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Actuarial Committee

Meeting Agenda

Date	Time	Location	Staff Contact
December 8, 2020	9:30 AM	WCIRB California 1221 Broadway, Suite 900 Oakland, CA	David M. Bellusci

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Please register for the meeting at:

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After registering, you will receive a confirmation email containing information about joining the webinar.

I. Approval of Minutes

Meetings held on August 4, 2020, August 10, 2020, and September 8, 2020

II. Working Group Meeting Summaries

Actuarial Research Working Group Meeting held October 6, 2020

III. Unfinished Business

A. AC02-03-03: Experience of Large Deductible Policies
B. AC16-06-05: Update on Medical Severity Trends by Component
C. AC17-12-02: Legislative Cost Monitoring
D. AC19-12-02: Review of ULAE Projection Methods
E. AC20-04-04: COVID-19 Crisis

IV. New Business

A. AC20-12-01: 9/30/2020 Experience Review
B. AC20-12-02: Review of Projections Based on 9 Months
C. AC20-12-03: Classification Ratemaking – Loss Development

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D. AC20-12-04: Experience Rating Eligibility

E. AC20-12-05: Special Data Call for COVID-19 Claims

F. AC20-12-06: Potential Applications of Indemnity Transaction Data

G. AC20-12-07: Potential 2021 Actuarial and Research Projects

H. AC20-12-08: Potential Changes to Collection of Transaction Data

I. AC20-12-09: 2021 Schedule of Meetings

V. Matters Arising at Time of Meeting

VI. Next Meeting Date: February 16, 2021 (tentative)

VII. Adjournment

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Actuarial Research Working Group

Meeting Summary

To: Participants of the Actuarial Research Working Group
From: Laura Carstensen
Date: November 24, 2020

RE: Summary of October 6, 2020 Meeting

Insurer Meeting Participants Were Reminded of the Antitrust Notice
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Discussion Topics
At the meeting, the following topics were discussed.

A. Experience Rating Eligibility

The Working Group was informed that the WCIRB has investigated the predictive power of loss experience for employers who are currently not experience rated. Lowering the eligibility threshold would help to incentivize safety for smaller employers.

Staff developed optimal primary thresholds for employers with expected loss sizes below the current threshold using the same methodology that was used to compute the optimized thresholds used in the Experience Rating Plan and calculated the indicated experience modifications using these thresholds. Staff shared exhibits showing that while most of these small employers were claim-free during the experience period, the employers who incurred claims in the experience period were significantly more likely to incur claims in the projection period. Staff also shared quintile tests showing that loss ratios in the experience period were predictive of loss ratios in the projection period for risks significantly below the current eligibility threshold and that the variance ratio was typically below 60%.

Staff presented research showing that experience modifications optimized for and calculated with five years of experience did not outperform experience modifications based on three years of

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experience. Given these results and many of concerns with extending the length of the experience period, staff did not recommend extending the experience period to five years.

Staff observed that, because optimal primary thresholds increase more slowly than the expected loss associated with a particular threshold, larger risks effectively have a lower cap for the impact of a single claim on their experience modification. Staff presented an option to cap experience modifications based on the number of claims incurred in the experience period. This would ensure that the impact of a single claim for risks currently below the eligibility threshold does not exceed that for risks currently just above the eligibility threshold. This would help reduce the volatility of year over year changes in experience modifications for smaller risks while decreasing the efficiency of the overall plan only slightly.

Several Working Group members expressed support of the count-based caps as a basis to reduce potential experience rating plan volatility for very small employers. One member asked how the caps would be updated. Another member suggested considering the impact of defining the caps per occurrence rather than per claim. Some members expressed concerns about the potential impact of significantly lowering the experience rating eligibility threshold on contractors. Staff agreed to review this impact by industry sector and would discuss these impacts in future outreach efforts.

One member suggested that the impact of a single claim should be lower than in the proposal shown since, while more employers who have claims during the experience period are more likely to have claims in the projection period, there are also a significant number who do not have any claims in the projection period. Another member suggested that any proposal should rely on the actuarially indicated modifications as they enhance the efficiency of the plan.

The Working Group was advised that staff will present an update to the Actuarial Committee to solicit additional feedback regarding a potential change in the Experience Rating Plan experience rating eligibility.

B. Classification Ratemaking Loss Development

The Working Group was reminded that the WCIRB has begun a multi-year review of the classification ratemaking process and that loss development was the first component being studied. The Working Group was reminded that at the March 3, 2020 meeting, it was agreed that this study would focus on limited loss development rather than unlimited loss development.

Staff presented the current methodology for dividing classifications into loss development groups (LDGs), which is based on an iterative bifurcation of classifications using a Kruskal-Wallis test to determine the optimal division of classifications.

The Working Group was shown several alternative development groupings under consideration. Four of these options were based primarily on classification, while the final option used part of body, claim status, injury type and cumulative trauma indicators to determine groups. The first two classification-based alterntives found groups using a Kruskal-Wallis bifurcation, as in the past. However, updated versions determined LDGs using development on open claims only. The first alternative would develop all claims in a LDG together, while the second alternative would develop open claims using the newly found LDGs and develop all closed claims as a single

group. The third and fourth alternatives were analogous to the first and second, but used a decision tree in lieu of the Kruskal-Wallis bifurcation to determine optimal LDGs. The decision trees are a supervised machine learning method that used development on individual claims, as opposed to aggregate development, to determine optimal groups. The Gini index is used to measure the homogeneity of possible groups. The final alternative used a decision tree along with the previously mentioned claim characteristics to determine development groups.

Staff presented the results for each alternative and noted that staff judged alternatives by their accuracy, the level of distinction between groups, simplicity of implementation and explanation, and by the consistency of development patterns across maturities. A Working Group member noted, and staff agreed, that inconsistency at later maturities would be acceptable if differences at earlier maturities were large enough.

Staff noted that the classification groupings using the Kruskal-Wallis bifurcation and the decision tree methods were very similar. This added confidence to the results of both methods, given that determinations were made using aggregate development in one case and individual claim development in the other, along with differences in the optimization decision.

While reviewing the performance of the alternatives, staff noted that, on an observation-weighted basis, the decision tree alternative using claim characteristics consistently outperformed the other methods. Staff attributed this to the method's ability to successfully determine characteristics that predict development.

Ultimately, staff recommended developing claims using LDGs determined using a Kruskal-Wallis bifurcation for open claims along with separate development of closed claims. Staff noted that for any method using claim characterstics that can change between maturities, particularly claim status, separate development factor triangles would be needed for claims known open at report level 1, known open at report level 2, and so on. The Working Group did not see this as a significant concern, but requested that these triangles be available in an electronic format.

The Working Group was advised that staff will present an update to the Actuarial Committee to solicit additional feedback regarding loss development methodologies for classification ratemaking.

Item AC02-03-03
Experience of Large Deductible Policies

Beginning with the year 2000 evaluation, the WCIRB has issued annual data calls for calendar year premium and pure premium data and December 31 evaluations of accident year loss, allocated loss adjustment expense, and claim count experience for large deductible policies.[1] Annually, the Committee reviews the summarized large deductible experience. In these annual reviews, the Committee generally found (a) the percentage of business written on a large deductible basis had been relatively stable, (b) claim reporting and development patterns for experience written on a large deductible basis were generally similar to those of non-large deductible policies and (c) the impact of excluding the large deductible experience from the rate level calculation has been relatively modest. As a result, the Committee has generally agreed that no adjustment to statewide experience to address large deductible policies is necessary. The Committee also agreed that annual reviews of updated large deductible experience should continue and the results monitored and presented to the Committee.

Included as Exhibits 1 through 7 is the summary of December 31, 2019 large deductible experience. For comparison purposes, Exhibits 1 through 7 also include analogous information summarizing the non-large deductible experience of insurers writing a large volume of large deductible experience, the experience of all non-large deductible policies, and the total statewide experience.

[1] A large deductible policy is defined as having a deductible amount per claim or accident of at least $100,000.

Exhibit 1.1

Distribution of Calendar Year Premium and Losses

Calendar	Written Premium at Insurer Rate Level				Earned Premium at Insurer Rate Level			
	LD Insurers		Other		LD Insurers		Other	
Year	Large Ded.[1]	Non-LD	Non-LD	All	Large Ded.[1]	Non-LD	Non-LD	All
2006	36.3%	23.7%	40.0%	100.0%	37.3%	24.4%	38.3%	100.0%
2007	36.2%	26.5%	37.3%	100.0%	36.3%	26.7%	37.0%	100.0%
2008	33.1%	29.2%	37.7%	100.0%	34.7%	28.4%	36.9%	100.0%
2009	29.8%	34.1%	36.1%	100.0%	32.0%	32.8%	35.2%	100.0%
2010	33.2%	32.4%	34.5%	100.0%	33.7%	32.0%	34.3%	100.0%
2011	33.6%	35.1%	31.3%	100.0%	33.4%	35.5%	31.1%	100.0%
2012	35.1%	34.8%	30.1%	100.0%	35.0%	35.5%	29.5%	100.0%
2013	37.2%	29.4%	33.4%	100.0%	36.8%	30.8%	32.4%	100.0%
2014	36.9%	27.0%	36.2%	100.0%	36.3%	27.0%	36.8%	100.0%
2015	34.5%	27.3%	38.2%	100.0%	34.3%	27.7%	38.0%	100.0%
2016	33.0%	32.5%	34.5%	100.0%	34.0%	32.5%	33.5%	100.0%
2017	33.4%	35.3%	31.3%	100.0%	33.3%	35.6%	31.2%	100.0%
2018	33.3%	35.9%	30.9%	100.0%	33.6%	35.8%	30.6%	100.0%
2019	34.3%	35.5%	30.2%	100.0%	34.7%	35.2%	30.1%	100.0%

Calendar	Written Premium at Pure Premium Rate Level				Earned Premium at Pure Premium Rate Level			
	LD Insurers		Other		LD Insurers		Other	
Year	Large Ded.[1]	Non-LD	Non-LD	All	Large Ded.[1]	Non-LD	Non-LD	All
2006	36.7%	25.2%	38.2%	100.0%	37.1%	26.6%	36.4%	100.0%
2007	37.7%	28.2%	34.2%	100.0%	37.2%	28.5%	34.4%	100.0%
2008	34.9%	30.3%	34.8%	100.0%	36.1%	29.1%	34.7%	100.0%
2009	32.5%	34.9%	32.6%	100.0%	35.6%	32.9%	31.5%	100.0%
2010	37.6%	33.2%	29.1%	100.0%	37.8%	33.0%	29.2%	100.0%
2011	37.7%	35.9%	26.4%	100.0%	37.7%	36.3%	26.1%	100.0%
2012	40.7%	33.5%	25.8%	100.0%	40.3%	34.5%	25.2%	100.0%
2013	42.1%	28.0%	29.9%	100.0%	41.7%	29.6%	28.8%	100.0%
2014	41.5%	26.2%	32.3%	100.0%	41.1%	26.0%	32.9%	100.0%
2015	38.8%	27.1%	34.1%	100.0%	39.1%	27.2%	33.7%	100.0%
2016	39.0%	31.3%	29.8%	100.0%	39.6%	31.3%	29.1%	100.0%
2017	39.4%	33.5%	27.1%	100.0%	39.2%	33.7%	27.1%	100.0%
2018	40.2%	33.2%	26.6%	100.0%	40.0%	33.6%	26.5%	100.0%
2019	42.6%	31.8%	25.6%	100.0%	42.6%	31.9%	25.5%	100.0%

Calendar	Paid Losses				Incurred Losses			
	LD Insurers		Other		LD Insurers		Other	
Year	Large Ded.[1]	Non-LD	Non-LD	All	Large Ded.[1]	Non-LD	Non-LD	All
2006	38.9%	17.6%	43.5%	100.0%	37.9%	22.6%	39.5%	100.0%
2007	34.5%	22.5%	43.0%	100.0%	34.6%	24.5%	40.9%	100.0%
2008	33.0%	24.9%	42.1%	100.0%	38.2%	29.2%	32.6%	100.0%
2009	32.8%	27.6%	39.6%	100.0%	25.8%	41.7%	32.5%	100.0%
2010	33.5%	26.2%	40.3%	100.0%	36.1%	32.7%	31.2%	100.0%
2011	32.8%	30.5%	36.7%	100.0%	38.5%	38.7%	22.7%	100.0%
2012	32.6%	32.4%	35.0%	100.0%	35.3%	38.5%	26.2%	100.0%
2013	33.7%	30.5%	35.8%	100.0%	38.0%	33.2%	28.8%	100.0%
2014	35.8%	30.5%	33.8%	100.0%	38.9%	28.0%	33.1%	100.0%
2015	36.3%	30.3%	33.4%	100.0%	41.8%	24.6%	33.6%	100.0%
2016	37.3%	31.4%	31.2%	100.0%	40.6%	29.3%	30.1%	100.0%
2017	37.8%	31.4%	30.8%	100.0%	42.7%	31.9%	25.4%	100.0%
2018	37.5%	30.7%	31.8%	100.0%	38.6%	30.5%	30.9%	100.0%
2019	38.2%	30.3%	31.6%	100.0%	41.5%	35.4%	23.1%	100.0%

Notes: [1] Large deductible policies are defined as policies with a deductible amount per claim or accident of at least $100,000.

Source: Based on WCIRB's quarterly and large deductible data calls.

Exhibit 1.2

Policy Year Ratios of Premiums at Insurer Rate Level to Pure Premium Level

Policy	Written Premium				Earned Premium			
	LD Insurers		Other		LD Insurers		Other	
Year	Large Ded.[1]	Non-LD	Non-LD	All	Large Ded.[1]	Non-LD	Non-LD	All
2006	1.452	1.462	1.541	1.486	1.473	1.419	1.539	1.481
2007	1.409	1.449	1.600	1.485	1.412	1.460	1.600	1.490
2008	1.293	1.370	1.537	1.394	1.299	1.360	1.538	1.394
2009	1.246	1.313	1.575	1.363	1.244	1.323	1.580	1.365
2010	1.218	1.351	1.680	1.381	1.218	1.354	1.683	1.382
2011	1.272	1.416	1.735	1.432	1.274	1.421	1.735	1.432
2012	0.961	1.157	1.271	1.103	0.962	1.156	1.272	1.103
2013	1.015	1.212	1.283	1.150	1.016	1.212	1.285	1.151
2014	0.949	1.141	1.254	1.097	0.949	1.142	1.253	1.098
2015	0.987	1.139	1.282	1.122	0.986	1.142	1.284	1.122
2016	1.000	1.178	1.367	1.159	1.000	1.183	1.363	1.159
2017	1.008	1.227	1.408	1.184	1.008	1.228	1.408	1.184
2018	0.991	1.288	1.443	1.203	0.994	1.283	1.448	1.204
2019	0.995	1.350	1.450	1.228	0.979	1.358	1.495	1.229

Notes: [1] Large deductible policies are defined as policies with a deductible amount per claim or accident of at least $100,000.

Source: Based on WCIRB's quarterly and large deductible data calls.

Exhibit 2

Calendar/Accident Year Loss Ratios as of December 31, 2019

Insurers with Large Deductible Experience [1]:

	Large Deductible Experience					Non-Large Deductible Experience				
	Indemnity		Medical [2]		Total	Indemnity		Medical [2]		Total
CY/AY	Paid	Incurred	Paid	Incurred	Incurred [3]	Paid	Incurred	Paid	Incurred	Incurred [3]
2006	0.150	0.155	0.218	0.231	0.462	0.145	0.149	0.217	0.230	0.396
2007	0.207	0.214	0.306	0.327	0.630	0.204	0.210	0.310	0.328	0.592
2008	0.264	0.276	0.379	0.411	0.729	0.266	0.276	0.396	0.426	0.741
2009	0.344	0.359	0.477	0.514	0.917	0.286	0.300	0.435	0.468	0.817
2010	0.318	0.331	0.439	0.473	0.847	0.294	0.310	0.457	0.490	0.857
2011	0.287	0.303	0.402	0.441	0.809	0.265	0.280	0.407	0.442	0.785
2012	0.262	0.280	0.339	0.372	0.739	0.219	0.235	0.329	0.359	0.662
2013	0.210	0.224	0.257	0.287	0.655	0.179	0.193	0.251	0.279	0.549
2014	0.200	0.220	0.225	0.258	0.657	0.159	0.175	0.210	0.236	0.496
2015	0.193	0.217	0.208	0.246	0.703	0.142	0.162	0.185	0.220	0.563
2016	0.166	0.197	0.181	0.227	0.642	0.125	0.150	0.156	0.195	0.512
2017	0.146	0.192	0.164	0.226	0.660	0.104	0.141	0.134	0.188	0.522
2018	0.101	0.163	0.131	0.216	0.653	0.070	0.123	0.105	0.175	0.568
2019	0.035	0.082	0.058	0.143	0.588	0.027	0.077	0.047	0.127	0.592

All Insurers with WC Experience:

	All California WC Experience					All Non-Large Deductible Experience				
	Indemnity		Medical [2]		Total	Indemnity		Medical [2]		Total
CY/AY	Paid	Incurred	Paid	Incurred	Incurred [3]	Paid	Incurred	Paid	Incurred	Incurred [3]
2006	0.152	0.158	0.218	0.235	0.438	0.152	0.160	0.218	0.237	0.424
2007	0.207	0.218	0.303	0.329	0.610	0.208	0.220	0.301	0.330	0.598
2008	0.260	0.274	0.373	0.406	0.726	0.258	0.272	0.369	0.403	0.725
2009	0.300	0.317	0.429	0.469	0.840	0.280	0.296	0.406	0.447	0.804
2010	0.286	0.302	0.415	0.449	0.812	0.269	0.286	0.403	0.437	0.794
2011	0.262	0.277	0.382	0.417	0.770	0.248	0.264	0.371	0.404	0.750
2012	0.229	0.245	0.319	0.352	0.678	0.211	0.227	0.308	0.342	0.646
2013	0.190	0.206	0.251	0.280	0.596	0.179	0.195	0.247	0.275	0.561
2014	0.174	0.192	0.213	0.244	0.567	0.160	0.177	0.207	0.236	0.517
2015	0.161	0.183	0.189	0.226	0.601	0.144	0.165	0.179	0.215	0.548
2016	0.138	0.166	0.162	0.205	0.550	0.123	0.150	0.152	0.193	0.503
2017	0.116	0.158	0.141	0.201	0.563	0.101	0.141	0.129	0.189	0.514
2018	0.080	0.138	0.110	0.192	0.587	0.069	0.126	0.100	0.180	0.553
2019	0.029	0.084	0.050	0.143	0.581	0.026	0.085	0.046	0.142	0.577

Notes: [1] Large deductible policies are defined as policies with a deductible amount per claim or accident of at least $100,000.
[2] Including MCCP.
[3] Including IBNR.

Source: Based on WCIRB's quarterly and large deductible data calls.

Exhibit 3.1

Incurred Indemnity Development

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	2.452	1.369	1.137	1.052	1.031	1.026	1.015	1.008	1.006	1.004	1.006	1.004	1.004
2002	2.431	1.328	1.093	1.044	1.041	1.016	1.008	1.010	1.006	1.007	1.005	1.005	1.003
2003	2.126	1.247	1.090	1.064	1.026	1.018	1.016	1.009	1.010	1.009	1.006	1.008	1.005
2004	1.744	1.212	1.101	1.047	1.035	1.024	1.023	1.013	1.014	1.009	1.010	1.006	1.003
2005	1.862	1.265	1.110	1.062	1.050	1.032	1.025	1.016	1.014	1.011	1.008	1.005	1.005
2006	2.066	1.304	1.123	1.085	1.053	1.034	1.024	1.017	1.014	1.011	1.006	1.005	1.002
2007	2.027	1.318	1.148	1.078	1.052	1.042	1.033	1.015	1.014	1.007	1.012	1.005	
2008	2.075	1.349	1.158	1.079	1.059	1.037	1.026	1.017	1.015	1.006	1.008		
2009	2.192	1.352	1.158	1.093	1.058	1.033	1.023	1.017	1.011	1.009			
2010	2.234	1.349	1.159	1.079	1.057	1.028	1.019	1.014	1.011				
2011	2.159	1.365	1.151	1.077	1.040	1.028	1.020	1.010					
2012	2.307	1.330	1.144	1.073	1.052	1.027	1.015						
2013	2.168	1.321	1.146	1.066	1.034	1.021							
2014	2.279	1.350	1.135	1.064	1.033								
2015	2.249	1.328	1.116	1.060									
2016	2.255	1.297	1.113										
2017	2.206	1.294											
2018	2.243												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	1.849	1.291	1.073	1.026	1.021	1.021	1.008	1.006	1.003	1.002	1.005	1.005	1.000
2002	1.914	1.207	1.050	1.022	1.033	1.011	1.010	1.010	1.005	1.008	1.003	1.000	1.002
2003	1.532	1.122	1.039	1.041	1.022	1.017	1.013	1.013	1.017	1.008	1.009	1.004	1.001
2004	1.254	1.074	1.061	1.033	1.032	1.020	1.017	1.011	1.015	1.009	1.005	1.006	1.004
2005	1.318	1.199	1.084	1.065	1.045	1.028	1.020	1.021	1.017	1.008	1.004	1.008	1.006
2006	1.725	1.218	1.105	1.063	1.046	1.038	1.026	1.018	1.005	1.005	1.001	1.005	1.002
2007	1.752	1.270	1.107	1.054	1.049	1.036	1.022	1.012	1.004	1.002	1.004	1.004	
2008	1.889	1.268	1.117	1.071	1.041	1.031	1.018	1.008	1.008	1.004	1.006		
2009	1.893	1.269	1.125	1.074	1.049	1.026	1.015	1.010	1.007	1.006			
2010	1.917	1.302	1.123	1.066	1.043	1.028	1.015	1.011	1.013				
2011	1.963	1.249	1.136	1.063	1.039	1.020	1.021	1.011					
2012	1.941	1.273	1.105	1.060	1.035	1.022	1.018						
2013	1.869	1.231	1.089	1.041	1.031	1.017							
2014	1.856	1.234	1.095	1.050	1.033								
2015	1.896	1.223	1.093	1.047									
2016	1.818	1.229	1.087										
2017	1.881	1.215											
2018	1.811												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	1.873	1.325	1.106	1.035	1.023	1.021	1.014	1.009	1.006	1.007	1.006	1.005	1.003
2002	1.952	1.263	1.069	1.033	1.033	1.018	1.011	1.010	1.010	1.007	1.005	1.003	1.002
2003	1.782	1.187	1.069	1.056	1.033	1.021	1.018	1.015	1.015	1.009	1.006	1.004	1.003
2004	1.448	1.158	1.083	1.042	1.041	1.026	1.028	1.018	1.014	1.007	1.007	1.003	1.001
2005	1.503	1.218	1.098	1.068	1.053	1.040	1.028	1.016	1.012	1.005	1.005	1.006	1.003
2006	1.690	1.247	1.111	1.080	1.053	1.035	1.023	1.015	1.009	1.007	1.004	1.005	1.002
2007	1.784	1.273	1.120	1.070	1.049	1.037	1.022	1.012	1.011	1.005	1.007	1.010	
2008	1.858	1.302	1.136	1.074	1.045	1.030	1.019	1.012	1.009	1.006	1.007		
2009	1.983	1.293	1.142	1.076	1.048	1.023	1.019	1.014	1.009	1.011			
2010	1.994	1.315	1.131	1.069	1.045	1.026	1.016	1.012	1.012				
2011	1.997	1.277	1.133	1.061	1.037	1.022	1.019	1.012					
2012	1.992	1.279	1.113	1.063	1.041	1.023	1.016						
2013	1.931	1.259	1.111	1.055	1.032	1.021							
2014	1.960	1.278	1.115	1.059	1.030								
2015	1.969	1.260	1.101	1.049									
2016	1.941	1.246	1.097										
2017	1.913	1.243											
2018	1.906												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	1.800	1.311	1.097	1.029	1.020	1.019	1.013	1.010	1.007	1.009	1.006	1.006	1.003
2002	1.818	1.245	1.061	1.029	1.030	1.018	1.013	1.010	1.012	1.007	1.005	1.002	1.002
2003	1.697	1.164	1.060	1.052	1.036	1.023	1.019	1.018	1.018	1.008	1.007	1.003	1.002
2004	1.350	1.135	1.076	1.039	1.043	1.028	1.030	1.020	1.015	1.006	1.005	1.002	1.000
2005	1.376	1.196	1.090	1.070	1.055	1.045	1.030	1.016	1.011	1.002	1.003	1.006	1.001
2006	1.577	1.217	1.104	1.077	1.052	1.036	1.022	1.014	1.006	1.005	1.002	1.005	1.003
2007	1.687	1.252	1.107	1.065	1.048	1.034	1.016	1.010	1.010	1.003	1.004	1.012	
2008	1.777	1.280	1.126	1.072	1.037	1.026	1.015	1.009	1.006	1.005	1.006		
2009	1.896	1.264	1.134	1.068	1.043	1.017	1.017	1.013	1.008	1.010			
2010	1.889	1.298	1.116	1.062	1.037	1.025	1.015	1.011	1.012				
2011	1.926	1.233	1.126	1.053	1.035	1.019	1.018	1.011					
2012	1.847	1.254	1.094	1.057	1.033	1.021	1.016						
2013	1.820	1.223	1.090	1.047	1.030	1.020							
2014	1.797	1.234	1.101	1.056	1.026								
2015	1.831	1.219	1.091	1.039									
2016	1.788	1.214	1.083										
2017	1.763	1.208											
2018	1.727												

Incurred Medical Development *

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	2.111	1.302	1.129	1.067	1.047	1.056	1.043	1.026	1.030	1.019	1.013	1.011	1.014
2002	1.992	1.221	1.066	1.050	1.060	1.043	1.032	1.028	1.023	1.020	1.016	1.015	0.997
2003	1.726	1.128	1.075	1.076	1.051	1.035	1.035	1.029	1.023	1.015	1.012	1.012	1.002
2004	1.528	1.180	1.112	1.075	1.057	1.049	1.039	1.028	1.029	1.017	1.012	1.007	0.997
2005	1.558	1.180	1.094	1.077	1.065	1.049	1.035	1.031	1.019	1.019	1.009	1.003	1.005
2006	1.618	1.200	1.124	1.086	1.054	1.044	1.036	1.027	1.018	1.005	1.002	1.005	1.000
2007	1.579	1.224	1.131	1.078	1.069	1.067	1.037	1.023	1.008	1.004	1.005	1.003	
2008	1.631	1.224	1.131	1.091	1.075	1.048	1.034	1.016	1.005	1.005	1.005		
2009	1.646	1.237	1.130	1.104	1.072	1.041	1.022	1.010	1.009	1.003			
2010	1.711	1.235	1.143	1.079	1.056	1.032	1.017	1.009	1.009				
2011	1.688	1.269	1.122	1.074	1.042	1.031	1.013	1.014					
2012	1.712	1.206	1.110	1.061	1.037	1.019	1.011						
2013	1.612	1.185	1.105	1.043	1.025	1.015							
2014	1.623	1.178	1.090	1.038	1.030								
2015	1.583	1.171	1.070	1.052									
2016	1.608	1.148	1.062										
2017	1.565	1.145											
2018	1.602												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	1.663	1.254	1.075	1.039	1.044	1.041	1.029	1.023	1.018	1.013	1.012	1.015	1.013
2002	1.746	1.151	1.053	1.025	1.060	1.017	1.026	1.022	1.025	1.011	1.013	1.008	1.000
2003	1.318	1.090	1.033	1.060	1.043	1.038	1.030	1.023	1.021	1.016	1.015	1.000	0.998
2004	1.241	1.061	1.091	1.071	1.058	1.045	1.037	1.023	1.021	1.014	1.006	1.002	0.997
2005	1.235	1.156	1.066	1.073	1.067	1.044	1.033	1.030	1.010	1.007	1.004	1.000	0.997
2006	1.404	1.183	1.107	1.068	1.061	1.043	1.040	1.020	1.012	1.000	0.998	1.004	0.996
2007	1.483	1.216	1.107	1.063	1.063	1.044	1.035	1.017	1.004	0.996	1.000	0.998	
2008	1.537	1.180	1.105	1.097	1.061	1.042	1.027	1.010	1.005	0.999	1.004		
2009	1.528	1.205	1.143	1.088	1.063	1.030	1.014	1.003	1.000	1.002			
2010	1.531	1.243	1.136	1.085	1.047	1.022	1.007	1.008	1.011				
2011	1.585	1.213	1.127	1.075	1.035	1.015	1.016	1.008					
2012	1.546	1.189	1.094	1.059	1.028	1.015	1.019						
2013	1.500	1.144	1.087	1.037	1.019	1.013							
2014	1.438	1.156	1.057	1.023	1.023								
2015	1.494	1.134	1.061	1.032									
2016	1.420	1.106	1.047										
2017	1.430	1.114											
2018	1.420												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	1.658	1.274	1.107	1.047	1.041	1.045	1.040	1.034	1.035	1.022	1.017	1.015	1.013
2002	1.632	1.203	1.059	1.039	1.056	1.040	1.036	1.029	1.028	1.022	1.014	1.010	0.999
2003	1.567	1.119	1.057	1.059	1.060	1.042	1.042	1.037	1.029	1.018	1.011	1.003	0.998
2004	1.351	1.135	1.113	1.081	1.060	1.061	1.043	1.032	1.026	1.012	1.006	1.001	0.996
2005	1.389	1.172	1.087	1.074	1.084	1.055	1.045	1.032	1.020	1.006	1.006	0.999	1.000
2006	1.460	1.196	1.103	1.081	1.066	1.048	1.040	1.022	1.011	1.000	1.001	1.005	1.000
2007	1.518	1.204	1.124	1.081	1.070	1.050	1.032	1.018	1.004	1.008	1.001	1.004	
2008	1.527	1.212	1.129	1.092	1.061	1.041	1.025	1.010	1.004	1.002	1.005		
2009	1.604	1.227	1.140	1.087	1.061	1.029	1.016	1.007	1.005	1.009			
2010	1.620	1.245	1.134	1.077	1.045	1.025	1.012	1.008	1.010				
2011	1.667	1.222	1.125	1.069	1.034	1.016	1.010	1.011					
2012	1.592	1.188	1.092	1.056	1.031	1.015	1.016						
2013	1.559	1.150	1.086	1.039	1.022	1.015							
2014	1.523	1.159	1.079	1.035	1.028								
2015	1.511	1.146	1.064	1.031									
2016	1.498	1.124	1.046										
2017	1.440	1.119											
2018	1.452												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	1.617	1.269	1.101	1.040	1.040	1.041	1.038	1.038	1.038	1.023	1.019	1.016	1.013
2002	1.586	1.198	1.057	1.035	1.054	1.038	1.038	1.029	1.030	1.022	1.013	1.008	0.999
2003	1.519	1.116	1.050	1.051	1.064	1.045	1.045	1.041	1.032	1.019	1.011	0.999	0.996
2004	1.285	1.115	1.110	1.085	1.060	1.068	1.045	1.034	1.024	1.010	1.002	0.998	0.996
2005	1.316	1.163	1.083	1.072	1.095	1.059	1.051	1.033	1.021	0.998	1.005	0.996	0.997
2006	1.402	1.194	1.092	1.079	1.072	1.050	1.042	1.020	1.008	0.997	1.000	1.006	0.998
2007	1.488	1.194	1.119	1.083	1.070	1.042	1.030	1.015	1.002	1.010	1.000	1.004	
2008	1.482	1.206	1.128	1.093	1.054	1.037	1.021	1.007	1.004	1.001	1.005		
2009	1.584	1.222	1.144	1.078	1.055	1.023	1.012	1.006	1.004	1.004			
2010	1.576	1.250	1.130	1.077	1.039	1.021	1.010	1.008	1.010				
2011	1.657	1.198	1.130	1.066	1.029	1.008	1.009	1.008					
2012	1.534	1.182	1.083	1.053	1.028	1.013	1.018						
2013	1.534	1.132	1.075	1.037	1.019	1.014							
2014	1.465	1.149	1.072	1.033	1.026								
2015	1.476	1.133	1.061	1.017									
2016	1.443	1.111	1.035										
2017	1.379	1.102											
2018	1.373												

* Incurred medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Paid Indemnity Development

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	3.712	1.867	1.353	1.172	1.087	1.057	1.035	1.025	1.016	1.012	1.010	1.011	1.008
2002	3.871	1.839	1.344	1.144	1.087	1.043	1.032	1.018	1.017	1.012	1.012	1.010	1.007
2003	3.613	1.758	1.276	1.144	1.071	1.038	1.027	1.022	1.015	1.016	1.012	1.012	1.009
2004	3.080	1.574	1.269	1.122	1.070	1.047	1.034	1.029	1.025	1.019	1.013	1.011	1.010
2005	2.906	1.562	1.237	1.123	1.082	1.055	1.045	1.035	1.023	1.022	1.015	1.010	1.011
2006	3.135	1.559	1.238	1.143	1.087	1.064	1.045	1.032	1.027	1.022	1.014	1.010	1.008
2007	3.001	1.554	1.262	1.144	1.095	1.069	1.049	1.036	1.032	1.019	1.019	1.011	
2008	3.057	1.614	1.276	1.151	1.102	1.070	1.047	1.031	1.023	1.019	1.014		
2009	3.244	1.615	1.284	1.165	1.101	1.066	1.047	1.032	1.023	1.017			
2010	3.236	1.627	1.285	1.157	1.100	1.065	1.040	1.031	1.022				
2011	3.306	1.619	1.285	1.155	1.087	1.059	1.039	1.025					
2012	3.265	1.615	1.267	1.142	1.098	1.050	1.034						
2013	3.275	1.609	1.271	1.138	1.072	1.045							
2014	3.366	1.660	1.267	1.128	1.069								
2015	3.410	1.631	1.242	1.124									
2016	3.447	1.591	1.229										
2017	3.275	1.574											
2018	3.328												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	3.838	1.837	1.335	1.145	1.076	1.051	1.031	1.023	1.015	1.013	1.010	1.008	1.005
2002	3.691	1.886	1.293	1.131	1.070	1.048	1.033	1.018	1.015	1.012	1.013	1.008	1.006
2003	3.358	1.767	1.242	1.116	1.074	1.046	1.026	1.024	1.024	1.020	1.016	1.011	1.010
2004	3.050	1.531	1.220	1.117	1.077	1.041	1.034	1.033	1.023	1.022	1.011	1.015	1.006
2005	2.870	1.516	1.261	1.128	1.071	1.061	1.044	1.039	1.027	1.020	1.014	1.014	1.010
2006	2.864	1.580	1.246	1.142	1.092	1.064	1.048	1.036	1.026	1.019	1.012	1.011	1.009
2007	2.995	1.615	1.246	1.132	1.088	1.065	1.042	1.032	1.027	1.014	1.011	1.009	
2008	3.040	1.590	1.269	1.145	1.088	1.058	1.043	1.026	1.024	1.016	1.012		
2009	3.014	1.628	1.268	1.153	1.091	1.060	1.044	1.028	1.021	1.015			
2010	3.133	1.635	1.285	1.146	1.090	1.063	1.039	1.024	1.019				
2011	3.160	1.610	1.274	1.148	1.087	1.051	1.043	1.025					
2012	3.030	1.605	1.265	1.132	1.086	1.049	1.037						
2013	3.082	1.602	1.257	1.125	1.065	1.040							
2014	3.183	1.631	1.251	1.122	1.067								
2015	3.278	1.628	1.240	1.110									
2016	3.147	1.584	1.231										
2017	3.198	1.568											
2018	2.987												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	3.545	1.796	1.322	1.145	1.077	1.051	1.034	1.024	1.017	1.014	1.012	1.011	1.008
2002	3.590	1.782	1.290	1.127	1.075	1.046	1.031	1.020	1.018	1.015	1.014	1.008	1.008
2003	3.370	1.696	1.249	1.128	1.072	1.043	1.030	1.026	1.023	1.021	1.015	1.012	1.009
2004	2.914	1.522	1.236	1.116	1.073	1.049	1.041	1.035	1.030	1.020	1.015	1.011	1.009
2005	2.734	1.512	1.235	1.121	1.079	1.060	1.047	1.042	1.028	1.020	1.015	1.013	1.010
2006	2.866	1.539	1.229	1.135	1.090	1.068	1.050	1.035	1.026	1.018	1.016	1.012	1.011
2007	2.905	1.547	1.246	1.140	1.092	1.066	1.046	1.033	1.027	1.020	1.016	1.013	
2008	2.927	1.577	1.271	1.150	1.092	1.060	1.041	1.027	1.023	1.018	1.015		
2009	3.069	1.616	1.280	1.156	1.092	1.060	1.043	1.031	1.023	1.021			
2010	3.157	1.628	1.281	1.147	1.091	1.060	1.038	1.027	1.022				
2011	3.208	1.613	1.266	1.144	1.087	1.056	1.041	1.027					
2012	3.137	1.597	1.262	1.137	1.087	1.051	1.035						
2013	3.169	1.606	1.260	1.129	1.072	1.044							
2014	3.229	1.635	1.257	1.129	1.071								
2015	3.278	1.618	1.244	1.119									
2016	3.235	1.586	1.230										
2017	3.186	1.569											
2018	3.109												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	3.572	1.772	1.313	1.135	1.074	1.048	1.033	1.023	1.017	1.015	1.013	1.011	1.009
2002	3.501	1.766	1.271	1.121	1.071	1.048	1.031	1.020	1.018	1.016	1.014	1.007	1.008
2003	3.305	1.670	1.237	1.121	1.073	1.045	1.032	1.028	1.027	1.023	1.016	1.012	1.009
2004	2.844	1.498	1.223	1.113	1.075	1.050	1.045	1.039	1.032	1.020	1.015	1.011	1.009
2005	2.653	1.492	1.233	1.119	1.077	1.064	1.048	1.047	1.031	1.018	1.015	1.015	1.010
2006	2.765	1.528	1.223	1.131	1.092	1.070	1.052	1.037	1.025	1.016	1.017	1.013	1.012
2007	2.856	1.544	1.238	1.138	1.091	1.064	1.044	1.032	1.025	1.020	1.014	1.013	
2008	2.869	1.558	1.269	1.150	1.087	1.055	1.038	1.026	1.023	1.017	1.015		
2009	2.981	1.616	1.278	1.151	1.087	1.057	1.041	1.030	1.023	1.021			
2010	3.113	1.629	1.279	1.141	1.085	1.057	1.037	1.025	1.021				
2011	3.155	1.609	1.260	1.138	1.087	1.055	1.043	1.027					
2012	3.061	1.588	1.259	1.133	1.080	1.051	1.035						
2013	3.096	1.607	1.253	1.123	1.071	1.043							
2014	3.147	1.618	1.249	1.129	1.073								
2015	3.194	1.609	1.244	1.115									
2016	3.103	1.582	1.231										
2017	3.121	1.566											
2018	2.965												

Paid Medical Development *

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	3.220	1.478	1.203	1.119	1.077	1.059	1.050	1.037	1.031	1.031	1.023	1.023	1.023
2002	3.058	1.372	1.165	1.107	1.076	1.056	1.044	1.032	1.031	1.025	1.025	1.020	1.016
2003	2.665	1.304	1.172	1.112	1.075	1.050	1.041	1.034	1.029	1.030	1.021	1.019	1.018
2004	2.417	1.378	1.188	1.122	1.081	1.064	1.047	1.040	1.037	1.027	1.024	1.019	1.015
2005	2.372	1.335	1.203	1.129	1.093	1.066	1.053	1.051	1.031	1.031	1.021	1.017	1.013
2006	2.456	1.380	1.213	1.136	1.087	1.067	1.056	1.039	1.035	1.026	1.019	1.015	1.014
2007	2.374	1.382	1.218	1.131	1.098	1.082	1.053	1.041	1.033	1.022	1.020	1.015	
2008	2.335	1.411	1.220	1.144	1.110	1.076	1.053	1.038	1.028	1.021	1.018		
2009	2.477	1.427	1.244	1.163	1.106	1.073	1.051	1.035	1.026	1.019			
2010	2.508	1.443	1.260	1.155	1.099	1.070	1.043	1.032	1.024				
2011	2.576	1.465	1.244	1.149	1.094	1.061	1.043	1.030					
2012	2.626	1.457	1.244	1.145	1.093	1.056	1.038						
2013	2.573	1.454	1.235	1.137	1.071	1.049							
2014	2.535	1.449	1.222	1.118	1.072								
2015	2.572	1.427	1.207	1.113									
2016	2.548	1.397	1.193										
2017	2.469	1.382											
2018	2.456												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	2.754	1.482	1.191	1.104	1.070	1.055	1.047	1.039	1.027	1.028	1.021	1.021	1.015
2002	2.916	1.406	1.178	1.098	1.074	1.055	1.047	1.025	1.025	1.022	1.022	1.015	1.013
2003	2.449	1.356	1.153	1.120	1.078	1.060	1.042	1.035	1.032	1.032	1.023	1.015	1.015
2004	2.367	1.260	1.194	1.130	1.090	1.064	1.053	1.042	1.033	1.024	1.024	1.021	1.014
2005	2.072	1.346	1.212	1.140	1.085	1.072	1.056	1.048	1.031	1.027	1.018	1.013	1.010
2006	2.255	1.397	1.219	1.139	1.098	1.068	1.058	1.035	1.033	1.027	1.014	1.012	1.010
2007	2.383	1.430	1.230	1.136	1.097	1.072	1.051	1.042	1.029	1.017	1.015	1.010	
2008	2.312	1.415	1.240	1.148	1.100	1.070	1.054	1.033	1.022	1.016	1.013		
2009	2.308	1.444	1.248	1.162	1.107	1.066	1.046	1.029	1.020	1.016			
2010	2.420	1.470	1.273	1.154	1.100	1.067	1.042	1.028	1.021				
2011	2.517	1.470	1.258	1.148	1.095	1.051	1.039	1.027					
2012	2.499	1.478	1.253	1.142	1.085	1.053	1.043						
2013	2.434	1.469	1.233	1.123	1.071	1.044							
2014	2.499	1.464	1.217	1.112	1.066								
2015	2.565	1.440	1.217	1.100									
2016	2.504	1.401	1.186										
2017	2.363	1.387											
2018	2.334												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	2.842	1.472	1.212	1.109	1.076	1.057	1.045	1.038	1.034	1.030	1.022	1.022	1.022
2002	2.887	1.416	1.168	1.112	1.072	1.054	1.046	1.034	1.032	1.024	1.023	1.018	1.016
2003	2.592	1.318	1.170	1.112	1.074	1.057	1.048	1.041	1.030	1.030	1.026	1.019	1.016
2004	2.298	1.345	1.189	1.123	1.092	1.070	1.055	1.040	1.036	1.034	1.024	1.018	1.015
2005	2.251	1.345	1.209	1.138	1.095	1.073	1.054	1.049	1.038	1.031	1.021	1.019	1.014
2006	2.340	1.399	1.220	1.140	1.099	1.068	1.056	1.042	1.033	1.025	1.020	1.015	1.015
2007	2.416	1.413	1.230	1.142	1.097	1.075	1.057	1.041	1.031	1.022	1.020	1.015	
2008	2.325	1.421	1.241	1.148	1.103	1.072	1.051	1.035	1.027	1.018	1.017		
2009	2.408	1.447	1.251	1.160	1.104	1.067	1.046	1.032	1.024	1.020			
2010	2.479	1.468	1.265	1.152	1.096	1.066	1.043	1.030	1.025				
2011	2.580	1.470	1.248	1.145	1.095	1.058	1.041	1.029					
2012	2.561	1.468	1.247	1.143	1.087	1.056	1.039						
2013	2.492	1.464	1.238	1.130	1.077	1.048							
2014	2.518	1.462	1.226	1.121	1.076								
2015	2.533	1.439	1.217	1.111									
2016	2.479	1.410	1.197										
2017	2.372	1.391											
2018	2.378												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	2.878	1.465	1.216	1.106	1.076	1.056	1.045	1.039	1.036	1.029	1.029	1.029	1.022
2002	2.845	1.432	1.169	1.115	1.070	1.055	1.047	1.035	1.032	1.029	1.031	1.018	1.016
2003	2.567	1.324	1.169	1.112	1.077	1.061	1.051	1.044	1.042	1.043	1.028	1.019	1.016
2004	2.241	1.326	1.188	1.129	1.098	1.074	1.060	1.058	1.049	1.037	1.024	1.017	1.015
2005	2.180	1.354	1.218	1.142	1.097	1.078	1.067	1.066	1.043	1.030	1.021	1.020	1.015
2006	2.270	1.420	1.224	1.142	1.106	1.080	1.068	1.044	1.032	1.024	1.021	1.015	1.015
2007	2.461	1.432	1.237	1.148	1.108	1.083	1.059	1.042	1.030	1.022	1.019	1.014	
2008	2.320	1.427	1.252	1.164	1.108	1.070	1.050	1.034	1.027	1.017	1.016		
2009	2.371	1.458	1.274	1.169	1.103	1.063	1.043	1.031	1.023	1.019			
2010	2.463	1.501	1.277	1.152	1.094	1.064	1.043	1.029	1.024				
2011	2.634	1.488	1.259	1.143	1.095	1.057	1.040	1.027					
2012	2.532	1.479	1.250	1.141	1.083	1.056	1.039						
2013	2.456	1.472	1.240	1.126	1.079	1.048							
2014	2.511	1.470	1.229	1.123	1.078								
2015	2.510	1.446	1.224	1.110									
2016	2.441	1.417	1.199										
2017	2.318	1.398											
2018	2.332												

* Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Paid ALAE (Excluding MCCP) Development *

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001						1.098	1.044	1.042	1.032	1.028	1.022	1.023	1.021
2002					1.127	1.061	1.048	1.035	1.029	1.023	1.022	1.019	1.015
2003				1.191	1.097	1.058	1.046	1.036	1.031	1.026	1.022	1.018	1.015
2004			1.351	1.165	1.100	1.071	1.048	1.038	1.033	1.026	1.022	1.016	1.012
2005		1.785	1.347	1.178	1.118	1.080	1.059	1.048	1.036	1.029	1.023	1.017	1.015
2006	4.628	1.744	1.334	1.189	1.116	1.083	1.060	1.047	1.036	1.025	1.019	1.016	1.011
2007	4.057	1.734	1.350	1.191	1.128	1.091	1.063	1.049	1.035	1.026	1.020	1.014	
2008	4.178	1.759	1.363	1.198	1.135	1.090	1.066	1.045	1.030	1.024	1.018		
2009	4.586	1.793	1.358	1.210	1.132	1.090	1.060	1.038	1.029	1.020			
2010	4.680	1.744	1.348	1.199	1.128	1.080	1.054	1.036	1.023				
2011	4.415	1.749	1.344	1.195	1.113	1.077	1.049	1.029					
2012	4.584	1.755	1.347	1.183	1.110	1.064	1.044						
2013	4.576	1.717	1.306	1.160	1.087	1.056							
2014	4.382	1.670	1.286	1.141	1.080								
2015	4.350	1.638	1.257	1.128									
2016	4.428	1.614	1.239										
2017	4.192	1.573											
2018	3.887												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001						1.070	1.043	1.037	1.026	1.020	1.019	1.017	1.015
2002					1.098	1.063	1.050	1.029	1.025	1.020	1.019	1.016	1.013
2003				1.161	1.085	1.071	1.041	1.032	1.026	1.022	1.019	1.015	1.012
2004			1.305	1.150	1.103	1.062	1.048	1.033	1.030	1.024	1.017	1.016	1.011
2005		1.625	1.289	1.185	1.106	1.076	1.050	1.046	1.035	1.025	1.022	1.016	1.012
2006	3.124	1.659	1.330	1.179	1.123	1.076	1.062	1.045	1.034	1.026	1.021	1.014	1.011
2007	3.753	1.765	1.341	1.194	1.116	1.087	1.056	1.040	1.029	1.020	1.016	1.013	
2008	4.186	1.755	1.348	1.188	1.119	1.081	1.057	1.039	1.029	1.020	1.015		
2009	4.072	1.753	1.342	1.192	1.121	1.082	1.052	1.037	1.026	1.018			
2010	4.100	1.765	1.348	1.188	1.118	1.076	1.046	1.032	1.023				
2011	4.218	1.721	1.334	1.192	1.111	1.070	1.047	1.032					
2012	4.196	1.723	1.341	1.179	1.107	1.064	1.044						
2013	4.338	1.717	1.311	1.174	1.090	1.057							
2014	4.252	1.644	1.296	1.144	1.088								
2015	3.964	1.641	1.253	1.133									
2016	4.223	1.592	1.257										
2017	3.967	1.552											
2018	3.833												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001	4.002	1.796	1.385	1.182	1.121	1.084	1.044	1.039	1.029	1.024	1.021	1.017	1.017
2002	3.814	1.807	1.318	1.177	1.109	1.064	1.047	1.033	1.027	1.021	1.018	1.017	1.014
2003	3.961	1.707	1.330	1.171	1.101	1.063	1.046	1.034	1.029	1.023	1.020	1.017	1.013
2004	4.082	1.734	1.339	1.161	1.101	1.069	1.048	1.035	1.030	1.025	1.020	1.016	1.012
2005	3.932	1.740	1.330	1.180	1.113	1.079	1.056	1.044	1.035	1.027	1.022	1.016	1.014
2006	3.976	1.727	1.330	1.186	1.120	1.081	1.060	1.046	1.035	1.025	1.019	1.015	1.011
2007	3.957	1.716	1.341	1.194	1.126	1.088	1.060	1.045	1.032	1.023	1.018	1.013	
2008	4.010	1.761	1.368	1.199	1.126	1.085	1.060	1.040	1.029	1.022	1.017		
2009	4.331	1.775	1.354	1.199	1.126	1.083	1.054	1.037	1.027	1.019			
2010	4.293	1.738	1.342	1.190	1.120	1.075	1.049	1.034	1.023				
2011	4.229	1.730	1.350	1.195	1.109	1.072	1.049	1.030					
2012	4.326	1.767	1.343	1.173	1.105	1.065	1.042						
2013	4.512	1.704	1.296	1.160	1.090	1.056							
2014	4.282	1.629	1.284	1.143	1.081								
2015	4.028	1.628	1.256	1.128									
2016	4.223	1.599	1.240										
2017	3.951	1.546											
2018	3.767												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001						1.083	1.053	1.043	1.030	1.022	1.023	1.019	1.022
2002					1.103	1.077	1.057	1.036	1.027	1.024	1.022	1.022	1.017
2003				1.158	1.111	1.079	1.056	1.039	1.035	1.029	1.026	1.021	1.015
2004			1.301	1.160	1.126	1.077	1.061	1.042	1.036	1.033	1.025	1.019	1.017
2005		1.618	1.303	1.188	1.117	1.091	1.057	1.051	1.045	1.032	1.025	1.021	1.017
2006	3.129	1.678	1.315	1.193	1.131	1.085	1.067	1.055	1.038	1.028	1.023	1.017	1.016
2007	3.913	1.663	1.330	1.202	1.131	1.093	1.068	1.046	1.033	1.025	1.021	1.018	
2008	3.838	1.769	1.373	1.207	1.125	1.091	1.059	1.040	1.031	1.023	1.020		
2009	3.997	1.755	1.359	1.195	1.129	1.081	1.053	1.039	1.029	1.022			
2010	4.039	1.741	1.339	1.191	1.116	1.077	1.049	1.036	1.026				
2011	4.108	1.707	1.315	1.188	1.115	1.074	1.052	1.034					
2012	4.014	1.681	1.328	1.181	1.110	1.068	1.044						
2013	3.991	1.684	1.317	1.177	1.099	1.063							
2014	4.126	1.651	1.309	1.157	1.094								
2015	3.943	1.646	1.269	1.142									
2016	4.125	1.606	1.255										
2017	3.839	1.542											
2018	3.687												

* Based on private insurer data only.

Exhibit 3.6

Paid MCCP Development

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2012	2.517	1.344	1.185	1.084	1.054	1.033	1.025						
2013	2.426	1.374	1.158	1.081	1.054	1.034							
2014	2.610	1.337	1.142	1.083	1.050								
2015	2.388	1.290	1.136	1.076									
2016	2.373	1.302	1.141										
2017	2.431	1.314											
2018	2.228												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2012	2.463	1.341	1.177	1.098	1.051	1.035	1.020						
2013	2.370	1.350	1.155	1.070	1.051	1.024							
2014	2.414	1.356	1.126	1.078	1.029								
2015	2.464	1.304	1.151	1.064									
2016	2.478	1.278	1.108										
2017	2.182	1.276											
2018	2.281												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2012	2.491	1.279	1.156	1.097	1.056	1.032	1.024						
2013	2.282	1.333	1.169	1.084	1.049	1.033							
2014	2.429	1.367	1.145	1.080	1.045								
2015	2.462	1.301	1.139	1.070									
2016	2.409	1.292	1.130										
2017	2.331	1.304											
2018	2.273												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2012	2.480	1.353	1.185	1.093	1.050	1.033	1.024						
2013	2.441	1.379	1.148	1.070	1.048	1.033							
2014	2.497	1.339	1.131	1.077	1.040								
2015	2.424	1.314	1.148	1.064									
2016	2.476	1.288	1.120										
2017	2.253	1.293											
2018	2.320												

Average Incurred Indemnity Per Reported Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						26,429	27,048	26,867	27,144	27,298	27,382	27,518	27,633	27,728
2002					24,155	24,989	25,156	25,429	25,659	25,796	25,936	26,027	26,145	26,256
2003				21,772	22,929	23,452	23,945	24,316	24,528	24,754	24,950	25,092	25,281	25,407
2004			16,349	17,752	18,518	19,159	19,613	20,047	20,296	20,546	20,731	20,869	20,984	21,040
2005		11,692	14,292	15,715	16,636	17,456	17,976	18,405	18,675	18,913	19,062	19,196	19,293	19,382
2006	7,014	11,841	15,017	16,602	17,969	18,832	19,435	19,638	19,941	20,145	20,339	20,463	20,564	20,590
2007	7,166	12,110	15,467	17,596	18,836	19,700	20,482	21,110	21,355	21,630	21,790	22,035	22,126	
2008	7,863	12,991	16,961	19,274	20,635	21,723	22,495	22,934	23,300	23,636	23,771	23,959		
2009	8,236	14,016	18,095	20,641	22,350	23,530	24,105	24,631	25,024	25,280	25,495			
2010	8,313	14,059	18,219	20,781	22,254	23,329	23,903	24,307	24,634	24,889				
2011	8,698	14,201	18,540	21,007	22,369	23,168	23,752	24,195	24,420					
2012	8,524	14,729	18,795	21,018	22,441	23,546	24,105	24,425						
2013	8,999	14,798	18,477	20,921	22,201	22,860	23,301							
2014	9,189	15,198	19,806	22,222	23,465	24,163								
2015	9,186	15,931	20,355	22,449	23,662									
2016	9,342	15,646	19,399	21,302										
2017	9,271	15,715	19,689											
2018	9,726	16,533												
2019	10,514													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						23,731	24,372	25,319	25,919	26,010	26,037	26,365	26,109	26,086
2002					22,828	23,688	23,221	23,599	23,819	23,924	24,142	24,109	24,103	24,148
2003				21,332	22,385	21,765	22,293	22,621	22,964	23,385	23,509	23,701	23,753	23,738
2004			15,620	16,554	17,131	17,761	18,070	18,442	18,657	18,860	19,014	19,087	19,167	19,243
2005		11,556	13,485	14,487	15,420	16,118	16,485	16,818	17,092	17,369	17,497	17,561	17,550	17,685
2006	8,292	12,153	14,429	15,992	16,999	17,789	18,518	18,851	19,139	19,243	19,287	19,261	19,333	19,457
2007	8,214	12,763	15,981	17,741	18,475	19,622	20,123	20,486	20,731	20,710	20,760	20,706	20,948	
2008	8,640	14,332	18,036	19,838	21,251	21,835	22,429	22,819	22,808	23,077	23,106	23,356		
2009	8,726	14,567	18,061	20,146	21,257	22,183	22,717	22,861	23,404	23,364	23,723			
2010	8,893	14,420	18,300	20,199	21,313	22,208	22,550	23,144	23,157	23,633				
2011	8,874	14,558	17,710	19,797	20,922	21,341	21,808	22,060	22,527					
2012	8,846	14,460	17,798	19,520	20,213	20,828	21,250	21,756						
2013	9,560	14,866	17,911	19,047	19,648	20,158	20,700							
2014	9,445	14,524	17,407	18,900	19,606	20,493								
2015	9,799	15,086	18,055	19,375	20,531									
2016	9,964	15,227	17,915	19,582										
2017	10,075	15,304	18,298											
2018	10,158	15,481												
2019	9,682													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						24,598	25,154	25,498	25,852	26,029	26,211	26,368	26,490	26,663
2002					22,686	23,454	23,723	24,069	24,323	24,576	24,756	24,873	24,976	25,043
2003				21,420	22,625	23,204	23,785	24,231	24,626	25,013	25,254	25,439	25,549	25,624
2004			15,992	17,282	18,017	18,780	19,283	19,837	20,199	20,505	20,651	20,768	20,842	20,871
2005		11,382	13,713	15,002	16,015	16,849	17,501	18,012	18,291	18,512	18,596	18,700	18,809	18,864
2006	8,032	12,113	14,907	16,485	17,764	18,674	19,320	19,666	19,946	20,094	20,236	20,329	20,435	20,476
2007	8,152	12,931	16,213	18,048	19,231	20,133	20,862	21,309	21,538	21,768	21,855	21,995	22,201	
2008	8,652	13,936	17,740	19,950	21,324	22,173	22,811	23,184	23,435	23,682	23,810	23,965		
2009	8,762	14,554	18,283	20,656	22,089	23,082	23,533	23,958	24,366	24,578	24,816			
2010	8,730	14,233	18,167	20,305	21,563	22,413	22,956	23,372	23,649	23,907				
2011	9,014	14,606	18,117	20,277	21,351	22,097	22,591	22,995	23,233					
2012	9,017	14,517	17,972	19,712	20,848	21,668	22,143	22,458						
2013	9,323	14,536	17,681	19,464	20,426	21,036	21,421							
2014	9,382	14,664	18,251	20,164	21,268	21,835								
2015	9,633	15,344	18,830	20,618	21,531									
2016	9,816	15,310	18,539	20,157										
2017	9,971	15,619	18,942											
2018	10,564	16,380												
2019	11,020													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						23,875	24,404	24,939	25,321	25,506	25,729	25,897	26,022	26,215
2002					22,101	22,840	23,145	23,520	23,783	24,082	24,275	24,402	24,497	24,552
2003				21,253	22,479	23,085	23,709	24,190	24,674	25,141	25,403	25,608	25,679	25,729
2004			15,807	17,034	17,751	18,579	19,107	19,725	20,141	20,483	20,608	20,714	20,766	20,781
2005		11,216	13,391	14,600	15,664	16,505	17,233	17,779	18,074	18,284	18,331	18,416	18,532	18,568
2006	8,509	12,257	14,847	16,420	17,650	18,586	19,245	19,682	19,949	20,065	20,177	20,252	20,361	20,397
2007	8,630	13,366	16,618	18,294	19,446	20,365	21,069	21,420	21,639	21,845	21,891	21,973	22,235	
2008	9,011	14,422	18,146	20,307	21,687	22,413	22,980	23,318	23,508	23,708	23,832	23,966		
2009	9,005	14,831	18,382	20,660	21,950	22,842	23,225	23,595	24,001	24,189	24,432			
2010	8,927	14,325	18,136	20,045	21,185	21,918	22,441	22,848	23,096	23,354				
2011	9,161	14,805	17,889	19,894	20,821	21,537	21,960	22,344	22,591					
2012	9,254	14,386	17,506	18,974	19,941	20,563	20,983	21,303						
2013	9,481	14,388	17,225	18,612	19,362	19,942	20,299							
2014	9,482	14,360	17,347	18,954	19,970	20,462								
2015	9,870	15,009	17,943	19,542	20,271									
2016	10,065	15,111	18,015	19,450										
2017	10,367	15,559	18,468											
2018	11,043	16,280												
2019	11,299													

Average Incurred Medical Per Reported Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								29,007	28,659	29,302	29,842	29,987	30,313	30,784
2002							27,742	27,559	28,069	28,702	29,016	29,466	29,950	29,896
2003						24,894	24,581	25,151	25,903	26,225	26,629	26,991	27,291	27,348
2004					22,370	22,223	23,021	23,964	24,392	25,113	25,636	25,843	26,015	25,933
2005				22,000	22,050	23,211	24,388	24,933	25,741	26,304	26,751	27,010	27,098	27,219
2006			21,653	22,281	23,901	25,183	25,918	26,568	27,373	27,755	27,886	27,917	28,071	28,060
2007		19,406	21,403	23,839	25,646	26,946	28,818	29,964	30,574	30,803	30,932	31,069	31,143	
2008	16,326	19,464	23,025	25,799	27,669	29,708	31,266	32,098	32,631	32,777	32,925	33,062		
2009	15,828	20,143	24,157	26,650	29,335	31,530	32,559	33,265	33,582	33,880	33,946			
2010	15,699	20,564	24,205	27,377	29,528	30,792	31,724	32,205	32,458	32,709				
2011	15,740	19,390	23,709	26,302	27,816	28,898	29,764	30,085	30,451					
2012	14,661	18,984	22,285	24,280	25,696	26,636	27,089	27,354						
2013	15,097	18,583	21,013	23,094	24,052	24,582	24,897							
2014	14,926	17,665	20,342	22,058	22,791	23,425								
2015	14,164	17,350	19,833	21,095	22,139									
2016	14,391	17,295	19,220	20,226										
2017	13,992	16,988	19,079											
2018	14,735	18,094												
2019	15,263													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								27,686	27,049	27,796	28,146	28,962	29,065	29,476
2002							27,487	26,425	27,297	28,003	28,757	28,976	29,217	29,219
2003						25,401	24,257	25,552	26,185	27,328	27,688	28,126	28,092	28,001
2004					21,512	20,475	22,119	23,046	24,144	24,537	24,909	25,049	25,062	25,085
2005				20,929	19,752	21,687	22,622	24,066	24,655	24,961	25,162	25,286	25,101	24,981
2006			21,330	21,193	23,042	24,608	26,424	27,326	27,864	28,157	28,051	27,681	27,785	27,839
2007		20,055	21,420	24,127	25,645	28,330	29,320	30,246	30,735	30,651	30,366	30,188	30,397	
2008	16,858	20,174	24,139	26,589	29,669	31,336	32,601	33,471	33,419	33,777	33,481	33,681		
2009	15,327	20,947	25,032	28,368	30,668	32,922	33,922	33,887	34,653	34,385	34,527			
2010	16,397	21,109	26,335	29,538	31,907	33,363	33,518	34,200	34,042	34,587				
2011	15,789	21,008	24,652	27,435	29,203	29,619	30,158	30,409	30,892					
2012	15,951	20,865	24,181	26,217	27,165	27,681	27,989	28,490						
2013	16,439	20,540	22,925	23,854	24,413	24,737	24,896							
2014	16,044	18,990	21,092	22,097	22,373	22,764								
2015	16,576	19,709	21,750	22,749	23,514									
2016	16,350	19,210	20,549	21,499										
2017	16,221	18,918	20,567											
2018	15,712	18,682												
2019	14,054													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								26,686	26,948	27,960	28,581	29,077	29,506	29,995
2002							25,698	25,985	26,797	27,572	28,202	28,603	28,955	28,927
2003						24,139	24,384	25,528	26,537	27,344	27,868	28,249	28,328	28,257
2004					21,126	21,440	22,858	23,908	24,733	25,420	25,789	25,904	25,947	25,853
2005				20,105	20,415	22,239	23,508	24,652	25,496	26,070	26,198	26,390	26,359	26,355
2006			20,905	21,642	23,480	25,088	26,357	27,336	27,985	28,267	28,273	28,313	28,482	28,441
2007		19,244	21,415	24,097	26,085	27,951	29,429	30,444	30,973	31,098	31,356	31,391	31,497	
2008	15,888	19,560	23,505	26,456	28,904	30,640	31,963	32,704	33,010	33,254	33,319	33,470		
2009	15,097	20,544	24,827	28,194	30,559	32,447	33,300	33,801	34,222	34,405	34,656			
2010	15,316	20,440	24,993	28,121	30,276	31,455	32,201	32,664	32,888	33,138				
2011	15,315	20,516	24,368	27,181	28,776	29,659	30,150	30,412	30,624					
2012	15,489	20,006	23,218	25,070	26,381	27,192	27,588	27,929						
2013	15,474	19,525	21,811	23,525	24,367	24,865	25,117							
2014	15,134	18,371	20,905	22,440	23,157	23,756								
2015	15,268	18,661	21,004	22,290	22,893									
2016	15,552	18,706	20,587	21,389										
2017	16,015	18,871	20,747											
2018	16,626	19,658												
2019	16,550													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								25,737	26,245	27,408	28,061	28,726	29,199	29,663
2002							24,873	25,350	26,282	27,115	27,870	28,250	28,547	28,533
2003						23,775	24,289	25,710	26,844	27,885	28,468	28,863	28,830	28,697
2004					20,464	21,022	22,771	23,878	24,903	25,583	25,870	25,937	25,909	25,809
2005				19,039	19,490	21,689	23,012	24,481	25,360	25,937	25,883	26,036	25,937	25,861
2006			20,497	21,287	23,246	25,035	26,580	27,770	28,332	28,558	28,494	28,541	28,717	28,633
2007		19,158	21,422	24,238	26,325	28,495	29,766	30,710	31,193	31,262	31,594	31,570	31,686	
2008	15,689	19,609	23,755	26,803	29,554	31,139	32,336	33,029	33,213	33,513	33,534	33,687		
2009	14,760	20,751	25,181	29,009	31,219	32,941	33,700	34,090	34,576	34,696	35,039			
2010	15,134	20,374	25,417	28,531	30,685	31,813	32,471	32,937	33,144	33,390				
2011	15,118	21,088	24,716	27,643	29,275	30,055	30,359	30,592	30,723					
2012	15,888	20,567	23,746	25,516	26,737	27,487	27,845	28,232						
2013	15,656	20,059	22,268	23,754	24,537	25,013	25,227							
2014	15,241	18,772	21,216	22,649	23,359	23,937								
2015	15,852	19,409	21,685	22,992	23,334									
2016	16,160	19,544	21,423	22,105										
2017	17,159	20,048	21,805											
2018	17,708	20,664												
2019	17,261													

Average Paid Indemnity Per Closed Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						19,065	20,582	21,359	22,219	22,809	23,289	23,554	23,983	24,381
2002					17,193	18,928	20,088	21,109	21,754	22,203	22,607	22,990	23,332	23,761
2003				14,345	16,517	18,380	19,426	20,209	20,749	21,224	21,754	22,142	22,537	22,971
2004			8,066	11,084	13,277	14,569	15,479	16,125	16,748	17,370	17,810	18,308	18,673	19,014
2005		3,432	6,380	9,545	11,315	12,723	13,694	14,576	15,409	15,979	16,544	17,012	17,317	17,580
2006	1,420	3,383	6,961	10,009	11,877	13,346	14,534	15,544	16,294	17,106	17,708	18,234	18,572	18,920
2007	1,403	3,709	7,052	10,114	12,231	13,888	15,295	16,507	17,366	18,276	18,996	19,564	19,986	
2008	1,636	3,939	7,802	10,869	13,270	15,299	17,041	18,248	19,308	20,044	20,767	21,241		
2009	1,646	4,328	8,011	11,422	14,453	16,825	18,689	20,143	21,178	22,003	22,675			
2010	1,706	4,209	8,154	11,892	15,073	17,312	19,207	20,565	21,523	22,327				
2011	1,765	4,459	8,646	12,658	15,760	17,921	19,600	20,800	21,617					
2012	1,862	4,904	9,517	13,402	16,352	18,626	20,140	21,274						
2013	2,004	5,344	10,080	13,986	16,928	18,726	20,003							
2014	2,165	5,976	11,116	15,279	18,149	19,818								
2015	2,443	6,542	11,927	15,904	18,697									
2016	2,619	6,862	11,626	15,297										
2017	2,735	6,888	11,805											
2018	2,856	7,351												
2019	3,809													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						15,901	17,175	20,347	21,477	22,044	22,394	23,033	23,083	23,354
2002					14,871	16,434	18,410	19,458	20,052	20,473	20,911	21,350	21,740	22,036
2003				12,807	14,912	16,139	17,326	18,077	18,653	19,147	19,805	20,325	20,840	21,256
2004			7,343	10,084	11,701	13,026	13,993	14,638	15,311	15,865	16,411	16,784	17,162	17,593
2005		3,114	6,307	8,299	10,617	11,570	12,427	13,249	14,018	14,688	15,186	15,595	15,737	15,939
2006	1,673	3,802	6,388	9,070	11,325	12,767	13,825	14,893	15,719	16,499	17,174	17,456	17,750	18,029
2007	1,432	3,628	7,204	10,076	12,103	13,907	15,190	16,297	17,232	17,976	18,496	18,704	19,186	
2008	1,506	4,203	7,946	11,163	13,794	15,800	17,089	18,558	19,294	20,110	20,556	21,066		
2009	1,637	4,079	7,977	11,432	14,041	15,892	17,651	18,781	20,113	20,430	21,235			
2010	1,571	4,243	8,172	11,814	14,561	16,726	18,248	19,784	20,307	21,028				
2011	1,596	4,448	8,467	11,998	14,775	16,586	18,074	18,850	19,881					
2012	1,698	4,963	8,997	12,483	14,768	16,615	17,814	18,827						
2013	2,205	5,468	9,659	12,732	15,086	16,513	17,588							
2014	2,059	5,315	9,670	13,130	15,307	16,865								
2015	2,123	5,882	10,392	13,641	15,817									
2016	2,345	6,258	10,549	13,924										
2017	2,511	6,526	10,637											
2018	2,797	6,460												
2019	2,587													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						17,100	18,395	19,739	20,644	21,220	21,682	22,082	22,584	23,063
2002					15,102	16,776	18,178	19,187	19,815	20,303	20,800	21,440	21,832	22,172
2003				12,898	15,191	16,846	17,982	18,754	19,402	20,019	20,841	21,343	21,803	22,329
2004			7,069	9,906	11,937	13,231	14,115	14,822	15,624	16,495	17,035	17,520	17,964	18,352
2005		2,983	5,751	8,428	10,301	11,464	12,358	13,215	14,263	14,923	15,485	15,993	16,374	16,693
2006	1,418	3,281	6,304	9,092	11,020	12,441	13,662	14,918	15,791	16,527	17,211	17,701	18,157	18,522
2007	1,414	3,522	6,797	9,685	11,807	13,537	15,117	16,283	17,208	18,072	18,723	19,225	19,704	
2008	1,535	3,830	7,483	10,700	13,245	15,515	16,990	18,238	19,218	19,975	20,637	21,158		
2009	1,590	4,082	7,859	11,276	14,269	16,358	18,044	19,381	20,403	21,212	21,913			
2010	1,539	4,132	8,049	11,775	14,581	16,626	18,323	19,609	20,474	21,159				
2011	1,644	4,440	8,536	12,135	14,888	16,866	18,433	19,611	20,446					
2012	1,776	4,954	9,051	12,557	15,116	17,062	18,382	19,397						
2013	2,086	5,307	9,523	12,960	15,451	17,141	18,254							
2014	2,132	5,642	10,170	13,795	16,355	17,929								
2015	2,340	6,176	10,888	14,486	16,881									
2016	2,493	6,545	11,027	14,468										
2017	2,591	6,644	11,136											
2018	2,872	7,022												
2019	3,152													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						16,326	17,524	19,068	19,989	20,559	21,016	21,471	22,004	22,508
2002					14,258	15,900	17,387	18,389	19,013	19,520	20,056	20,805	21,215	21,526
2003				12,171	14,523	16,075	17,255	18,025	18,733	19,428	20,396	20,950	21,446	22,016
2004			6,534	9,261	11,187	12,481	13,357	14,107	15,009	16,021	16,616	17,096	17,582	17,994
2005		2,728	5,390	7,778	9,703	10,724	11,580	12,425	13,606	14,318	14,878	15,409	15,833	16,186
2006	1,417	3,225	5,937	8,560	10,520	11,916	13,155	14,559	15,504	16,196	16,926	17,395	17,919	18,283
2007	1,419	3,424	6,658	9,444	11,570	13,339	15,017	16,159	17,120	17,960	18,571	19,038	19,543	
2008	1,486	3,774	7,310	10,608	13,233	15,631	16,962	18,233	19,170	19,938	20,566	21,112		
2009	1,563	3,954	7,778	11,197	14,173	16,108	17,696	18,971	19,976	20,776	21,487			
2010	1,456	4,092	7,993	11,714	14,312	16,257	17,845	19,075	19,888	20,506				
2011	1,588	4,428	8,478	11,863	14,437	16,318	17,806	18,973	19,821					
2012	1,730	4,976	8,792	12,088	14,426	16,153	17,358	18,309						
2013	2,133	5,285	9,209	12,372	14,579	16,206	17,229							
2014	2,114	5,458	9,643	12,938	15,313	16,833								
2015	2,288	5,976	10,296	13,663	15,825									
2016	2,431	6,364	10,668	13,963										
2017	2,513	6,495	10,721											
2018	2,881	6,814												
2019	2,855													

Average Paid Medical Per Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								24,493	24,263	24,799	25,565	25,937	26,547	27,214
2002							24,044	24,022	24,525	25,285	25,670	26,316	26,889	27,357
2003						21,292	21,166	21,776	22,550	22,959	23,680	24,256	24,705	25,173
2004					18,331	18,392	19,282	20,258	20,855	21,661	22,368	22,849	23,305	23,681
2005				17,062	17,639	19,027	20,362	21,153	22,311	23,103	23,807	24,343	24,780	25,118
2006			15,415	16,758	18,843	20,559	21,609	22,628	23,632	24,411	25,084	25,591	25,999	26,366
2007		12,300	14,885	17,941	20,398	22,005	23,929	25,332	26,313	27,223	27,872	28,470	28,920	
2008	6,887	11,173	15,532	19,019	21,452	23,898	25,923	27,132	28,224	29,074	29,727	30,275		
2009	5,447	11,297	16,127	19,720	23,052	25,678	27,391	28,855	29,916	30,719	31,310			
2010	5,307	11,246	15,771	20,007	23,325	25,450	27,284	28,483	29,434	30,129				
2011	4,706	9,950	14,822	18,754	21,594	23,777	25,334	26,516	27,329					
2012	4,058	9,497	14,099	17,592	20,305	22,313	23,604	24,540						
2013	3,983	9,205	13,475	16,865	19,344	20,770	21,823							
2014	3,940	8,851	13,221	16,397	18,432	19,823								
2015	3,748	8,916	13,078	16,010	17,920									
2016	3,907	8,891	12,633	15,251										
2017	3,866	8,895	12,666											
2018	4,205	9,387												
2019	4,378													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								23,753	23,217	24,120	24,793	25,761	26,056	26,480
2002							23,582	22,867	23,817	24,435	25,404	25,889	26,287	26,651
2003						21,225	20,313	21,782	22,643	23,983	24,717	25,321	25,684	26,051
2004					17,046	16,275	18,077	19,198	20,596	21,226	21,802	22,335	22,796	23,237
2005				15,528	15,082	17,069	18,417	20,164	21,110	21,855	22,502	22,938	23,126	23,305
2006			14,188	14,928	17,709	19,740	21,871	23,103	23,954	24,772	25,394	25,443	25,763	26,189
2007		11,136	13,271	17,183	19,881	22,801	24,396	25,635	26,737	27,384	27,791	28,030	28,572	
2008	6,076	10,086	15,412	19,578	23,155	25,503	27,346	28,875	29,541	30,373	30,634	31,094		
2009	4,297	10,672	16,097	20,618	23,949	26,737	28,579	29,523	31,025	31,365	31,941			
2010	4,561	10,831	16,899	21,599	25,008	27,590	29,027	30,753	31,217	32,019				
2011	3,951	10,366	15,534	19,777	22,770	24,637	26,067	26,955	27,963					
2012	4,272	10,241	15,293	19,283	21,587	23,246	24,465	25,489						
2013	4,375	9,866	14,658	17,651	19,568	21,005	21,727							
2014	3,954	9,272	13,679	16,752	18,573	19,673								
2015	4,065	9,634	14,050	17,195	18,864									
2016	4,045	9,718	13,740	16,362										
2017	4,449	9,704	13,587											
2018	4,392	9,737												
2019	3,872													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								22,463	22,639	23,472	24,186	24,857	25,547	26,228
2002							21,738	22,076	22,898	23,657	24,348	25,089	25,624	26,066
2003						19,749	20,106	21,191	22,112	22,998	23,955	24,657	25,128	25,552
2004					16,314	16,878	18,179	19,265	20,340	21,318	22,114	22,641	23,072	23,447
2005				14,746	15,623	17,252	18,598	19,843	21,124	22,018	22,715	23,242	23,716	24,080
2006			13,636	15,294	17,629	19,510	21,086	22,424	23,451	24,238	24,887	25,449	25,859	26,240
2007		10,746	13,642	17,056	19,646	21,822	23,767	25,230	26,298	27,156	27,790	28,361	28,797	
2008	5,701	10,239	14,949	18,765	21,891	24,376	26,276	27,597	28,593	29,487	30,048	30,559		
2009	4,616	10,592	15,625	19,963	23,419	26,000	27,734	29,046	30,170	30,919	31,510			
2010	4,608	10,520	15,872	20,323	23,598	25,825	27,595	28,884	29,760	30,446				
2011	4,057	9,957	15,064	19,139	21,995	24,245	25,788	26,934	27,685					
2012	4,090	9,689	14,427	18,093	20,770	22,626	23,955	24,861						
2013	4,102	9,303	13,786	17,233	19,516	21,091	22,076							
2014	3,888	8,982	13,463	16,693	18,822	20,305								
2015	3,885	9,113	13,427	16,589	18,533									
2016	4,072	9,270	13,341	16,154										
2017	4,261	9,467	13,523											
2018	4,437	9,883												
2019	4,357													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001								21,632	21,972	22,926	23,617	24,422	25,146	25,814
2002							20,808	21,290	22,241	22,998	23,811	24,588	25,105	25,541
2003						19,007	19,595	20,909	21,900	23,017	24,088	24,853	25,332	25,736
2004					15,241	16,069	17,592	18,736	20,059	21,133	21,977	22,530	22,947	23,320
2005				13,444	14,483	16,249	17,601	19,098	20,454	21,401	22,094	22,613	23,109	23,486
2006			12,666	14,482	16,955	18,925	20,780	22,307	23,348	24,140	24,775	25,370	25,779	26,145
2007		9,923	12,968	16,574	19,234	21,718	23,677	25,174	26,290	27,119	27,746	28,300	28,723	
2008	5,161	9,759	14,645	18,632	22,123	24,632	26,465	27,847	28,791	29,712	30,223	30,708		
2009	4,233	10,229	15,361	20,090	23,619	26,173	27,919	29,150	30,310	31,030	31,613			
2010	4,276	10,135	15,926	20,500	23,746	26,028	27,777	29,123	29,959	30,635				
2011	3,755	9,959	15,193	19,341	22,204	24,494	26,039	27,171	27,887					
2012	4,104	9,791	14,612	18,376	21,015	22,789	24,138	25,027						
2013	4,159	9,358	13,964	17,440	19,612	21,274	22,217							
2014	3,861	9,056	13,597	16,858	19,045	20,579								
2015	3,957	9,225	13,630	16,930	18,892									
2016	4,158	9,495	13,774	16,711										
2017	4,484	9,824	14,066											
2018	4,570	10,203												
2019	4,346													

