

Actuarial Committee

Meeting Agenda

Date	Time	Location	Staff Contact
March 18, 2019	9:30 AM	WCIRB California 1221 Broadway, Suite 900 Oakland, CA	David M. Bellusci
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Released: March 11, 2019

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

I. Approval of Minutes

Meeting held on December 5, 2018

II. Working Group Meeting Summaries

Medical Analytics Working Group Meeting held on February 13, 2019

III. Unfinished Business

A. AC17-12-02: Legislative Cost Monitoring

B. AC18-03-03: Impact of SB 1160 & AB 1244 on Loss Development

IV. New Business

A. AC19-03-01: First Quarter 2019 Review of Diagnostics

B. AC19-03-02: 12/31/2018 Experience – Review of Methodologies

C. AC19-03-03: Impact of Wage Inflation on Indemnity Benefits

V. Matters Arising at Time of Meeting

VI. Next Meeting Date: April 2, 2019

VII. Adjournment

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Medical Analytics Working Group

Meeting Summary

To: Participants of the Medical Analytics Working Group
Date: March 8, 2019

RE: Summary of February 13, 2019 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. Methodology for Developing Diagnostic Groups

Staff presented an updated diagnostic grouping methodology that incorporates the Working Group's suggestions at the August 14, 2018 meeting, and shared summary distributions of claims by accident year and the suggested diagnostic groups. The analysis used the International Classification of Diseases (ICD) information reported in the WCIRB's medical transaction data within 90 days from the first medical service. Staff noted that a total of 30 diagnostic groups were developed to represent the early diagnosis of each claim, and the distribution of claims by diagnostic group did not change significantly over time. Staff also noted that cumulative trauma claims (identified using Nature of Injury and Type of Loss information in the Unit Statistical Report data) are more likely to have soft tissue disorders, carpal tunnel syndrome, mental and behavioral disorders, unspecified injuries, and multiple injuries (specifically, dislocation and sprains and carpal tunnel syndrome).

The Working Group accepted the methodology and provided some suggestions for future enhancements, including examining some pharmaceutical transactions for patterns of specific ICD information (i.e., unspecified injuries) and examining the crosswalk of ICD-9 to ICD-10 to see if the mapping potentially contributed to the slight increase of unspecified injuries after 2015. Staff agreed to consider the suggestions in future enhancements of the diagnostic groups.

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2. Analysis of High-risk Opioid Use and Potential Alternative Measures

Staff presented an update on the WCIRB's second opioid analysis that focuses on high-risk opioid use and potential alternative measures being used in lieu of heavy use of opioids. Staff noted that about 2.5% of all claims that had any opioid prescription and had accidents in 2013 involved high-risk opioid use, as compared to 1.4% of claims that had accidents in 2016. The Working Group was advised that three early indicators of high-risk opioid use were found, including obtaining similar opioids from multiple prescribers, being prescribed long-acting/extended-release opioids, and using opioids and benzodiazepines concurrently. The Working Group suggested replacing "prescribers" with "non-pharmacy dispensers" as the more appropriate term to interpret the analysis results, and examining if patterns of obtaining similar opioids from multiple pharmacies differ between claims involving high-risk opioid use and those involving lower-dose opioid use. One Working Group member suggested analyzing if the number of distinct opioid prescriptions differs between high-risk opioid use claims and lower-dose claims.

For alternative measures, Staff presented analysis results involving both physician services (non-drug alternatives) and drug alternatives. Staff noted that physical therapy, acupuncture and chiropractic services, as well as NSAIDs and non-narcotics analgesics were found to be used significantly more in lower-dose opioid use claims than high-risk use claims. One Working Group member suggested analyzing if major surgeries affect the patterns of the identified physical medicine treatments for claims involving high-risk opioid use. Staff agreed to incorporate the Working Group's feedback in the final analysis. The Working Group was informed that additional comparative analysis on the long-term costs between high-risk and lower-dose claims will be included in the final study report, which is anticipated to be published in April 2019.

3. Medical Severity Trends by Component

Staff presented an updated analysis on the medical severity trends by medical component using medical transaction information through June 30, 2018 (service year (SY) 2018). The Working Group was advised that the share of total medical payments for pharmaceuticals decreased by about 75% from the second half of SY2012 to the first half of SY2018, while that of all other service categories increased by 2-3%. Staff noted that the sharp decline in the pharmaceutical payment share was driven by a number of factors including (1) legislative and policy changes intended to monitor and regulate prescription drug utilization such as independent medical review and the drug formulary, (2) reduced overall prescribing and opioid prescribing in particular, (3) public awareness of the adverse effects of opioids, (4) reduced fee schedules for generic drugs (also known as the "Average Federal Upper Limit") implemented in 2016, and (5) indictments of providers for fraud.

Staff noted that the total medical payments per claim started to stabilize after 2016, yet because of the continuous reduction in utilization in the earlier years, on a cumulative basis the paid per claim declined by 18% between SY2012 and SY2018. The cumulative reduction was largely attributable to the impact of Senate Bill No. 863, subsequent legislation and anti-fraud efforts. With respect to physician services, staff noted an uptick (5%) in the transactions per claim in SY2018, which drove the medical cost per claim in physician services up by 5% in SY2018 as compared to SY2017. The increase in the utilization of physician services was likely due to the completed transition to the Resource-Based Relative Value Scale (RBRVS) for physician services, some impact from the Senate Bill No. 1160 provisions related to utilization review, and potential additional physician services resulting from the continued decline in opioid prescriptions. Staff also summarized the utilization and medical payments for physical therapy, one service type

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within physician services that experienced increased utilization in SY2018. After decreasing for several years, the number of physical therapy transactions per claim went up (by 9%) in SY2018. Together with continued increases in the paid per transaction for physical therapy in SY2018, increases in the transactions per claim drove up the paid per claim by 20%.

Staff summarized the percentage changes in inpatient costs at both the transaction and episode levels. Staff noted a continued reduction in transactions per claim from SY2015 to SY2018, while the paid per transaction increased. This was likely in part attributable to a shift of minor inpatient procedures to outpatient settings, leaving more intensive (and more expensive) care to dominate the remaining inpatient procedures. When summarizing the inpatient costs based on episodes, staff noted that the paid per episode increased by 5% in SY2018 while the number of transactions per claim continued to drop, indicating an increase in the intensity of inpatient care and a decrease in the number of hospitalizations. For medical-legal (ML) evaluations, the paid per claim decreased by 7% in SY2018, driven by reductions in both the paid per transaction and the transactions per claim. This resulted from the changing mix of ML services (a decline in the most complex and expensive services (ML104) and an increase in the most basic ML services (ML102)), as well as an overall reduction in the volume of ML services.

Staff summarized the cumulative share changes in a number of physician service categories from the second half of 2012, and noted a sharp increase in paid per transaction for Evaluation & Management, Physical Therapy and Other Medicine, and a large drop in payments per transaction for major Surgery, Radiology and Anesthesia services. It was noted that these changes were as expected with the completion of the four-year transition to RBRVS in 2017.

4. Legislative Cost Monitoring

a. SB 1160 Provisions Related to Utilization Review

Staff summarized information based on the first six months of the SB 1160 provisions related to utilization review (UR), which became effective on injuries occurring January 1, 2018 and later. Staff noted the following:

- Of all medical service categories, only physician services experienced increases in utilization (by 6%) within the first 30 days of treatment in 2018 as compared to 2017. The number of physician service transactions per claim within the first 30 days increased from 7.1 in 2017 to 7.5 in 2018. On the other hand, utilization of all other medical services decreased in 2018. The use of pharmaceuticals in the first 30 days of treatment, in particular, dropped sharply by 27%.
- Within physician services, utilization of physical therapy within the first 30 days increased by 16.6% in 2018. The number of physical therapies per claim increased from 2.2 in 2017 to 2.6 in 2018. In addition, the median time to receive a physical therapy was shortened by 1 day in 2018, indicating somewhat earlier utilization of physical therapy. While there were limited chiropractic services provided in the first 30 days, the utilization of these services also increased in 2018.
- The average Medical Cost Containment Program cost per claim (used as a proxy for UR costs) at 9 months was flat in 2018.

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Given that only 6 months of medical data was available to evaluate the impact of SB 1160 provisions related to utilization review, staff noted that the results were preliminary. Staff advised the Working Group that it plans to update the evaluation of SB 1160 in 2019 once a full year of post-SB 1160 data becomes available. One Working Group member suggested examining the specific treatments and modalities of physical therapy that experienced increased utilization in 2018.

b. AB 1124 MTUS Drug Formulary

Staff summarized information based on the first six months of the new drug formulary, which became effective January 1, 2018. Staff noted the following:

- Overall, there were early indications of increased prescriptions of drugs not subject to prospective UR in the formulary and reductions in the prescriptions of drugs subject to UR. Specifically, transactions of drugs not subject to UR increased by 8% in 2018 as compared to 2016 and 2017, while transactions of drugs subject to UR decreased by 5%. The increases in the use of drugs not subject to UR did not proportionally increase the drug costs, primarily because the exempt drugs are cheaper than non-exempt and non-listed drugs.
- The analysis also examined the prescribing patterns in the four pharmaceutical components most likely to be impacted by the drug formulary, namely, opioids, compounded drugs, physician-dispensed drugs and brand name drugs with generic alternatives. The analysis found that the shares of all drug payments to opioids (15.2%) and compounds (1.9%) continued to drop in the first quarter of 2018 compared to prior years. The share of payments to physician-dispensed drugs (that are subject to UR) went down significantly from around 25% in 2017 to 17% in the first quarter of 2018. Lastly, the share of the payments to brand name drugs with generic alternatives dropped sharply from 13% in earlier 2017 to 9% in the fourth quarter of 2017 and continued to decrease to 8% in 2018.

Given that only 6 months of medical data was available to evaluate the impact of the drug formulary, staff noted that the results were preliminary. The Working Group was advised that staff will update the evaluation of the drug formulary in 2019 once a full year of data becomes available.

5. 2019 WCIRB Medical Analytics Research Agenda

Staff discussed the additional Medical Analytics research projects contemplated for 2019, including an in-depth analysis on the costs and treatment patterns of physical medicine, a research collaboration with UC Berkeley to analyze provider behaviors, a follow-up analysis on the impact of medical providers indicted for fraud incorporating a comparison of treatment patterns before and after these providers were indicted, by region, and if the patterns differ between treating cumulative trauma (CT) and non-CT claims. In addition, staff will update the evaluation of the drug formulary and SB 1160 UR provisions in 2019 once a full year of data becomes available, and analyze the cost impact of the Geographic Practice Cost Index (GPCI). Lastly, staff will explore the application of machine learning to existing WCIRB data sets as well as new data sets to model medical inflation, one of the most challenging aspects of a pure premium rate filing.

