

# Actuarial Committee

## Meeting Agenda

Date	Time	Location	Staff Contact
June 16, 2017	9:30 AM	WCIRB California 1221 Broadway, Suite 900 Oakland, CA	David M. Bellusci
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Released: June 9, 2017

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

### I. Approval of Minutes

Meetings held on March 21, 2017 and April 3, 2017

### II. Working Group Meeting Summaries

Claims Working Group Meeting held on March 30, 2017

Medical Analytics Working Group Meeting held on April 12, 2017

### III. Unfinished Business

- A. AC99-05-02: Annual Report on Paid Costs
- B. AC16-06-05: Update on Medical Severity Trends by Component
- C. AC16-12-03: Adjustment for Wage Level Differences in Classification Ratemaking
- D. AC17-03-03: Study of Claim Settlement Rate Adjustments to Loss Development

### IV. New Business

- A. AC17-06-01: 3/31/2017 Experience – Review of Methodologies
- B. AC17-06-02: 1/1/2018 Regulatory Filing – Experience Rating Plan Values

### V. Matters Arising at Time of Meeting

### VI. Next Meeting Date: August 2, 2017

### VII. Adjournment

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**Claims Working Group**

# Meeting Summary

To: Participants of the Claims Working Group  
Date: April 6, 2017

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**RE: Summary of March 30, 2017 Meeting**

## **Discussion Topics**

At the meeting, the following topics were discussed.

### **1. First Quarter 2016 Review of Diagnostics**

The meeting materials included the WCIRB's diagnostic exhibits that are reviewed by the Actuarial Committee and the Claims Working Group on a semi-annual basis. Among the diagnostics discussed by the Working Group were the following:

- a. Indemnity claim settlement ratios continued to increase in the third quarter of calendar year 2016. A Working Group member noted that part of the increase in claim settlement is likely due to independent medical review (IMR) continuing to speed-up the resolution of medical treatment disputes. Another member suggested that a decrease in spinal surgeries following Senate Bill No. 863 (SB 863) could also be contributing to the acceleration. Finally, it was noted that reduced lien activity from the pre-SB 863 period and potentially greater willingness of lien claimants to settle liens may also be a factor in the acceleration.
- b. The latest year of data showed average outstanding medical loss per open indemnity claim decreases for many accident years. Several Working Group members suggested that these recent decreases in average case reserves could be attributable to latent recognition of some of the medical cost reductions resulting from SB 863 that had materialized in paid medical loss patterns several years earlier.
- c. The number of expedited hearings remained steady in the third and fourth quarters of 2016 after a sharp rise in early 2016. Working Group members noted that the "dual track" of filing for both expedited hearings and independent medical review on medical treatment disputes continues to be used. Also, many expedited hearings are from arising out of employment / course of employment (AOE/COE) questions and there is a growing tendency for defense requested expedited hearings on restricting treatment to be within medical provider networks.
- d. Liens increased sharply in the fourth quarter after dropping in the third quarter. The Working Group agreed that this was not unexpected given the effect of the change in the statute of limitations to 18 months and the likelihood that many lien claimants accelerated their lien filings to make the filing prior to the January 1, 2017 effective date of Senate Bill No. 1160 and Assembly Bill No. 1244. Several members noted that there remain significant questions

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as to eventual effectiveness of the new legislation and lien filing counts should continue to be monitored closely in 2017.

- e. Allocated loss adjustment expense (ALAE) trends show signs of moderation and there has been a significant downturn in paid ALAE development. Working Group members suggested this is likely due to similar factors driving the acceleration in claims settlement such as IMR, increased efforts to settle liens and reduced spinal surgeries. It was also suggested that some of this ALAE cost reduction could be attributable to resolution of the certain open SB 863 questions.

### 2. ALAE Study

Staff notified the Working Group members that the WCIRB's study of rising ALAE was released on January 5, 2017. Staff summarized several of the major findings from the report. It was noted that the report findings supported the significance of a number of the issues raised by the Working Group that helped give rise to the study (e.g., deposition costs, pre-lien disputes).

### 3. Discussion of Medicare Set-Asides

At the meeting, the Working Group reviewed the comparison of medical development patterns of claims closed by compromise and release to those closed by as stipulated award in which the future medical remained open. It was generally agreed that any further WCIRB research on Medicare set-asides be deferred pending the results of an upcoming CWCI study of the issue. The Working Group also suggested that staff consider whether to collect data on the use of Medi-Cal Special Needs Trusts.

### 4. Impact of Medical Fraud Enforcement on California Workers' Compensation Costs

Staff presented the Working Group with updated information on the amount of medical costs generated by providers that have been indicted for fraud. Staff advised the Working Group that they would continue to monitor these costs.

### 5. Summary of Current and Pending Legislative, Regulatory, and Judicial Actions as of March 17, 2017

The Working Group reviewed the legislation passed in 2016 and the legislation pending for 2017 included in the meeting materials. Specifically, a Working Group member noted that Assembly Bill No. 44 doesn't include a definition of an act of terrorism or workplace violence which could lead to litigation if the bill is passed. A Working Group member also mentioned Assembly Bill No. 206 related to private residence employees and the potential impact of removing the 52-hour requirement before private residence employees are defined as employees under the Labor Code. Staff advised that workers' compensation insurance for private residence employees is exempt from reporting requirements and the WCIRB therefore does not have data on these costs.

The Working Group also reviewed the regulatory update included in the meeting materials. The Working Group specifically discussed the recent changes to allow for separate billing for records review when the review is above and beyond what is required for a normal evaluation and greater than 30 minutes in duration. The Working Group did not believe this would be a major cost factor but suggested that staff monitor the cost arising from these new codes.

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The Working Group also discussed the pending drug formulary. A member noted that, in addition to the potential impacts of the pending drug formulary, there may be a significant drop in pharmaceutical costs due to a recent change in Medicare methodology for setting upper limits on Medi-Cal schedule pricing for pharmaceuticals, which is used in California. These changes became effective in April 2016. Finally, a Working Group member noted that the Interpreter and Home Healthcare Fee Schedules required by SB 863 are still pending and may have an impact on costs once they are implemented.

The Working Group reviewed the judicial updates included in the meeting materials. The Working Group discussed the published decision by the Third District Court of Appeals on March 29, 2017 holding that independent medical review (IMR) is constitutional and clarifying that the workers' compensation judge has no ability to rule on a challenge of a utilization review determination other than with respect to timeliness. A Working Group member also mentioned the Fourth District Court of Appeals unpublished decision in Parrent v. WCAB (Pac Bell). In that case, the Court denied review, but issued a decision which held that the IMR process is required irrespective of whether the treatment is provided by a medical provider network (MPN) physician. A writ of review in the case is pending with the California Supreme Court.

**Medical Analytics Working Group**

# Meeting Summary

To: Participants of the Medical Analytics Working Group  
From: Linda Radler  
Date: April 24, 2017

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**RE: Summary of April 12, 2017 Meeting**

**Insurer Meeting Participants Were Reminded of the Antitrust Notice**

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**Discussion Topics**

At the meeting, the following topics were discussed.

**1. Potential WCIRB Medical Analytics Research Topics**

The potential WCIRB Medical Analytics research topic about the cost and care for long-term opioid users was discussed. The Working Group members want to understand what treatment plan changes are occurring associated with declining opioid prescription fills. A Working Group member suggested looking at both chronic users and recent opioid users. The Working Group proposed defining chronic opioid users as those that have a 50 MME (morphine mg equivalent) per day use beyond 90 days. Suggested areas of study included comparison of treatment patterns for more mature claims with more recent claims, for different levels of Permanent Disability Rating, return-to-work rates, psych treatment, transition to maintenance pain drugs such as Gabapentin or Lyrica, differences by age of injured worker, and shifts in treatment modalities such as acupuncture or cognitive behavior therapy. The Working Group discussed using differential changes in case reserves as an overall measure of cost impact.

Other potential research topics raised included further monitoring of cumulative injury claims, benchmark reports by California regions and benchmarks to establish baselines for medical treatment provided in the first 30 days after injury which will have no retrospective utilization review for injuries on or after January 1, 2018 in accordance with Senate Bill No. 1160.

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### 2. Discussion of Upcoming Legislation—Research Implications

Staff provided the Working Group with an overview of the current status and timeline for Assembly Bill No. 1124, which authorizes the implementation of a drug formulary. Staff discussed the development of the formulary and summarized the proposed formulary structure and ancillary rules that apply to drugs dispensed for outpatient use on or after July 1, 2017, regardless of the date of injury. Staff noted directives from Title 8, California Code of Regulations, Section 9792.27.3 MTUS Drug Formulary Transition, stating the formulary should be phased in for injured workers who are receiving ongoing drug treatment as to not cause harm by an abrupt change to the course of treatment.

Staff noted that the Special fill and Perioperative fill provisions are exceptions to the physician drug dispensing rule that requires prospective review for all drugs that are dispensed by physicians as written in the proposed regulatory text in Title 8, California Code of Regulations, Section 9792.27.8 Physician-Dispensed Drugs.

Staff reviewed the first economic impact figures released by the Division of Workers' Compensation showing an estimated \$23 million savings in the first year after implementation of the drug formulary. The Working Group was informed of the various steps of the WCIRB cost analysis process that will begin once the final formulary is available. Staff shared with the Working Group several issues that may impact the analysis including changes to Medi-Cal payment rates, which impact the Pharmacy Fee Schedule and future prescribing pattern uncertainty after implementation of the formulary. The Working Group was reminded that the data for the release of the final formulary is currently set for July 1, 2017, but delays associated with the regulatory process may occur.

Staff informed the Working Group that declining pharmaceutical payments have been observed in recent quarters. A Working Group member from the California Workers' Compensation Institute (CWCI) explained that because of significant Medi-Cal payment rate changes implemented as of April 2016, upon which the Workers' Compensation Pharmacy Fee Schedule is based, the CWCI estimates a 19% potential drug savings and this study will not be released for a few months after they further refine their analysis with 2016 data.

### 3. 2016 Senate Bill No. 863 Retrospective Report – Copy Service Fee Schedule Results and Other Medical Components through June 2016

Staff presented the Working Group with an analysis of the first 12 months of copy service fee data. Staff reminded the Working Group that the Copy Service Fee Schedule went into effect July 1, 2015. Staff informed the Working Group that the data showed a wide variety in adoption rates across insurers. Staff informed the Working Group that \$11 million was paid for copy services in the first year since the Copy Service Fee Schedule was adopted.

Staff reviewed the November 2016 Cost Monitoring Report with the Working Group. A Working Group member asked about the increase in medical-legal costs. Staff noted that the increase in medical-legal costs was driven by an increase in higher complexity Medical Legal codes. The Working Group discussed whether or not increasing cumulative injury filings was a contributor to the increase in medical-legal costs. Staff agreed to investigate this issue.

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**4. 4. Impact of Medical Fraud Enforcement in California Workers' Compensation**

Staff presented the Working Group with an updated analysis of costs associated with providers indicted for workers' compensation fraud. Staff noted that some of the reduction in spinal surgeries was associated with these providers. A Working Group member asked whether indictments were associated with the decrease of opioid prescriptions. Staff agreed to investigate this issue.

**5. Insurer Medical Benchmark Report Enhancement – Medical Trend by Accident Year**

Staff presented the updates to the benchmark report to the Working Group showing medical trend data by accident year and noted this report will be part of the next quarterly and future benchmark reports. Staff also presented some sample benchmark reports with various graphic representations. The Working Group reviewed the format of the report and provided feedback. Staff asked the Working Group members to provide feedback on the medical trend data by accident year format.

**6. Impact of the Affordable Care Act (ACA) on Workers' Compensation**

Staff informed the Working Group that the WCIRB Impact of ACA on Workers' Compensation study is planned for later in 2017. The Working Group was informed about a recent study by Glenn Shor, Ph.D (<http://laborcenter.berkeley.edu/which-california-industries-would-be-most-affected-by-aca-repeal-and-cuts-to-medi-cal/>).

The Working Group was informed that the next meeting would likely be scheduled for late July or early August.



Item AC99-05-02  
Annual Report on Paid Costs

Section 11759.1 of the California Insurance Code requires the WCIRB to summarize various insurer premium, loss, and expense information from each calendar year and submit a report to the Governor and Legislature by June of the following year. A draft summary of the WCIRB's report for calendar year 2016 will be presented at the meeting.

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

At least annually, the Committee reviews a summary of changes in paid per transaction and paid transactions per claim in six-month calendar period intervals by medical component. An update to that analysis with medical transaction information through December 31, 2016 will be presented at the meeting.

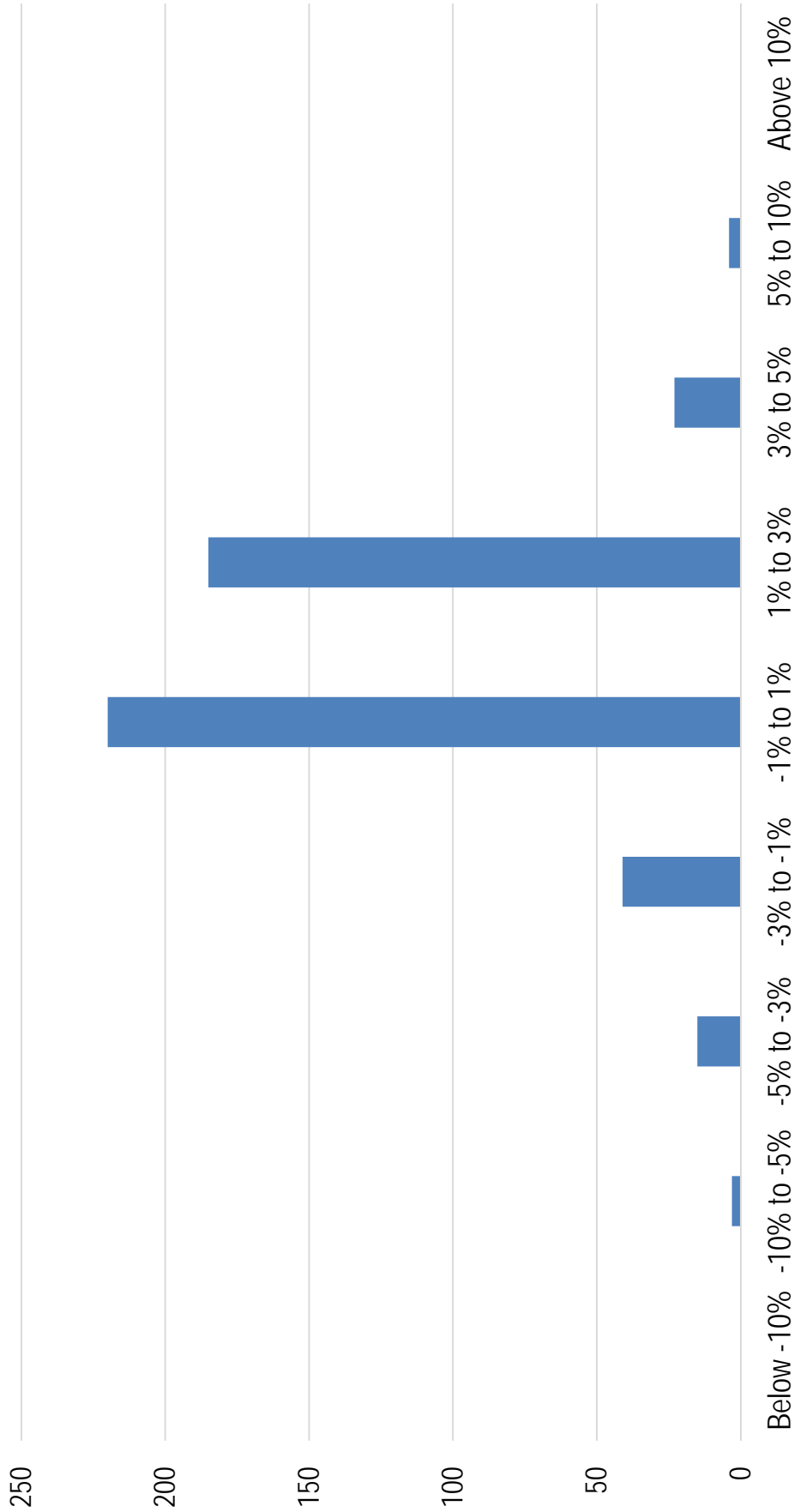
## Item AC16-12-03 Adjustment for Wage Level Differences in Classification Ratemaking

At the December 6, 2016 meeting, the Committee reviewed a study of the impact of average wage level changes by industry that showed the impacts varied significantly by industry. At that meeting, the Committee adopted enhancements to the classification relativities computation methodology to reflect these differences in the payroll and losses underlying each classification's selected loss to payroll ratio. Specifically, the enhancements included an adjustment applied to the payroll reported for each classification for each policy year for that classification's projected relative wage level changes through the policy year in which the classification relativities would be in effect. A similar adjustment is also to be applied for changes in wage levels by classification that impact indemnity benefits. These enhancements were also reviewed by the Classification and Rating Committee at the March 14, 2017 meeting.

The 2018 classification relativities have been computed based on a methodology which included the new enhancements adopted by the Actuarial Committee. These relativities were reviewed and accepted by the Classification and Rating Committee at the June 1, 2017 meeting for inclusion in the January 1, 2018 Regulatory Filing. Exhibit 1 shows the impact of the new enhancements on the 2018 classification relativities. The overall impact was modest for most classifications.

# Impact of Payroll Adjustment on Relativity Changes

Distribution of Classifications by Change in Relativity  
Payroll-Adjusted vs. Unadjusted



### Item AC17-03-03

## Study of Claim Settlement Rate Adjustments to Loss Development

At the March 21, 2017 meeting, the Committee reviewed staff's initial analysis of the claim settlement rate adjustment methodology that addressed various issues discussed by the Committee at the August 3, 2016 meeting. During the discussion, the Committee requested staff provide follow-up analysis in several areas. Staff's follow-up analysis is summarized below.

#### *Impact of Changes in Claim Settlement Rates by Injury Type*

At the March 21, 2017 meeting, the Committee noted that recent changes in claim settlement rates have differed significantly by injury type. However, it was also noted that a preliminary analysis of an approach that adjusts separately by type of injury did not significantly improve the methodology. Staff agreed to continue to develop the alternative claim settlement rate-adjusted loss development methodologies by injury type and determine if a more refined settlement method separated by injury type provides a significant improvement over the current method.

In that aggregate financial data is reported to the WCIRB for all indemnity injury types combined, unit statistical report (USR) data was used to conduct the study since USR data is reported to the WCIRB at the claim level and includes information such as claim status and injury type. A similar increasing trend in recent claim settlement rates that has been observed in the aggregate financial data was also observed in the summary of permanent disability claims based on USR data, as shown in Exhibit 1. Conversely, as also shown in Exhibit 1, recent temporary-only and medical-only claim settlement rates have been generally consistent. As a result, staff explored a partial claim settlement rate adjustment method which applies a claim settlement rate adjustment to permanent disability claims only and recombines them with reported (unadjusted) losses on temporary-only and medical-only claims.

The claim settlement rate adjustment method applied to permanent disability claims is consistent with the current method applied to all indemnity claims. The assumptions applied to the aggregate data under the current claim settlement method were validated using USR permanent disability claims. The first assumption in the method reviewed by staff was whether to develop the indemnity claim counts to ultimate using the latest year reporting pattern. For the adjustment applied to permanent disability claims, staff selected 3-year weighted average age-to-age factors due to the additional volatility inherent in permanent disability claim reporting patterns, which is consistent with the assumptions used to project ultimate permanent disability claim counts in other studies.

The current claim settlement adjustment methodology also assumes there is a log-linear relationship between the indemnity claim settlement rate and the average paid per closed indemnity claim. The adjusted average paid per closed indemnity claim is therefore based on a log-linear interpolation between indemnity claim settlement rates and closed claim severities at two maturities for that accident year and using the "current" indemnity claim settlement rate. This assumption was validated for the analysis of permanent disability claims by plotting the ultimate permanent disability claim settlement rate against the log of the average paid indemnity or medical per closed permanent disability claim for select accident years along with the approximate line fit through those data points. The results of this analysis were reasonable and consistent with the analysis reviewed by the Committee for all indemnity injury types combined at the March 21, 2017 meeting. As a result, the adjustment made to partial payments on closed and open claims is consistent with the current claim settlement method.

While adjusting for the settlement rates based on injury type, the partial claim settlement rate adjustment method did not directly address changes in the proportion of claims transitioning between temporary-only and permanent disability. Staff assumed the impact of these changes to not be material inasmuch as

relative proportions of projected ultimate temporary-only and permanent disability claims have been generally consistent over the last several years.

In order to compute the final adjusted age-to-age factors, the adjusted permanent disability indemnity payments were added to the reported (unadjusted) indemnity payments on temporary-only claims while the adjusted permanent disability medical payments were added to the reported (unadjusted) medical payments on temporary-only and medical-only claims. Exhibits 2.1 and 2.2 compare for indemnity and medical, respectively, the current claim settlement adjustment method, the current claim settlement adjustment method applied to each injury type (permanent disability, temporary-only and medical-only) separately, and the partial claim settlement rate adjustment method (adjusted permanent disability and unadjusted temporary-only and medical-only).

The claim settlement adjustment method adjusting each injury type and the partial claim settlement adjustment method return generally similar results and both produce results comparable to the current claim settlement adjustment method. Staff examined potential reasons for this result. Table 1 compares the distribution of claim counts by injury type at first report level and sixth report level. Permanent disability claims account for approximately 33% of indemnity claims while temporary-only claims account for approximately 67% at first report level and while both are approximately 50% at sixth report level. With respect to all claims, permanent disability claims account for approximately 12% of claims at first report level and approximately 17% at sixth report level.

<b>Table 1 – Distribution of Claim Counts by Injury Type</b>				
<b>Data as of Policy Year 2014 1st</b>				
Method	Indemnity at 1st	Indemnity at 6th	All Claims at 1st	All Claims at 6th
Permanent	33%	51%	12%	17%
Temporary	67%	49%	24%	16%
Medical-Only	—	—	64%	66%

When comparing the partial claim settlement adjustment method to the current claim settlement adjustment method, the results may be similar in that while a more significant adjustment is made to the permanent disability claims, this has an overall smaller impact on the results since the number of permanent disability claims are relatively small compared to other injury types. Conversely, a less significant adjustment is applied to all indemnity claims in the current approach, but more claims and losses are adjusted. As a result, staff does not recommend any refinement to the current approach to address differences in claim settlement rate changes by injury type.

#### *Impact of Changing Claim Settlement Rates on Tail Development*

The current adjustment for changes in claim settlement rates only adjusts the period in which the settlement rates are changing and only for distortions in paid loss development created by payments on the additional or fewer claims settling during this period. The proportion of claims settled at a point in time or, conversely, the proportion remaining open directly impacts future paid loss development. Changes in the rate claims are settled that result in significant differences between an accident year's proportion of open claims and the proportion underlying its projected development factor can distort the projected ultimate losses for that accident year.

