

Actuarial Committee

Meeting Agenda

Date	Time	Location	Staff Contact
August 10, 2020	9:00 AM	WCIRB California 1221 Broadway, Suite 900 Oakland, CA	David M. Bellusci
1221 Broadway, Suite 900 • Oakland, CA 94612 • 415.777.0777 • Fax 415.778.7007 • www.wcirb.com • wcirb@wcirb.com			

Released: August 6, 2020

Due to the coronavirus (COVID-19) pandemic, this meeting is being held via webinar teleconference.

Please register for the August 10, 2020 WCIRB Actuarial Committee Meeting at:

Registration URL

<https://attendee.gotowebinar.com/register/155963934138833421>

Webinar ID

977-499-427

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

I. Approval of Minutes

None

II. Working Group Meeting Summaries

None

III. Unfinished Business

- A. AC20-04-04: COVID-19 Crisis
- B. AC20-06-01: 3/31/2020 Experience – Review of Methodologies
- C. AC20-08-03: 1/1/2021 Filing – Review of Alternative Loss Projection Methodologies

IV. New Business

- A. AC-20-08-05: Potential Impact of Medical Care Delays

V. Matters Arising at Time of Meeting

VI. Next Meeting Date: September 8, 2020

VII. Adjournment

Antitrust Notice

As members of the Workers' Compensation Insurance Rating Bureau of California, you are bound, when involved in meetings or other activities of the WCIRB California, to limit your actions (and discussions other than social ones) to matters relating to the business of the WCIRB California. Matters that do not relate directly to WCIRB California business should be avoided. Members should particularly avoid discussions or conduct that could be construed as intended to affect competition (or access to markets). Thus, as members, you should not discuss or pursue the business interests of individual insurers or others, including, in particular, the plans of individual members involving, or the possibility or desirability of (a) raising, lowering, or stabilizing prices (premiums or commissions); (b) doing business or refusing to do business with particular, or classes of, insurers, reinsurers, agents, brokers, or insureds, or in particular locales; or (c) potential actions that would affect the availability of products or service either generally or in specific markets or locales.

Notice

The information in this Agenda was developed by the Workers' Compensation Insurance Rating Bureau of California (WCIRB) for the purpose of assisting the WCIRB Actuarial Committee. The WCIRB cannot make any guarantees if this information is used for any other purpose and the WCIRB shall not be liable for any damages, of any kind, whether direct, indirect, incidental, punitive or consequential, arising from the use of or reliance upon this information for any other purpose.

© 2020 Workers' Compensation Insurance Rating Bureau of California. All rights reserved.

No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including, without limitation, photocopying and recording, or by any information storage or retrieval system without the prior written permission of the Workers' Compensation Insurance Rating Bureau of California (WCIRB), unless such copying is expressly permitted in this copyright notice or by federal copyright law. No copyright is claimed in the text of statutes and regulations quoted within this work.

Each WCIRB member company, including any registered third party entities, (Company) is authorized to reproduce any part of this work solely for the following purposes in connection with the transaction of workers' compensation insurance: (1) as necessary in connection with Company's required filings with the California Department of Insurance; (2) to incorporate portions of this work, as necessary, into Company manuals distributed at no charge only to Company employees; and (3) to the extent reasonably necessary for the training of Company personnel. Each Company and all agents and brokers licensed to transact workers' compensation insurance in the state of California are authorized to physically reproduce any part of this work for issuance to a prospective or current policyholder upon request at no charge solely for the purpose of transacting workers' compensation insurance and for no other purpose. This reproduction right does not include the right to make any part of this work available on any website or any form of social media.

Workers' Compensation Insurance Rating Bureau of California, WCIRB, WCIRB California, WCIRB Connect, WCIRB Inquiry, WCIRB CompEssentials, X-Mod Direct, eSCAD, Comprehensive Risk Summary, X-Mods and More and the WCIRB California logo (WCIRB Marks) are registered trademarks or service marks of the WCIRB. WCIRB Marks may not be displayed or used in any manner without the WCIRB's prior written permission. Any permitted copying of this work must maintain any and all trademarks and/or service marks on all copies.

To seek permission to use any of the WCIRB Marks or any copyrighted material, please contact the WCIRB at customerservice@wcirb.com.

Item AC20-04-04
COVID-19 Crisis

At the August 4, 2020 meeting, the Committee reviewed staff's preliminary evaluation of potential COVID-19 claim costs for the January 1, 2021 through August 31, 2021 policy period. An updated evaluation will be presented at the meeting.

Item AC20-06-01

3/31/2020 Experience – Review of Methodologies

At the August 4, 2020 meeting, the Committee reviewed an updated preliminary analysis of statewide experience through March 31, 2020. At that meeting, the Committee recommended loss development methodologies to project the loss ratio for January 1, 2021 to August 31, 2021 policies. However, given the uncertainty surrounding the trending projection, the Committee recommended reviewing the projection after incorporating the additional information discussed at the meeting.

Exhibits 1 through 8 contain an updated analysis of March 31, 2020 experience. In total, approximately 100% of the market is included. Wage and loss levels are 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 January 1, 2020.¹

The methodologies used are generally consistent with those reviewed at the August 4, 2020 meeting and reflect the Committee's preliminary recommendations made the meeting. The loss development projection reflects the methodology recommended by the Committee at the August 4, 2020 meeting which includes paid development applied after 267 months with the adjustment for changes in claim settlement rates adopted at the meeting. The wage level projection for 2020 reflects a 0.8-point reduction from the reported wage change based on the difference between average and median wage level changes during a recession. The claim frequency projections for accident years 2020 through 2022 reflect the impact of the economic slowdown on claim frequency based on the WCIRB's indemnity claim frequency model and assuming an increase in the proportion of cumulative trauma claims based on the average increase over the prior two recessions. The claim severity projections are based on the 0% indemnity and 2.5% medical severity trends discussed at the August 4, 2020 meeting.

As shown on Exhibit 8, the projected loss to the industry average filed pure premium ratio for January 1, 2021 through August 31, 2021 policies based on March 31, 2020 experience, prior to the impact of COVID-19 claims,² is 0.572. (The projected loss ratio based on the data and methodologies presented at the August 4, 2020 meeting was 0.571. The projected loss ratio for policies incepting between July 1, 2020 and December 31, 2020 reviewed at the April 2, 2020 meeting based on December 31, 2019 experience was 0.584.)

¹ The updated analysis also includes minor insurer data submission corrections.

² See Item AC20-04-04 of this Agenda for the discussion of the impact of COVID-19 claims on costs.

**California Workers' Compensation
Accident Year Experience as of March 31, 2020**

<u>Year</u>	<u>Earned Premium</u>	<u>Paid Indemnity</u>	<u>Indemnity Reserves</u>	<u>Paid Medical**</u>	<u>Medical Reserves</u>	<u>IBNR*</u>	<u>Total Incurred**</u>	<u>Loss Ratio*</u>
1987	4,373,509,816	1,506,581,121	6,983,407	1,335,377,316	44,279,337	50,419,639	2,943,640,820	0.673
1988	5,172,229,109	1,703,875,822	6,458,643	1,542,464,647	34,417,539	37,747,005	3,324,963,656	0.643
1989	5,675,115,503	1,940,152,253	6,816,066	1,798,960,215	51,453,347	40,047,984	3,837,429,865	0.676
1990	5,704,524,437	2,260,962,681	7,327,076	2,045,978,980	40,906,550	58,896,651	4,414,071,938	0.774
1991	5,866,491,692	2,478,655,908	15,729,942	2,202,401,910	48,094,600	55,794,315	4,800,676,675	0.818
1992	5,685,231,287	1,977,895,273	13,786,564	1,765,313,045	51,723,615	55,223,685	3,863,942,182	0.680
1993	5,934,618,230	1,694,444,969	12,984,535	1,516,338,467	62,883,556	45,253,182	3,331,904,709	0.561
1994	5,030,976,034	1,627,765,443	21,740,481	1,468,802,916	83,801,231	37,197,744	3,239,307,815	0.644
1995	3,789,174,380	1,766,957,340	26,055,810	1,626,396,784	92,481,760	47,132,765	3,559,024,459	0.939
1996	3,746,680,214	1,958,037,008	31,693,872	1,721,467,863	93,514,307	54,291,180	3,859,004,230	1.030
1997	3,926,898,608	2,320,858,576	37,004,610	2,019,379,717	121,974,525	93,454,281	4,592,671,709	1.170
1998	4,332,127,034	2,775,663,864	49,791,377	2,646,170,295	211,915,713	177,919,727	5,861,460,976	1.353
1999	4,550,437,880	3,058,361,600	52,765,081	3,042,238,915	169,133,198	242,865,344	6,565,364,138	1.443
2000	5,921,821,993	3,430,015,678	67,101,409	3,564,287,444	205,305,637	392,563,026	7,659,273,194	1.293
2001	10,118,688,616	4,845,593,327	99,518,290	5,374,235,665	346,062,260	591,752,362	11,257,161,904	1.113
2002	13,432,760,460	4,776,940,972	89,663,689	5,493,844,907	309,363,098	875,418,894	11,545,231,560	0.859
2003	19,472,988,351	4,553,717,488	146,596,578	5,069,501,808	343,967,143	1,228,419,721	11,342,202,738	0.582
2004	23,092,633,294	3,216,052,970	117,756,339	4,061,258,926	275,721,117	1,365,058,077	9,035,847,429	0.391
2005	21,394,600,575	2,533,693,094	102,222,811	3,656,663,395	263,688,739	1,096,615,955	7,652,883,994	0.358
2006	17,233,032,862	2,619,140,337	113,117,905	3,761,224,476	288,687,471	762,677,443	7,544,847,632	0.438
2007	13,276,770,615	2,763,508,131	131,925,738	4,037,349,709	328,613,704	699,243,500	7,960,640,782	0.600
2008	10,765,114,133	2,808,088,687	144,752,708	4,025,654,697	344,725,246	609,883,694	7,933,105,032	0.737
2009	8,901,420,752	2,681,931,234	143,113,817	3,831,372,382	347,688,212	477,594,946	7,481,700,591	0.841
2010	9,408,127,723	2,699,250,967	139,770,807	3,934,900,892	299,469,667	556,878,681	7,630,271,014	0.811
2011	10,141,174,044	2,665,257,538	150,568,884	3,553,502,085	338,343,769	749,445,690	7,457,117,966	0.735
2012	11,718,095,745	2,697,041,252	187,941,514	3,440,952,399	377,937,600	917,950,602	7,621,823,367	0.650
2013	14,186,071,217	2,720,799,353	205,970,987	3,268,505,783	395,440,928	1,527,473,427	8,118,190,478	0.572
2014	16,014,478,353	2,825,585,745	264,832,254	3,160,322,602	453,431,952	2,047,723,993	8,751,896,546	0.546
2015	17,059,790,388	2,787,269,724	353,242,253	3,000,974,440	595,588,668	3,004,840,479	9,741,915,564	0.571
2016	17,954,507,147	2,551,609,312	471,184,966	2,743,753,818	720,445,341	3,124,684,686	9,611,678,123	0.535
2017	17,671,411,530	2,180,411,558	687,355,209	2,401,171,139	1,002,033,179	3,385,228,596	9,656,199,681	0.546
2018	17,426,346,235	1,600,841,246	976,708,976	1,931,210,839	1,343,255,345	4,105,988,237	9,958,004,643	0.571
2019	16,100,338,377	722,775,823	1,021,097,928	1,045,964,570	1,579,983,484	5,025,220,327	9,395,042,132	0.584
2020	3,625,239,748	20,824,389	124,922,618	35,919,840	273,841,179	1,651,202,870	2,106,710,896	0.581

* 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

Accident Year	Age-to-Age (in months)															
	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195
1994											1.002	1.001	1.002	0.999	0.999	1.001
1995										1.002	1.003	1.002	1.003	1.001	1.002	1.001
1996									1.003	1.002	1.002	1.002	1.000	0.999	1.002	1.001
1997							1.005	1.004	1.006	1.005	1.003	1.002	1.003	1.002	1.001	1.001
1998							1.005	1.008	1.004	1.002	1.002	1.004	1.004	1.000	1.003	1.001
1999						1.012	1.011	1.003	1.007	1.004	1.002	1.004	1.003	1.002	1.002	1.000
2000					1.018	1.014	1.009	1.007	1.005	1.004	1.004	1.003	1.002	1.003	1.002	1.000
2001				1.027	1.021	1.018	1.014	1.007	1.008	1.007	1.005	1.005	1.003	1.001	1.002	1.001
2002			1.051	1.032	1.027	1.019	1.010	1.011	1.009	1.006	1.005	1.002	1.001	1.003	1.002	1.002
2003		1.125	1.068	1.047	1.030	1.018	1.020	1.016	1.012	1.008	1.008	1.002	1.003	1.003	1.002	1.005
2004	1.283	1.140	1.063	1.042	1.037	1.026	1.025	1.015	1.015	1.007	1.006	1.003	1.001	1.002	1.005	
2005	1.400	1.168	1.085	1.063	1.049	1.039	1.022	1.016	1.010	1.005	1.006	1.004	1.003	1.004		
2006	1.519	1.188	1.100	1.072	1.051	1.031	1.020	1.012	1.008	1.008	1.005	1.002	1.005			
2007	1.562	1.216	1.104	1.066	1.045	1.030	1.022	1.012	1.009	1.003	1.009	1.002	1.003	1.003	1.002	1.005
2008	1.618	1.245	1.116	1.063	1.043	1.025	1.018	1.011	1.008	1.007	1.007	1.003	1.001	1.002	1.005	
2009	1.670	1.233	1.124	1.067	1.043	1.021	1.016	1.013	1.010	1.009	1.007	1.004	1.003	1.004		
2010	1.665	1.250	1.112	1.062	1.037	1.023	1.017	1.011	1.009			1.002	1.005			
2011	1.657	1.225	1.109	1.053	1.032	1.024	1.016	1.010				1.002				
2012	1.662	1.218	1.093	1.059	1.033	1.022	1.014					1.008				
2013	1.604	1.201	1.093	1.047	1.030	1.017										
2014	1.625	1.224	1.097	1.049	1.023											
2015	1.630	1.195	1.085	1.039												
2016	1.606	1.187	1.080													
2017	1.588	1.183														
2018	1.568															

(a) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and six-year average for the subsequent age-to-age factors.

