

Actuarial Committee

Meeting Agenda

Date	Time	Location	Staff Contact
March 19, 2018	9:30 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: March 12, 2018

To Members of the Actuarial Committee, WCIRB Members and All Interested Parties:

I. Approval of Minutes

Meeting held on December 6, 2017

II. Working Group Meeting Summaries

Actuarial Research Working Group Meeting held February 28, 2018

III. Unfinished Business

- A. AC12-12-02: Review of Trending Methodology
- B. AC17-04-04: New Drug Formulary
- C. AC17-12-03: On-leveling for Wage Level Changes in Pure Premium Ratemaking

IV. New Business

- A. AC18-03-01: First Quarter 2018 Review of Diagnostics
- B. AC18-03-02: 12/31/2017 Experience – Review of Methodologies
- C. AC18-03-03: Impact of SB 1160 & AB 1244 on Loss Development

V. Matters Arising at Time of Meeting

VI. Next Meeting Date: April 3, 2018

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.

© 2018 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 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.

Actuarial Research Working Group

Meeting Summary

To: Participants of the Actuarial Research Working Group
From: Ward Brooks
Date: March 8, 2018

RE: Summary of February 28, 2018 Meeting

Insurer Meeting Participants Were Reminded of the 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.

Discussion Topics

At the meeting, the following topics were discussed.

1. Maximum Payroll Limitations

The Working Group was informed that WCIRB staff is currently leading a multi-jurisdictional working group to review payroll as the basis of premium for workers' compensation insurance. The goals of the review are to ensure that the payroll reported for workers' compensation purposes (1) provides a basis of exposure that is reasonably correlated with the losses expected to emerge, (2) mitigates the risk of potential manipulation and (3) can be reasonably and efficiently audited by insurers. Related to this review, staff is evaluating expansion of the maximum payroll limitations for select classifications that have exhibited significant year-to-year variations in payrolls. Currently, the five classifications with payroll limitations are:

- 7610, *Radio, Television or Commercial Broadcasting Stations*
- 9151, *Theaters – Musical Entertainment*
- 9156, *Theaters – dance, opera and theater companies*
- 9181, *Athletic Teams or Athletic Facilities*
- 9610, *Motion Pictures – production*

The Working Group was advised that the expansion of the maximum payroll limitations were also expected to address concerns with equity-based compensation plans, such as compensation with restricted stock units and, in some cases, volatility associated with year-to-year swings in pure premium rates and expected loss rates for classifications with only one significant digit of refinement.

Staff reviewed for the Working Group the general proposed approach to adjusting historical unlimited payrolls to a limited basis. Staff noted that the one-time change due to the

Meeting Summary

Date: March 8, 2018

implementation of the maximum payroll limitation need not be shown on the rate relativity review sheet but might be shown elsewhere and that the change was intended to have no impact on collected pure premiums. The pure premiums developed by applying higher rates to limited payrolls was expected to be equal to the pure premium previously developed by applying lower rates to unlimited payrolls.

Staff reviewed for the Working Group the development of the factors to adjust historical unlimited payrolls to a limited basis. Staff discussed the review of available data sources to develop factors to adjust historical insured payrolls to a basis with a maximum payroll limitation. Staff noted that when mappings between WCIRB classifications and occupations or industries are good, the American Community Survey (ACS) provided refined data that could be used to estimate the shares of wages and salaries expected to be above annual salary thresholds for select occupations and industries. The ACS data is available at both occupation and industry levels, and either can be used independently or in combination. Staff noted that the ACS source allows the exclusion of data for officers of companies, for example, if this data is expected to be excluded from insured payrolls. Staff noted that the appropriateness of development of an adjustment using this approach would need to be evaluated for each classification on a case-by-case basis.

Staff reviewed for the Working Group the development of adjustments for Classification 8859, *Computer Programming or Software Development*, using ACS data for the North American Industrial Classification System (NAICS) software publishing industry (NAICS 5112). Staff reviewed the approaches available to adapt the ACS data to develop adjustment factors. The Working Group was informed that staff would determine which kinds of adjustments were appropriate and that the methodology would be used only if staff determined such adjustments were reasonable. Staff determined that definitional differences among data sources required adapting ACS data to develop appropriate factors for each year. Staff noted that other information, such as test audits of payroll determinations, might be reviewed to vet the reasonableness of any assumptions required to adapt the ACS data.

The Working Group discussed the proposed methodologies. A Working Group member noted that, while the approach seemed sound, the magnitude of adjustments was very large. Staff noted that the magnitude of any potential adjustment was directly related to the impetus for implementing the maximum payroll limitation and therefore expected. Staff suggested that the magnitude of the adjustment and making an adjustment using the approaches reviewed would be considered relative to developing adjustments using survey methods, which would necessitate insurer involvement, or making no change.

2. Retrospective Rating Tables of Insurance Charges—Policy Year 2019 Update

The Working Group was informed that staff was now completing the last set of rating values—the tables of insurance charges—in the final stage of the multi-year update of the advisory *California Retrospective Rating Plan*. Staff advised the Working Group that staff had retained the approach of smoothing out the insurance charges resulting from stochastic simulations and only made minor technical enhancements related to the significant increase in the numbers of simulations from 5 to 100, an ability to use all data at a detailed level without the need to bin data, and a change in the software used to do the smoothing. Staff provided an overview of the methodology and noted that changes in insurance charges were substantially in line with changes in experience and the loss elimination ratios.

Staff noted that the previous need to bin data had resulted in larger insurance charges than would have been developed using detailed data for smaller risks. Insurance charges were not expected to have been used for these risks.

Meeting Summary

Date: March 8, 2018

3. Retrospective Rating Supplementary Information—Parametric Excess Loss Curves

The Working Group was informed that staff had investigated fitting the simulated losses of the retro database in order to provide parametric excess loss curves, which are published for other jurisdictions, using a weighted mixture of lognormal distributions. Staff noted that a methodological adjustment to group claims by open/closed status, rather than likely/not likely groupings used in other jurisdictions, was done to be consistent with the manner in which the claim simulations are conducted.

The Working Group was informed that staff also examined modeling permanent partial and temporary total claims both together and separately. The impetus for separately modeling them was that differences in their size of loss distributions are evident in the retro starting database and manifest themselves in simulated ultimate values.

Staff reviewed how closely the loss elimination ratios from the parameterizations replicated promulgated values. Staff noted that separate modeling of permanent partial and temporary total claims more closely replicated promulgated values, but both methods resulted in much higher elimination ratios at very high limits. The Working Group was informed that staff had also developed a lognormal-Pareto hybrid parameterization that used the lognormal results up to a \$2,000,000 limit, and then used the Pareto smoothing for the promulgated values. The hybrid model also sets the share of total claims excess \$2,000,000 to the share underlying the promulgated values. This adjustment brought the parametric curves much more in line with the promulgated results, but significant differences remain.

Staff noted that the parametric loss elimination ratios had been developed both for pure losses and for loss and allocated loss adjustment expense (ALAE). The Working Group discussed staff's findings. The Working Group also noted that different results might be useful for different purposes. Staff informed the Working Group that staff expected to publish the parameters for the different alternatives as supplementary information on the WCIRB's website.

4. Experience Modifications by Industry, Classification and Region

The Working Group was informed that staff had received requests to explore development of information on experience modifications, cost differentials and potentially other information at a classification-regional level. Staff discussed that this request shared technical challenges that might need to be addressed if expected long-run earthquake costs were developed at an industry level. Staff noted that if, for example, the expected statewide earthquake losses for information technology exposures were high due to the high concentration of information technology exposures in high earthquake hazard zones, that the expected earthquake losses in lower earthquake hazard zones might be lower than the statewide expectation.

The Working Group was informed that staff had developed information similar to this to produce insurer regional loss ratio relativities in the WCIRB's Annual Business Comparative (ABC) reports. In the ABC report, the metric is the ratio of an insurer's regional losses to modified pure premiums by classification, allocated to regions. Staff noted that unrated employers were treated as having a unity experience modification. The ABC report metric controls for differences in classification mix but assumes an experience modification does not vary by classification or region. A single location employer's experience modification might reflect both a regional differential as well as the employer's credibility-weighted relative experience within the region. For multi-region employers, the experience modification might reflect mixtures of these elements.

Staff reviewed for the Working Group the approaches staff had evaluated to date. The Working Group was informed that approaches such as generalized linear models had not produced satisfactory results but agreed to share these results at future meetings to compare with results

Meeting Summary

Date: March 8, 2018

developed from other approaches. Staff reviewed an approach which sought to identify regional differentials separately through an iterative process using similar data as used to develop the ABC report metric. The Working Group was informed that staff had developed relative loss ratios using geo-located paid losses from the WCIRB's transactional medical data. A Working Group member suggested that staff also explore using incurred losses and the Working Group discussed the potential for a disconnect between paid and incurred losses, especially at early maturities. Additionally, in order to evaluate how influential regional differentials were on experience modifications, a Working Group member suggested that staff also evaluate approaches using unmodified losses.

Staff is evaluating the potential to further refine this metric to estimate the impact on experience modifications on both regions and classifications or industries simultaneously. Staff reviewed the commonalities between the problem of disentangling the correlation between the regional effects and classification-level experience effects and the problem of disentangling the contributions to expected earthquake costs by classification and region. Staff expects that the potential integration of expected earthquake costs in pure premium rates might require the development of an approach to measure the relative contributions if earthquake costs were to be reflected at a classification or industry level.

Item AC12-12-02

Review of Trending Methodology

At the August 2, 2017 meeting, the Committee reviewed the latest retrospective analysis of trending methodologies that has been reviewed by the Committee periodically since 2012. At that meeting, a Committee member noted that, based on an initial review of the information presented, methods based on trending from the latest year generally appeared more accurate than those based on trending from the latest two years (the methodology reflected in the last several pure premium rate filings). However, it was noted that trending from the latest year may overstate trends during periods of significant transition and there was concern regarding potential over-reliance on the latest year, which is typically valued at 12 or 15 months in pure premium rate filings, given its relative immaturity. Staff's follow-up analysis regarding these issues is summarized below.

In prior reviews of the trending methodology, the basis of the retrospective analysis was the most recent on-level loss ratio projection for each accident year. In order to assess the trending methodology's effectiveness for less mature periods, the basis of this analysis was reported paid and incurred indemnity and medical loss ratios valued at 12 months and 15 months for accident years 1994 through 2016. Each of the 12-month and 15-month loss ratios were developed to ultimate based primarily on the latest year paid or incurred development method using loss development factors available at that maturity for the accident year. No reform adjustments were applied to the loss development projections to preserve consistency but, as in the WCIRB's current loss development methodology, three-year average paid or six-year average incurred development was applied after 108 months, and six-year average incurred development was applied to the paid development method after 228 months.

Although the loss development projection was based on the loss development factors available at 12 or 15 months for the accident year, each projected ultimate loss ratio was on-leveled to the current (January 1, 2018 Filing) loss level using the most recent premium and loss on-level factors. In this way, changes in the assessment of the cost impact of reforms or other system changes will not be the primary driver of differences between the latest year and two-year average trending methodologies.

The on-level loss ratios computed as described above were trended forward to project the accident year two years after the latest historical year using both the separate frequency and severity trending method reflected in the last several WCIRB pure premium rate filings and the combined loss ratio trending method. For the frequency and severity trending method, the frequency projections were based on the actual 12-month or 15-month indemnity claim frequency change for the first year (in the two-year average method) and the most recent indemnity claim frequency model projections for the other two years.¹ The severity projections were based on longer-term average annual severity trends based on the most recent projected on-level claim severities; specifically, from 1991 and forward for accident years 1996 through 2008, and 2005 and forward for accident years 2009 through 2016.² For the loss ratio trending method, a five-year average annual exponential trend was selected. The "actual" loss ratio used to compare the accuracy of the trending methods was based on the March 31, 2017 evaluation of each accident year developed to ultimate based on the incurred or paid loss development methodology described above.

Exhibits 1.1 through 1.4 show the relative difference in accuracy between the latest year and two-year average trending methods under the alternative loss development and trending methodologies. The "relative error" shown in Exhibits 1.1 through 1.4 represent the absolute error from the latest year trending method less the absolute error from the two-year average trending method. In other words, positive

¹ The frequency model constant term was kept consistent at -0.02 for all years in the analysis.

² A single severity trend selection method was chosen for consistency, but this method is similar to approaches used to select the severity trends in prior pure premium rate filings.

values indicate that the two-year average trending method was more accurate while negative values indicate the latest year trending method was more accurate. These values are shown graphically for paid development using the separate frequency and severity trending methodology in Exhibits 2.1 and 2.2. On average, the two-year average trending method was relatively more accurate, particularly for December evaluations in which the latest accident year is projected from 12 months. The two-year average trending method was also generally more accurate during periods during which the loss ratio trends were changing direction (highlighted in the boxes on Exhibits 1.1 through 2.2).

Exhibits 3.1 and 3.2 summarize the results by claims environment. Generally, the two-year average trending method was more accurate than the latest year trending method overall and in most claims environments, although the latest year trending method was more accurate in the most recent post-SB 863 period (2015 and 2016). However, it should be noted that the loss development on the “actual” loss ratios for this most recent period is more leveraged than for the other periods given the relative immaturity of those accident years.

Relative Difference in Accuracy between Latest Year and Two-Year Average Trending Methods

Based on Frequency and Severity Trends Applied to On-Level Ratios

Based on Indemnity Incurred Development				Based on Medical Incurred Development			
	Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²			Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²	
		Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)			Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)
1997	0.012	0.008	0.014		0.025	0.006	0.009
1998	-0.001	0.015	0.015		0.013	0.010	0.007
1999	0.006	0.007	0.010		-0.004	0.001	0.002
2000	0.006	0.018	0.036		0.012	0.017	0.022
2001	-0.010	0.051	-0.002		-0.012	0.015	0.010
2002	-0.005	0.000	0.019		0.005	0.000	-0.009
2003	-0.019	-0.024	-0.039		-0.011	-0.028	-0.043
2004	-0.021	-0.008	-0.008		0.030	0.005	0.005
2005	0.011	0.006	0.005		0.006	-0.001	0.006
2006	-0.001	0.031	0.025		0.014	0.038	0.029
2007	0.010	-0.003	-0.001		0.021	-0.008	-0.009
2008	-0.003	0.004	-0.001		0.008	-0.008	-0.016
2009	0.013	0.003	0.000		0.016	0.006	0.002
2010	0.012	0.004	0.003		0.018	0.001	0.002
2011	0.001	-0.001	-0.003		-0.011	0.000	0.001
2012	-0.004	-0.004	-0.004		-0.003	-0.003	-0.006
2013	-0.010	0.003	0.003		-0.009	0.004	0.007
2014	-0.018	-0.007	-0.005		0.000	0.001	0.002
2015	0.011	-0.002	-0.006		0.010	-0.008	-0.015
2016	-0.013	-0.015	-0.014		-0.006	-0.006	-0.007
All Years Average:		0.004	0.002			0.002	0.000
Boxed Areas Average³:		0.008	0.000			0.001	-0.002

Notes:

¹ Based on projections as of March 31, 2017.

² Relative error measures the difference between the absolute error from the projection based on latest year trending method less the absolute error from the projection based on two-year average trending method. Positive values indicate the two year average method performed better while negative values indicate the latest year method performed better.

³ Points in the boxed areas represent periods of changing trend direction.

Relative Difference in Accuracy between Latest Year and Two-Year Average Trending Methods

Based on Frequency and Severity Trends Applied to On-Level Ratios

Based on Indemnity Paid Development				Based on Medical Paid Development			
	Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²			Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²	
		Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)			Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)
1997	0.012	-0.002	-0.002		0.025	0.004	0.005
1998	0.000	-0.005	-0.003		0.012	0.007	0.005
1999	0.008	0.007	0.010		0.002	0.001	0.004
2000	0.006	0.012	0.041		0.014	0.016	0.021
2001	-0.010	0.086	0.000		-0.013	0.058	0.010
2002	-0.003	-0.004	-0.010		0.010	0.004	-0.001
2003	-0.022	0.022	0.001		-0.012	0.027	0.037
2004	-0.022	-0.004	-0.004		0.031	-0.003	-0.004
2005	0.011	0.008	0.006		0.007	0.008	0.005
2006	-0.001	0.038	0.037		0.016	0.024	-0.014
2007	0.011	0.031	0.006		0.024	-0.011	-0.010
2008	-0.001	-0.003	-0.006		0.012	-0.008	-0.015
2009	0.015	-0.001	-0.001		0.022	0.004	0.004
2010	0.017	0.000	0.001		0.030	-0.007	-0.003
2011	0.002	0.001	0.001		-0.014	0.003	0.004
2012	-0.001	0.004	0.004		0.005	0.009	0.010
2013	-0.005	-0.001	0.000		-0.006	-0.009	-0.005
2014	-0.018	0.000	-0.001		0.005	-0.006	-0.007
2015	0.012	-0.009	-0.009		0.011	-0.010	-0.018
2016	-0.005	0.005	0.007		0.006	-0.008	-0.005
All Years Average:		0.009	0.004			0.005	0.001
Boxed Areas Average³:		0.018	0.005			0.010	0.006

Notes:

¹ Based on projections as of March 31, 2017.

² Relative error measures the difference between the absolute error from the projection based on latest year trending method less the absolute error from the projection based on two-year average trending method. Positive values indicate the two year average method performed better while negative values indicate the latest year method performed better.

³ Points in the boxed areas represent periods of changing trend direction.

Relative Difference in Accuracy between Latest Year and Two-Year Average Trending Methods

Based on Combined Loss Ratio Trend Applied to On-Level Ratios

Based on Indemnity Incurred Development				Based on Medical Incurred Development			
	Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²			Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²	
		Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)			Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)
1997	0.012	0.014	0.019		0.025	0.008	0.009
1998	-0.001	0.014	0.020		0.013	0.007	0.006
1999	0.006	0.004	0.003		-0.004	-0.006	-0.008
2000	0.006	0.015	0.036		0.012	0.008	0.007
2001	-0.010	0.063	-0.004		-0.012	0.005	0.002
2002	-0.005	-0.006	-0.001		0.005	-0.002	-0.008
2003	-0.019	-0.013	-0.014		-0.011	0.019	0.006
2004	-0.021	-0.003	0.001		0.030	-0.015	-0.011
2005	0.011	0.007	0.000		0.006	0.009	0.011
2006	-0.001	0.014	0.006		0.014	0.002	-0.018
2007	0.010	0.026	0.030		0.021	0.004	0.002
2008	-0.003	0.032	0.024		0.008	-0.002	-0.004
2009	0.013	0.008	0.005		0.016	-0.008	-0.011
2010	0.012	0.010	0.009		0.018	-0.009	-0.007
2011	0.001	0.001	-0.004		-0.011	-0.009	-0.013
2012	-0.004	-0.009	-0.011		-0.003	0.012	0.022
2013	-0.010	0.004	0.011		-0.009	0.016	0.017
2014	-0.018	0.005	0.004		0.000	0.030	0.028
2015	0.011	0.005	0.005		0.010	0.017	0.016
2016	-0.013	-0.018	-0.018		-0.006	0.007	0.004
All Years Average:		0.009	0.006			0.005	0.003
Boxed Areas Average³:		0.014	0.004			0.004	0.001

Notes:

¹ Based on projections as of March 31, 2017.

² Relative error measures the difference between the absolute error from the projection based on latest year trending method less the absolute error from the projection based on two-year average trending method. Positive values indicate the two year average method performed better while negative values indicate the latest year method performed better.

³ Points in the boxed areas represent periods of changing trend direction.

Relative Difference in Accuracy between Latest Year and Two-Year Average Trending Methods

Based on Combined Loss Ratio Trend Applied to On-Level Ratios

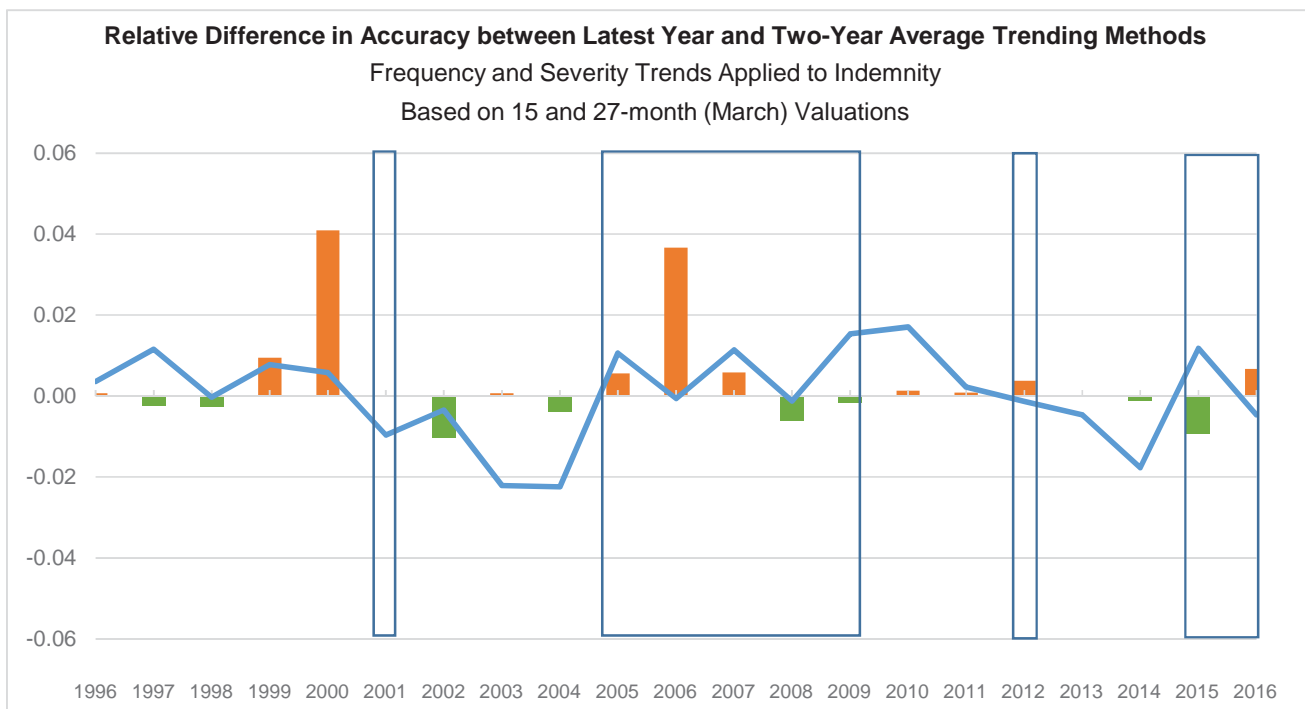
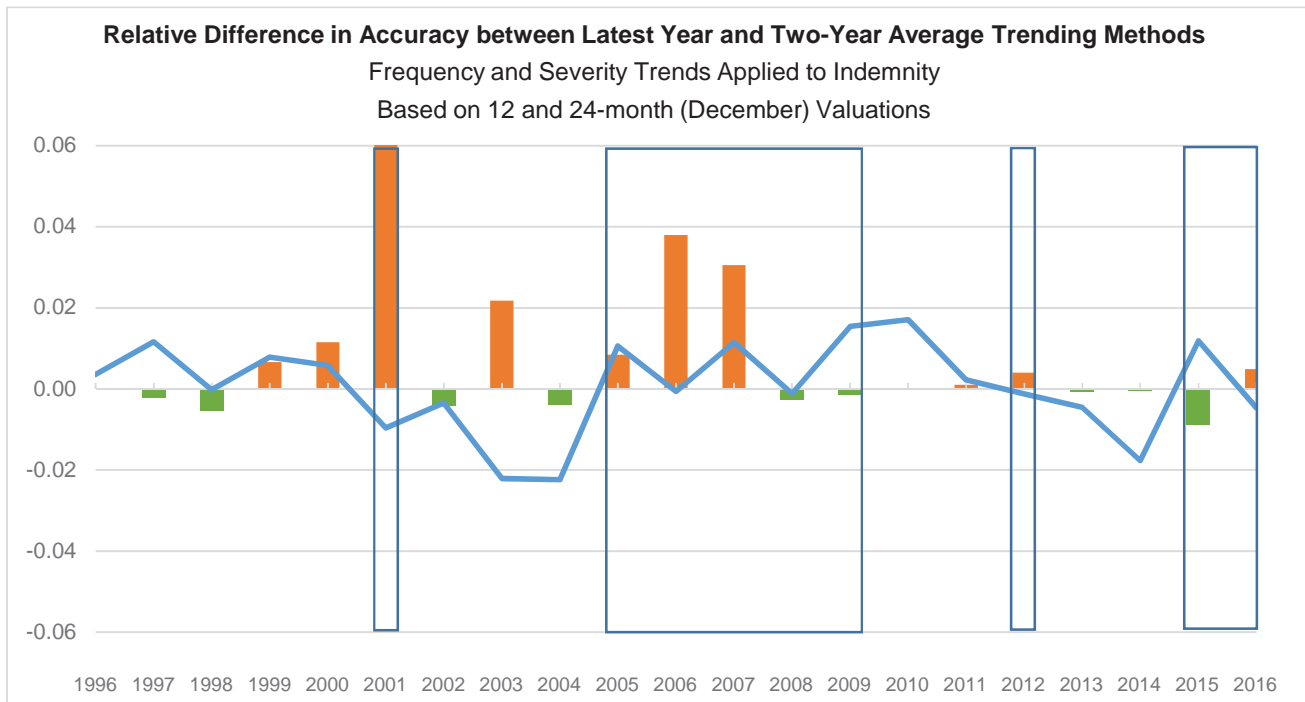
Based on Indemnity Paid Development				Based on Medical Paid Development			
	Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²			Year-to-Year Change in "Actual" Ratios ¹	Relative Errors ²	
		Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)			Dec. Valuations (12 or 24 mo.)	Mar. Valuations (15 or 27 mo.)
1997	0.012	0.007	0.000		0.025	0.006	0.004
1998	0.000	0.000	0.002		0.012	0.003	0.004
1999	0.008	0.000	0.000		0.002	-0.005	-0.005
2000	0.006	0.005	0.066		0.014	0.005	0.017
2001	-0.010	0.151	-0.001		-0.013	0.078	0.003
2002	-0.003	0.000	-0.001		0.010	0.003	0.001
2003	-0.022	0.018	0.014		-0.012	0.019	0.019
2004	-0.022	0.000	0.002		0.031	-0.012	-0.015
2005	0.011	0.008	0.000		0.007	-0.015	-0.009
2006	-0.001	0.023	0.020		0.016	-0.018	-0.012
2007	0.011	0.011	0.005		0.024	0.000	0.001
2008	-0.001	0.019	0.014		0.012	-0.001	-0.002
2009	0.015	0.002	0.002		0.022	-0.005	-0.005
2010	0.017	0.005	0.006		0.030	-0.013	-0.011
2011	0.002	0.004	0.001		-0.014	-0.006	-0.008
2012	-0.001	-0.006	-0.009		0.005	-0.014	-0.016
2013	-0.005	-0.007	-0.008		-0.006	0.006	0.003
2014	-0.018	0.011	0.008		0.005	-0.018	-0.015
2015	0.012	-0.001	0.003		0.011	-0.013	0.006
2016	-0.005	-0.018	-0.018		0.006	-0.004	0.007
All Years Average:		0.012	0.005			0.000	-0.002
Boxed Areas Average³:		0.021	0.002			0.007	-0.004

Notes:

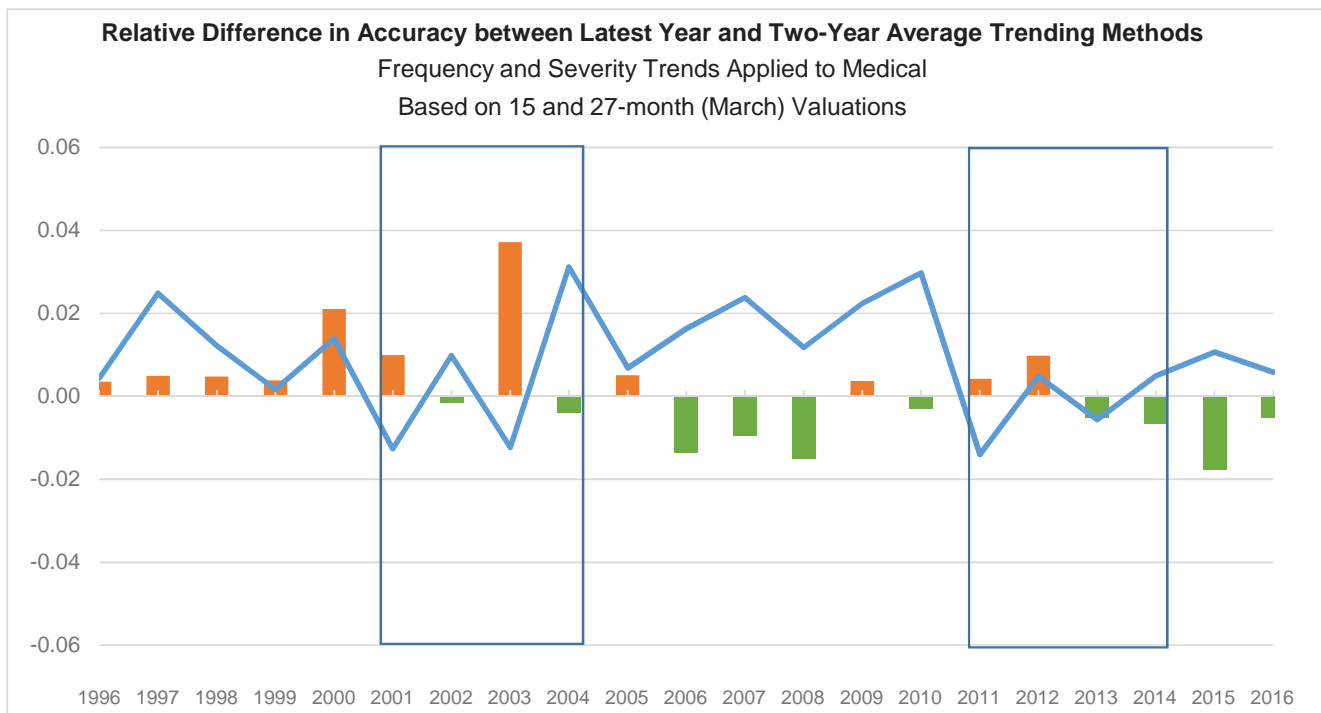
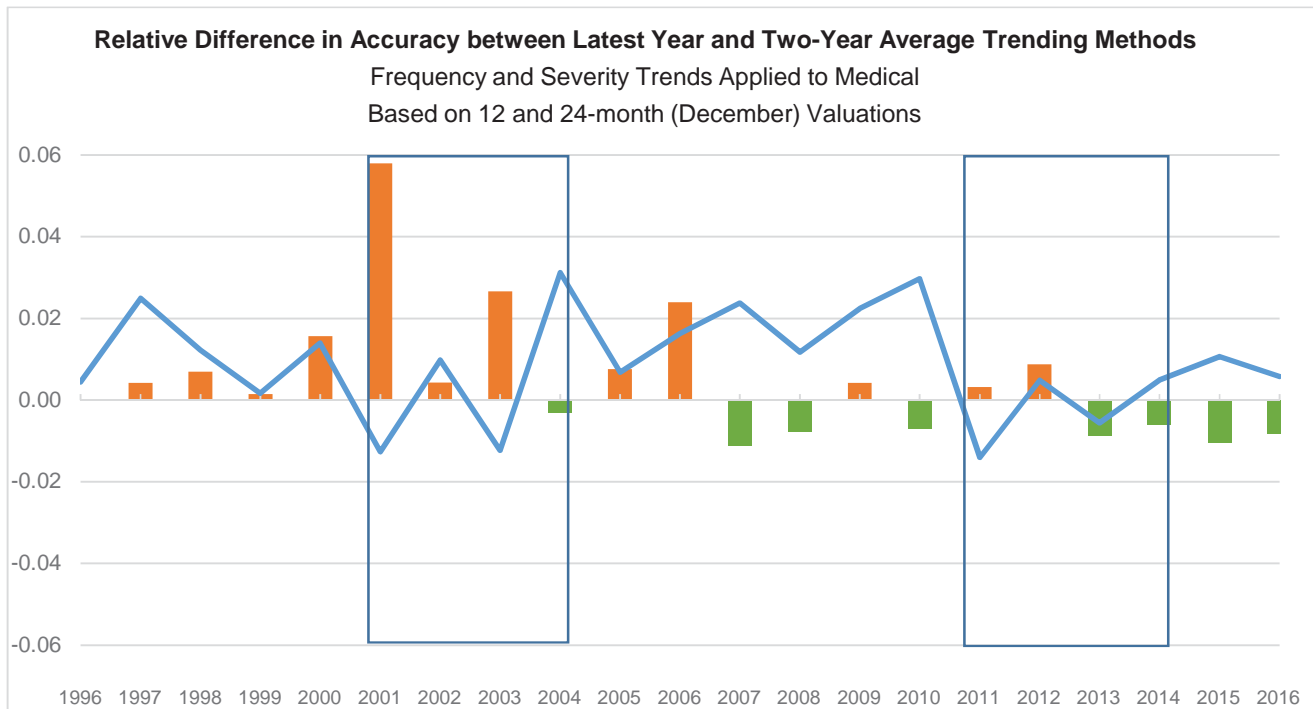
¹ Based on projections as of March 31, 2017.

² Relative error measures the difference between the absolute error from the projection based on latest year trending method less the absolute error from the projection based on two-year average trending method. Positive values indicate the two year average method performed better while negative values indicate the latest year method performed better.

³ Points in the boxed areas represent periods of changing trend direction.



- Year-to-Year trend in "actual" (projected as of March 31, 2017) loss ratios. Points in the boxed areas represent periods of changing trend direction.
- Relative difference in error by the latest year trending method over the two-year average method (two-year average performs better).
- Relative difference in error by the two-year average trending method over the latest year method (latest year performs better).



- Year-to-Year trend in "actual" (projected as of March 31, 2017) loss ratios. Points in the boxed areas represent periods of changing trend direction.
- Relative difference in error by the latest year trending method over the two-year average method (two-year average performs better).
- Relative difference in error by the two-year average trending method over the latest year method (latest year performs better).

Summary of Retrospective Tests of Frequency/Severity Trending Methodology - Trending from Latest Two Years vs. Latest Year

	More Accurate Projection ¹					More Accurate Projection ¹				
	Indemnity Incurred from December (12 or 24 Month) Valuations				Total # of Projections	Indemnity Paid from December (12 or 24 Month) Valuations				
	Trending from Latest Two Years # of Projections	% of Total	Trending from Latest Year # of Projections	% of Total		Trending from Latest Two Years # of Projections	% of Total	Trending from Latest Year # of Projections	% of Total	
Post-Minnear Period 1996-2000	5	100%	0	0%	5	2	40%	3	60%	5
Reform Transition Period 2001-2004	2	50%	2	50%	4	2	50%	2	50%	4
Post-Reform Period 2005-2008	3	75%	1	25%	4	3	75%	1	25%	4
Recession Period 2009-2011	2	67%	1	33%	3	2	67%	1	33%	3
SB863 Transition Period 2012-2014	1	33%	2	67%	3	1	33%	2	67%	3
Post-SB 863 Period 2015-2016	0	0%	2	100%	2	1	50%	1	50%	2
Total Observations	13	62%	8	38%	21	11	52%	10	48%	21
	More Accurate Projection ¹					More Accurate Projection ¹				
	Indemnity Incurred from March (15 or 27 Month) Valuations				Total # of Projections	Indemnity Paid from March (15 or 27 Month) Valuations				
	Trending from Latest Two Years # of Projections	% of Total	Trending from Latest Year # of Projections	% of Total		Trending from Latest Two Years # of Projections	% of Total	Trending from Latest Year # of Projections	% of Total	
Post-Minnear Period 1996-2000	5	100%	0	0%	5	3	60%	2	40%	5
Reform Transition Period 2001-2004	1	25%	3	75%	4	1	25%	3	75%	4
Post-Reform Period 2005-2008	2	50%	2	50%	4	3	75%	1	25%	4
Recession Period 2009-2011	1	33%	2	67%	3	2	67%	1	33%	3
SB863 Transition Period 2012-2014	1	33%	2	67%	3	2	67%	1	33%	3
Post-SB 863 Period 2015-2016	0	0%	2	100%	2	1	50%	1	50%	2
Total Observations	10	48%	11	52%	21	12	57%	9	43%	21

¹ "More Accurate" defined as having smaller difference in absolute value between the projected loss ratio and actual (projected as of March 31, 2017) for the accident year based on the same loss development methodology.

Summary of Retrospective Tests of Frequency/Severity Trending Methodology - Trending from Latest Two Years vs. Latest Year

	More Accurate Projection ¹					More Accurate Projection ¹				
	Medical Incurred from December (12 or 24 Month) Valuations				Total # of Projections	Medical Paid from December (12 or 24 Month) Valuations				
	Trending from Latest Two Years		Trending from Latest Year			Trending from Latest Two Years		Trending from Latest Year		
	# of Projections	% of Total	# of Projections	% of Total		# of Projections	% of Total	# of Projections	% of Total	
Post-Minnear Period 1996-2000	5	100%	0	0%	5	5	100%	0	0%	5
Reform Transition Period 2001-2004	3	75%	1	25%	4	3	75%	1	25%	4
Post-Reform Period 2005-2008	1	25%	3	75%	4	2	50%	2	50%	4
Recession Period 2009-2011	3	100%	0	0%	3	2	67%	1	33%	3
SB863 Transition Period 2012-2014	2	67%	1	33%	3	1	33%	2	67%	3
Post-SB 863 Period 2015-2016	0	0%	2	100%	2	0	0%	2	100%	2
Total Observations	14	67%	7	33%	21	13	62%	8	38%	21

	More Accurate Projection ¹					More Accurate Projection ¹				
	Medical Incurred from March (15 or 27 Month) Valuations				Total # of Projections	Medical Paid from March (15 or 27 Month) Valuations				
	Trending from Latest Two Years		Trending from Latest Year			Trending from Latest Two Years		Trending from Latest Year		
	# of Projections	% of Total	# of Projections	% of Total		# of Projections	% of Total	# of Projections	% of Total	
Post-Minnear Period 1996-2000	4	80%	1	20%	5	5	100%	0	0%	5
Reform Transition Period 2001-2004	2	50%	2	50%	4	2	50%	2	50%	4
Post-Reform Period 2005-2008	2	50%	2	50%	4	1	25%	3	75%	4
Recession Period 2009-2011	3	100%	0	0%	3	2	67%	1	33%	3
SB863 Transition Period 2012-2014	2	67%	1	33%	3	1	33%	2	67%	3
Post-SB 863 Period 2015-2016	0	0%	2	100%	2	0	0%	2	100%	2
Total Observations	13	62%	8	38%	21	11	52%	10	48%	21

¹ "More Accurate" defined as having smaller difference in absolute value between the projected loss ratio and actual (projected as of March 31, 2017) for the accident year based on the same loss development methodology.

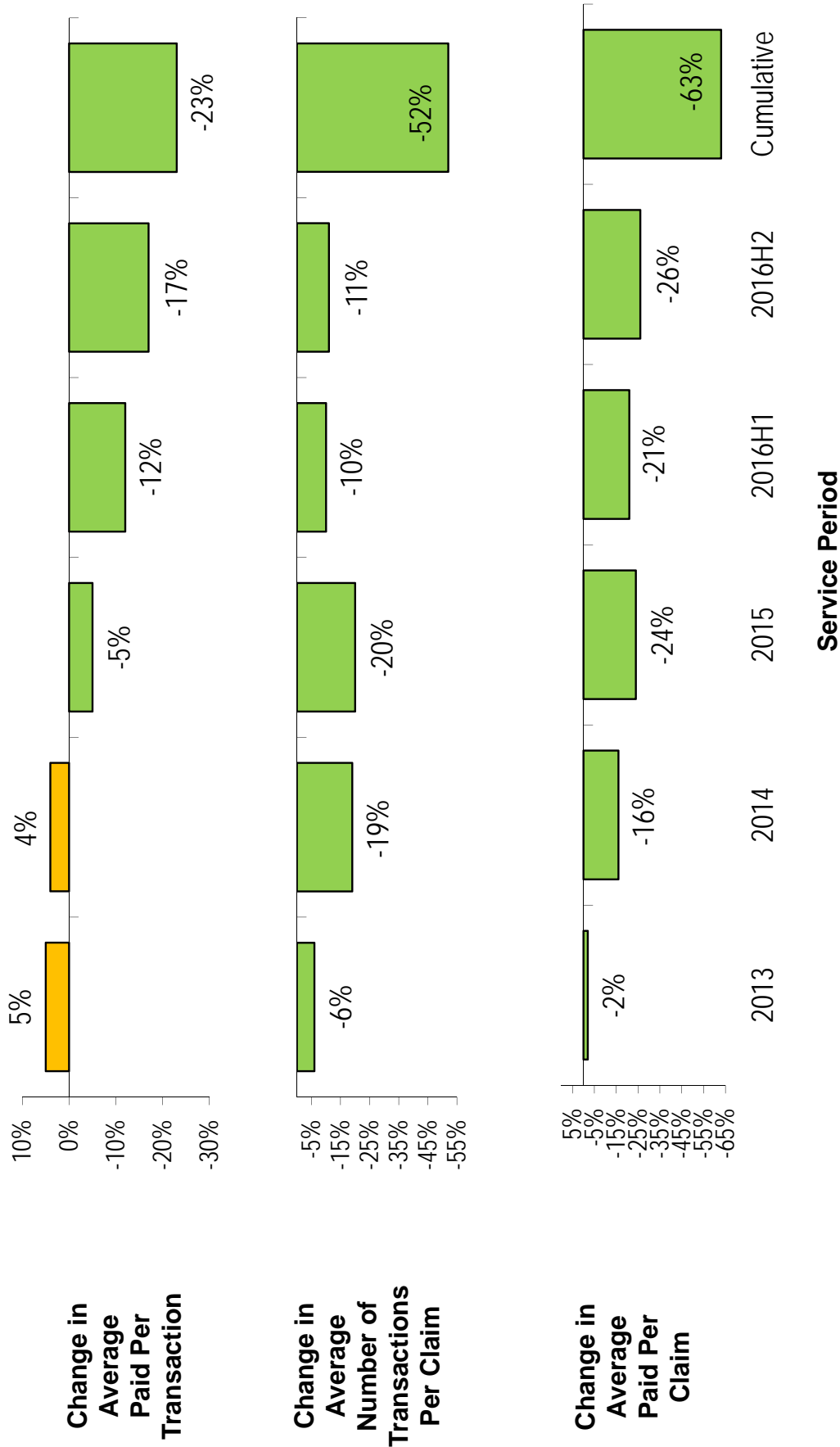
Item AC17-04-04 New Drug Formulary

Assembly Bill No. 1124 (AB 1124), which was signed by the Governor on October 7, 2015, requires the Division of Workers' Compensation (DWC) to implement a formulary for prescription medications. The DWC has adopted the new drug formulary to be effective January 1, 2018. The DWC regulations can be accessed through the following link: <http://www.dir.ca.gov/dwc/DWCPropRegs/MTUS-Formulary/MTUS-Formulary.htm>.

The Committee discussed the potential impact of the formulary at the meetings of April 3, 2017 and December 6, 2017. It was noted that the formulary may impact the cost of utilization review and independent medical review as well as the volume and cost of pharmaceuticals being prescribed. The Committee also noted that, as shown in Exhibit 1, there has been dramatic decline in the cost of pharmaceuticals in California Workers' Compensation over the last several years as both the number of prescriptions per claim and the average cost per prescription have declined.

The potential cost impact of the new formulary will be discussed at the meeting.

Exhibit 1 - % Change in Pharmaceutical/Per Claim (8% of Medical Paid in 2016)



Downward cost impacts from the CA MediCal Fee methodology change (Federal Upper limit/AWP), reduced physician prescribing (including opioids) and increased PBM transactions, and impacts from IMR and fraud indictments.