Staff analyzed this potential issue by comparing accident year changes in claim settlement rates in a period to differences between the projected and actual development for the accident year after that period. Exhibit 3 shows accident year arithmetic changes in reported indemnity claim settlement ratios from 1989 through 2010. Changes greater than 1.0% or 1.5% in absolute value are highlighted for emphasis. This information forms the basis from which changes in development patterns will be compared. In the case of a significant decrease in indemnity claim settlement rates, future paid development is expected to be higher. In the cases of a significant increase in indemnity claim settlement

rates, future paid development is expected to be lower. Indemnity claim settlement rates generally decreased during the study period though several instances of increases were observed.

Exhibits 4.1 and 4.2 show reported paid indemnity and medical age-to-age factors, respectively. For this analysis, paid development was compared in two ways. The first method compares the projected calendar year development factor for the accident year at the time the claim settlement rate change was observed to the actual development for the accident year (Exhibits 5 and 6). This approach best approximates the actual differences between projected and actual development but can be impacted by other system changes that have occurred over time and may be unrelated to the change in claim settlement rates observed at the earlier point in time. The second method compares the development for the prior accident year to that for the accident year in which the claim settlement rate change occurred (Exhibits 7 and 8). This approach may provide a more direct analysis of how the change in the claim settlement rates affects future development but does not represent the actual development projected for the accident year at that time.

Exhibits 5.1 and 5.2 show for indemnity and medical, respectively, the differences between the projected (latest calendar year) development factor for an accident year and the actual development that emerged for that period. Differences greater than 0.5% in absolute value are highlighted for emphasis. Paid loss development generally increased during the study period and was significantly impacted by various system changes, such as the 2002 through 2004 reforms. The lower sections of Exhibits 5.1 and 5.2 show the correlation coefficient between the changes in indemnity claim settlement rates (Exhibit 3) and the differences between projected and actual paid loss development that occurred after the claim settlement rate change. For claim settlement rate changes at earlier maturities, the correlation coefficients are generally weak. However, there generally is some significant negative correlation between these measures at later maturities.

Exhibits 6.1 through 6.3 show the relationship between the claim settlement rate change and the change in paid development based on the direction of the change. Exhibit 6.1 shows these relationships for development through 84 months (the current stopping point of the claim settlement rate adjustment methodology). In most instances, the difference in the development factor is in the opposite direction of the change in claim settlement rate, which is consistent with the assumptions in the loss development adjustment. The extent to which the current adjustment addresses these differences is being researched by staff and will be presented at the meeting.

Exhibit 6.2 shows the comparison to development from 84 months to 108 months and Exhibit 6.3 shows the comparison to development from 84 months to 228 months. The direction of the change in claim settlement rate at the earlier maturities is less indicative of the direction of the difference between the projected and actual tail development for the accident year, even when the settlement rate shift was more than 1.5%.

Exhibits 7.1 and 7.2 show for indemnity and medical, respectively, changes in accident year to accident year paid development. Differences greater than 0.5% in absolute value are highlighted for emphasis. The lower sections of Exhibits 7.1 and 7.2 show the correlation coefficient between the changes in indemnity claim settlement rates (Exhibit 3) and accident year paid loss development. No significant negative correlation between these measures was found.

Exhibits 8.1 through 8.3 show, for the analysis of accident year to accident year changes in paid loss development, analogous information to that shown in Exhibits 6.1 through 6.3. Significant changes in claim settlement rates did not appear to be a consistent indicator in the year-to-year changes in accident year paid loss development.

### *Other Issues*

At the March 21, 2017 meeting, the Committee reviewed the primary assumptions underlying the current adjustment for changes in claim settlement rates. Among the assumptions reviewed were the severities that are applied to the claims transitioning from opened to closed (or vice versa) as a result of the adjustment. The appropriateness of these severities were reviewed in part by comparing the average paid amounts applied to open and closed claims in the adjustment to actual paid severities on claims closing or remaining open within a given year based on unit statistical data “tracked” across report levels. This comparison is included as Exhibits 9.1 (for indemnity) and 9.2 (for medical). At the meeting, a Committee member suggested sensitivity testing these severities by substituting them with those derived from the “tracked” claim data.

Exhibit 10 shows projected paid age-to-age factors based on unit statistical data. Section A of Exhibit 10 shows unadjusted factors, while Section B shows factors adjusted for changes in claim settlement rates based on the WCIRB’s standard approach. Section C of Exhibit 10 shows factors adjusted for changes in claim settlement rates using transition claim severities based on the “tracked” claim status at the prior report level (lower bound) shown in Exhibits 9.1 and 9.2. For example, the severity for claims transitioning from open to closed at 2<sup>nd</sup> report level would use the severity of claims open at 1<sup>st</sup> but closed at 2<sup>nd</sup>. Section D of Exhibit 10 shows factors adjusted for changes in claim settlement rates using transition claim severities based on the “tracked” claim status at the current report level (upper bound) shown in Exhibits 9.1 and 9.2. For example, the severity for claims transitioning from closed to open at 2<sup>nd</sup> would use the severity of claims open at both 2<sup>nd</sup> and 3<sup>rd</sup> report levels.

The adjusted age-to-age factors for these alternative approaches are compared to the standard approach on Exhibit 10. Other than for the very earliest age-to-age factor (1<sup>st</sup> to 2<sup>nd</sup>), the alternative approaches produce adjusted factors consistent with the standard approach. For the 1<sup>st</sup>-to-2<sup>nd</sup> factor, the sensitivity analysis at the lower bound is somewhat ambiguous since there is no information available prior to the 1<sup>st</sup> report level. The analysis at the upper bound for the 1<sup>st</sup>-to-2<sup>nd</sup> factor can also be distorted as a result of this period involving the greatest incremental change in claim settlement rates and that claims closed during this period tend to be much smaller than claims closed at later periods. Nonetheless, the factors based on the current adjustment are approximately midway between those based on the sensitivity analysis.



### Ultimate Claim Settlement Rates by Injury Type

#### Permanent Disability

Accident	Evaluated as of (Report Level):					
Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
2005	5.79%	21.97%	42.05%	57.82%	67.79%	74.35%
2006	6.30%	22.94%	43.12%	57.81%	67.09%	73.95%
2007	5.88%	23.30%	42.50%	56.57%	66.43%	74.73%
2008	5.93%	23.32%	42.05%	56.34%	67.95%	76.76%
2009	5.90%	22.87%	41.31%	56.90%	68.74%	77.09%
2010	7.06%	24.58%	44.54%	60.73%	71.69%	
2011	7.75%	26.70%	47.45%	62.85%		
2012	9.04%	30.05%	50.61%			
2013	10.20%	31.96%				
2014	10.83%					

#### Temporary-Only

Accident	Evaluated as of (Report Level):					
Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
2005	63.30%	79.25%	86.77%	89.75%	95.04%	96.53%
2006	66.31%	82.97%	89.12%	94.09%	96.05%	97.03%
2007	67.41%	82.84%	91.04%	94.22%	95.84%	97.03%
2008	67.60%	83.60%	89.77%	93.04%	95.31%	96.59%
2009	67.53%	81.50%	87.84%	92.01%	94.28%	95.77%
2010	65.29%	79.00%	86.36%	90.74%	93.43%	
2011	63.82%	78.12%	85.68%	90.28%		
2012	63.09%	77.99%	86.02%			
2013	61.71%	77.87%				
2014	63.42%					

#### Medical-Only

Accident	Evaluated as of (Report Level):					
Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
2005	81.82%	87.12%	88.51%	89.62%	96.55%	98.22%
2006	85.24%	90.31%	92.17%	97.04%	98.27%	98.88%
2007	86.22%	91.61%	96.52%	97.73%	98.38%	99.09%
2008	87.47%	95.37%	96.84%	97.76%	98.64%	99.00%
2009	90.05%	94.97%	96.39%	97.97%	98.52%	98.73%
2010	89.59%	94.85%	97.23%	97.99%	98.30%	
2011	89.08%	95.64%	97.33%	97.90%		
2012	90.36%	95.97%	97.31%			
2013	90.31%	95.97%				
2014	90.47%					

Source: WCIRB unit statistical data

**Indemnity Development Factors by Claim Settlement Rate Adjustment Method  
Based on Unit Statistical Reported Data**

		Indemnity Development Evaluated as of (Report Level):					
<u>Selected</u>	<u>Method<sup>1</sup></u>	<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	<u>Cumulative</u>
3-Year Avg	Combined	1.940	1.375	1.182	1.109	1.068	3.738
3-Year Avg	Injury Type	1.935	1.371	1.182	1.108	1.066	3.704
3-Year Avg	Partial Adj. by IT	1.937	1.371	1.182	1.108	1.065	3.704

		Percent Change to Combined Claim Settlement Adj. Method					
<u>Selected</u>	<u>Method</u>	<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	<u>Cumulative</u>
3-Year Avg	Injury Type	-0.28%	-0.25%	-0.06%	-0.15%	-0.18%	-0.90%
3-Year Avg	Partial Adj. by IT	-0.20%	-0.30%	-0.01%	-0.16%	-0.24%	-0.89%

		Indemnity Development Evaluated as of (Report Level):					
<u>Selected</u>	<u>Method</u>	<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	<u>Cumulative</u>
Latest Yr	Combined	1.911	1.360	1.175	1.107	1.065	3.600
Latest Yr	Injury Type	1.911	1.360	1.176	1.107	1.066	3.605
Latest Yr	Partial Adj. by IT	1.914	1.360	1.177	1.106	1.064	3.606

		Percent Change to Combined Claim Settlement Adj. Method					
<u>Selected</u>	<u>Method</u>	<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	<u>Cumulative</u>
Latest Yr	Injury Type	-0.04%	-0.01%	0.12%	0.03%	0.03%	0.13%
Latest Yr	Partial Adj. by IT	0.16%	-0.02%	0.20%	-0.05%	-0.14%	0.15%

<sup>1</sup> "Combined" method applies the current claim settlement adjustment method to the unit statistical data for all injury types combined. The "Injury Type" method applies the current claim settlement method to each injury type and combines the adjusted losses used to calculate development. The "Partial Adjustment by Injury Type" method applies the current claim settlement method to Permanent Disability claims only and combines the adjusted losses with the reported (unadjusted) Temporary-Only and Medical-Only losses to calculate development.

**Medical Development Factors by Claim Settlement Rate Adjustment Method  
Based on Unit Statistical Reported Data**

<u>Selected</u>	<u>Method<sup>1</sup></u>	<u>Medical Development Evaluated as of (Report Level):</u>					<u>Cumulative</u>
		<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	
3-Year Avg	Combined	1.676	1.340	1.196	1.125	1.087	3.284
3-Year Avg	Injury Type	1.675	1.335	1.190	1.121	1.083	3.234
3-Year Avg	Partial Adj. by IT	1.677	1.335	1.192	1.121	1.083	3.238

<u>Selected</u>	<u>Method</u>	<u>Percent Change to Combined Claim Settlement Adj. Method</u>					<u>Cumulative</u>
		<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	
3-Year Avg	Injury Type	-0.05%	-0.38%	-0.43%	-0.31%	-0.36%	-1.53%
3-Year Avg	Partial Adj. by IT	0.03%	-0.36%	-0.33%	-0.32%	-0.41%	-1.39%

<u>Selected</u>	<u>Method</u>	<u>Medical Development Evaluated as of (Report Level):</u>					<u>Cumulative</u>
		<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	
Latest Yr	Combined	1.656	1.325	1.179	1.115	1.076	3.105
Latest Yr	Injury Type	1.652	1.322	1.178	1.113	1.074	3.077
Latest Yr	Partial Adj. by IT	1.655	1.322	1.178	1.113	1.072	3.077

<u>Selected</u>	<u>Method</u>	<u>Percent Change to Combined Claim Settlement Adj. Method</u>					<u>Cumulative</u>
		<u>1 - 2</u>	<u>2 - 3</u>	<u>3 - 4</u>	<u>4 - 5</u>	<u>5 - 6</u>	
Latest Yr	Injury Type	-0.24%	-0.22%	-0.12%	-0.11%	-0.22%	-0.91%
Latest Yr	Partial Adj. by IT	-0.09%	-0.23%	-0.07%	-0.16%	-0.35%	-0.89%

<sup>1</sup> "Combined" method applies the current claim settlement adjustment method to the unit statistical data for all injury types combined. The "Injury Type" method applies the current claim settlement method to each injury type and combines the adjusted losses used to calculate development. The "Partial Adjustment by Injury Type" method applies the current claim settlement method to Permanent Disability claims only and combines the adjusted losses with the reported (unadjusted) Temporary-Only and Medical-Only losses to calculate development.

**Change in Reported Indemnity Claim Settlement Ratio<sup>1</sup>**

<u>AY</u>	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>
1989						
1990	-3.4%	-3.8%	-2.7%	-1.8%	-0.7%	-0.4%
1991	-8.4%	-4.7%	-2.7%	-1.1%	-1.2%	-0.2%
1992	2.1%	4.2%	3.8%	2.1%	1.8%	0.6%
1993	4.0%	6.8%	4.0%	2.7%	0.4%	0.0%
1994	2.4%	-0.1%	0.8%	-1.2%	-0.3%	-0.3%
1995	-1.3%	-0.5%	-2.6%	-0.6%	-0.9%	-1.6%
1996	2.0%	-2.4%	-0.6%	-1.3%	-2.5%	-1.4%
1997	-6.6%	-1.9%	-0.8%	-1.6%	0.0%	-1.0%
1998	-0.3%	-1.1%	-3.4%	-1.5%	-1.6%	-1.0%
1999	-2.3%	-3.7%	-0.6%	-1.9%	-1.7%	-1.0%
2000	-1.5%	-0.6%	-3.4%	-2.8%	-1.9%	-1.1%
2001	-2.0%	-4.2%	-4.6%	-3.0%	-1.7%	-1.0%
2002	-0.6%	-1.0%	-0.3%	0.5%	2.4%	0.4%
2003	-0.3%	-1.2%	0.7%	2.4%	0.3%	0.3%
2004	1.6%	3.9%	4.2%	2.2%	1.4%	0.5%
2005	1.7%	3.4%	2.5%	1.7%	0.5%	0.1%
2006	0.8%	1.0%	1.0%	0.0%	0.1%	0.2%
2007	0.8%	-0.5%	-1.0%	-1.1%	-1.2%	-1.0%
2008	0.3%	-1.7%	-1.7%	-1.4%	-1.0%	0.4%
2009	-0.8%	-1.8%	-1.8%	-1.3%	-0.1%	-0.4%
2010	0.1%	0.5%	0.6%	1.6%	1.4%	1.3%

Number of observations of claim settlement rate change:

							<u>All</u>
Downward	11	15	13	14	13	12	78
Upward	10	6	8	7	8	9	48

<sup>1</sup> For example, the value for 2010 at 12 months is equal to the arithmetic difference between the reported indemnity claim settlement rate for 2010 at 12 months and the reported indemnity claim settlement rate for 2009 at 12 months.

**Red** - Arithmetic change in claim settlement rates by less than -1.0% (lighter color) or less than -1.5% (darker color).

**Blue** - Arithmetic change in claim settlement rates by more than 1.0% (lighter color) or more than 1.5% (darker color).

Source: WCIRB aggregate financial data for December 31 evaluations.

Paid Indemnity Loss Development Factors

AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228
1989	2.938	1.856	1.322	1.140	1.076	1.043	1.028	1.015	1.010	1.006	1.005	1.004	1.003	1.002	1.003	1.005	1.002	1.002
1990	3.048	1.731	1.282	1.134	1.068	1.040	1.024	1.015	1.010	1.006	1.006	1.004	1.003	1.002	1.003	1.002	1.002	1.002
1991	2.999	1.701	1.297	1.130	1.070	1.038	1.024	1.014	1.011	1.008	1.005	1.004	1.004	1.003	1.004	1.003	1.002	1.002
1992	2.902	1.733	1.281	1.128	1.071	1.039	1.023	1.016	1.012	1.010	1.006	1.007	1.005	1.004	1.003	1.003	1.002	1.002
1993	2.958	1.708	1.278	1.124	1.067	1.040	1.025	1.021	1.013	1.010	1.007	1.004	1.004	1.004	1.004	1.003	1.002	1.003
1994	3.086	1.713	1.260	1.120	1.067	1.042	1.032	1.020	1.015	1.014	1.009	1.008	1.007	1.006	1.003	1.003	1.004	1.003
1995	3.327	1.694	1.246	1.116	1.069	1.049	1.030	1.023	1.016	1.010	1.012	1.008	1.007	1.005	1.005	1.003	1.005	1.005
1996	3.313	1.691	1.246	1.129	1.075	1.047	1.035	1.027	1.018	1.014	1.012	1.009	1.006	1.006	1.004	1.004	1.005	1.004
1997	3.472	1.661	1.251	1.130	1.080	1.052	1.034	1.025	1.018	1.016	1.012	1.008	1.007	1.006	1.006	1.005	1.004	1.003
1998	3.422	1.692	1.268	1.133	1.084	1.054	1.037	1.027	1.021	1.015	1.012	1.009	1.009	1.007	1.006	1.006	1.006	1.004
1999	3.506	1.724	1.282	1.146	1.089	1.055	1.036	1.025	1.018	1.015	1.011	1.009	1.008	1.007	1.006	1.006	1.006	1.004
2000	3.511	1.744	1.304	1.151	1.088	1.052	1.035	1.025	1.016	1.013	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003
2001	3.545	1.796	1.322	1.145	1.077	1.051	1.034	1.024	1.017	1.014	1.012	1.011	1.009	1.008	1.007	1.006	1.006	1.004
2002	3.590	1.782	1.290	1.127	1.075	1.046	1.031	1.020	1.018	1.015	1.014	1.008	1.008	1.007	1.006	1.006	1.006	1.004
2003	3.370	1.696	1.249	1.128	1.072	1.043	1.030	1.026	1.023	1.021	1.015	1.012	1.009	1.007	1.006	1.004	1.004	1.004
2004	2.914	1.522	1.236	1.116	1.073	1.049	1.041	1.035	1.030	1.020	1.015	1.011	1.009	1.008	1.006	1.004	1.004	1.004
2005	2.734	1.512	1.235	1.121	1.079	1.060	1.047	1.042	1.028	1.020	1.015	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2006	2.866	1.539	1.229	1.135	1.090	1.068	1.050	1.035	1.026	1.018	1.015	1.009	1.008	1.007	1.006	1.004	1.004	1.004
2007	2.905	1.547	1.246	1.140	1.092	1.066	1.046	1.033	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2008	2.927	1.577	1.271	1.150	1.092	1.060	1.042	1.027	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2009	3.069	1.616	1.280	1.156	1.092	1.061	1.043	1.027	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2010	3.157	1.628	1.281	1.147	1.092	1.060	1.043	1.027	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2011	3.208	1.613	1.266	1.146	1.087	1.060	1.043	1.027	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2012	3.137	1.597	1.265	1.136	1.087	1.060	1.043	1.027	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2013	3.169	1.610	1.260	1.136	1.087	1.060	1.043	1.027	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2014	3.232	1.634	1.260	1.136	1.087	1.060	1.043	1.027	1.027	1.018	1.012	1.011	1.009	1.007	1.006	1.004	1.004	1.004
2015	3.275																	

12-84  
CY2010 7.747  
AY2010 8.741  
Change: 12.8%

12-84  
AY2009 8.501  
AY2010 8.741  
Change: 2.8%

Source: WCIRB aggregate financial data for December 31 evaluations.

**Paid Medical Loss Development Factors**

AY	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228
1989	2.272	1.274	1.114	1.057	1.034	1.026	1.019	1.014	1.013	1.008	1.008	1.008	1.007	1.008	1.009	1.007	1.005	1.006
1990	2.479	1.256	1.106	1.054	1.037	1.027	1.020	1.013	1.010	1.010	1.009	1.010	1.010	1.006	1.005	1.005	1.006	1.005
1991	2.297	1.231	1.104	1.063	1.042	1.028	1.021	1.014	1.012	1.012	1.011	1.009	1.008	1.007	1.009	1.007	1.007	1.006
1992	2.060	1.216	1.110	1.064	1.043	1.028	1.020	1.017	1.015	1.016	1.013	1.011	1.013	1.010	1.010	1.017	1.008	1.007
1993	1.962	1.207	1.100	1.061	1.042	1.034	1.025	1.025	1.021	1.020	1.020	1.014	1.012	1.014	1.013	1.011	1.011	1.011
1994	2.040	1.236	1.107	1.067	1.048	1.038	1.035	1.028	1.029	1.025	1.017	1.018	1.014	1.017	1.013	1.012	1.013	1.009
1995	2.131	1.254	1.124	1.081	1.058	1.051	1.040	1.037	1.031	1.020	1.024	1.021	1.019	1.018	1.018	1.015	1.011	1.016
1996	2.183	1.265	1.142	1.097	1.071	1.055	1.049	1.038	1.029	1.025	1.027	1.023	1.020	1.018	1.016	1.013	1.014	1.013
1997	2.271	1.286	1.159	1.105	1.080	1.065	1.052	1.036	1.033	1.028	1.026	1.022	1.019	1.016	1.014	1.014	1.014	1.011
1998	2.342	1.328	1.181	1.118	1.093	1.066	1.047	1.039	1.033	1.032	1.030	1.021	1.019	1.019	1.015	1.017	1.013	1.010
1999	2.476	1.378	1.207	1.133	1.089	1.059	1.044	1.035	1.032	1.032	1.025	1.025	1.016	1.016	1.018	1.015	1.012	
2000	2.666	1.430	1.222	1.127	1.079	1.056	1.042	1.038	1.031	1.027	1.023	1.020	1.020	1.017	1.013	1.010		
2001	2.842	1.472	1.212	1.109	1.076	1.057	1.045	1.038	1.034	1.030	1.022	1.018	1.022	1.017	1.012			
2002	2.887	1.416	1.168	1.112	1.072	1.054	1.046	1.034	1.032	1.024	1.023	1.018	1.017	1.012				
2003	2.592	1.318	1.170	1.112	1.074	1.057	1.048	1.041	1.030	1.030	1.026	1.019	1.016					
2004	2.298	1.345	1.189	1.123	1.092	1.070	1.055	1.040	1.036	1.034	1.024	1.018						
2005	2.251	1.345	1.209	1.138	1.095	1.073	1.054	1.049	1.038	1.031	1.021							
2006	2.340	1.399	1.220	1.140	1.099	1.068	1.056	1.042	1.034	1.025								
2007	2.416	1.413	1.230	1.142	1.097	1.075	1.057	1.042	1.031									
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	1.068	1.046											
2010	2.479	1.468	1.265	1.152	1.096	1.066												
2011	2.580	1.470	1.248	1.147	1.095													
2012	2.561	1.468	1.249	1.143														
2013	2.492	1.466	1.238															
2014	2.518	1.462																
2015	2.533																	

	12-84		
CY2010	5.622	AY2009	5.962
AY2010	6.196	AY2010	6.196
Change:	10.2%	Change:	3.9%

Source: WCIRB aggregate financial data for December 31 evaluations.