Incurred Indemnity Loss Development Factors (Continued)

Accident Year	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	399/387	411/399	423/411	ULT/423Inc (b)
1983						1.002	1.000	1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.000	
1984					1.000	1.001	1.000	1.000	1.001	1.001	1.000	1.001	1.001	0.999	1.000	1.000	1.001	1.000	
1985				1.000	1.001	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.001	1.000	
1986			1.001	0.999	1.000	1.000	1.001	1.000	1.002	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1987		1.002	1.000	0.999	1.000	1.000	1.000	1.002	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.001		
1988	1.001	1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.001				
1989	1.001	1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.001	1.001	1.000	1.001	1.000	1.001				
1990	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1991	1.000	1.001	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1992	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1993	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1994	1.001	1.002	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.000	1.001	1.001	1.000	1.000	1.001				
1995	1.002	0.999	0.999	1.001	1.000	1.001	1.000	1.001	1.002										
1996	1.002	1.001	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.001	1.001	1.000	1.000	1.001				
1997	1.000	1.000	1.000	0.999	1.001	1.001	1.002												
1998	1.000	1.002	1.002	1.001	1.000	1.001													
1999	1.000	1.000	1.002	1.000	1.002														
2000	1.002	1.001	1.002																
2001	1.001	1.002																	
2002	1.003																		
Selected (a)	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.001	1.000	
Cumulative	1.013	1.012	1.011	1.010	1.009	1.009	1.008	1.008	1.007	1.007	1.007	1.006	1.006	1.006	1.006	1.005	1.005	1.004	1.004

(b) The ULT/423Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Incurred Medical Loss Development Factors

Accident Year	Age-to-Age (in months) (b)															
	<u>27/15</u>	<u>39/27</u>	<u>51/39</u>	<u>63/51</u>	<u>75/63</u>	<u>87/75</u>	<u>99/87</u>	<u>111/99</u>	<u>123/111</u>	<u>135/123</u>	<u>147/135</u>	<u>159/147</u>	<u>171/159</u>	<u>183/171</u>	<u>195/183</u>	<u>207/195</u>
1994											1.017	1.013	1.006	1.008	1.021	1.011
1995										1.019	1.011	1.020	1.027	1.016	1.005	1.010
1996									1.013	1.021	1.017	1.020	1.015	1.013	1.012	1.008
1997								1.018	1.015	1.024	1.023	1.018	1.009	1.010	1.005	1.004
1998							1.022	1.022	1.035	1.021	1.020	1.010	1.010	1.013	1.007	1.012
1999						1.032	1.025	1.035	1.028	1.018	1.017	1.014	1.009	1.012	1.003	1.000
2000					1.030	1.031	1.041	1.022	1.019	1.022	1.016	1.017	1.012	1.005	0.998	0.995
2001				1.045	1.038	1.045	1.039	1.035	1.030	1.020	1.018	1.018	1.006	0.998	0.999	0.996
2002			1.050	1.039	1.056	1.038	1.034	1.028	1.027	1.020	1.013	1.007	0.998	0.999	0.999	0.999
2003		1.087	1.060	1.060	1.051	1.043	1.040	1.036	1.025	1.019	1.009	1.001	0.999	1.000	1.001	1.007
2004	1.235	1.130	1.094	1.078	1.056	1.062	1.038	1.032	1.026	1.008	1.004	0.999	0.998	0.999	1.002	
2005	1.275	1.141	1.077	1.080	1.074	1.057	1.040	1.027	1.018	1.005	1.003	1.003	0.998	1.001		
2006	1.333	1.164	1.095	1.076	1.061	1.049	1.037	1.018	1.007	1.003	1.002	1.003	1.000			
2007	1.357	1.171	1.114	1.078	1.069	1.041	1.028	1.015	1.005	1.004	1.003	1.003				
2008	1.378	1.189	1.116	1.087	1.058	1.035	1.020	1.009	1.004	1.002	1.004					
2009	1.431	1.182	1.133	1.080	1.049	1.025	1.014	1.007	1.004	1.009						
2010	1.431	1.212	1.117	1.068	1.036	1.023	1.011	1.011	1.005							
2011	1.452	1.185	1.103	1.059	1.026	1.016	1.011	1.009								
2012	1.391	1.153	1.078	1.051	1.025	1.014	1.015									
2013	1.353	1.119	1.077	1.031	1.023	1.010										
2014	1.325	1.135	1.064	1.033	1.022											
2015	1.313	1.117	1.050	1.027												
2016	1.287	1.093	1.042													
2017	1.260	1.098														
2018	1.253															
Selected (a)	1.253	1.098	1.042	1.027	1.022	1.010	1.015	1.009	1.007	1.005	1.004	1.003	1.000	1.000	1.000	1.002
Cumulative	1.624	1.296	1.181	1.133	1.103	1.079	1.069	1.053	1.044	1.036	1.031	1.027	1.024	1.024	1.024	1.023

(a) Selections are latest year for the 15-to-27 month through 99-to-111 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.

Incurred Medical Loss Development Factors (Continued)

Accident Year	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	Age-to-Age (in months)										351/339	363/351	375/363	387/375	399/387	411/399	423/411	ULT/423Inc (c)
1983						1.000	1.008	1.004	1.004	1.004	1.003	1.003	1.003	1.005	1.003	1.003	1.003	1.003	1.003	1.003	1.002	0.997	0.999	0.999	0.999	
1984					1.003	1.003	1.001	1.004	1.002	1.004	1.004	1.004	1.003	1.000	1.004	1.004	1.004	1.004	1.004	0.999	0.999	1.001	1.000	1.000	1.000	
1985				1.006	1.005	1.001	1.001	1.002	1.004	1.004	1.004	1.003	1.003	1.004	1.000	1.003	1.003	1.003	1.003	0.999	0.999	1.001	1.001	1.001	1.001	
1986			1.003	1.001	1.005	1.003	1.006	1.006	1.005	1.005	1.005	1.004	1.004	1.002	1.001	1.002	1.002	1.002	1.001	0.998	1.004	1.004	0.993			
1987		0.999	1.003	1.001	1.005	1.010	0.999	1.006	1.003	1.003	1.005	1.003	1.003	1.001	1.001	1.001	1.001	1.001	1.001	0.999	1.006					
1988	1.003	1.005	1.002	1.006	1.005	1.005	1.001	1.005	1.002	1.003	1.003	1.002	1.002	1.000	0.998	1.000	1.000	1.000	1.000	1.001						
1989	1.003	1.006	1.005	1.008	1.005	1.006	1.007	1.000	1.002	1.002	0.999	0.999	0.999	1.000	0.998	1.000	1.000	1.000	1.003							
1990	1.003	1.006	1.008	1.005	1.003	1.002	1.004	0.997	1.001	0.999	0.999	0.999	0.998	1.001					0.999	0.999						
1991	1.007	1.006	1.005	1.002	1.004	1.001	1.003	1.001	0.999	1.002	0.998	0.998	1.002	1.001	0.998	1.001	1.001	1.001	0.999	0.998						
1992	1.009	1.001	1.003	1.005	1.003	1.003	0.999	1.000	1.002	1.002	0.999	0.999	0.998	1.001					0.998	0.999						
1993	1.005	1.013	1.013	1.001	1.001	0.999	0.996	1.000	1.000	1.000	0.998	0.998	1.002	1.001	0.998	1.001	1.001	1.001	0.999	1.003						
1994	1.011	1.005	1.006	1.004	1.001	0.996	0.997	0.998	1.003	1.003	0.999	0.999	0.998	1.003					0.999	1.003						
1995	1.012	0.996	1.007	1.000	0.997	0.998	0.999	1.003	1.000	1.000	0.998	0.998	0.998	1.003					0.999	1.003						
1996	1.007	1.003	1.000	1.001	0.998	0.996	1.001												0.999	1.003						
1997	1.000	0.995	0.997	0.998	1.000	1.000													0.999	1.003						
1998	0.999	1.000	0.996	1.000	1.003														0.999	1.003						
1999	0.998	0.997	1.002	1.000															0.999	1.003						
2000	0.997	0.998	1.001																0.999	1.003						
2001	1.002	1.001																	0.999	1.003						
2002	1.002																		0.999	1.003						

Selected (a)
Cumulative

423/411
0.999

1.000
1.023

(c) The ULT/423Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding the 2016, 2017, and 2018 evaluations, and extrapolated to 80 development years.

Paid Indemnity Loss Development Factors

Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195
1994																
1995																
1996																
1997																
1998																
1999																
2000																
2001																
2002																
2003																
2004																
2005																
2006																
2007																
2008																
2009																
2010																
2011																
2012																
2013																
2014																
2015																
2016																
2017																
2018																
Selected (a)	2,345	1,441	1,188	1,100	1,062	1,038	1,031	1,023	1,022	1,017	1,015	1,012	1,009	1,009	1,007	1,006
Cumulative	5,860	2,499	1,734	1,460	1,327	1,250	1,204	1,168	1,141	1,117	1,099	1,082	1,069	1,060	1,050	1,043

(a) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent age-to-age factors.

Paid Indemnity Loss Development Factors (Continued)

Accident Year	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	399/387	411/399	423/411	ULT/423Pd (c)
1983						1.003	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	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	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	1.001	1.000	1.001	
1986			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	1.000	1.001	1.000	
1987		1.002	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	1.001	
1988	1.001	1.001	1.002	1.001	1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	
1989	1.002	1.002	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	1.001	1.000	1.001	
1990	1.002	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	1.001	1.001	1.000	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	1.001	1.001	1.001	1.001	1.000	1.001	
1992	1.001	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	
1993	1.002	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	
1994	1.004	1.002	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	
1995	1.005	1.004	1.003	1.002	1.003	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	
1996	1.005	1.004	1.003	1.003	1.002	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.000	1.001	
1997	1.004	1.003	1.002	1.002	1.002	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.000	1.001	
1998	1.005	1.003	1.003	1.003	1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.000	1.001	
1999	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.000	1.001	
2000	1.004	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.000	1.001	
2001	1.005	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.000	1.001	
2002	1.005																		
Selected (a)	1.005	1.004	1.003	1.003	1.003	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	
Cumulative	1.037	1.032	1.029	1.026	1.023	1.020	1.017	1.015	1.014	1.013	1.012	1.011	1.010	1.009	1.008	1.007	1.007	1.007	1.004

- (b) Three-year averages of the 423Inc/423Pd factors are selected.
(c) The ULT/423Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 111-to-123 through 339-to-351 adjusted or unadjusted factors and extrapolated to 80 development years.

Paid Medical Loss Development Factors

Unadjusted (a) Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195
1994											1.018	1.018	1.015	1.016	1.012	1.013
1995										1.024	1.020	1.023	1.019	1.018	1.017	1.013
1996									1.028	1.026	1.025	1.023	1.022	1.014	1.014	1.014
1997								1.034	1.032	1.028	1.025	1.020	1.019	1.014	1.014	1.015
1998							1.044	1.037	1.033	1.032	1.027	1.021	1.017	1.019	1.018	1.017
1999						1.053	1.042	1.031	1.035	1.030	1.025	1.020	1.016	1.018	1.018	1.014
2000					1.071	1.051	1.039	1.037	1.030	1.026	1.022	1.020	1.021	1.016	1.012	1.011
2001				1.094	1.071	1.054	1.046	1.037	1.033	1.026	1.022	1.026	1.019	1.017	1.012	1.010
2002			1.148	1.099	1.068	1.053	1.043	1.032	1.027	1.024	1.026	1.018	1.015	1.011	1.011	1.009
2003			1.154	1.100	1.070	1.055	1.045	1.033	1.029	1.033	1.025	1.018	1.015	1.012	1.011	1.011
2004	1.744	1.259	1.165	1.121	1.086	1.066	1.047	1.039	1.041	1.031	1.022	1.017	1.014	1.011	1.012	
2005	1.727	1.292	1.193	1.123	1.091	1.063	1.053	1.051	1.037	1.029	1.020	1.017	1.013	1.013		
2006	1.773	1.342	1.195	1.126	1.085	1.064	1.057	1.040	1.032	1.023	1.018	1.015	1.013			
2007	1.851	1.352	1.203	1.120	1.082	1.079	1.051	1.038	1.028	1.021	1.019	1.015				
2008	1.826	1.359	1.208	1.134	1.098	1.067	1.047	1.033	1.024	1.019	1.015					
2009	1.876	1.385	1.221	1.150	1.095	1.062	1.042	1.029	1.023	1.018						
2010	1.926	1.402	1.237	1.133	1.087	1.060	1.039	1.027	1.025							
2011	1.957	1.401	1.217	1.131	1.082	1.055	1.037	1.026								
2012	1.983	1.398	1.213	1.128	1.076	1.051	1.036									
2013	1.939	1.390	1.206	1.111	1.068	1.043										
2014	1.936	1.387	1.194	1.106	1.067											
2015	1.955	1.359	1.185	1.097												
2016	1.876	1.339	1.168													
2017	1.838	1.320														
2018	1.849															

Adjusted (b) Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195
2001															1.011	1.011
2002														1.013	1.012	1.013
2003													1.015	1.013	1.013	
2004												1.019	1.015	1.015		
2005											1.020	1.016	1.014			
2006										1.022	1.021	1.017				
2007									1.026	1.020	1.017					
2008							1.031	1.029	1.027							
2009						1.059	1.041	1.029								
2010						1.056	1.039									
2011					1.082											
2012				1.119	1.074											
2013				1.112	1.070											
2014			1.203	1.190												
2015		1.365	1.190	1.099												
2016	1.882	1.344	1.170													
2017	1.844	1.321														
2018	1.849															

Selected (c)	1.849	1.321	1.170	1.099	1.070	1.046	1.039	1.029	1.026	1.020	1.019	1.017	1.015	1.014	1.012	1.011
Cumulative Unadjusted for Impact of SB 1160	5.084	2.750	2.082	1.779	1.619	1.513	1.446	1.392	1.353	1.319	1.292	1.268	1.246	1.228	1.212	1.197
Cumulative Adjusted for Impact of SB 1160(d)	4.896	2.648	2.005	1.735	1.595	1.502	---	---	---	---	---	---	---	---	---	---

- (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 -3.8%, -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 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent age-to-age factors.
 (d) The cumulative factors for 39, 51, 63, and 75 months are adjusted by -3.7%, -2.5%, -1.5%, and -0.7%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Paid Medical Loss Development Factors (Continued)

Unadjusted (a) Accident Year	Age-to-Age (in months)															
	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	399/387
1983						1.005	1.004	1.004	1.004	1.005	1.004	1.004	1.004	1.003	1.003	1.003
1984					1.004	1.004	1.003	1.003	1.003	1.004	1.004	1.003	1.003	1.002	1.003	1.002
1985				1.005	1.005	1.006	1.004	1.004	1.003	1.004	1.004	1.003	1.003	1.002	1.003	1.002
1986			1.006	1.004	1.004	1.004	1.005	1.005	1.005	1.005	1.005	1.006	1.004	1.006	1.004	1.003
1987		1.007	1.006	1.008	1.005	1.005	1.006	1.006	1.005	1.006	1.005	1.003	1.003	1.002	1.003	1.002
1988	1.006	1.005	1.008	1.005	1.005	1.006	1.006	1.004	1.005	1.004	1.003	1.003	1.003	1.004	1.002	
1989	1.005	1.006	1.006	1.005	1.005	1.008	1.006	1.006	1.005	1.005	1.003	1.003	1.003	1.003		
1990	1.005	1.005	1.005	1.005	1.006	1.004	1.004	1.004	1.003	1.002	1.002	1.003	1.003			
1991	1.006	1.006	1.006	1.005	1.006	1.006	1.005	1.005	1.003	1.002	1.004	1.004				
1992	1.007	1.007	1.000	1.007	1.007	1.005	1.005	1.005	1.005	1.006	1.003					
1993	1.011	1.011	1.009	1.013	1.010	1.008	1.005	1.006	1.008	1.004						
1994	1.009	1.009	1.012	1.010	1.008	1.008	1.007	1.004	1.005							
1995	1.012	1.016	1.013	1.011	1.013	1.007	1.007	1.008								
1996	1.014	1.014	1.010	1.007	1.007	1.009	1.007									
1997	1.013	1.010	1.006	1.006	1.007	1.007										
1998	1.013	1.010	1.007	1.008	1.008											
1999	1.012	1.009	1.009	1.008												
2000	1.008	1.008	1.006													
2001	1.010	1.009														
2002	1.009															

Adjusted (b) Accident Year	Age-to-Age (in months)															
	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	399/387
1983																
1984																
1985																
1986																
1987																
1988																
1989																
1990																
1991																
1992																
1993																
1994																
1995																
1996																
1997																
1998																
1999																
2000																
2001																
2002																

Selected (c)	1.010	1.009	1.008	1.009	1.008	1.009	1.008	1.007	1.006	1.005	1.003	1.003	1.003	1.003	1.004	1.003
Cumulative	1.183	1.172	1.161	1.152	1.142	1.132	1.122	1.114	1.106	1.099	1.094	1.091	1.087	1.083	1.080	1.078

(e) Six-year averages of the 423Inc/423Pd factors are selected.
(f) The ULT/423Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 111-to-123 through 339-to-351 adjusted or unadjusted factors and extrapolated to 80 development years.