Item AC17-12-02 Legislative Cost Monitoring

At the December 5, 2018 meeting, the Committee reviewed updated cost monitoring information related to the reforms of Senate Bill No. 863 (SB 863) effective in 2013 and 2014. At the meeting, it was observed that while the specific provisions related to weekly permanent disability (PD) benefit minimums and maximums and changes to PD rating computations appear to have emerged as expected, overall indemnity cost levels in 2013 and 2014 have been flat to declining. The Committee noted that recent increases in PD claim settlement rates, which were significantly impacted by the SB 863 reforms including independent medical review, may have dampened PD claim development, temporary disability duration, and average PD benefits. The Committee advised that while no further adjustments to the on-level factors for specific components of SB 863 may be appropriate, the overall impact of SB 863 on indemnity cost levels should be reviewed.

Staff reviewed the impact of SB 863 on indemnity cost levels using a similar approach to that used to analyze the impact of SB 863 on the overall utilization of medical services.¹ The approach applied to indemnity severities is shown in Table 1. Columns 1 and 2 of Table 1 show the most recent estimates of specific SB 863 provisions related to indemnity benefits and other on-level adjustments to indemnity, respectively. While higher on-level severity trend projections were reflected prior to the enactment of SB 863, no (i.e., a 0%) residual indemnity severity trend was applied given that recent on-level indemnity severities have been flat and indemnity severity trend projections reflected in recent pure premium rate filings have been at 0% or a very modest change. The combined impact of columns 1 and 2 are then compared to the estimated ultimate indemnity severity changes from 2012 to 2013 and 2013 to 2014 as of September 30, 2018. The difference between the projected indemnity severity change after reflecting the measurable provisions of SB 863 and other on-leveling impacts and actual indemnity severity change is approximately -10%. Staff believes this is a reasonable approximation of the various provisions of SB 863 dampening indemnity benefit levels and recommends reflecting it in the indemnity on-leveling adjustments for 2013 and 2014.

Accident Year	SB 863 Projected Change ² (1)	On-Level Adjustments Not Related to SB 863 ³ (2)	Projected Combined Growth ⁴ (3)	Actual Change as of 9/30/2018 ⁵ (4)	Difference ⁶ (5)
2013	+1.9%	+1.1%	+3.0%	-2.0%	-4.8%
2014	+6.9%	+1.8%	+8.8%	+3.2%	-5.2%
Total	+9.0%	+2.9%	+12.1%	+1.1%	-9.8%

In order to distribute the impact of the overall -10% adjustment to accident years 2013 and 2014, staff reviewed the proportion of PD claims in 2013 and 2014 and found them to be similar for both years. Given that the indicated difference is similar for both years in Table 1 above and that the distribution of PD claims is relatively consistent, staff recommends distributing the -10% evenly across 2013 and 2014 (-5% per year) in the on-level indemnity benefit adjustment computation.

¹ See *Senate Bill No. 863 WCIRB Cost Monitoring Report – 2016 Retrospective Evaluation*, WCIRB, November 17, 2016.

² Based on the WCIRB's most recent retrospective evaluation of SB 863 and as reflected in column 1 of Exhibit 4.1 of the January 1, 2019 Pure Premium Rate Filing.

³ The impact of wage inflation and statutorily mandated cost of living adjustments on indemnity benefit levels.

⁴ Column (3) = [1 + Column (1)] x [1 + Column (2)] – 1.

⁵ See column 2 of Exhibit 6.2 from Item AC18-12-01 from the December 5, 2018 meeting.

⁶ Column (5) = [1 + Column (4)] / [1 + Column (3)] – 1.

Item AC18-03-03

Impact of SB 1160 & AB 1244 on Loss Development

At the March 19, 2018 meeting, staff conducted a study of the impact of Senate Bill No. 1160 (SB 1160) and Assembly Bill No. 1244 (AB 1244) reforms related to lien filings on loss development patterns. Adjustments for the impact of SB 1160 and AB 1244 on age-to-age and cumulative paid medical development were reflected in the July 1, 2018 and January 1, 2019 Pure Premium Rate Filings. The adjustments primarily assume a 40% reduction in lien filings resulting from SB 1160 and AB 1244 which result in a 2.4% decrease in overall medical costs.¹ At the December 5, 2018 meeting, it was noted that there has been a further decline in lien filings in 2018. An update on the diagnostic information on the recent lien filings and review of the impact of further reduction in lien filings on the loss development projection are summarized below.

Review of Recent Lien Filings and Impact on Cumulative Loss Development Projections

Lien filings through 2018 are available from the Division of Workers' Compensation (DWC). The current assumption of a 40% reduction in lien filings was based on the average quarterly lien filings through the first three quarters of 2017 compared to the third quarter of 2016.² Exhibit M9.2 of Item AC19-03-01 shows lien filings by quarter. As discussed at prior meetings, lien counts continued to decline in 2018 and are approximately 55% below the pre-SB 1160 and AB 1244 level for the full 2018 calendar year. The average number of liens filed in the last two quarters of 2018 are the lowest in many years and are 60% lower than the pre-SB 1160 and AB 1244 level. Lien filing counts for these two quarters are fairly consistent, indicating that the number of lien filings may be stabilizing.

Exhibit 1.1 shows a significant decline in the number of providers filing liens in 2017, which continued to decrease modestly in 2018. The concentration of lien filings within the top 5% of providers continues to be low in 2018 compared to the pre-SB 1160 and AB 1124 period. Exhibit 1.2 shows that average lien payments based on WCIRB medical transaction data continue to increase moderately through 2018 but are not significantly different from the pre-reform level.

The current adjustment to cumulative paid medical loss development projections is based on a 40% reduction in lien filings. As lower levels of lien filings continue to emerge, staff analyzed alternative lien filing reduction assumptions and their impact on paid medical development. Exhibit 2 shows the impact of alternative assumptions of a 50% reduction (as reflected in the CDI Decision on the January 1, 2019 Pure Premium Rate Filing) and a 60% reduction (based on the most recent two quarters of lien filings) using the method presented at the March 19, 2018 meeting. Given the continued decline in lien filings, which have somewhat stabilized in the last two quarters of 2018 at a 60% reduction from the pre-reform level, staff recommends updating the adjustment to cumulative paid medical loss development based on a 60% reduction in lien filings.

Review of Liens Dismissed by the DWC

SB 1160 also provides that all outstanding liens must have a declaration under penalty of perjury filed by July 1, 2017 or be dismissed by operation of law. In August of 2017, the DWC advised that approximately 292,000 liens had been dismissed and posted the list of dismissed liens on their website. The Committee reviewed information related to the potential impact of these lien dismissals on paid medical loss development at the December 6, 2017 and March 19, 2018 meetings. At the March 19, 2018 meeting, the Committee adopted an adjustment to age-to-age paid medical loss development to reflect the impact of

¹ In the California Department of Insurance (CDI) Decision on the January 1, 2019 Pure Premium Rate Filing, the CDI reflected a 50% reduction in lien filings in the loss development adjustments primarily based on information that became available after the time of the WCIRB's filing.

² The third quarter of 2016 is assumed to be the "pre-SB 1160 and AB 1244 level" since prior quarters were impacted by lien reforms of Senate Bill No. 863 and the fourth quarter of 2016 was impacted by the transition to the SB 1160 and AB 1244 reforms.

the DWC dismissed liens. The adjustment was based on a review of the proportion of lien payments in incremental paid medical losses at each maturity based on WCIRB medical transaction data and the DWC dismissed liens' estimated proportion of all outstanding liens based on the lien demand amounts filed with the DWC.

Additional information has been obtained from the DWC on these dismissed liens that has allowed staff to better link the liens to unit statistical report claims and medical transaction data. Approximately 60% of the dismissed liens were matched to the insured system, and approximately 68,000 of these (40% of all dismissed liens) were linked to a unique unit statistical claim as well as WCIRB medical transaction data. Staff is more confident in these linking results compared to the prior analysis, where less than 5% of the dismissed liens were previously linked based on a number of text analytics approaches.

Exhibit 3.1 shows the proportions and average incurred and paid of indemnity claims by claim type (cumulative trauma (CT) claims and non-CT claims). The CT claim percentage of the claims with dismissed liens are significantly higher than that for all indemnity claims, particularly for the most recent four policy years. Staff notes that the CT claim percentage for claims with dismissed liens were significantly higher than for all indemnity claims for recent policy years even at early maturities, where CT claim proportions are typically lower. The average incurred and paid of CT and non-CT claims on the claims with dismissed liens are also significantly higher than those for all indemnity claims. The average incurred and paid for non-CT claims are generally higher than that for CT claims on the claims with dismissed liens. Conversely, average severities on all indemnity claims are typically lower for non-CT claims at later maturities. This may suggest that relatively smaller CT claims may have been held open for pending lien payments in more mature accident years. As shown in Exhibit C2.2 of Item AC19-03-01, CT claim settlement rates have increased significantly over the most recent two years.

Exhibit 3.2 shows the distributions and average incurred and paid of indemnity claims by injury type. A large proportion of the indemnity claims with dismissed liens are permanent disability (PD) claims whereas the proportions of PD claims and temporary disability claims are about even for all indemnity claims. The average incurred and paid of PD claims with dismissed liens are higher than those for all PD claims for the older policy years but the opposite is true for the more recent policy years.

Exhibit 3.3 shows the distribution of payments, payments per claim, and payments per transaction by procedure type and service year based on WCIRB medical transaction data for the claims with dismissed liens and all claims. The proportion of medical payments for claims with dismissed liens in medical liens and medical-legal are higher than for all indemnity claims while the proportions for physician services are much lower. The payments per transaction for claims with dismissed liens are higher than that for all claims among all procedure types. The payments on medical liens per claim for claims with lien dismissals are significantly higher compared to the payment on medical liens per all claim which indicates that the number of transactions per claims with lien dismissals are significantly higher. Conversely, the payments per claim for physician services for all indemnity claims is higher for the more recent service years which is consistent with to the lower share of physician services for claims with dismissed liens.

Although the liens dismissed by the DWC in July of 2017 may be significantly impacting indemnity claim settlement rates, particularly for CT claims, after reviewing the additional information on the dismissed liens staff does not believe any change to the adjustment to age-to-age paid medical development is warranted at this time. Staff will continue to monitor the characteristics of the dismissed liens and other lien filings and will provide updated information to the Committee once it becomes available.