**Difference in Projected Calendar Year Indemnity Paid Development  
Compared to Actual<sup>1</sup>**

<u>AY</u>	<u>12-84</u>	<u>24-84</u>	<u>36-84</u>	<u>48-84</u>	<u>60-84</u>	<u>72-84</u>	<u>84-108</u>	<u>84-228</u>
1990	-0.7%	-4.3%	-2.4%	-0.4%	-0.2%	-0.1%	-0.8%	-2.8%
1991	-13.2%	-11.7%	-3.7%	-1.8%	-0.8%	-0.4%	-0.6%	-2.0%
1992	-7.8%	-4.8%	-4.9%	-1.9%	-0.6%	-0.4%	0.0%	-1.7%
1993	0.0%	-1.8%	-2.2%	-1.9%	-0.6%	-0.1%	0.7%	1.1%
1994	-2.2%	-6.3%	-5.2%	-2.4%	-1.1%	-0.2%	1.1%	3.7%
1995	3.3%	-4.2%	-3.4%	-0.7%	0.6%	0.5%	1.1%	3.2%
1996	-2.9%	-2.5%	-1.3%	1.3%	1.2%	0.7%	1.4%	4.9%
1997	4.8%	0.0%	2.0%	2.8%	2.2%	1.3%	2.0%	5.5%
1998	4.8%	6.3%	6.2%	4.4%	3.2%	1.5%	2.5%	8.0%
1999	16.3%	13.5%	9.4%	6.4%	3.5%	1.5%	2.4%	
2000	12.8%	12.7%	9.3%	4.8%	2.7%	1.0%	1.8%	
2001	11.4%	10.3%	5.9%	1.6%	0.3%	0.2%	0.5%	
2002	3.0%	1.7%	-0.4%	-1.1%	-0.5%	-0.1%	0.2%	
2003	-18.2%	-12.8%	-7.6%	-3.6%	-2.0%	-0.8%	-0.2%	
2004	-34.4%	-24.1%	-11.1%	-4.9%	-1.9%	-0.5%	1.4%	
2005	-21.9%	-16.7%	-6.6%	-2.4%	-0.4%	0.4%	2.6%	
2006	7.9%	3.0%	1.8%	3.5%	2.7%	1.5%	2.1%	
2007	8.9%	7.5%	5.0%	4.2%	3.0%	1.5%	1.9%	
2008	13.0%	12.2%	9.5%	6.4%	3.2%	1.3%	1.0%	
2009	21.8%	16.1%	11.2%	6.7%	3.5%	1.7%		
2010	12.8%	9.7%	6.3%	3.3%	2.3%	1.0%		

Number of observations of difference in development factor:

							<u>All</u>
Downward	8	10	11	10	9	8	56
Upward	13	11	10	11	12	13	70

Correlation between claim settlement ratio change at age X to development difference at X-to-84:

-0.1334   -0.3773   -0.5782   -0.6163   -0.4528   -0.3529

Correlation between claim settlement ratio change at age X to development difference at 84-to-108:

0.2291   0.1823   0.0514   -0.1662   -0.2570   -0.3629

Correlation between claim settlement ratio change at age X to development difference at 84-to-228:

0.1859   -0.0444   -0.2299   -0.3339   -0.4564   -0.6674

<sup>1</sup> For example, the value of 12.8% for 2010 at 12-to-84 months is equal to the difference in the projected loss development factor at 12-to-84 months as of 12/31/2010 to the actual loss development factor at 12-to-84 months that emerged for accident year 2010.

**Yellow** Difference in development factors by less than -0.5%.

**Green** Difference in development factors by more than 0.5%.

Source: WCIRB aggregate financial data for December 31 evaluations.

**Difference in Projected Calendar Year Medical Paid Development  
Compared to Actual<sup>1</sup>**

AY	12-84	24-84	36-84	48-84	60-84	72-84	84-108	84-228
1989								
1990	9.7%	0.6%	-0.6%	-0.1%	0.3%	0.3%	0.0%	-6.0%
1991	-11.2%	-4.1%	-0.8%	0.3%	0.5%	0.3%	-0.6%	-3.2%
1992	-12.9%	-2.9%	0.3%	0.7%	0.5%	0.0%	0.3%	-0.6%
1993	-5.4%	-0.7%	1.3%	1.8%	1.5%	1.0%	1.8%	5.9%
1994	10.0%	5.8%	4.1%	3.8%	2.5%	1.2%	3.0%	10.9%
1995	16.8%	11.8%	7.6%	6.3%	4.5%	2.4%	4.4%	16.0%
1996	18.5%	15.7%	13.0%	8.9%	5.6%	2.7%	5.2%	17.4%
1997	24.8%	20.0%	17.0%	11.7%	7.3%	3.6%	5.4%	17.3%
1998	29.6%	25.7%	19.8%	14.0%	8.8%	3.7%	5.2%	19.3%
1999	33.6%	26.3%	17.9%	11.5%	6.4%	2.4%	4.5%	
2000	30.3%	21.0%	12.4%	6.6%	3.8%	1.7%	3.8%	
2001	18.5%	11.2%	4.1%	1.4%	1.0%	0.6%	2.2%	
2002	-4.0%	-5.5%	-4.6%	-1.4%	-0.8%	-0.1%	1.2%	
2003	-26.3%	-17.9%	-8.4%	-4.3%	-2.5%	-0.8%	0.3%	
2004	-17.1%	-6.5%	-1.6%	0.3%	0.7%	0.4%	0.5%	
2005	9.2%	11.5%	9.2%	5.5%	2.8%	1.3%	1.9%	
2006	19.4%	14.9%	10.4%	5.9%	3.3%	1.1%	1.4%	
2007	19.9%	16.2%	10.6%	6.9%	4.1%	1.7%	2.1%	
2008	7.1%	11.3%	9.6%	6.8%	4.5%	1.7%	0.3%	
2009	13.2%	9.3%	6.8%	4.1%	2.2%	1.0%		
2010	10.2%	7.1%	3.6%	0.8%	-0.3%	-0.4%		

<u>Number of observations of difference in development factor:</u>							<u>All</u>
Downward	6	6	5	3	3	3	26
Upward	15	15	16	18	18	17	99

Correlation between claim settlement ratio change at age X to development difference at X-to-84:

-0.1575   -0.2598   -0.3347   -0.5180   -0.5997   -0.7320

Correlation between claim settlement ratio change at age X to development difference at 84-to-108:

-0.0197   -0.1674   -0.3001   -0.4462   -0.5054   -0.8038

Correlation between claim settlement ratio change at age X to development difference at 84-to-228:

0.2080   -0.0014   -0.1828   -0.2680   -0.4320   -0.7493

<sup>1</sup> For example, the value of 12.8% for 2010 at 12-to-84 months is equal to the difference in the projected loss development factor at 12-to-84 months as of 12/31/2010 to the actual loss development factor at 12-to-84 months that emerged for accident year 2010.

**Yellow** Difference in development factors by less than -0.5%.

**Green** Difference in development factors by more than 0.5%.

Source: WCIRB aggregate financial data for December 31 evaluations.



**Summary of Change in Claim Settlement Rate Compared to Difference in  
Paid Loss Development Factors**

**Periods where Settlement Rate Change > 1.0% in Absolute Value**

Claim Settlement Period Loss Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	12-84	24-84	36-84	48-84	60-84	72-84	All	12-84	24-84	36-84	48-84	60-84	72-84	All
Settlement Down/ Development Up	5	5	6	9	6	4	35	6	8	7	10	7	5	43
Settlement Down/ Development Down	2	4	3	2	1	0	12	1	2	2	0	0	0	5
Settlement Up/ Development Up	0	0	1	1	1	1	4	3	1	3	4	1	0	12
Settlement Up/ Development Down	5	4	4	5	3	0	21	3	3	1	1	1	0	9
Settlement./Devel. Oposite Direction	10	9	10	14	9	4	56	9	11	8	11	8	5	52
Settlement./Devel. Same Direction	2	4	4	3	2	1	16	4	3	5	4	1	0	17
Settlement./Devel. Oposite Direction	83%	69%	71%	82%	82%	80%	78%	69%	79%	62%	73%	89%	100%	75%
Settlement./Devel. Same Direction	17%	31%	29%	18%	18%	20%	22%	31%	21%	38%	27%	11%	0%	25%

**Periods where Settlement Rate Change > 1.5% in Absolute Value**

Claim Settlement Period Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	12-84	24-84	36-84	48-84	60-84	72-84	All	12-84	24-84	36-84	48-84	60-84	72-84	All
Settlement Down/ Development Up	3	4	5	4	4	1	21	6	8	7	10	7	5	43
Settlement Down/ Development Down	2	3	3	0	0	0	8	1	2	2	0	0	0	5
Settlement Up/ Development Up	0	0	0	1	0	0	1	3	1	4	5	2	0	15
Settlement Up/ Development Down	5	4	4	5	2	0	20	3	3	1	1	1	0	9
Settlement./Devel. Oposite Direction	8	8	9	9	6	1	41	9	11	8	11	8	5	52
Settlement./Devel. Same Direction	2	3	3	1	0	0	9	4	3	6	5	2	0	20
Settlement./Devel. Oposite Direction	80%	73%	75%	90%	100%	100%	82%	69%	79%	57%	69%	80%	100%	72%
Settlement./Devel. Same Direction	20%	27%	25%	10%	0%	0%	18%	31%	21%	43%	31%	20%	0%	28%

Summary of Change in Claim Settlement Rate Compared to Difference in  
Paid Loss Development at 84-to-108 Months

Periods where Settlement Rate Change > 1.0% in Absolute Value

Claim Settlement Period Loss Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	84-108	84-108	84-108	84-108	84-108	84-108	All	84-108	84-108	84-108	84-108	84-108	84-108	All
Settlement Down/ Development Up	4	5	5	8	6	4	32	5	5	5	8	6	5	34
Settlement Down/ Development Down	2	2	2	2	1	0	9	1	1	1	1	1	0	5
Settlement Up/ Development Up	5	3	4	3	1	0	16	4	2	3	2	1	0	12
Settlement Up/ Development Down	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Settlement./Devel. Oposite Direction	4	5	5	8	6	4	32	5	5	5	8	6	5	34
Settlement./Devel. Same Direction	7	5	6	5	2	0	25	5	3	4	3	2	0	17
Settlement./Devel. Oposite Direction	36%	50%	45%	62%	75%	100%	56%	50%	63%	56%	73%	75%	100%	67%
Settlement./Devel. Same Direction	64%	50%	55%	38%	25%	0%	44%	50%	38%	44%	27%	25%	0%	33%

Periods where Settlement Rate Change > 1.5% in Absolute Value

Claim Settlement Period Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	84-108	84-108	84-108	84-108	84-108	84-108	All	84-108	84-108	84-108	84-108	84-108	84-108	All
Settlement Down/ Development Up	2	4	4	3	4	1	18	3	4	4	4	5	1	21
Settlement Down/ Development Down	2	2	2	1	0	0	7	1	1	1	0	0	0	3
Settlement Up/ Development Up	5	3	3	3	0	0	14	4	2	2	2	1	0	11
Settlement Up/ Development Down	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Settlem./Devel. Oposite Direction	2	4	4	3	4	1	18	3	4	4	4	5	1	21
Settlem./Devel. Same Direction	7	5	5	4	0	0	21	5	3	3	2	1	0	14
Settlem./Devel. Oposite Direction	22%	44%	44%	43%	100%	100%	46%	38%	57%	57%	67%	83%	100%	60%
Settlem./Devel. Same Direction	78%	56%	56%	57%	0%	0%	54%	63%	43%	43%	33%	17%	0%	40%

## Periods where Settlement Rate Change &gt; 1.0% in Absolute Value

III-D-15  
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Indemnity Paid	Medical Paid
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Claim Settlement Period	Development Period												All	All
	12 84-228	24 84-228	36 84-228	48 84-228	60 84-228	72 84-228	84-228	12 84-228	24 84-228	36 84-228	48 84-228	60 84-228		
Settlement Down/ Development Up	1	2	2	1	2	1	9	1	2	2	1	2	1	9
Settlement Down/ Development Down	2	2	2	1	0	0	7	2	2	2	1	0	0	7
Settlement Up/ Development Up	3	1	1	1	0	0	6	3	1	1	1	0	0	6
Settlement Up/ Development Down	1	1	1	1	1	0	5	1	1	1	1	1	0	5
Settlement./Devel. Opposite Direction	2	3	3	2	3	1	14	2	3	3	2	3	1	14
Settlement./Devel. Same Direction	5	3	3	2	0	0	13	5	3	3	2	0	0	13
Settlement./Devel. Opposite Direction	29%	50%	50%	50%	100%	100%	52%	29%	50%	50%	50%	100%	100%	52%
Settlement./Devel. Same Direction	71%	50%	50%	50%	0%	0%	48%	71%	50%	50%	50%	0%	0%	48%

**Change in Accident Year Indemnity Paid Development**

AY	12-84	24-84	36-84	48-84	60-84	72-84	84-108	84-228
1989								
1990	-7.6%	-10.9%	-4.5%	-1.6%	-1.1%	-0.3%	-0.5%	-0.5%
1991	-2.5%	-0.9%	0.8%	-0.4%	0.0%	-0.2%	-0.1%	0.5%
1992	-2.7%	0.5%	-1.3%	0.0%	0.1%	0.1%	0.1%	0.9%
1993	-0.3%	-2.2%	-0.8%	-0.6%	-0.3%	0.1%	0.8%	0.9%
1994	2.9%	-1.4%	-1.6%	-0.2%	0.2%	0.2%	0.5%	2.4%
1995	6.0%	-1.7%	-0.6%	0.5%	0.8%	0.7%	0.1%	0.4%
1996	1.0%	1.5%	1.6%	1.6%	0.4%	-0.2%	0.9%	1.5%
1997	4.4%	-0.4%	1.4%	1.0%	0.9%	0.5%	-0.3%	0.0%
1998	2.7%	4.2%	2.3%	0.9%	0.6%	0.2%	0.4%	1.5%
1999	7.3%	4.7%	2.7%	1.7%	0.5%	0.1%	-0.3%	
2000	3.2%	3.0%	1.8%	0.1%	-0.4%	-0.3%	-0.2%	
2001	3.6%	2.6%	-0.4%	-1.7%	-1.1%	-0.1%	-0.2%	
2002	-4.0%	-5.2%	-4.4%	-2.1%	-0.6%	-0.4%	-0.7%	
2003	-14.0%	-8.4%	-3.7%	-0.6%	-0.6%	-0.3%	0.5%	
2004	-23.5%	-11.5%	-1.4%	-0.4%	0.7%	0.6%	2.0%	
2005	-4.9%	1.3%	2.0%	2.1%	1.6%	1.0%	1.3%	
2006	9.4%	4.4%	2.6%	3.1%	1.8%	0.8%	-0.5%	
2007	3.7%	2.3%	1.8%	0.4%	0.0%	-0.2%	-0.5%	
2008	5.1%	4.3%	2.3%	0.3%	-0.5%	-0.6%		
2009	8.8%	3.8%	1.3%	0.6%	0.1%	0.1%		
2010	2.8%	0.0%	-0.8%	-0.9%	-0.1%	-0.1%		

Number of observations of change in development factor:							All
Downward	8	10	10	10	10	10	58
Upward	13	11	11	11	11	11	68

Correlation between claim settlement ratio change at age X to development change at X-to-84:

-0.1111   -0.1539   -0.1855   -0.0683   0.0824   -0.0491

Correlation between claim settlement ratio change at age X to development change at 84-to-108:

0.4854   0.5379   0.5535   0.5266   0.1551   0.2588

Correlation between claim settlement ratio change at age X to development change at 84-to-228:

0.6295   0.2446   0.2710   0.0754   -0.1675   0.0177

<sup>1</sup> For example, the value for accident year 2010 at 12-84 months is equal to the ratio of the actual development factor at 12-to-84 months for 2010 to the the actual development factor at 12-to-84 months for 2009 minus 1.0.

Yellow	Change in development factors by less than -0.5%.
Blue	Change in development factors by more than 0.5%.

Source: WCIRB aggregate financial data for December 31 evaluations.

**Change in Accident Year Medical Paid Development**

AY	12-84	24-84	36-84	48-84	60-84	72-84	84-108	84-228
1989								
1990	6.9%	-2.0%	-0.6%	0.1%	0.4%	0.1%	0.0%	-0.3%
1991	-8.0%	-0.8%	1.3%	1.4%	0.6%	0.1%	0.2%	1.2%
1992	-10.8%	-0.5%	0.7%	0.2%	0.1%	0.0%	0.2%	3.2%
1993	-6.1%	-1.4%	-0.7%	0.2%	0.5%	0.6%	1.3%	2.7%
1994	8.8%	4.6%	2.2%	1.5%	1.0%	0.4%	1.3%	2.0%
1995	11.4%	6.7%	5.2%	3.6%	2.2%	1.3%	1.4%	2.6%
1996	8.3%	5.7%	4.8%	3.1%	1.6%	0.4%	1.0%	0.5%
1997	10.1%	5.8%	4.1%	2.5%	1.8%	0.9%	0.1%	-0.1%
1998	11.2%	7.8%	4.4%	2.5%	1.3%	0.1%	-0.2%	1.2%
1999	12.5%	6.4%	2.5%	0.3%	-1.0%	-0.7%	-0.7%	
2000	11.2%	3.3%	-0.5%	-1.7%	-1.2%	-0.3%	0.1%	
2001	6.9%	0.3%	-2.6%	-1.8%	-0.2%	0.1%	0.3%	
2002	-6.2%	-7.7%	-4.0%	-0.4%	-0.7%	-0.3%	-0.3%	
2003	-15.9%	-6.3%	0.6%	0.5%	0.5%	0.3%	0.9%	
2004	-4.4%	7.8%	5.6%	3.9%	2.9%	1.2%	0.6%	
2005	1.5%	3.6%	3.6%	1.9%	0.6%	0.3%	0.8%	
2006	9.2%	5.0%	1.0%	0.1%	-0.1%	-0.5%	-0.5%	
2007	5.8%	2.5%	1.5%	0.6%	0.5%	0.7%	0.1%	
2008	-1.6%	2.3%	1.7%	0.8%	0.3%	-0.3%		
2009	7.1%	3.4%	1.6%	0.8%	-0.3%	-0.4%		
2010	3.9%	1.0%	-0.5%	-1.6%	-0.9%	-0.2%		

Number of observations of change in development factor:

	12-84	24-84	36-84	48-84	60-84	72-84	All
Downward	7	6	6	4	7	7	37
Upward	14	15	15	17	14	13	88

Correlation between claim settlement ratio change at age X to development change at X-to-84:

-0.1331   0.0328   0.1412   0.1195   -0.0316   -0.2273

Correlation between claim settlement ratio change at age X to development change at 84-to-108:

0.4009   0.3794   0.2883   0.3601   0.0279   -0.0221

Correlation between claim settlement ratio change at age X to development change at 84-to-228:

0.5729   0.7622   0.6126   0.7810   0.5397   0.3995

<sup>1</sup> For example, the value for accident year 2010 at 12-84 months is equal to the ratio of the actual development factor at 12-to-84 months for 2010 to the the actual development factor at 12-to-84 months for 2009 minus 1.0.

**Yellow** Change in development factors by less than -0.5%.

**Blue** Change in development factors by more than 0.5%.

Source: WCIRB aggregate financial data for December 31 evaluations.

Summary of Change in Claim Settlement Rate and  
Change in Paid Loss Development Factors

Periods where Settlement Rate Change > 1.0% in Absolute Value

Claim Settlement Period Loss Development Period	Indemnity Paid						Medical Paid					
	12	24	36	48	60	72	12	24	36	48	60	72
	12-84	24-84	36-84	48-84	60-84	72-84	12-84	24-84	36-84	48-84	60-84	72-84
Settlement Down/ Development Up	5	6	6	5	2	1	6	6	6	8	3	1
Settlement Down/ Development Down	2	3	2	2	2	0	1	3	3	2	2	1
Settlement Up/ Development Up	2	2	2	1	1	0	3	2	4	2	1	0
Settlement Up/ Development Down	3	2	3	3	1	0	3	1	1	1	2	0
Settlem./Devel. Oposite Direction	8	8	9	8	3	1	9	7	7	9	5	1
Settlem./Devel. Same Direction	4	5	4	3	3	0	4	5	7	4	3	1
Settlem./Devel. Oposite Direction	67%	62%	69%	73%	50%	100%	69%	58%	50%	69%	63%	50%
Settlem./Devel. Same Direction	33%	38%	31%	27%	50%	0%	31%	42%	50%	31%	38%	50%

Periods where Settlement Rate Change > 1.5% in Absolute Value

Claim Settlement Period Development Period	Indemnity Paid						Medical Paid					
	12	24	36	48	60	72	12	24	36	48	60	72
	12-84	24-84	36-84	48-84	60-84	72-84	12-84	24-84	36-84	48-84	60-84	72-84
Settlement Down/ Development Up	3	5	5	2	2	1	6	6	6	8	3	1
Settlement Down/ Development Down	2	2	2	2	1	0	1	3	3	2	3	2
Settlement Up/ Development Up	2	2	1	1	0	0	3	2	4	5	2	0
Settlement Up/ Development Down	3	2	3	3	1	0	3	1	1	1	2	0
Settlem./Devel. Oposite Direction	6	7	8	5	3	1	9	7	7	9	5	1
Settlem./Devel. Same Direction	4	4	3	3	1	0	4	5	7	7	5	2
Settlem./Devel. Oposite Direction	60%	64%	73%	63%	75%	100%	69%	58%	50%	56%	50%	33%
Settlem./Devel. Same Direction	40%	36%	27%	38%	25%	0%	31%	42%	50%	44%	50%	67%

Summary of Change in Claim Settlement Rate and  
Change in Paid Loss Development Factor at 84-to-108 Months

Periods where Settlement Rate Change > 1.0% in Absolute Value

Claim Settlement Period Loss Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	84-108	84-108	84-108	84-108	84-108	84-108	All	84-108	84-108	84-108	84-108	84-108	84-108	All
Settlement Down/ Development Up	0	1	0	2	1	1	5	1	2	1	2	1	2	9
Settlement Down/ Development Down	0	0	1	1	1	0	3	1	1	0	1	1	1	5
Settlement Up/ Development Up	5	3	3	3	1	0	15	5	3	3	4	1	0	16
Settlement Up/ Development Down	0	0	0	0	1	0	1	0	0	0	0	0	0	0
Settlement./Devel. Oposite Direction	0	1	0	2	2	1	6	1	2	1	2	1	2	9
Settlement./Devel. Same Direction	5	3	4	4	2	0	18	6	4	3	5	2	1	21
Settlement./Devel. Oposite Direction	0%	25%	0%	33%	50%	100%	25%	14%	33%	25%	29%	33%	67%	30%
Settlement./Devel. Same Direction	100%	75%	100%	67%	50%	0%	75%	86%	67%	75%	71%	67%	33%	70%