Average Incurred Indemnity Loss Per Open Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						65,419	75,557	84,556	93,736	102,260	105,547	115,082	121,125	125,831
2002					51,728	61,043	70,787	79,442	87,276	93,075	98,740	104,309	109,328	110,695
2003				42,708	51,803	59,207	69,786	78,868	84,569	91,754	98,290	103,837	108,667	115,646
2004			30,058	37,553	45,008	52,814	60,499	67,583	73,302	79,653	86,845	87,855	92,288	95,440
2005		20,334	28,947	35,703	43,571	51,193	57,384	63,378	69,020	75,154	77,009	80,890	86,319	92,337
2006	9,450	20,799	30,355	38,427	50,104	58,266	67,386	65,858	71,830	74,528	79,655	83,049	89,735	92,662
2007	9,180	20,305	30,482	39,987	47,988	54,053	62,685	70,565	75,475	80,227	83,422	89,551	93,030	
2008	10,405	21,574	32,765	42,407	50,348	58,687	67,132	74,211	81,762	90,566	96,911	105,432		
2009	10,737	22,504	33,326	43,462	52,596	60,273	65,693	73,437	80,204	87,926	95,564			
2010	10,851	22,577	33,575	43,899	51,736	58,784	64,634	70,742	78,899	83,930				
2011	11,307	22,589	34,094	43,440	50,446	56,691	63,610	72,632	77,991					
2012	11,142	23,743	34,389	42,539	50,480	59,638	67,326	74,165						
2013	11,770	23,614	33,061	42,786	50,597	57,808	64,663							
2014	11,893	23,735	35,748	46,451	55,427	63,956								
2015	11,561	25,069	37,734	48,605	56,787									
2016	11,843	25,176	37,665	48,340										
2017	11,983	26,639	40,035											
2018	12,781	28,062												
2019	13,029													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						75,161	91,147	81,191	90,322	98,290	106,063	111,022	113,385	116,174
2002					58,868	75,817	68,170	75,656	83,395	92,533	98,744	101,625	104,234	108,479
2003				44,883	58,207	59,527	69,434	79,225	95,615	108,000	117,241	125,781	124,546	129,750
2004			29,842	37,581	43,532	50,684	57,083	67,501	71,869	79,344	85,811	89,708	97,154	98,179
2005		18,782	25,937	33,764	38,428	46,868	53,900	58,443	61,871	68,346	73,434	79,985	87,483	102,428
2006	10,421	20,300	29,571	37,295	42,990	50,276	57,226	62,260	68,777	67,349	67,329	70,432	74,344	75,191
2007	11,419	22,298	32,385	41,090	47,999	54,714	63,915	71,608	77,533	82,399	88,570	98,030	106,185	
2008	11,462	23,882	34,884	43,853	52,029	58,969	68,116	72,043	79,340	85,380	93,973	104,269		
2009	11,316	23,829	34,224	42,496	50,059	58,747	64,446	71,513	78,902	89,653	97,058			
2010	11,537	23,422	33,827	42,515	49,948	56,781	64,923	71,155	79,243	91,869				
2011	11,587	23,332	32,815	41,830	48,305	55,361	62,450	72,649	79,914					
2012	11,547	22,928	32,882	40,231	47,411	53,772	62,539	71,938						
2013	12,008	23,537	32,446	39,936	45,966	53,649	64,010							
2014	12,086	23,238	33,131	40,515	47,900	56,585								
2015	12,544	24,878	35,430	44,255	54,308									
2016	13,093	26,125	36,479	45,426										
2017	13,486	26,691	38,517											
2018	13,531	26,593												
2019	13,375													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						64,702	74,470	80,308	88,311	96,109	105,143	113,458	122,398	127,874
2002					51,382	60,176	65,635	72,413	79,607	88,834	95,997	103,631	109,664	114,093
2003				42,272	51,382	58,894	68,011	77,272	88,526	99,913	112,727	121,162	125,290	132,859
2004			29,988	37,258	43,546	51,058	58,315	68,454	76,265	87,486	95,108	99,032	106,734	111,512
2005		19,553	27,588	34,432	40,867	48,534	57,057	65,525	72,896	80,000	83,625	90,186	98,153	106,609
2006	10,418	21,044	30,584	38,299	47,306	55,798	63,946	69,077	75,555	79,180	85,161	90,997	97,046	102,057
2007	10,676	22,253	32,620	41,325	49,390	56,512	66,578	74,762	80,826	89,334	96,282	104,909	117,755	
2008	11,355	23,290	34,328	43,853	52,044	60,082	69,336	76,435	85,675	95,402	104,283	115,016		
2009	11,376	23,567	33,895	43,285	51,704	60,058	65,940	74,667	84,287	93,075	103,622			
2010	11,378	23,096	33,690	42,698	50,381	57,440	64,887	72,037	80,833	90,851				
2011	11,792	23,642	33,672	42,725	49,453	56,690	64,017	72,590	80,154					
2012	11,813	23,349	33,355	40,785	48,252	56,451	65,724	74,431						
2013	11,979	23,194	32,264	40,476	47,931	55,629	64,952							
2014	12,052	23,377	33,793	42,876	52,026	60,379								
2015	12,308	24,716	35,916	46,085	55,086									
2016	12,699	25,364	36,918	47,000										
2017	13,193	27,141	40,216											
2018	14,045	28,462												
2019	14,583													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						64,415	74,054	78,769	86,397	93,986	104,995	112,936	123,012	128,685
2002					51,251	59,860	63,955	70,288	77,347	87,535	95,121	103,378	109,785	115,330
2003				42,093	51,212	58,780	67,415	76,758	89,882	102,771	118,465	128,185	131,989	139,820
2004			29,954	37,118	42,925	50,358	57,495	68,799	77,465	91,071	98,979	104,355	114,122	119,842
2005		19,157	26,877	33,789	39,601	47,361	56,912	66,479	74,675	82,342	86,896	94,988	104,497	114,759
2006	10,837	21,170	30,703	38,237	46,072	54,719	62,486	70,691	77,491	81,543	88,076	95,258	101,033	107,169
2007	11,421	23,298	33,752	41,996	50,083	57,755	68,649	77,051	83,828	94,737	104,282	114,761	134,984	
2008	11,775	24,157	35,096	44,566	52,869	60,798	70,477	77,602	87,797	98,179	108,540	120,887		
2009	11,667	24,107	34,193	43,188	51,214	59,942	66,074	75,348	86,735	96,215	108,735			
2010	11,623	23,374	33,745	42,009	49,636	56,688	65,037	72,815	81,964	95,014				
2011	12,018	24,174	33,409	42,338	48,921	56,626	64,117	72,447	81,250					
2012	12,133	23,101	32,754	39,746	46,867	54,444	64,651	74,518						
2013	12,069	22,954	31,793	39,051	46,224	54,193	65,065							
2014	12,132	23,166	32,577	40,672	49,867	58,001								
2015	12,710	24,506	34,807	44,530	53,941									
2016	13,159	25,482	36,441	46,119										
2017	13,893	27,466	40,336											
2018	14,776	28,725												
2019	15,519													

Average Outstanding Indemnity Per Open Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						20,243	21,792	23,483	23,919	24,605	23,963	25,349	24,982	25,237
2002					17,372	18,476	20,698	20,924	22,906	22,063	22,980	22,271	21,693	20,836
2003				15,869	16,751	17,767	20,336	22,861	22,580	24,380	25,570	25,380	25,899	27,933
2004			13,228	13,945	15,752	17,777	19,665	21,638	21,957	23,240	23,411	25,268	26,592	26,369
2005		10,028	11,277	12,968	15,013	17,433	18,940	20,110	21,110	23,004	22,662	23,588	25,216	25,688
2006	6,086	9,548	11,897	14,258	17,655	19,986	21,809	20,739	21,868	22,620	23,494	24,814	27,043	27,452
2007	5,693	9,360	12,196	14,889	16,661	17,621	20,026	23,062	23,266	23,486	23,900	25,503	26,014	
2008	6,575	10,193	13,205	15,349	16,548	18,440	20,286	21,877	24,504	27,824	28,834	31,290		
2009	6,790	10,635	13,094	15,117	17,137	19,002	20,196	22,079	23,814	25,837	28,577			
2010	6,788	10,674	13,115	15,481	17,034	18,446	19,295	20,997	22,393	23,227				
2011	7,279	10,569	13,711	15,842	17,165	18,452	20,318	23,651	24,991					
2012	6,834	11,302	13,674	15,309	17,385	19,667	22,837	25,497						
2013	7,517	11,249	12,890	15,109	16,823	18,529	20,425							
2014	7,644	11,553	14,390	16,952	19,675	21,980								
2015	7,394	12,150	15,355	18,049	19,980									
2016	7,595	12,305	15,367	18,330										
2017	7,586	13,133	16,749											
2018	8,151	14,066												
2019	8,205													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						21,504	23,546	22,807	24,008	24,532	23,107	23,690	23,271	22,479
2002					19,214	23,117	20,867	21,278	23,361	24,516	26,283	25,400	23,653	23,714
2003				16,972	19,885	18,571	20,496	23,265	26,938	29,120	29,455	30,132	28,957	26,317
2004			13,661	15,221	15,397	16,505	18,798	21,184	20,178	22,303	22,186	23,260	22,490	25,139
2005		10,147	11,746	12,322	14,284	17,374	18,665	19,323	19,724	22,454	23,292	25,649	26,424	30,289
2006	7,639	11,367	13,199	15,066	16,630	18,499	20,208	22,105	24,242	22,484	22,807	22,815	24,243	22,171
2007	8,262	11,939	14,256	16,244	17,145	19,128	21,922	24,884	26,414	25,994	26,962	29,922	32,601	
2008	7,964	12,553	15,097	16,470	18,148	19,778	22,110	23,580	25,908	26,517	28,221	30,672		
2009	7,898	12,776	14,792	16,199	17,808	20,395	22,454	24,041	27,068	28,893	32,247			
2010	8,084	12,447	14,688	16,247	17,952	20,068	22,887	25,251	28,424	34,765				
2011	8,079	12,397	13,983	16,278	17,548	19,980	22,740	25,501	28,860					
2012	7,825	12,189	14,545	15,464	18,057	20,123	23,785	27,124						
2013	8,564	13,119	14,688	15,510	16,443	19,503	23,523							
2014	8,764	12,965	14,752	16,013	18,227	21,441								
2015	9,198	14,272	16,411	18,354	22,066									
2016	9,493	14,734	16,852	18,922										
2017	9,793	15,152	17,967											
2018	9,732	15,164												
2019	9,549													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						19,925	21,350	22,714	24,114	25,149	27,000	28,341	30,290	30,789
2002					16,439	17,720	18,563	19,315	20,977	22,762	23,740	25,054	25,806	25,314
2003				15,352	16,884	18,589	21,030	23,721	26,716	30,031	33,660	34,878	34,769	37,574
2004			13,087	14,199	15,528	17,855	19,907	23,261	25,207	29,276	30,580	31,940	34,759	35,857
2005		9,831	11,243	12,546	14,745	17,592	20,562	23,463	25,663	27,579	28,053	30,567	33,299	35,550
2006	7,300	10,586	12,697	14,843	17,991	20,683	22,780	24,743	26,630	27,378	30,590	31,755	34,821	36,054
2007	7,305	11,167	13,863	16,007	17,923	19,792	23,750	26,522	27,927	30,973	32,405	35,062	42,473	
2008	7,639	11,614	14,527	16,536	18,095	20,573	23,242	25,552	29,485	32,543	35,369	39,541		
2009	7,716	12,232	14,366	16,336	18,462	21,013	22,351	25,415	28,691	31,761	36,116			
2010	7,744	11,813	14,232	16,037	17,767	19,521	21,825	24,462	27,599	31,694				
2011	8,145	12,355	14,417	16,807	18,215	20,057	22,327	25,059	27,875					
2012	8,024	12,195	14,556	15,727	17,721	20,294	23,755	27,615						
2013	8,372	12,361	13,902	15,307	17,091	19,541	23,244							
2014	8,451	12,484	14,665	16,825	19,903	22,192								
2015	8,685	13,439	16,144	18,905	21,555									
2016	8,918	13,797	16,673	19,535										
2017	9,333	14,953	18,733											
2018	9,929	15,855												
2019	10,363													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						19,798	21,180	22,436	24,182	25,337	28,110	29,508	32,438	32,993
2002					16,086	17,444	17,867	18,828	20,408	22,976	23,978	26,021	27,295	26,944
2003				15,140	16,938	18,889	21,264	23,998	28,133	32,020	36,873	38,728	38,343	41,473
2004			13,017	14,321	15,433	17,885	19,998	23,903	26,531	32,044	33,938	35,117	38,936	40,785
2005		9,731	11,224	12,333	14,620	17,662	21,283	24,958	27,797	29,790	30,717	34,172	37,638	41,183
2006	7,825	11,119	13,115	15,127	18,140	20,987	23,181	26,762	29,105	29,795	34,349	35,477	39,063	40,734
2007	8,108	12,135	14,746	16,567	18,546	20,900	25,736	28,409	30,542	35,416	37,701	41,194	53,961	
2008	8,109	12,331	15,176	17,121	18,853	21,692	24,773	27,479	32,185	35,252	39,143	44,594		
2009	8,136	13,043	15,032	16,961	19,151	22,099	23,522	27,261	31,615	35,374	40,900			
2010	8,189	12,424	14,839	16,337	18,170	20,124	23,274	26,521	30,655	36,810				
2011	8,548	13,283	14,785	17,328	18,777	20,899	23,399	25,782	29,476					
2012	8,604	12,683	15,068	15,974	17,875	20,609	24,296	28,931						
2013	8,790	12,996	14,499	15,378	17,205	20,161	25,111							
2014	8,861	13,032	14,818	16,727	20,029	22,315								
2015	9,380	14,203	16,625	19,433	22,585									
2016	9,628	14,726	17,509	20,327										
2017	10,344	16,130	20,077											
2018	10,955	17,037												
2019	11,663													

Average Outstanding Medical Per Open Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						28,139	38,988	51,787	63,834	79,691	85,947	93,504	100,221	108,196
2002					19,752	26,859	36,998	47,760	59,452	67,400	76,525	84,351	93,558	88,467
2003				16,243	21,445	28,995	38,063	48,214	56,631	65,273	70,630	75,710	81,163	82,713
2004			13,371	17,819	24,454	31,920	40,714	48,612	56,385	67,701	77,225	81,292	86,355	84,942
2005		13,537	17,057	20,936	26,737	34,008	41,073	48,170	56,314	64,549	70,687	77,998	80,960	87,135
2006	11,884	14,552	18,114	23,807	31,737	37,861	46,462	48,427	56,969	63,171	65,970	67,611	73,995	74,799
2007	11,518	14,038	18,147	23,546	28,407	34,145	44,661	54,391	62,073	66,121	70,559	73,601	75,845	
2008	13,292	16,153	20,422	25,443	31,302	39,242	49,077	59,303	68,949	72,684	81,042	86,294		
2009	14,321	16,598	20,158	24,083	30,350	37,919	44,852	52,369	56,265	63,583	68,141			
2010	14,382	17,376	21,303	26,539	31,665	36,819	42,956	49,903	55,776	62,016				
2011	15,186	17,567	22,857	27,826	32,655	37,833	46,946	54,485	62,785					
2012	14,768	18,192	21,943	25,585	30,213	36,038	41,476	47,227						
2013	15,517	18,121	20,632	25,869	30,055	36,041	41,630							
2014	15,214	16,973	20,187	25,416	30,562	36,590								
2015	14,086	16,643	20,683	25,408	32,369									
2016	14,384	17,521	22,065	27,376										
2017	14,326	18,109	22,961											
2018	15,212	19,640												
2019	14,968													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						31,588	41,969	48,128	59,386	70,680	77,009	84,550	89,769	101,802
2002					26,829	39,684	40,396	48,281	58,516	74,479	80,792	89,792	102,340	105,132
2003				21,362	28,469	32,199	41,372	50,726	63,240	70,137	78,147	87,636	85,738	85,263
2004			16,373	21,386	26,183	33,400	42,720	53,472	59,978	70,191	82,848	85,946	90,393	90,301
2005		15,248	19,037	22,224	27,043	35,838	42,983	49,408	55,173	62,153	67,067	76,878	78,170	83,019
2006	13,430	16,149	20,592	25,549	29,758	36,364	42,111	50,549	60,653	62,735	63,062	65,686	72,271	66,029
2007	14,938	18,228	23,381	28,099	32,465	39,480	48,639	60,885	68,899	76,947	79,706	85,532	90,114	
2008	15,047	19,598	23,297	26,417	33,402	41,718	50,206	57,692	66,268	74,862	81,975	94,008		
2009	15,060	19,347	23,258	27,629	33,535	42,140	49,355	56,404	64,808	71,252	78,837			
2010	16,111	19,371	23,901	29,067	36,161	42,181	48,727	52,699	58,415	69,832				
2011	16,250	19,877	24,020	29,291	35,090	40,624	48,610	57,906	66,443					
2012	16,093	20,096	24,122	27,340	33,441	39,117	45,851	54,432						
2013	16,080	20,523	22,828	26,722	32,800	38,014	47,285							
2014	16,413	18,915	22,481	25,366	28,806	33,838								
2015	16,984	20,794	25,157	29,658	37,967									
2016	17,358	21,025	23,971	28,601										
2017	17,081	21,167	25,405											
2018	16,506	19,964												
2019	15,483													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						27,725	35,437	44,412	55,988	69,894	80,987	89,972	101,187	109,658
2002					20,752	27,260	33,886	42,618	51,708	62,784	73,265	84,144	93,069	91,617
2003				17,893	21,959	29,032	36,878	46,340	58,547	69,537	81,492	87,520	88,403	90,722
2004			14,629	19,173	25,018	31,098	40,014	49,648	58,217	72,618	79,342	81,900	88,649	88,952
2005		14,000	17,713	21,200	25,633	34,329	42,674	52,441	63,629	73,480	76,277	86,290	88,738	94,251
2006	12,297	16,004	20,514	25,078	31,482	38,801	46,839	56,029	65,210	70,761	76,060	79,869	90,837	94,106
2007	12,990	16,919	21,316	26,640	32,600	39,934	50,728	60,662	68,682	76,004	88,306	93,725	106,025	
2008	14,057	17,949	22,391	27,565	33,679	41,930	51,136	60,086	69,602	76,644	86,209	97,349		
2009	14,301	18,519	22,983	28,090	34,183	41,901	48,565	57,434	65,326	74,424	88,558			
2010	14,650	18,624	23,116	28,265	34,245	39,703	46,289	52,677	59,466	68,270				
2011	15,503	19,944	24,412	30,213	36,262	41,214	47,824	54,447	62,968					
2012	15,799	19,845	23,950	27,526	32,434	39,057	45,724	55,149						
2013	15,547	19,810	22,369	26,619	31,670	37,293	44,848							
2014	15,386	18,456	21,756	26,242	31,472	37,517								
2015	15,559	19,309	23,875	29,377	35,821									
2016	15,998	20,261	24,972	29,934										
2017	16,886	21,477	26,913											
2018	17,705	22,395												
2019	17,715													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						27,560	34,077	41,739	53,221	66,514	79,175	88,943	101,881	110,238
2002					21,131	27,407	32,871	41,063	49,426	61,371	72,230	84,062	92,893	92,758
2003				18,567	22,167	29,046	36,480	45,737	59,204	71,030	85,806	92,308	91,321	93,961
2004			15,251	19,818	25,258	30,770	39,751	50,058	58,949	74,866	80,333	82,190	89,823	90,967
2005		14,236	18,056	21,334	25,116	34,471	43,385	54,340	67,040	77,795	79,040	90,573	92,887	98,315
2006	12,476	16,749	21,766	25,695	31,369	39,212	46,983	59,859	69,494	74,617	81,404	86,441	100,022	104,611
2007	13,723	18,462	22,996	28,192	34,672	42,841	53,962	64,082	72,389	81,867	99,341	106,633	127,074	
2008	14,396	18,856	23,358	28,611	34,840	43,332	52,202	60,497	69,957	78,918	89,193	104,120		
2009	14,291	19,496	24,463	30,153	36,202	44,051	50,582	60,237	70,757	81,035	101,513			
2010	14,775	19,295	24,096	29,207	35,664	41,319	48,194	54,308	61,618	72,059				
2011	15,651	21,178	25,225	31,504	38,195	42,948	48,161	54,279	62,899					
2012	16,295	20,756	25,115	28,676	33,658	40,788	48,362	60,189						
2013	15,546	20,773	23,394	26,995	32,579	38,020	46,906							
2014	15,473	19,328	22,680	26,698	32,011	38,095								
2015	16,352	20,889	25,818	31,826	38,083									
2016	16,865	21,966	26,832	31,614										
2017	18,366	23,655	29,590											
2018	19,145	24,215												
2019	19,370													

Average Paid ALAE (Excluding Paid MCCP) Per Indemnity Claim *

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						5,141	5,625	5,751	6,013	6,195	6,359	6,493	6,637	6,743
2002					5,251	5,879	6,183	6,498	6,709	6,896	7,041	7,187	7,276	7,376
2003				4,825	5,681	6,220	6,602	6,894	7,138	7,351	7,538	7,647	7,763	7,876
2004			3,493	4,673	5,429	5,979	6,402	6,689	6,932	7,149	7,277	7,412	7,521	7,611
2005		1,864	3,247	4,336	5,093	5,683	6,109	6,459	6,759	6,932	7,107	7,267	7,386	7,494
2006	553	2,117	3,588	4,693	5,547	6,178	6,674	6,980	7,227	7,462	7,643	7,783	7,903	7,984
2007	670	2,262	3,777	5,041	5,967	6,690	7,283	7,640	7,977	8,243	8,454	8,614	8,728	
2008	738	2,392	4,052	5,440	6,471	7,300	7,856	8,313	8,680	8,936	9,143	9,305		
2009	742	2,634	4,521	6,068	7,252	8,092	8,738	9,249	9,594	9,860	10,050			
2010	809	2,879	4,840	6,347	7,474	8,305	8,952	9,416	9,742	9,963				
2011	896	3,058	4,970	6,513	7,606	8,456	9,090	9,525	9,794					
2012	891	2,998	4,996	6,534	7,725	8,536	9,061	9,449						
2013	947	3,242	5,248	6,807	7,854	8,503	8,961							
2014	1,067	3,400	5,499	6,987	7,912	8,516								
2015	1,048	3,539	5,576	6,928	7,772									
2016	1,084	3,563	5,491	6,713										
2017	1,127	3,624	5,520											
2018	1,337	3,939												
2019	1,463													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						5,099	5,494	5,905	6,257	6,500	6,579	6,785	6,781	6,850
2002					5,646	6,261	6,454	6,862	7,129	7,269	7,455	7,534	7,613	7,706
2003				4,862	5,702	5,884	6,342	6,619	6,855	7,055	7,184	7,282	7,378	7,455
2004			3,274	4,272	4,907	5,432	5,784	6,077	6,286	6,441	6,559	6,651	6,741	6,815
2005		1,888	3,053	3,897	4,617	5,138	5,487	5,776	6,016	6,187	6,335	6,455	6,487	6,546
2006	630	1,786	2,889	3,876	4,629	5,192	5,612	5,936	6,151	6,363	6,492	6,469	6,556	6,643
2007	516	1,725	3,002	4,059	4,932	5,517	5,944	6,267	6,510	6,679	6,704	6,783	6,902	
2008	530	1,937	3,354	4,545	5,418	6,015	6,473	6,824	7,060	7,174	7,294	7,408		
2009	618	2,197	3,766	5,126	5,994	6,625	7,121	7,486	7,629	7,793	7,940			
2010	669	2,290	4,064	5,233	6,092	6,777	7,308	7,447	7,684	7,904				
2011	662	2,385	3,820	4,971	5,884	6,467	6,728	7,035	7,345					
2012	707	2,266	3,748	4,998	5,818	6,248	6,657	7,055						
2013	647	2,311	3,891	5,050	5,775	6,316	6,812							
2014	706	2,514	4,012	5,060	5,807	6,476								
2015	834	2,673	4,191	5,283	6,210									
2016	794	2,728	4,334	5,677										
2017	848	2,937	4,693											
2018	914	3,128												
2019	929													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						5,055	5,480	5,704	5,977	6,144	6,281	6,402	6,513	6,589
2002					5,117	5,673	5,944	6,260	6,454	6,618	6,748	6,876	6,955	7,034
2003				4,692	5,475	5,917	6,315	6,597	6,815	7,010	7,181	7,292	7,396	7,490
2004			3,289	4,369	5,062	5,577	5,955	6,223	6,438	6,633	6,753	6,872	6,974	7,055
2005		1,765	3,023	3,987	4,698	5,219	5,600	5,907	6,171	6,339	6,496	6,637	6,734	6,826
2006	534	1,853	3,126	4,127	4,876	5,444	5,874	6,193	6,420	6,630	6,788	6,908	7,007	7,082
2007	571	1,978	3,323	4,419	5,246	5,881	6,397	6,718	6,996	7,209	7,353	7,480	7,581	
2008	619	2,118	3,620	4,886	5,819	6,532	7,020	7,412	7,695	7,884	8,049	8,186		
2009	675	2,406	4,130	5,518	6,550	7,277	7,849	8,260	8,490	8,713	8,887			
2010	748	2,589	4,352	5,688	6,653	7,383	7,966	8,244	8,514	8,724				
2011	769	2,616	4,270	5,561	6,516	7,311	7,726	8,094	8,351					
2012	774	2,602	4,301	5,631	6,676	7,293	7,747	8,077						
2013	788	2,732	4,447	5,810	6,686	7,262	7,670							
2014	873	2,908	4,687	5,961	6,771	7,302								
2015	927	3,049	4,827	6,010	6,748									
2016	933	3,157	4,897	6,017										
2017	1,016	3,279	4,939											
2018	1,110	3,380												
2019	1,119													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						4,982	5,358	5,663	5,946	6,099	6,211	6,324	6,405	6,446
2002					4,987	5,473	5,711	6,025	6,203	6,345	6,460	6,570	6,635	6,695
2003				4,528	5,216	5,542	5,958	6,227	6,414	6,588	6,736	6,846	6,938	7,009
2004			3,034	3,985	4,596	5,065	5,388	5,634	5,811	5,980	6,089	6,189	6,279	6,354
2005		1,661	2,780	3,607	4,265	4,712	5,049	5,303	5,535	5,696	5,834	5,952	6,024	6,096
2006	519	1,634	2,738	3,645	4,306	4,818	5,187	5,513	5,724	5,911	6,049	6,146	6,228	6,291
2007	502	1,767	2,980	3,949	4,699	5,264	5,722	6,014	6,248	6,420	6,508	6,610	6,698	
2008	548	1,935	3,330	4,510	5,376	6,008	6,448	6,794	7,020	7,153	7,289	7,409		
2009	636	2,263	3,878	5,165	6,096	6,747	7,270	7,616	7,747	7,940	8,107			
2010	714	2,411	4,051	5,276	6,139	6,813	7,360	7,495	7,729	7,936				
2011	702	2,363	3,865	5,005	5,887	6,662	6,924	7,253	7,505					
2012	710	2,361	3,873	5,078	6,049	6,522	6,926	7,226						
2013	696	2,410	3,940	5,189	5,936	6,460	6,842							
2014	756	2,587	4,157	5,283	6,015	6,501								
2015	853	2,730	4,334	5,402	6,070									
2016	845	2,889	4,496	5,545										
2017	947	3,043	4,537											
2018	967	2,988												
2019	910													

* Based on private insurer data only.

Exhibit 4.9

Paid MCCP per Indemnity Claim

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2012	828	1,570	2,113	2,457	2,625	2,767	2,850	2,919						
2013	854	1,646	2,154	2,434	2,619	2,749	2,837							
2014	852	1,660	2,129	2,402	2,584	2,704								
2015	911	1,696	2,104	2,362	2,528									
2016	884	1,556	1,940	2,184										
2017	814	1,531	1,948											
2018	907	1,532												
2019	859													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2012	838	1,723	2,309	2,687	2,627	2,799	2,879	2,928						
2013	864	1,762	2,319	2,327	2,517	2,614	2,656							
2014	840	1,673	1,993	2,249	2,374	2,412								
2015	748	1,420	1,788	1,989	2,070									
2016	624	1,279	1,555	1,644										
2017	631	1,132	1,343											
2018	624	1,138												
2019	537													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2012	665	1,346	1,815	2,121	2,225	2,365	2,442	2,488						
2013	653	1,327	1,768	1,965	2,126	2,232	2,290							
2014	631	1,291	1,662	1,881	2,026	2,106								
2015	626	1,227	1,556	1,767	1,885									
2016	592	1,152	1,454	1,632										
2017	585	1,128	1,438											
2018	639	1,185												
2019	608													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2012	584	1,219	1,646	1,932	1,997	2,129	2,202	2,237						
2013	549	1,147	1,547	1,694	1,834	1,926	1,969							
2014	517	1,081	1,392	1,575	1,697	1,754								
2015	475	960	1,237	1,417	1,505									
2016	438	912	1,157	1,292										
2017	456	876	1,114											
2018	486	962												
2019	469													

Exhibit 5.1

Ratio of Paid Losses to Reported Incurred - Indemnity

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	30.9%	46.8%	63.7%	75.7%	83.6%	87.8%	90.5%	92.4%	93.9%	94.9%	95.6%	96.0%	96.6%	97.0%
2002	29.4%	46.5%	64.2%	78.2%	85.5%	89.4%	91.8%	93.9%	94.7%	95.7%	96.1%	96.8%	97.3%	97.7%
2003	29.6%	48.7%	68.8%	80.9%	86.7%	90.6%	92.4%	93.4%	94.6%	95.1%	95.7%	96.3%	96.7%	97.1%
2004	30.4%	53.9%	69.5%	80.2%	85.9%	88.9%	90.8%	91.8%	93.2%	94.2%	95.2%	95.5%	96.0%	96.7%
2005	37.6%	58.0%	72.3%	80.5%	85.1%	87.7%	89.7%	91.4%	93.1%	94.0%	95.0%	95.8%	96.3%	96.8%
2006	39.5%	60.8%	72.7%	80.1%	84.3%	87.0%	89.6%	91.4%	92.8%	94.1%	95.1%	95.8%	96.3%	97.0%
2007	41.1%	60.9%	71.7%	78.8%	83.7%	87.0%	89.3%	90.7%	92.5%	94.1%	95.2%	95.9%	96.6%	
2008	40.6%	59.7%	71.4%	78.7%	84.0%	87.4%	90.2%	92.0%	93.3%	94.0%	95.2%	95.8%		
2009	40.2%	59.6%	71.2%	78.9%	84.1%	87.5%	90.3%	92.5%	93.8%	94.9%	95.7%			
2010	41.0%	59.3%	71.5%	79.3%	85.0%	88.5%	91.7%	93.6%	95.1%	96.1%				
2011	39.2%	60.0%	71.2%	79.5%	85.4%	89.2%	91.9%	93.6%	94.9%					
2012	42.3%	60.0%	72.9%	81.0%	86.2%	90.0%	92.0%	93.8%						
2013	40.2%	60.7%	74.5%	82.6%	88.1%	91.4%	93.5%							
2014	39.9%	60.5%	74.4%	83.0%	88.0%	91.0%								
2015	40.5%	61.4%	75.4%	83.9%	89.0%									
2016	40.7%	62.3%	76.4%	84.4%										
2017	42.2%	62.7%	76.2%											
2018	42.0%	62.3%												
2019	43.3%													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	22.7%	44.6%	61.2%	74.3%	83.3%	88.0%	90.6%	92.5%	94.1%	95.2%	96.2%	96.7%	97.0%	97.5%
2002	22.5%	41.7%	62.2%	76.8%	84.7%	88.1%	91.3%	93.4%	94.2%	95.1%	95.5%	96.4%	97.2%	97.6%
2003	21.2%	44.6%	67.3%	78.8%	84.6%	88.8%	91.3%	92.4%	93.4%	94.1%	95.2%	95.9%	96.6%	97.5%
2004	21.9%	48.3%	67.8%	78.3%	84.6%	88.3%	90.2%	91.7%	93.6%	94.4%	95.6%	96.2%	97.1%	97.3%
2005	26.0%	52.6%	68.1%	79.3%	84.0%	86.0%	88.9%	91.0%	92.6%	93.5%	94.7%	95.5%	96.2%	96.5%
2006	30.3%	52.7%	68.3%	77.1%	82.5%	86.1%	88.3%	90.2%	91.8%	93.7%	95.0%	96.0%	96.5%	97.2%
2007	31.7%	54.2%	69.0%	77.4%	83.5%	86.6%	89.0%	90.8%	92.6%	94.7%	95.8%	96.4%	96.8%	
2008	33.9%	54.9%	68.6%	78.1%	83.6%	87.3%	89.7%	91.8%	93.4%	94.8%	95.8%	96.4%		
2009	33.7%	53.5%	68.6%	77.4%	83.2%	86.5%	89.3%	91.9%	93.5%	94.8%	95.5%			
2010	33.0%	54.0%	68.2%	78.0%	83.9%	87.6%	90.6%	92.9%	94.1%	94.6%				
2011	33.5%	54.3%	70.0%	78.5%	84.6%	88.5%	91.2%	93.1%	94.4%					
2012	35.5%	55.4%	69.9%	79.9%	85.1%	89.0%	91.4%	93.1%						
2013	32.8%	54.1%	70.3%	81.1%	87.6%	90.5%	92.4%							
2014	31.7%	54.1%	72.1%	82.1%	87.7%	90.4%								
2015	30.9%	54.2%	72.2%	82.3%	86.8%									
2016	32.5%	56.3%	73.3%	82.6%										
2017	33.0%	56.9%	73.0%											
2018	34.3%	56.1%												
2019	35.1%													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	25.4%	46.8%	63.0%	75.1%	82.9%	87.2%	89.8%	91.5%	92.9%	93.8%	94.4%	95.0%	95.5%	96.0%
2002	25.1%	45.9%	64.6%	77.9%	84.8%	88.4%	90.9%	92.6%	93.5%	94.2%	95.0%	95.8%	96.3%	96.8%
2003	25.4%	47.7%	67.9%	79.2%	84.7%	87.9%	89.7%	90.8%	91.8%	92.5%	93.6%	94.4%	95.1%	95.6%
2004	26.1%	51.9%	68.1%	77.8%	83.4%	86.0%	87.9%	89.0%	90.6%	91.9%	93.1%	93.9%	94.6%	95.4%
2005	31.4%	56.2%	70.1%	78.8%	82.8%	84.8%	86.5%	88.1%	90.4%	91.8%	93.1%	94.0%	94.7%	95.5%
2006	33.2%	56.5%	69.8%	77.2%	81.2%	84.1%	86.7%	89.0%	90.7%	92.2%	93.3%	94.4%	95.1%	95.9%
2007	34.8%	56.6%	68.8%	76.6%	81.6%	84.9%	87.3%	89.3%	91.2%	92.6%	94.0%	94.8%	95.1%	
2008	36.0%	56.7%	68.7%	76.9%	82.4%	86.1%	88.7%	90.6%	92.0%	93.2%	94.4%	95.1%		
2009	35.5%	54.8%	68.6%	76.9%	82.5%	86.0%	89.1%	91.2%	92.7%	93.9%	94.8%			
2010	35.2%	55.7%	69.1%	78.2%	83.9%	87.7%	90.5%	92.5%	93.9%	94.8%				
2011	34.3%	55.1%	69.7%	77.9%	84.0%	88.1%	91.0%	93.0%	94.4%					
2012	35.8%	56.3%	70.3%	79.8%	85.3%	89.0%	91.5%	93.2%						
2013	34.3%	56.1%	71.8%	81.4%	87.2%	90.6%	92.6%							
2014	34.2%	56.7%	72.5%	81.7%	87.1%	90.6%								
2015	34.0%	56.7%	72.8%	82.2%	87.8%									
2016	34.8%	58.0%	73.9%	83.1%										
2017	34.8%	58.1%	73.5%											
2018	35.3%	57.8%												
2019	35.3%													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	24.5%	47.6%	62.8%	74.7%	82.5%	87.0%	89.4%	91.2%	92.3%	93.3%	93.9%	94.5%	95.0%	95.6%
2002	24.4%	45.8%	64.7%	77.7%	84.6%	87.9%	90.5%	92.1%	93.0%	93.6%	94.4%	95.4%	95.9%	96.5%
2003	24.2%	47.2%	67.4%	78.4%	83.6%	86.6%	88.5%	89.6%	90.5%	91.3%	92.6%	93.4%	94.3%	94.9%
2004	24.5%	50.9%	67.4%	76.5%	82.0%	84.5%	86.3%	87.5%	89.2%	90.7%	92.0%	93.0%	93.8%	94.6%
2005	28.9%	55.2%	68.8%	77.8%	81.4%	83.1%	84.6%	86.1%	88.7%	90.5%	92.0%	93.0%	93.8%	94.6%
2006	30.8%	54.3%	68.2%	75.6%	79.4%	82.4%	85.1%	87.6%	89.5%	91.2%	92.2%	93.6%	94.4%	95.3%
2007	32.2%	54.6%	67.4%	75.4%	80.5%	83.8%	86.2%	88.5%	90.4%	91.8%	93.3%	94.3%	94.3%	
2008	34.1%	55.3%	67.4%	75.9%	81.5%	85.5%	87.9%	89.9%	91.3%	92.8%	93.9%	94.7%		
2009	33.5%	52.5%	67.2%	75.7%	81.7%	85.1%	88.4%	90.5%	92.1%	93.4%	94.3%			
2010	32.7%	54.0%	67.8%	77.6%	83.3%	87.1%	89.9%	91.8%	93.1%	94.0%				
2011	32.3%	52.8%	68.8%	77.0%	83.3%	87.4%	90.4%	92.7%	94.1%					
2012	32.7%	54.2%	68.7%	79.0%	84.8%	88.5%	91.1%	92.8%						
2013	31.4%	53.5%	70.1%	80.7%	86.6%	90.1%	92.1%							
2014	31.3%	54.4%	71.3%	80.9%	86.5%	90.4%								
2015	30.9%	53.9%	71.1%	81.1%	87.0%									
2016	31.9%	55.4%	72.3%	82.2%										
2017	31.1%	55.2%	71.6%											
2018	31.9%	54.8%												
2019	31.2%													

Exhibit 5.2

Ratio of Paid Losses to Reported Incurred - Medical

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	42.3%	64.2%	72.9%	78.0%	81.4%	83.5%	83.9%	84.4%	85.3%	85.4%	86.4%	87.2%	88.3%	89.0%
2002	42.3%	65.3%	73.5%	80.1%	84.4%	85.6%	86.7%	87.7%	88.0%	88.7%	89.1%	89.9%	90.4%	92.0%
2003	42.3%	63.7%	73.8%	81.0%	83.6%	85.5%	86.8%	87.4%	87.8%	88.4%	89.7%	90.5%	91.2%	92.6%
2004	38.5%	62.1%	73.6%	78.5%	82.0%	83.8%	85.0%	85.7%	86.7%	87.3%	88.3%	89.3%	90.4%	92.0%
2005	40.5%	62.6%	70.6%	77.6%	81.4%	83.4%	84.8%	86.2%	87.8%	88.9%	89.9%	91.0%	92.2%	92.9%
2006	41.3%	62.0%	71.3%	77.0%	80.5%	83.0%	84.8%	86.4%	87.5%	89.0%	90.8%	92.4%	93.2%	94.5%
2007	42.3%	63.5%	71.8%	77.2%	81.1%	83.2%	84.4%	85.8%	87.2%	89.3%	90.9%	92.3%	93.4%	
2008	42.4%	60.9%	70.2%	75.7%	79.4%	82.0%	84.2%	85.7%	87.5%	89.5%	91.0%	92.2%		
2009	39.9%	60.0%	69.2%	76.1%	80.2%	82.8%	85.3%	87.7%	89.9%	91.3%	92.8%			
2010	40.0%	58.6%	68.4%	75.2%	80.5%	83.9%	87.0%	89.2%	91.3%	92.7%				
2011	38.6%	58.8%	65.7%	73.5%	79.3%	83.6%	86.2%	89.0%	90.5%					
2012	38.9%	55.1%	66.5%	74.7%	80.6%	85.0%	88.1%	90.5%						
2013	34.2%	54.5%	67.3%	75.2%	82.0%	85.7%	88.6%							
2014	34.8%	55.6%	68.4%	76.7%	82.6%	86.0%								
2015	35.0%	56.9%	69.3%	78.2%	82.7%									
2016	35.9%	57.0%	69.3%	77.8%										
2017	36.7%	57.9%	69.9%											
2018	37.5%	57.4%												
2019	37.8%													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	38.1%	62.1%	70.7%	76.5%	81.2%	83.4%	84.4%	85.8%	86.9%	87.6%	88.9%	89.7%	90.2%	90.4%
2002	36.8%	59.9%	69.0%	76.8%	81.7%	82.9%	86.0%	87.7%	88.1%	88.2%	89.1%	90.0%	90.5%	91.7%
2003	33.1%	58.1%	70.3%	76.8%	81.1%	83.8%	85.5%	86.5%	87.6%	88.6%	89.9%	90.6%	91.9%	93.4%
2004	32.3%	60.0%	68.5%	75.6%	79.7%	82.1%	83.5%	84.8%	86.4%	87.5%	88.4%	89.9%	91.6%	93.2%
2005	34.5%	55.2%	66.0%	75.0%	79.8%	81.0%	83.4%	85.2%	86.8%	88.5%	90.3%	91.4%	92.8%	93.8%
2006	34.9%	57.2%	67.5%	74.4%	79.3%	82.2%	84.2%	85.7%	87.0%	88.8%	91.2%	92.5%	93.2%	94.5%
2007	35.3%	56.7%	66.9%	74.2%	79.7%	82.2%	84.4%	85.8%	87.9%	90.1%	92.1%	93.3%	94.4%	
2008	37.5%	56.5%	67.4%	76.1%	79.8%	82.6%	84.9%	87.2%	89.1%	90.6%	92.0%	92.8%		
2009	37.3%	56.1%	67.5%	74.0%	79.5%	82.4%	85.2%	87.9%	90.2%	91.7%	93.0%			
2010	35.5%	56.5%	67.1%	74.8%	79.6%	83.7%	87.4%	90.5%	92.2%	93.0%				
2011	35.3%	56.0%	65.5%	73.8%	79.3%	84.2%	87.2%	89.3%	91.1%					
2012	35.7%	52.8%	65.6%	75.2%	80.7%	85.0%	88.2%	90.1%						
2013	31.9%	51.7%	66.4%	75.7%	81.5%	85.9%	88.1%							
2014	30.6%	53.1%	67.6%	77.7%	84.3%	87.4%								
2015	30.7%	53.1%	67.4%	77.4%	81.7%									
2016	31.0%	55.0%	69.7%	78.1%										
2017	34.1%	56.0%	69.2%											
2018	34.9%	56.9%												
2019	34.5%													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	35.6%	60.7%	69.2%	75.4%	79.8%	82.4%	83.5%	84.3%	84.7%	84.7%	85.3%	86.1%	87.1%	87.9%
2002	34.5%	59.2%	69.5%	76.5%	81.8%	83.4%	84.8%	85.6%	86.1%	86.4%	86.9%	88.2%	89.0%	90.5%
2003	35.5%	58.9%	69.2%	76.4%	80.7%	82.1%	83.4%	83.9%	84.1%	84.8%	86.6%	87.9%	89.2%	90.9%
2004	33.8%	57.9%	68.3%	74.0%	77.7%	80.0%	80.7%	81.7%	83.2%	84.8%	86.5%	88.1%	89.5%	91.2%
2005	35.1%	56.7%	66.0%	73.9%	78.3%	79.2%	80.5%	81.8%	83.9%	85.4%	87.5%	88.8%	90.6%	91.9%
2006	35.0%	56.0%	66.0%	72.9%	76.9%	79.3%	81.3%	32.2%	84.8%	86.6%	88.8%	90.5%	91.4%	92.7%
2007	35.1%	56.8%	66.7%	72.9%	77.0%	79.5%	82.0%	31.9%	85.8%	88.1%	89.3%	90.9%	91.9%	
2008	37.2%	56.6%	66.4%	73.0%	77.3%	80.8%	83.3%	31.7%	87.4%	89.3%	90.8%	91.8%		
2009	37.1%	55.6%	65.6%	72.7%	78.0%	81.3%	84.2%	32.6%	88.8%	90.4%	91.4%			
2010	36.4%	55.7%	66.3%	74.0%	79.2%	83.1%	86.5%	33.2%	91.0%	92.3%				
2011	35.1%	54.9%	64.4%	72.2%	77.8%	82.8%	86.4%	33.4%	91.0%					
2012	35.1%	52.4%	64.7%	74.0%	80.1%	84.2%	87.6%	32.9%						
2013	32.2%	51.5%	65.7%	75.0%	81.4%	85.8%	88.7%							
2014	31.9%	53.2%	67.1%	76.3%	82.6%	86.5%								
2015	31.7%	53.1%	66.7%	76.3%	82.3%									
2016	32.6%	54.0%	67.7%	77.5%										
2017	33.2%	54.7%	68.2%											
2018	33.4%	54.8%												
2019	32.9%													

All Non-Large Deductible Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001	34.1%	60.7%	68.1%	74.5%	79.2%	82.0%	83.5%	84.4%	84.4%	84.3%	84.8%	85.6%	86.6%	87.5%
2002	32.9%	57.2%	67.9%	75.1%	80.8%	82.4%	84.0%	84.7%	85.2%	85.4%	86.0%	87.5%	88.3%	89.9%
2003	33.3%	56.9%	67.2%	74.3%	79.2%	80.5%	81.7%	82.2%	82.4%	83.2%	85.2%	86.6%	88.3%	90.0%
2004	31.9%	55.8%	65.4%	71.5%	75.2%	77.9%	78.4%	79.5%	81.4%	83.3%	85.6%	87.4%	89.0%	90.8%
2005	32.6%	53.1%	63.1%	71.6%	76.4%	76.5%	77.9%	79.1%	81.6%	83.4%	86.1%	87.5%	89.6%	91.3%
2006	31.9%	52.7%	63.0%	70.6%	74.8%	77.2%	79.3%	81.3%	83.3%	85.3%	87.6%	89.5%	90.3%	91.8%
2007	31.6%	53.2%	63.9%	70.6%	74.9%	77.5%	80.6%	82.9%	85.1%	87.4%	88.4%	90.2%	91.1%	
2008	34.8%	54.5%	64.5%	71.6%	76.2%	80.2%	82.8%	85.1%	87.4%	89.2%	90.6%	91.6%		
2009	35.8%	53.4%	63.7%	70.9%	76.9%	80.5%	83.7%	86.2%	88.3%	89.9%	90.7%			
2010	34.7%	54.3%	65.3%	73.4%	78.5%	82.7%	86.3%	89.0%	90.9%	92.2%				
2011	33.3%	53.0%	63.7%	71.5%	77.1%	82.4%	86.5%	89.4%	91.2%					
2012	33.2%	51.0%	63.7%	73.6%	79.8%	83.8%	87.4%	89.3%						
2013	31.2%	49.9%	64.9%	74.9%	81.1%	85.9%	88.8%							
2014	30.4%	51.8%	66.4%	76.0%	82.7%	86.8%								
2015	30.1%	51.1%	65.2%	75.3%	82.2%									
2016	30.9%	52.3%	66.8%	77.3%										
2017	31.5%	53.0%	67.1%											
2018	31.4%	53.3%												
2019	30.4%													

Exhibit 6.1

Reported Indemnity Claim Count Development

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001						1.000	1.001	1.000	1.000	1.001	1.001	1.000	1.000
2002					1.002	1.002	1.000	1.001	1.001	1.002	1.001	1.001	1.000
2003				1.011	1.003	0.999	1.000	1.001	1.000	1.001	1.000	1.000	1.000
2004			1.013	1.004	1.002	0.998	1.001	1.001	1.001	1.000	1.001	1.001	1.000
2005		1.035	1.011	1.005	1.000	1.002	1.001	1.000	1.001	1.001	1.000	1.000	1.000
2006	1.236	1.030	1.017	1.002	1.005	1.002	1.003	1.002	1.001	1.001	1.000	1.000	1.000
2007	1.196	1.030	1.009	1.007	1.006	1.002	1.002	1.002	1.001	1.000	1.001	1.000	
2008	1.236	1.033	1.018	1.008	1.006	1.002	1.003	1.001	1.001	1.001	1.000		
2009	1.284	1.047	1.015	1.009	1.005	1.004	1.001	1.001	1.001	1.000			
2010	1.322	1.041	1.017	1.008	1.006	1.004	1.002	1.001	1.001				
2011	1.320	1.052	1.018	1.010	1.004	1.002	1.001	1.001					
2012	1.362	1.045	1.019	1.005	1.004	1.002	1.001						
2013	1.337	1.047	1.013	1.005	1.004	1.002							
2014	1.326	1.037	1.012	1.007	1.004								
2015	1.296	1.039	1.012	1.006									
2016	1.347	1.047	1.013										
2017	1.300	1.033											
2018	1.319												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001						1.005	1.002	1.001	1.000	1.001	1.001	1.002	1.001
2002					1.007	1.004	1.002	1.001	1.002	1.002	1.002	1.000	1.000
2003				1.003	1.002	0.999	1.000	1.001	1.001	1.001	1.001	1.001	1.001
2004			1.004	1.005	0.996	1.006	1.002	1.002	1.001	1.001	1.001	1.000	1.001
2005		1.010	1.004	0.997	1.005	1.006	1.002	1.003	1.000	0.999	0.999	1.000	1.000
2006	1.122	1.019	0.996	1.006	1.001	1.001	1.000	1.002	1.000	1.001	1.000	1.000	1.001
2007	1.126	1.011	1.009	1.004	1.003	1.001	1.001	1.000	1.000	1.001	1.000	1.001	
2008	1.136	1.024	1.009	1.004	1.003	1.002	1.001	1.001	1.001	1.000	1.001		
2009	1.153	1.022	1.011	1.005	1.004	1.002	1.001	1.001	1.001	1.001			
2010	1.180	1.026	1.008	1.009	1.003	1.001	1.001	1.001	1.001				
2011	1.200	1.022	1.011	1.007	1.003	1.001	1.001	1.001					
2012	1.194	1.030	1.009	1.012	1.003	1.001	1.001						
2013	1.207	1.021	1.014	1.006	1.002	1.002							
2014	1.200	1.026	1.012	1.004	1.004								
2015	1.228	1.026	1.007	1.005									
2016	1.200	1.026	1.195										
2017	1.196	1.024											
2018	1.195												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001						1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2002					1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003				1.001	0.999	0.998	0.999	0.999	1.000	0.999	1.000	1.000	1.000
2004			1.003	1.001	0.999	1.000	0.999	0.999	0.999	1.000	1.000	1.000	1.000
2005		1.010	1.003	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.126	1.011	1.005	1.002	1.001	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2007	1.122	1.014	1.006	1.004	1.002	1.000	1.001	1.001	1.000	1.000	1.000	1.000	
2008	1.146	1.022	1.011	1.005	1.003	1.001	1.001	1.001	1.000	1.000	1.000		
2009	1.192	1.029	1.011	1.006	1.003	1.002	1.001	1.000	1.000	1.000			
2010	1.217	1.030	1.011	1.006	1.003	1.002	1.001	1.000	1.000				
2011	1.233	1.032	1.013	1.007	1.002	1.001	1.001	1.001					
2012	1.243	1.035	1.013	1.005	1.003	1.001	1.001						
2013	1.248	1.031	1.010	1.004	1.002	1.002							
2014	1.236	1.027	1.010	1.004	1.002								
2015	1.236	1.027	1.006	1.003									
2016	1.244	1.029	1.007										
2017	1.220	1.023											
2018	1.226												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001						1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2002					1.000	0.999	1.000	0.999	0.999	0.999	1.000	1.000	1.000
2003				0.996	0.998	0.998	0.999	0.998	0.999	0.999	1.000	1.000	1.000
2004			0.997	0.999	0.997	1.000	0.998	0.999	0.998	0.999	1.000	0.999	1.000
2005		0.997	0.999	0.997	1.001	1.001	0.999	1.000	0.999	1.000	0.999	1.000	1.000
2006	1.075	1.001	0.998	1.002	0.999	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.086	1.005	1.005	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2008	1.104	1.017	1.007	1.004	1.002	1.001	1.000	1.001	1.000	1.000	1.000		
2009	1.150	1.020	1.009	1.003	1.003	1.001	1.001	1.000	1.000	1.000			
2010	1.167	1.025	1.008	1.005	1.002	1.001	1.001	1.000	1.000				
2011	1.192	1.023	1.011	1.005	1.001	1.001	1.000	1.000					
2012	1.190	1.029	1.010	1.005	1.002	1.000	1.000						
2013	1.204	1.023	1.008	1.004	1.000	1.001							
2014	1.191	1.021	1.009	1.002	1.001								
2015	1.204	1.020	1.002	1.001									
2016	1.190	1.018	1.003										
2017	1.175	1.017											
2018	1.172												

Reported Total Claim Count Development

Large Deductible (LD) Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001								1.000	1.000	1.001	1.001	1.000	1.000
2002							1.000	1.001	1.001	1.001	1.000	1.000	1.000
2003						1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2004					1.000	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2005				1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2006			1.007	1.002	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2007		1.012	1.005	1.003	1.003	1.001	1.001	1.001	1.000	1.000	1.000	1.000	
2008	1.165	1.013	1.009	1.003	1.003	1.001	1.001	1.000	1.000	1.000	1.000		
2009	1.184	1.019	1.006	1.003	1.001	1.002	1.001	1.000	1.000	1.000			
2010	1.199	1.015	1.007	1.003	1.003	1.002	1.001	1.001	1.000				
2011	1.198	1.021	1.006	1.004	1.002	1.001	1.001	1.001					
2012	1.226	1.016	1.006	1.002	1.002	1.001	1.001						
2013	1.206	1.016	1.004	1.002	1.001	1.001							
2014	1.201	1.012	1.005	1.002	1.001								
2015	1.207	1.014	1.005	1.002									
2016	1.227	1.018	1.006										
2017	1.195	1.011											
2018	1.202												

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001								1.002	1.001	1.001	1.001	1.001	1.000
2002							1.003	1.001	1.001	1.001	1.001	1.000	1.000
2003						1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.001
2004					1.002	1.005	1.001	1.001	1.000	1.000	1.001	1.000	1.000
2005				1.002	1.003	1.002	1.001	1.001	1.000	0.999	1.000	1.000	1.000
2006			1.002	1.003	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2007		1.013	1.006	1.003	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	
2008	1.126	1.013	1.006	1.002	1.002	1.001	1.001	1.001	1.001	1.000	1.000		
2009	1.131	1.014	1.006	1.004	1.003	1.001	1.001	1.001	1.001	1.000			
2010	1.138	1.015	1.006	1.005	1.002	1.001	1.001	1.001	1.001				
2011	1.134	1.012	1.007	1.005	1.002	1.001	1.001	1.001					
2012	1.128	1.019	1.007	1.009	1.002	1.001	1.001						
2013	1.157	1.018	1.013	1.004	1.002	1.002							
2014	1.169	1.018	1.008	1.003	1.002								
2015	1.174	1.014	1.005	1.003									
2016	1.153	1.012	1.005										
2017	1.146	1.012											
2018	1.125												

All California WC Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001								1.001	1.001	1.001	1.000	1.000	1.000
2002							1.001	1.001	1.001	1.000	1.000	1.000	1.000
2003						1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2004					1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2005				1.001	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2006			1.005	1.003	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2007		1.012	1.005	1.004	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	
2008	1.128	1.013	1.008	1.003	1.002	1.001	1.001	1.001	1.000	1.000	1.000		
2009	1.146	1.016	1.006	1.004	1.002	1.002	1.001	1.001	1.001	1.000			
2010	1.154	1.016	1.007	1.004	1.003	1.002	1.001	1.001	1.000				
2011	1.158	1.017	1.007	1.004	1.002	1.001	1.001	1.001					
2012	1.167	1.017	1.007	1.004	1.002	1.001	1.001						
2013	1.172	1.018	1.006	1.003	1.002	1.001							
2014	1.174	1.015	1.006	1.003	1.002								
2015	1.177	1.015	1.005	1.003									
2016	1.180	1.015	1.005										
2017	1.161	1.012											
2018	1.157												

All Non-Large Deductible Experience

	Evaluated as of (months):												
AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168
2001								1.001	1.001	1.001	1.000	1.000	1.000
2002							1.001	1.001	1.001	1.000	1.000	1.000	1.000
2003						1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2004					1.001	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2005				1.002	1.002	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2006			1.003	1.003	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000
2007		1.012	1.006	1.004	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	
2008	1.106	1.013	1.007	1.003	1.002	1.001	1.001	1.001	1.000	1.000	1.000		
2009	1.123	1.015	1.007	1.004	1.003	1.002	1.001	1.001	1.001	1.000			
2010	1.128	1.016	1.007	1.004	1.003	1.001	1.001	1.001	1.001				
2011	1.133	1.015	1.008	1.005	1.002	1.001	1.001	1.001					
2012	1.133	1.018	1.008	1.005	1.002	1.001	1.001						
2013	1.149	1.019	1.007	1.004	1.002	1.002							
2014	1.155	1.016	1.008	1.003	1.002								
2015	1.157	1.015	1.005	1.003									
2016	1.149	1.013	1.005										
2017	1.137	1.013											
2018	1.124												

Reported Indemnity Claim Settlement Ratios

Large Deductible (LD) Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						84.1%	88.2%	91.3%	93.1%	94.3%	95.0%	95.7%	96.2%	96.7%
2002					79.8%	85.6%	90.0%	92.6%	94.0%	94.9%	95.6%	96.3%	96.7%	97.1%
2003				73.8%	81.8%	87.6%	91.0%	93.0%	94.1%	95.0%	95.8%	96.4%	96.8%	97.4%
2004			62.3%	74.8%	83.5%	88.0%	90.8%	92.4%	93.7%	94.9%	95.8%	96.3%	96.9%	97.3%
2005		51.1%	64.9%	76.4%	83.5%	87.7%	90.2%	92.2%	93.9%	95.0%	95.8%	96.6%	97.1%	97.6%
2006	30.3%	51.4%	65.6%	76.8%	84.1%	87.8%	90.7%	91.9%	93.4%	94.7%	95.8%	96.6%	97.2%	97.7%
2007	25.9%	49.4%	64.1%	75.0%	81.5%	85.5%	89.1%	91.5%	93.1%	94.6%	95.7%	96.5%	97.1%	
2008	29.0%	48.7%	63.3%	73.4%	80.1%	85.2%	89.1%	91.6%	93.6%	94.9%	96.1%	96.8%		
2009	27.5%	46.7%	60.2%	71.2%	79.3%	84.6%	88.5%	91.6%	93.5%	95.0%	96.1%			
2010	27.7%	46.4%	60.4%	72.2%	80.4%	85.5%	89.7%	92.5%	94.6%	95.8%				
2011	27.3%	46.3%	61.1%	72.9%	80.9%	86.5%	90.6%	93.4%	95.0%					
2012	28.2%	47.8%	62.7%	73.9%	82.2%	88.0%	91.6%	94.0%						
2013	28.4%	48.3%	63.5%	75.9%	84.3%	89.4%	92.6%							
2014	27.8%	48.1%	64.7%	77.7%	85.7%	90.2%								
2015	26.1%	49.3%	67.3%	80.0%	87.0%									
2016	27.1%	52.0%	70.2%	81.8%										
2017	29.3%	55.3%	72.1%											
2018	30.8%	55.7%												
2019	27.3%													

Non-Large Deductible Experience from Insurers Writing LD

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						84.3%	87.8%	90.2%	92.0%	93.3%	94.4%	95.2%	96.0%	96.5%
2002					78.8%	84.2%	87.6%	90.1%	91.8%	93.3%	94.4%	95.6%	96.3%	96.8%
2003				69.6%	78.3%	83.6%	87.1%	89.5%	91.6%	93.1%	94.9%	95.7%	96.2%	96.8%
2004			60.4%	72.1%	79.3%	83.9%	87.0%	89.7%	91.8%	94.1%	95.2%	95.9%	96.7%	97.3%
2005		48.3%	62.8%	73.8%	80.1%	84.2%	87.5%	90.1%	92.7%	94.2%	95.2%	96.2%	97.0%	97.6%
2006	24.7%	49.7%	64.0%	73.5%	79.9%	84.4%	87.6%	90.9%	92.8%	94.1%	95.4%	96.3%	97.1%	97.6%
2007	27.9%	50.0%	63.2%	72.8%	79.5%	84.2%	88.7%	91.4%	93.2%	94.9%	96.1%	96.9%	97.7%	
2008	26.9%	47.8%	61.0%	71.4%	78.7%	85.0%	88.8%	91.4%	93.7%	95.2%	96.3%	97.1%		
2009	26.3%	46.0%	59.9%	70.4%	79.0%	84.6%	88.6%	91.8%	94.0%	95.5%	96.6%			
2010	26.5%	46.9%	60.6%	72.5%	80.5%	86.0%	90.3%	93.0%	94.8%	96.2%				
2011	27.4%	47.5%	62.3%	73.6%	81.5%	87.1%	91.0%	93.7%	95.5%					
2012	27.7%	48.1%	63.6%	75.1%	83.0%	88.5%	92.3%	94.7%						
2013	26.1%	48.5%	64.5%	76.6%	84.9%	90.2%	93.6%							
2014	26.5%	49.7%	66.4%	78.3%	86.5%	91.2%								
2015	27.3%	51.3%	68.8%	81.0%	88.3%									
2016	28.8%	54.3%	71.5%	82.9%										
2017	31.0%	56.8%	73.8%											
2018	31.4%	56.8%												
2019	33.3%													

All California WC Experience

	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						84.2%	87.9%	90.5%	92.3%	93.6%	94.6%	95.3%	96.1%	96.6%
2002					79.1%	84.6%	88.3%	90.8%	92.5%	93.8%	94.7%	95.8%	96.4%	96.9%
2003				71.0%	79.5%	84.9%	88.4%	90.6%	92.4%	93.7%	95.2%	95.9%	96.4%	97.0%
2004			61.1%	73.0%	80.8%	85.3%	88.3%	90.6%	92.5%	94.4%	95.4%	96.0%	96.8%	97.3%
2005		49.3%	63.5%	74.7%	81.3%	85.5%	88.5%	90.8%	93.1%	94.5%	95.4%	96.4%	97.0%	97.6%
2006	26.5%	50.3%	64.6%	74.7%	81.4%	85.6%	88.7%	91.2%	93.0%	94.3%	95.5%	96.4%	97.1%	97.7%
2007	27.3%	49.8%	63.5%	73.6%	80.2%	84.7%	88.8%	91.4%	93.2%	94.8%	96.0%	96.8%	97.5%	
2008	27.5%	48.1%	61.8%	72.1%	79.2%	85.1%	88.9%	91.5%	93.7%	95.1%	96.2%	97.0%		
2009	26.7%	46.3%	60.0%	70.7%	79.1%	84.6%	88.5%	91.7%	93.8%	95.3%	96.4%			
2010	26.9%	46.7%	60.5%	72.4%	80.5%	85.8%	90.1%	92.8%	94.7%	96.1%				
2011	27.4%	47.1%	61.9%	73.4%	81.3%	86.9%	90.9%	93.6%	95.3%					
2012	27.9%	48.0%	63.3%	74.7%	82.7%	88.3%	92.1%	94.4%						
2013	26.8%	48.4%	64.1%	76.4%	84.7%	89.9%	93.2%							
2014	26.9%	49.1%	65.8%	78.1%	86.2%	90.8%								
2015	26.8%	50.6%	68.3%	80.6%	87.8%									
2016	28.2%	53.4%	71.0%	82.5%										
2017	30.4%	56.2%	73.2%											
2018	31.2%	56.4%												
2019	31.2%													

All Non-Large Deductible Experience

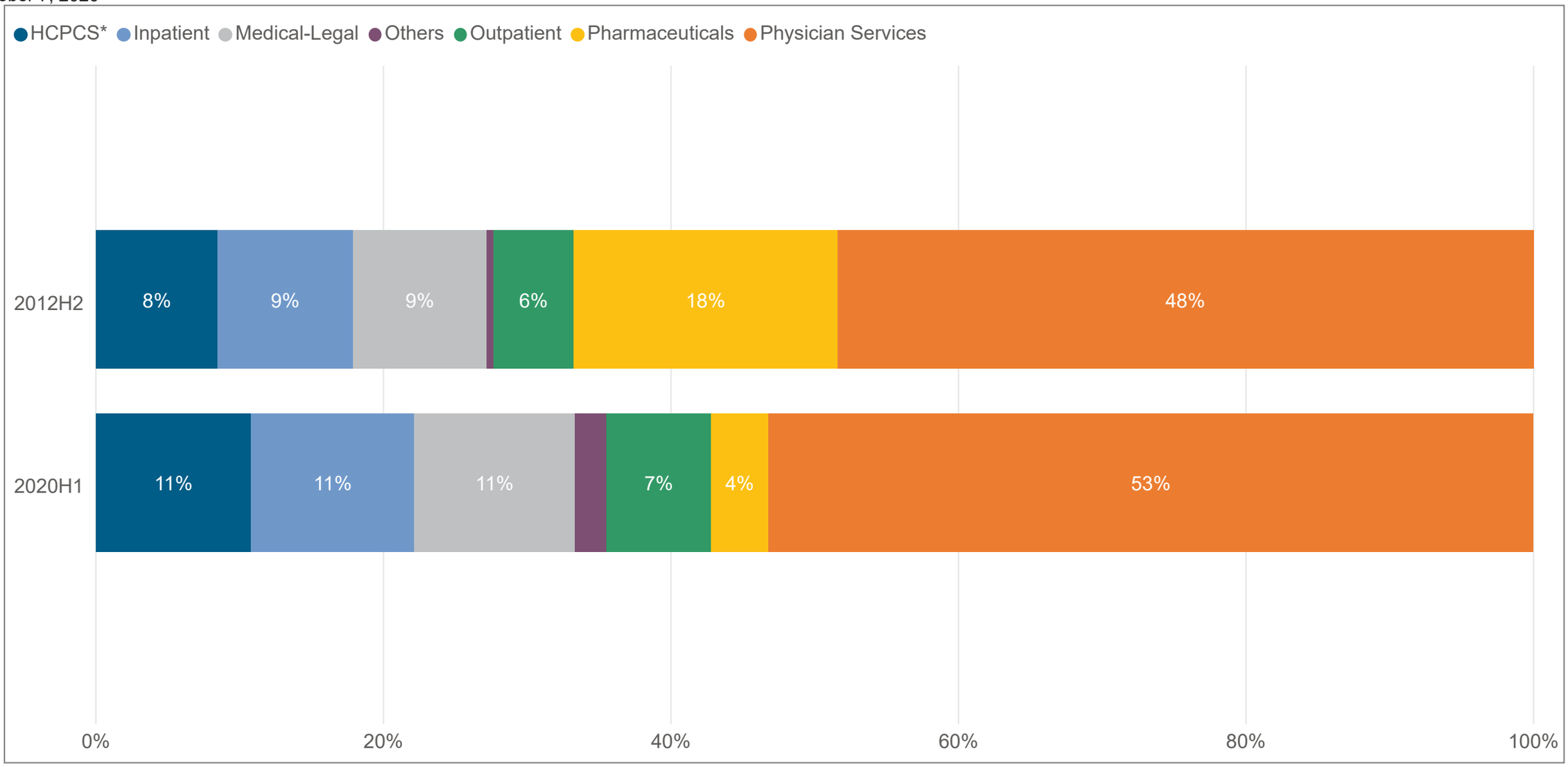
	Evaluated as of (months):													
AY	12	24	36	48	60	72	84	96	108	120	132	144	156	168
2001						84.3%	87.8%	90.2%	92.0%	93.3%	94.4%	95.2%	96.0%	96.5%
2002					78.8%	84.2%	87.6%	90.1%	91.8%	93.3%	94.4%	95.6%	96.3%	96.8%
2003				69.6%	78.3%	83.6%	87.1%	89.5%	91.6%	93.1%	94.9%	95.7%	96.2%	96.8%
2004			60.4%	72.1%	79.3%	83.9%	87.0%	89.7%	91.8%	94.1%	95.2%	95.9%	96.7%	97.3%
2005		48.3%	62.8%	73.8%	80.1%	84.2%	87.5%	90.1%	92.7%	94.2%	95.2%	96.2%	97.0%	97.6%
2006	24.7%	49.7%	64.0%	73.5%	79.9%	84.4%	87.7%	90.9%	92.8%	94.1%	95.4%	96.3%	97.1%	97.6%
2007	27.9%	50.0%	63.2%	72.8%	79.5%	84.2%	88.7%	91.4%	93.2%	94.9%	96.1%	96.9%	97.7%	
2008	26.9%	47.8%	61.0%	71.4%	78.7%	85.0%	88.8%	91.4%	93.7%	95.2%	96.3%	97.1%		
2009	26.3%	46.0%	59.9%	70.4%	79.0%	84.6%	88.6%	91.8%	94.0%	95.5%	96.6%			
2010	26.5%	46.9%	60.6%	72.5%	80.5%	86.0%	90.3%	93.0%	94.8%	96.2%				
2011	27.4%	47.4%	62.3%	73.6%	81.5%	87.1%	91.0%	93.7%	95.5%					
2012	27.7%	48.1%	63.6%	75.1%	83.0%	88.5%	92.3%	94.7%						
2013	26.0%	48.5%	64.5%	76.6%	84.9%	90.2%	93.6%							
2014	26.5%	49.7%	66.4%	78.3%	86.5%	91.2%								
2015	27.3%	51.2%	68.8%	81.0%	88.3%									
2016	28.8%	54.2%	71.5%	82.9%										
2017	31.0%	56.8%	73.8%											
2018	31.4%	56.8%												
2019	33.3%													

Item AC16-06-05
Update on Medical Severity Trends by Component

Twice a year, the Committee reviews a summary of changes in paid per transaction and paid transactions per claim by medical component. An update to that analysis with medical transaction data through June 30, 2020 will be presented at the meeting. The update also includes a comparison of the severity trends before and after the COVID-19 pandemic started. Slides outlining the updated medical severity trends are attached.

