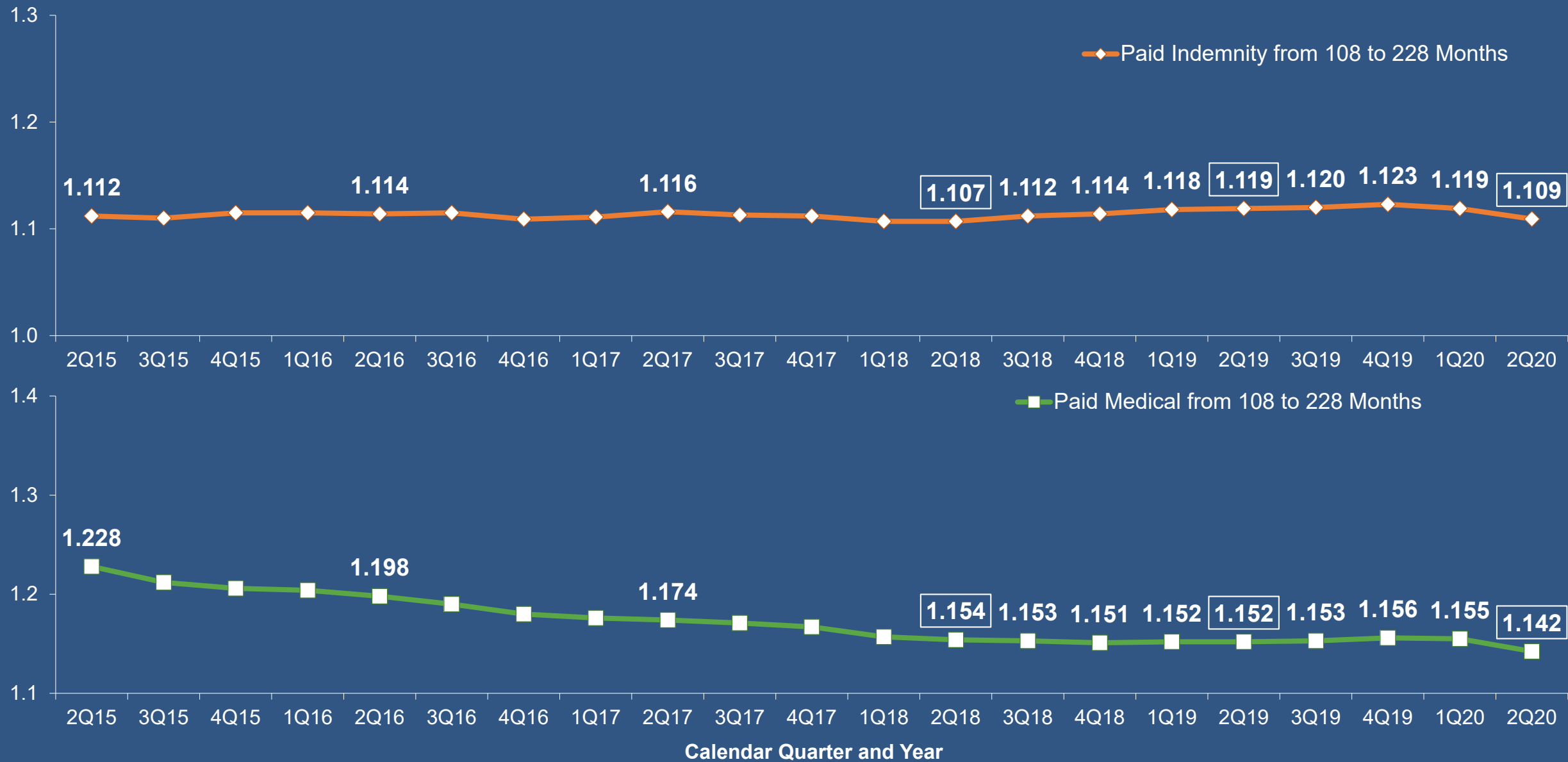
Cumulative Incurred Development from 108 to 228 Months

As of June 30, 2020



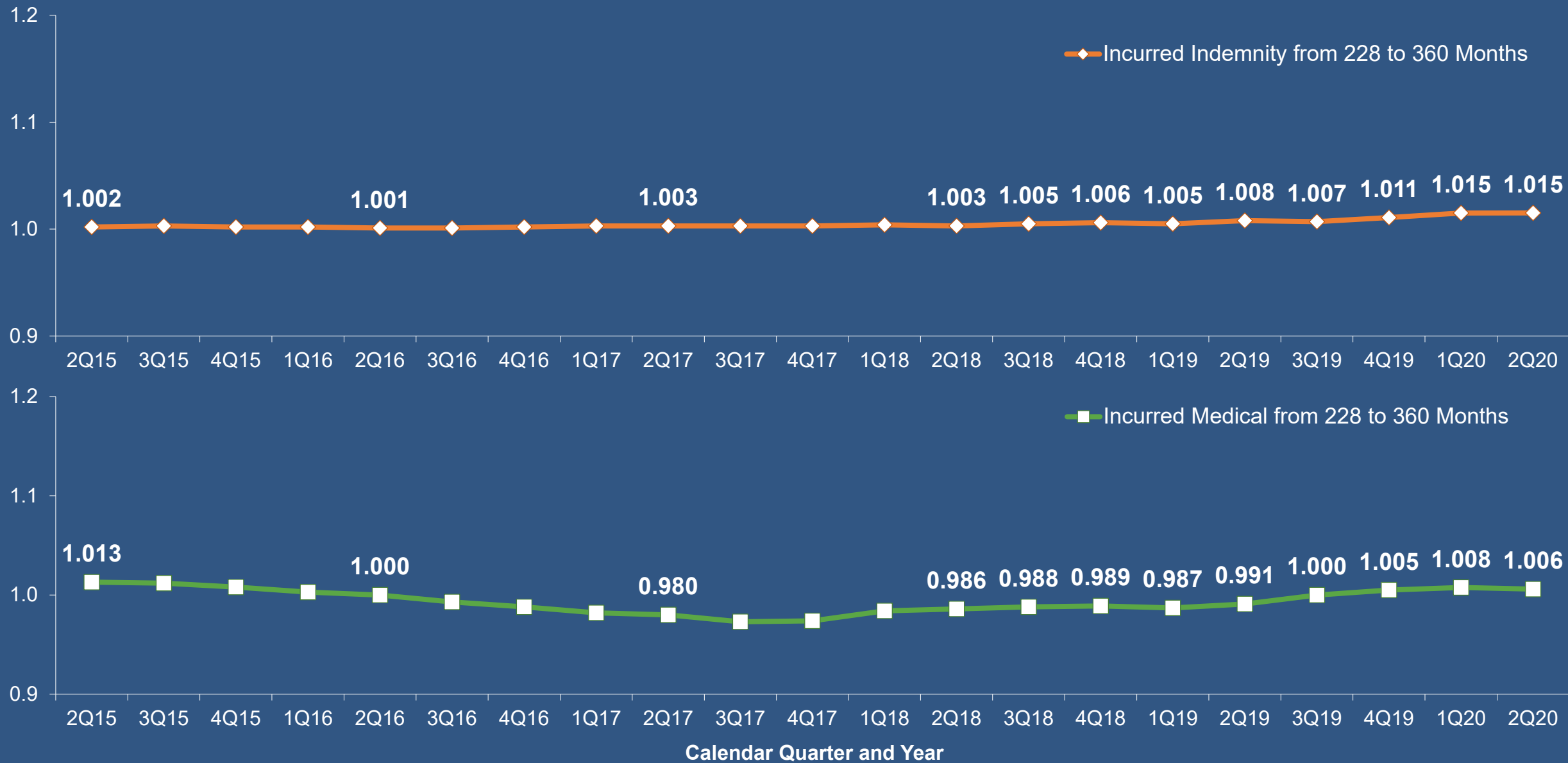
Cumulative Paid Development from 108 to 228 Months

As of June 30, 2020



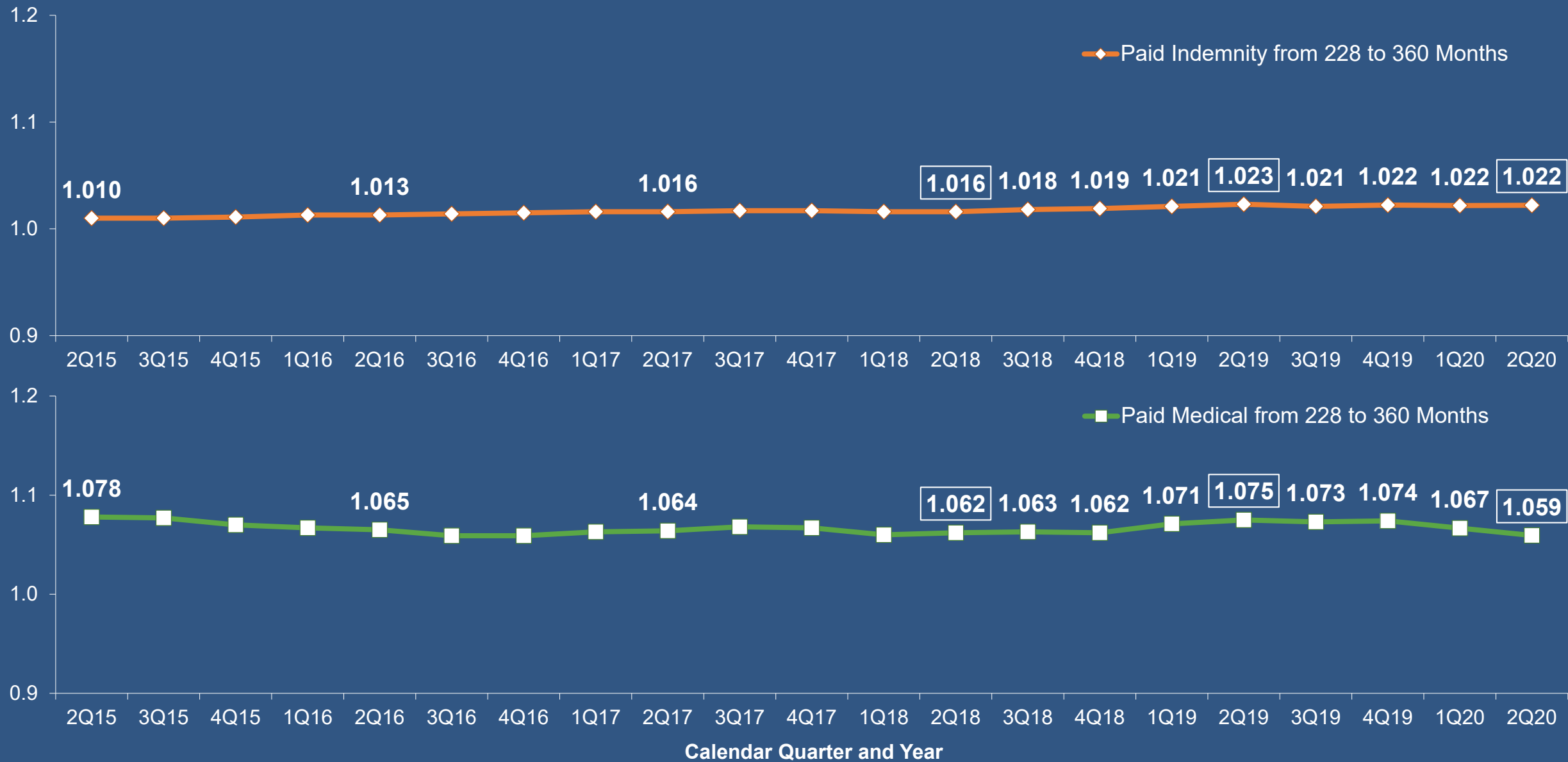
Cumulative Incurred Development from 228 to 360 Months

As of June 30, 2020



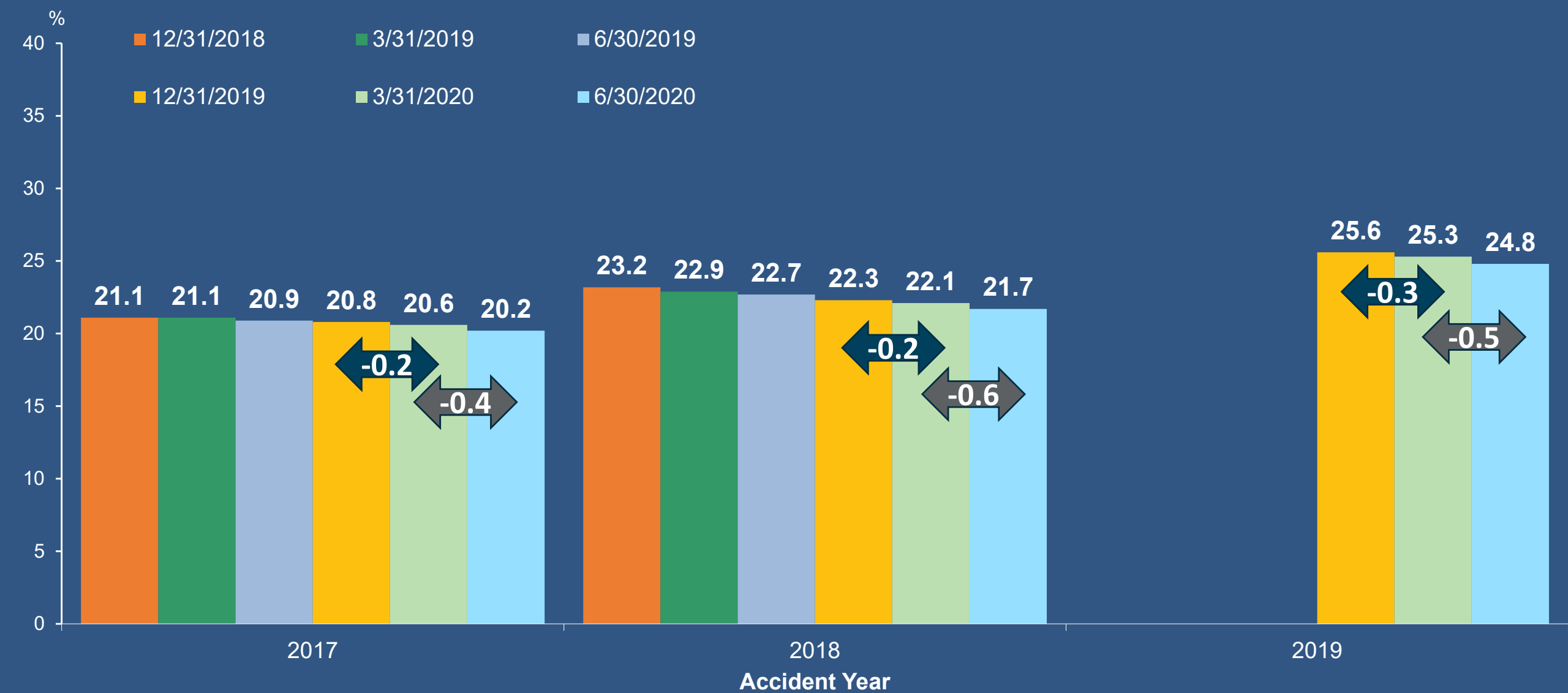
Cumulative Paid Development from 228 to 360 Months