Periods where Settlement Rate Change > 1.5% in Absolute Value

Claim Settlement Period Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	84-108	84-108	84-108	84-108	84-108	84-108	All	84-108	84-108	84-108	84-108	84-108	84-108	All
Settlement Down/ Development Up	0	1	0	0	1	0	2	0	1	1	0	1	1	4
Settlement Down/ Development Down	0	0	0	0	0	0	0	1	1	0	1	1	0	4
Settlement Up/ Development Up	5	3	3	3	0	0	14	5	3	3	4	0	0	15
Settlement Up/ Development Down	0	0	0	0	1	0	1	0	0	0	0	0	0	0
Settlem./Devel. Oposite Direction	0	1	0	0	2	0	3	0	1	1	0	1	1	4
Settlem./Devel. Same Direction	5	3	3	3	0	0	14	6	4	3	5	1	0	19
Settlem./Devel. Oposite Direction	0%	25%	0%	0%	100%	0%	18%	0%	20%	25%	0%	50%	100%	17%
Settlem./Devel. Same Direction	100%	75%	100%	100%	0%	0%	82%	100%	80%	75%	100%	50%	0%	83%

Summary of Change in Claim Settlement Rate and  
Change in Paid Loss Development Factor at 84-to-228 Months

Periods where Settlement Rate Change > 1.0% in Absolute Value

Claim Settlement Period Loss Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	84-228	84-228	84-228	84-228	84-228	84-228	All	84-228	84-228	84-228	84-228	84-228	84-228	All
Settlement Down/ Development Up	0	2	1	3	2	1	9	2	2	3	3	2	1	13
Settlement Down/ Development Down	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Settlement Up/ Development Up	4	2	2	2	1	0	11	3	2	2	2	1	0	10
Settlement Up/ Development Down	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Settlement./Devel. Oposite Direction	0	2	1	3	2	1	9	2	2	3	3	2	1	13
Settlement./Devel. Same Direction	4	2	2	2	1	0	11	3	2	2	2	1	0	10
Settlement./Devel. Oposite Direction	0%	50%	33%	60%	67%	100%	45%	40%	50%	60%	60%	67%	100%	57%
Settlement./Devel. Same Direction	100%	50%	67%	40%	33%	0%	55%	60%	50%	40%	40%	33%	0%	43%

Periods where Settlement Rate Change > 1.5% in Absolute Value

Claim Settlement Period Development Period	Indemnity Paid							Medical Paid						
	12	24	36	48	60	72	All	12	24	36	48	60	72	All
	84-228	84-228	84-228	84-228	84-228	84-228	All	84-228	84-228	84-228	84-228	84-228	84-228	All
Settlement Down/ Development Up	0	1	1	0	2	0	4	1	1	3	0	1	1	7
Settlement Down/ Development Down	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Settlement Up/ Development Up	4	2	2	2	1	0	11	3	2	2	2	1	0	10
Settlement Up/ Development Down	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Settlem./Devel. Oposite Direction	0	1	1	0	2	0	4	1	1	3	0	1	1	7
Settlem./Devel. Same Direction	4	2	2	2	1	0	11	3	2	2	2	1	0	10
Settlem./Devel. Oposite Direction	0%	33%	33%	0%	67%	0%	27%	25%	33%	60%	0%	50%	100%	41%
Settlem./Devel. Same Direction	100%	67%	67%	100%	33%	0%	73%	75%	67%	40%	100%	50%	0%	59%



**Comparison of Paid Indemnity Severity on Claims in Transition**

**Current "Berquist-Sherman" Approach**

Paid Indemnity Severity for Closed Claims in Transition							Paid Indemnity Severity for Open Claims in Transition						
Policy Year	Report Level						Policy Year	Report Level					
	1	2	3	4	5	6		1	2	3	4	5	6
2005	5,788	17,303	26,863	33,390	36,069	40,831	2005	6,903	13,806	21,008	26,836	31,210	36,596
2006	6,337	18,659	29,761	35,150	42,452	44,916	2006	7,277	14,553	22,302	28,519	33,145	38,347
2007	7,154	16,985	28,382	35,796	42,330	48,919	2007	7,639	15,464	22,843	29,380	35,780	41,373
2008	8,128	19,656	30,068	36,907	43,419	50,640	2008	7,916	16,030	23,666	30,476	36,643	42,706
2009	8,498	19,655	29,038	39,053	47,206		2009	7,603	15,865	23,600	30,483	36,303	43,564
2010	8,605	19,171	29,948	38,976			2010	7,615	15,696	22,957	29,023	36,278	
2011	8,915	19,684	30,214				2011	7,813	15,810	22,949	30,599		
2012	9,089	19,870					2012	7,580	15,325	22,987			
2013	9,679						2013	7,605	15,209				

**Actual Payments on Closing and Open Claims Tracked by Claim Status Across Two Report Levels**

Paid Indemnity Severity for Claims Closing at that Report Level							Paid Indemnity Severity for Claims Remaining Open at that Report Level						
Policy Year	Report Level						Policy Year	Report Level					
	1	2	3	4	5	6		1	2	3	4	5	6
2005	2,060	11,489	20,361	28,420	31,861	36,107	2005	6,903	15,686	21,603	26,493	32,448	38,334
2006	2,272	12,289	22,078	29,264	34,194	42,670	2006	7,277	16,760	22,991	29,385	35,387	41,015
2007	2,392	13,522	22,800	31,633	37,680	45,135	2007	7,639	17,381	24,953	31,580	38,465	44,117
2008	2,576	14,507	24,671	32,852	39,658	45,147	2008	7,916	18,435	26,004	33,082	39,401	45,432
2009	2,678	13,986	24,700	32,457	40,820	48,610	2009	7,603	18,249	25,842	32,831	38,565	43,107
2010	2,753	14,343	25,088	33,516	41,468		2010	7,615	18,264	25,234	31,298	36,085	
2011	3,086	15,006	25,539	34,173			2011	7,813	18,409	25,443	31,095		
2012	3,375	15,557	26,368				2012	7,580	18,050	24,112			
2013	3,851	16,194					2013	7,605	17,777				

**Comparison of "Berquist-Sherman" Approach to Actual Payments**

Percentile of "Berquist-Sherman" Closed Claim Transition Severity within Actual Closing Severity Endpoints <sup>1</sup>							Difference between "Berquist-Sherman" Estimated Paid per Open Transition Claim and Actual Open Claim Severity						
Policy Year	Report Level						Policy Year	Report Level					
	1	2	3	4	5	6		1	2	3	4	5	6
2005	40%	66%	81%	144%	99%	73%	2005	0%	-12%	-3%	1%	-4%	-5%
2006	41%	65%	107%	119%	97%	63%	2006	0%	-13%	-3%	-3%	-6%	-7%
2007	43%	37%	63%	69%	62%	72%	2007	0%	-11%	-8%	-7%	-7%	-6%
2008	47%	51%	66%	60%	69%	83%	2008	0%	-13%	-9%	-8%	-7%	-6%
2009	51%	53%	56%	79%	82%		2009	0%	-13%	-9%	-7%	-6%	1%
2010	50%	45%	58%	69%			2010	0%	-14%	-9%	-7%	1%	
2011	49%	44%	54%				2011	0%	-14%	-10%	-2%		
2012	47%	40%					2012	0%	-15%	-5%			
2013	47%						2013	0%	-14%				

<sup>1</sup> For example, for Report Level 1 this is equal to the estimated "Berquist-Sherman" paid per closed claim in transition for Report Level 1 as a percentile between the actual paid per closing claim severity for Report Levels 1 and 2.

Source: WCIRB unit statistical data

**Comparison of Paid Medical Severity on Claims in Transition**

**Current "Berquist-Sherman" Approach**

Paid Medical Severity for Closed Claims in Transition							Paid Medical Severity for Open Claims in Transition						
Policy Year	Report Level						Policy Year	Report Level					
	1	2	3	4	5	6		1	2	3	4	5	6
2005	6,185	16,232	26,438	36,468	42,962	54,667	2005	8,740	17,481	24,495	33,816	42,821	53,506
2006	6,890	18,619	30,568	41,578	51,717	60,401	2006	9,356	18,712	27,601	37,421	48,050	59,019
2007	8,099	18,294	32,450	44,304	55,802	73,005	2007	10,355	19,787	30,509	41,150	53,172	66,317
2008	9,333	21,511	35,386	46,269	60,017	70,286	2008	10,880	20,345	30,581	41,616	53,116	64,477
2009	10,073	22,540	34,713	51,329	66,033		2009	10,820	20,724	31,521	43,807	54,620	65,544
2010	9,959	21,902	36,224	50,225			2010	10,548	20,265	30,734	40,998	51,247	
2011	9,744	21,607	34,844				2011	9,885	18,855	28,415	37,887		
2012	9,588	21,068					2012	9,534	18,122	27,183			
2013	9,827						2013	8,937	17,873				

**Actual Payments on Closing and Open Claims Tracked by Claim Status Across Two Report Levels**

Paid Medical Severity for Claims Closing at that Report Level							Paid Medical Severity for Claims Remaining Open at that Report Level						
Policy Year	Report Level						Policy Year	Report Level					
	1	2	3	4	5	6		1	2	3	4	5	6
2005	2,403	11,141	19,780	30,200	36,378	46,215	2005	8,740	18,012	27,094	36,294	47,764	58,555
2006	2,619	12,320	22,582	33,362	40,365	50,978	2006	9,356	20,521	30,174	40,607	51,587	63,825
2007	2,854	14,392	23,889	35,700	46,422	59,653	2007	10,355	21,970	33,261	44,365	57,983	71,314
2008	3,219	15,564	26,399	37,929	50,481	62,169	2008	10,880	23,095	33,550	45,575	57,221	69,399
2009	3,420	15,743	27,941	39,070	53,303	67,205	2009	10,820	23,431	34,848	47,645	59,087	67,086
2010	3,411	15,785	28,394	39,729	53,078		2010	10,548	23,202	33,569	43,798	53,377	
2011	3,390	16,299	27,354	38,670			2011	9,885	21,798	30,985	39,996		
2012	3,707	15,952	27,609				2012	9,534	20,596	29,042			
2013	4,028	15,922					2013	8,937	19,057				

**Comparison of "Berquist-Sherman" Approach to Actual Payments**

Percentile of "Berquist-Sherman" Closed Claim Transition Severity within Actual Closing Severity Endpoints <sup>1</sup>							Difference between "Berquist-Sherman" Estimated Paid per Open Transition Claim and Actual Open Claim Severity						
Policy Year	Report Level						Policy Year	Report Level					
	1	2	3	4	5	6		1	2	3	4	5	6
2005	43%	59%	64%	101%	67%	68%	2005	0%	-3%	-10%	-7%	-10%	-9%
2006	44%	61%	74%	117%	107%	87%	2006	0%	-9%	-9%	-8%	-7%	-8%
2007	45%	41%	72%	80%	71%	97%	2007	0%	-10%	-8%	-7%	-8%	-7%
2008	50%	55%	78%	66%	82%	96%	2008	0%	-12%	-9%	-9%	-7%	-7%
2009	54%	56%	61%	86%	92%		2009	0%	-12%	-10%	-8%	-8%	-2%
2010	53%	49%	69%	79%			2010	0%	-13%	-8%	-6%	-4%	
2011	49%	48%	66%				2011	0%	-14%	-8%	-5%		
2012	48%	44%					2012	0%	-12%	-6%			
2013	49%						2013	0%	-6%				

<sup>1</sup> For example, for Report Level 1 this is equal to the estimated "Berquist-Sherman" paid per closed claim in transition for Report Level 1 as a percentile between the actual paid per closing claim severity for Report Levels 1 and 2.

Source: WCIRB unit statistical data

Comparison of Paid Loss Development Factors Adjusted for Changes in Claim Settlement Rates

**A. Unadjusted Paid Loss Development Factors**

	1-2	2-3	3-4	4-5	5-6	6-7	Med	1-2	2-3	3-4	4-5	5-6	6-7
Ind	1.936	1.374	1.190	1.114	1.073	1.052	3-Yr Avg	1.799	1.375	1.210	1.133	1.091	1.068
Latest Yr	1.912	1.361	1.185	1.111	1.070	1.048	Latest Yr	1.766	1.353	1.198	1.126	1.081	1.059

**B. Adjusted Paid Loss Development Factors - Standard "Berquist-Sherman" Approach**

	1-2	2-3	3-4	4-5	5-6	6-7	Med	1-2	2-3	3-4	4-5	5-6	6-7
Ind	1.932	1.374	1.179	1.107	1.068	1.051	3-Yr Avg	1.803	1.377	1.204	1.129	1.089	1.068
Latest Yr	1.901	1.358	1.174	1.105	1.065	1.047	Latest Yr	1.762	1.351	1.189	1.121	1.077	1.059

**C. Adjusted Paid Loss Development Factors - Using "Tracked" Severities from Prior Report Level ("Lower Bound")**

	1-2	2-3	3-4	4-5	5-6	6-7	Med	1-2	2-3	3-4	4-5	5-6	6-7
Ind	1.983	1.364	1.177	1.108	1.069	1.051	3-Yr Avg	1.844	1.367	1.201	1.130	1.090	1.068
Latest Yr	1.933	1.355	1.174	1.106	1.067	1.047	Latest Yr	1.787	1.349	1.191	1.123	1.079	1.059

Difference from Standard Approach:

	1-2	2-3	3-4	4-5	5-6	6-7	Med	1-2	2-3	3-4	4-5	5-6	6-7
Ind	0.051	-0.010	-0.002	0.000	0.000	0.000	3-Yr Avg	0.042	-0.010	-0.003	0.001	0.001	0.000
Latest Yr	0.031	-0.002	0.000	0.001	0.001	0.000	Latest Yr	0.025	-0.002	0.001	0.002	0.002	0.000

**D. Adjusted Paid Loss Development Factors - Using "Tracked" Severities from Current Report Level ("Upper Bound")**

	1-2	2-3	3-4	4-5	5-6	6-7	Med	1-2	2-3	3-4	4-5	5-6	6-7
Ind	1.893	1.366	1.176	1.107	1.068	1.051	3-Yr Avg	1.771	1.369	1.201	1.129	1.089	1.068
Latest Yr	1.867	1.355	1.171	1.105	1.066	1.047	Latest Yr	1.736	1.349	1.188	1.121	1.078	1.059

Difference from Standard Approach:

	1-2	2-3	3-4	4-5	5-6	6-7	Med	1-2	2-3	3-4	4-5	5-6	6-7
Ind	-0.040	-0.008	-0.004	0.000	0.000	0.000	3-Yr Avg	-0.032	-0.007	-0.003	0.000	0.001	0.001
Latest Yr	-0.034	-0.003	-0.002	0.000	0.000	0.000	Latest Yr	-0.026	-0.002	-0.002	0.000	0.001	0.001

Source: WCIRB unit statistical data

## Item AC17-06-01 3/31/2017 Experience – Review of Methodologies

Staff has prepared a preliminary analysis of statewide experience through March 31, 2017, which is included in Exhibits 1 through 8. This information reflects insurers writing approximately 100% of the market based on 2016 premium levels. The methodologies used are consistent with those reflected in the July 1, 2017 Pure Premium Rate Filing. Wage and loss levels were projected to January 1, 2019—the approximate midpoint of experience on policies incepting in 2018, and premiums were adjusted to the industry average filed pure premium rate level as of January 1, 2017.

As shown on Exhibit 8, the projected policy year 2018 loss to the industry average filed pure premium ratio based on March 31, 2017 experience is 0.612. (The projected loss to pure premium ratio for policies incepting between July 1, 2017 and December 31, 2017 reflected in the July 1, 2017 Pure Premium Rate Filing based on December 31, 2016 experience was 0.626.)

Additional supplemental information is included in Exhibits 9 through 12.

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

<u>Year</u>	<u>Earned Premium</u>	<u>Paid Indemnity</u>	<u>Indemnity Reserves</u>	<u>Paid Medical**</u>	<u>Medical Reserves</u>	<u>IBNR*</u>	<u>Total Incurred**</u>	<u>Loss Ratio*</u>
1985	2,872,481,605	1,278,086,814	3,973,966	983,695,290	22,590,616	18,757,607	2,307,104,293	0.803
1986	3,506,609,097	1,381,255,968	5,855,419	1,132,304,843	33,162,777	58,336,912	2,610,915,919	0.745
1987	4,374,085,383	1,503,615,032	7,389,640	1,324,579,234	47,310,060	31,206,246	2,914,100,212	0.666
1988	5,173,049,472	1,700,316,904	8,491,392	1,528,416,565	49,497,510	43,062,900	3,329,785,271	0.644
1989	5,673,263,669	1,935,621,248	9,709,066	1,782,475,078	63,571,168	47,317,409	3,838,693,969	0.677
1990	5,696,824,266	2,253,115,703	9,144,370	2,027,514,368	65,081,616	69,052,958	4,423,909,015	0.777
1991	5,862,703,027	2,468,418,579	18,847,415	2,178,911,391	73,333,928	70,054,368	4,809,565,681	0.820
1992	5,681,120,590	1,969,779,860	15,549,585	1,739,252,337	72,684,361	64,808,037	3,862,074,180	0.680
1993	5,927,913,318	1,687,395,822	16,113,643	1,488,256,229	93,246,185	57,091,670	3,342,103,549	0.564
1994	5,022,834,307	1,619,312,677	24,437,027	1,445,867,530	107,814,387	58,160,117	3,255,591,738	0.648
1995	3,778,723,013	1,752,104,606	33,321,094	1,587,585,848	129,240,460	66,801,810	3,569,053,818	0.945
1996	3,736,857,547	1,936,093,457	40,505,660	1,677,585,544	143,879,964	76,386,816	3,874,451,441	1.037
1997	3,916,944,392	2,294,576,056	53,045,283	1,971,212,023	169,885,537	128,850,421	4,617,569,320	1.179
1998	4,322,051,270	2,744,695,739	65,516,534	2,579,359,552	273,299,109	214,899,520	5,877,770,454	1.360
1999	4,537,629,086	3,022,817,836	65,448,727	2,955,848,956	251,398,708	307,144,297	6,602,658,524	1.455
2000	5,905,419,052	3,381,857,450	89,074,389	3,479,838,371	299,768,794	455,373,701	7,705,912,705	1.305
2001	10,094,684,192	4,767,381,964	145,959,054	5,207,402,713	513,687,104	696,603,578	11,331,034,413	1.122
2002	13,405,893,679	4,695,678,561	131,409,054	5,322,948,517	462,507,234	985,177,269	11,597,720,635	0.865
2003	19,429,675,115	4,444,259,720	197,002,822	4,881,477,491	481,968,301	1,369,566,995	11,374,275,329	0.585
2004	23,042,003,895	3,128,618,791	170,864,847	3,901,119,536	426,537,443	1,431,155,130	9,058,295,747	0.393
2005	21,161,242,185	2,429,378,628	148,257,892	3,461,899,116	405,533,688	1,204,267,168	7,649,336,492	0.361
2006	16,806,092,339	2,476,158,361	168,865,662	3,511,652,189	430,273,043	857,816,211	7,444,765,466	0.443
2007	13,098,765,969	2,611,963,896	196,173,410	3,772,629,122	496,995,759	867,438,726	7,945,200,913	0.607
2008	10,741,749,860	2,661,438,578	223,223,941	3,789,690,639	519,515,594	741,658,577	7,935,527,329	0.739
2009	8,884,979,606	2,502,900,292	227,447,655	3,562,336,829	520,094,932	735,410,617	7,548,190,325	0.850
2010	9,410,881,863	2,494,739,633	244,693,433	3,594,595,159	520,250,067	865,819,927	7,720,098,219	0.820
2011	10,146,399,300	2,387,257,710	296,056,683	3,161,147,508	614,297,692	1,100,963,146	7,559,722,739	0.745
2012	11,718,339,306	2,326,647,816	369,494,465	2,944,847,369	682,345,669	2,016,263,545	8,339,598,864	0.712
2013	14,186,071,217	2,220,568,455	447,673,589	2,646,223,681	798,865,851	2,751,094,576	8,864,426,152	0.625
2014	16,011,983,809	1,975,527,180	651,593,331	2,249,317,696	973,269,234	3,833,539,391	9,683,246,832	0.605
2015	17,023,510,170	1,430,001,391	901,832,318	1,704,000,834	1,285,616,138	5,103,497,194	10,424,947,875	0.612
2016	17,919,524,650	614,514,432	855,414,472	942,888,533	1,429,410,127	6,629,021,352	10,471,248,916	0.584
2017*	4,366,206,665	17,027,188	102,133,992	33,154,979	227,186,644	2,031,605,349	2,411,108,152	0.552

\* 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	27/15	39/27	51/39	63/51	75/63	87/75	99/87	Age-to-Age (in months)										183/171	195/183
								111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183				
1992																1.001			
1993																1.002			
1994																0.999			
1995																1.002			
1996																1.002			
1997																1.001			
1998																1.003			
1999																1.002			
2000																1.002			
2001																1.002			
2002																1.001			
2003																1.003			
2004																1.002			
2005																1.002			
2006																1.002			
2007																1.002			
2008																1.002			
2009																1.002			
2010																1.002			
2011																1.002			
2012																1.002			
2013																1.002			
2014																1.002			
2015																1.002			

Selected (a)  
Cumulative

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

**Incurred Indemnity Loss Development Factors (Continued)**

Accident Year	Age-to-Age (in months)																
	207/195	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	ULT/387Inc (b)
1982										1.001	1.001	1.000	1.002	1.001	1.001	1.000	
1983									1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.000	
1984								1.000	1.000	1.001	1.001	1.000	1.001	1.001	0.999	1.000	
1985							1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
1986						1.000	1.000	1.001	1.000	1.002	1.002	1.001	1.000	1.000	1.000	1.000	
1987					0.999	1.000	1.000	1.000	1.002	1.001	1.000	1.000	1.001	1.000	1.000	1.000	
1988				1.000	1.001	1.001	1.002	1.002	1.001	1.000	1.000	1.000	1.001	1.001	1.000	1.000	
1989			1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.000	
1990		1.000	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.001	1.001	1.000	1.000	
1991	1.000	1.001	1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1992	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1993	0.999	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1994	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	
1995	1.001	1.002	0.999	0.999	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.001	1.002	1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1997	1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998	1.001	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1999	1.000	1.000															
2000	1.000																
Selected (a)	1.000	1.001	1.001	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	
Cumulative	1.008	1.007	1.007	1.006	1.006	1.005	1.004	1.004	1.004	1.004	1.004	1.004	1.003	1.003	1.003	1.003	1.003

(b) The ULT/387Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors and extrapolated to 80 development years.