Share of Total Medical Payments by Service Type

As of October 7, 2020



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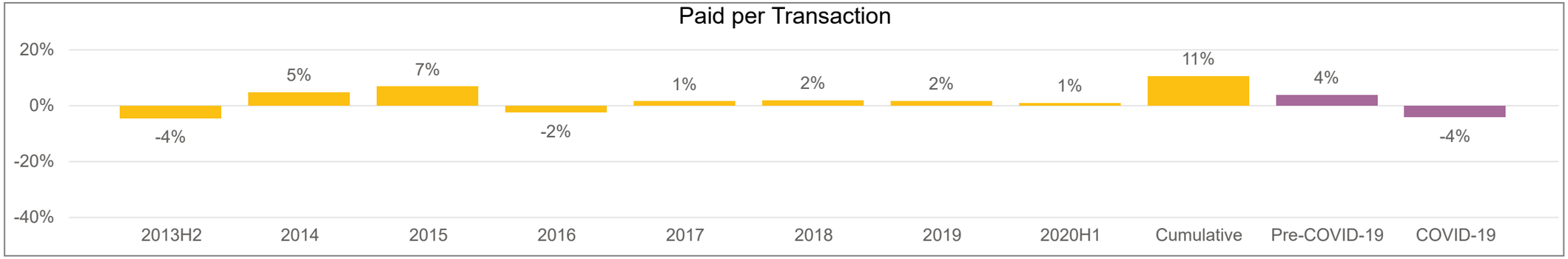
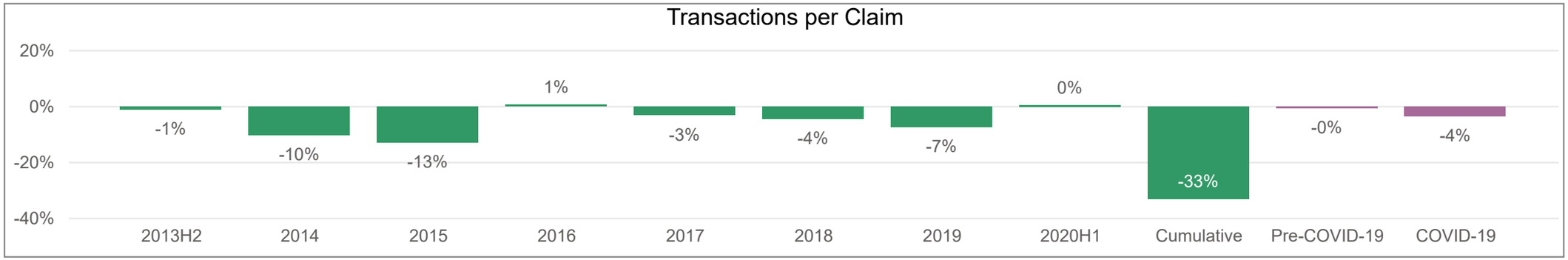
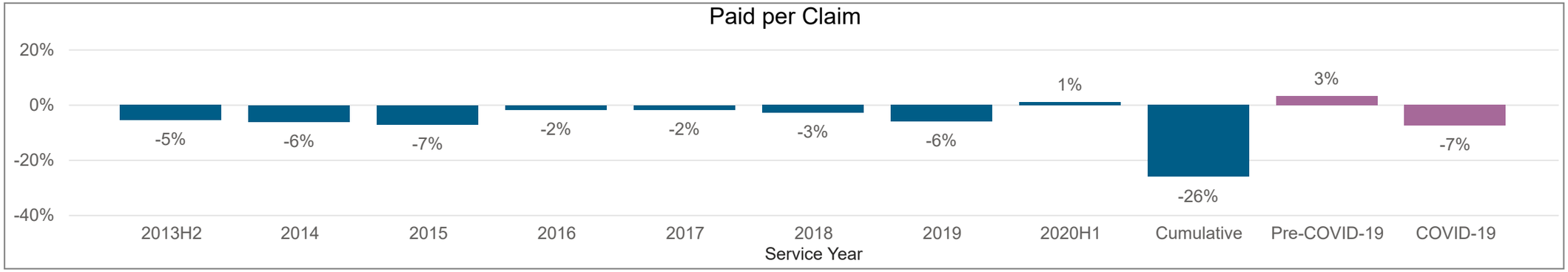
* HCPCS stands for Healthcare Common Procedure Coding System. HCPCS codes primarily include ambulance services, durable medical equipment, prosthetics, orthotics, and supplies used outside a physician's office, home health services, and interpreter services.
Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

% Change in *All Medical Services* Cost per Claim

As of October 7, 2020







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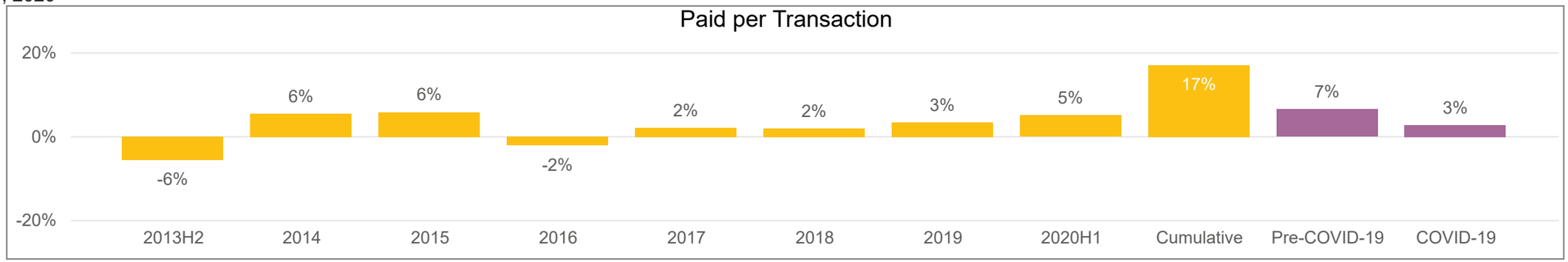
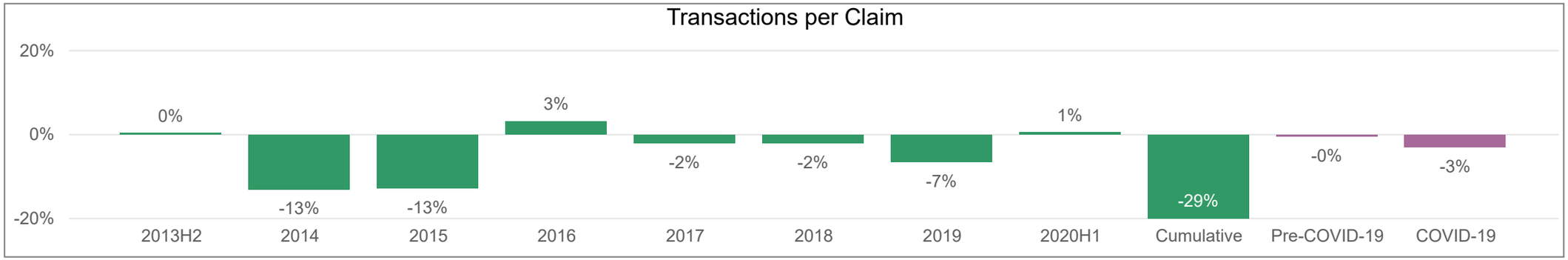
Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

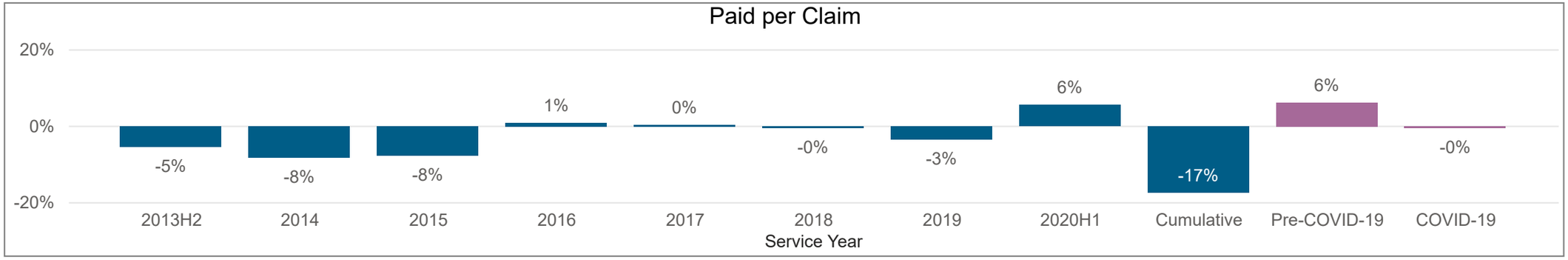
Note: Pre-COVID-19 period refers to January 1 through March 14, 2020. COVID-19 period refers to March 15 through June 30, 2020. The denominator for Transactions per Claim and Paid per Claim in the Pre-COVID-19 and COVID-19 periods is the number of claims with any paid medical service in the respective period. The definition and methodology apply to all subsequent slides.

% Change in *Physician Services* Cost per Claim (53% of All Medical Payments*)

As of October 7, 2020







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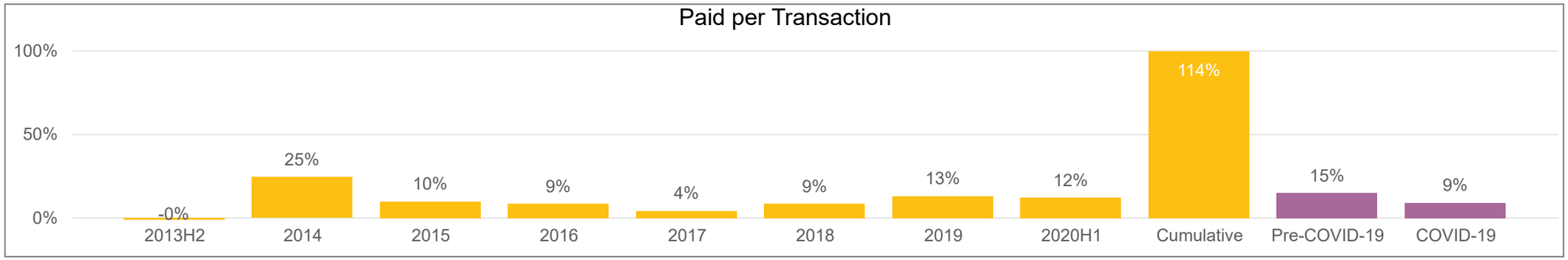
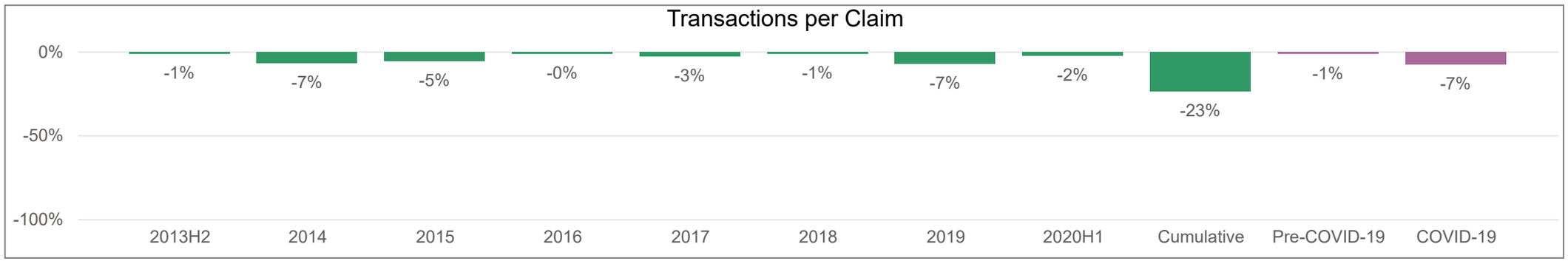
* All medical payments are defined as the total Paid Amount (excluding Liens) in the first half of service year 2020 in the WCIRB medical transaction data. This definition applies to all subsequent slides.

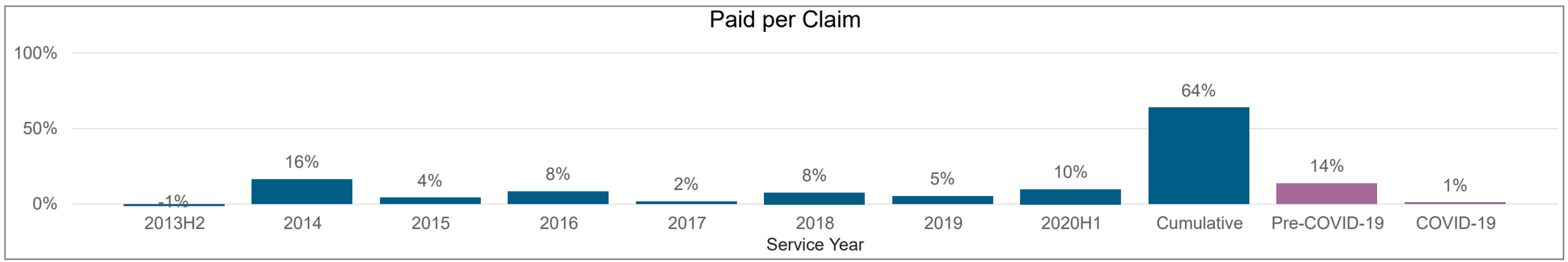
Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

% Change in *Physical Medicine* Cost per Claim (17% of All Medical Payments)

As of October 7, 2020







Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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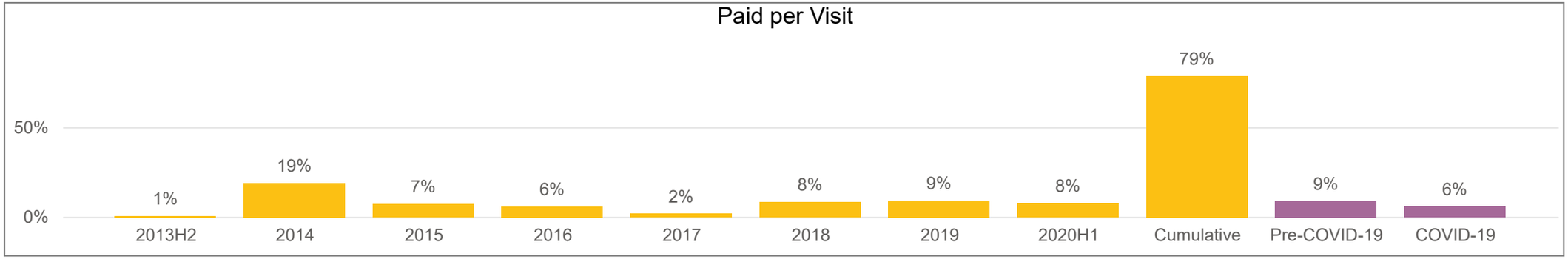
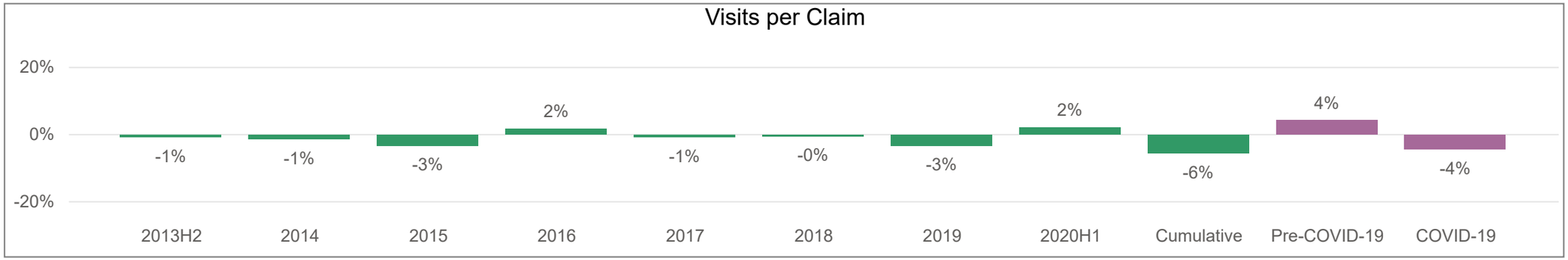
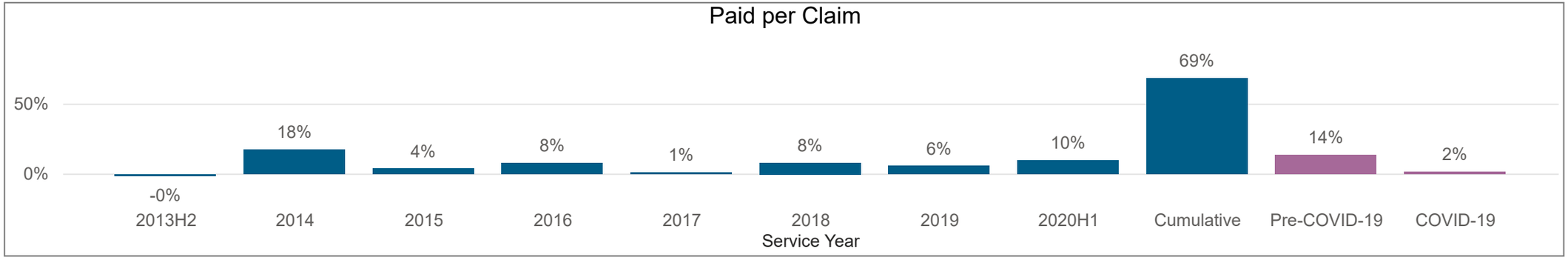
% Change in *Physical Therapy* Cost per Claim (visit-based) (15% of All Medical Payments)

As of October 7, 2020







Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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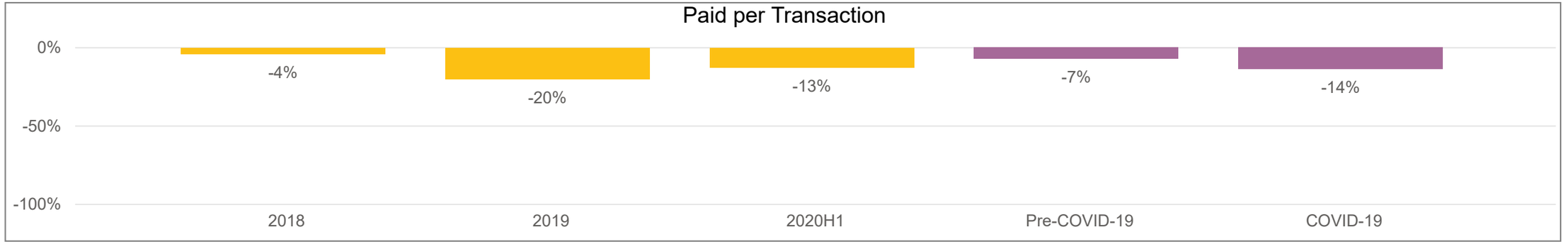
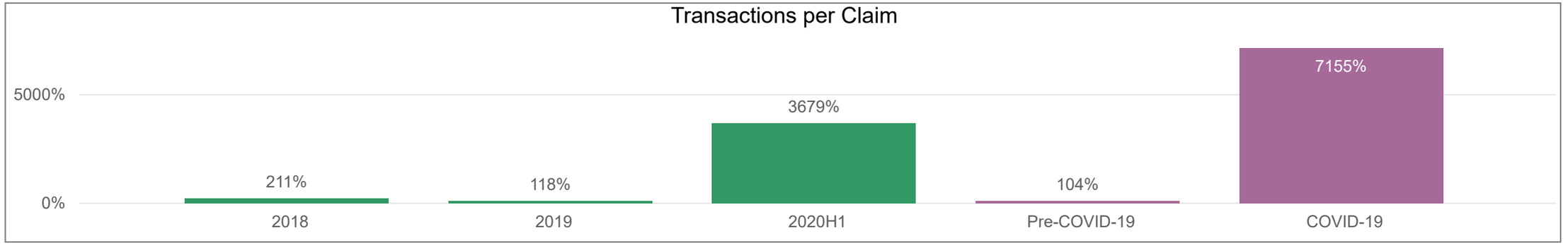
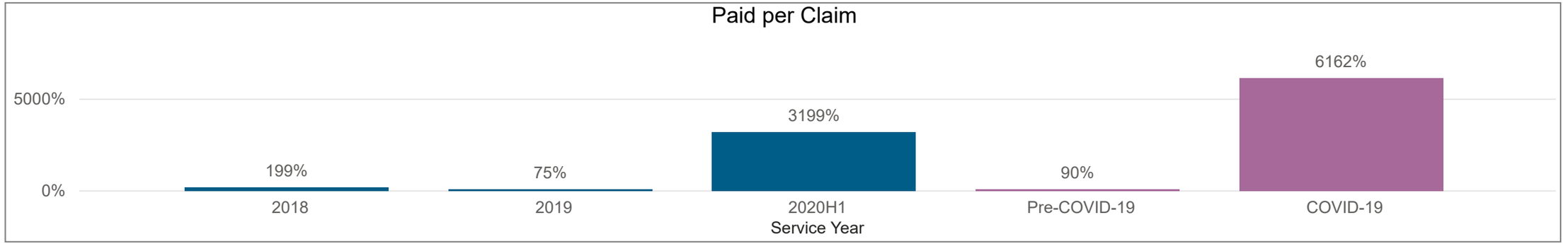
% Change in *Telemedicine* Cost per Claim (1.3% of All Medical Payments)

As of October 7, 2020







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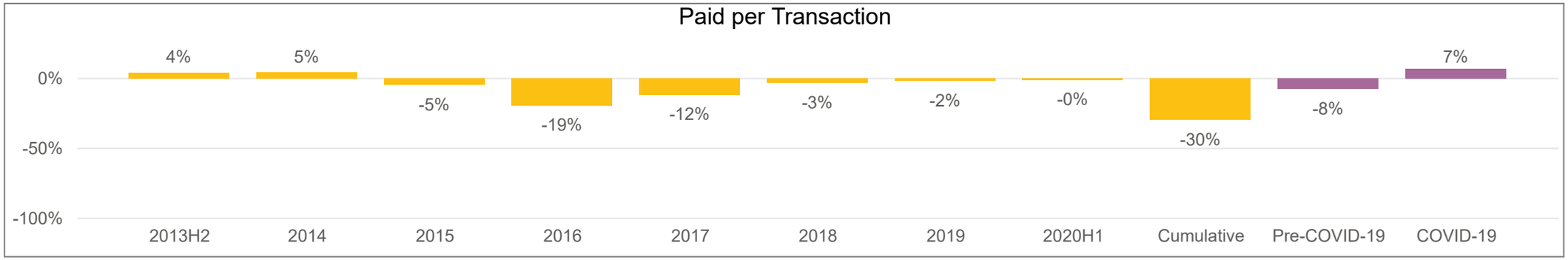
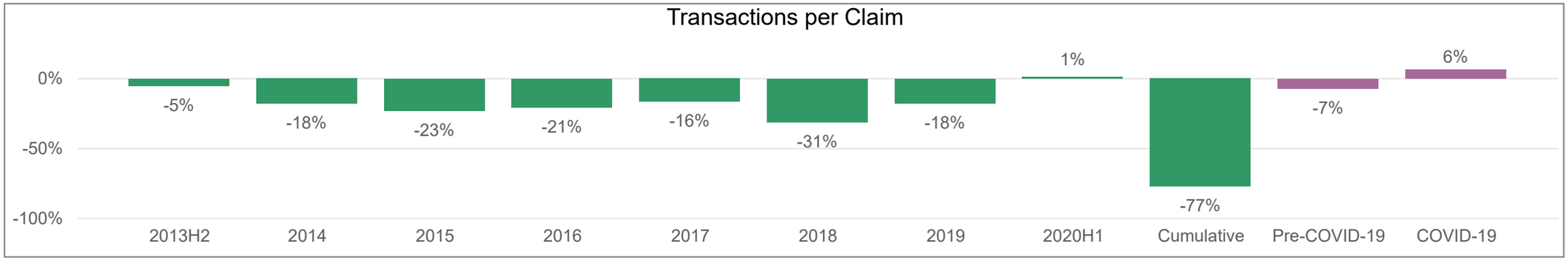
Note: Pre-COVID-19 telemedicine services are defined as any procedures with Place of Service 02 or modifier 95 (excluding Special Services & Reports, Medical Legal, Copy Services, and Interpreter Services). For telemedicine services after March 1, 2020, only services from CMS list of telehealth services are included pursuant to the DWC rules.

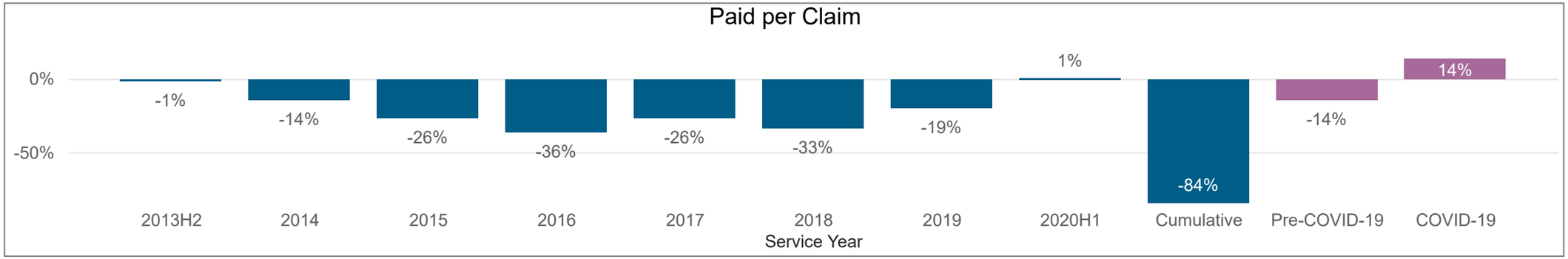
Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

% Change in *Pharmaceutical* Cost per Claim (4.0% of All Medical Payments)

As of October 7, 2020







Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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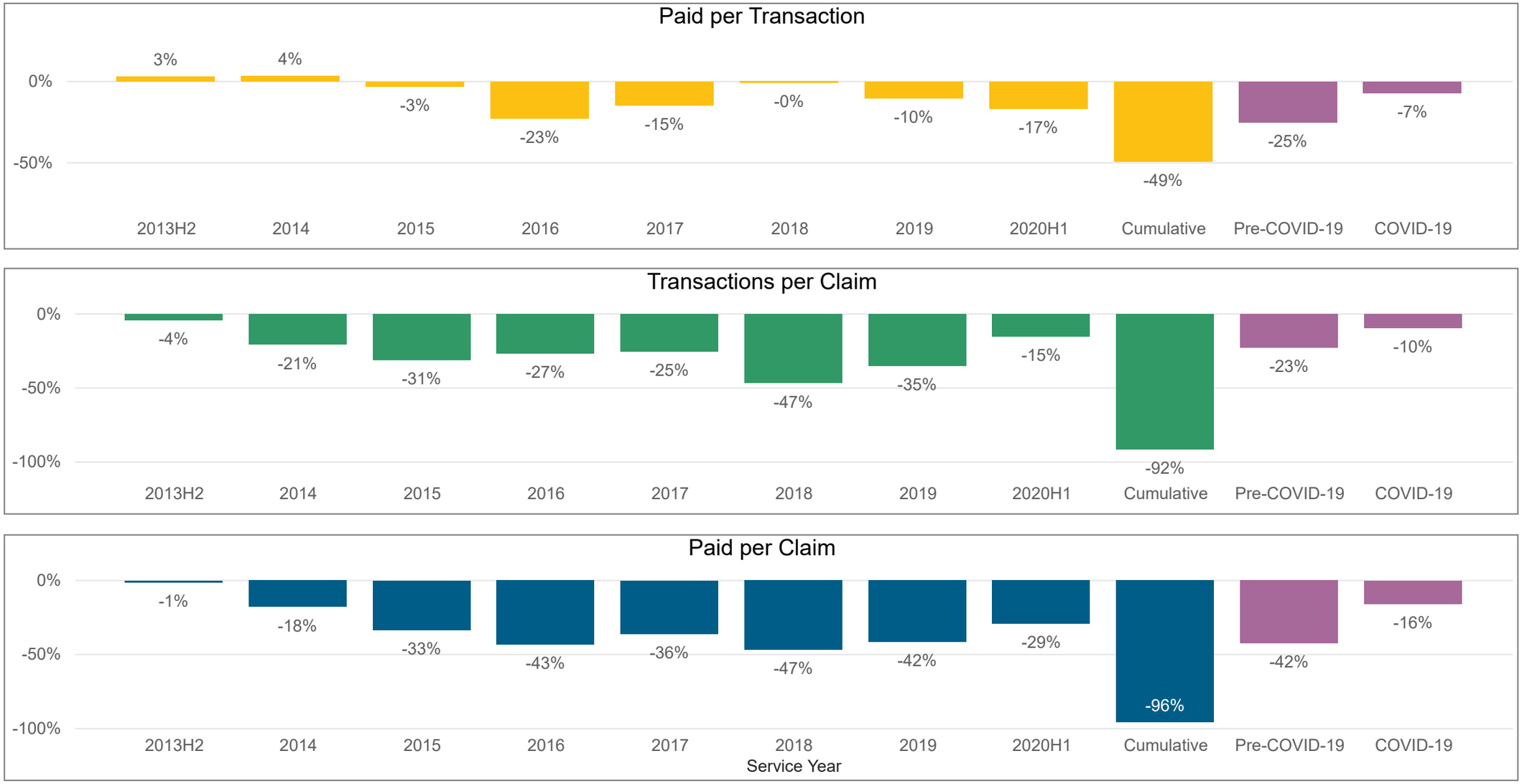
% Change in *Opioid* Cost per Claim (0.3% of All Medical Payments)

As of October 7, 2020



Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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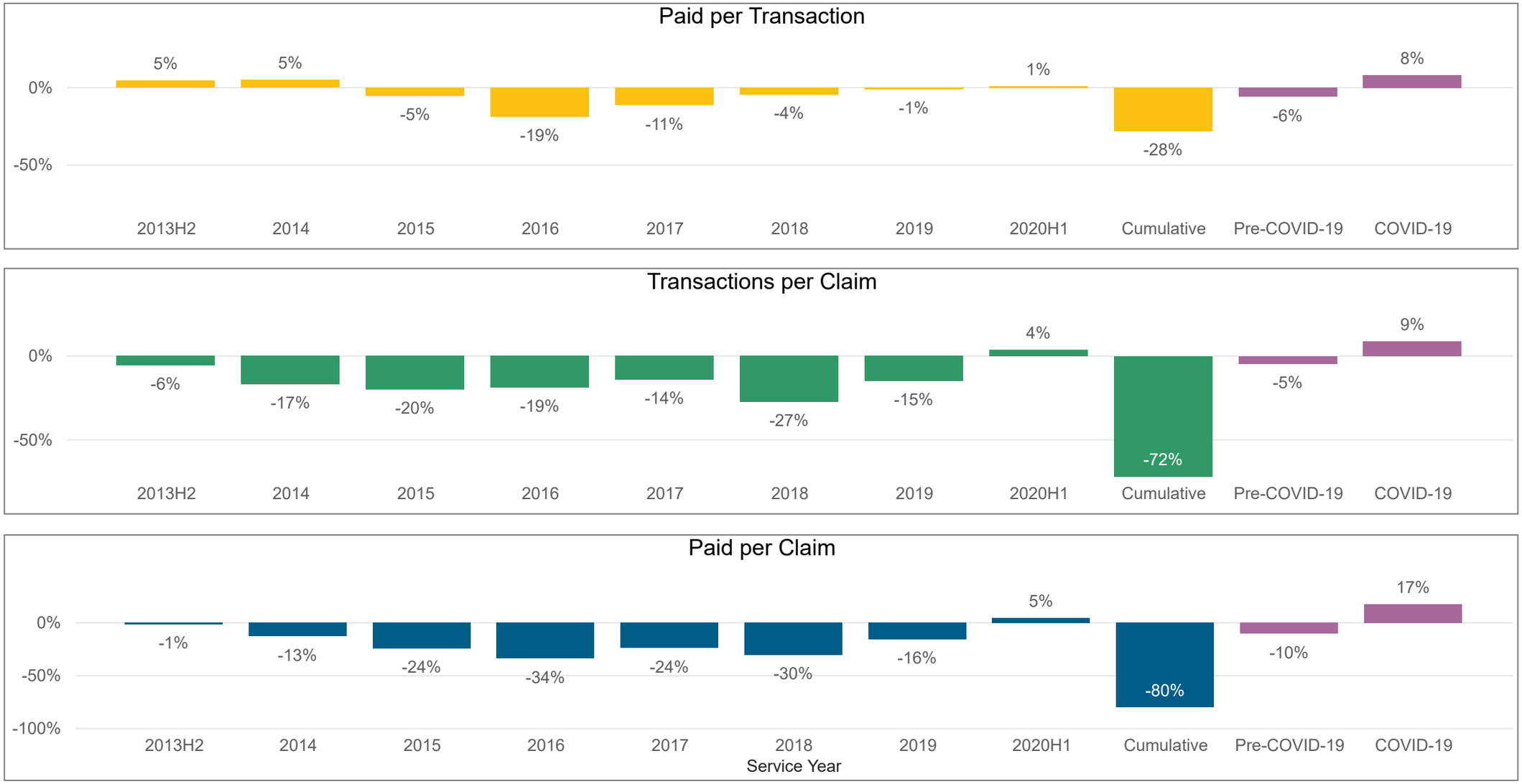
% Change in Non-*Opioid* Cost per Claim (3.7% of All Medical Payments)

As of October 7, 2020



Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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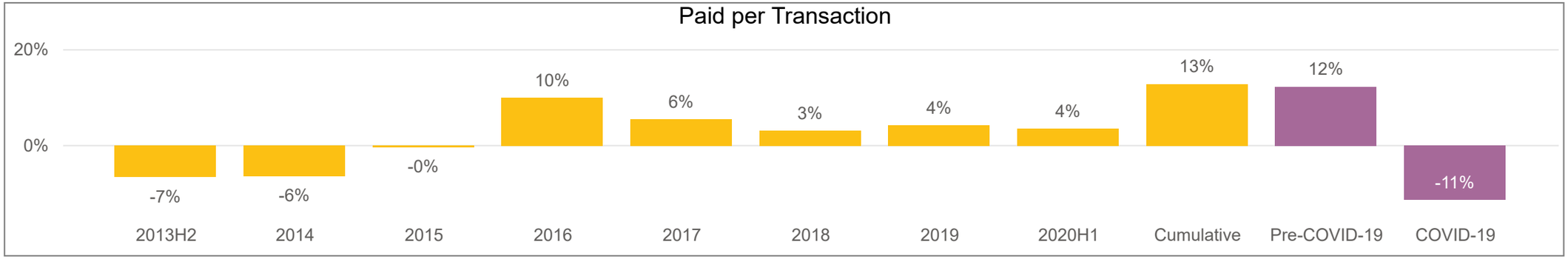
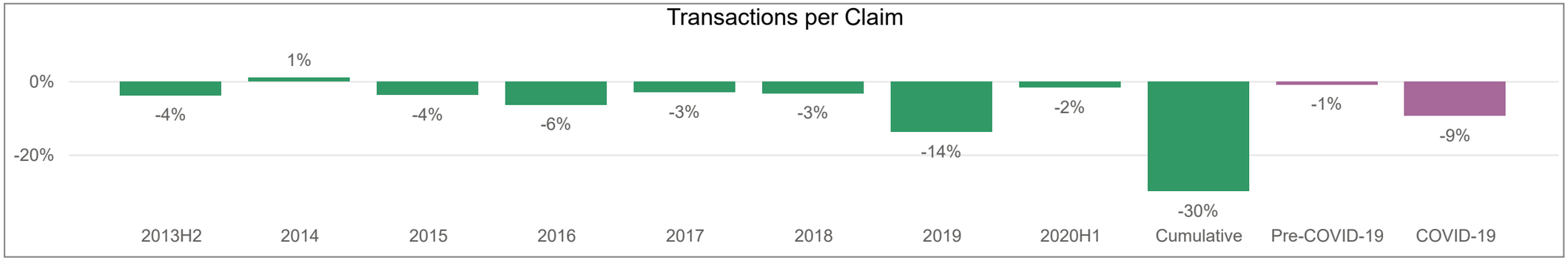
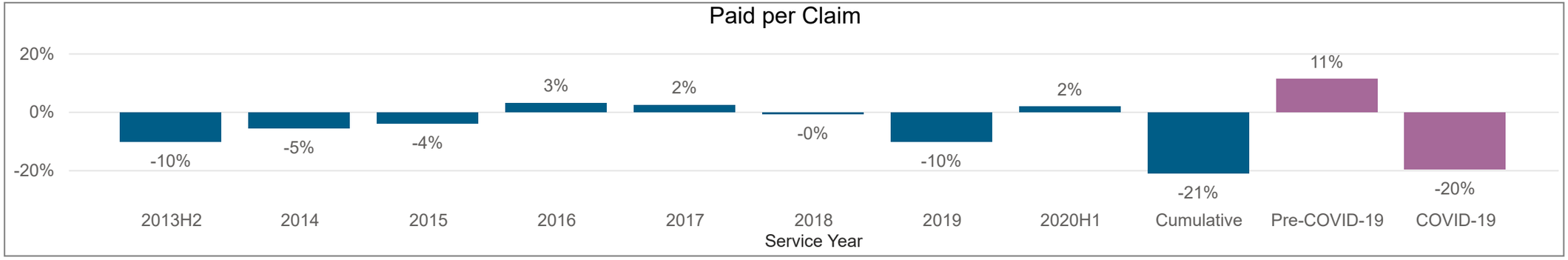
% Change in *Inpatient* Cost per Claim (transaction-based) (11% of All Medical Payments)

As of October 7, 2020







Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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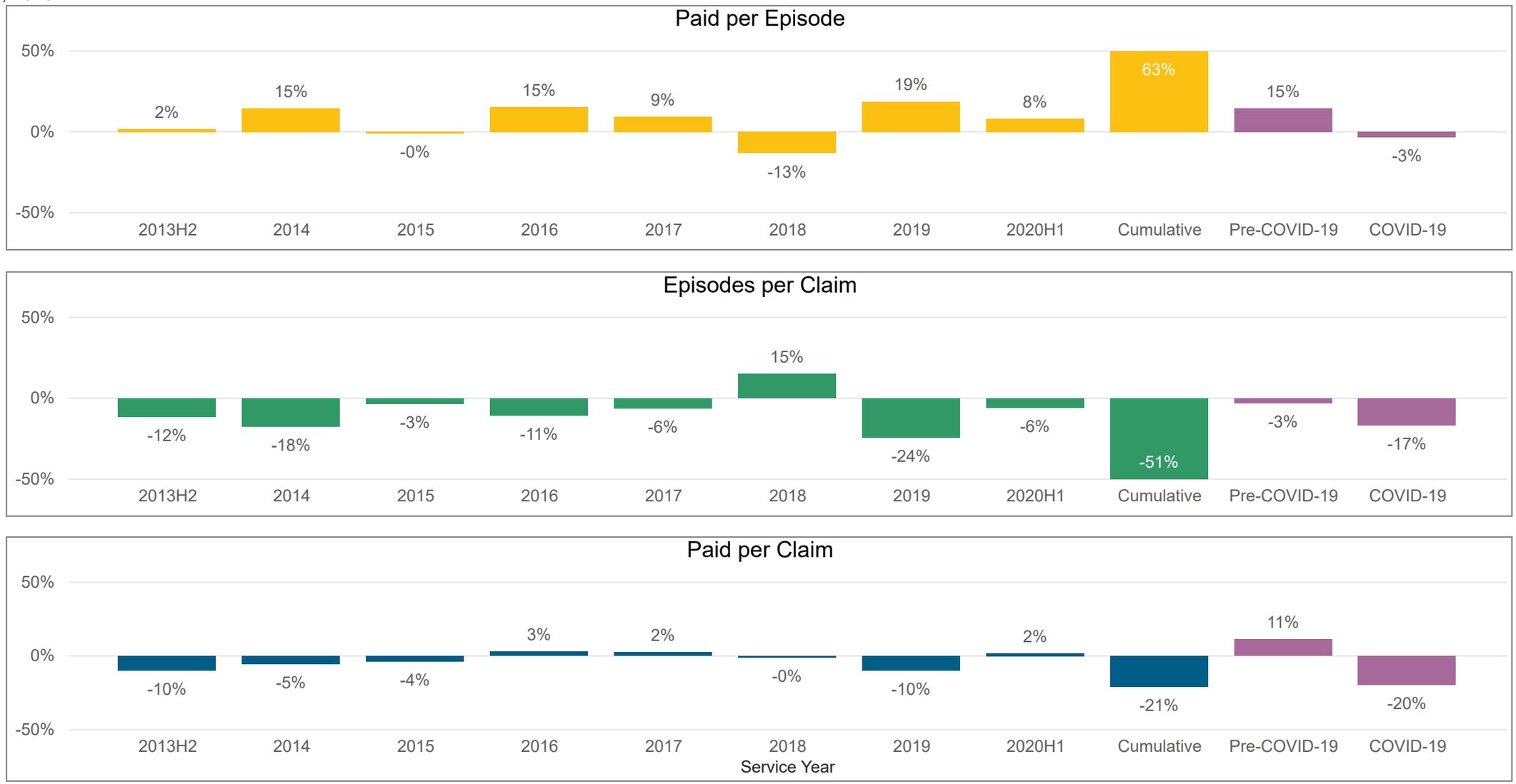
% Change in *Inpatient* Cost per Claim (episode-based) (11% of All Medical Payments)

As of October 7, 2020



Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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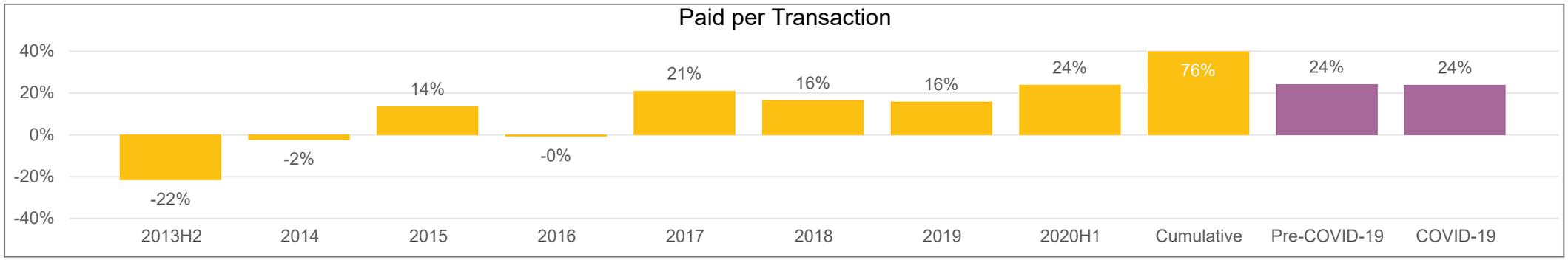
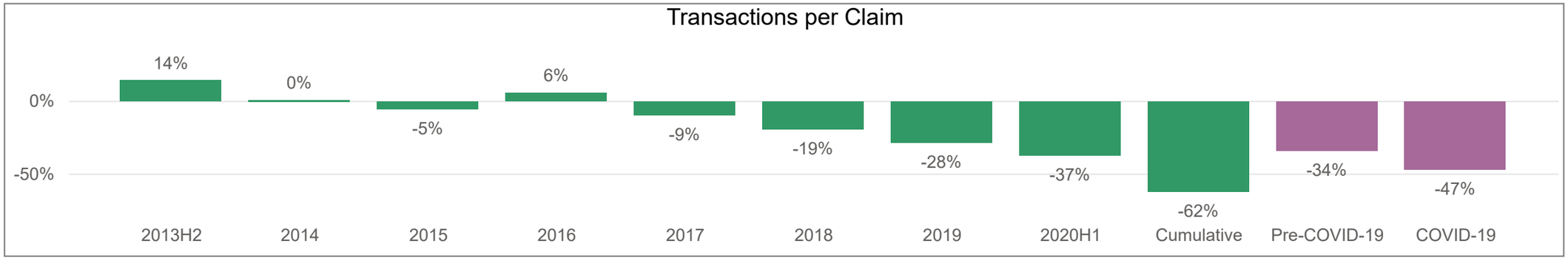
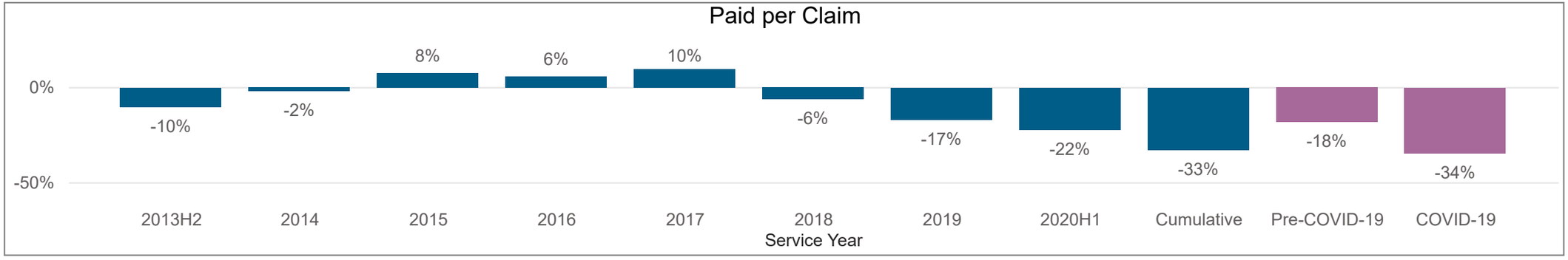
% Change in *Outpatient* Cost per Claim (7% of All Medical Payments)

As of October 7, 2020







Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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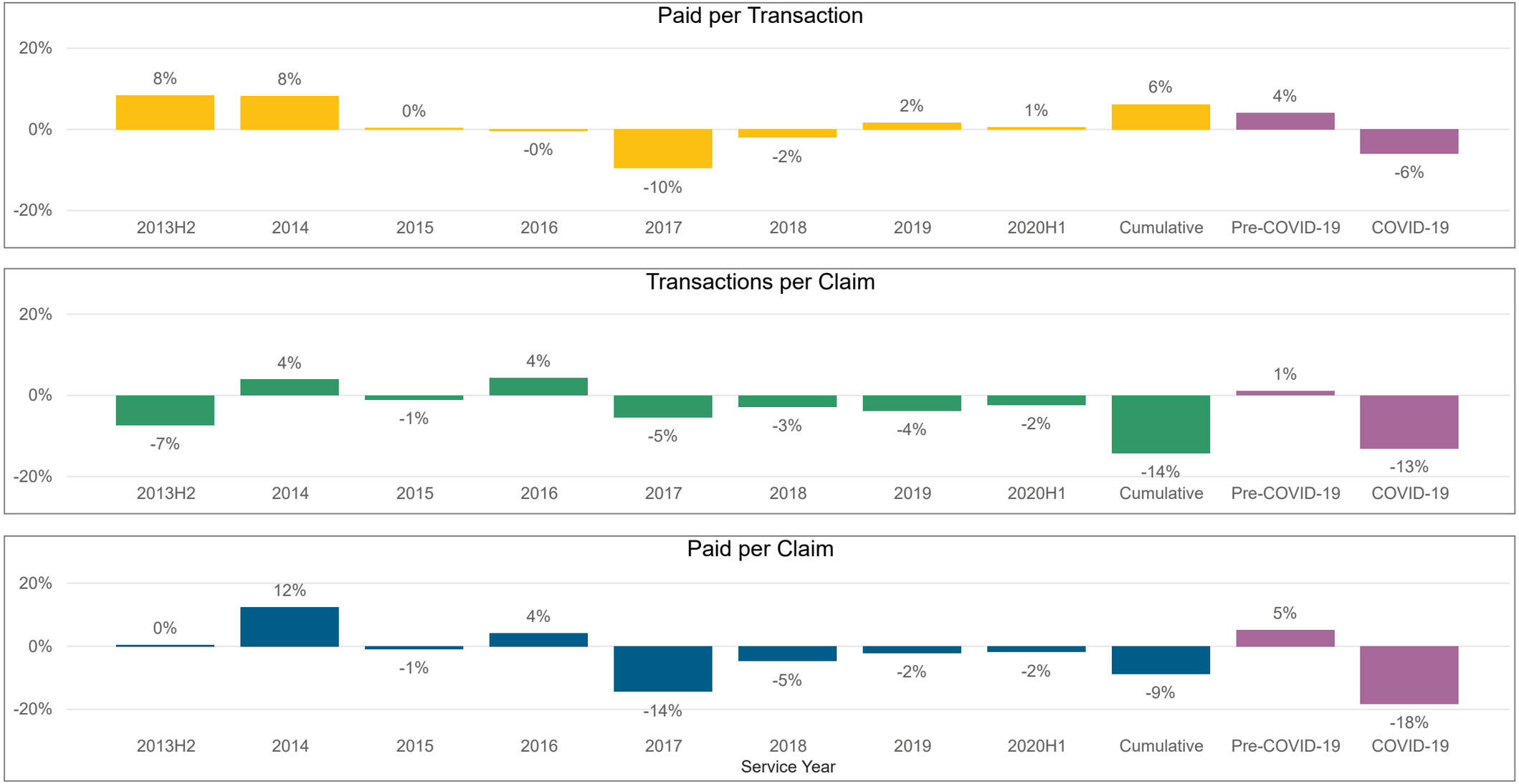
% Change in *Medical-Legal* Cost per Claim (11% of All Medical Payments)

As of October 7, 2020



Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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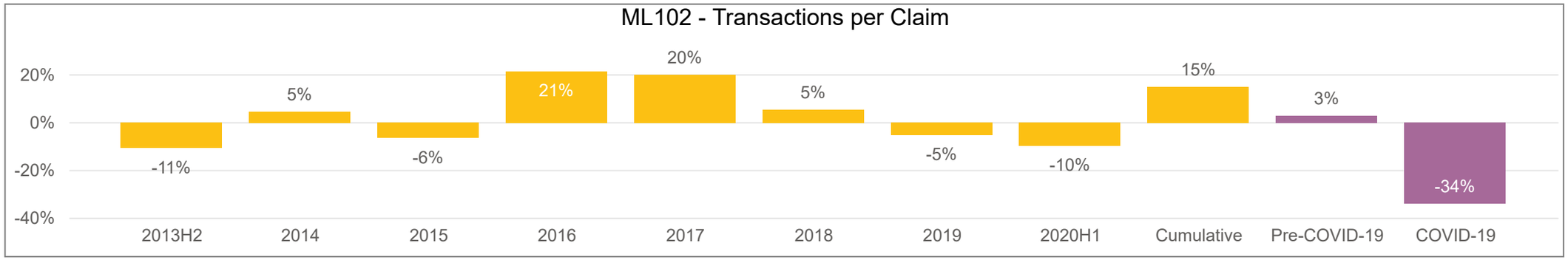
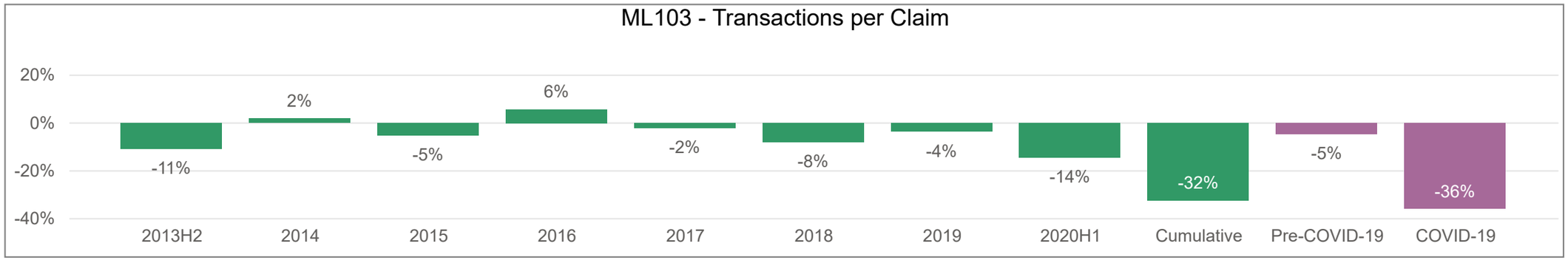
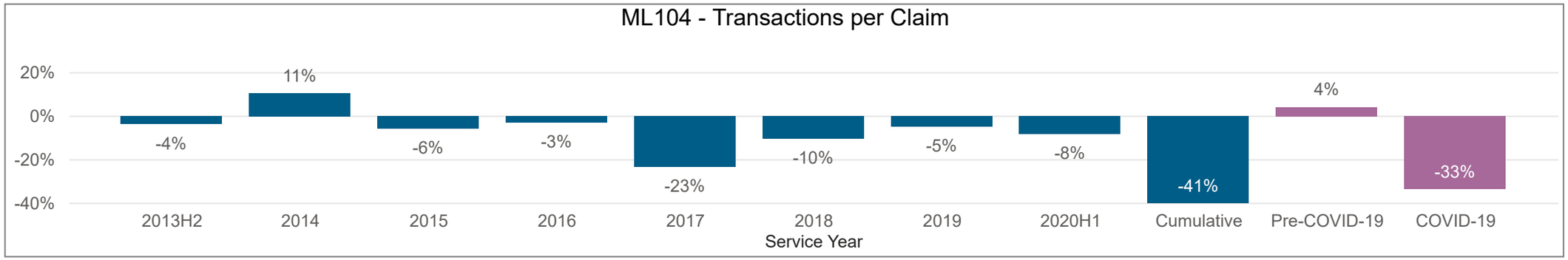
% Change in *ML102, ML103, ML104 Transactions* per Claim

As of October 7, 2020







Source: WCIRB medical transaction data collected beginning in the third quarter of 2012.

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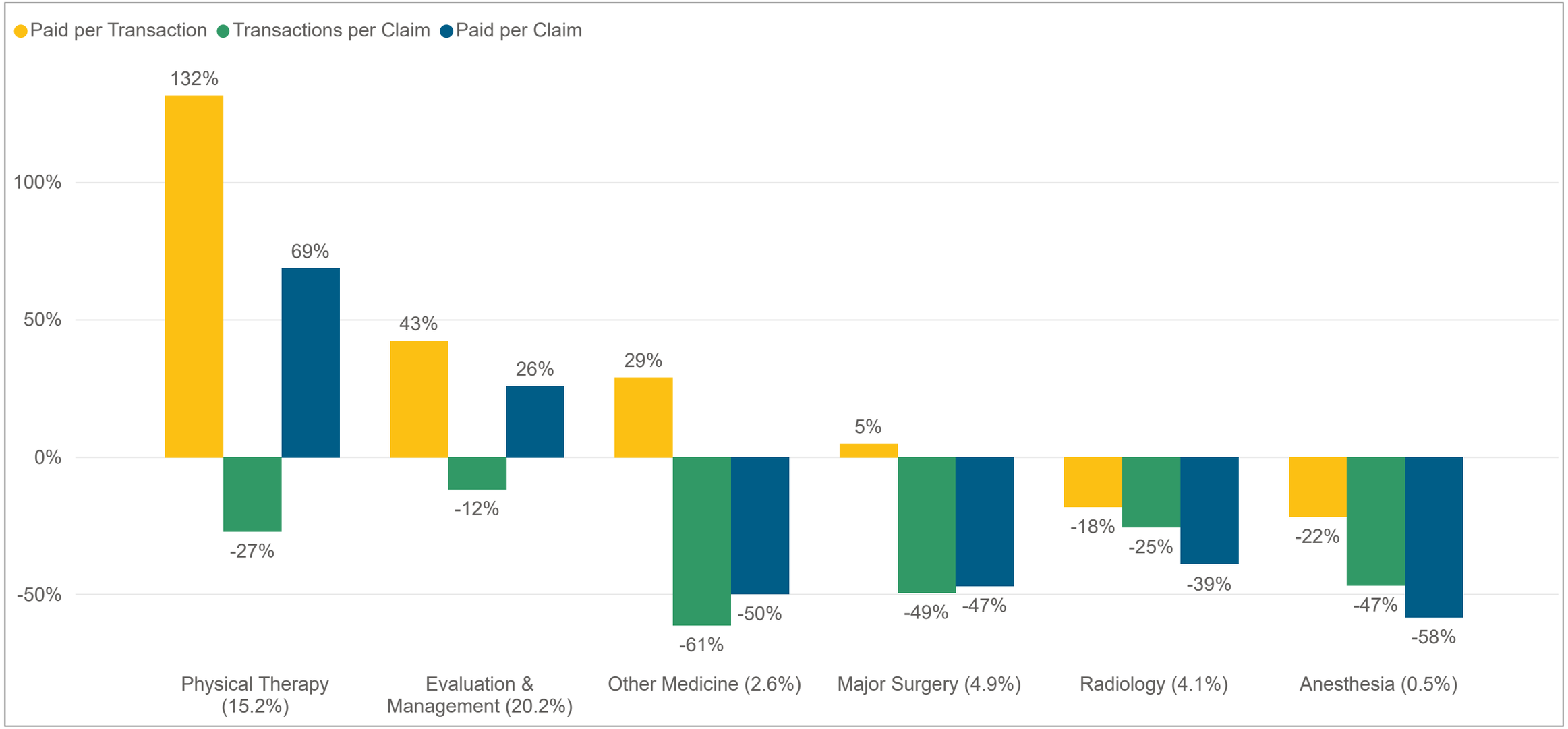
Cumulative % Change in Selected Components of Physician Services 2012H2 through 2020H1

As of October 7, 2020



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Source: WCIRB medical transaction data collected beginning in the third quarter of 2012. Percentage in the parentheses represents the share of total medical payments for respective physician service categories.

Item AC17-12-02
Legislative Cost Monitoring

At the August 1, 2019 meeting, the Committee reviewed updated cost monitoring information related to the Medical Treatment Utilization Schedule (MTUS) Drug Formulary adopted pursuant to Assembly Bill No. 1124 effective January 1, 2018. At that meeting, it was observed that consistent with the expectations of the new formulary impact, the prescriptions of exempt drugs increased while the prescriptions of non-exempt drugs decreased in 2018 compared to the pre-reform level. In addition, the decline in the shares of pharmaceutical payments to opioids, compounds, physician-dispensed and brand name drugs accelerated in 2018 compared to prior years. The Committee was advised that the review of the MTUS Drug Formulary was based on one year of post-reform data and the WCIRB staff will update the review once another full year of post-reform data is available.

At the meeting, staff will present an update to the cost impact analysis of the MTUS Drug Formulary, using medical transaction data through March 14, 2020, the pre-pandemic period.

Item AC19-12-02
Review of ULAE Projection Methods

Over the last several years, the WCIRB has made a number of changes to the data collection process for ULAE to more accurately compile the ULAE data appropriate for pure premium ratemaking. Although the Committee reviews the ULAE projection each year in preparation of the annual pure premium rate filing, in part due to this transition of the data collection process, a comprehensive review of the ULAE projection methodology had not been undertaken for several years. Since the ULAE data reviewed over the last few years reflects a generally consistent process, in 2019 staff conducted an initial analysis of ULAE projection methodologies for potential enhancements. At the December 5, 2019 meeting, the Committee reviewed the analysis and recommended follow-up analysis in several areas for 2020. Staff's follow-up analysis and recommendations are summarized below.

Overview of Methods

The WCIRB primarily utilizes two methods to project ULAE. The first method is based on the relationship between paid ULAE and open indemnity claim counts (open count method). This approach assumes calendar year ULAE is a function of the number of open indemnity claims at the beginning of the calendar year. The number of open indemnity claims is projected for the next three calendar years based on (a) projected claim frequency changes and (b) estimated claim development and claim settlement rate patterns. The average ULAE paid per open indemnity claim in future years is projected based on historical ULAE paid per open indemnity claim amounts and changes in statewide average wage levels. The average ULAE per open indemnity claim and number of open indemnity claims projected for each of the next three calendar years are multiplied together to compute the total projected ULAE. The projected ULAE for the upcoming policy year is based on the average of the most recent two calendar years. This is further adjusted to the estimated average payment date of claims occurring in the upcoming policy year using projected wage level changes to adjust the projected average paid ULAE amounts.

The second method is based on the relationship between ULAE and paid losses (paid loss method). This approach assumes larger claims incur more claims handling costs than smaller claims and, as a result, ULAE is more highly correlated with paid loss amounts than open claim counts. This approach projects calendar year paid loss to premium ratios for the next three calendar years based on (a) the latest year paid development pattern and (b) projected accident year loss ratios, premium on-level factors, and loss on-level factors from the loss projection methodology. The projected calendar year ULAE to loss ratios are based on the average of the most recent two calendar years (with no trend applied). The projected calendar year ULAE to loss ratios are multiplied by the projected calendar year loss to premium ratios to compute the projected calendar year ULAE to premium ratios. The projected ULAE for the upcoming policy year is based on the average of the most recent two calendar years.

In the last several pure premium rate filings, the WCIRB has based the projected ULAE to loss ratio on the average of the ratios produced by the open count method and the paid loss method. In addition, the WCIRB has excluded the ULAE experience of the State Compensation Insurance Fund in the average ULAE amounts used in these approaches but the claim frequency and loss ratio projections are on a statewide basis.

Review of Open Count Method

At the December 5, 2019 meeting, the Committee reviewed retrospective comparisons of the primary frequency and ULAE severity trend assumptions of the open count method. Exhibit 1 shows the retrospective comparison of the claim frequency projections updated to include calendar year 2019 information. In this approach, future calendar years are projected using the latest available historical calendar years and compared to the actual emergence. Included in Exhibit 1 are alternative methods based on (a) a three-year average selection of claim count development factors and (b) the number of

open indemnity claims in the prior year and the estimated incremental claim closing pattern from the latest year. In all methods, the indemnity claim frequency changes are based on the WCIRB's econometric claim frequency model. On average for the years reviewed, the method based on incremental closing rates is significantly more accurate than the WCIRB's current approach, which is consistent with the results reviewed at the December 5, 2019 meeting. Staff recommends using the incremental closing rate approach in the open count method going forward.

At the August 10, 2020 meeting, a Committee member noted that the claim counts used in the open count method are trended for claim frequency changes but not for growth in exposure levels. Staff reviewed the trending assumptions to ensure the trends are applied consistently. In the open count method, claim counts are trended from the latest available accident year to the projection period. However, the premiums used to derive the projected loss and ULAE amounts that underlie the projected ULAE to loss ratio are based on the latest calendar year and are not trended forward for anticipated changes in exposure. As a result, staff believes using trends based only on claim frequency changes continues to be appropriate.

Exhibits 2.1 and 2.2 show retrospective comparisons of the ULAE severity trend assumptions, which were first reviewed at the December 5, 2019 meeting and updated to include calendar year 2019 information. The ULAE severity projected in Exhibit 2.1 for the WCIRB's current approach is based on statewide average wage level changes forecast by the UCLA Anderson School of Business and California Department of Finance for all industries applied to the latest two calendar years. Also shown in Exhibit 2.1 is an approach based on projecting from the latest calendar year. Exhibit 2.2 shows an alternative wage series based on Classification 8822, *Insurance Companies*, which is projected based on the WCIRB's wage and payroll report for classification ratemaking purposes.[1] None of the alternative ULAE severity trend methods reviewed were significantly more accurate than the WCIRB's current approach. Staff recommends continuing with the current approach, at least until such time that sufficient ULAE data reported under the new data call changes is available to project future ULAE severity trends.

In the open count method, once the paid ULAE severity is trended to the calendar period in which the claims will occur,[2] it is further trended to the estimated average ULAE payment date on these claims. This accounts for the fact that ULAE will be paid on these claims for many years into the future. This trending period is currently estimated based on the average loss payment date from the projected indemnity and medical loss development factors. The projected average indemnity and medical loss payment date as well as the projected ALAE payment date as of March 31, 2020 experience are shown in Table 1. The 25th and 75th percentiles are also shown for informational purposes. The average payment date for ALAE is only modestly higher than the average for losses.

Table 1: Number of Years to Reach Specified Percentiles of Payments
Data as of March 31, 2020

Component	25th Percentile	50th Percentile	75th Percentile
Indemnity	1.6	**2.7**	5.4
Medical	1.4	**3.0**	9.1
Total Losses	1.5	**2.9**	7.5
ALAE	1.7	**3.1**	8.0

Staff reviewed other potential bases to compare the average date of ULAE payment such as claim settlement rates and incurred loss development. Staff did not believe claim settlement rates to be an appropriate basis given that smaller claims tend to be settled quicker, and larger claims that are open later tend to incur more ULAE. For incurred loss development, given that incurred development can be

[1] This series is based on mapping American Community Survey wages by occupation to WCIRB classifications and projected using a time series model.
[2] For example, calendar years 2021 and 2022 for policies incepting in 2021.

negative at later periods and that these reserve takedowns likely incur ULAE, it may not be an appropriate basis for this measure either. Based on this review, staff did not find a significant rationale for deviating from the current approach in estimating the average duration of ULAE payments based on paid loss development.

Review of Paid Loss Method

Exhibit 3.1 and 3.2 show retrospective comparisons of calendar year paid loss ratios projected in the paid loss method, which were first reviewed at the December 5, 2019 meeting and updated to include calendar year 2019 information. Exhibit 3.1 shows the retrospective comparison of paid indemnity and medical loss ratios for the WCIRB's current approach which is based on applying the latest year unadjusted paid loss development factors to project the next calendar years' ratios. The differences from the actual loss ratios were significantly higher for the 2010 through 2014 evaluations, which coincided with periods when loss development patterns were changing as a result of Senate Bill No. 863. This may indicate that this approach does not work well during periods of transition. Exhibit 3.2 shows an alternative approach for calendar year medical loss ratios using paid medical loss development factors with an additional adjustment for estimated reform impacts. This alternative approach appears to be somewhat more accurate for medical compared to the current approach. Staff recommends reflecting the adjusted medical development factors in this approach.

Exhibit 4 shows a retrospective comparison of paid ULAE ratios projected in the current paid loss method which is based on the average of the most recent two calendar years. Also shown in Exhibit 4 is an alternative approach based on using the latest year only, which was not significantly more accurate than the current approach. Both approaches tended to be within 1 to 2 percentage points of the actual paid ULAE ratio and not significantly biased low or high. This suggests that there does not appear to be a significant trend in recent paid ULAE to paid loss ratios. As a result, staff recommends continuing to not trend these ratios in the paid loss method.

Although paid ULAE is correlated with paid loss amounts, the current paid loss method requires the projection of calendar year paid loss ratios which includes a number of assumptions. As shown in Exhibits 3.1 and 3.2, projections of calendar year paid loss ratios can be significantly overstated or understated when paid loss development patterns are changing. The projections based on this approach have also tended to be outliers compared to other projections reviewed and recently observed calendar year paid ULAE to paid loss ratios. A significantly simpler paid loss-based approach would be to utilize an average of recent calendar paid ULAE to paid loss ratios, which is also an alternative method reviewed by the Committee and included in pure premium rate filings. Table 2 shows a comparison of projected ULAE-to-loss ratios based on the open count method, current paid loss method, and alternative paid loss-based methods that utilize recent calendar year paid ULAE to paid loss ratios. Also shown in Table 2 are averages of the open count methods with some of the paid loss-based methods.

Table 2: Projected ULAE to Loss Ratios[3]

Policy Year	Open Count Method (1)	Current Paid Loss Method (2)	Use Latest Calendar Year (3)	Use Avg. of Latest 2 CYs (4)	Average of (1) and (2)	Average of (1) and (4)
2017	14.6%	11.6%	13.7%	13.4%	13.1%	14.0%
2018	13.1%	10.7%	13.0%	13.4%	11.9%	13.2%
2019	14.9%	12.2%	14.4%	13.7%	13.6%	14.3%
2020	15.6%	13.8%	14.8%	14.6%	14.7%	15.1%
2021	14.1%	13.2%	13.1%	14.0%	13.7%	14.0%
Std Dev	0.0093	0.0124	0.0079	0.0051	0.0101	0.0067

[3] Projections for policy years 2017 and 2018 have been adjusted to reflect the changes to the Expense Call to apportion countrywide paid ULAE using open indemnity claim counts to be comparable to the more recent projections.

As shown by the standard deviations in Table 2, the current paid loss method is the least stable of the alternatives reviewed, while the method based on an average of the latest two calendar years' paid ULAE to paid loss ratios is the most stable. In addition, the current paid loss method is somewhat of an outlier compared to the other methods reviewed. Although staff recommends continuing to average the ULAE projection based on the open count method with a projection based on paid losses, staff believes the latest two calendar years method (a) has been more stable than the current paid loss method during a period with no indication of a significant trend in paid ULAE ratios, (b) simplifies the approach significantly as it does not require additional assumptions to project future calendar year loss ratios, and (c) is a more direct comparison of paid ULAE to paid losses. As a result, staff recommends using this approach in lieu of the current paid loss method.

Retrospective Testing of Number of Open Indemnity Claims at Beginning of the Year

Latest-Yr. Claim Counts Development[1]				3-Yr. Avg. Claim Counts Development[2]				Estimated Incremental Closed Counts from Prior Open Counts[3]			
CY	Projected	Actual	% Diff.	CY	Projected	Actual	% Diff.	CY	Projected	Actual	% Diff.
Projection based on data as of 12/31/2011:											
2013	326,114	359,090	-9.2%	2013	338,408	359,090	-5.8%	2013	348,539	359,090	-2.9%
2014	319,012	358,304	-11.0%	2014	329,988	358,304	-7.9%	2014	342,030	358,304	-4.5%
Projection based on data as of 12/31/2012:											
2014	340,856	358,304	-4.9%	2014	334,103	358,304	-6.8%	2014	368,036	358,304	2.7%
2015	340,264	364,890	-6.7%	2015	333,552	364,890	-8.6%	2015	376,367	364,890	3.1%
Projection based on data as of 12/31/2013:											
2015	341,577	364,890	-6.4%	2015	343,448	364,890	-5.9%	2015	350,292	364,890	-4.0%
2016	344,236	368,231	-6.5%	2016	345,865	368,231	-6.1%	2016	340,368	368,231	-7.6%
Projection based on data as of 12/31/2014:											
2016	352,639	368,231	-4.2%	2016	353,166	368,231	-4.1%	2016	372,246	368,231	1.1%
2017	356,016	362,486	-1.8%	2017	356,948	362,486	-1.5%	2017	377,079	362,486	4.0%
Projection based on data as of 12/31/2015:											
2017	366,085	362,486	1.0%	2017	362,722	362,486	0.1%	2017	378,955	362,486	4.5%
2018	369,470	350,088	5.5%	2018	366,765	350,088	4.8%	2018	386,623	350,088	10.4%
Projection based on data as of 12/31/2016:											
2018	364,035	350,088	4.0%	2018	368,293	350,088	5.2%	2018	362,225	350,088	3.5%
2019	365,280	332,829	9.8%	2019	370,374	332,829	11.3%	2019	359,185	332,829	7.9%
Projection based on data as of 12/31/2017:											
2019	352,700	332,829	6.0%	2019	367,029	332,829	10.3%	2019	334,445	332,829	0.5%
2020	355,212	321,918	10.3%	2020	356,357	321,918	10.7%	2020	315,667	321,918	-1.9%
Projection based on data as of 12/31/2018:											
2020	337,730	321,918	4.9%	2020	369,326	333,049	10.9%	2020	334,832	333,049	0.5%
2021	337,460	n/a	n/a	2021	371,491	n/a	n/a	2021	316,154	n/a	n/a
All Years Average:			6.2%				6.3%				4.2%
2015-2017 Evaluations:			5.9%				7.6%				4.2%

Notes:

[1] The method used in the January 1, 2021 Pure Premium Rate Filing.

[2] The WCIRB's current method but using three-year average claim count development factors.

[3] Based on estimating the incremental proportion of closed claims from the prior year applied to the current number of open claims.

Source: WCIRB quarterly experience calls

Retrospective Testing of Paid ULAE per Open Indemnity Claim

Trending from Latest 2 Years				Trending from Latest Year			
CY	Projected	Actual	% Diff.	CY	Projected	Actual	% Diff.
Projection based on data as of 12/31/2011:							
2012	3,041	3,038	0.1%	2012	3,095	3,038	1.9%
2013	3,093	3,292	-6.0%	2013	3,147	3,292	-4.4%
2014	3,173	2,947	7.7%	2014	3,229	2,947	9.6%
Projection based on data as of 12/31/2012:							
2013	3,123	3,292	-5.1%	2013	3,083	3,292	-6.3%
2014	3,198	2,947	8.5%	2014	3,157	2,947	7.1%
2015	3,284	3,125	5.1%	2015	3,243	3,125	3.8%
Projection based on data as of 12/31/2013:							
2014	3,270	2,947	11.0%	2014	3,377	2,947	14.6%
2015	3,354	3,125	7.3%	2015	3,464	3,125	10.8%
2016	3,451	3,019	14.3%	2016	3,564	3,019	18.0%
Projection based on data as of 12/31/2014:							
2015	3,252	3,125	4.1%	2015	3,029	3,125	-3.1%
2016	3,396	3,019	12.5%	2016	3,164	3,019	4.8%
2017	3,547	3,352	5.8%	2017	3,305	3,352	-1.4%
Projection based on data as of 12/31/2015:							
2016	3,274	3,019	8.4%	2016	3,033	3,019	0.4%
2017	3,422	3,352	2.1%	2017	3,169	3,352	-5.4%
2018	3,555	3,518	1.1%	2018	3,293	3,518	-6.4%
Projection based on data as of 12/31/2016:							
2017	3,209	3,352	-4.3%	2017	3,252	3,352	-3.0%
2018	3,344	3,518	-4.9%	2018	3,389	3,518	-3.7%
2019	3,497	3,272	6.9%	2019	3,544	3,272	8.3%
Projection based on data as of 12/31/2017:							
2018	3,243	3,518	-7.8%	2018	3,145	3,518	-10.6%
2019	3,369	3,272	3.0%	2019	3,267	3,272	-0.1%
2020	3,477	n/a	n/a	2020	3,371	n/a	n/a
Projection based on data as of 12/31/2018:							
2019	3,357	3,272	2.6%	2019	3,476	3,272	6.2%
2020	3,478	n/a	n/a	2020	3,601	n/a	n/a
2021	3,599	n/a	n/a	2021	3,726	n/a	n/a
All Years Average:			6.1%				6.2%
2015-2018 Evaluations:			4.6%				4.9%

Source: WCIRB quarterly experience and expense calls

Retrospective Testing of Paid ULAE per Open Indemnity Claim based on Different Wage Indices for ULAE Projections

Trending from Latest 2 Years using UCLA Statewide Wage Projection[1]				Trending from Latest 2 Years using Wage Projection for Classification 8822[2]			
CY	Projected	Actual	% Diff.	CY	Projected	Actual	% Diff.
Projection based on data as of 12/31/2011:							
2012	3,041	3,038	0.1%				
2013	3,093	3,292	-6.0%				
2014	3,173	2,947	7.7%				
Projection based on data as of 12/31/2012:							
2013	3,123	3,292	-5.1%				
2014	3,198	2,947	8.5%				
2015	3,284	3,125	5.1%				
Projection based on data as of 12/31/2013:							
2014	3,270	2,947	11.0%				
2015	3,354	3,125	7.3%				
2016	3,451	3,019	14.3%				
Projection based on data as of 12/31/2014:							
2015	3,252	3,125	4.1%				
2016	3,396	3,019	12.5%				
2017	3,547	3,352	5.8%				
Projection based on data as of 12/31/2015:							
2016	3,274	3,019	8.4%	2016	3,211	3,019	6.4%
2017	3,422	3,352	2.1%	2017	3,266	3,352	-2.6%
2018	3,555	3,518	1.1%	2018	3,338	3,518	-5.1%
Projection based on data as of 12/31/2016:							
2017	3,209	3,352	-4.3%	2017	3,113	3,352	-7.1%
2018	3,344	3,518	-4.9%	2018	3,183	3,518	-9.5%
2019	3,497	3,272	n/a	2019	3,254	3,272	-0.6%
Projection based on data as of 12/31/2017:							
2018	3,243	3,518	-7.8%	2018	3,168	3,518	-10.0%
2019	3,369	3,272	3.0%	2019	3,238	3,272	-1.0%
2020	3,477	n/a	n/a	2020	3,310	n/a	n/a
Projection based on data as of 12/31/2018:							
2019	3,357	3,272	2.6%	2019	3,304	3,272	1.0%
2020	3,478	n/a	n/a	2020	3,392	n/a	n/a
2021	3,599	n/a	n/a	2021	3,482	n/a	n/a
All Years Average:			6.1%				
2015-2017 Evaluations:			4.6%				4.8%

Notes:

[1] Wage projections with 12/31/2018 data were derived based on information from both the UCLA Anderson School of Business and te California Department of Finance.

[2] Projection for Classification 8822, Insurance Companies, based on WCIRB wage and payroll report.

Source: WCIRB quarterly experience and expense calls

Retrospective Testing of CY Paid Loss Ratio

Projection based on data as of 12/31/2010

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2011	44.1%	41.8%	2.4%	28.4%	28.3%	0.1%
2012	42.6%	39.1%	3.5%	27.4%	26.2%	1.2%
2013	40.3%	35.4%	4.9%	25.9%	23.1%	2.8%

Projection based on data as of 12/31/2011

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2012	41.7%	39.1%	2.6%	27.8%	26.2%	1.6%
2013	40.1%	35.4%	4.8%	27.0%	23.1%	3.9%
2014	38.0%	30.0%	8.0%	25.7%	20.3%	5.4%

Projection based on data as of 12/31/2012

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2013	37.4%	35.4%	2.1%	26.8%	23.1%	3.8%
2014	36.1%	30.0%	6.1%	26.5%	20.3%	6.2%
2015	34.7%	27.7%	6.9%	25.9%	20.0%	5.9%

Projection based on data as of 12/31/2013

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2014	33.9%	30.0%	3.9%	23.6%	20.3%	3.2%
2015	33.6%	27.7%	5.9%	23.8%	20.0%	3.8%
2016	33.2%	26.2%	7.0%	23.8%	19.8%	3.9%

Projection based on data as of 12/31/2014

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2015	30.0%	27.7%	2.2%	20.8%	20.0%	0.8%
2016	30.0%	26.2%	3.8%	21.1%	19.8%	1.3%
2017	30.0%	26.1%	4.0%	21.2%	20.8%	0.4%

Projection based on data as of 12/31/2015

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2016	27.7%	26.2%	1.5%	20.4%	19.8%	0.6%
2017	28.1%	26.1%	2.0%	20.9%	20.8%	0.1%
2018	28.7%	26.0%	2.8%	21.4%	21.4%	0.0%

Projection based on data as of 12/31/2016

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2017	26.7%	26.1%	0.6%	20.7%	20.8%	-0.1%
2018	27.8%	26.0%	1.9%	21.8%	21.4%	0.3%
2019	28.8%	28.0%	---	22.8%	23.5%	---

Projection based on data as of 12/31/2017

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2018	27.1%	26.0%	1.1%	21.8%	21.4%	0.4%
2019	28.1%	28.0%	0.1%	22.8%	23.5%	-0.7%
2020	28.7%	---	---	23.3%	---	---

Projection based on data as of 12/31/2018

CY	Proj. Med LR	Actual Med LR	Difference	Proj. Ind LR	Actual Ind LR	Difference
2019	26.5%	28.0%	-1.5%	22.1%	23.5%	-1.4%
2020	26.9%	---	---	22.4%	---	---
2021	27.0%	---	---	22.5%	---	---

Average Absolute Difference	Medical	Indemnity
All Yr Avg.	3.5%	2.1%
2013-2018	2.7%	1.2%

Source: WCIRB aggregate financial data and projections based on latest-year paid development.