As of June 30, 2020



Developed Indemnity Loss Ratios (Exhibit 3.1)

As of June 30, 2020



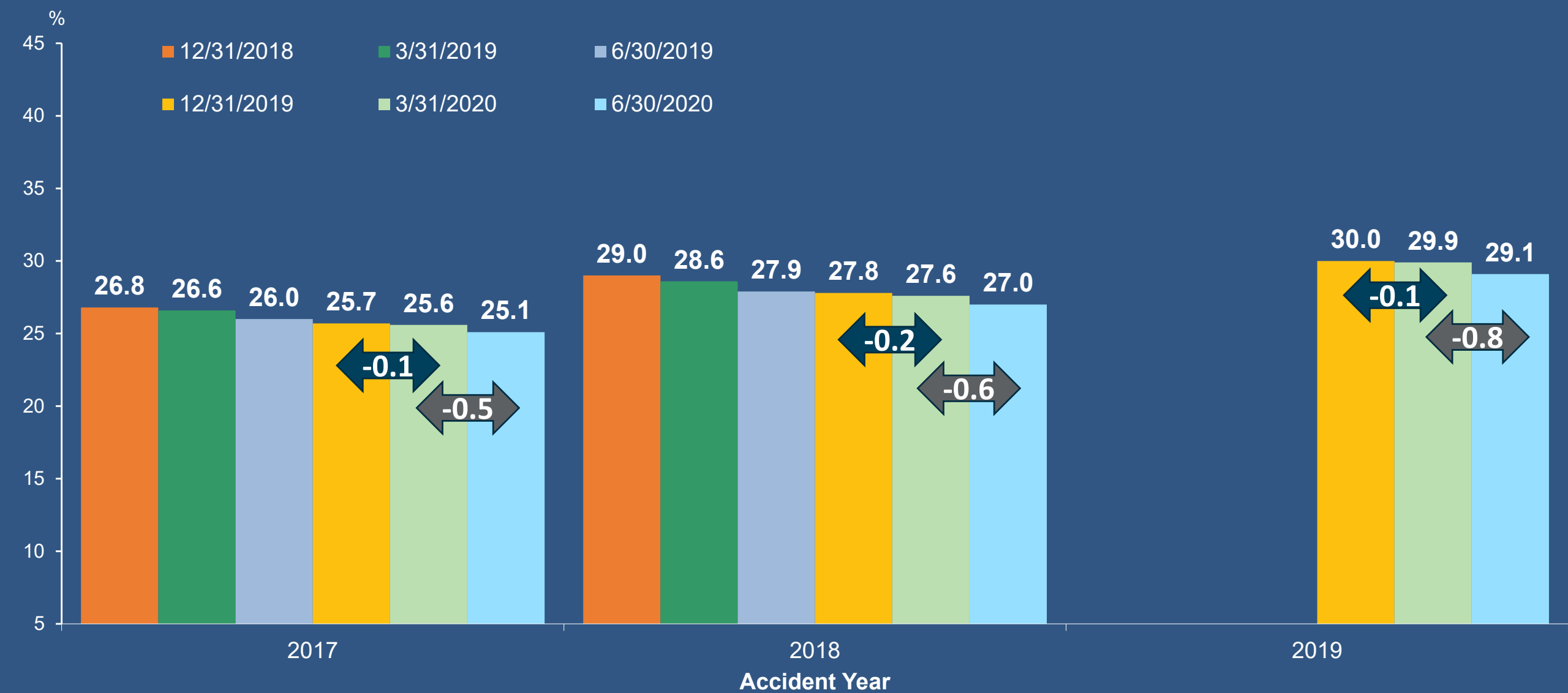
Developed AY 2019 Indemnity Loss Ratios under Different Methods

As of June 30, 2020



Developed Medical Loss Ratios (Exhibit 3.2)

As of June 30, 2020



Note: All loss ratios are adjusted to the loss development methodology reflected in the August 4, 2020 Actuarial Committee Agenda and may not be comparable to the actual loss ratios projected at that time.
Source: WCIRB aggregate financial data

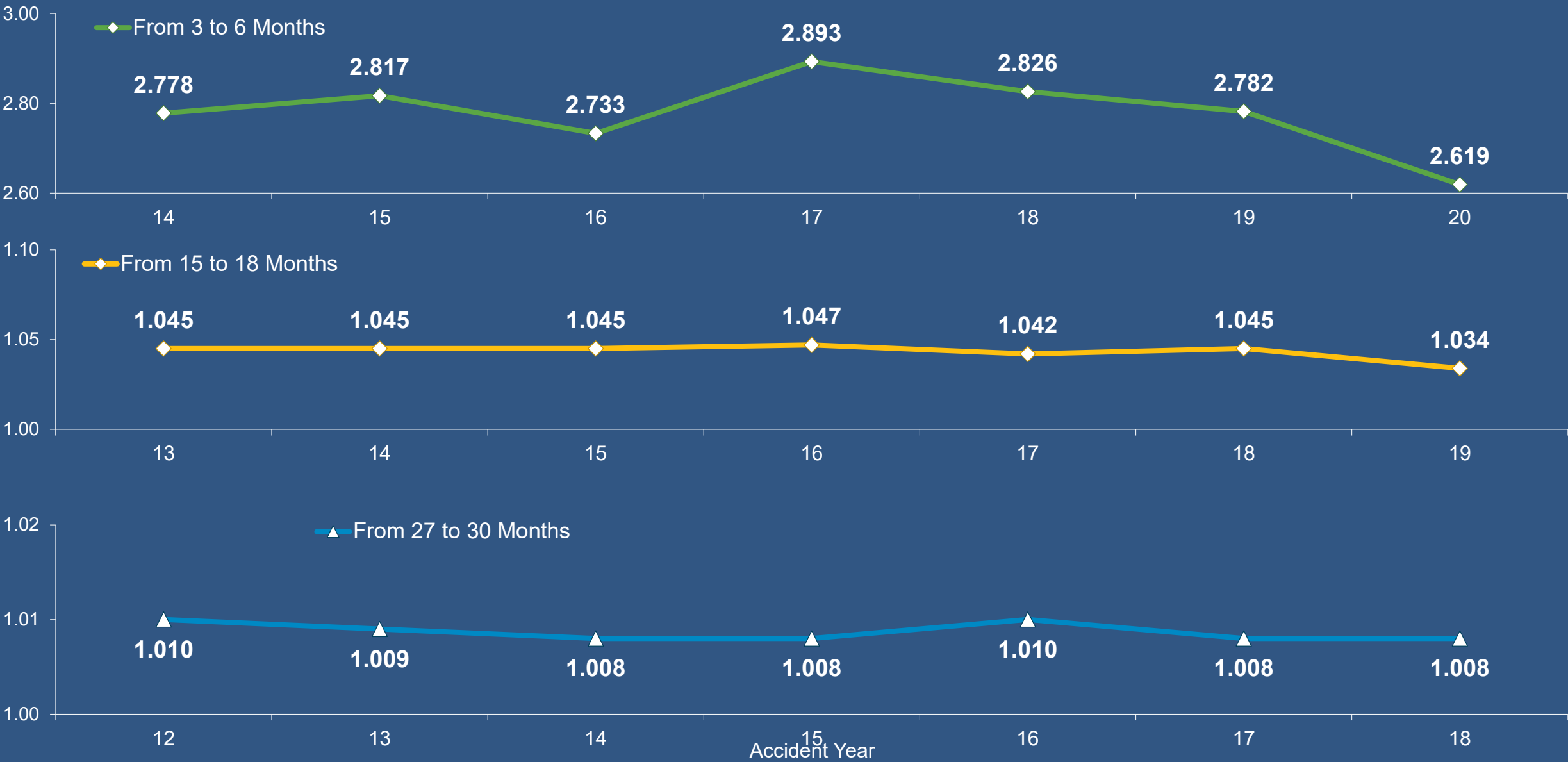
Developed AY 2019 Medical Loss Ratios under Different Methods

As of June 30, 2020



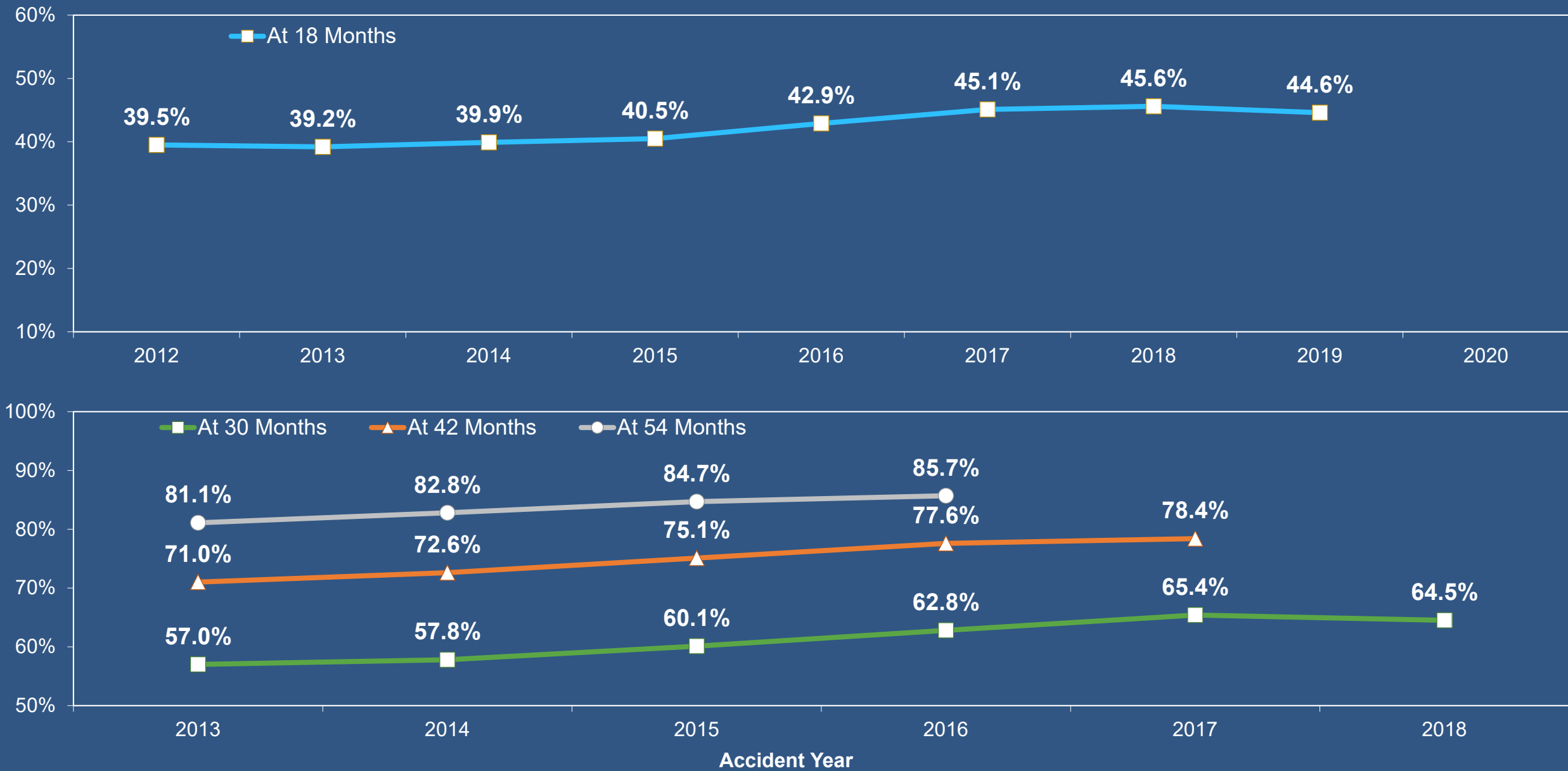
Indemnity Claim Count Quarterly Development (Exhibit 5.2)