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

Item AC17-12-03

On-Leveling for Wage Level Changes in Pure Premium Ratemaking

The Committee reviewed the underlying series used to on-level premiums and indemnity benefit level costs for wage level changes in pure premium ratemaking during the December 6, 2017 meeting. This included a review of the UCLA Anderson School of Management (UCLA) and Occupational Employee Statistics (OES) wage series.¹ Based on the review, staff did not recommend adopting the OES series because it was not more accurate than the UCLA estimates and also does not provide wage forecasts of future wage inflation. At the meeting, the Committee asked staff to investigate the UCLA forecast's historical accuracy, including evidence of possible bias, and requested that staff explore alternative forecasts such as those provided by the California Department of Finance.

In 2003, the Committee recommended use of the UCLA wage series and forecast model for pure premium ratemaking in that the UCLA model's forecasts were California specific, comparable or superior in accuracy to those of the previously selected model (DRI/McGraw Hill, now Global Insights), and adjusts for not only pure wage inflation but also changes in industrial mix and the qualitative makeup of the labor force in California.² As a result, the Global Insights model was not evaluated based on the findings of the previous study. The UCLA wage series and forecasts were first used in the January 1, 2004 Pure Premium Rate Filing.

Wage Forecast Models Reviewed

The UCLA Anderson School of Management develops and maintains the UCLA Forecast Model, which began in December of 2001. The UCLA wage forecast relies on historical data collected by the Bureau of Labor and Statistics (BLS). Forecast models are released quarterly and obtained through paid subscription.

The California Department of Finance's (DoF) Economic Research Unit develops and maintains the DoF Econometric Model beginning November 2006. While the DoF does not state the underlying data source, the model accounts for the U.S. economic forecast and on the most available California economic data.³ The DoF releases updates to the forecast model twice a year, in April and November. The forecasts are available to the public on the DoF's website.

Wage Series Review

Staff summarized the UCLA and DoF annual wage change forecasts on Exhibits 1.1 and 1.2 based on forecast model and projection year and shows how forecasts of wage growth evolve over time. Note that, in many cases, quarter-to-quarter differences in the annual wage changes are beyond the forecast period and based on corrections received in the underlying data rather than the forecast model. The colors represent wage forecasts that would be applied in a particular quarterly loss analysis. For example, the March 2013 model projects wage changes of 1.34% for 2013, 2.44% for 2014, and 2.67% for 2015 (orange color on Exhibit 1.1) were used to prepare Item AC13-06-01 for the June 12, 2013 Agenda. For accuracy comparison purposes, the wages are assumed to reach "full maturity" 12 months after the end of the year from the UCLA model. Staff compared the "full maturity" wage changes from the UCLA forecast with mature wage changes from the DoF forecast and determined they are essentially equivalent for analysis purposes.

¹ See AC17-12-03 of the December 6, 2017 Agenda.

² See AC02-05-02 of the May 28, 2003 Agenda.

³ http://www.dof.ca.gov/Forecasting/Economics/Documents/Economic_Models.pdf

Exhibits 2.1 and 2.2 compare the forecast wage changes to “full maturity” changes. Values greater than 1.0 indicate that the forecast understated the true wage change while a value less than 1.0 indicates that the forecast overstated the wage change. The models were analyzed for bias by reviewing the frequency and accuracy of overstated and understated forecasts. As shown in Exhibit 2.1 for the UCLA model, the 3rd projection year (YYYY-2) has a partial overstated bias but the overall forecast is generally unbiased due to the three years used in a particular loss analysis result in offsetting forecast errors. The UCLA forecast model understates the wage change 54% of the time with “full maturity” approximately 1.2% above on average and overstates the wage change 46% of the time with “full maturity” approximately 1.3% below on average. As shown for the DoF model in Exhibit 2.2, the 3rd projection year also has a partial overstated bias but the overall forecast is again generally unbiased due to offsetting forecast errors. The DoF forecast model understates the wage change 41% of the time with “full maturity” approximately 1.0% above on average and overstates the wage change 59% of the time with “full maturity” approximately 1.2% below on average.

Exhibit 3 examines the overall wage forecast error by rate filing using the UCLA forecast model, DoF forecast model, and an average based on the data from both models. The models are examined on a “rate filing level” (June/April forecasts for an annual filing and December/November forecasts for a mid-year filing), which represents a cumulative three-year error factor for the corresponding years of a rate filing from Exhibit 2. For example, the overall UCLA forecast selected in the January 1, 2014 annual rate filing understated wage change by 1.45% which was derived from the product of projection errors on Exhibit 2.1 (0.993 for 2013, 1.005 for 2014, and 1.016 for 2015). Based on a direct comparison, the DoF and UCLA forecast models were generally comparable in overall accuracy, though each model was a more accurate predictor in particular periods and sometimes the year-to-year errors were in opposite directions. As a result, the approach of averaging data from both forecasts had the overall lowest total absolute error with comparable year-to-year accuracy to the more accurate individual model. Additionally, the DoF and UCLA models were also examined by individual forecast years and performed consistent with the cumulative results, indicating that averaging both forecasts will improve the accuracy of the forecasts.

Given the results of this analysis, staff recommends adopting the method of averaging the UCLA and Department of Finance wage forecast models to on-level premiums and indemnity benefit level costs for wage level changes in pure premium ratemaking. Staff believes combining the two wage forecast models incorporates more information and should reduce the overall volatility of the wage forecast.

² Assumed the wage change is "full maturity" the following December after the year. For 2017, the December 2017 model was used to determine a preliminary "full maturity".

California Department of Finance Wage Forecast Model ¹								
Year	April YYYY-2	Nov YYYY-2	April YYYY-1	Nov YYYY-1	April YYYY	Nov YYYY	April YYYY+1	Nov YYYY+1
2006						4.83%	4.13%	4.67%
2007				3.70%	3.54%	4.01%	4.49%	4.52%
2008		3.63%	3.89%	3.97%	3.91%	3.54%	2.41%	2.25%
2009	3.67%	4.28%	3.90%	2.70%	1.32%	0.54%	0.66%	0.53%
2010	3.62%	2.76%	2.17%	2.11%	2.23%	2.03%	2.21%	3.43%
2011	2.59%	2.09%	2.19%	3.12%	2.48%	3.87%	4.13%	3.30%
2012	2.72%	2.82%	2.64%	2.54%	4.42%	4.01%	3.71%	3.69%
2013	3.21%	2.82%	1.23%	2.36%	1.85%	2.19%	0.45%	0.70%
2014	3.30%	3.26%	3.00%	2.82%	2.39%	3.09%	2.57%	2.99%
2015	3.74%	2.92%	2.69%	2.97%	3.10%	2.86%	3.67%	4.38%
2016	2.73%	2.53%	2.83%	3.86%	4.28%	2.83%	3.08%	1.98%
2017	2.51%	3.82%	4.10%	3.38%	3.37%	3.53%		

¹ The column represent the maturity of the wage level changes. The diagonal represents the set of wage forecasts that would be used for an agenda item. For example, the April 2013 model projects wage changes of 1.85% for 2013, 3.00% for 2014, and 3.74% for 2015. Note that the "Farming and Related" sector is included for the April 2014 and later forecast models (comparable to UCLA) but not previous models.

UCLA Wage Forecast Compared to Full Maturity (Fully Mature / Current Projection) ¹												
Year	March YYYY-2	June YYYY-2	Sept YYYY-2	Dec YYYY-2	March YYYY-1	June YYYY-1	Sept YYYY-1	Dec YYYY-1	March YYYY	June YYYY	Sept YYYY	Dec YYYY
2003				0.992	0.992	0.996	1.005	1.005	1.010	1.018	0.997	0.993
2004			1.021	1.021	1.021	1.029	1.020	1.008	1.010	1.008	1.009	1.006
2005			1.003	1.001	1.001	1.001	1.001	1.002	1.003	1.002	0.984	0.988
2006		1.019	1.019	1.018	1.018	1.019	1.014	1.016	0.995	1.010	1.014	0.976
2007		1.022	1.019	1.019	1.023	1.019	1.019	1.018	1.023	1.022	1.001	1.005
2008	0.997	0.998	0.998	0.998	0.997	0.996	0.992	0.994	0.994	0.988	0.979	0.996
2009	0.976	0.970	0.972	0.981	0.984	0.982	0.982	0.992	0.983	0.971	0.989	1.015
2010	1.001	1.002	1.001	1.005	1.006	1.006	1.005	1.006	0.992	0.997	1.013	1.007
2011	0.992	0.993	0.992	0.991	0.991	0.998	1.001	1.015	1.010	1.011	1.008	0.996
2012	0.996	0.999	0.998	1.008	1.008	1.006	1.017	1.016	1.018	1.022	1.025	1.027
2013	0.979	0.979	0.990	0.988	0.988	0.991	0.984	0.991	0.994	0.993	0.978	1.002
2014	1.004	1.004	1.010	1.010	1.005	1.005	1.005	1.008	1.010	1.003	1.001	0.996
2015	1.017	1.016	1.018	1.019	1.018	1.017	1.008	1.008	1.018	1.015	1.016	1.014
2016	0.989	0.987	0.976	0.977	0.976	0.976	0.980	0.983	0.982	0.991	0.993	0.995
2017	0.980	0.980	0.979	0.980	0.980	0.980	0.981	0.980	0.978	0.983	1.002	

All Year			Latest 5 Years		
Forecast Bias ²	Count	Avg % Error	Count	Avg % Error	
Understated	54%	1.2%	42%	1.0%	
Overstated	46%	-1.3%	58%	-1.6%	
Total	100%	0.0%	100%	-0.5%	

¹ Assumed the wage change is "full maturity" the following December after the year. For 2017, the December 2017 model was used to determine a preliminary "full maturity".

² A factor greater than 1 means the forecast understated the wage change while a factor less than 1 means the factor overstated the wage change.

California Department of Finance Wage Forecast Compared to Full Maturity (Fully Mature / Current Projection)¹

Year	April YYYY-2	Nov YYYY-2	April YYYY-1	Nov YYYY-1	April YYYY	Nov YYYY
2006						0.997
2007				1.008	1.010	1.005
2008		0.987	0.984	0.984	0.984	0.988
2009	0.973	0.967	0.971	0.982	0.995	1.003
2010	0.999	1.007	1.013	1.014	1.012	1.014
2011	1.007	1.012	1.011	1.002	1.008	0.995
2012	1.009	1.008	1.010	1.011	0.993	0.997
2013	0.976	0.980	0.995	0.984	0.989	0.986
2014	0.997	0.997	1.000	1.002	1.006	0.999
2015	1.006	1.014	1.016	1.014	1.012	1.015
2016	0.992	0.994	0.991	0.982	0.978	0.991
2017	0.998	0.986	0.983	0.990	0.990	0.988

<u>Forecast Bias²</u>	<u>Count</u>	<u>Avg % Error</u>
Understated	41%	1.0%
Overstated	59%	-1.2%
Total	100%	-0.3%

¹ Assumed the wage change is "full maturity" the following December UCLA model after the year. For 2017, the December 2017 model was used to determine "full maturity".

² A factor greater than 1 means the forecast understated the wage change while a factor less than 1 means the factor overstated the wage change

Wage Forecast Error by Rate Filing ¹						
Rate Filing Year	Annual Filing UCLA (June)	Annual Filing DoF (April)	Annual Filing Avg (June / April) ²	Mid-year Filing UCLA (Dec)	Mid-year Filing DoF (Nov)	Mid-year Filing Avg (Dec / Nov) ²
2007				-0.81%	-0.80%	-0.81%
2008	-1.28%	-3.31%	-2.30%	-2.07%	-4.39%	-3.24%
2009	-2.81%	-4.57%	-3.70%	-0.66%	-2.30%	-1.48%
2010	-3.04%	1.60%	-0.76%	1.13%	2.95%	2.03%
2011	-0.56%	3.35%	1.37%	2.95%	2.53%	2.74%
2012	-0.46%	-0.53%	-0.49%	0.01%	-1.39%	-0.69%
2013	1.68%	-1.46%	0.09%	2.81%	-2.11%	0.30%
2014	1.45%	-0.46%	0.49%	2.86%	0.16%	1.50%
2015	0.78%	1.45%	1.12%	-1.93%	0.69%	-0.63%
2016	-2.89%	0.19%	-1.37%	-2.39%	-1.82%	-2.11%
Avg	-0.79%	-0.42%	-0.62%	0.19%	-0.65%	-0.24%
Abs Avg	1.66%	1.88%	1.30%	1.76%	1.91%	1.55%

Wage Forecast Model Accuracy Comparison				
Rate Filing Year	Annual Filing UCLA vs DoF	Annual Filing UCLA vs Avg	Mid-year Filing UCLA vs DoF	Mid-year Filing UCLA vs Avg
2007			Dept of Finance	UCLA
2008	UCLA	UCLA	UCLA	UCLA
2009	UCLA	UCLA	UCLA	UCLA
2010	Dept of Finance	Avg	UCLA	UCLA
2011	UCLA	UCLA	Dept of Finance	Avg
2012	UCLA	UCLA	UCLA	UCLA
2013	Dept of Finance	Avg	Dept of Finance	Avg
2014	Dept of Finance	Avg	Dept of Finance	Avg
2015	UCLA	UCLA	Dept of Finance	Avg
2016	Dept of Finance	Avg	Dept of Finance	Avg

¹ The error percentages are determined using cumulative error factors from Exhibit 2 for a corresponding filing. For example, the forecast used for the 1/1/2014 Pure Premium Rate Filing underestimated the wage change by 1.45% (the product of 0.993 for 2013, 1.005 for 2014, and 1.016 for 2015).

² The error percentages are based on 50% weight assigned to the UCLA forecasts and 50% weight assigned to the Department of Finance forecasts.

Item AC18-03-01

First Quarter 2018 Review of Diagnostics

Twice a year WCIRB staff compiles a comprehensive list of measures to be reviewed by the Claims Working Group and the Actuarial Committee in order to identify and quantify changes in claim patterns and trends and help determine the most appropriate methodologies to be used in the development of pure premium rates. The diagnostics are segregated into the following areas:¹

1. Market and claim characteristic information (exhibit numbers start with M)
2. Claim count information (exhibit numbers start with C)
3. Claim severity information (exhibit numbers start with S)
4. Loss adjustment expense information (exhibit numbers start with E)

Please note the following:

1. Permanent disability claims continue to close at a faster rate, especially in the Los Angeles region at first unit statistical report. The rate at which temporary disability claims close has also increased but at a more moderate rate than for permanent disability. (Exhibit M5).
2. The percentage of claims settled through compromise and release has increased in all regions in the state. The average costs of compromise and release claims have been relatively consistent (Exhibit M6.1 through M6.4).
3. The number of expedited hearings are continuing to increase in most regions while the overall distribution of expedited hearings by type of hearing have remained relatively stable for all regions (Exhibit M8.2).
4. As anticipated with the adoption of Senate Bill No. 1160 in September of 2016 which became effective on January 1, 2017, lien filings increased in the fourth quarter of 2016. The number of filed liens in 2017 are significantly less than the levels files in recent prior years (Exhibit M9.2).
5. Settlement rates on permanent disability claims continue to rise and seem to be accelerating, while settlement rates on temporary disability claims are beginning to increase (Exhibit C2.2).
6. The number of quarterly incremental medical-only claims increased more in the second and third quarters of 2017 than in the prior several quarters, while numbers of indemnity claims also continue to increase (Exhibit C11).
7. The proportion of indemnity claims involving cumulative trauma in the Los Angeles Basin and San Diego regions continue to increase, while the Bay Area and All Other regions decline (Exhibit C17).
8. Despite the increase in cumulative injury claims, the frequency of indemnity claims in the Los Angeles Basin and San Diego regions declined by more than 4% each in 2016 (Exhibit C21).
9. Reported accident year 2017 incremental paid medical on open indemnity claims through September 30, 2017 increased significantly following several years of modest growth or decline (Exhibit S6.2).
10. Paid allocated loss adjustment expenses per indemnity claim continues to rise, although generally at a decelerating rate of change (Exhibit E5).

¹ Certain diagnostics for which updates are available on an annual basis that were reviewed at the August 2, 2017 meeting was excluded from this summary but will be updated and available for review at the August 1, 2018 meeting.

Exhibit Numbering Guide March 2018

Exhibit #	Exhibit Name
Market/Claim Characteristics	
M4	Distribution of Estimated Ultimate Number of Claims by Injury Type
M5	Percentage of Claims Open by Injury Type and Region - First through Third Report Level
M6	Percentage of Claim Count and Average Severity by Method of Settlement
M7	Division of Workers' Compensation (DWC) Distribution of Decisions by Type
M8	Statewide Number of Division of Workers' Compensation (DWC) Quarterly Expedited Hearings
M9	Number of Division of Workers' Compensation (DWC) Quarterly Lien Filed Counts
M14	IMR Filed Counts
Claim Count	
C2.2	Estimated Ultimate Indemnity Claim Settlement Ratios & Indemnity Claim Settlement Rates by Injury Type
C3	Ratio of Incremental Closed Indemnity Claims to Prior Open Indemnity Claims
C6	California Workers' Compensation Estimated Indemnity Claim Frequency by Accident Year as of September 30, 2017
C7	2016 Accident Year Indemnity Claim Frequency Model & Indemnity Claim Frequency History and Projections
C11	Changes in Incremental Indemnity Claim Counts and Medical Only Claim Counts
C15	Partial Accident Year Cumulative Injury Indemnity Claim Counts by Policy Year and Report Level
C17	Claim Count Ratios by Region Based on Unit Statistical Data at 1st Report Level
C19	Distribution of Cumulative Injury Claims by Injury Type
C21	Indemnity Claim Frequency by Geographic Region
C22	Top 20 Part of Body Codes for Cumulative and Non-Cumulative Injury Indemnity Claims Based on Accident Year 2013 Shares
Claim Severity	
S2	Average Incurred Indemnity Loss Per Reported Indemnity Claim & Incurred Medical Loss per Reported Claim
S3	Average Indemnity Case Outstanding & Outstanding Medical Loss Per Open Indemnity Claim
S4	Average Paid Indemnity & Medical Loss per Indemnity Claim & Average Paid Medical Loss Per Claim
S5	Average Paid Losses per Closed Indemnity Claim
S6	Ratio of Incremental Paid Indemnity & Medical to Indemnity Claims Open During Period
S7	Ratio of Quarterly Paid Medical to Indemnity Claims Inventory Through March 31, 2018
S8	Estimated Ultimate Indemnity & Medical Severities by Injury Type
S9	Average and Median Indemnity Claim Severities at USR 1st
S11	Average Permanent Disability Ratings by Type of Loss
Loss Adjustment Expense	
E5	Average Paid ALAE Per Reported Indemnity Claim - Private Insurers

Distribution of Estimated Ultimate Number of Claims by Injury Type

I. Distribution of Ultimate Number of Indemnity Claims

Accident <u>Year</u>	Permanent <u>Indemnity**</u>	Temporary <u>Indemnity</u>	<u>Total</u>
2001	52.9%	47.1%	100%
2002	54.3%	45.7%	100%
2003	53.7%	46.3%	100%
2004	49.8%	50.2%	100%
2005	46.2%	53.8%	100%
2006	47.2%	52.8%	100%
2007	48.3%	51.7%	100%
2008	50.5%	49.5%	100%
2009	51.9%	48.1%	100%
2010	51.5%	48.5%	100%
2011	51.2%	48.8%	100%
2012	50.5%	49.5%	100%
2013	50.5%	49.5%	100%
2014	50.7%	49.3%	100%
2015	50.9%	49.1%	100%
2016*	49.3%	50.7%	100%

II. Distribution of Ultimate Number of All Claims

Accident <u>Year</u>	Permanent <u>Indemnity**</u>	Temporary <u>Indemnity</u>	Medical <u>Only</u>	<u>Total</u>
2001	17.9%	16.0%	66.1%	100%
2002	18.9%	15.9%	65.2%	100%
2003	18.7%	16.1%	65.2%	100%
2004	15.6%	15.7%	68.7%	100%
2005	13.5%	15.7%	70.8%	100%
2006	13.6%	15.2%	71.2%	100%
2007	14.3%	15.3%	70.4%	100%
2008	15.5%	15.2%	69.3%	100%
2009	17.2%	15.9%	66.9%	100%
2010	17.8%	16.8%	65.4%	100%
2011	18.2%	17.3%	64.5%	100%
2012	18.4%	18.0%	63.6%	100%
2013	18.9%	18.6%	62.5%	100%
2014	19.0%	18.5%	62.5%	100%
2015	19.1%	18.4%	62.5%	100%
2016*	18.6%	19.1%	62.3%	100%

* Accident year 2015 experience is partial in that it only reflects experience from policy year 2014.

** Permanent indemnity consists of the death, permanent total, and permanent partial injury types.

Source: WCIRB unit statistical data

Percentage of Claims Open by Injury Type and Region

Permanent Partial & Temporary

Permanent Partial		Policy Year							Latest Year Reported Claim Distribution
<u>Report Level</u>	<u>Region*</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	
1	Bay Area	91%	90%	88%	86%	85%	84%	82%	15%
1	Los Angeles	91%	89%	88%	85%	84%	83%	79%	54%
1	Remainder of CA	89%	88%	87%	84%	82%	82%	80%	31%
	ALL REGIONS COMBINED	90%	89%	88%	85%	84%	83%	80%	100%
2	Bay Area	70%	68%	65%	62%	62%	59%		15%
2	Los Angeles	74%	72%	68%	63%	63%	59%		55%
2	Remainder of CA	69%	67%	63%	61%	60%	58%		30%
	ALL REGIONS COMBINED	72%	70%	66%	62%	62%	59%		100%
3	Bay Area	50%	47%	45%	42%	41%			14%
3	Los Angeles	57%	52%	49%	45%	45%			55%
3	Remainder of CA	50%	46%	43%	41%	39%			31%
	ALL REGIONS COMBINED	54%	50%	47%	44%	42%			100%
Temporary		Policy Year							Latest Year Reported Claim Distribution
<u>Report Level</u>	<u>Region*</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	
1	Bay Area	44%	44%	44%	46%	44%	41%	40%	18%
1	Los Angeles	49%	50%	49%	51%	53%	50%	49%	46%
1	Remainder of CA	40%	41%	42%	43%	45%	42%	41%	36%
	ALL REGIONS COMBINED	45%	46%	45%	47%	48%	45%	45%	100%
2	Bay Area	23%	26%	26%	27%	23%	23%		17%
2	Los Angeles	31%	32%	32%	33%	32%	31%		46%
2	Remainder of CA	23%	24%	26%	26%	26%	25%		37%
	ALL REGIONS COMBINED	27%	28%	29%	29%	28%	27%		100%
3	Bay Area	14%	14%	15%	15%	13%			17%
3	Los Angeles	21%	22%	21%	20%	19%			46%
3	Remainder of CA	14%	15%	16%	15%	14%			37%
	ALL REGIONS COMBINED	17%	18%	18%	17%	16%			100%

Figures in italics are based on preliminary partial data.

Percentage of Claim Count and Average Severity by Method of Settlement
Geographic Region: All Regions Combined

Policy Year 2010							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	60.8%	24,684	29,332	54,016	---	---	---
Stipulated Award	10.9%	18,502	17,236	35,738	---	---	---
All Other Settlements	28.3%	19,628	18,523	38,150	---	---	---
Total/Average	100.0%	22,582	24,959	47,541	---	---	---
Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	57.8%	24,578	28,206	52,784	-0.4%	-3.8%	-2.3%
Stipulated Award	11.0%	18,741	16,784	35,526	1.3%	-2.6%	-0.6%
All Other Settlements	31.3%	21,366	20,589	41,955	8.9%	11.2%	10.0%
Total/Average	100.0%	22,933	24,570	47,503	1.6%	-1.6%	-0.1%
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	58.1%	23,200	26,737	49,937	-5.6%	-5.2%	-5.4%
Stipulated Award	11.0%	17,044	15,359	32,403	-9.1%	-8.5%	-8.8%
All Other Settlements	30.9%	20,907	19,983	40,890	-2.2%	-2.9%	-2.5%
Total/Average	100.0%	21,813	23,395	45,209	-4.9%	-4.8%	-4.8%
Policy Year 2013*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	64.1%	24,050	25,961	50,012	3.7%	-2.9%	0.1%
Stipulated Award	11.8%	17,925	14,362	32,287	5.2%	-6.5%	-0.4%
All Other Settlements	24.1%	21,142	19,652	40,794	1.1%	-1.7%	-0.2%
Total/Average	100.0%	22,627	23,073	45,700	3.7%	-1.4%	1.1%

*Policy Year 2013 is preliminary

Source: closed permanent disability claims from third report level unit statistical data

Percentage of Claim Count and Average Severity by Method of Settlement
Geographic Region: Bay Area

Policy Year 2010							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	54.8%	28,578	30,215	58,793	---	---	---
Stipulated Award	17.3%	19,337	14,290	33,628	---	---	---
All Other Settlements	<u>27.8%</u>	<u>21,423</u>	<u>19,983</u>	<u>41,406</u>	---	---	---
Total/Average	100.0%	24,985	24,607	49,592	---	---	---
Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	54.6%	29,056	30,345	59,401	1.7%	0.4%	1.0%
Stipulated Award	12.9%	18,366	15,753	34,119	-5.0%	10.2%	1.5%
All Other Settlements	<u>32.5%</u>	<u>23,236</u>	<u>20,646</u>	<u>43,882</u>	<u>8.5%</u>	<u>3.3%</u>	<u>6.0%</u>
Total/Average	100.0%	25,787	25,313	51,100	3.2%	2.9%	3.0%
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	53.4%	27,688	29,431	57,120	-4.7%	-3.0%	-3.8%
Stipulated Award	14.3%	18,353	14,901	33,254	-0.1%	-5.4%	-2.5%
All Other Settlements	<u>32.4%</u>	<u>23,890</u>	<u>20,435</u>	<u>44,325</u>	<u>2.8%</u>	<u>-1.0%</u>	<u>1.0%</u>
Total/Average	100.0%	25,128	24,447	49,575	-2.6%	-3.4%	-3.0%
Policy Year 2013*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	59.7%	29,898	29,802	59,699	8.0%	1.3%	4.5%
Stipulated Award	14.7%	20,506	14,726	35,232	11.7%	-1.2%	5.9%
All Other Settlements	<u>25.7%</u>	<u>22,739</u>	<u>21,657</u>	<u>44,396</u>	<u>-4.8%</u>	<u>6.0%</u>	<u>0.2%</u>
Total/Average	100.0%	26,682	25,499	52,180	6.2%	4.3%	5.3%

*Policy Year 2013 is preliminary

Source: closed permanent disability claims from third report level unit statistical data

Percentage of Claim Count and Average Severity by Method of Settlement
Geographic Region: Los Angeles**

Policy Year 2010							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	62.0%	23,759	28,835	52,594	---	---	---
Stipulated Award	8.6%	18,292	19,369	37,662	---	---	---
All Other Settlements	29.4%	18,515	17,991	36,506	---	---	---
Total/Average	100.0%	21,750	24,837	46,587	---	---	---
Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	58.0%	23,023	26,508	49,531	-3.1%	-8.1%	-5.8%
Stipulated Award	9.8%	18,976	17,627	36,603	3.7%	-9.0%	-2.8%
All Other Settlements	32.2%	20,407	21,147	41,554	10.2%	17.5%	13.8%
Total/Average	100.0%	21,784	23,911	45,695	0.2%	-3.7%	-1.9%
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	58.7%	21,390	24,199	45,589	-7.1%	-8.7%	-8.0%
Stipulated Award	9.8%	16,832	15,488	32,320	-11.3%	-12.1%	-11.7%
All Other Settlements	31.5%	20,201	19,906	40,107	-1.0%	-5.9%	-3.5%
Total/Average	100.0%	20,570	21,996	42,567	-5.6%	-8.0%	-6.8%
Policy Year 2013*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	65.6%	22,103	23,528	45,631	3.3%	-2.8%	0.1%
Stipulated Award	10.3%	17,886	14,961	32,847	6.3%	-3.4%	1.6%
All Other Settlements	24.1%	20,771	19,512	40,283	2.8%	-2.0%	0.4%
Total/Average	100.0%	21,348	21,679	43,028	3.8%	-1.4%	1.1%

*Policy Year 2013 is preliminary

**Includes Los Angeles County and remainder of Los Angeles Basin

Source: closed permanent disability claims from third report level unit statistical data

Percentage of Claim Count and Average Severity by Method of Settlement
Geographic Region: Other

Policy Year 2010							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	61.9%	24,433	29,741	54,174	---	---	---
Stipulated Award	11.3%	18,108	16,910	35,018	---	---	---
All Other Settlements	26.8%	20,657	18,697	39,353	---	---	---
Total/Average	100.0%	22,708	25,337	48,045	---	---	---
Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	58.7%	25,188	29,996	55,184	3.1%	0.9%	1.9%
Stipulated Award	12.0%	18,615	16,183	34,798	2.8%	-4.3%	-0.6%
All Other Settlements	29.2%	22,134	19,582	41,715	7.1%	4.7%	6.0%
Total/Average	100.0%	23,504	25,290	48,794	3.5%	-0.2%	1.6%
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	59.1%	24,393	29,895	54,288	-3.2%	-0.3%	-1.6%
Stipulated Award	11.6%	16,613	15,433	32,045	-10.8%	-4.6%	-7.9%
All Other Settlements	29.3%	20,682	19,895	40,578	-6.6%	1.6%	-2.7%
Total/Average	100.0%	22,401	25,283	47,684	-4.7%	0.0%	-2.3%
Policy Year 2013*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	63.6%	24,941	28,450	53,391	2.2%	-4.8%	-1.7%
Stipulated Award	13.0%	16,741	13,433	30,174	0.8%	-13.0%	-5.8%
All Other Settlements	23.4%	21,013	18,950	39,963	1.6%	-4.8%	-1.5%
Total/Average	100.0%	22,956	24,275	47,231	2.5%	-4.0%	-1.0%

*Policy Year 2013 is preliminary

Source: closed permanent disability claims from third report level unit statistical data

Division of Workers' Compensation (DWC) Distribution of Decisions by Type

<u>Calendar Year</u>	<u>Compromise & Release</u>	<u>Stipulations</u>	<u>Others</u>
1993	73.5%	19.6%	6.9%
1994	70.7%	22.3%	7.0%
1995	63.7%	28.7%	7.6%
1996	59.7%	31.3%	9.0%
1997	58.2%	32.7%	9.1%
1998	57.5%	33.2%	9.3%
1999	57.0%	34.4%	8.6%
2000	56.3%	35.3%	8.4%
2001	56.9%	35.3%	7.8%
2002	55.7%	36.3%	8.0%
2003	59.4%	33.1%	7.5%
2004	59.0%	34.0%	7.0%
2005	61.2%	31.5%	7.3%
2006	57.7%	33.5%	8.8%
2007	55.9%	34.7%	9.4%
2008*	54.4%	38.3%	7.3%
2009	52.2%	43.4%	4.4%
2010	49.5%	46.0%	4.5%
2011	51.2%	44.4%	4.3%
2012	51.4%	44.4%	4.2%
2013	54.5%	41.9%	3.6%
2014	57.7%	38.9%	3.4%
2015	59.3%	37.7%	3.0%

*Prior to 8/9/2008, DWC's workload adjudication data was available from the legacy system. DWC transitioned to a new computer-based system, the Electronic Adjudication Management System (EAMS), at the end of August 2008. Therefore, data for 2008 are comprised of data both from the legacy and from the EAMS system and may not be directly comparable to previous years due to transition issues.

Source: DWC via Commission on Health and Safety & Workers' Compensation 2016 Annual Report

Quarterly Expedited Hearings by Region

<u>Time Period</u>	<u>Northern California</u>	<u>Central California</u>	<u>Southern California</u>	<u>Expedited Hearing</u>	<u>Change from Same Quarter in Prior Year</u>
1st Qtr 2011	---	---	---	2,503	---
2nd Qtr 2011	---	---	---	2,098	---
3rd Qtr 2011	---	---	---	2,462	---
4th Qtr 2011	---	---	---	2,439	---
1st Qtr 2012	---	---	---	2,480	-0.9%
2nd Qtr 2012	---	---	---	2,525	20.4%
3rd Qtr 2012	---	---	---	3,786	53.8%
4th Qtr 2012	---	---	---	2,673	9.6%
1st Qtr 2013	---	---	---	3,480	40.3%
2nd Qtr 2013	---	---	---	3,615	43.2%
3rd Qtr 2013	---	---	---	4,109	8.5%
4th Qtr 2013	---	---	---	4,013	50.1%
1st Qtr 2014	---	---	---	3,813	9.6%
2nd Qtr 2014	14.4%	24.6%	60.9%	4,463	23.5%
3rd Qtr 2014	16.6%	23.5%	59.8%	4,404	7.2%
4th Qtr 2014	16.9%	16.8%	66.3%	3,926	-2.2%
1st Qtr 2015	15.9%	18.2%	65.9%	4,062	6.5%
2nd Qtr 2015	18.0%	18.0%	63.9%	3,993	-10.5%
3rd Qtr 2015	17.6%	20.1%	62.3%	4,222	-4.1%
4th Qtr 2015	19.1%	20.3%	60.6%	4,252	8.3%
1st Qtr 2016	18.4%	20.7%	60.8%	4,507	11.0%
2nd Qtr 2016	16.7%	20.5%	62.8%	4,631	16.0%
3rd Qtr 2016	17.5%	20.3%	62.2%	4,764	12.8%
4th Qtr 2016	18.3%	20.1%	61.6%	4,569	7.5%
1st Qtr 2017	19.1%	20.3%	60.6%	4,983	10.6%
2nd Qtr 2017	16.8%	17.8%	65.4%	4,990	7.8%
3rd Qtr 2017	16.8%	15.3%	67.9%	5,041	5.8%
4th Qtr 2017	16.5%	15.3%	68.2%	5,155	12.8%

Source: DWC

Quarterly Expedited Hearings - DOR Reasons by Region

Northern California

<u>Time Period</u>	<u>Medical Treatment</u>	<u>TD</u>	<u>Other</u>	<u>Expedited Hearing</u>
2Q14-4Q14	77.4%	18.1%	4.5%	2,041
2015	76.4%	19.9%	3.7%	2,922
2016	77.6%	19.2%	3.2%	3,277
2017	77.5%	20.5%	2.0%	3,485

Central California

<u>Time Period</u>	<u>Medical Treatment</u>	<u>TD</u>	<u>Other</u>	<u>Expedited Hearing</u>
2Q14-4Q14	86.8%	12.2%	1.0%	2,795
2015	84.6%	14.2%	1.2%	3,169
2016	87.3%	12.0%	0.7%	3,770
2017	84.8%	14.3%	0.9%	3,462

Southern California

<u>Time Period</u>	<u>Medical Treatment</u>	<u>TD</u>	<u>Other</u>	<u>Expedited Hearing</u>
2Q14-4Q14	70.0%	19.4%	10.7%	7,957
2015	65.4%	20.5%	14.1%	10,438
2016	69.1%	18.9%	12.0%	11,424
2017	71.5%	18.6%	9.9%	13,223

Source: DWC

Number of Division of Workers' Compensation (DWC) Lien Decisions

<u>Calendar Year</u>	<u>Number of Lien Decisions (in 000s)</u>	<u>Year-to-Year Change</u>
1993	18.4	---
1994	26.3	42.9%
1995	33.6	27.8%
1996	33.9	0.9%
1997	27.1	-20.1%
1998	19.3	-28.8%
1999	17.6	-8.8%
2000	15.1	-14.2%
2001	14.8	-2.0%
2002	16.6	12.2%
2003	16.5	-0.6%
2004	21.2	28.5%
2005	24.3	14.6%
2006	28.3	16.5%
2007	35.2	24.4%
2008*	34.5	-2.0%
2009	28.5	-17.4%
2010	37.1	30.2%
2011	41.4	11.6%
2012	64.3	55.3%
2013	65.8	2.3%
2014	58.3	-11.4%
2015	64.4	10.5%
2016	56.0	-13.0%

*Prior to 8/9/2008, DWC's workload adjudication data was available from the legacy system. DWC transitioned to a new computer-based system, the Electronic Adjudication Management System (EAMS), at the end of August 2008. Therefore, data for 2008 are comprised of data both from the legacy and from the EAMS system and may not be directly comparable to previous years due to transition issues.

Source: DWC via Commission on Health and Safety & Workers' Compensation 2016 Annual Report

Liens Filed Counts*

Counts by Region**

<u>Time Period</u>	<u>Bay Area</u>	<u>Central Coast/ Valley</u>	<u>Los Angeles County</u>	<u>Remainder of LA Basin</u>	<u>Remaining CA Zip Codes</u>	<u>Sacramento</u>	<u>San Diego County</u>	<u>Total</u>
2011	18,723	24,414	283,774	114,554	2,535	3,934	15,922	463,856
1st Qtr 2012	5,490	7,245	97,245	38,034	895	1,248	4,936	155,093
2nd Qtr 2012	5,467	8,970	122,040	44,065	1,102	1,322	4,991	187,957
3rd Qtr 2012	6,434	15,289	207,639	85,152	698	1,407	6,611	323,230
4th Qtr 2012	10,397	25,730	342,549	123,129	1,119	1,557	8,523	513,004
1st Qtr 2013	1,232	2,193	46,830	17,032	230	268	1,312	69,097
2nd Qtr 2013	1,450	1,562	18,947	6,917	211	339	684	30,110
3rd Qtr 2013	1,607	1,795	25,999	9,855	247	410	991	40,904
4th Qtr 2013	1,928	2,025	29,537	10,893	276	358	1,136	46,153
1st Qtr 2014	1,841	2,029	25,668	10,117	239	384	1,165	41,443
2nd Qtr 2014	1,697	2,306	29,417	11,942	265	354	1,263	47,244
3rd Qtr 2014	1,941	1,996	29,665	12,198	355	424	1,378	47,957
4th Qtr 2014	1,690	2,371	34,772	12,469	374	384	1,488	53,548
1st Qtr 2015	2,071	3,058	45,827	18,016	431	488	2,133	72,024
2nd Qtr 2015	2,370	4,218	54,147	22,198	501	500	2,787	86,721
3rd Qtr 2015	2,428	4,977	61,619	24,827	691	526	3,047	98,115
4th Qtr 2015	2,338	4,991	68,843	26,571	686	495	3,085	107,009
1st Qtr 2016	2,884	5,410	67,259	27,326	672	538	3,931	108,020
2nd Qtr 2016	2,543	5,112	66,511	26,852	536	506	3,912	105,972
3rd Qtr 2016	2,243	4,167	45,707	20,136	420	462	3,404	76,539
4th Qtr 2016	1,872	4,433	66,169	25,942	506	397	4,400	103,719
1st Qtr 2017	1,228	1,872	24,947	9,594	334	312	1,380	39,667
2nd Qtr 2017	1,537	2,211	33,194	11,969	349	369	1,764	51,393
3rd Qtr 2017	1,700	2,047	29,215	10,487	298	419	1,149	45,315
4th Qtr 2017	1,535	1,804	26,566	9,914	313	366	1,176	41,674

Counts by Type

<u>Time Period</u>	<u>Interpreter</u>	<u>Medical</u>	<u>Medical-Legal</u>	<u>Copy Service</u>	<u>Other***</u>	<u>Total</u>
2011	28,721	292,982	39,569	539	102,045	463,856
1st Qtr 2012	12,937	85,152	22,931	139	33,934	155,093
2nd Qtr 2012	17,162	106,336	37,440	65	26,954	187,957
3rd Qtr 2012	46,095	182,474	64,912	91	29,658	323,230
4th Qtr 2012	47,427	317,241	80,916	62	67,358	513,004
1st Qtr 2013	2,397	45,631	11,411	11	9,647	69,097
2nd Qtr 2013	831	22,480	587	20	6,192	30,110
3rd Qtr 2013	484	32,356	653	23	7,388	40,904
4th Qtr 2013	378	37,515	537	8	7,715	46,153
1st Qtr 2014	421	33,105	397	16	7,504	41,443
2nd Qtr 2014	275	38,534	320	10	8,105	47,244
3rd Qtr 2014	140	39,810	179	7	7,821	47,957
4th Qtr 2014	156	45,440	160	4	7,788	53,548
1st Qtr 2015	143	60,155	216	18	11,492	72,024
2nd Qtr 2015	152	74,037	268	7	12,257	86,721
3rd Qtr 2015	134	84,290	191	7	13,493	98,115
4th Qtr 2015	101	91,820	236	15	14,837	107,009
1st Qtr 2016	60	93,393	233	5	14,329	108,020
2nd Qtr 2016	90	89,781	467	6	15,628	105,972
3rd Qtr 2016	64	64,924	262	11	11,278	76,539
4th Qtr 2016	94	91,867	68	4	11,686	103,719
1st Qtr 2017	29	33,952	19	3	5,664	39,667
2nd Qtr 2017	33	43,470	34	5	7,851	51,393
3rd Qtr 2017	77	37,815	31	0	7,392	45,315
4th Qtr 2017	65	33,876	18	1	7,714	41,674

* Lien Counts exclude SDI/EDD Liens

** Regions reflect the following WCAB Office mapping: Bay Area - Oakland, San Jose, San Francisco; Central Coast/Valley - Bakersfield, Fresno, Goleta, Grover Beach, Salinas, Stockton; Los Angeles County - Long Beach, Los Angeles, Marina Del Rey, Pomona, Van Nuys; Remainder of LA Basin - Anaheim, Oxnard, Riverside, San Bernardino, Santa Ana; Remaining CA Zip Codes - Eureka, Redding, San Luis Obispo, Santa Barbara, Santa Rosa; Sacramento - Sacramento; San Diego County - San Diego

***Other includes Attorney Fees, Family Support, Living Expense, PFL, Transport, Wage Replace Liens

Source: EAMS Liens Data

IMR Filed Counts

Quarterly IMRs Filed

<u>Year & Quarter</u>	<u>IMRs Filed</u>	Change from Same Quarter in <u>Prior Year</u>	<u>Eligible IMRs</u>	Change from Same Quarter in <u>Prior Year</u>
2013 1Q & 2Q	878	---	129	---
2013 3Q	31,950	---	515	---
2013 4Q	51,092	---	3,159	---
2014 1Q	49,929	---	17,421	---
2014 2Q	60,023	---	24,417	---
2014 3Q	59,678	86.8%	54,959	---
2014 4Q	58,577	14.7%	46,512	---
2015 1Q	61,142	22.5%	36,314	108.4%
2015 2Q	65,418	9.0%	48,628	99.2%
2015 3Q	65,889	10.4%	40,603	-26.1%
2015 4Q	61,330	4.7%	39,950	-14.1%
2016 1Q	60,772	-0.6%	41,023	13.0%
2016 2Q	64,852	-0.9%	44,287	-8.9%
2016 3Q	62,411	-5.3%	43,892	8.1%
2016 4Q	61,318	0.0%	43,618	9.2%
2017 1Q	61,973	2.0%	43,480	6.0%
2017 2Q	62,773	-3.2%	44,489	0.5%
2017 3Q	63,380	1.6%	43,822	-0.2%
2017 4Q	60,124	-1.9%	43,370	-0.6%

Yearly IMR Counts

	<u>Original IMR Applications</u>	<u>Duplicates</u>	<u>Ineligible</u>	<u>Total Rejected</u>	<u>Eligible IMRs</u>	<u>Eligible IMR Yearly Change</u>
2013 IMR Counts	83,920	15,560	15,516	31,076	52,844	---
2014 IMR Counts	228,084	55,503	29,269	84,772	143,312	171.2%
2015 IMR Counts	253,776	58,088	30,079	88,167	165,609	15.6%
2016 IMR Counts	249,353	53,314	23,219	76,533	172,820	4.4%
2017 IMR Counts	248,250	55,670	17,419	73,089	175,161	1.4%

Source: DWC Collected from IMR Vendor

DWC Via Commission on Health and Safety & Workers' Compensation 2016 Annual Report

Indemnity Claim Settlement Ratios by Injury Type

Permanent Partial						Temporary					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1997	9.7%	33.2%	55.7%	69.7%	77.5%	1997	74.8%	88.9%	93.1%	98.1%	97.4%
1998	8.9%	30.8%	53.7%	67.5%	74.4%	1998	78.0%	90.1%	95.4%	95.4%	96.6%
1999	8.7%	29.3%	50.4%	62.5%	69.2%	1999	75.1%	88.4%	92.3%	94.5%	95.6%
2000	8.0%	26.8%	45.2%	57.3%	66.2%	2000	70.6%	84.3%	89.3%	92.1%	93.4%
2001	7.1%	22.2%	41.2%	57.7%	69.5%	2001	66.1%	79.4%	87.1%	89.7%	91.5%
2002	5.2%	19.3%	41.7%	60.3%	71.7%	2002	64.7%	80.9%	87.0%	90.7%	93.1%
2003	4.1%	20.8%	44.3%	61.3%	72.5%	2003	67.9%	81.6%	88.5%	92.6%	94.8%
2004	5.2%	22.5%	44.0%	60.0%	71.4%	2004	70.1%	84.8%	91.6%	95.6%	95.6%
2005	5.9%	22.6%	43.1%	59.4%	69.7%	2005	69.8%	84.0%	90.7%	92.7%	95.5%
2006	6.5%	23.6%	44.3%	59.5%	69.1%	2006	71.4%	86.8%	91.9%	95.0%	95.5%
2007	6.0%	23.9%	43.6%	58.1%	68.2%	2007	71.3%	85.3%	91.7%	93.8%	95.0%
2008	6.1%	24.0%	43.3%	58.0%	69.9%	2008	70.0%	84.2%	89.3%	92.2%	94.3%
2009	6.0%	23.5%	42.5%	58.5%	70.7%	2009	67.9%	81.0%	87.0%	91.0%	93.2%
2010	7.2%	25.3%	45.8%	62.3%	73.6%	2010	64.9%	78.3%	85.5%	89.8%	92.5%
2011	7.9%	27.4%	48.7%	64.5%	75.7%	2011	63.4%	77.4%	84.9%	89.5%	91.8%
2012	9.2%	30.6%	51.5%	66.5%	77.2%	2012	63.0%	77.9%	86.0%	90.5%	93.2%
2013	10.1%	31.9%	53.1%	70.0%		2013	62.9%	79.5%	86.9%	91.6%	
2014	10.7%	33.2%	54.5%			2014	65.1%	80.0%	87.6%		
2015	12.2%	37.5%				2015	64.2%	78.5%			
2016	13.9%					2016	65.5%				

Cumulative Injury*						Non-Cumulative Injury					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1997	16.6%	36.9%	54.8%	67.2%	76.0%	1997	46.5%	64.7%	77.0%	86.0%	88.8%
1998	17.2%	33.5%	51.3%	64.1%	72.0%	1998	47.4%	64.0%	77.2%	83.2%	86.9%
1999	16.3%	31.7%	48.6%	60.7%	68.7%	1999	45.2%	62.0%	73.8%	80.3%	83.8%
2000	13.5%	29.7%	45.3%	57.1%	66.5%	2000	42.5%	58.5%	69.6%	76.5%	81.1%
2001	12.8%	26.8%	43.6%	57.3%	67.8%	2001	38.1%	52.2%	65.2%	74.5%	81.0%
2002	12.4%	26.8%	43.9%	59.4%	70.1%	2002	35.3%	50.3%	64.6%	75.7%	82.5%
2003	12.5%	27.6%	45.6%	59.9%	69.5%	2003	36.7%	51.9%	67.1%	77.6%	84.2%
2004	15.6%	30.3%	46.8%	60.5%	69.8%	2004	40.3%	56.3%	70.1%	79.6%	84.8%
2005	13.2%	27.6%	42.5%	55.1%	64.7%	2005	43.3%	58.6%	71.4%	79.5%	85.3%
2006	13.1%	27.7%	42.7%	54.8%	64.2%	2006	43.6%	59.9%	72.1%	80.4%	84.7%
2007	13.5%	28.4%	42.9%	55.0%	65.0%	2007	42.7%	58.6%	71.1%	78.7%	83.7%
2008	12.0%	26.9%	41.4%	54.1%	65.4%	2008	40.8%	56.9%	68.7%	77.1%	83.6%
2009	10.9%	24.3%	39.2%	54.0%	66.7%	2009	39.3%	54.8%	67.1%	76.7%	83.3%
2010	13.0%	26.3%	43.0%	59.1%	71.1%	2010	38.4%	54.4%	68.0%	77.8%	84.3%
2011	10.7%	26.8%	45.6%	61.0%	72.1%	2011	38.5%	55.3%	69.2%	78.8%	85.0%
2012	11.3%	29.4%	46.7%	61.2%	73.4%	2012	39.5%	57.6%	71.6%	80.7%	86.7%
2013	13.9%	32.2%	49.9%	66.8%		2013	40.0%	59.2%	72.9%	82.8%	
2014	14.2%	32.8%	49.7%			2014	41.7%	60.2%	74.2%		
2015	14.6%	33.6%				2015	42.0%	61.7%			
2016	16.5%					2016	43.8%				

All Indemnity					
AY/RL	1	2	3	4	5
1997	44.5%	62.8%	75.5%	84.7%	87.9%
1998	45.3%	61.9%	75.4%	81.9%	85.9%
1999	43.1%	59.8%	71.9%	78.8%	82.7%
2000	40.2%	56.3%	67.7%	75.0%	80.0%
2001	36.0%	50.2%	63.5%	73.1%	79.9%
2002	33.3%	48.3%	62.8%	74.3%	81.5%
2003	34.6%	49.8%	65.3%	76.1%	82.9%
2004	38.2%	54.1%	68.2%	78.0%	83.6%
2005	41.1%	56.4%	69.4%	77.7%	83.8%
2006	41.4%	57.6%	69.9%	78.5%	83.2%
2007	40.5%	56.3%	69.0%	76.9%	82.3%
2008	38.4%	54.5%	66.5%	75.3%	82.2%
2009	36.6%	51.9%	64.5%	74.5%	81.8%
2010	35.9%	51.6%	65.4%	76.0%	83.0%
2011	35.7%	52.4%	66.8%	77.0%	83.7%
2012	36.4%	54.4%	68.9%	78.5%	85.2%
2013	36.7%	55.8%	70.1%	80.8%	
2014	38.0%	56.7%	70.9%		
2015	38.3%	58.0%			
2016	40.1%				

Notes:

*Cumulative Injury includes both cumulative injury and occupational disease.