**Incurred Medical Loss Development Factors**

Accident Year	<u>27/15</u>	<u>39/27</u>	<u>51/39</u>	<u>63/51</u>	<u>75/63</u>	<u>87/75</u>	<u>99/87</u>	<u>111/99</u>	<u>123/111</u>	<u>135/123</u>	<u>147/135</u>	<u>159/147</u>	<u>171/159</u>	<u>183/171</u>	<u>195/183</u>
1992															1.012
1993														1.019	1.013
1994													1.006	1.008	1.021
1995												1.020	1.027	1.016	1.005
1996										1.017	1.023	1.020	1.015	1.013	1.012
1997										1.024	1.023	1.018	1.009	1.010	1.005
1998									1.035	1.021	1.020	1.010	1.010	1.013	1.007
1999								1.035	1.028	1.018	1.017	1.014	1.009	1.012	1.003
2000							1.041	1.022	1.019	1.022	1.016	1.017	1.012	1.005	0.998
2001						1.045	1.039	1.035	1.030	1.020	1.018	1.018	1.006	0.997	0.999
2002					1.056	1.038	1.034	1.028	1.027	1.020	1.013	1.007	0.998	0.999	
2003				1.060	1.051	1.043	1.040	1.036	1.025	1.019	1.009	1.001	0.999		
2004			1.094	1.078	1.056	1.062	1.038	1.032	1.026	1.008	1.004	0.999			
2005		1.141	1.077	1.080	1.074	1.057	1.040	1.027	1.018	1.005	1.003				
2006	1.333	1.164	1.095	1.076	1.061	1.049	1.037	1.018	1.007	1.003					
2007	1.357	1.171	1.114	1.078	1.069	1.041	1.029	1.016	1.005						
2008	1.378	1.189	1.116	1.087	1.058	1.035	1.020	1.009							
2009	1.431	1.182	1.133	1.080	1.049	1.025	1.014								
2010	1.431	1.212	1.117	1.068	1.036	1.022									
2011	1.452	1.185	1.103	1.060	1.025										
2012	1.391	1.153	1.079	1.051											
2013	1.353	1.120	1.076												
2014	1.326	1.135													
2015	1.315														
Selected (a)	1.315	1.135	1.076	1.051	1.025	1.022	1.014	1.009	1.010	1.005	1.005	1.002	1.001	1.000	1.000
Cumulative	1.896	1.442	1.270	1.181	1.123	1.096	1.072	1.058	1.048	1.038	1.032	1.027	1.024	1.023	1.023

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

(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	Age-to-Age (in months)																
	207/195	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	ULT/387Inc (c)
1982										1.007	1.011	1.002	1.005				
1983									1.004	1.004	1.003	1.003	1.005	1.003	1.003	1.002	
1984								1.001	1.004	1.002	1.004	1.003	1.000	1.004	0.999	0.999	
1985							1.001	1.001	1.002	1.004	1.004	1.003	1.004	1.000	0.999	0.999	
1986						1.005	1.003	1.006	1.006	1.005	1.005	1.004	1.002	1.001	0.998		
1987					1.001	1.005	1.010	0.999	1.006	1.003	1.005	1.003	1.001	0.999			
1988				1.002	1.006	1.005	1.005	1.001	1.005	1.002	1.003	1.002	1.000				
1989			1.006	1.005	1.008	1.005	1.006	1.007	1.000	1.002	0.999	0.999					
1990		1.003	1.006	1.008	1.005	1.003	1.002	1.004	0.997	1.001	1.001						
1991	1.005	1.007	1.006	1.005	1.002	1.004	1.001	1.003	1.001	0.999							
1992	1.006	1.009	1.001	1.003	1.005	1.003	1.003	0.999	1.000								
1993	1.008	1.005	1.013	1.013	1.001	1.001	0.999	0.996									
1994	1.011	1.011	1.005	1.006	1.004	1.001	0.996										
1995	1.010	1.012	0.996	1.007	1.000	0.997											
1996	1.008	1.007	1.003	1.000	1.001												
1997	1.004	1.000	0.995	0.997													
1998		1.012	0.999														
1999	1.000	0.998															
2000	0.995																
Selected (a)	1.002	0.999	0.999	1.001	1.002	1.000	0.999	0.999	0.999	1.001	1.001	1.001	1.001	1.000	0.999	1.000	
Cumulative	1.023	1.021	1.022	1.022	1.021	1.019	1.020	1.020	1.021	1.022	1.021	1.020	1.019	1.018	1.018	1.019	1.019

(c) The ULT/387Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors and extrapolated to 80 development years.

**Paid Indemnity Loss Development Factors**

Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183
1992															1.003
1993													1.006	1.004	1.004
1994												1.008	1.007	1.005	1.003
1995												1.009	1.007	1.006	1.004
1996											1.011	1.009	1.007	1.004	1.005
1997										1.015	1.011	1.007	1.007	1.006	1.005
1998								1.021	1.018	1.016	1.009	1.009	1.008	1.007	1.006
1999								1.022	1.018	1.014	1.010	1.009	1.008	1.006	1.006
2000								1.030	1.022	1.012	1.010	1.009	1.007	1.007	1.004
2001						1.045	1.030	1.028	1.016	1.014	1.011	1.011	1.008	1.007	1.006
2002					1.065	1.043	1.028	1.019	1.018	1.014	1.012	1.009	1.007	1.006	
2003				1.109	1.064	1.039	1.029	1.025	1.022	1.020	1.015	1.010	1.007	1.006	
2004			1.191	1.102	1.067	1.045	1.041	1.034	1.026	1.018	1.014	1.011	1.009	1.006	
2005		1.410	1.200	1.104	1.073	1.057	1.048	1.037	1.025	1.019	1.014	1.011	1.008	1.006	
2006	2.211	1.423	1.197	1.121	1.085	1.062	1.045	1.032	1.026	1.017					
2007	2.243	1.436	1.211	1.127	1.085	1.061	1.042	1.032	1.025						
2008	2.279	1.468	1.234	1.132	1.083	1.054	1.040	1.025							
2009	2.369	1.499	1.238	1.135	1.084	1.056	1.039								
2010	2.399	1.505	1.240	1.129	1.081	1.053									
2011	2.433	1.481	1.227	1.129	1.076										
2012	2.424	1.477	1.220	1.122											
2013	2.385	1.491	1.215												
2014	2.456	1.502													
2015	2.471														
Selected (a)	2.471	1.502	1.215	1.122	1.076	1.053	1.039	1.025	1.025	1.018	1.014	1.010	1.008	1.007	1.005
Cumulative Unadjusted for Impact of SB 863	6.904	2.794	1.860	1.531	1.364	1.268	1.204	1.159	1.131	1.103	1.083	1.068	1.057	1.049	1.042
Cumulative Adjusted for Impact of SB 863 (b)	7.351	2.975	1.981	1.562	---	---	---	---	---	---	---	---	---	---	---

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

(b) The 39-to-ultimate factor for accident year 2014 and the 51-to-ultimate factor for accident year 2013 have been adjusted by 6.5% 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	207/195	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	387Inc/387Pd (c)	ULT/387Inc (d)
1982										1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.004	
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	1.001	1.005	
1985							1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.005	
1986						1.001	1.001	1.002	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	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.003	
1988				1.002	1.001	1.001	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000			1.003	
1989			1.002	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001						
1990		1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001							
1991	1.003	1.002	1.002	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001							
1992	1.003	1.001	1.002	1.002	1.002	1.002	1.001	1.001	1.001									
1993	1.002	1.002	1.003	1.002	1.002	1.002	1.001	1.001										
1994	1.003	1.004	1.002	1.003	1.003	1.002	1.002											
1995	1.004	1.005	1.004	1.003	1.002	1.002	1.002											
1996	1.004	1.005	1.004	1.003	1.003													
1997	1.005	1.004	1.003	1.002														
1998	1.006	1.005	1.004															
1999	1.005																	
2000	1.004																	
Selected (a)	1.005	1.004	1.004	1.003	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.004	
Cumulative	1.037	1.031	1.027	1.023	1.021	1.018	1.015	1.014	1.013	1.012	1.011	1.010	1.009	1.009	1.008	1.007		1.003

(c) Three-year averages of the 387Inc/387Pd factors are selected.

(d) The ULT/387Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors and extrapolated to 80 development years.

**Paid Medical Loss Development Factors**

Unadjusted (a) Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183
1992															1.017
1993													1.015	1.013	1.012
1994												1.023	1.019	1.018	1.017
1995											1.025	1.023	1.022	1.014	1.014
1996										1.028	1.025	1.020	1.019	1.014	1.014
1997										1.032	1.027	1.021	1.017	1.018	1.018
1998									1.033	1.030	1.025	1.020	1.016	1.018	1.018
1999								1.031	1.035	1.030	1.025	1.020	1.021	1.016	1.012
2000							1.039	1.037	1.030	1.026	1.022	1.020	1.019	1.016	1.012
2001						1.054	1.046	1.037	1.033	1.026	1.022	1.026	1.019	1.016	1.012
2002						1.053	1.043	1.032	1.027	1.024	1.026	1.018	1.015	1.011	
2003						1.055	1.045	1.033	1.029	1.033	1.025	1.018	1.015		
2004						1.066	1.047	1.039	1.041	1.031	1.022	1.017			
2005						1.063	1.053	1.051	1.037	1.029	1.020				
2006						1.064	1.057	1.041	1.032	1.023					
2007	1.773	1.292	1.193	1.123	1.091	1.086	1.070	1.063	1.051	1.038					
2008	1.851	1.352	1.203	1.126	1.092	1.085	1.079	1.051	1.038	1.028					
2009	1.826	1.359	1.208	1.134	1.098	1.091	1.067	1.047	1.033						
2010	1.876	1.385	1.221	1.150	1.095	1.087	1.062	1.042							
2011	1.926	1.402	1.237	1.133	1.087	1.082									
2012	1.957	1.401	1.217	1.131											
2013	1.983	1.398	1.214	1.127											
2014	1.939	1.391	1.205												
2015	1.938	1.387													
2016	1.957														

Adjusted (b) Accident Year	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183
1999															1.019
2000													1.020	1.017	1.013
2001												1.019	1.016	1.012	1.013
2002											1.027	1.019	1.016		
2003											1.024	1.019			
2004										1.033	1.031				
2005									1.039	1.035	1.025				
2006								1.043	1.035	1.030					
2007							1.054	1.041	1.030						
2008						1.071	1.051	1.035							
2009						1.066	1.045								
2010				1.141	1.100	1.064									
2011			1.228	1.139	1.093										
2012		1.413	1.223	1.131	1.086										
2013	1.957	1.400	1.208												
2014	1.949	1.389													
2015	1.957														
Selected (c)	1.957	1.389	1.208	1.131	1.086	1.064	1.045	1.035	1.035	1.030	1.024	1.019	1.017	1.016	1.015
Cumulative	6.379	3.259	2.347	1.943	1.718	1.582	1.486	1.422	1.374	1.328	1.290	1.259	1.236	1.215	1.196

- (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 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent age-to-age factors.

Paid Medical Loss Development Factors (Continued)

Unadjusted (a) Accident Year	207/195	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	387Inc/387Pd (d)	ULT/387Inc (e)
1982										1.007	1.010	1.005	1.006	1.004	1.004	1.003	1.030	
1983									1.004	1.004	1.005	1.004	1.004	1.004	1.004	1.003	1.032	
1984								1.003	1.003	1.003	1.004	1.004	1.003	1.003	1.002	1.003	1.036	
1985							1.006	1.004	1.004	1.003	1.004	1.004	1.003	1.003	1.002	1.003	1.038	
1986						1.004	1.004	1.005	1.005	1.005	1.005	1.005	1.006	1.004	1.006	1.002	1.022	
1987					1.008	1.005	1.005	1.005	1.005	1.005	1.006	1.005	1.003	1.003	1.006	1.022		
1988				1.008	1.005	1.005	1.006	1.006	1.006	1.005	1.004	1.003	1.003	1.003				
1989			1.006	1.006	1.005	1.005	1.008	1.006	1.006	1.005	1.003	1.003	1.003					
1990		1.005	1.005	1.005	1.005	1.006	1.004	1.004	1.004	1.003	1.002							
1991	1.008	1.006	1.006	1.006	1.005	1.006	1.006	1.005	1.004	1.003								
1992	1.010	1.007	1.007	1.000	1.007	1.007	1.005	1.005	1.005									
1993	1.011	1.011	1.011	1.009	1.013	1.010	1.008	1.005										
1994	1.013	1.009	1.009	1.012	1.010	1.008	1.008											
1995	1.013	1.012	1.016	1.013	1.011	1.013												
1996	1.014	1.014	1.014	1.010	1.007													
1997	1.015	1.013	1.010	1.006														
1998	1.017	1.013	1.010															
1999	1.014	1.012																
2000	1.011																	

Adjusted (b) Accident Year	207/195	219/207	231/219	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	387Inc/387Pd (d)	ULT/387Inc (e)
1982																	1.030	
1983																1.003	1.032	
1984															1.002	1.003	1.036	
1985														1.003	1.002	1.003	1.038	
1986													1.007	1.004	1.006	1.002	1.022	
1987												1.005	1.003	1.003			1.022	
1988											1.004	1.003	1.003					
1989									1.004	1.003	1.002							
1990							1.006	1.006	1.004	1.003	1.002							
1991							1.006	1.005	1.005									
1992							1.006	1.005	1.005									
1993							1.009	1.009										
1994							1.009	1.009										
1995							1.011	1.011										
1996							1.011	1.011										
1997		1.014	1.011	1.007			1.009	1.009										
1998	1.018	1.014	1.010				1.009	1.009										
1999	1.015	1.013																
2000	1.012																	

Selected (c) 1.015 1.014 1.012 1.011 1.010 1.011 1.011 1.008 1.006 1.004 1.004 1.003 1.004 1.004 1.003 1.003 1.003 1.030

Cumulative 1.178 1.161 1.145 1.132 1.120 1.108 1.108 1.096 1.087 1.081 1.076 1.072 1.069 1.064 1.060 1.056 1.053 1.019

(d) Six-year averages of the 387Inc/387Pd factors are selected.  
(e) The ULT/387Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors and extrapolated to 80 development years.

Selected Indemnity Development Factors - Paid to Age 231, Incurred from Age 231 to Ultimate

Accident Year	Age-to-Age (in months)															
	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	207/195
1992															1.003	1.001
1993													1.006	1.004	1.004	1.002
1994												1.008	1.007	1.005	1.003	1.002
1995											1.011	1.009	1.007	1.006	1.004	1.003
1996										1.015	1.011	1.009	1.007	1.004	1.004	1.004
1997									1.018	1.016	1.009	1.009	1.008	1.007	1.006	1.005
1998								1.021	1.022	1.015	1.010	1.009	1.008	1.007	1.006	1.005
1999							1.030	1.022	1.022	1.016	1.010	1.009	1.008	1.007	1.006	1.004
2000						1.045	1.039	1.029	1.028	1.018	1.014	1.012	1.009	1.007	1.006	1.004
2001					1.065	1.043	1.028	1.019	1.019	1.018	1.014	1.012	1.009	1.007	1.006	1.004
2002					1.064	1.039	1.029	1.025	1.022	1.016	1.014	1.012	1.009	1.007	1.006	1.004
2003				1.109	1.067	1.045	1.041	1.034	1.032	1.026	1.015	1.010	1.009	1.007	1.006	1.004
2004			1.191	1.102	1.073	1.057	1.048	1.037	1.032	1.026	1.019	1.014	1.011	1.008	1.007	1.006
2005		1.410	1.200	1.104	1.085	1.062	1.045	1.032	1.025	1.018	1.014	1.010	1.008	1.007	1.006	1.004
2006		1.423	1.197	1.121	1.085	1.062	1.045	1.032	1.025	1.018	1.014	1.010	1.008	1.007	1.006	1.004
2007	2.211	1.436	1.211	1.127	1.085	1.061	1.042	1.032	1.025	1.017						
2008	2.243	1.468	1.234	1.132	1.083	1.054	1.040	1.025								
2009	2.279	1.499	1.238	1.135	1.084	1.056	1.039									
2010	2.369	1.505	1.240	1.129	1.081	1.053										
2011	2.399	1.481	1.227	1.129	1.076											
2012	2.424	1.477	1.220	1.122												
2013	2.385	1.491	1.215													
2014	2.456	1.502														
2015	2.471															
Selected (a)	2.456(d)	1.489(d)	1.207(d)	1.112(d)	1.069(d)	1.053	1.039	1.025	1.025	1.018	1.014	1.010	1.008	1.007	1.005	1.004
Cumulative Unadjusted for Impact of SB 863	6.700	2.728	1.832	1.518	1.365	1.277	1.213	1.168	1.139	1.111	1.091	1.076	1.065	1.057	1.050	1.035
Cumulative Adjusted for Impact of SB 863 (b)	7.134	2.905	1.869													

- (a) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent age-to-age factors. Paid development factors are selected to age 231, where an incurred-to-paid ratio is chosen, and subsequently, incurred loss development factors are selected until ultimate.
- (b) The 39-to-ultimate factor for accident year 2014 and the 51-to-ultimate factor for accident year 2013 have been adjusted by 6.5% 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.)
- (c) A three-year average of the 231Inc/231Pd 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 231, Incurred from Age 231 to Ultimate (Continued)**

Accident Year	243/231	255/243	267/255	279/267	291/279	303/291	315/303	327/315	339/327	351/339	363/351	375/363	387/375	ULT/387Inc (e)
1981								1.001	1.002	0.999				
1982							1.001	1.001	1.000	1.002				
1983						1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.000	
1984					1.000	1.000	1.001	1.001	1.000	1.001	1.001	0.999	1.000	
1985				1.000	1.000	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	
1986			1.000	1.000	1.001	1.000	1.002	1.002	1.001	1.000	1.000	1.000		
1987		0.999	1.000	1.000	1.000	1.002	1.001	1.000	1.000	1.001	1.001			
1988	1.000	1.001	1.000	1.002	1.002	1.001	1.000	1.000	1.000	1.001				
1989	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.001	1.001					
1990	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000						
1991	1.000	1.000	1.000	1.001	1.000	1.000	1.000							
1992	1.001	1.001	1.001	1.000	1.000	1.000								
1993	1.001	1.001	1.001	1.000	1.000									
1994	1.001	1.001	1.001	1.001										
1995	0.999	1.001	1.000											
1996	1.000	1.001												
1997	1.000													
Selected (a)	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	
Cumulative	1.006	1.006	1.005	1.004	1.004	1.004	1.004	1.004	1.004	1.003	1.003	1.003	1.003	1.003

(e) The ULT/387Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors and extrapolated to 80 development years.

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

A. Total Reported Indemnity Claim Counts

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						118,144
2009					112,428	112,740
2010				115,543	116,134	116,466
2011			115,877	117,092	117,782	118,150
2012		119,843	122,845	124,144	124,921	
2013	116,550	128,262	131,489	132,794		
2014	121,326	134,394	137,527			
2015	126,704	140,302				
2016	129,131					

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):					
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>	<u>75-Ultimate</u>
2009					1.003	
2010				1.005	1.003	
2011			1.010	1.006	1.003	
2012		1.025	1.011	1.006		
2013	1.100	1.025	1.010			
2014	1.108	1.023				
2015	1.107					
Latest Year	1.107	1.023	1.010	1.006	1.003	
Cumulative	1.163	1.050	1.026	1.016	1.010	1.006

Acc. Year	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
Ult. Claim Counts	150,132	147,311	141,108	134,912	126,124	118,917

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						101,531
2009					90,535	96,584
2010				86,390	95,260	101,568
2011			75,627	88,983	98,136	104,174
2012		62,104	81,994	96,094	105,545	
2013	38,950	67,874	89,572	105,005		
2014	41,091	72,635	95,523			
2015	43,814	78,256				
2016	47,216					

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



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

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident	Evaluated as of (in months)					
<u>Year</u>	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						85.3%
2009					79.7%	85.0%
2010				73.7%	81.3%	86.6%
2011			63.6%	74.8%	82.5%	87.6%
2012		49.2%	65.0%	76.2%	83.7%	
2013	28.9%	50.3%	66.4%	77.8%		
2014	29.1%	51.5%	67.7%			
2015	29.7%	53.1%				
2016	31.4%					

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

Accident	Evaluated as of (in months)					
<u>Year</u>	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						104,226
2009					95,108	99,562
2010				91,236	98,095	102,689
2011			80,501	92,555	99,513	104,174
2012		67,001	85,380	98,165	105,545	
2013	42,429	71,670	91,329	105,005		
2014	44,378	74,961	95,523			
2015	46,329	78,256				
2016	47,216					

F. Average Paid Indemnity per Closed Claim

Accident	Evaluated as of (in months)					
<u>Year</u>	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						15,950
2009					14,825	16,821
2010				12,556	15,210	17,247
2011			9,471	12,907	15,547	17,316
2012		5,922	10,054	13,298	15,597	
2013	2,635	6,340	10,498	13,647		
2014	2,718	6,723	11,147			
2015	3,012	7,390				
2016	3,259					

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

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

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

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						16,811
2009					16,310	17,900
2010				13,943	16,094	17,644
2011			10,604	13,880	15,934	17,316
2012		6,746	10,753	13,771	15,597	
2013	2,928	6,925	10,816	13,647		
2014	2,987	7,078	11,147			
2015	3,216	7,390				
2016	3,259					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						1,752,103
2009					1,551,242	1,782,152
2010				1,272,120	1,578,744	1,811,890
2011			853,632	1,284,636	1,585,676	1,803,871
2012		452,015	918,067	1,351,865	1,646,166	
2013	124,244	496,304	987,859	1,432,983		
2014	132,569	530,563	1,064,821			
2015	149,013	578,297				
2016	153,872					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						682,930
2009					759,011	654,527
2010				834,297	716,745	588,940
2011			850,428	773,336	639,826	526,053
2012		760,449	840,851	750,231	628,559	
2013	402,274	774,875	855,512	748,285		
2014	418,425	815,983	892,485			
2015	445,728	849,352				
2016	459,791					

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

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

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

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

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2008						41,108
2009					34,669	40,513
2010				28,618	34,337	39,531
2011			21,129	27,512	32,568	37,640
2012		13,170	20,583	26,746	32,440	
2013	5,184	12,832	20,410	26,927		
2014	5,215	13,212	21,248			
2015	5,377	13,689				
2016	5,613					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2008						-110,787
2009					-158,542	-120,648
2010				-138,682	-97,345	-44,315
2011			-102,981	-98,273	-44,846	
2012		-64,496	-69,695	-55,391		
2013	-18,035	-48,709	-35,860			
2014	-17,142	-30,732				
2015	-13,524					

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

Accident Year	Evaluated as of (in months)					
	15	27	39	51	63	75
2008						572,144
2009					600,469	533,880
2010				695,614	619,400	544,625
2011			747,447	675,063	594,980	526,053
2012		695,953	771,156	694,840	628,559	
2013	384,239	726,166	819,653	748,285		
2014	401,283	785,251	892,485			
2015	432,204	849,352				
2016	459,791					

- (e) Each amount is equal to the product of [the average monthly indemnity payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly indemnity payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly indemnity payment per open indemnity claim at the same evaluation is used.
- (f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by the corresponding [average paid indemnity per open claim for indemnity claims in transition (Item J)].
- (g) Each amount is the sum of [paid indemnity on open claims (Item I)] and the corresponding [incremental changes in paid indemnity on open claims resulting from the impact of changes in claim settlement rates (Item K)].