Retrospective Testing of CY Paid Loss Ratio*

Projection based on data as of 12/31/2013

CY	Proj. Med LR	Actual Med LR	Difference
2014	31.9%	30.0%	1.9%
2015	31.5%	27.7%	3.7%
2016	30.9%	26.2%	4.7%

Projection based on data as of 12/31/2014

CY	Proj. Med LR	Actual Med LR	Difference
2015	28.7%	27.7%	1.0%
2016	28.6%	26.2%	2.4%
2017	28.5%	26.1%	2.5%

Projection based on data as of 12/31/2015

CY	Proj. Med LR	Actual Med LR	Difference
2016	27.4%	26.2%	1.2%
2017	27.7%	26.1%	1.7%
2018	28.4%	26.0%	2.4%

Projection based on data as of 12/31/2016

CY	Proj. Med LR	Actual Med LR	Difference
2017	27.2%	26.1%	1.1%
2018	28.4%	26.0%	2.4%
2019	29.5%	28.0%	1.5%

Projection based on data as of 12/31/2017

CY	Proj. Med LR	Actual Med LR	Difference
2018	28.0%	26.0%	2.0%
2019	29.0%	28.0%	1.0%
2020	29.7%	---	---

Projection based on data as of 12/31/2018

CY	Proj. Med LR	Actual Med LR	Difference
2019	27.7%	28.0%	-0.3%
2020	28.2%	---	---
2021	28.4%	---	---

Average Absolute Difference	
2013-2018	2.0%

* Medical age-to-age development factors are adjusted for the impact of pharmaceutical cost reduction and the SB 1160 lien reforms

Source: WCIRB aggregate financial data and projections based on latest-year paid development.

Retrospective Testing of ULAE to Loss Ratios

Projection based on data as of 12/31/2011

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2012	13.9%	13.7%	13.6%	-0.2%	-0.3%
2013	14.8%	13.7%	13.6%	-1.0%	-1.2%
2014	13.1%	13.7%	13.6%	0.6%	0.5%

Projection based on data as of 12/31/2012

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2013	14.8%	13.9%	13.8%	-0.9%	-0.9%
2014	13.1%	13.9%	13.8%	0.8%	0.7%
2015	13.7%	13.9%	13.8%	0.2%	0.1%

Projection based on data as of 12/31/2013

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2014	13.1%	14.8%	14.3%	1.7%	1.2%
2015	13.7%	14.8%	14.3%	1.0%	0.6%
2016	13.0%	14.8%	14.3%	1.7%	1.3%

Projection based on data as of 12/31/2014

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2015	13.7%	13.1%	13.9%	-0.6%	0.2%
2016	13.0%	13.1%	13.9%	0.1%	0.9%
2017	14.4%	13.1%	13.9%	-1.3%	-0.5%

Projection based on data as of 12/31/2015

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2016	13.0%	13.7%	13.4%	0.7%	0.4%
2017	14.4%	13.7%	13.4%	-0.7%	-1.0%
2018	14.8%	13.7%	13.4%	-1.1%	-1.4%

Projection based on data as of 12/31/2016

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2017	14.4%	13.0%	13.4%	-1.4%	-1.1%
2018	14.8%	13.0%	13.4%	-1.8%	-1.4%
2019	13.1%	13.0%	13.4%	0.0%	0.3%

Projection based on data as of 12/31/2017

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2018	14.8%	14.4%	13.7%	-0.4%	-1.1%
2019	13.1%	14.4%	13.7%	1.4%	0.7%
2020	---	14.4%	13.7%	---	---

Projection based on data as of 12/31/2018

CY	Actual ULAE to Loss	Proj. ULAE to Loss Based on Latest Yr	Proj. ULAE to Loss Based on 2-Yr Avg.	Difference in Projections Based on Latest Yr	Difference in Projections Based on 2-Yr Avg.
2019	13.1%	14.8%	14.6%	1.7%	1.6%
2020	---	14.8%	14.6%	---	---
2021	---	14.8%	14.6%	---	---
			Average Absolute Difference	0.9%	0.8%

Source: WCIRB aggregate financial data and projections based on latest-year paid development.

Item AC20-04-04
COVID-19 Crisis

Since the outbreak of the COVID-19 pandemic in early 2020, in addition to discussing the evaluation of the potential cost of current and future COVID-19 claims, at the last several meetings the Committee also reviewed claim information emerging subsequent to the outbreak of the pandemic based on medical and indemnity transaction data. At the meeting, staff will present an update to the preliminary indicators of post-COVID-19 emerging claim experience as well as an update to the impact of the pandemic on medical treatment patterns based on medical and indemnity transaction data updated through November 2020.

Item AC20-12-01
9/30/2020 Experience Review

Staff has prepared an analysis of statewide experience through September 30, 2020, which is included in Exhibits 1 through 8. This information reflects insurers writing approximately 100% of the market based on 2019 premium levels. The methodologies used are consistent with those reflected in the January 1, 2021 Pure Premium Rate Filing. Wage and loss levels were projected to November 1, 2021—the approximate midpoint of experience on policies incepting between January 1, 2021 and August 31, 2021, and premiums were adjusted to the industry average filed pure premium rate level as of July 1, 2020.

As discussed at recent Committee meetings, the COVID-19 pandemic and resulting stay-at-home orders have had a significant impact on the workers' compensation system. In particular, the stay-at-home orders, which began in the middle of March, are expected to significantly distort second quarter and later experience. As a result, paid loss development from this period may not be appropriate to project future payments. At the meeting, staff will discuss the potential impact of the pandemic on loss development emerging in 2020. The projections shown on Exhibits 1 through 8 do not reflect any adjustments for this potential distortion.

For informational purposes, staff has included a projection of the loss ratio for January 1, 2021 and August 31, 2021 policies based on September 30, 2020 experience and the loss development and trending methodologies reflected in the January 1, 2021 Pure Premium Rate Filing with no adjustment for the impact of the pandemic on loss development in the second and third quarter. As shown on Exhibit 8, the projected loss ratio on this basis (prior to the impact of COVID-19 claims) is 0.605. The comparable ratio projected based on March 31, 2020 experience as reflected in the January 1, 2021 Pure Premium Rate Filing (prior to the impact of COVID-19 claims) is 0.618.

Additional supplemental information based on September 30, 2020 experience is included in Exhibits 9 through 14.

Exhibit 1

California Workers' Compensation

Accident Year Experience as of September 30, 2020

Year	Earned Premium	Paid Indemnity	Indemnity Reserves	Paid Medical**	Medical Reserves	IBNR*	Total Incurred**	Loss Ratio*
1987	4,373,509,816	1,507,498,048	7,394,232	1,336,732,072	44,685,088	45,704,939	2,942,014,379	0.673
1988	5,172,229,109	1,704,233,042	6,787,255	1,544,001,078	33,040,390	35,581,980	3,323,643,745	0.643
1989	5,675,115,503	1,940,575,125	6,871,701	1,803,680,836	44,849,073	39,521,436	3,835,498,171	0.676
1990	5,704,524,437	2,261,607,547	12,090,068	2,047,961,529	34,337,724	56,654,658	4,412,651,526	0.774
1991	5,866,491,692	2,479,830,301	15,709,073	2,205,294,237	44,755,171	55,050,132	4,800,638,914	0.818
1992	5,685,231,287	1,979,065,669	13,982,199	1,768,289,020	45,746,145	54,740,985	3,861,824,018	0.679
1993	5,934,618,230	1,695,210,493	13,775,394	1,519,040,201	54,776,785	48,185,729	3,330,988,602	0.561
1994	5,030,976,034	1,629,179,558	20,849,054	1,471,441,617	81,457,884	34,651,587	3,237,579,700	0.644
1995	3,789,174,380	1,769,528,128	27,097,070	1,631,549,204	84,717,924	41,950,175	3,554,842,501	0.938
1996	3,746,680,214	1,960,710,001	31,138,969	1,726,338,938	85,190,076	53,378,175	3,856,756,159	1.029
1997	3,926,898,608	2,324,588,789	40,967,148	2,023,385,396	109,080,511	89,685,789	4,587,707,633	1.168
1998	4,332,127,034	2,780,161,933	46,607,713	2,657,446,794	208,083,816	160,208,133	5,852,508,389	1.351
1999	4,550,437,880	3,061,901,939	49,449,580	3,050,618,327	158,048,336	233,167,416	6,553,185,598	1.440
2000	5,921,821,993	3,434,372,684	63,624,627	3,574,671,599	197,110,686	377,218,490	7,646,998,086	1.291
2001	10,118,688,616	4,857,123,988	90,488,744	5,397,326,452	320,860,123	583,795,700	11,249,595,007	1.112
2002	13,432,760,460	4,786,854,927	84,156,522	5,516,023,542	289,325,185	855,595,326	11,531,955,502	0.858
2003	19,472,988,351	4,569,746,047	134,409,782	5,096,470,103	314,472,190	1,210,085,313	11,325,183,435	0.582
2004	23,092,633,294	3,224,975,605	108,219,490	4,077,508,263	253,981,277	1,357,885,239	9,022,569,874	0.391
2005	21,394,600,575	2,547,474,639	93,936,544	3,679,354,922	235,850,729	1,082,869,673	7,639,486,507	0.357
2006	17,233,032,862	2,629,896,991	107,483,562	3,785,368,681	275,387,577	741,269,649	7,539,406,460	0.437
2007	13,276,770,615	2,777,535,144	119,818,265	4,054,926,223	303,574,142	696,988,390	7,952,842,164	0.599
2008	10,765,114,133	2,819,127,900	138,233,090	4,047,698,011	322,486,440	605,305,145	7,932,850,586	0.737
2009	8,901,420,752	2,695,512,296	136,567,334	3,853,332,848	322,521,858	456,679,885	7,464,614,221	0.839
2010	9,408,127,723	2,715,883,632	132,430,947	3,962,621,698	279,574,894	537,265,115	7,627,776,286	0.811
2011	10,141,174,044	2,687,211,228	140,370,102	3,580,729,288	307,842,653	712,882,497	7,429,035,768	0.733
2012	11,718,095,745	2,730,037,030	179,256,180	3,481,330,476	347,572,017	842,189,780	7,580,385,483	0.647
2013	14,186,071,217	2,759,643,145	186,364,122	3,315,692,227	354,900,788	1,442,564,191	8,059,164,473	0.568
2014	16,014,478,353	2,873,912,095	241,302,944	3,222,725,846	414,886,133	1,905,809,516	8,658,636,534	0.541
2015	17,059,790,388	2,862,788,451	322,737,376	3,087,715,998	541,742,659	2,834,624,653	9,649,609,137	0.566
2016	17,949,045,779	2,674,785,332	421,132,171	2,870,445,542	656,871,561	3,026,617,292	9,649,851,898	0.538
2017	17,671,411,530	2,389,893,869	604,932,330	2,596,069,908	888,669,722	3,071,615,708	9,551,181,537	0.540
2018	17,426,895,842	1,970,309,022	903,275,627	2,253,526,312	1,220,121,686	3,547,872,811	9,895,105,458	0.568
2019	16,099,957,602	1,219,299,313	1,119,280,691	1,506,658,543	1,556,999,617	4,273,815,394	9,676,053,558	0.601
2020	10,579,581,093	261,579,520	592,390,220	362,175,663	1,026,299,835	3,833,881,684	6,076,326,922	0.574

* Shown for informational purposes only.

** Paid medical for accident years 2011 and subsequent exclude the paid cost of medical cost containment programs (MCCP). Paid medical for accident years 2010 and prior include paid MCCP costs.

Source: WCIRB quarterly experience calls

Incurred Indemnity Loss Development Factors

	Age-to-Age (in months)															
Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1994											1.001	1.001	1.001	1.001	1.000	1.001
1995										1.001	1.003	1.002	1.003	1.003	1.000	1.003
1996									1.002	1.002	1.003	1.000	1.001	1.000	1.002	1.001
1997								1.007	1.003	1.004	1.002	1.002	1.003	1.002	1.001	1.001
1998							1.006	1.005	1.006	1.003	1.002	1.005	1.002	1.001	1.001	1.003
1999						1.011	1.008	1.002	1.006	1.002	1.004	1.003	1.003	1.001	1.001	1.001
2000					1.015	1.014	1.007	1.005	1.003	1.006	1.003	1.002	1.004	1.002	1.000	1.002
2001				1.023	1.021	1.013	1.012	1.006	1.008	1.007	1.005	1.004	1.001	1.001	1.002	1.001
2002			1.033	1.035	1.017	1.015	1.010	1.011	1.007	1.006	1.003	1.003	1.002	1.002	1.002	1.001
2003		1.077	1.058	1.033	1.025	1.017	1.018	1.016	1.011	1.004	1.005	1.003	1.003	1.002	1.003	1.004
2004	1.177	1.097	1.044	1.043	1.028	1.029	1.018	1.015	1.010	1.007	1.004	1.001	1.002	1.005	1.001	
2005	1.268	1.110	1.076	1.053	1.045	1.033	1.018	1.012	1.005	1.005	1.005	1.003	1.006	1.003		
2006	1.317	1.133	1.080	1.061	1.041	1.027	1.015	1.010	1.007	1.006	1.004	1.003	1.005			
2007	1.350	1.144	1.075	1.057	1.037	1.028	1.012	1.012	1.006	1.006	1.008	1.004				
2008	1.369	1.166	1.086	1.048	1.033	1.021	1.014	1.008	1.008	1.007	1.005					
2009	1.372	1.171	1.086	1.054	1.029	1.019	1.016	1.010	1.010	1.006						
2010	1.402	1.157	1.083	1.047	1.029	1.020	1.013	1.012	1.007							
2011	1.366	1.154	1.072	1.042	1.026	1.020	1.012	1.009								
2012	1.364	1.133	1.074	1.046	1.023	1.020	1.014									
2013	1.333	1.135	1.063	1.037	1.024	1.013										
2014	1.363	1.140	1.069	1.035	1.017											
2015	1.353	1.122	1.057	1.029												
2016	1.326	1.116	1.057													
2017	1.315	1.114														
2018	1.316															
Selected (a)	1.316	1.114	1.057	1.029	1.017	1.013	1.014	1.009	1.007	1.006	1.005	1.003	1.003	1.003	1.002	1.002
Cumulative	1.762	1.339	1.202	1.137	1.105	1.086	1.072	1.058	1.048	1.041	1.034	1.029	1.026	1.023	1.020	1.019

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and six-year average for the subsequent age-to-age factors.

Exhibit 2.1.1

Incurred Indemnity Loss Development Factors (Continued)

	Age-to-Age (in months)																		
Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	ULT/429Inc (b)
1983						1.001	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.001	
1984					1.001	1.000	0.999	1.001	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.001	1.001	
1985				1.000	1.001	1.000	1.000	1.001	1.001	1.000	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	
1986			1.001	1.000	1.000	1.001	1.000	1.001	1.002	1.002	1.000	0.999	1.000	1.000	1.000	1.000	1.001		
1987		1.001	1.000	1.000	1.000	1.000	1.001	1.002	1.000	1.001	1.000	1.001	1.000	1.001	1.000	1.001			
1988	1.001	1.001	1.001	1.000	1.000	1.002	1.002	1.000	1.000	1.001	1.000	1.000	1.000	1.001	1.001				
1989	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.001	1.001	1.000	1.000	1.001	1.000					
1990	1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.003						
1991	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.001							
1992	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.001	1.002								
1993	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001									
1994	1.002	1.003	1.000	1.001	1.001	0.999	1.000	1.001	1.002										
1995	1.001	0.998	1.001	1.000	1.000	1.000	1.001	1.003											
1996	1.002	1.000	1.001	1.002	1.000	1.001	1.003												
1997	1.000	1.000	1.000	1.001	1.000	1.004													
1998	1.000	1.001	1.001	1.001	1.001														
1999	1.000	1.001	1.002	1.001															
2000	1.002	1.000	1.002																
2001	1.001	1.002																	
2002	1.002																		
Selected (a)	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.001	1.001	
Cumulative	1.017	1.016	1.015	1.014	1.013	1.013	1.012	1.011	1.011	1.010	1.010	1.009	1.009	1.008	1.008	1.008	1.008	1.007	1.006

(b) The ULT/429Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 117-to-129 through 345-to-357 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Exhibit 2.1.2

Incurred Medical Loss Development Factors

	Age-to-Age (in months) (b)															
Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1994											1.016	1.009	1.008	1.012	1.018	1.012
1995										1.013	1.021	1.026	1.018	1.006	1.009	1.013
1996									1.020	1.014	1.019	1.019	1.017	1.015	1.005	1.005
1997								1.020	1.021	1.024	1.013	1.017	1.013	1.006	1.007	1.001
1998							1.025	1.032	1.027	1.020	1.019	1.006	1.014	1.010	1.010	1.003
1999						1.026	1.038	1.027	1.020	1.021	1.014	1.009	1.013	1.007	0.999	1.000
2000					1.027	1.043	1.030	1.017	1.026	1.017	1.017	1.014	1.006	1.002	0.996	0.996
2001				1.042	1.039	1.041	1.042	1.031	1.024	1.017	1.017	1.015	1.002	0.995	0.997	0.999
2002			1.039	1.047	1.045	1.038	1.030	1.027	1.024	1.016	1.009	1.003	0.996	1.000	0.999	1.000
2003		1.061	1.056	1.063	1.045	1.038	1.038	1.030	1.022	1.013	1.004	1.000	0.997	1.002	1.003	1.003
2004	1.154	1.109	1.085	1.066	1.063	1.045	1.034	1.027	1.019	1.007	1.001	0.997	0.999	1.001	0.999	
2005	1.192	1.103	1.073	1.088	1.059	1.047	1.039	1.015	1.011	1.007	1.002	1.002	0.997	1.000		
2006	1.227	1.124	1.085	1.071	1.053	1.043	1.024	1.014	1.002	1.001	1.004	1.000	1.003			
2007	1.251	1.132	1.090	1.072	1.054	1.037	1.019	1.008	1.005	1.003	1.004	0.998				
2008	1.241	1.143	1.103	1.068	1.045	1.029	1.013	1.005	1.005	1.004	1.001					
2009	1.267	1.146	1.105	1.066	1.034	1.020	1.009	1.006	1.007	1.001						
2010	1.291	1.155	1.085	1.051	1.029	1.015	1.009	1.011	1.004							
2011	1.271	1.140	1.080	1.039	1.022	1.011	1.009	1.003								
2012	1.233	1.102	1.062	1.039	1.018	1.015	1.007									
2013	1.193	1.093	1.050	1.024	1.018	1.005										
2014	1.189	1.093	1.041	1.032	1.012											
2015	1.189	1.077	1.033	1.020												
2016	1.165	1.054	1.039													
2017	1.147	1.063														
2018	1.141															
Selected (a)	1.141	1.063	1.039	1.020	1.012	1.005	1.007	1.003	1.006	1.004	1.003	1.000	0.999	1.000	0.999	1.000
Cumulative	1.336	1.171	1.101	1.060	1.039	1.027	1.022	1.015	1.012	1.006	1.002	1.000	1.000	1.001	1.001	1.002

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and six-year average for the subsequent age-to-age factors.
(b) Incurred medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Exhibit 2.2.1

Incurred Medical Loss Development Factors (Continued)

	Age-to-Age (in months)																		
Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	ULT/429Inc (c)
1983						1.007	1.000	1.004	1.006	1.003	1.005	1.004	1.002	1.004	0.998	1.000	0.998	1.000	
1984					1.003	1.003	1.003	1.003	1.001	1.003	1.001	1.003	1.002	0.997	1.000	1.000	1.000	1.000	
1985				1.004	1.002	1.001	1.003	1.003	1.003	1.005	1.002	1.003	0.999	0.999	0.999	1.000	1.000	0.999	
1986			0.997	1.003	1.004	1.005	1.004	1.007	1.004	1.005	1.002	1.001	0.998	1.001	1.008	0.991	1.003		
1987		1.005	1.000	1.002	1.006	1.004	1.006	1.003	1.003	1.005	1.000	1.000	1.001	0.999	1.004	1.002			
1988	1.002	1.004	1.005	1.005	1.005	1.002	1.004	1.003	1.003	1.002	1.000	1.000	0.998	1.001	1.001				
1989	1.004	1.008	1.005	1.006	1.007	1.007	1.002	1.003	1.001	0.998	0.999	0.998	1.001	1.002					
1990	1.006	1.009	1.004	1.004	1.003	1.003	0.998	1.001	1.001	1.000	0.998	0.999	0.998						
1991	1.007	1.005	1.003	1.002	1.003	1.001	1.001	1.000	0.999	0.998	0.999	1.001							
1992	1.005	1.000	1.005	1.005	1.005	1.001	0.999	0.999	1.001	0.999	1.001								
1993	1.004	1.018	1.008	0.998	1.000	0.997	0.996	1.000	0.998	0.997									
1994	1.006	1.008	1.006	1.001	1.001	0.991	1.001	1.002	0.999										
1995	0.999	1.007	1.001	1.000	0.997	0.997	1.002	0.999											
1996	1.009	1.003	0.995	1.004	0.994	1.000	0.998												
1997	0.996	0.997	0.995	1.000	0.999	0.996													
1998	1.002	0.993	1.001	1.003	1.002														
1999	0.996	1.000	0.999	1.001															
2000	0.999	0.999	1.000																
2001	1.005	0.997																	
2002	1.001																		
Selected (a)	1.000	0.998	0.999	1.002	0.999	0.997	1.000	1.000	1.000	0.999	1.000	1.000	0.999	1.000	1.002	0.999	1.000	1.000	
Cumulative	1.002	1.002	1.004	1.005	1.004	1.005	1.008	1.008	1.008	1.008	1.009	1.010	1.010	1.011	1.011	1.009	1.011	1.010	1.011

(c) The ULT/429Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 117-to-129 through 345-to-357 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Exhibit 2.2.2

Paid Indemnity Loss Development Factors

	Age-to-Age (in months)															
Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1994											1.008	1.008	1.005	1.004	1.002	1.004
1995										1.011	1.009	1.007	1.006	1.005	1.004	1.005
1996									1.016	1.013	1.009	1.007	1.006	1.004	1.005	1.004
1997								1.019	1.017	1.013	1.009	1.007	1.006	1.006	1.005	1.004
1998							1.028	1.022	1.017	1.013	1.009	1.009	1.007	1.006	1.006	1.006
1999						1.039	1.027	1.018	1.016	1.011	1.010	1.008	1.008	1.006	1.004	1.005
2000					1.057	1.040	1.025	1.018	1.013	1.010	1.010	1.008	1.008	1.005	1.004	1.004
2001				1.088	1.055	1.036	1.026	1.018	1.015	1.013	1.012	1.009	1.007	1.006	1.006	1.005
2002			1.152	1.083	1.053	1.035	1.022	1.018	1.016	1.014	1.009	1.008	1.006	1.006	1.005	1.004
2003		1.312	1.147	1.082	1.049	1.033	1.026	1.023	1.022	1.016	1.013	1.009	1.009	1.007	1.006	1.007
2004	1.660	1.285	1.135	1.081	1.055	1.043	1.036	1.032	1.020	1.016	1.013	1.010	1.008	1.009	1.007	
2005	1.646	1.279	1.143	1.088	1.062	1.049	1.044	1.031	1.022	1.017	1.012	1.012	1.010	1.010		
2006	1.704	1.273	1.152	1.099	1.072	1.054	1.039	1.026	1.022	1.017	1.013	1.010	1.009			
2007	1.701	1.290	1.160	1.102	1.072	1.051	1.033	1.030	1.022	1.015	1.014	1.012				
2008	1.724	1.323	1.173	1.103	1.067	1.044	1.030	1.024	1.020	1.016	1.010					
2009	1.782	1.332	1.178	1.106	1.068	1.046	1.034	1.025	1.020	1.012						
2010	1.793	1.339	1.172	1.101	1.066	1.043	1.030	1.022	1.016							
2011	1.796	1.318	1.165	1.098	1.062	1.044	1.031	1.019								
2012	1.776	1.316	1.157	1.101	1.055	1.038	1.026									
2013	1.768	1.315	1.155	1.084	1.048	1.031										
2014	1.816	1.316	1.151	1.081	1.046											
2015	1.802	1.301	1.139	1.069												
2016	1.758	1.287	1.125													
2017	1.746	1.263														
2018	1.709															
Selected (a)	1.709	1.263	1.125	1.069	1.046	1.031	1.026	1.019	1.019	1.014	1.012	1.011	1.009	1.009	1.006	1.005
Cumulative	3.306	1.934	1.532	1.361	1.273	1.217	1.181	1.151	1.129	1.109	1.093	1.080	1.068	1.058	1.049	1.043

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year average for the subsequent age-to-age factors.

Exhibit 2.3.1

Paid Indemnity Loss Development Factors (Continued)

	Age-to-Age (in months)																		
Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	ULT/429Pd (b)
1983						1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	
1984					1.001	1.001	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.001	1.001	
1985				1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
1986			1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001		
1987		1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001			
1988	1.002	1.002	1.001	1.001	1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1989	1.002	1.002	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000					
1990	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001						
1991	1.002	1.002	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001							
1992	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001								
1993	1.002	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001									
1994	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.001										
1995	1.005	1.003	1.002	1.002	1.002	1.002	1.002	1.003											
1996	1.004	1.004	1.004	1.003	1.002	1.003	1.003												
1997	1.003	1.003	1.002	1.003	1.003	1.003													
1998	1.004	1.004	1.003	1.003	1.002														
1999	1.003	1.002	1.003	1.002															
2000	1.004	1.003	1.003																
2001	1.005	1.004																	
2002	1.004																		
Selected (a)	1.004	1.003	1.003	1.003	1.002	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	
Cumulative	1.037	1.033	1.030	1.027	1.024	1.022	1.019	1.017	1.015	1.014	1.013	1.012	1.011	1.010	1.009	1.009	1.008	1.008	1.007

(b) The ULT/429Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 factors and extrapolated to 80 development years.

Exhibit 2.3.2

Paid Medical Loss Development Factors

Unadjusted (a)	Age-to-Age (in months)															
Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
1994											1.017	1.018	1.017	1.013	1.012	1.013
1995										1.023	1.021	1.021	1.018	1.019	1.015	1.011
1996									1.027	1.026	1.024	1.021	1.019	1.015	1.014	1.014
1997								1.033	1.029	1.027	1.022	1.020	1.016	1.015	1.013	1.015
1998							1.039	1.035	1.033	1.030	1.023	1.019	1.018	1.017	1.017	1.015
1999						1.046	1.039	1.030	1.033	1.026	1.026	1.016	1.016	1.018	1.016	1.013
2000					1.059	1.048	1.037	1.033	1.027	1.023	1.020	1.020	1.018	1.014	1.011	1.010
2001				1.081	1.062	1.047	1.040	1.035	1.030	1.023	1.023	1.023	1.016	1.014	1.012	1.009
2002			1.122	1.080	1.061	1.047	1.037	1.029	1.025	1.023	1.019	1.017	1.013	1.012	1.010	1.009
2003		1.192	1.127	1.086	1.060	1.050	1.040	1.030	1.030	1.030	1.020	1.016	1.015	1.011	1.011	1.011
2004	1.412	1.229	1.135	1.100	1.075	1.059	1.042	1.037	1.034	1.028	1.020	1.014	1.013	1.012	1.009	
2005	1.426	1.232	1.153	1.103	1.079	1.053	1.053	1.042	1.033	1.024	1.018	1.015	1.014	1.013		
2006	1.472	1.252	1.156	1.105	1.073	1.058	1.049	1.035	1.028	1.021	1.016	1.014	1.013			
2007	1.494	1.260	1.157	1.103	1.081	1.063	1.043	1.034	1.024	1.021	1.016	1.012				
2008	1.500	1.271	1.162	1.113	1.081	1.054	1.039	1.029	1.020	1.017	1.013					
2009	1.527	1.282	1.180	1.119	1.074	1.051	1.035	1.026	1.020	1.014						
2010	1.551	1.305	1.176	1.106	1.072	1.049	1.031	1.025	1.020							
2011	1.566	1.290	1.165	1.106	1.064	1.045	1.031	1.019								
2012	1.572	1.288	1.158	1.103	1.059	1.043	1.028									
2013	1.560	1.276	1.154	1.085	1.053	1.033										
2014	1.554	1.269	1.142	1.081	1.051											
2015	1.541	1.255	1.132	1.070												
2016	1.508	1.230	1.119													
2017	1.477	1.214														
2018	1.478															

Adjusted (b)	Age-to-Age (in months)															
Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201
2001																1.010
2002															1.011	1.010
2003														1.012	1.012	1.013
2004													1.015	1.013	1.010	
2005												1.017	1.015	1.014		
2006											1.017	1.015	1.014			
2007										1.022	1.017	1.013				
2008									1.022	1.019	1.014					
2009								1.028	1.022	1.015						
2010							1.033	1.027	1.021							
2011						1.050	1.034	1.021								
2012					1.066	1.047	1.031									
2013				1.093	1.057	1.036										
2014			1.151	1.085	1.054											
2015		1.262	1.135	1.072												
2016	1.513	1.232	1.120													
2017	1.480	1.215														
2018	1.478															
Selected (c)	1.478	1.215	1.120	1.072	1.054	1.036	1.031	1.021	1.022	1.019	1.016	1.015	1.015	1.013	1.011	1.011
Cumulative Unadjusted for Impact of SB 1160	3.320	2.246	1.849	1.651	1.540	1.461	1.410	1.368	1.340	1.311	1.287	1.267	1.248	1.230	1.214	1.201
Cumulative Adjusted for Impact of SB 1160(d)	3.219	2.178	1.792	1.619	1.522	1.457	---	---	---	---	---	---	---	---	---	---

(a) Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.
(b) These factors are adjusted for the losses paid prior to July 1, 2017 by -3.6%, -3.8%, -3.4%, -2.4%, -0.9%, and -0.1% to accident years 2011 to 2016, respectively, for the SB 1160 lien reforms. Factors are also adjusted for the impact of pharmaceutical cost reductions to bring the historical payments to the current pharmaceutical cost level.
(c) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year average for the subsequent age-to-age factors.
(d) The cumulative factors for 45, 57, 69, and 81 months are adjusted by -3.0%, -1.9%, -1.1%, and -0.2%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Exhibit 2.4.1

Paid Medical Loss Development Factors (Continued)

Unadjusted (a)

	Age-to-Age (in months)																		
Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	ULT/429Pd (e)
1983						1.005	1.005	1.004	1.005	1.004	1.004	1.004	1.004	1.004	1.003	1.004	1.004	1.003	
1984					1.004	1.004	1.003	1.003	1.003	1.004	1.004	1.002	1.003	1.003	1.003	1.002	1.002	1.001	
1985				1.005	1.004	1.006	1.004	1.003	1.003	1.004	1.004	1.003	1.002	1.003	1.002	1.002	1.002	1.002	
1986			1.005	1.004	1.004	1.005	1.004	1.005	1.005	1.005	1.005	1.006	1.005	1.004	1.004	1.003	1.002		
1987		1.007	1.006	1.007	1.005	1.005	1.005	1.005	1.005	1.005	1.004	1.003	1.003	1.003	1.002	1.002			
1988	1.006	1.007	1.006	1.005	1.005	1.005	1.005	1.005	1.004	1.003	1.003	1.003	1.004	1.003	1.002				
1989	1.005	1.007	1.005	1.005	1.007	1.007	1.006	1.005	1.005	1.003	1.003	1.003	1.003	1.004					
1990	1.005	1.005	1.005	1.005	1.006	1.004	1.004	1.003	1.003	1.002	1.002	1.003	1.002						
1991	1.006	1.005	1.005	1.006	1.005	1.006	1.005	1.003	1.003	1.003	1.004	1.003							
1992	1.008	1.002	1.006	1.008	1.007	1.005	1.004	1.004	1.005	1.006	1.003								
1993	1.011	1.010	1.009	1.013	1.008	1.007	1.006	1.005	1.007	1.004									
1994	1.009	1.011	1.010	1.010	1.007	1.009	1.004	1.004	1.004										
1995	1.015	1.014	1.012	1.009	1.013	1.007	1.007	1.008											
1996	1.013	1.013	1.009	1.007	1.008	1.009	1.006												
1997	1.011	1.007	1.007	1.007	1.007	1.006													
1998	1.011	1.009	1.008	1.009	1.007														
1999	1.010	1.010	1.008	1.006															
2000	1.008	1.007	1.006																
2001	1.010	1.008																	
2002	1.009																		

Adjusted (b)

	Age-to-Age (in months)																		
Accident Year	225/213	237/225	249/237	261/249	273/261	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	ULT/429Pd (e)
1983																		1.003	
1984																	1.002	1.001	
1985																1.002	1.002	1.002	
1986															1.005	1.003	1.002		
1987														1.003	1.003	1.003			
1988													1.004	1.003	1.002				
1989												1.004	1.003	1.004					
1990											1.003	1.004	1.002						
1991										1.003	1.005	1.003							
1992									1.006	1.007	1.003								
1993								1.006	1.008	1.004									
1994							1.005	1.005	1.005										
1995						1.007	1.008	1.009											
1996					1.008	1.010	1.007												
1997				1.008	1.008	1.007													
1998			1.009	1.010	1.008														
1999		1.011	1.009	1.007															
2000	1.009	1.007	1.006																
2001	1.011	1.009																	
2002	1.010																		
Selected (c)	1.010	1.009	1.008	1.008	1.008	1.008	1.007	1.007	1.006	1.005	1.004	1.004	1.003	1.003	1.003	1.003	1.002	1.002	
Cumulative	1.188	1.176	1.166	1.156	1.147	1.138	1.129	1.121	1.114	1.107	1.102	1.098	1.094	1.090	1.087	1.083	1.080	1.078	1.076

(e) The ULT/429Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 adjusted factors and extrapolated to 80 development years.

Exhibit 2.4.2

Selected Indemnity Development Factors - Paid to Ultimate

	Age-to-Age (in months)																				
Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201	225/213	237/225	249/237	261/249	273/261
1993												1.004	1.004	1.004	1.003	1.002	1.002	1.003	1.002	1.002	1.002
1994											1.008	1.008	1.005	1.004	1.002	1.004	1.003	1.003	1.003	1.002	1.002
1995										1.011	1.009	1.007	1.006	1.005	1.004	1.005	1.005	1.003	1.002	1.002	1.002
1996									1.016	1.013	1.009	1.007	1.006	1.004	1.005	1.004	1.004	1.004	1.004	1.003	1.002
1997								1.019	1.017	1.013	1.009	1.007	1.006	1.006	1.005	1.004	1.003	1.003	1.002	1.003	1.003
1998							1.028	1.022	1.017	1.013	1.009	1.009	1.007	1.006	1.006	1.006	1.004	1.004	1.003	1.003	1.002
1999						1.039	1.027	1.018	1.016	1.011	1.010	1.008	1.008	1.006	1.004	1.005	1.003	1.002	1.003	1.002	
2000					1.057	1.040	1.025	1.018	1.013	1.010	1.010	1.008	1.008	1.005	1.004	1.004	1.004	1.003	1.003		
2001				1.088	1.055	1.036	1.026	1.018	1.015	1.013	1.012	1.009	1.007	1.006	1.006	1.005	1.005	1.004			
2002			1.152	1.083	1.053	1.035	1.022	1.018	1.016	1.014	1.009	1.008	1.006	1.006	1.005	1.004	1.004				
2003		1.312	1.147	1.082	1.049	1.033	1.026	1.023	1.022	1.016	1.013	1.009	1.009	1.007	1.006	1.007					
2004	1.660	1.285	1.135	1.081	1.055	1.043	1.036	1.032	1.020	1.016	1.013	1.010	1.008	1.009	1.007						
2005	1.646	1.279	1.143	1.088	1.062	1.049	1.044	1.031	1.022	1.017	1.012	1.012	1.010	1.010							
2006	1.704	1.273	1.152	1.099	1.072	1.054	1.039	1.026	1.022	1.017	1.013	1.010	1.009								
2007	1.701	1.290	1.160	1.102	1.072	1.051	1.033	1.030	1.022	1.015	1.014	1.012									
2008	1.724	1.323	1.173	1.103	1.067	1.044	1.030	1.024	1.020	1.016	1.010										
2009	1.782	1.332	1.178	1.106	1.068	1.046	1.034	1.025	1.020	1.012											
2010	1.793	1.339	1.172	1.101	1.066	1.043	1.030	1.022	1.016												
2011	1.796	1.318	1.165	1.098	1.062	1.044	1.031	1.019													
2012	1.776	1.316	1.157	1.101	1.055	1.038	1.026														
2013	1.768	1.315	1.155	1.084	1.048	1.031															
2014	1.816	1.316	1.151	1.081	1.046																
2015	1.802	1.301	1.139	1.069																	
2016	1.758	1.287	1.125																		
2017	1.746	1.263																			
2018	1.709																				
Selected (a)	1.733(b)	1.285(b)	1.121(b)	1.063(b)	1.040(b)	1.031	1.026	1.019	1.019	1.014	1.012	1.011	1.009	1.009	1.006	1.005	1.004	1.003	1.003	1.003	1.002
Cumulative	3.337	1.925	1.499	1.337	1.257	1.209	1.173	1.143	1.122	1.101	1.086	1.073	1.061	1.051	1.042	1.036	1.030	1.026	1.023	1.020	1.017

(a) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year average for the subsequent paid age-to-age factors.
(b) Based on calculations shown on Exhibits 2.5.3 to 2.5.8. Each of these selections is calculated as the latest year paid indemnity age-to-age factor multiplied by an adjustment for changes in claim settlement rates.

Exhibit 2.5.1

Selected Indemnity Development Factors - Paid to Ultimate (Continued)

	Age-to-Age (in months)													
Accident Year	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	ULT/429Pd (d)
1983	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	
1984	1.001	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.001	1.001	
1985	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
1986	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001		
1987	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001			
1988	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001				
1989	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000					
1990	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001						
1991	1.001	1.001	1.001	1.001	1.001	1.001	1.001							
1992	1.001	1.001	1.001	1.001	1.001	1.001								
1993	1.001	1.001	1.001	1.001	1.001									
1994	1.002	1.001	1.001	1.001										
1995	1.002	1.002	1.003											
1996	1.003	1.003												
1997	1.003													
1998														
Unadjusted (a)	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.007
Selected (c)	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.001	1.000	1.001	1.001	1.005
Cumulative	1.015	1.013	1.012	1.010	1.010	1.009	1.009	1.008	1.007	1.007	1.006	1.006	1.006	1.005

(c) Adjusted for the impact of changes in claim settlement rates on later period development. See Exhibits 2.5.9 through 2.5.12.
(d) The ULT/429Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 factors and extrapolated to 80 development years.

Exhibit 2.5.2

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

A. Total Reported Indemnity Claim Counts

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						120,790
2012					127,838	128,042
2013				135,695	135,972	136,147
2014			139,987	140,669	140,991	141,123
2015		143,222	144,228	144,748	145,150	
2016	140,451	146,318	147,658	148,276		
2017	142,178	146,817	148,262			
2018	144,658	150,128				
2019	147,208					

B. Development of Total Reported Indemnity Claim Counts

Accident	Age-to-Age Development (in months):					
Year	21-33	33-45	45-57	57-69	69-81	81-Ult
2012					1.002	
2013				1.002	1.001	
2014			1.005	1.002	1.001	
2015		1.007	1.004	1.003		
2016	1.042	1.009	1.004			
2017	1.033	1.010				
2018	1.038					
Latest Year	1.038	1.010	1.004	1.003	1.001	
Cumulative	1.060	1.021	1.011	1.007	1.004	1.003

Acc. Year	2019	2018	2017	2016	2015	2014
Ult. Claim Counts	156,004	153,302	149,921	149,310	145,758	141,581

C. Closed Indemnity Claim Counts

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						108,746
2012					111,481	116,879
2013				112,603	120,767	125,938
2014			105,606	119,004	126,597	131,213
2015		92,099	112,549	124,989	131,578	
2016	67,595	97,891	118,323	129,152		
2017	72,058	101,992	119,548			
2018	74,168	102,110				
2019	72,943					

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						89.7%
2012					86.8%	91.0%
2013				82.4%	88.4%	92.2%
2014			74.6%	84.1%	89.4%	92.7%
2015		63.2%	77.2%	85.8%	90.3%	
2016	45.3%	65.6%	79.2%	86.5%		
2017	48.1%	68.0%	79.7%			
2018	48.4%	66.6%				
2019	46.8%					

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						112,329
2012					115,921	119,010
2013				118,148	123,301	126,586
2014			112,898	122,466	127,808	131,213
2015		97,085	116,228	126,079	131,578	
2016	69,813	99,451	119,061	129,152		
2017	70,099	99,858	119,548			
2018	71,679	102,110				
2019	72,943					

F. Average Paid Indemnity per Closed Claim

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						18,127
2012					16,636	18,048
2013				14,918	16,731	17,955
2014			12,965	15,788	17,593	18,801
2015		9,808	13,714	16,382	17,957	
2016	5,368	9,913	13,688	15,979		
2017	5,399	10,083	13,778			
2018	5,796	10,409				
2019	6,015					

(a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.
(b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

G. Adjusted Average Paid Indemnity per Closed Claim (c)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						19,278
2012					17,789	18,738
2013				16,127	17,320	18,131
2014			14,432	16,587	17,902	18,801
2015		10,643	14,454	16,633	17,957	
2016	5,614	10,160	13,833	15,979		
2017	5,198	9,644	13,778			
2018	5,531	10,409				
2019	6,015					
2020						

H. Adjusted Paid Indemnity on Closed Claims (in $000) (d)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						2,165,451
2012					2,062,120	2,230,006
2013				1,905,348	2,135,577	2,295,137
2014			1,629,344	2,031,336	2,288,070	2,466,929
2015		1,033,290	1,680,017	2,097,063	2,362,747	
2016	391,962	1,010,444	1,646,947	2,063,663		
2017	364,391	963,031	1,647,085			
2018	396,452	1,062,862				
2019	438,757					

I. Paid Indemnity on Open Claims (in $000)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						480,157
2012					573,127	453,262
2013				677,321	533,252	415,751
2014			842,358	665,529	522,149	408,497
2015		904,312	807,996	630,492	500,492	
2016	688,869	878,695	759,350	611,629		
2017	694,663	863,819	743,122			
2018	723,002	907,556				
2019	780,543					

(c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear relationship between maturities.

(d) Each amount is the product of the adjusted closed indemnity claim counts (Item E) and the adjusted average paid indemnity per closed claim (Item G), and divided by $1,000.

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

J. Average Paid Indemnity per Open Claim for Indemnity Claims in Transition (e)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						39,868
2012					35,039	40,606
2013				29,332	35,071	40,724
2014			24,501	30,718	36,275	41,221
2015		17,689	25,506	31,909	36,877	
2016	9,455	18,145	25,885	31,982		
2017	6,535	15,568	25,880			
2018	6,992	18,900				
2019	10,510					

K. Changes in Paid Indemnity on Open Claims Resulting from the Impact of Changes in Claim Settlement Rates (in $000) (f)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						-142,848
2012					-155,607	-86,532
2013				-162,646	-88,871	-26,389
2014			-178,660	-106,378	-43,930	
2015		-88,196	-93,836	-34,781		
2016	-20,972	-28,306	-19,103			
2017	12,803	33,222				
2018	17,402					

L. Adjusted Paid Indemnity on Open Claims (in $000) (g)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						337,308
2012					417,520	366,730
2013				514,676	444,382	389,362
2014			663,698	559,151	478,219	408,497
2015		816,116	714,160	595,711	500,492	
2016	667,897	850,390	740,247	611,629		
2017	707,466	897,040	743,122			
2018	740,404	907,556				
2019	780,543					

(e) Each amount is equal to the product of [the average monthly indemnity payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly indemnity payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly indemnity payment per open indemnity claim at the same evaluation is used.

(f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by the corresponding [average paid indemnity per open claim for indemnity claims in transition (Item J)].

(g) Each amount is the sum of [paid indemnity on open claims (Item I)] and the corresponding [incremental changes in paid indemnity on open claims resulting from the impact of changes in claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

M. Adjusted Total Paid Indemnity (in $000) (h)

Accident Year	Evaluated as of (in months) 21	33	45	57	69	81
2011						2,502,759
2012					2,479,640	2,596,736
2013				2,420,024	2,579,959	2,684,500
2014			2,293,042	2,590,487	2,766,289	2,875,425
2015		1,849,406	2,394,177	2,692,774	2,863,239	
2016	1,059,859	1,860,834	2,387,194	2,675,293		
2017	1,071,857	1,860,071	2,390,207			
2018	1,136,856	1,970,418				
2019	1,219,299					

N. Paid Indemnity Loss Development Factors Based on Adjusted Total Paid Indemnity

Accident Year	Evaluated as of (in months) 21-33	33-45	45-57	57-69	69-81
2011					
2012					1.047
2013				1.066	1.041
2014			1.130	1.068	1.039
2015		1.295	1.125	1.063	
2016	1.756	1.283	1.121		
2017	1.735	1.285			
2018	1.733				
Latest Year	1.733	1.285	1.121	1.063	1.039
3-Year Average	1.741	1.287	1.125	1.066	1.042

O. Paid Indemnity Loss Development Factors (i)

Accident Year	Evaluated as of (in months) 21-33	33-45	45-57	57-69	69-81
2012					1.056
2013				1.083	1.048
2014			1.150	1.081	1.046
2015		1.301	1.139	1.069	
2016	1.758	1.287	1.125		
2017	1.746	1.263			
2018	1.709				

(h) Each amount is the sum of the adjusted paid indemnity on closed claims (Item H) and the adjusted paid indemnity on open claims (Item L).

(i) Development factors are based on paid indemnity losses from the same insurer mix as that used in the adjustment for changes in claim settlement rates and applied in the calculation of the development factors in Item N.

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

P. Impact of Adjustment for Changes in Claim Settlement Rates (j)

Accident Year	Evaluated as of (in months) 21-33	33-45	45-57	57-69	69-81
2012					-0.79%
2013				-1.60%	-0.73%
2014			-1.81%	-1.18%	-0.61%
2015		-0.49%	-1.24%	-0.55%	
2016	-0.14%	-0.29%	-0.35%		
2017	-0.61%	1.73%			
2018	1.41%				

Q. Paid Indemnity Loss Development Factors Adjusted for Changes in Indemnity Claim Settlement Rates (k)

Accident Year	Evaluated as of (in months) 21-33	33-45	45-57	57-69	69-81
2012					1.047
2013				1.067	1.040
2014			1.130	1.068	1.040
2015		1.295	1.125	1.063	
2016	1.756	1.283	1.121		
2017	1.735	1.285			
2018	1.733				
Latest Year	1.733	1.285	1.121	1.063	1.040
3-Year Average	1.741	1.288	1.125	1.066	1.042

(j) Each factor represents the change in age-to-age development factors from Item O to those in Item N.
(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item P)] and [the paid indemnity age-to-age development factor from Exhibit 2.5.1].

Source: Accident year experience of insurers with available claim count data

Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development

1. Reported Closed Indemnity Claim Counts

Accident	Evaluated as of (in months)									
Year	273	285	297	309	321	333	345	357	369	381
1989							221,832	221,919	221,986	222,057
1990						247,526	247,631	247,725	247,824	
1991					247,685	247,798	247,902	248,007		
1992				196,610	196,688	196,784	196,878			
1993			154,548	154,652	154,744	154,842				
1994		141,882	141,999	142,098	142,195					
1995	132,871	133,018	133,152	133,273						
1996	130,335	130,494	130,607							
1997	134,911	135,078								
1998	145,349									
1999										

Accident Year	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989
2. Ult. Claim Counts (a)	147,672	137,535	133,258	135,311	143,746	156,128	198,372	249,726	249,124	222,799

3. Ultimate Indemnity Claim Settlement Ratio (b)

Accident	Evaluated as of (in months)									
Year	273	285	297	309	321	333	345	357	369	381
1989							99.6%	99.6%	99.6%	99.7%
1990						99.4%	99.4%	99.4%	99.5%	
1991					99.2%	99.2%	99.3%	99.3%		
1992				99.1%	99.2%	99.2%	99.2%			
1993			99.0%	99.1%	99.1%	99.2%				
1994		98.7%	98.8%	98.9%	98.9%					
1995	98.2%	98.3%	98.4%	98.5%						
1996	97.8%	97.9%	98.0%							
1997	98.1%	98.2%								
1998	98.4%									

(a) Based on the latest year age-to-age development in indemnity claim counts. See Exhibit 2.5.3.
(b) Ratio of closed indemnity claim counts (Item 1) to the estimated ultimate indemnity claim counts (Item 2) for that accident year.

Source: Accident year experience of insurers with available claim count data

Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development

4. Ratio of Incremental Closed Indemnity Claims to Estimated Prior Open Indemnity Claims (c)

Accident	Evaluated as of (in months)									
Year	261-273	273-285	285-297	297-309	309-321	321-333	333-345	345-357	357-369	369-381
1989								9.0%	7.6%	8.7%
1990							6.6%	6.3%	7.1%	
1991						5.5%	5.4%	5.8%		
1992					4.5%	5.7%	5.9%			
1993				6.6%	6.2%	7.1%				
1994			6.3%	5.7%	5.9%					
1995		6.0%	5.9%	5.6%						
1996	5.0%	5.4%	4.1%							
1997	7.1%	6.4%								
1998	7.9%									
1999										
3-Year Average	6.7%	5.9%	5.4%	6.0%	5.5%	6.1%	6.0%	7.0%	7.4%	8.7%
hare of Open on Prior (d)	93.3%	94.1%	94.6%	94.0%	94.5%	93.9%	94.0%	93.0%	92.6%	91.3%

5. Projected Open + IBNR Indemnity Claim Counts (e)

Accident	Evaluated as of (in months)									
Year	273	285	297	309	321	333	345	357	369	381
1989										*742*
1990									*1,300*	1,186
1991								*1,719*	1,592	1,453
1992							*1,494*	1,389	1,287	1,175
1993						*1,286*	1,209	1,124	1,041	951
1994					*1,551*	1,456	1,369	1,273	1,180	1,077
1995				*2,038*	1,925	1,808	1,700	1,581	1,465	1,337
1996			*2,651*	2,493	2,355	2,212	2,080	1,934	1,792	1,635
1997		*2,457*	2,324	2,186	2,065	1,939	1,824	1,695	1,571	1,434
1998	*2,323*	2,185	2,067	1,944	1,837	1,725	1,622	1,508	1,397	1,275
1999	1,855	1,745	1,650	1,552	1,466	1,377	1,295	1,204	1,115	1,018
…										
2018	451	424	401	377	356	335	315	293	271	247
2019	461	434	410	386	365	342	322	299	277	253

(c) Equal to [the difference in ultimate indemnity claim settlement ratios from the prior evaluation (Item 3)] divided by [1.0 less the ultimate indemnity claim settlement ratio from the prior evaluation].

(d) Equal to 1.0 minus the selected ratio of incremental closed indemnity claims to prior open indemnity claims from Item 4.

(e) The italicized diagonal is equal to the Ultimate Indemnity Claim Counts (Item 2) less the Reported Closed Indemnity Claim Counts (Item 1) as of the latest evaluation. The remaining figures are projected based on the italicized diagonal and the Share of Open on Prior from Item 4.

Source: Accident year experience of insurers with available claim count data

Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development

6. Ratio of Projected Open Claim Counts to Ultimate Claim Counts (f)

Accident	Evaluated as of (in months)									
Year	273	285	297	309	321	333	345	357	369	381
1989								*0.4%*	*0.4%*	*0.3%*
1990							*0.6%*	*0.6%*	*0.5%*	0.5%
1991						*0.8%*	*0.7%*	*0.7%*	0.6%	0.6%
1992					*0.8%*	*0.8%*	*0.8%*	0.7%	0.6%	0.6%
1993				*0.9%*	*0.9%*	*0.8%*	0.8%	0.7%	0.7%	0.6%
1994			*1.2%*	*1.1%*	*1.1%*	1.0%	1.0%	0.9%	0.8%	0.7%
1995		*1.7%*	*1.6%*	*1.5%*	1.4%	1.3%	1.3%	1.2%	1.1%	1.0%
1996	*2.2%*	*2.1%*	*2.0%*	1.9%	1.8%	1.7%	1.6%	1.5%	1.3%	1.2%
1997	*1.9%*	*1.8%*	1.7%	1.6%	1.5%	1.4%	1.3%	1.2%	1.1%	1.0%
1998	*1.6%*	1.5%	1.4%	1.3%	1.2%	1.2%	1.1%	1.0%	0.9%	0.9%
1999	1.2%	1.2%	1.1%	1.0%	1.0%	0.9%	0.9%	0.8%	0.7%	0.7%
…										
2018	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
2019	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
3-Year Historical Avg.	*1.9%*	*1.9%*	*1.6%*	*1.2%*	*0.9%*	*0.8%*	*0.7%*	*0.5%*	*0.4%*	*0.3%*

7. Ratio of Projected Percent Open to Historical Percent Open (g)

Accident	Evaluated as of (in months)									
Year	273	285	297	309	321	333	345	357	369	381
1989										
1990										1.43
1991									1.44	1.75
1992								1.28	1.46	1.78
1993							1.12	1.31	1.50	1.83
1994						1.27	1.37	1.62	1.85	2.25
1995					1.52	1.67	1.81	2.13	2.44	2.97
1996				1.56	1.88	2.08	2.25	2.65	3.03	3.68
1997			1.06	1.33	1.60	1.77	1.91	2.25	2.58	3.13
1998		0.80	0.87	1.10	1.33	1.46	1.58	1.86	2.13	2.59
1999	0.66	0.63	0.69	0.87	1.05	1.16	1.25	1.47	1.69	2.05
…										
2018	0.16	0.15	0.16	0.21	0.25	0.27	0.30	0.35	0.40	0.48
2019	0.16	0.15	0.16	0.21	0.25	0.27	0.30	0.35	0.40	0.49

(f) Equal to the Projected Open + IBNR Indemnity Claim Counts (Item 5) divided by the Ultimate Indemnity Claim Counts (Item 2). The italicized diagonals are based on historical data while the remaining figures are projections.

(g) Equal to the Ratio of Projected Open Claim Counts to Ultimate Claim Counts (Item 6) divided by the three-year historical average.

Source: Accident year experience of insurers with available claim count data

Paid Loss Development Factors
Adjusted for the Impact of Claim Settlement Rate
Changes on Later Period Development

	Age-to-Age Paid Development (in months):									
Age	273-285	285-297	297-309	309-321	321-333	333-345	345-357	357-369	369-381	381-393
8. 3-Year Average (h)										
Indemnity	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Medical	1.009	1.008	1.007	1.006	1.005	1.003	1.003	1.003	1.003	1.004
9. Adjustment Ratio (i)										
Accident Year 2018	0.66	0.66	0.67	0.68	0.70	0.71	0.72	0.74	0.76	0.79
Accident Year 2019	0.66	0.66	0.67	0.68	0.70	0.71	0.72	0.74	0.76	0.79
10. Adjusted Factors (j)										
Indemnity										
Accident Year 2018	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.001
Accident Year 2019	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.001
Medical										
Accident Year 2018	1.006	1.005	1.004	1.004	1.003	1.002	1.002	1.002	1.003	1.003
Accident Year 2019	1.006	1.005	1.004	1.004	1.003	1.002	1.002	1.002	1.003	1.003

(h) Indemnity development factors are from Exhibit 2.3.2. Medical development factors are from Exhibit 2.4.2 and include adjustments for SB 1160 and changes in pharmaceutical costs.
(i) Equal to the Ratio of Projected Percent Open to Historical Percent Open (Item 7) for the given accident year, with the difference from 1.0 adjusted by 40% to reflect the estimated impact of claim settlement rate changes on later period development.
(j) Equal to the [three year average factors (Item 8) - 1.0] multiplied by the Adjustment Ratio (Item 9), and adding 1.0.

Source: Accident year experience of insurers with available claim count data

Selected Medical Development Factors - Paid to Ultimate

Adjusted (a)(b)	Age-to-Age (in months)																				
Accident Year	33/21	45/33	57/45	69/57	81/69	93/81	105/93	117/105	129/117	141/129	153/141	165/153	177/165	189/177	201/189	213/201	225/213	237/225	249/237	261/249	273/261
1996																					1.008
1997																				1.008	1.008
1998																			1.009	1.010	1.008
1999																		1.011	1.009	1.007	
2000																	1.009	1.007	1.006		
2001																1.010	1.011	1.009			
2002															1.011	1.010	1.010				
2003														1.012	1.012	1.013					
2004													1.015	1.013	1.010						
2005												1.017	1.015	1.014							
2006											1.017	1.015	1.014								
2007										1.022	1.017	1.013									
2008									1.022	1.019	1.014										
2009								1.028	1.022	1.015											
2010							1.033	1.027	1.021												
2011						1.050	1.034	1.021													
2012					1.066	1.047	1.031														
2013				1.093	1.057	1.036															
2014			1.151	1.085	1.054																
2015		1.262	1.135	1.072																	
2016	1.513	1.232	1.120																		
2017	1.480	1.215																			
2018	1.478																				
Selected (c)	1.486(d)	1.228(d)	1.117(d)	1.067(d)	1.048(d)	1.036	1.031	1.021	1.022	1.019	1.016	1.015	1.015	1.013	1.011	1.011	1.010	1.009	1.008	1.008	1.008
Cumulative Unadjusted for Impact of SB 1160	3.198	2.152	1.753	1.569	1.471	1.404	1.355	1.314	1.287	1.260	1.237	1.217	1.199	1.182	1.167	1.154	1.142	1.130	1.120	1.111	1.102
Cumulative Adjusted for Impact of SB 1160(e)	3.100	2.086	1.699	1.539	1.455	1.401	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

(a) Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.
(b) These factors are adjusted for the losses paid prior to July 1, 2017 by -3.6%, -3.8%, -3.4%, -2.4%, -0.9%, and -0.1% to accident years 2011 to 2016, respectively, for the SB 1160 lien reforms. Factors are also adjusted for the impact of pharmaceutical cost reductions to bring the historical payments to the current pharmaceutical cost level.
(c) Selections are latest year for the 21-to-33 month through 105-to-117 month factors and three-year average for the subsequent paid age-to-age factors.
(d) Based on calculations shown on Exhibits 2.6.3 to 2.6.8. Each of these selections are calculated as the latest year paid medical age-to-age factor multiplied by an adjustment for changes in claim settlement rates.
(e) The cumulative factors for 45, 57, 69, and 81 months are adjusted by -3.0%, -1.9%, -1.1%, and -0.2%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Exhibit 2.6.1

Selected Medical Development Factors - Paid to Ultimate (Continued)

	Age-to-Age (in months)													
Accident Year	285/273	297/285	309/297	321/309	333/321	345/333	357/345	369/357	381/369	393/381	405/393	417/405	429/417	ULT/429Pd (g)
1983													1.003	
1984												1.002	1.001	
1985											1.002	1.002	1.002	
1986										1.005	1.003	1.002		
1987									1.003	1.003	1.003			
1988								1.004	1.003	1.002				
1989							1.004	1.003	1.004					
1990						1.003	1.004	1.002						
1991					1.003	1.005	1.003							
1992				1.006	1.007	1.003								
1993			1.006	1.008	1.004									
1994		1.005	1.005	1.005										
1995	1.007	1.008	1.009											
1996	1.010	1.007												
1997	1.007													
1998														
Unadjusted (c)	1.008	1.007	1.007	1.006	1.005	1.004	1.004	1.003	1.003	1.003	1.003	1.002	1.002	1.076
Selected (f)	1.006	1.005	1.004	1.004	1.003	1.002	1.002	1.002	1.003	1.003	1.002	1.002	1.001	1.050
Cumulative	1.093	1.087	1.081	1.077	1.072	1.069	1.066	1.063	1.061	1.058	1.055	1.053	1.051	1.050

(f) Adjusted for the impact of changes in claim settlement rates on later period development. See Exhibits 2.5.9 through 2.5.12.

(g) The ULT/429Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 117-to-129 through 345-to-357 factors and extrapolated to 80 development years.

Exhibit 2.6.2

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

A. Total Reported Indemnity Claim Counts

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						120,790
2012					127,838	128,042
2013				135,695	135,972	136,147
2014			139,987	140,669	140,991	141,123
2015		143,222	144,228	144,748	145,150	
2016	140,451	146,318	147,658	148,276		
2017	142,178	146,817	148,262			
2018	144,658	150,128				
2019	147,208					

B. Development of Total Reported Indemnity Claim Counts

Accident	Age-to-Age Development (in months):					
Year	21-33	33-45	45-57	57-69	69-81	81-Ult
2012					1.002	
2013				1.002	1.001	
2014			1.005	1.002	1.001	
2015		1.007	1.004	1.003		
2016	1.042	1.009	1.004			
2017	1.033	1.010				
2018	1.038					
Latest Year	1.038	1.010	1.004	1.003	1.001	
Cumulative	1.060	1.021	1.011	1.007	1.004	1.003

Acc. Year	2019	2018	2017	2016	2015	2014
Ult. Claim Counts	156,004	153,302	149,921	149,310	145,758	141,581

C. Closed Indemnity Claim Counts

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						108,746
2012					111,481	116,879
2013				112,603	120,767	125,938
2014			105,606	119,004	126,597	131,213
2015		92,099	112,549	124,989	131,578	
2016	67,595	97,891	118,323	129,152		
2017	72,058	101,992	119,548			
2018	74,168	102,110				
2019	72,943					

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						89.7%
2012					86.8%	91.0%
2013				82.4%	88.4%	92.2%
2014			74.6%	84.1%	89.4%	92.7%
2015		63.2%	77.2%	85.8%	90.3%	
2016	45.3%	65.6%	79.2%	86.5%		
2017	48.1%	68.0%	79.7%			
2018	48.4%	66.6%				
2019	46.8%					

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						112,329
2012					115,921	119,010
2013				118,148	123,301	126,586
2014			112,898	122,466	127,808	131,213
2015		97,085	116,228	126,079	131,578	
2016	69,813	99,451	119,061	129,152		
2017	70,099	99,858	119,548			
2018	71,679	102,110				
2019	72,943					

F. Average Paid Medical per Closed Indemnity Claim

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						21,915
2012					18,828	20,682
2013				16,008	18,172	19,640
2014			12,851	15,793	17,751	19,087
2015		9,484	13,112	15,717	17,404	
2016	5,459	9,467	12,779	15,048		
2017	5,572	9,765	12,844			
2018	5,758	10,017				
2019	5,727					

(a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.
(b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

G. Adjusted Average Paid Medical per Closed Indemnity Claim (c)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						23,613
2012					20,341	21,571
2013				17,448	18,877	19,851
2014			14,377	16,658	18,092	19,087
2015		10,263	13,834	15,985	17,404	
2016	5,684	9,686	12,922	15,048		
2017	5,385	9,382	12,844			
2018	5,527	10,017				
2019	5,727					

H. Adjusted Paid Medical (in $000) on Closed Indemnity Claims (d)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						2,652,416
2012					2,357,933	2,567,109
2013				2,061,432	2,327,588	2,512,888
2014			1,623,124	2,039,991	2,312,326	2,504,488
2015		996,424	1,607,943	2,015,340	2,290,049	
2016	396,813	963,305	1,538,521	1,943,443		
2017	377,452	936,887	1,535,471			
2018	396,174	1,022,791				
2019	417,713					

I. Paid Medical on Open Indemnity Claims (in $000)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						688,890
2012					744,231	602,456
2013				780,672	621,592	500,525
2014			884,489	708,539	566,542	463,687
2015		912,063	820,152	662,233	533,802	
2016	767,150	895,285	780,309	650,011		
2017	778,621	859,167	770,557			
2018	816,095	930,128				
2019	806,686					

(c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear relationship between maturities.
(d) Each amount is equal to the product of [adjusted closed indemnity claim counts (Item E)] and [adjusted average paid medical per closed indemnity claim (Item G)], and divided by $1,000.

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

J. Average Paid Medical per Open Indemnity Claim for Indemnity Claims in Transition (e)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						57,200
2012					45,499	53,972
2013				33,808	40,881	49,028
2014			25,726	32,704	39,360	46,790
2015		17,840	25,890	33,515	39,331	
2016	10,530	18,487	26,600	33,989		
2017	11,104	19,167	26,836			
2018	11,577	19,370				
2019	10,862					

K. Changes in Paid Medical on Open Indemnity Claims Resulting from the Impact of Changes in Indemnity Claim Settlement Rates (in $000) (f)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						-204,947
2012					-202,063	-115,014
2013				-187,463	-103,593	-31,770
2014			-187,596	-113,253	-47,664	
2015		-88,952	-95,248	-36,532		
2016	-23,355	-28,840	-19,631			
2017	16,950	37,237				
2018	22,564					

L. Adjusted Paid Medical on Open Indemnity Claims (in $000) (g)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						483,943
2012					542,168	487,442
2013				593,209	517,999	468,755
2014			696,893	595,287	518,877	463,687
2015		823,111	724,904	625,701	533,802	
2016	743,795	866,445	760,679	650,011		
2017	795,571	896,404	770,557			
2018	838,659	930,128				
2019	806,686					

(e) Each amount is equal to the product of [the average monthly medical payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly medical payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly medical payment per open indemnity claim at the same evaluation is used.

(f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by [the corresponding average paid medical per open indemnity claim for indemnity claims in transition (Item J)].

(g) Each amount is the sum of [paid medical on open indemnity claims (Item I)] and the corresponding [incremental changes in paid medical on open indemnity claims resulting from the impact of changes in indemnity claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

M. Paid Medical on Medical-Only Claims (in $000)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						222,771
2012					227,894	230,943
2013				230,313	233,777	236,482
2014			245,616	250,523	252,944	255,561
2015		247,553	255,009	259,766	264,228	
2016	247,814	264,542	273,098	277,580		
2017	267,534	283,452	290,153			
2018	281,980	300,705				
2019	282,259					

N. Adjusted Total Paid Medical (in $000) (h)

Accident	Evaluated as of (in months)					
Year	21	33	45	57	69	81
2011						3,637,908
2012					3,127,994	3,285,494
2013				2,884,954	3,079,364	3,218,125
2014			2,565,633	2,885,800	3,084,147	3,223,736
2015		2,067,088	2,587,856	2,900,807	3,088,079	
2016	1,388,422	2,094,292	2,572,297	2,871,034		
2017	1,440,557	2,116,743	2,596,181			
2018	1,516,813	2,253,623				
2019	1,506,659					

O. Paid Medical Loss Development Factors Based on Adjusted Total Paid Medical

Accident	Evaluated as of (in months)				
Year	21-33	33-45	45-57	57-69	69-81
2012					1.050
2013				1.067	1.045
2014			1.125	1.069	1.045
2015		1.252	1.121	1.065	
2016	1.508	1.228	1.116		
2017	1.469	1.226			
2018	1.486				
Latest Year	1.486	1.226	1.116	1.065	1.045

(h) Each amount is the sum of [adjusted paid medical on closed indemnity claims (Item H)], [adjusted paid medical on open indemnity claims (Item L)] and [paid medical on medical-only claims (Item M)]. The effect of the paid cost of medical cost containment programs are only present for accident years 2011 and prior.

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

P. Paid Medical Loss Development Factors (i)

Accident	Evaluated as of (in months)				
Year	21-33	33-45	45-57	57-69	69-81
2012					1.058
2013				1.084	1.053
2014			1.141	1.080	1.051
2015		1.255	1.132	1.070	
2016	1.508	1.230	1.119		
2017	1.477	1.214			
2018	1.478				

Q. Impact of Adjustment for Changes in Indemnity Claim Settlement Rates (j)

Accident	Evaluated as of (in months)				
Year	21-33	33-45	45-57	57-69	69-81
2012					-0.77%
2013				-1.53%	-0.72%
2014			-1.44%	-1.08%	-0.57%
2015		-0.22%	-0.94%	-0.49%	
2016	0.05%	-0.10%	-0.27%		
2017	-0.53%	1.03%			
2018	0.55%				

R. Paid Medical Loss Development Factors Adjusted for Changes in Indemnity Claim Settlement Rates (k)

Accident	Evaluated as of (in months)				
Year	21-33	33-45	45-57	57-69	69-81
2012					1.058
2013				1.076	1.049
2014			1.134	1.073	1.048
2015		1.259	1.124	1.067	
2016	1.514	1.231	1.117		
2017	1.472	1.228			
2018	1.486				
Latest Year	1.486	1.228	1.117	1.067	1.048
3-Year Average	1.491	1.239	1.125	1.072	1.052

(i) Development factors are based on paid medical losses from the same insurer mix as that used in the adjustment for changes in claim settlement rates and applied in the calculation of the development factors in Item O.
(j) Each factor represents the change in age-to-age development factors from Item P to those in Item O.
(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item Q)] and [the adjusted paid medical age-to-age development factor from Exhibit 2.6.1].

Source: Accident year experience of insurers with available claim count and paid loss data

Exhibit 3.1

Developed Indemnity Loss Ratios Using Selected Loss Development Factors
Adjusted for Changes in Claim Settlement Rates
Based on Experience as of September 30, 2020

		Development Factors		
	(1)	(2)	(3)	(4)
Accident Year	Paid Loss Ratio (a)	Annual (b)	Cumulative	Projected Ultimate Loss Ratio (4) = (1) x (3)
1987	0.345	1.001	1.006	0.347
1988	0.329	1.000	1.006	0.332
1989	0.342	1.001	1.007	0.344
1990	0.396	1.000	1.007	0.399
1991	0.423	1.001	1.008	0.426
1992	0.348	1.000	1.009	0.351
1993	0.286	1.001	1.009	0.288
1994	0.324	1.001	1.010	0.327
1995	0.467	1.001	1.010	0.472
1996	0.523	1.001	1.012	0.529
1997	0.592	1.001	1.013	0.600
1998	0.642	1.002	1.015	0.651
1999	0.673	1.002	1.017	0.684
2000	0.580	1.003	1.020	0.591
2001	0.480	1.003	1.023	0.491
2002	0.356	1.003	1.026	0.366
2003	0.235	1.004	1.030	0.242
2004	0.140	1.005	1.036	0.145
2005	0.119	1.006	1.042	0.124
2006	0.153	1.009	1.051	0.160
2007	0.209	1.009	1.061	0.222
2008	0.262	1.011	1.073	0.281
2009	0.303	1.012	1.086	0.329
2010	0.289	1.014	1.101	0.318
2011	0.265	1.019	1.122	0.297
2012	0.233	1.019	1.143	0.266
2013	0.195	1.026	1.173	0.228
2014	0.179	1.031	1.209	0.217
2015	0.168	1.040	1.257	0.211
2016	0.149	1.063	1.337	0.199
2017	0.135	1.121	1.499	0.203
2018	0.113	1.285	1.925	0.218
2019	0.076	1.733	3.337	0.253

(a) Based on Exhibit 1.
(b) See Exhibits 2.5.1 and 2.5.2.

Exhibit 3.2

Developed Medical Loss Ratios Using Selected Loss Development Factors
Adjusted for Changes in Claim Settlement Rates
Based on Experience as of September 30, 2020

	(1)	(2)	(3)	(4)	(5)	(6)
			Reform Adjusted			
			Development Factors			
Accident Year	Paid Loss Ratio (a)	Adjusted Paid Loss Ratio (b)	Annual (c)	Cumulative (c)	Adjusted Developed Loss Ratio (d) (2) x (4)	Projected Ultimate Loss Ratio (1) + ((5) - (2))
1987	0.306	0.271	1.002	1.053	0.285	0.320
1988	0.299	0.264	1.002	1.055	0.279	0.313
1989	0.318	0.282	1.003	1.058	0.298	0.334
1990	0.359	0.318	1.003	1.061	0.337	0.378
1991	0.376	0.333	1.002	1.063	0.354	0.397
1992	0.311	0.276	1.002	1.066	0.294	0.329
1993	0.256	0.227	1.002	1.069	0.243	0.272
1994	0.292	0.260	1.003	1.072	0.278	0.311
1995	0.431	0.383	1.004	1.077	0.412	0.460
1996	0.461	0.409	1.004	1.081	0.443	0.494
1997	0.515	0.458	1.005	1.087	0.498	0.555
1998	0.613	0.546	1.006	1.093	0.597	0.664
1999	0.670	0.598	1.008	1.102	0.659	0.731
2000	0.604	0.539	1.008	1.111	0.599	0.664
2001	0.533	0.478	1.008	1.120	0.535	0.591
2002	0.411	0.369	1.009	1.130	0.417	0.459
2003	0.262	0.236	1.010	1.142	0.269	0.295
2004	0.177	0.160	1.011	1.154	0.184	0.201
2005	0.172	0.156	1.011	1.167	0.182	0.198
2006	0.220	0.200	1.013	1.182	0.236	0.256
2007	0.305	0.279	1.015	1.199	0.334	0.361
2008	0.376	0.345	1.015	1.217	0.419	0.451
2009	0.433	0.400	1.016	1.237	0.494	0.527
2010	0.421	0.391	1.019	1.260	0.492	0.523
2011	0.353	0.331	1.022	1.287	0.426	0.448
2012	0.297	0.281	1.021	1.314	0.369	0.385
2013	0.234	0.223	1.031	1.355	0.303	0.313
2014	0.201	0.195	1.036	1.401	0.274	0.280
2015	0.181	0.178	1.048	1.455	0.259	0.262
2016	0.160	0.159	1.067	1.539	0.244	0.245
2017	0.147	0.147	1.117	1.699	0.249	0.249
2018	0.129	0.129	1.228	2.086	0.270	0.270
2019	0.094	0.094	1.486	3.100	0.290	0.290

(a) Based on Exhibit 1. Paid MCCP costs are excluded from accident years 2011 and subsequent.
(b) Based on experience evaluated as of September 30, 2020. Reflects an adjustment for the pharmaceutical cost reductions to restate the historical medical paid-to-date ratios at a 2018 pharmaceutical cost level.
(c) See Exhibits 2.6.1 and 2.6.2.
(d) The developed medical loss ratios shown were derived based on an adjustment for pharmaceutical cost reductions. They are only for purposes of projecting future medical loss ratios and do not reflect true estimates of ultimate loss ratios for those accident years.

Exhibit 4.1

Indemnity Benefit Level Factors

Accident Year	(1) Annual Benefit Change Prior to Frequency Adjustments (a)	(2) Frequency Adjustments (a)	(3) Annual Impact on Indemnity Benefits Due to Wage Inflation (b)	(4) Annual Cost Impact on Indemnity (c)	(5) Composite Indemnity Adjustment Factor (d)	
1987	0.0	0.0	1.9	1.9	1.537	
1988	0.0	0.0	1.5	1.5	1.514	
1989	0.0	0.0	1.5	1.5	1.491	
1990	2.3	19.9	1.7	24.7	1.196	
1991	4.9	14.8	0.8	21.4	0.985	
1992	1.8	-8.3	1.6	-5.2	1.038	
1993	0.2	-18.1	0.4	-17.6	1.260	
1994	-5.1	0.2	0.6	-4.3	1.318	
1995	6.3	0.6	1.0	8.0	1.220	
1996	5.3	0.4	1.2	7.0	1.140	
1997	9.7	0.2	1.6	11.7	1.021	
1998	6.5	0.0	1.8	8.4	0.942	
1999	5.7	0.0	2.1	7.9	0.873	
2000	3.9	0.0	3.1	7.1	0.815	
2001	-0.3	0.0	0.2	-0.1	0.815	
2002	-0.7	0.0	0.4	-0.3	0.835	(e)
2003	7.3	0.0	1.2	8.6	0.833	(e)
2004	-6.0	-13.7	2.1	-17.2	1.140	(e)
2005	-31.6	-15.3	1.6	-41.2	1.545	
2006	5.6	-5.7	2.2	1.8	1.518	
2007	1.6	0.0	2.1	3.7	1.463	
2008	4.8	0.6	1.0	6.5	1.374	
2009	0.4	1.4	0.2	2.0	1.347	
2010	0.4	0.0	1.5	1.9	1.322	
2011	0.0	0.0	1.4	1.4	1.304	
2012	-0.8	0.0	2.1	1.3	1.288	
2013	1.4	0.2	0.6	2.3	1.259	
2014	5.8	1.5	1.7	9.2	1.153	
2015	-0.8	0.0	2.3	1.4	1.137	
2016	0.3	0.0	1.0	1.3	1.122	
2017	0.5	0.0	2.2	2.7	1.093	
2018	0.4	0.0	2.2	2.6	1.065	
2019	0.4	0.0	2.3	2.7	1.037	
2020	0.4	0.0	1.2	1.6	1.020	
2021	0.4	0.0	0.9	1.3	1.008	
11/1/2021	0.1 (Annual 0.4)	0.0	0.6 (Annual 1.9)	0.8		

(a) Based on WCIRB evaluations of the average impact of legislative changes on the cost of indemnity benefits. These annual changes in benefits reflect the WCIRB's retrospective estimates of the cost impact of recent legislation as reflected in emerging post-reform costs. The annual cost impacts have been segregated between claim severity and claim frequency impacts.