Concentration of Medical Lien Filing Counts by Provider

<u>Lien Filing Year</u>	<u>Total Number of Providers</u>	<u>Top 5% of Providers</u>
2013	5,095	71%
2014	4,675	70%
2015	4,362	75%
2016	3,114	73%
2017	1,498	61%
2018	1,236	61%

Source: DWC EAMS data.

Average Paid Medical per Lien Transaction

<u>Transaction Year and Quarter</u>	<u>Average Paid</u>	<u>Qtr-to-Qtr Change</u>	<u>Change from Same Quarter in Prior Year</u>
2014-1Q	866	---	---
2014-2Q	871	0.6%	---
2014-3Q	854	-2.0%	---
2014-4Q	863	1.1%	---
2015-1Q	890	3.1%	2.8%
2015-2Q	916	2.9%	5.2%
2015-3Q	907	-1.0%	6.2%
2015-4Q	953	5.1%	10.4%
2016-1Q	1,049	10.1%	17.9%
2016-2Q	1,050	0.1%	14.6%
2016-3Q	1,134	8.0%	25.0%
2016-4Q	1,083	-4.5%	13.6%
2017-1Q	992	-8.4%	-5.4%
2017-2Q	957	-3.5%	-8.9%
2017-3Q	991	3.6%	-12.6%
2017-4Q	1,013	2.2%	-6.5%
2018-1Q	1,016	0.3%	2.4%
2018-2Q	1,119	10.1%	16.9%
2018-3Q	1,144	2.2%	15.4%

Source: WCIRB Medical Transaction data.

Adjustment to Cumulative Medical Development Factors for SB 1160 Lien Reforms

	(1)	(2)	(3)	(4)	(5)
Age	Paid Medical Age-to-240 Factor (All MDC Service Types)	Paid Medical Age-to-240 Factor (All MDC Service Types Excl. Liens)	Adjustment to Cumulative Factor w/ 40% Lien Reduction	Adjustment to Cumulative Factor w/ 50% Lien Reduction	Adjustment to Cumulative Factor w/ 60% Lien Reduction
228-240	1.004	1.004	1.000	1.000	1.000
216-240	1.009	1.009	1.000	1.000	1.000
204-240	1.015	1.016	1.000	1.000	1.001
192-240	1.022	1.023	1.000	1.001	1.001
180-240	1.031	1.033	1.001	1.001	1.001
168-240	1.044	1.045	1.001	1.001	1.001
156-240	1.060	1.062	1.001	1.001	1.001
144-240	1.077	1.079	1.001	1.001	1.001
132-240	1.096	1.097	1.001	1.001	1.001
120-240	1.116	1.116	1.000	1.000	1.000
108-240	1.139	1.138	1.000	0.999	0.999
96-240	1.170	1.165	0.998	0.998	0.998
84-240	1.211	1.200	0.997	0.996	0.995
72-240	1.269	1.249	0.994	0.992	0.990
60-240	1.358	1.319	0.989	0.986	0.983
48-240	1.505	1.436	0.981	0.977	0.972
36-240	1.769	1.648	0.973	0.966	0.959
24-240	2.337	2.137	0.966	0.957	0.949
12-240	4.876	4.424	0.963	0.954	0.944

(1) Based on Medical Data Call data for the average of the latest three calendar years. Factors include all medical service types in MDC but

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

(3) = ((2) x 40%) + ((1) x 60%) / (1).

(4) = ((2) x 50%) + ((1) x 50%) / (1).

(5) = ((2) x 60%) + ((1) x 40%) / (1).

Source: Medical Data Call (MDC).

Claims by CT (Cumulative Trauma) and Non-CT

Indemnity Claims with Dismissed Liens

Policy Year	Report Level	Percentage Share		Average Incurred		Average Paid	
		CT	Non-CT	CT	Non-CT	CT	Non-CT
2004	10	15%	85%	191,183	299,705	142,581	206,469
2005	10	15%	85%	250,735	234,858	182,756	174,245
2006	10	15%	85%	197,227	275,794	168,338	217,741
2007	9	15%	85%	177,635	228,316	148,802	184,587
2008	8	17%	83%	134,359	197,103	107,762	166,280
2009	7	18%	82%	123,877	166,371	102,617	137,980
2010	6	19%	81%	94,571	139,480	79,119	117,331
2011	5	21%	79%	72,013	110,546	60,272	90,904
2012	4	26%	74%	58,438	83,620	46,779	68,096
2013	3	32%	68%	46,405	69,745	34,604	53,537
2014	2	36%	64%	37,753	58,528	25,874	39,009
2015	1	40%	60%	27,282	41,192	15,080	22,733

All Indemnity Claims

Policy Year	Report Level	Percentage Share		Average Incurred		Average Paid	
		CT	Non-CT	CT	Non-CT	CT	Non-CT
2004	10	8%	92%	56,454	43,892	46,529	38,935
2005	10	8%	92%	60,692	44,678	51,394	40,115
2006	10	8%	92%	63,832	49,062	55,287	44,065
2007	9	8%	92%	66,987	53,810	57,238	48,165
2008	8	9%	91%	65,407	56,196	55,087	50,230
2009	7	10%	90%	63,822	56,439	53,245	49,952
2010	6	10%	90%	59,151	52,857	48,591	46,148
2011	5	11%	89%	52,566	49,446	41,590	41,695
2012	4	11%	89%	44,311	45,651	33,423	36,744
2013	3	12%	88%	39,619	41,632	26,758	31,169
2014	2	12%	88%	33,519	38,009	18,048	24,094
2015	1	11%	89%	26,129	30,546	9,098	14,151

Comparison

Policy Year	Report Level	Difference in Percentage Share		Ratio of Average Incurred		Ratio of Average Paid	
		CT	Non-CT	CT	Non-CT	CT	Non-CT
2004	10	7%	-7%	3.39	6.83	3.06	5.30
2005	10	7%	-7%	4.13	5.26	3.56	4.34
2006	10	7%	-7%	3.09	5.62	3.04	4.94
2007	9	7%	-7%	2.65	4.24	2.60	3.83
2008	8	7%	-7%	2.05	3.51	1.96	3.31
2009	7	8%	-8%	1.94	2.95	1.93	2.76
2010	6	9%	-9%	1.60	2.64	1.63	2.54
2011	5	10%	-10%	1.37	2.24	1.45	2.18
2012	4	15%	-15%	1.32	1.83	1.40	1.85
2013	3	20%	-20%	1.17	1.68	1.29	1.72
2014	2	24%	-24%	1.13	1.54	1.43	1.62
2015	1	29%	-29%	1.04	1.35	1.66	1.61

Source: WCIRB unit statistical report

Claims by Injury Type

Indemnity Claims with Dismissed Liens

Policy Year	Report Level	Percentage Share				Average Incurred			Average Paid		
		Major	Minor	Temporary	All Others	Major	Minor	Temporary	Major	Minor	Temporary
		Permanent Partial Disability	Permanent Partial Disability			Permanent Partial Disability	Permanent Partial Disability		Permanent Partial Disability	Permanent Partial Disability	
2004	10	55%	37%	6%	2%	369,029	108,245	26,663	261,894	80,904	22,585
2005	10	49%	43%	7%	1%	351,097	101,543	40,389	254,989	83,495	29,584
2006	10	48%	44%	7%	1%	404,657	103,638	47,787	329,628	93,145	41,451
2007	9	47%	46%	7%	1%	335,175	104,533	49,867	271,189	93,256	47,136
2008	8	42%	48%	10%	1%	306,024	99,838	51,187	251,719	90,738	47,565
2009	7	36%	50%	14%	0%	265,236	100,450	47,247	214,461	90,227	43,850
2010	6	30%	52%	17%	0%	217,795	89,023	49,428	180,338	80,945	46,424
2011	5	25%	58%	18%	0%	199,519	75,534	43,232	156,383	66,861	39,534
2012	4	18%	61%	21%	0%	156,179	62,027	41,255	120,013	53,216	36,553
2013	3	14%	61%	25%	0%	146,263	53,443	36,549	101,323	41,883	30,835
2014	2	10%	60%	30%	0%	123,564	45,037	33,184	73,586	31,864	25,072
2015	1	5%	56%	39%	0%	98,924	36,732	25,750	37,969	20,854	15,557

All Indemnity Claims

Policy Year	Report Level	Percentage Share				Average Incurred			Average Paid		
		Major	Minor	Temporary	All Others	Major	Minor	Temporary	Major	Minor	Temporary
		Permanent Partial Disability	Permanent Partial Disability			Permanent Partial Disability	Permanent Partial Disability		Permanent Partial Disability	Permanent Partial Disability	
2004	10	13%	34%	52%	0%	160,553	44,022	9,257	138,137	41,179	9,015
2005	10	11%	35%	54%	0%	194,828	46,519	8,881	168,744	44,148	8,645
2006	10	11%	36%	52%	0%	204,393	49,959	9,530	179,291	47,612	9,278
2007	9	13%	36%	51%	0%	207,545	53,899	10,674	180,258	51,202	10,370
2008	8	13%	38%	49%	0%	206,002	57,378	11,814	177,374	53,853	11,338
2009	7	13%	39%	48%	0%	200,423	58,200	13,966	169,704	54,027	13,087
2010	6	11%	39%	49%	0%	184,858	57,319	15,283	153,486	52,158	14,022
2011	5	10%	39%	50%	0%	174,863	54,864	16,023	138,437	48,522	14,271
2012	4	8%	40%	52%	0%	164,741	51,800	16,912	121,975	43,638	14,531
2013	3	7%	40%	53%	0%	157,353	50,558	16,988	104,339	38,970	13,631
2014	2	5%	39%	57%	0%	158,674	47,406	17,974	86,105	30,485	12,308
2015	1	2%	33%	65%	0%	178,866	41,699	17,365	63,708	18,424	9,116