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

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

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						2,324,247
2009					2,151,711	2,316,031
2010				1,967,734	2,198,145	2,356,515
2011			1,601,080	1,959,699	2,180,656	2,329,924
2012		1,147,969	1,689,222	2,046,705	2,274,726	
2013	508,483	1,222,471	1,807,512	2,181,268		
2014	533,852	1,315,814	1,957,305			
2015	581,217	1,427,649				
2016	613,663					

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2008					
2009					1.076
2010				1.117	1.072
2011			1.224	1.113	1.068
2012		1.471	1.212	1.111	
2013	2.404	1.479	1.207		
2014	2.465	1.488			
2015	2.456				
Latest Year	2.456	1.488	1.207	1.111	1.068
3-Year Average	2.442	1.479	1.214	1.114	1.072

O. Paid Indemnity Loss Development Factors (i)

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2009					1.085
2010				1.129	1.081
2011			1.227	1.127	1.076
2012		1.476	1.218	1.122	
2013	2.387	1.490	1.215		
2014	2.460	1.501			
2015	2.471				

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

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

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

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

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2009					-0.77%
2010				-1.01%	-0.81%
2011			-0.22%	-1.25%	-0.69%
2012		-0.30%	-0.52%	-0.91%	
2013	0.72%	-0.77%	-0.65%		
2014	0.18%	-0.87%			
2015	-0.60%				

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2009					1.076
2010				1.118	1.072
2011			1.224	1.115	1.069
2012		1.473	1.214	1.112	
2013	2.402	1.479	1.207		
2014	2.460	1.489			
2015	2.456				
Latest Year	2.456	1.489	1.207	1.112	1.069
3-Year Average	2.440	1.480	1.215	1.115	1.072

(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 231, Incurred from Age 231 to Ultimate

Unadjusted (a) Accident Year	Age-to-Age (in months)															231Inc/231Pd (d)
	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	
1992																1.061
1993															1.017	1.007
1994														1.013	1.012	1.011
1995													1.015	1.016	1.012	1.009
1996												1.023	1.019	1.018	1.017	1.016
1997											1.025	1.023	1.022	1.014	1.014	1.014
1998										1.028	1.025	1.020	1.019	1.014	1.014	1.013
1999										1.032	1.027	1.021	1.017	1.019	1.018	1.010
2000										1.033	1.030	1.025	1.016	1.018	1.014	1.010
2001										1.035	1.030	1.025	1.020	1.016	1.012	1.012
2002										1.037	1.033	1.022	1.020	1.016	1.012	1.011
2003										1.039	1.033	1.022	1.020	1.016	1.012	1.011
2004										1.046	1.037	1.026	1.020	1.016	1.012	1.011
2005										1.053	1.043	1.032	1.026	1.018	1.012	1.011
2006										1.055	1.045	1.033	1.029	1.018	1.012	1.011
2007										1.063	1.053	1.041	1.031	1.016	1.012	1.011
2008										1.064	1.057	1.041	1.031	1.016	1.012	1.011
2009										1.067	1.062	1.047	1.031	1.016	1.012	1.011
2010										1.062	1.060	1.042	1.028	1.016	1.012	1.011
2011										1.062	1.060	1.042	1.028	1.016	1.012	1.011
2012										1.062	1.060	1.042	1.028	1.016	1.012	1.011
2013										1.062	1.060	1.042	1.028	1.016	1.012	1.011
2014										1.062	1.060	1.042	1.028	1.016	1.012	1.011
2015										1.062	1.060	1.042	1.028	1.016	1.012	1.011

Adjusted (b) Accident Year	Age-to-Age (in months)															231Inc/231Pd (d)
	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	
1996																1.103
1997																1.096
1998																1.103
1999																1.103
2000																1.103
2001																1.103
2002																1.103
2003																1.103
2004																1.103
2005																1.103
2006																1.103
2007																1.103
2008																1.103
2009																1.103
2010																1.103
2011																1.103
2012																1.103
2013																1.103
2014																1.103
2015																1.103

Selected (c) Cumulative	Age-to-Age (in months)															231Inc/231Pd (d)
	27/15	39/27	51/39	63/51	75/63	87/75	99/87	111/99	123/111	135/123	147/135	159/147	171/159	183/171	195/183	
1.954(e)																1.101
6.183																1.101

- (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 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent age-to-age factors. Paid development factors are selected to age 231, where an incurred-to-paid ratio is chosen, and subsequently, incurred loss development factors are selected until ultimate.
- (d) A three-year average of the 231Inc/231Pd factor is selected.
- (e) Based on calculations shown on Exhibits 2.6.3 to 2.6.8. Each of these selections is 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 231, Incurred from Age 231 to Ultimate (Continued)

Accident Year	Age-to-Age (in months)													
	<u>243/231</u>	<u>255/243</u>	<u>267/255</u>	<u>279/267</u>	<u>291/279</u>	<u>291/279</u>	<u>315/303</u>	<u>327/315</u>	<u>339/327</u>	<u>351/339</u>	<u>363/351</u>	<u>375/363</u>	<u>387/375</u>	<u>ULT/387Inc (f)</u>
1983													1.002	
1984												0.999	0.999	
1985											1.000	0.999	0.999	
1986										1.002	1.001	0.998		
1987									1.003	1.001	0.999			
1988								1.003	1.002	1.000				
1989							1.002	0.999	0.999					
1990							1.001	1.001						
1991							0.999							
1992							0.996							
1993						1.003								
1994						0.999								
1995						0.996								
1996														
1997														
Selected (c)	1.001	1.002	1.000	0.999	0.999	0.999	1.001	1.001	1.001	1.001	1.000	0.999	1.000	
Cumulative	1.022	1.021	1.019	1.020	1.020	1.020	1.022	1.021	1.020	1.019	1.018	1.018	1.019	1.019

(f) The ULT/387Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors and extrapolated to 80 development years.

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

A. Total Reported Indemnity Claim Counts

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						116,431
2009					111,064	111,376
2010				114,140	114,734	115,066
2011			115,877	117,092	117,782	118,150
2012		119,843	122,845	124,144	124,921	
2013	116,550	128,262	131,489	132,794		
2014	121,326	134,394	137,527			
2015	126,704	140,302				
2016	129,131					

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):					
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>	<u>75-Ultimate</u>
2009					1.003	
2010				1.005	1.003	
2011			1.010	1.006	1.003	
2012		1.025	1.011	1.006		
2013	1.100	1.025	1.010			
2014	1.108	1.023				
2015	1.107					
Latest Year	1.107	1.023	1.010	1.006	1.003	
Cumulative	1.162	1.050	1.026	1.016	1.010	1.006

Acc. Year	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
Ult. Claim Counts	150,114	147,292	141,090	134,896	126,109	118,902

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						99,963
2009					89,342	95,340
2010				85,218	94,012	100,276
2011			75,627	88,983	98,136	104,174
2012		62,104	81,994	96,094	105,545	
2013	38,950	67,874	89,572	105,005		
2014	41,091	72,635	95,523			
2015	43,814	78,256				
2016	47,216					

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



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

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident	Evaluated as of (in months)					
Year	15	27	39	51	63	75
2008						85.3%
2009					79.6%	84.9%
2010				73.6%	81.2%	86.6%
2011			63.6%	74.8%	82.5%	87.6%
2012		49.2%	65.0%	76.2%	83.7%	
2013	28.9%	50.3%	66.4%	77.8%		
2014	29.1%	51.5%	67.7%			
2015	29.7%	53.1%				
2016	31.5%					

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

Accident	Evaluated as of (in months)					
Year	15	27	39	51	63	75
2008						102,726
2009					93,966	98,367
2010				90,139	96,916	101,455
2011			80,501	92,555	99,513	104,174
2012		67,001	85,380	98,165	105,545	
2013	42,429	71,670	91,329	105,005		
2014	44,378	74,961	95,523			
2015	46,329	78,256				
2016	47,216					

F. Average Paid Medical per Closed Indemnity Claim

Accident	Evaluated as of (in months)					
Year	15	27	39	51	63	75
2008						19,149
2009					18,015	20,826
2010				15,156	18,745	21,612
2011			10,647	14,689	18,122	20,812
2012		6,569	11,011	14,672	17,598	
2013	2,981	6,712	10,976	14,334		
2014	2,998	6,886	11,010			
2015	3,250	7,317				
2016	3,504					

- (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>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						18,353
2009					20,146	22,421
2010				17,070	20,024	22,265
2011			11,974	15,944	18,704	20,812
2012		7,460	11,797	15,269	17,598	
2013	3,287	7,315	11,314	14,334		
2014	3,270	7,223	11,010			
2015	3,449	7,317				
2016	3,504					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						1,885,378
2009					1,893,086	2,205,479
2010				1,538,714	1,940,606	2,258,868
2011			963,901	1,475,734	1,861,292	2,168,043
2012		499,825	1,007,242	1,498,876	1,857,330	
2013	139,447	524,268	1,033,337	1,505,142		
2014	145,096	541,431	1,051,726			
2015	159,777	572,589				
2016	165,464					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						1,002,964
2009					1,078,558	976,892
2010				1,140,709	1,020,754	873,963
2011			1,071,922	1,027,103	891,617	741,766
2012		906,606	1,004,809	937,687	805,266	
2013	510,592	888,863	958,302	868,650		
2014	512,845	880,224	937,502			
2015	522,717	887,340				
2016	557,119					

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

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

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

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

Accident	Evaluated as of (in months)					
Year	15	27	39	51	63	75
2008						60,904
2009					49,653	60,919
2010				39,441	49,259	59,091
2011			26,632	36,540	45,384	54,029
2012		15,702	24,597	33,429	41,295	
2013	6,580	14,719	22,862	29,896		
2014	6,392	14,253	20,587			
2015	6,306	11,351				
2016	4,614					

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

Accident	Evaluated as of (in months)					
Year	15	27	39	51	63	75
2008						-168,277
2009					-229,595	-184,401
2010				-194,089	-143,049	-69,669
2011			-129,802	-130,521	-62,494	
2012		-76,892	-83,285	-69,232		
2013	-22,891	-55,874	-40,168			
2014	-21,010	-33,151				
2015	-15,860					

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

Accident	Evaluated as of (in months)					
Year	15	27	39	51	63	75
2008						834,687
2009					848,964	792,491
2010				946,620	877,705	804,294
2011			942,120	896,582	829,123	741,766
2012		829,714	921,524	868,455	805,266	
2013	487,701	832,989	918,134	868,650		
2014	491,835	847,073	937,502			
2015	506,857	887,340				
2016	557,119					

- (e) Each amount is equal to the product of [the average monthly medical payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly medical payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly medical payment per open indemnity claim at the same evaluation is used.
- (f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by [the corresponding average paid medical per open indemnity claim for indemnity claims in transition (Item J)].
- (g) Each amount is the sum of [paid medical on open indemnity claims (Item I)] and the corresponding [incremental changes in paid medical on open indemnity claims resulting from the impact of changes in indemnity claim settlement rates (Item K)].

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

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

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						236,736
2009					219,523	222,695
2010				215,365	218,863	221,401
2011			203,605	208,413	212,274	215,509
2012		202,616	210,818	216,310	220,934	
2013	173,466	207,084	215,881	221,735		
2014	195,050	229,611	239,258			
2015	203,866	241,385				
2016	218,710					

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

Accident Year	Evaluated as of (in months)					
	<u>15</u>	<u>27</u>	<u>39</u>	<u>51</u>	<u>63</u>	<u>75</u>
2008						2,956,801
2009					2,961,572	3,220,665
2010				2,737,282	3,077,467	3,327,852
2011			2,304,406	2,804,712	3,147,555	3,382,671
2012		1,532,155	2,139,584	2,583,641	2,883,529	
2013	800,614	1,564,342	2,167,351	2,595,526		
2014	831,981	1,618,115	2,228,486			
2015	870,500	1,701,315				
2016	941,294					

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2009					1.087
2010				1.124	1.081
2011			1.217	1.122	1.075
2012		1.396	1.208	1.116	
2013	1.954	1.385	1.198		
2014	1.945	1.377			
2015	1.954				
Latest Year	1.954	1.377	1.198	1.116	1.075

(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)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2009					1.095
2010				1.133	1.087
2011			1.216	1.130	1.082
2012		1.396	1.210	1.125	
2013	1.939	1.390	1.203		
2014	1.937	1.384			
2015	1.958				

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2009					-0.73%
2010				-0.80%	-0.49%
2011			0.11%	-0.72%	-0.65%
2012		0.01%	-0.23%	-0.76%	
2013	0.77%	-0.36%	-0.46%		
2014	0.39%	-0.50%			
2015	-0.17%				

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

Accident Year	Evaluated as of (in months)				
	<u>15-27</u>	<u>27-39</u>	<u>39-51</u>	<u>51-63</u>	<u>63-75</u>
2009					1.092
2010				1.132	1.088
2011			1.229	1.131	1.079
2012		1.413	1.220	1.122	
2013	1.972	1.395	1.202		
2014	1.957	1.382			
2015	1.954				
Latest Year	1.954	1.382	1.202	1.122	1.079
3-Year Average	1.961	1.397	1.217	1.128	1.086

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

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

**Developed Indemnity Loss Ratios Using Selected Loss Development Factors  
Adjusted for Changes in Claim Settlement Rates  
Based on Experience as of March 31, 2017**

		Development Factors			
			Cumulative		
	(1)	(2)	(3)	(4)	(5)
Accident Year	Paid or Incurred Loss <u>Ratio (a)</u>	<u>Annual (b)</u>	Unadjusted for Impact of <u>SB 863 (b)</u>	Adjusted for Impact of <u>SB 863 (b)</u>	Projected Ultimate <u>Loss Ratio</u>
					(5) = (1) x (4)
1985	0.446	1.001	1.003	1.003	0.448
1986	0.396	1.000	1.003	1.003	0.397
1987	0.345	1.000	1.003	1.003	0.346
1988	0.330	1.000	1.003	1.003	0.331
1989	0.343	1.001	1.003	1.003	0.344
1990	0.397	1.000	1.004	1.004	0.399
1991	0.424	1.000	1.004	1.004	0.426
1992	0.349	1.000	1.004	1.004	0.351
1993	0.287	1.000	1.004	1.004	0.289
1994	0.327	1.000	1.004	1.004	0.329
1995	0.472	1.000	1.004	1.004	0.475
1996	0.529	1.001	1.005	1.005	0.532
1997	0.599	1.001	1.006	1.006	0.603
1998	0.650	1.000	1.006	1.006	0.654
1999	0.666	1.004	1.035	1.035	0.689
2000	0.573	1.004	1.039	1.039	0.595
2001	0.472	1.005	1.044	1.044	0.493
2002	0.350	1.005	1.050	1.050	0.368
2003	0.229	1.007	1.057	1.057	0.242
2004	0.136	1.008	1.065	1.065	0.145
2005	0.115	1.010	1.076	1.076	0.124
2006	0.147	1.014	1.091	1.091	0.161
2007	0.199	1.018	1.111	1.111	0.222
2008	0.248	1.025	1.139	1.139	0.282
2009	0.282	1.025	1.168	1.168	0.329
2010	0.265	1.039	1.213	1.213	0.322
2011	0.235	1.053	1.277	1.277	0.301
2012	0.199	1.069	1.365	1.365	0.271
2013	0.157	1.112	1.518	1.548	0.242
2014	0.123	1.207	1.832	1.951	0.241
2015	0.084	1.489	2.728	2.905	0.244
2016	0.034	2.456	6.700	7.134	0.245

- (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 March 31, 2017**

Accident Year	(1)	(2)	(3)	(4)	(5)	(6)
	<b>Adjusted for SB 863</b>					
	Unadjusted	Adjusted	Development Factors		Adjusted	Projected
	Paid or Incurred Loss Ratio (a)	Paid or Incurred Loss Ratio (b)	Annual (c)	Cumulative	Developed Loss Ratio (d)	Ultimate Loss Ratio
					(2) x (4)	(1) + ((5) - (2))
1985	0.350	0.350	0.999	1.019	0.357	0.357
1986	0.332	0.332	1.000	1.019	0.339	0.339
1987	0.314	0.314	0.999	1.018	0.319	0.319
1988	0.305	0.305	1.000	1.018	0.310	0.310
1989	0.325	0.325	1.001	1.019	0.331	0.331
1990	0.367	0.367	1.001	1.020	0.375	0.375
1991	0.384	0.384	1.001	1.021	0.392	0.392
1992	0.319	0.319	1.001	1.022	0.326	0.326
1993	0.267	0.267	0.999	1.021	0.272	0.272
1994	0.309	0.309	0.999	1.020	0.316	0.316
1995	0.454	0.454	0.999	1.020	0.463	0.463
1996	0.487	0.487	1.000	1.019	0.497	0.497
1997	0.547	0.547	1.002	1.021	0.558	0.558
1998	0.660	0.660	1.001	1.022	0.675	0.675
1999	0.651	0.603	1.012	1.139	0.687	0.735
2000	0.589	0.546	1.014	1.154	0.630	0.673
2001	0.516	0.478	1.015	1.172	0.560	0.598
2002	0.397	0.368	1.015	1.189	0.437	0.467
2003	0.251	0.233	1.016	1.208	0.282	0.300
2004	0.169	0.157	1.017	1.229	0.193	0.205
2005	0.164	0.152	1.019	1.252	0.191	0.202
2006	0.209	0.195	1.024	1.283	0.250	0.264
2007	0.288	0.269	1.030	1.321	0.355	0.374
2008	0.353	0.330	1.035	1.367	0.451	0.474
2009	0.401	0.377	1.035	1.414	0.533	0.557
2010	0.382	0.362	1.045	1.478	0.535	0.555
2011	0.312	0.298	1.064	1.573	0.469	0.482
2012	0.251	0.244	1.079	1.697	0.414	0.421
2013	0.187	0.184	1.122	1.904	0.350	0.353
2014	0.140	0.140	1.202	2.290	0.320	0.321
2015	0.100	0.100	1.382	3.165	0.317	0.317
2016	0.053	0.053	1.954	6.183	0.325	0.325

- (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, 2016. 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.
- (d) The developed medical loss ratios shown were derived based on 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 Adjustments (a)	(2) Frequency Adjustments (a)	(3) Annual Impact on Indemnity Benefits Due to Wage Inflation (b)	(4) Annual Cost Impact on Indemnity (c)	(5) Composite Indemnity Adjustment Factor (d)
1985	0.0	0.0	2.0	2.0	1.542
1986	0.0	0.0	1.6	1.6	1.517
1987	0.0	0.0	1.9	1.9	1.489
1988	0.0	0.0	1.5	1.5	1.467
1989	0.0	0.0	1.5	1.5	1.445
1990	2.3	19.9	1.7	24.7	1.159
1991	4.9	14.8	0.8	21.4	0.955
1992	1.8	-8.3	1.6	-5.2	1.006
1993	0.2	-18.1	0.4	-17.6	1.222
1994	-5.1	0.2	0.6	-4.3	1.277
1995	6.3	0.6	1.0	8.0	1.182
1996	5.3	0.4	1.2	7.0	1.105
1997	9.7	0.2	1.6	11.7	0.990
1998	6.5	0.0	1.8	8.4	0.913
1999	5.7	0.0	2.1	7.9	0.846
2000	3.9	0.0	3.1	7.1	0.789
2001	-0.3	0.0	0.2	-0.1	0.790
2002	-0.7	0.0	0.2	-0.5	0.811 (e)
2003	7.3	0.0	1.1	8.5	0.811 (e)
2004	-6.0	-13.7	1.6	-17.6	1.117 (e)
2005	-31.6	-15.3	1.1	-41.5	1.516
2006	5.6	-5.7	1.6	1.2	1.499
2007	1.6	0.0	1.6	3.2	1.452
2008	4.8	0.6	0.7	6.2	1.368
2009	0.4	1.4	0.2	2.0	1.341
2010	0.4	0.0	1.0	1.4	1.322
2011	0.0	0.0	1.6	1.6	1.301
2012	0.3	0.0	2.1	2.4	1.271
2013	2.2	0.2	0.4	2.8	1.236
2014	7.0	1.5	1.7	10.4	1.119
2015	0.3	0.0	2.3	2.6	1.091
2016	0.3	0.0	1.7	2.0	1.070
2017	0.5	0.0	2.4	2.9	
2018	0.4	0.0	2.4	2.8	
1/1/2019	0.2 (Annual 0.4)	0.0	1.0 (Annual 2.1)	1.2	

- (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 1/1/2019 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	0.5%	4.2%	0.3%	0.8%
2015	0.934	0.066	0.1%	3.1%	0.2%	0.3%
2016	0.934	0.066	0.1%	5.4%	0.4%	0.5%
2017	0.934	0.066	0.1%	2.9%	0.2%	0.3%
2018	0.934	0.066	0.0%	3.3%	0.2%	0.2%
1/1/2019	0.934	0.066	0.0% (Annual 0.0%)	1.5% (Annual 3.0%)	0.1%	0.1%

(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

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

**Annual Medical Cost Level Change - Legislative**

Accident Year	(1) Annual Legislative Cost Impact on <u>Medical Severity(a)</u>	(2) Annual Legislative Cost Impact on Medical Due to <u>Frequency Changes(b)</u>	(3) Annual Total Legislative Cost <u>Impact on Medical(c)</u>
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%
1/1/2019	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
- (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%	0.990
1986	3.0%	0.0%	3.0%	0.961
1987	3.8%	0.0%	3.8%	0.926
1988	3.8%	0.0%	3.8%	0.892
1989	3.0%	0.0%	3.0%	0.866
1990	3.7%	19.1%	23.5%	0.702
1991	3.6%	12.9%	16.9%	0.600
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%	0.794
1995	0.9%	0.5%	1.4%	0.783
1996	1.0%	0.4%	1.4%	0.772
1997	0.7%	0.2%	0.9%	0.765
1998	0.8%	12.6%	13.5%	0.674
1999	2.5%	12.6%	15.4%	0.584
2000	1.7%	7.0%	8.8%	0.537
2001	2.9%	6.6%	9.7%	0.489
2002	2.0%	-5.6%	-3.7%	0.508
2003	1.4%	-6.0%	-4.7%	0.533
2004	0.0%	-33.9%	-33.9%	0.806
2005	0.0%	-13.9%	-13.9%	0.936
2006	0.3%	-5.1%	-4.8%	0.983
2007	1.8%	0.1%	1.9%	0.965
2008	0.2%	0.5%	0.7%	0.958
2009	0.4%	1.0%	1.4%	0.945
2010	0.3%	0.0%	0.3%	0.942
2011	0.3%	-2.0%	-1.7%	0.959
2012	0.1%	-3.0%	-2.9%	0.987
2013	0.1%	-2.8%	-2.7%	1.015
2014	0.8%	-0.7%	0.1%	1.019 (e)
2015	0.3%	0.0%	0.3%	1.017 (e)
2016	0.5%	0.0%	0.5%	1.013 (e)
2017	0.3%	0.0%	0.3%	
2018	0.2%	0.0%	0.2%	
1/1/2019	0.1%	0.0%	0.1%	