Latest diagonal (italics) is based on a partial accident year.

Settlement rates are based on claim counts developed to 5th report.

Source: WCIRB Unit Statistical data

Ratio of Incremental Closed Indemnity Claims to Prior Open Indemnity Claims

Accident Year	Development								
	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
1999									17.6%
2000								19.4%	17.7%
2001							21.5%	18.7%	16.3%
2002						25.0%	21.1%	18.7%	16.5%
2003					27.8%	23.6%	19.5%	18.2%	17.4%
2004				29.5%	24.3%	20.4%	19.6%	18.6%	22.5%
2005			30.4%	27.3%	22.6%	21.7%	19.3%	23.1%	20.6%
2006		28.1%	29.5%	26.2%	23.1%	20.2%	24.3%	22.1%	19.2%
2007	35.3%	26.5%	28.2%	26.2%	22.2%	25.7%	24.6%	20.9%	23.4%
2008	33.2%	25.4%	27.4%	25.9%	26.8%	26.7%	24.0%	25.1%	23.2%
2009	31.5%	25.0%	27.0%	27.7%	27.3%	26.3%	27.1%	24.6%	
2010	32.0%	26.1%	29.2%	30.1%	28.2%	29.0%	26.8%		
2011	32.0%	27.3%	30.7%	31.2%	29.7%	29.5%			
2012	32.3%	29.4%	31.9%	32.0%	32.0%				
2013	33.2%	30.8%	33.8%	34.3%					
2014	34.2%	32.1%	34.9%						
2015	35.2%	34.7%							
2016	37.7%								

Note: All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 70% to 97% of the total California workers' compensation insured market measured using 2016 earned premium levels).

Source: WCIRB quarterly calls for experience

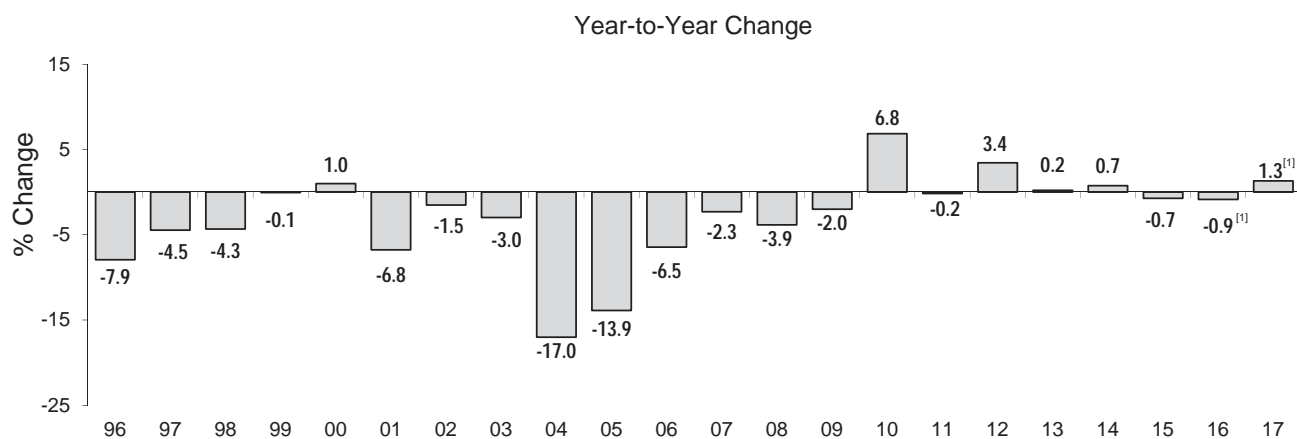
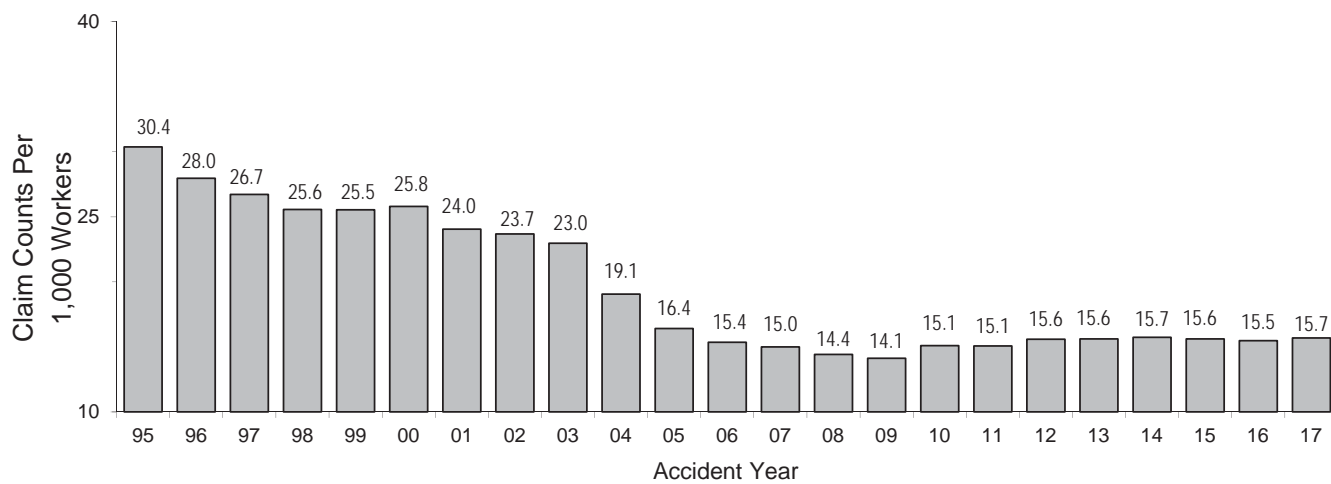
Ratio of Incremental Closed Indemnity Claims to Prior Open Indemnity Claims

Accident Year	Development														
	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2007	4.5%	8.5%	11.7%	12.4%	9.7%	7.5%	7.7%	6.9%	7.9%	7.1%	9.1%	7.5%	7.5%	7.7%	7.9%
2008	4.7%	8.3%	11.2%	11.2%	9.2%	7.0%	6.7%	6.7%	7.3%	7.4%	8.1%	7.3%	7.4%	7.7%	7.6%
2009	4.0%	7.9%	10.3%	10.6%	8.6%	6.8%	6.6%	6.5%	7.0%	7.6%	7.8%	7.3%	7.9%	7.1%	7.7%
2010	4.1%	7.5%	10.4%	11.1%	8.6%	6.8%	7.2%	6.8%	7.6%	7.3%	7.9%	7.8%	9.0%	8.8%	9.2%
2011	4.3%	7.2%	10.6%	10.7%	8.8%	7.1%	7.3%	7.0%	8.5%	8.2%	9.2%	8.4%	8.5%	9.2%	9.2%
2012	4.3%	7.4%	10.4%	10.5%	9.1%	7.5%	8.2%	7.6%	8.6%	9.2%	9.3%	9.0%	9.3%	9.2%	9.5%
2013	4.2%	7.1%	10.3%	10.6%	9.4%	8.4%	8.6%	8.5%	9.1%	9.2%	9.7%	9.7%	10.1%	9.8%	10.3%
2014	4.0%	7.2%	10.2%	11.0%	9.6%	9.0%	8.8%	9.0%	9.3%	9.8%	10.2%	9.4%	11.0%	10.1%	
2015	3.9%	7.6%	10.2%	11.6%	10.4%	9.0%	9.3%	9.8%	10.9%	10.4%					
2016	4.3%	7.6%	11.0%	12.4%	11.4%	9.8%									
2017	4.7%	8.1%													

Note: All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 82% to 97% of the total California workers' compensation insured market measured using 2016 earned premium levels).

Source: WCIRB quarterly calls for experience

**California Workers' Compensation
Estimated Indemnity Claim Frequency by Accident Year
As of September 30, 2017**



^[1] The 2016 and 2017 estimates are based on comparison of claim counts based on WCIRB accident year experience as of September 30, 2017 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.

2017 Accident Year Indemnity Claim Frequency Model
As of PY 2015 1st Set & December 2017 UCLA

AY	Annual % Changes Intra- Class Ind Freq	Annual Log Differences						
		Intra-Class Indemnity Frequency per \$M Exposure at PY 2016 Level			AY+1 Indemnity		Economic Variables (1st Prin. Comp.)	CalOSHA Dummy Variable
		Total	Cumulative	Non-cum.	Benefit Level	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	-0.078	0.000
1982	-1.6%	-0.016	0.153	-0.022	0.352	0.175	-0.292	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	0.221	0.000
1985	2.0%	0.020	0.138	0.014	0.000	0.124	0.080	0.000
1986	-2.4%	-0.024	0.039	-0.028	0.000	0.067	0.077	0.000
1987	1.5%	0.015	0.053	0.013	0.000	0.041	0.150	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	-0.120	0.000
1991	0.3%	0.003	0.166	-0.018	0.023	0.184	-0.291	0.000
1992	-11.1%	-0.118	-0.272	-0.098	0.013	-0.174	-0.185	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	0.074	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	0.078	0.000
1999	1.5%	0.014	0.100	0.008	0.040	0.092	0.127	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	-0.100	0.000
2002	-2.8%	-0.029	0.001	-0.031	0.060	0.033	-0.197	0.000
2003	-3.2%	-0.032	-0.009	-0.035	-0.065	0.026	-0.022	0.000
2004	-16.9%	-0.185	-0.212	-0.182	-0.398	-0.030	0.098	0.000
2005	-13.6%	-0.147	-0.299	-0.134	0.051	-0.165	0.143	0.000
2006	-5.7%	-0.059	-0.050	-0.059	0.016	0.009	0.090	0.000
2007	-1.6%	-0.017	0.021	-0.020	0.049	0.040	-0.095	0.000
2008	-2.7%	-0.027	0.038	-0.033	0.006	0.071	-0.320	0.000
2009	-0.2%	-0.002	0.168	-0.018	0.066	0.186	-0.414	0.000
2010	8.9%	0.085	0.139	0.079	0.012	0.060	-0.077	0.000
2011	1.3%	0.013	0.033	0.010	0.003	0.022	0.048	0.000
2012	4.7%	0.046	0.130	0.036	0.022	0.094	0.120	0.000
2013	0.6%	0.006	0.155	-0.015	0.071	0.170	0.154	0.000
2014	0.5%	0.005	0.095	-0.009	0.003	0.104	0.172	0.000
2015	-0.6%	-0.006	0.075	-0.020	0.002	0.094	0.192	0.000
2016*	-3.2%	-0.033	0.000	-0.039	0.004	0.040	0.128	0.000
2017	-0.9%	-0.009	-0.009	-0.009	0.004	0.000	0.109	0.000
2018	-1.3%	-0.013	-0.013	-0.013	0.004	0.000	0.066	0.000
2019	-2.0%	-0.020	-0.020	-0.020	0.004	0.000	-0.005	0.000
2020	-2.1%	-0.021	-0.021	-0.021	0.004	0.000	-0.016	0.000

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

Constant	-0.020
Std Err of Y Est	0.040
R Squared	0.583
No. of Observations	38
Degrees of Freedom	33
X Coefficient(s)	0.178 0.284 0.094 -0.131
Std Err of Coef.	0.073 0.062 0.044 0.077

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. Economic variables are historical through 2016; December 2017 UCLA Anderson Forecasts for 2017 on. Regression is over AY 1979 through AY 2016. AY 2017 through AY 2020 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 2016 is preliminary and change is based on a comparison of 2016 accidents on 2015 policies to 2015 accidents on 2014 policies.

Indemnity Claim Frequency History and Projections

AY	Intra-Class Indemnity Claim Frequency(a)	Inter-Class Indemnity Claim Frequency Index(b)	Overall Indemnity Claim Frequency	Annual Percent Changes		
				Intra-Class	Inter-Class	Overall
1979	0.565	0.921	0.681	---	---	---
1980	0.528	0.914	0.632	-6.54%	-0.75%	-7.24%
1981	0.510	0.900	0.600	-3.54%	-1.56%	-5.04%
1982	0.502	0.882	0.578	-1.59%	-2.00%	-3.56%
1983	0.533	0.873	0.608	6.20%	-0.98%	5.17%
1984	0.583	0.871	0.665	9.53%	-0.18%	9.32%
1985	0.595	0.867	0.675	2.05%	-0.51%	1.52%
1986	0.581	0.859	0.653	-2.39%	-0.92%	-3.28%
1987	0.590	0.854	0.659	1.53%	-0.56%	0.97%
1988	0.594	0.854	0.664	0.69%	-0.06%	0.64%
1989	0.609	0.853	0.679	2.47%	-0.08%	2.39%
1990	0.664	0.845	0.734	9.04%	-0.89%	8.07%
1991	0.666	0.832	0.725	0.28%	-1.58%	-1.30%
1992	0.592	0.820	0.635	-11.09%	-1.45%	-12.37%
1993	0.504	0.810	0.534	-14.91%	-1.25%	-15.98%
1994	0.439	0.809	0.465	-12.76%	-0.06%	-12.81%
1995	0.419	0.811	0.444	-4.64%	0.16%	-4.49%
1996	0.391	0.800	0.409	-6.78%	-1.25%	-7.94%
1997	0.378	0.791	0.391	-3.27%	-1.23%	-4.46%
1998	0.364	0.786	0.374	-3.76%	-0.60%	-4.34%
1999	0.369	0.774	0.374	1.45%	-1.48%	-0.05%
2000	0.384	0.752	0.377	4.02%	-2.91%	0.99%
2001	0.357	0.753	0.352	-6.91%	0.13%	-6.79%
2002	0.347	0.763	0.346	-2.83%	1.34%	-1.53%
2003	0.336	0.764	0.336	-3.18%	0.20%	-2.99%
2004	0.279	0.763	0.279	-16.85%	-0.21%	-17.03%
2005	0.241	0.760	0.240	-13.63%	-0.31%	-13.90%
2006	0.228	0.754	0.225	-5.69%	-0.81%	-6.46%
2007	0.224	0.749	0.219	-1.64%	-0.68%	-2.31%
2008	0.218	0.740	0.211	-2.71%	-1.18%	-3.85%
2009	0.217	0.727	0.207	-0.20%	-1.82%	-2.02%
2010	0.237	0.713	0.221	8.87%	-1.87%	6.83%
2011	0.240	0.703	0.220	1.27%	-1.42%	-0.17%
2012	0.251	0.694	0.228	4.68%	-1.20%	3.43%
2013	0.252	0.692	0.228	0.57%	-0.36%	0.21%
2014	0.254	0.694	0.230	0.50%	0.23%	0.74%
2015(c)	0.252	0.692	0.228	-0.58%	-0.16%	-0.73%
2015(d)	0.251	0.692	0.228	---	---	---
2016(e)	0.243	0.691	0.220	-3.23%	-0.14%	-3.37%
2017	0.241	0.694	0.219	-0.90%	0.39%	-0.51%
2018	0.238	0.693	0.215	-1.31%	-0.24%	-1.54%
2019	0.233	0.691	0.211	-1.96%	-0.17%	-2.12%
2020	0.228	0.691	0.206	-2.06%	-0.11%	-2.17%
PY						
2008	0.218	0.734	0.209			
2009	0.226	0.721	0.213	3.87%	-1.84%	1.91%
2010	0.238	0.708	0.221	5.30%	-1.67%	3.57%
2011	0.245	0.699	0.224	2.82%	-1.32%	1.45%
2012	0.252	0.693	0.228	2.79%	-0.83%	1.95%
2013	0.253	0.693	0.229	0.54%	-0.10%	0.44%
2014	0.252	0.693	0.229	-0.15%	0.06%	-0.09%
2015	0.248	0.692	0.224	-1.97%	-0.15%	-2.11%
2016	0.242	0.693	0.219	-2.20%	0.10%	-2.11%
2017	0.239	0.693	0.217	-1.08%	0.11%	-0.97%
2018	0.236	0.692	0.213	-1.60%	-0.21%	-1.80%
2019	0.231	0.691	0.209	-2.00%	-0.14%	-2.14%

Notes: (a) All frequencies are per \$M exposure at PY 2016 Level.
 (b) Index is to AY 1961.
 (c) 2015 accidents on 2015 and 2014 policies.
 (d) 2015 accidents on 2014 policies only.
 (e) AY 2016 is preliminary and percent changes are based on a comparison of 2016 accidents on 2015 policies to 2015 accidents on 2014 policies.
 (f) Forecasts below thick solid line.

Source: WCIRB Indemnity Frequency Model

Changes in Incremental Indemnity Claim Counts and Medical Only Claim Counts

Calendar Quarter Evaluation	Change in Statewide Incremental Number of Indemnity Claims		Change in Statewide Incremental Number of Medical-Only Claims	
	Change in Quarterly Increment from Same Quarter at Prior Calendar Year	Change in 4-Quarter Increment from Same Quarter at Prior Calendar Year	Change in Quarterly Increment from Same Quarter at Prior Calendar Year	Change in 4-Quarter Increment from Same Quarter at Prior Calendar Year
3/31/2007	-2.4%	---	---	---
6/30/2007	-10.2%	---	-13.5%	---
9/30/2007	0.3%	---	1.2%	---
12/31/2007	-13.4%	-6.3%	-19.4%	---
3/31/2008	-5.8%	-7.2%	-14.8%	-11.6%
6/30/2008	-3.9%	-5.7%	-2.8%	-9.0%
9/30/2008	-19.2%	-10.7%	-17.6%	-13.9%
12/31/2008	-16.7%	-11.4%	-3.8%	-10.3%
3/31/2009	-27.1%	-16.8%	-27.5%	-13.2%
6/30/2009	-14.2%	-19.4%	-27.0%	-19.4%
9/30/2009	-8.2%	-16.8%	-16.7%	-19.2%
12/31/2009	2.5%	-12.8%	-15.8%	-22.0%
3/31/2010	7.4%	-4.1%	-5.2%	-17.1%
6/30/2010	3.9%	1.0%	-1.9%	-10.6%
9/30/2010	6.7%	5.1%	-6.3%	-7.6%
12/31/2010	7.2%	6.3%	3.3%	-2.6%
3/31/2011	2.7%	5.1%	-4.1%	-2.3%
6/30/2011	-1.2%	3.8%	-8.9%	-4.1%
9/30/2011	3.4%	2.9%	-1.3%	-2.7%
12/31/2011	4.5%	2.3%	-7.8%	-5.5%
3/31/2012	-0.4%	1.5%	-1.8%	-4.6%
6/30/2012	8.1%	3.9%	0.1%	-2.6%
9/30/2012	5.5%	4.5%	3.2%	-1.5%
12/31/2012	6.7%	5.1%	5.5%	1.8%
3/31/2013	5.2%	6.4%	-4.2%	1.3%
6/30/2013	10.9%	7.1%	9.0%	3.4%
9/30/2013	6.2%	7.3%	-1.9%	2.0%
12/31/2013	5.4%	7.0%	0.5%	0.8%
3/31/2014	12.0%	8.5%	6.3%	3.2%
6/30/2014	1.5%	6.1%	-3.3%	0.1%
9/30/2014	3.4%	5.3%	5.9%	2.2%
12/31/2014	2.4%	4.5%	6.3%	3.7%
3/31/2015	0.1%	1.9%	7.7%	4.0%
6/30/2015	4.4%	2.6%	4.8%	6.1%
9/30/2015	2.3%	2.3%	5.6%	6.0%
12/31/2015	3.8%	2.7%	1.7%	4.8%
3/31/2016	4.2%	3.6%	4.5%	4.1%
6/30/2016	2.1%	3.1%	4.9%	4.2%
9/30/2016	-1.0%	2.2%	-4.0%	1.6%
12/31/2016	0.8%	1.4%	0.7%	1.3%
3/31/2017	2.7%	1.1%	1.3%	0.1%
6/30/2017	4.1%	1.5%	6.3%	0.6%
9/30/2017	1.4%	2.1%	6.0%	3.1%

Partial Accident Year Cumulative Injury Indemnity Claim Counts by Policy Year and Report Level

AY	1st Half Partial PY.RL Sources									
	(AY-1).1	(AY-1).2	(AY-1).3	(AY-1).4	(AY-1).5	to (AY-1).6	to (AY-1).7	to (AY-1).8	to (AY-1).9	to (AY-1).10
2004	5,374	5,721	5,859	5,960	6,085	6,347	6,478	6,495	6,500	6,532
2005	3,184	3,665	3,969	4,243	4,568	4,693	4,762	4,832	4,844	4,880
2006	2,989	3,569	3,924	4,231	4,348	4,467	4,498	4,581	4,650	4,685
2007	3,037	3,645	4,038	4,274	4,413	4,524	4,635	4,683	4,730	4,748
2008	2,914	3,661	4,180	4,457	4,633	4,796	4,965	5,030	5,077	
2009	2,977	3,932	4,524	4,820	5,124	5,334	5,423	5,502		
2010	3,456	4,497	5,011	5,528	5,733	5,880	5,990			
2011	3,366	4,430	5,295	5,653	5,944	6,160				
2012	3,557	5,140	5,822	6,416	6,821					
2013	4,747	6,333	7,286	7,757						
2014	5,540	7,554	8,387							
2015	6,111	8,118								
2016	6,184									

AY	1st Half Partial PY.RL Development Factors										1st Half Share of Ttl Ind Fifths
	(AY-1).1 to (AY-1).2	(AY-1).2 to (AY-1).3	(AY-1).3 to (AY-1).4	(AY-1).4 to (AY-1).5	(AY-1).5 to (AY-1).6	(AY-1).6 to (AY-1).7	(AY-1).7 to (AY-1).8	(AY-1).8 to (AY-1).9	(AY-1).9 to (AY-1).10	Final Tenths	
2004	1.065	1.024	1.017	1.021	1.043	1.021	1.003	1.001	1.005	6,532	9.8%
2005	1.151	1.083	1.069	1.077	1.027	1.015	1.015	1.002	1.007	4,880	8.3%
2006	1.194	1.099	1.078	1.028	1.028	1.007	1.018	1.015	1.008	4,685	8.3%
2007	1.200	1.108	1.059	1.032	1.025	1.025	1.010	1.010	1.004	4,748	8.6%
2008	1.257	1.142	1.066	1.039	1.035	1.035	1.013	1.009	1.004	5,096	9.4%
2009	1.321	1.151	1.065	1.063	1.041	1.017	1.015	1.009	1.004	5,575	11.1%
2010	1.301	1.114	1.103	1.037	1.026	1.019	1.015	1.009	1.004	6,157	11.9%
2011	1.316	1.195	1.068	1.051	1.036	1.019	1.015	1.009	1.004	6,451	12.1%
2012	1.445	1.133	1.102	1.063	1.036	1.019	1.015	1.009	1.004	7,402	12.9%
2013	1.334	1.151	1.065	1.063	1.036	1.019	1.015	1.009	1.004	8,949	14.9%
2014	1.363	1.110	1.065	1.063	1.036	1.019	1.015	1.009	1.004	10,302	16.7%
2015	1.328	1.110	1.065	1.063	1.036	1.019	1.015	1.009	1.004	11,072	17.5%
2016	1.328	1.110	1.065	1.063	1.036	1.019	1.015	1.009	1.004	11,204	17.9%

AY	Share of Total Indemnity Count 1st Half Partial PY.RL Sources									
	(AY-1).1	(AY-1).2	(AY-1).3	(AY-1).4	(AY-1).5	to (AY-1).6	to (AY-1).7	to (AY-1).8	to (AY-1).9	to (AY-1).10
2004	8.4%	8.7%	8.9%	9.0%	9.2%	9.4%	9.8%	9.8%	9.8%	9.8%
2005	5.7%	6.4%	6.8%	7.3%	7.7%	8.0%	8.1%	8.3%	8.3%	8.3%
2006	5.5%	6.4%	7.0%	7.5%	7.8%	8.0%	8.0%	8.2%	8.3%	8.3%
2007	5.9%	6.8%	7.4%	7.8%	8.1%	8.3%	8.4%	8.5%	8.6%	8.6%
2008	5.9%	7.0%	7.9%	8.4%	8.6%	8.9%	9.2%	9.3%	9.4%	
2009	6.7%	8.2%	9.3%	9.8%	10.3%	10.7%	10.9%	11.0%		
2010	7.5%	9.1%	9.9%	10.8%	11.1%	11.4%	11.6%			
2011	7.2%	8.7%	10.2%	10.7%	11.2%	11.6%				
2012	7.1%	9.4%	10.4%	11.3%	12.0%					
2013	8.9%	11.0%	12.4%	13.1%						
2014	10.0%	12.7%	13.8%							
2015	10.8%	13.3%								
2016	11.1%									

Source: WCIRB unit statistical data

Claim Count Ratios by Region Based on Unit Statistical Data at 1st Report Level

Region	Ratio of Permanent Disability Claims to Indemnity Claims for Accident Year														
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bay Area	0.396	0.374	0.355	0.305	0.300	0.280	0.292	0.302	0.311	0.322	0.307	0.291	0.300	0.309	<i>0.303</i>
Los Angeles/LA Basin	0.484	0.478	0.453	0.392	0.377	0.385	0.401	0.401	0.395	0.401	0.396	0.367	0.373	0.391	<i>0.387</i>
San Diego	0.468	0.453	0.407	0.336	0.325	0.327	0.332	0.358	0.355	0.355	0.360	0.326	0.346	0.359	<i>0.362</i>
All Other	0.426	0.403	0.367	0.315	0.308	0.293	0.313	0.308	0.322	0.317	0.312	0.287	0.300	0.312	<i>0.291</i>
All Regions	0.449	0.436	0.407	0.349	0.339	0.335	0.352	0.355	0.358	0.361	0.356	0.330	0.339	0.353	<i>0.344</i>

Region	Annual Change														
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bay Area	---	-5.5%	-5.2%	-14.1%	-1.7%	-6.4%	4.1%	3.5%	3.0%	3.4%	-4.6%	-5.2%	3.1%	2.9%	-1.9%
Los Angeles/LA Basin	---	-1.2%	-5.3%	-13.4%	-3.9%	2.2%	4.0%	0.2%	-1.5%	1.6%	-1.2%	-7.4%	1.6%	4.8%	-0.9%
San Diego	---	-3.3%	-10.0%	-17.5%	-3.1%	0.4%	1.7%	7.7%	-0.9%	0.0%	1.4%	-9.3%	6.0%	3.7%	0.9%
All Other	---	-5.2%	-9.1%	-14.1%	-2.2%	-4.9%	6.8%	-1.7%	4.8%	-1.7%	-1.5%	-8.1%	4.5%	4.0%	-6.6%
All Regions	---	-2.9%	-6.7%	-14.1%	-3.0%	-1.1%	4.9%	1.0%	0.8%	0.8%	-1.4%	-7.4%	2.9%	4.1%	-2.6%

Region	Ratio of Indemnity Claims to Total Claims for Accident Year														
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bay Area	0.340	0.344	0.306	0.281	0.284	0.288	0.292	0.304	0.314	0.322	0.322	0.331	0.328	0.333	<i>0.330</i>
Los Angeles/LA Basin	0.359	0.363	0.331	0.300	0.295	0.302	0.312	0.337	0.352	0.358	0.372	0.389	0.393	0.392	<i>0.394</i>
San Diego	0.309	0.309	0.278	0.260	0.258	0.258	0.269	0.281	0.303	0.313	0.327	0.329	0.329	0.328	<i>0.333</i>
All Other	0.350	0.350	0.321	0.294	0.286	0.291	0.295	0.307	0.320	0.327	0.330	0.343	0.339	0.331	<i>0.334</i>
All Regions	0.348	0.351	0.319	0.291	0.287	0.292	0.300	0.318	0.332	0.339	0.348	0.361	0.361	0.359	<i>0.360</i>

Region	Annual Change														
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bay Area	---	1.0%	-10.9%	-8.2%	1.1%	1.2%	1.4%	4.0%	3.6%	2.5%	0.0%	2.8%	-0.8%	1.3%	-0.8%
Los Angeles/LA Basin	---	1.1%	-8.7%	-9.5%	-1.8%	2.6%	3.1%	8.2%	4.3%	1.7%	4.0%	4.7%	0.9%	-0.2%	0.6%
San Diego	---	-0.2%	-9.8%	-6.7%	-0.8%	0.0%	4.4%	4.5%	7.6%	3.3%	4.6%	0.5%	0.0%	-0.4%	1.7%
All Other	---	-0.1%	-8.3%	-8.3%	-2.6%	1.5%	1.5%	3.9%	4.3%	2.4%	0.8%	3.9%	-1.3%	-2.1%	0.8%
All Regions	---	0.7%	-9.1%	-8.7%	-1.4%	1.8%	2.5%	6.1%	4.5%	2.1%	2.5%	3.8%	0.0%	-0.6%	0.3%

Region	Cumulative Injury Claims per 100 Indemnity Claims for Accident Year														
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bay Area	8.33	7.78	7.15	5.89	5.28	6.18	6.13	6.32	6.41	6.03	5.87	7.57	7.39	7.20	<i>7.10</i>
Los Angeles/LA Basin	8.51	9.19	9.05	6.78	6.48	6.95	7.06	8.53	9.35	8.72	9.51	11.69	12.68	14.70	<i>15.54</i>
San Diego	7.49	7.95	7.88	5.85	5.19	5.72	5.85	6.10	7.39	6.65	6.91	8.88	10.18	10.92	<i>11.16</i>
All Other	5.58	5.71	5.49	3.85	4.16	4.04	4.03	4.68	5.35	4.71	4.70	5.47	5.90	5.98	<i>5.73</i>
All Regions	7.52	7.82	7.58	5.69	5.49	5.87	5.96	6.92	7.63	7.02	7.41	9.10	9.80	10.81	<i>11.05</i>

Region	Annual Change														
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bay Area	---	-6.6%	-8.1%	-17.6%	-10.2%	16.9%	-0.8%	3.2%	1.5%	-5.9%	-2.7%	28.9%	-2.4%	-2.5%	-1.4%
Los Angeles/LA Basin	---	8.0%	-1.5%	-25.1%	-4.5%	7.2%	1.7%	20.7%	9.6%	-6.7%	9.0%	23.0%	8.5%	15.9%	5.7%
San Diego	---	6.1%	-0.9%	-25.7%	-11.3%	10.1%	2.4%	4.3%	21.0%	-10.0%	3.9%	28.6%	14.6%	7.2%	2.2%
All Other	---	2.2%	-3.8%	-29.9%	8.1%	-2.9%	-0.1%	16.1%	14.2%	-12.0%	-0.2%	16.4%	7.9%	1.4%	-4.2%
All Regions	---	4.0%	-3.0%	-25.0%	-3.5%	7.0%	1.5%	16.1%	10.3%	-8.1%	5.6%	22.9%	7.7%	10.3%	2.3%

Figures in italics are based on preliminary partial data.

Distribution of Cumulative Injury Claims by Injury Type

Permanent Indemnity*

Percentage of All Cumulative Injury Claims						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1999	30.6%	34.2%	35.7%	36.7%	37.4%	1999	---	---	---	---	---
2000	31.4%	35.4%	36.9%	37.5%	36.3%	2000	2.6%	3.4%	3.3%	2.2%	-3.0%
2001	30.8%	35.0%	36.6%	37.3%	37.6%	2001	-2.1%	-1.2%	-0.7%	-0.7%	3.5%
2002	32.8%	36.5%	37.5%	38.0%	37.8%	2002	6.6%	4.5%	2.4%	2.1%	0.7%
2003	33.5%	37.1%	38.3%	38.6%	38.8%	2003	2.0%	1.7%	2.0%	1.4%	2.6%
2004	28.5%	31.2%	32.6%	33.3%	34.4%	2004	-14.8%	-15.9%	-14.9%	-13.8%	-11.3%
2005	20.9%	24.5%	26.8%	29.2%	31.0%	2005	-26.6%	-21.6%	-17.6%	-12.2%	-9.9%
2006	19.2%	24.4%	27.7%	29.7%	30.6%	2006	-8.3%	-0.2%	3.2%	1.8%	-1.4%
2007	20.0%	26.1%	29.1%	29.2%	30.9%	2007	4.4%	6.6%	4.9%	-1.7%	1.1%
2008	20.8%	27.0%	30.2%	31.0%	32.6%	2008	3.8%	3.5%	3.9%	6.1%	5.4%
2009	23.8%	30.6%	34.3%	36.2%	37.5%	2009	14.5%	13.3%	13.7%	16.8%	15.0%
2010	23.7%	31.9%	34.9%	37.1%	38.4%	2010	-0.5%	4.4%	1.8%	2.3%	2.3%
2011	27.4%	34.0%	37.8%	40.3%	41.8%	2011	15.9%	6.6%	8.1%	8.8%	8.9%
2012	29.5%	36.2%	40.3%	42.6%	44.8%	2012	7.6%	6.4%	6.6%	5.6%	7.2%
2013	31.0%	38.5%	42.4%	43.2%		2013	5.2%	6.4%	5.4%	1.6%	
2014	33.3%	41.3%	45.1%			2014	7.3%	7.2%	6.4%		
2015	35.2%	43.3%				2015	5.8%	4.8%			
2016	34.0%					2016	-3.6%				

Temporary Indemnity

Percentage of All Cumulative Injury Claims						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1999	20.1%	17.0%	16.2%	15.7%	15.4%	1999	---	---	---	---	---
2000	20.6%	17.2%	17.2%	16.6%	16.1%	2000	2.8%	1.0%	5.9%	5.6%	4.4%
2001	20.3%	18.4%	17.5%	16.7%	16.1%	2001	-1.5%	7.2%	1.6%	0.3%	0.0%
2002	19.8%	18.0%	16.5%	15.6%	15.6%	2002	-2.3%	-2.5%	-5.7%	-6.3%	-3.2%
2003	21.5%	18.1%	16.6%	16.1%	15.9%	2003	8.4%	0.4%	0.8%	3.0%	2.2%
2004	21.5%	18.6%	17.2%	16.4%	15.6%	2004	0.1%	3.3%	3.4%	2.2%	-2.1%
2005	21.5%	19.0%	17.5%	15.9%	14.6%	2005	-0.2%	1.9%	2.1%	-3.3%	-6.0%
2006	21.6%	19.2%	16.7%	15.4%	14.6%	2006	0.2%	0.9%	-5.0%	-3.4%	-0.4%
2007	22.7%	18.7%	17.1%	15.9%	15.6%	2007	5.1%	-2.1%	2.7%	3.1%	6.8%
2008	22.3%	19.1%	17.3%	16.2%	16.1%	2008	-1.8%	1.8%	0.9%	2.3%	3.7%
2009	25.1%	21.6%	19.3%	18.2%	17.4%	2009	12.8%	13.2%	11.7%	12.1%	7.9%
2010	26.6%	21.9%	19.9%	18.9%	18.1%	2010	6.1%	1.3%	2.9%	4.1%	3.9%
2011	26.4%	23.7%	22.0%	20.2%	19.1%	2011	-0.9%	8.1%	10.7%	7.0%	5.5%
2012	27.0%	24.6%	21.9%	20.5%	19.1%	2012	2.2%	4.0%	-0.3%	1.3%	0.2%
2013	30.1%	25.6%	22.7%	20.5%		2013	11.7%	4.0%	3.5%	0.1%	
2014	29.8%	24.8%	22.0%			2014	-1.0%	-3.2%	-3.0%		
2015	28.1%	23.9%				2015	-5.7%	-3.4%			
2016	29.1%					2016	3.4%				

Medical-Only

Percentage of All Cumulative Injury Claims						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1999	49.3%	48.6%	48.0%	47.4%	47.1%	1999	---	---	---	---	---
2000	47.9%	47.3%	45.8%	45.7%	47.5%	2000	-2.8%	-2.7%	-4.5%	-3.6%	0.9%
2001	48.9%	46.5%	45.8%	46.0%	46.3%	2001	2.0%	-1.7%	0.0%	0.5%	-2.7%
2002	47.3%	45.4%	45.9%	46.2%	46.5%	2002	-3.2%	-2.3%	0.2%	0.6%	0.5%
2003	45.0%	44.7%	45.0%	45.2%	45.2%	2003	-5.0%	-1.5%	-1.9%	-2.2%	-2.8%
2004	49.9%	50.1%	50.2%	50.2%	49.9%	2004	11.0%	12.0%	11.5%	11.0%	10.4%
2005	57.5%	56.5%	55.5%	54.8%	54.2%	2005	15.2%	12.7%	10.7%	9.0%	8.6%
2006	59.2%	56.3%	55.5%	54.7%	54.6%	2006	2.9%	-0.3%	-0.1%	0.0%	0.8%
2007	57.3%	55.1%	53.7%	54.8%	53.3%	2007	-3.2%	-2.1%	-3.2%	0.1%	-2.4%
2008	56.9%	53.9%	52.4%	52.6%	51.1%	2008	-0.6%	-2.2%	-2.4%	-4.0%	-4.2%
2009	51.0%	47.7%	46.2%	45.5%	44.9%	2009	-10.4%	-11.4%	-11.8%	-13.6%	-12.1%
2010	49.6%	46.1%	45.1%	43.9%	43.4%	2010	-2.8%	-3.4%	-2.5%	-3.4%	-3.4%
2011	46.1%	42.2%	40.1%	39.3%	39.0%	2011	-7.1%	-8.5%	-11.1%	-10.5%	-10.2%
2012	43.4%	39.1%	37.7%	36.8%	35.8%	2012	-5.7%	-7.3%	-5.9%	-6.5%	-8.1%
2013	38.8%	35.8%	34.8%	36.1%		2013	-10.7%	-8.4%	-7.7%	-2.0%	
2014	36.8%	33.9%	32.8%			2014	-5.0%	-5.4%	-5.8%		
2015	36.6%	32.7%				2015	-0.7%	-3.6%			
2016	36.9%					2016	0.9%				

* Includes Permanent Partial, Permanent Total, and Death

Note: Figures in italics are based on a partial accident year. Cumulative injury claims include occupational disease.