Selected Indemnity Development Factors - Paid to Ultimate

Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195	219/207	231/219	243/231	255/243	267/255
1993												1.005	1.004	1.004	1.004	1.002	1.002	1.003	1.002	1.002	1.002
1994											1.009	1.008	1.006	1.005	1.003	1.003	1.004	1.002	1.003	1.002	1.002
1995										1.013	1.010	1.008	1.007	1.006	1.004	1.004	1.005	1.004	1.003	1.002	1.003
1996									1.018	1.013	1.011	1.009	1.007	1.004	1.005	1.004	1.005	1.004	1.003	1.003	1.002
1997								1.025	1.017	1.015	1.011	1.007	1.007	1.006	1.005	1.005	1.004	1.003	1.002	1.002	1.003
1998							1.033	1.025	1.018	1.016	1.009	1.008	1.008	1.007	1.006	1.006	1.005	1.004	1.003	1.003	1.003
1999						1.049	1.033	1.021	1.018	1.014	1.010	1.009	1.007	1.006	1.006	1.005	1.004	1.003	1.003	1.003	1.003
2000					1.078	1.046	1.030	1.022	1.015	1.012	1.010	1.009	1.007	1.007	1.004	1.004	1.004	1.004	1.003	1.003	1.003
2001				1.119	1.070	1.045	1.030	1.022	1.016	1.014	1.011	1.011	1.008	1.007	1.006	1.005	1.005	1.004	1.003	1.003	1.003
2002			1.229	1.111	1.065	1.043	1.028	1.019	1.018	1.014	1.012	1.009	1.007	1.006	1.005	1.005	1.005	1.004	1.003	1.003	1.003
2003		1.533	1.206	1.109	1.064	1.039	1.029	1.025	1.022	1.020	1.015	1.010	1.009	1.008	1.007	1.007	1.005	1.004	1.003	1.003	1.003
2004		2.229	1.426	1.191	1.102	1.067	1.045	1.041	1.034	1.026	1.018	1.014	1.011	1.008	1.007	1.007	1.005	1.004	1.003	1.003	1.003
2005		2.138	1.410	1.200	1.104	1.073	1.057	1.048	1.037	1.025	1.019	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2006		2.211	1.423	1.197	1.121	1.085	1.062	1.045	1.032	1.026	1.017	1.015	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2007		2.243	1.436	1.211	1.127	1.085	1.061	1.042	1.032	1.025	1.017	1.015	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2008		2.279	1.468	1.234	1.132	1.083	1.054	1.040	1.025	1.021	1.018	1.016	1.013	1.010	1.009	1.009	1.008	1.007	1.006	1.005	1.005
2009		2.369	1.499	1.238	1.135	1.084	1.056	1.039	1.029	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2010		2.399	1.505	1.240	1.129	1.081	1.053	1.036	1.024	1.021	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2011		2.433	1.481	1.227	1.129	1.076	1.053	1.038	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2012		2.424	1.477	1.219	1.123	1.075	1.047	1.031	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2013		2.385	1.490	1.216	1.111	1.063	1.038	1.031	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2014		2.455	1.501	1.215	1.109	1.062	1.038	1.031	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2015		2.468	1.476	1.202	1.100	1.062	1.038	1.031	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2016		2.403	1.459	1.188	1.100	1.062	1.038	1.031	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2017		2.390	1.441	1.188	1.100	1.062	1.038	1.031	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
2018		2.345	1.441	1.188	1.100	1.062	1.038	1.031	1.023	1.023	1.016	1.014	1.011	1.008	1.008	1.008	1.007	1.006	1.005	1.005	1.005
Selected (a)	2.345(b)	1.441(b)	1.174(b)	1.088(b)	1.051(b)	1.038	1.031	1.023	1.022	1.017	1.015	1.012	1.009	1.009	1.007	1.006	1.005	1.004	1.003	1.003	1.003
Cumulative	5.632	2.402	1.667	1.420	1.305	1.242	1.197	1.161	1.135	1.110	1.092	1.076	1.063	1.053	1.044	1.037	1.031	1.026	1.022	1.019	1.017

(a) Selections are latest year for the 15-to-27 month through 99-to-111 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.

Selected Indemnity Development Factors - Paid to Ultimate (Continued)

Accident Year	Age-to-Age (in months)														ULT/423Pd (d)
	<u>279/267</u>	<u>291/279</u>	<u>303/291</u>	<u>315/303</u>	<u>327/315</u>	<u>339/327</u>	<u>351/339</u>	<u>363/351</u>	<u>375/363</u>	<u>387/375</u>	<u>399/387</u>	<u>411/399</u>	<u>423/411</u>		
1983	1.003	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	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.000	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	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001		
1987	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.000	1.001	1.001	1.001	1.001			
1988	1.002	1.002	1.001	1.001	1.001	1.001	1.000	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	1.001	1.001					
1990	1.001	1.001	1.001	1.001	1.000	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	1.002	1.001	1.001											
1995	1.002	1.002	1.002												
1996	1.003	1.003													
1997															
1998															
Unadjusted (a)	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.006	
Selected (c)	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.000	1.001		
Cumulative	1.014	1.012	1.011	1.009	1.009	1.008	1.007	1.007	1.006	1.006	1.005	1.005	1.005	1.004	

(c) Adjusted for the impact of changes in claim settlement rates on later period development. See Item AC19-08-05 of the 8/4/2020 Agenda.

(d) The ULT/423Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 111-to-123 through 339-to-351 adjusted or unadjusted factors and extrapolated to 80 development years.

**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 Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						118,057
2012					124,734	125,038
2013				132,687	133,240	133,420
2014			137,696	138,801	139,291	139,484
2015		141,125	143,383	144,053	144,477	
2016	130,819	143,982	146,759	147,507		
2017	133,054	144,784	147,273			
2018	135,505	147,945				
2019	138,773					

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):					
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>	<u>75-Ult</u>
2012					1.002	
2013				1.004	1.001	
2014			1.008	1.004	1.001	
2015		1.016	1.005	1.003		
2016	1.101	1.019	1.005			
2017	1.088	1.017				
2018	1.092					
Latest Year	1.092	1.017	1.005	1.003	1.001	
Cumulative	1.127	1.032	1.015	1.010	1.007	1.005

Acc. Year	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Ult. Claim Counts	156,389	152,707	149,444	148,922	145,435	140,215

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						104,094
2012					105,308	111,792
2013				104,691	114,901	121,142
2014			95,260	111,745	121,808	127,800
2015		77,963	102,951	119,252	128,566	
2016	46,802	83,513	109,302	124,497		
2017	50,699	88,131	112,161			
2018	52,569	90,050				
2019	53,895					

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 Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						87.7%
2012					83.8%	89.0%
2013				78.1%	85.7%	90.3%
2014			67.9%	79.7%	86.9%	91.1%
2015		53.6%	70.8%	82.0%	88.4%	
2016	31.4%	56.1%	73.4%	83.6%		
2017	33.9%	59.0%	75.1%			
2018	34.4%	59.0%				
2019	34.5%					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						108,127
2012					111,048	114,497
2013				112,122	118,562	122,244
2014			105,234	117,218	123,951	127,800
2015		85,762	109,152	121,582	128,566	
2016	51,322	87,818	111,770	124,497		
2017	51,501	88,126	112,161			
2018	52,626	90,050				
2019	53,895					

F. Average Paid Indemnity per Closed Claim

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						17,297
2012					15,579	17,331
2013				13,644	15,851	17,379
2014			11,149	14,513	16,766	18,242
2015		7,359	11,875	15,192	17,256	
2016	3,252	7,699	12,005	15,085		
2017	3,341	7,785	12,017			
2018	3,566	8,204				
2019	3,812					

- (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 Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						18,589
2012					17,120	18,119
2013				15,217	16,731	17,648
2014			13,078	15,698	17,280	18,242
2015		8,545	13,042	15,684	17,256	
2016	3,616	8,292	12,458	15,085		
2017	3,402	7,784	12,017			
2018	3,571	8,204				
2019	3,812					
2020						

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						2,009,933
2012					1,901,170	2,074,519
2013				1,706,191	1,983,641	2,157,391
2014			1,376,227	1,840,067	2,141,836	2,331,271
2015		732,827	1,423,586	1,906,936	2,218,577	
2016	185,563	728,208	1,392,471	1,878,099		
2017	175,226	685,969	1,347,786			
2018	187,908	738,795				
2019	205,444					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						522,066
2012					626,216	500,429
2013				745,920	593,097	461,197
2014			891,258	751,500	589,298	463,732
2015		848,825	876,539	710,785	555,919	
2016	458,630	824,626	829,832	665,539		
2017	461,628	822,467	825,361			
2018	493,585	857,088				
2019	515,277					

(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 Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						37,391
2012					32,236	37,779
2013				26,644	32,342	37,563
2014			21,003	27,775	33,707	39,689
2015		13,439	21,679	28,660	34,939	
2016	5,459	13,637	22,154	28,924		
2017	5,605	10,090	23,507			
2018	5,951	14,804				
2019	6,071					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						-150,796
2012					-185,035	-102,155
2013				-197,965	-118,403	-41,394
2014			-209,480	-152,013	-72,234	
2015		-104,810	-134,454	-66,777		
2016	-24,668	-58,721	-54,677			
2017	-4,496	50				
2018	-339					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						371,269
2012					441,181	398,274
2013				547,955	474,694	419,802
2014			681,777	599,487	517,064	463,732
2015		744,015	742,085	644,008	555,919	
2016	433,961	765,905	775,155	665,539		
2017	457,132	822,517	825,361			
2018	493,245	857,088				
2019	515,277					

- (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)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						2,381,203
2012					2,342,351	2,472,793
2013				2,254,147	2,458,334	2,577,194
2014			2,058,005	2,439,554	2,658,899	2,795,003
2015		1,476,842	2,165,671	2,550,944	2,774,496	
2016	619,524	1,494,113	2,167,626	2,543,638		
2017	632,358	1,508,486	2,173,148			
2018	681,154	1,595,883				
2019	720,721					

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2011					
2012					1.056
2013				1.091	1.048
2014			1.185	1.090	1.051
2015		1.466	1.178	1.088	
2016	2.412	1.451	1.173		
2017	2.385	1.441			
2018	2.343				
Latest Year	2.343	1.441	1.173	1.088	1.051
3-Year Average	2.380	1.453	1.179	1.089	1.052

O. Paid Indemnity Loss Development Factors (i)

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2012					1.075
2013				1.110	1.063
2014			1.215	1.109	1.062
2015		1.476	1.202	1.100	
2016	2.403	1.459	1.188		
2017	2.391	1.441			
2018	2.343				

- (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)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2012					-1.84%
2013				-1.79%	-1.38%
2014			-2.43%	-1.71%	-1.03%
2015		-0.62%	-1.98%	-1.12%	
2016	0.37%	-0.60%	-1.18%		
2017	-0.21%	0.00%			
2018	-0.02%				

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2012					1.055
2013				1.091	1.048
2014			1.185	1.090	1.051
2015		1.467	1.178	1.088	
2016	2.412	1.450	1.174		
2017	2.385	1.441			
2018	2.345				
Latest Year	2.345	1.441	1.174	1.088	1.051
3-Year Average	2.380	1.453	1.179	1.090	1.052

- (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

Selected Medical Development Factors - Paid to Ultimate

Unadjusted (a) Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195	219/207	231/219	243/231	255/243	267/255
1993												1.014	1.013	1.013	1.012	1.011	1.011	1.011	1.009	1.013	1.010
1994											1.018	1.018	1.015	1.016	1.012	1.013	1.009	1.009	1.012	1.010	1.008
1995										1.024	1.026	1.023	1.019	1.018	1.017	1.013	1.012	1.016	1.013	1.011	1.013
1996									1.028	1.032	1.025	1.023	1.022	1.014	1.014	1.014	1.014	1.010	1.007	1.007	1.007
1997								1.034	1.032	1.028	1.025	1.020	1.019	1.014	1.014	1.015	1.013	1.010	1.006	1.006	1.007
1998							1.044	1.037	1.033	1.032	1.027	1.021	1.017	1.019	1.018	1.017	1.013	1.010	1.007	1.008	1.008
1999						1.053	1.042	1.031	1.035	1.030	1.025	1.020	1.016	1.018	1.018	1.014	1.012	1.009	1.009	1.008	1.008
2000					1.071	1.051	1.039	1.037	1.030	1.026	1.022	1.020	1.021	1.016	1.012	1.011	1.008	1.008	1.006	1.006	1.006
2001				1.094	1.071	1.054	1.043	1.032	1.033	1.026	1.022	1.026	1.019	1.017	1.012	1.010	1.010	1.009	1.009	1.008	1.008
2002			1.148	1.099	1.068	1.053	1.043	1.032	1.027	1.024	1.026	1.018	1.015	1.011	1.011	1.009	1.009	1.009	1.008	1.008	1.008
2003		1.259	1.154	1.100	1.070	1.055	1.045	1.033	1.029	1.033	1.025	1.018	1.015	1.011	1.011	1.009	1.009	1.009	1.008	1.008	1.008
2004	1.744	1.298	1.165	1.121	1.086	1.066	1.047	1.039	1.041	1.031	1.022	1.017	1.014	1.011	1.012	1.011	1.011	1.011	1.010	1.010	1.010
2005	1.727	1.292	1.193	1.123	1.091	1.063	1.053	1.051	1.037	1.029	1.020	1.017	1.013	1.013	1.012	1.011	1.011	1.011	1.010	1.010	1.010
2006	1.773	1.342	1.195	1.126	1.085	1.064	1.057	1.040	1.032	1.023	1.018	1.015	1.013	1.013	1.012	1.011	1.011	1.011	1.010	1.010	1.010
2007	1.851	1.352	1.203	1.120	1.092	1.079	1.051	1.038	1.028	1.021	1.019	1.015	1.013	1.013	1.012	1.011	1.011	1.011	1.010	1.010	1.010
2008	1.826	1.359	1.208	1.134	1.098	1.067	1.047	1.033	1.024	1.019	1.015	1.015	1.015	1.015	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2009	1.876	1.385	1.221	1.150	1.095	1.062	1.042	1.029	1.023	1.018	1.015	1.015	1.015	1.015	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2010	1.926	1.402	1.237	1.133	1.087	1.060	1.039	1.027	1.025	1.018	1.015	1.015	1.015	1.015	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2011	1.957	1.401	1.217	1.131	1.082	1.055	1.037	1.026	1.025	1.018	1.015	1.015	1.015	1.015	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2012	1.983	1.398	1.213	1.128	1.076	1.051	1.036	1.036	1.036	1.029	1.026	1.023	1.020	1.017	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2013	1.939	1.390	1.206	1.111	1.068	1.043	1.036	1.036	1.036	1.029	1.026	1.023	1.020	1.017	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2014	1.936	1.387	1.194	1.106	1.067	1.043	1.036	1.036	1.036	1.029	1.026	1.023	1.020	1.017	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2015	1.955	1.359	1.185	1.097	1.067	1.043	1.036	1.036	1.036	1.029	1.026	1.023	1.020	1.017	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2016	1.876	1.339	1.168	1.097	1.067	1.043	1.036	1.036	1.036	1.029	1.026	1.023	1.020	1.017	1.014	1.013	1.013	1.013	1.012	1.012	1.012
2017	1.838	1.320																			
2018	1.849																				