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

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

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

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

(e) The on-level factors for accident years 2014, 2015, and 2016 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 1/1/2019 Wage Level</u>
1985	5.7	3.314
1986	4.7	3.165
1987	5.6	2.997
1988	4.4	2.871
1989	4.3	2.753
1990	5.0	2.622
1991	2.3	2.563
1992	4.7	2.448
1993	1.2	2.419
1994	1.8	2.376
1995	2.9	2.309
1996	3.4	2.233
1997	4.7	2.133
1998	5.2	2.027
1999	6.2	1.909
2000	9.0	1.751
2001	0.6	1.741
2002	0.5	1.732
2003	3.3	1.677
2004	4.7	1.602
2005	3.1	1.553
2006	4.6	1.485
2007	4.5	1.421
2008	2.1	1.392
2009	0.5	1.385
2010	3.0	1.345
2011	3.1	1.304
2012	4.1	1.253
2013	0.7	1.244
2014	3.3	1.204
2015	4.4	1.154
2016	3.2	1.118
Projected:		
2017	4.6	
2018	4.8	
1/1/2019	2.0	(Annual = 4.0)

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

Premium Adjustment Factors

	(1)	(2a)	(2b)	(2c)	(3)	(4)	(5)	(6)	(7)
Calendar Year	Factor to a 1/1/2019 Wage Level (a)	Ratio of Industry Average Charged Rates to Advisory Pure Premium Rates (b)	Factor to Industry Average Filled Pure Premium Rate Level as of January 1, 2017 (c)	Factor to Adjust Insurer Premium to an Industry Average Filled Pure Premium Rate Level as of January 1, 2017 (d)	Adjustment to Remove Surcharge Premium (e)	Average Experience Modification (f)	Off-Balance Correction in Advisory January 1, 2017 Pure Premium Rates	Factor to Adjust for Impact of Premium Resulting from Audits (g)	Composite Premium Adjustment Factor (h)
1985	3.314	---	---	0.998	0.991	0.984	1.026	---	3.245
1986	3.165	---	---	0.911	0.991	0.983	1.026	---	2.835
1987	2.997	---	---	0.801	0.992	0.983	1.026	---	2.362
1988	2.871	---	---	0.717	0.993	0.963	1.026	---	2.068
1989	2.753	---	---	0.705	0.993	0.945	1.026	---	1.989
1990	2.622	---	---	0.688	0.991	0.942	1.026	---	1.849
1991	2.563	---	---	0.637	0.987	0.939	1.026	---	1.672
1992	2.448	---	---	0.611	0.982	0.940	1.026	---	1.524
1993	2.419	---	---	0.603	0.981	0.949	1.026	---	1.470
1994	2.376	---	---	0.691	0.986	0.948	1.026	---	1.665
1995	2.309	---	---	0.935	0.995	0.958	1.026	---	2.186
1996	2.233	1.024	0.994	0.971	1.000	0.935	1.026	---	2.260
1997	2.133	0.989	0.991	1.002	1.000	0.949	1.026	---	2.195
1998	2.027	0.965	1.033	1.070	1.000	0.959	1.026	---	2.206
1999	1.909	0.972	1.044	1.074	1.000	0.954	1.026	---	2.095
2000	1.751	1.006	0.946	0.940	1.000	0.970	1.026	---	1.655
2001	1.741	1.029	0.834	0.810	1.000	0.969	1.026	---	1.419
2002	1.732	1.157	0.746	0.645	1.000	0.991	1.026	---	1.099
2003	1.677	1.267	0.611	0.482	1.000	1.005	1.026	---	0.784
2004	1.602	1.397	0.621	0.445	1.000	0.981	1.026	---	0.707
2005	1.553	1.470	0.747	0.508	1.000	0.982	1.026	---	0.784
2006	1.485	1.451	0.963	0.664	1.000	0.956	1.026	---	1.005
2007	1.421	1.494	1.314	0.880	1.000	0.931	1.026	0.985	1.289
2008	1.392	1.426	1.561	1.095	1.000	0.946	1.026	0.991	1.556
2009	1.385	1.366	1.539	1.127	1.000	0.937	1.026	1.034	1.679
2010	1.345	1.383	1.508	1.090	1.000	0.941	1.026	1.005	1.526
2011	1.304	1.401	1.507	1.076	1.000	0.982	1.026	---	1.393
2012	1.253	1.222	1.242	1.016	1.000	1.000	1.026	---	1.241
2013	1.244	1.138	1.000	0.879	1.000	0.983	1.026	---	1.084
2014	1.204	1.126	0.921	0.818	1.000	0.961	1.026	---	0.999
2015	1.154	1.108	0.895	0.808	1.000	0.952	1.026	---	0.954
2016	1.118	1.146	0.964	0.841	1.000	0.952	1.026	---	0.963

- (a) See Exhibit 5.1.
- (b) Based on WCIRB calendar year experience calls. The industry average charged rates reflect most rating plan adjustments but do not reflect the application of deductible credits or retrospective rating plan adjustments.
- (c) Reflects (1) advisory pure premium rate level changes to bring premium to the advisory January 1, 2017 pure premium rate level and (2) an additional adjustment factor, which is the ratio of the average advisory January 1, 2017 pure premium rate (\$2.19) to the industry average filed pure premium rate as of January 1, 2017 (\$2.42).
- (d) (2b) ÷ (2a). This column adjusts premiums at the industry average charged rate level to the industry average filed pure premium rate level as of January 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.

**2016 Accident Year Indemnity Claim Frequency Model**  
**As of PY 2014 Preliminary 1st Set & December 2016 UCLA**

AY	Annual %	Annual Log Differences						
	Changes Intra-	Intra-Class Indemnity Frequency			AY+1		Economic	CalOSHA
	Class Ind Freq	per \$M Exposure at PY 2015 Level			Indemnity	Cumulative	Variables	Dummy
	Total	Total	Cumulative	Non-cum.	Benefit Level	Injury Index	(1st Prin. Comp.)	Variable
1979	0.5%	0.005	-0.053	0.007	0.000	-0.060	0.134	0.000
1980	-6.5%	-0.068	-0.132	-0.066	0.033	-0.066	-0.079	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	-0.017	-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	-16.8%	-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	-0.019	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	4.9%	0.048	0.117	0.040	-0.008	0.077	0.122	0.000
2013	0.9%	0.009	0.171	-0.013	0.071	0.185	0.154	0.000
2014	1.0%	0.010	0.100	-0.005	0.003	0.105	0.170	0.000
2015*	-1.2%	-0.012	0.063	-0.027	0.003	0.091	0.179	0.000
2016	-0.5%	-0.005	-0.005	-0.005	0.004	0.000	0.141	0.000
2017	-1.6%	-0.016	-0.016	-0.016	0.003	0.000	0.038	0.000
2018	-1.9%	-0.019	-0.019	-0.019	0.003	0.000	0.004	0.000
2019	-1.9%	-0.019	-0.019	-0.019	0.003	0.000	0.002	0.000

**Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency**

Constant	-0.020			
Std Err of Y Est	0.041			
R Squared	0.577			
No. of Observations	37			
Degrees of Freedom	32			
X Coefficient(s)	0.174	0.282	0.098	-0.135
Std Err of Coef.	0.075	0.063	0.046	0.079

**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 2015; December 2016 UCLA Anderson Forecasts for 2016 on.  
Regression is over AY 1979 through AY 2015. AY 2016 through AY 2019 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 2015 is preliminary and change is based on a comparison of 2015 accidents on 2014 policies to 2014 accidents on 2013 policies.

**Projection of Indemnity Severity Trends by Accident Year  
Based on Experience as of March 31, 2016**

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	9,962	---	1.853	18,464	---
1991	10,894	9.4%	1.753	19,095	3.4%
1992	10,987	0.9%	1.695	18,619	-2.5%
1993	11,963	8.9%	1.685	20,153	8.2%
1994	12,934	8.1%	1.764	22,822	13.2%
1995	14,500	12.1%	1.643	23,831	4.4%
1996	16,237	12.0%	1.542	25,042	5.1%
1997	19,317	19.0%	1.384	26,729	6.7%
1998	21,123	9.4%	1.276	26,960	0.9%
1999	23,199	9.8%	1.183	27,437	1.8%
2000	24,596	6.0%	1.104	27,155	-1.0%
2001	27,072	10.1%	1.105	29,919	10.2%
2002	26,168	-3.3%	1.135	29,691	-0.8%
2003	25,725	-1.7%	1.134	29,164	-1.8%
2004	20,997	-18.4%	1.348	28,309	-2.9%
2005	18,946	-9.8%	1.550	29,369	3.7%
2006	20,753	9.5%	1.445	29,984	2.1%
2007	22,486	8.3%	1.400	31,473	5.0%
2008	24,646	9.6%	1.326	32,688	3.9%
2009	25,677	4.2%	1.318	33,851	3.6%
2010	25,380	-1.2%	1.300	32,997	-2.5%
2011	25,028	-1.4%	1.280	32,026	-2.9%
2012	24,570	-1.8%	1.250	30,701	-4.1%
2013	24,878	1.3%	1.218	30,296	-1.3%
2014	26,825	7.8%	1.119	30,024	-0.9%
2015	27,887	4.0%	1.091	30,422	1.3%
2016	28,939	3.8%	1.070	30,959	1.8%
(6) Estimated Annual Exponential Trend Based on 2005 to 2016:					-0.1%
(7) Estimated Annual Exponential Trend Based on 2011 to 2016:					-0.6%
Selected Indemnity Severity Trend:					0.0%

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

Source: WCIRB experience calls

**Projection of Medical Severity Trends by Accident Year  
Based on Experience as of March 31, 2016**

Accident Year	(1) Estimated Ultimate Severity(a)	(2) Annual % Change	(3) Medical Adjustment Factor(b)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	8,726	---	1.015	8,853	---
1991	9,364	7.3%	0.996	9,323	5.3%
1992	9,436	0.8%	0.963	9,085	-2.6%
1993	10,450	10.7%	0.946	9,889	8.8%
1994	11,552	10.5%	0.995	11,500	16.3%
1995	13,208	14.3%	0.988	13,049	13.5%
1996	14,183	7.4%	0.978	13,871	6.3%
1997	16,870	18.9%	0.971	16,383	18.1%
1998	20,696	22.7%	0.857	17,742	8.3%
1999	23,533	13.7%	0.743	17,488	-1.4%
2000	26,556	12.8%	0.683	18,147	3.8%
2001	31,580	18.9%	0.624	19,710	8.6%
2002	31,971	1.2%	0.649	20,737	5.2%
2003	30,551	-4.4%	0.682	20,834	0.5%
2004	28,315	-7.3%	0.904	25,595	22.9%
2005	29,237	3.3%	0.906	26,492	3.5%
2006	32,173	10.0%	0.904	29,096	9.8%
2007	35,972	11.8%	0.890	32,032	10.1%
2008	39,302	9.3%	0.890	34,989	9.2%
2009	41,472	5.5%	0.891	36,961	5.6%
2010	41,856	0.9%	0.894	37,438	1.3%
2011	38,343 (c)	---	0.918	35,210 (c)	---
2012	36,433	-5.0%	0.956	34,830	-1.1%
2013	34,576	-5.1%	0.995	34,389	-1.3%
2014	34,034	-1.6%	1.017	34,616	0.7%
2015	34,511	1.4%	1.017	35,091	1.4%
2016	36,767	6.5%	1.013	37,240	6.1%

Selected Medical Severity Trend: 2.5%

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

(b) These adjustment factors are based on Exhibit 4.4, excluding the impact of frequency, and including the impact of SB 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.



**Projection of Medical Severity Trends by Accident Year  
Adjusted to Remove the Cost of Medical Cost Containment Programs (MCCP)  
Based on Experience as of March 31, 2016**

(1) Accident Year	MCCP Included				MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b)			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change
2005	29,237	---	26,492	---	27,648	---	25,052	---
2006	32,173	10.0%	29,096	9.8%	30,104	8.9%	27,225	8.7%
2007	35,972	11.8%	32,032	10.1%	33,515	11.3%	29,845	9.6%
2008	39,302	9.3%	34,989	9.2%	35,796	6.8%	31,868	6.8%
2009	41,472	5.5%	36,961	5.6%	37,938	6.0%	33,811	6.1%
2010	41,856	0.9%	37,438	1.3%	38,251	0.8%	34,213	1.2%
2011	42,113	0.6%	38,672	3.3%	38,343	0.2%	35,210	2.9%
2012	40,008	-5.0%	38,248	-1.1%	36,433	-5.0%	34,830	-1.1%
2013	38,089	-4.8%	37,883	-1.0%	34,576	-5.1%	34,389	-1.3%
2014	37,572	-1.4%	38,215	0.9%	34,034	-1.6%	34,616	0.7%
2015	38,133	1.5%	38,774	1.5%	34,511	1.4%	35,091	1.4%
2016	40,455	6.1%	40,975	5.7%	36,767	6.5%	37,240	6.1%

Estimated Annual Exponential  
Trend Based on 2005 to 2016: 3.3%  
Trend Based on 2011 to 2016: 1.0%

Selected Medical Severity Trend: 2.5%

- (a) Estimated ultimate severities for all accident years were derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts.
- (b) Adjustments to accident years 2005 through 2010 based on WCIRB's Annual Calls for Direct California Workers' Compensation Aggregate Indemnity and Medical Costs.
- (c) Ultimate severities are on-leveled based on adjustment factors shown on Exhibit 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 March 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	1.542	3.245	0.213
1986	0.397	1.517	2.835	0.212
1987	0.346	1.489	2.362	0.218
1988	0.331	1.467	2.068	0.235
1989	0.344	1.445	1.989	0.250
1990	0.399	1.159	1.849	0.250
1991	0.426	0.955	1.672	0.243
1992	0.351	1.006	1.524	0.232
1993	0.289	1.222	1.470	0.240
1994	0.329	1.277	1.665	0.252
1995	0.475	1.182	2.186	0.257
1996	0.532	1.105	2.260	0.260
1997	0.603	0.990	2.195	0.272
1998	0.654	0.913	2.206	0.271
1999	0.689	0.846	2.095	0.278
2000	0.595	0.789	1.655	0.284
2001	0.493	0.790	1.419	0.275
2002	0.368	0.811	1.099	0.272
2003	0.242	0.811	0.784	0.250
2004	0.145	1.117	0.707	0.228
2005	0.124	1.516	0.784	0.239
2006	0.161	1.499	1.005	0.240
2007	0.222	1.452	1.289	0.250
2008	0.282	1.368	1.556	0.248
2009	0.329	1.341	1.679	0.263
2010	0.322	1.322	1.526	0.279
2011	0.301	1.301	1.393	0.281
2012	0.271	1.271	1.241	0.277
2013	0.242	1.236	1.084	0.276
2014	0.241	1.119	0.999	0.270
2015	0.244	1.091	0.954	0.279
2016	0.245	1.070	0.963	0.272
				Projections (d)
2017				0.270
2018				0.265
1/1/2019				0.263

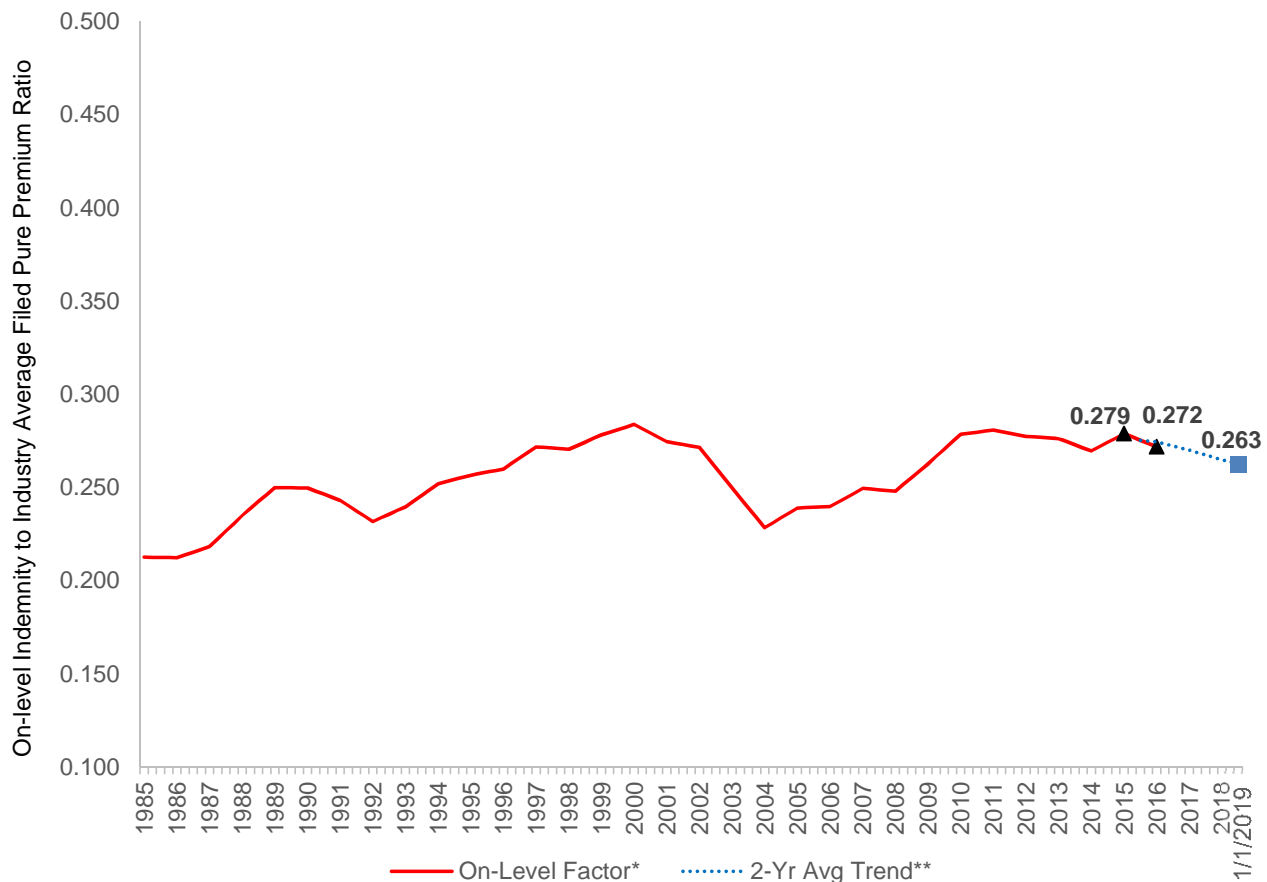
(a) See Exhibit 3.1.

(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 2016 from Exhibit 12, and projected frequency trends for accident years 2017, 2018, and 2019 from Exhibit 6.1; these trends were then separately applied to the 2015 and 2016 on-level ratios.

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



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

\*\* The 1/1/2019 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2015 and 2016 years.

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

Accident Year	(1) Developed Medical <u>Loss Ratio(a)</u>	(2) Composite Medical <u>On-Level Factor(b)</u>	(3) Composite Premium <u>Adjustment Factor(c)</u>	(4) On-Level Medical to Industry Average Filed <u>Pure Premium Ratio(e)</u> (1)×(2)÷(3)
1985	0.357	0.990	3.245	0.109
1986	0.339	0.961	2.835	0.115
1987	0.319	0.926	2.362	0.125
1988	0.310	0.892	2.068	0.134
1989	0.331	0.866	1.989	0.144
1990	0.375	0.702	1.849	0.142
1991	0.392	0.600	1.672	0.141
1992	0.326	0.633	1.524	0.135
1993	0.272	0.758	1.470	0.140
1994	0.316	0.794	1.665	0.150
1995	0.463	0.783	2.186	0.166
1996	0.497	0.772	2.260	0.170
1997	0.558	0.765	2.195	0.195
1998	0.675	0.674	2.206	0.206
1999	0.687	0.584	2.095	0.191
2000	0.630	0.537	1.655	0.204
2001	0.560	0.489	1.419	0.193
2002	0.437	0.508	1.099	0.202
2003	0.282	0.533	0.784	0.191
2004	0.193	0.806	0.707	0.220
2005	0.191	0.936	0.784	0.228
2006	0.250	0.983	1.005	0.244
2007	0.355	0.965	1.289	0.266
2008	0.451	0.958	1.556	0.278
2009	0.533	0.945	1.679	0.300
2010	0.535	0.942	1.526	0.330
2011	0.469	0.959	1.393	0.323
2012	0.414	0.987	1.241	0.329
2013	0.350	1.015	1.084	0.328
2014	0.320	1.019	0.999	0.327
2015	0.317	1.017	0.954	0.338
2016	0.325	1.013	0.963	0.342
				Projections (d)
2017				0.346
2018				0.348
1/1/2019				0.349

(a) See Exhibit 3.2.