Source: WCIRB unit statistical data

Indemnity Claim Frequency by Geographic Region

Bay Area

Indemnity Claim Frequency per \$100M of Exposure at AY 2015 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	25.57	26.48	26.69	26.69	26.50	2001	---	---	---	---	---
2002	24.41	25.56	26.03	25.92	26.00	2002	-4.5%	-3.5%	-2.5%	-2.9%	-1.9%
2003	23.79	24.90	24.83	24.95	25.21	2003	-2.5%	-2.6%	-4.6%	-3.7%	-3.0%
2004	20.34	20.60	20.73	20.98	20.79	2004	-14.5%	-17.3%	-16.5%	-15.9%	-17.5%
2005	17.40	17.55	17.81	17.72	17.83	2005	-14.4%	-14.8%	-14.1%	-15.5%	-14.2%
2006	16.35	16.67	16.59	16.68	16.57	2006	-6.1%	-5.0%	-6.8%	-5.9%	-7.0%
2007	15.50	15.61	15.77	15.84	15.86	2007	-5.2%	-6.4%	-5.0%	-5.0%	-4.3%
2008	14.20	14.62	14.75	14.87	14.87	2008	-8.4%	-6.3%	-6.5%	-6.1%	-6.2%
2009	13.05	13.40	13.57	13.64	13.67	2009	-8.1%	-8.3%	-8.0%	-8.3%	-8.1%
2010	13.55	14.09	14.23	14.32	14.35	2010	3.8%	5.1%	4.8%	5.0%	5.0%
2011	13.04	13.61	13.82	13.93	13.99	2011	-3.7%	-3.4%	-2.9%	-2.8%	-2.6%
2012	12.99	13.61	13.87	13.96	14.01	2012	-0.3%	0.0%	0.4%	0.2%	0.2%
2013	12.49	13.03	13.19	13.27		2013	-3.9%	-4.3%	-4.9%	-4.9%	
2014	12.44	12.93	13.05			2014	-0.4%	-0.7%	-1.1%		
2015	12.32	12.91				2015	-0.9%	-0.2%			
2016	11.69					2016	-5.2%				

Los Angeles/L.A. Basin

Indemnity Claim Frequency per \$100M of Exposure at AY 2015 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	34.95	36.48	37.28	37.59	37.92	2001	---	---	---	---	---
2002	34.24	37.19	37.70	38.02	37.98	2002	-2.0%	1.9%	1.1%	1.1%	0.2%
2003	35.06	36.59	36.80	36.82	36.85	2003	2.4%	-1.6%	-2.4%	-3.1%	-3.0%
2004	29.31	30.06	30.08	30.25	30.44	2004	-16.4%	-17.9%	-18.3%	-17.8%	-17.4%
2005	24.57	25.24	25.56	25.78	26.08	2005	-16.2%	-16.0%	-15.0%	-14.8%	-14.3%
2006	23.17	23.92	24.26	24.55	24.56	2006	-5.7%	-5.2%	-5.1%	-4.8%	-5.8%
2007	22.44	23.38	23.78	23.91	23.98	2007	-3.2%	-2.3%	-2.0%	-2.6%	-2.3%
2008	21.57	22.82	23.21	23.35	23.46	2008	-3.8%	-2.4%	-2.4%	-2.4%	-2.2%
2009	21.36	22.71	23.14	23.38	23.48	2009	-1.0%	-0.5%	-0.3%	0.1%	0.1%
2010	23.08	24.37	24.89	25.12	25.23	2010	8.0%	7.3%	7.5%	7.4%	7.4%
2011	22.92	24.55	25.14	25.38	25.53	2011	-0.7%	0.8%	1.0%	1.1%	1.2%
2012	24.59	26.41	26.99	27.26	27.41	2012	7.3%	7.5%	7.4%	7.4%	7.3%
2013	25.15	26.89	27.39	27.64		2013	2.3%	1.8%	1.5%	1.4%	
2014	25.89	27.52	28.13			2014	2.9%	2.3%	2.7%		
2015	25.72	28.34				2015	-0.6%	3.0%			
2016	24.61					2016	-4.3%				

San Diego

Indemnity Claim Frequency per \$100M of Exposure at AY 2015 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	36.60	37.64	38.05	38.44	38.78	2001	---	---	---	---	---
2002	33.74	35.38	35.71	35.98	36.05	2002	-7.8%	-6.0%	-6.1%	-6.4%	-7.1%
2003	31.90	32.73	33.02	32.96	33.22	2003	-5.5%	-7.5%	-7.5%	-8.4%	-7.8%
2004	26.63	27.39	27.52	27.62	27.36	2004	-16.5%	-16.3%	-16.7%	-16.2%	-17.6%
2005	23.40	23.70	23.74	23.57	23.54	2005	-12.1%	-13.5%	-13.7%	-14.7%	-14.0%
2006	21.86	21.70	21.66	21.57	21.55	2006	-6.6%	-8.4%	-8.8%	-8.5%	-8.5%
2007	21.01	21.21	21.13	20.73	20.75	2007	-3.9%	-2.2%	-2.4%	-3.9%	-3.7%
2008	19.21	19.65	19.84	19.36	19.46	2008	-8.5%	-7.4%	-6.1%	-6.6%	-6.2%
2009	17.79	18.59	18.81	18.92	19.00	2009	-7.4%	-5.4%	-5.2%	-2.3%	-2.3%
2010	19.69	20.44	20.64	20.76	20.86	2010	10.7%	10.0%	9.7%	9.8%	9.8%
2011	19.30	19.99	20.27	20.29	20.34	2011	-2.0%	-2.2%	-1.8%	-2.3%	-2.5%
2012	19.81	20.61	20.68	20.81	20.93	2012	2.6%	3.1%	2.0%	2.6%	2.9%
2013	19.00	19.60	19.81	19.93		2013	-4.1%	-4.9%	-4.2%	-4.2%	
2014	19.50	20.32	20.49			2014	2.6%	3.7%	3.4%		
2015	20.72	21.95				2015	6.2%	8.1%			
2016	19.79					2016	-4.5%				

Figures in italics are based on preliminary partial data.
Source: WCIRB unit statistical data

Indemnity Claim Frequency by Geographic Region

All Other

Indemnity Claim Frequency per \$100M of Exposure at AY 2015 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	42.27	43.22	43.57	43.29	43.10	2001	---	---	---	---	---
2002	39.80	41.99	41.61	41.38	41.52	2002	-5.8%	-2.9%	-4.5%	-4.4%	-3.7%
2003	39.49	39.94	39.73	39.79	39.66	2003	-0.8%	-4.9%	-4.5%	-3.9%	-4.5%
2004	33.80	34.22	34.25	33.99	33.51	2004	-14.4%	-14.3%	-13.8%	-14.6%	-15.5%
2005	29.41	29.82	29.64	29.43	29.66	2005	-13.0%	-12.9%	-13.5%	-13.4%	-11.5%
2006	27.34	27.37	27.28	27.42	27.33	2006	-7.1%	-8.2%	-7.9%	-6.8%	-7.9%
2007	26.09	26.35	26.57	26.52	26.67	2007	-4.6%	-3.7%	-2.6%	-3.3%	-2.4%
2008	23.96	24.67	24.81	25.09	25.22	2008	-8.2%	-6.4%	-6.6%	-5.4%	-5.4%
2009	23.16	24.01	24.44	24.64	24.74	2009	-3.3%	-2.7%	-1.5%	-1.8%	-1.9%
2010	24.52	25.76	26.11	26.30	26.42	2010	5.9%	7.3%	6.8%	6.7%	6.8%
2011	24.34	25.52	25.94	26.11	26.16	2011	-0.7%	-1.0%	-0.6%	-0.7%	-1.0%
2012	24.73	25.91	26.29	26.42	26.53	2012	1.6%	1.5%	1.3%	1.2%	1.4%
2013	24.81	25.91	26.21	26.43		2013	0.3%	0.0%	-0.3%	0.0%	
2014	24.62	25.76	26.18			2014	-0.8%	-0.6%	-0.1%		
2015	24.79	26.41				2015	0.7%	2.5%			
2016	24.77					2016	-0.1%				

All Regions

Indemnity Claim Frequency per \$100M of Exposure at AY 2015 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	34.75	35.93	36.43	36.47	36.50	2001	---	---	---	---	---
2002	33.47	35.71	35.93	35.97	36.01	2002	-3.7%	-0.6%	-1.4%	-1.4%	-1.3%
2003	33.63	34.72	34.72	34.78	34.82	2003	0.5%	-2.8%	-3.4%	-3.3%	-3.3%
2004	28.44	28.97	29.02	29.08	28.96	2004	-15.4%	-16.5%	-16.4%	-16.4%	-16.8%
2005	24.24	24.70	24.85	24.86	25.09	2005	-14.8%	-14.7%	-14.4%	-14.5%	-13.4%
2006	22.71	23.14	23.24	23.43	23.38	2006	-6.3%	-6.3%	-6.5%	-5.8%	-6.8%
2007	21.78	22.31	22.60	22.65	22.73	2007	-4.1%	-3.6%	-2.8%	-3.3%	-2.8%
2008	20.41	21.29	21.54	21.71	21.80	2008	-6.3%	-4.6%	-4.7%	-4.1%	-4.1%
2009	19.75	20.70	21.06	21.24	21.33	2009	-3.2%	-2.8%	-2.2%	-2.2%	-2.2%
2010	21.01	22.09	22.46	22.64	22.74	2010	6.4%	6.7%	6.6%	6.6%	6.6%
2011	20.75	21.97	22.41	22.59	22.69	2011	-1.2%	-0.6%	-0.2%	-0.2%	-0.2%
2012	21.51	22.81	23.25	23.42	23.53	2012	3.7%	3.8%	3.7%	3.7%	3.7%
2013	21.55	22.77	23.11	23.31		2013	0.2%	-0.2%	-0.6%	-0.5%	
2014	21.73	22.89	23.31			2014	0.8%	0.5%	0.9%		
2015	21.58	23.32				2015	-0.7%	1.9%			
2016	20.80					2016	-3.6%				

Figures in italics are based on preliminary partial data.
Source: WCIRB unit statistical data

Indemnity Claim Count Distribution by Part of Body Code

Top 20 Part of Body Codes for Cumulative Injury Indemnity Claims based on AY 2015 Shares												
2015 Rank	POB Code	POB Description	Accident Year									
			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	90	Multiple Body Parts	25.7%	24.0%	25.1%	25.9%	29.0%	29.8%	31.2%	30.5%	32.4%	36.7%
2	42	Lower Back	6.4%	6.2%	7.6%	8.3%	8.2%	8.1%	8.9%	9.3%	9.1%	8.6%
3	91	Body Systems	2.5%	3.0%	4.1%	3.5%	3.7%	4.8%	6.7%	6.1%	5.9%	6.0%
4	66	Psych	4.2%	5.5%	5.6%	5.9%	5.2%	5.1%	4.5%	4.7%	5.0%	4.8%
5	34	Wrist	10.4%	9.9%	7.9%	7.0%	6.8%	7.1%	5.7%	5.6%	4.9%	4.4%
6	38	Shoulder	4.9%	5.4%	4.6%	4.8%	4.6%	4.6%	4.6%	5.0%	4.9%	4.7%
7	35	Hand	5.8%	5.3%	4.6%	4.4%	4.5%	3.9%	3.9%	3.9%	3.6%	3.4%
8	30	Multiple Upper	6.4%	5.9%	5.1%	4.4%	4.2%	4.6%	4.0%	4.2%	3.4%	3.2%
9	39	Wrist and Hand	4.3%	5.6%	4.2%	4.0%	4.2%	4.4%	3.7%	3.5%	3.1%	2.2%
10	25	Soft Tissue (Neck)	0.7%	1.1%	1.6%	2.0%	1.6%	1.7%	1.8%	2.2%	2.5%	1.7%
11	53	Knee	3.0%	2.8%	2.2%	2.8%	2.5%	2.3%	2.7%	2.3%	2.4%	2.3%
12	65	Unclassified	1.8%	1.7%	2.3%	2.0%	2.9%	2.7%	1.8%	1.6%	2.1%	2.4%
13	12	Brain	4.4%	4.0%	5.5%	5.2%	4.2%	2.9%	1.4%	1.4%	1.2%	1.1%
14	33	Lower Arm	2.5%	1.9%	1.8%	1.6%	1.4%	1.6%	1.6%	1.4%	1.2%	1.1%
15	32	Elbow	1.8%	2.1%	1.6%	1.3%	1.2%	1.3%	1.3%	1.3%	1.2%	1.2%
16	43	Disc (Back)	0.2%	0.2%	0.4%	0.4%	0.3%	0.6%	1.0%	1.2%	1.1%	1.3%
17	10	Multiple Head	0.6%	1.0%	1.6%	1.4%	1.0%	1.1%	1.1%	1.2%	1.1%	0.6%
18	20	Multiple Neck	0.7%	0.9%	1.0%	0.9%	0.9%	1.3%	1.1%	0.9%	1.1%	0.9%
19	22	Disc (Neck)	0.6%	0.6%	0.5%	0.6%	0.7%	0.7%	1.0%	1.4%	1.1%	1.0%
20	61	Abdomen	0.7%	1.1%	0.9%	1.0%	0.8%	0.7%	0.7%	1.1%	0.9%	0.9%
Other		Other	12.4%	12.1%	12.0%	12.5%	12.0%	10.8%	11.2%	11.4%	11.6%	11.6%

Top 20 Part of Body Codes for Non-Cumulative Injury Indemnity Claims based on AY 2015 Shares												
2015 Rank	POB Code	POB Description	Accident Year									
			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	42	Lower Back	15.6%	16.7%	17.4%	17.3%	16.8%	16.8%	16.9%	16.6%	16.1%	15.4%
2	90	Multiple Body Parts	11.2%	10.7%	10.8%	11.7%	13.1%	12.6%	12.2%	11.6%	10.7%	10.9%
3	53	Knee	8.2%	8.5%	8.6%	8.6%	8.3%	8.4%	8.9%	8.8%	9.0%	9.1%
4	38	Shoulder	5.1%	5.7%	6.2%	6.1%	6.1%	6.6%	7.5%	7.9%	8.2%	8.2%
5	36	Finger	6.1%	6.2%	6.0%	6.0%	5.8%	5.8%	5.8%	6.0%	6.0%	6.0%
6	35	Hand	4.2%	4.1%	4.1%	4.3%	4.4%	4.6%	4.6%	4.4%	4.6%	4.6%
7	55	Ankle	4.3%	4.4%	4.4%	4.2%	4.3%	4.2%	4.2%	4.4%	4.5%	4.5%
8	34	Wrist	5.9%	5.7%	5.6%	6.0%	5.6%	5.4%	4.1%	3.9%	4.2%	4.2%
9	56	Foot	3.4%	3.1%	3.0%	2.9%	3.0%	2.9%	3.0%	3.2%	3.1%	3.4%
10	61	Abdomen	2.4%	2.4%	2.4%	2.1%	2.3%	2.3%	2.4%	2.4%	2.5%	2.2%
11	33	Lower Arm	1.8%	1.9%	2.0%	2.0%	2.1%	2.2%	2.2%	2.1%	2.3%	2.2%
12	41	Upper Back	1.5%	1.4%	1.4%	1.5%	1.5%	1.6%	1.9%	2.0%	2.0%	1.9%
13	32	Elbow	1.8%	1.8%	1.8%	1.8%	1.7%	1.8%	1.9%	2.0%	2.0%	2.0%
14	54	Lower Leg	1.9%	1.9%	1.8%	1.8%	1.8%	1.8%	1.8%	1.9%	1.9%	2.1%
15	37	Thumb	1.7%	1.7%	1.7%	1.5%	1.6%	1.6%	1.6%	1.7%	1.7%	2.0%
16	30	Multiple Upper	2.1%	1.9%	1.9%	2.0%	1.9%	1.9%	1.7%	1.6%	1.6%	1.5%
17	31	Upper Arm	1.8%	1.9%	2.2%	2.3%	2.3%	2.0%	1.7%	1.6%	1.6%	1.4%
18	63	Vertebrae (Back)	1.0%	0.8%	0.9%	0.7%	0.7%	0.8%	1.0%	1.2%	1.3%	1.0%
19	25	Soft Tissue (Neck)	0.9%	1.0%	1.3%	1.5%	1.4%	1.3%	1.4%	1.3%	1.2%	1.2%
20	10	Multiple Head	1.1%	1.1%	1.2%	1.3%	1.2%	1.3%	1.1%	1.1%	1.2%	1.1%
Other		Other	18.1%	17.0%	15.4%	14.4%	14.2%	14.0%	14.2%	14.4%	14.6%	15.2%

Note: Figures in italics are based on a partial data.
Source: WCIRB unit statistical data at first report level

Average Incurred Indemnity Loss per Reported Indemnity Claim
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	9	21	33	45	57	69	81	93	105	117
1993										11,730
1994									12,494	12,593
1995								14,174	14,385	14,500
1996							16,100	16,414	16,635	16,685
1997						18,143	18,602	18,932	18,952	18,990
1998					19,427	20,260	20,765	20,869	20,893	20,998
1999				19,931	21,272	22,055	22,339	22,430	22,610	22,710
2000			18,794	21,279	22,533	22,932	23,124	23,455	23,644	23,776
2001		14,645	20,437	22,929	24,142	24,629	25,211	25,548	25,867	26,048
2002	9,664	15,053	19,814	21,672	22,451	23,268	23,689	24,055	24,297	24,567
2003	10,248	15,204	19,442	21,030	22,302	23,068	23,685	24,119	24,586	24,988
2004	9,684	13,209	15,515	17,082	17,836	18,642	19,161	19,737	20,113	20,423
2005	7,728	10,505	13,254	14,698	15,833	16,644	17,383	17,959	18,273	18,496
2006	7,560	10,998	14,339	16,143	17,394	18,427	19,180	19,632	19,906	20,089
2007	7,408	11,720	15,581	17,686	18,932	19,956	20,673	21,237	21,484	21,726
2008	7,684	12,714	16,943	19,533	21,088	22,039	22,699	23,154	23,453	23,622
2009	7,960	13,277	17,595	20,304	21,917	22,942	23,562	23,967	24,325	
2010	7,907	13,020	17,450	19,896	21,375	22,317	22,921	23,327		
2011	7,975	13,461	17,551	19,901	21,166	21,950	22,465			
2012	8,242	13,481	17,364	19,376	20,656	21,510				
2013	8,455	13,405	17,125	19,173	20,223					
2014	8,500	13,544	17,679	19,875						
2015	8,830	14,159	18,331							
2016	8,996	14,236								
2017	9,132									

Accident Year	Annual Change									
	9	21	33	45	57	69	81	93	105	117
1994										7.4%
1995									15.1%	15.1%
1996								15.8%	15.6%	15.1%
1997							15.5%	15.3%	13.9%	13.8%
1998						11.7%	11.6%	10.2%	10.2%	10.6%
1999					9.5%	8.9%	7.6%	7.5%	8.2%	8.2%
2000				6.8%	5.9%	4.0%	3.5%	4.6%	4.6%	4.7%
2001			8.7%	7.8%	7.1%	7.4%	9.0%	8.9%	9.4%	9.6%
2002		2.8%	-3.0%	-5.5%	-7.0%	-5.5%	-6.0%	-5.8%	-6.1%	-5.7%
2003	6.0%	1.0%	-1.9%	-3.0%	-0.7%	-0.9%	0.0%	0.3%	1.2%	1.7%
2004	-5.5%	-13.1%	-20.2%	-18.8%	-20.0%	-19.2%	-19.1%	-18.2%	-18.2%	-18.3%
2005	-20.2%	-20.5%	-14.6%	-14.0%	-11.2%	-10.7%	-9.3%	-9.0%	-9.2%	-9.4%
2006	-2.2%	4.7%	8.2%	9.8%	9.9%	10.7%	10.3%	9.3%	8.9%	8.6%
2007	-2.0%	6.6%	8.7%	9.6%	8.8%	8.3%	7.8%	8.2%	7.9%	8.1%
2008	3.7%	8.5%	8.7%	10.4%	11.4%	10.4%	9.8%	9.0%	9.2%	8.7%
2009	3.6%	4.4%	3.8%	3.9%	3.9%	4.1%	3.8%	3.5%	3.7%	
2010	-0.7%	-1.9%	-0.8%	-2.0%	-2.5%	-2.7%	-2.7%	-2.7%		
2011	0.9%	3.4%	0.6%	0.0%	-1.0%	-1.6%	-2.0%			
2012	3.4%	0.1%	-1.1%	-2.6%	-2.4%	-2.0%				
2013	2.6%	-0.6%	-1.4%	-1.0%	-2.1%					
2014	0.5%	1.0%	3.2%	3.7%						
2015	3.9%	4.5%	3.7%							
2016	1.9%	0.5%								
2017	1.5%									

Annual Trend*										
All-Yr	-0.2%	0.1%	-0.3%	-0.4%	-0.3%	0.2%	0.9%	1.7%	2.7%	3.6%
R ²	0.008	0.003	0.014	0.025	0.012	0.008	0.107	0.260	0.384	0.472
5-Year	2.1%	1.7%	1.1%	-0.4%	-1.9%	-0.9%	1.8%	4.8%	7.6%	4.6%
R ²	0.957	0.806	0.421	0.125	0.987	0.382	0.320	0.799	0.985	0.612

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 58% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Incurred Medical Loss per Reported Claim
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1998									6,101	6,307
1999								6,894	7,165	7,390
2000						7,517	7,833	8,089	8,221	
2001					8,449	8,760	9,140	9,535	9,853	
2002				8,443	8,802	9,239	9,599	9,909	10,184	
2003			7,722	8,119	8,648	9,028	9,388	9,757	10,047	
2004		5,610	6,199	6,738	7,170	7,619	7,959	8,232	8,454	
2005		4,606	5,369	5,928	6,348	6,899	7,296	7,651	7,949	8,041
2006	3,937	4,869	5,944	6,621	7,170	7,668	8,076	8,412	8,596	8,712
2007	4,166	5,461	6,699	7,547	8,197	8,775	9,241	9,559	9,738	9,815
2008	4,474	6,167	7,531	8,543	9,386	10,003	10,414	10,708	10,834	10,881
2009	5,051	6,878	8,546	9,711	10,689	11,311	11,676	11,894	11,992	
2010	5,140	7,155	9,002	10,319	11,099	11,636	11,959	12,104		
2011	5,341	7,741	9,590	10,790	11,590	12,011	12,244			
2012	5,605	7,805	9,421	10,340	10,949	11,343				
2013	5,642	7,769	9,145	9,957	10,416					
2014	5,622	7,468	8,758	9,515						
2015	5,814	7,507	8,785							
2016	5,782	7,516								
2017	5,941									

Accident Year	Annual Change									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1999									17.4%	17.2%
2000								13.6%	12.9%	11.2%
2001							16.5%	16.7%	17.9%	19.8%
2002					4.2%	5.5%	5.0%	3.9%	3.4%	
2003				-3.8%	-1.8%	-2.3%	-2.2%	-1.5%	-1.3%	
2004			-19.7%	-17.0%	-17.1%	-15.6%	-15.2%	-15.6%	-15.9%	
2005		-4.3%	-4.4%	-5.8%	-3.8%	-4.2%	-3.9%	-3.4%	-4.9%	
2006		5.7%	10.7%	11.7%	13.0%	11.1%	10.7%	9.9%	8.1%	8.3%
2007	5.8%	12.2%	12.7%	14.0%	14.3%	14.4%	14.4%	13.6%	13.3%	12.7%
2008	7.4%	12.9%	12.4%	13.2%	14.5%	14.0%	12.7%	12.0%	11.3%	10.9%
2009	12.9%	11.5%	13.5%	13.7%	13.9%	13.1%	12.1%	11.1%	10.7%	
2010	1.8%	4.0%	5.3%	6.3%	3.8%	2.9%	2.4%	1.8%		
2011	3.9%	8.2%	6.5%	4.6%	4.4%	3.2%	2.4%			
2012	4.9%	0.8%	-1.8%	-4.2%	-5.5%	-5.6%				
2013	0.7%	-0.5%	-2.9%	-3.7%	-4.9%					
2014	-0.4%	-3.9%	-4.2%	-4.4%						
2015	3.4%	0.5%	0.3%							
2016	-0.5%	0.1%								
2017	2.7%									

Annual Trend*										
All-Yr	3.6%	4.7%	5.3%	5.0%	4.6%	4.2%	4.0%	3.8%	4.0%	3.2%
R ²	0.861	0.750	0.762	0.678	0.610	0.574	0.590	0.586	0.569	0.407
5-Year	1.3%	-1.1%	-2.5%	-2.4%	-0.7%	3.2%	7.3%	9.9%	11.1%	7.3%
R ²	1.000	0.733	0.651	0.203	0.042	0.595	0.902	0.960	0.998	0.856

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 76% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Indemnity Case Outstanding per Open Indemnity Claim
As of September 30, 2017

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										23,262
1994									25,768	27,837
1995								27,210	30,349	31,095
1996							29,218	32,234	33,525	32,227
1997						28,264	31,521	33,022	32,001	34,992
1998					25,987	29,733	32,159	31,982	32,347	33,601
1999				23,000	26,157	27,549	27,970	28,517	30,243	31,186
2000			20,473	23,031	23,912	23,483	24,071	25,009	25,799	26,829
2001		15,628	19,759	19,962	19,446	19,590	20,817	22,003	23,719	24,806
2002	9,767	15,951	17,718	16,620	16,051	17,483	18,067	19,094	20,319	22,330
2003	10,315	14,967	15,526	15,044	16,306	17,872	20,268	22,603	26,270	30,089
2004	9,764	12,428	12,780	13,935	15,054	17,472	19,073	22,476	24,616	27,489
2005	7,427	9,236	10,936	12,156	14,367	16,568	20,244	23,590	25,586	27,507
2006	6,940	9,731	12,026	14,282	16,621	19,569	21,985	24,573	26,250	27,680
2007	6,675	10,198	13,120	15,597	17,375	19,401	22,285	25,905	27,708	30,135
2008	6,820	10,842	13,793	16,180	17,882	19,777	22,476	25,104	29,004	31,581
2009	7,106	11,404	13,932	16,217	18,247	20,429	22,324	24,897	27,750	
2010	7,079	11,047	13,908	15,494	17,321	19,065	21,132	23,933		
2011	7,191	11,751	14,100	16,425	18,360	20,194	22,386			
2012	7,453	11,685	14,167	15,594	17,803	19,719				
2013	7,646	11,573	13,872	15,425	16,707					
2014	7,724	11,857	14,482	16,508						
2015	8,156	12,628	15,989							
2016	8,258	13,033								
2017	8,573									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										19.7%
1995									17.8%	11.7%
1996								18.5%	10.5%	3.6%
1997							7.9%	2.4%	-4.5%	8.6%
1998						5.2%	2.0%	-3.1%	1.1%	-4.0%
1999					0.7%	-7.3%	-13.0%	-10.8%	-6.5%	-7.2%
2000				0.1%	-8.6%	-14.8%	-13.9%	-12.3%	-14.7%	-14.0%
2001			-3.5%	-13.3%	-18.7%	-16.6%	-13.5%	-12.0%	-8.1%	-7.5%
2002		2.1%	-10.3%	-16.7%	-17.5%	-10.8%	-13.2%	-13.2%	-14.3%	-10.0%
2003	5.6%	-6.2%	-12.4%	-9.5%	1.6%	2.2%	12.2%	18.4%	29.3%	34.7%
2004	-5.3%	-17.0%	-17.7%	-7.4%	-7.7%	-2.2%	-5.9%	-0.6%	-6.3%	-8.6%
2005	-23.9%	-25.7%	-14.4%	-12.8%	-4.6%	-5.2%	6.1%	5.0%	3.9%	0.1%
2006	-6.6%	5.4%	10.0%	17.5%	15.7%	18.1%	8.6%	4.2%	2.6%	0.6%
2007	-3.8%	4.8%	9.1%	9.2%	4.5%	-0.9%	1.4%	5.4%	5.6%	8.9%
2008	2.2%	6.3%	5.1%	3.7%	2.9%	1.9%	0.9%	-3.1%	4.7%	4.8%
2009	4.2%	5.2%	1.0%	0.2%	2.0%	3.3%	-0.7%	-0.8%	-4.3%	
2010	-0.4%	-3.1%	-0.2%	-4.5%	-5.1%	-6.7%	-5.3%	-3.9%		
2011	1.6%	6.4%	1.4%	6.0%	6.0%	5.9%	5.9%			
2012	3.6%	-0.6%	0.5%	-5.1%	-3.0%	-2.4%				
2013	2.6%	-1.0%	-2.1%	-1.1%	-6.2%					
2014	1.0%	2.5%	4.4%	7.0%						
2015	5.6%	6.5%	10.4%							
2016	1.2%	3.2%								
2017	3.8%									

Annual Trend*										
All-Yr	-0.7%	-0.9%	-1.3%	-1.6%	-2.0%	-2.2%	-2.2%	-1.6%	-0.9%	-0.1%
R ²	0.069	0.073	0.139	0.214	0.286	0.344	0.370	0.277	0.109	0.001
5-Year	3.0%	3.1%	2.8%	0.6%	-1.5%	-0.2%	-0.5%	-0.9%	2.7%	3.8%
R ²	1.000	0.948	0.523	0.350	0.265	0.000	0.059	0.245	0.359	0.987

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 58% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Medical Case Outstanding per Open Indemnity Claim
As of September 30, 2017

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										42,293
1994									37,360	45,421
1995								37,458	48,126	55,212
1996							31,873	38,346	43,960	48,579
1997						26,490	35,498	43,769	50,291	59,664
1998					24,663	33,816	41,980	47,689	55,909	70,422
1999				18,094	24,403	31,126	37,241	44,575	58,592	71,569
2000			15,396	19,942	24,282	29,260	34,967	45,572	54,456	61,882
2001		12,796	15,871	18,426	21,469	26,105	32,042	40,868	54,106	66,338
2002	11,392	13,736	15,323	17,238	19,742	24,747	31,730	40,266	49,217	60,343
2003	12,141	13,199	14,677	16,848	20,409	27,364	35,417	43,682	55,626	68,231
2004	11,703	12,509	13,894	17,700	23,387	29,803	38,068	47,564	56,566	68,665
2005	12,288	13,220	16,511	20,434	24,594	32,849	41,391	51,691	62,440	68,758
2006	11,516	14,550	18,747	23,569	28,994	36,314	43,817	54,461	63,186	70,057
2007	12,550	15,733	20,288	25,403	31,706	38,596	48,034	58,313	66,583	74,658
2008	12,833	17,088	21,056	26,187	32,602	39,993	48,545	58,303	67,402	73,840
2009	13,933	17,653	22,210	26,903	33,524	40,054	47,330	56,004	63,324	
2010	14,139	17,747	22,650	27,664	32,658	38,753	45,199	50,384		
2011	14,659	19,335	23,699	28,992	35,973	41,059	47,349			
2012	15,504	19,335	23,297	27,025	31,994	37,738				
2013	14,767	18,844	22,158	26,074	30,245					
2014	14,799	18,234	21,279	25,235						
2015	15,598	18,664	23,159							
2016	15,560	19,381								
2017	16,832									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										7.4%
1995									28.8%	21.6%
1996								2.4%	-8.7%	-12.0%
1997							11.4%	14.1%	14.4%	22.8%
1998						27.7%	18.3%	9.0%	11.2%	18.0%
1999					-1.1%	-8.0%	-11.3%	-6.5%	4.8%	1.6%
2000				10.2%	-0.5%	-6.0%	-6.1%	2.2%	-7.1%	-13.5%
2001			3.1%	-7.6%	-11.6%	-10.8%	-8.4%	-10.3%	-0.6%	7.2%
2002		7.4%	-3.5%	-6.4%	-8.0%	-5.2%	-1.0%	-1.5%	-9.0%	-9.0%
2003	6.6%	-3.9%	-4.2%	-2.3%	3.4%	10.6%	11.6%	8.5%	13.0%	13.1%
2004	-3.6%	-5.2%	-5.3%	5.1%	14.6%	8.9%	7.5%	8.9%	1.7%	0.6%
2005	5.0%	5.7%	18.8%	15.4%	5.2%	10.2%	8.7%	8.7%	10.4%	0.1%
2006	-6.3%	10.1%	13.5%	15.3%	17.9%	10.5%	5.9%	5.4%	1.2%	1.9%
2007	9.0%	8.1%	8.2%	7.8%	9.4%	6.3%	9.6%	7.1%	5.4%	6.6%
2008	2.3%	8.6%	3.8%	3.1%	2.8%	3.6%	1.1%	0.0%	1.2%	-1.1%
2009	8.6%	3.3%	5.5%	2.7%	2.8%	0.2%	-2.5%	-3.9%	-6.0%	
2010	1.5%	0.5%	2.0%	2.8%	-2.6%	-3.2%	-4.5%	-10.0%		
2011	3.7%	9.0%	4.6%	4.8%	10.2%	6.0%	4.8%			
2012	5.8%	0.0%	-1.7%	-6.8%	-11.1%	-8.1%				
2013	-4.7%	-2.5%	-4.9%	-3.5%	-5.5%					
2014	0.2%	-3.2%	-4.0%	-3.2%						
2015	5.4%	2.4%	8.8%							
2016	-0.2%	3.8%								
2017	8.2%									

Annual Trend*										
All-Yr	2.6%	3.3%	3.6%	3.6%	3.3%	2.9%	2.6%	2.5%	2.9%	3.1%
R ²	0.916	0.851	0.781	0.727	0.623	0.604	0.618	0.677	0.741	0.687
5-Year	3.2%	0.0%	-1.4%	-2.9%	-2.2%	-0.9%	-1.0%	-1.9%	0.9%	2.3%
R ²	0.858	0.001	0.243	0.735	0.316	0.194	0.337	0.262	0.181	0.814

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 78% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Paid Indemnity Loss per Reported Indemnity Claim
As of September 30, 2017

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										11,234
1994									11,658	11,802
1995								12,944	13,233	13,447
1996							14,191	14,711	15,093	15,385
1997						15,437	16,250	16,880	17,294	17,506
1998					15,588	16,897	17,887	18,578	18,987	19,387
1999				14,585	16,890	18,523	19,581	20,211	20,744	21,149
2000			11,358	15,291	17,903	19,518	20,476	21,302	21,879	22,286
2001		6,152	12,106	16,560	19,553	21,277	22,496	23,323	23,936	24,381
2002	1,968	6,138	11,907	16,172	18,756	20,338	21,426	22,178	22,682	23,097
2003	2,035	6,278	12,098	16,165	18,598	20,140	21,164	21,881	22,480	23,024
2004	1,959	5,935	10,040	12,938	14,698	15,901	16,780	17,518	18,160	18,749
2005	1,888	5,446	8,886	11,335	12,957	14,076	14,932	15,672	16,365	16,883
2006	2,017	5,715	9,622	12,171	13,983	15,340	16,442	17,297	17,972	18,429
2007	2,122	6,176	10,325	13,200	15,245	16,762	17,945	18,861	19,482	20,057
2008	2,320	6,698	11,209	14,639	17,075	18,790	19,995	20,870	21,475	21,957
2009	2,365	6,730	11,550	15,161	17,734	19,532	20,822	21,741	22,456	
2010	2,332	6,707	11,515	15,191	17,694	19,408	20,627	21,454		
2011	2,369	6,807	11,681	15,148	17,496	19,103	20,238			
2012	2,454	6,907	11,662	15,090	17,314	18,988				
2013	2,462	6,917	11,699	15,184	17,379					
2014	2,441	7,030	12,229	15,839						
2015	2,484	7,364	12,684							
2016	2,628	7,551								
2017	2,655									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										5.1%
1995									13.5%	13.9%
1996								13.7%	14.1%	14.4%
1997							14.5%	14.7%	14.6%	13.8%
1998						9.5%	10.1%	10.1%	9.8%	10.7%
1999					8.4%	9.6%	9.5%	8.8%	9.3%	9.1%
2000				4.8%	6.0%	5.4%	4.6%	5.4%	5.5%	5.4%
2001			6.6%	8.3%	9.2%	9.0%	9.9%	9.5%	9.4%	9.4%
2002		-0.2%	-1.6%	-2.3%	-4.1%	-4.4%	-4.8%	-4.9%	-5.2%	-5.3%
2003	3.4%	2.3%	1.6%	0.0%	-0.8%	-1.0%	-1.2%	-1.3%	-0.9%	-0.3%
2004	-3.7%	-5.5%	-17.0%	-20.0%	-21.0%	-21.0%	-20.7%	-19.9%	-19.2%	-18.6%
2005	-3.6%	-8.2%	-11.5%	-12.4%	-11.8%	-11.5%	-11.0%	-10.5%	-9.9%	-10.0%
2006	6.8%	4.9%	8.3%	7.4%	7.9%	9.0%	10.1%	10.4%	9.8%	9.2%
2007	5.2%	8.1%	7.3%	8.5%	9.0%	9.3%	9.1%	9.0%	8.4%	8.8%
2008	9.3%	8.5%	8.6%	10.9%	12.0%	12.1%	11.4%	10.6%	10.2%	9.5%
2009	1.9%	0.5%	3.0%	3.6%	3.9%	3.9%	4.1%	4.2%	4.6%	
2010	-1.4%	-0.3%	-0.3%	0.2%	-0.2%	-0.6%	-0.9%	-1.3%		
2011	1.6%	1.5%	1.4%	-0.3%	-1.1%	-1.6%	-1.9%			
2012	3.6%	1.5%	-0.2%	-0.4%	-1.0%	-0.6%				
2013	0.3%	0.1%	0.3%	0.6%	0.4%					
2014	-0.8%	1.6%	4.5%	4.3%						
2015	1.7%	4.8%	3.7%							
2016	5.8%	2.5%								
2017	1.0%									

Annual Trend*										
All-Yr	2.2%	1.6%	0.6%	0.1%	0.0%	0.4%	1.0%	1.7%	2.6%	3.4%
R ²	0.892	0.703	0.094	0.002	0.000	0.020	0.107	0.235	0.358	0.451
5-Year	2.3%	2.4%	2.1%	0.9%	-0.6%	0.0%	2.8%	5.9%	8.4%	5.0%
R ²	0.825	0.903	0.803	0.462	0.854	0.000	0.515	0.859	0.988	0.617

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 58% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Paid Medical Loss per Indemnity Claim
As of September 30, 2017

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
2000										19,848
2001									22,417	23,327
2002								21,810	22,741	23,498
2003							19,815	20,944	21,897	22,751
2004						16,491	17,835	18,999	20,081	21,100
2005					15,147	16,841	18,295	19,470	20,844	21,791
2006				14,523	17,001	18,949	20,610	22,040	23,199	24,049
2007			12,618	16,208	18,953	21,252	23,280	24,885	26,024	26,950
2008		8,974	13,852	17,861	21,129	23,827	25,857	27,337	28,440	29,264
2009	3,597	9,273	14,478	18,957	22,669	25,475	27,433	28,871	29,890	
2010	3,615	9,154	14,468	19,281	22,857	25,368	27,247	28,560		
2011	3,187	8,569	13,909	18,264	21,390	23,789	25,390			
2012	3,103	8,417	13,401	17,375	20,173	22,259				
2013	3,277	8,087	12,787	16,461	19,023					
2014	3,059	7,917	12,557	16,059						
2015	3,173	7,999	12,568							
2016	3,243	8,196								
2017	3,440									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
2001										17.5%
2002									1.4%	0.7%
2003								-4.0%	-3.7%	-3.2%
2004							-10.0%	-9.3%	-8.3%	-7.3%
2005						2.1%	2.6%	2.5%	3.8%	3.3%
2006					12.2%	12.5%	12.7%	13.2%	11.3%	10.4%
2007				11.6%	11.5%	12.2%	13.0%	12.9%	12.2%	12.1%
2008			9.8%	10.2%	11.5%	12.1%	11.1%	9.9%	9.3%	8.6%
2009		3.3%	4.5%	6.1%	7.3%	6.9%	6.1%	5.6%	5.1%	
2010**	0.5%	-1.3%	-0.1%	1.7%	0.8%	-0.4%	-0.7%	-1.1%		
2011**	-11.8%	-6.4%	-3.9%	-5.3%	-6.4%	-6.2%	-6.8%			
2012	-2.6%	-1.8%	-3.7%	-4.9%	-5.7%	-6.4%				
2013	5.6%	-3.9%	-4.6%	-5.3%	-5.7%					
2014	-6.6%	-2.1%	-1.8%	-2.4%						
2015	3.7%	1.0%	0.1%							
2016	2.2%	2.5%								
2017	6.1%									

Annual Trend*										
All-Yr	-0.9%	-1.9%	-1.1%	0.6%	3.0%	5.1%	5.7%	5.2%	3.9%	3.4%
R ²	0.154	0.773	0.236	0.032	0.344	0.671	0.784	0.722	0.589	0.577
5-Year	1.6%	-0.6%	-2.6%	-4.6%	-4.6%	-2.0%	2.3%	6.9%	9.7%	9.1%
R ²	0.324	0.181	0.889	0.986	0.926	0.340	0.290	0.868	0.981	0.975

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 78% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

**Entries for accident years 2010 and 2011 only reflect the paid cost of medical cost containment programs attributable to policies with effective dates prior to July 1, 2010. Entries for accident years 2012 and subsequent exclude the paid cost of medical cost containment programs.