As of June 30, 2020



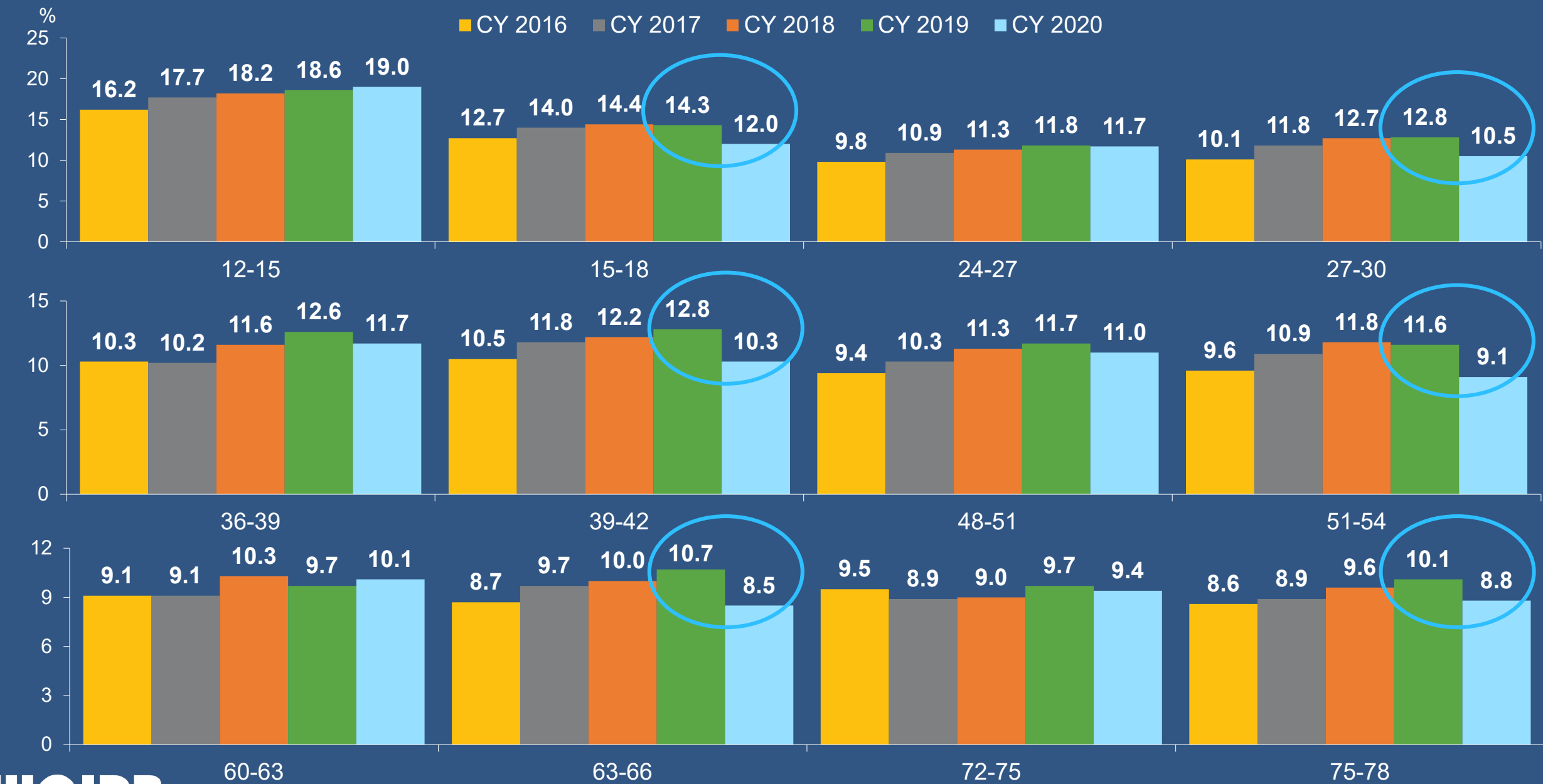
Reported Indemnity Claim Settlement Ratios (Exhibit 6)

As of March 31, 2020



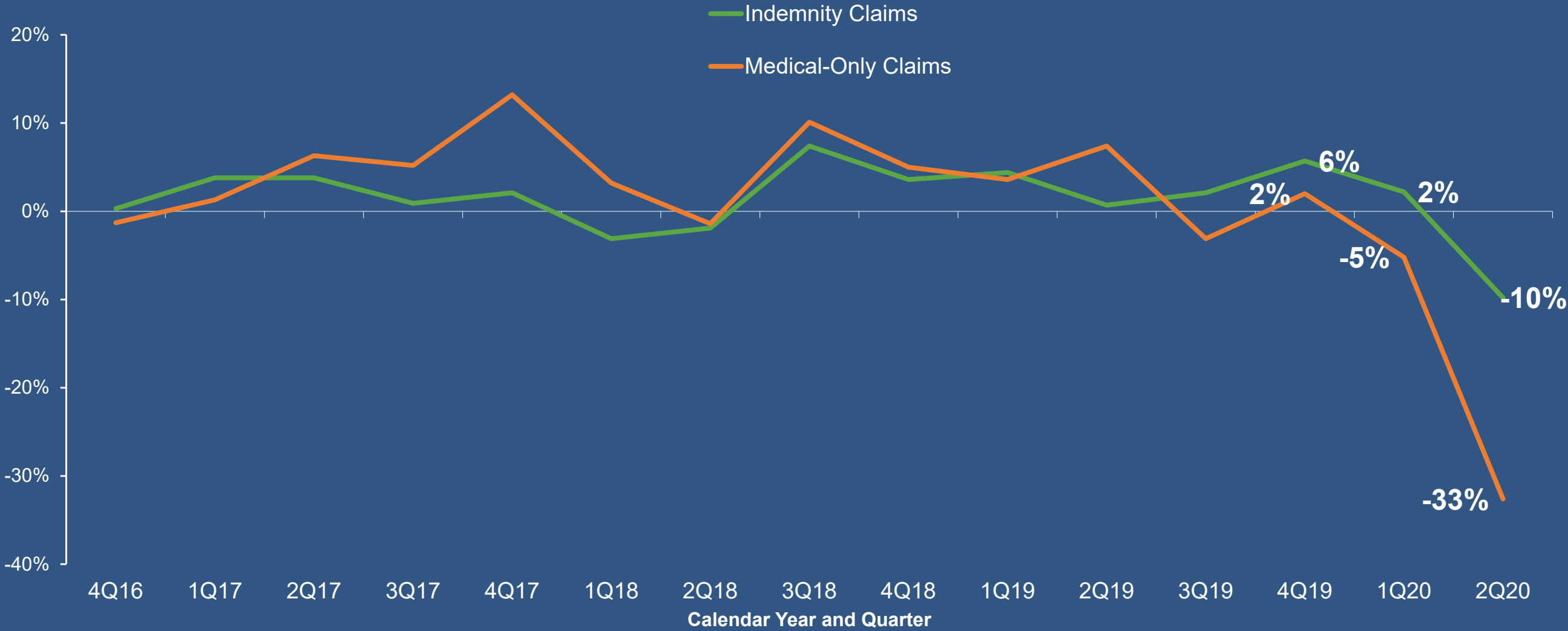
Incremental Closed Indemnity Claims Compared to Prior Open Claims

As of June 30, 2020



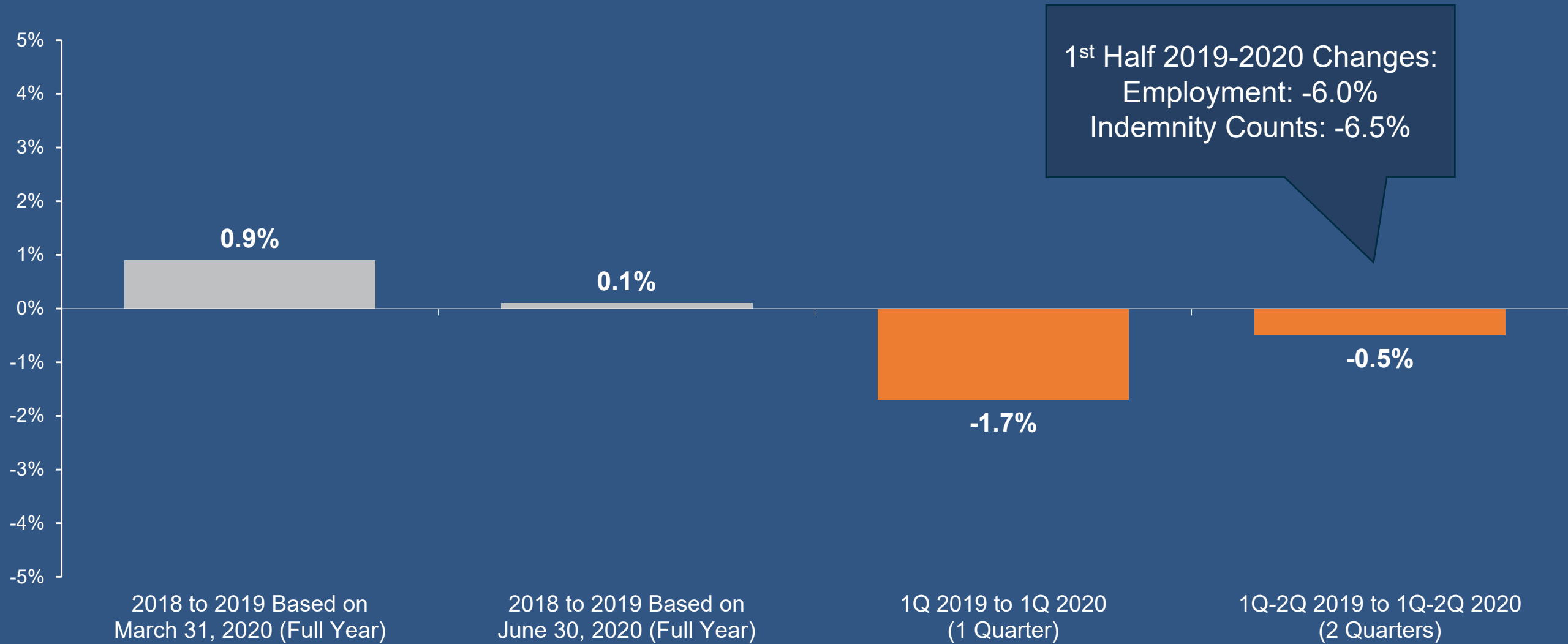
Change in Incremental Reported Claims from Same Quarter in Prior Year (Exhibit 7)