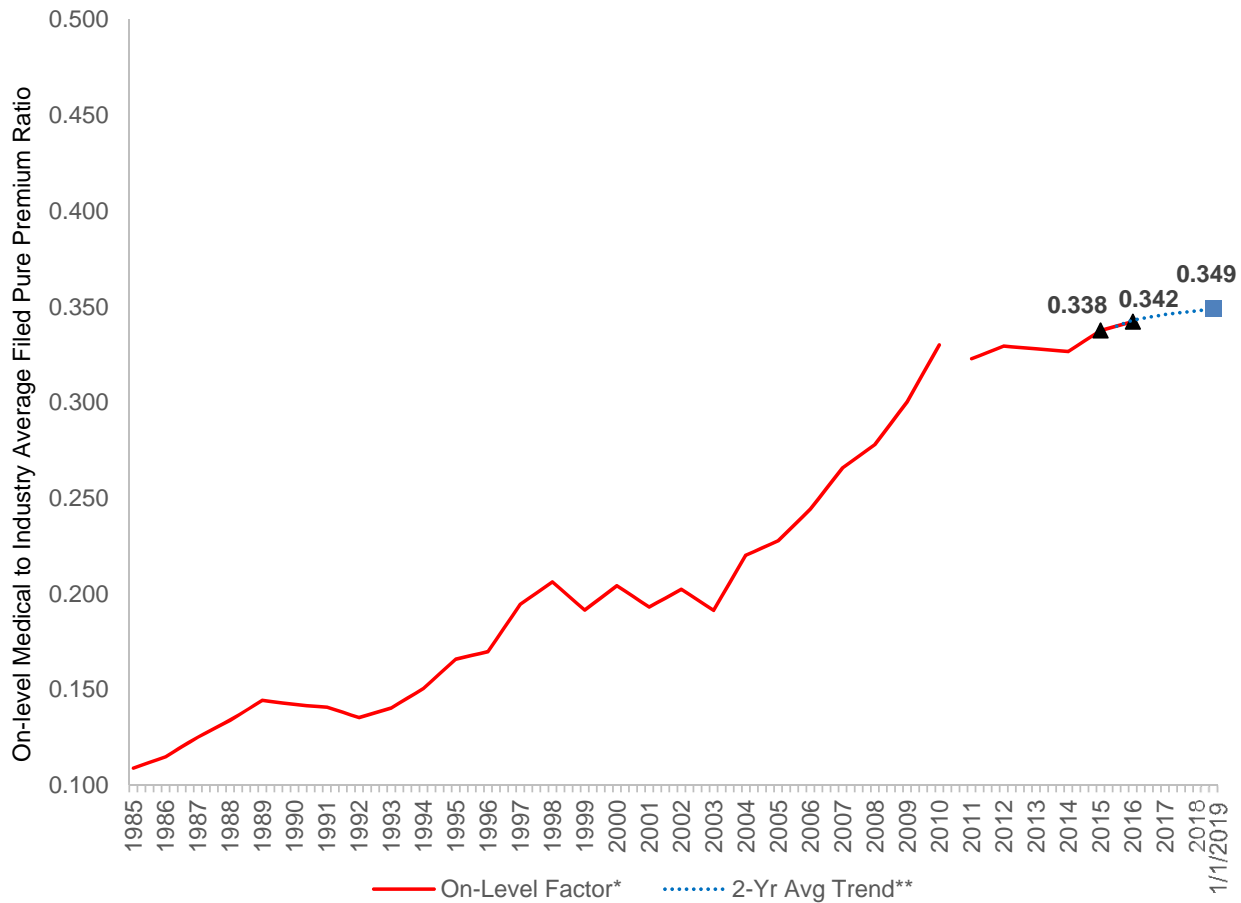
(b) See Exhibit 4.4.

(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 2016 from Exhibit 12, and projected frequency trends for accident years 2017, 2018, and 2019 from Exhibit 6.1; these trends were then separately applied to the 2015 and 2016 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 March 31, 2017**



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

\*\* The 1/1/2019 medical to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2015 and 2016 years.

**Indicated Loss to Industry Average Filed Pure Premium Ratios  
For Policies with Effective Dates between July 1, 2017 and December 31, 2017  
Based on Experience as of March 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)	0.263	0.349	0.612

Quarterly Incurred Indemnity Loss Development Factors  
Through March 31, 2017

Age in Months	Accident Year																		
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
6/3									2.417	2.724	2.785	3.031	3.116	3.052	3.238	3.344	3.303	3.209	3.201
9/6									1.656	1.776	1.820	1.848	1.904	2.001	1.966	1.940	1.960	1.948	1.945
12/9									1.448	1.511	1.510	1.530	1.564	1.632	1.587	1.585	1.570	1.578	1.578
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	
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	
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	
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		
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		
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		
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			
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			
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			
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				
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				
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				
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					
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					
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					
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						
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						
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						
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							
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							
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							

Source: WCIRB accident year experience calls

Quarterly Incurred Medical Loss Development Factors \*  
Through March 31, 2017

Age in Months	Accident Year																		
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
6/3									2.584	2.662	2.782	2.892	2.992	2.757	2.853	2.843	2.921	2.863	3.019
9/6									1.650	1.744	1.717	1.807	1.800	1.827	1.833	1.819	1.840	1.884	1.755
12/9									1.453	1.443	1.466	1.454	1.488	1.521	1.484	1.500	1.482	1.451	1.487
<b>15/12</b>	<b>1.144</b>	<b>1.168</b>	<b>1.201</b>	<b>1.207</b>	<b>1.203</b>	<b>1.197</b>	<b>1.132</b>	<b>1.145</b>	<b>1.138</b>	<b>1.182</b>	<b>1.167</b>	<b>1.199</b>	<b>1.206</b>	<b>1.228</b>	<b>1.211</b>	<b>1.207</b>	<b>1.199</b>	<b>1.206</b>	<b>1.215</b>
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	
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	
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	
<b>27/24</b>	<b>1.044</b>	<b>1.061</b>	<b>1.070</b>	<b>1.080</b>	<b>1.075</b>	<b>1.042</b>	<b>1.034</b>	<b>1.048</b>	<b>1.055</b>	<b>1.058</b>	<b>1.053</b>	<b>1.071</b>	<b>1.066</b>	<b>1.072</b>	<b>1.058</b>	<b>1.048</b>	<b>1.046</b>	<b>1.049</b>	
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		
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		
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		
<b>39/36</b>	<b>1.029</b>	<b>1.032</b>	<b>1.034</b>	<b>1.037</b>	<b>1.018</b>	<b>1.012</b>	<b>1.028</b>	<b>1.025</b>	<b>1.027</b>	<b>1.029</b>	<b>1.033</b>	<b>1.031</b>	<b>1.040</b>	<b>1.039</b>	<b>1.027</b>	<b>1.021</b>	<b>1.024</b>		
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			
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			
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			
<b>51/48</b>	<b>1.019</b>	<b>1.020</b>	<b>1.024</b>	<b>1.014</b>	<b>1.009</b>	<b>1.013</b>	<b>1.018</b>	<b>1.015</b>	<b>1.020</b>	<b>1.021</b>	<b>1.021</b>	<b>1.026</b>	<b>1.024</b>	<b>1.019</b>	<b>1.014</b>	<b>1.013</b>			
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				
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				
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				
<b>63/60</b>	<b>1.014</b>	<b>1.020</b>	<b>1.013</b>	<b>1.012</b>	<b>1.008</b>	<b>1.016</b>	<b>1.015</b>	<b>1.021</b>	<b>1.015</b>	<b>1.018</b>	<b>1.016</b>	<b>1.020</b>	<b>1.015</b>	<b>1.010</b>	<b>1.010</b>				
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	1.009					
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					
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					
<b>75/72</b>	<b>1.015</b>	<b>1.008</b>	<b>1.006</b>	<b>1.008</b>	<b>1.010</b>	<b>1.009</b>	<b>1.012</b>	<b>1.012</b>	<b>1.011</b>	<b>1.018</b>	<b>1.013</b>	<b>1.008</b>	<b>1.006</b>	<b>1.002</b>					
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						
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						
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						
<b>87/84</b>	<b>1.005</b>	<b>1.008</b>	<b>1.008</b>	<b>1.010</b>	<b>1.009</b>	<b>1.010</b>	<b>1.012</b>	<b>1.014</b>	<b>1.012</b>	<b>1.008</b>	<b>1.007</b>	<b>1.004</b>	<b>1.003</b>						
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							
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							
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							

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 March 31, 2017

Age in Months	Accident Year																		
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
6/3									4.376	4.495	4.553	4.807	4.911	4.722	4.854	5.099	5.076	5.056	5.087
9/6									2.259	2.375	2.377	2.398	2.452	2.432	2.484	2.462	2.462	2.484	2.456
12/9									1.812	1.834	1.810	1.825	1.861	1.869	1.877	1.866	1.879	1.910	1.882
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	1.570
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	
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	
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	
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	1.177	
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		
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		
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		
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			
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			
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			
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				
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				
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				
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					
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					
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	1.018					
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						
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						
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						
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							
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							
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							

Source: WCIRB accident year experience calls

Quarterly Paid Medical Loss Development Factors \*  
Through March 31, 2017

Age in Months	Accident Year															2012	2013	2014	2015	2016
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011						
6/3									5.308	5.615	6.579	6.101	6.048	5.854	5.989	6.284	5.604	5.720	5.897	
9/6									2.348	2.381	2.348	2.375	2.361	2.327	2.398	2.498	2.428	2.287	2.326	
12/9									1.716	1.765	1.731	1.723	1.756	1.746	1.763	1.736	1.750	1.705	1.752	
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		
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		
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		
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			
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			
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			
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				
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				
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				
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					
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					
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					
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	1.026	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	1.027						
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						
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						
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							
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							
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							
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	1.012							
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								
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								
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								

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 Year	Development															
	3-15	15-27	27-39	39-51	51-63	63-75	75-87	87-99	99-111	111-123	123-135	135-147	147-159	159-171	171-183	183-195
1992																1.001
1993															1.000	1.000
1994														1.000	1.000	1.000
1995													1.000	1.000	1.001	1.001
1996												1.001	1.001	1.000	1.000	1.000
1997											1.000	1.000	1.000	1.000	1.000	1.000
1998										1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999									1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000								1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000
2001							0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002						1.000	1.000	0.999	1.000	0.999	1.000	1.000	1.000	1.000	1.000	
2003					1.000	0.998	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000		
2004				1.000	0.999	0.999	0.999	0.999	1.000	0.999	1.000	1.000	1.000			
2005			1.004	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2006		1.024	1.006	1.004	1.001	1.000	1.001	1.000	1.000	1.000	1.000					
2007	6.499	1.038	1.012	1.005	1.003	1.002	1.000	1.000	1.001	1.000						
2008	6.131	1.060	1.017	1.009	1.004	1.003	1.001	1.001	1.002							
2009	6.979	1.080	1.023	1.008	1.005	1.003	1.002	1.002								
2010	7.360	1.090	1.022	1.010	1.005	1.003	1.000									
2011	7.511	1.100	1.026	1.010	1.006	1.003										
2012	7.669	1.118	1.025	1.011	1.006											
2013	8.112	1.100	1.025	1.010												
2014	7.824	1.108	1.023													
2015	8.033	1.107														
2016	7.736															

Latest Year																
<u>Age-to-Age</u>																
7.736	1.107	1.023	1.010	1.006	1.003	1.000	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<u>Age-to-Ultimate</u>																
8.987	1.162	1.049	1.025	1.015	1.009	1.006	1.006	1.004	1.002	1.001	1.002	1.002	1.002	1.002	1.002	1.002

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 75% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

Quarterly Reported Indemnity Claim Count Development Factors

Accident Year	Development														
	<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	2.539	1.649	1.338	1.094	1.025	1.015	1.010	1.009	1.007	1.004	1.003	1.003	1.002	1.003	1.002
2009	2.668	1.680	1.381	1.109	1.036	1.021	1.012	1.009	1.007	1.007	1.004	1.004	1.003	1.003	1.002
2010	2.667	1.711	1.402	1.126	1.039	1.023	1.016	1.012	1.008	1.006	1.005	1.004	1.004	1.003	1.001
2011	2.666	1.729	1.416	1.129	1.042	1.028	1.019	1.010	1.011	1.006	1.004	1.005	1.003	1.003	1.002
2012	2.710	1.744	1.419	1.125	1.053	1.029	1.019	1.014	1.009	1.007	1.004	1.005	1.004	1.003	1.003
2013	2.819	1.744	1.425	1.138	1.044	1.028	1.016	1.011	1.010	1.006	1.005	1.004	1.003	1.002	1.002
2014	2.754	1.732	1.429	1.136	1.048	1.026	1.018	1.013	1.010	1.005	1.004	1.004			
2015	2.829	1.740	1.419	1.140	1.048	1.026	1.017	1.014							
2016	2.757	1.705	1.421	1.148											

Reported Indemnity Claim Settlement Ratios

Accident Year	Evaluated as of (in months):																
	3	15	27	39	51	63	75	87	99	111	123	135	147	159	171	183	195
1992																	99.1%
1993																98.8%	98.9%
1994															98.4%	98.6%	98.8%
1995														97.8%	98.2%	98.4%	98.5%
1996													97.3%	97.7%	98.0%	98.2%	98.4%
1997												96.7%	97.2%	97.6%	97.8%	98.1%	98.2%
1998											95.5%	96.3%	96.8%	97.2%	97.5%	97.8%	98.1%
1999										94.3%	95.3%	96.0%	96.5%	97.0%	97.3%	97.7%	97.9%
2000									92.1%	93.6%	94.8%	95.5%	96.2%	96.6%	97.2%	97.6%	97.8%
2001								88.4%	90.8%	92.5%	93.7%	94.6%	95.4%	96.1%	96.6%	97.0%	97.4%
2002							85.3%	88.7%	91.1%	92.6%	94.0%	94.9%	95.9%	96.5%	97.0%	97.4%	
2003					80.4%	85.5%	88.7%	90.8%	92.6%	94.0%	95.3%	95.9%	96.5%	97.1%			
2004				74.5%	81.5%	85.6%	88.5%	90.7%	92.5%	94.3%	95.4%	96.1%	96.8%				
2005				66.3%	76.4%	82.1%	86.1%	89.0%	91.2%	93.3%	94.7%	95.7%	96.5%				
2006			54.0%	67.6%	76.4%	82.4%	86.2%	89.1%	91.8%	93.5%	94.7%	95.8%					
2007		35.0%	53.1%	66.3%	75.4%	81.2%	85.5%	89.4%	91.8%	93.6%	95.0%						
2008	5.7%	34.7%	51.5%	64.6%	73.9%	80.6%	85.9%	89.5%	92.1%	94.0%							
2009	5.8%	33.4%	49.7%	62.9%	72.9%	80.5%	85.7%	89.6%	92.2%								
2010	5.7%	33.7%	50.3%	63.7%	74.8%	82.0%	87.2%	90.8%									
2011	7.2%	34.1%	50.8%	65.3%	76.0%	83.3%	88.2%										
2012	7.2%	34.1%	51.8%	66.7%	77.4%	84.5%											
2013	8.6%	33.4%	52.9%	68.1%	79.1%												
2014	6.6%	33.9%	54.0%	69.5%													
2015	7.5%	34.6%	55.8%														
2016	7.3%	36.6%															
2017	7.4%																

Notes All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 75% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

Estimated Ultimate Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	3	15	27	39	51	63	75	87	99	111	123	135	147	159	171	183	195
1992																	99.0%
1993																98.6%	98.8%
1994															98.1%	98.4%	98.6%
1995														97.4%	97.8%	98.1%	98.3%
1996													97.0%	97.5%	97.8%	98.0%	98.3%
1997												96.4%	96.9%	97.3%	97.6%	97.8%	98.1%
1998											95.3%	96.0%	96.6%	97.0%	97.3%	97.6%	97.9%
1999										94.1%	95.1%	95.8%	96.3%	96.8%	97.1%	97.6%	97.8%
2000									92.0%	93.4%	94.5%	95.3%	95.9%	96.4%	97.0%	97.4%	97.6%
2001								88.4%	90.7%	92.4%	93.5%	94.5%	95.2%	96.0%	96.5%	96.9%	97.3%
2002							85.4%	88.8%	91.1%	92.6%	93.8%	94.8%	95.8%	96.4%	96.9%	97.3%	
2003						80.8%	85.7%	88.9%	90.9%	92.5%	93.9%	95.1%	95.8%	96.4%	96.9%		
2004					74.8%	81.7%	85.7%	88.6%	90.7%	92.5%	94.2%	95.2%	96.0%	96.7%			
2005				66.1%	76.2%	82.0%	85.9%	88.8%	91.0%	93.2%	94.5%	95.5%	96.3%				
2006			53.3%	67.1%	76.0%	82.1%	85.9%	88.9%	91.6%	93.3%	94.6%	95.7%					
2007		32.9%	51.8%	65.4%	74.8%	80.8%	85.2%	89.1%	91.5%	93.4%	94.9%						
2008	0.8%	31.5%	49.5%	63.2%	73.0%	79.9%	85.4%	89.1%	91.8%	93.8%							
2009	0.7%	29.5%	47.5%	61.5%	71.8%	79.8%	85.1%	89.2%	92.0%								
2010	0.7%	29.7%	48.2%	62.3%	73.9%	81.5%	86.9%	90.4%									
2011	0.8%	29.5%	48.3%	63.7%	74.9%	82.6%	87.7%										
2012	0.8%	29.0%	49.3%	65.1%	76.3%	83.8%											
2013	0.9%	28.9%	50.4%	66.5%	78.0%												
2014	0.7%	29.1%	51.5%	67.8%													
2015	0.8%	29.7%	53.1%														
2016	0.8%	31.4%															
2017	0.8%																

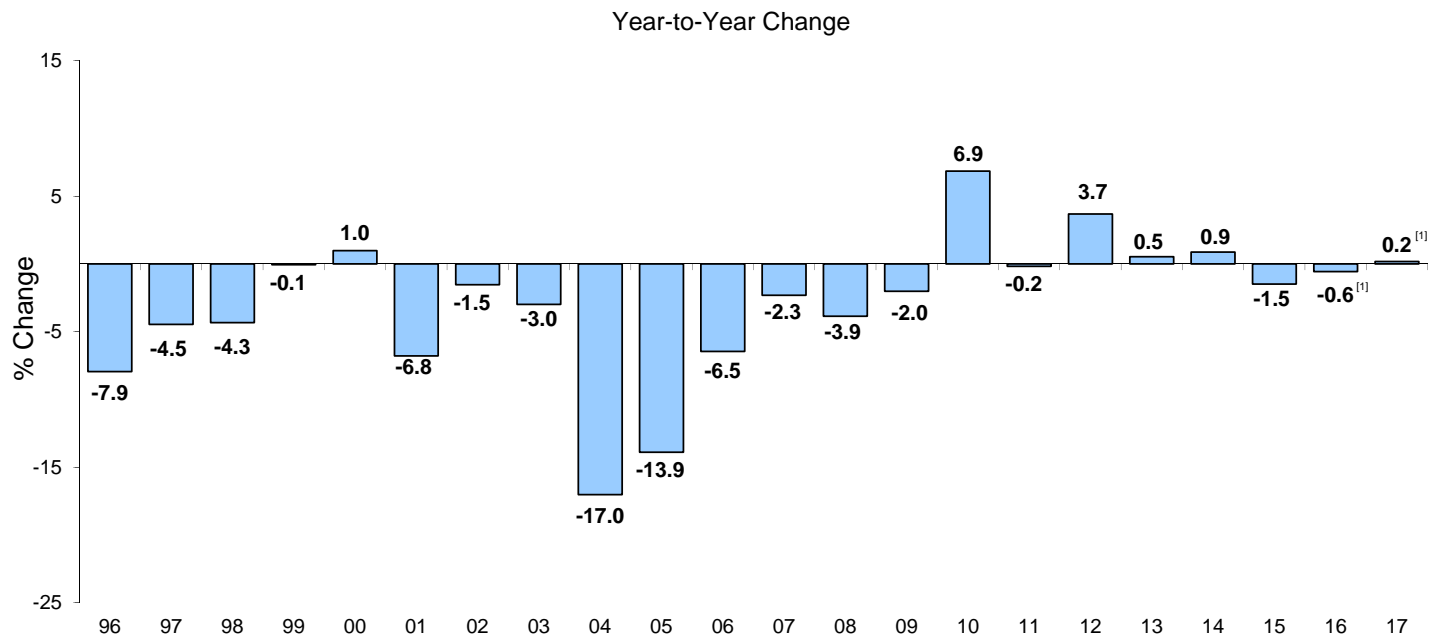
Notes All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 75% to 100% of the total California workers' compensation insured market measured using 2016 earned premium levels).

Quarterly Ultimate Settlement Ratios

Accident	Evaluated as of (in months):															
<u>Year</u>	<u>3</u>	<u>6</u>	<u>9</u>	<u>12</u>	<u>15</u>	<u>18</u>	<u>21</u>	<u>24</u>	<u>27</u>	<u>30</u>	<u>33</u>	<u>36</u>	<u>39</u>	<u>42</u>	<u>45</u>	<u>48</u>
2008	0.8%	5.5%	13.3%	23.0%	31.5%	37.6%	42.0%	45.9%	49.5%	53.2%	56.7%	60.2%	63.2%	65.9%	68.5%	70.9%
2009	0.7%	4.8%	12.3%	21.4%	29.6%	35.6%	39.9%	43.9%	47.5%	51.2%	54.9%	58.4%	61.4%	64.5%	67.0%	69.5%
2010	0.7%	4.8%	11.9%	21.0%	29.6%	35.5%	39.9%	44.2%	48.0%	51.9%	55.5%	59.0%	62.1%	65.4%	68.4%	71.2%
2011	0.8%	5.2%	12.0%	21.1%	29.5%	35.4%	40.0%	44.3%	48.2%	52.4%	56.3%	60.1%	63.4%	66.5%	69.5%	72.2%
2012	0.8%	4.9%	11.9%	20.8%	28.9%	35.4%	40.3%	45.0%	49.2%	53.4%	57.7%	61.5%	64.9%	68.1%	71.0%	73.8%
2013	0.9%	5.0%	11.5%	20.4%	28.9%	35.3%	40.7%	45.6%	50.2%	54.7%	58.7%	62.7%	66.3%	69.6%	72.6%	75.3%
2014	0.7%	4.6%	11.5%	20.4%	29.2%	35.9%	41.7%	46.7%	51.5%	56.0%	60.3%	64.2%	67.7%			
2015	0.8%	4.7%	11.8%	20.6%	29.7%	37.0%	42.7%	47.9%	53.1%							
2016	0.8%	5.0%	12.1%	21.6%	31.4%											
2017	0.8%															

Accident	Quarterly Incremental Change														
Year	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2008	4.6%	7.8%	9.7%	8.5%	6.2%	4.4%	3.9%	3.6%	3.7%	3.5%	3.5%	2.9%	2.8%	2.6%	2.4%
2009	4.1%	7.5%	9.1%	8.2%	6.0%	4.3%	4.0%	3.6%	3.7%	3.7%	3.5%	3.0%	3.0%	2.5%	2.5%
2010	4.1%	7.1%	9.1%	8.6%	5.9%	4.3%	4.3%	3.9%	3.9%	3.6%	3.4%	3.1%	3.3%	3.0%	2.8%
2011	4.3%	6.8%	9.2%	8.3%	6.0%	4.5%	4.3%	3.9%	4.2%	3.9%	3.9%	3.3%	3.0%	3.0%	2.7%
2012	4.1%	7.0%	8.9%	8.1%	6.5%	4.9%	4.8%	4.2%	4.2%	4.2%	3.8%	3.4%	3.2%	2.9%	2.8%
2013	4.0%	6.5%	8.9%	8.5%	6.4%	5.4%	4.9%	4.6%	4.5%	4.1%	4.0%	3.6%	3.3%	3.0%	2.7%
2014	3.9%	6.8%	8.9%	8.8%	6.8%	5.7%	5.1%	4.7%	4.5%	4.3%	3.9%	3.5%			
2015	3.8%	7.1%	8.9%	9.1%	7.3%	5.7%	5.2%	5.2%							
2016	4.2%	7.1%	9.5%	9.8%											

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



<sup>[1]</sup> The 2014-2015 estimate is based on partial year unit statistical data. The 2015-2016 and 2016-2017 estimates are based on comparison of claim counts based on WCIRB accident year experience as of March 31, 2017 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.



Item AC17-06-02  
1/1/2018 Regulatory Filing – Experience Rating Plan Values

An analysis of the indicated policy year 2018 experience rating off-balance factor and the factors used to generate proposed policy year 2018 expected loss rates will be presented at the meeting.