Source: WCIRB quarterly calls for experience

Average Paid Medical Loss per Claim**
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1998									5,044	5,222
1999								5,743	5,964	6,201
2000							6,234	6,526	6,846	7,076
2001						6,927	7,341	7,736	8,039	8,341
2002					6,828	7,337	7,828	8,197	8,524	8,780
2003				5,782	6,477	7,057	7,469	7,860	8,184	8,479
2004			3,710	4,526	5,185	5,686	6,112	6,472	6,813	7,133
2005		2,472	3,445	4,276	4,915	5,417	5,839	6,187	6,589	6,864
2006	1,164	2,588	3,808	4,723	5,447	6,010	6,498	6,915	7,250	7,497
2007	1,168	2,925	4,290	5,375	6,196	6,889	7,496	7,973	8,311	8,589
2008	1,420	3,289	4,841	6,098	7,130	7,977	8,611	9,071	9,416	9,679
2009	1,574	3,591	5,367	6,895	8,147	9,096	9,752	10,235	10,579	
2010	1,583	3,730	5,682	7,414	8,693	9,585	10,255	10,735		
2011	1,590	3,945	6,093	7,795	9,016	9,937	10,556			
2012	1,630	3,977	6,041	7,643	8,763	9,584				
2013	1,706	3,928	5,932	7,445	8,493					
2014	1,653	3,863	5,814	7,236						
2015	1,691	3,886	5,779							
2016	1,717	3,942								
2017	1,756									

Accident Year	Annual Change									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1999									18.2%	18.7%
2000								13.6%	14.8%	14.1%
2001							17.8%	18.5%	17.4%	17.9%
2002						5.9%	6.6%	6.0%	6.0%	5.3%
2003					-5.1%	-3.8%	-4.6%	-4.1%	-4.0%	-3.4%
2004				-21.7%	-19.9%	-19.4%	-18.2%	-17.7%	-16.8%	-15.9%
2005			-7.1%	-5.5%	-5.2%	-4.7%	-4.5%	-4.4%	-3.3%	-3.8%
2006		4.7%	10.5%	10.5%	10.8%	10.9%	11.3%	11.8%	10.0%	9.2%
2007	0.3%	13.0%	12.7%	13.8%	13.8%	14.6%	15.4%	15.3%	14.6%	14.6%
2008	21.6%	12.4%	12.8%	13.5%	15.1%	15.8%	14.9%	13.8%	13.3%	12.7%
2009	10.9%	9.2%	10.9%	13.1%	14.3%	14.0%	13.3%	12.8%	12.4%	
2010	0.6%	3.9%	5.9%	7.5%	6.7%	5.4%	5.2%	4.9%		
2011	0.4%	5.8%	7.2%	5.1%	3.7%	3.7%	2.9%			
2012	2.5%	0.8%		-0.9%	-1.9%	-2.8%				
2013	4.7%	-1.2%	-1.8%	-2.6%	-3.1%					
2014	-3.1%	-1.7%	-2.0%	-2.8%						
2015	2.3%	0.6%	-0.6%							
2016	1.5%	1.4%								
2017	2.3%									

Annual Trend*										
All-Yr	3.5%	4.3%	5.4%	5.2%	4.7%	4.3%	4.2%	4.1%	4.3%	3.7%
R ²	0.748	0.761	0.810	0.701	0.584	0.522	0.530	0.540	0.567	0.453
5-Year	1.0%	-0.3%	-1.4%	-0.9%	0.9%	4.7%	9.0%	12.0%	12.8%	8.7%
R ²	0.468	0.151	0.973	0.270	0.144	0.697	0.921	0.975	0.998	0.858

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 76% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

**All entries reflect the paid cost of medical cost containment programs.

Source: WCIRB quarterly calls for experience

Average Paid Indemnity Loss per Closed Indemnity Claim**
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1993										10,407
1994									10,592	10,800
1995								11,482	11,840	12,123
1996							12,386	12,910	13,343	13,745
1997						13,080	13,931	14,647	15,211	15,502
1998					12,562	13,984	15,204	16,135	16,637	17,194
1999				11,056	13,441	15,216	16,632	17,496	18,232	18,897
2000			6,682	10,913	13,936	16,002	17,432	18,245	19,180	19,896
2001		2,330	6,500	11,390	15,299	17,204	18,341	19,660	20,531	21,134
2002	1,001	2,088	6,473	11,645	14,716	16,363	17,946	18,938	19,675	20,211
2003	1,259	2,684	7,618	12,035	14,341	16,499	17,715	18,564	19,244	19,864
2004	937	2,739	6,265	8,986	11,508	12,892	13,857	14,644	15,421	16,307
2005	964	2,439	4,699	7,803	9,895	11,124	12,089	12,961	13,996	14,771
2006	1,224	2,460	5,584	8,443	10,530	12,045	13,306	14,603	15,603	16,358
2007	1,076	2,744	6,007	9,003	11,305	13,032	14,668	16,016	16,967	17,887
2008	1,206	3,142	6,510	9,900	12,589	14,936	16,675	17,978	18,985	19,807
2009	1,453	3,257	6,863	10,421	13,530	15,910	17,731	19,179	20,164	
2010	1,207	3,228	6,977	10,902	13,976	16,270	18,006	19,353		
2011	1,272	3,576	7,494	11,395	14,301	16,486	18,068			
2012	1,454	3,909	8,068	11,809	14,510	16,593				
2013	1,636	4,371	8,427	12,170	14,873					
2014	1,643	4,551	9,053	12,947						
2015	1,729	5,009	9,806							
2016	1,852	5,364								
2017	1,973									

Accident Year	Annual Change									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1994										3.8%
1995									11.8%	12.3%
1996								12.4%	12.7%	13.4%
1997							12.5%	13.4%	14.0%	12.8%
1998						6.9%	9.1%	10.2%	9.4%	10.9%
1999					7.0%	8.8%	9.4%	8.4%	9.6%	9.9%
2000				-1.3%	3.7%	5.2%	4.8%	4.3%	5.2%	5.3%
2001			-2.7%	4.4%	9.8%	7.5%	5.2%	7.8%	7.0%	6.2%
2002		-10.4%	-0.4%	2.2%	-3.8%	-4.9%	-2.2%	-3.7%	-4.2%	-4.4%
2003	25.8%	28.5%	17.7%	3.4%	-2.5%	0.8%	-1.3%	-2.0%	-2.2%	-1.7%
2004	-25.6%	2.0%	-17.8%	-25.3%	-19.8%	-21.9%	-21.8%	-21.1%	-19.9%	-17.9%
2005	2.9%	-11.0%	-25.0%	-13.2%	-14.0%	-13.7%	-12.8%	-11.5%	-9.2%	-9.4%
2006	27.0%	0.9%	18.8%	8.2%	6.4%	8.3%	10.1%	12.7%	11.5%	10.7%
2007	-12.1%	11.6%	7.6%	6.6%	7.4%	8.2%	10.2%	9.7%	8.7%	9.3%
2008	12.1%	14.5%	8.4%	10.0%	11.4%	14.6%	13.7%	12.3%	11.9%	10.7%
2009	20.4%	3.7%	5.4%	5.3%	7.5%	6.5%	6.3%	6.7%	6.2%	
2010	-17.0%	-0.9%	1.7%	4.6%	3.3%	2.3%	1.6%	0.9%		
2011	5.4%	10.8%	7.4%	4.5%	2.3%	1.3%	0.3%			
2012	14.4%	9.3%	7.7%	3.6%	1.5%	0.7%				
2013	12.5%	11.8%	4.4%	3.1%	2.5%					
2014	0.4%	4.1%	7.4%	6.4%						
2015	5.2%	10.1%	8.3%							
2016	7.1%	7.1%								
2017	6.5%									

Annual Trend*										
All-Yr	4.5%	6.0%	2.6%	0.7%	0.3%	0.5%	1.0%	1.7%	2.5%	3.2%
R ²	0.820	0.926	0.436	0.054	0.009	0.028	0.098	0.222	0.345	0.445
5-Year	5.1%	8.0%	6.7%	4.2%	2.3%	2.5%	5.1%	7.7%	9.7%	6.0%
R ²	0.939	0.985	0.992	0.986	0.984	0.834	0.788	0.931	0.992	0.689

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 58% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

**Paid indemnity losses used in the severity calculations above represent paid indemnity losses on closed indemnity claims only.

Source: WCIRB quarterly calls for experience

Average Paid Medical Loss per Closed Indemnity Claim***
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	9	21	33	45	57	69	81	93	105	117
2000										16,420
2001									18,239	19,090
2002								17,747	18,710	19,486
2003							15,835	16,858	17,727	18,568
2004						12,241	13,437	14,504	15,584	16,906
2005					10,582	12,152	13,428	14,663	16,266	17,623
2006				9,361	11,589	13,521	15,226	17,045	18,561	19,856
2007			7,266	10,303	12,865	15,079	17,397	19,526	21,168	22,770
2008		4,540	7,966	11,368	14,423	17,654	20,188	22,132	23,817	25,155
2009	3,021	4,698	8,311	12,265	16,100	19,388	22,069	24,202	25,737	
2010	2,794	4,673	8,593	13,121	17,012	20,126	22,741	24,854		
2011	1,783	4,170	8,426	12,849	16,470	19,700	21,918			
2012	1,819	4,480	8,865	12,940	16,220	18,787				
2013	2,001	4,792	8,892	12,779	15,937					
2014	1,946	4,858	9,084	12,844						
2015	2,019	5,183	9,507							
2016	2,155	5,479								
2017	2,247									

Accident Year	Annual Change									
	9	21	33	45	57	69	81	93	105	117
2001										16.3%
2002									2.6%	2.1%
2003								-5.0%	-5.3%	-4.7%
2004							-15.1%	-14.0%	-12.1%	-8.9%
2005						-0.7%	-0.1%	1.1%	4.4%	4.2%
2006					9.5%	11.3%	13.4%	16.2%	14.1%	12.7%
2007				10.1%	11.0%	11.5%	14.3%	14.6%	14.0%	14.7%
2008			9.6%	10.3%	12.1%	17.1%	16.0%	13.3%	12.5%	10.5%
2009		3.5%	4.3%	7.9%	11.6%	9.8%	9.3%	9.4%	8.1%	
2010**	-7.5%	-0.5%	3.4%	7.0%	5.7%	3.8%	3.0%	2.7%		
2011**	-36.2%	-10.8%	-1.9%	-2.1%	-3.2%	-2.1%	-3.6%			
2012	2.0%	7.4%	5.2%	0.7%	-1.5%	-4.6%				
2013	10.0%	6.9%	0.3%	-1.2%	-1.7%					
2014	-2.7%	1.4%	2.2%	0.5%						
2015	3.7%	6.7%	4.7%							
2016		6.7%	5.7%							
2017	4.3%									

Annual Trend*										
All-Yr	-2.7%	2.1%	2.8%	3.8%	5.7%	7.3%	7.2%	6.1%	4.5%	3.8%
R ²	0.169	0.518	0.888	0.714	0.767	0.854	0.795	0.654	0.516	0.541
5-Year	3.4%	4.9%	2.7%	-0.5%	-0.7%	1.4%	6.0%	10.2%	12.4%	11.1%
R ²	0.801	0.973	0.925	0.550	0.179	0.190	0.718	0.950	0.991	0.977

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 78% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

**Entries for accident years 2010 and 2011 only reflect the paid cost of medical cost containment programs attributable to policies with effective dates prior to July 1, 2010. Entries for accident years 2012 and subsequent exclude the paid cost of medical cost containment programs.

***Paid medical losses used in the severity calculations above represent paid medical losses on closed indemnity claims only.

Source: WCIRB quarterly calls for experience

Ratio of Incremental Paid Indemnity to Indemnity Claims Open During the Period
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
1993										6,463
1994									6,346	4,826
1995								6,938	6,652	5,880
1996							7,829	8,162	7,466	6,555
1997						9,619	8,724	8,625	6,878	4,649
1998					9,977	9,119	8,970	7,891	6,261	6,898
1999				10,630	10,023	9,995	8,476	6,691	6,928	6,632
2000			11,059	10,782	10,328	8,605	6,976	7,537	6,712	5,920
2001		5,801	10,996	10,918	9,514	7,587	7,190	6,209	5,964	5,406
2002	1,968	5,697	10,441	9,677	8,011	6,935	6,466	5,947	5,090	5,126
2003	2,035	5,756	9,842	8,727	7,569	6,758	6,099	5,624	5,906	6,632
2004	1,959	5,397	7,124	6,810	5,918	5,723	5,607	5,844	6,386	7,344
2005	1,888	4,915	6,353	6,161	5,857	5,655	5,578	6,105	7,177	6,929
2006	2,017	5,069	7,242	6,576	6,580	6,671	7,004	6,943	7,106	6,317
2007	2,122	5,546	7,708	7,297	7,231	7,252	7,268	7,512	6,809	8,062
2008	2,320	6,021	8,281	8,434	8,217	7,793	7,499	7,354	6,820	7,341
2009	2,365	6,069	8,581	8,529	8,307	8,038	7,871	7,670	8,167	
2010	2,332	6,092	8,619	8,834	8,448	8,233	8,180	7,911		
2011	2,369	6,225	8,838	8,576	8,356	8,240	8,227			
2012	2,454	6,305	8,713	8,757	8,340	9,119				
2013	2,462	6,289	8,759	9,127	8,737					
2014	2,441	6,423	9,679	9,812						
2015	2,484	6,806	10,098							
2016	2,628	6,963								
2017	2,655									

Accident Year	Annual Change									
	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
1994										-25.3%
1995									4.8%	21.8%
1996								17.6%	12.2%	11.5%
1997							11.4%	5.7%	-7.9%	-29.1%
1998						-5.2%	2.8%	-8.5%	-9.0%	48.4%
1999					0.5%	9.6%	-5.5%	-15.2%	10.7%	-3.9%
2000				1.4%	3.0%	-13.9%	-17.7%	12.6%	-3.1%	-10.7%
2001			-0.6%	1.3%	-7.9%	-11.8%	3.1%	-17.6%	-11.1%	-8.7%
2002		-1.8%	-5.0%	-11.4%	-15.8%	-8.6%	-10.1%	-4.2%	-14.7%	-5.2%
2003	3.4%	1.0%	-5.7%	-9.8%	-5.5%	-2.6%	-5.7%	-5.4%	16.0%	29.4%
2004	-3.7%	-6.2%	-27.6%	-22.0%	-21.8%	-15.3%	-8.1%	3.9%	8.1%	10.7%
2005	-3.6%	-8.9%	-10.8%	-9.5%	-1.0%	-1.2%	-0.5%	4.5%	12.4%	-5.7%
2006	6.8%	3.1%	14.0%	6.7%	12.3%	18.0%	25.6%	13.7%	-1.0%	-8.8%
2007	5.2%	9.4%	6.4%	11.0%	9.9%	8.7%	3.8%	8.2%	-4.2%	27.6%
2008	9.3%	8.6%	7.4%	15.6%	13.6%	7.5%	3.2%	-2.1%	0.2%	-8.9%
2009	1.9%	0.8%	3.6%	1.1%	1.1%	3.2%	5.0%	4.3%	19.7%	
2010	-1.4%	0.4%	0.4%	3.6%	1.7%	2.4%	3.9%	3.1%		
2011	1.6%	2.2%	2.5%	-2.9%	-1.1%	0.1%	0.6%			
2012	3.6%	1.3%	-1.4%	2.1%	-0.2%	10.7%				
2013	0.3%	-0.3%	0.5%	4.2%	4.8%					
2014	-0.8%	2.1%	10.5%	7.5%						
2015	1.7%	6.0%	4.3%							
2016	5.8%	2.3%								
2017	1.0%									

Annual Trend*										
All-Yr	2.2%	1.6%	-0.4%	-0.7%	-0.9%	-0.7%	-0.4%	-0.3%	0.5%	1.8%
R ²	0.892	0.608	0.011	0.035	0.067	0.034	0.020	0.012	0.048	0.287
5-Year	2.3%	2.8%	3.8%	2.8%	0.9%	3.4%	3.4%	2.9%	2.2%	1.5%
R ²	0.825	0.886	0.758	0.669	0.458	0.826	0.956	0.826	0.213	0.071

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 58% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Ratio of Incremental Paid Medical to Indemnity Claims Open During the Period**
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
2001										11,122
2002									9,420	9,410
2003								8,961	9,500	10,532
2004							8,550	9,252	10,846	12,757
2005						8,525	9,426	9,709	14,212	12,687
2006					8,980	9,561	10,548	11,580	12,205	11,644
2007				9,097	9,673	10,951	12,406	13,140	12,465	12,930
2008			9,037	9,875	11,001	12,189	12,535	12,384	12,318	12,395
2009		8,125	9,394	10,594	11,941	12,462	11,895	11,949	11,603	
2010	3,615	8,026	9,650	11,571	12,017	12,018	12,541	12,445		
2011	3,187	7,701	9,780	10,744	11,077	12,207	11,564			
2012	3,103	7,610	9,230	10,147	10,445	11,343				
2013	3,277	7,092	8,705	9,633	10,164					
2014	3,059	7,030	8,767	9,541						
2015	3,173	7,081	8,798							
2016	3,243	7,302								
2017	3,440									

Accident Year	Annual Change									
	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
2002										-15.4%
2003									0.9%	11.9%
2004								3.2%	14.2%	21.1%
2005							10.2%	4.9%	31.0%	-0.6%
2006						12.2%	11.9%	19.3%	-14.1%	-8.2%
2007					7.7%	14.5%	17.6%	13.5%	2.1%	11.0%
2008				8.5%	13.7%	11.3%	1.0%	-5.8%	-1.2%	-4.1%
2009			4.0%	7.3%	8.5%	2.2%	-5.1%	-3.5%	-5.8%	
2010**		-1.2%	2.7%	9.2%	0.6%	-3.6%	5.4%	4.1%		
2011**	-11.8%	-4.0%	1.3%	-7.1%	-7.8%	1.6%	-7.8%			
2012	-2.6%	-1.2%	-5.6%	-5.6%	-5.7%	-7.1%				
2013	5.6%	-6.8%	-5.7%	-5.1%	-2.7%					
2014	-6.6%	-0.9%	0.7%	-1.0%						
2015	3.7%	0.7%	0.4%							
2016	2.2%	3.1%								
2017	6.1%									

Annual Trend*										
All-Yr	-0.3%	-2.0%	-1.1%	0.0%	1.5%	4.3%	4.8%	5.4%	3.7%	3.2%
R ²	0.019	0.756	0.344	0.000	0.137	0.568	0.624	0.743	0.390	0.472
5-Year	1.6%	-0.8%	-2.6%	-4.8%	-4.5%	-1.6%	-1.4%	0.5%	-3.9%	-0.4%
R ²	0.324	0.164	0.712	0.946	0.926	0.532	0.372	0.027	0.690	0.022

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 78% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

**Entries for accident years 2010 and 2011 only reflect the paid cost of medical cost containment programs attributable to policies with effective dates prior to July 1, 2010. Entries for accident years 2012 and subsequent exclude the paid cost of medical cost containment programs.

Source: WCIRB quarterly calls for experience

Ratio of Quarterly Paid Medical to Indemnity Claims Inventory*
Through September 30, 2017

Development Period	Evaluation Years													
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
3/0	733	1,104	1,201	1,147	1,289	1,553	1,615	1,714	1,601	1,587	1,676	1,850	1,740	2,114
6/3	1,882	2,100	2,477	2,330	2,870	3,029	3,071	3,139	3,000	3,013	2,887	3,176	3,173	3,371
9/6	2,081	2,048	2,440	2,517	2,952	3,160	3,137	3,108	3,148	3,269	3,087	3,082	3,194	3,276
12/9	2,064	2,174	2,431	2,697	3,012	3,075	3,134	3,065	3,243	3,033	2,987	2,949	3,175	
12/0	3,952	4,282	4,839	5,103	6,035	6,228	6,172	6,076	6,139	6,065	5,905	5,986	6,217	
15/12	2,733	2,257	2,284	2,571	2,927	3,040	3,131	3,159	3,354	3,316	3,070	3,128	3,136	3,472
18/15	2,641	2,096	2,430	2,186	2,680	2,784	2,924	2,982	3,221	3,187	2,840	2,877	3,019	3,027
21/18	2,228	1,751	1,881	2,168	2,474	2,616	2,711	2,802	2,975	2,914	2,827	2,816	2,832	2,754
24/21	1,895	1,669	1,834	2,190	2,407	2,537	2,603	2,738	3,035	2,929	2,751	2,723	2,771	
24/12	7,741	6,361	6,360	7,576	8,762	9,141	9,420	9,576	10,215	9,966	9,297	9,241	9,362	
27/24	2,287	1,720	1,495	1,728	2,214	2,353	2,531	2,563	2,740	3,022	2,858	2,781	2,809	2,918
30/27	2,263	1,653	1,865	1,801	2,337	2,607	2,708	2,857	2,988	3,162	3,035	3,033	3,066	3,032
33/30	2,011	1,544	1,632	1,807	2,342	2,560	2,770	2,912	3,100	3,196	3,176	2,997	2,996	2,876
36/33	1,822	1,591	1,704	1,965	2,389	2,596	2,731	2,889	3,406	3,308	3,122	3,141	3,039	
36/24	7,441	5,781	5,540	6,452	8,158	8,942	9,452	9,861	10,661	11,007	10,475	10,136	10,082	
39/36	2,056	1,670	1,471	1,710	2,032	2,278	2,500	2,680	3,019	3,258	3,170	3,261	3,022	3,044
42/39	2,079	1,602	1,981	1,791	2,146	2,524	2,786	2,944	3,124	3,539	3,461	3,361	3,124	3,266
45/42	1,931	1,595	1,646	1,836	2,166	2,517	2,735	3,083	3,246	3,427	3,691	3,368	3,243	2,992
48/45	1,839	1,634	1,812	1,953	2,251	2,551	2,913	3,072	3,411	3,629	3,436	3,356	3,368	
48/36	6,854	5,676	5,551	6,360	7,478	8,645	9,621	10,316	11,224	12,024	11,854	11,412	10,770	

Development Period	Year-to-Year Change													
	03-to-04	04-to-05	05-to-06	06-to-07	07-to-08	08-to-09	09-to-10	10-to-11	11-to-12	12-to-13	13-to-14	14-to-15	15-to-16	16-to-17
3/0	-13.4%	50.7%	8.8%	-4.6%	12.4%	20.5%	4.0%	6.1%	-6.6%	-0.8%	5.6%	10.4%	-5.9%	21.5%
6/3	-4.0%	11.6%	17.9%	-6.0%	23.2%	5.5%	1.4%	2.2%	-4.4%	0.4%	-4.2%	10.0%	-0.1%	6.3%
9/6	-8.8%	-1.6%	19.1%	3.1%	17.3%	7.0%	-0.7%	-0.9%	1.3%	3.9%	-5.6%	-0.1%	3.6%	2.6%
12/9	-14.0%	5.3%	11.8%	11.0%	11.7%	2.1%	1.9%	-2.2%	5.8%	-6.5%	-1.5%	-1.3%	7.7%	
12/0	-10.1%	8.4%	13.0%	5.5%	18.2%	3.2%	-0.9%	-1.5%	1.0%	-1.2%	-2.6%	1.4%	3.9%	
15/12	0.1%	-17.4%	1.2%	12.6%	13.8%	3.9%	3.0%	0.9%	6.2%	-1.1%	-7.4%	1.9%	0.2%	10.7%
18/15	-5.5%	-20.6%	15.9%	-10.1%	22.6%	3.9%	5.0%	2.0%	8.0%	-1.1%	-10.9%	1.3%	5.0%	0.3%
21/18	-13.6%	-21.4%	7.4%	15.3%	14.1%	5.8%	3.6%	3.4%	6.2%	-2.1%	-3.0%	-0.4%	0.6%	-2.7%
24/21	-22.1%	-11.9%	9.8%	19.4%	9.9%	5.4%	2.6%	5.2%	10.8%	-3.5%	-6.1%	-1.0%	1.8%	
24/12	-7.9%	-17.8%	0.0%	19.1%	15.7%	4.3%	3.0%	1.7%	6.7%	-2.4%	-6.7%	-0.6%	1.3%	
27/24	0.0%	-24.8%	-13.1%	15.6%	28.1%	6.3%	7.6%	1.2%	6.9%	10.3%	-5.4%	-2.7%	1.0%	3.9%
30/27	-0.4%	-27.0%	12.8%	-3.5%	29.8%	11.5%	3.9%	5.5%	4.6%	5.8%	-4.0%	-0.1%	1.1%	-1.1%
33/30	-10.0%	-23.2%	5.7%	10.7%	29.6%	9.3%	8.2%	5.1%	6.5%	3.1%	-0.6%	-5.7%	0.0%	-4.0%
36/33	-18.9%	-12.7%	7.1%	15.3%	21.6%	8.7%	5.2%	5.8%	17.9%	-2.9%	-5.6%	0.6%	-3.2%	
36/24	-5.9%	-22.3%	-4.2%	16.5%	26.4%	9.6%	5.7%	4.3%	8.1%	3.2%	-4.8%	-3.2%	-0.5%	
39/36	2.7%	-18.8%	-11.9%	16.2%	18.8%	12.1%	9.8%	7.2%	12.6%	7.9%	-2.7%	2.9%	-7.3%	0.7%
42/39	-1.4%	-23.0%	23.7%	-9.6%	19.8%	17.6%	10.4%	5.7%	6.1%	13.3%	-2.2%	-2.9%	-7.1%	4.6%
45/42	-5.9%	-17.4%	3.2%	11.5%	18.0%	16.2%	8.7%	12.7%	5.3%	5.6%	7.7%	-8.7%	-3.7%	-7.7%
48/45	-18.8%	-11.1%	10.9%	7.8%	15.2%	13.3%	14.2%	5.4%	11.0%	6.4%	-5.3%	-2.3%	0.3%	
48/36	-3.4%	-17.2%	-2.2%	14.6%	17.6%	15.6%	11.3%	7.2%	8.8%	7.1%	-1.4%	-3.7%	-5.6%	

* All paid medical include the paid cost of medical cost containment programs. Indemnity claim inventory is the sum of indemnity claims open at the beginning of the development period and newly-reported indemnity claims during that period.

Source: WCIRB accident year experience calls.

Estimated Ultimate Severities by Injury Type

Indemnity Severity Adjusted to PY 2018 Benefit Level					Medical Severity Adjusted to PY 2018 Benefit Level**							
Accident Year	Ultimate Indemnity Severity		Permanent		Accident Year	Ultimate Medical Severity**			Permanent			Medical
	Permanent	Temporary	Permanent	Temporary		Permanent	Temporary	Only	Permanent	Temporary		
	Partial	Temporary	Partial	Temporary		Partial	Temporary	Only	Partial	Temporary	Only	
2001	44,515	3,975	45,254	5,808	2001	49,603	5,005	764	30,560	3,084	471	
2002	42,212	3,959	44,390	5,814	2002	49,834	5,421	855	31,886	3,468	547	
2003	41,485	4,189	46,015	5,685	2003	48,429	5,660	923	32,510	3,800	619	
2004	35,505	4,116	48,989	5,453	2004	48,768	5,382	847	43,303	4,779	752	
2005	34,072	3,843	56,152	5,001	2005	53,439	5,371	862	47,451	4,769	765	
2006	36,712	3,861	55,715	4,897	2006	57,519	5,539	886	50,870	4,899	784	
2007	39,318	4,214	57,276	5,228	2007	63,250	6,433	960	54,894	5,583	834	
2008	41,562	4,675	54,711	5,686	2008	66,610	7,162	1,043	57,580	6,191	901	
2009	41,780	5,244	54,713	6,333	2009	67,553	7,823	1,153	58,163	6,735	993	
2010	40,814	6,221	52,731	7,402	2010	66,531	9,057	1,183	57,111	7,774	1,015	
2011	39,072	6,790	49,686	7,952	2011	60,825	9,052	1,130	53,120	7,905	987	
2012	39,820	7,188	49,462	8,217	2012	58,107	9,004	1,130	52,263	8,098	1,016	
2013	37,415	7,698	45,113	8,758	2013	54,923	8,855	1,152	53,107	8,562	1,114	
2014	39,183	7,899	43,087	8,825	2014	53,046	8,771	1,226	54,116	8,947	1,251	
2015	40,007	8,453	42,942	9,192	2015	53,895	9,454	1,248	54,871	9,626	1,271	
2016*	40,509	8,917	42,718	9,497	2016*	53,879	9,633	1,323	54,637	9,768	1,342	

Accident Year	Annual Change		Annual Change		Accident Year	Annual Change			Annual Change		
2001	---	---	---	---	2001	---	---	---	---	---	
2002	-5.2%	-0.4%	-1.9%	0.1%	2002	0.5%	8.3%	11.9%	4.3%	12.5%	
2003	-1.7%	5.8%	3.7%	-2.2%	2003	-2.8%	4.4%	7.9%	2.0%	9.5%	
2004	-14.4%	-1.8%	6.5%	-4.1%	2004	0.7%	-4.9%	-8.2%	33.2%	25.8%	
2005	-4.0%	-6.6%	14.6%	-8.3%	2005	9.6%	-0.2%	1.7%	9.6%	-0.2%	
2006	7.7%	0.5%	-0.8%	-2.1%	2006	7.6%	3.1%	2.8%	7.2%	2.7%	
2007	7.1%	9.1%	2.8%	6.8%	2007	10.0%	16.1%	8.4%	7.9%	14.0%	
2008	5.7%	10.9%	-4.5%	8.7%	2008	5.3%	11.3%	8.6%	4.9%	10.9%	
2009	0.5%	12.2%	0.0%	11.4%	2009	1.4%	9.2%	10.6%	1.0%	8.8%	
2010	-2.3%	18.6%	-3.6%	16.9%	2010	-1.5%	15.8%	2.6%	-1.8%	15.4%	
2011	-4.3%	9.2%	-5.8%	7.4%	2011	-8.6%	-0.1%	-4.5%	-7.0%	1.7%	
2012	1.9%	5.9%	-0.5%	3.3%	2012	-4.5%	-0.5%	0.0%	-1.6%	2.4%	
2013	-6.0%	7.1%	-8.8%	6.6%	2013	-5.5%	-1.7%	1.9%	1.6%	5.7%	
2014	4.7%	2.6%	-4.5%	0.8%	2014	-3.4%	-1.0%	6.4%	1.9%	4.5%	
2015	2.1%	7.0%	-0.3%	4.2%	2015	1.6%	7.8%	1.8%	1.4%	7.6%	
2016*	1.3%	5.5%	-0.5%	3.3%	2016*	0.0%	1.9%	6.0%	-0.4%	1.5%	

* Accident year 2016 experience is partial in that it only reflects experience from policy year 2015.

** Entries for accident years 2010 and 2011 only reflect the paid cost of medical cost containment programs attributable to policies with effective dates prior to July 1, 2010. Entries for accident year 2012 and forward exclude the paid cost of medical cost containment programs.

Source: WCIRB unit statistical data

Average and Median Indemnity Claim Severities at USR 1st Report Level

Policy Year	Average Incurred Indemnity Severity	Annual Change	Median Incurred Indemnity Severity	Annual Change
1999	11,132	---	2,953	---
2000	12,408	11.5%	3,640	23.3%
2001	13,468	8.5%	4,320	18.7%
2002	13,985	3.8%	4,930	14.1%
2003	13,905	-0.6%	5,000	1.4%
2004	11,397	-18.0%	4,100	-18.0%
2005	9,945	-12.7%	3,400	-17.1%
2006	10,643	7.0%	3,520	3.5%
2007	11,291	6.1%	3,966	12.7%
2008	11,947	5.8%	4,402	11.0%
2009	12,136	1.6%	4,717	7.2%
2010	11,976	-1.3%	4,791	1.6%
2011	12,514	4.5%	5,000	4.4%
2012	12,304	-1.7%	5,000	0.0%
2013	12,577	2.2%	5,250	5.0%
2014	13,008	3.4%	5,274	0.5%
2015 *	13,300	2.2%	5,320	0.9%

Policy Year	Average Incurred Medical Severity	Annual Change	Median Incurred Medical Severity	Annual Change
1999	10,243	---	4,809	---
2000	11,934	16.5%	5,600	16.4%
2001	13,853	16.1%	6,989	24.8%
2002	15,151	9.4%	7,797	11.6%
2003	14,501	-4.3%	7,575	-2.8%
2004	13,129	-9.5%	6,750	-10.9%
2005	13,457	2.5%	6,331	-6.2%
2006	14,791	9.9%	6,924	9.4%
2007	16,095	8.8%	7,942	14.7%
2008	17,273	7.3%	9,000	13.3%
2009	17,828	3.2%	9,723	8.0%
2010	17,676	-0.9%	9,409	-3.2%
2011	17,894	1.2%	9,388	-0.2%
2012	17,640	-1.4%	9,500	1.2%
2013	17,046	-3.4%	9,477	-0.2%
2014	17,032	-0.1%	9,241	-2.5%
2015 *	16,761	-1.6%	9,022	-2.4%

* Policy Year 2015 data is preliminary.

Source: WCIRB Unit Statistical Data

Average Permanent Disability Ratings by Type of Loss

All Permanent Disability Claims

PY/RL	Average Permanent Disability Rating				
	1	2	3	4	5
2001	18.7	23.5	26.3	26.9	27.0
2002	18.8	23.6	24.9	25.5	25.3
2003	19.8	22.1	23.4	23.1	22.8
2004	16.3	18.2	18.9	18.5	18.4
2005	12.5	14.7	15.9	16.3	17.0
2006	11.8	14.3	15.6	16.7	17.3
2007	11.9	14.5	16.5	17.4	18.0
2008	12.0	15.0	16.8	17.7	17.8
2009	12.5	15.2	16.8	17.3	17.3
2010	12.7	15.0	15.9	16.2	16.7
2011	12.7	14.4	15.1	15.8	16.3
2012	11.7	13.1	14.2	14.9	
2013	11.2	12.8	13.8		
2014	10.7	12.2			
2015	10.1				

Count of Permanent Disability Claims

PY/RL	Count of Permanent Disability Claims				
	1	2	3	4	5
2001	86,866	96,753	101,760	104,639	104,977
2002	83,512	96,104	100,986	101,707	102,286
2003	72,220	82,602	85,033	86,288	87,321
2004	55,302	61,487	64,917	66,484	69,382
2005	44,534	52,460	55,964	59,841	60,676
2006	41,898	50,585	56,984	58,701	60,092
2007	39,680	52,600	56,745	59,422	60,491
2008	39,044	49,862	55,409	57,557	58,356
2009	38,426	50,342	54,881	56,391	58,291
2010	39,642	51,516	56,149	58,623	59,612
2011	41,611	52,864	57,781	59,942	61,941
2012	40,786	53,155	59,170	62,471	
2013	41,885	55,985	63,598		
2014	44,909	59,436			
2015	45,723				

Cumulative Permanent Disability Claims

PY/RL	Average Permanent Disability Rating				
	1	2	3	4	5
2001	16.9	21.4	23.8	24.4	24.6
2002	16.9	20.4	21.5	22.1	22.2
2003	17.4	19.2	20.3	20.2	20.0
2004	15.0	16.0	16.7	16.5	16.8
2005	10.8	12.8	14.6	15.5	16.6
2006	10.3	12.8	14.8	16.2	16.9
2007	10.7	13.3	15.5	16.6	17.5
2008	11.4	13.9	15.7	17.0	17.3
2009	11.5	14.0	15.8	16.3	16.6
2010	12.5	14.9	15.4	15.8	16.5
2011	11.8	13.5	14.2	14.9	15.6
2012	10.9	12.1	13.2	13.9	
2013	10.3	11.5	12.4		
2014	10.1	10.9			
2015	9.3				

Count of Permanent Disability Claims

PY/RL	Count of Permanent Disability Claims				
	1	2	3	4	5
2001	7,629	10,374	10,871	11,366	11,403
2002	9,172	10,951	11,677	11,871	12,050
2003	7,774	9,258	9,679	10,033	10,248
2004	5,102	6,015	6,685	7,129	7,865
2005	3,424	4,536	5,237	6,014	6,438
2006	3,290	4,635	5,552	6,081	6,438
2007	3,209	4,723	5,691	6,203	6,515
2008	3,343	4,944	5,987	6,512	6,853
2009	3,736	5,528	6,591	7,239	7,783
2010	3,951	5,750	6,763	7,622	8,174
2011	4,225	6,237	7,625	8,478	9,179
2012	4,990	7,469	9,039	10,083	
2013	6,321	9,348	11,177		
2014	7,167	10,590			
2015	7,794				

Median Permanent Disability Rating

PY/RL	Median Permanent Disability Rating				
	1	2	3	4	5
2001	15	18	20	20	21
2002	15	17	18	19	19
2003	15	15	15	15	15
2004	11	12	13	13	13
2005	8	10	10	11	12
2006	7	9	10	11	12
2007	8	10	11	12	13
2008	9	10	11	12	12
2009	10	10	11	12	12
2010	10	11	11	12	12
2011	10	10	11	11	12
2012	9	10	10	10	
2013	8	9	10		
2014	8	8			
2015	7				

Non-Cumulative Permanent Disability Claims

PY/RL	Average Permanent Disability Rating				
	1	2	3	4	5
2001	18.9	23.8	26.6	27.1	27.3
2002	19.0	24.0	25.3	25.9	25.7
2003	20.1	22.5	23.8	23.5	23.1
2004	16.5	18.5	19.1	18.8	18.6
2005	12.6	14.8	16.0	16.4	17.1
2006	12.0	14.5	15.7	16.8	17.3
2007	12.0	14.6	16.6	17.5	18.1
2008	12.0	15.1	16.9	17.8	17.9
2009	12.6	15.3	16.9	17.4	17.4
2010	12.7	15.1	15.9	16.2	16.7
2011	12.7	14.6	15.2	16.0	16.4
2012	11.8	13.2	14.4	15.1	
2013	11.3	13.1	14.1		
2014	10.9	12.5			
2015	10.3				

Count of Permanent Disability Claims

PY/RL	Count of Permanent Disability Claims				
	1	2	3	4	5
2001	79,237	86,379	90,889	93,273	93,574
2002	74,340	85,153	89,309	89,836	90,236
2003	64,446	73,344	75,354	76,255	77,073
2004	50,200	55,472	58,232	59,355	61,517
2005	41,110	47,924	50,727	53,827	54,238
2006	38,608	45,950	51,432	52,620	53,654
2007	36,481	47,877	51,054	53,219	53,976
2008	35,701	44,918	49,422	51,045	51,503
2009	34,690	44,814	48,290	49,152	50,508
2010	35,691	45,766	49,386	51,001	51,438
2011	37,386	46,627	50,156	51,464	52,762
2012	35,796	45,686	50,131	52,388	
2013	35,564	46,637	52,421		
2014	37,742	48,846			
2015	37,929				

Median Permanent Disability Rating

PY/RL	Median Permanent Disability Rating				
	1	2	3	4	5
2001	15	20	24	24	25
2002	16	21	22	23	23
2003	17	20	20	20	20
2004	13	15	15	15	15
2005	10	11	12	13	13
2006	9	11	12	13	13
2007	10	11	13	14	14
2008	10	12	13	14	14
2009	10	11	13	14	14
2010	11	12	12	13	14
2011	10	11	12	13	13
2012	10	10	11	12	
2013	9	10	11		
2014	9	10			
2015	8				

Note: Cumulative claims include both cumulative and occupational disease claims.

Source: WCIIRB unit statistical data

Average Paid ALAE Per Reported Indemnity Claim - Private Insurers**
As of September 30, 2017

Accident Year	Evaluated as of (in months):									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1993										2,028
1994									2,002	2,039
1995								2,133	2,203	2,243
1996							2,378	2,509	2,574	2,655
1997						2,758	2,951	3,080	3,209	3,327
1998					2,812	3,160	3,381	3,606	3,791	3,922
1999				2,564	3,067	3,392	3,673	3,935	4,126	4,174
2000			2,188	3,036	3,562	3,984	4,417	4,706	4,826	4,981
2001		1,202	2,436	3,245	4,194	4,936	5,421	5,648	5,895	6,070
2002	441	1,497	2,720	4,058	4,878	5,515	5,881	6,184	6,392	6,569
2003	432	1,507	3,194	4,376	5,278	5,819	6,232	6,533	6,769	6,969
2004	316	1,554	2,955	4,137	4,908	5,451	5,856	6,158	6,388	6,580
2005	349	1,412	2,708	3,765	4,534	5,086	5,503	5,825	6,091	6,326
2006	360	1,470	2,828	3,891	4,681	5,288	5,745	6,085	6,400	6,628
2007	372	1,609	3,016	4,163	5,040	5,709	6,245	6,669	6,982	7,216
2008	412	1,730	3,264	4,585	5,581	6,341	6,924	7,369	7,691	7,913
2009	464	1,929	3,683	5,136	6,254	7,103	7,749	8,202	8,524	
2010	504	2,054	3,834	5,300	6,415	7,252	7,836	8,232		
2011	495	2,068	3,824	5,285	6,421	7,191	7,753			
2012	504	2,115	3,986	5,525	6,584	7,336				
2013	539	2,328	4,278	5,714	6,711					
2014	598	2,529	4,458	5,848						
2015	665	2,624	4,551							
2016	671	2,704								
2017	708									

Accident Year	Annual Change									
	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>	<u>93</u>	<u>105</u>	<u>117</u>
1994										0.5%
1995									10.0%	10.0%
1996								17.6%	16.8%	18.4%
1997							24.1%	22.8%	24.7%	25.3%
1998						14.6%	14.6%	17.1%	18.2%	17.9%
1999					9.1%	7.3%	8.6%	9.1%	8.8%	6.4%
2000				18.4%	16.1%	17.4%	20.3%	19.6%	17.0%	19.4%
2001			11.3%	6.9%	17.7%	23.9%	22.7%	20.0%	22.1%	21.9%
2002		24.5%	11.7%	25.1%	16.3%	11.7%	8.5%	9.5%	8.4%	8.2%
2003	-2.1%	0.7%	17.4%	7.8%	8.2%	5.5%	6.0%	5.6%	5.9%	6.1%
2004	-26.9%	3.1%	-7.5%	-5.5%	-7.0%	-6.3%	-6.0%	-5.8%	-5.6%	-5.6%
2005	10.2%	-9.1%	-8.3%	-9.0%	-7.6%	-6.7%	-6.0%	-5.4%	-4.6%	-3.9%
2006	3.3%	4.1%	4.4%	3.3%	3.2%	4.0%	4.4%	4.5%	5.1%	4.8%
2007	3.1%	9.5%	6.7%	7.0%	7.7%	8.0%	8.7%	9.6%	9.1%	8.9%
2008	10.8%	7.5%	8.2%	10.1%	10.7%	11.1%	10.9%	10.5%	10.2%	9.7%
2009	12.7%	11.4%	12.8%	12.0%	12.0%	12.0%	11.9%	11.3%	10.8%	
2010	8.6%	6.5%	4.1%	3.2%	2.6%	2.1%	1.1%	0.4%		
2011	-1.7%	0.7%	-0.3%	-0.3%	0.1%	-0.8%	-1.1%			
2012	1.8%	2.3%	4.2%	4.5%	2.5%	2.0%				
2013	7.0%	10.1%	7.3%	3.4%	1.9%					
2014	10.8%	8.6%	4.2%	2.3%						
2015	11.3%	3.8%	2.1%							
2016	0.9%	3.1%								
2017	5.5%									

	Annual Trend*									
All-Year	4.6%	5.2%	4.5%	4.8%	5.3%	6.1%	7.3%	8.5%	9.5%	10.2%
R ²	0.773	0.941	0.913	0.868	0.857	0.858	0.860	0.874	0.889	0.902
5-Year	6.8%	6.3%	4.7%	2.8%	1.7%	3.1%	5.7%	8.4%	8.9%	5.1%
R ²	0.920	0.942	0.969	0.938	0.955	0.658	0.787	0.950	0.986	0.779

Note: All figures in each calendar year diagonal contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for a given accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 58% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

*Trend is based on an exponential distribution.

**All paid ALAE exclude the paid cost of medical cost containment programs.

Source: WCIRB accident year experience calls.

Item AC18-03-02
12/31/2017 Experience – Review of Methodologies

Staff has prepared a preliminary analysis of statewide experience through December 31, 2017, which is included in Exhibits 1 through 8. This information reflects insurers writing approximately 100% of the market based on 2017 premium levels. The methodologies used were consistent with those reflected in the January 1, 2018 Pure Premium Rate Filing. Wage and loss levels were projected to April 1, 2019 (the approximate midpoint of experience on policies incepting between July 1, 2018 and December 31, 2018) and premiums were adjusted to the industry average filed pure premium rate level as of July 1, 2017 as reflected in the January 1, 2018 Pure Premium Rate Filing.

As shown on Exhibit 8, the projected loss to the industry average filed pure premium ratio for policies incepting between July 1, 2018 and December 31, 2018 based on December 31, 2017 experience is 0.591. (The policy year 2018 loss to pure premium ratio reflected in the Amended January 1, 2018 Pure Premium Rate Filing based on June 30, 2017 experience was 0.641.)

Additional supplemental information is included in Exhibits 9 through 12.