As of June 30, 2020

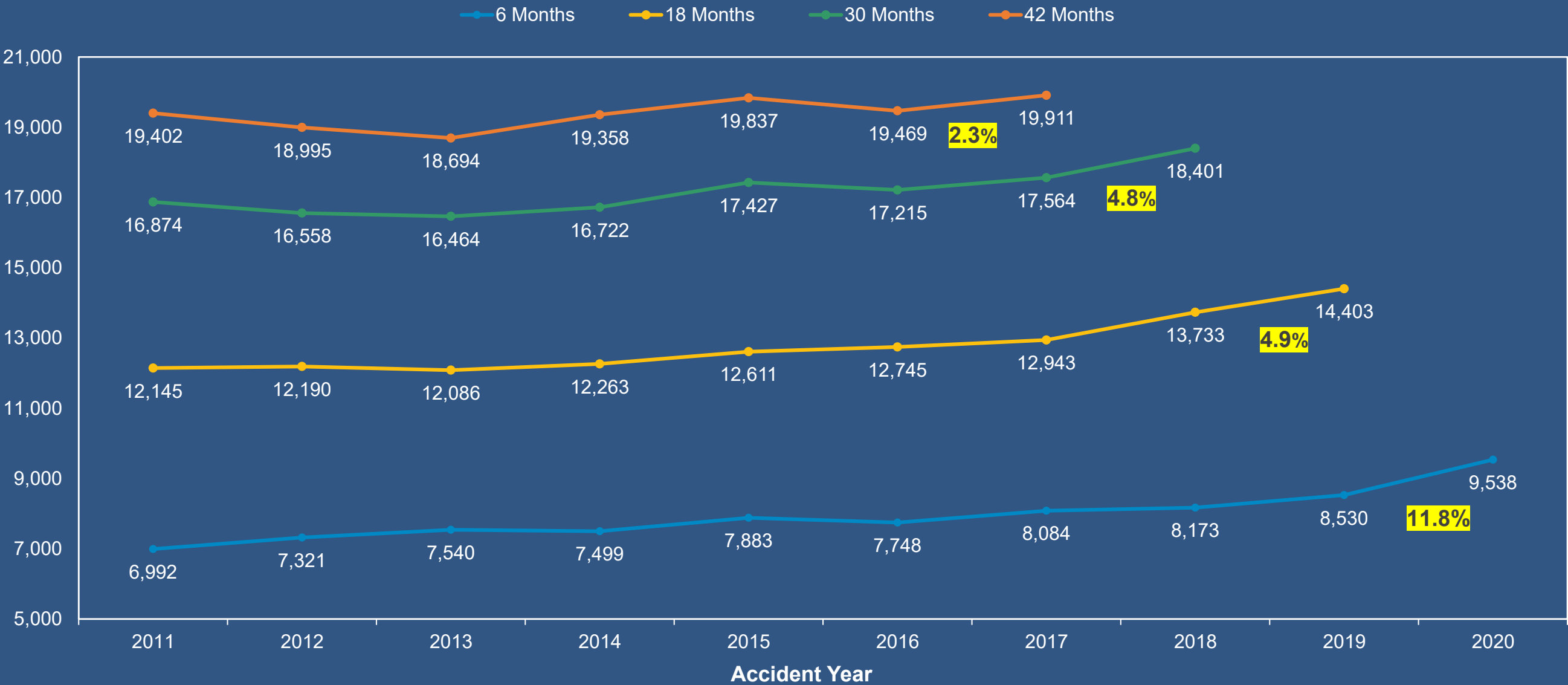


Estimated Changes in Indemnity Claim Frequency

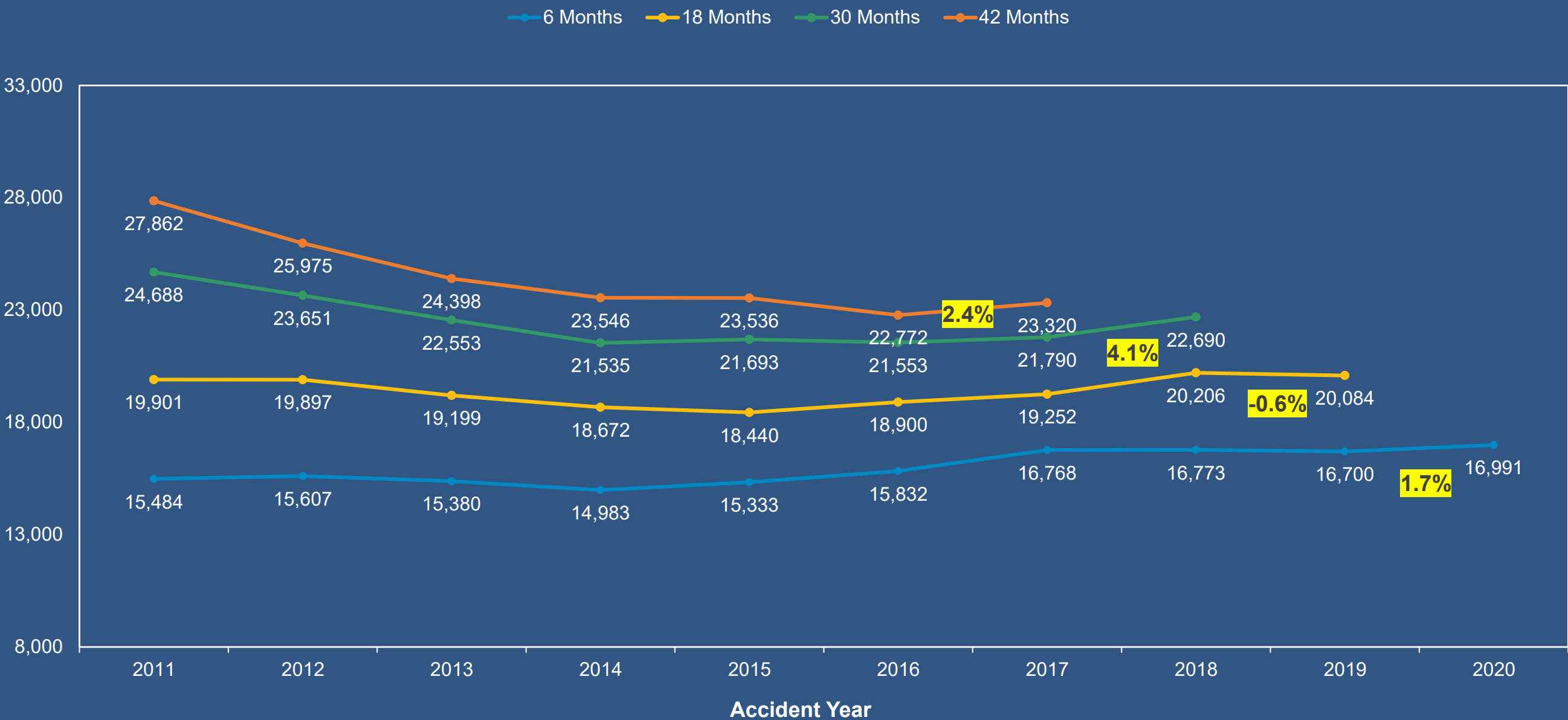
As of June 30, 2020



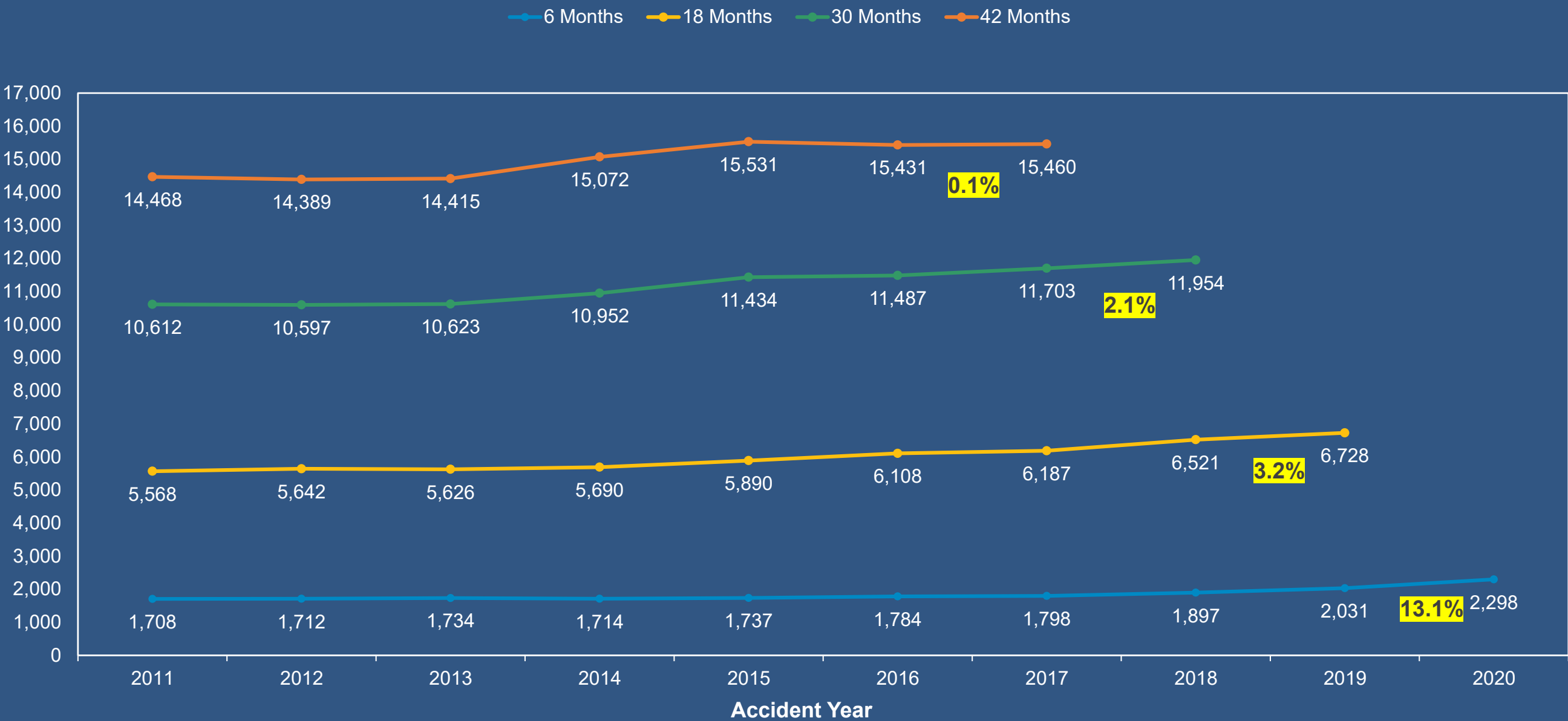
Incurred Indemnity per Indemnity Claim (Exhibit 8.1)



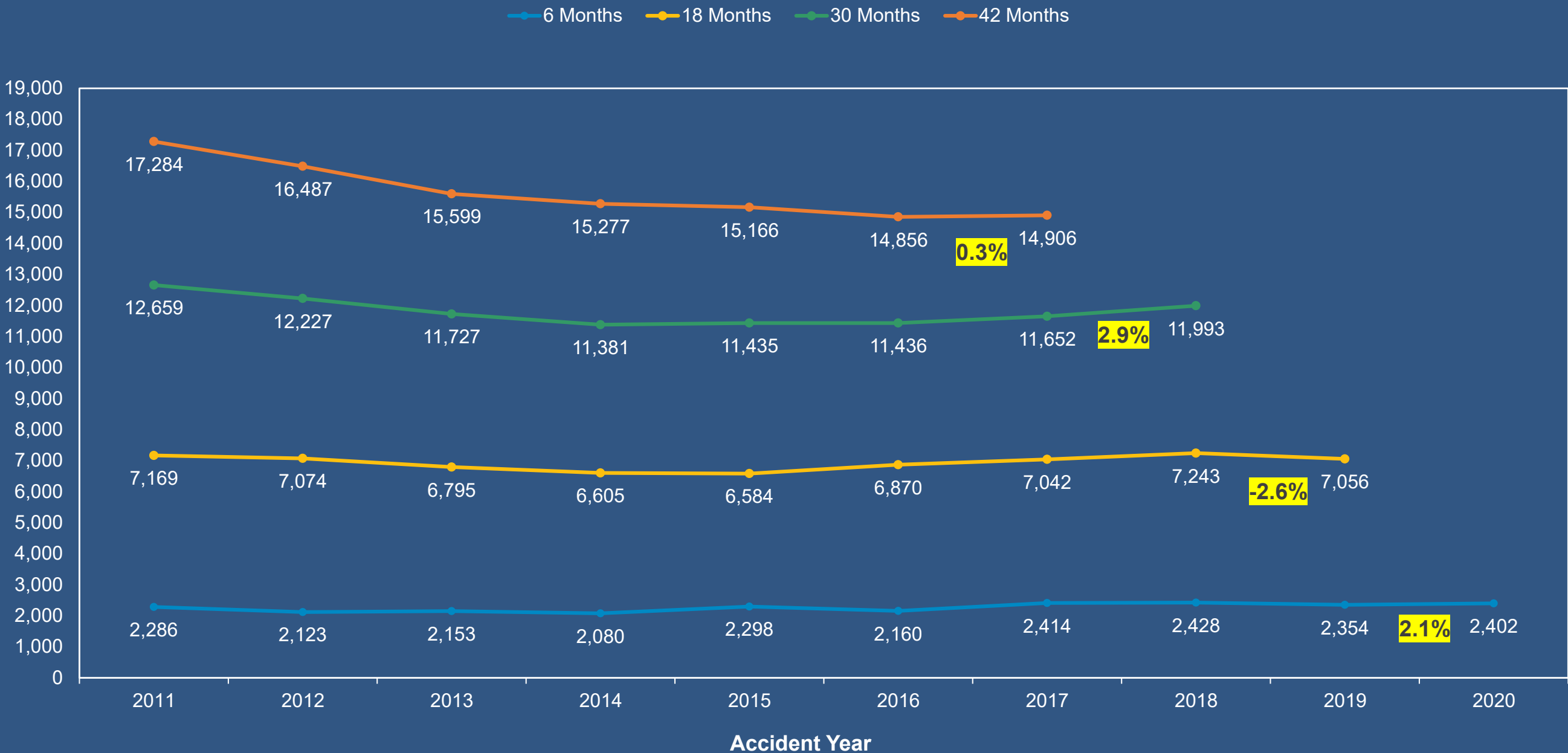
Incurred Medical Loss per Indemnity Claim



Paid Indemnity Loss per Indemnity Claim (Exhibit 8.5)



Paid Medical Loss per Indemnity Claim

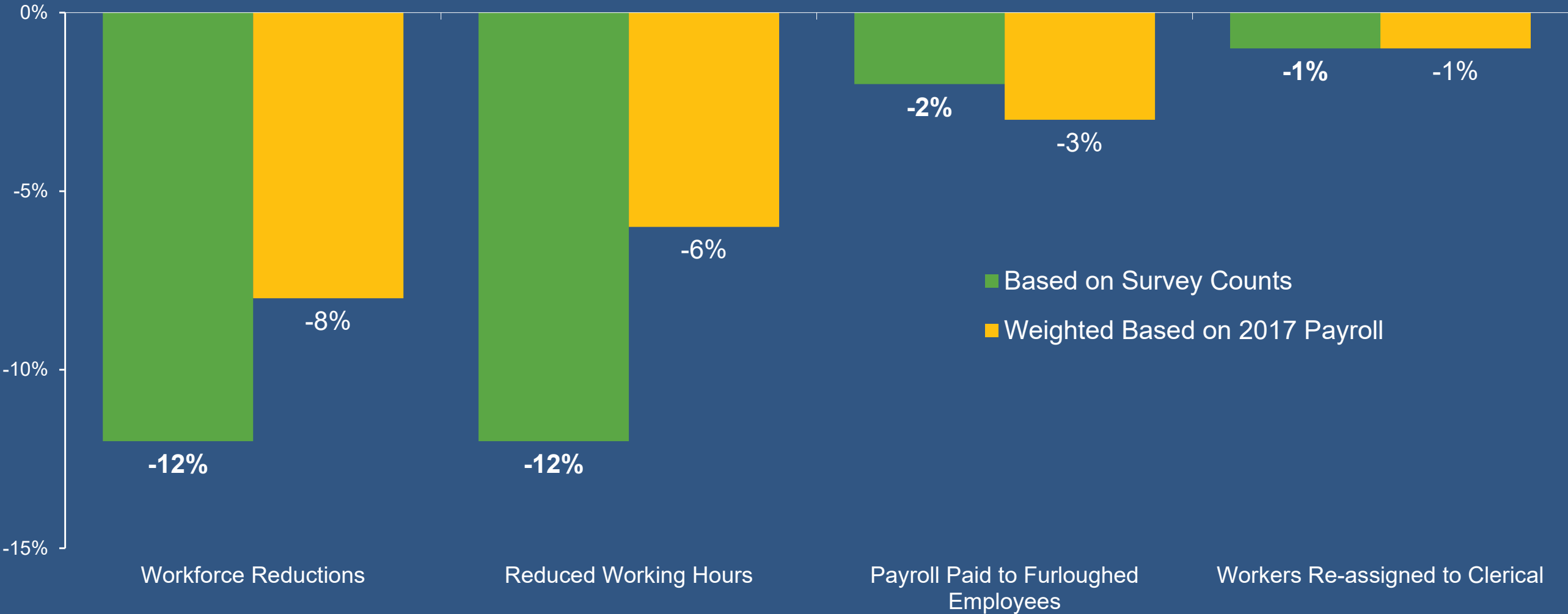


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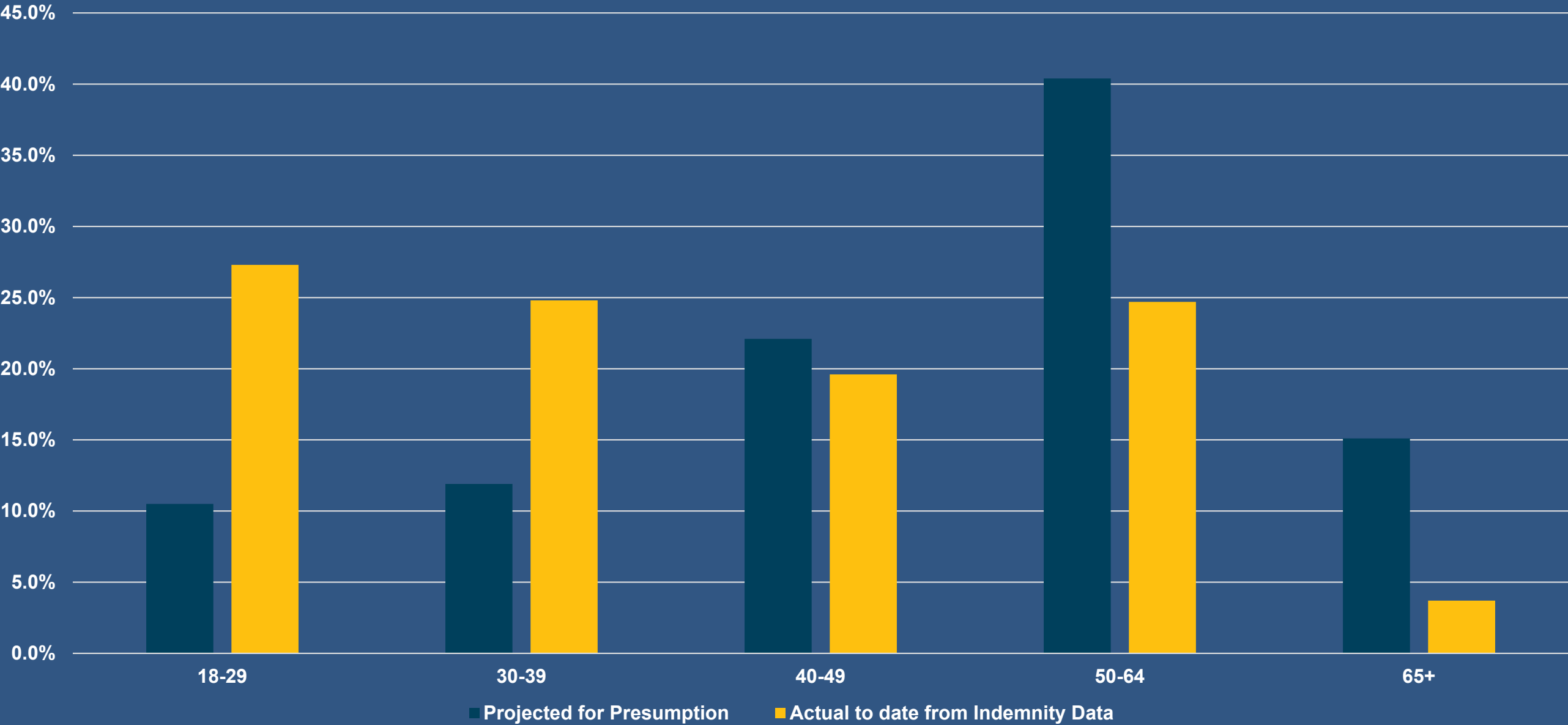
COVID-19 Crisis