Comparison

Policy Year	Report Level	Difference in Percentage Share				Ratio of Average Incurred			Ratio of Average Paid		
		Major	Minor	Temporary	All Others	Major	Minor	Temporary	Major	Minor	Temporary
		Permanent Partial Disability	Permanent Partial Disability			Permanent Partial Disability	Permanent Partial Disability		Permanent Partial Disability	Permanent Partial Disability	
2004	10	42%	3%	-46%	1%	2.30	2.46	2.88	1.90	1.96	2.51
2005	10	38%	8%	-47%	1%	1.80	2.18	4.55	1.51	1.89	3.42
2006	10	36%	8%	-45%	1%	1.98	2.07	5.01	1.84	1.96	4.47
2007	9	34%	10%	-44%	0%	1.61	1.94	4.67	1.50	1.82	4.55
2008	8	29%	10%	-39%	0%	1.49	1.74	4.33	1.42	1.68	4.20
2009	7	23%	12%	-35%	0%	1.32	1.73	3.38	1.26	1.67	3.35
2010	6	19%	13%	-32%	0%	1.18	1.55	3.23	1.17	1.55	3.31
2011	5	14%	18%	-33%	0%	1.14	1.38	2.70	1.13	1.38	2.77
2012	4	9%	22%	-31%	0%	0.95	1.20	2.44	0.98	1.22	2.52
2013	3	7%	21%	-28%	0%	0.93	1.06	2.15	0.97	1.07	2.26
2014	2	6%	21%	-26%	0%	0.78	0.95	1.85	0.85	1.05	2.04
2015	1	3%	24%	-27%	0%	0.55	0.88	1.48	0.60	1.13	1.71

Source: WCIRB unit statistical report

Medical Transactions by Procedure Type

Claims with Dismissed Liens																			
Service Year	Percentage Share						Payment per Claim						Payment per Transaction						
	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	
2013	7.5%	9.5%	6.2%	12.1%	11.5%	36.6%	722	920	600	1,173	1,114	1,772	169	2,562	632	1,782	1,310	153	85
2014	5.4%	6.1%	5.6%	15.5%	24.2%	26.9%	445	498	458	1,273	1,981	1,103	105	2,348	697	1,925	1,337	192	82
2015	6.0%	5.1%	5.7%	19.6%	29.9%	22.6%	408	350	388	1,335	2,043	772	128	2,093	810	1,854	1,317	167	83
2016	5.0%	5.1%	6.6%	19.0%	38.3%	19.4%	298	306	391	1,135	2,289	580	130	2,411	1,011	2,008	1,505	119	85
2017	8.5%	7.6%	8.3%	17.6%	29.9%	21.4%	446	401	437	925	1,577	565	170	2,392	1,028	2,097	1,462	99	87
2018	10.6%	9.3%	6.8%	16.0%	28.0%	22.9%	544	480	350	821	1,440	587	185	2,784	938	2,231	1,787	97	88
All Claims																			
Service Year	Percentage Share						Payment per Claim						Payment per Transaction						
	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	
2013	7.6%	9.7%	7.9%	9.5%	6.0%	44.3%	312	401	328	392	246	913	136	2,186	529	1,583	958	113	71
2014	7.4%	9.4%	8.3%	11.3%	7.6%	42.4%	286	364	322	437	292	819	97	1,969	525	1,723	1,057	118	76
2015	7.9%	9.4%	10.0%	12.0%	7.1%	42.9%	283	337	360	430	256	771	103	1,946	579	1,703	1,094	110	80
2016	8.0%	9.6%	11.3%	13.0%	6.0%	44.8%	279	336	395	453	208	782	102	2,265	621	1,736	1,305	90	79
2017	8.8%	10.4%	12.2%	12.0%	4.7%	46.0%	302	359	421	414	164	794	106	2,247	696	1,532	1,470	80	79
2018	10.1%	9.4%	11.4%	15.5%	6.1%	42.1%	396	368	445	606	239	824	130	2,358	935	1,500	1,692	95	83
Comparison																			
Service Year	Difference in Percentage Share						Ratio of Payment per Claim						Ratio of Payment per Transaction						
	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	HCPCS	Hospital - Inpatient	Hospital - Outpatient	Medical Legal	Medical Lien	Physician Services	
2013	-0.1%	-0.2%	-1.7%	2.6%	5.5%	-7.7%	2.31	2.29	1.83	2.99	4.53	1.94	1.24	1.17	1.19	1.13	1.37	1.35	1.19
2014	-2.0%	-3.3%	-2.7%	4.2%	16.6%	-15.4%	1.55	1.37	1.43	2.92	6.77	1.35	1.08	1.19	1.33	1.12	1.27	1.63	1.08
2015	-1.9%	-4.2%	-4.3%	7.6%	22.8%	-20.3%	1.44	1.04	1.08	3.11	7.98	1.00	1.24	1.08	1.40	1.09	1.20	1.52	1.04
2016	-3.0%	-4.5%	-4.8%	6.1%	32.4%	-25.3%	1.07	0.91	0.99	2.51	11.00	0.74	1.28	1.06	1.63	1.16	1.15	1.33	1.08
2017	-0.3%	-2.8%	-3.9%	5.6%	25.2%	-24.5%	1.47	1.12	1.04	2.23	9.62	0.71	1.61	1.06	1.48	1.37	0.99	1.24	1.10
2018	0.5%	-0.1%	-4.6%	0.5%	21.9%	-19.2%	1.38	1.30	0.79	1.35	6.02	0.71	1.43	1.18	1.00	1.49	1.06	1.02	1.07

Source: WCIRB medical transaction data.

Item AC19-03-01

First Quarter 2019 Review of Diagnostics

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

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

Please note the following:

1. Permanent disability claims continue to close at a faster rate throughout the state. The percent of claim closures increased 16% from policy year 2010 to policy year 2015 at second report level, with the Los Angeles region increasing faster than statewide. The rate at which temporary disability claims close has also begun to increase the last several years (Exhibit M5).
2. Since Senate Bill No. 1160 became effective January 1, 2017, the number of filed liens is 60% less in the last two quarters of 2018 compared to the third quarter of 2016 with the largest reduction of liens in the Los Angeles region (Exhibit M9.2).
3. The number of independent medical review (IMR) applications eligible for review increased 8% to a historical high in 2018 while the number of rejected IMR applications continues to decrease (Exhibit M14).
4. The number of medical-only claims reported each quarter have been increasing steadily over the last several years (Exhibit C11).
5. The frequency of indemnity claims in the San Diego region is increasing in recent years while the remainder of the state, including the Los Angeles region, has declined the last several years (Exhibit C21).
6. Cumulative trauma claims occurring in the Los Angeles region are generally reported later than those in the remainder of the state. For example, the percentage of cumulative trauma claims in the Professional Services sector in the 2014 policy year increased by 10% from the first to third report level in the Los Angeles area while the remainder of the state increased by 2%. Additionally, the proportion of cumulative trauma claims has begun to decrease for certain sectors, such as Finance and Insurance, Hospitality, and Agriculture, in the Los Angeles area despite the region's overall increase in cumulative trauma claims the last several years (Exhibit C24).
7. Although claims caused by motor vehicle accidents continue to represent a relatively small proportion of all indemnity claims, the frequency of indemnity claims caused by motor vehicle accidents has increased approximately 15% from 2014 to 2016 while the overall statewide frequency has decreased over this period (Exhibit C25).
8. Paid medical severity per indemnity claim shows signs of continued increase with accident year 2018 increasing 6% over accident year 2017 (Exhibit S6.2). Incremental paid medical severities also showed growth in the third quarter of 2018 (Exhibit S7).

9. Temporary disability duration has continued its post-SB 863 decline. The average temporary disability duration for accident year 2016 claims at first survey level is down 28% from 2008 (Exhibit S10.2).
10. Paid allocated loss adjustment expenses (ALAE) per indemnity claim continues to rise through calendar year 2018 (Exhibit E5).
11. The number of medical-legal reports per claim and the average cost per report continued to decrease in the 2018 service year by approximately 5% and 3%, respectively (Exhibit E13).

Exhibit Numbering Guide March 2019

Exhibit #	Exhibit Name
Market/Claim Characteristics	
M4	Distribution of Estimated Ultimate Number of Claims by Injury Type
M5	Percentage of Claims Closed by Injury Type and Region - First through Third Report Level
M6	Percentage of Claim Count and Average Severity by Method of Settlement
M8	Statewide Number of Division of Workers' Compensation (DWC) Quarterly Expedited Hearings
M9	Number of Division of Workers' Compensation (DWC) Quarterly Lien Filed Counts
M14	IMR Filed Counts
Claim Count	
C2.2	Estimated Ultimate Indemnity Claim Settlement Ratios & Indemnity Claim Settlement Rates by Injury Type
C3	Ratio of Incremental Closed Indemnity Claims to Prior Open Indemnity Claims
C6	California Workers' Compensation Estimated Indemnity Claim Frequency by Accident Year as of September 30, 2018
C7	2018 Accident Year Indemnity Claim Frequency Model & Indemnity Claim Frequency History and Projections
C11	Changes in Incremental Indemnity Claim Counts and Medical Only Claim Counts
C15	Partial Accident Year Cumulative Injury Indemnity Claim Counts by Policy Year and Report Level
C17	Claim Count Ratios by Region Based on Unit Statistical Data at 1st Report Level
C19	Distribution of Cumulative Injury Claims by Injury Type
C21	Indemnity Claim Frequency by Geographic Region
C24	Percent of Cumulative Trauma Claims by Industry Sector
C25	Frequency of Indemnity Claims caused by Motor Vehicle Accidents
Loss Development	
D6	Comparison of Projected Ultimate Loss Ratios - Accident Year 2012-2016
Claim Severity	
S2	Average Incurred Indemnity Loss Per Reported Indemnity Claim & Incurred Medical Loss per Reported Claim
S3	Average Indemnity Case Outstanding & Outstanding Medical Loss Per Open Indemnity Claim
S4	Average Paid Indemnity & Medical Loss per Indemnity Claim & Average Paid Medical Loss Per Claim
S5	Average Paid Losses per Closed Indemnity Claim
S6	Ratio of Incremental Paid Indemnity & Medical to Indemnity Claims Open During Period
S7	Ratio of Quarterly Paid Medical to Indemnity Claims Inventory Through September 30, 2018
S8	Estimated Ultimate Indemnity & Medical Severities by Injury Type
S9	Average and Median Indemnity Claim Severities at USR 1st
S10	Changes in the Number of Weeks of Temporary Disability Benefits
S11	Average Permanent Disability Ratings by Type of Loss
Loss Adjustment Expense	
E5	Average Paid ALAE Per Reported Indemnity Claim - Private Insurers
E7	Percentage of Represented and Unrepresented Permanent Disability Claims by Region
E8	Distribution of Total ALAE & MCCP Components
E9	Applicant Attorney Expense Paid
E13	Changes in the Number and Cost of Medical-Legal Reports
E15	Paid MCCP per Indemnity Claims Inventory Calendar Year