Adjusted (b) Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195	219/207	231/219	243/231	255/243	267/255
1996																					
1997																					
1998																					
1999																					
2000																					
2001																					
2002																					
2003																					
2004																					
2005																					
2006																					
2007																					
2008																					
2009																					
2010																					
2011																					
2012																					
2013																					
2014																					
2015																					
2016																					
2017																					
2018																					

Selected (c)	1.849(d)	1.321(c)	1.161(d)	1.090(d)	1.059(d)	1.046	1.039	1.029	1.026	1.020	1.019	1.017	1.015	1.014	1.012	1.011	1.010	1.009	1.008	1.009	1.008
Cumulative Unadjusted for Impact of SB 1160	4.782	2.586	1.958	1.686	1.548	1.461	1.397	1.345	1.307	1.274	1.248	1.225	1.204	1.186	1.170	1.156	1.143	1.132	1.122	1.112	1.103
Cumulative Adjusted for Impact of SB 1160(e)	4.606	2.491	1.886	1.645	1.525	1.451	1.386	1.334	1.296	1.263	1.236	1.213	1.191	1.170	1.150	1.136	1.123	1.112	1.102	1.092	1.083

- (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 15-to-27 month through 99-to-111 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 39, 51, 63, and 75 months are adjusted by -3.7%, -2.5%, -1.5%, and -0.7%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Selected Medical Development Factors - Paid to Ultimate (Continued)

Accident Year	Age-to-Age (in months)													
	<u>279/267</u>	<u>291/279</u>	<u>303/291</u>	<u>315/303</u>	<u>327/315</u>	<u>339/327</u>	<u>351/339</u>	<u>363/351</u>	<u>375/363</u>	<u>387/375</u>	<u>399/387</u>	<u>411/399</u>	<u>423/411</u>	<u>ULT/423Pd (g)</u>
1983													1.003	
1984												1.001	1.002	
1985												1.002	1.002	
1986										1.005	1.004	1.003		
1987									1.003	1.004	1.003			
1988								1.003	1.004	1.002				
1989							1.003	1.004	1.003					
1990						1.003	1.003	1.003						
1991					1.003	1.004	1.004							
1992				1.005	1.007	1.003								
1993			1.007	1.009	1.004									
1994		1.007	1.004	1.005										
1995	1.008	1.008	1.009											
1996	1.011	1.008												
1997	1.008													
1998														
Unadjusted (c)	1.009	1.008	1.007	1.006	1.005	1.003	1.003	1.003	1.003	1.004	1.003	1.002	1.002	1.068
Selected (f)	1.006	1.005	1.005	1.005	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.002	1.002	
Cumulative	1.094	1.087	1.081	1.076	1.071	1.067	1.064	1.062	1.059	1.056	1.053	1.050	1.049	1.047

(f) Adjusted for the impact of changes in claim settlement rates on later period development. See Item AC19-08-05 of the 8/4/2020 Agenda.

(g) The UL T/423Pd tail factor was calculated based on an inverse power curve fit to a four-year average of the 111-to-123 through 339-to-351 adjusted or unadjusted factors and extrapolated to 80 development years.

**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 Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						118,057
2012					124,734	125,038
2013				132,687	133,240	133,420
2014			137,696	138,801	139,291	139,484
2015		141,125	143,383	144,053	144,477	
2016	130,819	143,982	146,759	147,507		
2017	133,054	144,784	147,273			
2018	135,505	147,945				
2019	138,773					

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):					
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>	<u>75-Ult</u>
2012					1.002	
2013				1.004	1.001	
2014			1.008	1.004	1.001	
2015		1.016	1.005	1.003		
2016	1.101	1.019	1.005			
2017	1.088	1.017				
2018	1.092					
Latest Year	1.092	1.017	1.005	1.003	1.001	
Cumulative	1.127	1.032	1.015	1.010	1.007	1.005

Acc. Year	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Ult. Claim Counts	156,389	152,707	149,444	148,922	145,435	140,215

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						104,094
2012					105,308	111,792
2013				104,691	114,901	121,142
2014			95,260	111,745	121,808	127,800
2015		77,963	102,951	119,252	128,566	
2016	46,802	83,513	109,302	124,497		
2017	50,699	88,131	112,161			
2018	52,569	90,050				
2019	53,895					

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 Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						87.7%
2012					83.8%	89.0%
2013				78.1%	85.7%	90.3%
2014			67.9%	79.7%	86.9%	91.1%
2015		53.6%	70.8%	82.0%	88.4%	
2016	31.4%	56.1%	73.4%	83.6%		
2017	33.9%	59.0%	75.1%			
2018	34.4%	59.0%				
2019	34.5%					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						108,127
2012					111,048	114,497
2013				112,122	118,562	122,244
2014			105,234	117,218	123,951	127,800
2015		85,762	109,152	121,582	128,566	
2016	51,322	87,818	111,770	124,497		
2017	51,501	88,126	112,161			
2018	52,626	90,050				
2019	53,895					

F. Average Paid Medical per Closed Indemnity Claim

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						20,750
2012					17,545	19,756
2013				14,304	16,973	18,828
2014			10,971	14,384	16,831	18,480
2015		7,263	11,333	14,566	16,561	
2016	3,462	7,489	11,315	14,059		
2017	3,565	7,704	11,398			
2018	3,665	7,988				
2019	3,912					

- (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 Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						22,672
2012					19,489	20,776
2013				16,201	18,038	19,156
2014			12,925	15,667	17,403	18,480
2015		8,345	12,469	15,041	16,561	
2016	3,807	8,023	11,721	14,059		
2017	3,625	7,704	11,398			
2018	3,670	7,988				
2019	3,912					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						2,451,448
2012					2,164,244	2,378,763
2013				1,816,444	2,138,615	2,341,655
2014			1,360,127	1,836,483	2,157,162	2,361,683
2015		715,723	1,360,973	1,828,752	2,129,175	
2016	195,386	704,563	1,310,103	1,750,271		
2017	186,674	678,903	1,278,441			
2018	193,121	719,277				
2019	210,837					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						736,639
2012					800,570	651,489
2013				864,337	689,196	549,374
2014			933,300	793,689	624,796	505,334
2015		883,986	881,422	730,322	595,434	
2016	552,356	864,167	836,054	709,347		
2017	568,207	856,257	826,063			
2018	596,167	903,593				
2019	587,536					

(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 Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						52,758
2012					41,211	49,183
2013				30,874	37,582	44,745
2014			21,993	29,334	35,737	43,250
2015		13,996	21,800	29,447	37,423	
2016	6,574	14,291	22,320	30,828		
2017	6,900	15,114	23,527			
2018	7,188	15,607				
2019	6,922					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						-212,775
2012					-236,554	-132,992
2013				-229,392	-137,588	-49,308
2014			-219,362	-160,547	-76,585	
2015		-109,151	-135,203	-68,612		
2016	-29,710	-61,536	-55,087			
2017	-5,533	62				
2018	-410					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2011						523,864
2012					564,017	518,497
2013				634,945	551,608	500,065
2014			713,938	633,143	548,211	505,334
2015		774,834	746,219	661,710	595,434	
2016	522,647	802,631	780,967	709,347		
2017	562,674	856,319	826,063			
2018	595,758	903,593				
2019	587,536					

- (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 Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						216,191
2012					221,203	225,603
2013				221,653	228,317	230,781
2014			239,463	246,220	248,931	251,794
2015		241,457	250,793	256,181	261,405	
2016	217,062	258,096	268,099	275,130		
2017	236,913	276,919	287,435			
2018	250,889	300,289				
2019	244,471					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2011						3,459,475
2012					2,949,464	3,122,863
2013				2,673,043	2,918,539	3,072,501
2014			2,313,529	2,715,846	2,954,303	3,118,811
2015		1,732,014	2,357,984	2,746,644	2,986,014	
2016	935,095	1,765,290	2,359,170	2,734,748		
2017	986,261	1,812,141	2,391,939			
2018	1,039,767	1,923,159				
2019	1,042,845					

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2012					1.059
2013				1.092	1.053
2014			1.174	1.088	1.056
2015		1.361	1.165	1.087	
2016	1.888	1.336	1.159		
2017	1.837	1.320			
2018	1.850				
Latest Year	1.850	1.320	1.159	1.087	1.056

(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 Year	Evaluated as of (in months)				
	15-27	27-39	39-51	51-63	63-75
2012					1.075
2013				1.110	1.067
2014			1.194	1.105	1.067
2015		1.359	1.185	1.096	
2016	1.876	1.339	1.168		
2017	1.838	1.320			
2018	1.850				

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

Accident Year	Evaluated as of (in months)				
	15-27	27-39	39-51	51-63	63-75
2012					-1.54%
2013				-1.64%	-1.37%
2014			-1.65%	-1.51%	-1.03%
2015		0.18%	-1.68%	-0.84%	
2016	0.62%	-0.23%	-0.77%		
2017	-0.04%	0.00%			
2018	0.00%				

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

Accident Year	Evaluated as of (in months)				
	15-27	27-39	39-51	51-63	63-75
2012					1.065
2013				1.101	1.059
2014			1.183	1.095	1.059
2015		1.367	1.170	1.090	
2016	1.894	1.341	1.161		
2017	1.843	1.321			
2018	1.849				
Latest Year	1.849	1.321	1.161	1.090	1.059
3-Year Average	1.862	1.343	1.171	1.095	1.061

- (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

**Developed Indemnity Loss Ratios Using Selected Loss Development Factors
Adjusted for Changes in Claim Settlement Rates
Based on Experience as of March 31, 2020**

Accident Year	Development Factors			
	(1) Paid Loss Ratio (a)	(2) Annual (b)	(3) Cumulative	(4) Projected Ultimate Loss Ratio (4) = (1) x (3)
1986	0.395	1.001	1.005	0.397
1987	0.344	1.000	1.005	0.346
1988	0.329	1.000	1.005	0.331
1989	0.342	1.001	1.006	0.344
1990	0.396	1.000	1.006	0.399
1991	0.423	1.001	1.007	0.425
1992	0.348	1.001	1.007	0.350
1993	0.286	1.001	1.008	0.288
1994	0.324	1.001	1.009	0.326
1995	0.466	1.001	1.009	0.471
1996	0.523	1.001	1.011	0.528
1997	0.591	1.002	1.012	0.598
1998	0.641	1.002	1.014	0.650
1999	0.672	1.003	1.017	0.683
2000	0.579	1.003	1.019	0.590
2001	0.479	1.003	1.022	0.490
2002	0.356	1.004	1.026	0.365
2003	0.234	1.005	1.031	0.241
2004	0.139	1.006	1.037	0.144
2005	0.118	1.007	1.044	0.124
2006	0.152	1.009	1.053	0.160
2007	0.208	1.009	1.063	0.221
2008	0.261	1.012	1.076	0.281
2009	0.301	1.015	1.092	0.329
2010	0.287	1.017	1.110	0.319
2011	0.263	1.022	1.135	0.298
2012	0.230	1.023	1.161	0.267
2013	0.192	1.031	1.197	0.230
2014	0.176	1.038	1.242	0.219
2015	0.163	1.051	1.305	0.213
2016	0.142	1.088	1.420	0.202
2017	0.123	1.174	1.667	0.206
2018	0.092	1.441	2.402	0.221
2019	0.045	2.345	5.632	0.253

- (a) Based on Exhibit 1. To reflect the selected loss development methodology, reported loss ratios displayed are on a paid basis.
- (b) See Exhibits 2.5.1 and 2.5.2.

**Developed Medical Loss Ratios Using Selected Loss Development Factors
Adjusted for Changes in Claim Settlement Rates
Based on Experience as of March 31, 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 Adjusted for Reforms (c)	Adjusted Developed Loss Ratio (d) (2) x (4)	Projected Ultimate Loss Ratio (1) + ((5) - (2))
1986	0.326	0.289	1.002	1.049	0.303	0.340
1987	0.305	0.270	1.002	1.050	0.284	0.319
1988	0.298	0.264	1.003	1.053	0.278	0.312
1989	0.317	0.281	1.003	1.056	0.297	0.333
1990	0.359	0.318	1.003	1.059	0.337	0.377
1991	0.375	0.333	1.003	1.062	0.353	0.396
1992	0.311	0.275	1.003	1.064	0.293	0.328
1993	0.256	0.227	1.003	1.067	0.242	0.271
1994	0.292	0.259	1.003	1.071	0.278	0.310
1995	0.429	0.381	1.005	1.076	0.410	0.458
1996	0.459	0.408	1.005	1.081	0.441	0.493
1997	0.514	0.457	1.005	1.087	0.497	0.554
1998	0.611	0.544	1.006	1.094	0.595	0.662
1999	0.669	0.596	1.008	1.103	0.657	0.730
2000	0.602	0.537	1.009	1.112	0.597	0.662
2001	0.531	0.476	1.008	1.122	0.534	0.589
2002	0.409	0.368	1.009	1.132	0.416	0.458
2003	0.260	0.235	1.010	1.143	0.268	0.294
2004	0.176	0.159	1.011	1.156	0.184	0.201
2005	0.171	0.155	1.012	1.170	0.181	0.197
2006	0.218	0.198	1.014	1.186	0.235	0.255
2007	0.304	0.277	1.015	1.204	0.334	0.361
2008	0.374	0.343	1.017	1.225	0.419	0.451
2009	0.430	0.397	1.019	1.248	0.496	0.529
2010	0.418	0.388	1.020	1.274	0.494	0.524
2011	0.350	0.328	1.026	1.307	0.429	0.451
2012	0.294	0.278	1.029	1.345	0.373	0.389
2013	0.230	0.220	1.039	1.397	0.307	0.318
2014	0.197	0.192	1.046	1.451	0.278	0.284
2015	0.176	0.173	1.059	1.525	0.264	0.267
2016	0.153	0.152	1.090	1.645	0.249	0.251
2017	0.136	0.135	1.161	1.886	0.255	0.256
2018	0.111	0.111	1.321	2.491	0.276	0.276
2019	0.065	0.065	1.849	4.606	0.299	0.299

- (a) Based on Exhibit 1. Paid MCCP costs are excluded from accident years 2011 and subsequent. To reflect the selected loss development methodology, reported loss ratios displayed are on a paid basis.
- (b) Based on experience evaluated as of March 31, 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.