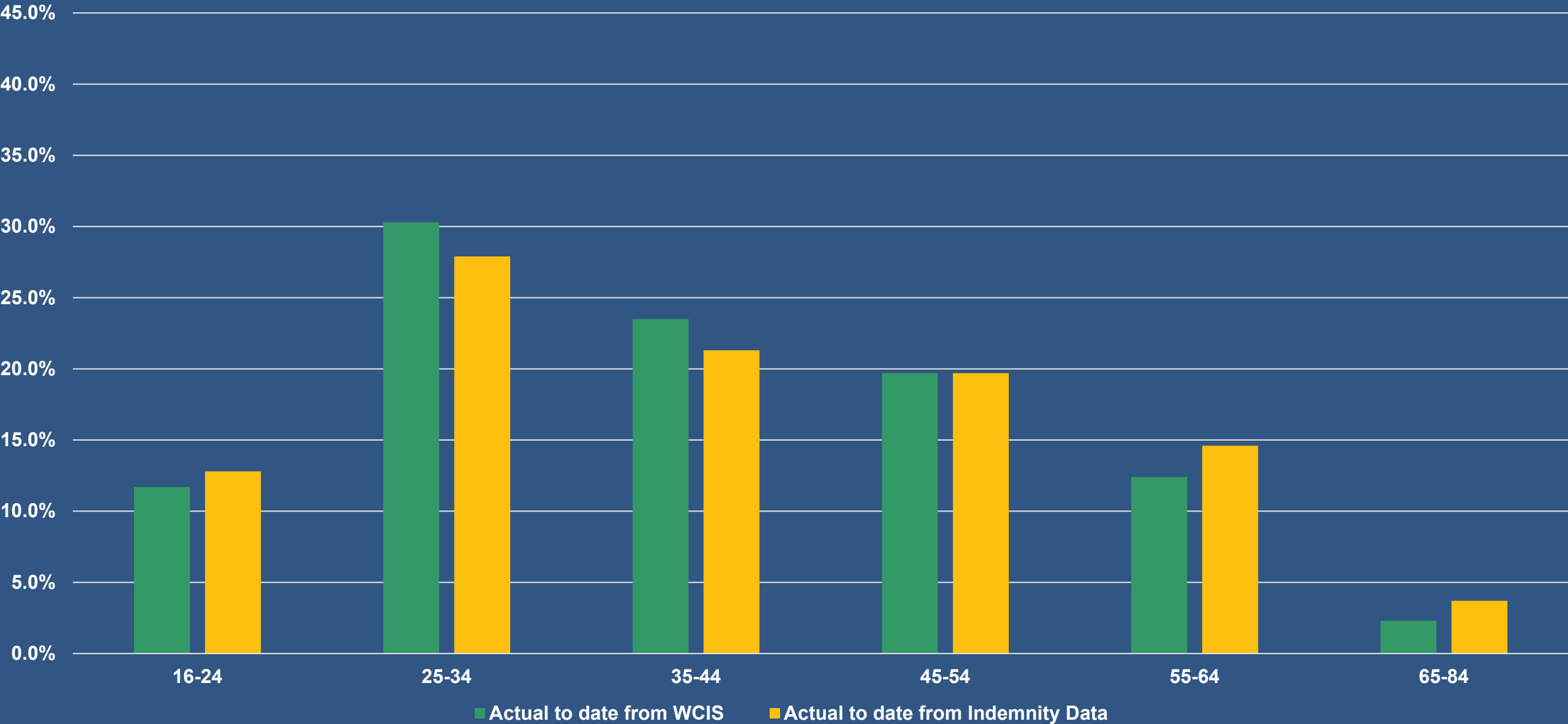
Potential Exposure Impacts Based on WCIRB Employer Surveys (May – August)



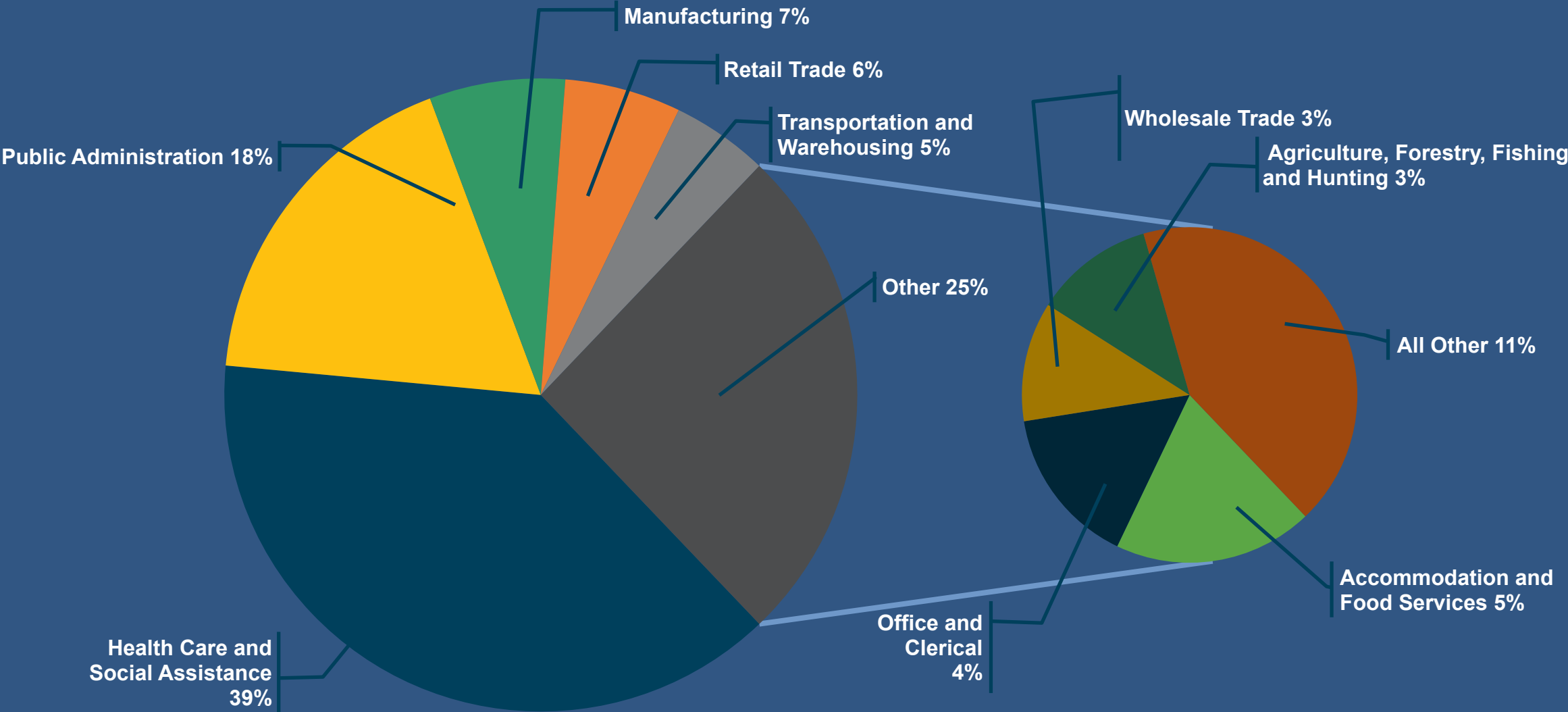
Comparison of Modeled and Observed Age Distributions



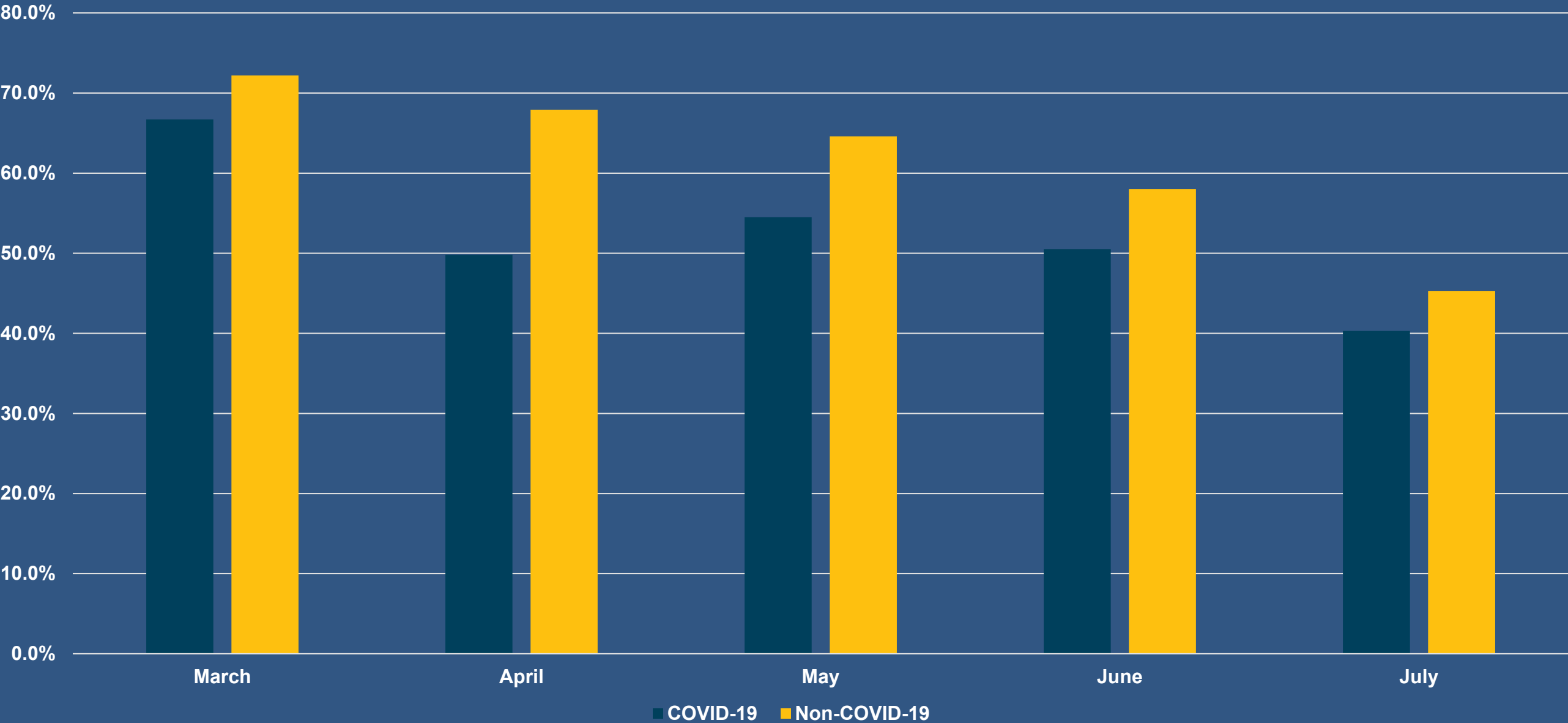
Comparison of Observed Age Distributions Between Statewide and Reported to the WCIRB



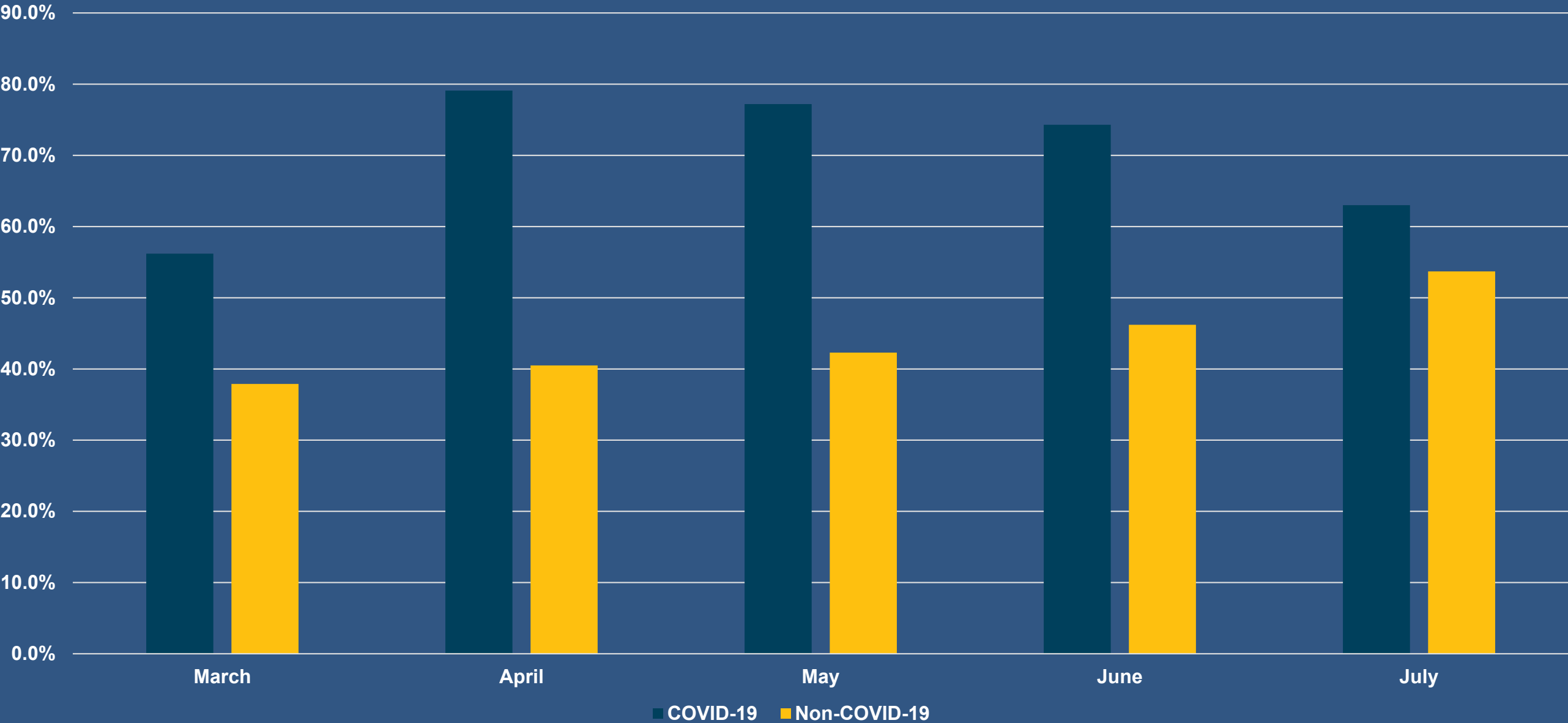
Industry Distribution of Reported COVID-19 Claims