**California Workers' Compensation
Accident Year Experience as of December 31, 2017**

Year	Earned Premium	Paid Indemnity	Indemnity Reserves	Paid Medical**	Medical Reserves	IBNR*	Total Incurred**	Loss Ratio*
1985	2,872,481,605	1,278,631,775	3,801,318	985,105,548	20,819,278	15,593,836	2,303,951,755	0.802
1986	3,506,609,097	1,382,498,583	4,921,029	1,136,208,586	30,611,739	18,902,117	2,573,142,054	0.734
1987	4,374,085,383	1,504,454,210	7,343,851	1,327,185,475	44,615,546	61,965,004	2,945,564,086	0.673
1988	5,173,049,472	1,701,585,119	7,264,460	1,531,873,403	42,714,474	39,740,931	3,323,178,387	0.642
1989	5,674,529,942	1,937,265,938	8,699,942	1,786,669,698	60,106,713	38,911,902	3,831,654,193	0.675
1990	5,698,665,461	2,254,587,062	8,772,390	2,032,192,596	59,311,213	63,819,894	4,418,683,155	0.775
1991	5,863,319,243	2,469,914,939	17,219,332	2,183,376,707	67,884,160	60,574,810	4,798,969,948	0.818
1992	5,681,466,382	1,971,255,132	13,865,986	1,747,340,284	68,636,833	62,390,633	3,863,488,868	0.680
1993	5,928,480,359	1,689,085,606	15,079,809	1,495,940,715	86,686,628	49,728,158	3,336,520,916	0.563
1994	5,022,749,028	1,621,495,191	21,086,862	1,453,280,447	92,554,341	53,140,225	3,241,557,066	0.645
1995	3,778,975,599	1,754,822,231	31,920,000	1,596,765,676	118,162,413	63,268,873	3,564,939,193	0.943
1996	3,736,857,547	1,939,382,391	38,810,192	1,686,732,199	131,003,164	76,256,636	3,872,184,582	1.036
1997	3,916,944,392	2,298,635,565	47,188,277	1,981,090,256	154,785,111	115,122,657	4,596,821,866	1.174
1998	4,322,051,270	2,750,762,041	61,269,775	2,593,745,499	247,950,610	206,714,934	5,860,442,859	1.356
1999	4,537,629,086	3,028,102,322	59,652,249	2,975,488,834	220,192,136	286,378,851	6,569,814,392	1.448
2000	5,905,419,052	3,392,132,457	84,312,884	3,498,395,467	270,510,971	409,789,770	7,655,141,549	1.296
2001	10,094,684,192	4,785,949,210	130,999,900	5,249,256,619	443,963,780	657,056,446	11,267,225,955	1.116
2002	13,405,893,679	4,713,736,453	121,850,957	5,367,039,779	412,537,196	906,913,214	11,522,077,599	0.859
2003	19,429,675,115	4,471,278,692	179,372,311	4,928,233,010	424,605,441	1,301,041,515	11,304,530,969	0.582
2004	23,043,963,090	3,147,713,061	151,744,506	3,942,843,073	377,575,743	1,407,752,848	9,027,629,231	0.392
2005	21,350,709,483	2,472,189,457	137,158,546	3,535,755,543	367,393,647	1,172,160,007	7,684,657,200	0.360
2006	17,205,061,787	2,550,987,645	150,871,788	3,633,158,625	380,764,323	831,707,960	7,547,490,341	0.439
2007	13,252,379,499	2,669,426,070	169,607,547	3,869,372,966	464,871,808	802,655,654	7,975,934,045	0.602
2008	10,744,360,124	2,705,586,885	195,834,485	3,862,354,229	461,375,680	639,198,277	7,864,349,556	0.732
2009	8,877,640,496	2,556,087,276	200,478,745	3,641,128,559	460,289,188	650,739,725	7,508,723,493	0.846
2010	9,398,228,398	2,556,139,899	205,782,363	3,698,461,406	448,377,123	763,138,143	7,671,898,934	0.816
2011	10,129,285,077	2,474,957,007	244,207,169	3,291,858,941	526,544,108	996,140,953	7,533,708,178	0.744
2012	11,692,134,220	2,455,962,956	300,626,288	3,113,269,120	583,417,483	1,244,484,515	7,697,760,362	0.658
2013	14,149,827,161	2,403,972,386	352,363,037	2,869,565,292	656,359,985	2,493,208,304	8,775,469,004	0.620
2014	15,997,914,039	2,303,771,294	515,785,583	2,585,101,891	803,775,389	3,256,442,651	9,464,876,808	0.592
2015	17,055,113,071	1,968,007,624	739,636,803	2,181,815,253	1,085,783,307	4,347,693,630	10,322,936,617	0.605
2016	17,954,631,227	1,268,323,266	921,292,723	1,582,428,381	1,343,177,480	5,387,003,916	10,502,225,766	0.585
2017	17,647,647,790	410,239,015	771,343,869	692,052,235	1,381,898,665	7,546,031,346	10,801,565,130	0.612

* 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	<u>24/12</u>	<u>36/24</u>	<u>48/36</u>	<u>60/48</u>	<u>72/60</u>	<u>84/72</u>	<u>96/84</u>	<u>108/96</u>	<u>120/108</u>	<u>132/120</u>	<u>144/132</u>	<u>156/144</u>	<u>168/156</u>	<u>180/168</u>	<u>192/180</u>	<u>204/192</u>
	Age-to-Age (in months)															
1992															0.998	0.999
1993															0.997	0.999
1994													1.000	0.997	1.000	1.000
1995												1.000	1.000	1.002	1.002	1.000
1996												1.000	1.000	1.001	1.001	1.002
1997											1.002	1.002	1.003	1.002	1.001	1.001
1998									1.007	1.004	1.002	1.003	1.004	1.001	1.002	1.001
1999									1.004	1.004	1.002	1.003	1.003	1.002	1.002	1.001
2000								1.008	1.004	1.004	1.005	1.003	1.001	1.004	1.002	1.000
2001							1.014	1.009	1.006	1.007	1.006	1.005	1.003	1.002	1.001	1.002
2002						1.018	1.011	1.010	1.010	1.007	1.005	1.003	1.002	1.002	1.001	1.002
2003					1.033	1.021	1.026	1.018	1.015	1.009	1.006	1.004	1.003	1.002	1.003	
2004				1.042	1.041	1.026	1.028	1.018	1.014	1.007	1.007	1.003	1.003	1.002	1.002	
2005			1.098	1.068	1.053	1.040	1.028	1.016	1.012	1.006	1.005	1.006	1.001			
2006		1.247	1.111	1.080	1.053	1.035	1.023	1.015	1.009	1.007	1.004	1.004	1.003			
2007	1.784	1.273	1.120	1.070	1.049	1.037	1.022	1.012	1.011	1.005						
2008	1.858	1.302	1.136	1.074	1.045	1.030	1.019	1.012	1.009							
2009	1.983	1.293	1.142	1.076	1.048	1.024	1.019	1.014								
2010	1.994	1.315	1.131	1.069	1.045	1.026	1.016									
2011	1.997	1.277	1.133	1.061	1.037	1.022										
2012	1.992	1.279	1.113	1.063	1.041											
2013	1.931	1.259	1.112	1.055												
2014	1.960	1.278	1.115													
2015	1.969	1.259														
2016	1.939															
Selected (a)	1.939	1.259	1.115	1.055	1.041	1.022	1.016	1.014	1.012	1.007	1.006	1.004	1.002	1.002	1.002	1.001
Cumulative	3.293	1.698	1.349	1.210	1.147	1.101	1.078	1.061	1.046	1.034	1.027	1.021	1.017	1.015	1.013	1.011

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and six-year average for the subsequent age-to-age factors.

Incurred Indemnity Loss Development Factors (Continued)

Accident Year	Age-to-Age (in months)																
	<u>216/204</u>	<u>228/216</u>	<u>240/228</u>	<u>252/240</u>	<u>264/252</u>	<u>276/264</u>	<u>288/276</u>	<u>300/288</u>	<u>312/300</u>	<u>324/312</u>	<u>336/324</u>	<u>348/336</u>	<u>360/348</u>	<u>372/360</u>	<u>384/372</u>	<u>396/384</u>	<u>ULT/396Inc (b)</u>
1982										1.002	1.000	1.001	1.001				
1983									1.000	1.000	1.001	1.001	1.001	1.001	1.001	1.000	
1984								1.000	1.001	1.001	1.000	1.001	1.001	1.000	0.999	1.000	
1985							1.000	1.001	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
1986						1.001	1.001	1.000	1.001	1.002	1.001	1.000	0.999	1.000	1.000		
1987					0.999	1.000	1.000	1.001	1.002	1.000	1.001	1.001	1.001	1.001			
1988				1.001	1.000	1.001	1.002	1.001	1.000	1.000	1.000	1.000	1.000				
1989			1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000					
1990		1.001	1.000	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000						
1991	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000							
1992	0.998	1.001	1.001	1.000	1.001	1.001	1.000	1.000	1.000								
1993	0.999	1.001	1.001	1.001	1.001	1.000	1.000	1.000									
1994	1.001	1.001	1.002	1.000	1.001	1.001	0.999										
1995	1.003	1.001	0.998	1.001	1.000	1.001											
1996	1.003	1.000	1.000	1.000	1.001												
1997	1.000	1.000	1.000	1.000													
1998	1.003	1.001	1.001														
1999	1.000	1.000															
2000	1.002																
Selected (a)	1.002	1.001	1.000	1.000	1.001	1.001	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
Cumulative	1.010	1.008	1.008	1.007	1.007	1.006	1.006	1.006	1.006	1.005	1.005	1.004	1.004	1.003	1.003	1.003	1.003

(b) The ULT/396Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the most recent evaluation, and extrapolated to 80 development years.

Incurred Medical Loss Development Factors

Accident Year	<u>24/12</u>	<u>36/24</u>	<u>48/36</u>	<u>60/48</u>	<u>72/60</u>	<u>84/72</u>	<u>96/84</u>	Age-to-Age (in months) (b)				<u>120/96</u>	<u>132/120</u>	<u>144/132</u>	<u>156/144</u>	<u>168/156</u>	<u>180/168</u>	<u>192/180</u>	<u>204/192</u>
1992																			1.011
1993																		1.018	1.007
1994																	1.009	1.021	1.011
1995																1.028	1.016	1.005	1.009
1996															1.024	1.018	1.013	1.014	1.005
1997															1.012	1.015	1.012	1.003	1.007
1998													1.030		1.017	1.004	1.014	1.008	1.012
1999													1.023		1.018	1.011	1.013	1.005	0.999
2000													1.019		1.018	1.012	1.006	0.999	0.995
2001													1.030		1.024	1.013	1.001	0.997	0.994
2002													1.017		1.022	1.015	1.001	1.000	
2003													1.028		1.022	1.013	0.999	1.000	
2004													1.034		1.032	1.010	0.998		
2005													1.040		1.032	1.006	0.999		
2006													1.036		1.022	1.006			
2007													1.042		1.012	1.000			
2008													1.040		1.004	1.008			
2009													1.032		1.004				
2010													1.026		1.010				
2011													1.007						
2012													1.012						
2013													1.018						
2014													1.010						
2015													1.007						
2016													1.007						
Selected (a)	1.494	1.145	1.078	1.040	1.031	1.016	1.012	1.007	1.016	1.011	1.009	1.008	1.005	1.002	1.002	1.002	1.002	1.002	1.002
Cumulative	2.256	1.510	1.319	1.223	1.176	1.141	1.123	1.110	1.102	1.085	1.073	1.063	1.055	1.045	1.043	1.043	1.043	1.043	1.043

(a) Selections are latest year for the 12-to-24 month through 96-to-108 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	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	ULT/396Inc (c)
1982										1.006	1.004	1.003	1.009	1.004	1.003	0.997	
1983									1.006	1.004	1.002	1.006	1.003	1.004	1.003	0.997	
1984								1.003	1.003	1.002	1.003	1.001	1.003	1.001	0.997	1.000	
1985							1.001	1.003	1.003	1.003	1.005	1.002	1.003	0.998	0.999	0.999	
1986					1.003	1.003	1.006	1.005	1.006	1.004	1.005	1.000	1.002	0.998	1.001		
1987					1.003	1.011	0.999	1.007	1.003	1.004	1.005	1.001	0.997	1.001			
1988					1.005	1.005	1.002	1.005	1.003	1.003	1.002	0.998	0.999				
1989					1.005	1.008	1.006	1.000	1.003	0.999	0.999	0.999					
1990		1.007	1.007	1.005	1.003	1.003	1.003	0.997	1.002	1.000	1.000						
1991	1.008	1.005	1.006	1.002	1.003	1.005	1.000	1.001	1.000	0.999							
1992	1.005	1.004	1.002	1.005	1.003	1.005	1.000	0.999	1.002								
1993	1.007	1.011	1.014	1.004	0.999	1.000	0.996	1.000									
1994	1.011	1.004	1.007	1.006	1.001	0.996	0.995										
1995	1.015	0.996	1.006	0.999	1.006												
1996	1.008	1.005	1.001	0.998	0.999												
1997	1.001	0.994	0.998	0.997													
1998	1.001	1.001	0.994														
1999	0.999	0.995															
2000	0.996																

Selected (a)
Cumulative

1.003 0.999 1.003 1.002 1.002 1.002 1.001 1.001 1.000 1.002 1.002 1.003 1.000 1.001 1.000 1.000 0.999 1.024

(c) The ULT/396Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the most recent evaluation, and extrapolated to 80 development years.

Paid Indemnity Loss Development Factors

Accident Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192
1992															1.004	1.003
1993															1.003	1.003
1994															1.005	1.003
1995															1.004	1.004
1996															1.006	1.005
1997															1.007	1.006
1998															1.006	1.006
1999															1.007	1.004
2000															1.007	1.004
2001															1.007	1.005
2002															1.006	1.006
2003															1.008	1.004
2004															1.007	1.004
2005															1.007	1.005
2006															1.006	1.006
2007															1.009	1.008
2008															1.009	1.009
2009															1.011	1.013
2010															1.012	1.015
2011															1.014	1.015
2012															1.015	1.016
2013															1.015	1.020
2014															1.020	1.021
2015															1.021	1.022
2016															1.022	1.023
Selected (a)	3.236	1.618	1.257	1.129	1.087	1.056	1.038	1.031	1.025	1.019	1.015	1.012	1.009	1.007	1.005	1.004
Cumulative Unadjusted for Impact of SB 863	10.393	3.212	1.985	1.579	1.399	1.287	1.219	1.174	1.139	1.111	1.089	1.073	1.060	1.051	1.044	1.038
Cumulative Adjusted for Impact of SB 863 (b)	10.930	3.378	2.088	1.661	1.427	---	---	---	---	---	---	---	---	---	---	---

- (a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.
(b) The 48-to-ultimate factor for accident year 2014 and the 60-to-ultimate factor for accident year 2013 have been adjusted by 5.2% and 2.0% respectively, for the impacts of SB 863 on indemnity loss development.

(See *Impact of Senate Bill No. 863 on Loss Development Patterns*, WCIRB, August 13, 2013.)

Paid Indemnity Loss Development Factors (Continued)

Accident Year	Age-to-Age (in months)															
	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384
1982									1.001	1.003	1.000	1.001	1.002	1.001	1.001	1.003
1983								1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.004
1984							1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.005
1985						1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.005
1986					1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003
1987				1.001	1.001	1.001	1.002	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.003
1988			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	1.003
1989			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	1.003
1990		1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001	1.001	1.001	1.001	1.003
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	1.003
1992	1.002	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	1.003
1993	1.002	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003
1994	1.004	1.003	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	1.003
1995	1.005	1.005	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.003
1996	1.005	1.004	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.003
1997	1.004	1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.003
1998	1.006	1.004	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.003
1999	1.004	1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.003
2000	1.004															

Selected (a)
Cumulative

1.005
1.034

1.003
1.004

1.001
1.008

1.001
1.009

1.001
1.010

1.001
1.011

1.001
1.012

1.001
1.013

1.001
1.014

1.001
1.015

1.001
1.016

1.001
1.018

1.002
1.020

1.002
1.023

1.002
1.026

1.002
1.029

1.002
1.034

1.002
1.034

1.002
1.034

1.002
1.034

1.002
1.034

1.002
1.034

- (c) Three-year averages of the 396Inc/396Pd factors are selected.
(d) The ULT/396Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the most recent evaluation, and extrapolated to 80 development years.

Paid Medical Loss Development Factors

Unadjusted (a) Accident Year	Age-to-Age (in months)															
	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192
1992															1.013	1.017
1993														1.017	1.013	1.011
1994													1.019	1.018	1.018	1.015
1995												1.023	1.020	1.018	1.016	1.013
1996											1.026	1.022	1.019	1.016	1.014	1.014
1997										1.032	1.030	1.021	1.019	1.019	1.015	1.017
1998									1.032	1.032	1.025	1.025	1.016	1.016	1.018	1.015
1999								1.038	1.031	1.027	1.023	1.020	1.020	1.017	1.013	1.010
2000							1.045	1.038	1.034	1.030	1.022	1.022	1.022	1.017	1.012	1.011
2001					1.074	1.054	1.046	1.034	1.032	1.024	1.023	1.018	1.016	1.012	1.011	
2002					1.092	1.057	1.048	1.041	1.030	1.030	1.026	1.019	1.016	1.013		
2003					1.095	1.070	1.055	1.040	1.036	1.034	1.024	1.018	1.016	1.013		
2004				1.123	1.138	1.073	1.054	1.049	1.038	1.031	1.021	1.019	1.015	1.013		
2005			1.209	1.220	1.140	1.099	1.056	1.042	1.034	1.025	1.020					
2006		1.399	1.413	1.230	1.142	1.097	1.075	1.057	1.041	1.031	1.022					
2007	2.416	1.413	1.230	1.142	1.097	1.075	1.051	1.035	1.027							
2008	2.325	1.421	1.241	1.148	1.103	1.072	1.051	1.035								
2009	2.408	1.447	1.251	1.160	1.104	1.067	1.046	1.032								
2010	2.479	1.468	1.265	1.152	1.097	1.066	1.042									
2011	2.580	1.470	1.248	1.145	1.095	1.058										
2012	2.561	1.468	1.247	1.143	1.087											
2013	2.492	1.464	1.239	1.130												
2014	2.518	1.462	1.226													
2015	2.533	1.439														
2016	2.480															

Adjusted (b) Accident Year	Age-to-Age (in months)															
	<u>24/12</u>	<u>36/24</u>	<u>48/36</u>	<u>60/48</u>	<u>72/60</u>	<u>84/72</u>	<u>96/84</u>	<u>108/96</u>	<u>120/108</u>	<u>132/120</u>	<u>144/132</u>	<u>156/144</u>	<u>168/156</u>	<u>180/168</u>	<u>192/180</u>	<u>204/192</u>
1999															1.014	1.016
2000															1.014	1.011
2001														1.018	1.013	1.012
2002													1.018	1.013	1.012	
2003												1.020	1.018	1.014		
2004											1.026	1.019	1.016			
2005										1.033	1.023	1.020				
2006									1.037	1.027	1.022					
2007								1.045	1.033	1.024						
2008							1.055	1.038	1.029							
2009						1.072	1.049	1.034								
2010					1.103	1.070	1.045									
2011				1.154	1.100	1.061										
2012			1.258	1.148	1.089											
2013		1.476	1.243	1.132												
2014	2.544	1.465	1.227													
2015	2.533	1.439														
2016	2.480															

Selected (c)	2.480	1.439	1.227	1.132	1.089	1.061	1.045	1.034	1.033	1.028	1.024	1.020	1.017	1.015	1.013	1.013
Cumulative	8.457	3.410	2.370	1.931	1.706	1.567	1.477	1.413	1.367	1.323	1.287	1.257	1.233	1.212	1.194	1.179

- (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 following impacts: (i) reduction of historical outstanding medical losses paid prior to January 1, 2013 by the estimated 4.2% cost savings due to applicable SB 863 provisions; (ii) adjustment to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 2.1% decrease in costs, and losses paid prior to January 1, 2015 by an estimated 1.7% decrease in costs due to RBRVS.
- (c) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.

[illegible]

Adjusted (b)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	396Inc/396Pd (d)	ULT/396Inc (d)
1982																	1.028	
1983																1.003	1.032	
1984															1.003	1.003	1.036	
1985														1.002	1.003	1.002	1.033	
1986													1.005	1.006	1.005		1.020	
1987												1.004	1.003	1.003			1.020	
1988											1.003	1.003	1.003					
1989										1.004	1.003	1.003						
1990								1.003	1.003	1.003								
1991								1.004	1.004	1.003								
1992								1.005	1.005	1.007								
1993							1.005	1.007	1.007									
1994					1.009	1.009	1.008											
1995				1.013	1.009	1.014												
1996			1.012	1.009	1.007													
1997		1.012	1.007	1.007														
1998	1.014	1.010	1.009															
1999	1.013	1.010																
2000	1.009																	
Selected (c)	1.012	1.011	1.009	1.010	1.008	1.010	1.007	1.005	1.005	1.003	1.003	1.003	1.004	1.004	1.004	1.003	1.028	
Cumulative	1.164	1.150	1.138	1.127	1.116	1.107	1.096	1.088	1.083	1.078	1.074	1.071	1.067	1.063	1.060	1.056		1.024

(d) Six-year averages of the 396Inc/396Pd factors are selected.

(e) The ULT/3961nc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the most recent evaluation, and extrapolated to 80 development years.

[illegible][illegible]

Cumulative Unadjusted for

Cumulative Adjusted for

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent paid age-to-age factors. Paid development factors are selected to age 240, where an incurred-to-paid ratio is chosen, and subsequently, six-year average incurred loss development factors are selected until ultimate.

(b) The 48-to-ultimate factor for accident year 2014 and the 60-to-ultimate factor for accident year 2013 have been adjusted by 5.2% and 2.0% respectively, for the impacts of SB 863 on indemnity loss development.

(c) A three-year average of the $^{240}\text{Pu}/^{240}\text{Pu}$ factor is selected.

(d) 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 Age 240, Incurred from Age 240 to Ultimate (Continued)

Accident Year	Age-to-Age (in months)														ULT/396Inc (e)
	<u>252/240</u>	<u>264/252</u>	<u>276/264</u>	<u>288/276</u>	<u>300/288</u>	<u>312/300</u>	<u>324/312</u>	<u>336/324</u>	<u>348/336</u>	<u>360/348</u>	<u>372/360</u>	<u>384/372</u>	<u>396/384</u>		
1980									1.000	1.000					
1981								1.002	0.999	1.001					
1982							1.002	1.000	1.001	1.001					
1983					1.000		1.000	1.001	1.001	1.001	1.001	1.001	1.000		
1984					1.001		1.001	1.000	1.001	1.001	1.000	0.999	1.000		
1985				1.000	1.001		1.001	1.001	1.001	1.001	1.000	1.000	1.000		
1986			1.001	1.001	1.000		1.002	1.001	1.000	0.999	1.000	1.000			
1987		0.999	1.000	1.000	1.001		1.000	1.001	1.001	1.001	1.001				
1988	1.001	1.000	1.001	1.002	1.001		1.000	1.000	1.000	1.000					
1989	1.001	1.000	1.001	1.000	1.000		1.001	1.000	1.000						
1990	0.999	1.001	1.000	1.000	1.000		1.000	1.000	1.000						
1991	1.000	1.000	1.000	1.000	1.000		1.000	1.000							
1992	1.000	1.001	1.001	1.000	1.000										
1993	1.001	1.001	1.000	1.000	1.000										
1994	1.000	1.001	1.001	0.999											
1995	1.001	1.000	1.001												
1996	1.000	1.001													
1997	1.000														
Selected (a)	1.000	1.001	1.001	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000		
Cumulative	1.007	1.007	1.006	1.006	1.006	1.006	1.005	1.005	1.004	1.004	1.003	1.003	1.003	1.003	

(e) The ULT/396Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the most recent evaluation, 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	Evaluated as of (in months)						
<u>Year</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2008							122,533
2009						113,143	113,367
2010					116,528	116,923	117,185
2011				116,025	116,790	117,114	117,350
2012			120,697	122,224	122,998	123,437	
2013		123,986	127,798	129,319	130,081		
2014	103,741	128,697	132,815	134,392			
2015	107,408	133,838	137,998				
2016	108,417	136,362					
2017	111,910						

B. Development of Total Reported Indemnity Claim Counts

Accident	Age-to-Age Development (in months):						
<u>Year</u>	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-Ultimate</u>
2009						1.002	
2010					1.003	1.002	
2011				1.007	1.003	1.002	
2012			1.013	1.006	1.004		
2013		1.031	1.012	1.006			
2014	1.241	1.032	1.012				
2015	1.246	1.031					
2016	1.258						
Latest Year	1.258	1.031	1.012	1.006	1.004	1.002	
Cumulative	1.332	1.059	1.027	1.015	1.009	1.005	1.003

Acc. Year	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
Ult. Claim Counts	149,038	144,386	141,713	136,391	131,243	124,097	117,740

C. Closed Indemnity Claim Counts

Accident	Evaluated as of (in months)						
<u>Year</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2008							108,863
2009						95,725	100,417
2010					93,961	100,515	105,591
2011				85,607	95,456	102,030	106,705
2012			76,679	91,844	102,147	109,049	
2013		60,211	82,728	99,339	110,238		
2014	27,893	63,929	87,902	105,140			
2015	29,471	68,496	94,640				
2016	31,569	73,595					
2017	34,848						

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)						
	12	24	36	48	60	72	84
2008							88.5%
2009						84.1%	88.3%
2010					79.9%	85.5%	89.8%
2011				72.7%	81.1%	86.7%	90.6%
2012			61.8%	74.0%	82.3%	87.9%	
2013		45.9%	63.0%	75.7%	84.0%		
2014	20.5%	46.9%	64.4%	77.1%			
2015	20.8%	48.3%	66.8%				
2016	21.9%	51.0%					
2017	23.4%						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							111,507
2009						99,968	103,100
2010					98,758	103,318	106,555
2011				90,763	98,897	103,463	106,705
2012			82,875	95,663	104,236	109,049	
2013		66,896	87,648	101,171	110,238		
2014	31,891	69,520	91,086	105,140			
2015	33,135	72,233	94,640				
2016	33,760	73,595					
2017	34,848						

F. Average Paid Indemnity per Closed Claim

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							17,000
2009						16,395	18,117
2010					14,673	16,722	18,418
2011				12,244	14,970	16,931	18,430
2012			9,128	12,603	15,169	17,058	
2013		5,369	9,609	13,036	15,480		
2014	2,175	5,699	10,267	13,868			
2015	2,368	6,224	10,962				
2016	2,501	6,581					
2017	2,596						

- (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)						
	12	24	36	48	60	72	84
2008							17,974
2009						17,946	19,070
2010					16,147	17,639	18,769
2011				13,603	15,967	17,378	18,430
2012			10,414	13,499	15,718	17,058	
2013		6,382	10,517	13,418	15,480		
2014	2,421	6,537	10,853	13,868			
2015	2,593	6,749	10,962				
2016	2,631	6,581					
2017	2,596						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							2,004,190
2009						1,793,983	1,966,136
2010					1,594,609	1,822,390	1,999,876
2011				1,234,631	1,579,049	1,797,949	1,966,535
2012			863,106	1,291,391	1,638,330	1,860,189	
2013		426,932	921,829	1,357,525	1,706,517		
2014	77,194	454,484	988,566	1,458,041			
2015	85,909	487,472	1,037,486				
2016	88,807	484,345					
2017	90,449						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							630,600
2009						681,846	568,414
2010					738,080	627,209	501,362
2011				792,998	672,288	554,629	442,632
2012			831,585	770,966	641,925	523,349	
2013		697,467	842,019	765,155	619,222		
2014	275,453	723,179	877,434	775,294			
2015	291,509	758,490	878,516				
2016	302,555	747,709					
2017	309,493						

- (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)						
	12	24	36	48	60	72	84
2008							46,143
2009						39,143	43,890
2010					32,714	38,230	43,240
2011				26,072	31,512	36,765	41,581
2012			18,895	25,379	30,784	36,374	
2013		10,944	18,690	25,519	31,206		
2014	3,632	11,166	19,536	26,504			
2015	3,747	11,608	20,262				
2016	3,937	11,912					
2017	4,016						

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)						
	12	24	36	48	60	72	84
2008							-122,002
2009						-166,084	-117,802
2010					-156,929	-107,159	-41,640
2011				-134,425	-108,431	-52,721	
2012			-117,071	-96,924	-64,278		
2013		-73,151	-91,937	-46,751			
2014	-14,521	-62,427	-62,184				
2015	-13,730	-43,369					
2016	-8,626						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							508,598
2009						515,762	450,612
2010					581,152	520,050	459,722
2011				658,573	563,857	501,908	442,632
2012			714,515	674,042	577,647	523,349	
2013		624,316	750,081	718,403	619,222		
2014	260,933	660,752	815,250	775,294			
2015	277,779	715,121	878,516				
2016	293,929	747,709					
2017	309,493						

- (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)						
	12	24	36	48	60	72	84
2008							2,512,788
2009						2,309,745	2,416,748
2010					2,175,760	2,342,439	2,459,598
2011				1,893,204	2,142,906	2,299,857	2,409,166
2012			1,577,620	1,965,433	2,215,977	2,383,539	
2013		1,051,248	1,671,910	2,075,929	2,325,738		
2014	338,126	1,115,236	1,803,816	2,233,335			
2015	363,688	1,202,593	1,916,002				
2016	382,735	1,232,054					
2017	399,942						

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

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2008						
2009						1.046
2010					1.077	1.050
2011				1.132	1.073	1.048
2012			1.246	1.127	1.076	
2013		1.590	1.242	1.120		
2014	3.298	1.617	1.238			
2015	3.307	1.593				
2016	3.219					
Latest Year	3.219	1.593	1.238	1.120	1.076	1.048
3-Year Average	3.275	1.600	1.242	1.127	1.075	1.048

O. Paid Indemnity Loss Development Factors (i)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2009						1.061
2010					1.090	1.060
2011				1.141	1.086	1.056
2012			1.259	1.136	1.088	
2013		1.604	1.259	1.129		
2014	3.235	1.637	1.255			
2015	3.279	1.617				
2016	3.229					

- (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>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>
2009						-1.34%
2010					-1.26%	-0.93%
2011				-0.82%	-1.18%	-0.77%
2012			-1.06%	-0.78%	-1.11%	
2013		-0.83%	-1.34%	-0.76%		
2014	1.95%	-1.18%	-1.33%			
2015	0.83%	-1.48%				
2016	-0.32%					

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

Accident Year	Evaluated as of (in months)					
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>
2009						1.047
2010					1.077	1.050
2011				1.135	1.074	1.048
2012			1.249	1.128	1.075	
2013		1.593	1.243	1.120		
2014	3.292	1.616	1.240			
2015	3.305	1.594				
2016	3.226					
Latest Year	3.226	1.594	1.240	1.120	1.075	1.048
3-Year Average	3.274	1.601	1.244	1.128	1.075	1.048

(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 Age 240, Incurred from Age 240 to Ultimate

Accident Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192	216/204	228/216	240/228	240Inc/240Pd (c)
1991																				
1992																				
1993																				
1994																				
1995																				
1996																				
1997																				
1998																				
1999																				
2000																				
2001																				
2002																				
2003																				
2004																				
2005																				
2006																				
2007																				
2008																				
2009																				
2010																				
2011																				
2012																				
2013																				
2014																				
2015																				
2016																				

Adjusted (b) Accident Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192	216/204	228/216	240/228	240Inc/240Pd (c)
1996																				
1997																				
1998																				
1999																				
2000																				
2001																				
2002																				
2003																				
2004																				
2005																				
2006																				
2007																				
2008																				
2009																				
2010																				
2011																				
2012																				
2013																				
2014																				
2015																				
2016																				

Selected (c)	2.481(e)	1.428(e)	1.215(e)	1.124(e)	1.079(e)	1.054(e)	1.045	1.034	1.033	1.028	1.024	1.020	1.017	1.015	1.013	1.013	1.012	1.011	1.009	1.093
Cumulative	8.155	3.287	2.302	1.895	1.686	1.561	1.481	1.418	1.371	1.327	1.291	1.261	1.237	1.216	1.198	1.183	1.167	1.153	1.141	

- (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 following impacts: (i) reduction of historical outstanding medical losses paid prior to January 1, 2013 by the estimated 4.2% cost savings due to applicable SB 863 provisions; (ii) adjustment to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 2.1% decrease in costs, and losses paid prior to January 1, 2015 by an estimated 1.7% decrease in costs due to RBRVS.
- (c) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent paid age-to-age factors. Paid development factors are selected to age 240, where an incurred-to-paid ratio is chosen, and subsequently, six-year average incurred loss development factors are selected until ultimate.
- (d) A three-year average of the 240Inc/240Pd factor is selected.
- (e) 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.

Selected Medical Development Factors - Paid to Age 240, Incurred from Age 240 to Ultimate (Continued)

Accident Year	Age-to-Age (in months)															
	<u>252/240</u>	<u>264/252</u>	<u>276/264</u>	<u>288/276</u>	<u>300/288</u>	<u>312/300</u>	<u>324/312</u>	<u>336/324</u>	<u>348/336</u>	<u>360/348</u>	<u>372/360</u>	<u>384/372</u>	<u>396/384</u>	<u>ULT/396Inc (d)</u>		
1983													0.997			
1984												0.997	1.000			
1985											0.998	0.999	0.999			
1986										1.002	0.998	1.001				
1987									1.001	0.997	1.001					
1988								1.002	0.998	0.999						
1989							0.999	0.999	0.999							
1990						1.002	1.000	1.000								
1991					1.001	1.000	0.999									
1992				1.000	0.999	1.002										
1993			1.000	0.996	1.000											
1994		1.001	0.996	0.995												
1995	0.999	1.006	0.992													
1996	0.998	0.999														
1997	0.997															
Selected (c)	1.002	1.002	1.000	1.001	1.000	1.002	1.002	1.003	1.000	1.001	1.000	1.000	0.999			
Cumulative	1.035	1.033	1.031	1.032	1.031	1.031	1.029	1.027	1.024	1.024	1.023	1.023	1.023	1.024		

(f) The ULT/396Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the most recent evaluation, 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>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2008							122,533
2009						113,143	113,367
2010					116,528	116,923	117,185
2011				116,025	116,790	117,114	117,350
2012			120,697	122,224	122,998	123,437	
2013		123,986	127,798	129,319	130,081		
2014	103,741	128,697	132,815	134,392			
2015	107,408	133,838	137,998				
2016	108,417	136,362					
2017	111,910						

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):						
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-Ultimate</u>
2009						1.002	
2010					1.003	1.002	
2011				1.007	1.003	1.002	
2012			1.013	1.006	1.004		
2013		1.031	1.012	1.006			
2014	1.241	1.032	1.012				
2015	1.246	1.031					
2016	1.258						
Latest Year	1.258	1.031	1.012	1.006	1.004	1.002	
Cumulative	1.332	1.059	1.027	1.015	1.009	1.005	1.003

Acc. Year	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
Ult. Claim Counts	149,038	144,386	141,713	136,391	131,243	124,097	117,740

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2008							108,863
2009						95,725	100,417
2010					93,961	100,515	105,591
2011				85,607	95,456	102,030	106,705
2012			76,679	91,844	102,147	109,049	
2013		60,211	82,728	99,339	110,238		
2014	27,893	63,929	87,902	105,140			
2015	29,471	68,496	94,640				
2016	31,569	73,595					
2017	34,848						

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)						
	12	24	36	48	60	72	84
2008							88.5%
2009						84.1%	88.3%
2010					79.9%	85.5%	89.8%
2011				72.7%	81.1%	86.7%	90.6%
2012			61.8%	74.0%	82.3%	87.9%	
2013		45.9%	63.0%	75.7%	84.0%		
2014	20.5%	46.9%	64.4%	77.1%			
2015	20.8%	48.3%	66.8%				
2016	21.9%	51.0%					
2017	23.4%						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							111,507
2009						99,968	103,100
2010					98,758	103,318	106,555
2011				90,763	98,897	103,463	106,705
2012			82,875	95,663	104,236	109,049	
2013		66,896	87,648	101,171	110,238		
2014	31,891	69,520	91,086	105,140			
2015	33,135	72,233	94,640				
2016	33,760	73,595					
2017	34,848						

F. Average Paid Medical per Closed Indemnity Claim

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							20,668
2009						20,134	22,644
2010					17,967	20,833	23,451
2011				13,911	17,335	20,307	22,494
2012			10,042	13,829	17,088	19,436	
2013		5,803	10,103	13,709	16,601		
2014	2,409	5,879	10,141	13,744			
2015	2,541	6,311	10,519				
2016	2,747	6,539					
2017	2,884						

- (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)					
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u> <u>84</u>
2008						22,169
2009						22,392 24,101
2010					20,023	22,240 23,983
2011				15,610	18,832	20,954 22,494
2012			11,445	14,957	17,767	19,436
2013		6,841	11,059	14,158	16,601	
2014	2,659	6,677	10,727	13,744		
2015	2,767	6,789	10,519			
2016	2,874	6,539				
2017	2,884					

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

Accident Year	Evaluated as of (in months)					
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u> <u>84</u>
2008						2,471,985
2009						2,238,453 2,484,836
2010					1,977,386	2,297,838 2,555,514
2011				1,416,789	1,862,438	2,168,008 2,400,249
2012			948,489	1,430,842	1,851,946	2,119,477
2013		457,650	969,325	1,432,356	1,830,050	
2014	84,806	464,151	977,094	1,445,053		
2015	91,698	490,404	995,522			
2016	97,026	481,203				
2017	100,486					

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

Accident Year	Evaluated as of (in months)					
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u> <u>84</u>
2008						968,949
2009						1,021,287 885,520
2010					1,061,886	936,895 767,788
2011				1,038,317	928,263	778,971 628,635
2012			984,805	955,161	818,260	681,102
2013		812,603	944,537	877,378	719,413	
2014	340,241	801,954	920,237	814,403		
2015	354,270	811,872	882,377			
2016	371,462	810,417				
2017	393,822					

(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)						
	12	24	36	48	60	72	84
2008							70,901
2009						58,630	68,376
2010					47,066	57,106	66,217
2011				34,137	43,510	51,636	59,054
2012			22,376	31,443	39,241	47,338	
2013		12,751	20,966	29,262	36,255		
2014	4,486	12,382	20,489	27,841			
2015	4,554	12,425	20,351				
2016	4,834	12,912					
2017	5,110						

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)						
	12	24	36	48	60	72	84
2008							-187,462
2009						-248,765	-183,521
2010					-225,775	-160,069	-63,767
2011				-176,010	-149,716	-74,046	
2012			-138,641	-120,081	-81,935		
2013		-85,226	-103,131	-53,608			
2014	-17,936	-69,227	-65,218				
2015	-16,686	-46,421					
2016	-10,591						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2008							781,487
2009						772,522	701,999
2010					836,111	776,825	704,020
2011				862,307	778,546	704,925	628,635
2012			846,164	835,080	736,325	681,102	
2013		727,377	841,406	823,770	719,413		
2014	322,305	732,727	855,020	814,403			
2015	337,584	765,450	882,377				
2016	360,871	810,417					
2017	393,822						

- (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>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2008							251,024
2009						225,372	227,782
2010					221,217	223,544	226,615
2011				206,581	210,178	213,680	217,086
2012			206,967	212,252	217,572	221,664	
2013		199,201	209,356	217,010	222,801		
2014	147,505	220,239	231,701	238,678			
2015	154,001	232,920	242,829				
2016	165,346	247,615					
2017	182,864						

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

Accident Year	Evaluated as of (in months)						
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2008							3,504,496
2009						3,236,347	3,414,617
2010					3,074,753	3,343,083	3,532,872
2011				2,703,697	3,092,151	3,340,740	3,510,116
2012			2,001,620	2,478,174	2,805,843	3,022,243	
2013		1,384,227	2,020,087	2,473,136	2,772,264		
2014	554,616	1,417,118	2,063,815	2,498,135			
2015	583,283	1,488,774	2,120,727				
2016	623,242	1,539,235					
2017	677,171						

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

Accident Year	Evaluated as of (in months)					
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>
2009						1.055
2010					1.087	1.057
2011				1.144	1.080	1.051
2012			1.238	1.132	1.077	
2013		1.459	1.224	1.121		
2014	2.555	1.456	1.210			
2015	2.552	1.424				
2016	2.470					
Latest Year	2.470	1.424	1.210	1.121	1.077	1.051

(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)					
	12-24	24-36	36-48	48-60	60-72	72-84
2009						1.067
2010					1.096	1.066
2011				1.143	1.094	1.058
2012			1.242	1.141	1.087	
2013		1.462	1.234	1.129		
2014	2.519	1.462	1.223			
2015	2.533	1.436				
2016	2.469					

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

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2009						-1.13%
2010					-0.77%	-0.87%
2011				0.03%	-1.22%	-0.66%
2012			-0.35%	-0.77%	-0.88%	
2013		-0.16%	-0.83%	-0.68%		
2014	1.42%	-0.36%	-0.99%			
2015	0.77%	-0.79%				
2016	0.04%					

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

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2009						1.060
2010					1.095	1.061
2011				1.154	1.087	1.054
2012			1.254	1.139	1.079	
2013		1.474	1.233	1.124		
2014	2.580	1.460	1.215			
2015	2.552	1.428				
2016	2.481					
Latest Year	2.481	1.428	1.215	1.124	1.079	1.054
3-Year Average	2.538	1.454	1.234	1.139	1.087	1.058

(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 December 31, 2017**

Accident Year	Development Factors				
	(1) Paid or Incurred Loss Ratio(a)	(2) Annual(b)	Cumulative		(5) Projected Ultimate Loss Ratio (5) = (1) x (4)
			(3) Unadjusted for Impact of SB 863(b)	(4) Adjusted for Impact of SB 863(b)	
1985	0.446	1.001	1.003	1.003	0.448
1986	0.396	1.000	1.003	1.003	0.397
1987	0.346	1.000	1.003	1.003	0.347
1988	0.330	1.000	1.003	1.003	0.331
1989	0.343	1.001	1.004	1.004	0.344
1990	0.397	1.001	1.004	1.004	0.399
1991	0.424	1.001	1.005	1.005	0.426
1992	0.349	1.001	1.005	1.005	0.351
1993	0.287	1.000	1.006	1.006	0.289
1994	0.327	1.000	1.006	1.006	0.329
1995	0.473	1.000	1.006	1.006	0.476
1996	0.529	1.001	1.006	1.006	0.533
1997	0.599	1.001	1.007	1.007	0.603
1998	0.651	1.000	1.007	1.007	0.655
1999	0.667	1.003	1.034	1.034	0.690
2000	0.574	1.003	1.037	1.037	0.596
2001	0.474	1.005	1.042	1.042	0.494
2002	0.352	1.004	1.046	1.046	0.368
2003	0.230	1.005	1.052	1.052	0.242
2004	0.137	1.007	1.059	1.059	0.145
2005	0.116	1.009	1.068	1.068	0.124
2006	0.148	1.012	1.081	1.081	0.160
2007	0.201	1.015	1.098	1.098	0.221
2008	0.252	1.019	1.119	1.119	0.282
2009	0.288	1.025	1.147	1.147	0.330
2010	0.272	1.031	1.183	1.183	0.322
2011	0.244	1.038	1.228	1.228	0.300
2012	0.210	1.048	1.287	1.287	0.270
2013	0.170	1.075	1.383	1.411	0.240
2014	0.144	1.120	1.550	1.630	0.235
2015	0.115	1.240	1.922	2.021	0.233
2016	0.071	1.594	3.064	3.222	0.228
2017	0.023	3.226	9.883	10.393	0.242

- (a) Based on Exhibit 1. To reflect the selected loss development methodology, reported loss ratios displayed prior to 1999 are on an incurred basis. Subsequent reported loss ratios 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 with Adjustment for SB 863
Based on Experience as of December 31, 2017**

	(1)	(2)	(3)	(4)	(5)	(6)
	Adjusted for SB 863					
Accident Year	Unadjusted Paid or Incurred Loss Ratio(a)	Adjusted Paid or Incurred Loss Ratio(b)	Development Factors		Adjusted Developed Loss Ratio(d)	Projected Ultimate Loss Ratio
			Annual(c)	Cumulative	(2) x (4)	(1) + ((5) - (2))
1985	0.350	0.350	1.000	1.024	0.359	0.359
1986	0.333	0.333	0.999	1.023	0.340	0.340
1987	0.314	0.314	1.000	1.023	0.321	0.321
1988	0.304	0.304	1.000	1.023	0.311	0.311
1989	0.325	0.325	1.001	1.024	0.333	0.333
1990	0.367	0.367	1.000	1.024	0.376	0.376
1991	0.384	0.384	1.003	1.027	0.394	0.394
1992	0.320	0.320	1.002	1.029	0.329	0.329
1993	0.267	0.267	1.002	1.031	0.275	0.275
1994	0.308	0.308	1.000	1.031	0.317	0.317
1995	0.454	0.454	1.001	1.032	0.468	0.468
1996	0.486	0.486	1.000	1.031	0.502	0.502
1997	0.545	0.545	1.002	1.033	0.563	0.563
1998	0.657	0.657	1.002	1.035	0.680	0.680
1999	0.656	0.608	1.009	1.141	0.693	0.742
2000	0.592	0.549	1.011	1.153	0.633	0.677
2001	0.520	0.482	1.012	1.167	0.563	0.601
2002	0.400	0.371	1.013	1.183	0.439	0.468
2003	0.254	0.235	1.013	1.198	0.282	0.300
2004	0.171	0.159	1.015	1.216	0.193	0.205
2005	0.166	0.154	1.017	1.237	0.191	0.202
2006	0.211	0.197	1.020	1.261	0.248	0.263
2007	0.292	0.273	1.024	1.291	0.352	0.371
2008	0.359	0.337	1.028	1.327	0.447	0.470
2009	0.410	0.386	1.033	1.371	0.530	0.553
2010	0.394	0.373	1.034	1.418	0.529	0.549
2011	0.325	0.312	1.045	1.481	0.462	0.475
2012	0.266	0.259	1.054	1.561	0.404	0.412
2013	0.203	0.200	1.079	1.686	0.338	0.340
2014	0.162	0.161	1.124	1.895	0.305	0.306
2015	0.128	0.128	1.215	2.302	0.295	0.295
2016	0.088	0.088	1.428	3.287	0.290	0.290
2017	0.039	0.039	2.481	8.155	0.320	0.320

- (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 prior to 1999 are on an incurred basis. Subsequent reported loss ratios are on a paid basis.
- (b) Based on experience evaluated as of December 31, 2017. Reflects an adjustment for SB 863 of -4.2% applied to payments made before January 1, 2013, and adjustments for RBRVS of -2.1% applied to payments made before January 1, 2014, and -1.7% applied to payments made before January 1, 2015. No adjustments are applied to the incurred loss ratios.
- (c) Based on Exhibits 2.6.1 and 2.6.2. Reflects an adjustment for SB 863 of -4.2% applied to payments made before January 1, 2013, and adjustments for RBRVS of -2.1% applied to payments made before January 1, 2014, and -1.7% applied to payments made before January 1, 2015. No adjustments are applied to the incurred loss ratios.
- (d) The developed medical loss ratios shown were derived based on an adjustment to reflect an adjustment for SB 863 and RBRVS. 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 <u>Adjustments (a)</u>	(2) Frequency <u>Adjustments (a)</u>	(3) Annual Impact on Indemnity Benefits Due to Wage <u>Inflation (b)</u>	(4a) Annual Cost Impact on <u>Indemnity (c)</u>	(5a) Composite Indemnity Adjustment <u>Factor (d)</u>	
1985	0.0	0.0	2.0	2.0	1.522	
1986	0.0	0.0	1.6	1.6	1.498	
1987	0.0	0.0	1.9	1.9	1.470	
1988	0.0	0.0	1.5	1.5	1.449	
1989	0.0	0.0	1.5	1.5	1.427	
1990	2.3	19.9	1.7	24.7	1.144	
1991	4.9	14.8	0.8	21.4	0.943	
1992	1.8	-8.3	1.6	-5.2	0.994	
1993	0.2	-18.1	0.4	-17.6	1.206	
1994	-5.1	0.2	0.6	-4.3	1.261	
1995	6.3	0.6	1.0	8.0	1.167	
1996	5.3	0.4	1.2	7.0	1.091	
1997	9.7	0.2	1.6	11.7	0.977	
1998	6.5	0.0	1.8	8.4	0.901	
1999	5.7	0.0	2.1	7.9	0.835	
2000	3.9	0.0	3.1	7.1	0.780	
2001	-0.3	0.0	0.2	-0.1	0.780	
2002	-0.7	0.0	0.2	-0.5	0.801	(e)
2003	7.3	0.0	1.1	8.5	0.800	(e)
2004	-6.0	-13.7	1.6	-17.6	1.103	(e)
2005	-31.6	-15.3	1.1	-41.5	1.497	
2006	5.6	-5.7	1.6	1.2	1.480	
2007	1.6	0.0	1.6	3.2	1.434	
2008	4.8	0.6	0.7	6.2	1.351	
2009	0.4	1.4	0.2	2.0	1.324	
2010	0.4	0.0	1.0	1.4	1.306	
2011	0.0	0.0	1.6	1.6	1.285	
2012	0.3	0.0	2.1	2.4	1.255	
2013	2.2	0.2	0.4	2.8	1.220	
2014	7.0	1.5	1.7	10.4	1.105	
2015	0.3	0.0	2.3	2.6	1.077	
2016	0.3	0.0	1.0	1.3	1.064	
2017	0.5	0.0	1.2	1.7	1.046	
2018	0.4	0.0	2.0	2.4		
4/1/2019	0.3 (Annual 0.4)	0.0	1.8 (Annual 2.4)	2.1		

- (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, including SB 863 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 of injured workers and the legislatively scheduled benefits for that year.
- (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 4/1/2019 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 Year	(1) Proportion of Medical Subject to Fee Schedule (a)	(2) Proportion of Medical Not Subject to Fee Schedule (a)	(3) Impact of Fee Schedule Change on Total Medical (b)	(4) Change in Medical CPI (c)	(5) Impact of CPI Change on Total Medical (d)	(6) Annual Non-Legislative Cost Impact on Total Medical (e)
1985	0.665	0.335	2.3%	6.5%	2.2%	4.5%
1986	0.604	0.396	0.0%	9.1%	3.0%	3.0%
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	0.4%	4.2%	0.3%	0.7%
2015	0.934	0.066	0.1%	3.1%	0.2%	0.3%
2016	0.919	0.081	0.1%	5.4%	0.4%	0.5%
2017	0.919	0.081	0.1%	2.3%	0.2%	0.3%
2018	0.919	0.081	0.0%	3.3%	0.3%	0.3%
4/1/2019	0.919	0.081	0.0% (Annual 0.0%)	2.5% (Annual 3.3%)	0.2%	0.2%

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

(b) Based on the WCIRB's evaluation of the cost impact of changes in the medical fee schedules. Includes the 1/1/2014 changes to the physician fee schedule to a resource-based relative value scale (RBRVS) except for the proportion reflected in loss development (See Exhibit 2.4).