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	1.536	
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	1.287	
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	2.4	2.8	1.036	
2020	0.4	0.0	0.4	0.8	1.028	
2021	0.4	0.0	1.5	1.9	1.009	
11/1/2021	0.1 (Annual 0.4)	0.0	0.7 (Annual 2.2)	0.9		

(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) $\{ [\text{Column (1)} / 100 + 1.0] \times [\text{Column (2)} / 100 + 1.0] \times [\text{Column (3)} / 100 + 1.0] - 1.0 \} \times 100$.

(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.

Annual Medical Cost Level Change - Non-Legislative

Accident	(1) Proportion of Medical Subject to	(2) Proportion of Medical Not Subject to	(3) Impact of Fee Schedule Change on	(4) Change in Medical	(5) Impact of CPI Change on Total	(6) Annual Non-Legislative Cost Impact on
<u>Year</u>	<u>Fee Schedule (a)</u>	<u>Fee Schedule (a)</u>	<u>Total Medical (b)</u>	<u>CPI (c)</u>	<u>Medical (d)</u>	<u>Total Medical (e)</u>
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 MCCC 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).

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	-4.4%	0.0%	-4.4%
2013	-8.2%	0.2%	-8.0%
2014	-5.9%	1.3%	-4.7%
2015	-2.0%	0.0%	-2.0%
2016	-0.5%	0.0%	-0.5%
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) $[\text{Column (1)} + 1.0] \times [\text{Column (2)} + 1.0] - 1.0$

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%	0.673
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%	-4.4%	-4.3%	0.874
2013	0.1%	-8.0%	-7.9%	0.949
2014	0.3%	-4.7%	-4.4%	0.993
2015	0.2%	-2.0%	-1.8%	1.011
2016	0.4%	-0.5%	-0.1%	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) $\text{Column (3)} = [1.0 + \text{Column (1)}] \times [1.0 + \text{Column (2)}] - 1.0$.

(d) These factors adjust the annual impact shown in Column (3) to the 11/1/2021 level.

Annual Wage Level Changes

<u>Year</u>	<u>Annual Wage Level Change (a)</u>	<u>Factor to a 11/1/2021 Wage Level</u>
1987	5.6	3.166
1988	4.4	3.032
1989	4.3	2.907
1990	5.0	2.769
1991	2.3	2.707
1992	4.7	2.585
1993	1.2	2.554
1994	1.8	2.509
1995	2.9	2.439
1996	3.4	2.358
1997	4.7	2.252
1998	5.2	2.141
1999	6.2	2.016
2000	9.0	1.850
2001	0.6	1.839
2002	1.1	1.819
2003	3.6	1.755
2004	5.0	1.672
2005	3.2	1.620
2006	4.6	1.549
2007	4.5	1.482
2008	2.1	1.452
2009	0.5	1.444
2010	3.0	1.402
2011	3.0	1.361
2012	4.2	1.307
2013	0.7	1.297
2014	3.3	1.256
2015	4.4	1.203
2016	1.8	1.182
2017	4.2	1.134
2018	4.1	1.090
2019	4.1	1.047
Projected:		
2020	0.7	(b)
2021	2.6	
11/1/2021	1.3	(Annual = 3.8)

- (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 March 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.

Premium Adjustment Factors

	(1)	(2a)	(2b)	(2c)	(3)	(4)	(5)	(6)	(7)
		Ratio of Industry Average Charged Rates to Advisory Pure Premium	Factor to Industry Average Filed Pure Premium Rate Level as of	Factor to Adjust Insurer Premium to an Industry Average Filed Pure Premium Rate Level as of	Adjustment to Remove Surcharge	Average Experience	Off-Balance Correction in Advisory January 1, 2020 Pure Premium	Factor to Adjust for Impact of Premium Resulting from	Composite Premium Adjustment
Calendar Year	Factor to a 11/1/2021 Wage Level (a)	Rates (b)	January 1, 2021 (c)	January 1, 2021 (d)	Premium (e)	Modification (f)	Rates	Audits (g)	Factor (h)
1987	3.166	---	---	0.612	0.992	0.983	1.014	---	1.927
1988	3.032	---	---	0.548	0.993	0.963	1.014	---	1.689
1989	2.907	---	---	0.539	0.993	0.945	1.014	---	1.624
1990	2.769	---	---	0.526	0.991	0.942	1.014	---	1.510
1991	2.707	---	---	0.487	0.987	0.939	1.014	---	1.367
1992	2.585	---	---	0.467	0.982	0.940	1.014	---	1.243
1993	2.554	---	---	0.462	0.981	0.949	1.014	---	1.202
1994	2.509	---	---	0.528	0.986	0.948	1.014	---	1.359
1995	2.439	---	---	0.715	0.995	0.958	1.014	---	1.785
1996	2.358	1.023	0.759	0.742	1.000	0.935	1.014	---	1.847
1997	2.252	0.989	0.758	0.766	1.000	0.949	1.014	---	1.793
1998	2.141	0.965	0.789	0.818	1.000	0.959	1.014	---	1.801
1999	2.016	0.972	0.798	0.821	1.000	0.954	1.014	---	1.710
2000	1.850	1.005	0.723	0.720	1.000	0.970	1.014	---	1.353
2001	1.839	1.030	0.637	0.618	1.000	0.969	1.014	---	1.157
2002	1.819	1.157	0.570	0.493	1.000	0.991	1.014	---	0.892
2003	1.755	1.266	0.467	0.369	1.000	1.005	1.014	---	0.635
2004	1.672	1.397	0.475	0.340	1.000	0.981	1.014	---	0.571
2005	1.620	1.470	0.571	0.388	1.000	0.982	1.014	---	0.632
2006	1.549	1.446	0.736	0.509	1.000	0.956	1.014	---	0.813
2007	1.482	1.492	1.003	0.672	1.000	0.931	1.014	0.985	1.039
2008	1.452	1.426	1.193	0.837	1.000	0.946	1.014	0.991	1.255
2009	1.444	1.365	1.176	0.861	1.000	0.937	1.014	1.034	1.354
2010	1.402	1.383	1.153	0.833	1.000	0.941	1.014	1.005	1.231
2011	1.361	1.400	1.152	0.822	1.000	0.982	1.014	---	1.124
2012	1.307	1.222	0.949	0.777	1.000	1.000	1.014	---	1.001
2013	1.297	1.138	0.764	0.672	1.000	0.983	1.014	---	0.875
2014	1.256	1.126	0.704	0.625	1.000	0.961	1.014	---	0.806
2015	1.203	1.109	0.684	0.617	1.000	0.951	1.014	---	0.770
2016	1.182	1.148	0.744	0.649	1.000	0.949	1.014	---	0.797
2017	1.134	1.156	0.824	0.713	1.000	0.955	1.014	---	0.835
2018	1.090	1.196	0.932	0.779	1.000	0.956	1.014	---	0.876
2019	1.047	1.215	1.083	0.892	1.000	0.949	1.014	---	0.970

- (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 January 1, 2021 (\$1.92).
- (d) $(2b) \div (2a)$. This column adjusts premiums at the industry average charged rate level to the industry average filed pure premium rate level as of January 1, 2021.
- (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) $(1) \times (2c) \times (3) \times (6) \div [(4) \times (5)]$ for calendar years 2007 to 2010. $(1) \times (2c) \times (3) \div [(4) \times (5)]$ for all other calendar years.

2019 Accident Year Indemnity Claim Frequency Model
As of PY 2017 1st Set & June 2020 UCLA

AY	Annual % Changes Intra- Class Ind Freq	Annual Log Differences						
		Intra-Class Indemnity Frequency per \$M Exposure at PY 2018 Level			AY+1		Economic Variables (1st Prin. Comp.)	CalOSHA Dummy Variable
		Total	Cumulative	Non-cum.	Indemnity Benefit Level	Cumulative Injury Index		
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.

**Projection of Indemnity Severity Trends by Accident Year
Based on Experience as of March 31, 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	9,954	---	1.912	19,034	---
1991	10,874	9.2%	1.808	19,665	3.3%
1992	10,970	0.9%	1.749	19,181	-2.5%
1993	11,926	8.7%	1.738	20,728	8.1%
1994	12,839	7.7%	1.821	23,375	12.8%
1995	14,381	12.0%	1.696	24,385	4.3%
1996	16,124	12.1%	1.591	25,657	5.2%
1997	19,155	18.8%	1.428	27,347	6.6%
1998	20,996	9.6%	1.317	27,649	1.1%
1999	23,002	9.6%	1.220	28,067	1.5%
2000	24,428	6.2%	1.139	27,826	-0.9%
2001	26,899	10.1%	1.140	30,672	10.2%
2002	26,007	-3.3%	1.168	30,375	-1.0%
2003	25,683	-1.2%	1.164	29,903	-1.6%
2004	20,973	-18.3%	1.375	28,848	-3.5%
2005	18,969	-9.6%	1.579	29,952	3.8%
2006	20,658	8.9%	1.463	30,224	0.9%
2007	22,498	8.9%	1.410	31,731	5.0%
2008	24,517	9.0%	1.332	32,668	3.0%
2009	25,708	4.9%	1.325	34,052	4.2%
2010	25,220	-1.9%	1.300	32,780	-3.7%
2011	24,941	-1.1%	1.282	31,970	-2.5%
2012	24,369	-2.3%	1.266	30,850	-3.5%
2013	23,827	-2.2%	1.240	29,556	-4.2%
2014	24,765	3.9%	1.153	28,554	-3.4%
2015	24,943	0.7%	1.137	28,350	-0.7%
2016	24,266	-2.7%	1.122	27,234	-3.9%
2017	24,248	-0.1%	1.093	26,504	-2.7%
2018	25,101	3.5%	1.065	26,727	0.8%
2019	25,985	3.5%	1.036	26,921	0.7%

(6) Estimated Annual Exponential Trend Based on 1990 to 2019:	1.1%
(7) Estimated Annual Exponential Trend Based on 2005 to 2019:	-1.4%
(8) Estimated Annual Exponential Trend Based on 2015 to 2019:	-1.2%

Selected Indemnity Severity Trend: 0.0%

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

Source: WCIRB experience calls.

**Projection of Medical Severity Trends by Accident Year
Based on Experience as of March 31, 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	8,761	---	0.917	8,032	---
1991	9,432	7.7%	0.899	8,482	5.6%
1992	9,487	0.6%	0.869	8,242	-2.8%
1993	10,352	9.1%	0.852	8,818	7.0%
1994	11,314	9.3%	0.895	10,128	14.9%
1995	13,017	15.0%	0.887	11,548	14.0%
1996	14,015	7.7%	0.878	12,311	6.6%
1997	16,699	19.2%	0.872	14,567	18.3%
1998	20,250	21.3%	0.769	15,563	6.8%
1999	23,324	15.2%	0.666	15,531	-0.2%
2000	26,077	11.8%	0.612	15,957	2.7%
2001	31,065	19.1%	0.558	17,330	8.6%
2002	31,316	0.8%	0.579	18,143	4.7%
2003	29,917	-4.5%	0.608	18,185	0.2%
2004	27,612	-7.7%	0.804	22,201	22.1%
2005	28,474	3.1%	0.804	22,894	3.1%
2006	31,016	8.9%	0.801	24,838	8.5%
2007	34,623	11.6%	0.786	27,209	9.5%
2008	37,281	7.7%	0.783	29,181	7.2%
2009	39,264	5.3%	0.780	30,611	4.9%
2010	39,503	0.6%	0.777	30,705	0.3%
2011	35,841 (c)	---	0.799	28,634 (c)	---
2012	33,663	-6.1%	0.844	28,401	-0.8%
2013	31,207	-7.3%	0.928	28,968	2.0%
2014	30,203	-3.2%	0.988	29,832	3.0%
2015	29,295	-3.0%	1.011	29,617	-0.7%
2016	28,153	-3.9%	1.012	28,491	-3.8%
2017	28,064	-0.3%	1.014	28,459	-0.1%
2018	29,170	3.9%	1.015	29,610	4.0%
2019	28,627	-1.9%	1.011	28,943	-2.3%

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 (7).
- (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 March 31, 2020**

(1) Accident Year	MCCP Included				MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b)			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	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	28,474	-----	22,894	-----	27,000	-----	21,709	-----
2006	31,016	8.9%	24,838	8.5%	29,101	7.8%	23,304	7.3%
2007	34,623	11.6%	27,209	9.5%	32,347	11.2%	25,421	9.1%
2008	37,281	7.7%	29,181	7.2%	34,049	5.3%	26,651	4.8%
2009	39,264	5.3%	30,611	4.9%	36,017	5.8%	28,079	5.4%
2010	39,503	0.6%	30,705	0.3%	36,200	0.5%	28,138	0.2%
2011	39,243	-0.7%	31,352	2.1%	35,841	-1.0%	28,634	1.8%
2012	36,792	-6.2%	31,041	-1.0%	33,663	-6.1%	28,401	-0.8%
2013	34,198	-7.1%	31,744	2.3%	31,207	-7.3%	28,968	2.0%
2014	33,064	-3.3%	32,657	2.9%	30,203	-3.2%	29,832	3.0%
2015	31,989	-3.3%	32,341	-1.0%	29,295	-3.0%	29,617	-0.7%
2016	30,679	-4.1%	31,048	-4.0%	28,153	-3.9%	28,491	-3.8%
2017	30,657	-0.1%	31,088	0.1%	28,064	-0.3%	28,459	-0.1%
2018	32,031	4.5%	32,515	4.6%	29,170	3.9%	29,610	4.0%
2019	31,546	-1.5%	31,894	-1.9%	28,627	-1.9%	28,943	-2.3%

Estimated Annual Exponential Trend

Trend Based on 1990 to 2019: 5.5%
Trend Based on 2005 to 2019: 1.9%
Trend Based on 2015 to 2019: 0.2%

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.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of March 31, 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)
1986	0.397	1.566	2.543	0.244
1987	0.346	1.536	1.927	0.276
1988	0.331	1.514	1.689	0.297
1989	0.344	1.491	1.624	0.316
1990	0.399	1.196	1.510	0.316
1991	0.425	0.985	1.367	0.306
1992	0.350	1.038	1.243	0.293
1993	0.288	1.260	1.202	0.302
1994	0.326	1.318	1.359	0.316
1995	0.471	1.220	1.785	0.322
1996	0.528	1.140	1.847	0.326
1997	0.598	1.021	1.793	0.341
1998	0.650	0.942	1.801	0.340
1999	0.683	0.873	1.710	0.349
2000	0.590	0.815	1.353	0.355
2001	0.490	0.815	1.157	0.345
2002	0.365	0.835	0.892	0.342
2003	0.241	0.833	0.635	0.316
2004	0.144	1.140	0.571	0.288
2005	0.124	1.545	0.632	0.302
2006	0.160	1.518	0.813	0.299
2007	0.221	1.463	1.039	0.312
2008	0.281	1.374	1.255	0.307
2009	0.329	1.347	1.354	0.327
2010	0.319	1.322	1.231	0.342
2011	0.298	1.304	1.124	0.346
2012	0.267	1.287	1.001	0.344
2013	0.230	1.259	0.875	0.330
2014	0.219	1.153	0.806	0.314
2015	0.213	1.137	0.770	0.315
2016	0.202	1.122	0.797	0.284
2017	0.206	1.093	0.835	0.269
2018	0.221	1.065	0.876	0.268
2019	0.253	1.036	0.970	0.270
				Projections (d)
2020				0.252
2021				0.253
11/1/2021				0.253