Comparison of Claim Closing Rates by Accident Month



Share of Claims Classified as Indemnity by the Claims Administrator by Accident Month



Share of Reported Claims Due to COVID-19

Accident Month (2020)	Share of Reported Claims Due to COVID-19
April	10.1%
May	9.6%
June	16.8%
July	17.4%
Total	13.7%

Share of Reported Indemnity Claims Due to COVID-19

Accident Month (2020)	Share of Reported Claims Due to COVID-19
April	20.9%
May	17.8%
June	24.2%
July	16.1%
Total	20.1%

Share of Claims Denied

- Reasons for denied claims could include a negative test as well as the results of an Arising Out of Employment / Course of Employment (AOE/COE) investigation
- Per CWCI study, 70% of denials were due to a negative test
- Based on FROI data:
 - COVID-19 Claims (Claims with an accident date in March through July): **22.3%**
 - Non-COVID-19 Claims (Claims with an accident date in March through July): **5.4%**

Accident Month (2020)	Denial Rate for COVID-19 Claims
March	30.2%
April	22.5%
May	23.9%
June	22.4%
July	19.6%

Summary of the Post-COVID-19 Medical Treatment Patterns in 2020 Compared to 2019 (updated as of August 31, 2020)

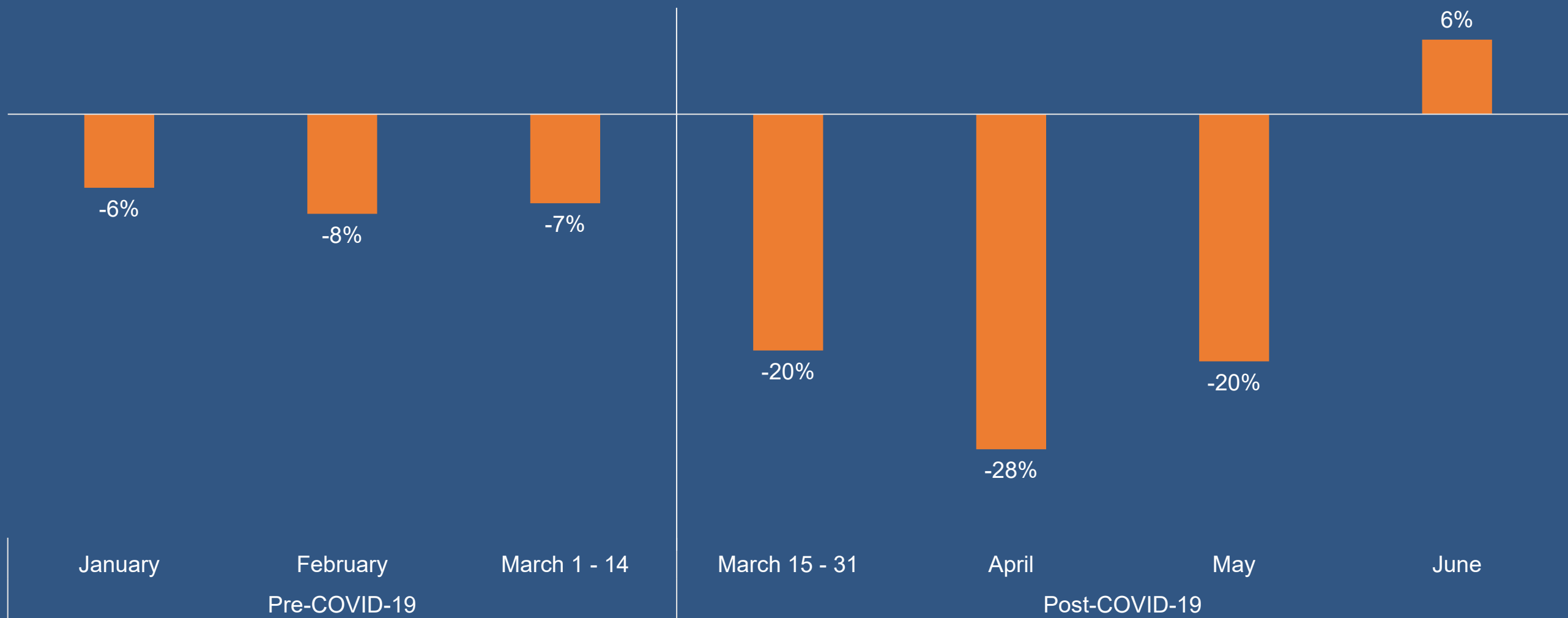
- Overall medical services
 - March 15-31: significant drops in active claims and some declines in the average paid and service volumes
 - April: steeper declines
 - May/June: rebound started
- Pharmaceuticals: increased use of non-opioids
 - Mostly non-opioid pain medications and dermatologicals
- Utilization of inpatient and outpatient care dropped significantly in March/April
- Physical medicine was not heavily affected
- Telemedicine services surged since late March and continued to grow

Impact of COVID-19 Pandemic on Number of Active Claims

As of August 31, 2020

Pre- and Post-COVID-19 Periods in 2020 vs. Same Period in 2019

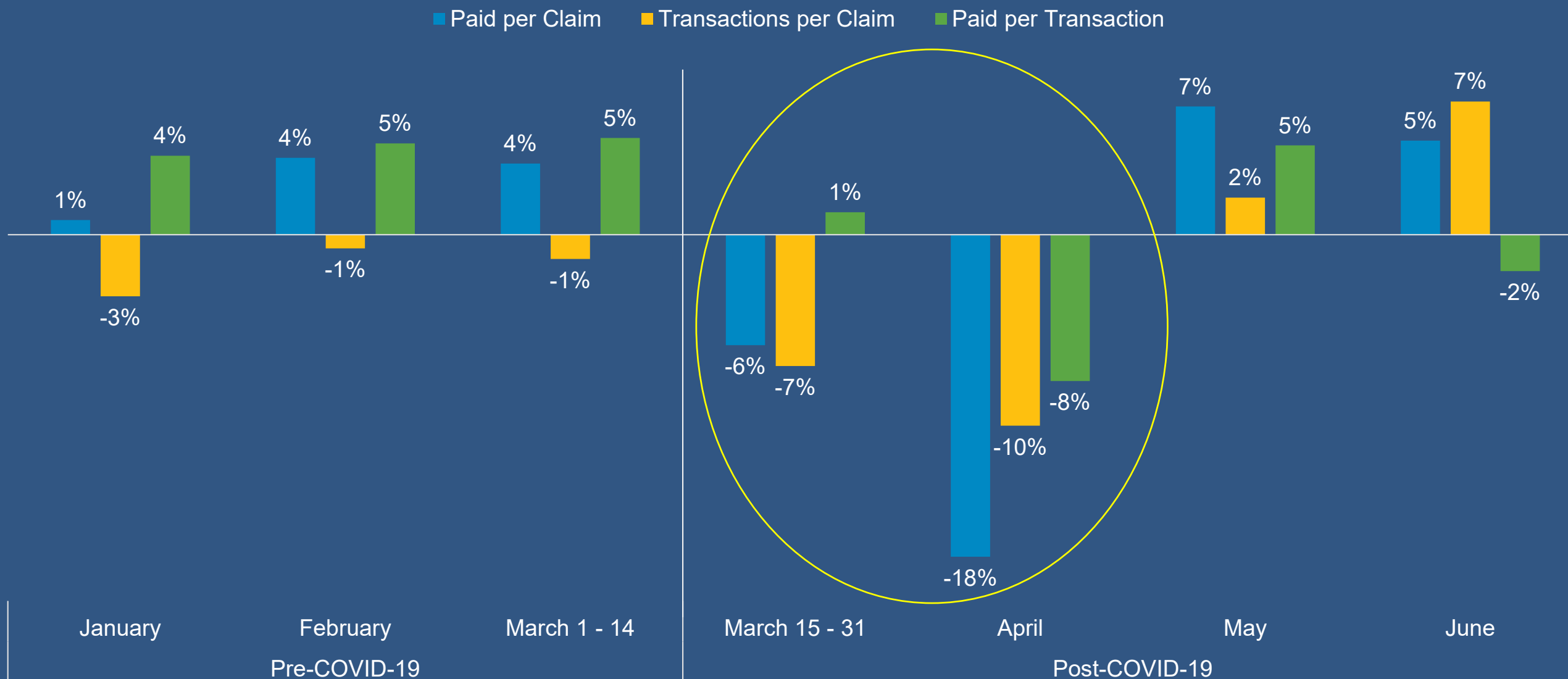
Claim Count (with any paid medical transaction)