(b) These impacts are based on the weekly wages (See Exhibit 5.1) of injured workers and the legislatively scheduled benefits for that year. Values for 2017 and prior have been updated to reflect a recent WCIRB reassessment of the impact of wage inflation on indemnity benefit levels.

(c) { [Column (1) /100 + 1.0] x [Column (2) /100 + 1.0] x [Column (3) /100 + 1.0] - 1.0 } x 100.

(d) These factors represent the combined impact of the annual benefit changes on claim severity shown in Column (1), claim frequencies shown in Column (2) and wage inflation impact on benefits shown in Column (3), adjusted to the 2020 level.

(e) On-level factors for accident years 2002, 2003 and 2004 adjust the portion of permanent disability claims that are estimated to not be subject to the January 1, 2005 PDRS (95% for accident year 2002, 75% for accident year 2003 and 40% for accident year 2004) to the January 1, 2005 PDRS level, and adjust for the corresponding utilization impacts on all 2002, 2003 and 2004 indemnity claims.

Exhibit 4.2

Annual Medical Cost Level Change - Non-Legislative

Accident Year	(1) Proportion of Medical Subject to Fee Schedule (a)	(2) Proportion of Medical Not Subject to Fee Schedule (a)	(3) Impact of Fee Schedule Change on Total Medical (b)	(4) Change in Medical CPI (c)	(5) Impact of CPI Change on Total Medical (d)	(6) Annual Non-Legislative Cost Impact on Total Medical (e)
1987	0.610	0.390	0.9%	7.4%	2.9%	3.8%
1988	0.649	0.351	0.8%	7.7%	3.0%	3.8%
1989	0.647	0.353	0.0%	8.6%	3.0%	3.0%
1990	0.661	0.339	0.0%	10.4%	3.7%	3.7%
1991	0.631	0.369	0.0%	10.6%	3.6%	3.6%
1992	0.628	0.372	0.0%	8.1%	3.0%	3.0%
1993	0.565	0.435	0.0%	7.3%	2.7%	2.7%
1994	0.691	0.309	-3.6%	4.3%	1.3% (i)	-2.3%
1995	0.681	0.319	0.0%	3.0%	0.9%	0.9%
1996	0.663	0.337	0.0%	3.0%	1.0%	1.0%
1997	0.643	0.357	0.0%	2.2%	0.7%	0.7%
1998	0.658	0.342	0.0%	2.2%	0.8%	0.8%
1999	0.728	0.272	1.6%	3.3%	0.9% (ii)	2.5%
2000	0.715	0.285	0.5%	4.3%	1.2%	1.7%
2001	0.722	0.278	1.5%	4.8%	1.4%	2.9%
2002	0.635	0.365	0.6%	5.1%	1.4%	2.0%
2003	0.786	0.214	0.0%	4.8%	1.4% (iii)	1.4%
2004	0.952	0.048	0.0%	5.0%	0.0% (iv),(v)	0.0%
2005	0.936	0.064	0.0%	4.8%	0.0% (v)	0.0%
2006	0.926	0.074	0.0%	4.1%	0.3%	0.3%
2007	0.923	0.077	1.4%	5.3%	0.4%	1.8%
2008	0.896	0.104	-0.1%	4.2%	0.3%	0.2%
2009	0.894	0.106	0.0%	3.6%	0.4%	0.4%
2010	0.895	0.105	0.0%	2.8%	0.3%	0.3%
2011	0.969	0.031	0.0%	3.2%	0.3%	0.3%
2012	0.969	0.031	0.0%	2.7%	0.1%	0.1%
2013	0.938	0.062	0.0%	2.6%	0.1%	0.1%
2014	0.928	0.072	0.0%	4.2%	0.3%	0.3%
2015	0.933	0.067	0.0%	3.1%	0.2%	0.2%
2016	0.918	0.082	0.0%	5.4%	0.4%	0.4%
2017	0.906	0.094	0.0%	2.2%	0.2%	0.2%
2018	0.887	0.113	0.0%	2.5%	0.2%	0.2%
2019	0.873	0.127	0.0%	3.8%	0.4%	0.4%
2020	0.873	0.127	0.0%	3.7%	0.5%	0.5%
2021	0.873	0.127	0.0%	3.5%	0.4%	0.4%
11/1/2021	0.873	0.127	0.0% (Annual 0.0%)	1.2% (Annual 3.7%)	0.2%	0.2%

(a) From a Special Carrier Study through 1990. Based on WCIRB's Aggregate Indemnity and Medical Costs Calls for years 1991 through 2012. Based on WCIRB medical transaction data from 2013 onwards. Accident years 2011 and subsequent do not include MCCP costs.

(b) Based on the WCIRB's evaluation of the cost impact of changes in the medical fee schedules.

(c) Based on a component of the Consumer Price Index. Projections furnished by the California Department of Finance.

(d) Adjusted CPI on workers' compensation medical costs that are not subject to fee schedules. The current year impact is the weighted average of 0% and Column (4), with Columns (1) and (2) from prior years as weights. (i) 1993's non-fee proportion is reduced by 13.8% due to the new medical-legal fee schedule enacted in 1994. (ii) 1998's non-fee proportion is reduced by 7.7% due to the Inpatient Hospital Fee Schedule (IHFS) effective 4/1/1999. (iii) 2002's non-fee proportion is reduced by 7.6% due to the new pharmaceutical fee schedule effective 1/1/2003. (iv) 2003's non-fee proportion is reduced by 17.2% due to the outpatient fee schedule effective 1/1/2004. (v) Given the anticipated impact of legislative reform, a 0% inflation rate has been assumed for 2004 and 2005.

(e) Column (6) = Column (3) + Column (5).

Exhibit 4.3

Annual Medical Cost Level Change - Legislative

Accident Year	(1) Annual Legislative Cost Impact on Medical Severity (a)	(2) Annual Legislative Cost Impact on Medical Due to Frequency Changes (b)	(3) Annual Total Legislative Cost Impact on Medical (c)
1987	0.0%	0.0%	0.0%
1988	0.0%	0.0%	0.0%
1989	0.0%	0.0%	0.0%
1990	-0.7%	19.9%	19.1%
1991	-1.6%	14.7%	12.9%
1992	0.5%	-8.4%	-7.9%
1993	-0.7%	-18.1%	-18.7%
1994	-2.6%	0.3%	-2.3%
1995	0.0%	0.5%	0.5%
1996	0.0%	0.4%	0.4%
1997	0.0%	0.2%	0.2%
1998	12.6%	0.0%	12.6%
1999	12.6%	0.0%	12.6%
2000	7.0%	0.0%	7.0%
2001	6.6%	0.0%	6.6%
2002	-5.6%	0.0%	-5.6%
2003	-6.0%	0.0%	-6.0%
2004	-24.4%	-12.5%	-33.9%
2005	0.0%	-13.9%	-13.9%
2006	0.1%	-5.2%	-5.1%
2007	0.1%	0.0%	0.1%
2008	0.2%	0.3%	0.5%
2009	0.0%	1.0%	1.0%
2010	0.0%	0.0%	0.0%
2011	-2.0%	0.0%	-2.0%
2012	-4.3%	0.0%	-4.3%
2013	-8.2%	0.2%	-8.0%
2014	-5.9%	1.3%	-4.7%
2015	-2.0%	0.0%	-2.0%
2016	-0.6%	0.0%	-0.6%
2017	-0.4%	0.0%	-0.4%
2018	-0.3%	0.0%	-0.3%
2019	0.0%	0.0%	0.0%
2020	0.0%	0.0%	0.0%
2021	0.0%	0.0%	0.0%
11/1/2021	0.0%	0.0%	0.0%

(a) Reflects the WCIRB's most recent estimates of the cost impact of legislation. Does not include the impact of the SB 1160 lien provisions on future medical costs as well as the estimated reductions to pharmaceutical costs attributable to SB 863, which are reflected in the medical loss development projections.

(b) This reflects the annual percentage impact on medical costs due to changes in the frequency of indemnity claims as a result of benefit changes.

(c) [Column (1) + 1.0] x [Column (2) + 1.0] - 1.0

Exhibit 4.4

Total Medical Cost Level Factors

Accident Year	(1) Annual Non-Legislative Cost Impact on Medical (a)	(2) Annual Legislative Cost Impact on Medical (b)	(3) Total Annual Cost Impact on Medical (c)	(4) Composite Medical On-level Factor (d)
1987	3.8%	0.0%	3.8%	0.808
1988	3.8%	0.0%	3.8%	0.778
1989	3.0%	0.0%	3.0%	0.756
1990	3.7%	19.1%	23.5%	0.612
1991	3.6%	12.9%	16.9%	0.523
1992	3.0%	-7.9%	-5.2%	0.552
1993	2.7%	-18.7%	-16.5%	0.661
1994	-2.3%	-2.3%	-4.6%	0.693
1995	0.9%	0.5%	1.4%	0.683
1996	1.0%	0.4%	1.4%	0.674
1997	0.7%	0.2%	0.9%	0.667
1998	0.8%	12.6%	13.5%	0.588
1999	2.5%	12.6%	15.4%	0.510
2000	1.7%	7.0%	8.8%	0.468
2001	2.9%	6.6%	9.7%	0.427
2002	2.0%	-5.6%	-3.7%	0.443
2003	1.4%	-6.0%	-4.7%	0.465
2004	0.0%	-33.9%	-33.9%	0.703
2005	0.0%	-13.9%	-13.9%	0.817
2006	0.3%	-5.1%	-4.8%	0.858
2007	1.8%	0.1%	1.9%	0.842
2008	0.2%	0.5%	0.7%	0.836
2009	0.4%	1.0%	1.4%	0.825
2010	0.3%	0.0%	0.3%	0.822
2011	0.3%	-2.0%	-1.7%	0.836
2012	0.1%	-4.3%	-4.2%	0.873
2013	0.1%	-8.0%	-7.9%	0.948
2014	0.3%	-4.7%	-4.4%	0.992
2015	0.2%	-2.0%	-1.8%	1.010
2016	0.4%	-0.6%	-0.2%	1.012
2017	0.2%	-0.4%	-0.2%	1.014
2018	0.2%	-0.3%	-0.1%	1.015
2019	0.4%	0.0%	0.4%	1.011
2020	0.5%	0.0%	0.5%	
2021	0.4%	0.0%	0.4%	
11/1/2021	0.2%	0.0%	0.2%	

(a) See Exhibit 4.2, Column (6).
(b) See Exhibit 4.3, Column (3).
(c) Column (3) = [1.0 + Column (1)] x [1.0 + Column (2)] - 1.0.
(d) These factors adjust the annual impact shown in Column (3) to the 11/1/2021 level.

Exhibit 5.1

Annual Wage Level Changes

Year	Annual Wage Level Change (a)		Factor to a 11/1/2021 Wage Level
1987	5.6		3.169
1988	4.4		3.035
1989	4.3		2.910
1990	5.0		2.772
1991	2.3		2.709
1992	4.7		2.588
1993	1.2		2.557
1994	1.8		2.512
1995	2.9		2.441
1996	3.4		2.361
1997	4.7		2.255
1998	5.2		2.143
1999	6.2		2.018
2000	9.0		1.852
2001	0.6		1.841
2002	1.1		1.821
2003	3.6		1.757
2004	5.0		1.674
2005	3.2		1.622
2006	4.6		1.550
2007	4.5		1.484
2008	2.1		1.453
2009	0.5		1.446
2010	3.0		1.404
2011	3.0		1.363
2012	4.2		1.308
2013	0.7		1.299
2014	3.3		1.257
2015	4.4		1.204
2016	1.8		1.183
2017	4.3		1.134
2018	4.1		1.090
2019	4.0		1.048
Projected:			
2020	2.0	(b)	
2021	1.6		
11/1/2021	1.1	(Annual = 3.2)	

(a) Historical wage changes through 2018 are based on Bureau of Labor Statistics data. Forecasts for 2019 and forward are based on the average of wage level projections made by the UCLA Anderson School of Business as of September 2020 and those made by the California Department of Finance as of April 2020.

(b) The average wage change for 2020 was judgmentally decreased by 0.8% to reflect the estimated difference between growth in median wages and average wages during a recession.

Exhibit 5.2

Premium Adjustment Factors

Calendar Year	(1) Factor to a 11/1/2021 Wage Level (a)	(2a) Ratio of Industry Average Charged Rates to Advisory Pure Premium Rates (b)	(2b) Factor to Industry Average Filed Pure Premium Rate Level as of July 1, 2020 (c)	(2c) Factor to Adjust Insurer Premium to an Industry Average Filed Pure Premium Rate Level as of July 1, 2020 (d)	(3) Adjustment to Remove Surcharge Premium (e)	(4) Average Experience Modification (f)	(5) Off-Balance Correction in Advisory January 1, 2020 Pure Premium Rates	(6) Factor to Adjust for Impact of Premium Resulting from Audits (g)	(7) Composite Premium Adjustment Factor (h)
1987	3.169	---	---	0.574	0.992	0.983	1.014	---	1.809
1988	3.035	---	---	0.513	0.993	0.963	1.014	---	1.585
1989	2.910	---	---	0.506	0.993	0.945	1.014	---	1.525
1990	2.772	---	---	0.493	0.991	0.942	1.014	---	1.417
1991	2.709	---	---	0.457	0.987	0.939	1.014	---	1.283
1992	2.588	---	---	0.438	0.982	0.940	1.014	---	1.166
1993	2.557	---	---	0.433	0.981	0.949	1.014	---	1.128
1994	2.512	---	---	0.495	0.986	0.948	1.014	---	1.276
1995	2.441	---	---	0.670	0.995	0.958	1.014	---	1.676
1996	2.361	1.023	0.712	0.696	1.000	0.935	1.014	---	1.733
1997	2.255	0.989	0.710	0.718	1.000	0.949	1.014	---	1.683
1998	2.143	0.965	0.740	0.767	1.000	0.959	1.014	---	1.690
1999	2.018	0.972	0.748	0.769	1.000	0.954	1.014	---	1.605
2000	1.852	1.005	0.678	0.675	1.000	0.970	1.014	---	1.270
2001	1.841	1.030	0.597	0.580	1.000	0.969	1.014	---	1.086
2002	1.821	1.157	0.534	0.462	1.000	0.991	1.014	---	0.837
2003	1.757	1.266	0.437	0.346	1.000	1.005	1.014	---	0.596
2004	1.674	1.397	0.445	0.319	1.000	0.981	1.014	---	0.536
2005	1.622	1.470	0.535	0.364	1.000	0.982	1.014	---	0.593
2006	1.550	1.446	0.690	0.477	1.000	0.956	1.014	---	0.763
2007	1.484	1.492	0.940	0.630	1.000	0.931	1.014	0.985	0.975
2008	1.453	1.426	1.119	0.785	1.000	0.946	1.014	0.991	1.178
2009	1.446	1.365	1.102	0.808	1.000	0.937	1.014	1.034	1.271
2010	1.404	1.383	1.081	0.781	1.000	0.941	1.014	1.005	1.155
2011	1.363	1.400	1.080	0.771	1.000	0.982	1.014	---	1.055
2012	1.308	1.222	0.890	0.728	1.000	1.000	1.014	---	0.939
2013	1.299	1.138	0.717	0.630	1.000	0.983	1.014	---	0.821
2014	1.257	1.126	0.660	0.586	1.000	0.961	1.014	---	0.756
2015	1.204	1.109	0.641	0.579	1.000	0.951	1.014	---	0.723
2016	1.183	1.148	0.698	0.608	1.000	0.949	1.014	---	0.747
2017	1.134	1.156	0.773	0.668	1.000	0.955	1.014	---	0.783
2018	1.090	1.196	0.874	0.730	1.000	0.956	1.014	---	0.821
2019	1.048	1.215	1.015	0.836	1.000	0.949	1.014	---	0.910

(a) See Exhibit 5.1.

(b) Based on WCIRB calendar year experience calls. The industry average charged rates reflect most rating plan adjustments but do not reflect the application of deductible credits or retrospective rating plan adjustments.

(c) Reflects (1) advisory pure premium rate level changes to bring premium to the advisory January 1, 2020 pure premium rate level and (2) an additional adjustment factor, which is the ratio of the average advisory January 1, 2020 pure premium rate ($1.52) to the industry average filed pure premium rate as of July 1, 2020 ($1.80).

(d) (2b) ÷ (2a). This column adjusts premiums at the industry average charged rate level to the industry average filed pure premium rate level as of July 1, 2020.

(e) Based on unit statistical data.

(f) Based on average promulgated experience modifications. Calendar years 1996 through 2000 include adjustments for the impacts of AB 1913 and SB 1217 (1998).

(g) Based on a comparison of premium reported on a calendar year basis to premium reported on an estimated ultimate policy year basis over the course of two accident years. The factor is applied only for calendar years 2007 to 2010, during which reported premiums were impacted by recessionary economic forces.

(h) (1)x(2c)x(3)x(6) ÷ [(4)x(5)] for calendar years 2007 to 2010. (1)x(2c)x(3) ÷ [(4)x(5)] for all other calendar years.

Accident Year Indemnity Claim Frequency Model
As of PY 2017 1st Set & June 2020 UCLA

	Annual % Changes Intra-Class Ind Freq	Annual Log Differences						
		Intra-Class Indemnity Frequency per $M Exposure at PY 2018 Level			AY+1 Indemnity		Economic Variables	CalOSHA Dummy
AY	Total	Total	Cumulative	Non-cum.	Benefit Level	Cumulative Injury Index	(1st Prin. Comp.)	Variable
1979	0.5%	0.005	-0.053	0.007	0.000	-0.060	0.134	0.000
1980	-6.5%	-0.068	-0.132	-0.066	0.033	-0.066	-0.080	0.000
1981	-3.5%	-0.036	-0.028	-0.036	0.000	0.008	-0.079	0.000
1982	-1.6%	-0.016	0.153	-0.022	0.352	0.175	-0.294	0.000
1983	6.2%	0.060	0.214	0.054	0.081	0.160	0.029	0.000
1984	9.5%	0.091	0.235	0.084	0.000	0.151	0.222	0.000
1985	2.0%	0.020	0.138	0.014	0.000	0.124	0.081	0.000
1986	-2.4%	-0.024	0.039	-0.028	0.000	0.067	0.078	0.000
1987	1.5%	0.015	0.053	0.013	0.000	0.041	0.151	0.000
1988	0.7%	0.007	0.104	0.000	0.000	0.104	0.088	0.000
1989	2.5%	0.024	0.212	0.009	0.046	0.203	0.045	0.000
1990	9.0%	0.087	0.337	0.061	0.071	0.276	-0.121	0.000
1991	0.3%	0.003	0.166	-0.018	0.023	0.184	-0.293	0.000
1992	-11.1%	-0.118	-0.272	-0.098	0.013	-0.174	-0.186	0.068
1993	-14.9%	-0.162	-0.240	-0.153	-0.057	-0.088	-0.022	0.464
1994	-12.8%	-0.136	-0.462	-0.107	0.061	-0.355	0.106	0.173
1995	-4.6%	-0.048	-0.016	-0.050	0.053	0.034	0.092	0.295
1996	-6.8%	-0.070	-0.136	-0.065	0.096	-0.071	0.075	0.000
1997	-3.3%	-0.033	-0.023	-0.034	0.066	0.011	0.137	0.000
1998	-3.8%	-0.038	-0.040	-0.038	0.058	-0.002	0.079	0.000
1999	1.5%	0.014	0.100	0.008	0.040	0.092	0.128	0.000
2000	4.0%	0.039	0.071	0.037	-0.003	0.034	0.066	0.000
2001	-6.9%	-0.072	-0.018	-0.076	-0.007	0.059	-0.101	0.000
2002	-2.3%	-0.023	0.007	-0.026	0.060	0.033	-0.202	0.000
2003	-2.9%	-0.029	-0.005	-0.031	-0.065	0.026	-0.023	0.000
2004	-16.6%	-0.182	-0.209	-0.180	-0.398	-0.030	0.093	0.000
2005	-13.6%	-0.146	-0.298	-0.133	0.051	-0.165	0.141	0.000
2006	-5.7%	-0.059	-0.050	-0.059	0.016	0.009	0.095	0.000
2007	-1.6%	-0.017	0.021	-0.019	0.049	0.040	-0.084	0.000
2008	-2.7%	-0.027	0.038	-0.033	0.006	0.071	-0.308	0.000
2009	-0.2%	-0.002	0.168	-0.018	0.066	0.186	-0.427	0.000
2010	8.9%	0.085	0.139	0.079	0.012	0.060	-0.092	0.000
2011	1.2%	0.012	0.032	0.010	0.003	0.022	0.043	0.000
2012	4.7%	0.046	0.127	0.036	0.025	0.091	0.123	0.000
2013	0.4%	0.004	0.126	-0.013	0.071	0.139	0.151	0.000
2014	0.2%	0.002	0.050	-0.006	0.003	0.056	0.178	0.000
2015	-1.3%	-0.013	0.025	-0.018	0.002	0.043	0.193	0.000
2016	-2.5%	-0.026	0.061	-0.040	0.004	0.101	0.124	0.000
2017	-2.1%	-0.022	-0.043	-0.018	0.004	-0.025	0.137	0.000
2018*	-1.0%	-0.010	-0.084	0.004	0.003	-0.088	0.120	0.000
2019	*-1.4%*	*-0.014*	*-0.014*	*-0.014*	*0.004*	*0.000*	0.054	0.000
2020	*-6.8%*	*-0.071*	*0.021*	*-0.088*	*0.004*	*0.109*	-0.958	0.000
2021	*0.5%*	*0.005*	*0.001*	*0.005*	*0.004*	*-0.004*	0.249	0.000
2022	*0.0%*	*0.000*	*0.000*	*0.000*	*0.004*	*0.000*	0.185	0.000

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

Constant	-0.020			
Std Err of Y Est	0.040			
R Squared	0.566			
No. of Observations	40			
Degrees of Freedom	35			
X Coefficient(s)		0.178	0.273	0.103	-0.145
Std Err of Coef.		0.072	0.061	0.043	0.076

Notes:

Indemnity Benefit Level variable is leading. The benefit level change for AY 2004 is related to the AY 2003 change in non-cumulative frequency.

The Indemnity Benefit Level change for Ogilvie & Almaraz / Guzman in 2009-2010 is not leading.

The Indemnity Benefit Level variable excludes indemnity benefit utilization, and changes in the death and permanent total benefits.

The Indemnity Benefit Level variable has been revised due to on-leveling reassessments. See Actuarial Committee item AC09-03-03.

For 1993 on, cumulative claims include both cumulative trauma and occupational disease claims. See March 19, 2014 Actuarial Committee Agenda Item III.

Economic variables are historical through 2019; June 2020 UCLA Anderson Forecasts for 2020 on.

Regression is over AY 1979 through AY 2018. AY 2019 through AY 2022 are projections.

The constant term, -0.020, consists of measured offsets that recognize annual changes in real benefit levels relative to nominal benefit levels and long-term economic growth. Without these offsets, the indemnity benefit level and economic variables would project frequency to increase without bound.

*AY 2018 change is based on a comparison of 2018 accidents on 2017 policies to 2017 accidents on 2016 policies.

The Cumulative Injury Index forecast for 2020 and 2021 is based on the average change from the prior two recessions.

Exhibit 6.2

Projection of Indemnity Severity Trends by Accident Year
Based on Experience as of September 30, 2020

Accident Year	(1) Estimated Ultimate Severity	(2) Annual % Change	(3) Indemnity Adjustment Factor (a)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	9,968	---	1.912	19,063	---
1991	10,892	9.3%	1.809	19,699	3.3%
1992	10,990	0.9%	1.749	19,217	-2.4%
1993	11,947	8.7%	1.738	20,765	8.1%
1994	12,867	7.7%	1.821	23,427	12.8%
1995	14,416	12.0%	1.696	24,446	4.3%
1996	16,166	12.1%	1.591	25,726	5.2%
1997	19,199	18.8%	1.428	27,412	6.6%
1998	21,039	9.6%	1.317	27,707	1.1%
1999	23,039	9.5%	1.220	28,114	1.5%
2000	24,460	6.2%	1.139	27,864	-0.9%
2001	26,965	10.2%	1.140	30,749	10.4%
2002	26,043	-3.4%	1.168	30,418	-1.1%
2003	25,758	-1.1%	1.164	29,992	-1.4%
2004	21,016	-18.4%	1.376	28,909	-3.6%
2005	19,041	-9.4%	1.579	30,067	4.0%
2006	20,716	8.8%	1.463	30,310	0.8%
2007	22,574	9.0%	1.410	31,841	5.1%
2008	24,572	8.9%	1.333	32,744	2.8%
2009	25,733	4.7%	1.325	34,086	4.1%
2010	25,185	-2.1%	1.300	32,736	-4.0%
2011	24,884	-1.2%	1.282	31,898	-2.6%
2012	24,317	-2.3%	1.266	30,785	-3.5%
2013	23,712	-2.5%	1.241	29,415	-4.4%
2014	24,558	3.6%	1.153	28,317	-3.7%
2015	24,700	0.6%	1.137	28,075	-0.9%
2016	23,955	-3.0%	1.122	26,886	-4.2%
2017	23,893	-0.3%	1.093	26,117	-2.9%
2018	24,749	3.6%	1.065	26,354	0.9%
2019	26,081	5.4%	1.037	27,048	2.6%

(6) Estimated Annual Exponential Trend Based on 1990 to 2019:	1.1%
(7) Estimated Annual Exponential Trend Based on 2005 to 2019:	-1.5%
(8) Estimated Annual Exponential Trend Based on 2015 to 2019:	-0.9%
Selected Indemnity Severity Trend:	1.0%

(a) These adjustment factors are based on Exhibit 4.1, excluding the impact of frequency.

Source: WCIRB experience calls.

Exhibit 6.3

Projection of Medical Severity Trends by Accident Year
Based on Experience as of September 30, 2020

Accident Year	(1) Estimated Ultimate Severity (a)	(2) Annual % Change	(3) Medical Adjustment Factor (b)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	8,799	---	0.917	8,067	---
1991	9,476	7.7%	0.899	8,522	5.6%
1992	9,537	0.6%	0.869	8,285	-2.8%
1993	10,411	9.2%	0.852	8,869	7.0%
1994	11,374	9.3%	0.895	10,182	14.8%
1995	13,097	15.2%	0.887	11,620	14.1%
1996	14,090	7.6%	0.878	12,377	6.5%
1997	16,752	18.9%	0.872	14,614	18.1%
1998	20,348	21.5%	0.769	15,639	7.0%
1999	23,399	15.0%	0.666	15,582	-0.4%
2000	26,147	11.7%	0.612	16,001	2.7%
2001	31,185	19.3%	0.558	17,398	8.7%
2002	31,415	0.7%	0.579	18,201	4.6%
2003	30,069	-4.3%	0.608	18,278	0.4%
2004	27,697	-7.9%	0.804	22,270	21.8%
2005	28,580	3.2%	0.804	22,980	3.2%
2006	31,120	8.9%	0.801	24,923	8.5%
2007	34,658	11.4%	0.786	27,238	9.3%
2008	37,300	7.6%	0.783	29,197	7.2%
2009	39,173	5.0%	0.780	30,542	4.6%
2010	39,361	0.5%	0.777	30,596	0.2%
2011	35,572 (c)	---	0.799	28,420 (c)	---
2012	33,288	-6.4%	0.843	28,057	-1.3%
2013	30,696	-7.8%	0.927	28,465	1.5%
2014	29,723	-3.2%	0.987	29,328	3.0%
2015	28,728	-3.3%	1.010	29,014	-1.1%
2016	27,496	-4.3%	1.012	27,827	-4.1%
2017	27,269	-0.8%	1.014	27,653	-0.6%
2018	28,457	4.4%	1.015	28,886	4.5%
2019	27,765	-2.4%	1.011	28,072	-2.8%
			Selected Medical Severity Trend:		2.5%

(a) Estimated ultimate severities for all accident years are derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts. The estimated ultimate medical severities were derived from the projected ultimate loss ratios shown in Exhibit 3.2, column (6).

(b) These adjustment factors are based on Exhibit 4.4, excluding the impact of frequency, and including the impact of SB 1160 provisions applicable to outstanding medical losses.

(c) Severities for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Severities for accident years 2010 and prior do reflect MCCP costs.

Source: WCIRB experience calls.

Projection of Medical Severity Trends by Accident Year
Adjusted to Remove the Cost of Medical Cost Containment Programs (MCCP)
Based on Experience as of September 30, 2020

	MCCP Included				MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Accident Year	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change
2005	28,580	---	22,980	---	27,103	---	21,792	---
2006	31,120	8.9%	24,923	8.5%	29,201	7.7%	23,386	7.3%
2007	34,658	11.4%	27,238	9.3%	32,383	10.9%	25,450	8.8%
2008	37,300	7.6%	29,197	7.2%	34,069	5.2%	26,668	4.8%
2009	39,173	5.0%	30,542	4.6%	35,937	5.5%	28,018	5.1%
2010	39,361	0.5%	30,596	0.2%	36,072	0.4%	28,040	0.1%
2011	38,945	-1.1%	31,115	1.7%	35,572	-1.4%	28,420	1.4%
2012	36,369	-6.6%	30,653	-1.5%	33,288	-6.4%	28,057	-1.3%
2013	33,625	-7.5%	31,181	1.7%	30,696	-7.8%	28,465	1.5%
2014	32,531	-3.3%	32,098	2.9%	29,723	-3.2%	29,328	3.0%
2015	31,344	-3.6%	31,657	-1.4%	28,728	-3.3%	29,014	-1.1%
2016	29,926	-4.5%	30,286	-4.3%	27,496	-4.3%	27,827	-4.1%
2017	29,729	-0.7%	30,147	-0.5%	27,269	-0.8%	27,653	-0.6%
2018	31,140	4.7%	31,610	4.9%	28,457	4.4%	28,886	4.5%
2019	30,594	-1.8%	30,932	-2.1%	27,765	-2.4%	28,072	-2.8%
Estimated Annual Exponential Trend								
Trend Based on 1990 to 2019:				5.3%				N/A
Trend Based on 2005 to 2019:				1.6%				1.4%
Trend Based on 2015 to 2019:				0.0%				-0.3%
					Selected Medical Severity Trend:			2.5%

(a) Estimated ultimate severities for all accident years were derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts.
(b) Adjustments to accident years 2005 through 2010 based on WCIRB's Annual Calls for Direct California Workers' Compensation Aggregate Indemnity and Medical Costs.
(c) Ultimate severities are on-leveled based on adjustment factors shown on Exhibit 6.3.

Source: WCIRB experience calls.

Exhibit 6.4

Exhibit 7.1

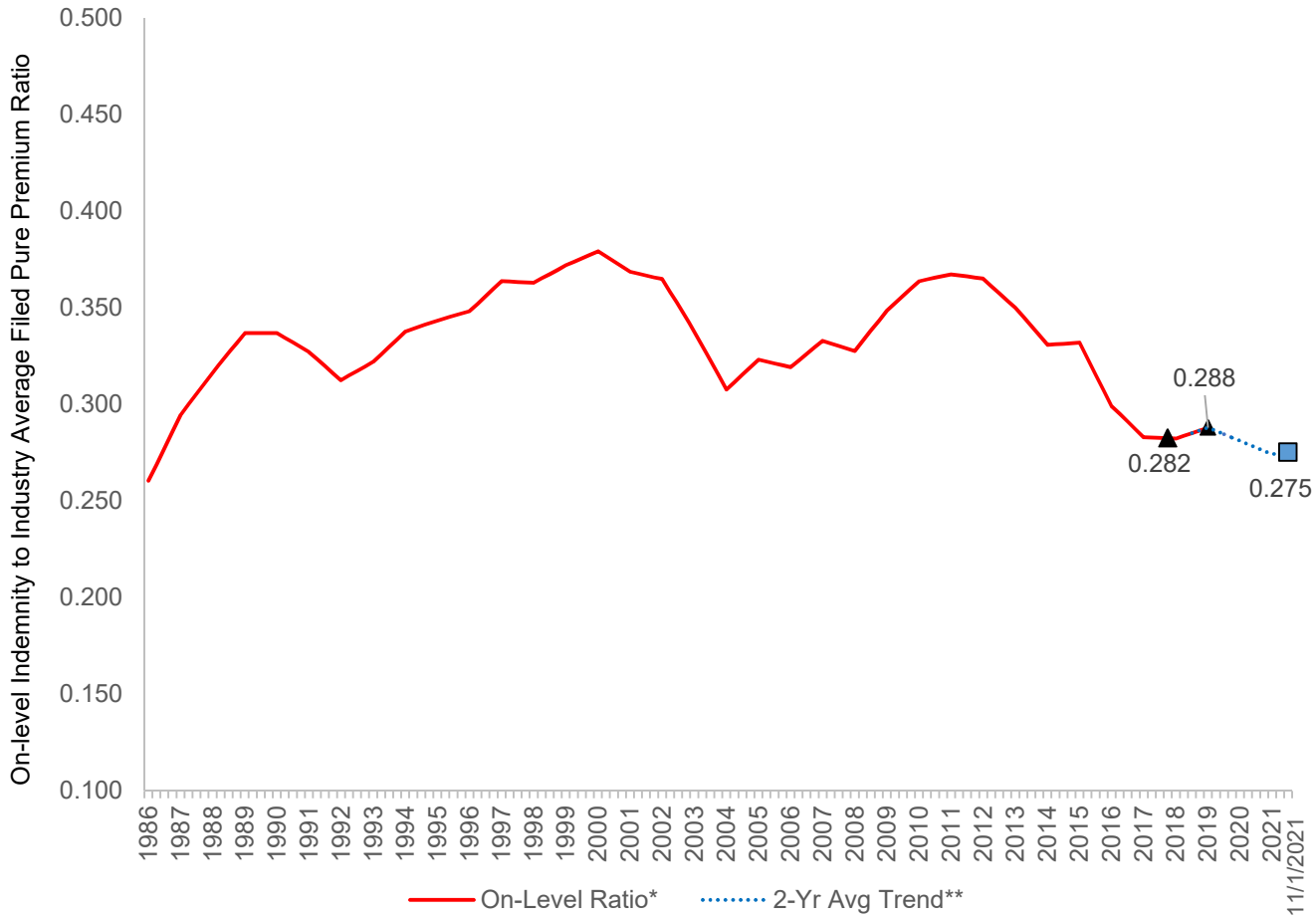
Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of September 30, 2020

Accident Year	(1) Developed Indemnity Loss Ratio (a)	(2) Composite Indemnity Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
1987	0.347	1.537	1.809	0.295
1988	0.332	1.514	1.585	0.317
1989	0.344	1.491	1.525	0.337
1990	0.399	1.196	1.417	0.337
1991	0.426	0.985	1.283	0.327
1992	0.351	1.038	1.166	0.313
1993	0.288	1.260	1.128	0.322
1994	0.327	1.318	1.276	0.338
1995	0.472	1.220	1.676	0.344
1996	0.529	1.140	1.733	0.348
1997	0.600	1.021	1.683	0.364
1998	0.651	0.942	1.690	0.363
1999	0.684	0.873	1.605	0.372
2000	0.591	0.815	1.270	0.379
2001	0.491	0.815	1.086	0.369
2002	0.366	0.835	0.837	0.365
2003	0.242	0.833	0.596	0.338
2004	0.145	1.140	0.536	0.308
2005	0.124	1.545	0.593	0.323
2006	0.160	1.518	0.763	0.319
2007	0.222	1.463	0.975	0.333
2008	0.281	1.374	1.178	0.328
2009	0.329	1.347	1.271	0.349
2010	0.318	1.322	1.155	0.364
2011	0.297	1.304	1.055	0.367
2012	0.266	1.288	0.939	0.365
2013	0.228	1.259	0.821	0.350
2014	0.217	1.153	0.756	0.331
2015	0.211	1.137	0.723	0.332
2016	0.199	1.122	0.747	0.299
2017	0.203	1.093	0.783	0.283
2018	0.218	1.065	0.821	0.282
2019	0.253	1.037	0.910	0.288
				Projections (d)
2020				0.270
2021				0.274
11/1/2021				0.275

(a) See Exhibit 3.1.
(b) See Exhibit 4.1.
(c) See Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from Exhibit 6.2, the actual frequency trend for accident year 2019 from Exhibit 12, and projected frequency trends for accident years 2020 through 2022 from Exhibit 6.1; these trends were then separately applied to the 2018 and 2019 on-level ratios.

Exhibit 7.2

On-Level Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of September 30, 2020



* On-level indemnity to industry average filed pure premium ratios (see Exhibit 7.1)
** The 11/1/2021 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2018 and 2019 years.

Exhibit 7.3

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of September 30, 2020

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical On-Level Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio (e) (1)×(2)÷(3)
1987	0.285	0.808	1.809	0.127
1988	0.279	0.778	1.585	0.137
1989	0.298	0.756	1.525	0.148
1990	0.337	0.612	1.417	0.146
1991	0.354	0.523	1.283	0.145
1992	0.294	0.552	1.166	0.139
1993	0.243	0.661	1.128	0.142
1994	0.278	0.693	1.276	0.151
1995	0.412	0.683	1.676	0.168
1996	0.443	0.674	1.733	0.172
1997	0.498	0.667	1.683	0.197
1998	0.597	0.588	1.690	0.208
1999	0.659	0.510	1.605	0.209
2000	0.599	0.468	1.270	0.221
2001	0.535	0.427	1.086	0.210
2002	0.417	0.443	0.837	0.221
2003	0.269	0.465	0.596	0.210
2004	0.184	0.703	0.536	0.242
2005	0.182	0.817	0.593	0.250
2006	0.236	0.858	0.763	0.265
2007	0.334	0.842	0.975	0.289
2008	0.419	0.836	1.178	0.298
2009	0.494	0.825	1.271	0.321
2010	0.492	0.822	1.155	0.350
2011	0.426	0.836	1.055	0.338
2012	0.369	0.873	0.939	0.343
2013	0.303	0.948	0.821	0.350
2014	0.274	0.992	0.756	0.359
2015	0.259	1.010	0.723	0.362
2016	0.244	1.012	0.747	0.331
2017	0.249	1.014	0.783	0.323
2018	0.270	1.015	0.821	0.333
2019	0.290	1.011	0.910	0.322
				Projections (d)
2020				0.318
2021				0.327
11/1/2021				0.330

(a) See Exhibit 3.2. Medical loss ratios for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Ratios for accident years 2010 and prior do reflect MCCP costs.

(b) See Exhibit 4.4.

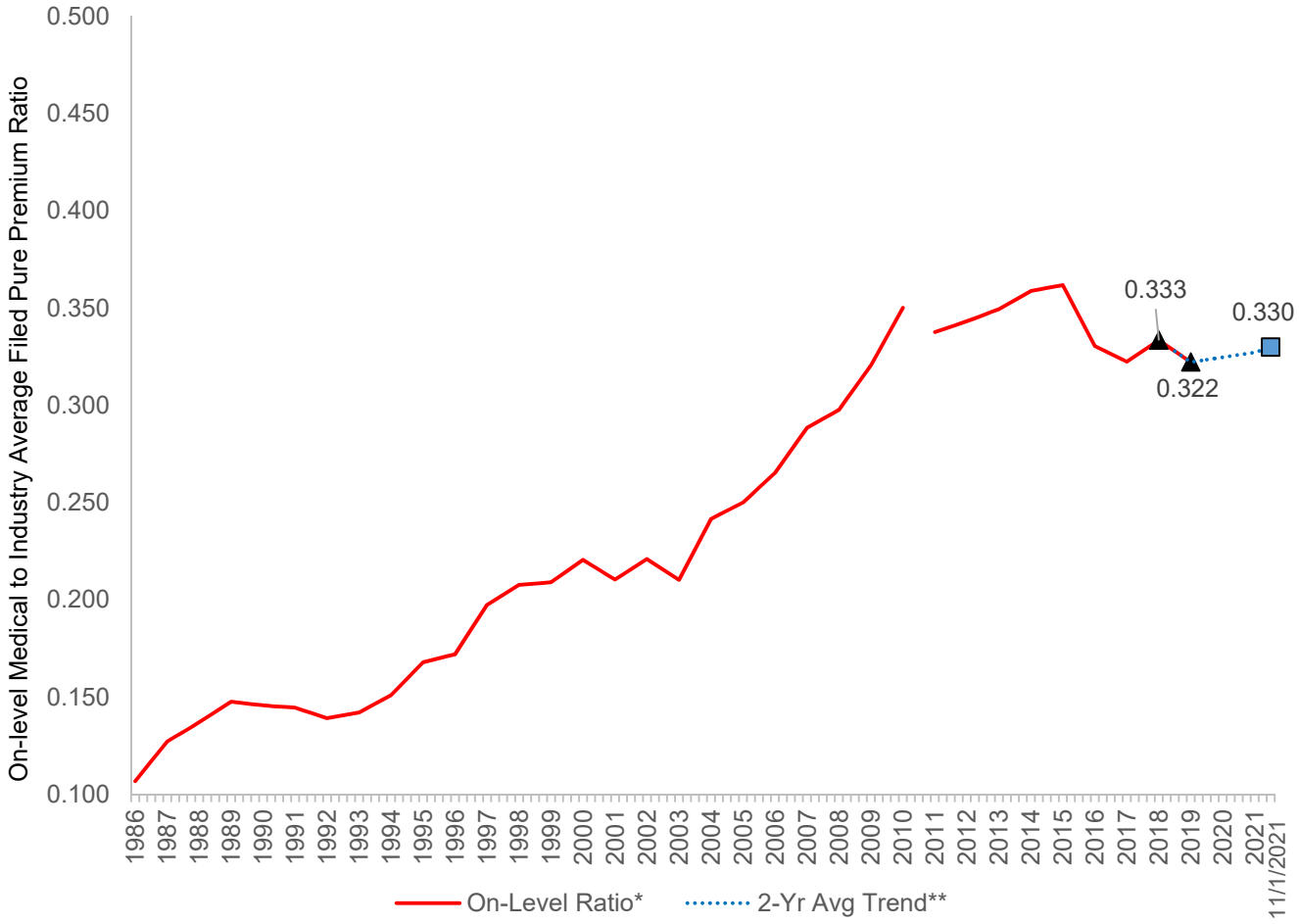
(c) See Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual medical severity trend from Exhibit 6.4, the actual frequency trend for accident year 2019 from Exhibit 12, and projected frequency trends for accident years 2020 through 2022 from Exhibit 6.1; these trends were then separately applied to the 2018 and 2019 on-level ratios.

(e) Accident years 2011 and subsequent do not reflect the paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

Exhibit 7.4

On-Level Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of September 30, 2020



* On-level medical to industry average filed pure premium ratios (see Exhibit 7.3)
** The 11/1/2021 medical to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2018 and 2019 years.

Exhibit 8

Indicated Loss to Industry Average Filed Pure Premium Ratios
For Policies with Effective Dates between January 1, 2021 and August 31, 2021
Based on Experience as of September 30, 2020

	Indemnity	Medical	Total
1. Projected Loss to Industry Average Filed Pure Premium Ratio (See Exhibits 7.1 and 7.3)	0.275	0.330	0.605

Exhibit 9.1

Quarterly Incurred Indemnity Loss Development Factors

Through September 30, 2020

Age in	Accident Year																					
Months	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
6/3	2.715	2.755	2.740	2.841	2.834	2.736	2.463	2.417	2.724	2.785	3.031	3.116	3.052	3.238	3.344	3.303	3.209	3.201	3.372	3.200	3.227	3.001
9/6	**1.808**	**1.780**	**1.784**	**1.790**	**1.808**	**1.776**	**1.618**	**1.656**	**1.776**	**1.820**	**1.848**	**1.904**	**2.001**	**1.966**	**1.940**	**1.960**	**1.948**	**1.945**	**1.874**	**1.998**	**2.017**	**1.953**
12/9	1.530	1.518	1.500	1.520	1.473	1.460	1.355	1.448	1.511	1.510	1.530	1.564	1.632	1.587	1.585	1.570	1.578	1.578	1.580	1.578	1.597	
15/12	1.260	1.268	1.250	1.257	1.238	1.180	1.149	1.189	1.234	1.248	1.293	1.306	1.306	1.303	1.301	1.301	1.313	1.309	1.298	1.298	1.295	
18/15	1.202	1.188	1.184	1.206	1.167	1.101	1.103	1.140	1.158	1.182	1.194	1.197	1.195	1.206	1.178	1.190	1.187	1.189	1.177	1.183	1.189	
21/18	**1.140**	**1.150**	**1.148**	**1.153**	**1.127**	**1.066**	**1.096**	**1.117**	**1.128**	**1.139**	**1.153**	**1.140**	**1.146**	**1.141**	**1.141**	**1.132**	**1.137**	**1.134**	**1.138**	**1.123**	**1.128**	
24/21	1.112	1.121	1.111	1.117	1.094	1.045	1.082	1.098	1.106	1.106	1.114	1.119	1.117	1.111	1.104	1.114	1.111	1.104	1.100	1.102		
27/24	1.096	1.093	1.100	1.094	1.073	1.045	1.070	1.082	1.081	1.088	1.089	1.091	1.085	1.087	1.081	1.082	1.087	1.079	1.078	1.071		
30/27	1.069	1.074	1.082	1.064	1.051	1.040	1.054	1.057	1.072	1.075	1.075	1.080	1.071	1.068	1.067	1.074	1.066	1.064	1.059	1.066		
33/30	**1.058**	**1.048**	**1.062**	**1.047**	**1.032**	**1.036**	**1.042**	**1.049**	**1.053**	**1.059**	**1.052**	**1.064**	**1.053**	**1.060**	**1.047**	**1.055**	**1.050**	**1.047**	**1.047**	**1.045**		
36/33	1.046	1.039	1.046	1.035	1.020	1.029	1.033	1.039	1.043	1.051	1.049	1.049	1.043	1.041	1.043	1.042	1.036	1.037	1.038			
39/36	1.041	1.035	1.038	1.028	1.017	1.027	1.029	1.031	1.033	1.040	1.039	1.039	1.041	1.035	1.031	1.036	1.030	1.028	1.028			
42/39	1.028	1.034	1.030	1.023	1.018	1.020	1.020	1.031	1.033	1.036	1.038	1.035	1.032	1.028	1.031	1.030	1.027	1.026	1.028			
45/42	**1.026**	**1.026**	**1.020**	**1.009**	**1.019**	**1.018**	**1.024**	**1.026**	**1.028**	**1.030**	**1.035**	**1.027**	**1.033**	**1.022**	**1.024**	**1.024**	**1.024**	**1.021**	**1.016**			
48/45	1.020	1.022	1.013	1.008	1.013	1.013	1.021	1.019	1.021	1.024	1.024	1.026	1.023	1.024	1.020	1.020	1.016	1.017				
51/48	1.017	1.018	1.015	1.010	1.016	1.010	1.018	1.021	1.018	1.022	1.023	1.021	1.018	1.017	1.015	1.019	1.015	1.014				
54/51	1.018	1.013	1.009	1.007	1.017	1.009	1.017	1.021	1.020	1.021	1.020	1.020	1.016	1.019	1.015	1.014	1.013	1.015				
57/54	**1.017**	**1.012**	**1.006**	**1.008**	**1.011**	**1.011**	**1.018**	**1.017**	**1.014**	**1.018**	**1.017**	**1.015**	**1.014**	**1.013**	**1.011**	**1.014**	**1.011**	**1.009**				
60/57	1.014	1.007	1.005	1.008	1.009	1.011	1.013	1.019	1.016	1.013	1.015	1.012	1.014	1.012	1.012	1.011	1.007					
63/60	1.012	1.007	1.007	1.008	1.008	1.010	1.014	1.013	1.015	1.011	1.014	1.014	1.009	1.012	1.008	1.010	1.007					
66/63	1.009	1.005	1.006	1.011	1.008	1.010	1.013	1.016	1.014	1.015	1.013	1.013	1.009	1.010	1.009	1.008	1.007					
69/66	**1.007**	**1.003**	**1.005**	**1.008**	**1.007**	**1.011**	**1.012**	**1.011**	**1.010**	**1.009**	**1.012**	**1.007**	**1.010**	**1.010**	**1.007**	**1.006**	**1.007**					
72/69	1.006	1.005	1.005	1.005	1.009	1.009	1.013	1.011	1.009	1.009	1.009	1.010	1.008	1.007	1.007	1.005						
75/72	1.004	1.004	1.005	1.003	1.005	1.007	1.010	1.011	1.010	1.010	1.008	1.007	1.004	1.006	1.007	1.004						
78/75	1.004	1.003	1.007	1.005	1.006	1.006	1.012	1.009	1.010	1.006	1.006	1.006	1.007	1.005	1.006	1.005						
81/78	**1.002**	**1.003**	**1.004**	**1.004**	**1.005**	**1.006**	**1.010**	**1.009**	**1.007**	**1.007**	**1.006**	**1.006**	**1.007**	**1.005**	**1.005**	**1.003**						
84/81	1.003	1.005	1.003	1.006	1.006	1.007	1.008	1.005	1.009	1.006	1.004	1.007	1.004	1.007	1.003							
87/84	1.003	1.002	1.003	1.004	1.002	1.007	1.010	1.007	1.004	1.005	1.006	1.004	1.006	1.004	1.003							
90/87	1.003	1.003	1.003	1.003	1.004	1.008	1.008	1.008	1.008	1.004	1.005	1.005	1.005	1.004	1.004							
93/90	**1.002**	**1.004**	**1.003**	**1.002**	**1.005**	**1.006**	**1.008**	**1.006**	**1.007**	**1.006**	**1.003**	**1.004**	**1.005**	**1.004**	**1.003**							
96/93	1.003	1.001	1.004	1.002	1.006	1.006	1.003	1.002	1.003	1.004	1.004	1.003	1.003	1.003								

Source: WCIRB accident year experience calls

Exhibit 9.2

Quarterly Incurred Medical Loss Development Factors *

Through September 30, 2020

Age in	Accident Year																				
Months	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
6/3	2.661	2.536	2.624	2.797	2.805	2.671	2.530	2.584	2.662	2.782	2.892	2.992	2.757	2.853	2.843	2.921	2.863	3.019	3.209	2.891	2.830	2.515
9/6	**1.733**	**1.713**	**1.725**	**1.768**	**1.762**	**1.703**	**1.670**	**1.650**	**1.744**	**1.717**	**1.807**	**1.800**	**1.827**	**1.833**	**1.819**	**1.840**	**1.884**	**1.755**	**1.740**	**1.820**	**1.845**	**1.782**
12/9	1.461	1.463	1.447	1.570	1.425	1.400	1.375	1.453	1.443	1.466	1.454	1.488	1.521	1.484	1.500	1.482	1.451	1.487	1.448	1.459	1.470	
15/12	1.168	1.201	1.207	1.203	1.197	1.132	1.145	1.138	1.182	1.167	1.199	1.206	1.228	1.211	1.207	1.199	1.206	1.215	1.184	1.191	1.183	
18/15	1.116	1.123	1.144	1.151	1.126	1.086	1.087	1.103	1.106	1.126	1.135	1.129	1.141	1.136	1.117	1.114	1.094	1.095	1.087	1.096	1.100	
21/18	**1.086**	**1.101**	**1.122**	**1.116**	**1.093**	**1.055**	**1.061**	**1.073**	**1.081**	**1.090**	**1.097**	**1.101**	**1.103**	**1.085**	**1.088**	**1.077**	**1.082**	**1.069**	**1.069**	**1.064**	**1.060**	
24/21	1.072	1.080	1.083	1.082	1.060	1.040	1.052	1.070	1.074	1.067	1.074	1.080	1.080	1.067	1.064	1.055	1.059	1.057	1.046	1.044		
27/24	1.061	1.070	1.080	1.075	1.042	1.034	1.048	1.055	1.058	1.053	1.071	1.066	1.072	1.058	1.048	1.046	1.048	1.040	1.036	1.030		
30/27	1.052	1.058	1.070	1.051	1.038	1.039	1.049	1.046	1.054	1.057	1.048	1.063	1.052	1.046	1.037	1.044	1.037	1.032	1.028	1.036		
33/30	**1.047**	**1.051**	**1.059**	**1.035**	**1.018**	**1.032**	**1.030**	**1.041**	**1.045**	**1.045**	**1.051**	**1.055**	**1.045**	**1.046**	**1.031**	**1.033**	**1.033**	**1.026**	**1.029**	**1.024**		
36/33	1.042	1.035	1.040	1.029	1.016	1.024	1.034	1.042	1.033	1.042	1.040	1.041	1.037	1.028	1.026	1.027	1.021	1.021	1.020			
39/36	1.032	1.034	1.037	1.018	1.012	1.028	1.025	1.027	1.029	1.033	1.031	1.040	1.039	1.027	1.021	1.023	1.022	1.011	1.018			
42/39	1.031	1.036	1.026	1.019	1.013	1.017	1.020	1.025	1.035	1.036	1.037	1.037	1.031	1.022	1.026	1.022	1.017	1.010	1.015			
45/42	**1.033**	**1.032**	**1.023**	**1.012**	**1.019**	**1.033**	**1.021**	**1.025**	**1.029**	**1.026**	**1.030**	**1.028**	**1.027**	**1.021**	**1.018**	**1.017**	**1.015**	**1.011**	**1.009**			
48/45	1.023	1.026	1.017	1.008	1.013	1.025	1.018	1.022	1.025	1.029	1.034	1.022	1.023	1.020	1.018	1.014	1.008	1.012				
51/48	1.020	1.024	1.014	1.009	1.013	1.018	1.015	1.020	1.021	1.021	1.026	1.024	1.019	1.014	1.013	1.010	1.008	1.008				
54/51	1.027	1.017	1.016	1.010	1.012	1.021	1.019	1.022	1.022	1.027	1.023	1.019	1.018	1.015	1.011	1.009	1.009	1.012				
57/54	**1.024**	**1.014**	**1.007**	**1.011**	**1.017**	**1.020**	**1.018**	**1.019**	**1.019**	**1.023**	**1.020**	**1.017**	**1.018**	**1.013**	**1.007**	**1.009**	**1.007**	**1.006**				
60/57	1.021	1.015	1.009	1.008	1.014	1.020	1.019	1.018	1.017	1.019	1.016	1.015	1.014	1.012	1.007	1.007	1.005					
63/60	1.020	1.013	1.012	1.008	1.016	1.015	1.021	1.015	1.018	1.016	1.020	1.015	1.009	1.009	1.005	1.008	1.005					
66/63	1.016	1.010	1.012	1.015	1.013	1.015	1.022	1.019	1.018	1.017	1.015	1.010	1.008	1.008	1.006	1.010	1.006					
69/66	**1.013**	**1.006**	**1.008**	**1.016**	**1.018**	**1.015**	**1.023**	**1.017**	**1.017**	**1.015**	**1.014**	**1.010**	**1.008**	**1.008**	**1.005**	**1.008**	**1.003**					
72/69	1.009	1.007	1.009	1.015	1.010	1.014	1.015	1.013	1.014	1.012	1.011	1.010	1.007	1.005	1.005	1.002						
75/72	1.008	1.006	1.008	1.010	1.009	1.012	1.012	1.011	1.018	1.013	1.008	1.006	1.001	1.003	1.006	1.003						
78/75	1.012	1.008	1.012	1.010	1.011	1.018	1.013	1.012	1.012	1.010	1.008	1.008	1.006	1.005	1.003	1.005						
81/78	**1.006**	**1.006**	**1.009**	**1.010**	**1.014**	**1.018**	**1.017**	**1.016**	**1.009**	**1.009**	**1.005**	**1.006**	**1.006**	**1.005**	**1.004**	**1.002**						
84/81	1.006	1.009	1.014	1.009	1.007	1.012	1.011	1.008	1.010	1.008	1.007	1.005	1.001	1.003	1.002							
87/84	1.008	1.008	1.010	1.009	1.010	1.012	1.014	1.012	1.008	1.007	1.004	1.003	1.001	1.002	1.002							
90/87	1.005	1.008	1.008	1.009	1.012	1.009	1.009	1.013	1.008	1.006	1.006	1.003	1.006	1.006	1.001							
93/90	**1.007**	**1.015**	**1.009**	**1.011**	**1.010**	**1.011**	**1.012**	**1.009**	**1.009**	**1.007**	**1.002**	**1.003**	**1.002**	**1.004**	**1.000**							
96/93	1.007	1.010	1.012	1.008	1.010	1.011	1.009	1.005	1.006	1.005	1.003	1.002	1.001	1.003								

Source: WCIRB accident year experience calls

* Incurred medical loss development factors include the paid cost of medical cost containment programs (MCCP) for accident years 2011 and prior.

Exhibit 9.3

Quarterly Paid Indemnity Loss Development Factors

Through September 30, 2020

Age in	Accident Year																					
Months	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
6/3	4.024	4.170	4.461	4.720	4.908	4.745	4.512	4.376	4.495	4.553	4.807	4.911	4.722	4.854	5.099	5.076	5.056	5.087	5.272	4.987	5.081	5.061
9/6	**2.367**	**2.283**	**2.369**	**2.443**	**2.424**	**2.399**	**2.303**	**2.259**	**2.375**	**2.377**	**2.398**	**2.452**	**2.432**	**2.484**	**2.462**	**2.462**	**2.484**	**2.456**	**2.446**	**2.538**	**2.505**	**2.482**
12/9	1.806	1.839	1.855	1.897	1.876	1.841	1.774	1.812	1.834	1.810	1.825	1.861	1.869	1.877	1.866	1.879	1.910	1.882	1.892	1.891	1.903	
15/12	1.536	1.538	1.552	1.550	1.516	1.491	1.456	1.482	1.488	1.481	1.507	1.532	1.539	1.506	1.539	1.540	1.559	1.571	1.544	1.527	1.522	
18/15	1.399	1.395	1.401	1.403	1.379	1.331	1.306	1.306	1.327	1.332	1.343	1.355	1.361	1.361	1.353	1.364	1.372	1.366	1.358	1.353	1.341	
21/18	**1.298**	**1.303**	**1.303**	**1.311**	**1.297**	**1.241**	**1.217**	**1.233**	**1.235**	**1.243**	**1.259**	**1.257**	**1.261**	**1.261**	**1.263**	**1.267**	**1.264**	**1.256**	**1.260**	**1.248**	**1.258**	
24/21	1.257	1.256	1.258	1.260	1.244	1.183	1.181	1.195	1.191	1.194	1.206	1.209	1.215	1.213	1.204	1.216	1.211	1.206	1.205	1.206		
27/24	1.199	1.203	1.200	1.205	1.186	1.140	1.142	1.151	1.149	1.153	1.162	1.165	1.168	1.164	1.159	1.170	1.176	1.161	1.159	1.152		
30/27	1.161	1.165	1.175	1.172	1.161	1.122	1.117	1.126	1.129	1.130	1.141	1.141	1.137	1.134	1.141	1.147	1.142	1.137	1.131	1.116		
33/30	**1.125**	**1.130**	**1.142**	**1.136**	**1.123**	**1.097**	**1.096**	**1.100**	**1.101**	**1.108**	**1.114**	**1.116**	**1.112**	**1.111**	**1.111**	**1.115**	**1.107**	**1.104**	**1.105**	**1.103**		
36/33	1.103	1.103	1.115	1.111	1.097	1.085	1.081	1.080	1.084	1.092	1.094	1.098	1.091	1.091	1.096	1.092	1.089	1.088	1.083			
39/36	1.081	1.081	1.092	1.087	1.072	1.070	1.066	1.064	1.067	1.074	1.078	1.077	1.073	1.075	1.074	1.075	1.071	1.068	1.064			
42/39	1.071	1.077	1.080	1.073	1.063	1.059	1.058	1.058	1.062	1.067	1.067	1.071	1.070	1.065	1.064	1.066	1.062	1.059	1.050			
45/42	**1.054**	**1.063**	**1.064**	**1.056**	**1.049**	**1.047**	**1.049**	**1.047**	**1.051**	**1.058**	**1.059**	**1.057**	**1.055**	**1.054**	**1.052**	**1.050**	**1.050**	**1.045**	**1.044**			
48/45	1.050	1.055	1.053	1.046	1.044	1.041	1.044	1.043	1.047	1.049	1.051	1.050	1.048	1.048	1.048	1.045	1.041	1.040				
51/48	1.038	1.043	1.044	1.036	1.035	1.033	1.036	1.036	1.037	1.042	1.042	1.043	1.039	1.038	1.038	1.039	1.035	1.031				
54/51	1.038	1.036	1.037	1.034	1.035	1.030	1.028	1.035	1.036	1.038	1.041	1.038	1.036	1.036	1.033	1.032	1.031	1.024				
57/54	**1.033**	**1.037**	**1.030**	**1.028**	**1.026**	**1.025**	**1.028**	**1.030**	**1.032**	**1.033**	**1.033**	**1.032**	**1.033**	**1.028**	**1.027**	**1.028**	**1.025**	**1.024**				
60/57	1.030	1.027	1.026	1.024	1.024	1.024	1.024	1.028	1.029	1.029	1.032	1.027	1.030	1.028	1.025	1.025	1.023					
63/60	1.026	1.024	1.021	1.022	1.019	1.019	1.021	1.023	1.025	1.025	1.024	1.026	1.025	1.025	1.021	1.021	1.018					
66/63	1.023	1.023	1.021	1.019	1.019	1.019	1.020	1.025	1.025	1.025	1.025	1.023	1.022	1.022	1.018	1.018	1.014					
69/66	**1.021**	**1.020**	**1.017**	**1.016**	**1.017**	**1.016**	**1.021**	**1.020**	**1.020**	**1.020**	**1.022**	**1.020**	**1.019**	**1.022**	**1.017**	**1.014**	**1.013**					
72/69	1.016	1.018	1.016	1.016	1.015	1.017	1.015	1.020	1.019	1.019	1.019	1.019	1.019	1.016	1.014	1.016						
75/72	1.016	1.015	1.014	1.012	1.012	1.013	1.015	1.019	1.018	1.016	1.016	1.017	1.015	1.014	1.012	1.012						
78/75	1.014	1.012	1.013	1.012	1.011	1.012	1.015	1.017	1.016	1.015	1.016	1.016	1.015	1.013	1.011	1.009						
81/78	**1.013**	**1.011**	**1.012**	**1.011**	**1.010**	**1.012**	**1.015**	**1.015**	**1.016**	**1.015**	**1.015**	**1.013**	**1.012**	**1.011**	**1.010**	**1.008**						
84/81	1.011	1.013	1.010	1.010	1.009	1.011	1.013	1.015	1.014	1.013	1.012	1.013	1.013	1.011	1.010							
87/84	1.010	1.008	1.010	1.009	1.008	1.009	1.012	1.014	1.013	1.010	1.012	1.010	1.011	1.010	1.007							
90/87	1.009	1.010	1.009	1.008	1.008	1.011	1.012	1.013	1.012	1.011	1.010	1.010	1.010	1.009	1.007							
93/90	**1.009**	**1.008**	**1.008**	**1.007**	**1.008**	**1.012**	**1.011**	**1.011**	**1.012**	**1.010**	**1.010**	**1.009**	**1.009**	**1.008**	**1.007**							
96/93	1.009	1.006	1.007	1.007	1.007	1.008	1.011	1.011	1.008	1.010	1.010	1.009	1.010	1.007								

Source: WCIRB accident year experience calls

Exhibit 9.4

Quarterly Paid Medical Loss Development Factors *

Through September 30, 2020

Age in	Accident Year																				
Months	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
6/3	5.955	5.518	6.168	7.221	7.127	7.617	5.563	5.308	5.615	6.579	6.101	6.048	5.854	5.989	6.284	5.604	5.720	5.897	5.433	5.460	4.984	4.496
9/6	**2.406**	**2.356**	**2.432**	**2.694**	**2.577**	**2.483**	**2.236**	**2.348**	**2.381**	**2.348**	**2.375**	**2.361**	**2.327**	**2.398**	**2.498**	**2.428**	**2.287**	**2.326**	**2.248**	**2.351**	**2.287**	**2.240**
12/9	1.739	1.749	1.857	1.882	1.825	1.759	1.666	1.716	1.765	1.731	1.723	1.756	1.746	1.763	1.736	1.750	1.705	1.752	1.737	1.719	1.796	
15/12	1.490	1.514	1.547	1.554	1.510	1.437	1.423	1.429	1.444	1.413	1.429	1.445	1.472	1.446	1.443	1.460	1.454	1.479	1.434	1.425	1.432	
18/15	1.267	1.286	1.310	1.330	1.295	1.243	1.230	1.227	1.259	1.243	1.259	1.268	1.282	1.284	1.263	1.265	1.278	1.263	1.250	1.245	1.231	
21/18	**1.168**	**1.192**	**1.219**	**1.211**	**1.179**	**1.153**	**1.151**	**1.163**	**1.173**	**1.170**	**1.178**	**1.182**	**1.187**	**1.192**	**1.193**	**1.192**	**1.189**	**1.173**	**1.170**	**1.173**	**1.170**	
24/21	1.124	1.149	1.159	1.154	1.125	1.115	1.118	1.127	1.133	1.132	1.137	1.144	1.153	1.154	1.148	1.146	1.146	1.141	1.131	1.143		
27/24	1.108	1.121	1.128	1.123	1.093	1.090	1.093	1.106	1.107	1.110	1.112	1.119	1.120	1.123	1.122	1.122	1.124	1.111	1.111	1.108		
30/27	1.088	1.101	1.108	1.103	1.077	1.084	1.087	1.097	1.100	1.100	1.106	1.107	1.111	1.109	1.111	1.111	1.105	1.100	1.092	1.083		
33/30	**1.072**	**1.086**	**1.089**	**1.077**	**1.063**	**1.071**	**1.065**	**1.081**	**1.083**	**1.086**	**1.092**	**1.094**	**1.093**	**1.094**	**1.090**	**1.089**	**1.082**	**1.082**	**1.077**	**1.078**		
36/33	1.066	1.069	1.076	1.061	1.055	1.062	1.062	1.071	1.072	1.072	1.077	1.083	1.082	1.078	1.080	1.076	1.071	1.067	1.065			
39/36	1.059	1.060	1.061	1.049	1.044	1.053	1.056	1.057	1.059	1.061	1.066	1.071	1.066	1.069	1.065	1.064	1.061	1.055	1.054			
42/39	1.049	1.055	1.054	1.041	1.044	1.049	1.054	1.055	1.058	1.059	1.061	1.068	1.063	1.062	1.057	1.059	1.057	1.048	1.040			
45/42	**1.045**	**1.047**	**1.044**	**1.036**	**1.037**	**1.040**	**1.047**	**1.048**	**1.049**	**1.054**	**1.053**	**1.056**	**1.056**	**1.053**	**1.051**	**1.045**	**1.044**	**1.042**	**1.039**			
48/45	1.039	1.044	1.037	1.032	1.035	1.037	1.043	1.043	1.046	1.047	1.050	1.051	1.046	1.045	1.046	1.041	1.040	1.038				
51/48	1.035	1.037	1.034	1.031	1.030	1.033	1.037	1.036	1.036	1.039	1.041	1.043	1.040	1.039	1.038	1.037	1.032	1.031				
54/51	1.036	1.032	1.027	1.030	1.029	1.034	1.034	1.035	1.035	1.036	1.042	1.038	1.035	1.035	1.034	1.032	1.029	1.023				
57/54	**1.030**	**1.027**	**1.024**	**1.024**	**1.024**	**1.029**	**1.031**	**1.034**	**1.031**	**1.033**	**1.038**	**1.034**	**1.034**	**1.031**	**1.028**	**1.026**	**1.025**	**1.023**				
60/57	1.028	1.026	1.021	1.023	1.026	1.028	1.029	1.028	1.032	1.032	1.035	1.030	1.030	1.030	1.023	1.022	1.021					
63/60	1.025	1.022	1.019	1.019	1.020	1.024	1.024	1.024	1.024	1.027	1.027	1.026	1.027	1.025	1.021	1.022	1.019					
66/63	1.021	1.020	1.020	1.018	1.021	1.023	1.024	1.026	1.026	1.029	1.029	1.024	1.028	1.023	1.021	1.018	1.015					
69/66	**1.022**	**1.019**	**1.018**	**1.016**	**1.019**	**1.021**	**1.023**	**1.023**	**1.021**	**1.024**	**1.024**	**1.022**	**1.020**	**1.020**	**1.017**	**1.016**	**1.014**					
72/69	1.018	1.016	1.017	1.018	1.016	1.021	1.021	1.022	1.022	1.023	1.021	1.020	1.019	1.016	1.015	1.017						
75/72	1.016	1.014	1.015	1.015	1.014	1.018	1.020	1.019	1.019	1.018	1.018	1.018	1.015	1.015	1.013	1.014						
78/75	1.015	1.014	1.015	1.016	1.015	1.016	1.018	1.017	1.022	1.019	1.018	1.017	1.017	1.015	1.013	1.011						
81/78	**1.014**	**1.013**	**1.014**	**1.013**	**1.014**	**1.018**	**1.018**	**1.015**	**1.019**	**1.018**	**1.015**	**1.015**	**1.013**	**1.012**	**1.011**	**1.009**						
84/81	1.012	1.013	1.012	1.012	1.013	1.016	1.016	1.015	1.018	1.015	1.015	1.015	1.013	1.013	1.010							
87/84	1.011	1.010	1.012	1.012	1.012	1.014	1.013	1.015	1.017	1.013	1.013	1.011	1.012	1.010	1.008							
90/87	1.012	1.011	1.013	1.012	1.013	1.015	1.013	1.015	1.013	1.013	1.012	1.011	1.012	1.009	1.008							
93/90	**1.010**	**1.011**	**1.012**	**1.011**	**1.013**	**1.013**	**1.012**	**1.014**	**1.014**	**1.013**	**1.011**	**1.010**	**1.009**	**1.010**	**1.006**							
96/93	1.010	1.008	1.010	1.010	1.009	1.013	1.015	1.016	1.011	1.012	1.010	1.009	1.009	1.009								

Source: WCIRB accident year experience calls

* Paid medical loss development factors include the paid cost of medical cost containment programs (MCCP) for accident years 2011 and prior.