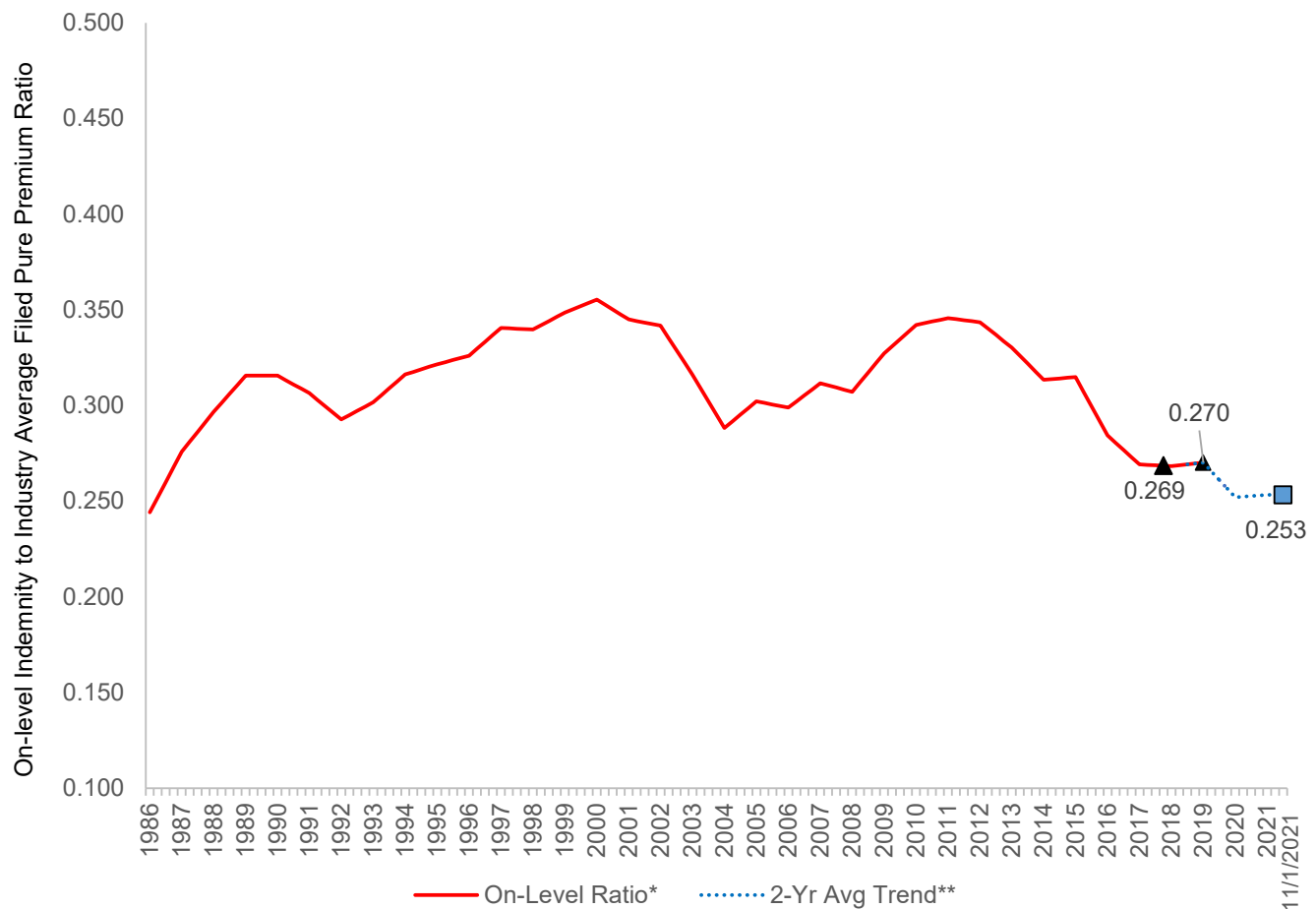
(a) See Exhibit 3.1.

(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 2021 from Exhibit 6.1; these trends were then separately applied to the 2018 and 2019 on-level ratios.

**On-Level Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of March 31, 2020**



* On-level indemnity to industry average filed pure premium ratios (see Exhibit 7.1)

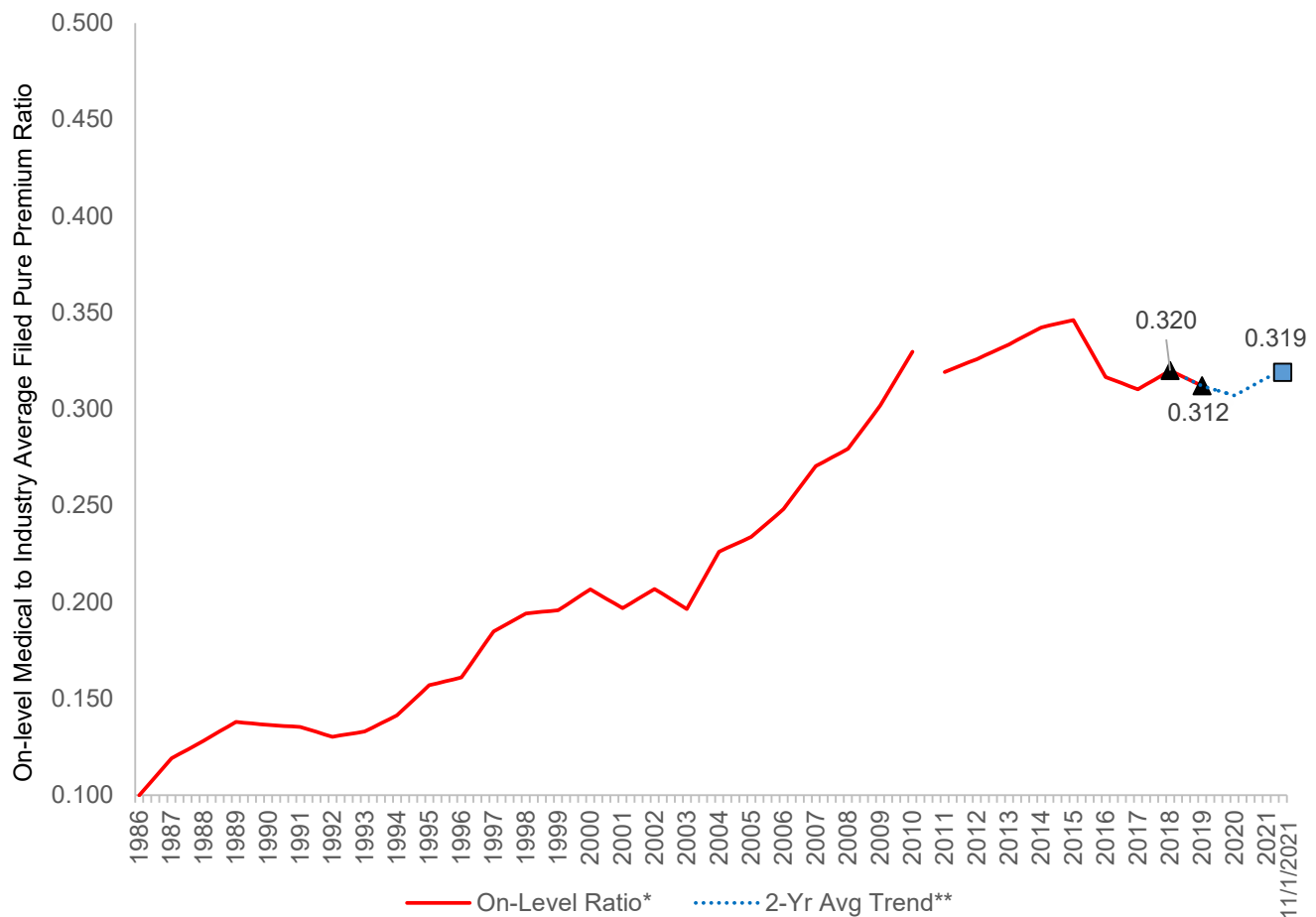
** The 11/1/2021 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2018 and 2019 years.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of March 31, 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)
1986	0.303	0.839	2.543	0.100
1987	0.284	0.808	1.927	0.119
1988	0.278	0.778	1.689	0.128
1989	0.297	0.756	1.624	0.138
1990	0.337	0.612	1.510	0.136
1991	0.353	0.523	1.367	0.135
1992	0.293	0.552	1.243	0.130
1993	0.242	0.661	1.202	0.133
1994	0.278	0.693	1.359	0.141
1995	0.410	0.683	1.785	0.157
1996	0.441	0.673	1.847	0.161
1997	0.497	0.667	1.793	0.185
1998	0.595	0.588	1.801	0.194
1999	0.657	0.510	1.710	0.196
2000	0.597	0.468	1.353	0.207
2001	0.534	0.427	1.157	0.197
2002	0.416	0.443	0.892	0.207
2003	0.268	0.465	0.635	0.196
2004	0.184	0.703	0.571	0.226
2005	0.181	0.817	0.632	0.234
2006	0.235	0.858	0.813	0.248
2007	0.334	0.842	1.039	0.270
2008	0.419	0.836	1.255	0.279
2009	0.496	0.825	1.354	0.302
2010	0.494	0.822	1.231	0.330
2011	0.429	0.836	1.124	0.319
2012	0.373	0.874	1.001	0.326
2013	0.307	0.949	0.875	0.334
2014	0.278	0.993	0.806	0.342
2015	0.264	1.011	0.770	0.346
2016	0.249	1.012	0.797	0.317
2017	0.255	1.014	0.835	0.310
2018	0.276	1.015	0.876	0.320
2019	0.299	1.011	0.970	0.312
				Projections (d)
2020				0.307
2021				0.316
11/1/2021				0.319

- (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 2021 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.

**On-Level Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of March 31, 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.

**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 March 31, 2020**

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Projected Loss to Industry Average Filed Pure Premium Ratio (See Exhibits 7.1 and 7.3)	0.253	0.319	0.572

Item AC20-08-03

1/1/2021 Filing – Review of Alternative Loss Projection Methodologies

For several years, the WCIRB has included alternative loss development and trending methodology projections in its pure premium rate filing submissions. The Committee reviewed alternative loss development methodology projections at the August 4, 2020 meeting.

Trending Methodologies

The trending projections reflected in the summary analysis of March 31, 2020 experience, included in Item AC20-06-01 of this Agenda, are based on the average of the latest two years' on-level loss ratios with separate projections of claim frequency and claim severity growth applied. The claim frequency growth estimate for 2019 was based on the preliminary actual 15-month frequency change. For accident years 2021 and 2022, the claim frequency projections are based on the WCIRB's indemnity claim frequency model including the impact of the economic downturn related to the COVID-19 pandemic on claim frequency. This includes the estimated impact of changes in economic conditions on claim frequency as well as an estimated increase in the proportion of cumulative trauma claims based on the average increase from the prior two recessions. The severity growth estimates of 0% for indemnity and 2.5% for medical were selected based on a review of short-term and long-term growth in claim severities.¹

Attached for the Committee's review are a number of alternative trending projections based on methodologies that have been included, for informational purposes, in prior pure premium rate filing materials or have been discussed at prior meetings. Specifically, alternative loss ratio projections, based on March 31, 2020 experience, derived using the loss development methodologies reflected in the analysis included in Item AC20-06-01 of this Agenda and the following trending methodologies are included:

1. Separate Projections of Frequency and Severity (0% for Indemnity; 2.5% for Medical) Growth Applied to the Latest Year Only – Exhibits 1.1 and 1.2
2. Separate Projections of Frequency with No Increase in the Proportion of Cumulative Trauma Claims and Severity (0% for Indemnity; 2.5% for Medical) Growth Applied to the Latest Two Years – Exhibits 2.1 and 2.2
3. Separate Projections of Frequency with an Increase in the Proportion of Cumulative Trauma Claims Comparable to the Great Recession and Severity (0% for Indemnity; 2.5% for Medical) Growth Applied to the Latest Two Years – Exhibits 3.1 and 3.2
4. Separate Projections of Frequency and the Long-Term (1990 to 2019) Average Severity Growth Applied to the Latest Two Years – Exhibits 4.1 and 4.2
5. Separate Projections of Frequency and the Short-Term (2015 to 2019) Average Severity Growth Applied to the Latest Two Years – Exhibits 5.1 and 5.2
6. Short-Term (2015 to 2019) On-Level Loss Ratio Exponential Trend Applied to the Latest Two Years' Loss Ratios – Exhibits 6.1 and 6.2

A summary of the preliminary January 1, 2021 to August 31, 2021 policy period loss ratio projections based on the alternative trending methodologies described above is shown in Table 1.

¹ All trending projections do not reflect the impact of COVID-19 claims, which are handled separately. See Item AC20-04-04 of this Agenda.

Table 1: Projected Loss Ratios Based on Alternative Trending Methodologies

Trending Methodologies	Indemnity Loss Ratio	Medical Loss Ratio	Total Loss Ratio
Current WCIRB Methodology			
Separate Projections of Frequency and Severity (0.0% Indemnity, 2.5% Medical) Applied to the Latest Two Years	0.253	0.319	0.572
Alternative Methodologies			
Separate Projections of Frequency and Severity (0.0% Indemnity, 2.5% Medical) Applied to the Latest Year	0.253	0.310	0.563
Separate Projections of Frequency with No CT Proportion Increase and Severity (0.0% Indemnity, 2.5% Medical) Applied to the Latest Two Years	0.242	0.305	0.547
Separate Projections of Frequency with CT Proportion Increase Comparable to Great Recession and Severity (0.0% Indemnity, 2.5% Medical) Applied to the Latest Two Years	0.265	0.333	0.598
Separate Projections of Frequency and Long-Term (1990 to 2019) Severity Applied to the Latest Two Years	0.261	0.346	0.607
Separate Projections of Frequency and Short-Term (2015 to 2019) Severity Applied to the Latest Two Years	0.245	0.297	0.542
Short-Term (2015 to 2019) On-level Loss Ratio Exponential Trend Applied to the Latest Two Years	0.243	0.298	0.541

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2019
Based on Experience as of March 31, 2020**

	(1)	(2)	(3)	(4)
Accident Year	Developed Indemnity Loss Ratio (a)	Composite Indemnity Adjustment Factor (b)	Composite Premium Adjustment Factor (c)	On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2008	0.281	1.374	1.255	0.307
2009	0.329	1.347	1.354	0.327
2010	0.319	1.322	1.231	0.342
2011	0.298	1.304	1.124	0.346
2012	0.267	1.287	1.001	0.344
2013	0.230	1.259	0.875	0.330
2014	0.219	1.153	0.806	0.314
2015	0.213	1.137	0.770	0.315
2016	0.202	1.122	0.797	0.284
2017	0.206	1.093	0.835	0.269
2018	0.221	1.065	0.876	0.268
2019	0.253	1.036	0.970	0.270
				Projected (d)
2020				0.252
2021				0.253
11/1/2021				0.253

(a) See AC20-06-01, Exhibit 3.1.