Distribution of Estimated Ultimate Number of Claims by Injury Type

I. Distribution of Ultimate Number of Indemnity Claims

Accident <u>Year</u>	Permanent <u>Indemnity</u>	Temporary <u>Indemnity</u>	<u>Total</u>
2001	52.7%	47.3%	100%
2002	54.3%	45.7%	100%
2003	53.8%	46.2%	100%
2004	49.6%	50.4%	100%
2005	46.2%	53.8%	100%
2006	47.3%	52.7%	100%
2007	48.5%	51.5%	100%
2008	50.7%	49.3%	100%
2009	52.0%	48.0%	100%
2010	51.5%	48.5%	100%
2011	51.4%	48.6%	100%
2012	50.9%	49.1%	100%
2013	51.1%	48.9%	100%
2014	51.5%	48.5%	100%
2015	52.3%	47.7%	100%
2016	51.2%	48.8%	100%
2017*	51.7%	48.3%	100%

II. Distribution of Ultimate Number of All Claims

Accident <u>Year</u>	Permanent <u>Indemnity**</u>	Temporary <u>Indemnity</u>	Medical <u>Only</u>	<u>Total</u>
2001	17.8%	16.0%	66.2%	100%
2002	19.0%	16.0%	65.0%	100%
2003	18.8%	16.1%	65.1%	100%
2004	15.6%	15.9%	68.5%	100%
2005	13.5%	15.7%	70.8%	100%
2006	13.6%	15.2%	71.2%	100%
2007	14.3%	15.2%	70.5%	100%
2008	15.6%	15.2%	69.2%	100%
2009	17.3%	15.9%	66.8%	100%
2010	17.9%	16.8%	65.3%	100%
2011	18.3%	17.3%	64.4%	100%
2012	18.5%	17.9%	63.6%	100%
2013	19.2%	18.4%	62.4%	100%
2014	19.3%	18.2%	62.5%	100%
2015	19.6%	17.9%	62.5%	100%
2016	19.1%	18.3%	62.6%	100%
2017*	18.9%	17.7%	63.4%	100%

* Accident year 2017 experience is partial in that it only reflects experience from policy year 2016.

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

Source: WCIRB unit statistical data

Percentage of Claims Closed by Injury Type and Region
Permanent Partial & Temporary

Permanent Partial		Policy Year							Latest Year Reported Claim Distribution
<u>Report Level</u>	<u>Region*</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	
1	Bay Area	10%	12%	14%	15%	16%	18%	19%	14%
1	Los Angeles	11%	12%	15%	16%	17%	21%	24%	54%
1	San Diego	14%	13%	17%	20%	20%	23%	26%	7%
1	Remainder of CA	12%	13%	15%	17%	17%	20%	22%	25%
	ALL REGIONS COMBINED	11%	12%	15%	16%	17%	20%	23%	100%
2	Bay Area	32%	35%	38%	38%	41%	45%		15%
2	Los Angeles	28%	32%	37%	37%	40%	45%		54%
2	San Diego	34%	38%	43%	44%	46%	50%		7%
2	Remainder of CA	32%	36%	38%	39%	42%	47%		24%
	ALL REGIONS COMBINED	30%	34%	38%	38%	41%	46%		100%
3	Bay Area	53%	55%	58%	59%	62%			15%
3	Los Angeles	48%	51%	55%	55%	59%			55%
3	San Diego	57%	59%	62%	65%	67%			7%
3	Remainder of CA	53%	56%	58%	59%	62%			24%
	ALL REGIONS COMBINED	50%	53%	56%	58%	61%			100%
Temporary		Policy Year							Latest Year Reported Claim Distribution
<u>Report Level</u>	<u>Region*</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	
1	Bay Area	56%	56%	54%	56%	59%	60%	61%	18%
1	Los Angeles	50%	51%	49%	47%	50%	51%	52%	46%
1	San Diego	58%	58%	56%	55%	56%	57%	60%	7%
1	Remainder of CA	59%	59%	57%	55%	59%	60%	61%	29%
	ALL REGIONS COMBINED	54%	55%	53%	52%	55%	55%	57%	100%
2	Bay Area	74%	74%	73%	77%	77%	79%		17%
2	Los Angeles	68%	68%	67%	68%	70%	71%		45%
2	San Diego	75%	73%	75%	75%	76%	77%		7%
2	Remainder of CA	76%	75%	73%	74%	76%	77%		31%
	ALL REGIONS COMBINED	72%	71%	71%	72%	73%	75%		100%
3	Bay Area	86%	85%	85%	87%	89%			17%
3	Los Angeles	78%	79%	80%	81%	82%			46%
3	San Diego	84%	85%	86%	87%	88%			7%
3	Remainder of CA	85%	84%	85%	86%	86%			30%
	ALL REGIONS COMBINED	82%	82%	83%	84%	85%			100%

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

Source: WCIRB unit statistical data

**Percentage of Claim Count and Average Severity of Compromise & Release
and Stipulated Award Settlements**
Geographic Region: All Regions Combined

Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	84.0%	24,578	28,206	52,784	---	---	---
Stipulated Award	16.0%	18,741	16,784	35,526	---	---	---
Total/Average	100.0%	23,646	26,382	50,027	---	---	---
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	84.1%	23,200	26,737	49,937	-5.6%	-5.2%	-5.4%
Stipulated Award	15.9%	17,044	15,359	32,403	-9.1%	-8.5%	-8.8%
Total/Average	100.0%	22,219	24,923	47,143	-6.0%	-5.5%	-5.8%
Policy Year 2013							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	84.5%	24,087	25,999	50,086	3.8%	-2.8%	0.3%
Stipulated Award	15.5%	17,914	14,353	32,267	5.1%	-6.6%	-0.4%
Total/Average	100.0%	23,128	24,189	47,317	4.1%	-2.9%	0.4%
Policy Year 2014*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	84.4%	25,957	25,967	51,924	7.8%	-0.1%	3.7%
Stipulated Award	15.6%	18,278	13,374	31,652	2.0%	-6.8%	-1.9%
Total/Average	100.0%	24,763	24,009	48,771	7.1%	-0.7%	3.1%

*Policy Year 2014 is preliminary

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

**Percentage of Claim Count and Average Severity of Compromise & Release
and Stipulated Award Settlements**

Geographic Region: Bay Area

Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	80.9%	29,056	30,345	59,401	---	---	---
Stipulated Award	19.1%	18,366	15,753	34,119	---	---	---
Total/Average	100.0%	27,013	27,557	54,570	---	---	---
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	78.9%	27,688	29,431	57,120	-4.7%	-3.0%	-3.8%
Stipulated Award	21.1%	18,353	14,901	33,254	-0.1%	-5.4%	-2.5%
Total/Average	100.0%	25,720	26,368	52,089	-4.8%	-4.3%	-4.5%
Policy Year 2013							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	80.2%	29,892	29,785	59,677	8.0%	1.2%	4.5%
Stipulated Award	19.8%	20,521	14,727	35,248	11.8%	-1.2%	6.0%
Total/Average	100.0%	28,040	26,809	54,850	9.0%	1.7%	5.3%
Policy Year 2014*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	78.8%	32,849	31,590	64,439	9.9%	6.1%	8.0%
Stipulated Award	21.2%	18,592	12,785	31,377	-9.4%	-13.2%	-11.0%
Total/Average	100.0%	29,824	27,600	57,424	6.4%	2.9%	4.7%

*Policy Year 2014 is preliminary

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

**Percentage of Claim Count and Average Severity of Compromise & Release
and Stipulated Award Settlements**
Geographic Region: Los Angeles**

Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	85.6%	23,023	26,508	49,531	---	---	---
Stipulated Award	14.4%	18,976	17,627	36,603	---	---	---
Total/Average	100.0%	22,439	25,226	47,665	---	---	---
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	85.7%	21,390	24,199	45,589	-7.1%	-8.7%	-8.0%
Stipulated Award	14.3%	16,832	15,488	32,320	-11.3%	-12.1%	-11.7%
Total/Average	100.0%	20,740	22,957	43,697	-7.6%	-9.0%	-8.3%
Policy Year 2013							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	86.4%	22,163	23,595	45,758	3.6%	-2.5%	0.4%
Stipulated Award	13.6%	17,871	14,939	32,810	6.2%	-3.5%	1.5%
Total/Average	100.0%	21,582	22,422	44,003	4.1%	-2.3%	0.7%
Policy Year 2014*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	86.7%	23,843	23,026	46,870	7.6%	-2.4%	2.4%
Stipulated Award	13.3%	18,036	13,646	31,682	0.9%	-8.7%	-3.4%
Total/Average	100.0%	23,072	21,781	44,853	6.9%	-2.9%	1.9%

*Policy Year 2014 is preliminary

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

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

**Percentage of Claim Count and Average Severity of Compromise & Release
and Stipulated Award Settlements**
Geographic Region: San Diego**

Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	83.9%	24,555	27,688	52,243	---	---	---
Stipulated Award	16.1%	15,503	14,993	30,496	---	---	---
Total/Average	100.0%	23,099	25,646	48,744	---	---	---
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	81.0%	21,745	27,195	48,940	-11.4%	-1.8%	-6.3%
Stipulated Award	19.0%	14,857	14,390	29,247	-4.2%	-4.0%	-4.1%
Total/Average	100.0%	20,437	24,764	45,202	-11.5%	-3.4%	-7.3%
Policy Year 2013							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	81.6%	22,368	26,504	48,872	2.9%	-2.5%	-0.1%
Stipulated Award	18.4%	16,311	11,793	28,105	9.8%	-18.0%	-3.9%
Total/Average	100.0%	21,255	23,799	45,054	4.0%	-3.9%	-0.3%
Policy Year 2014*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	83.2%	23,305	27,229	50,535	4.2%	2.7%	3.4%
Stipulated Award	16.8%	17,800	12,236	30,036	9.1%	3.8%	6.9%
Total/Average	100.0%	22,379	24,707	47,086	5.3%	3.8%	4.5%

*Policy Year 2014 is preliminary

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

**Percentage of Claim Count and Average Severity of Compromise & Release
and Stipulated Award Settlements**
Geographic Region: Other

Policy Year 2011							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	82.7%	25,361	30,627	55,988	---	---	---
Stipulated Award	17.3%	19,398	16,482	35,879	---	---	---
Total/Average	100.0%	24,332	28,186	52,517	---	---	---
Policy Year 2012							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	84.3%	25,095	30,610	55,705	-1.1%	-0.1%	-0.5%
Stipulated Award	15.7%	17,196	15,779	32,975	-11.4%	-4.3%	-8.1%
Total/Average	100.0%	23,851	28,275	52,126	-2.0%	0.3%	-0.7%
Policy Year 2013							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	83.5%	25,720	29,043	54,763	2.5%	-5.1%	-1.7%
Stipulated Award	16.5%	16,855	13,977	30,831	-2.0%	-11.4%	-6.5%
Total/Average	100.0%	24,255	26,554	50,808	1.7%	-6.1%	-2.5%
Policy Year 2014*							
	<u>Claim Distribution</u>	<u>Average Indemnity</u>	<u>Average Medical</u>	<u>Average Incurred</u>	<u>% Change in Avg. Indemnity</u>	<u>% Change in Avg. Medical</u>	<u>% Change in Avg. Incurred</u>
Compromise & Release	83.3%	27,612	29,006	56,619	7.4%	-0.1%	3.4%
Stipulated Award	16.7%	18,597	13,693	32,290	10.3%	-2.0%	4.7%
Total/Average	100.0%	26,106	26,448	52,555	7.6%	-0.4%	3.4%