Exhibit 10.1

Reported Indemnity Claim Count Development

Accident Year	Development 9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117	117-129	129-141	141-153	153-165	165-177	177-189	189-201
1995																1.000
1996															1.000	1.000
1997														1.000	1.000	1.000
1998													1.000	1.000	1.000	1.000
1999												1.000	1.000	1.000	1.000	1.000
2000											1.000	1.000	1.001	1.001	1.000	1.000
2001										1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002									1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2003								0.999	0.999	0.999	1.000	1.001	1.000	1.000	1.000	1.000
2004							0.999	0.999	0.999	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2005						1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
2006					1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000		
2007				1.004	1.002	1.001	1.000	1.001	1.001	1.000	1.000	1.000	1.000			
2008			1.012	1.006	1.003	1.002	1.002	1.001	1.001	1.000	1.000	1.000				
2009		1.036	1.014	1.007	1.004	1.003	1.001	1.001	1.000	1.000	1.000					
2010	1.688	1.040	1.015	1.007	1.005	1.002	1.002	1.000	1.000	1.000						
2011	1.713	1.046	1.016	1.010	1.003	1.001	1.001	1.000	1.000							
2012	1.735	1.050	1.019	1.006	1.003	1.002	1.001	1.000								
2013	1.753	1.050	1.011	1.006	1.002	1.001	1.001									
2014	1.749	1.040	1.012	1.005	1.002	1.001										
2015	1.728	1.039	1.007	1.004	1.003											
2016	1.731	1.042	1.009	1.004												
2017	1.707	1.033	1.010													
2018	1.703	1.038														
2019	1.716															
									Latest Year							
Age-to-Age																
	1.716	1.038	1.010	1.004	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Age-to-Ultimate																
	1.819	1.060	1.021	1.011	1.007	1.004	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002

Source: WCIRB accident year experience calls

Exhibit 10.2

Quarterly Reported Indemnity Claim Count Development Factors

Accident	Development														
Year	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2008	2.539	1.651	1.336	1.093	1.025	1.015	1.010	1.008	1.006	1.004	1.003	1.003	1.002	1.003	1.002
2009	2.681	1.683	1.382	1.109	1.036	1.021	1.012	1.009	1.007	1.007	1.005	1.004	1.003	1.002	1.002
2010	2.688	1.708	1.407	1.124	1.037	1.021	1.015	1.011	1.008	1.005	1.005	1.003	1.004	1.003	1.001
2011	2.691	1.738	1.424	1.123	1.041	1.026	1.018	1.010	1.010	1.006	1.005	1.004	1.004	1.003	1.002
2012	2.749	1.727	1.420	1.123	1.050	1.028	1.018	1.012	1.010	1.007	1.004	1.004	1.003	1.007	1.001
2013	2.821	1.739	1.421	1.138	1.045	1.027	1.016	1.010	1.009	1.013	1.003	1.003	1.003	1.001	1.002
2014	2.778	1.723	1.421	1.130	1.045	1.037	1.015	1.010	1.008	1.004	1.003	1.003	1.003	1.002	1.002
2015	2.817	1.781	1.414	1.135	1.045	1.023	1.014	1.014	1.008	1.005	1.003	1.003	1.002	1.002	1.002
2016	2.733	1.717	1.410	1.149	1.047	1.027	1.018	1.012	1.010	1.006	1.004	1.003	1.002	1.002	1.002
2017	2.892	1.696	1.423	1.134	1.043	1.026	1.014	1.009	1.008	1.005	1.004	1.003	1.003	1.002	
2018	2.826	1.732	1.414	1.139	1.045	1.023	1.017	1.010	1.008	1.006					
2019	2.780	1.751	1.424	1.138	1.035	1.023									
2020	2.543	1.876													

Source: WCIRB accident year experience calls

Exhibit 11.1

Reported Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	9	21	33	45	57	69	81	93	105	117	129	141	153	165	177	189	201
1995																	97.8%
1996																97.1%	97.3%
1997															97.0%	97.3%	97.5%
1998														96.9%	97.2%	97.5%	97.7%
1999													96.7%	97.0%	97.4%	97.7%	97.9%
2000												95.8%	96.4%	96.9%	97.3%	97.5%	97.8%
2001											94.3%	95.1%	95.9%	96.4%	96.9%	97.3%	97.6%
2002										93.4%	94.5%	95.6%	96.3%	96.8%	97.3%	97.7%	98.0%
2003									92.0%	93.5%	94.9%	95.7%	96.3%	96.9%	97.4%	97.8%	98.2%
2004								90.1%	92.1%	93.9%	95.1%	95.9%	96.6%	97.2%	97.7%	98.1%	98.4%
2005							87.9%	90.3%	92.5%	94.1%	95.2%	96.1%	96.9%	97.5%	97.9%	98.3%	
2006						84.2%	87.6%	90.5%	92.6%	94.0%	95.3%	96.2%	97.0%	97.5%	98.0%		
2007					78.8%	83.5%	87.7%	90.8%	92.8%	94.5%	95.7%	96.6%	97.3%	97.8%			
2008				69.7%	77.5%	83.6%	88.0%	90.9%	93.2%	94.8%	95.9%	96.9%	97.5%				
2009			56.6%	68.3%	77.0%	83.3%	87.7%	91.1%	93.3%	95.0%	96.2%	97.0%					
2010		42.8%	57.3%	69.6%	78.7%	84.7%	89.1%	92.2%	94.3%	95.7%	96.8%						
2011	22.0%	43.3%	58.3%	71.0%	79.8%	85.8%	90.0%	93.1%	95.0%	96.2%							
2012	22.3%	43.7%	59.7%	72.2%	81.1%	87.2%	91.3%	93.9%	95.5%								
2013	21.6%	44.0%	60.5%	73.9%	83.0%	88.8%	92.5%	94.8%									
2014	21.6%	44.5%	62.0%	75.4%	84.6%	89.8%	93.0%										
2015	21.8%	45.6%	64.3%	78.0%	86.3%	90.6%											
2016	22.4%	48.1%	66.9%	80.1%	87.1%												
2017	23.9%	50.7%	69.5%	80.6%													
2018	24.8%	51.3%	68.0%														
2019	24.8%	49.6%															
2020	27.1%																

Source: WCIRB accident year experience calls

Exhibit 11.2

Estimated Ultimate Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	9	21	33	45	57	69	81	93	105	117	129	141	153	165	177	189	201
1995																	97.5%
1996																96.9%	97.1%
1997															96.7%	96.9%	97.2%
1998														96.6%	96.9%	97.2%	97.4%
1999													96.4%	96.8%	97.2%	97.5%	97.7%
2000												95.5%	96.0%	96.6%	97.0%	97.3%	97.6%
2001											94.0%	94.8%	95.6%	96.2%	96.6%	97.1%	97.4%
2002										93.3%	94.3%	95.4%	96.1%	96.6%	97.1%	97.5%	97.8%
2003									91.9%	93.3%	94.7%	95.5%	96.1%	96.7%	97.2%	97.6%	98.0%
2004								90.1%	91.9%	93.7%	94.9%	95.7%	96.4%	97.0%	97.5%	97.9%	98.2%
2005							87.7%	90.1%	92.4%	93.9%	95.1%	96.0%	96.7%	97.3%	97.8%	98.1%	
2006						83.8%	87.2%	90.2%	92.3%	93.8%	95.1%	96.1%	96.8%	97.4%	97.8%		
2007					78.1%	83.0%	87.3%	90.4%	92.5%	94.3%	95.5%	96.4%	97.1%	97.6%			
2008				68.5%	76.6%	82.8%	87.4%	90.5%	92.9%	94.5%	95.7%	96.7%	97.3%				
2009			54.8%	67.0%	76.2%	82.6%	87.3%	90.8%	93.1%	94.8%	96.0%	96.8%					
2010		39.8%	55.4%	68.3%	77.8%	84.1%	88.7%	92.0%	94.1%	95.6%	96.6%						
2011	11.9%	40.1%	56.4%	69.7%	79.2%	85.4%	89.7%	92.8%	94.8%	96.0%							
2012	11.9%	40.3%	57.8%	71.3%	80.5%	86.8%	91.0%	93.7%	95.3%								
2013	11.5%	40.9%	59.1%	73.0%	82.4%	88.4%	92.2%	94.6%									
2014	11.6%	41.9%	60.6%	74.6%	84.1%	89.4%	92.7%										
2015	11.9%	43.1%	63.2%	77.2%	85.8%	90.3%											
2016	12.2%	45.3%	65.6%	79.2%	86.5%												
2017	13.3%	48.1%	68.0%	79.7%													
2018	13.7%	48.4%	66.6%														
2019	13.6%	46.8%															
2020	14.9%																

Source: WCIRB quarterly calls for experience

Exhibit 11.3

Quarterly Ultimate Settlement Ratios

Accident Year	Evaluated as of (in months): 3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
2011	0.8%	5.1%	12.0%	21.3%	29.7%	35.9%	40.3%	44.7%	48.6%	52.9%	56.8%	60.8%	64.1%	67.1%	70.2%	72.9%
2012	0.8%	5.1%	12.1%	21.2%	29.5%	35.9%	40.8%	45.6%	49.8%	54.1%	58.3%	62.2%	65.6%	68.8%	71.7%	74.4%
2013	0.9%	5.1%	11.8%	21.0%	29.4%	36.0%	41.4%	46.4%	51.0%	55.5%	59.6%	63.6%	67.1%	70.5%	73.4%	76.2%
2014	0.8%	4.8%	11.8%	20.8%	29.6%	36.4%	42.1%	47.3%	52.0%	56.5%	60.8%	64.8%	68.2%	71.7%	74.6%	77.5%
2015	0.8%	4.8%	12.2%	21.2%	30.4%	37.8%	43.5%	48.8%	53.9%	59.0%	63.4%	67.5%	71.1%	74.4%	77.4%	80.0%
2016	0.8%	5.1%	12.3%	21.9%	31.7%	39.5%	45.5%	51.3%	56.3%	61.5%	65.9%	70.1%	73.7%	76.9%	79.3%	81.6%
2017	0.9%	5.6%	13.5%	24.2%	34.2%	42.1%	48.3%	54.2%	59.1%	64.0%	68.1%	71.9%	75.1%	77.4%	79.7%	
2018	1.0%	5.8%	13.9%	24.6%	34.7%	42.6%	48.6%	54.1%	59.0%	62.9%	66.6%					
2019	1.0%	5.9%	13.7%	24.6%	34.5%	41.2%	46.8%									
2020	1.0%	6.5%	14.9%													

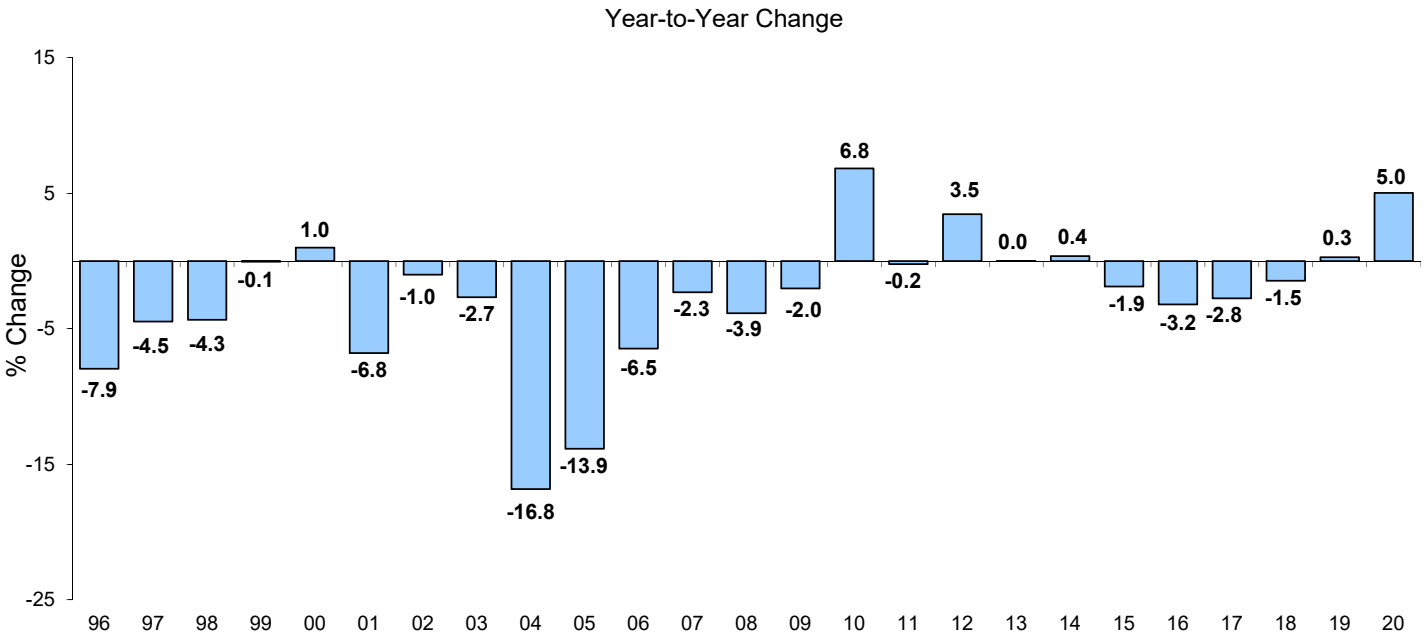
Accident Year	Quarterly Incremental Change 3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2011	4.3%	6.9%	9.3%	8.5%	6.1%	4.5%	4.3%	3.9%	4.4%	3.9%	4.0%	3.3%	3.1%	3.0%	2.7%
2012	4.2%	7.1%	9.1%	8.3%	6.4%	4.8%	4.9%	4.1%	4.3%	4.2%	3.9%	3.4%	3.2%	3.0%	2.7%
2013	4.2%	6.7%	9.1%	8.4%	6.6%	5.4%	5.0%	4.6%	4.5%	4.1%	3.9%	3.6%	3.4%	2.9%	2.8%
2014	4.1%	6.9%	9.1%	8.8%	6.7%	5.8%	5.1%	4.8%	4.5%	4.3%	4.0%	3.4%	3.5%	2.9%	2.8%
2015	4.0%	7.4%	9.0%	9.3%	7.4%	5.7%	5.3%	5.1%	5.1%	4.4%	4.1%	3.6%	3.4%	3.0%	2.6%
2016	4.2%	7.3%	9.6%	9.8%	7.8%	6.0%	5.8%	5.0%	5.2%	4.3%	4.3%	3.6%	3.2%	2.3%	2.4%
2017	4.8%	7.8%	10.7%	10.0%	7.9%	6.2%	5.9%	5.0%	4.9%	4.1%	3.8%	3.2%	2.3%	2.3%	
2018	4.9%	8.1%	10.7%	10.1%	7.9%	6.0%	5.5%	4.9%	3.9%	3.7%					
2019	4.9%	7.9%	10.8%	9.9%	6.7%	5.6%									
2020	5.5%	8.4%													

Notes All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 85% to 100% of the total California workers' compensation insured market measured using 2019 earned premium levels).

Source: WCIRB quarterly calls for experience

Exhibit 12

California Workers' Compensation
Estimated Indemnity Claim Frequency by Accident Year



Note:

The 2019 and 2020 estimate is based on a comparison of claim counts based on WCIRB accident year experience as of September 30, 2020 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.

Exhibit 13

Average Paid ALAE[1] per Reported Indemnity Claim - Private Insurers
As of September 30, 2020

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
2000								4,492	4,662	4,858
2001							5,407	5,637	5,927	6,099
2002						5,570	5,859	6,202	6,401	6,576
2003					5,348	5,796	6,232	6,527	6,756	6,968
2004				4,134	4,911	5,460	5,865	6,157	6,388	6,590
2005			2,722	3,774	4,549	5,101	5,501	5,824	6,092	6,281
2006		1,480	2,831	3,909	4,704	5,306	5,766	6,090	6,352	6,572
2007	378	1,616	3,025	4,177	5,043	5,711	6,244	6,613	6,912	7,144
2008	415	1,734	3,273	4,582	5,577	6,331	6,862	7,294	7,615	7,837
2009	464	1,944	3,685	5,142	6,238	7,024	7,653	8,107	8,428	8,663
2010	510	2,060	3,861	5,274	6,318	7,129	7,753	8,164	8,453	8,664
2011	496	2,091	3,800	5,214	6,311	7,170	7,733	8,115	8,386	8,564
2012	509	2,086	3,925	5,422	6,548	7,308	7,804	8,154	8,375	
2013	521	2,282	4,171	5,647	6,652	7,301	7,737	8,017		
2014	577	2,452	4,378	5,778	6,685	7,271	7,672			
2015	641	2,548	4,468	5,777	6,602	7,129				
2016	631	2,617	4,501	5,780	6,554					
2017	677	2,710	4,575	5,757						
2018	751	2,834	4,710							
2019	750	2,788								
2020	642									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
2001								25.5%	27.1%	25.6%
2002							8.4%	10.0%	8.0%	7.8%
2003						4.1%	6.4%	5.3%	5.5%	6.0%
2004					-8.2%	-5.8%	-5.9%	-5.7%	-5.5%	-5.4%
2005				-8.7%	-7.4%	-6.6%	-6.2%	-5.4%	-4.6%	-4.7%
2006			4.0%	3.6%	3.4%	4.0%	4.8%	4.6%	4.3%	4.6%
2007		9.1%	6.8%	6.8%	7.2%	7.6%	8.3%	8.6%	8.8%	8.7%
2008	9.7%	7.3%	8.2%	9.7%	10.6%	10.9%	9.9%	10.3%	10.2%	9.7%
2009	11.9%	12.1%	12.6%	12.2%	11.9%	10.9%	11.5%	11.1%	10.7%	10.5%
2010	10.0%	5.9%	4.8%	2.6%	1.3%	1.5%	1.3%	0.7%	0.3%	0.0%
2011	-2.8%	1.5%	-1.6%	-1.1%	-0.1%	0.6%	-0.3%	-0.6%	-0.8%	-1.2%
2012	2.6%	-0.2%	3.3%	4.0%	3.8%	1.9%	0.9%	0.5%	-0.1%	
2013	2.2%	9.4%	6.3%	4.2%	1.6%	-0.1%	-0.9%	-1.7%		
2014	10.9%	7.5%	5.0%	2.3%	0.5%	-0.4%	-0.8%			
2015	11.0%	3.9%	2.1%	0.0%	-1.2%	-2.0%				
2016	-1.6%	2.7%	0.7%	0.1%	-0.7%					
2017	7.3%	3.5%	1.6%	-0.4%						
2018	11.0%	4.6%	3.0%							
2019	-0.1%	-1.6%								
2020	-14.4%									
Annual Trend[2]										
All-Year	4.9%	5.0%	4.3%	3.6%	3.0%	2.9%	3.2%	4.0%	4.2%	4.4%
R^3	0.898	0.958	0.932	0.882	0.758	0.758	0.808	0.816	0.819	0.812
5-Year	1.4%	2.6%	1.7%	0.4%	-0.1%	-0.2%	-0.2%	-0.2%	1.9%	4.7%
R^4	0.070	0.873	0.960	0.611	0.010	0.052	0.279	0.267	0.432	0.744

[1] All paid ALAE exclude the paid cost of medical cost containment programs.

[2] Trend is based on exponential distribution.

Source: WCIRB a WCIRB accident year experience calls.

Exhibit 14

Paid Allocated Loss Adjustment Expense Development - Private Insurers
As of September 30, 2020

Accident	Age-to-Age Development Factors (Age in Months)														
Year	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117	117-129	129-141	141-153	153-165	165-177	177-189	189-201
1995															1.008
1996														1.008	1.010
1997													1.013	1.013	1.010
1998												1.015	1.014	1.012	1.012
1999											1.019	1.016	1.014	1.013	1.010
2000										1.022	1.019	1.016	1.015	1.013	1.012
2001									1.025	1.021	1.018	1.017	1.015	1.012	1.009
2002								1.029	1.022	1.019	1.017	1.015	1.012	1.010	1.008
2003							1.037	1.030	1.025	1.021	1.018	1.014	1.011	1.008	1.007
2004						1.053	1.038	1.031	1.026	1.022	1.016	1.013	1.010	1.008	1.007
2005					1.085	1.060	1.048	1.037	1.030	1.024	1.017	1.014	1.011	1.010	
2006				1.133	1.089	1.064	1.050	1.037	1.028	1.019	1.016	1.012	1.008		
2007			1.218	1.137	1.097	1.067	1.048	1.035	1.025	1.019	1.014	1.011			
2008		1.429	1.226	1.141	1.094	1.065	1.045	1.031	1.023	1.018	1.013				
2009	2.000	1.417	1.228	1.140	1.093	1.060	1.041	1.029	1.021	1.015					
2010	1.955	1.406	1.219	1.134	1.090	1.055	1.037	1.026	1.018						
2011	1.946	1.409	1.224	1.139	1.081	1.051	1.034	1.022							
2012	1.993	1.404	1.215	1.120	1.070	1.046	1.030								
2013	1.917	1.369	1.186	1.101	1.062	1.037									
2014	1.859	1.339	1.164	1.092	1.057										
2015	1.831	1.306	1.149	1.084											
2016	1.801	1.299	1.140												
2017	1.749	1.273													
2018	1.731														

Accident	Age-to-Age Development Factors (Age in Months)														
Year	201-213	213-225	225-237	237-249	249-261	261-273	273-285	285-297	297-309	309-321	321-333	333-345	345-357	357-369	369-381
1989						1.004	1.004	1.004	1.004	1.004	1.003	1.003	1.003	1.005	1.002
1990					1.003	1.003	1.003	1.003	1.002	1.003	1.002	1.002	1.002	1.002	
1991				1.003	1.003	1.003	1.003	1.002	1.002	1.003	1.003	1.002	1.002		
1992			1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.002	1.002			
1993		1.006	1.006	1.006	1.005	1.006	1.005	1.005	1.004	1.004	1.003				
1994	1.008	1.007	1.006	1.006	1.006	1.005	1.005	1.004	1.003	1.003					
1995	1.009	1.009	1.008	1.008	1.007	1.008	1.006	1.006	1.004						
1996	1.010	1.008	1.008	1.007	1.006	1.005	1.005	1.004							
1997	1.008	1.008	1.007	1.007	1.006	1.005	1.004								
1998	1.010	1.010	1.009	1.006	1.006	1.005									
1999	1.011	1.008	1.007	1.006	1.004										
2000	1.009	1.007	1.006	1.005											
2001	1.008	1.007	1.006												
2002	1.006	1.006													
2003	1.007														

Source: WCIRB quarterly calls for experience.

Item AC20-12-02
Review of Projections Based on 9 Months

Beginning with the September 1, 2021 filing, the WCIRB's annual pure premium rate filing will be submitted in April with a September 1 effective date. The filing submitted in April will be based on December 31 experience and in part predicated on the projection of the most recent accident year experience evaluated at 12 months. At the December 5, 2019 meeting, the Committee recommended that projections based on accident year experience evaluated at 9 months be reviewed in December to provide a preliminary indication of loss cost trends using the most recent accident year. Staff has conducted a review of the 9-month accident year experience including estimating the relative accuracy of the 9-month data projecting the experience for the full accident year.

Staff reviewed indemnity frequency changes evaluated at the end of each year compared to after 9 months from 2007 to 2019. Staff analyzed these data points and calculated the 95% confidence interval estimations of the 12-month data from the 9-month data. In order to properly model the frequency change and evaluate the effectiveness of the model, staff split these data points to two groups. The model training group includes data from 2007 to 2016 (77%) and the model validation group includes data from 2017 to 2019 (23%). In the model training group, 2009 was an outlier, so staff excluded it from this study. (Staff conducted additional analysis including 2009 in the training group and the width of the confidence interval is more than double when including 2009.)

Based on this study, the 95% confidence interval estimation for the frequency change at 12 months is between -0.8% and +0.9% from the 9-month change.[1] The confidence interval is intended to estimate the average difference for the population as a whole. However, each individual observation will have a lower degree of predictability compared to the population average. As a result, staff also prepared a wider prediction interval which is based on twice the standard deviation of the differences, which resulted in the 12 months change being -3.3% to +3.3% from the 9-month change. The validation group data shows 2017 and 2018, the actual frequency changes sat well within the population 95% confidence intervals. Data from 2019 was slightly outside the population 95% confidence interval but was well within the prediction interval. Exhibit 1 shows the 95% confidence and prediction intervals for each accident year based on the 9-month data. In the future, staff will continue to dynamically adjust the training group and validation group in order to recalibrate the model. Based on this study, staff believes that the 9-month data is reasonable indication of the full year frequency changes.

Staff reviewed paid/incurred indemnity severity changes and paid/incurred medical severity changes evaluated at the end of year compared to after 9 months from 2005 to 2019. Similar to the frequency change analysis, staff also split these data points into two groups. The model training group includes data from 2005 to 2016 (80%), the model validation group includes data from 2017 to 2019 (20%). Exhibits 2.1 to 2.4 show the 95% confidence and prediction intervals for each accident year based on the 9-month data, which were computed similarly to the analysis of claim frequency changes. Based on this study, staff noted the following:

1. The 95% confidence interval estimation for the paid indemnity severity change at 12 months is between -0.8% to +0.8% from the 9-month change, while the wider prediction interval estimation is between -2.4% to +2.4% (Exhibit 2.1). In the validation group, 2017 and 2018 actual 12-month severity changes were well within the 95% confidence intervals. The severity change for 2019

[1] For this study, the sample size was small. Student's t-distribution is a large family of distributions that are similar in shape to the normal standard distribution, but adjusted to account for smaller sample sizes. As a result, staff decided to use Student's t-distribution to find the confidence interval for this study. Staff used the sample mean plus and minus the margin of error to calculate the confidence interval for the frequency change at 12 months.

was outside both the 95% confidence and prediction intervals. In general, paid indemnity at 9 months is mostly for temporary disability with most claims not yet settled. As a result, the predictability of the 9-month indemnity severity change for the full accident year change may be limited.

2. The 95% confidence interval estimation for the incurred indemnity severity change at 12 months is between -0.7% to +2.3% from the 9-month change, while the wider prediction interval estimation is between -4.5% to +4.5% (Exhibit 2.2). In the validation group, 2017 and 2018 actual 12-month severity changes were well within the 95% confidence intervals. The severity change for 2019 was slightly outside the range for both the confidence and prediction intervals. As noted above, there may be limitations on the predictive value of 9-month indemnity severities given the immaturity of the claims.

3. The 95% confidence interval estimation for the paid medical severity change at 12 months is between -2.1% to +1.6% from the 9-month change, while the wider prediction interval estimation is between -5.5% to +5.5% (Exhibit 2.3). In the validation group, each year's 12-month change was well within the prediction interval.

4. The 95% confidence interval estimation for the incurred medical severity change at 12 months is between -1.4% to +1.9% from the 9-month change, while the wider prediction interval estimation is between -4.9% to +4.9% (Exhibit 2.4). In the validation group, 2017 and 2018's actual 12-month severity changes were well within the prediction range. The severity change for 2019 was slightly outside the prediction interval. (The unanticipated negative medical severity change for 2019 has been discussed at prior meetings.)

Based on this review, the predictability of the 9-month indemnity severity change for the full accident year change may be limited. However, staff believes that the 9-month data can be used as a reasonable indication of the direction and approximate magnitude of the full year medical severity changes.

Staff reviewed the historical 9-to-12 months loss development factors (LDFs) for incurred indemnity losses, incurred medical losses, paid indemnity losses and paid medical losses. As shown on Exhibits 3.1 and 3.2, these LDFs were relatively stable from 2005 to 2018. As a result, staff used a 5-year moving average to project the 9-to-12 months LDF for the coming year. To compute a loss ratio at 12 months, staff also reviewed the earned premium development evaluated at the end of 9 months compared to the end of 12 months. From the historical data as shown in Exhibit 3.3, staff noticed that premium development was stable and selected a 5-year moving average of the historical development factors to develop the earned premium from the end of the 9 months to the end of 12 months. Using these development approaches, the 2019 estimated loss ratio at 12 months using the 9-month data were generally within a 4% (0.2 point) difference compared to the actual 12-month loss ratios, as shown in Exhibit 3.4.

To project ultimate loss ratios based on 9 months, staff used 9-to-12 months factors as described above and 12-to-ultimate loss development factors based on the WCIRB's standard loss development methodologies and using data as of September 30 evaluations. The developed paid indemnity losses and paid medical losses were then compared to the projected ultimate loss ratios from the subsequent (December 31) evaluation. As shown in Exhibit 3.5 for accident year 2019, the projected paid indemnity ultimate loss ratios based on the 9-month data and that based on year-end data were 25.73% and 25.94%, respectively. The projected paid medical ultimate loss ratios based on the 9-month data and that based on year-end data were 28.44% and 30.07%, respectively.

Staff believes this framework will provide some context of the 9-month data as it is reviewed in preparation of the annual pure premium rate filings in the future. However, it may be more difficult than usual to make inferences from the 9-month information in 2020 as it is impacted by many factors related

to the COVID-19 pandemic and historical relationships between 9 months and 12 months experience may not be applicable to accident year 2020. Additional information on accident year 2020 experience through 9 months will be presented at the meeting.

Exhibit 1

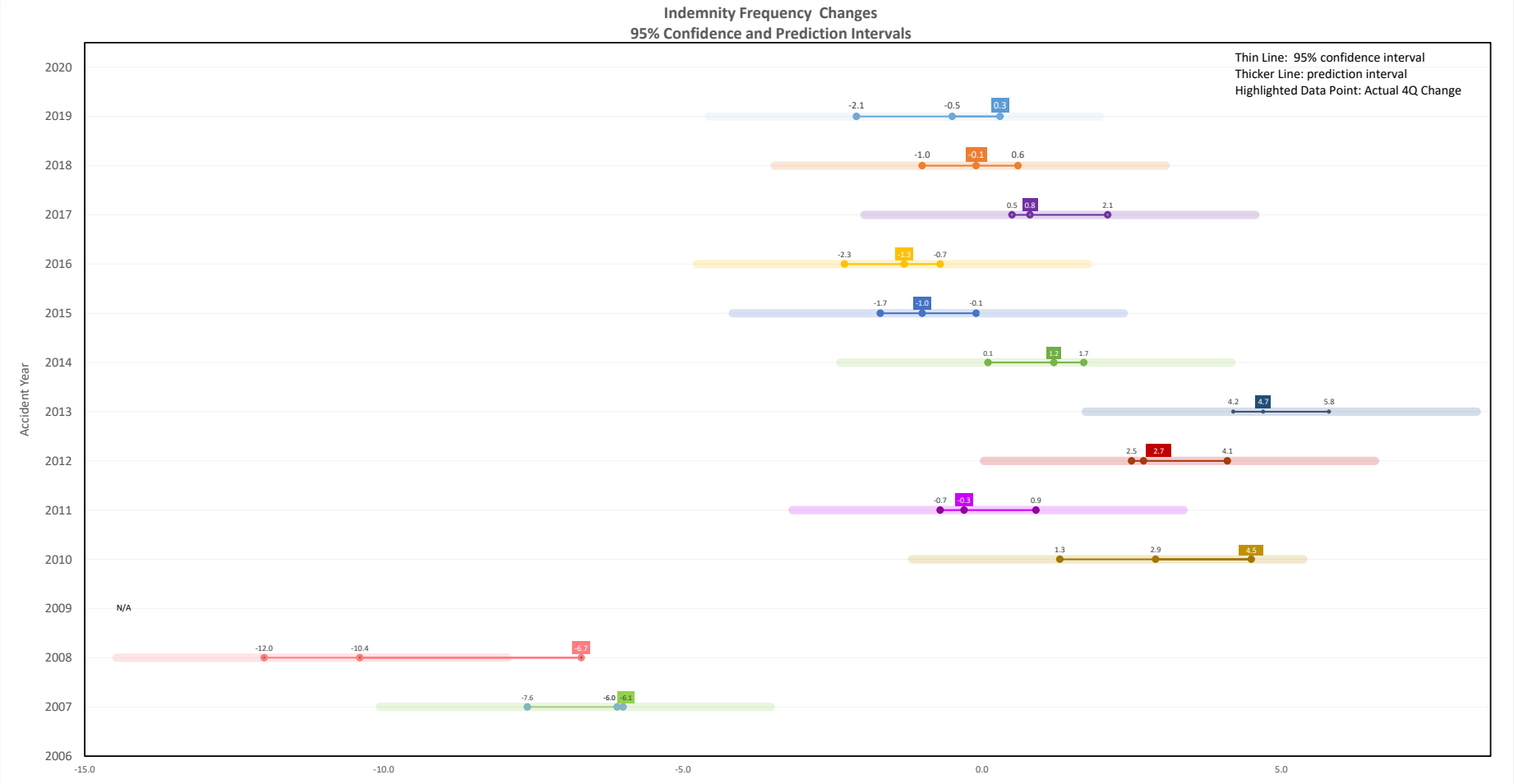

Indemnity Frequency Changes
95% Confidence and Prediction Intervals
Thin Line: 95% confidence interval
Thicker Line: prediction interval
Highlighted Data Point: Actual 4Q Change
Accident Year
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
-15.0
-10.0
-5.0
0.0
5.0
-2.1
-0.5
0.3
-1.0
-0.1
0.6
0.5
0.8
2.1
-2.3
-1.3
-0.7
-1.7
-1.0
-0.1
0.1
1.2
1.7
4.2
4.7
5.8
2.5
2.7
4.1
-0.7
-0.3
0.9
1.3
2.9
4.5
N/A
-12.0
-10.4
-6.7
-7.6
-6.0
-4.1

Exhibit 2.1

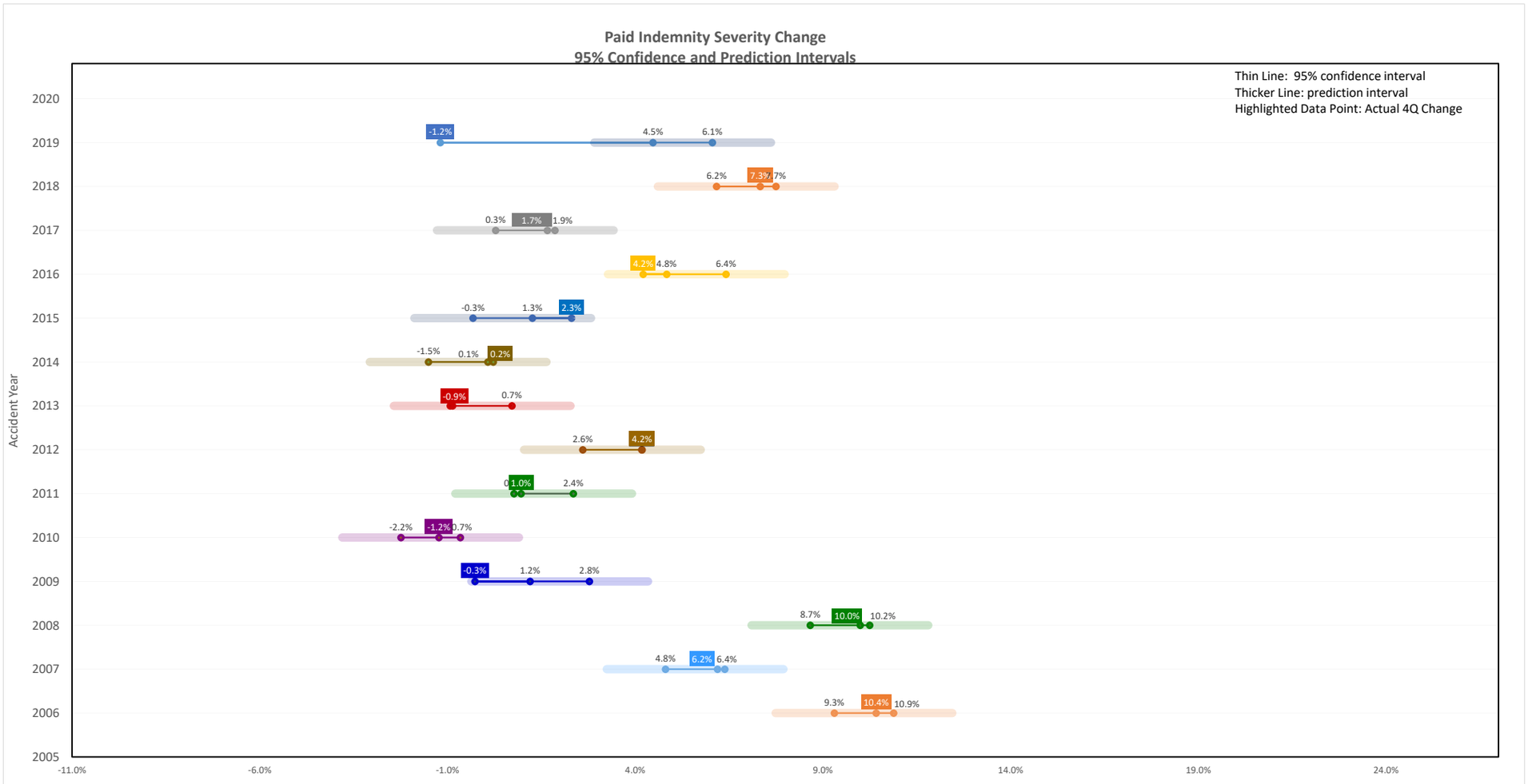
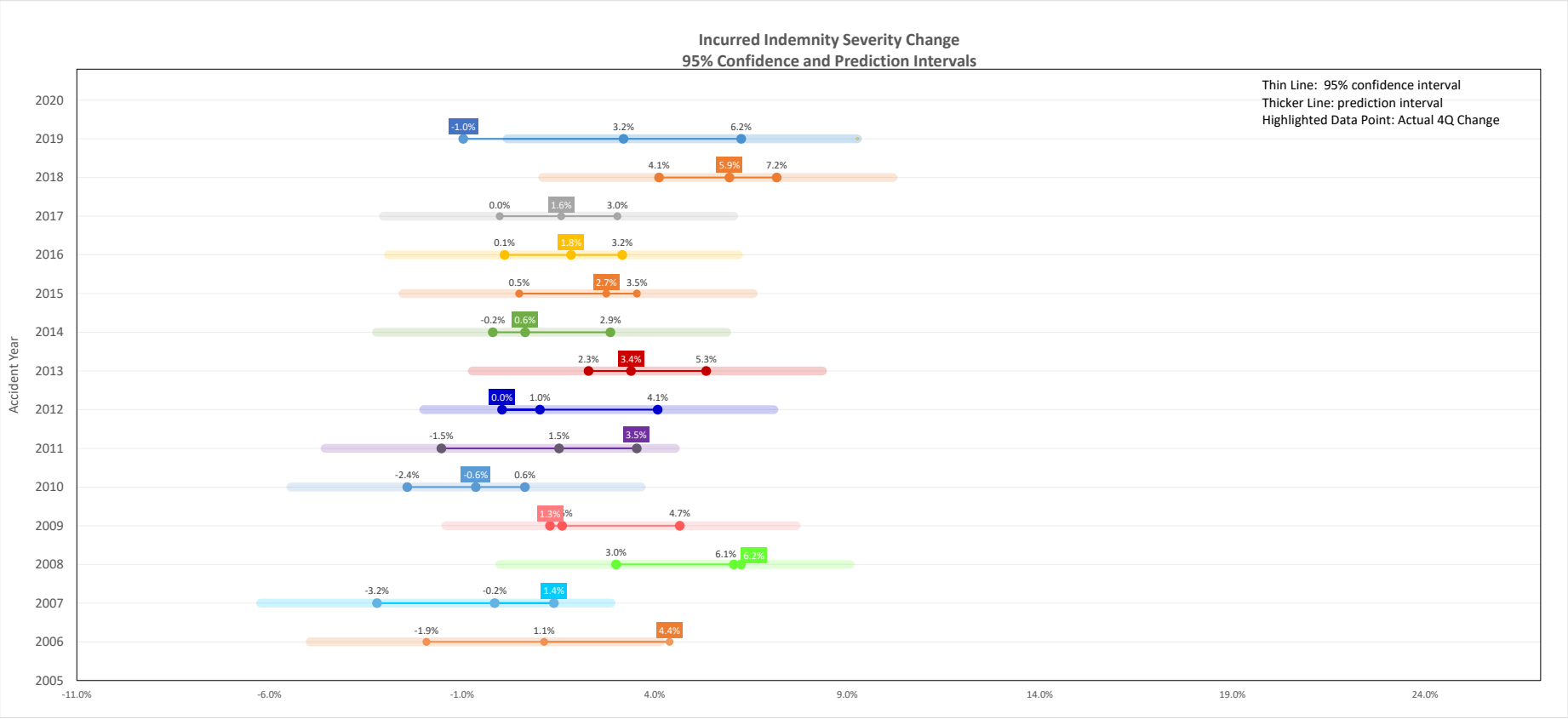
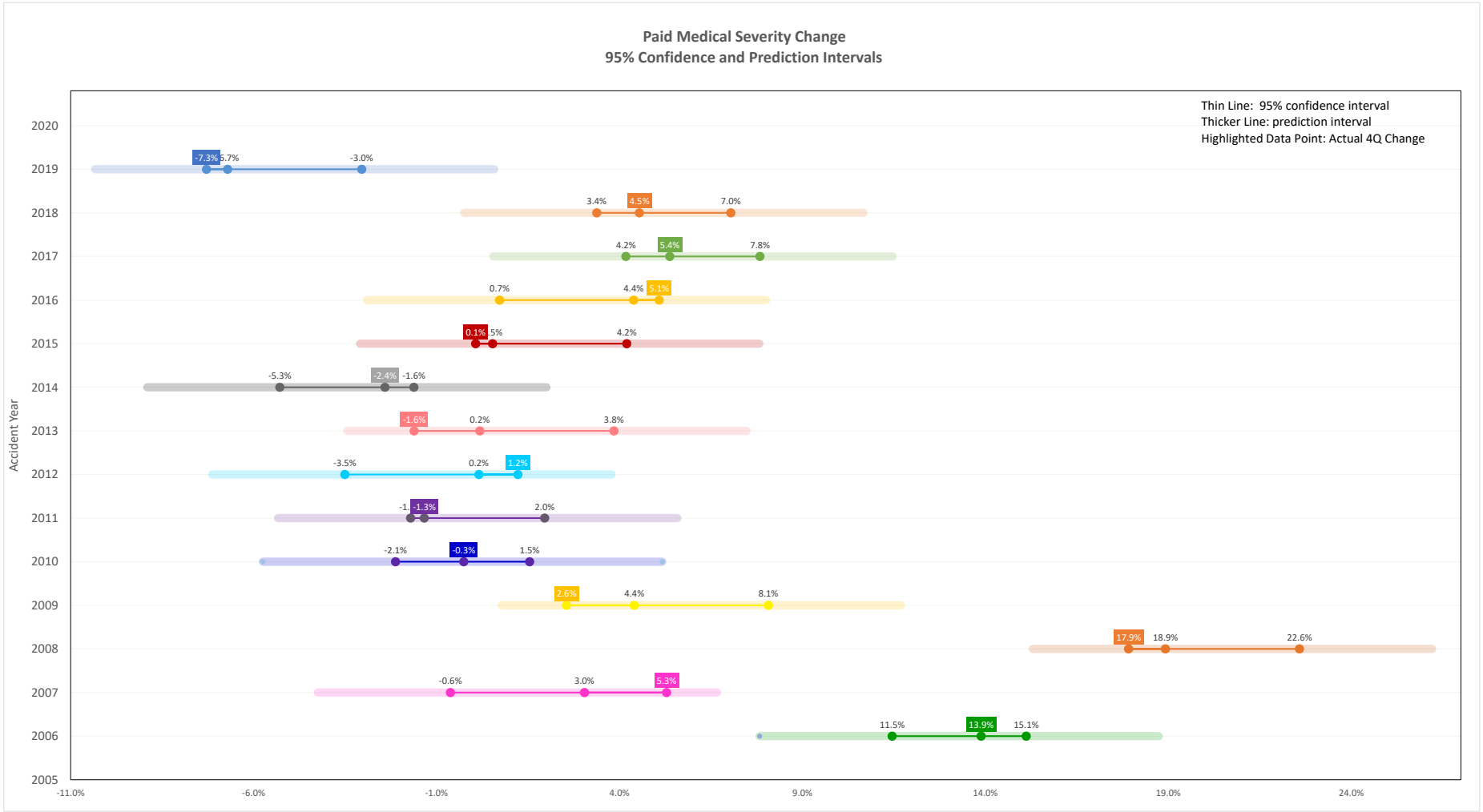
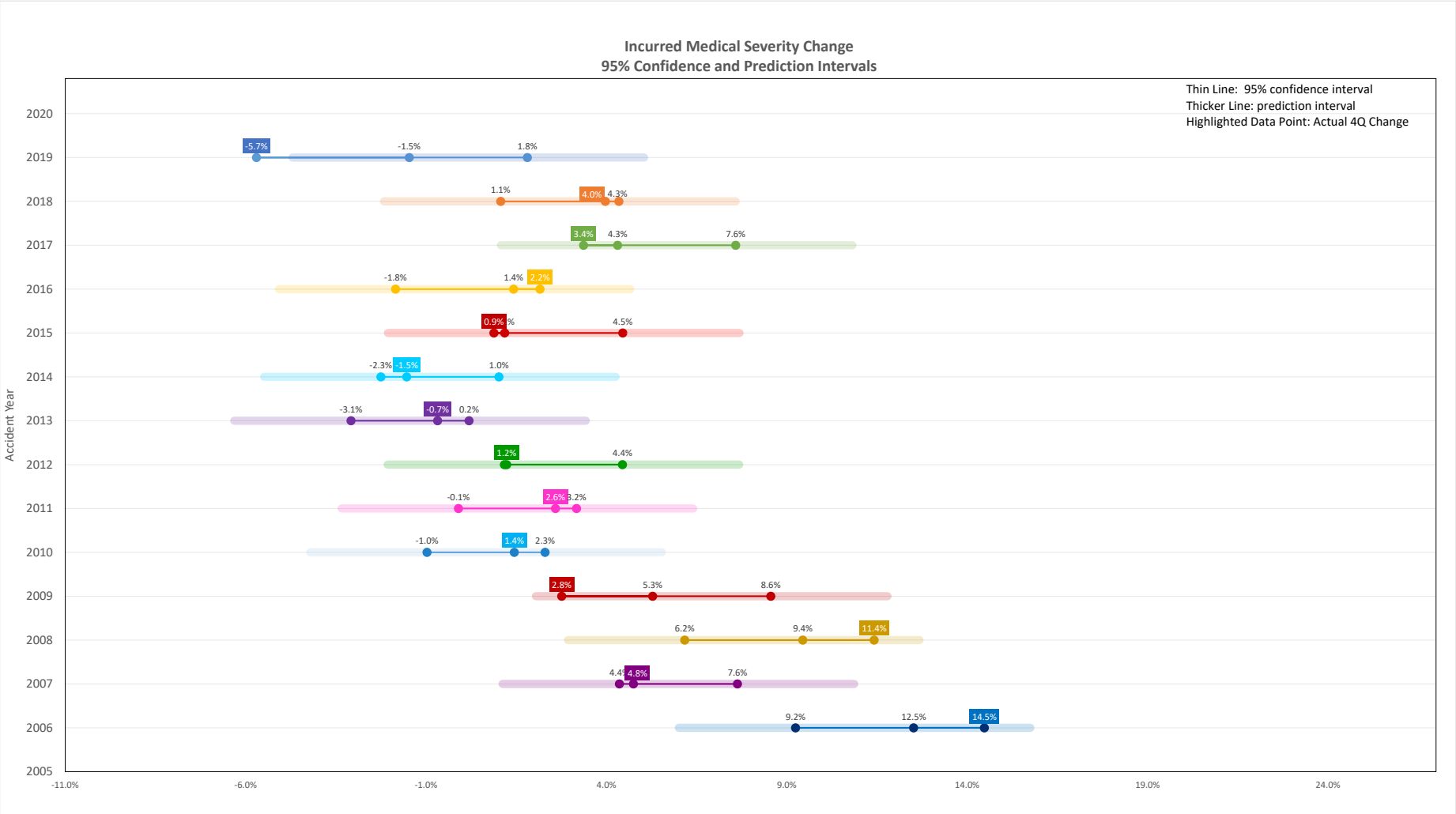
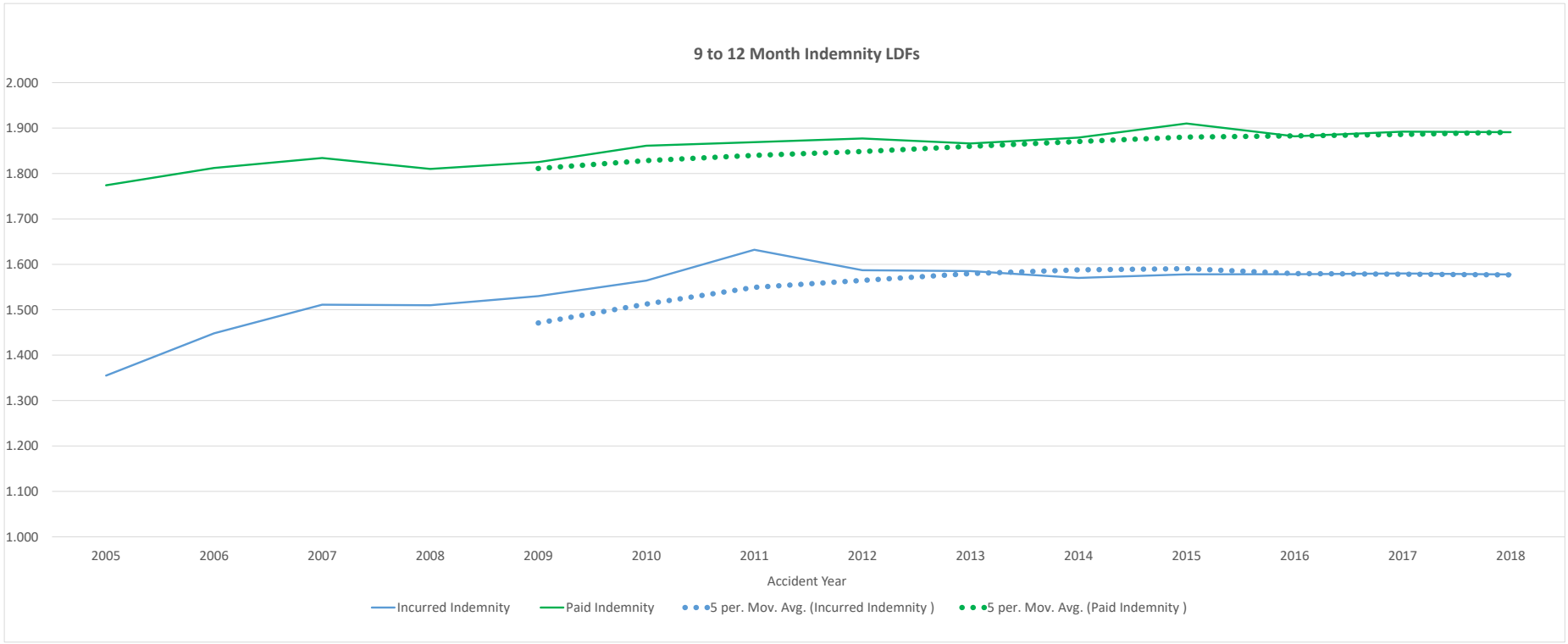

Paid Indemnity Severity Change
95% Confidence and Prediction Intervals
Thin Line: 95% confidence interval
Thicker Line: prediction interval
Highlighted Data Point: Actual 4Q Change
Accident Year
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
2005
-11.0%
-6.0%
-1.0%
4.0%
9.0%
14.0%
19.0%
24.0%
-1.2%
4.5%
6.1%
6.2%
7.3%
7.7%
0.3%
1.7%
1.9%
4.2%
4.8%
6.4%
-0.3%
1.3%
2.3%
-1.5%
0.1%
0.2%
-0.9%
0.7%
2.6%
4.2%
1.0%
2.4%
-2.2%
-1.2%
0.7%
-0.3%
1.2%
2.8%
8.7%
10.0%
10.2%
4.8%
6.2%
6.4%
9.3%
10.4%
10.9%

Exhibit 2.2


Incurred Indemnity Severity Change
95% Confidence and Prediction Intervals
Thin Line: 95% confidence interval
Thicker Line: prediction interval
Highlighted Data Point: Actual 4Q Change
Accident Year
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
2005
-1.0%
3.2%
6.2%
4.1%
5.9%
7.2%
0.0%
1.6%
3.0%
0.1%
1.8%
3.2%
0.5%
2.7%
3.5%
-0.2%
0.6%
2.9%
2.3%
3.4%
5.3%
0.0%
1.0%
4.1%
-1.5%
1.5%
3.5%
-2.4%
-0.6%
0.6%
1.3%
4.7%
3.0%
6.1%
6.2%
-3.2%
-0.2%
1.4%
-1.9%
1.1%
4.4%
-11.0%
-6.0%
-1.0%
4.0%
9.0%
14.0%
19.0%
24.0%


Paid Medical Severity Change
95% Confidence and Prediction Intervals
Thin Line: 95% confidence interval
Thicker Line: prediction interval
Highlighted Data Point: Actual 4Q Change
Accident Year
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
2005
-11.0%
-6.0%
-1.0%
4.0%
9.0%
14.0%
19.0%
24.0%
-7.3%
-5.7%
-3.0%
3.4%
4.5%
7.0%
4.2%
5.4%
7.8%
0.7%
4.4%
5.1%
0.1%
.5%
4.2%
-5.3%
-2.4%
-1.6%
-1.6%
0.2%
3.8%
-3.5%
0.2%
1.2%
-1.
-1.3%
2.0%
-2.1%
-0.3%
1.5%
2.6%
4.4%
8.1%
17.9%
18.9%
22.6%
-0.6%
3.0%
5.3%
11.5%
13.9%
15.1%


Incurred Medical Severity Change
95% Confidence and Prediction Intervals
Thin Line: 95% confidence interval
Thicker Line: prediction interval
Highlighted Data Point: Actual 4Q Change
Accident Year
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
2005
-5.7%
-1.5%
1.8%
1.1%
4.0%
4.3%
3.4%
4.3%
7.6%
-1.8%
1.4%
2.2%
0.9%
4.5%
-2.3%
-1.5%
1.0%
-3.1%
-0.7%
0.2%
1.2%
4.4%
-0.1%
2.6%
3.2%
-1.0%
1.4%
2.3%
2.8%
5.3%
8.6%
6.2%
9.4%
11.4%
4.4%
4.8%
7.6%
9.2%
12.5%
14.5%
-11.0%
-6.0%
-1.0%
4.0%
9.0%
14.0%
19.0%
24.0%


9 to 12 Month Indemnity LDFs
2.000
1.900
1.800
1.700
1.600
1.500
1.400
1.300
1.200
1.100
1.000
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
Accident Year
Incurred Indemnity
Paid Indemnity
5 per. Mov. Avg. (Incurred Indemnity)
5 per. Mov. Avg. (Paid Indemnity)

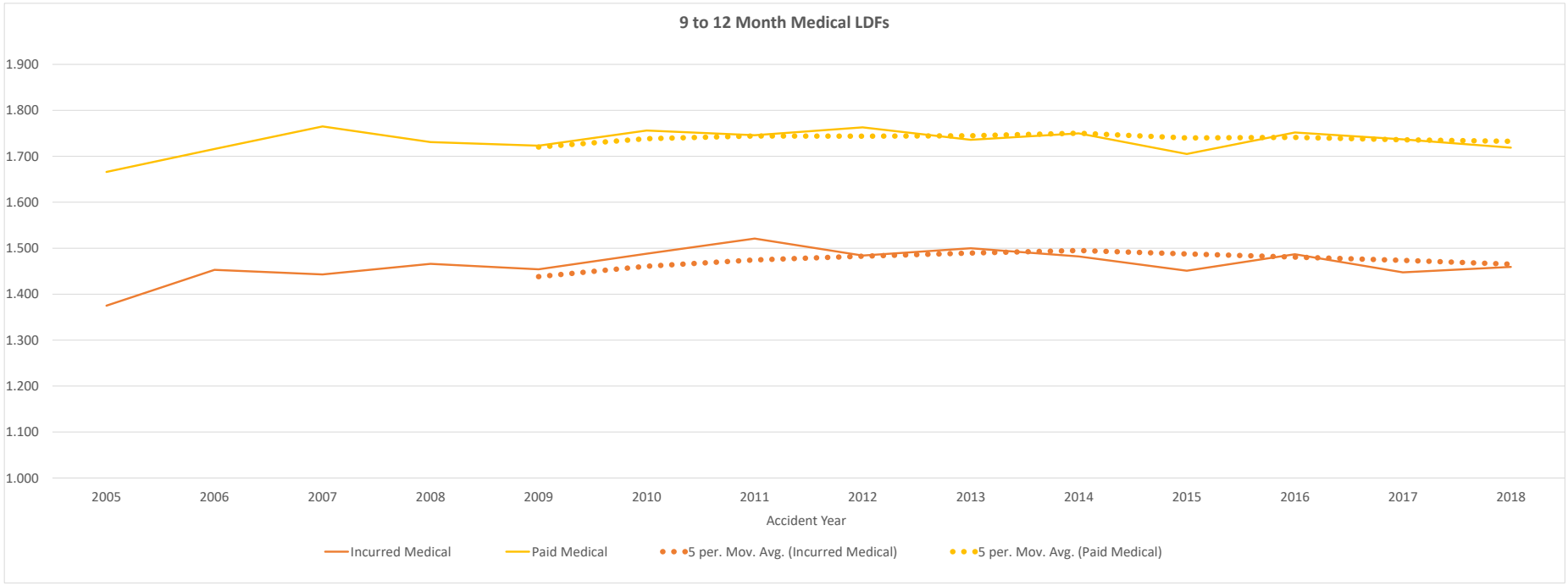

9 to 12 Month Medical LDFs
1.900
1.800
1.700
1.600
1.500
1.400
1.300
1.200
1.100
1.000
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
Accident Year
Incurred Medical
Paid Medical
5 per. Mov. Avg. (Incurred Medical)
5 per. Mov. Avg. (Paid Medical)

Exhibit 3.3

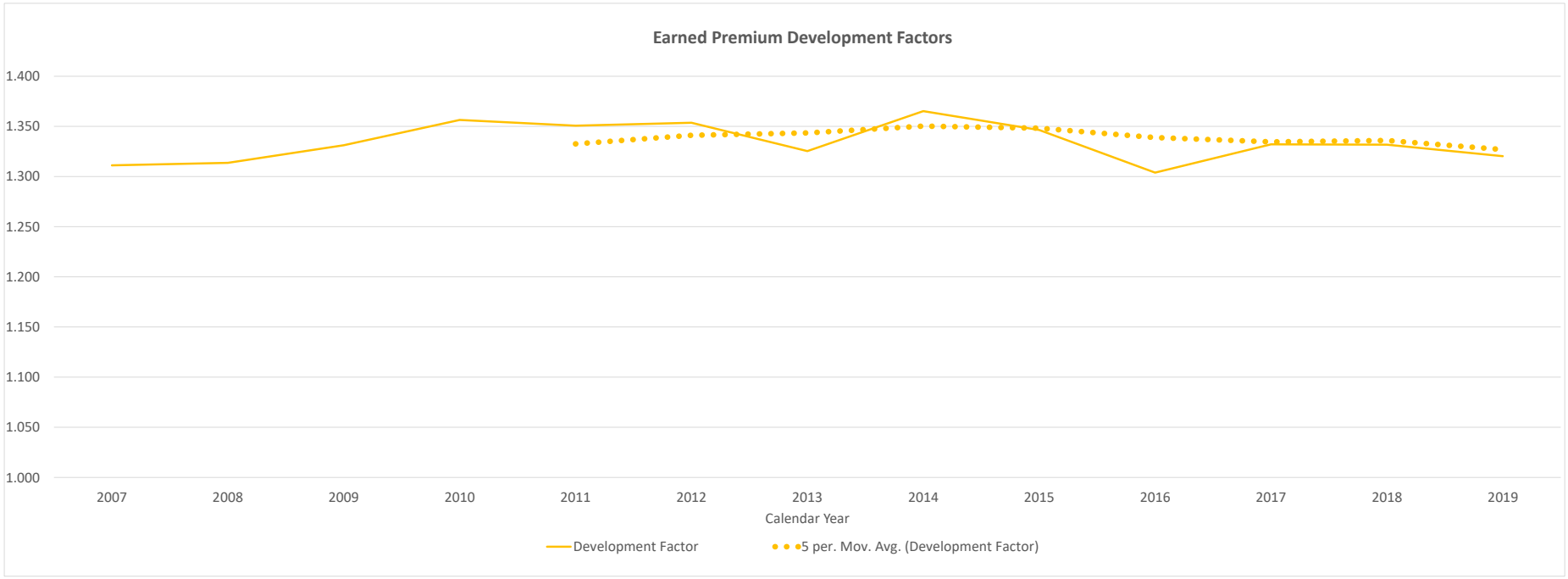

Earned Premium Development Factors
1.400
1.350
1.300
1.250
1.200
1.150
1.100
1.050
1.000
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Calendar Year
Development Factor
5 per. Mov. Avg. (Development Factor)

Exhibit 3.4

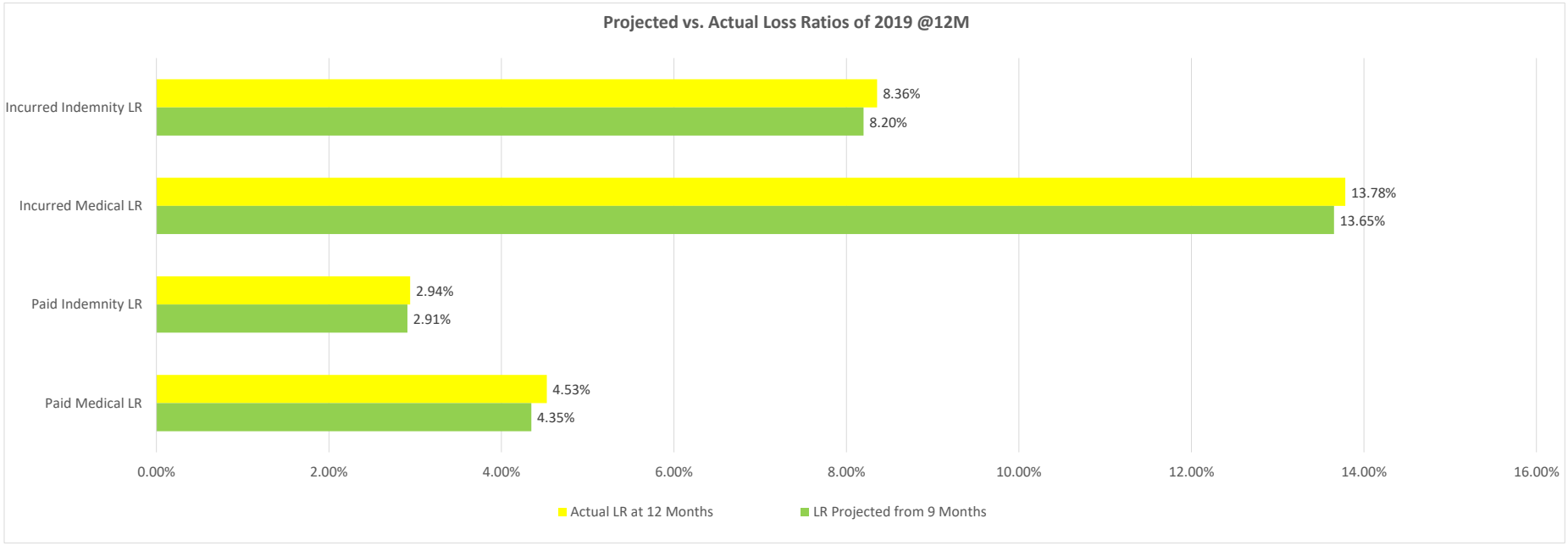
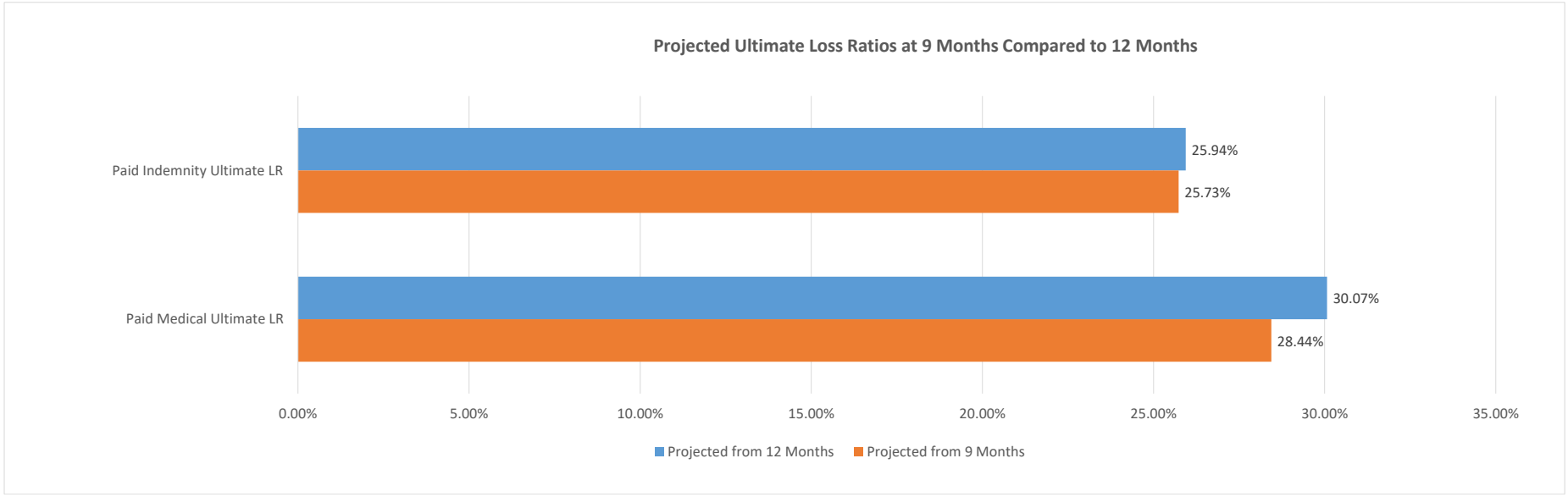

Projected vs. Actual Loss Ratios of 2019 @12M
Incurred Indemnity LR
8.36%
8.20%
Incurred Medical LR
13.78%
13.65%
Paid Indemnity LR
2.94%
2.91%
Paid Medical LR
4.53%
4.35%
0.00%
2.00%
4.00%
6.00%
8.00%
10.00%
12.00%
14.00%
16.00%
Actual LR at 12 Months
LR Projected from 9 Months

Exhibit 3.5


Projected Ultimate Loss Ratios at 9 Months Compared to 12 Months
Paid Indemnity Ultimate LR
Paid Medical Ultimate LR
25.94%
25.73%
30.07%
28.44%
0.00%
5.00%
10.00%
15.00%
20.00%
25.00%
30.00%
35.00%
Projected from 12 Months
Projected from 9 Months

Item AC20-12-03
Classification Ratemaking Loss Development

Since 2008, the WCIRB has combined classifications with similar loss development patterns and used the incurred loss development patterns of the group as a whole to develop incurred losses reported-to-date for each classification to an ultimate basis for purposes of classification ratemaking. Separate groupings of classifications are used for indemnity and medical losses. The WCIRB enhanced the process in 2012. Initially, there were eight loss development groups. Over time, the differentiation among groupings eroded and the initial groups were merged into four loss development groups for both indemnity and medical losses.

In the current process, unlimited indemnity and medical losses evaluated at first through fifth unit statistical report level are developed separately based on their assigned loss development groups. Individual losses are then trended and on-leveled before being limited to $500,000. See Section C, Appendix C of the WCIRB's January 1, 2021 Regulatory Filing for a complete description of the classification ratemaking process.

Staff completed an analysis of the WCIRB's current loss development groups as well as several alternative groupings based on claims characteristics. This preliminary analysis was presented to the Actuarial Research Working Group (ARWG) at the March 3, 2020 meeting with an updated analysis presented to the ARWG at the October 6, 2020 meeting. The analyses showed that the current loss development grouping approach could be enhanced to better capture the development pattern for each classification.

The current loss development group methodology has been re-optimized and additional options have been developed and presented for consideration. An overview of the methodology and development of the recommended groupings are discussed below.

Background
The core methodology for defining the current loss development groups reflects an iterative Kruskal Wallis test applied to classifications' development relativities. The Kruskal Wallis test is a non-parametric analysis of variance on ranks. For each classification, the median relativity over observed years was selected to compute the H statistic[1] which measures the differences between sets of observations. The observation with the maximum H statistic is the optimal point to bifurcate the total group into two sub-groups. The process was repeated to generate the final groups. An analysis of the share of explainable variance was used to select the best number of groupings. An example is shown in Exhibit 1.

Limited Loss Development on Open Claims
This analysis uses the WCIRB's unit statistical report data for policy years 2011 to 2016 at all available report levels. Staff began by calculating the loss development factor relativities and their corresponding rankings for the current loss development groups which are shown in Exhibits 2.1 through 2.4.

Based on feedback from the ARWG, staff reviewed classification loss development on a limited loss basis. Losses from individual claims were trended and on-leveled and then limited to $500,000. Staff compared segmentation options based on the development of these losses. For the first alternative to re-optimize classification-based loss development groups, staff developed a set of groupings using data from open claims only to segregate classifications into groups as loss development on open claims

[1] The H statistic is the unique symmetric unbiased estimator for a central moment of a distribution. The formula is

$$H = (N-1)\frac{\sum_{i=1}^{g} n_i(\overline{r_i} - \bar{r})^2}{\sum_{i=1}^{g}\sum_{j=1}^{n_i}(r_{ij} - \bar{r})^2}$$

showed more consistent differentiation. The resulting groups were applied to all claims afterward as the groups developed using data on open claims also segmented development well for closed claims. The information for optimized groupings using limited losses on open claims can be found in Exhibits 3.1 through 3.4.

Staff also evaluated the appropriateness of loss development using a combination of class groupings for open claims and a separate group for closed claims. For each classification, indemnity and medical loss costs on open claims were developed to the latest report level using the loss development factors calculated based on the open claims from the assigned loss development group. Loss development factors for closed claims were developed based on the experience of closed claims and applied to all closed claims. Staff believes this is a reasonable approach due to the minimal differentiation in the development of closed claims for either medical or indemnity loss by any of the groupings. The performance of this approach was tested and found to outperform the optimized groupings without separating closed claims. The results in Exhibits 4.1 through 4.4 show that closed claims have significantly different development than open claims.

Tree Model

Staff also explored a decision tree model as an alternative to the approach using Kruskal Wallis tests. The decision tree model is a supervised learning method used for classification and prediction. This tree model splits the source set into subsets based on the Gini Index[2] which measures the homogeneity of derived groups. The process is repeated on each subset in a recursive manner to derive the final groupings. The optimal size of groupings was determined by cost complexity pruning, which reduces the size of a learning tree without reducing predictive accuracy as measured by a cross-validation set.

For comparison, staff used the tree model to develop two alternative groupings of classes for loss development. As with the previous alternatives, one set of groups was developed using data on open claims only and the other was developed for open claims with a separate group for closed claims. Using the Gini index as the splitting criteria led to three loss development groups each for indemnity and medical losses. The loss development factor relativities and the rankings for optimized groupings from the decision tree model using limited losses on open claims are shown in Exhibits 5.1 through 5.4. As when using Kruskal Wallis tests, performance was improved once a separate group was added for closed claims. These groupings are shown in Exhibits 6.1 through 6.4.

Staff also explored using claims characteristics for loss development. One advantage of the tree model is that it can be used over multiple categorical variables while the Kruskal Wallis test can be used to optimize over a single variable only. A decision tree model was run with open/closed status, cumulative trauma (CT) status, part of body and type of injury. These characteristics were chosen because they are considered significant drivers of development differences. While CT status was one of the inputs in the model, it was not significantly related to the loss development compared to the other selected variables. Exhibits 7.1 through 7.4 show the loss development factor relativities and the rankings for the groupings derived using this approach. Exhibits 8.1 through 8.3 contain insights from the models using claims characteristics.

Performance Test

A total of 474 classifications were studied. To reduce the volatility, staff excluded small classifications for which experience was not available for all policy years in the study. The assignment of small classifications and any new classifications will be reviewed manually. The performance of the proposed groups is tested using experience from a year after the experience period. For example, the true loss development factor is compared with the geometric mean of loss development factors from the previous two years. This specification was chosen to reflect the calculation of loss development factors in practice.

[2] The Gini Index measures the inequality among values. A small value indicates the subgroup contains observation with high similarity. The formula for Gini Index is $I_G(p) = \sum_{i=1}^{J}(p_i \sum_{k \neq i} p_k)$

As shown in Exhibits 9.1 through 9.3, the performance of each method is measured and compared for each policy period which is used in classification ratemaking. The calculated errors, squared errors and absolute errors are shown both on observation weighted and loss weighted bases.

At this time, staff recommends retaining loss development groups based on classifications rather than claims characteristics. The groupings based on claims characteristics are promising but do not clearly outperform those based on classifications. Such groupings would also have data challenges based on the consistency of coding for part of body, injury type and claim status across insurers and over time. It would also require more significant changes to the WCIRB's existing classification ratemaking process. This approach remains promising and should be revisited at the next comprehensive loss development methodology review potentially also using diagnostic grouping information from the medical transaction data as a differentiating claim characteristic.

Staff also recommends adopting separate development for open and closed claims as this consistently outperforms the development based on open claims only. This is true for whether the groupings were developed using the Kruskal Wallis Bifurcation model or the decision tree model. The performance of the groupings developed by the two models was very similar. The grouping of classification codes was similar in the two models and is shown in Exhibit 10. The results of the models differ in the number of optimized groupings, the location of the cut-points and the size of derived groupings.

Staff prefers a more refined grouping structure as developed by the Kruskal Wallis model and recommends developing updated loss groupings using limited loss data and this methodology. Staff also recommends continuing to review the performance of the selected groupings to those based on the decision tree model to see which performs better over time.

Exhibit 1

Kruskal-Wallis Bifurcation Illustration

Currently, five observations are used and classes are sorted by median development relativity.
This example would separate classes into two groups {C, A} and {F, E, D, B}.
These two groups could be further bifurcated until there are too few observations or p-value is too high.

Class	Year	Relativity	*Sorted* Median Relativity	Relativity Rank	Avg. Rank Up to	Avg. Rank Above	Test Statistic H	Chi-Squared 1 d.f. p-value
C	1	1.407	0.722	3				
C	2	0.722	0.722	22				
C	3	0.536	0.722	27				
C	4	0.611	0.722	24				
C	5	1.013	0.722	16	18.400	14.920	0.651	0.4197
A	1	0.822	0.822	20				
A	2	0.792	0.822	21				
A	3	0.532	0.822	28				
A	4	1.168	0.822	13				
A	5	0.996	0.822	17	19.100	13.700	2.508	0.1132
F	1	1.051	1.051	15				
F	2	1.404	1.051	4				
F	3	1.471	1.051	2				
F	4	0.511	1.051	30				
F	5	0.720	1.051	23	17.667	13.333	1.817	0.1776
E	1	1.235	1.174	10				
E	2	1.174	1.174	12				
E	3	0.976	1.174	18				
E	4	1.266	1.174	9				
E	5	0.936	1.174	19	16.650	13.200	1.024	0.3116
D	1	1.369	1.216	6				
D	2	1.294	1.216	8				
D	3	1.216	1.216	11				
D	4	0.596	1.216	25				
D	5	0.526	1.216	29	16.480	10.600	1.859	0.1728
B	1	1.101	1.304	14				
B	2	1.401	1.304	5				
B	3	0.547	1.304	26				
B	4	1.483	1.304	1				
B	5	1.304	1.304	7				
N	30	Total obs.						