(b) See AC20-06-01, Exhibit 4.1.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC20-06-01, Exhibit 6.2, and projected frequency trends for accident years 2020 to 2022 from AC20-06-01, Exhibit 6.1; these trends were then separately applied to the 2019 on-level ratio.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2019
Based on Experience as of March 31, 2020**

	(1)	(2)	(3)	(4)
Accident Year	Developed Medical Loss Ratio (a)	Composite Medical Adjustment Factor (b)	Composite Premium Adjustment Factor (c)	On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2008	0.419	0.836	1.255	0.279
2009	0.496	0.825	1.354	0.302
2010	0.494	0.822	1.231	0.330
2011	0.429	0.836	1.124	0.319
2012	0.373	0.874	1.001	0.326
2013	0.307	0.949	0.875	0.334
2014	0.278	0.993	0.806	0.342
2015	0.264	1.011	0.770	0.346
2016	0.249	1.012	0.797	0.317
2017	0.255	1.014	0.835	0.310
2018	0.276	1.015	0.876	0.320
2019	0.299	1.011	0.970	0.312
				Projected (d)
2020				0.298
2021				0.307
11/1/2021				0.310

(a) See AC20-06-01, Exhibit 3.2.

(b) See AC20-06-01, Exhibit 4.4.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC20-06-01, Exhibit 6.4, and projected frequency trends for accident years 2020 to 2022 from AC20-06-01, Exhibit 6.1; these trends were then separately applied to the 2019 on-level ratio.

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

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency with No Increase in the Proportion of Cumulative Trauma Claims
and Severity Growth Applied to the Latest Two Years
Based on Experience as of March 31, 2020**

	(1)	(2)	(3)	(4)
Accident Year	Developed Indemnity Loss Ratio (a)	Composite Indemnity Adjustment Factor (b)	Composite Premium Adjustment Factor (c)	On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2008	0.281	1.374	1.255	0.307
2009	0.329	1.347	1.354	0.327
2010	0.319	1.322	1.231	0.342
2011	0.298	1.304	1.124	0.346
2012	0.267	1.287	1.001	0.344
2013	0.230	1.259	0.875	0.330
2014	0.219	1.153	0.806	0.314
2015	0.213	1.137	0.770	0.315
2016	0.202	1.122	0.797	0.284
2017	0.206	1.093	0.835	0.269
2018	0.221	1.065	0.876	0.268
2019	0.253	1.036	0.970	0.270
				Projected (d)
2020				0.240
2021				0.242
11/1/2021				0.242

(a) See AC20-06-01, Exhibit 3.1.

(b) See AC20-06-01, Exhibit 4.1.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC20-06-01, Exhibit 6.2, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends of -11.1%, 0.6%, and 0.0% for accident years 2020 to 2022, respectively, based on the WCIRB's indemnity claim frequency model without an estimated increase in the proportion of cumulative trauma claims; these trends were then separately applied to the 2018 and 2019 on-level ratios.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency with No Increase in the Proportion of Cumulative Trauma Claims
and Severity Growth Applied to the Latest Two Years
Based on Experience as of March 31, 2020**

	(1)	(2)	(3)	(4)
Accident Year	Developed Medical Loss Ratio (a)	Composite Medical Adjustment Factor (b)	Composite Premium Adjustment Factor (c)	On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2008	0.419	0.836	1.255	0.279
2009	0.496	0.825	1.354	0.302
2010	0.494	0.822	1.231	0.330
2011	0.429	0.836	1.124	0.319
2012	0.373	0.874	1.001	0.326
2013	0.307	0.949	0.875	0.334
2014	0.278	0.993	0.806	0.342
2015	0.264	1.011	0.770	0.346
2016	0.249	1.012	0.797	0.317
2017	0.255	1.014	0.835	0.310
2018	0.276	1.015	0.876	0.320
2019	0.299	1.011	0.970	0.312
				Projected (d)
2020				0.293
2021				0.302
11/1/2021				0.305

(a) See AC20-06-01, Exhibit 3.2.

(b) See AC20-06-01, Exhibit 4.4.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual medical severity trend from AC20-06-01, Exhibit 6.4, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends of -11.1%, 0.6%, and 0.0% for accident years 2020 to 2022, respectively, based on the WCIRB's indemnity claim frequency model without an estimated increase in the proportion of cumulative trauma claims; these trends were then separately applied to the 2018 and 2019 on-level ratios.

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

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency with an Increase in the Proportion of Cumulative Trauma Claims
Comparable to the Great Recession and Severity Growth Applied to the Latest Two Years
Based on Experience as of March 31, 2020**

	(1)	(2)	(3)	(4)
Accident Year	Developed Indemnity Loss Ratio (a)	Composite Indemnity Adjustment Factor (b)	Composite Premium Adjustment Factor (c)	On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1) x (2) ÷ (3)
2008	0.281	1.374	1.255	0.307
2009	0.329	1.347	1.354	0.327
2010	0.319	1.322	1.231	0.342
2011	0.298	1.304	1.124	0.346
2012	0.267	1.287	1.001	0.344
2013	0.230	1.259	0.875	0.330
2014	0.219	1.153	0.806	0.314
2015	0.213	1.137	0.770	0.315
2016	0.202	1.122	0.797	0.284
2017	0.206	1.093	0.835	0.269
2018	0.221	1.065	0.876	0.268
2019	0.253	1.036	0.970	0.270
				Projected (d)
2020				0.261
2021				0.265
11/1/2021				0.265

(a) See AC20-06-01, Exhibit 3.1.

(b) See AC20-06-01, Exhibit 4.1.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC20-06-01, Exhibit 6.2, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends of -3.6%, 1.6%, and 0.0% for accident years 2020 to 2022, respectively, based on the WCIRB's indemnity claim frequency model with an estimated increase in the proportion of cumulative trauma claims comparable to the Great Recession; these trends were then separately applied to the 2018 and 2019 on-level ratios.

Projected On-Level Accident Year Medical Loss to Industry Average Filed Pure Premium Ratios Separate Applications of Frequency with an Increase in the Proportion of Cumulative Trauma Claims Comparable to the Great Recession and Severity Growth Applied to the Latest Two Years Based on Experience as of March 31, 2020				
Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2008	0.419	0.836	1.255	0.279
2009	0.496	0.825	1.354	0.302
2010	0.494	0.822	1.231	0.330
2011	0.429	0.836	1.124	0.319
2012	0.373	0.874	1.001	0.326
2013	0.307	0.949	0.875	0.334
2014	0.278	0.993	0.806	0.342
2015	0.264	1.011	0.770	0.346
2016	0.249	1.012	0.797	0.317
2017	0.255	1.014	0.835	0.310
2018	0.276	1.015	0.876	0.320
2019	0.299	1.011	0.970	0.312
				Projected (d)
2020				0.318
2021				0.331
11/1/2021				0.333

- (a) See AC20-06-01, Exhibit 3.2.
- (b) See AC20-06-01, Exhibit 4.4.
- (c) See AC20-06-01, Exhibit 5.2.
- (d) These on-level ratios were projected based on an estimated annual medical severity trend from AC20-06-01, Exhibit 6.4, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends of -3.6%, 1.6%, and 0.0% for accident years 2020 to 2022, respectively, based on the WCIRB's indemnity claim frequency model with an estimated increase in the proportion of cumulative trauma claims comparable to the Great Recession; these trends were then separately applied to the 2018 and 2019 on-level ratios.
- (e) Accident years 2011 and subsequent do not reflect paid M CCP costs. Accident years 2010 and prior do reflect paid M CCP costs.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Long-Term Severity Trends
Based on Experience as of March 31, 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) x (2) ÷ (3)
2008	0.281	1.374	1.255	0.307
2009	0.329	1.347	1.354	0.327
2010	0.319	1.322	1.231	0.342
2011	0.298	1.304	1.124	0.346
2012	0.267	1.287	1.001	0.344
2013	0.230	1.259	0.875	0.330
2014	0.219	1.153	0.806	0.314
2015	0.213	1.137	0.770	0.315
2016	0.202	1.122	0.797	0.284
2017	0.206	1.093	0.835	0.269
2018	0.221	1.065	0.876	0.268
2019	0.253	1.036	0.970	0.270
				Projected (d)
2020				0.256
2021				0.260
11/1/2021				0.261

(a) See AC20-06-01, Exhibit 3.1.

(b) See AC20-06-01, Exhibit 4.1.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on the 1990-2019 annual indemnity severity trend of 1.1%, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends for accident years 2020 to 2022 from AC20-06-01, Exhibit 6.1; these trends were then separately applied to the 2018 and 2019 on-level ratios.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Long-Term Severity Trends
Based on Experience as of March 31, 2020**

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2008	0.419	0.836	1.255	0.279
2009	0.496	0.825	1.354	0.302
2010	0.494	0.822	1.231	0.330
2011	0.429	0.836	1.124	0.319
2012	0.373	0.874	1.001	0.326
2013	0.307	0.949	0.875	0.334
2014	0.278	0.993	0.806	0.342
2015	0.264	1.011	0.770	0.346
2016	0.249	1.012	0.797	0.317
2017	0.255	1.014	0.835	0.310
2018	0.276	1.015	0.876	0.320
2019	0.299	1.011	0.970	0.312
				Projected (d)
2020				0.321
2021				0.340
11/1/2021				0.346

(a) See AC20-06-01, Exhibit 3.2.

(b) See AC20-06-01, Exhibit 4.4.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on the 1990-2019 annual medical severity trend of 5.5%, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends for accident years 2020 to 2022 from AC20-06-01, 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 paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Short-Term Severity Trends
Based on Experience as of March 31, 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) x (2) ÷ (3)
2008	0.281	1.374	1.255	0.307
2009	0.329	1.347	1.354	0.327
2010	0.319	1.322	1.231	0.342
2011	0.298	1.304	1.124	0.346
2012	0.267	1.287	1.001	0.344
2013	0.230	1.259	0.875	0.330
2014	0.219	1.153	0.806	0.314
2015	0.213	1.137	0.770	0.315
2016	0.202	1.122	0.797	0.284
2017	0.206	1.093	0.835	0.269
2018	0.221	1.065	0.876	0.268
2019	0.253	1.036	0.970	0.270
				Projected (d)
2020				0.247
2021				0.246
11/1/2021				0.245

(a) See AC20-06-01, Exhibit 3.1.

(b) See AC20-06-01, Exhibit 4.1.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on the 2015-2019 annual indemnity severity trend of -1.2%, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends for accident years 2020 to 2022 from AC20-06-01, Exhibit 6.1; these trends were then separately applied to the 2018 and 2019 on-level ratios.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Short-Term Severity Trends
Based on Experience as of March 31, 2020**

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2008	0.419	0.836	1.255	0.279
2009	0.496	0.825	1.354	0.302
2010	0.494	0.822	1.231	0.330
2011	0.429	0.836	1.124	0.319
2012	0.373	0.874	1.001	0.326
2013	0.307	0.949	0.875	0.334
2014	0.278	0.993	0.806	0.342
2015	0.264	1.011	0.770	0.346
2016	0.249	1.012	0.797	0.317
2017	0.255	1.014	0.835	0.310
2018	0.276	1.015	0.876	0.320
2019	0.299	1.011	0.970	0.312
				Projected (d)
2020				0.295
2021				0.297
11/1/2021				0.297

(a) See AC20-06-01, Exhibit 3.2.

(b) See AC20-06-01, Exhibit 4.4.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected based on the 2015-2019 annual medical severity trend of -0.1%, the actual frequency change for 2019 from AC20-06-01, Exhibit 12, and projected frequency trends for accident years 2020 to 2022 from AC20-06-01, 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 paid MCCP costs. Accident years 2010 and prior do reflect paid MCCP costs.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Short-Term Exponential Loss Ratio Trend
Based on Experience as of March 31, 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) x (2) ÷ (3)
2008	0.281	1.374	1.255	0.307
2009	0.329	1.347	1.354	0.327
2010	0.319	1.322	1.231	0.342
2011	0.298	1.304	1.124	0.346
2012	0.267	1.287	1.001	0.344
2013	0.230	1.259	0.875	0.330
2014	0.219	1.153	0.806	0.314
2015	0.213	1.137	0.770	0.315
2016	0.202	1.122	0.797	0.284
2017	0.206	1.093	0.835	0.269
2018	0.221	1.065	0.876	0.268
2019	0.253	1.036	0.970	0.270
				Projected (d)
2020				0.255
2021				0.246
11/1/2021				0.243

(a) See AC20-06-01, Exhibit 3.1.

(b) See AC20-06-01, Exhibit 4.1.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected by separately applying an exponential trend of approximately -3.6% based on the 2015 to 2019 on-level indemnity to industry average filed pure premium ratios to each of the 2018 and 2019 on-level indemnity to industry average filed pure premium ratios. Each stated projection is equal to the average of the corresponding trended on-level ratios.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Short-Term Exponential Loss Ratio Trend
Based on Experience as of March 31, 2020**

Accident Year	(1) Developed Medical Loss Ratio (a)	(2) Composite Medical Adjustment Factor (b)	(3) Composite Premium Adjustment Factor (c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1) x (2) ÷ (3)
2008	0.419	0.836	1.255	0.279
2009	0.496	0.825	1.354	0.302
2010	0.494	0.822	1.231	0.330
2011	0.429	0.836	1.124	0.319
2012	0.373	0.874	1.001	0.326
2013	0.307	0.949	0.875	0.334
2014	0.278	0.993	0.806	0.342
2015	0.264	1.011	0.770	0.346
2016	0.249	1.012	0.797	0.317
2017	0.255	1.014	0.835	0.310
2018	0.276	1.015	0.876	0.320
2019	0.299	1.011	0.970	0.312
				Projected (d)
2020				0.307
2021				0.300
11/1/2021				0.298

(a) See AC20-06-01, Exhibit 3.2.

(b) See AC20-06-01, Exhibit 4.4.

(c) See AC20-06-01, Exhibit 5.2.

(d) These on-level ratios were projected by separately applying an exponential trend of approximately -2.0% based on the 2015 to 2019 on-level medical to industry average filed pure premium ratios to each of the 2018 and 2019 on-level medical to industry average filed pure premium ratios. Each stated projection is equal to the average of the corresponding trended on-level ratios.