*Policy Year 2014 is preliminary

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

Quarterly Expedited Hearings by Region

<u>Time Period</u>	<u>Northern California</u>	<u>Central California</u>	<u>Southern California</u>	<u>Expedited Hearing</u>	<u>Change from Same Quarter in Prior Year</u>
1st Qtr 2011	---	---	---	2,503	---
2nd Qtr 2011	---	---	---	2,098	---
3rd Qtr 2011	---	---	---	2,462	---
4th Qtr 2011	---	---	---	2,439	---
1st Qtr 2012	---	---	---	2,480	-0.9%
2nd Qtr 2012	---	---	---	2,525	20.4%
3rd Qtr 2012	---	---	---	3,786	53.8%
4th Qtr 2012	---	---	---	2,673	9.6%
1st Qtr 2013	---	---	---	3,480	40.3%
2nd Qtr 2013	---	---	---	3,615	43.2%
3rd Qtr 2013	---	---	---	4,109	8.5%
4th Qtr 2013	---	---	---	4,013	50.1%
1st Qtr 2014	---	---	---	3,813	9.6%
2nd Qtr 2014	14.4%	24.6%	60.9%	4,463	23.5%
3rd Qtr 2014	16.6%	23.5%	59.8%	4,404	7.2%
4th Qtr 2014	16.9%	16.8%	66.3%	3,926	-2.2%
1st Qtr 2015	15.9%	18.2%	65.9%	4,062	6.5%
2nd Qtr 2015	18.0%	18.0%	63.9%	3,993	-10.5%
3rd Qtr 2015	17.6%	20.1%	62.3%	4,222	-4.1%
4th Qtr 2015	19.1%	20.3%	60.6%	4,252	8.3%
1st Qtr 2016	18.4%	20.7%	60.8%	4,507	11.0%
2nd Qtr 2016	16.7%	20.5%	62.8%	4,631	16.0%
3rd Qtr 2016	17.5%	20.3%	62.2%	4,764	12.8%
4th Qtr 2016	18.3%	20.1%	61.6%	4,569	7.5%
1st Qtr 2017	19.1%	20.3%	60.6%	4,983	10.6%
2nd Qtr 2017	16.8%	17.8%	65.4%	4,990	7.8%
3rd Qtr 2017	16.8%	15.3%	67.9%	5,041	5.8%
4th Qtr 2017	16.5%	15.3%	68.2%	5,155	12.8%
1st Qtr 2018	20.0%	16.4%	63.6%	5,633	13.0%
2nd Qtr 2018	19.7%	14.8%	65.5%	5,768	15.6%
3rd Qtr 2018	20.7%	13.8%	65.5%	5,594	11.0%
4th Qtr 2018	20.3%	12.5%	67.2%	5,537	7.4%

Source: DWC

Quarterly Expedited Hearings - DOR Reasons by Region

Northern California

<u>Time Period</u>	<u>Medical Treatment</u>	<u>TD</u>	<u>Other</u>
2Q14-4Q14	77.4%	18.1%	4.5%
2015	76.4%	19.9%	3.7%
2016	77.6%	19.2%	3.2%
2017	77.5%	20.5%	2.0%
2018	80.8%	17.3%	1.9%

Central California

<u>Time Period</u>	<u>Medical Treatment</u>	<u>TD</u>	<u>Other</u>
2Q14-4Q14	86.8%	12.2%	1.0%
2015	84.6%	14.2%	1.2%
2016	87.3%	12.0%	0.7%
2017	84.8%	14.3%	0.9%
2018	84.7%	14.9%	0.4%

Southern California

<u>Time Period</u>	<u>Medical Treatment</u>	<u>TD</u>	<u>Other</u>
2Q14-4Q14	70.0%	19.4%	10.7%
2015	65.4%	20.5%	14.1%
2016	69.1%	18.9%	12.0%
2017	71.5%	18.6%	9.9%
2018	74.2%	17.0%	8.8%

Source: DWC

Liens Filed Counts*

Counts by Region**

Time Period	Bay Area	Central Coast/Valley	Los Angeles County	Remainder of LA Basin	Remaining CA Zip Codes	Sacramento	San Diego County	Total
2011	18,723	24,414	283,774	114,554	2,535	3,934	15,922	463,856
1st Qtr 2012	5,490	7,245	97,245	38,034	895	1,248	4,936	155,093
2nd Qtr 2012	5,467	8,970	122,040	44,065	1,102	1,322	4,991	187,957
3rd Qtr 2012	6,434	15,289	207,639	85,152	698	1,407	6,611	323,230
4th Qtr 2012	10,397	25,730	342,549	123,129	1,119	1,557	8,523	513,004
1st Qtr 2013	1,232	2,193	46,830	17,032	230	268	1,312	69,097
2nd Qtr 2013	1,450	1,562	18,947	6,917	211	339	684	30,110
3rd Qtr 2013	1,607	1,795	25,999	9,855	247	410	991	40,904
4th Qtr 2013	1,928	2,025	29,537	10,893	276	358	1,136	46,153
1st Qtr 2014	1,841	2,029	25,668	10,117	239	384	1,165	41,443
2nd Qtr 2014	1,697	2,306	29,417	11,942	265	354	1,263	47,244
3rd Qtr 2014	1,941	1,996	29,665	12,198	355	424	1,378	47,957
4th Qtr 2014	1,690	2,371	34,772	12,469	374	384	1,488	53,548
1st Qtr 2015	2,071	3,058	45,827	18,016	431	488	2,133	72,024
2nd Qtr 2015	2,370	4,218	54,147	22,198	501	500	2,787	86,721
3rd Qtr 2015	2,428	4,977	61,619	24,827	691	526	3,047	98,115
4th Qtr 2015	2,338	4,991	68,843	26,571	686	495	3,085	107,009
1st Qtr 2016	2,884	5,410	67,259	27,326	672	538	3,931	108,020
2nd Qtr 2016	2,543	5,112	66,511	26,852	536	506	3,912	105,972
3rd Qtr 2016	2,243	4,167	45,707	20,136	420	462	3,404	76,539
4th Qtr 2016	1,872	4,433	66,169	25,942	506	397	4,400	103,719
1st Qtr 2017	1,228	1,872	24,947	9,594	334	312	1,380	39,667
2nd Qtr 2017	1,537	2,211	33,194	11,969	349	369	1,764	51,393
3rd Qtr 2017	1,700	2,047	29,215	10,487	298	419	1,149	45,315
4th Qtr 2017	1,535	1,804	26,566	9,914	313	366	1,176	41,674
1st Qtr 2018	1,501	1,575	28,754	10,848	312	406	1,314	44,710
2nd Qtr 2018	1,264	1,538	23,697	9,034	312	338	986	37,169
3rd Qtr 2018	1,156	1,178	18,596	6,340	241	309	702	28,522
4th Qtr 2018	1,276	1,217	19,034	6,108	230	308	690	28,863

Counts by Type

Time Period	Interpreter	Medical	Medical-Legal	Copy Service	Other***	Total
2011	28,721	292,982	39,569	539	102,045	463,856
1st Qtr 2012	12,937	85,152	22,931	139	33,934	155,093
2nd Qtr 2012	17,162	106,336	37,440	65	26,954	187,957
3rd Qtr 2012	46,095	182,474	64,912	91	29,658	323,230
4th Qtr 2012	47,427	317,241	80,916	62	67,358	513,004
1st Qtr 2013	2,397	45,631	11,411	11	9,647	69,097
2nd Qtr 2013	831	22,480	587	20	6,192	30,110
3rd Qtr 2013	484	32,356	653	23	7,388	40,904
4th Qtr 2013	378	37,515	537	8	7,715	46,153
1st Qtr 2014	421	33,105	397	16	7,504	41,443
2nd Qtr 2014	275	38,534	320	10	8,105	47,244
3rd Qtr 2014	140	39,810	179	7	7,821	47,957
4th Qtr 2014	156	45,440	160	4	7,788	53,548
1st Qtr 2015	143	60,155	216	18	11,492	72,024
2nd Qtr 2015	152	74,037	268	7	12,257	86,721
3rd Qtr 2015	134	84,290	191	7	13,493	98,115
4th Qtr 2015	101	91,820	236	15	14,837	107,009
1st Qtr 2016	60	93,393	233	5	14,329	108,020
2nd Qtr 2016	90	89,781	467	6	15,628	105,972
3rd Qtr 2016	64	64,924	262	11	11,278	76,539
4th Qtr 2016	94	91,867	68	4	11,686	103,719
1st Qtr 2017	29	33,952	19	3	5,664	39,667
2nd Qtr 2017	33	43,470	34	5	7,851	51,393
3rd Qtr 2017	77	37,815	31	0	7,392	45,315
4th Qtr 2017	65	33,876	18	1	7,714	41,674
1st Qtr 2018	64	36,674	29	2	7,941	44,710
2nd Qtr 2018	103	29,276	22	0	7,768	37,169
3rd Qtr 2018	79	21,334	14	4	7,091	28,522
4th Qtr 2018	60	21,595	22	1	7,185	28,863