Percent Changes in Overall Medical Treatment Patterns and Costs

As of August 31, 2020

Pre- and Post-COVID-19 Periods in 2020 vs. Same Period in 2019

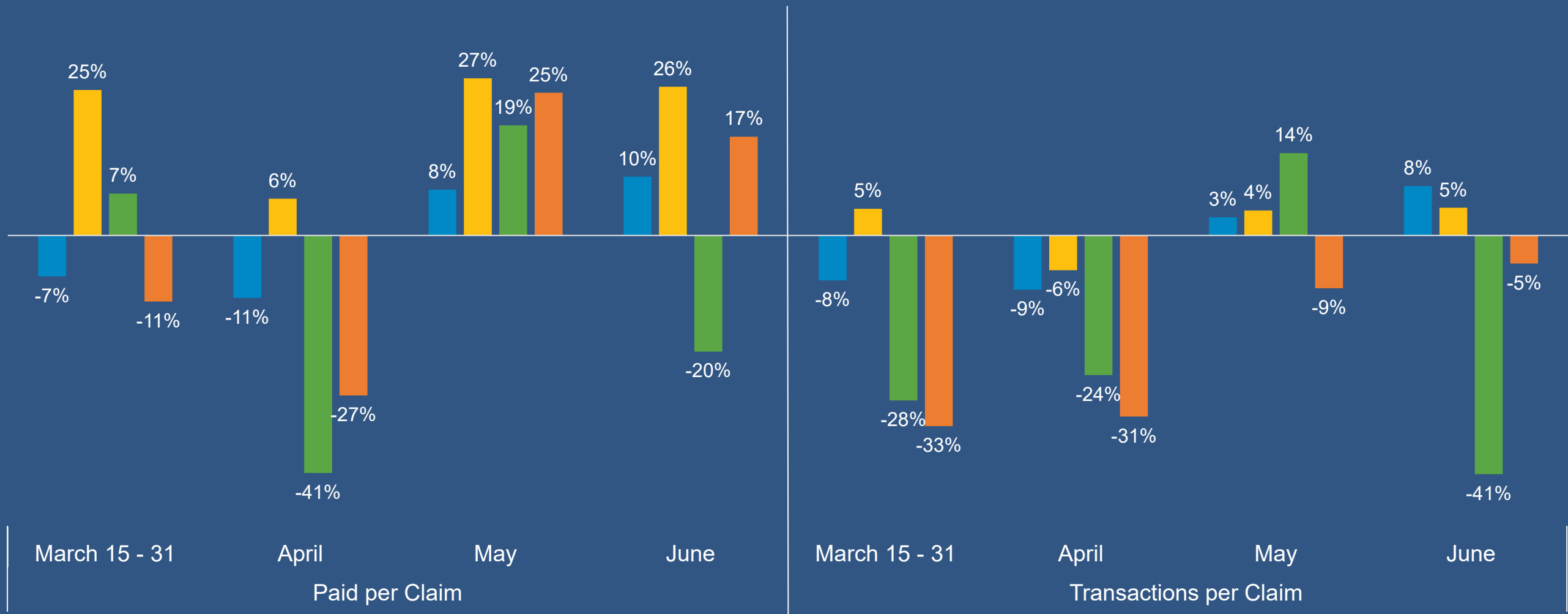


Percent Change by Leading Types of Medical Services

As of August 31, 2020

Post-COVID-19 Period in 2020 vs. Same Period in 2019

Physician Services Pharmaceuticals Inpatient Outpatient

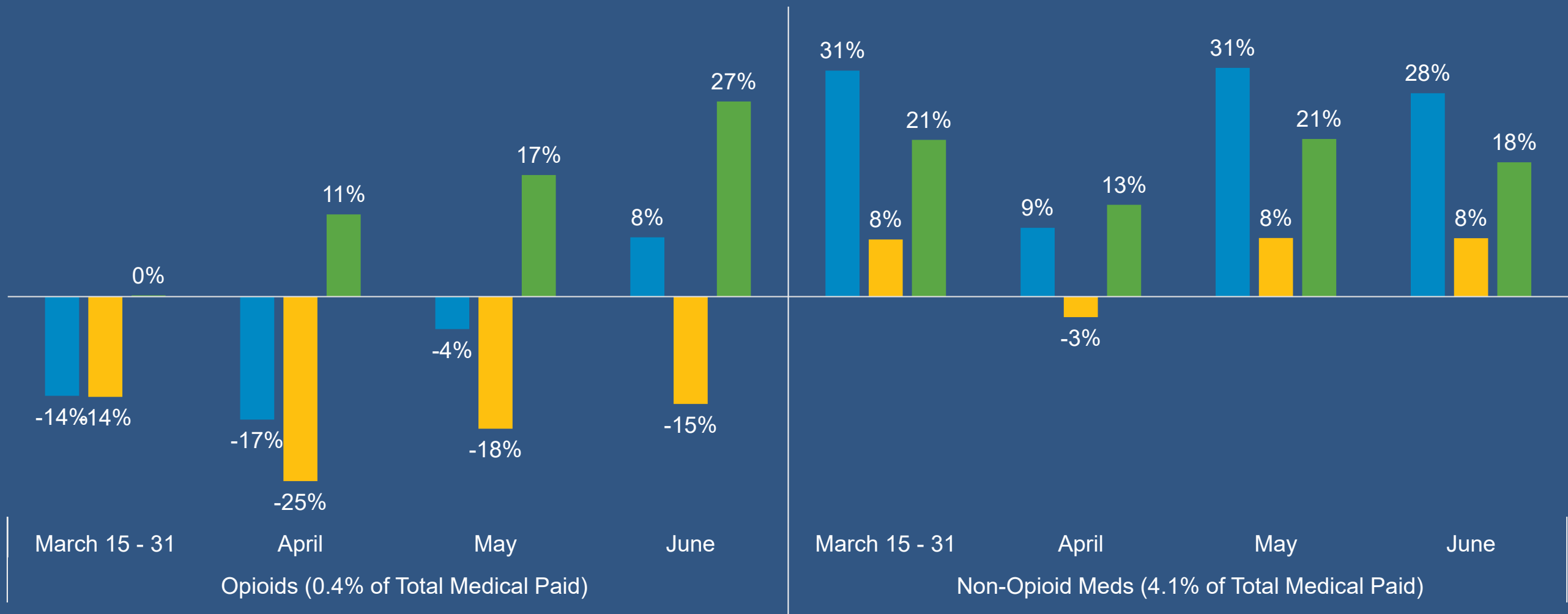


Percent Change in Opioids vs. Non-Opioid Prescription Drugs

As of August 31, 2020

Post-COVID-19 Period in 2020 vs. Same Period in 2019

■ Paid per Claim ■ Transactions per Claim ■ Paid per Transaction

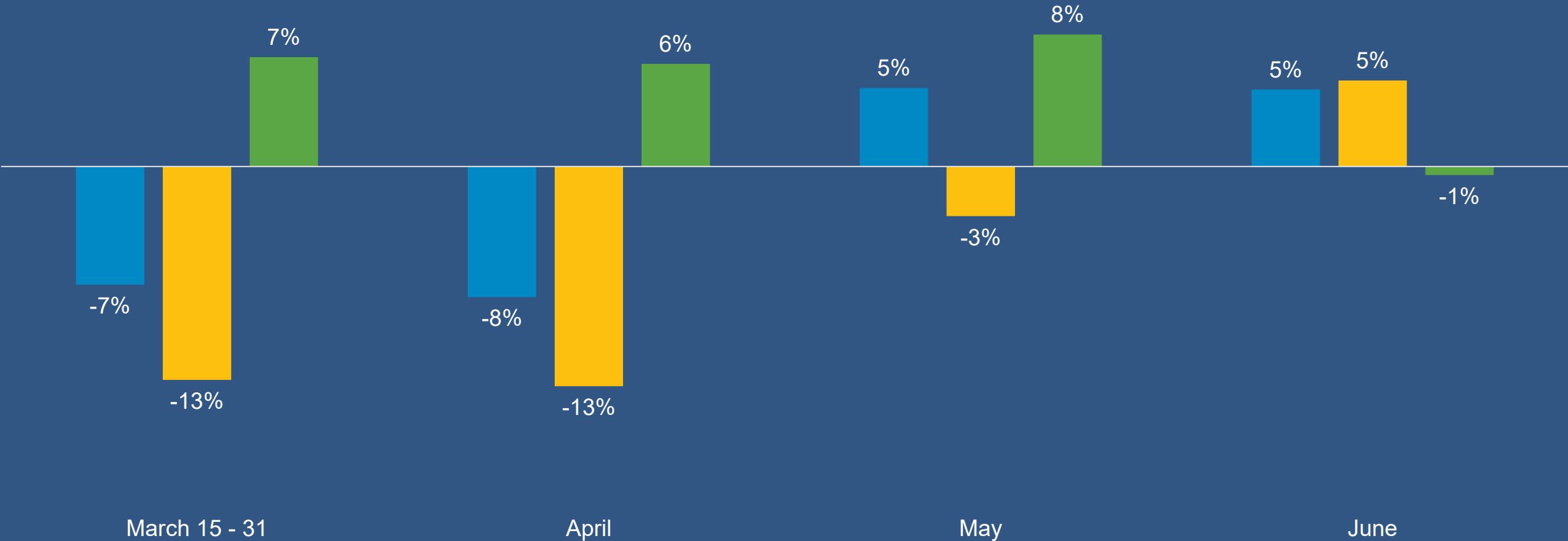


Percent Change in Physical Therapy

As of August 31, 2020

Post-COVID-19 Period in 2020 vs. Same Period in 2019

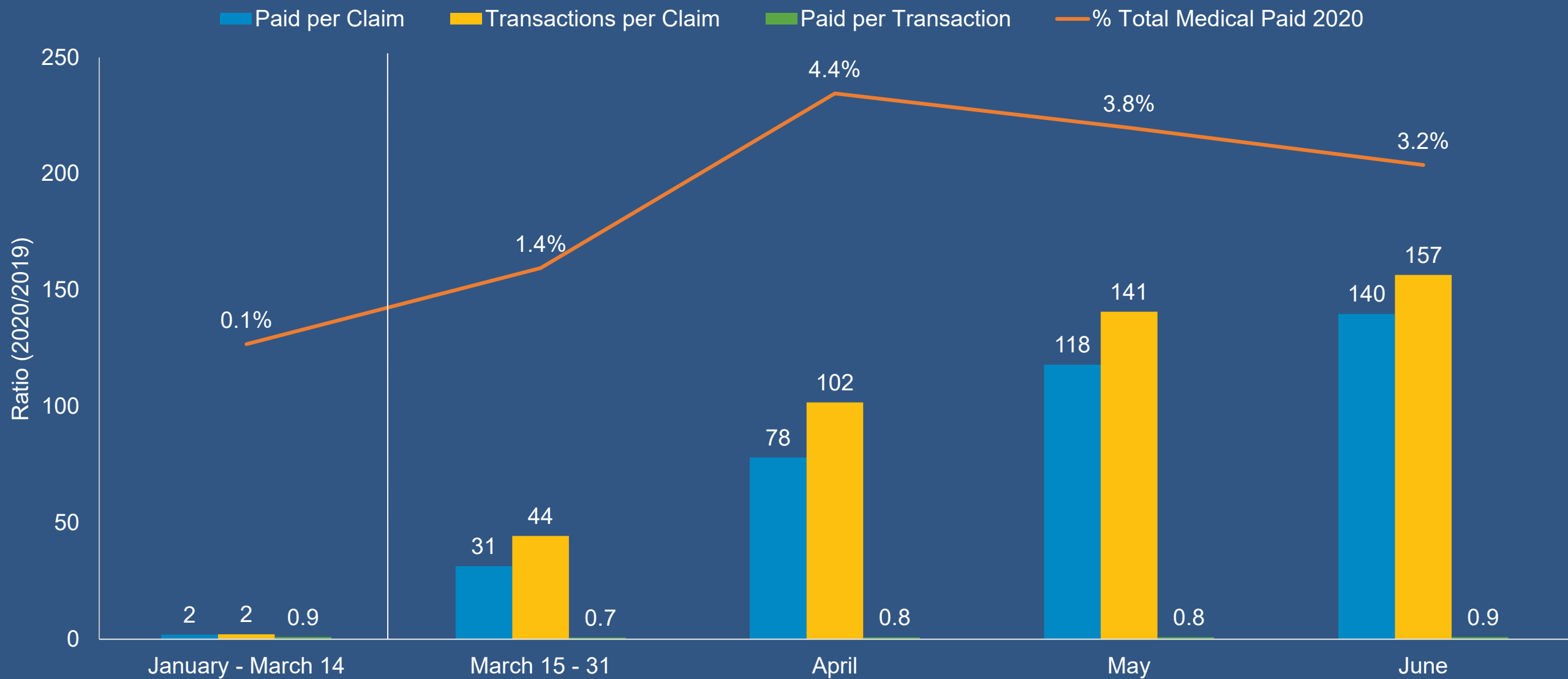
■ Paid per Claim ■ Transactions per Claim ■ Paid per Transaction



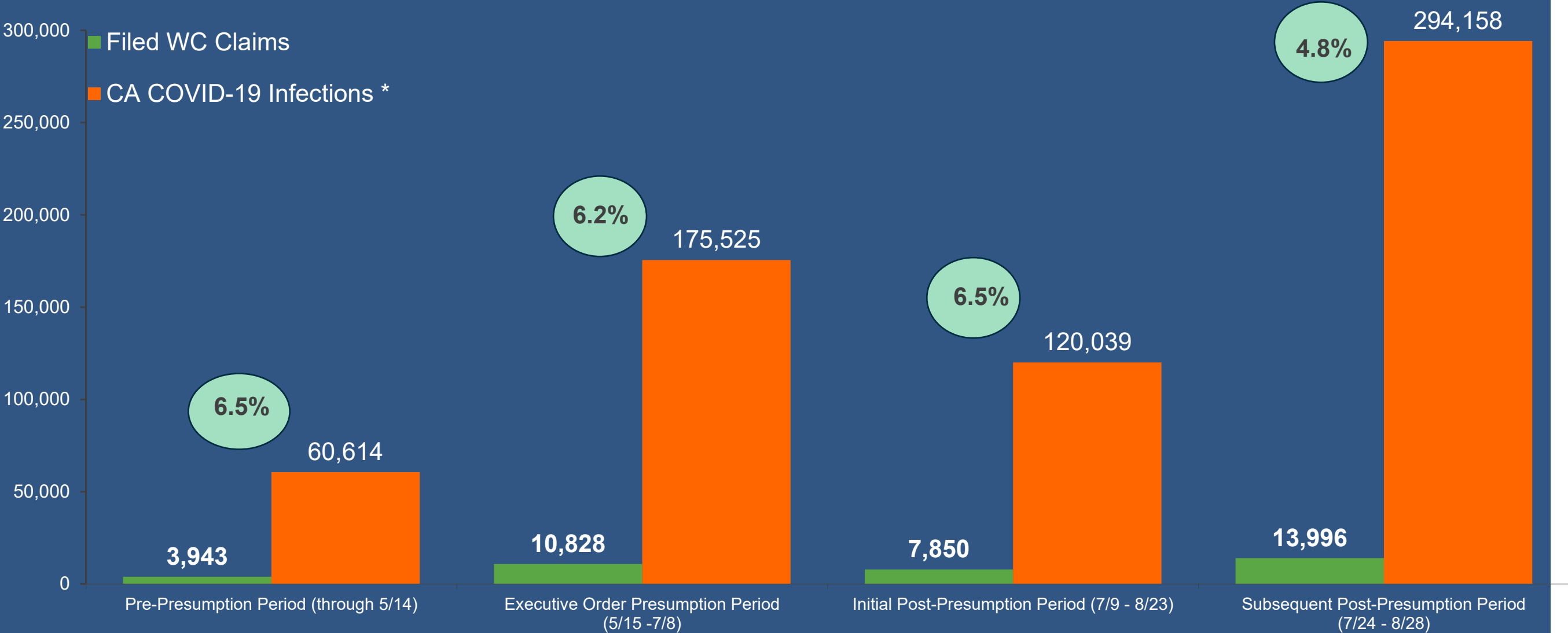
Changes in Telemedicine Services

As of August 31, 2020

Pre- and Post-COVID-19 Period in 2020 vs. Same Period in 2019



Filed WC Claims Compared to California COVID-19 Infections



* Infection counts reflects data 7 days prior to the DWC claim counts to reflect the typical delays in workers' compensation claim filings.

Update Projection of 1/1/21 – 8/31/21 Policy Period COVID-19 Claim Cost

AY 2020 Projected COVID-19 Claim Costs - Staff Preliminary Analysis

(1) AY 2020 Statewide Deaths Working Age Population:	8,400
(2) AY 2020 Statewide Hospitalizations (ex deaths) Working Age Population:	42,900
(3) WC Death and Hospitalization Claim Conversion Factor:	12.5%
(4) AY 2020 Estimated WC Death Claims: (1) x (3)	1,100
(5) AY 2020 Estimated WC Death Claim Costs: (4) x Avg Death Severity	\$0.4 bb.
(6) AY 2020 Estimated WC Hospitalization (ex. deaths) Claims: (2) x (3)	5,400
(7) AY 2020 Estimated WC Hospitalization Claim Costs: (6) x Avg Hospitalization Severity	\$0.7 bb.
(8) Statewide AY 2020 COVID-19 Loss & LAE: (5) + (7) + (mild claim costs)	\$1.2 bb.
(9) Insured Market Share of COVID-19 Claims:	61%
(10) Projected AY 2020 Insured Market COVID-19 Loss & LAE: (8) x (9)	\$0.74 bb.