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Relativities

Current LDGs

Indemnity

ILDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							0.99	1.00	1.00
2008						0.99	0.99	1.00	1.00
2009					0.99	0.99	1.00	1.00	
2010				0.99	0.99	0.99	1.00		
2011			0.98	0.99	0.99	1.00			
2012		0.96	0.99	0.98	0.99				
2013	0.94	0.97	0.99	0.99					
2014	0.96	0.97	0.99						
2015	0.96	0.97							
2016	0.95								
2013 CDF	0.86	0.91	0.95	0.96	0.98	0.98	0.99	1.00	1.00
2014 CDF	0.89	0.93	0.96	0.97	0.98	0.99	1.00	1.00	1.00
2015 CDF	0.89	0.93	0.95	0.96	0.98	0.99	1.00	1.00	1.00
2016 CDF	0.89	0.94	0.96	0.97	0.99	0.99	1.00	0.99	1.00

ILDG 2

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							0.99	1.00	1.00
2008						1.00	0.99	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				0.99	1.00	1.00	1.00		
2011			0.99	1.00	1.00	1.00			
2012		0.99	1.00	1.00	1.00				
2013	0.99	0.99	0.99	0.99					
2014	0.99	1.00	0.99						
2015	1.00	0.99							
2016	1.00								
2013 CDF	0.96	0.97	0.98	0.98	0.99	0.99	0.99	1.00	1.00
2014 CDF	0.97	0.98	0.99	0.99	0.99	0.99	0.99	1.00	1.00
2015 CDF	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
2016 CDF	0.97	0.97	0.98	0.99	1.00	1.00	1.00	1.00	1.00

ILDG 3

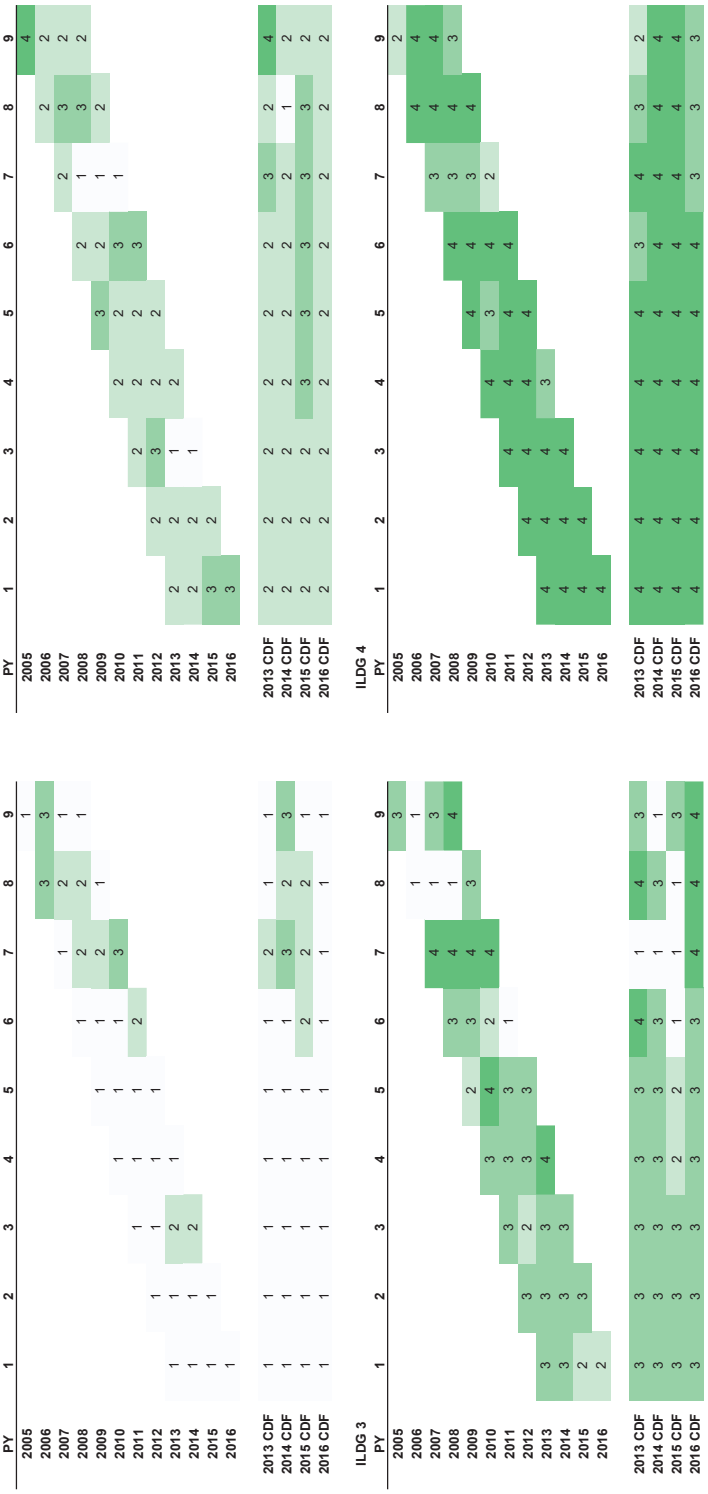
PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								0.99	1.00
2007							1.02	0.99	1.00
2008						1.01	1.02	0.99	1.01
2009					1.00	1.00	1.00	1.00	
2010				1.00	1.01	0.99	1.00		
2011			1.00	1.00	1.01	0.99			
2012		1.01	0.99	1.00	1.00				
2013	1.00	1.01	1.00	1.01					
2014	1.00	1.00	1.01						
2015	1.00	1.00							
2016	1.00								
2013 CDF	1.02	1.02	1.01	1.02	1.02	1.02	1.01	0.99	1.00
2014 CDF	1.02	1.01	1.01	1.01	1.01	1.00	1.00	0.98	1.00
2015 CDF	0.99	1.00	0.99	1.00	0.99	0.99	0.99	0.99	1.00
2016 CDF	1.02	1.02	1.02	1.01	1.00	1.00	1.01	1.01	1.01

ILDG 4

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.01	1.00
2007							1.00	1.01	1.00
2008						1.01	1.00	1.00	1.00
2009					1.01	1.01	1.00	1.00	
2010				1.01	1.00	1.01	1.00		
2011			1.02	1.01	1.01	1.00			
2012		1.03	1.01	1.01	1.01				
2013	1.06	1.03	1.01	1.01					
2014	1.04	1.03	1.01						
2015	1.04	1.03							
2016	1.05								
2013 CDF	1.16	1.09	1.05	1.03	1.02	1.01	1.00	1.01	1.00
2014 CDF	1.11	1.07	1.04	1.03	1.02	1.01	1.01	1.01	1.00
2015 CDF	1.12	1.08	1.05	1.03	1.02	1.02	1.01	1.01	1.00
2016 CDF	1.11	1.06	1.03	1.02	1.01	1.01	1.00	1.00	1.00

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Ranks
Current LDGs

Indemnity



ILDG 1 PY	1	2	3	4	5	6	7	8	9
2005									1
2006								3	3
2007							1	2	1
2008						1	2	2	1
2009					1	1	2	1	
2010				1	1	1	3		
2011			1	1	1	2			
2012		1	1	1	1				
2013	1	1	2	1					
2014	1	1	2						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	2	1	1
2014 CDF	1	1	1	1	1	1	3	2	3
2015 CDF	1	1	1	1	1	2	2	2	1
2016 CDF	1	1	1	1	1	1	1	1	1

ILDG 2 PY	1	2	3	4	5	6	7	8	9
2005									4
2006								2	2
2007							2	3	2
2008						2	1	2	
2009					3	2	1		
2010				2	2	3	1		
2011			2	2	2				
2012		2	3	2					
2013	2	2	1						
2014	2	2	1						
2015	3	2							
2016	3								
2013 CDF	2	2	2	2	2	2	3	2	4
2014 CDF	2	2	2	2	2	2	2	1	2
2015 CDF	2	2	2	3	3	3	3	3	2
2016 CDF	2	2	2	2	2	2	2	2	2

ILDG 3 PY	1	2	3	4	5	6	7	8	9
2005									3
2006								1	1
2007							4	1	3
2008						3	4	1	4
2009					2	3	4	3	
2010				3	4	2	4		
2011			3	3	3	1			
2012		3	2	3	3				
2013	3	3	3	4					
2014	3	3	3						
2015	2	3							
2016	2								
2013 CDF	3	3	3	3	3	4	1	4	3
2014 CDF	3	3	3	3	3	3	1	3	1
2015 CDF	3	3	3	2	2	1	1	1	3
2016 CDF	3	3	3	3	3	3	4	4	4

ILDG 4 PY	1	2	3	4	5	6	7	8	9
2005									2
2006								4	4
2007							3	4	4
2008						4	3	4	3
2009					4	4	3	4	
2010				4	3	4	2		
2011			4	4	4	4			
2012		4	4	4	4				
2013	4	4	4	3					
2014	4	4	4						
2015	4	4							
2016	4								
2013 CDF	4	4	4	4	4	3	4	3	2
2014 CDF	4	4	4	4	4	4	4	4	4
2015 CDF	4	4	4	4	4	4	4	4	4
2016 CDF	4	4	4	4	4	4	3	3	3

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Relativities

Current LDGs

Medical

MLDG 1

PY	1	2	3	4	5	6	7	8	9
2005									0.99
2006								1.00	0.99
2007							0.99	1.02	0.96
2008						0.98	1.00	1.02	0.96
2009					0.99	0.98	0.99	0.99	
2010				0.97	0.99	0.99	0.99		
2011			0.97	0.99	0.98	1.00			
2012		0.96	0.98	1.00	0.98				
2013	0.95	0.97	1.00	0.99					
2014	0.95	0.97	1.00						
2015	0.96	0.96							
2016	0.95								
2013 CDF	0.82	0.87	0.90	0.93	0.96	0.97	0.99	0.99	0.99
2014 CDF	0.87	0.92	0.94	0.96	0.97	0.98	1.00	1.01	0.99
2015 CDF	0.88	0.92	0.95	0.95	0.95	0.96	0.97	0.98	0.96
2016 CDF	0.83	0.87	0.91	0.91	0.93	0.95	0.95	0.96	0.96

MLDG 2

PY	1	2	3	4	5	6	7	8	9
2005									0.99
2006								0.99	0.99
2007							1.00	0.99	1.00
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				1.00	1.01	0.99	1.00		
2011			0.98	1.00	1.01	0.99			
2012		0.98	0.99	1.00	1.00				
2013	0.97	0.98	0.98	1.00					
2014	0.98	0.99	0.98						
2015	0.98	1.00							
2016	0.98								
2013 CDF	0.92	0.95	0.97	0.98	0.99	0.99	0.99	0.99	0.99
2014 CDF	0.93	0.95	0.97	0.99	0.99	0.98	0.99	0.99	0.99
2015 CDF	0.94	0.96	0.97	0.99	1.00	0.99	1.00	1.00	1.00
2016 CDF	0.96	0.98	0.98	0.99	1.00	0.99	1.01	1.01	1.00

MLDG 3

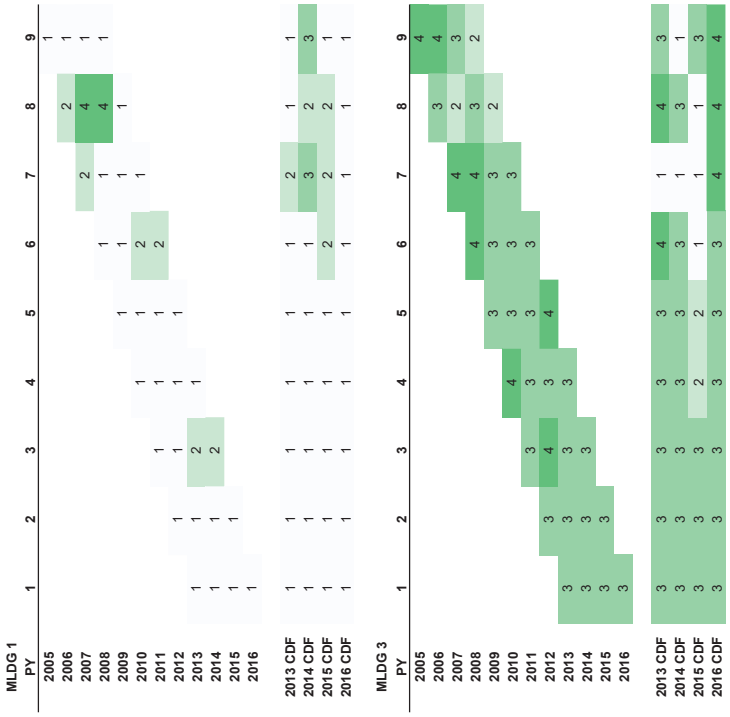
PY	1	2	3	4	5	6	7	8	9
2005									1.01
2006								1.00	1.01
2007							1.01	1.00	1.01
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				1.01	1.00	1.01	1.00		
2011			1.01	1.00	1.00	1.00			
2012		1.01	1.01	1.00	1.01				
2013	1.02	1.01	1.01	1.00					
2014	1.01	1.01	1.01						
2015	1.01	1.01							
2016	1.01								
2013 CDF	1.08	1.05	1.04	1.03	1.02	1.02	1.01	1.01	1.01
2014 CDF	1.06	1.04	1.03	1.02	1.01	1.01	1.01	1.01	1.01
2015 CDF	1.05	1.04	1.03	1.02	1.02	1.01	1.01	1.01	1.01
2016 CDF	1.04	1.03	1.02	1.02	1.02	1.01	1.00	1.00	1.00

MLDG 4

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							0.99	1.00	1.01
2008						1.00	1.00	1.00	1.01
2009					1.00	1.01	1.00	1.00	
2010				1.00	1.00	1.01	1.00		
2011			1.02	1.01	0.99	1.01			
2012		1.04	1.01	1.01	1.00				
2013	1.05	1.04	1.01	1.01					
2014	1.04	1.03	1.01						
2015	1.05	1.02							
2016	1.05								
2013 CDF	1.12	1.06	1.02	1.01	1.00	1.00	1.00	1.01	1.00
2014 CDF	1.10	1.06	1.02	1.01	1.00	1.01	1.00	1.00	1.00
2015 CDF	1.11	1.06	1.03	1.02	1.01	1.02	1.01	1.01	1.01
2016 CDF	1.11	1.06	1.04	1.03	1.02	1.02	1.02	1.01	1.01

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Ranks
Current LDGs

Medical



MLDG 1 PY	1	2	3	4	5	6	7	8	9
2005									1
2006								2	1
2007							2	4	1
2008						1	1	4	1
2009					1	1	1	1	
2010				1	1	2	1		
2011			1	1	1	2			
2012		1	1	1	1				
2013	1	1	2	1					
2014	1	1	2						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	2	1	1
2014 CDF	1	1	1	1	1	1	3	2	3
2015 CDF	1	1	1	1	1	2	2	2	1
2016 CDF	1	1	1	1	1	1	1	1	1

MLDG 2 PY	1	2	3	4	5	6	7	8	9
2005									2
2006								1	2
2007							3	1	2
2008						2	2	1	3
2009					2	2	2	4	
2010				2	4	1	2		
2011			2	2	4	1			
2012		2	2	2	3				
2013	2	2	1	2					
2014	2	2	1						
2015	2	2							
2016	2								
2013 CDF	2	2	2	2	2	2	3	2	4
2014 CDF	2	2	2	2	2	2	2	1	2
2015 CDF	2	2	2	3	3	3	3	3	2
2016 CDF	2	2	2	2	2	2	2	2	2

MLDG 3 PY	1	2	3	4	5	6	7	8	9
2005									4
2006								3	4
2007							4	2	3
2008						4	4	3	2
2009					3	3	3	2	
2010				4	3	3	3		
2011			3	3	3	3			
2012		3	4	3	4				
2013	3	3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2013 CDF	3	3	3	3	3	4	1	4	3
2014 CDF	3	3	3	3	3	3	1	3	1
2015 CDF	3	3	3	2	2	1	1	1	3
2016 CDF	3	3	3	3	3	3	4	4	4

MLDG 4 PY	1	2	3	4	5	6	7	8	9
2005									3
2006								4	3
2007							1	3	4
2008						3	3	2	4
2009					4	4	4	3	
2010				3	2	4	4		
2011			4	4	2	4			
2012		4	3	4	2				
2013	4	4	4	4					
2014	4	4	4						
2015	4	4							
2016	4								
2013 CDF	4	4	4	4	4	3	4	3	2
2014 CDF	4	4	4	4	4	4	4	4	4
2015 CDF	4	4	4	4	4	4	4	4	4
2016 CDF	4	4	4	4	4	4	3	4	3

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Relativities
Reoptimized LDGs Using Open Claims

Indemnity

ILDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							0.99	1.00	1.00
2008						0.99	0.99	1.00	1.00
2009					0.99	0.99	0.99	1.00	
2010				0.98	0.99	1.00	1.00		
2011			0.97	0.98	0.99	1.00			
2012		0.96	0.97	0.98	0.99				
2013	0.93	0.95	0.97	0.99					
2014	0.93	0.95	0.98						
2015	0.92	0.95							
2016	0.92								
2013 CDF	0.81	0.88	0.92	0.95	0.96	0.97	0.98	0.99	1.00
2014 CDF	0.82	0.89	0.93	0.96	0.97	0.98	0.99	1.00	1.00
2015 CDF	0.82	0.89	0.93	0.96	0.97	0.98	0.99	1.00	1.00
2016 CDF	0.82	0.90	0.94	0.96	0.98	0.99	0.99	1.00	1.00

ILDG 2

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				0.99	1.00	1.00	1.00		
2011			1.00	1.00	1.00	1.00			
2012		0.98	0.99	1.00	1.00				
2013	0.98	0.99	0.99	0.99					
2014	0.98	0.99	0.99						
2015	0.98	0.99							
2016	0.98								
2013 CDF	0.94	0.96	0.98	0.98	0.99	0.99	1.00	1.00	1.00
2014 CDF	0.95	0.97	0.98	0.99	0.99	0.99	1.00	1.00	1.00
2015 CDF	0.95	0.97	0.98	0.99	0.99	0.99	1.00	1.00	1.00
2016 CDF	0.95	0.97	0.98	0.99	0.99	0.99	1.00	1.00	1.00

ILDG 3

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				1.01	1.00	1.00	1.00		
2011			1.00	1.00	1.00	1.00			
2012		1.02	1.01	1.00	1.00				
2013	1.02	1.01	1.01	1.00					
2014	1.02	1.01	1.01						
2015	1.02	1.01							
2016	1.02								
2013 CDF	1.06	1.04	1.02	1.01	1.01	1.00	1.00	1.00	1.00
2014 CDF	1.05	1.03	1.01	1.01	1.00	1.00	1.00	1.00	1.00
2015 CDF	1.05	1.03	1.02	1.01	1.01	1.01	1.00	1.00	1.00
2016 CDF	1.05	1.03	1.01	1.01	1.00	1.00	1.00	1.00	1.00

ILDG 4

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.01	1.00
2007							1.01	1.00	1.00
2008						1.01	1.01	1.00	1.00
2009					1.02	1.01	1.01	1.00	
2010				1.01	1.01	1.01	1.01		
2011			1.03	1.02	1.01	1.01			
2012		1.05	1.02	1.02	1.02				
2013	1.09	1.06	1.03	1.02					
2014	1.09	1.06	1.02						
2015	1.10	1.05							
2016	1.11								
2013 CDF	1.26	1.15	1.10	1.06	1.05	1.03	1.02	1.01	1.00
2014 CDF	1.25	1.15	1.09	1.06	1.04	1.03	1.02	1.01	1.00
2015 CDF	1.27	1.15	1.08	1.06	1.04	1.02	1.01	1.01	1.00
2016 CDF	1.26	1.14	1.08	1.06	1.04	1.02	1.01	1.01	1.00

Exhibit 3.2

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using Open Claims

Indemnity

ILDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1
2006								1	1
2007							1	1	1
2008						1	1	1	1
2009					1	1	1	1	
2010				1	1	1	1		
2011			1	1	1	1			
2012		1	1	1	1				
2013	1	1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	1	1	1
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	1	1
2016 CDF	1	1	1	1	1	1	1	1	1

ILDG 2

PY	1	2	3	4	5	6	7	8	9
2005									2
2006								2	2
2007							2	2	2
2008						2	2	2	2
2009					2	2	2	2	
2010				2	2	2	2		
2011			2	2	2	2			
2012		2	2	2	2				
2013	2	2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2013 CDF	2	2	2	2	2	2	2	2	2
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	2	2
2016 CDF	2	2	2	2	2	2	2	2	2

ILDG 3

PY	1	2	3	4	5	6	7	8	9
2005									3
2006								3	3
2007							3	3	3
2008						3	3	3	3
2009					3	3	3	3	
2010				3	3	3	3		
2011			3	3	3	3			
2012		3	3	3	3				
2013	3	3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2013 CDF	3	3	3	3	3	3	3	3	3
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

PY

PY	1	2	3	4	5	6	7	8	9
2005									4
2006								4	4
2007							4	4	4
2008						4	4	4	4
2009					4	4	4	4	
2010				4	4	4	4		
2011			4	4	4	4			
2012		4	4	4	4				
2013	4	4	4	4					
2014	4	4	4						
2015	4	4							
2016	4								
2013 CDF	4	4	4	4	4	4	4	4	4
2014 CDF	4	4	4	4	4	4	4	4	4
2015 CDF	4	4	4	4	4	4	4	4	4
2016 CDF	4	4	4	4	4	4	4	4	4

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Relativities
Reoptimized LDGs Using Open Claims

Medical

MLDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						0.99	1.00	1.00	1.00
2009					0.99	0.99	0.99	1.00	
2010				0.98	0.98	0.99	0.99		
2011			0.96	0.98	0.98	1.00			
2012		0.95	0.96	0.98	0.99				
2013	0.94	0.95	0.96	0.98					
2014	0.93	0.95	0.97						
2015	0.93	0.95							
2016	0.93								
2013 CDF	0.82	0.87	0.92	0.95	0.97	0.98	0.99	1.00	1.00
2014 CDF	0.80	0.86	0.91	0.94	0.96	0.98	0.99	0.99	1.00
2015 CDF	0.79	0.85	0.90	0.94	0.96	0.98	0.99	1.00	1.00
2016 CDF	0.82	0.88	0.92	0.95	0.97	0.98	0.99	0.99	1.00

MLDG 2

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				0.99	0.99	1.00	1.00		
2011			0.99	0.99	1.00	0.99			
2012		0.98	0.99	0.99	1.00				
2013	0.97	0.98	0.99	0.99					
2014	0.98	0.99	0.99						
2015	0.97	0.99							
2016	0.97								
2013 CDF	0.92	0.95	0.97	0.98	0.99	0.99	0.99	1.00	1.00
2014 CDF	0.93	0.94	0.96	0.97	0.98	0.99	0.99	1.00	1.00
2015 CDF	0.92	0.95	0.96	0.97	0.98	0.99	0.99	0.99	1.00
2016 CDF	0.92	0.95	0.96	0.98	0.98	0.99	0.99	1.00	1.00

MLDG 3

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				1.00	1.00	1.00	1.00		
2011			1.01	1.01	1.00	1.00			
2012		1.02	1.01	1.00	1.00				
2013	1.02	1.01	1.01	1.00					
2014	1.02	1.01	1.01						
2015	1.01	1.00							
2016	1.01								
2013 CDF	1.05	1.03	1.02	1.01	1.01	1.01	1.00	1.00	1.00
2014 CDF	1.06	1.04	1.02	1.02	1.01	1.01	1.00	1.00	1.00
2015 CDF	1.04	1.03	1.02	1.01	1.01	1.01	1.00	1.00	1.00
2016 CDF	1.03	1.02	1.01	1.01	1.01	1.00	1.00	1.00	1.00

MLDG 4

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.01
2007							1.00	1.00	1.01
2008						1.01	1.00	1.00	1.01
2009					1.01	1.01	1.01	1.00	
2010				1.02	1.01	1.01	1.01		
2011			1.03	1.02	1.01	1.01			
2012		1.03	1.02	1.02	1.01				
2013	1.05	1.04	1.03	1.02					
2014	1.05	1.06	1.03						
2015	1.08	1.06							
2016	1.09								
2013 CDF	1.16	1.10	1.07	1.05	1.03	1.02	1.01	1.01	1.00
2014 CDF	1.17	1.11	1.07	1.05	1.03	1.02	1.01	1.01	1.01
2015 CDF	1.25	1.15	1.09	1.06	1.04	1.02	1.02	1.01	1.01
2016 CDF	1.26	1.16	1.09	1.06	1.04	1.03	1.02	1.01	1.01

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using Open Claims

Medical

MLDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1
2006								1	1
2007							2	1	2
2008						1	1	2	2
2009					1	1	1	1	
2010				1	1	1	1		
2011			1	1	1	2			
2012		1	1	1	1				
2013	1	1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	1	1	1
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	2	2
2016 CDF	1	1	1	1	1	1	1	1	2

MLDG 2

PY	1	2	3	4	5	6	7	8	9
2005									2
2006								2	2
2007							1	2	1
2008						2	2	1	1
2009					2	2	2	2	
2010				2	2	2	2		
2011			2	2	2	1			
2012		2	2	2	2				
2013	2	2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2013 CDF	2	2	2	2	2	2	2	2	2
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	1	1
2016 CDF	2	2	2	2	2	2	2	2	1

MLDG 3

PY	1	2	3	4	5	6	7	8	9
2005									3
2006								3	3
2007							3	3	3
2008						3	3	3	3
2009					3	3	3	3	
2010				3	3	3	3		
2011			3	3	3	3			
2012		3	3	3	3				
2013	3	3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2013 CDF	3	3	3	3	3	3	3	3	3
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

PY

PY	1	2	3	4	5	6	7	8	9
2005									4
2006								4	4
2007							4	4	4
2008						4	4	4	4
2009					4	4	4	4	
2010				4	4	4	4		
2011			4	4	4	4			
2012		4	4	4	4				
2013	4	4	4	4					
2014	4	4	4						
2015	4	4							
2016	4								
2013 CDF	4	4	4	4	4	4	4	4	4
2014 CDF	4	4	4	4	4	4	4	4	4
2015 CDF	4	4	4	4	4	4	4	4	4
2016 CDF	4	4	4	4	4	4	4	4	4

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Relativities
Reoptimized LDGs Using Open Claims; Separate Development for Closed Claims

Indemnity

ILDG 1

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							0.99	1.00	1.00
2009						0.99	0.99	1.00	
2010					0.99	1.00	1.00		
2011				0.98	0.99	1.00			
2012			0.97	0.98	0.99				
2013		0.96	0.97	0.99					
2014	0.95	0.95	0.98						
2015	0.94	0.96							
2016	0.94								
2014 CDF	0.84	0.89	0.93	0.96	0.97	0.98	0.99	1.00	1.00
2015 CDF	0.83	0.89	0.93	0.96	0.97	0.98	0.99	0.99	1.00
2016 CDF	0.84	0.90	0.94	0.96	0.98	0.99	0.99	1.00	1.00

ILDG 2

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						1.00	1.00	1.00	
2010					1.00	1.00	1.00		
2011				1.00	1.00	1.00			
2012			1.00	1.00	1.00				
2013		0.99	0.99	1.00					
2014	1.01	0.99	0.99						
2015	1.01	0.99							
2016	1.01								
2014 CDF	0.98	0.97	0.98	0.98	0.99	0.99	0.99	1.00	1.00
2015 CDF	0.98	0.97	0.98	0.98	0.99	0.99	0.99	1.00	1.00
2016 CDF	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00

ILDG 3

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						1.00	1.00	1.00	
2010					1.00	1.00	1.00		
2011				1.00	1.00	1.00			
2012			1.01	1.00	1.00				
2013		1.02	1.01	1.00					
2014	1.04	1.02	1.01						
2015	1.05	1.02							
2016	1.06								
2014 CDF	1.08	1.03	1.01	1.00	1.00	1.00	1.00	1.00	1.00
2015 CDF	1.08	1.03	1.02	1.01	1.01	1.00	1.00	1.00	1.00
2016 CDF	1.09	1.03	1.01	1.01	1.00	1.00	1.00	1.00	1.00

ILDG 4

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.01	1.00	1.00
2009						1.01	1.00	1.00	
2010					1.01	1.01	1.01		
2011				1.02	1.02	1.01			
2012			1.02	1.02	1.02				
2013		1.06	1.03	1.02					
2014	1.12	1.07	1.02						
2015	1.14	1.06							
2016	1.15								
2014 CDF	1.29	1.15	1.09	1.06	1.04	1.03	1.01	1.01	1.00
2015 CDF	1.33	1.16	1.09	1.06	1.04	1.02	1.01	1.01	1.00
2016 CDF	1.33	1.15	1.08	1.06	1.04	1.02	1.01	1.01	1.00

Closed Claims

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						1.00	1.00	1.00	
2010					1.00	1.00	1.00		
2011				1.00	1.00	1.00			
2012			0.99	1.00	1.00				
2013		0.95	0.99	1.00					
2014	0.82	0.95	0.99						
2015	0.82	0.95							
2016	0.82								
2014 CDF	0.79	0.96	1.00	1.01	1.01	1.01	1.01	1.01	1.00
2015 CDF	0.78	0.95	1.00	1.01	1.01	1.01	1.01	1.01	1.00
2016 CDF	0.76	0.94	0.99	1.00	1.00	1.00	1.00	1.00	1.00

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using Open Claims; Separate Development for Closed Claims

Indemnity

ILDG 1

PY	1	2	3	4	5	6	7	8	9
2006								2	2
2007								1	2
2008							1	1	1
2009						1	1	1	
2010					1	2	1		
2011				1	1	1			
2012			1	1	1				
2013		1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2014 CDF	1	1	1	1	1	1	1	2	2
2015 CDF	1	1	1	1	1	1	1	1	2
2016 CDF	1	1	1	1	1	1	1	1	1

ILDG 2

PY	1	2	3	4	5	6	7	8	9
2006									1
2007								2	1
2008							2	2	2
2009						2	2	2	
2010					2	1	2		
2011				2	2	2			
2012			2	2	2				
2013		2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2014 CDF	2	2	2	2	2	2	2	1	1
2015 CDF	2	2	2	2	2	2	2	2	1
2016 CDF	2	2	2	2	2	2	2	2	2

ILDG 3

PY	1	2	3	4	5	6	7	8	9
2006									3
2007								3	3
2008							3	3	3
2009						3	3	3	
2010					3	3	3		
2011				3	3	3			
2012			3	3	3				
2013		3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

ILDG 4

PY	1	2	3	4	5	6	7	8	9
2006									4
2007								4	4
2008							4	4	4
2009						4	4	4	
2010					4	4	4		
2011				4	4	4			
2012			4	4	4				
2013		4	4	4					
2014	4	4	4						
2015	4	4							
2016	4								
2014 CDF	4	4	4	4	4	4	4	4	4
2015 CDF	4	4	4	4	4	4	4	4	4
2016 CDF	4	4	4	4	4	4	4	4	4

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Relativities

Reoptimized LDGs Using Open Claims; Separate Development for Closed Claims

Medical

MLDG 1

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						0.99	0.99	0.99	
2010					0.98	0.99	0.99		
2011				0.98	0.98	1.00			
2012			0.96	0.98	0.99				
2013		0.95	0.96	0.98					
2014	0.93	0.95	0.97						
2015	0.93	0.95							
2016	0.93								
2014 CDF	0.81	0.86	0.91	0.95	0.96	0.98	0.99	0.99	1.00
2015 CDF	0.79	0.86	0.90	0.94	0.96	0.98	0.98	1.00	1.00
2016 CDF	0.82	0.88	0.92	0.95	0.97	0.98	0.98	0.99	1.00

MLDG 2

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						1.00	1.00	1.00	
2010					0.99	1.00	1.00		
2011				0.99	1.00	0.99			
2012			0.99	0.99	1.00				
2013		0.99	0.99	0.99					
2014	0.99	0.99	0.99						
2015	0.99	0.99							
2016	0.98								
2014 CDF	0.95	0.96	0.97	0.98	0.98	0.99	0.99	1.00	1.00
2015 CDF	0.94	0.96	0.97	0.97	0.98	0.99	0.99	0.99	1.00
2016 CDF	0.94	0.96	0.97	0.98	0.98	0.99	0.99	1.00	1.00

MLDG 3

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						1.00	1.00	1.00	
2010					1.01	1.00	1.00		
2011				1.01	1.00	1.00			
2012			1.01	1.01	1.00				
2013		1.02	1.01	1.00					
2014	1.03	1.01	1.01						
2015	1.03	1.01							
2016	1.03								
2014 CDF	1.10	1.06	1.04	1.02	1.02	1.01	1.00	1.00	1.00
2015 CDF	1.08	1.04	1.03	1.02	1.01	1.01	1.00	1.00	1.00
2016 CDF	1.07	1.03	1.02	1.01	1.01	1.00	1.00	1.00	1.00

MLDG 4

PY	1	2	3	4	5	6	7	8	9
2006									1.01
2007								1.00	1.01
2008							1.00	1.00	1.01
2009						1.01	1.01	1.00	
2010					1.01	1.01	1.01		
2011				1.02	1.02	1.01			
2012			1.03	1.02	1.01				
2013		1.05	1.04	1.03					
2014	1.07	1.07	1.03						
2015	1.11	1.08							
2016	1.12								
2014 CDF	1.23	1.14	1.09	1.06	1.04	1.03	1.02	1.01	1.01
2015 CDF	1.31	1.18	1.11	1.07	1.04	1.03	1.02	1.01	1.01
2016 CDF	1.32	1.18	1.10	1.07	1.04	1.03	1.02	1.01	1.01

Closed Claims

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						0.99	1.00	1.00	
2010					0.99	1.00	1.00		
2011				0.98	0.99	1.00			
2012			0.97	0.99	0.99				
2013		0.95	0.98	0.99					
2014	0.92	0.96	0.98						
2015	0.93	0.96							
2016	0.93								
2014 CDF	0.82	0.89	0.93	0.96	0.98	0.99	0.99	1.00	1.00
2015 CDF	0.85	0.92	0.95	0.97	0.99	0.99	1.00	1.00	1.00
2016 CDF	0.86	0.93	0.97	0.98	0.99	1.00	1.00	1.00	1.00

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using Open Claims; Separate Development for Closed Claims

Medical

MLDG 1

PY	1	2	3	4	5	6	7	8	9
2006									1
2007								1	2
2008							1	2	2
2009						1	1	1	
2010					1	1	1		
2011				1	1	2			
2012			1	1	1				
2013		1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	2	2
2016 CDF	1	1	1	1	1	1	1	1	2

MLDG 2

PY	1	2	3	4	5	6	7	8	9
2006									2
2007								2	1
2008							2	1	1
2009						2	2	3	
2010					2	2	2		
2011				2	2	1			
2012			2	2	2				
2013		2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	1	1
2016 CDF	2	2	2	2	2	2	2	2	1

MLDG 3

PY	1	2	3	4	5	6	7	8	9
2006									3
2007								3	3
2008							3	3	3
2009						3	3	2	
2010					3	3	3		
2011				3	3	3			
2012			3	3	3				
2013		3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

MLDG 4

PY	1	2	3	4	5	6	7	8	9
2006									4
2007								4	4
2008							4	4	4
2009						4	4	4	
2010					4	4	4		
2011				4	4	4			
2012			4	4	4				
2013		4	4	4					
2014	4	4	4						
2015	4	4							
2016	4								
2014 CDF	4	4	4	4	4	4	4	4	4
2015 CDF	4	4	4	4	4	4	4	4	4
2016 CDF	4	4	4	4	4	4	4	4	4

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Relativities
Reoptimized LDGs Using a Tree Model on Open Claims

Indemnity

ILDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							0.99	1.00	1.00
2008						0.99	1.00	1.00	1.00
2009					0.99	0.99	1.00	1.00	
2010				0.98	0.99	1.00	1.00		
2011			0.98	0.99	0.99	0.99			
2012		0.96	0.98	0.99	0.99				
2013	0.94	0.96	0.98	0.99					
2014	0.95	0.96	0.98						
2015	0.94	0.96							
2016	0.93								
2013 CDF	0.85	0.90	0.93	0.95	0.97	0.98	0.99	0.99	1.00
2014 CDF	0.86	0.91	0.94	0.97	0.98	0.99	0.99	1.00	1.00
2015 CDF	0.85	0.91	0.95	0.97	0.98	0.99	0.99	1.00	1.00
2016 CDF	0.85	0.91	0.95	0.97	0.98	0.99	0.99	1.00	1.00

ILDG 2

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				1.00	1.00	1.00	1.00		
2011			1.00	1.00	1.00	1.00			
2012		1.00	1.00	1.00	1.00				
2013	1.01	1.00	1.00	1.00					
2014	1.01	1.00	1.00						
2015	1.01	1.00							
2016	1.01								
2013 CDF	1.02	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00
2014 CDF	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015 CDF	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2016 CDF	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

ILDG 3

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.01	1.00
2007							1.01	1.01	1.00
2008						1.01	1.01	1.01	1.00
2009					1.02	1.01	1.01	1.00	
2010				1.01	1.01	1.01	1.01		
2011			1.03	1.02	1.01	1.01			
2012		1.05	1.02	1.02	1.02				
2013	1.09	1.05	1.03	1.02					
2014	1.09	1.06	1.02						
2015	1.10	1.05							
2016	1.11								
2013 CDF	1.26	1.16	1.10	1.07	1.05	1.03	1.03	1.01	1.00
2014 CDF	1.25	1.15	1.09	1.07	1.04	1.03	1.02	1.01	1.00
2015 CDF	1.27	1.16	1.09	1.06	1.04	1.03	1.02	1.01	1.00
2016 CDF	1.27	1.14	1.08	1.06	1.04	1.02	1.02	1.01	1.00

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using a Tree Model on Open Claims

Indemnity

ILDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1
2006								1	1
2007							1	1	1
2008						1	1	1	1
2009					1	1	1	1	
2010				1	1	1	1		
2011			1	1	1	1			
2012		1	1	1	1				
2013	1	1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	1	1	1
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	1	1
2016 CDF	1	1	1	1	1	1	1	1	1

ILDG 2

PY	1	2	3	4	5	6	7	8	9
2005									2
2006								2	2
2007							2	2	2
2008						2	2	2	2
2009					2	2	2	2	
2010				2	2	2	2		
2011			2	2	2	2			
2012		2	2	2	2				
2013	2	2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2013 CDF	2	2	2	2	2	2	2	2	2
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	2	2
2016 CDF	2	2	2	2	2	2	2	2	2

ILDG 3

PY	1	2	3	4	5	6	7	8	9
2005									3
2006								3	3
2007							3	3	3
2008						3	3	3	3
2009					3	3	3	3	
2010				3	3	3	3		
2011			3	3	3	3			
2012		3	3	3	3				
2013	3	3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2013 CDF	3	3	3	3	3	3	3	3	3
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Relativities
Reoptimized LDGs Using a Tree Model on Open Claims

Medical

MLDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						0.99	1.00	1.00	1.00
2009					0.99	0.99	0.99	1.00	
2010				0.98	0.98	0.99	0.99		
2011			0.96	0.98	0.98	1.00			
2012		0.95	0.96	0.98	0.99				
2013	0.94	0.95	0.96	0.98					
2014	0.93	0.94	0.97						
2015	0.93	0.95							
2016	0.93								
2013 CDF	0.82	0.88	0.92	0.95	0.97	0.98	0.99	0.99	1.00
2014 CDF	0.80	0.86	0.91	0.94	0.96	0.98	0.99	0.99	1.00
2015 CDF	0.79	0.85	0.90	0.94	0.96	0.98	0.99	1.00	1.00
2016 CDF	0.82	0.88	0.92	0.95	0.97	0.98	0.99	0.99	1.00

MLDG 2

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						1.00	1.00	1.00	1.00
2009					1.00	1.00	1.00	1.00	
2010				1.00	1.00	1.00	1.00		
2011			1.00	1.00	1.00	1.00			
2012		1.00	1.00	1.00	1.00				
2013	1.00	1.00	1.00	1.00					
2014	1.00	1.00	1.00						
2015	1.00	1.00							
2016	1.00								
2013 CDF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2014 CDF	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015 CDF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2016 CDF	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00

MLDG 3

PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.01
2007							1.00	1.00	1.01
2008						1.01	1.00	1.00	1.01
2009					1.01	1.01	1.01	1.00	
2010				1.02	1.01	1.01	1.01		
2011			1.02	1.02	1.01	1.01			
2012		1.03	1.02	1.02	1.01				
2013	1.05	1.04	1.03	1.02					
2014	1.05	1.05	1.03						
2015	1.08	1.06							
2016	1.08								
2013 CDF	1.16	1.10	1.07	1.04	1.02	1.01	1.01	1.01	1.00
2014 CDF	1.17	1.11	1.07	1.05	1.03	1.02	1.01	1.01	1.01
2015 CDF	1.23	1.15	1.09	1.06	1.04	1.02	1.02	1.01	1.01
2016 CDF	1.24	1.15	1.09	1.06	1.04	1.02	1.02	1.01	1.01

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using a Tree Model on Open Claims

Medical

MLDG 1

PY	1	2	3	4	5	6	7	8	9
2005									1
2006								1	1
2007							1	1	1
2008						1	1	1	1
2009					1	1	1	1	
2010				1	1	1	1		
2011			1	1	1	1			
2012		1	1	1	1				
2013	1	1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	1	1	1
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	1	1
2016 CDF	1	1	1	1	1	1	1	1	1

MLDG 2

PY	1	2	3	4	5	6	7	8	9
2005									2
2006								2	2
2007							2	2	2
2008						2	2	2	2
2009					2	2	2	2	
2010				2	2	2	2		
2011			2	2	2	2			
2012		2	2	2	2				
2013	2	2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2013 CDF	2	2	2	2	2	2	2	2	2
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	2	2
2016 CDF	2	2	2	2	2	2	2	2	2

MLDG 3

PY	1	2	3	4	5	6	7	8	9
2005									3
2006								3	3
2007							3	3	3
2008						3	3	3	3
2009					3	3	3	3	
2010				3	3	3	3		
2011			3	3	3	3			
2012		3	3	3	3				
2013	3	3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2013 CDF	3	3	3	3	3	3	3	3	3
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Relativities

Reoptimized LDGs Using a Tree Model on Open Claims; Separate Development for Closed Claims

Indemnity

ILDG1

PY	1	2	3	4	5	6	7	8	9
2006									0.99
2007								0.99	1.00
2008							0.99	1.00	1.00
2009						0.99	0.99	1.00	
2010					0.98	1.00	1.00		
2011				0.98	0.99	1.00			
2012			0.96	0.98	0.99				
2013		0.95	0.97	0.98					
2014	0.94	0.96	0.98						
2015	0.95	0.96							
2016	0.96								
2014 CDF	0.80	0.85	0.90	0.93	0.95	0.97	0.98	0.99	0.99
2015 CDF	0.85	0.89	0.93	0.96	0.97	0.99	0.99	0.99	1.00
2016 CDF	0.86	0.90	0.94	0.96	0.98	0.99	0.99	0.99	1.00

ILDG2

PY	1	2	3	4	5	6	7	8	9
2006.00									1.00
2006								1.00	1.00
2007							1.00	1.00	1.00
2008						0.99	1.00	1.00	
2009					0.99	1.00	1.00		
2010				0.99	1.00	1.00			
2011			0.99	1.00	1.00				
2012		0.99	1.00	1.00					
2013	1.00	1.00	1.00						
2014	1.02	1.01							
2015	1.04								
2016									
2014 CDF	0.94	0.94	0.95	0.96	0.97	0.98	0.99	0.99	1.00
2015 CDF	1.01	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00
2016 CDF	1.04	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00

ILDG3

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.01	1.00
2009						1.00	1.01	1.00	
2010					1.00	1.01	1.01		
2011				1.01	1.01	1.01			
2012			1.01	1.01	1.02				
2013		1.04	1.02	1.01					
2014	1.09	1.06	1.02						
2015	1.13	1.06							
2016	1.16								
2014 CDF	1.17	1.08	1.03	1.03	1.01	1.01	1.00	1.00	1.00
2015 CDF	1.29	1.14	1.08	1.05	1.04	1.02	1.01	1.01	1.00
2016 CDF	1.32	1.14	1.07	1.06	1.04	1.02	1.02	1.01	1.00

Closed Claims

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						0.99	1.00	1.00	
2010					0.99	1.00	1.00		
2011				0.99	1.00	1.00			
2012			0.97	0.99	1.00				
2013		0.94	0.98	0.99					
2014	0.80	0.94	0.98						
2015	0.81	0.94							
2016	0.82								
2014 CDF	0.71	0.89	0.95	0.98	0.98	0.99	1.00	1.00	1.00
2015 CDF	0.75	0.93	0.98	1.00	1.01	1.01	1.01	1.01	1.00
2016 CDF	0.75	0.92	0.98	1.00	1.00	1.00	1.00	1.00	1.00

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using a Tree Model on Open Claims; Separate Development for Closed Claims

Indemnity

ILDG1 PY	1	2	3	4	5	6	7	8	9
2006									1
2007								1	1
2008							1	1	1
2009						1	1	1	
2010					1	1	1		
2011				1	1	1			
2012			1	1	1				
2013		1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	1	1
2016 CDF	1	1	1	1	1	1	1	1	1

ILDG2 PY	1	2	3	4	5	6	7	8	9
2006									2
2007								2	2
2008							2	2	2
2009						2	2	2	
2010					2	2	2		
2011				2	2	2			
2012			2	2	2				
2013		2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	2	2
2016 CDF	2	2	2	2	2	2	2	2	2

ILDG3 PY	1	2	3	4	5	6	7	8	9
2006									3
2007								3	3
2008							3	3	3
2009						3	3	3	
2010					3	3	3		
2011				3	3	3			
2012			3	3	3				
2013		3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Relativities

Reoptimized LDGs Using a Tree Model on Open Claims; Separate Development for Closed Claims

Medical

MLDG1

PY	1	2	3	4	5	6	7	8	9
2006									0.99
2007								0.99	0.99
2008							0.99	0.99	1.00
2009						0.98	0.98	0.99	
2010					0.97	0.99	0.99		
2011				0.97	0.98	0.99			
2012			0.94	0.97	0.99				
2013		0.92	0.95	0.97					
2014	0.89	0.93	0.96						
2015	0.91	0.94							
2016	0.93								
2014 CDF	0.68	0.76	0.83	0.88	0.92	0.94	0.97	0.98	0.99
2015 CDF	0.73	0.80	0.86	0.91	0.94	0.96	0.97	0.99	0.99
2016 CDF	0.79	0.84	0.89	0.93	0.96	0.97	0.98	0.99	1.00

MLDG2

PY	1	2	3	4	5	6	7	8	9
2006									0.99
2007								0.99	0.99
2008							0.99	1.00	1.00
2009						0.99	1.00	1.00	
2010					0.99	1.00	1.00		
2011				0.98	0.99	1.00			
2012			0.98	0.99	1.00				
2013		0.98	0.99	0.99					
2014	0.98	0.99	0.99						
2015	0.99	1.00							
2016	1.01								
2014 CDF	0.88	0.90	0.92	0.94	0.95	0.97	0.98	0.98	0.99
2015 CDF	0.94	0.95	0.96	0.97	0.98	0.98	0.99	0.99	0.99
2016 CDF	0.98	0.97	0.97	0.98	0.98	0.99	0.99	0.99	1.00

MLDG3

PY	1	2	3	4	5	6	7	8	9
2006									1.00
2007								1.00	1.00
2008							1.00	1.00	1.00
2009						1.00	1.01	1.00	
2010					1.00	1.00	1.01		
2011				1.00	1.01	1.00			
2012			1.00	1.01	1.01				
2013		1.02	1.02	1.02					
2014	1.03	1.05	1.02						
2015	1.08	1.07							
2016	1.11								
2014 CDF	1.03	1.01	0.99	0.99	0.99	0.99	0.99	1.00	1.00
2015 CDF	1.19	1.10	1.05	1.03	1.02	1.01	1.01	1.00	1.00
2016 CDF	1.25	1.13	1.06	1.04	1.03	1.02	1.01	1.00	1.00

Closed Claims

PY	1	2	3	4	5	6	7	8	9
2006									0.99
2007								0.99	1.00
2008							0.99	0.99	1.00
2009						0.98	1.00	1.00	
2010					0.97	0.99	1.00		
2011				0.96	0.98	1.00			
2012			0.94	0.98	0.99				
2013		0.92	0.97	0.98					
2014	0.89	0.95	0.97						
2015	0.91	0.96							
2016	0.93								
2014 CDF	0.69	0.78	0.84	0.89	0.93	0.95	0.97	0.98	0.99
2015 CDF	0.79	0.86	0.91	0.94	0.96	0.98	0.99	0.99	1.00
2016 CDF	0.83	0.89	0.94	0.96	0.98	0.99	0.99	1.00	1.00

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Reoptimized LDGs Using a Tree Model on Open Claims; Separate Development for Closed Claims

Medical

MLDG1 PY	1	2	3	4	5	6	7	8	9
2006									1
2007								1	1
2008							1	1	1
2009						1	1	1	
2010					1	1	1		
2011				1	1	1			
2012			1	1	1				
2013		1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	1	1
2016 CDF	1	1	1	1	1	1	1	1	1

MLDG2 PY	1	2	3	4	5	6	7	8	9
2006									2
2007								2	2
2008							2	2	2
2009						2	2	2	
2010					2	2	2		
2011				2	2	2			
2012			2	2	2				
2013		2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	2	2
2016 CDF	2	2	2	2	2	2	2	2	2

MLDG3 PY	1	2	3	4	5	6	7	8	9
2006									3
2007								3	3
2008							3	3	3
2009						3	3	3	
2010					3	3	3		
2011				3	3	3			
2012			3	3	3				
2013		3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

LOSS DEVELOPMENT FOR CLASS RATEMAKING
Loss Development Factor Relativities
Groups Developed Using a Tree Model with Part of Body, Injury Type, and Claim Status

Indemnity

ILDG1

PY	1	2	3	4	5	6	7	8	9
2005									0.99
2006								0.99	1.00
2007							0.99	1.00	1.00
2008						0.98	1.00	1.00	1.00
2009					0.97	1.00	1.00	1.00	
2010				0.97	0.99	1.00	1.00		
2011			0.96	0.99	0.99	1.00			
2012		0.94	0.98	0.99	0.99				
2013	0.90	0.95	0.98	0.99					
2014	0.89	0.95	0.98						
2015	0.90	0.95							
2016	0.90								
2013 CDF	0.74	0.82	0.87	0.91	0.94	0.96	0.98	0.99	0.99
2014 CDF	0.80	0.90	0.95	0.97	0.98	0.99	1.00	1.00	1.00
2015 CDF	0.81	0.90	0.95	0.97	0.98	0.99	0.99	1.00	1.00
2016 CDF	0.81	0.91	0.95	0.97	0.98	0.99	1.00	1.00	1.00

ILDG2

PY	1	2	3	4	5	6	7	8	9
2005									1.01
2006								1.01	1.00
2007							1.01	1.00	1.00
2008						1.02	1.00	1.00	1.00
2009					1.04	1.00	1.00	1.00	
2010				1.05	1.01	1.01	1.00		
2011			1.05	1.01	1.01	1.00			
2012		1.07	1.02	1.01	1.01				
2013	1.11	1.05	1.02	1.01					
2014	1.09	1.04	1.01						
2015	1.08	1.03							
2016	1.08								
2013 CDF	1.43	1.29	1.20	1.15	1.10	1.06	1.04	1.02	1.01
2014 CDF	1.20	1.10	1.05	1.03	1.02	1.01	1.01	1.00	1.00
2015 CDF	1.16	1.08	1.04	1.03	1.01	1.01	1.00	1.00	1.00
2016 CDF	1.14	1.06	1.03	1.02	1.01	1.00	1.00	1.00	1.00

ILDG3

PY	1	2	3	4	5	6	7	8	9
2005									1.02
2006								1.01	1.00
2007							1.03	1.00	1.00
2008						1.03	1.01	1.00	1.00
2009					1.06	1.01	1.01	1.00	
2010				1.07	1.01	1.01	1.01		
2011			1.09	1.03	1.01	1.01			
2012		1.16	1.05	1.02	1.01				
2013	1.34	1.11	1.05	1.02					
2014	1.32	1.09	1.04						
2015	1.30	1.09							
2016	1.32								
2013 CDF	2.11	1.57	1.36	1.24	1.16	1.10	1.06	1.03	1.02
2014 CDF	1.65	1.25	1.12	1.06	1.04	1.02	1.01	1.01	1.00
2015 CDF	1.58	1.21	1.11	1.06	1.04	1.02	1.01	1.01	1.00
2016 CDF	1.59	1.20	1.10	1.06	1.03	1.02	1.01	1.01	1.00

WCIRB California ®

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

Groups Developed Using a Tree Model with Part of Body, Injury Type, and Claim Status

Indemnity

ILDG1

PY	1	2	3	4	5	6	7	8	9
2005									1
2006								1	1
2007							1	1	1
2008						1	1	1	1
2009					1	1	1	1	
2010				1	1	1	1		
2011			1	1	1	1			
2012		1	1	1	1				
2013	1	1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	1	1	1
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	1	1
2016 CDF	1	1	1	1	1	1	1	1	1

ILDG2

PY	1	2	3	4	5	6	7	8	9
2005									2
2006								2	2
2007							2	3	2
2008						2	2	2	2
2009					2	2	2	2	
2010				2	2	2	2		
2011			2	2	2	2			
2012		2	2	2	2				
2013	2	2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2013 CDF	2	2	2	2	2	2	2	2	2
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	2	2
2016 CDF	2	2	2	2	2	2	2	2	2

ILDG3

PY	1	2	3	4	5	6	7	8	9
2005									3
2006								3	3
2007							3	2	3
2008						3	3	3	3
2009					3	3	3	3	
2010				3	3	3	3		
2011			3	3	3	3			
2012		3	3	3	3				
2013	3	3	3	3					
2014	3	3	3						
2015	3	3							
2016	3								
2013 CDF	3	3	3	3	3	3	3	3	3
2014 CDF	3	3	3	3	3	3	3	3	3
2015 CDF	3	3	3	3	3	3	3	3	3
2016 CDF	3	3	3	3	3	3	3	3	3

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Relativities

Groups Developed Using a Tree Model with Part of Body, Injury Type, and Claim Status

Medical

MLDG1 PY	1	2	3	4	5	6	7	8	9
2005									1.00
2006								1.00	1.00
2007							1.01	1.01	1.00
2008						1.00	1.00	1.01	1.00
2009					0.99	1.00	1.00	1.00	
2010					1.00	1.00	1.00		
2011			0.98	1.00	0.99	1.00			
2012		0.97	0.99	0.99	0.99				
2013	0.94	0.98	0.99	0.99					
2014	0.94	0.98	0.99						
2015	0.95	0.98							
2016	0.96								
2013 CDF	0.87	0.93	0.96	0.98	1.00	1.01	1.01	1.00	1.00
2014 CDF	0.92	0.98	1.00	1.01	1.02	1.02	1.02	1.01	1.00
2015 CDF	0.92	0.97	0.99	1.00	1.00	1.01	1.01	1.00	1.00
2016 CDF	0.93	0.97	0.99	1.00	1.00	1.01	1.01	1.00	1.00

MLDG2 PY	1	2	3	4	5	6	7	8	9
2005									1.03
2006								1.02	1.01
2007							1.03	1.01	1.01
2008						1.03	1.01	1.01	1.01
2009					1.04	1.02	1.01	1.01	
2010				1.05	1.03	1.00	1.00		
2011			1.06	1.03	1.02	1.00			
2012		1.08	1.03	1.02	1.01				
2013	1.15	1.06	1.03	1.02					
2014	1.15	1.06	1.03						
2015	1.13	1.06							
2016	1.13								
2013 CDF	1.61	1.40	1.30	1.22	1.17	1.12	1.09	1.06	1.03
2014 CDF	1.41	1.22	1.15	1.11	1.08	1.05	1.03	1.02	1.01
2015 CDF	1.33	1.18	1.11	1.08	1.06	1.03	1.03	1.02	1.01
2016 CDF	1.29	1.14	1.08	1.05	1.03	1.02	1.02	1.01	1.01

LOSS DEVELOPMENT FOR CLASS RATEMAKING

Loss Development Factor Ranks

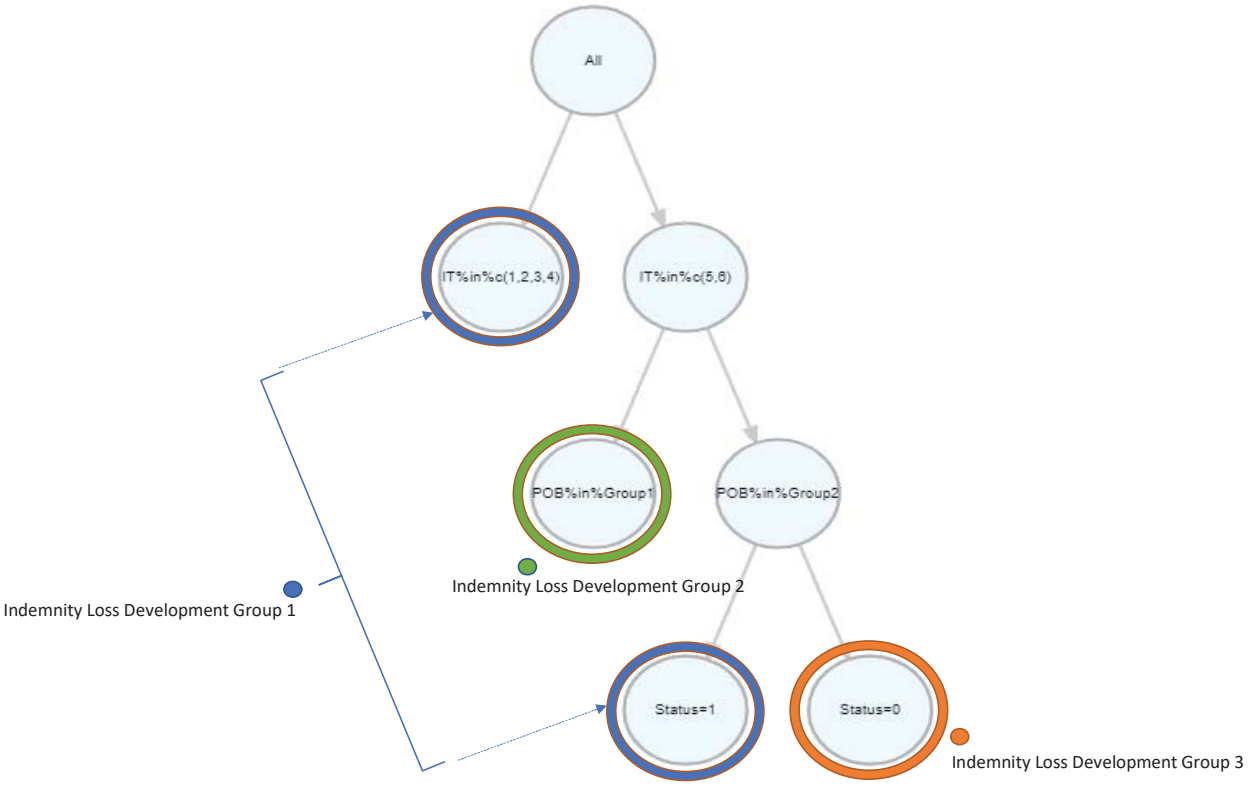
Groups Developed Using a Tree Model with Part of Body, Injury Type, and Claim Status

Medical

MLDG1 PY	1	2	3	4	5	6	7	8	9
2005									1
2006								1	1
2007							1	1	1
2008						1	1	1	1
2009					1	1	1	1	
2010				1	1	1	2		
2011			1	1	1	2			
2012		1	1	1	1				
2013	1	1	1	1					
2014	1	1	1						
2015	1	1							
2016	1								
2013 CDF	1	1	1	1	1	1	1	1	1
2014 CDF	1	1	1	1	1	1	1	1	1
2015 CDF	1	1	1	1	1	1	1	1	1
2016 CDF	1	1	1	1	1	1	1	1	1

MLDG2 PY	1	2	3	4	5	6	7	8	9
2005									2
2006								2	2
2007							2	2	2
2008						2	2	2	2
2009					2	2	2	2	
2010				2	2	2	1		
2011			2	2	2	1			
2012		2	2	2	2				
2013	2	2	2	2					
2014	2	2	2						
2015	2	2							
2016	2								
2013 CDF	2	2	2	2	2	2	2	2	2
2014 CDF	2	2	2	2	2	2	2	2	2
2015 CDF	2	2	2	2	2	2	2	2	2
2016 CDF	2	2	2	2	2	2	2	2	2

Tree Output for Indemnity Losses



Indemnity Group:

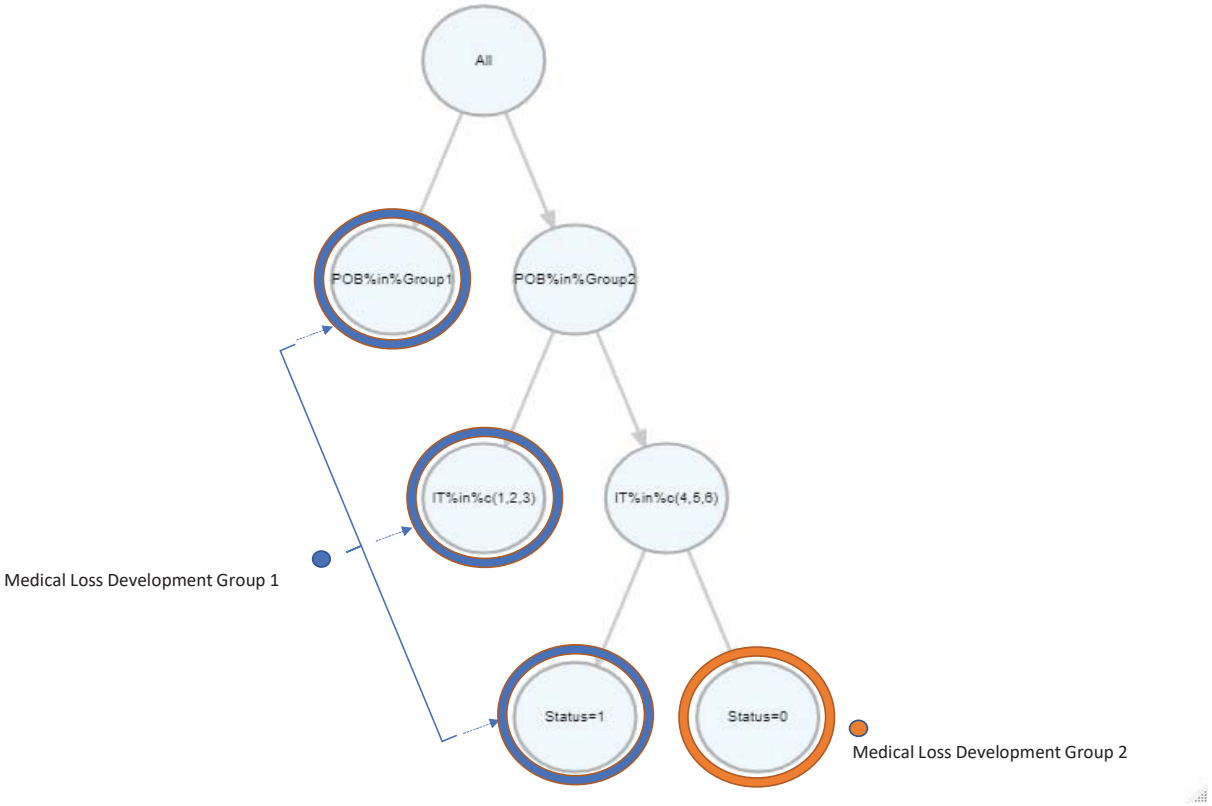
Group 1: claims with IT=1,2,3,4
claims with IT=5,6 and POB=12,17,18,20,23,30,38,41,42,43,45,47,48,49,60,62,63,65,66,90,91 and Status=1

Group 2: claims with IT=5,6 and POB=0,10,11,13,14,15,16,19,21,22,24,25,26,31,32,33,34,35,36,37,39,40,44,46,50,51,52,53,54,55,56,57,58,61,64

Group 3: claims with IT=5,6 and POB=12,17,18,20,23,30,38,41,42,43,45,47,48,49,60,62,63,65,66,90,91 and Status=0

*Indemnity POB Groups are different from Medical POB Groups.

Tree Output for Medical Losses



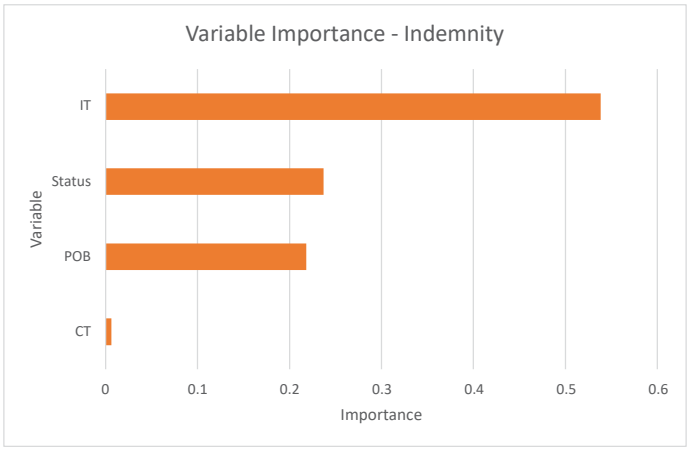
Medical Group:

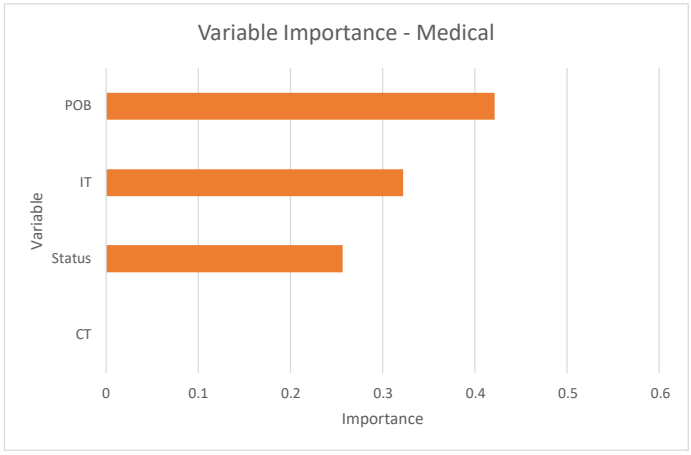
Group 1: claims with POB=20,22,24,25,40,41,42,43,45,62,63,65,90 and IT=4,5,6 and Status=1
claims with POB=0,10,11,12,13,14,15,16,17,18,19,21,23,26,30,31,32,33,34,35,36,37,38,39,44,46,47,48,49,50,51,52,53,54,55,56,57,58,60,61,64,66,91
claims with POB=20,22,24,25,40,41,42,43,45,62,63,65,90 and IT=1,2,3

Group 2: claims with POB=20,22,24,25,40,41,42,43,45,62,63,65,90 and IT=4,5,6 and Status=0

*Indemnity POB Groups are different from Medical POB Groups.

Variable Importance for Tree Models





*Variable importance is calculated by the sum of the decrease in error when split by a variable. Then, the relative importance is the variable importance divided by the highest variable importance value so that values are bounded between 0 and 1.

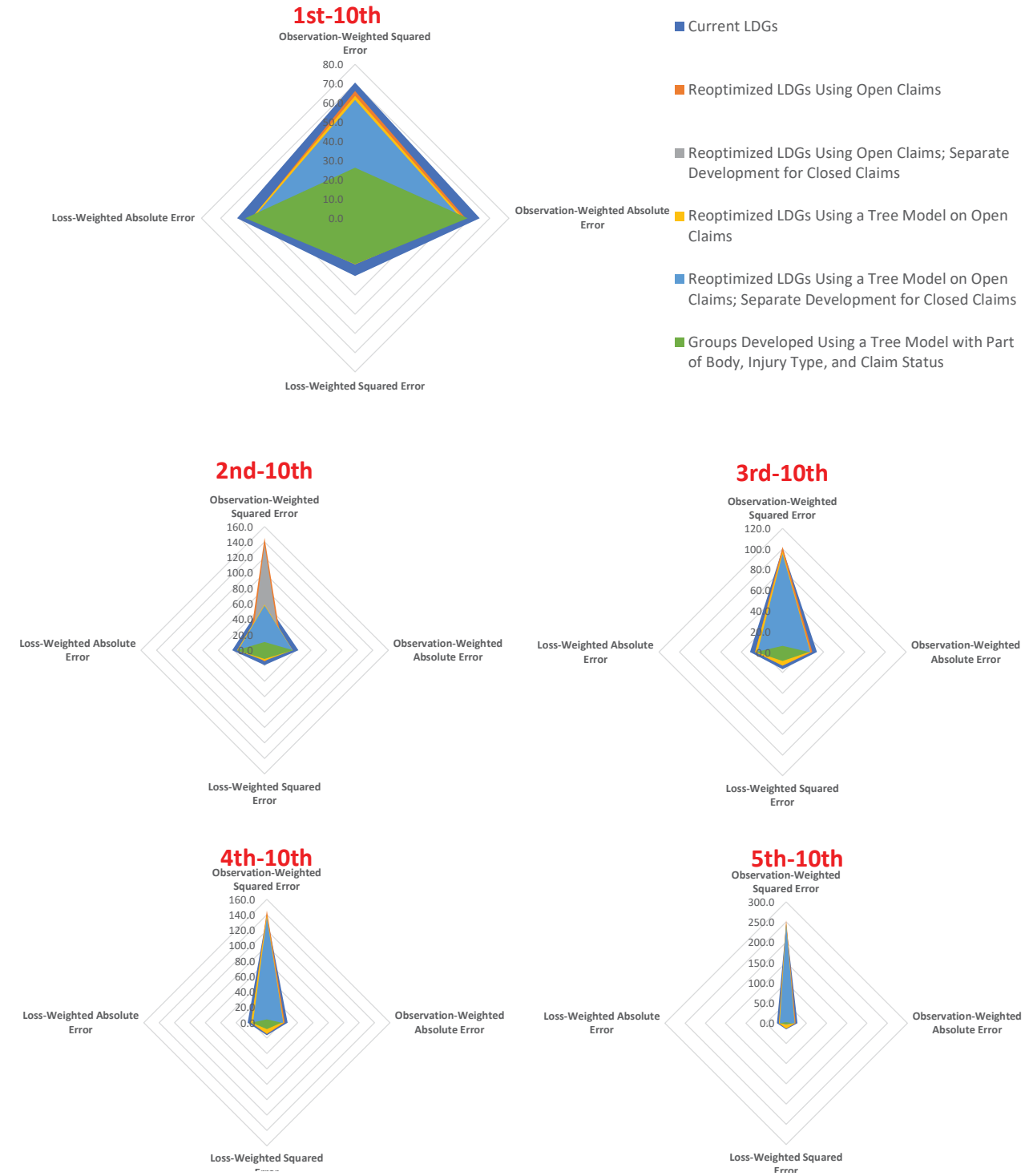
LOSS DEVELOPMENT FOR CLASS RATEMAKING
Performance Comparison

Option

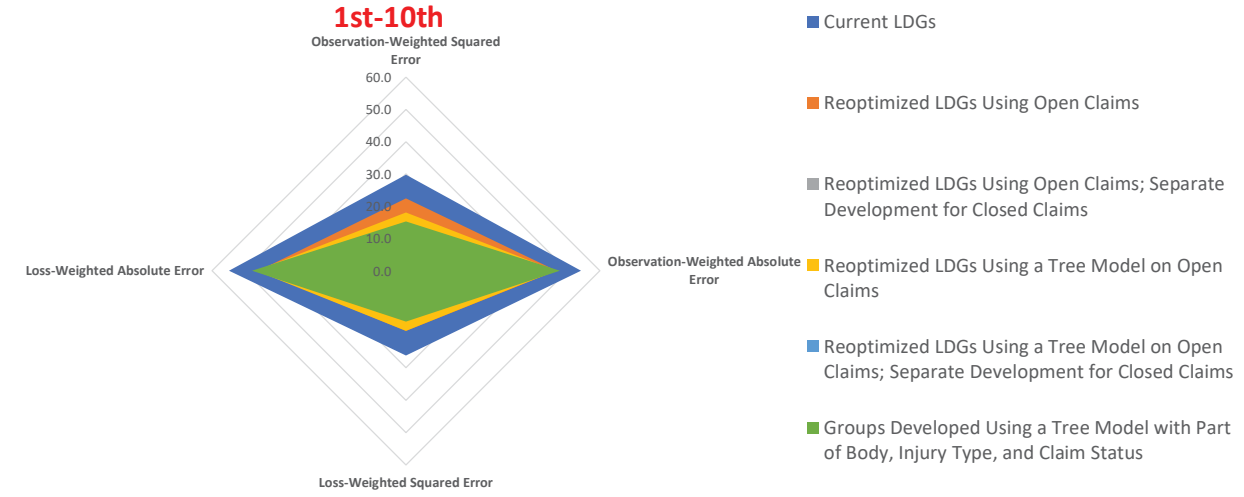
- **1** Current LDGs
- **2** Reoptimized LDGs Using Open Claims
- **3** Reoptimized LDGs Using Open Claims; Separate Development for Closed Claims
- **4** Reoptimized LDGs Using a Tree Model on Open Claims
- **5** Reoptimized LDGs Using a Tree Model on Open Claims; Separate Development for Closed Claims
- **6** Groups Developed Using a Tree Model with Part of Body, Injury Type, and Claim Status

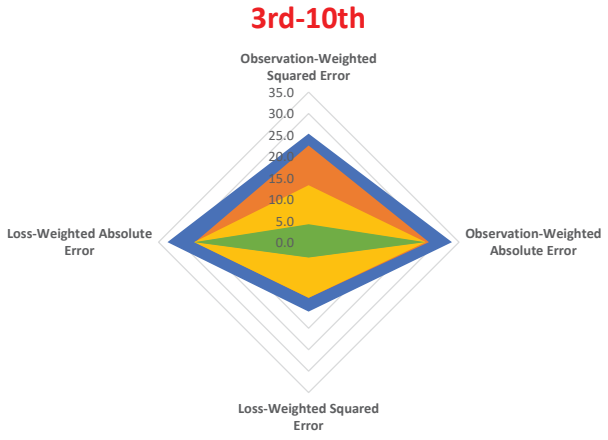
		Indemnity						**Medical**					
		Observation-Weighted			Loss-Weighted			Observation-Weighted			Loss-Weighted		
			Squared	Absolute		Squared	Absolute		Squared	Absolute		Squared	Absolute
	Option	Error	Error	Error	Error	Error	Error	Error	Error	Error	Error	Error	Error
1st-10th	1	-4.3	70.6	64.8	0.7	30.1	61.5	3.7	29.7	54.1	7.0	26.2	54.8
	2	0.4	66.2	57.4	4.8	23.8	53.6	6.0	22.4	46.5	8.4	18.6	45.6
	3	-0.8	61.3	54.7	4.8	20.1	52.7	6.5	14.4	45.1	8.5	15.0	45.5
	4	0.3	63.6	56.2	5.0	24.0	54.1	8.0	18.1	46.3	9.7	18.6	46.4
	5	-0.6	61.5	55.2	5.0	20.4	53.1	7.7	14.5	45.8	9.6	15.1	46.2
	6	-0.8	26.3	58.6	3.1	23.9	57.1	6.8	15.4	47.6	8.7	15.7	47.7
2nd-10th	1	-2.7	64.8	43.6	-0.7	19.3	42.0	4.6	27.7	41.7	7.2	19.2	41.1
	2	0.2	145.4	23.2	-1.1	14.7	20.6	2.7	27.6	22.6	4.1	15.2	21.5
	3	-1.2	136.3	21.1	1.7	2.8	18.1	4.9	2.9	20.5	5.3	2.5	20.5
	4	0.4	59.1	36.4	2.4	13.7	35.6	7.5	13.8	34.6	9.0	12.7	33.8
	5	0.5	57.7	35.9	3.3	8.2	34.2	7.7	7.7	34.0	9.4	6.3	33.3
	6	1.6	10.7	36.5	2.5	11.3	36.1	7.6	8.1	35.4	9.3	6.7	34.7
3rd-10th	1	-1.4	100.3	33.5	0.5	16.6	31.5	4.3	25.3	33.3	6.3	16.1	32.9
	2	-0.7	102.1	29.0	1.2	13.3	26.5	4.6	22.6	27.9	6.2	12.9	26.5
	3	0.2	95.1	26.8	2.7	4.3	24.2	6.1	4.0	26.2	7.1	3.4	25.8
	4	-0.1	97.6	27.5	1.3	13.3	26.6	5.9	13.3	27.2	6.8	12.9	26.7
	5	0.3	95.1	26.9	2.9	4.3	24.3	6.6	4.0	26.4	7.7	3.5	26.0
	6	2.1	6.1	25.8	1.9	8.6	25.8	6.7	4.2	27.1	7.7	3.6	26.6
4th-10th	1	-3.4	139.5	27.0	-1.4	16.5	25.1	2.7	30.6	27.5	4.0	18.6	27.4
	2	-3.2	145.4	23.2	-1.1	14.7	20.6	2.7	27.6	22.6	4.1	15.2	21.5
	3	-1.2	136.3	21.1	1.7	2.8	18.1	4.9	2.9	20.5	5.3	2.5	20.5
	4	-1.9	139.5	21.8	-1.0	14.7	20.6	4.2	15.3	21.7	4.5	15.2	21.6
	5	-1.2	136.3	21.1	1.8	2.8	18.2	5.3	2.9	20.7	5.7	2.5	20.7
	6	1.2	4.3	18.8	0.2	8.6	19.7	5.1	3.0	20.9	5.6	2.6	20.8
5th-10th	1	-7.1	243.2	27.5	-2.3	15.4	23.0	3.9	7.1	23.2	4.8	7.2	24.0
	2	-6.9	254.7	23.3	-1.5	13.2	17.9	3.8	2.7	18.6	4.5	2.1	18.5
	3	-4.5	244.3	21.0	0.7	3.0	15.9	4.0	2.6	18.4	4.7	2.1	18.5
	4	-5.2	247.0	21.6	-1.4	13.2	17.9	4.1	2.6	18.5	4.8	2.1	18.6
	5	-4.5	244.3	21.0	0.8	3.0	15.9	4.2	2.6	18.5	5.0	2.1	18.6
	6	0.4	2.5	15.9	0.5	2.1	15.9	4.2	2.6	18.7	4.9	2.2	18.7

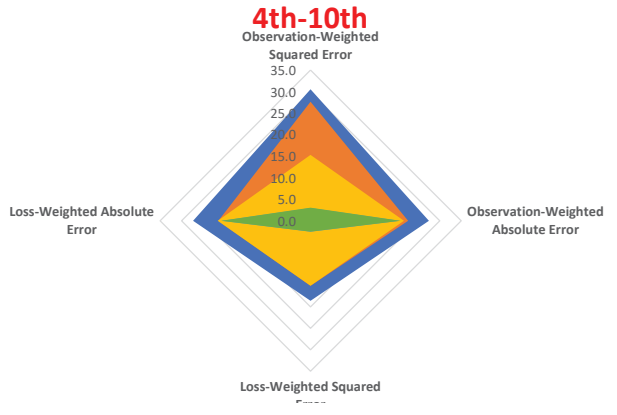
LOSS DEVELOPMENT FOR CLASS RATEMAKING
Performance Comparison- Indemnity

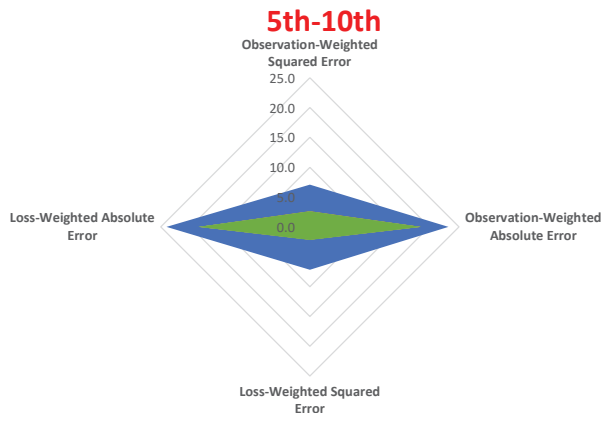


LOSS DEVELOPMENT FOR CLASS RATEMAKING
Performance Comparison- Medical









Classification Assignment Comparison Under Two Models

	Tree ILDG1	Tree ILDG2	Tree ILDG3
KW ILDG1	109		
KW ILDG2	42	98	
KW ILDG3		126	
KW ILDG4		4	102

	Tree MLDG1	Tree MLDG2	Tree MLDG3
KW MLDG1	109	3	
KW MLDG2		127	
KW MLDG3		129	12
KW MLDG4			101

Item AC20-12-04
Experience Rating Eligibility

The *California Workers' Compensation Experience Rating Plan—1995* (ERP) provides that the historical claim experience over the most recent three historical policies compared to the average expected for an employer of similar size and industry is used to compute an experience modification for the employer. The experience modification is applied to the premium paid by the employer for the upcoming policy. The objectives of the ERP are to promote workplace safety and help distribute the cost of the workers' compensation in a fair manner.

Not all California policyholders generate a sufficient volume of payroll and claims to produce a meaningful experience modification. As a result, the ERP provides that only employers who generate at least $9,900 by applying their experience period payroll by classification to the current (as of January 1, 2021) approved expected loss rates are eligible for experience rating. Less than 20% of all policyholders are experience rated in California, but they generate almost 88% of statewide premium.

The experience rating eligibility threshold is adjusted for wage inflation annually. However, it has been many years since the WCIRB performed a comprehensive actuarial review of the level of the experience rating eligibility threshold and there have been significant changes to the structure of the ERP since then. Given this and that the principal objective of experience rating is to promote workplace safety, the WCIRB is undertaking a comprehensive review of the ERP eligibility threshold.

This review of experience rating eligibility is part of staff's multi-phase evaluation of experience rating. In the first phase of research, staff reviewed and proposed changes to the process used to update the expected loss ranges that determine each rated employer's primary threshold. During that process, staff determined that the methodology for credibility weighting classification D-ratios with hazard group D-ratios should be modified. Staff presented those changes to the Committee at the April 2, 2020 meeting. These refinements were reflected in the WCIRB's proposed experience rating values in the January 1, 2021 Regulatory Filing that were approved by the Insurance Commissioner on August 28, 2020.

Study Approach
In order to evaluate the effects of alternative rating structures, staff utilized unit statistical report (USR) loss and exposure records for policy projection years ranging from 1997 to 2017. Approximately 652,000 employers had experience in the projection year 2017 experience period. Of those 652,000 employers, 125,000, or 19%, were eligible for experience rating. Rated employers account for approximately 92% of expected losses. The ERP eligibility threshold in 2017 was $10,100.