* Lien Counts exclude SDI/EDD Liens

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

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

Source: EAMS Liens Data

Liens Filed Counts*

Counts by Region**

<u>Month</u>	<u>Bay Area</u>	<u>Central Coast/ Valley</u>	<u>Los Angeles County</u>	<u>Remainder of LA Basin</u>	<u>Remaining CA Zip Codes</u>	<u>Sacramento</u>	<u>San Diego County</u>	<u>Total</u>
Oct-16	625	1,312	15,594	6,313	136	157	1,082	25,219
Nov-16	528	1,224	17,984	7,190	200	86	1,494	28,706
Dec-16	719	1,897	32,591	12,439	170	154	1,824	49,794
Jan-17	210	347	5,362	2,380	69	64	316	8,748
Feb-17	421	598	8,251	3,112	122	118	453	13,075
Mar-17	597	927	11,334	4,102	143	130	611	17,844
Apr-17	474	764	11,573	4,118	110	106	640	17,785
May-17	519	835	11,395	4,175	121	132	573	17,750
Jun-17	544	612	10,226	3,676	118	131	551	15,858
Jul-17	530	548	10,092	3,636	101	130	426	15,463
Aug-17	594	703	10,712	3,690	109	146	412	16,366
Sep-17	576	796	8,411	3,161	88	143	311	13,486
Oct-17	514	773	9,856	3,585	100	128	413	15,369
Nov-17	451	496	8,506	3,214	110	119	371	13,267
Dec-17	570	535	8,204	3,115	103	119	392	13,038
Jan-18	473	565	9,986	3,636	98	123	457	15,338
Feb-18	490	479	8,982	3,451	101	140	481	14,124
Mar-18	538	531	9,786	3,761	113	143	376	15,248
Apr-18	387	546	8,851	3,375	97	90	361	13,707
May-18	477	513	8,380	3,433	112	126	308	13,349
Jun-18	400	479	6,466	2,226	103	122	317	10,113
Jul-18	386	414	6,101	2,109	79	124	229	9,442
Aug-18	406	422	7,039	2,338	76	91	275	10,647
Sep-18	364	342	5,456	1,893	86	94	198	8,433
Oct-18	476	454	6,645	2,270	74	106	271	10,296
Nov-18	454	431	6,436	2,097	81	117	237	9,853
Dec-18	346	332	5,953	1,741	75	85	182	8,714

Counts by Type

<u>Month</u>	<u>Interpreter</u>	<u>Medical</u>	<u>Medical-Legal</u>	<u>Copy Service</u>	<u>Other***</u>	<u>Total</u>
Oct-16	31	21,123	34	2	4,029	25,219
Nov-16	27	25,212	10	1	3,456	28,706
Dec-16	36	45,532	24	1	4,201	49,794
Jan-17	9	7,460	5	2	1,272	8,748
Feb-17	8	11,103	10	1	1,953	13,075
Mar-17	12	15,389	4	0	2,439	17,844
Apr-17	13	15,188	12	3	2,569	17,785
May-17	7	14,838	14	1	2,890	17,750
Jun-17	13	13,444	8	1	2,392	15,858
Jul-17	37	13,022	9	0	2,395	15,463
Aug-17	24	13,599	11	0	2,732	16,366
Sep-17	16	11,194	11	0	2,265	13,486
Oct-17	13	12,692	5	1	2,658	15,369
Nov-17	19	10,666	5	0	2,577	13,267
Dec-17	33	10,518	8	0	2,479	13,038
Jan-18	41	12,695	12	1	2,589	15,338
Feb-18	17	11,551	9	1	2,546	14,124
Mar-18	6	12,428	8	0	2,806	15,248
Apr-18	18	10,714	11	0	2,964	13,707
May-18	25	10,744	8	0	2,572	13,349
Jun-18	60	7,818	3	0	2,232	10,113
Jul-18	44	7,056	0	3	2,339	9,442
Aug-18	23	7,914	8	1	2,701	10,647
Sep-18	12	6,364	6	0	2,051	8,433
Oct-18	23	7,720	9	0	2,544	10,296
Nov-18	24	7,309	7	1	2,512	9,853
Dec-18	13	6,566	6	0	2,129	8,714

* Lien Counts exclude SDI/EDD Liens

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

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

Source: EAMS Liens Data

IMR Filed Counts

Quarterly IMRs Filed

<u>Year & Quarter</u>	<u>IMRs Filed</u>	Change from Same Quarter in <u>Prior Year</u>	<u>Eligible IMRs</u>	Change from Same Quarter in <u>Prior Year</u>
2013 1Q & 2Q	878	---	---	---
2013 3Q	31,950	---	---	---
2013 4Q	51,092	---	---	---
2014 1Q	49,929	---	17,421	---
2014 2Q	60,023	---	24,417	---
2014 3Q	59,678	86.8%	54,959	---
2014 4Q	58,577	14.7%	46,512	---
2015 1Q	61,142	22.5%	36,314	108.4%
2015 2Q	65,418	9.0%	48,628	99.2%
2015 3Q	65,889	10.4%	40,603	-26.1%
2015 4Q	61,330	4.7%	39,950	-14.1%
2016 1Q	60,772	-0.6%	41,023	13.0%
2016 2Q	64,852	-0.9%	44,287	-8.9%
2016 3Q	62,411	-5.3%	43,892	8.1%
2016 4Q	61,318	0.0%	43,618	9.2%
2017 1Q	61,253	0.8%	43,194	5.3%
2017 2Q	62,773	-3.2%	42,866	-3.2%
2017 3Q	63,380	1.6%	42,836	-2.4%
2017 4Q	60,125	-1.9%	43,298	-0.7%
2018 1Q	64,533	5.4%	47,336	9.6%
2018 2Q	66,647	6.2%	48,175	12.4%
2018 3Q	61,658	-2.7%	45,775	6.9%
2018 4Q	59,539	-1.0%	44,941	3.8%

Yearly IMR Counts

	<u>Original IMR Applications</u>	<u>Duplicates</u>	<u>Ineligible</u>	<u>Total Rejected</u>	<u>Eligible IMRs</u>	<u>Eligible IMR Yearly Change</u>
2013 IMR Counts	83,920	15,560	15,516	31,076	52,844	---
2014 IMR Counts	228,084	56,503	28,272	84,775	143,309	171.2%
2015 IMR Counts	253,776	58,106	30,175	88,281	165,495	15.5%
2016 IMR Counts	249,353	53,314	23,219	76,533	172,820	4.4%
2017 IMR Counts	247,531	54,993	20,344	75,337	172,194	-0.4%
2018 IMR Counts	252,377	52,294	13,856	66,150	186,227	8.1%

Source: DWC Collected from IMR Vendor
DWC Via Commission on Health and Safety & Workers' Compensation 2018 Annual Report

Indemnity Claim Settlement Ratios by Injury Type

Permanent Partial						Temporary					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1997	8.3%	32.8%	55.1%	69.3%	77.1%	1997	67.7%	83.4%	89.5%	93.3%	96.4%
1998	8.7%	30.3%	52.6%	66.7%	73.9%	1998	69.9%	84.2%	90.2%	94.0%	95.7%
1999	8.5%	28.7%	49.6%	61.7%	68.6%	1999	68.5%	83.4%	89.8%	92.7%	94.5%
2000	7.9%	26.3%	44.6%	56.6%	65.7%	2000	63.9%	80.4%	86.7%	90.3%	92.3%
2001	6.8%	21.8%	40.6%	57.0%	68.8%	2001	60.8%	76.1%	84.9%	88.4%	90.6%
2002	5.1%	19.0%	41.1%	59.6%	71.0%	2002	60.4%	78.1%	85.3%	89.5%	92.3%
2003	4.0%	20.6%	44.0%	61.0%	72.1%	2003	64.5%	79.6%	87.2%	91.7%	94.2%
2004	5.2%	22.4%	43.9%	59.9%	71.1%	2004	67.0%	82.6%	90.0%	94.2%	95.2%
2005	5.9%	22.5%	43.2%	59.3%	69.6%	2005	67.3%	82.4%	89.5%	92.1%	95.2%
2006	6.5%	23.6%	44.3%	59.4%	68.9%	2006	68.7%	84.6%	90.3%	93.6%	95.3%
2007	6.0%	23.9%	43.6%	58.0%	68.1%	2007	69.2%	83.8%	90.5%	93.5%	94.9%
2008	6.1%	24.0%	43.2%	57.9%	69.8%	2008	68.5%	83.0%	88.9%	92.0%	94.2%
2009	6.1%	23.5%	42.4%	58.4%	70.6%	2009	66.9%	80.7%	86.8%	90.9%	93.1%
2010	7.2%	25.2%	45.7%	62.3%	73.6%	2010	64.8%	78.2%	85.5%	89.8%	92.5%
2011	8.0%	27.4%	48.6%	64.4%	75.6%	2011	63.3%	77.5%	84.9%	89.5%	91.8%
2012	9.2%	30.5%	51.4%	66.3%	77.6%	2012	63.1%	78.0%	86.1%	90.7%	93.0%
2013	10.3%	32.2%	53.7%	70.1%	80.5%	2013	63.6%	80.4%	88.0%	92.0%	93.8%
2014	10.6%	33.0%	54.7%	71.0%		2014	66.4%	81.7%	88.8%	92.5%	
2015	12.4%	37.3%	58.8%			2015	65.9%	81.5%	89.3%		
2016	13.8%	40.1%				2016	67.7%	84.7%			
2017	16.5%					2017	69.9%				

Cumulative Injury*						Non-Cumulative Injury					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1997	7.7%	30.1%	50.0%	65.1%	74.3%	1997	18.0%	45.0%	63.6%	77.6%	83.6%
1998	10.7%	29.1%	48.8%	62.5%	71.1%	1998	25.8%	48.2%	66.9%	76.8%	82.0%
1999	12.2%	29.3%	46.7%	59.2%	67.5%	1999	29.3%	51.1%	66.1%	74.3%	79.1%
2000	11.6%	28.1%	43.9%	55.7%	65.3%	2000	30.8%	49.4%	62.9%	71.4%	77.0%
2001	10.5%	24.4%	41.7%	55.5%	66.2%	2001	26.1%	42.9%	58.4%	69.6%	77.4%
2002	10.5%	25.1%	42.8%	58.3%	69.4%	2002	26.4%	43.0%	59.5%	72.1%	79.8%
2003	11.8%	26.5%	44.5%	59.0%	69.2%	2003	29.7%	46.5%	63.2%	74.8%	82.2%
2004	14.8%	29.6%	46.0%	60.2%	69.6%	2004	34.1%	51.4%	66.3%	76.7%	83.2%
2005	12.6%	26.7%	42.3%	54.8%	64.5%	2005	37.8%	54.0%	67.6%	76.5%	84.3%
2006	12.7%	27.6%	42.8%	54.8%	64.1%	2006	39.0%	56.2%	69.1%	78.8%	84.0%
2007	13.4%	28.8%	43.4%	55.3%	65.2%	2007	39.3%	56.0%	69.8%	78.0%	83.3%
2008	12.0%	27.2%	42.0%	54.7%	65.9%	2008	39.1%	56.3%	68.4%	76.9%	83.6%
2009	11.3%	25.2%	40.5%	54.6%	66.9%	2009	39.4%	55.3%	67.5%	77.2%	83.7%
2010	12.9%	27.3%	44.7%	61.1%	71.9%	2010	39.2%	55.0%	68.7%	78.4%	84.9%
2011	11.8%	29.1%	48.4%	62.9%	73.0%	2011	39.4%	56.4%	70.0%	79.5%	85.7%
2012	12.8%	32.8%	50.4%	63.8%	74.9%	2012	40.3%	58.2%	72.0%	80.9%	87.0%
2013	16.4%	36.9%	55.5%	69.4%	78.9%	2013	41.6%	60.2%	73.8%	83.1%	88.4%
2014	16.8%	36.7%	53.3%	69.6%		2014	42.9%	60.9%	74.7%	83.7%	
2015	18.2%	40.1%	57.6%			2015	42.2%	61.8%	76.8%		
2016	21.7%	45.6%				2016	44.6%	65.6%			
2017	26.6%					2017	46.6%				