(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)
1985	0.0%	0.0%	0.0%
1986	0.0%	0.0%	0.0%
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	-3.0%	0.0%	-3.0%
2013	-3.0%	0.2%	-2.8%
2014	-2.0%	1.3%	-0.7%
2015	0.0%	0.0%	0.0%
2016	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%
2018	0.0%	0.0%	0.0%
4/1/2019	0.0%	0.0%	0.0%

- (a) These annual cost impacts reflect the WCIRB's retrospective estimates of the cost impact of legislation based on WCIRB cost monitoring results. These factors do not include the estimated - 4.2% impact of 1/1/2013 medical provisions in SB 863, which was reflected in 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)	
1985	4.5%	0.0%	4.5%	0.991	
1986	3.0%	0.0%	3.0%	0.962	
1987	3.8%	0.0%	3.8%	0.927	
1988	3.8%	0.0%	3.8%	0.893	
1989	3.0%	0.0%	3.0%	0.867	
1990	3.7%	19.1%	23.5%	0.702	
1991	3.6%	12.9%	16.9%	0.601	
1992	3.0%	-7.9%	-5.2%	0.633	
1993	2.7%	-18.7%	-16.5%	0.758	
1994	-2.3%	-2.3%	-4.6%	0.795	
1995	0.9%	0.5%	1.4%	0.784	
1996	1.0%	0.4%	1.4%	0.773	
1997	0.7%	0.2%	0.9%	0.766	
1998	0.8%	12.6%	13.5%	0.675	
1999	2.5%	12.6%	15.4%	0.585	
2000	1.7%	7.0%	8.8%	0.537	
2001	2.9%	6.6%	9.7%	0.490	
2002	2.0%	-5.6%	-3.7%	0.509	
2003	1.4%	-6.0%	-4.7%	0.534	
2004	0.0%	-33.9%	-33.9%	0.807	
2005	0.0%	-13.9%	-13.9%	0.937	
2006	0.3%	-5.1%	-4.8%	0.984	
2007	1.8%	0.1%	1.9%	0.966	
2008	0.2%	0.5%	0.7%	0.959	
2009	0.4%	1.0%	1.4%	0.946	
2010	0.3%	0.0%	0.3%	0.943	
2011	0.3%	-2.0%	-1.7%	0.960	
2012	0.1%	-3.0%	-2.9%	0.988	
2013	0.1%	-2.8%	-2.7%	1.016	
2014	0.7%	-0.7%	0.0%	1.020	(e)
2015	0.3%	0.0%	0.3%	1.018	(e)
2016	0.5%	0.0%	0.5%	1.014	(e)
2017	0.3%	0.0%	0.3%	1.012	(e)
2018	0.3%	0.0%	0.3%		
4/1/2019	0.2%	0.0%	0.2%		

(a) See Exhibit 4.2, Column (6).

(b) See Exhibit 4.3, Column (3).

(c) Column (3) = [1.0 + Column (1)] x [1.0 + Column (2)] - 1.0.

(d) These factors adjust the annual impact shown in Column (3) to the 4/1/2019 level.

(e) The on-level factors for accident years 2014, 2015, 2016, and 2017 include the estimated impact of the January 1, 2014 physician fee schedule for the service year 2017.

Annual Wage Level Changes

<u>Year</u>	<u>Annual Wage Level Change</u>	<u>Factor to a 4/1/2019 Wage Level</u>
1985	5.7	3.217
1986	4.7	3.073
1987	5.6	2.910
1988	4.4	2.787
1989	4.3	2.672
1990	5.0	2.545
1991	2.3	2.488
1992	4.7	2.376
1993	1.2	2.348
1994	1.8	2.306
1995	2.9	2.241
1996	3.4	2.168
1997	4.7	2.070
1998	5.2	1.968
1999	6.2	1.853
2000	9.0	1.700
2001	0.6	1.690
2002	0.5	1.682
2003	3.3	1.628
2004	4.7	1.555
2005	3.1	1.508
2006	4.6	1.442
2007	4.5	1.380
2008	2.1	1.351
2009	0.5	1.345
2010	3.0	1.305
2011	3.1	1.266
2012	4.1	1.216
2013	0.7	1.208
2014	3.3	1.169
2015	4.4	1.120
2016	1.9	1.099
2017	2.3	1.074
Projected:		
2018	3.8	
4/1/2019	3.5	(Annual = 4.7)

Source: California average annual wage level changes for 1985 to 2019 derived from information published by the UCLA Anderson School of Business as of December 2017.

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 July 1, 2017 Pure Premium	Factor to Adjust for Impact of Premium Resulting from	Composite Premium Adjustment
Calendar	Factor to a 4/1/2019	Pure Premium	Rate Level as of	Rate Level as of	Surcharge	Experience	Pure Premium	Resulting from	Adjustment
<u>Year</u>	<u>Wage Level (a)</u>	<u>Rates (b)</u>	<u>July 1, 2017 (c)</u>	<u>July 1, 2017 (d)</u>	<u>Premium (e)</u>	<u>Modification (f)</u>	<u>Rates</u>	<u>Audits (g)</u>	<u>Factor (h)</u>
1985	3.217	---	---	0.974	0.991	0.984	1.026	---	3.075
1986	3.073	---	---	0.890	0.991	0.983	1.026	---	2.686
1987	2.910	---	---	0.782	0.992	0.983	1.026	---	2.239
1988	2.787	---	---	0.700	0.993	0.963	1.026	---	1.960
1989	2.672	---	---	0.689	0.993	0.945	1.026	---	1.885
1990	2.545	---	---	0.672	0.991	0.942	1.026	---	1.752
1991	2.488	---	---	0.622	0.987	0.939	1.026	---	1.584
1992	2.376	---	---	0.597	0.982	0.940	1.026	---	1.444
1993	2.348	---	---	0.589	0.981	0.949	1.026	---	1.393
1994	2.306	---	---	0.675	0.986	0.948	1.026	---	1.577
1995	2.241	---	---	0.913	0.995	0.958	1.026	---	2.072
1996	2.168	1.023	0.970	0.948	1.000	0.935	1.026	---	2.143
1997	2.070	0.989	0.968	0.979	1.000	0.949	1.026	---	2.081
1998	1.968	0.966	1.008	1.043	1.000	0.959	1.026	---	2.087
1999	1.853	0.973	1.019	1.047	1.000	0.954	1.026	---	1.983
2000	1.700	1.006	0.924	0.918	1.000	0.970	1.026	---	1.569
2001	1.690	1.030	0.814	0.790	1.000	0.969	1.026	---	1.343
2002	1.682	1.157	0.728	0.629	1.000	0.991	1.026	---	1.041
2003	1.628	1.267	0.596	0.470	1.000	1.005	1.026	---	0.743
2004	1.555	1.397	0.606	0.434	1.000	0.981	1.026	---	0.670
2005	1.508	1.470	0.729	0.496	1.000	0.982	1.026	---	0.742
2006	1.442	1.447	0.940	0.650	1.000	0.956	1.026	---	0.955
2007	1.380	1.493	1.281	0.858	1.000	0.931	1.026	0.985	1.221
2008	1.351	1.426	1.524	1.069	1.000	0.946	1.026	0.991	1.475
2009	1.345	1.366	1.502	1.100	1.000	0.937	1.026	1.034	1.590
2010	1.305	1.384	1.472	1.064	1.000	0.941	1.026	1.005	1.445
2011	1.266	1.401	1.471	1.050	1.000	0.982	1.026	---	1.319
2012	1.216	1.223	1.213	0.992	1.000	1.000	1.026	---	1.176
2013	1.208	1.138	0.976	0.858	1.000	0.983	1.026	---	1.027
2014	1.169	1.126	0.899	0.798	1.000	0.961	1.026	---	0.947
2015	1.120	1.108	0.874	0.789	1.000	0.951	1.026	---	0.905
2016	1.099	1.147	0.941	0.820	1.000	0.950	1.026	---	0.925
2017	1.074	1.155	1.039	0.900	1.000	0.959	1.026	---	0.982

- (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 July 1, 2017 pure premium rate level and (2) an additional adjustment factor, which is the ratio of the average advisory July 1, 2017 pure premium rate (\$2.00) to the industry average filed pure premium rate as of July 1, 2017 (\$2.34).
- (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 July 1, 2017.
- (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.

2017 Accident Year Indemnity Claim Frequency Model
As of PY 2015 Preliminary 1st Set & December 2017 UCLA

AY	Annual %	Annual Log Differences						
	Changes Intra- Class Ind Freq	Intra-Class Indemnity Frequency per \$M Exposure at PY 2016 Level			AY+1 Indemnity	Cumulative Injury Index	Economic Variables	CalOSHA
	Total	Total	Cumulative	Non-cum.	Benefit Level		(1st Prin. Comp.)	Dummy Variable
1962	----	----	----	----	----	----	----	----
1963	2.0%	0.020	----	----	0.000	----	-0.029	0.000
1964	0.3%	0.003	----	----	0.000	----	0.004	0.000
1965	-0.3%	-0.003	----	----	0.000	----	0.020	0.000
1966	1.7%	0.017	----	----	0.000	----	0.191	0.000
1967	1.8%	0.017	----	----	0.000	----	-0.146	0.000
1968	1.4%	0.014	----	----	0.049	----	0.059	0.000
1969	2.7%	0.026	----	----	0.000	----	0.044	0.000
1970	1.8%	0.018	----	----	0.000	----	-0.337	0.000
1971	1.5%	0.015	----	----	0.162	----	-0.190	0.000
1972	-4.3%	-0.044	----	----	0.040	----	0.161	0.000
1973	7.0%	0.067	----	----	0.049	----	0.090	0.000
1974	19.2%	0.176	----	----	0.058	----	-0.035	0.000
1975	12.5%	0.118	----	----	0.000	----	-0.298	0.000
1976	0.8%	0.008	----	----	0.063	----	0.085	0.000
1977	4.3%	0.042	----	----	0.001	----	0.112	0.000
1978	-8.7%	-0.091	----	----	0.000	----	0.173	0.000
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	-0.078	0.000
1982	-1.6%	-0.016	0.153	-0.022	0.352	0.175	-0.292	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	0.221	0.000
1985	2.0%	0.020	0.138	0.014	0.000	0.124	0.080	0.000
1986	-2.4%	-0.024	0.039	-0.028	0.000	0.067	0.077	0.000
1987	1.5%	0.015	0.053	0.013	0.000	0.041	0.150	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	-0.120	0.000
1991	0.3%	0.003	0.166	-0.018	0.023	0.184	-0.291	0.000
1992	-11.1%	-0.118	-0.272	-0.098	0.013	-0.174	-0.185	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	0.074	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	0.078	0.000
1999	1.5%	0.014	0.100	0.008	0.040	0.092	0.127	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	-0.100	0.000
2002	-2.8%	-0.029	0.001	-0.031	0.060	0.033	-0.197	0.000
2003	-3.2%	-0.032	-0.009	-0.035	-0.065	0.026	-0.022	0.000
2004	-16.9%	-0.185	-0.212	-0.182	-0.398	-0.030	0.098	0.000
2005	-13.6%	-0.147	-0.299	-0.134	0.051	-0.165	0.143	0.000
2006	-5.7%	-0.059	-0.050	-0.059	0.016	0.009	0.090	0.000
2007	-1.6%	-0.017	0.021	-0.020	0.049	0.040	-0.095	0.000
2008	-2.7%	-0.027	0.038	-0.033	0.006	0.071	-0.320	0.000
2009	-0.2%	-0.002	0.168	-0.018	0.066	0.186	-0.414	0.000
2010	8.9%	0.085	0.139	0.079	0.012	0.060	-0.077	0.000
2011	1.3%	0.013	0.033	0.010	0.003	0.022	0.048	0.000
2012	4.7%	0.046	0.130	0.036	0.022	0.094	0.120	0.000
2013	0.6%	0.006	0.155	-0.015	0.071	0.170	0.154	0.000
2014	0.5%	0.005	0.095	-0.009	0.003	0.104	0.172	0.000
2015	-0.6%	-0.006	0.075	-0.020	0.002	0.094	0.192	0.000
2016*	-3.2%	-0.033	0.000	-0.039	0.004	0.040	0.128	0.000
2017	-0.9%	-0.009	-0.009	-0.009	0.004	0.000	0.109	0.000
2018	-1.3%	-0.013	-0.013	-0.013	0.004	0.000	0.066	0.000
2019	-2.0%	-0.020	-0.020	-0.020	0.004	0.000	-0.005	0.000
2020	-2.1%	-0.021	-0.021	-0.021	0.004	0.000	-0.016	0.000
Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency								
Constant				-0.020				
Std Err of Y Est				0.040				
R Squared				0.583				
No. of Observations				38				
Degrees of Freedom				33				
X Coefficient(s)					0.178	0.284	0.094	-0.131
Std Err of Coef.					0.073	0.062	0.044	0.077

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 2016; December 2017 UCLA Anderson Forecasts for 2017 on.

Regression is over AY 1979 through AY 2016. AY 2017 through AY 2020 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 2016 is preliminary and change is based on a comparison of 2016 accidents on 2015 policies to 2015 accidents on 2014 policies.

**Projection of Indemnity Severity Trends by Accident Year
Based on Experience as of December 31, 2017**

Accident Year	(1) Estimated Ultimate Severity	(2) Annual % Change	(3) Indemnity Adjustment Factor (a)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	9,968	---	1.830	18,242	---
1991	10,903	9.4%	1.731	18,870	3.4%
1992	11,003	0.9%	1.673	18,412	-2.4%
1993	11,990	9.0%	1.663	19,944	8.3%
1994	12,948	8.0%	1.742	22,559	13.1%
1995	14,531	12.2%	1.623	23,582	4.5%
1996	16,270	12.0%	1.523	24,777	5.1%
1997	19,318	18.7%	1.366	26,396	6.5%
1998	21,168	9.6%	1.260	26,677	1.1%
1999	23,213	9.7%	1.168	27,108	1.6%
2000	24,631	6.1%	1.090	26,852	-0.9%
2001	27,130	10.1%	1.091	29,606	10.3%
2002	26,204	-3.4%	1.120	29,358	-0.8%
2003	25,794	-1.6%	1.119	28,874	-1.6%
2004	21,040	-18.4%	1.331	28,010	-3.0%
2005	18,998	-9.7%	1.531	29,079	3.8%
2006	20,721	9.1%	1.427	29,561	1.7%
2007	22,528	8.7%	1.382	31,135	5.3%
2008	24,682	9.6%	1.310	32,323	3.8%
2009	25,898	4.9%	1.302	33,714	4.3%
2010	25,551	-1.3%	1.284	32,801	-2.7%
2011	25,170	-1.5%	1.264	31,804	-3.0%
2012	24,707	-1.8%	1.234	30,485	-4.1%
2013	24,934	0.9%	1.202	29,982	-1.6%
2014	26,527	6.4%	1.105	29,317	-2.2%
2015	27,109	2.2%	1.077	29,202	-0.4%
2016	27,290	0.7%	1.064	29,028	-0.6%
2017	27,758	1.7%	1.046	29,038	0.0%
(6) Estimated Annual Exponential Trend Based on 2005 to 2017:					-0.5%
(7) Estimated Annual Exponential Trend Based on 2012 to 2017:					-1.0%
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 December 31, 2017**

Accident <u>Year</u>	(1) Estimated Ultimate <u>Severity (a)</u>	(2) Annual <u>% Change</u>	(3) Medical Adjustment <u>Factor (b)</u>	(4) Ultimate On-level <u>Severity</u> (1) x (3)	(5) Annual <u>% Change</u>
1990	8,756	---	1.016	8,895	---
1991	9,421	7.6%	0.997	9,393	5.6%
1992	9,530	1.2%	0.964	9,191	-2.2%
1993	10,573	10.9%	0.948	10,023	9.1%
1994	11,622	9.9%	0.997	11,586	15.6%
1995	13,361	15.0%	0.990	13,223	14.1%
1996	14,336	7.3%	0.980	14,045	6.2%
1997	17,040	18.9%	0.973	16,577	18.0%
1998	20,870	22.5%	0.859	17,920	8.1%
1999	23,745	13.8%	0.744	17,673	-1.4%
2000	26,690	12.4%	0.684	18,263	3.3%
2001	31,739	18.9%	0.625	19,835	8.6%
2002	32,084	1.1%	0.649	20,836	5.0%
2003	30,632	-4.5%	0.683	20,913	0.4%
2004	28,360	-7.4%	0.905	25,662	22.7%
2005	29,267	3.2%	0.907	26,549	3.5%
2006	32,022	9.4%	0.905	28,985	9.2%
2007	35,778	11.7%	0.891	31,883	10.0%
2008	39,016	9.0%	0.891	34,754	9.0%
2009	41,300	5.9%	0.892	36,833	6.0%
2010	41,621	0.8%	0.895	37,255	1.1%
2011	37,936 (c)	---	0.919	34,857 (c)	---
2012	35,745	-5.8%	0.955	34,123	-2.1%
2013	33,552	-6.1%	0.994	33,366	-2.2%
2014	32,621	-2.8%	1.018	33,205	-0.5%
2015	32,289	-1.0%	1.018	32,877	-1.0%
2016	32,710	1.3%	1.014	33,170	0.9%
2017	34,572	5.7%	1.012	34,996	5.5%

Selected Medical Severity Trend: 3.0%

- (a) Estimated ultimate severities for all accident years are derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts. The estimated ultimate medical severities were derived from the projected ultimate loss ratios shown in Exhibit 3.2, column (6).
- (b) These adjustment factors are based on Exhibit 4.4, excluding the impact of frequency, and including the impact of SB 863 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 December 31, 2017**

(1) Accident Year	MCCP Included				MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b)			
	(2) Estimated Ultimate Severity (a)	(3) Annual % Change	(4) Ultimate On-Level Severity (c)	(5) Annual % Change	(6) Estimated Ultimate Severity (a)	(7) Annual % Change	(8) Ultimate On-Level Severity (c)	(9) Annual % Change
2005	29,267	---	26,549	---	27,658	---	25,090	---
2006	32,022	9.4%	28,986	9.2%	29,944	8.3%	27,104	8.0%
2007	35,778	11.7%	31,883	10.0%	33,313	11.3%	29,686	9.5%
2008	39,016	9.0%	34,754	9.0%	35,513	6.6%	31,633	6.6%
2009	41,300	5.9%	36,833	6.0%	37,756	6.3%	33,672	6.4%
2010	41,621	0.8%	37,255	1.1%	38,012	0.7%	34,024	1.0%
2011	41,678	0.1%	38,295	2.8%	37,936	-0.2%	34,857	2.4%
2012	39,190	-6.0%	37,412	-2.3%	35,745	-5.8%	34,123	-2.1%
2013	36,871	-5.9%	36,667	-2.0%	33,552	-6.1%	33,366	-2.2%
2014	35,852	-2.8%	36,494	-0.5%	32,621	-2.8%	33,205	-0.5%
2015	35,434	-1.2%	36,079	-1.1%	32,289	-1.0%	32,877	-1.0%
2016	35,899	1.3%	36,404	0.9%	32,710	1.3%	33,170	0.9%
2017	37,828	5.4%	38,291	5.2%	34,572	5.7%	34,996	5.5%
Estimated Annual Exponential Trend								
Trend Based on 2005 to 2017:								
Trend Based on 2012 to 2017:								
Selected Medical Severity Trend:								
2.0%								
0.3%								
3.0%								

(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 4.4, excluding the impact of frequency.

Source: WCIRB experience calls.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2017**

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)
1985	0.448	1.522	3.075	0.222
1986	0.397	1.498	2.686	0.221
1987	0.347	1.470	2.239	0.228
1988	0.331	1.449	1.960	0.245
1989	0.344	1.427	1.885	0.261
1990	0.399	1.144	1.752	0.260
1991	0.426	0.943	1.584	0.254
1992	0.351	0.994	1.444	0.242
1993	0.289	1.206	1.393	0.250
1994	0.329	1.261	1.577	0.263
1995	0.476	1.167	2.072	0.268
1996	0.533	1.091	2.143	0.271
1997	0.603	0.977	2.081	0.283
1998	0.655	0.901	2.087	0.283
1999	0.690	0.835	1.983	0.290
2000	0.596	0.780	1.569	0.296
2001	0.494	0.780	1.343	0.287
2002	0.368	0.801	1.041	0.283
2003	0.242	0.800	0.743	0.261
2004	0.145	1.103	0.670	0.238
2005	0.124	1.497	0.742	0.250
2006	0.160	1.480	0.955	0.248
2007	0.221	1.434	1.221	0.260
2008	0.282	1.351	1.475	0.258
2009	0.330	1.324	1.590	0.275
2010	0.322	1.306	1.445	0.291
2011	0.300	1.285	1.319	0.292
2012	0.270	1.255	1.176	0.288
2013	0.240	1.220	1.027	0.285
2014	0.235	1.105	0.947	0.274
2015	0.233	1.077	0.905	0.277
2016	0.228	1.064	0.925	0.262
2017	0.242	1.046	0.982	0.257
				Projections (d)
2018				0.257
4/1/2019				0.253

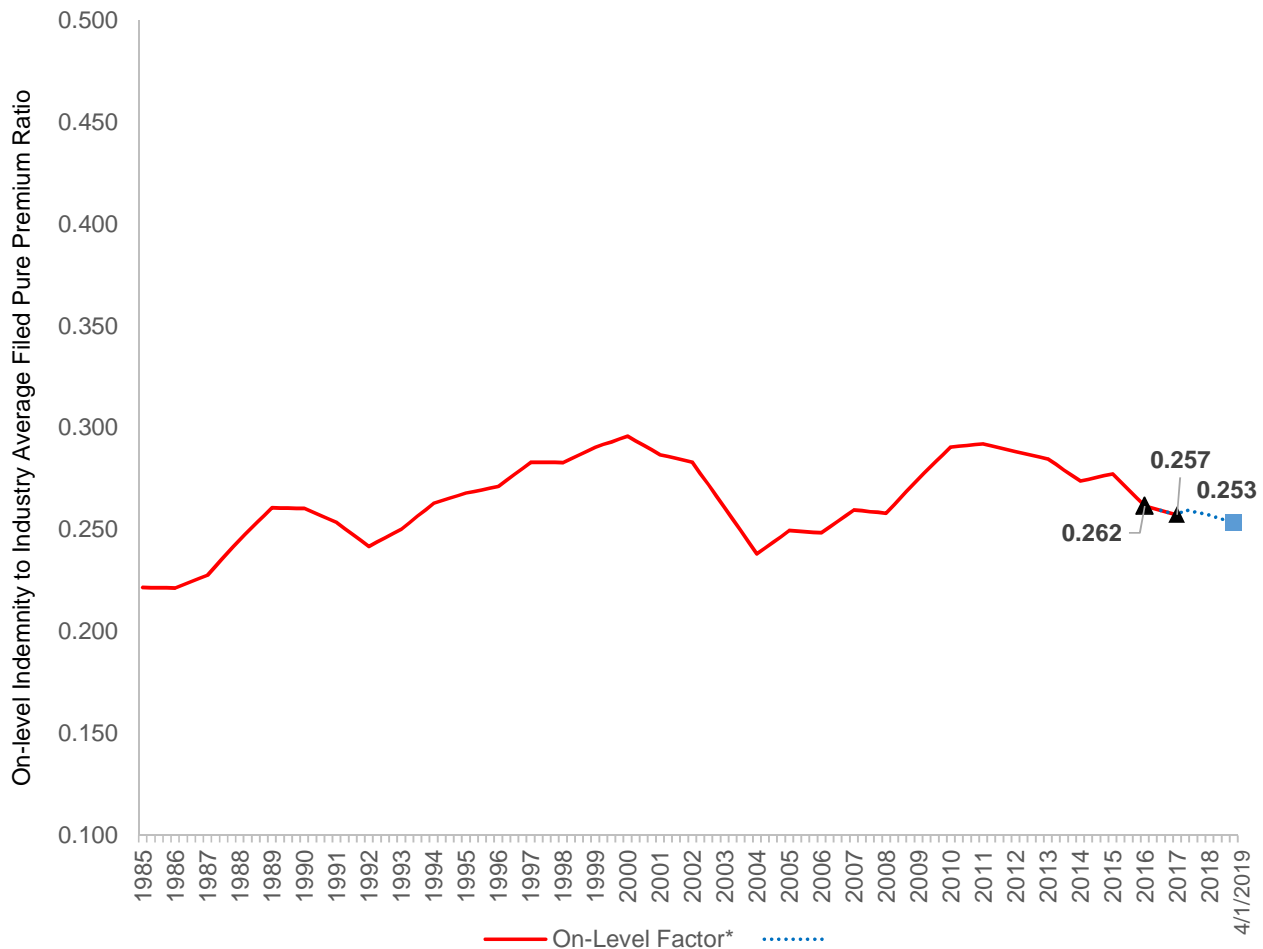
(a) See Exhibit 3.1.

(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 2017 from Exhibit 12, and projected frequency trends for accident years 2018 and 2019 from Exhibit 6.1; these trends were then separately applied to the 2016 and 2017 on-level ratios.

**On-Level Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2017**



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

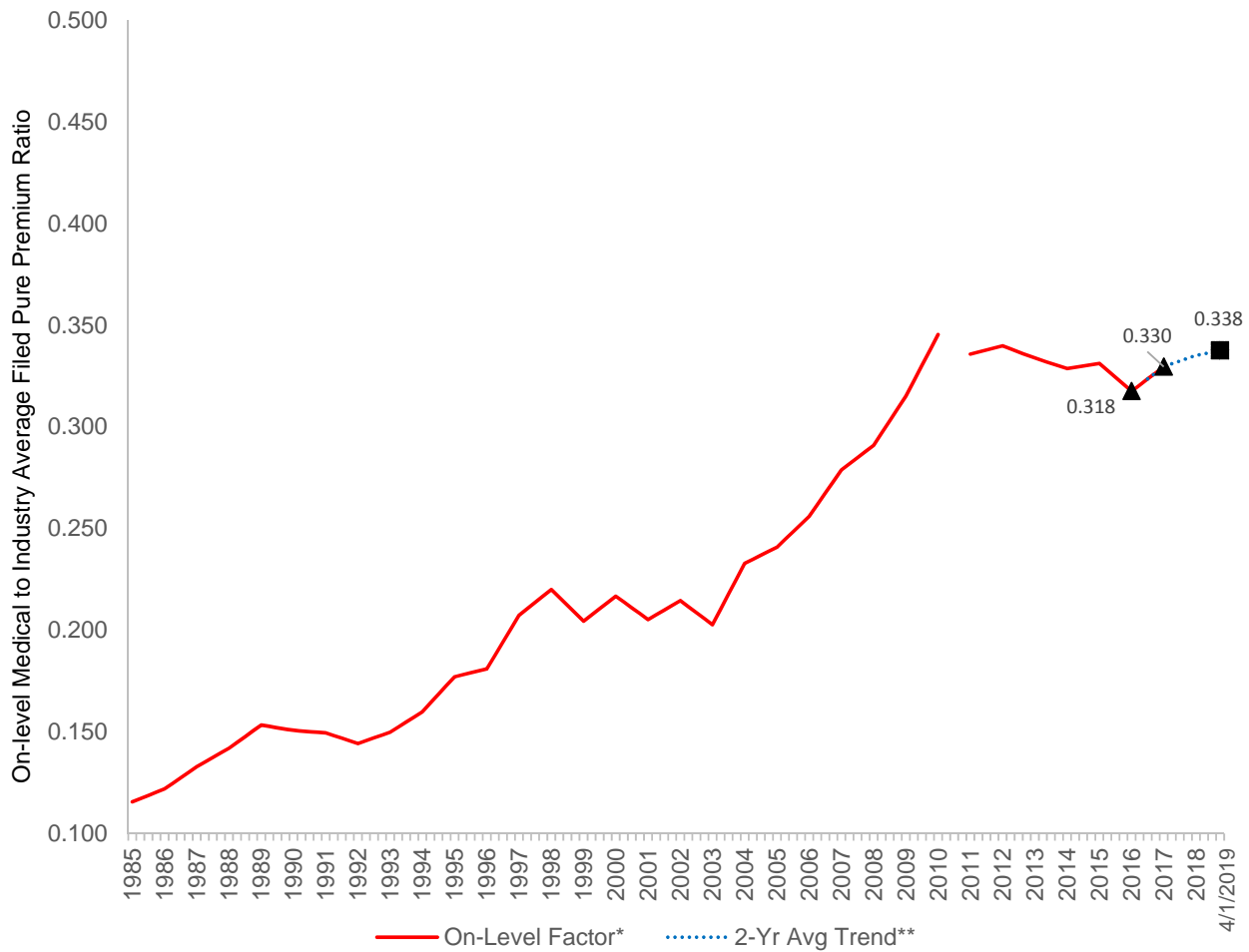
** The 4/1/2019 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2016 and 2017 years.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2017**

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)x(2)÷(3)
1985	0.359	0.991	3.075	0.116
1986	0.340	0.962	2.686	0.122
1987	0.321	0.927	2.239	0.133
1988	0.311	0.893	1.960	0.142
1989	0.333	0.867	1.885	0.153
1990	0.376	0.702	1.752	0.151
1991	0.394	0.601	1.584	0.149
1992	0.329	0.633	1.444	0.144
1993	0.275	0.758	1.393	0.150
1994	0.317	0.795	1.577	0.160
1995	0.468	0.784	2.072	0.177
1996	0.502	0.773	2.143	0.181
1997	0.563	0.766	2.081	0.207
1998	0.680	0.675	2.087	0.220
1999	0.693	0.585	1.983	0.204
2000	0.633	0.537	1.569	0.217
2001	0.563	0.490	1.343	0.205
2002	0.439	0.509	1.041	0.215
2003	0.282	0.534	0.743	0.203
2004	0.193	0.807	0.670	0.233
2005	0.191	0.937	0.742	0.241
2006	0.248	0.984	0.955	0.256
2007	0.352	0.966	1.221	0.279
2008	0.447	0.959	1.475	0.291
2009	0.530	0.946	1.590	0.315
2010	0.529	0.943	1.445	0.345
2011	0.462	0.960	1.319	0.336
2012	0.404	0.988	1.176	0.340
2013	0.338	1.016	1.027	0.334
2014	0.305	1.020	0.947	0.329
2015	0.295	1.018	0.905	0.331
2016	0.290	1.014	0.925	0.318
2017	0.320	1.012	0.982	0.330
				Projections (d)
2018				0.335
4/1/2019				0.338

- (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 2017 from Exhibit 12, and projected frequency trends for accident years 2018 and 2019 from Exhibit 6.1; these trends were then separately applied to the 2016 and 2017 on-level ratios.
- (e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). 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 December 31, 2017**



* On-level medical to industry average filed pure premium ratios (see Exhibit 7.3)

** The 4/1/2019 medical to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2016 and 2017 years.

**Indicated Loss to Industry Average Filed Pure Premium Ratios
For Policies with Effective Dates between January 1, 2018 and December 31, 2018
Based on Experience as of December 31, 2017**

	<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	0.338	0.591

Quarterly Incurred Indemnity Loss Development Factors
Through December 31, 2017

Age in	Accident Year																			
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
6/3									2.417	2.724	2.785	3.031	3.116	3.052	3.238	3.344	3.303	3.209	3.201	3.358
9/6									1.656	1.776	1.820	1.848	1.904	2.001	1.966	1.940	1.960	1.948	1.945	1.863
12/9									1.448	1.511	1.510	1.530	1.564	1.632	1.587	1.585	1.570	1.578	1.578	1.579
15/12	1.229	1.260	1.268	1.250	1.257	1.238	1.180	1.149	1.189	1.234	1.248	1.293	1.306	1.306	1.303	1.301	1.301	1.313	1.309	
18/15	1.172	1.202	1.188	1.184	1.206	1.167	1.101	1.103	1.140	1.158	1.182	1.194	1.197	1.195	1.206	1.178	1.190	1.187	1.189	
21/18	1.145	1.140	1.150	1.148	1.153	1.127	1.066	1.096	1.117	1.128	1.139	1.153	1.140	1.146	1.141	1.141	1.132	1.137	1.132	
24/21	1.126	1.112	1.121	1.111	1.117	1.094	1.045	1.082	1.098	1.106	1.106	1.114	1.119	1.117	1.111	1.104	1.114	1.111	1.104	
27/24	1.074	1.096	1.093	1.100	1.094	1.073	1.045	1.070	1.082	1.081	1.088	1.089	1.091	1.085	1.087	1.081	1.082	1.087		
30/27	1.078	1.069	1.074	1.082	1.064	1.051	1.040	1.054	1.057	1.072	1.075	1.075	1.080	1.071	1.068	1.067	1.074	1.066		
33/30	1.045	1.058	1.048	1.062	1.047	1.032	1.036	1.042	1.049	1.053	1.059	1.052	1.064	1.053	1.060	1.047	1.055	1.049		
36/33	1.043	1.046	1.039	1.046	1.035	1.020	1.029	1.033	1.039	1.043	1.051	1.049	1.049	1.043	1.041	1.043	1.042	1.036		
39/36	1.038	1.041	1.035	1.038	1.028	1.017	1.027	1.029	1.031	1.033	1.040	1.039	1.039	1.041	1.035	1.031	1.036			
42/39	1.027	1.028	1.034	1.030	1.023	1.018	1.020	1.020	1.031	1.033	1.036	1.038	1.035	1.032	1.028	1.031	1.030			
45/42	1.024	1.026	1.026	1.020	1.009	1.019	1.018	1.024	1.026	1.028	1.030	1.035	1.027	1.033	1.022	1.024	1.025			
48/45	1.025	1.020	1.022	1.013	1.008	1.013	1.013	1.021	1.019	1.021	1.024	1.024	1.026	1.023	1.024	1.020	1.020			
51/48	1.022	1.017	1.018	1.015	1.010	1.016	1.010	1.018	1.021	1.018	1.022	1.023	1.021	1.018	1.017	1.015				
54/51	1.019	1.018	1.013	1.009	1.007	1.017	1.009	1.017	1.021	1.020	1.021	1.020	1.020	1.016	1.019	1.015				
57/54	1.014	1.017	1.012	1.006	1.008	1.011	1.011	1.018	1.017	1.014	1.018	1.017	1.015	1.014	1.013	1.011				
60/57	1.013	1.014	1.007	1.005	1.008	1.009	1.011	1.013	1.019	1.016	1.013	1.015	1.012	1.014	1.012	1.012				
63/60	1.012	1.012	1.007	1.007	1.008	1.008	1.010	1.014	1.013	1.015	1.011	1.014	1.014	1.009	1.012					
66/63	1.014	1.009	1.005	1.006	1.011	1.008	1.010	1.013	1.016	1.014	1.015	1.013	1.013	1.009	1.010					
69/66	1.010	1.007	1.003	1.005	1.008	1.007	1.011	1.012	1.011	1.010	1.009	1.012	1.007	1.010	1.010					
72/69	1.009	1.006	1.005	1.005	1.005	1.009	1.009	1.013	1.011	1.009	1.009	1.009	1.010	1.008	1.007					
75/72	1.006	1.004	1.004	1.005	1.003	1.005	1.007	1.010	1.011	1.010	1.010	1.008	1.007	1.004						
78/75	1.007	1.004	1.003	1.007	1.005	1.006	1.006	1.012	1.009	1.010	1.006	1.006	1.006	1.006						
81/78	1.005	1.002	1.003	1.004	1.004	1.005	1.006	1.010	1.009	1.007	1.007	1.006	1.006	1.007						
84/81	1.003	1.003	1.005	1.003	1.006	1.006	1.007	1.008	1.005	1.009	1.006	1.004	1.007	1.004						
87/84	1.003	1.003	1.002	1.003	1.004	1.002	1.007	1.010	1.007	1.004	1.005	1.006	1.004							
90/87	1.001	1.003	1.003	1.003	1.003	1.004	1.008	1.008	1.008	1.008	1.004	1.005	1.005							
93/90	1.001	1.002	1.004	1.003	1.002	1.005	1.006	1.008	1.006	1.007	1.006	1.003	1.004							
96/93	1.002	1.003	1.001	1.004	1.002	1.006	1.006	1.003	1.002	1.003	1.004	1.004	1.003							

Source: WCIRB accident year experience calls

Quarterly Incurred Medical Loss Development Factors *
Through December 31, 2017

Age in	Accident Year																			
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
6/3									2.584	2.662	2.782	2.892	2.992	2.757	2.853	2.843	2.921	2.863	3.019	3.195
9/6									1.650	1.744	1.717	1.807	1.800	1.827	1.833	1.819	1.840	1.884	1.755	1.727
12/9									1.453	1.443	1.466	1.454	1.488	1.521	1.484	1.500	1.482	1.451	1.487	1.444
15/12	1.144	1.168	1.201	1.207	1.203	1.197	1.132	1.145	1.138	1.182	1.167	1.199	1.206	1.228	1.211	1.207	1.199	1.206	1.215	
18/15	1.093	1.116	1.123	1.144	1.151	1.126	1.086	1.087	1.103	1.106	1.126	1.135	1.129	1.141	1.136	1.117	1.114	1.094	1.094	
21/18	1.078	1.086	1.101	1.122	1.116	1.093	1.055	1.061	1.073	1.081	1.090	1.097	1.101	1.103	1.085	1.088	1.077	1.082	1.068	
24/21	1.074	1.072	1.080	1.083	1.082	1.060	1.040	1.052	1.070	1.074	1.067	1.074	1.080	1.080	1.067	1.064	1.055	1.059	1.057	
27/24	1.044	1.061	1.070	1.080	1.075	1.042	1.034	1.048	1.055	1.058	1.053	1.071	1.066	1.072	1.058	1.048	1.046	1.048		
30/27	1.044	1.052	1.058	1.070	1.051	1.038	1.039	1.049	1.046	1.054	1.057	1.048	1.063	1.052	1.046	1.037	1.044	1.037		
33/30	1.035	1.047	1.051	1.059	1.035	1.018	1.032	1.030	1.041	1.045	1.045	1.051	1.055	1.045	1.046	1.031	1.033	1.032		
36/33	1.037	1.042	1.035	1.040	1.029	1.016	1.024	1.034	1.042	1.033	1.042	1.040	1.041	1.037	1.028	1.026	1.027	1.021		
39/36	1.029	1.032	1.034	1.037	1.018	1.012	1.028	1.025	1.027	1.029	1.033	1.031	1.040	1.039	1.027	1.021	1.023			
42/39	1.025	1.031	1.036	1.026	1.019	1.013	1.017	1.020	1.025	1.035	1.036	1.037	1.037	1.031	1.022	1.026	1.022			
45/42	1.025	1.033	1.032	1.023	1.012	1.019	1.033	1.021	1.025	1.029	1.026	1.030	1.028	1.027	1.021	1.018	1.017			
48/45	1.028	1.023	1.026	1.017	1.008	1.013	1.025	1.018	1.022	1.025	1.029	1.034	1.022	1.023	1.020	1.018	1.013			
51/48	1.019	1.020	1.024	1.014	1.009	1.013	1.018	1.015	1.020	1.021	1.021	1.026	1.024	1.019	1.014	1.013				
54/51	1.025	1.027	1.017	1.016	1.010	1.012	1.021	1.019	1.022	1.022	1.027	1.023	1.019	1.018	1.015	1.011				
57/54	1.027	1.024	1.014	1.007	1.011	1.017	1.020	1.018	1.019	1.019	1.023	1.020	1.017	1.018	1.013	1.007				
60/57	1.021	1.021	1.015	1.009	1.008	1.014	1.020	1.019	1.018	1.017	1.019	1.016	1.015	1.014	1.012	1.007				
63/60	1.014	1.020	1.013	1.012	1.008	1.016	1.015	1.021	1.015	1.018	1.016	1.020	1.015	1.009	1.009					
66/63	1.023	1.016	1.010	1.012	1.015	1.013	1.015	1.022	1.019	1.018	1.017	1.015	1.010	1.008	1.008					
69/66	1.025	1.013	1.006	1.008	1.016	1.018	1.015	1.023	1.017	1.017	1.015	1.014	1.010	1.008	1.008					
72/69	1.020	1.009	1.007	1.009	1.015	1.010	1.014	1.015	1.013	1.014	1.012	1.011	1.010	1.007	1.005					
75/72	1.015	1.008	1.006	1.008	1.010	1.009	1.012	1.012	1.011	1.018	1.013	1.008	1.006	1.001						
78/75	1.012	1.012	1.008	1.012	1.010	1.011	1.018	1.013	1.012	1.012	1.010	1.008	1.008	1.006						
81/78	1.006	1.006	1.006	1.009	1.010	1.014	1.018	1.017	1.016	1.009	1.009	1.005	1.006	1.006						
84/81	1.008	1.006	1.009	1.014	1.009	1.007	1.012	1.011	1.008	1.010	1.008	1.007	1.005	1.001						
87/84	1.005	1.008	1.008	1.010	1.009	1.010	1.012	1.014	1.012	1.008	1.007	1.004	1.003							
90/87	1.002	1.005	1.008	1.008	1.009	1.012	1.009	1.009	1.013	1.008	1.006	1.006	1.003							
93/90	1.006	1.007	1.015	1.009	1.011	1.010	1.011	1.012	1.009	1.009	1.007	1.002	1.003							
96/93	1.007	1.007	1.010	1.012	1.008	1.010	1.011	1.009	1.005	1.006	1.005	1.003	1.002							