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

Item AC20-08-05
Potential Impact of Medical Care Delays

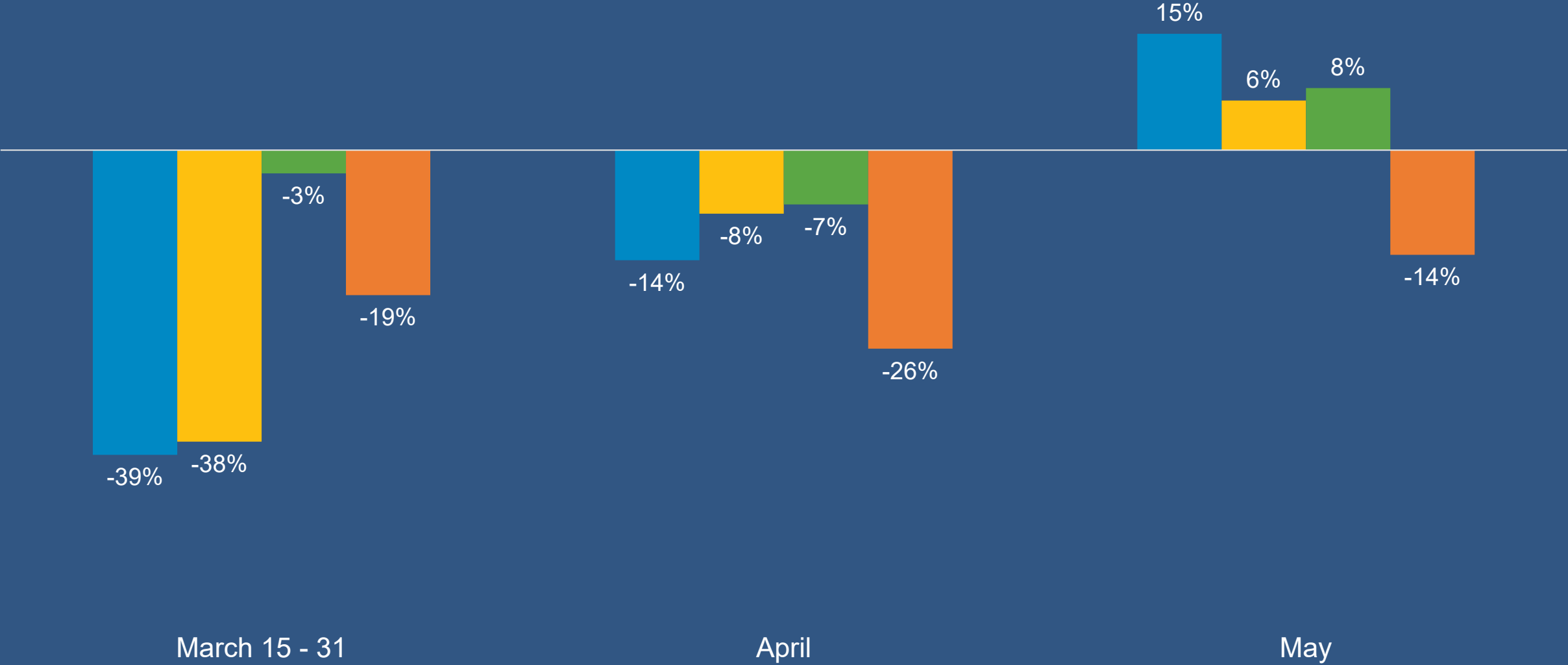
As discussed at the June 12, 2020 meeting, in the early months of the COVID-19 pandemic and resultant stay-at-home orders, delays in medical care may have arisen as medical treatment was largely limited to COVID-19 and emergency care in some areas. The WCIRB is undertaking an analysis of the potential impact of medical treatment delays on claims. A summary of preliminary findings will be presented at the meeting. Slides that summarize the post-Pandemic medical treatment patterns and costs based on preliminary WCIRB medical transaction data are attached.

Summary of the Post-COVID Medical Treatment Patterns (as of July 21)

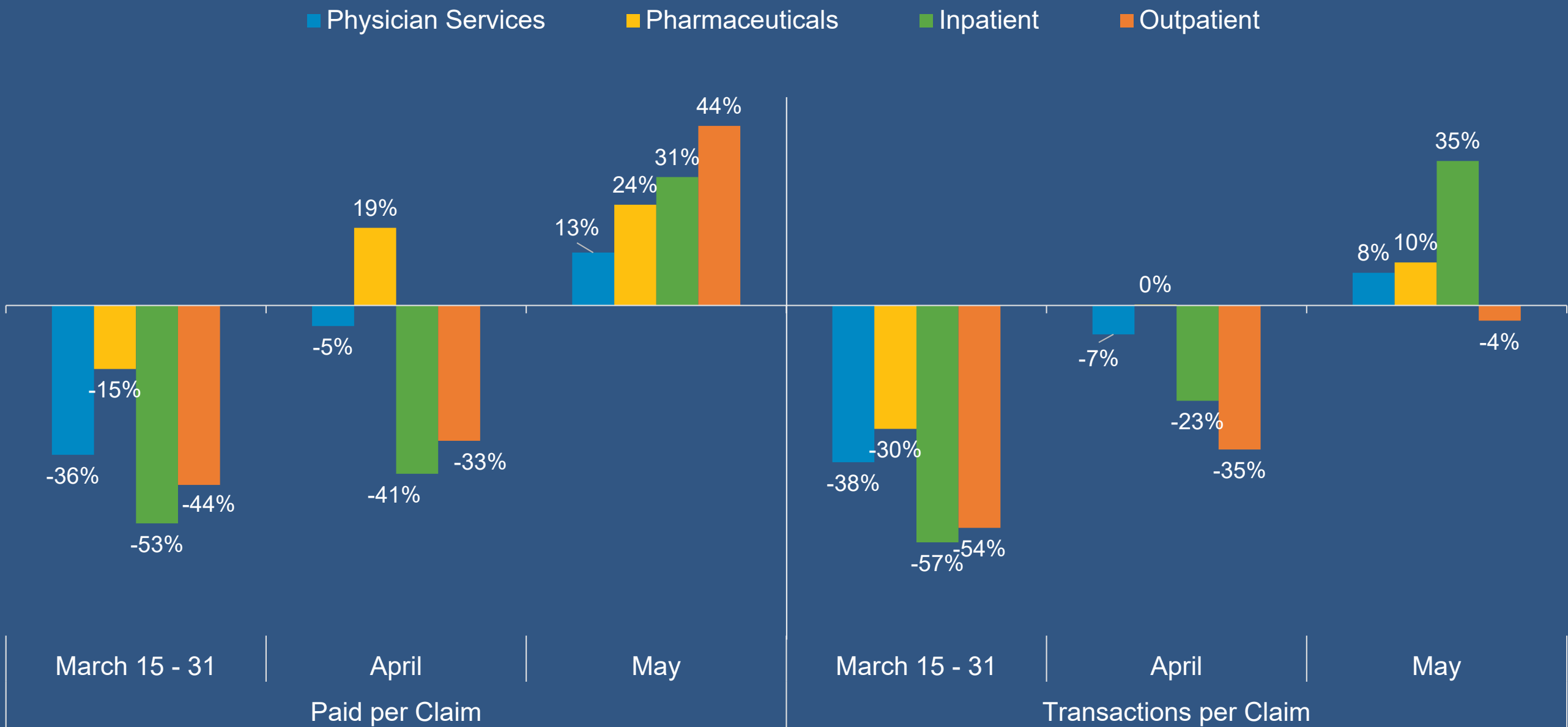
- Overall medical services
 - March 15-31: significant drops in the average paid and service volume
 - April: declines slowed down
 - May: rebound started
- Pharmaceuticals: a slower decline in late March and increases starting in April
 - Use of some non-opioids increased significantly (mostly pain meds and dermatologicals)
- Physical medicine was not heavily affected
- Telemedicine services surged since late March and continued to grow through May

Percent Changes in Overall Medical Treatment Patterns and Costs (2020 vs. 2019)

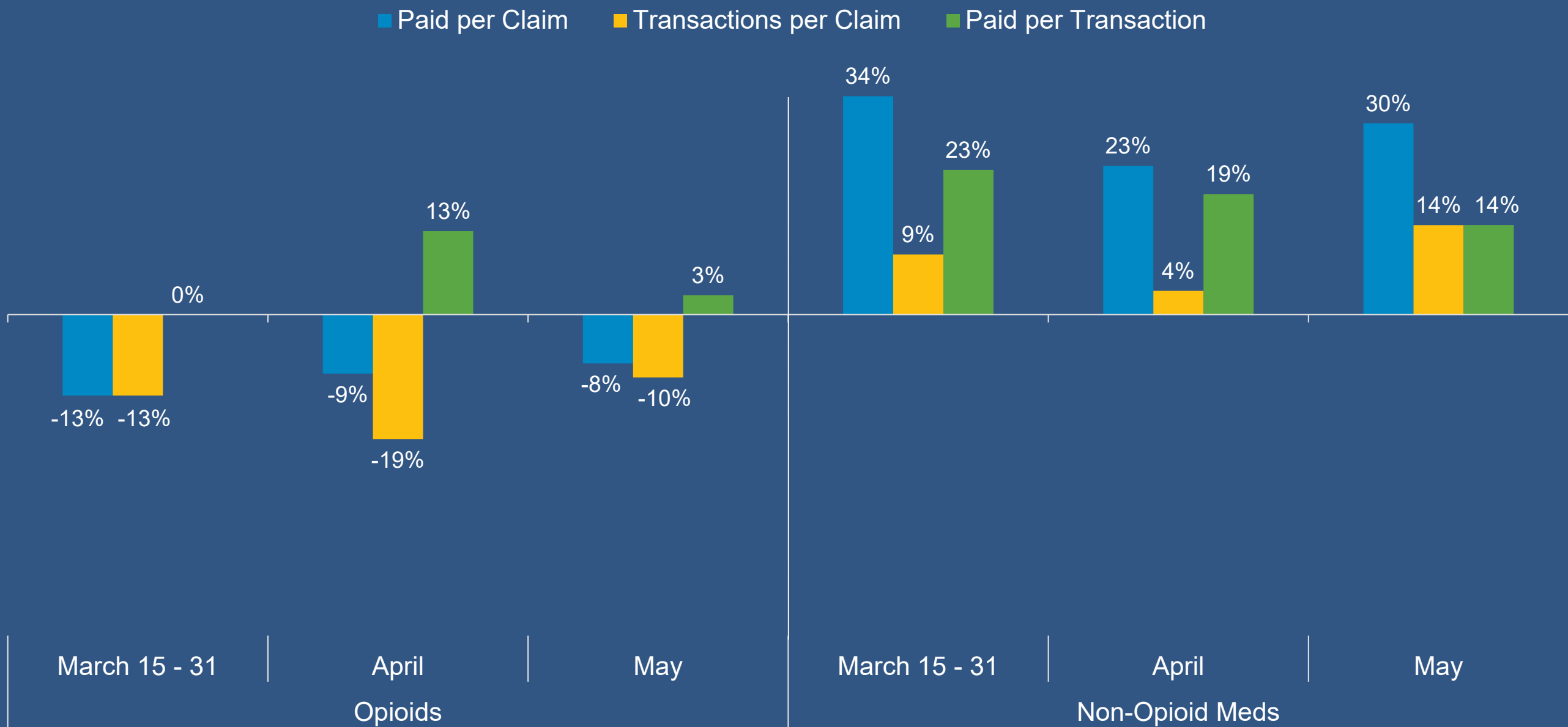
■ Paid per Claim ■ Transactions per Claim ■ Paid per Transaction ■ Claim Count (with any paid medical transaction)



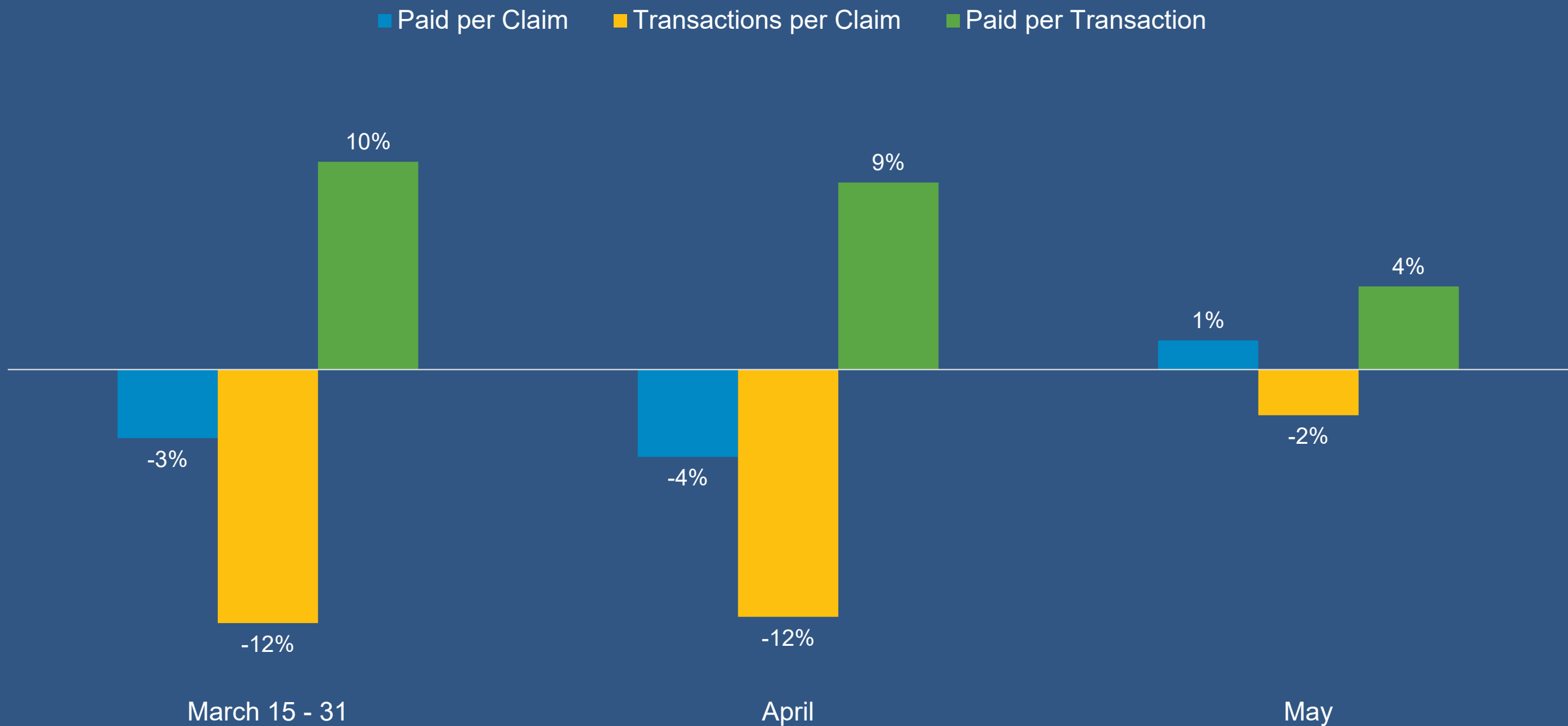
Percent Change by Leading Types of Medical Services (2020 vs. 2019)



Percent Change in Opioids vs. Non-Opioid Prescription Drugs (2020 vs. 2019)



Percent Change in Physical Therapy (2020 vs. 2019)



Changes in Telemedicine Services (2020 vs. 2019)