To update the primary thresholds earlier this year, staff constructed a database of employer experience for 38 cohorts by size totaling 150,000 employers per rating year. In order to evaluate scenarios for smaller employers, that database was extended to include 10 additional cohorts with 25,000 employers each, for a total of 400,000 employers with experience period expected losses down to approximately $300.

The primary thresholds and D-ratios were optimized for this larger database using the same methodology underlying the primary threshold update in the January 1, 2021 Regulatory Filing. Staff found that the indicated primary thresholds continued to decrease smoothly, down to $500 for the smallest employers included in the database. Exhibit 1 shows the fitted primary thresholds by cohort for policy projection year 2017.

Predictive Power of Experience for Small Employers
Staff began the review of the predictive power of past experience for small employers by examining the conditional distributions of projection period claim counts and loss ratios given experience period claim counts. These distributions are shown separately for currently ineligible employers and the smallest 55%

of currently rated employers in Exhibit 2.[1] Staff found that even for very small employers, the occurrence of claims in the experience period significantly increased the likelihood of claims in the projection period. In addition, the projection period loss ratio, defined as the ratio of actual to expected losses, was significantly higher for very small employers who had claims in the experience period than for those that did not.

Staff also reviewed predictive performance by loss cohort using quintiles tests. For each cohort, employers were grouped into quintiles by their experience modification with each quintile in a cohort containing an equal number of employers. For each quintile, the projection period loss ratio and modified projection period loss ratio were calculated. Based on these tests, it was found that experience modifications calculated using the current formula and methodology are at least somewhat predictive of projection period loss ratios for employers with experience period expected losses above approximately $1,000 for policy projection year 2017. For employers with expected losses below $1,000, the projection period loss ratios by modification quintile did not increase monotonically with the number of claims. For employers with expected losses above this threshold, the projection period loss ratios almost always increased monotonically, and the variance ratio[2] was almost always below 60%. Exhibit 3 shows the variance ratios by cohort for select cohorts.

Consideration of Five-Year Experience Period

While experience rating is predictive for employers below the current eligibility threshold, concern remains that modifications for smaller employers could be less stable from year to year. Currently, the experience modification is calculated based on three years of experience. It was suggested that lengthening the experience period from three years to five years might help stabilize the modifications and better predict projection period loss ratios, especially for smaller employers.

Staff optimized the primary thresholds and D-ratios for a five-year experience period and reviewed plan performance. It was found that a five-year experience period did not add significant predictive power to the ERP and in many cases led to worse performance. This may be due to changing risk parameters over time, changing safety practices, and generally less predictive power in older data. It was also pointed out that using a five-year experience period would imply that a claim would affect the modification for five years instead of three years, which could be perceived by stakeholders as overly punitive. Based on this and the increased administrative costs of implementing a five-year experience period, staff does not recommend any changes to the length of the experience period. Exhibit 4.1 shows the quintiles test variance ratios by cohort using a three- and five-year experience period. Exhibit 4.2 shows the efficiency[3] by cohort.

Claim Count Based Caps

The current ERP provides for variable split points that give 100% credibility to actual primary losses and 0% credibility to actual excess losses. The ERP also provides that the impact of a single claim during the experience period is limited to 25 percentage points. Going beyond the single claim limitation in the current ERP, since each claim is limited to the primary threshold less $250, there is a maximum impact to the experience modification from a single claim relative to expected losses. This is calculated as $(S - 250)/E$ where S is the primary threshold and E is the experience period expected losses. Since the primary threshold is a function of expected losses, this implied cap can be calculated given E. Exhibit 5 shows the implied caps as a function of E under the current ERP. Note that as expected the implied cap decreases as E increases. For the largest employers, the maximum impact of a single claim is very small relative to expected losses, while for the smallest employers, it is quite large.

[1] For the purposes of this analysis, in accordance with the current rules of the ERP, the first $250 of losses were excluded from each claim and claims with $250 or less of incurred losses were excluded when determining claim counts.

[2] The variance ratio is defined as the ratio of the variance of the modified loss ratio to the variance of the unmodified loss ratio.

[3] Efficiency is measured as the reduction in squared error between any potential experience modification and loss ratios for the projection year, measured against a modification of 100%. Efficiencies are calculated by cohort, with each observation contributing equal weight.

The differential impact by size of expected losses suggests a benefit from capping experience modifications by claim counts for small employers. Since large employers are already covered by the implied caps, a claim count based capping system would protect small employers from large swings in their experience modifications without affecting larger employers. Capping based on claim counts would also allow a higher experience modification for an employer with many claims, while limiting the modifications for employers who only had one or a few claims. (The New York Compensation Insurance Rating Board is considering proposing a plan with claim count based caps.)

Exhibit 6 shows proposed caps on experience modifications by claim count. Staff's suggested caps were selected by reviewing the average experience modification for employers with 0, 1, 2, 3 and 4 or more claims, and by considering the implied caps for currently eligible employers. Staff selected the caps to be slightly higher than the average experience modification for the smallest currently eligible employers with the given number of claims. For example, the proposed cap of 1.5 for employers with 2 claims was selected to be slightly higher than the average modification of 1.48 for employers with $5,000 to $10,000 of experience period expected losses and the same number of claims.[4]

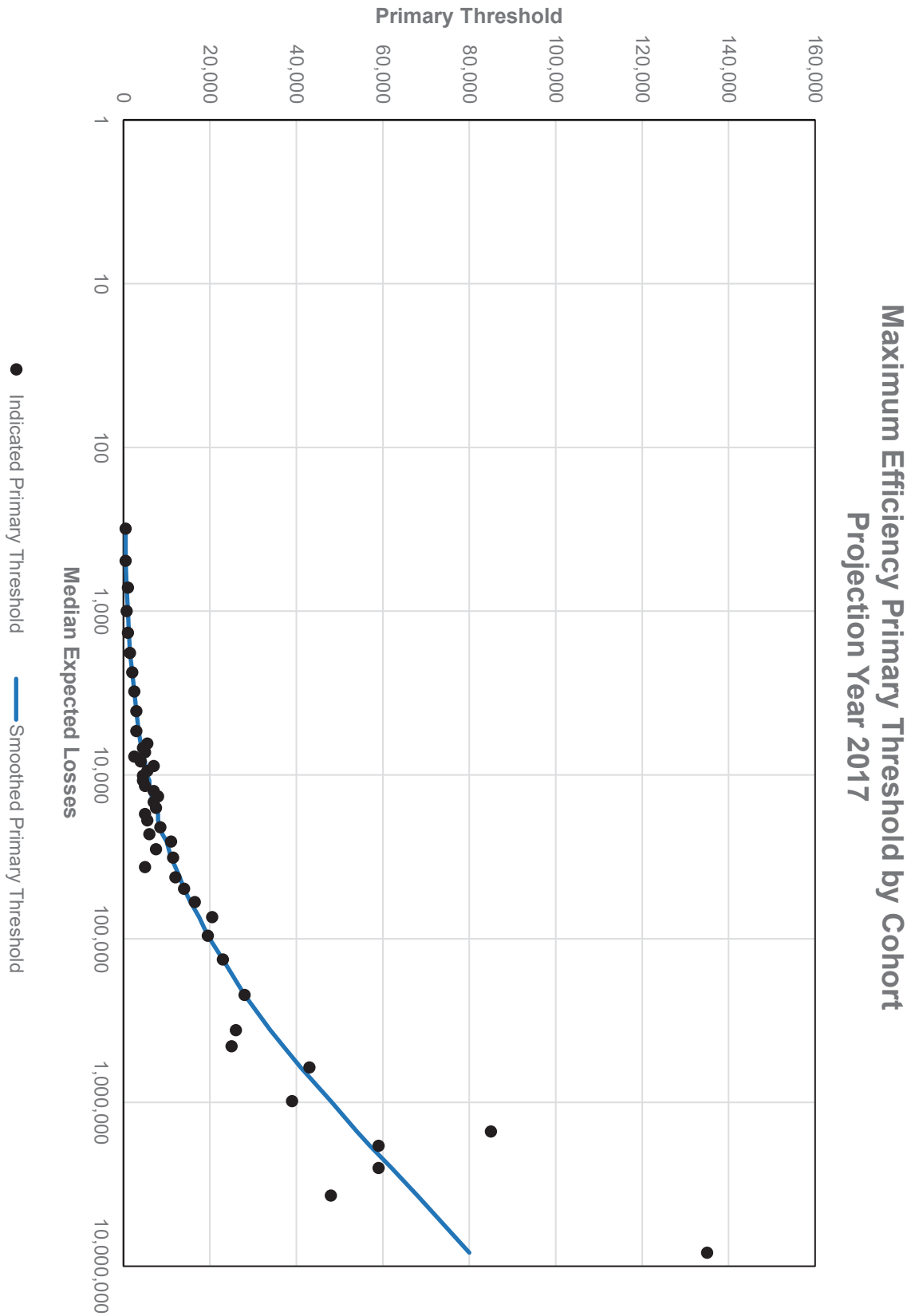
For claim-free employers, staff judgmentally suggested a cap of 0.95. This was done to ensure that all claim-free employers would get at least a 5% credit as part of the incentive for safety. This would primarily impact small employers where the primary threshold is low and nearly all of the expected losses are in the excess layer. If the eligibility threshold is set at $1,000 or greater, the impact would be small, an approximately 0.2 percentage point decrease in the average mod for employers with $1,000 to $3,500 in experience period expected losses. The largest employer that would have been impacted by this in policy year 2017 had approximately $3,500 in expected losses.

Exhibit 7.1 shows the average impact of capping by cohort. As can be seen, capping has no impact on large employers due to the implied cap. Even for small employers, the average impact is modest. With all cohorts included, the impact is an approximately 0.001 decrease to the weighted average experience modification. Exhibit 7.2 shows the average impacts of capping by industry sector. Capping has the greatest impact on the Outside Sales and Clerical sectors, but the differences among impacts by industry sector are relatively modest.

Staff believes that lowering the experience rating eligibility threshold would help to incentivize safety for smaller employers. Past experience is predictive of future losses for employers well below the current eligibility threshold. There is concern, however, that small employers could suffer significant swings in premium from year to year if they were to become experience rated. Claim count based caps provide a promising way to protect small employers from the impact of these swings. Staff would like to solicit feedback from the Committee regarding the appropriateness of lowering the eligibility threshold, of implementing claim count based caps on experience modifications, and of the methodology used to select the caps.

[4] These claim counts exclude losses below the $250 first aid threshold.

Exhibit 1


Maximum Efficiency Primary Threshold by Cohort
Projection Year 2017
Primary Threshold
0
20,000
40,000
60,000
80,000
100,000
120,000
140,000
160,000
Median Expected Losses
1
10
100
1,000
10,000
100,000
1,000,000
10,000,000
Indicated Primary Threshold
Smoothed Primary Threshold

Projection Period Claim Count Distiributions Conditional on Experience Period Claim Counts

Eligible for Experience Rating

E in [10100, 30000]

EP Count	Percent of Risks	PP Count 0	1	2	3	4+
0	50.3%	83%	13%	3%	1%	0%
1	24.1%	74%	19%	5%	2%	1%
2	11.9%	66%	21%	8%	3%	2%
3	6.0%	60%	25%	9%	3%	3%
4+	7.7%	47%	24%	13%	7%	9%

Ineligible for Experience Rating

E in [1000, 10100)

EP Count	Percent of Risks	PP Count 0	1	2	3	4+
0	83.0%	94%	5%	1%	0%	0%
1	12.3%	86%	11%	2%	1%	0%
2	3.1%	79%	15%	4%	1%	1%
3	0.9%	71%	20%	5%	2%	2%
4+	0.7%	59%	22%	11%	4%	4%

Projection Period Loss Ratios by Experience Period Claim Counts

EP Count	Percent of Risks	Average Loss Ratio	Average Mod	Average Modified Loss Ratio
0	50.3%	0.74	0.79	0.94
1	24.1%	0.98	0.97	1.08
2	11.9%	1.15	1.13	1.03
3	6.0%	1.27	1.25	1.03
4+	7.7%	1.68	1.51	1.13

EP Count	Percent of Risks	Average Loss Ratio	Average Mod	Average Modified Loss Ratio
0	83.0%	0.89	0.89	1.00
1	12.3%	1.42	1.20	1.37
2	3.1%	1.76	1.47	1.21
3	0.9%	1.74	1.69	0.98
4+	0.7%	3.30	2.05	1.57

Source: USR Exposure and Loss data. Projection Year 2017
Eligibility status based on PY 2017 eligibility threshold of $10,100
Claims with incurred losses of $250 or less are excluded
Average mods and loss ratios are weighted by expected losses.

Quintiles Tests Results by Cohort

Cohort	Median E	Variance Ratio	Cohort	Median E	Variance Ratio
L01 Q1 P1	$ 8,262,754	0.05	L17	$ 15,868	0.25
L01 Q1 P2	$ 3,704,336	0.05	L18	$ 14,633	0.17
L01 Q1 P3	$ 2,511,997	0.04	L19	$ 13,524	0.12
L01 Q1 P4	$ 1,836,886	0.01	L20	$ 12,544	0.35
L01 Q1 P5	$ 1,505,684	0.07	L21	$ 11,646	0.38
L01 Q2	$ 981,852	0.03	L22	$ 10,832	0.52
L01 Q3	$ 611,989	0.05	L23	$ 10,109	0.08
L01 Q4	$ 453,265	0.01	L24	$ 9,437	0.38
L01 Q5	$ 362,407	0.08	L25	$ 8,821	0.50
L02	$ 220,562	0.00	L26	$ 8,266	0.22
L03	$ 133,872	0.07	L27	$ 7,735	0.43
L04	$ 95,824	0.05	L28	$ 7,261	0.38
L05	$ 73,794	0.06	L29	$ 6,833	0.52
L06	$ 59,616	0.07	L30	$ 6,438	0.20
L07	$ 49,518	0.08	L31	$ 5,394	0.35
L08	$ 42,153	0.05	L32	$ 4,071	0.43
L09	$ 36,493	0.35	L33	$ 3,097	0.54
L10	$ 31,992	0.30	L34	$ 2,360	0.56
L11	$ 28,398	0.34	L35	$ 1,801	0.66
L12	$ 25,483	0.18	L36	$ 1,353	0.65
L13	$ 22,973	0.41	L37	$ 999	0.54
L14	$ 20,861	0.21	L38	$ 719	0.71
L15	$ 18,915	0.25	L39	$ 492	0.81
L16	$ 17,319	0.67	L40	$ 313	0.95

Source: USR Exposure and Loss data. Projection Year 2017
Variance Ratio = Var(Modified LR) / Var(LR)
The 2017 eligiblity threshold was $10,100

5-Year Experience Period Quintiles Tests Results by Cohort

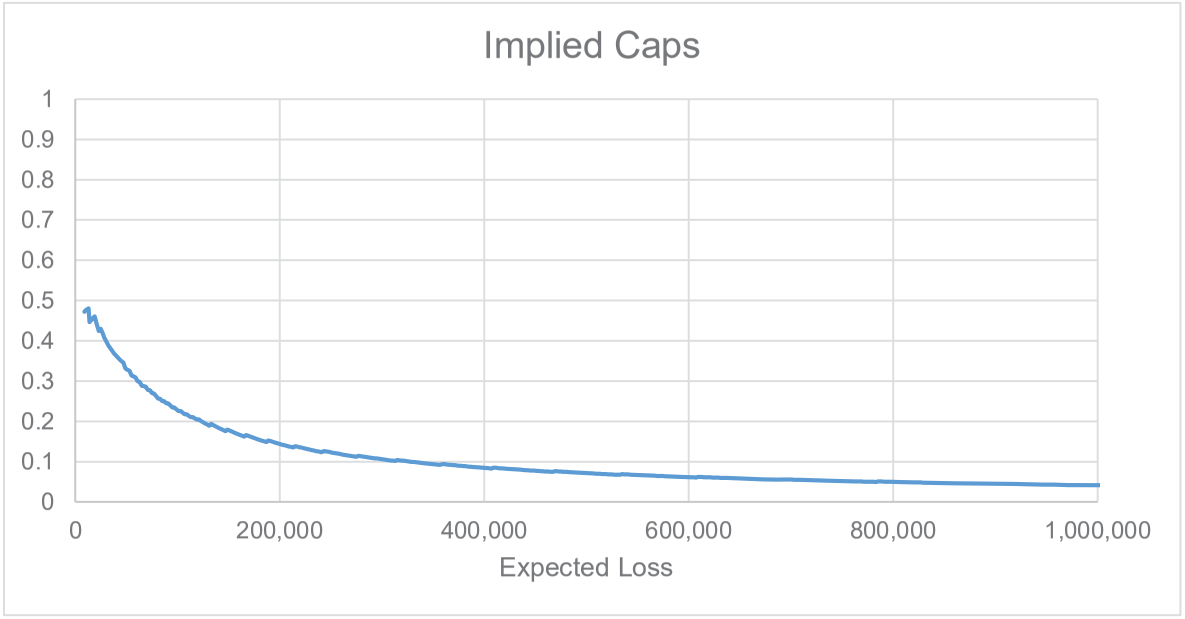
Cohort	Median E	Variance Ratio 5-Year	Variance Ratio 3-Year
L01 Q1 P1	$ 14,697,757	0.10	0.05
L01 Q1 P2	$ 6,560,803	0.05	0.05
L01 Q1 P3	$ 4,377,000	0.11	0.04
L01 Q1 P4	$ 3,215,906	0.02	0.01
L01 Q1 P5	$ 2,632,300	0.07	0.07
L01 Q2	$ 1,666,817	0.02	0.03
L01 Q3	$ 1,046,368	0.09	0.05
L01 Q4	$ 775,653	0.01	0.01
L01 Q5	$ 619,109	0.06	0.08
L02	$ 376,497	0.01	0.00
L03	$ 229,103	0.03	0.07
L04	$ 161,510	0.02	0.05
L05	$ 124,994	0.01	0.06
L06	$ 100,502	0.10	0.07
L07	$ 83,566	0.10	0.08
L08	$ 70,866	0.22	0.05
L09	$ 61,169	0.44	0.35
L10	$ 53,516	0.24	0.30
L11	$ 47,510	0.14	0.34
L12	$ 42,470	0.29	0.18
L13	$ 38,217	0.04	0.41
L14	$ 34,508	0.30	0.21
L15	$ 31,333	0.07	0.25
L16	$ 28,545	0.86	0.67
L17	$ 26,179	0.39	0.25
L18	$ 24,108	0.44	0.17
L19	$ 22,276	0.32	0.12
L20	$ 20,577	0.36	0.35
L21	$ 19,066	0.49	0.38
L22	$ 17,713	0.19	0.52
L23	$ 16,474	0.29	0.08
L24	$ 15,363	0.10	0.38
L25	$ 14,354	0.45	0.50
L26	$ 13,434	0.45	0.22
L27	$ 12,585	0.27	0.43
L28	$ 11,809	0.20	0.38
L29	$ 11,097	0.19	0.52
L30	$ 10,430	0.24	0.20
L31	$ 8,691	0.25	0.35
L32	$ 6,493	0.35	0.43
L33	$ 4,884	0.29	0.54
L34	$ 3,692	0.44	0.56
L35	$ 2,768	0.61	0.66
L36	$ 2,042	0.61	0.65
L37	$ 1,475	0.73	0.54
L38	$ 1,030	0.51	0.71
L39	$ 681	1.46	0.81
L40	$ 399	0.91	0.95

Source: USR Exposure and Loss data. Projection Year 2017
Variance Ratio = Var(Modified LR) / Var(LR)
Median E based on 5-year experience period.

5-Year Experience Period Efficiencies by Cohort

Cohort	Median E	Primary Threshold	Efficiency 5-Year	Efficiency 3-Year
L01 Q1 P1	$ 14,697,757	$ 85,000	0.530	0.578
L01 Q1 P2	$ 6,560,803	$ 75,000	0.287	0.302
L01 Q1 P3	$ 4,377,000	$ 70,000	0.334	0.360
L01 Q1 P4	$ 3,215,906	$ 66,000	0.333	0.366
L01 Q1 P5	$ 2,632,300	$ 64,000	0.257	0.339
L01 Q2	$ 1,666,817	$ 57,000	0.151	0.176
L01 Q3	$ 1,046,368	$ 51,000	0.185	0.193
L01 Q4	$ 775,653	$ 47,000	0.108	0.082
L01 Q5	$ 619,109	$ 44,000	0.076	0.082
L02	$ 376,497	$ 37,000	0.057	0.078
L03	$ 229,103	$ 31,000	0.067	0.053
L04	$ 161,510	$ 27,000	0.041	0.048
L05	$ 124,994	$ 24,500	0.053	0.045
L06	$ 100,502	$ 22,000	0.038	0.032
L07	$ 83,566	$ 20,000	0.020	0.026
L08	$ 70,866	$ 18,500	0.016	0.019
L09	$ 61,169	$ 17,000	0.011	0.002
L10	$ 53,516	$ 16,000	0.019	0.019
L11	$ 47,510	$ 15,000	0.013	0.009
L12	$ 42,470	$ 14,000	0.014	0.014
L13	$ 38,217	$ 13,500	0.008	0.007
L14	$ 34,508	$ 12,500	0.013	0.011
L15	$ 31,333	$ 12,000	0.007	0.006
L16	$ 28,545	$ 11,500	0.004	0.005
L17	$ 26,179	$ 10,500	0.013	0.010
L18	$ 24,108	$ 10,000	0.009	0.012
L19	$ 22,276	$ 9,500	0.006	0.011
L20	$ 20,577	$ 9,500	0.011	0.009
L21	$ 19,066	$ 9,000	0.009	0.007
L22	$ 17,713	$ 8,500	0.008	0.008
L23	$ 16,474	$ 8,000	0.002	0.005
L24	$ 15,363	$ 7,500	0.011	0.008
L25	$ 14,354	$ 7,500	0.004	0.012
L26	$ 13,434	$ 7,000	0.012	0.005
L27	$ 12,585	$ 6,500	0.012	0.001
L28	$ 11,809	$ 6,500	0.009	0.012
L29	$ 11,097	$ 6,000	0.009	0.007
L30	$ 10,430	$ 6,000	0.008	0.010
L31	$ 8,691	$ 5,000	0.007	0.006
L32	$ 6,493	$ 4,000	0.007	0.008
L33	$ 4,884	$ 3,500	0.011	0.007
L34	$ 3,692	$ 2,500	0.008	0.006
L35	$ 2,768	$ 2,000	0.006	0.006
L36	$ 2,042	$ 1,750	0.005	0.005
L37	$ 1,475	$ 1,250	0.006	0.004
L38	$ 1,030	$ 1,000	0.004	0.006
L39	$ 681	$ 750	0.002	0.004
L40	$ 399	$ 500	0.003	0.002

Median E and Primary Threshold based on 5-year experience period.



The implied cap is (Primary Threshold - 250) / E.
This is the incremental change in mod due to a claim that meets or exeeds the primary threshold.
Source: 2020 ERP.

Average Mods by Expected Loss Range and Experience Period Claim Count

Expected Loss Range	Count	Median E	Min. Mod	Average Mod	Max. Mod	Avg. Implicit Cap	Number of Risks
A100_500	0	357	0.96	0.98	1.00	0.73	37,504
B500_1000	0	723	0.92	0.97	1.00	0.76	47,237
C1000_2500	0	1,601	0.87	0.94	0.98	0.76	73,712
D2500_5k	0	3,490	0.82	0.90	0.96	0.68	53,384
E5k_10k	0	6,831	0.77	0.86	0.94	0.59	41,436
F10k_15k	0	12,062	0.73	0.82	0.91	0.49	17,024
G15k_25k	0	18,677	0.67	0.78	0.89	0.42	13,429
H25k_50k	0	32,211	0.52	0.72	0.86	0.34	8,308
I50k_100k	0	63,206	0.50	0.65	0.80	0.25	2,073
J100k_250k	0	122,975	0.40	0.57	0.72	0.17	384
L250k_1M	0	286,192	0.35	0.47	0.62	0.10	20
A100_500	1	374	0.97	1.22	1.25	0.70	825
B500_1000	1	763	0.95	1.20	1.24	0.77	1,702
C1000_2500	1	1,766	0.88	1.15	1.23	0.76	5,517
D2500_5k	1	3,678	0.83	1.09	1.21	0.68	7,390
E5k_10k	1	7,164	0.77	1.02	1.18	0.58	10,059
F10k_15k	1	12,209	0.73	0.97	1.15	0.49	6,199
G15k_25k	1	19,008	0.68	0.91	1.13	0.42	7,025
H25k_50k	1	33,152	0.58	0.84	1.10	0.33	6,028
I50k_100k	1	63,180	0.51	0.75	1.02	0.25	2,268
J100k_250k	1	123,006	0.41	0.65	0.92	0.17	505
L250k_1M	1	320,406	0.38	0.47	0.68	0.10	36
A100_500	2	383	1.20	2.25	2.96	0.68	60
B500_1000	2	750	0.97	2.29	2.83	0.77	202
C1000_2500	2	1,797	0.92	2.02	2.74	0.76	769
D2500_5k	2	3,764	0.84	1.75	2.54	0.68	1,587
E5k_10k	2	7,430	0.78	1.48	2.22	0.58	2,912
F10k_15k	2	12,367	0.75	1.29	1.94	0.49	2,385
G15k_25k	2	19,542	0.68	1.15	1.78	0.42	3,470
H25k_50k	2	33,852	0.60	1.00	1.58	0.33	4,141
I50k_100k	2	65,061	0.51	0.84	1.31	0.24	2,024
J100k_250k	2	126,569	0.43	0.70	1.14	0.17	587
L250k_1M	2	320,739	0.33	0.54	0.79	0.10	57
A100_500	3	415	2.49	2.93	3.99	0.66	12
B500_1000	3	679	1.60	2.98	3.77	0.76	37
C1000_2500	3	1,776	1.11	2.60	3.52	0.76	167
D2500_5k	3	3,834	0.91	2.14	3.32	0.68	381
E5k_10k	3	7,599	0.82	1.76	2.84	0.57	907
F10k_15k	3	12,498	0.74	1.52	2.50	0.49	942
G15k_25k	3	19,811	0.68	1.31	2.19	0.42	1,747
H25k_50k	3	35,106	0.60	1.10	1.95	0.33	2,642
I50k_100k	3	66,395	0.52	0.92	1.55	0.24	1,805
J100k_250k	3	129,538	0.43	0.76	1.27	0.17	648
L250k_1M	3	320,391	0.33	0.58	0.92	0.10	61
A100_500	4+	378	2.57	4.03	5.89	0.70	3
B500_1000	4+	834	2.65	3.81	6.38	0.79	10
C1000_2500	4+	1,865	1.21	3.43	6.78	0.76	67
D2500_5k	4+	3,762	0.92	3.02	7.80	0.68	207
E5k_10k	4+	7,789	0.85	2.22	6.88	0.57	622
F10k_15k	4+	12,501	0.76	1.93	7.46	0.49	765
G15k_25k	4+	20,397	0.70	1.65	6.72	0.41	1,921
H25k_50k	4+	37,056	0.60	1.39	6.95	0.32	5,061
I50k_100k	4+	71,213	0.51	1.21	11.83	0.24	7,250
J100k_250k	4+	148,647	0.41	1.08	6.44	0.16	8,062
L250k_1M	4+	403,001	0.30	1.02	4.08	0.09	4,955

Count	Proposed Cap
0	0.95
1	1.20
2	1.50
3	1.85
4+	.4*Count + .65

Values in red indicate average mods that seemed too high for the given claim counts.
Values in gold indicate values considered when judgementally selecting the caps.

Average Impacts of Capping by Cohort

	Straight Average		Weighted Average		Impacts	
Total	0.968	0.955	0.972	0.971	-0.01	-0.001
Cohort	Mod	Capped Mod	Mod	Capped Mod	Obs. Wtd. Impact	E Wtd. Impact
L01 Q1 P1	0.930	0.930	0.956	0.956	0.000	0.000
L01 Q1 P2	0.960	0.960	0.963	0.963	0.000	0.000
L01 Q1 P3	0.912	0.912	0.917	0.917	0.000	0.000
L01 Q1 P4	1.007	1.007	1.008	1.008	0.000	0.000
L01 Q1 P5	0.915	0.915	0.915	0.915	0.000	0.000
L01 Q2	0.972	0.972	0.971	0.971	0.000	0.000
L01 Q3	1.005	1.005	1.004	1.004	0.000	0.000
L01 Q4	1.000	1.000	1.000	1.000	0.000	0.000
L01 Q5	1.001	1.001	1.001	1.001	0.000	0.000
L02	1.006	1.006	1.006	1.006	0.000	0.000
L03	0.999	0.999	0.999	0.999	0.000	0.000
L04	0.992	0.992	0.993	0.993	0.000	0.000
L05	0.983	0.983	0.982	0.982	0.000	0.000
L06	0.989	0.989	0.989	0.989	0.000	0.000
L07	0.972	0.972	0.972	0.972	0.000	0.000
L08	0.962	0.962	0.962	0.962	0.000	0.000
L09	0.962	0.962	0.962	0.962	0.000	0.000
L10	0.968	0.968	0.967	0.967	0.000	0.000
L11	0.954	0.954	0.954	0.954	0.000	0.000
L12	0.960	0.960	0.960	0.959	-0.001	-0.001
L13	0.953	0.951	0.953	0.951	-0.002	-0.002
L14	0.960	0.956	0.960	0.956	-0.003	-0.003
L15	0.950	0.946	0.949	0.945	-0.004	-0.004
L16	0.950	0.944	0.950	0.943	-0.006	-0.006
L17	0.945	0.938	0.944	0.937	-0.007	-0.007
L18	0.950	0.942	0.950	0.942	-0.008	-0.008
L19	0.944	0.936	0.944	0.936	-0.009	-0.009
L20	0.940	0.929	0.940	0.930	-0.010	-0.010
L21	0.954	0.943	0.953	0.943	-0.011	-0.011
L22	0.951	0.938	0.951	0.938	-0.012	-0.012
L23	0.952	0.939	0.952	0.939	-0.013	-0.013
L24	0.953	0.938	0.953	0.938	-0.015	-0.015
L25	0.957	0.943	0.957	0.943	-0.014	-0.014
L26	0.947	0.935	0.947	0.935	-0.012	-0.012
L27	0.954	0.941	0.954	0.941	-0.013	-0.013
L28	0.956	0.939	0.956	0.939	-0.016	-0.016
L29	0.946	0.933	0.946	0.933	-0.013	-0.013
L30	0.954	0.939	0.954	0.939	-0.015	-0.015
L31	0.953	0.938	0.952	0.938	-0.015	-0.014
L32	0.960	0.945	0.959	0.944	-0.015	-0.015
L33	0.961	0.948	0.961	0.948	-0.013	-0.013
L34	0.966	0.956	0.966	0.956	-0.010	-0.010
L35	0.968	0.959	0.968	0.959	-0.009	-0.009
L36	0.974	0.963	0.973	0.963	-0.011	-0.011
L37	0.978	0.964	0.978	0.964	-0.014	-0.014
L38	0.984	0.961	0.984	0.961	-0.023	-0.023
L39	0.991	0.958	0.991	0.958	-0.033	-0.033
L40	0.992	0.956	0.992	0.956	-0.036	-0.036

Average Impacts of Capping by Industry Sector

Total	0.968	0.955	0.972	0.971	-0.01	-0.001
	Straight Average		Weighted Average		Impacts	
Industry Sector	Mod	Capped Mod	Mod	Capped Mod	Obs. Wtd. Impact	E Wtd. Impact
Clerical	0.975	0.956	0.898	0.896	-0.019	-0.002
Construction	0.987	0.975	0.949	0.947	-0.013	-0.002
Manufacturing	0.969	0.960	0.968	0.968	-0.009	-0.001
Outside Sales	0.980	0.960	0.958	0.953	-0.020	-0.006
Restaurants	0.935	0.923	0.991	0.989	-0.012	-0.002
All Other	0.967	0.954	0.986	0.985	-0.013	-0.001

Item AC20-12-05
Special Data Call for COVID-19 Claims

At the September 8, 2020 meeting, the Committee discussed the topic of collecting additional aggregate financial information on COVID-19 claims. After reviewing this issue further which included a review of the data being collected in other jurisdictions, staff believes the COVID-19 claim data would be valuable in tracking COVID-19 claims in consideration of the September 1, 2021 Pure Premium Rate Filing as well as for validating COVID-19 claim information being reported in the WCIRB's transactional data. Staff plans to issue a supplemental call for accident year 2020 COVID-19 claims valued as of December 31, 2020 to be due in February 2021. The supplemental data call will request information on losses, claim counts and paid ALAE similar to what is requested in the WCIRB's Quarterly Call. Attached is a draft copy of the supplemental data call.

In the California Department of Insurance (CDI) Decision on the January 1, 2021 Pure Premium Rate Filing, the CDI directed the WCIRB to collect "data of aggregate premium charged for any rate component and/or rating plan that includes an adjustment for COVID-19." At the meeting, staff will discuss the process for collecting this data with the Committee.

WCIRB Special Call for COVID-19 Claim Data Evaluated as of December 31, 2020
Data Page

Accident Year	Indemnity		Medical		Paid ALAE (7)	Open Indemnity Claim Counts (11)	Total Indemnity Claim Counts (12)	Total Claim Counts (13)	Reporting Entity Code
	Paid Losses (1)	Loss Reserves Excluding IBNR (2)	Paid Losses (3)	Loss Reserves Excluding IBNR (4)					
2020									998

Note: All data is only for claims occuring in 2020 and arising out of a diagnosis of COVID-19 (Catastrophe Code 12). For convenience, the column numbers correspond to the column numbers of the related columns on the Accident Year Exhibit of the CA-QT-4Q20 Quarterly Call.

WCIRB Special Call for COVID-19 Claim Data Evaluated as of December 31, 2020
Instructions

Information reported must be in accordance with the following:
Note: These instructions are consistent with those included in the WCIRB's Quarertly Call for Experience.

(a) All data is only for claims arising out of a diagnosis of COVID-19 (Catastrophe Code 12) in which the accident occurred in 2020 (accident year 2020) valued as of December 31, 2020.

(b) Paid data for each accident year must be reported on a "cumulative" basis. This means that the total of all amounts paid on each COVID-19 claim belonging to accident year 2020 from the time the claim is reported to December 31, 2020 must be included.

(c) Reserves valued as of December 31, 2020 must be reported. Voluntary reserves must be excluded.

(d) Indemnity losses (paid, reserves excluding IBNR) must be reported in accordance with the definition of "Indemnity Losses" in Part 4, Section II of the USRP, available on the WCIRB website at http://www.wcirb.com/document/123.

(e) Medical losses (paid, reserves excluding IBNR) must be reported in accordance with the definition of "Medical Losses" in Part 4, Section II of the USRP, available on the WCIRB website at http://www.wcirb.com/document/123.

(f) Paid ALAE must be reported in accordance with the definition of "Allocated Loss Adjustment Expenses" in Part 4, Section II of the USRP, available on the WCIRB website at http://www.wcirb.com/document/123. Please note that claims that contain Paid ALAE but do not have any indemnity or medical incurred value must have their Paid ALAE value reported, however they must not be included in reported claim counts.

(g) Claim count data must be reported on a cumulative basis. This means that the total number of claims belonging to accident year 2020 as of December 31, 2020 must be included. Reopened claims must not be counted as a separate claim from the original claim.

(h) "Indemnity claims" means claims with indemnity incurred (paid plus case reserves) greater than zero as of December 31, 2020.

(i) "Medical-only claims" means claims with medical incurred (paid plus case reserves) greater than zero and indemnity incurred equal to zero as of December 31, 2020.

(j) "Open claims" refers to claims which have not had a final loss payment made as of December 31, 2020 (irrespective of future ALAE payments to be made).

(k) Column data must conform to the following table:

Col.	Field Name	Description
1	Paid Losses (Indemnity)	Report cumulative indemnity amount paid for each accident year 2020 as of the evaluation date of the callDecember 31, 2020.
2	Loss Reserves Excluding IBNR (Indemnity)	Report indemnity reserves (excluding IBNR) for each accident year 2020 as of the evaluation date of the callDecember 31, 2020. Include: • Indemnity case reserves • Indemnity reserve for reopened claims Exclude: • Indemnity reserves for incurred but not reported claims • Voluntary reserves
3	Paid Losses (Medical)	Report cumulative medical amount paid for each accident year 2020 as of the evaluation date of the callDecember 31, 2020. For claims covered by policies incepting **prior to** July 1, 2010 only, include the cumulative paid cost of medical cost containment programs (MCCP) that are not related to Independent Bill Review (IBR) and Independent Medical Review (IMR).
4	Loss Reserves Excluding IBNR (Medical)	Report medical reserves for each accident year 2020 as of the evaluation date of the callDecember 31, 2020. Include: • Medical case reserves • Medical reserve for reopened claims Exclude: • Medical reserves for incurred but not reported claims • Voluntary reserves
7	Paid ALAE	Report cumulative ALAE (including medical cost containment program costs of IBR and IMR) amount paid for each accident year 2020 as of the evaluation date of the callDecember 31, 2020. For claims covered by policies incepting **on or after** July 1, 2010 only, also include the cumulative paid cost of MCCP that are not related to IBR and IMR.
11	Open Indemnity Claim Counts	For each of the accident years 1989 and forward, rReport the number of indemnity claims (i) which were open as of the evaluation date of the callDecember 31, 2020 and (ii) where the sum of indemnity cumulative loss paid and indemnity loss case reserve for each claim as of the evaluation date of the call is greater than zero.
12	Total Indemnity Claim Counts	RFor each of the accident years 1989 and forward, report the cumulative total number of indemnity claims (both open and closed) as of the evaluation date of the callDecember 31, 2020, where the sum of indemnity cumulative loss paid and indemnity loss case reserve for each claim as of the evaluation date of the callDecember 31, 2020 is greater than zero.
13	Total Claim Counts	For each of the accident years 1989 and forward, rReport the cumulative total number of indemnity and medical-only claims (both open and closed) as of the evaluation date of the callDecember 31, 2020, where the sum of indemnity and medical cumulative loss paid and indemnity and medical loss case reserves for each claim as of the evaluation date of the callDecember 31, 2020 is greater than zero.

Item AC20-12-06
Potential Applications of Indemnity Transaction Data

At the December 12, 2018 meeting, in part in response to an Insurance Commissioner directive, the Governing Committee authorized the collection of indemnity transaction data in accordance with the requirements reflected in the Workers' Compensation Information System (WCIS) by which the Division of Workers' Compensation (DWC) has been collecting transactions for a number of years. (The WCIRB had been collecting this data on a voluntary basis from a small number of insurers since 2017.) In response, the WCIRB began the collection of indemnity transaction data for all insurers writing more than 1% of pure premium statewide with transactions as of April 1, 2020 and has already begun using the data to help understand the impact of the COVID-19 pandemic and resulting economic downturn. Data is reported on a daily, weekly or monthly basis and is expected to be the first information received by the WCIRB on individual claims. Staff anticipates that this data will greatly enhance our ratemaking and research capabilities via more granular and timely data.

Drill Downs from Aggregate Financial Data

Staff plans to expand our capacity to drill down from the aggregate financial data reported quarterly by building comparisons between the aggregate financial data and the indemnity transaction data. This would expand our ability to understand the dynamics of temporary disability (TD) and permanent disability (PD) payments including differences in the timing of payments, changes in the number of weeks of paid TD and changes in estimated PD rating. This would also provide the ability to better understand drivers of changes in the data such as industry characteristics well before unit statistical data is reports (USRs) on the claim are received. Staff plans to explore potential drill downs based on information such as claim status, industry, classification code, location and litigation status.

Emerging Claim Types

The contemporaneous nature of indemnity transaction data will allow us to identify and assess rapidly emerging claim types. For example, within a few weeks of the COVID-19 pandemic emerging we were able to identify the relative volume of emerging COVID-19 claims using this data. At the same time, we were able to begin use reported data on these claims to analyze the characteristics of these COVID-19 claims such as classification, age of worker and denial rates.

More Refined Triangles

Staff plans to explore additional claim characteristic triangles to review. These may include monthly or quarterly triangles for metrics such as claim counts, paid indemnity and settlement rates. This may also include more refined versions of triangles along dimensions such as region, litigation status and part/nature/cause.

Claim Level Analysis before Unit Stat Reporting

The indemnity transaction data will allow us to view the component payment streams of each claim reported. It will also provide information about medical settlements to combine with the medical transaction data to provide a more complete view of the loss payments on a claim. We will also be able to identify litigated claims and analyze what other characteristics are associated with litigation. The data set provides more detailed information on claims status as claims are identified as re-opened/re-closed in addition to open/closed and information on return to work.

In particular, continuous trauma (CT) claims are a significant cost component in California workers' compensation and have been found to be highly correlated with changes in indemnity claim frequency. Staff plans to build tracking exhibits to help identify changes in reporting and overall levels of CT claims earlier than when they become available via reported USRs.

Merging Medical and Indemnity Transaction Data

Currently, insurers are required to report transaction data if their written pure premium volume exceeds 1% of the statewide insured market and are required to continue reporting even if their volume falls below 1%.[1] Staff checks the volume, robustness and suitability of this data for ratemaking and research purposes. Staff is planning to improve the quality of the checks for completeness of the data for ratemaking and research by comparing claim counts and matching claims between the indemnity and medical transaction data sets. Ultimately, staff plans to merge data by claim to facilitate analyses of claim development by claim characteristic as well as the ability to view claim level data both earlier and more frequently than possible with unit statistical data. Staff plans to test the ability to combine the two datasets to provide a complete drill down from the unit statistical data.

Improving our Geolocation Protocols for Claims and Exposure

Several years ago, staff developed geolocation protocols for USR claims and exposure data. The geolocated data is used for the WCIRB's annual Geo Studies as well as many other studies for which we wish to incorporate region into the analysis. Our current geolocation protocol for claims relies on the billing zip codes from the medical transaction data to estimate a center of medical services. The First Report of Injury (FROI) record includes the employer location, the zip code for the injury site, and the zip code for the employee. Staff plans to explore how to combine the data elements from both data sets in order to optimize our geolocation protocol for claims.

Our current exposure location protocol relies on the locations on the policy and the number of employees by location within the D&B Hoovers data. Staff plans to cross check the zip codes for the injury sites with the locations on the policy and in the D&B Hoovers data in order to improve our understanding of what locations are on each policy and where exposures are located.

Analyzing Claim Frequency Changes

The timeliness of indemnity transaction data will allow us to use the information to supplement our analyses of claim frequency data. For example, in 2020, staff has developed exhibits to measure changes in claim filing patterns due to the pandemic-related economic downturns. Staff also plans to review the use of indemnity transaction data in its comprehensive review of the WCIRB's claim frequency projection model that is planned for 2021.

Industry Benchmarking

In 2019, staff developed and released a set of benchmarking reports to insurers who participated in the voluntary indemnity data call. In 2020, staff is developing an enhanced version of these reports for participants in the mandatory data call with release planned in early 2021. Staff plans to present a webinar to recipients soon after the first set of reports are released and plans to develop additional benchmarking exhibits later in 2021.

Reconciling Across Data Sets

Validation of data is an important first step before any analytic project. Staff plans to use this dataset to help inform our internal data validation processes and reasonability checks.

[1] Staff is proposing changing the threshold for required transaction data reporting from 1% to 0.5%. See Agenda Item AC20-12-08.

Item AC20-12-07
Potential 2021 Actuarial and Research Projects

Potential actuarial and medical research studies under consideration for 2021 are shown below. Also shown for each potential study is staff's assessment of the current status of the study. Committee input is being solicited as to the completeness and relative priority of these potential studies.

A. Studies Arising Out of California Department of Insurance (CDI) Directives and Decisions

1. Indemnity Claim Frequency Model Projections. In the CDI Decision on the January 1, 2017 Pure Premium Rate Filing, the CDI recommended that the WCIRB review its frequency projection model in light of the continued increases in indemnity claim frequency.

   Project Status: The WCIRB regularly reviews its frequency projection model and has made a number of enhancements over the years. Staff anticipates conducting a comprehensive study of the frequency projection model in 2021 with a report containing recommended methodology enhancements provided to the Actuarial Committee by the fourth quarter of 2021.

2. Terrorism Data Reporting. The CDI has directed staff to provide information to both the National Association of Insurance Commissioners (NAIC) and the Federal Insurance Office (FIO) related to terrorism exposure in California workers' compensation.

   Project Status: Staff anticipates providing the annual updates to the NAIC and FIO in the first and second quarters of 2021.

3. Potential Adjustments to Allocated Loss Adjustment Expense (ALAE) Projections. In the CDI Decision on the January 1, 2019 Pure Premium Rate Filing, the CDI recommended that the WCIRB review the ALAE projection methodology in light of accelerating claim settlement rates. In the CDI Decision on the January 1, 2021 Pure Premium Rate Filing, the CDI noted that despite adjustments for changing claim settlement, there is continued downward development in ALAE and recommended that the WCIRB further study the underlying causes.

   Project Status: Staff completed an analysis of potential adjustments to the ALAE projection methodology that was accepted by the Actuarial Committee at the August 1, 2019 meeting and reflected in the January 1, 2020 Pure Premium Rate Filing. Staff completed a follow-up analysis with enhanced methodology adjustments that was accepted by the Actuarial Committee at the August 4, 2020 meeting and reflected in the January 1, 2021 Pure Premium Rate Filing. In light of the concerns discussed in the recent CDI Decision, staff anticipates further reviewing ALAE development methods with the Actuarial Committee in consideration of the September 1, 2021 Pure Premium Rate Filing by the second quarter of 2021.

4. Adjustments to Loss Development for Reduced Lien Filings. In the CDI Decision on the January 1, 2019 Pure Premium Rate Filing, based on recently available lien filing information, the CDI predicated the approved January 1, 2019 pure premium rates on an assumed 50% reduction in lien filings rather than the 40% reflected in the WCIRB's Filing. The CDI also recommended that the WCIRB review the adjustment based on the most recent lien information available. In the CDI Decision on the January 1, 2021 Pure Premium Rate Filing, the CDI recommended that, given that there has been continued reduction in lien filings, further study is needed with respect to the impact of the lien reduction on both loss and ALAE development.

Project Status: Staff completed an analysis of adjustments to loss development and ALAE development to reflect reduced lien filings that was reflected in the January 1, 2020 and January 1, 2021 Pure Premium Rate Filings. Staff anticipates reviewing these adjustments in light of the concerns discussed in the recent CDI Decision with the Actuarial Committee in consideration of the September 1, 2021 Pure Premium Rate Filing by the second quarter of 2021.

5. Collection of Indemnity Transaction Data. In December 2018, the Insurance Commissioner directed the WCIRB to begin the collection of indemnity transaction data in accordance with the requirements reflected in the Workers' Compensation Information System (WCIS).

   Project Status: Indemnity transaction data is being submitted and processed by all required insurers in accordance with the schedule established by the Governing Committee. A report on the potential ratemaking and research uses of this data is being presented to the Actuarial Committee at the December 8, 2020 meeting (Item AC20-12-06).

6. Collection of COVID-19 Premium Data. In the CDI Decision on the January 1, 2021 Pure Premium Rate Filing, the Insurance Commissioner directed the WCIRB to collect information on insurer premium charges related to COVID-19.

   Project Status: Staff will discuss potential changes to WCIRB aggregate data calls to collect information on insurer premium charges related to COVID-19 at the December 8, 2020 Actuarial Committee meeting (Item AC20-12-05).

B. Studies/Projects Directed by Legislation

1. Statewide Paid Costs. Section 11759.1 of the Insurance Code requires the WCIRB to report annually on workers' compensation costs paid during the preceding calendar year. The 2020 calendar year report is required to be completed by June 2021.

   Project Status: Staff anticipates publishing the required report by the end of the second quarter of 2021. In addition, as in the last several years, staff anticipates compiling information from this report and other WCIRB reports into a high level "executive summary" of the state of the California workers' compensation system to be published by the third quarter of 2021.

2. Policyholder Dividends. Section 11739 of the Insurance Code requires the WCIRB to collect information on policyholder dividends in California and prepare an annual report to the Insurance Commissioner.

   Project Status: Staff anticipates providing the report on 2020 dividends to the CDI by the third quarter of 2021.

3. Report on Roofing Industry. Section 11665 of the Insurance Code requires the WCIRB to annually compile and report the payroll and loss data reported in the roofing classification for employers holding C-39 licenses from the Contractors State License Board as well as the payroll and loss information by employer payroll size interval.

   Project Status: Staff anticipates providing this report to the CDI in the second quarter of 2021.

C. COVID-19 Pandemic Related Research

1. Cost of COVID-19 Claims. On April 8, 2020, the WCIRB was requested by the Assembly Insurance Committee to provide a cost estimate of a potential conclusive presumption of

compensability of COVID-19 claims applied to "essential" workers. On May 6, 2020, Governor Newsom issued an Executive Order providing for a rebuttable presumption of compensability for COVID-19 claims to apply from March 19, 2020 to July 5, 2020 to all workers directed to work outside the home. Senate Bill No.1159 (SB 1159) was signed into law in September 17, 2020 codifying the Governor's Executive Order and establishing another COVID-19 presumption of compensability once the Governor's Executive Order expired.

Project Status: On April 17, 2020, the WCIRB provided the Assembly Insurance Committee a cost evaluation of a potential COVID-19 conclusive presumption of compensability. On May 22, 2020, the WCIRB published a cost evaluation of the Governor's Executive Order. The WCIRB's Amended January 1, 2021 Pure Premium Rate Filing submitted on September 15, 2020 included an evaluation of the cost impact on COVID-19 claims on 2021 policies that contemplated the impact of SB 1159. Staff anticipates updating the cost evaluation of COVID-19 claims as part of the September 1, 2021 Pure Premium Rate Filing in the second quarter of 2021.

2. Impact of Pandemic-Related Recession on Claim Frequency. Unemployment in California has skyrocketed with the pandemic and resultant stay-at-home orders resulting in many business slowdowns and closures. Historically, frequency has generally declined during recessions. However, with the suddenness and magnitude of the drop in employment, recent trends in cumulative trauma claims and post-termination claims and potential waves of COVID-19 claims, the overall impact on claim frequency is not clear.

   Project Status: On June 1, 2020, the WCIRB published a research brief on the impact of economic downturns on indemnity claim frequency. The brief summarized the historical impact of prior economic downturns on claim frequency, WCIRB model projections of the range of potential impacts of the current downturn, and the potential impacts of cumulative trauma, post-termination and COVID-19 claims. Staff anticipates continuing to report on these key frequency measures regularly through 2021.

3. COVID-19 Early Claim Cost Indicators. The COVID-19 pandemic and resultant stay-at-home orders are expected to have a major impact on accident year 2020 emerging costs as well as the loss development of earlier accident years. Among the areas potentially impacted include claim frequency, medical treatment levels, COVID-19 diagnosis claims, claim settlement rates, litigation rates, cumulative trauma claims, post-termination claims and temporary disability duration.

   Project Status: The WCIRB initiated a COVID-19 cost monitoring process using transactional indemnity data, medical transactional data, information from the Division of Workers' Compensation (DWC), special surveys as needed and other information to develop early indicators of experience emerging during the pandemic. Staff provided summaries of this information to the Actuarial Committee at several 2020 Committee meetings. Staff anticipates further regular updates to this information in 2021.

4. COVID-19 Early Exposure and Premium Indicators. The COVID-19 pandemic and resultant stay-at-home orders will have a major impact on calendar year 2020 and later exposure and premium. In addition to the impact of employment reductions by sector, the temporary reassignment to the clerical classification of employees temporarily performing clerical duties at home, the continuation of pay to employees not working and return premium on expiring 2019 and early 2020 policies will significantly impact calendar year 2020 and later premiums.

   Project Status: Staff has undertaken a survey of employers with over 1,500 employer responses thus far to help quantify the impact of the pandemic on premium levels due to staff and work hour reductions, furloughs and reassignment of workers to clerical duties. Staff is also preparing summaries of quarterly premiums by policy year. Staff anticipates presenting this information to the Actuarial Committee in the first quarter of 2021 in

consideration as to whether any premium adjustment for calendar year 2020 may be appropriate in the September 1, 2021 Pure Premium Rate Filing.

5. Impact of Medical Treatment Delays. With the COVID-19 pandemic and resultant stay-at-home orders, a significant level of medical treatment that would otherwise have been provided was delayed or foregone completely. At the April 2, 2020 meeting, the Actuarial Committee discussed that, with these potential delays or avoidance of medical treatments early in the life of a claim, future medical costs and return-to-work may be impacted.

   Project Status: On October 30, 2020, the WCIRB released a research report on the impact of delayed medical treatment on future medical treatment and outcomes. Staff anticipates presenting an analysis as to whether any additional adjustment to the loss development projections in the September 1, 2021 Pure Premium Rate Filing are appropriate given the delays in medical treatment in the early weeks of the pandemic in the first quarter of 2021.

6. COVID-19 Claim Severity. There is significant information available on the number of COVID-19 claims. However, given how recently these claim have occurred, the nature of the more severe claims and typical reporting lags in the reporting of hospital payments, there is limited information on the cost and treatment pattern of the more severe COVID-19 claims. In WCIRB cost evaluations published in 2020, many of the severity assumptions were predicated on the cost and treatment patterns of similar claims as well as expert medical and claims opinion.

   Project Status: Staff anticipates preparing an analysis of the cost and treatment patterns of severe COVID-19 claims for the Actuarial Committee's review in the fourth quarter of 2021 based on data from both the workers' compensation system and data from the group health system.

7. Increased Usage of Telemedicine. With the COVID-19 pandemic and resultant stay-at-home orders, the use of telemedicine in workers' compensation is increasing. In recent months, the DWC has adopted a number of changes to fee schedules to address telemedicine.

   Project Status: In 2020, staff has presented regular summaries of costs reported in telemedicine codes to the Actuarial Committee. Staff anticipates continuing to provide regular updates on telemedicine costs in 2021. Based on this information, the Committee can consider in the latter part of 2021 whether an in-depth study of telemedicine is appropriate in 2022.

8. Increase in Telecommuting. With the COVID-19 pandemic and resultant stay-at-home orders, many employees have begun working from home and a significant level of telecommuting is likely to continue even after stay-at-home orders expire.

   Project Status: A new classification for telecommuting was proposed by the WCIRB and adopted by the Insurance Commissioner effective January 1, 2021. At the August 4, 2020 Actuarial Committee and August 7, 2020 Classification and Rating (C & R) Committee meetings, the consensus of the committees was that the advisory pure premium rate for the new classification be proposed to be initially equal to that for the clerical classification. Both committees also recommended that preliminary experience emerging in the new classification in 2021 be reviewed in late 2021 to assess whether there is a significant differential in experience between the new classification and the clerical classification. Staff anticipates presenting a preliminary analysis of emerging experience in the new classification for telecommuting to the Actuarial Committee and the C & R Committee by the fourth quarter of 2021.

D. Cost Impact of Legislative and Regulatory Changes

1. Senate Bill No. 863 (SB 863) Cost Monitoring. SB 863 was enacted in 2012 and included a number of reform provisions related to the California benefit delivery system. In March 2013, the WCIRB submitted a comprehensive plan to the CDI to monitor the emerging costs related to SB 863.

   Project Status: The WCIRB's fourth and final comprehensive retrospective cost evaluation of SB 863 was published on November 17, 2016. In October 2019, the WCIRB published a research brief providing an updated retrospective evaluation of several components of SB 863 for which updated data was available. Staff does not anticipate further analyses as to the overall cost impacts of SB 863.

2. Additional Fee Schedules. SB 863 provides for new fee schedules for interpreter and home health services to be promulgated. In addition, the DWC is contemplating changes to the medical-legal fee schedule.

   Project Status: At this time, the DWC has not promulgated final schedules for interpreter, home health or medical-legal services. If any of those fee schedules are finalized, working with the Claims Working Group, Medical Analytics Working Group and Actuarial Committee, staff anticipates completing its analysis of the pure premium rate impact of the new fee schedules within 120 days of the final values being promulgated.

3. Drug Formulary. Pursuant to Assembly Bill No. 1124, the DWC adopted a new drug formulary to be effective January 1, 2018.

   Project Status: The WCIRB's prospective evaluation of the new drug formulary was completed in the first quarter of 2018 and reflected in the July 1, 2018 and subsequent premium rate filings. In August 2019, the WCIRB published an initial retrospective analysis of the impact of the drug formulary. Staff has updated the analysis based on additional post-drug formulary experience through early 2020 for presentation to the Actuarial Committee at the December 8, 2020 meeting (Item AC17-12-02) with a research brief to be published in the first quarter of 2021. No further analysis of the formulary is contemplated for 2021.

4. Senate Bill No. 1160 (SB 1160) Restrictions on Utilization Review. SB 1160 was signed into law on September 30, 2016. Primarily, SB 1160 restricts utilization review within the first 30 days of treatment on injuries occurring on or after January 1, 2018. The WCIRB's cost evaluation of SB 1160 as approved by the Actuarial Committee at the September 6, 2016 meeting was reflected in the WCIRB's Amended January 1, 2017 Pure Premium Rate Filing as well as subsequent pure premium rate filings.

   Project Status: A preliminary retrospective analysis of the SB 1160 restriction on utilization review within 30 days of the injury was reviewed by the Actuarial Committee at the August 1, 2019 meeting and reflected in the January 1, 2020 Pure Premium Rate Filing. Staff anticipates updating this analysis based on an additional post-SB 1160 experience by the second quarter of 2021.

5. Impact of the Geographic Practice Cost Index (GPCI) on Physician Fees. The DWC adopted the Medicare GPCI, effective January 1, 2019, to replace the statewide geographic adjustment factor (GAF) as Medicare's MSA-based locality-specific GAF. This GPCI varies fee schedule amounts for various physician services based on the location of the provider.

   Project Status: A prospective analysis of the cost impact of the new GPCI factors was reviewed by the Actuarial Committee at the April 2, 2019 meeting. Staff anticipates

updating this analysis based on additional post-GPCI experience by the third quarter of 2021.

E. Other Studies Directly Impacting Pure Premium Rates and Rate Level Projections

1. Classification Ratemaking Methodologies. Although the WCIRB has reflected refinements to the classification ratemaking loss development process in 2012 as well as adjustments for differences in wage levels by classification in 2016, a comprehensive review of the classification ratemaking methodologies has not been undertaken for a number of years.

   Project Status: Staff has completed a comprehensive study of loss development as the first phase of a multi-year comprehensive study of classification ratemaking methodologies with the results being presented to the Actuarial Committee at the December 8, 2020 meeting (Item AC20-12-03). Staff anticipates beginning the second phase of the analysis related to premium on-leveling adjustments with a report to be presented to the Actuarial Committee by the fourth quarter of 2021.

2. Study of Dual Wage Thresholds. In 2017, the C & R Committee recommended that a comprehensive study of the dual wage classification thresholds be conducted every two years.

   Project Status: The last comprehensive study of dual wage thresholds was completed in 2019 and reflected in the January 1, 2020 Regulatory Filing. Staff anticipates completing a comprehensive study for the C & R Committee's review by the fourth quarter of 2021 in preparation for the September 1, 2022 Regulatory Filing.

3. Payroll Limitations for Classification Ratemaking. At the March 21, 2017 meeting, the Actuarial Committee noted that total costs per $100 of payroll declined at higher wage levels. Given this, it was noted that staff planned to explore expanding the number of classifications subject to an employee annual payroll limitation.

   Project Status: In the January 1, 2019 Regulatory Filing, the CDI approved the WCIRB's proposal to limit an employee's payroll to the amount used to limit the payroll of executive officers for five classifications effective on January 1, 2020 and later policies. Pure premium rates for these classifications that reflect adjustment for the impacts of the limitations on payroll were adopted by the Insurance Commissioner in the Decision on the January 1, 2020 Pure Premium Rate Filing. Additional classifications for which limitations are appropriate were approved by the C & R Committee in the first quarter of 2020 to be included in the September 1, 2021 Pure Premium Rate Filing to be submitted in the first quarter of 2021 with the limitations proposed to be effective September 1, 2022.

4. Pharmaceutical Cost Reductions. At the August 1, 2018 meeting, the Actuarial Committee noted that with the sharp reductions in pharmaceutical costs and that the pharmaceutical share of medical payments varies significantly by maturity level, medical loss development could be affected. As a result, the Committee recommended that the WCIRB undertake an analysis of the impact of the recent reduction in pharmaceutical costs on medical loss development.

   Project Status: The Committee reviewed an analysis of the impact of pharmaceutical cost reductions on loss development at the June 14, 2019 meeting and the WCIRB reflected an adjustment to the loss development methodology in the January 1, 2020 and January 1, 2021 Pure Premium Rate Filings. Staff anticipates reviewing the adjustment factors based on updated data on pharmaceutical costs with the Actuarial Committee in the fourth quarter of 2021.

5. Review of ULAE Projection Methodologies. As discussed at the August 1, 2018 Actuarial Committee meeting, while the WCIRB has continued to modify the data collected related to ULAE in order to enhance the accuracy of the ULAE projection, a comprehensive review of the ULAE projection methodologies has not been undertaken for some time.

   Project Status: The Actuarial Committee reviewed an initial analysis of ULAE projection methodologies at the December 5, 2019 meeting. Staff is presenting an updated analysis of ULAE methodologies for the Committee's review at the December 8, 2020 meeting (Item AC19-12-02).

6. Nine-Month Loss Projections. At the December 5, 2019 meeting, with the transition of the WCIRB's filing schedule to a September 1 effective date, the Actuarial Committee recommended reviewing the accuracy of accident year experience valued as of September 30 as the basis of projecting December 31 experience, which will be the basis of future September 1 filings.

   Project Status: Staff is presenting a summary of the accuracy of nine-month experience as a basis to project December 31 experience at the December 8, 2020 Actuarial Committee meeting (Item AC20-12-02).

F. Other Studies Indirectly Impacting Rate Level Projections

1. Analysis of Very Large Claims. Given recent patterns of medical treatment and shifts in mortality estimates, including that for impaired individuals, it has been suggested that the WCIRB undertake a comprehensive analysis of the frequency and characteristics of very large or "jumbo" claims in the California workers' compensation system.

   Project Status: On August 31, 2020, the WCIRB in collaboration with rating bureaus in other jurisdictions published a national study on the basic demographics of "mega claims" (claims which exceed $3M in incurred value on an on-level and trended basis). Staff anticipates continuing discussions with the other bureaus on a potential second phase of the study focusing on medical treatment patterns and individual claim development of mega claims and also plans to study the medical treatment patterns of larger (but with a different lower threshold) claims in California. While work on these analyses may begin in 2021, the studies are not anticipated to be completed before 2022.

2. Frictional Costs in California. The cost of delivering benefits in California is much higher than in other states and a key factor that makes California a high cost state for workers' compensation.

   Project Status: Staff anticipates undertaking an in-depth analysis of these frictional costs to better understand the factors driving their exceptionally high levels with the final report published in the third quarter of 2021.

3. Medicare "Set-Asides" (MSAs). At the July 28, 2015 meeting, the Claims Working Group recommended that consideration be given to conducting a more in-depth study of MSAs.

   Project Status: In 2016, the Claims Working Group and Actuarial Committee reviewed some initial work in this area which included the development differences between compromise and release settled claims and stipulated award settled claims. Staff does not anticipate further work on this issue in 2021.

4. Impact of the Affordable Care Act (ACA) on Workers' Compensation Costs. The ACA has fundamentally altered the healthcare delivery system in the United States and may have significant impact on workers' compensation medical costs in California. At the October 1, 2013 meeting, the Medical Analytics Working Group discussed various ways to assess the ACA impact

on California workers' compensation costs in the future when sufficient post-ACA experience is available.

Project Status: The WCIRB published a report on the impact of the ACA on California workers' compensation in May 2018. The study results indicated that the increased availability of healthcare insurance through the ACA may be a factor in reducing the frequency of soft tissue claims in workers' compensation. Staff does not anticipate further work on this specific issue in 2021, but anticipates analyzing the potential impact of high deductible group health plans on workers' compensations claim costs for review of the Medical Analytics Working Group by the second quarter of 2021.

5. Analysis of Cumulative Trauma Claims. Recent Actuarial Committee analyses of claim frequency changes have indicated that cumulative trauma claims are increasing and are a significant factor driving many of the key cost trends in California.

   Project Status: The WCIRB published a comprehensive report on cumulative trauma claims in October 2018. Some of the key metrics in the report have been updated and incorporated into the WCIRB's semi-annual review of system diagnostics. Staff also anticipates studying the patterns of medical treatment on cumulative trauma claims with a study to be published by the third quarter of 2021. Additionally, staff anticipates analyzing cumulative trauma claims as part of the comprehensive review of the WCIRB frequency model (item A1 above) to be presented to the Actuarial Committee in the fourth quarter of 2021.

6. Provider Treatment Pattern Analysis. In 2018, the WCIRB began to explore the impact of behavioral factors on the workers' compensation system. As part of that exploration, staff has entered into a partnership with a University of California, Berkeley behavioral scientist to study treatment patterns of various types of providers.

   Project Status: Staff presented preliminary results on this study in the second quarter of 2019 and anticipates continuing research in this area in 2022 and beyond as available resources permit.

G. Studies Related to Rating Plans

1. Experience Rating Eligibility. At the October 22, 2014 meeting, the Actuarial Research Working Group discussed changes to the experience rating eligibility criteria in light of other changes to the Plan being adopted and noted that staff has not completed a comprehensive review of experience rating eligibility in a number of years.

   Project Status: Now that the changes to the experience rating formula to vary the split point by the size of the employer and the non-reporting of small medical-only claims have been implemented, staff is presenting a comprehensive analysis of the current eligibility threshold for review of the Actuarial Committee at the December 8, 2020 meeting (Item AC20-12-04) and the C & R Committee by the first quarter of 2021. Based upon the input of the two committees, staff will begin a comprehensive stakeholder outreach program in 2021.

2. Experience Rating Parameters. Until 2020, it had been several years since the parameters of the WCIRB's variable split Experience Rating Plan had been updated. In order to keep the Plan values current and to avoid wide fluctuations in values, the experience rating parameters should be updated at regular intervals.

   Project Status: Staff completed an analysis of the Experience Rating Plan parameters with recommended changes approved by the Actuarial Committee at April 2, 2020 meeting for

inclusion in the January 1, 2021 Regulatory Filing. As recommended in the analysis, staff will develop annual changes to the primary threshold intervals and D-ratio credibility constants in the Plan for inclusion in subsequent regulatory filings.

3. Impact of Experience Rating on Workplace Safety. The statutory goal of experience rating in California is to incentivize a safe workplace. Although experience rating seems to create significant financial incentives and receives significant attention from many employers, there is limited research on its effectiveness as a safety incentive.

   Project Status: Staff anticipates completing a study on the impact of experience rating on the frequency of workplace injuries for presentation to the Actuarial Committee by the fourth quarter of 2021.

4. Development of Experience Rating Expected Loss Rates. The Actuarial Committee annually reviews the WCIRB's methodology to compute the experience rating expected loss rates proposed to the CDI each year. The methodology used for this process was adopted by the Actuarial Committee at the June 11, 2008 meeting.

   Project Status: It has been a decade since a comprehensive review of the expected loss rate methodology has been undertaken. Staff anticipates undertaking a comprehensive analysis of the methodology in 2022.

5. Retrospective Rating Plan Values. In 2018, the WCIRB completed a comprehensive update to the advisory *California Retrospective Rating Plan* values, including hazard group assignments, insurance charges and loss elimination ratios, to be effective January 1, 2019.

   Project Status: At the June 14, 2019 meeting, the Committee reviewed the paid loss simulation approach to loss development for purpose of computing retrospective rating values. Staff updated loss elimination ratios for purposes of classification ratemaking in the second quarter of 2020 and anticipates providing the update needed for the September 1, 2021 Regulatory Filing by the first quarter of 2021. Also, staff anticipates beginning the multi-year effort of updating the Retrospective Rating Plan values including implementation of a joint simulation of paid and incurred losses for loss development in 2022.

H. Other Potential Studies

1. Analysis of California Regional Differences. Recent WCIRB analyses of claim frequency, cumulative injuries, liens, and other system components have suggested that there are significant regional differences across California.

   Project Status: Staff uses a wide range of available information to prepare analyses of regional differences in components such as frequency, severity and permanent disability patterns. The WCIRB's latest report on regional differences was published in November 2020. Staff anticipates continuing this work in 2021 with the annual update report to be published by the fourth quarter of 2021.

2. Wage Data Analysis. Early in 2017, staff developed a comprehensive data cube and wage report for members with detailed information on various wage distributions by industry, classification and occupation as well as other wage related information. The information relates historical and projected wage levels by classification to industries, recognizing differences in payroll exclusions in developing insured exposures and differences in the allocation of standard exception classifications.

Project Status: Staff completed a comprehensive update to this wage information based on updated source information in November 2019 with an update provided to the Actuarial Committee at the December 5, 2019 meeting. Staff anticipates updating the components of this analysis needed for classification ratemaking in the first quarter of 2021 with a comprehensive update anticipated by the third quarter of 2021.

3. Comparison of Workers' Compensation Medical Costs to Group Health Costs. At the May 27, 2009 meeting, the Claims Working Group suggested that consideration be given to conducting a research study comparing occupational and non-occupational medical treatment cost data for a similar mix of injuries.

   Project Status: Staff is recommending acquiring a dataset of group health transaction data to facilitate this type of research on potential cost shifting between systems and differences in treatment patterns between workers' compensation and group health.

4. Aging of the Work Force. This study would quantify the aging of the work force and identify changes in costs – particularly severities – due to this demographic shift. The study would also identify future aging patterns and forecast their impact.

   Project Status: Staff completed some preliminary analysis of the impact of aging on claim costs as part of prior frequency studies, but does not anticipate conducting any further analysis in this area in 2021.

5. Terrorism Losses. In early 2003, the WCIRB contracted with EQECAT to help estimate potential terrorism losses with respect to the Terrorism Risk Insurance Act of 2002. The results of the analysis were published in a March 12, 2003 WCIRB Bulletin. In 2018, the WCIRB contracted with Risk Management Solutions (RMS), a leading catastrophe risk modeling firm, to conduct an analysis of potential statewide workers' compensation exposure arising from terrorism. The results of the study were presented to the Actuarial Committee at the December 5, 2018 meeting and published in January 2019.

   Project Status: Staff does not anticipate further analysis of this issue in 2021.

6. Earthquake Losses. In July 2002, EQECAT completed a report estimating the average annual expected costs arising from California earthquakes. In 2003, EQECAT completed a follow-up study to address some of the issues raised by the CDI in reviewing the 2002 study. Based on the results of these studies, the WCIRB included a provision to reflect expected earthquake losses in the January 1, 2004 Pure Premium Rate Filing. In the Decision on that filing, the CDI rejected this provision based on concerns as to the underlying loss distribution projected by the model and the lack of a mechanism to fund the cost of a major earthquake if one were to occur. In 2007, the WCIRB contracted with EQECAT to update the California earthquake studies. The updated report was published in June 2007. In December 2017, the WCIRB in partnership with RMS published a further updated analysis on potential statewide workers' compensation exposure arising from earthquake.

   Project Status: At the June 14, 2019 meeting, the Actuarial Committee discussed whether a pure premium rate adjustment to reflect the long-term average expected losses arising from earthquake based on the recent RMS study would be appropriate. Given the CDI's concerns in prior decisions and that including a long-term average provision for earthquake and terrorism exposure in advisory pure premium rates may create administrative issues for some insurers, the Committee agreed that the WCIRB's proposed advisory pure premium rates should not reflect a provision for earthquake and terrorism losses at this time. Several Committee members did suggest that published information

on the potential statewide exposure of these events is of value and should be updated on a regular basis. Staff does not anticipate further analysis of this issue in 2021.

7. Pandemic Losses. With the COVID-19 pandemic emerging in 2020 and generating more than 50,000 workers' compensation claims in California through October, the Actuarial Committee has discussed whether some analysis of the potential costs to the system of future pandemics might be appropriate.

   Project Status: Staff has begun discussions with a catastrophe modeler who has developed a pandemic model and are building out the workers' compensation component of the model. However, staff does not anticipate further analysis of this issue in 2021 but suggests that consideration be given as to whether a study in 2022 may be appropriate.

8. Universal Healthcare Proposals. In 2017, the California Senate passed Senate Bill No. 563, which was intended to establish a government-run universal healthcare system in California. While this legislation did not address the funding issues and was never enacted into law, it is possible that the issue may arise again in California.

   Project Status: Staff does not anticipate analysis of this issue in 2021.

Item AC20-12-08
Potential Changes to Transactional Data Collection

Since 2012, the WCIRB has collected detailed medical transaction information on a relatively contemporaneous basis. This information has been used in ratemaking and research and is used in several components of the pure premium rate filing. In 2017, the WCIRB began collecting detailed indemnity transaction information on a voluntary basis and began collecting this information as a mandatory data call in 2020. This year, both datasets have greatly enhanced our ability to understand the changes in claim reporting and development due to the COVID-19 pandemic and resulting economic downturn. For example, the new indemnity transaction data was used in the January 1, 2021 Pure Premium Fate Filing to help model relative exposure to COVID-19 by industry.

Eligibility Threshold

The current eligibility threshold for both data calls requires insurer groups (at the NAIC group level) that write at least 1% of the statewide written pure premium to submit data. Insurer groups are required to continue reporting even if their market share decreases below the 1% threshold. When the Medical Data Call began, insurers reporting represented 88% of the total market were required to report data and that share reached 94% in 2015. The market share has declined as market concentration has decreased and currently participating insurers represent 92% of the market. Groups representing 89% of the market are currently required to submit indemnity transaction data based on the 1% threshold. Given the growing reliance on the more contemporaneous and comprehensive transactional datasets in pure premium ratemaking, staff is recommending consideration be given to lowering the threshold for required reporting of both transaction data calls to 0.5%.

Staff solicited feedback from the six insurer groups who are currently projected to be required to submit medical transaction data if the threshold is lowered to 0.5% and received four responses. Staff also solicited feedback from the nine insurer groups who are currently projected to be required to submit the indemnity transaction data if the threshold is lowered to 0.5% and received six responses. None of the insurer groups responding expressed significant concerns with reporting transaction data in California given sufficient lead time. The longest suggested lead time for implementing such a change was 12 months.

Given the value of the additional information and the survey responses, staff proposes to lower the eligibility threshold to 0.5% for the medical transaction data effective January 1, 2022 and for the indemnity transaction data effective July 1, 2022. Based on the 2019 written pure premium market share, lowering the eligibility threshold to 0.5% would increase the share of the market reporting medical and indemnity transaction data to 96%.

Reporting Frequency

Insurer groups that report medical transaction data can elect to report on either a monthly or a quarterly basis. Insurer groups that report indemnity transaction data can elect to report on a daily, weekly or monthly basis. In both cases, the WCIRB Reporting Guides provide that all transaction data from a prior quarter must be submitted to the WCIRB by the end of the subsequent quarter. Given the importance of contemporaneous data, as highlighted recently in analyses of emerging COVID-19 claims trends and delays in medical treatment during the early weeks of the pandemic, staff is recommending that consideration be given to requiring monthly reporting of data with each month of transactions due to the WCIRB no later than two months from the end of the transaction month.

Currently, 30% of insurer groups participating in medical transaction data reporting, representing a 28% share of pure premium, submit on a monthly basis. Staff solicited feedback from five insurer data reporting groups and two third party data reporters who currently report medical transaction data on a

quarterly basis and received six responses. The responding parties all indicated that monthly reporting can be done, although two insurer respondents suggested that the time and cost in reporting infrastructure could be a concern with increasing the frequency of submissions. Responding insurer groups who rely on third party administrators to adjust claims did not have any special concerns.

Staff proposes modifying transaction data reporting requirements to require all insurer groups required to submit transaction data to submit no less frequently than on a monthly basis with the transactions occurring in a particular month due to the WCIRB no later than two months from the end of the month. To provide sufficient lead time to insurers groups, staff suggests that this change be effective for transactions beginning as of January 1, 2023.

Item AC20-12-09
2021 Schedule of Meetings

The following is a proposed schedule of Actuarial Committee meetings for 2021. All 2021 Actuarial Committee meetings will be held by webinar teleconference. All meetings will begin at 9:00 AM (Pacific Time).

Tuesday, February 16, 2021

Tuesday, March 16, 2021

Thursday, April 15, 2021

Tuesday, June 22, 2021

Tuesday, September 14, 2021

Tuesday, December 7, 2021