Source: WCIRB accident year experience calls

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

**Quarterly Paid Indemnity Loss Development Factors
Through December 31, 2017**

Age in	Accident Year																			
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
6/3									4.376	4.495	4.553	4.807	4.911	4.722	4.854	5.099	5.076	5.056	5.087	5.258
9/6									2.259	2.375	2.377	2.398	2.452	2.432	2.484	2.462	2.462	2.484	2.456	2.418
12/9									1.812	1.834	1.810	1.825	1.861	1.869	1.877	1.866	1.879	1.910	1.882	1.891
15/12	1.499	1.536	1.538	1.552	1.550	1.516	1.491	1.456	1.482	1.488	1.481	1.507	1.532	1.539	1.506	1.539	1.540	1.559	1.571	
18/15	1.380	1.399	1.395	1.401	1.403	1.379	1.331	1.306	1.306	1.327	1.332	1.343	1.355	1.361	1.361	1.353	1.364	1.372	1.364	
21/18	1.323	1.298	1.303	1.303	1.311	1.297	1.241	1.217	1.233	1.235	1.243	1.259	1.257	1.261	1.261	1.263	1.267	1.264	1.253	
24/21	1.259	1.257	1.256	1.258	1.260	1.244	1.183	1.181	1.195	1.191	1.194	1.206	1.209	1.215	1.213	1.204	1.216	1.211	1.206	
27/24	1.186	1.199	1.203	1.200	1.205	1.186	1.140	1.142	1.151	1.149	1.153	1.162	1.165	1.168	1.164	1.159	1.170	1.176		
30/27	1.157	1.161	1.165	1.175	1.172	1.161	1.122	1.117	1.126	1.129	1.130	1.141	1.141	1.137	1.134	1.141	1.147	1.142		
33/30	1.118	1.125	1.130	1.142	1.136	1.123	1.097	1.096	1.100	1.101	1.108	1.114	1.116	1.112	1.111	1.111	1.115	1.106		
36/33	1.102	1.103	1.103	1.115	1.111	1.097	1.085	1.081	1.080	1.084	1.092	1.094	1.098	1.091	1.091	1.096	1.092	1.089		
39/36	1.074	1.081	1.081	1.092	1.087	1.072	1.070	1.066	1.064	1.067	1.074	1.078	1.077	1.073	1.075	1.074	1.075			
42/39	1.067	1.071	1.077	1.080	1.073	1.063	1.059	1.058	1.058	1.062	1.067	1.067	1.071	1.070	1.065	1.064	1.066			
45/42	1.057	1.054	1.063	1.064	1.056	1.049	1.047	1.049	1.047	1.051	1.058	1.059	1.057	1.055	1.054	1.052	1.050			
48/45	1.049	1.050	1.055	1.053	1.046	1.044	1.041	1.044	1.043	1.047	1.049	1.051	1.050	1.048	1.048	1.048	1.045			
51/48	1.039	1.038	1.043	1.044	1.036	1.035	1.033	1.036	1.036	1.037	1.042	1.042	1.043	1.039	1.038	1.038				
54/51	1.035	1.038	1.036	1.037	1.034	1.035	1.030	1.028	1.035	1.036	1.038	1.041	1.038	1.036	1.036	1.034				
57/54	1.029	1.033	1.037	1.030	1.028	1.026	1.025	1.028	1.030	1.032	1.033	1.033	1.032	1.033	1.028	1.027				
60/57	1.025	1.030	1.027	1.026	1.024	1.024	1.024	1.024	1.028	1.029	1.029	1.032	1.027	1.030	1.028	1.025				
63/60	1.023	1.026	1.024	1.021	1.022	1.019	1.019	1.021	1.023	1.025	1.025	1.024	1.026	1.025	1.025					
66/63	1.023	1.023	1.023	1.021	1.019	1.019	1.019	1.020	1.025	1.025	1.025	1.025	1.023	1.022	1.023					
69/66	1.019	1.021	1.020	1.017	1.016	1.017	1.016	1.021	1.020	1.020	1.020	1.022	1.020	1.019	1.021					
72/69	1.018	1.016	1.018	1.016	1.016	1.015	1.017	1.015	1.020	1.019	1.019	1.019	1.019	1.019	1.016					
75/72	1.015	1.016	1.015	1.014	1.012	1.012	1.013	1.015	1.019	1.018	1.016	1.016	1.017	1.015						
78/75	1.014	1.014	1.012	1.013	1.012	1.011	1.012	1.015	1.017	1.016	1.015	1.016	1.016	1.015						
81/78	1.013	1.013	1.011	1.012	1.011	1.010	1.012	1.015	1.015	1.016	1.015	1.015	1.013	1.012						
84/81	1.011	1.011	1.013	1.010	1.010	1.009	1.011	1.013	1.015	1.014	1.013	1.012	1.013	1.013						
87/84	1.012	1.010	1.008	1.010	1.009	1.008	1.009	1.012	1.014	1.013	1.010	1.012	1.010							
90/87	1.008	1.009	1.010	1.009	1.008	1.008	1.011	1.012	1.013	1.012	1.011	1.010	1.010							
93/90	1.009	1.009	1.008	1.008	1.007	1.008	1.012	1.011	1.011	1.012	1.010	1.010	1.009							
96/93	1.008	1.009	1.006	1.007	1.007	1.007	1.008	1.011	1.011	1.008	1.010	1.010	1.009							

Source: WCIRB accident year experience calls

Quarterly Paid Medical Loss Development Factors *
Through December 31, 2017

Age in	Accident Year																			
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
6/3									5.308	5.615	6.579	6.101	6.048	5.854	5.989	6.284	5.604	5.720	5.897	5.419
9/6									2.348	2.381	2.348	2.375	2.361	2.327	2.398	2.498	2.428	2.287	2.326	2.220
12/9									1.716	1.765	1.731	1.723	1.756	1.746	1.763	1.736	1.750	1.705	1.752	1.736
15/12	1.453	1.490	1.514	1.547	1.554	1.510	1.437	1.423	1.429	1.444	1.413	1.429	1.445	1.472	1.446	1.443	1.460	1.454	1.479	
18/15	1.241	1.267	1.286	1.310	1.330	1.295	1.243	1.230	1.227	1.259	1.243	1.259	1.268	1.282	1.284	1.263	1.265	1.278	1.259	
21/18	1.164	1.168	1.192	1.219	1.211	1.179	1.153	1.151	1.163	1.173	1.170	1.178	1.182	1.187	1.192	1.193	1.192	1.189	1.170	
24/21	1.132	1.124	1.149	1.159	1.154	1.125	1.115	1.118	1.127	1.133	1.132	1.137	1.144	1.153	1.154	1.148	1.146	1.146	1.141	
27/24	1.096	1.108	1.121	1.128	1.123	1.093	1.090	1.093	1.106	1.107	1.110	1.112	1.119	1.120	1.123	1.122	1.122	1.124		
30/27	1.077	1.088	1.101	1.108	1.103	1.077	1.084	1.087	1.097	1.100	1.100	1.106	1.107	1.111	1.109	1.111	1.111	1.105		
33/30	1.065	1.072	1.086	1.089	1.077	1.063	1.071	1.065	1.081	1.083	1.086	1.092	1.094	1.093	1.094	1.090	1.089	1.081		
36/33	1.055	1.066	1.069	1.076	1.061	1.055	1.062	1.062	1.071	1.072	1.072	1.077	1.083	1.082	1.078	1.080	1.076	1.071		
39/36	1.051	1.059	1.060	1.061	1.049	1.044	1.053	1.056	1.057	1.059	1.061	1.066	1.071	1.066	1.069	1.065	1.064			
42/39	1.044	1.049	1.055	1.054	1.041	1.044	1.049	1.054	1.055	1.058	1.059	1.061	1.068	1.063	1.062	1.057	1.059			
45/42	1.039	1.045	1.047	1.044	1.036	1.037	1.040	1.047	1.048	1.049	1.054	1.053	1.056	1.056	1.053	1.051	1.045			
48/45	1.035	1.039	1.044	1.037	1.032	1.035	1.037	1.043	1.043	1.046	1.047	1.050	1.051	1.046	1.045	1.046	1.041			
51/48	1.030	1.035	1.037	1.034	1.031	1.030	1.033	1.037	1.036	1.036	1.039	1.041	1.043	1.040	1.039	1.038				
54/51	1.031	1.036	1.032	1.027	1.030	1.029	1.034	1.034	1.035	1.035	1.036	1.042	1.038	1.035	1.035	1.035				
57/54	1.026	1.030	1.027	1.024	1.024	1.024	1.029	1.031	1.034	1.031	1.033	1.038	1.034	1.034	1.031	1.028				
60/57	1.026	1.028	1.026	1.021	1.023	1.026	1.028	1.029	1.028	1.032	1.032	1.035	1.030	1.030	1.030	1.023				
63/60	1.023	1.025	1.022	1.019	1.019	1.020	1.024	1.024	1.024	1.024	1.027	1.027	1.026	1.027	1.025					
66/63	1.026	1.021	1.020	1.020	1.018	1.021	1.023	1.024	1.026	1.026	1.029	1.029	1.024	1.028	1.024					
69/66	1.021	1.022	1.019	1.018	1.016	1.019	1.021	1.023	1.023	1.021	1.024	1.024	1.022	1.020	1.019					
72/69	1.022	1.018	1.016	1.017	1.018	1.016	1.021	1.021	1.022	1.022	1.023	1.021	1.020	1.019	1.016					
75/72	1.017	1.016	1.014	1.015	1.015	1.014	1.018	1.020	1.019	1.019	1.018	1.018	1.018	1.015						
78/75	1.018	1.015	1.014	1.015	1.016	1.015	1.016	1.018	1.017	1.022	1.019	1.018	1.017	1.017						
81/78	1.015	1.014	1.013	1.014	1.013	1.014	1.018	1.018	1.015	1.019	1.018	1.015	1.015	1.013						
84/81	1.013	1.012	1.013	1.012	1.012	1.013	1.016	1.016	1.015	1.018	1.015	1.015	1.015	1.013						
87/84	1.013	1.011	1.010	1.012	1.012	1.012	1.014	1.013	1.015	1.017	1.013	1.013	1.011							
90/87	1.013	1.012	1.011	1.013	1.012	1.013	1.015	1.013	1.015	1.013	1.013	1.012	1.011							
93/90	1.011	1.010	1.011	1.012	1.011	1.013	1.013	1.012	1.014	1.014	1.013	1.011	1.010							
96/93	1.010	1.010	1.008	1.010	1.010	1.009	1.013	1.015	1.016	1.011	1.012	1.010	1.009							

Source: WCIRB accident year experience calls

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

Reported Indemnity Claim Count Development

Accident	Development															
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204
1992																1.000
1993															1.000	1.000
1994														1.000	1.000	1.000
1995													1.001	1.000	1.001	1.000
1996												1.001	1.000	1.000	1.000	1.000
1997											1.000	1.000	1.000	1.000	1.000	1.000
1998										1.000	1.000	1.001	1.000	1.000	1.000	1.000
1999									1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2000								1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
2001							0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002						1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003					0.999	0.998	0.999	0.999	1.000	0.999	1.000	1.000	1.000	1.000		
2004				1.001	0.999	1.000	0.999	0.999	0.999	1.000	1.000	1.000	1.000			
2005			1.003	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
2006		1.011	1.004	1.002	1.001	1.000	1.001	1.001	1.001	1.001	1.000					
2007	1.122	1.013	1.006	1.004	1.002	1.000	1.001	1.001	1.000	1.000						
2008	1.145	1.022	1.011	1.005	1.003	1.001	1.001	1.001	1.000							
2009	1.189	1.028	1.011	1.006	1.004	1.002	1.001	1.001								
2010	1.215	1.029	1.011	1.006	1.003	1.002	1.001									
2011	1.229	1.032	1.013	1.007	1.003	1.002										
2012	1.244	1.034	1.013	1.006	1.004											
2013	1.248	1.031	1.012	1.006												
2014	1.241	1.032	1.012													
2015	1.246	1.031														
2016	1.258															
Latest Year																
Age-to-Age																
1.258	1.031	1.012	1.006	1.004	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Age-to-Ultimate																
1.332	1.059	1.027	1.015	1.009	1.005	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001

Quarterly Reported Indemnity Claim Count Development Factors

Accident Year	Development														
	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2008	2.534	1.651	1.335	1.093	1.025	1.015	1.010	1.009	1.006	1.004	1.003	1.003	1.002	1.003	1.002
2009	2.695	1.687	1.385	1.111	1.036	1.021	1.012	1.009	1.007	1.007	1.005	1.004	1.003	1.002	1.002
2010	2.708	1.710	1.409	1.126	1.038	1.022	1.016	1.011	1.008	1.005	1.005	1.003	1.004	1.003	1.001
2011	2.712	1.742	1.425	1.125	1.042	1.026	1.018	1.010	1.010	1.006	1.005	1.004	1.003	1.003	1.002
2012	2.768	1.732	1.422	1.124	1.050	1.028	1.018	1.012	1.009	1.007	1.004	1.004	1.003	1.003	1.002
2013	2.830	1.743	1.422	1.139	1.045	1.027	1.016	1.010	1.009	1.007	1.004	1.004	1.004	1.002	1.002
2014	2.791	1.726	1.425	1.132	1.046	1.025	1.017	1.012	1.010	1.005	1.004	1.004	1.004	1.002	1.002
2015	2.819	1.747	1.417	1.138	1.048	1.024	1.016	1.013	1.008	1.005	1.003				
2016	2.730	1.720	1.413	1.140	1.046	1.027	1.017								
2017	2.823	1.690	1.413												

Reported Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
1992																	99.2%
1993																98.9%	99.0%
1994															98.6%	98.8%	98.9%
1995														98.1%	98.4%	98.5%	98.7%
1996													97.7%	98.0%	98.2%	98.4%	98.6%
1997												97.1%	97.5%	97.7%	98.0%	98.2%	98.4%
1998										96.2%	96.8%	97.1%	97.5%	97.8%	98.0%	98.2%	98.2%
1999										95.3%	96.1%	96.6%	97.0%	97.3%	97.7%	98.0%	98.1%
2000									93.5%	94.7%	95.5%	96.2%	96.6%	97.2%	97.5%	97.8%	98.0%
2001								90.4%	92.3%	93.6%	94.5%	95.3%	96.1%	96.6%	97.0%	97.4%	97.7%
2002							88.2%	90.8%	92.4%	93.7%	94.7%	95.8%	96.4%	96.9%	97.4%	97.7%	
2003						84.8%	88.4%	90.6%	92.4%	93.7%	95.2%	95.9%	96.4%	97.0%	97.5%		
2004					80.8%	85.3%	88.3%	90.6%	92.4%	94.3%	95.4%	96.1%	96.8%	97.3%			
2005				74.8%	81.3%	85.5%	88.5%	90.8%	93.1%	94.5%	95.5%	96.4%	97.0%				
2006			64.3%	74.3%	81.0%	85.2%	88.3%	91.2%	93.0%	94.3%	95.5%	96.4%					
2007		49.9%	63.6%	73.6%	80.3%	84.7%	88.8%	91.4%	93.2%	94.8%	95.9%						
2008	27.6%	48.2%	61.8%	72.1%	79.2%	85.0%	88.8%	91.5%	93.6%	95.0%							
2009	26.7%	46.3%	60.0%	70.7%	79.1%	84.6%	88.6%	91.7%	93.7%								
2010	26.9%	46.8%	60.7%	72.6%	80.6%	86.0%	90.1%	92.8%									
2011	27.6%	47.2%	62.2%	73.8%	81.7%	87.1%	90.9%										
2012	27.6%	48.1%	63.5%	75.1%	83.0%	88.3%											
2013	27.1%	48.6%	64.7%	76.8%	84.7%												
2014	26.9%	49.7%	66.2%	78.2%													
2015	27.4%	51.2%	68.6%														
2016	29.1%	54.0%															
2017	31.1%																

Estimated Ultimate Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
1992																	99.1%
1993																98.8%	98.9%
1994															98.3%	98.5%	98.7%
1995														97.8%	98.0%	98.3%	98.5%
1996													97.4%	97.8%	98.0%	98.2%	98.4%
1997												96.8%	97.2%	97.5%	97.7%	97.9%	98.2%
1998										95.9%	96.5%	96.9%	97.3%	97.5%	97.8%	98.0%	
1999										94.9%	95.7%	96.3%	96.7%	97.1%	97.5%	97.8%	98.0%
2000									93.2%	94.4%	95.2%	95.9%	96.4%	97.0%	97.4%	97.6%	97.9%
2001								90.3%	92.1%	93.4%	94.3%	95.1%	95.9%	96.4%	96.8%	97.2%	97.6%
2002							88.2%	90.8%	92.3%	93.6%	94.6%	95.7%	96.3%	96.8%	97.2%	97.6%	
2003						85.1%	88.5%	90.7%	92.4%	93.7%	95.0%	95.8%	96.3%	96.9%	97.4%		
2004					81.0%	85.4%	88.4%	90.7%	92.4%	94.3%	95.3%	96.0%	96.7%	97.2%			
2005				74.6%	81.1%	85.4%	88.5%	90.7%	93.0%	94.4%	95.5%	96.3%	96.9%				
2006			63.6%	73.8%	80.6%	84.9%	88.0%	91.0%	92.9%	94.2%	95.5%	96.3%					
2007		48.4%	62.6%	72.9%	79.8%	84.4%	88.6%	91.2%	93.0%	94.7%	95.8%						
2008	23.0%	46.0%	60.4%	71.2%	78.5%	84.6%	88.5%	91.2%	93.5%	94.9%							
2009	21.3%	43.9%	58.5%	69.7%	78.4%	84.1%	88.3%	91.6%	93.6%								
2010	21.0%	44.3%	59.1%	71.5%	79.9%	85.5%	89.8%	92.6%									
2011	21.2%	44.5%	60.6%	72.7%	81.1%	86.7%	90.6%										
2012	20.9%	45.3%	61.8%	74.0%	82.3%	87.9%											
2013	20.5%	45.9%	63.0%	75.7%	84.0%												
2014	20.5%	46.9%	64.4%	77.1%													
2015	20.8%	48.3%	66.8%														
2016	21.9%	51.0%															
2017	23.4%																

Quarterly Ultimate Settlement Ratios

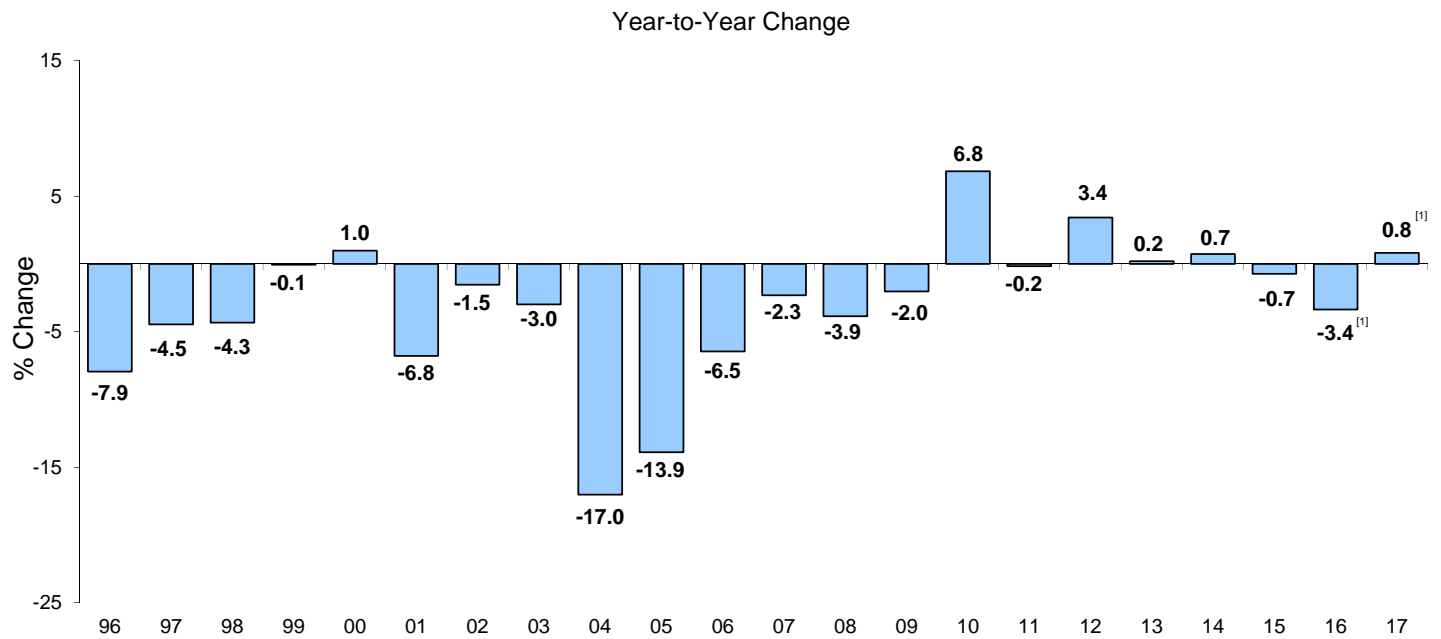
Accident	Evaluated as of (in months):															
Year	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
2008	0.8%	5.5%	13.3%	23.0%	31.6%	37.8%	42.2%	46.0%	49.7%	53.3%	56.8%	60.3%	63.2%	65.9%	68.5%	70.9%
2009	0.7%	4.7%	12.2%	21.2%	29.6%	35.6%	40.0%	43.9%	47.6%	51.2%	55.0%	58.5%	61.5%	64.5%	67.0%	69.6%
2010	0.6%	4.7%	11.8%	21.0%	29.8%	35.8%	40.1%	44.4%	48.2%	52.2%	55.7%	59.2%	62.4%	65.8%	68.8%	71.7%
2011	0.8%	5.1%	12.0%	21.3%	29.7%	35.9%	40.4%	44.8%	48.7%	53.0%	56.9%	60.9%	64.2%	67.3%	70.3%	73.0%
2012	0.8%	5.0%	12.1%	21.2%	29.5%	36.0%	40.8%	45.6%	49.8%	54.1%	58.4%	62.3%	65.7%	68.9%	71.8%	74.5%
2013	0.9%	5.1%	11.8%	20.9%	29.3%	35.9%	41.3%	46.3%	50.9%	55.4%	59.5%	63.5%	67.0%	70.4%	73.3%	76.0%
2014	0.7%	4.7%	11.6%	20.7%	29.4%	36.2%	41.9%	47.1%	51.8%	56.3%	60.6%	64.6%	68.0%	71.5%	74.4%	77.2%
2015	0.8%	4.7%	12.0%	20.9%	30.1%	37.4%	43.0%	48.3%	53.4%	58.5%	62.8%	66.8%				
2016	0.8%	5.1%	12.3%	21.9%	31.6%	39.4%	45.4%	51.1%								
2017	0.9%	5.6%	13.4%	24.0%												

Accident	Quarterly Incremental Change														
Year	<u>3-6</u>	<u>6-9</u>	<u>9-12</u>	<u>12-15</u>	<u>15-18</u>	<u>18-21</u>	<u>21-24</u>	<u>24-27</u>	<u>27-30</u>	<u>30-33</u>	<u>33-36</u>	<u>36-39</u>	<u>39-42</u>	<u>42-45</u>	<u>45-48</u>
2008	4.7%	7.8%	9.6%	8.6%	6.3%	4.4%	3.8%	3.6%	3.7%	3.5%	3.5%	2.9%	2.7%	2.6%	2.4%
2009	4.0%	7.5%	9.0%	8.3%	6.0%	4.4%	4.0%	3.7%	3.6%	3.7%	3.5%	3.0%	3.0%	2.5%	2.5%
2010	4.1%	7.1%	9.2%	8.8%	6.0%	4.4%	4.3%	3.8%	3.9%	3.5%	3.5%	3.2%	3.4%	3.0%	2.9%
2011	4.3%	6.9%	9.3%	8.4%	6.2%	4.5%	4.4%	3.9%	4.3%	3.9%	4.0%	3.3%	3.0%	3.0%	2.7%
2012	4.2%	7.0%	9.1%	8.3%	6.5%	4.8%	4.9%	4.2%	4.3%	4.2%	3.9%	3.4%	3.2%	2.9%	2.7%
2013	4.1%	6.7%	9.1%	8.4%	6.6%	5.4%	5.0%	4.6%	4.5%	4.1%	3.9%	3.6%	3.3%	2.9%	2.8%
2014	4.0%	6.9%	9.0%	8.8%	6.8%	5.7%	5.1%	4.8%	4.5%	4.3%	4.0%	3.4%	3.5%	2.9%	2.8%
2015	3.9%	7.3%	8.9%	9.2%	7.3%	5.7%	5.3%	5.1%	5.1%	4.3%	4.0%				
2016	4.2%	7.3%	9.6%	9.7%	7.8%	6.0%	5.8%								
2017	4.8%	7.8%	10.6%												

Notes All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 85% to 97% of the total California workers' compensation insured market measured using 2017 earned premium levels).

Source: WCIRB quarterly calls for experience

**California Workers' Compensation
Estimated Indemnity Claim Frequency by Accident Year**



^[1] The 2015-2016 estimate is based on partial year unit statistical data. The 2016-2017 estimates is based on comparison of claim counts based on WCIRB accident year experience as of December 31, 2017 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.

Item AC18-03-03

Impact of SB 1160 & AB 1244 on Loss Development

Senate Bill No. 1160 (SB 1160), enacted in 2016, provides for a number of provisions related to liens including a declaration under penalty of perjury required for all liens, restrictions on assigning liens to a third party, and a stay on liens from providers indicted for fraud. Assembly Bill No. 1244 (AB 1244) provides for a special process to consolidate liens from providers convicted of fraud. These provisions not only impact new lien filings but also outstanding liens. As a result, the lien provisions of SB 1160 and AB 1244 could significantly impact loss development patterns on older years and the loss development projections for more recent years. Staff's analysis of the potential impact of SB 1160 and AB 1244 on development is summarized below.

Impact on Age-to-Age Factors

In July of 2017, the Division of Workers' Compensation (DWC) dismissed approximately 292,000 outstanding liens that did not have declarations filed by July 1, 2017. Although some of these liens may have been settled prior to July of 2017, a significant number have been dismissed on claims from multiple accident years.¹ In addition, information from the DWC suggests that several thousand outstanding liens from providers indicted for fraud are currently stayed while others have been consolidated and dismissed. As a result, paid medical development emerging after approximately mid-2017 would reflect lower lien payments than what underlies paid medical development prior to mid-2017. Given that lien payments have been a significant proportion of paid medical costs, if no adjustment is made, age-to-age factors computed after the second quarter of 2017 may be distorted.

As discussed at the December 6, 2017 meeting, medical loss development emerging in the third quarter of 2017 was significantly lower than the prior quarters. Some of this lower loss development may be related to the recent lien dismissals. Staff analyzed a potential adjustment to the paid medical age-to-age factors applied to the third quarter of 2017 and later that corrects for the change in the volume of lien settlements due to SB 1160. The adjustment is similar to the WCIRB's standard approach for correcting age-to-age paid medical development for other "date of service" medical reforms such as those currently applied for Senate Bill No. 863 (SB 863) and the changes to the physician fee schedule.

Exhibit 1 summarizes by accident year the liens dismissed by the DWC in July of 2017. In order to estimate the proportion of dollars that was dismissed, the demand amounts from the dismissed liens are compared to the demand amounts for all outstanding liens as of January 1, 2017 (the effective date of SB 1160).² As discussed at the December 6, 2017 meeting, a preliminary review of the dismissed liens suggested that some of them may have already been settled. Staff linked the provider information from the dismissed liens to provider information on lien payments reported in the WCIRB's Medical Data Call (MDC) transaction data to estimate the proportion that were settled. Staff also performed this process to all liens filed between January 1, 2013 and December 31, 2016 to estimate the total number of outstanding liens as of January 1, 2017. In both cases (dismissed liens and all liens), approximately 20% of the liens were estimated to be settled. This proportion is reflected in Exhibit 1.

Although Exhibit 1 shows lien demand amounts and not settled amounts, staff assumed the ratio of settlement amount to demand amount is consistent between the dismissed liens and all liens, resulting in the same proportions when using demand amounts.³ As shown in Exhibit 1, 18% to 26% of outstanding lien dollars are estimated to have been dismissed for accident years 2010 through 2015.

¹ See Item AC17-12-02 of the December 6, 2017 meeting for more information on the liens dismissed by the DWC.

² Only liens filed after January 1, 2013 are reflected in Exhibit 1 since only liens subject to the SB 863 filing fee (post-1/1/2013 filings) were subject to the declaration.

³ Liens typically settle for 25% of the demand amount.

Exhibit 2 shows lien payments as a proportion of total incremental medical paid from MDC data by development period. MDC data includes medical services (including liens) but not other types of medical payments such as lump sum settlements and Medicare-related payments. In order to estimate lien payments as a proportion of total medical paid, they were adjusted downward by the estimated proportion of medical payments not included in MDC data based on the WCIRB's Report on 2016 California Workers' Compensation Losses and Expenses.⁴

Exhibit 3 shows the adjustment made to age-to-age factors based on December 31, 2017 experience. All pre-July 1, 2017 payments are restated to exclude the dismissed liens based on the dismissed lien proportion of total liens from Exhibit 1 and liens as a proportion of incremental medical paid from Exhibit 2. Although the adjustment results in modest increases in the medical age-to-age factors, it is only based on two quarters of post-July 1, 2017 development and its magnitude should grow as additional quarters emerge. Staff recommends making this adjustment to the 36-month through 108-month paid medical age-to-age factors (where lien payments have been most significant) and continuing to monitor emerging lien payment data.

Impact on Cumulative Loss Development Projections

The adjustment to age-to-age development discussed above only corrects for a potential distortion in paid medical development resulting from the lower lien payments emerging after July of 2017. The adjustment does not address the impact of the reduced volume of liens on future medical loss development. It also does not address the notion that reduced lien filings for more recent accident years may result in a lower loss development projection, which is primarily based on development of older years that include higher levels of lien filings. As shown in Exhibit M9.2 of Item AC18-03-01 of this Agenda, lien filings in 2017 are at least 40% below the pre-SB 1160 level. Liens not only incur significant costs to defend and settle, but also have prolonged claim durations. This information suggests that some adjustment to the loss development projections for the decrease in lien activity may be appropriate.

Exhibit 4 shows a comparison of cumulative age-to-240 paid medical development with and without lien payments based on MDC data and the average of the development for the most recent three calendar years. For example, at 12 months projected paid medical development would be 9% lower (4.424 compared to 4.876) if there were no lien payments. The WCIRB's prospective estimate for SB 1160 and AB 1244 reflected a 10% reduction in lien filings. The emerging data through the fourth quarter of 2017 suggests closer to a 40% reduction in lien filings.⁵ The impact of both of these lien filing assumptions on the medical loss development projection is shown in Exhibit 4. For example, a 40% reduction in lien filings indicates a 3.7% reduction in projected medical loss development after 12 months. Given the significant impact lien payments have on projected medical loss development, staff recommends making this adjustment to the paid medical loss development projection for accident years currently aged 72 months and earlier (i.e., accident years 2012 and later). Adjustments to other quarterly periods (i.e., 15 months) would be interpolated based on the information shown in Exhibit 4.⁶

Table 1 shows the estimated net impact of the all the adjustments discussed above on accident years 2012 through 2017. Given that these adjustments account for the impact of SB 1160 and AB 1244 in the medical loss development projection, staff does not recommend also reflecting the impact in the medical on-level factors for these accident years, as this would double-count the impact of the reforms.

⁴ These included medical payments made directly to injured workers, Medicare set-aside payments, capitated medical payments, and reimbursements to Medicare. The total proportion was also adjusted to remove medical cost containment program payments.

⁵ In the decision on the January 1, 2018 Pure Premium Rate Filing, the California Department of Insurance reflected a 40% reduction in lien filings resulting from SB 1160 and AB 1244.

⁶ This adjustment and the process to interpolate for other quarterly periods is similar to the adjustments currently applied to cumulative paid indemnity development for the permanent disability changes from SB 863.

Table 1: Impact of SB 1160 Adjustments to Paid Medical Development

Accident Year	Age at 12/31/17	Impact of Lien Dismissals (Age-to-Age Adj.)	Impact of Future Lien Filings (Based on a 40% Reduction)	Estimated Net Impact
2012	72	+0.3%	-0.6%	-0.3%
2013	60	+0.4%	-1.1%	-0.7%
2014	48	+0.6%	-1.9%	-1.3%
2015	36	+0.8%	-2.7%	-1.9%
2016	24	+0.9%	-3.4%	-2.5%
2017	12	+0.9%	-3.7%	-2.8%

ALAE Development Impact

As discussed in prior studies and pure premium rate filings, the administrative and legal cost incurred in defending and settling liens can often be greater than the lien settlement amount. As a result, the changes to lien filings resulting from SB 1160 and AB 1244 could significantly impact paid ALAE development and calendar year paid ULAE. Sufficient data to derive an adjustment to paid ALAE development similar to what is discussed for paid medical above is not available. However, assuming that the relative impact to paid ALAE is similar to that of paid medical may be reasonable. Staff plans to review the impact of these reforms on LAE costs with the Committee at the next meeting when the update to ALAE experience as of December 31, 2017 is available.

Estimation of Proportion of Liens Dismissed by Accident Year

	(1)	(2)	(3)	(4)	(5)	(6)
	Dismissed Lien	All Lien		Adj. Dismissed	Adj. All	
	Demand	Demand	Lien	Lien Demand	(Outstanding) Lien	
	Amounts	Amounts	Settlement	Amounts	Demand Amounts	Lien Dismissal
	(in 000's)	(in 000's)	Rate	(1)x(1.0-(3))	(in 000's)	Rate
AY	(in 000's)	(in 000's)			(2)x(1.0-(3))	(4)/(5)
1998	\$9,193	\$39,387	20%	\$7,354	\$31,510	23.3%
1999	\$9,511	\$48,021	20%	\$7,609	\$38,417	19.8%
2000	\$13,307	\$58,709	20%	\$10,646	\$46,967	22.7%
2001	\$17,244	\$78,784	20%	\$13,795	\$63,027	21.9%
2002	\$21,455	\$91,990	20%	\$17,164	\$73,592	23.3%
2003	\$24,979	\$114,087	20%	\$19,983	\$91,270	21.9%
2004	\$27,304	\$115,737	20%	\$21,843	\$92,590	23.6%
2005	\$29,645	\$134,294	20%	\$23,716	\$107,435	22.1%
2006	\$42,752	\$177,076	20%	\$34,202	\$141,660	24.1%
2007	\$60,630	\$260,740	20%	\$48,504	\$208,592	23.3%
2008	\$84,995	\$362,536	20%	\$67,996	\$290,029	23.4%
2009	\$132,873	\$532,377	20%	\$106,298	\$425,901	25.0%
2010	\$213,075	\$837,173	20%	\$170,460	\$669,739	25.5%
2011	\$327,431	\$1,225,207	20%	\$261,945	\$980,166	26.7%
2012	\$447,547	\$1,706,675	20%	\$358,037	\$1,365,340	26.2%
2013	\$426,611	\$1,751,002	20%	\$341,289	\$1,400,802	24.4%
2014	\$265,228	\$1,190,858	20%	\$212,182	\$952,687	22.3%
2015	\$61,327	\$334,228	20%	\$49,062	\$267,383	18.3%
2016	\$2,053	\$24,161	20%	\$1,643	\$19,329	8.5%

(1) Based on approximately 292,000 liens dismissed by the DWC in July of 2017.

(2) Based on all liens filed between January 1, 2013 and December 31, 2016 (i.e., liens subject to the SB 1160 declaration for outstanding liens).

(3) Based on linking DWC lien information to WCIRB Medical Data Call (MDC) data. Settlement rate represents the proportion of liens with a lien payment in MDC data. The settlement rates for the "Dismissed Liens" and "All Liens" were found to be consistent. For consistency, the same proportion is used for all accident years.

Source: DWC EAMS Lien Data.

Percentage of Total Medical Payments for Liens

	(1)	(2)	(3)
Age	% of MDC Paid for Liens	% of Medical Payments not in MDC	% of Total Medical Payments for Liens (1)x(1-(2))
228-240	3.2%	34%	2.1%
216-228	3.4%	34%	2.3%
204-216	3.9%	34%	2.6%
192-204	4.3%	34%	2.8%
180-192	6.9%	34%	4.6%
168-180	5.8%	34%	3.8%
156-168	8.0%	34%	5.3%
144-156	8.6%	34%	5.7%
132-144	10.2%	34%	6.7%
120-132	12.1%	34%	8.0%
108-120	13.6%	34%	8.9%
96-108	16.7%	34%	11.0%
84-96	19.0%	34%	12.5%
72-84	20.6%	34%	13.6%
60-72	21.8%	34%	14.4%
48-60	20.9%	34%	13.8%
36-48	16.3%	34%	10.7%
24-36	7.6%	34%	5.0%
12-24	1.3%	34%	0.9%

(1) Based on Medical Data Call (MDC) data for calendar year 2016.

(2) Reflects payments made directly to injured workers and Medicare-related payments not included in MDC data, based on the WCIRB's Report on 2016 Losses and Expenses. Also excludes MCCP costs.

Medical Age-to-Age Factors Adjusted for Dismissed Liens

AY	Age	(1)	(2)	(3)	(4)	(5)	(6)
		Unadjusted Age-to-Age Factor	DWC Lien Dismissal Rate	% of Total Medical Payments for Liens	Estimated % for Dismissed Liens (3)X(4)	Age-to-Age Factor Adj. for Dismissed Liens	Adjustment Impact (5)-(1)
1998	228-240	1.009	23.3%	2.1%	0.49%	1.009	0.000
1999	216-228	1.009	19.8%	2.3%	0.45%	1.009	0.000
2000	204-216	1.009	22.7%	2.6%	0.58%	1.009	0.000
2001	192-204	1.011	21.9%	2.8%	0.62%	1.011	0.000
2002	180-192	1.011	23.3%	4.6%	1.06%	1.011	0.000
2003	168-180	1.013	21.9%	3.8%	0.84%	1.013	0.000
2004	156-168	1.015	23.6%	5.3%	1.24%	1.015	0.000
2005	144-156	1.019	22.1%	5.7%	1.25%	1.019	0.000
2006	132-144	1.020	24.1%	6.7%	1.62%	1.021	0.000
2007	120-132	1.022	23.3%	8.0%	1.86%	1.022	0.000
2008	108-120	1.027	23.4%	8.9%	2.10%	1.027	0.000
2009	96-108	1.032	25.0%	11.0%	2.75%	1.033	0.000
2010	84-96	1.042	25.5%	12.5%	3.19%	1.043	0.001
2011	72-84	1.058	26.7%	13.6%	3.63%	1.059	0.001
2012	60-72	1.087	26.2%	14.4%	3.78%	1.088	0.001
2013	48-60	1.130	24.4%	13.8%	3.36%	1.132	0.002
2014	36-48	1.226	22.3%	10.7%	2.39%	1.228	0.002
2015	24-36	1.439	18.3%	5.0%	0.92%	1.440	0.002
2016	12-24	2.480	8.5%	0.9%	0.07%	2.480	0.000

(1) Based on December 31, 2017 experience.

(2) See Exhibit 1, Column (6).

(3) See Exhibit 2, Column (3).

(5) All medical payments made prior to July 1, 2017 have been adjusted to exclude the proportion shown in Column (4) to restate these payments at the post-dismissal level.

Source: WCIRB quarterly calls for experience.

Adjustment to Cumulative Medical Development Factors for SB 1160 Lien Reforms

Age	(1) Paid Medical Age-to-240 Factor (All MDC Service Types)	(2) Paid Medical Age-to-240 Factor (All MDC Service Types Excl. Liens)	(3) Adjustment to Cumulative Factor w/ 10% Lien Reduction	(4) Adjustment to Cumulative Factor w/ 40% Lien Reduction	(5) Age-to-Age Factor (w/ Dismissed Lien Adj.)	(6) Age-to-240 Factor (w/ Dismissed Lien Adj.)	(7) Age-to-240 Factor (w/ Cumulative 40% Adj.) (4)x(6)
228-240	1.004	1.004	1.000	1.000	1.009	1.009	1.009
216-240	1.009	1.009	1.000	1.000	1.009	1.018	1.018
204-240	1.015	1.016	1.000	1.000	1.009	1.026	1.027
192-240	1.022	1.023	1.000	1.000	1.011	1.038	1.038
180-240	1.031	1.033	1.000	1.001	1.011	1.049	1.050
168-240	1.044	1.045	1.000	1.001	1.013	1.063	1.064
156-240	1.060	1.062	1.000	1.001	1.015	1.079	1.080
144-240	1.077	1.079	1.000	1.001	1.019	1.099	1.100
132-240	1.096	1.097	1.000	1.001	1.021	1.122	1.123
120-240	1.116	1.116	1.000	1.000	1.022	1.147	1.147
108-240	1.139	1.138	1.000	1.000	1.027	1.178	1.178
96-240	1.170	1.165	1.000	0.998	1.033	1.217	1.215
84-240	1.211	1.200	0.999	0.997	1.043	1.269	1.265
72-240	1.269	1.249	0.998	0.994	1.059	1.344	1.335
60-240	1.358	1.319	0.997	0.989	1.088	1.463	1.446
48-240	1.505	1.436	0.995	0.981	1.132	1.655	1.625
36-240	1.769	1.648	0.993	0.973	1.228	2.033	1.978
24-240	2.337	2.137	0.991	0.966	1.440	2.928	2.828
12-240	4.876	4.424	0.991	0.963	2.480	7.262	6.993

(1) Based on Medical Data Call data for the average of the latest three calendar years. Factors include all medical service types in MDC but does not include payments not reported in MDC such as claim settlements.

(2) Based on the same information shown in Column (1) but excludes all lien payments.

(3) = ((2) x 10%) + ((1) x 90%) / (1). 10% lien reduction was reflected in the January 1, 2018 Filing.

(4) = ((2) x 40%) + ((1) x 60%) / (1). 40% lien reduction was reflected in the CDI's decision on the January 1, 2018 Filing.

(5) See Exhibit 3, Column (5).

Source: Medical Data Call (MDC).