Updated Projection for AY 2020 Statewide COVID-19 Deaths

- Based on the updated 11/1 death projections from IHME and MIT-YYG extended to the year-end and adjusted to the working age population
 - Same as the methodology in the 1/1/2021 Pure Premium Rate Filing
 - Updated projections from both sources are higher than before
- Added low-end and high-end estimates based on the lower and higher projections of the published forecast

	CDPH Actuals			Average of IHME and MIT-YYG Projections (as of 8/31/2020)		Estimated based on October Change (Mid-range estimate)	
	June	July	August	September	October	November	December
Cumulative Total	6,090	9,356	13,163	16,468	19,040	21,613	24,185
Incremental Monthly Change	-	3,266	3,807	3,305	2,573	2,573	2,573

Projected AY2020 working-age deaths:

Low - 7,800
 Mid - **8,400**
 High - 9,100

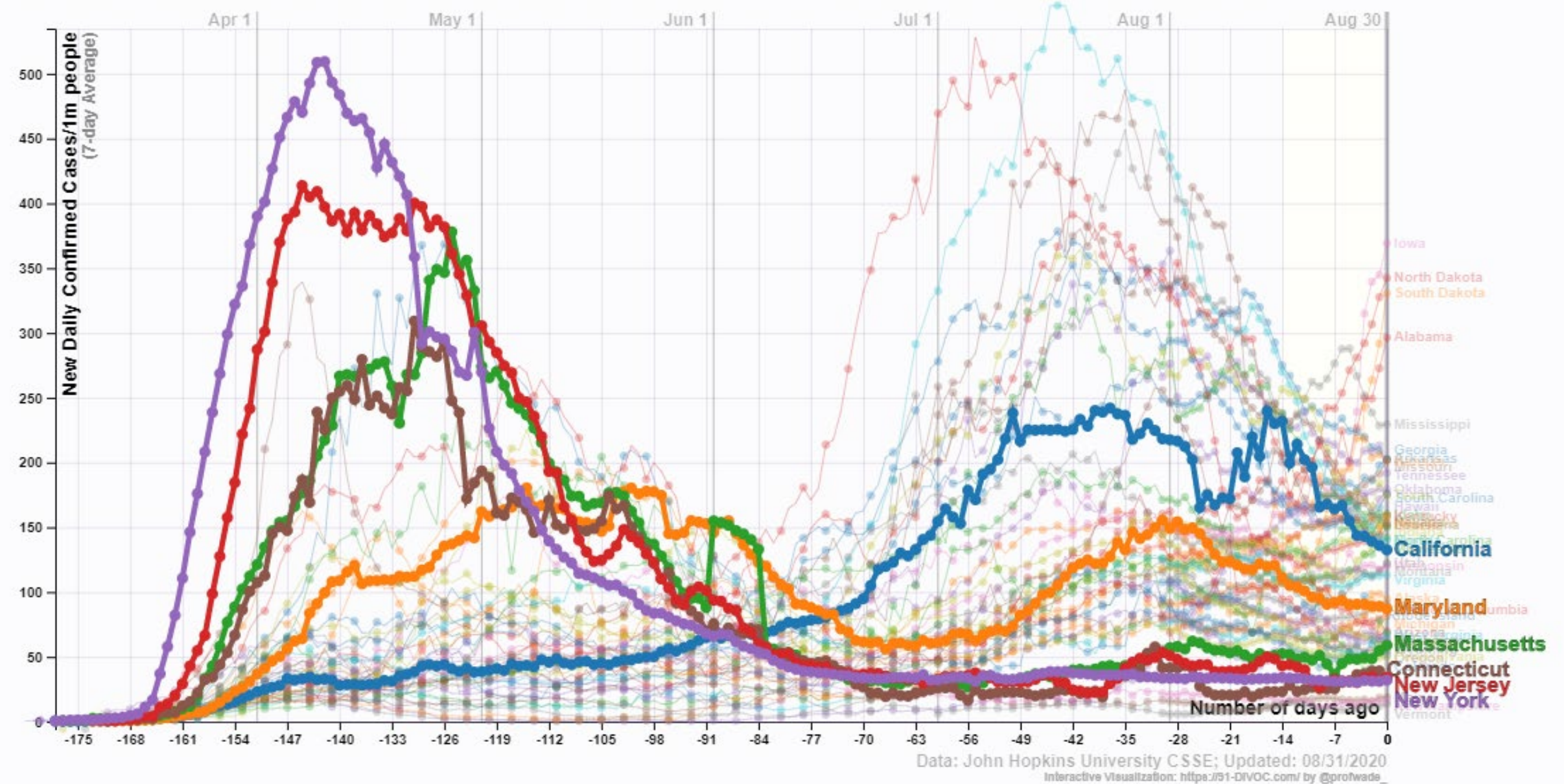
Updated Projection for AY 2020 Statewide COVID-19 Hospitalizations

- Based on the total hospitalization rate in Massachusetts (176 per 100,000 as of 8/31) and adjusted to California working age population
 - Same as the methodology in the 1/1/2021 Pure Premium Rate Filing
- Severe (no ICU) vs. Critical (ICU) hospitalizations in 2020
 - Total hospital cases segregated to Severe and Critical cases based on published sources
 - Approx. 30% of hospitalizations assumed to be Critical
 - Excluded deaths from hospitalizations assuming 45% mortality rate in ICU
- Added low-end and high-end estimates
 - Low-end: assumed 75% increase from report-to-date total working-age hospitalizations (CDC, 8/22)
 - High-end: based on the average of Massachusetts and Maryland total hospitalization rate as of 8/31

Projected AY2020 working-age hospitalizations (excl. deaths):	Low - 41,200
	Mid - 42,900
	High - 50,300

Daily New COVID-19 Cases by U.S. States (as of 8/31/2020)

New Confirmed COVID-19 Cases per Day by US States/Territories, normalized by population



Report-to-Date vs. Projected AY 2020 Working-Age COVID-19 Deaths and Hospitalizations

	Report-to-Date (End of August)*	Projected to 2020 Year-End (Mid-Range Estimate)	Projected % Change between September and December 2020		
			Low	Mid	High
Total Deaths	4,776	8,377	+62%	+75%	+89%
Total Hospitalizations (incl. deaths)	27,908	51,150	+75%	+83%	+113%
Mortality per 100,000	18	31	+62%	+75%	+89%
Total Hospitalizations per 100,000 (incl. deaths)	104	191	+75%	+83%	+113%
Hospital Mortality (deaths/total hospitalized)	17%	16%	-8%	-4%	-11%

Updated Computation of Conversion Factor - COVID-19 Claims Filed vs. California COVID-19 Cases for the Working Age Population

1)	Adjusted Total COVID-19 Infections Age 18-69 as of August 2020 ¹ :	469,500
2)	Total COVID-19 Hospitalizations (Including Deaths) Age 18-69 as of August 2020 ² :	26,700
3)	Total COVID-19 Mild Cases Age 18-69: (1) - (2)	443,000
4)	COVID-19 Infections Excluding 50% of Mild Cases Age 18-69: (2) + (3) x 50%	248,100
5)	Total COVID-19 Workers' Compensation Claims Filed as of August 2020 ³ :	36,700
6)	Estimated Proportion of Claims Denied and Upheld:	15%
7)	Workers' Compensation Claim Conversion Factor: (5) / (4) x {1.0 - (6)}	12.5%

¹ COVID Tracking Project as of August 9, 2020 adjusted for the test reporting lag in early August (adjusted to working age population).

² CDC (COVID-NET) as of August 15, 2020. COVID-19 hospitalizations often lag a week behind COVID-19 infections.

³ Based on Division of Workers' Compensation First Report of Injury claims as of August 23, 2020.

Projection of 1/1/2021 – 8/31/2021 Policy Period COVID-19 Claim Cost

AY 2021 Projected COVID-19 Claim Costs - Staff Preliminary Analysis

11) Estimated Relativity AY 2021 to AY 2020 COVID-19 Claims:	1.0
12) Judgmental Adjustment for Improved Treatment & Potential Vaccine:	25%
13) AY 2021 Insured Market COVID-19 Loss & LAE: (10) x (11) x {1 – (12)}	\$0.56 bb.
14) AY 2021 Insured Market Projected Non-COVID-19 Loss & LAE:	\$10.9 bb.
15) AY 2021 COVID-19 Adjustment Factor: (13) / (14)	5.1%

Projection of 1/1/2021 – 8/31/2021 Policy Period COVID-19 Claim Cost

AY 2022 Projected COVID-19 Claim Costs - Staff Preliminary Analysis

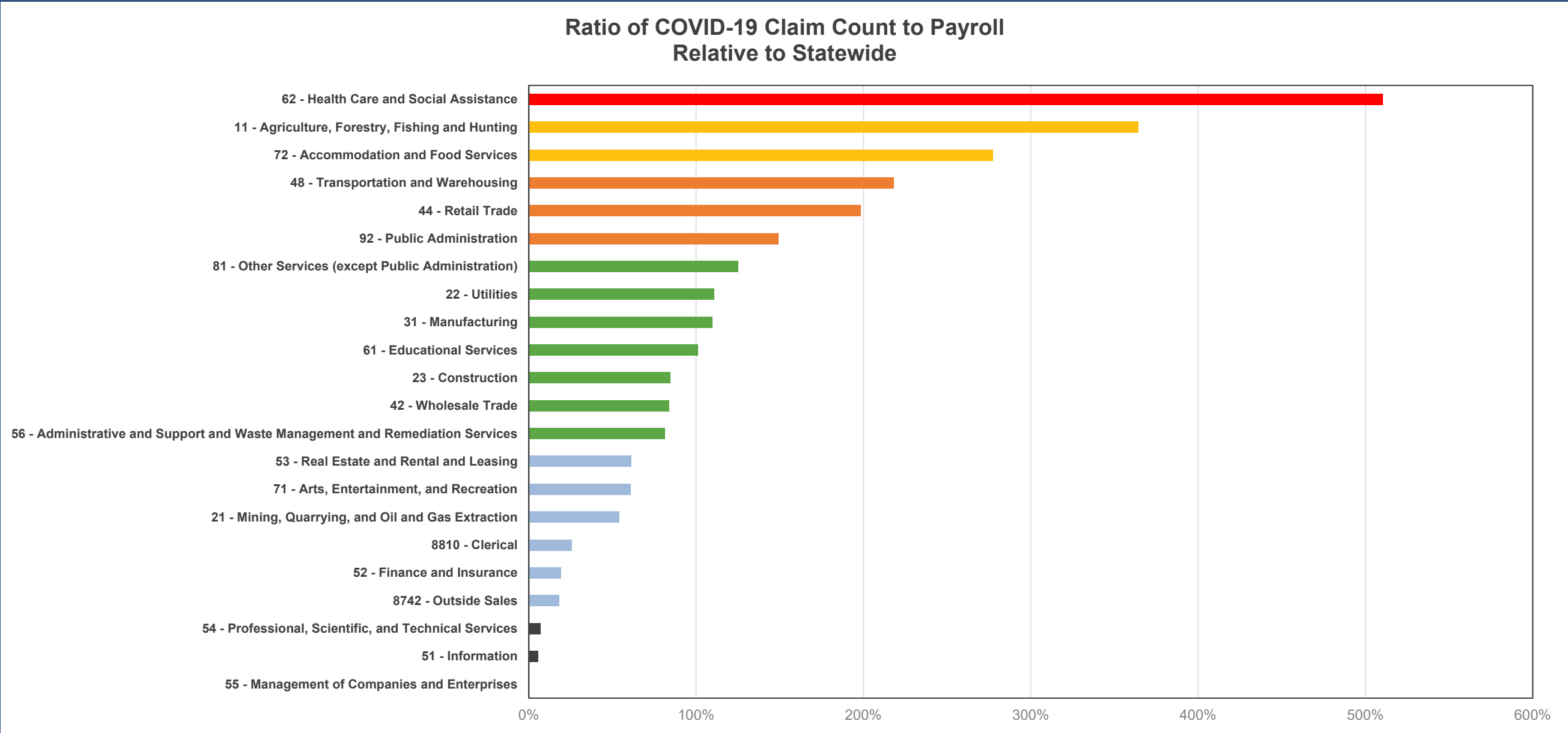
16) Estimated Relativity AY 2022 to AY 2020 COVID-19 Claims: (Incl. Judgmental Adjustment for Improved Treatment & Potential Vaccine)	0.33
17) AY 2022 Insured Market COVID-19 Loss & LAE: (10) x (16)	\$0.25 bb.
18) AY 2022 Insured Market Projected Non-COVID-19 Loss & LAE:	\$12.0 bb.
19) AY 2022 COVID-19 Adjustment Factor: (17) / (18)	2.1%
20) 1/1/2021-8/31/2021 Policy Period COVID-19 Adjustment Factor {(15) x 67%} + {(19) x 33%}	4.1%

1/1/21-8/31/21 Policy Period COVID-19 Provisions

Range of Estimates	Death Projection (updated as of 8/31)	Hospitalization Projection	Relativity in 2021	Relativity in 2022	Final Provision
Low	MIT-YYG	75% increase between August and year end	50%	25%	2.6%
Mid	Average of MIT-YYG and IHME (universal masks)	MA's hospitalization rate (8/31)	75%	33%	4.1%
High	IHME (universal masks)	Average of MA and MD's hospitalization rate (8/31)	90%	50%	5.8%

Conversion factor is 12.5% for all scenarios.

Industry COVID-19 Claim Count to Payroll Relativities



Market Share and COVID-19 Claim Count to Payroll Relativities

Group	Exposure Share	Non-COVID Pure Premium Share	Observed Relativity	Selected Relativity
6	3.1%	5.1%	510%	400%
5	5.8%	14.0%	300%	300%
4	11.1%	19.4%	203%	200%
3	20.1%	46.6%	99%	100%
2	41.5%	11.1%	27%	50%
1	18.4%	3.8%	7%	17%

Exposures by class are unadjusted for 2020 changes in employment.

Within Industry COVID-19 Count to Payroll Relativities

NAICS 62 – Health Care and Social Assistance

NAICS 62 Sub-Group	Relativity
Physicians, Dentists, and Day Care	44%
Other NAICS 62 Classifications	150%

Exposures by class are unadjusted for 2020 changes in employment.

COVID-19 Grouping and Pure Premium Rate by Industry

Industry	Group	COVID-19 PPR
55 - Management of Companies and Enterprises	1	0.01
51 - Information	1	0.01
54 - Professional, Scientific, and Technical Services	1	0.01
8742 - Outside Sales	2	0.03
52 - Finance and Insurance	2	0.03
8810 - Clerical	2	0.03
21 - Mining, Quarrying, and Oil and Gas Extraction	2	0.03
71 - Arts, Entertainment, and Recreation	2	0.03
53 - Real Estate and Rental and Leasing	2	0.03
56 - Administrative and Support and Waste Management and Remediation Services	3	0.06
42 - Wholesale Trade	3	0.06
23 - Construction	3	0.06
61 - Educational Services	3	0.06
31 - Manufacturing	3	0.06
22 - Utilities	3	0.06
81 - Other Services (except Public Administration)	3	0.06
92 - Public Administration	4	0.12
44 - Retail Trade	4	0.12
48 - Transportation and Warehousing	4	0.12
Physicians, Dentists, and Day Care	4	0.12
72 - Accommodation and Food Services	5	0.18
11 - Agriculture, Forestry, Fishing and Hunting	5	0.18
62 - Health Care and Social Assistance excluding Physicians, Dentists, and Day Care	6	0.24

04

2020 Data Certification Form



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