All Indemnity					
AY/RL	1	2	3	4	5
1997	35.1%	55.6%	70.6%	80.1%	85.8%
1998	37.1%	55.3%	70.1%	79.4%	84.0%
1999	36.5%	54.2%	68.3%	76.2%	80.7%
2000	34.6%	52.1%	64.7%	72.7%	78.4%
2001	31.5%	46.6%	60.9%	71.4%	78.8%
2002	29.5%	45.1%	60.6%	72.8%	80.4%
2003	31.4%	47.3%	63.5%	74.9%	82.1%
2004	35.5%	51.9%	66.4%	76.7%	82.9%
2005	38.7%	54.6%	68.0%	76.9%	83.3%
2006	39.4%	55.9%	68.6%	77.5%	82.9%
2007	39.0%	55.2%	68.0%	76.5%	82.1%
2008	37.4%	53.6%	66.1%	75.0%	82.0%
2009	36.0%	51.6%	64.3%	74.4%	81.7%
2010	35.8%	51.5%	65.4%	75.9%	82.9%
2011	35.6%	52.4%	66.8%	77.0%	83.7%
2012	36.4%	54.5%	68.9%	78.6%	85.4%
2013	37.2%	56.5%	71.0%	81.1%	87.2%
2014	38.3%	57.1%	71.6%	81.6%	
2015	38.8%	59.2%	73.9%		
2016	40.8%	62.4%			
2017	42.4%				

Notes:

*Cumulative Injury includes both cumulative injury and occupational disease.
Latest diagonal (italics) is based on a partial accident year.
Settlement rates are based on claim counts developed to 5th report.
Source: WCIRB Unit Statistical data

Ratio of Incremental Closed Indemnity Claims to Prior Open Indemnity Claims

Accident Year	Development								
	<u>9-21</u>	<u>21-33</u>	<u>33-45</u>	<u>45-57</u>	<u>57-69</u>	<u>69-81</u>	<u>81-93</u>	<u>93-105</u>	<u>105-117</u>
2000									17.9%
2001								18.7%	16.7%
2002							21.3%	18.9%	16.6%
2003						23.8%	20.0%	18.5%	17.9%
2004					24.7%	20.7%	20.7%	19.0%	22.7%
2005				27.4%	22.9%	22.2%	19.8%	23.4%	21.2%
2006			29.3%	26.4%	23.3%	21.0%	24.1%	22.4%	19.2%
2007		26.4%	28.4%	26.6%	22.8%	25.9%	25.0%	21.5%	24.0%
2008	33.3%	25.5%	27.6%	26.0%	27.0%	27.1%	24.4%	25.5%	24.1%
2009	31.6%	25.1%	27.2%	28.0%	27.6%	26.7%	27.8%	25.4%	25.1%
2010	32.0%	26.1%	29.3%	30.2%	28.3%	29.3%	29.1%	26.5%	
2011	32.1%	27.5%	30.9%	31.2%	30.0%	30.1%	30.9%		
2012	32.4%	29.5%	31.9%	32.1%	32.5%	32.1%			
2013	33.3%	30.9%	34.0%	34.9%	34.2%				
2014	34.3%	32.3%	35.6%	37.5%					
2015	35.6%	35.5%	38.1%						
2016	38.0%	37.7%							
2017	40.4%								

Source: WCIRB quarterly calls for experience

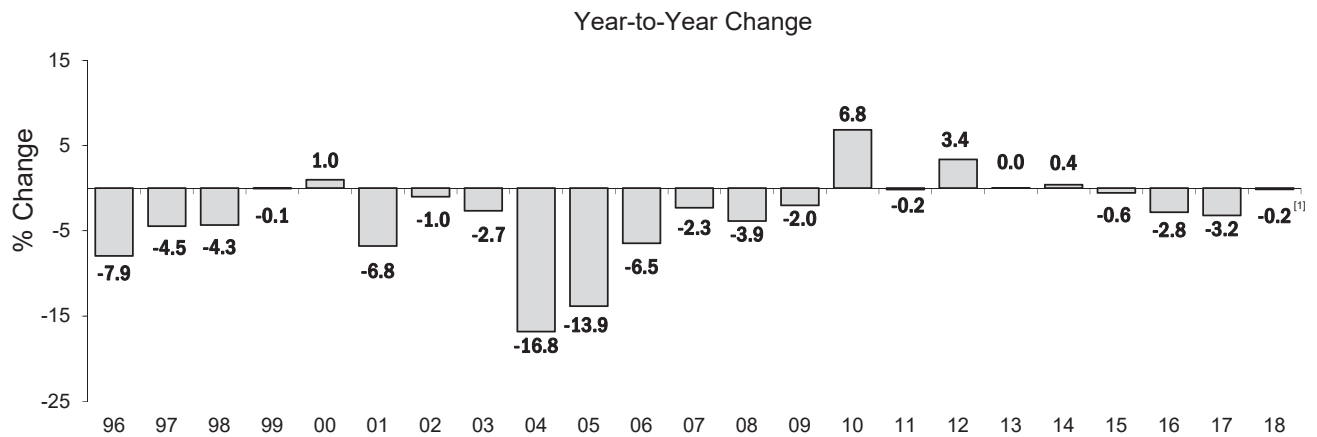
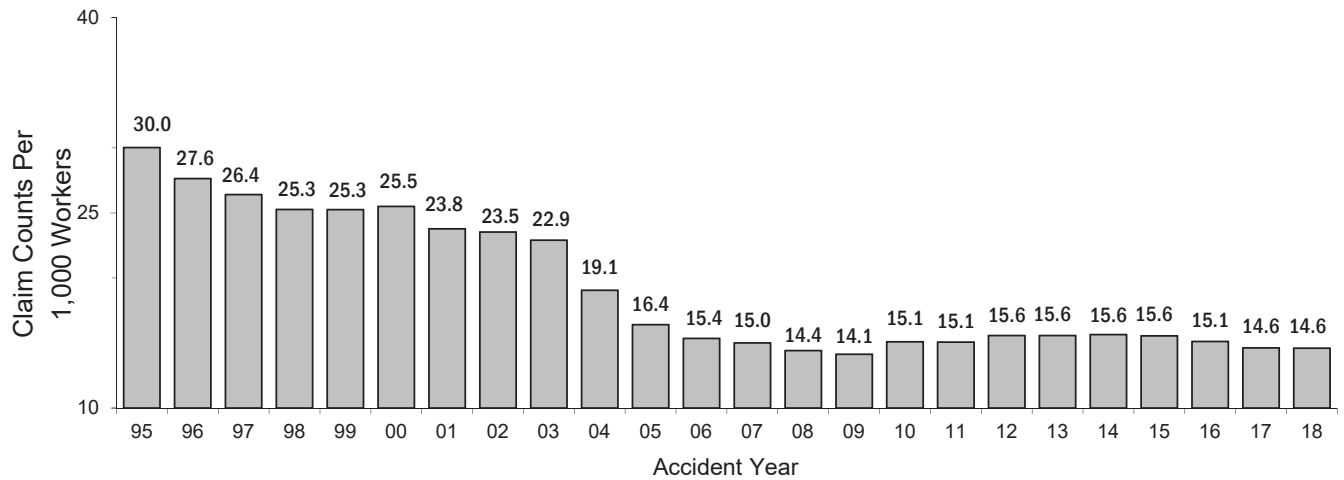
Ratio of Incremental Closed Indemnity Claims to Prior Open Indemnity Claims

Accident Year	Development														
	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2008	4.7%	8.3%	11.2%	11.2%	9.2%	7.0%	6.7%	6.7%	7.3%	7.5%	8.1%	7.3%	7.4%	7.7%	7.6%
2009	4.0%	7.9%	10.3%	10.6%	8.6%	6.8%	6.6%	6.5%	7.0%	7.7%	7.8%	7.3%	7.9%	7.1%	7.7%
2010	4.1%	7.5%	10.4%	11.1%	8.6%	6.8%	7.2%	6.8%	7.6%	7.4%	7.9%	7.8%	9.1%	8.8%	9.3%
2011	4.3%	7.2%	10.5%	10.7%	8.8%	7.0%	7.3%	7.0%	8.4%	8.3%	9.2%	8.4%	8.5%	9.2%	9.2%
2012	4.3%	7.4%	10.4%	10.5%	9.1%	7.5%	8.2%	7.6%	8.6%	9.2%	9.3%	8.7%	9.3%	9.2%	9.5%
2013	4.2%	7.1%	10.3%	10.6%	9.4%	8.4%	8.6%	8.4%	9.2%	9.2%	9.7%	9.7%	10.1%	9.8%	10.3%
2014	4.0%	7.2%	10.2%	11.0%	9.6%	9.0%	8.8%	9.0%	9.4%	9.8%	10.2%	9.5%	11.0%	10.2%	11.0%
2015	3.9%	7.7%	10.2%	11.7%	10.5%	9.1%	9.4%	9.9%	11.0%	10.5%	11.0%	10.9%	11.3%	11.8%	
2016	4.3%	7.6%	11.0%	12.4%	11.4%	9.8%	10.6%	10.2%	11.7%	11.4%					
2017	4.8%	8.2%	12.3%	13.0%	11.7%	10.7%									
2018	4.9%	8.5%													

Note: All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 82% to 97% of the total California workers' compensation insured market measured using 2017 earned premium levels).

Source: WCIRB quarterly calls for experience

**California Workers' Compensation
Estimated Indemnity Claim Frequency by Accident Year
As of September 30, 2018**



^[1] The 2018 estimates are based on comparison of claim counts based on WCIRB accident year experience as of September 30, 2018 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.

2018 Accident Year Indemnity Claim Frequency Model
As of PY 2016 1st Set & December 2018 UCLA

AY	Annual %	Annual Log Differences						
	Changes Intra- Class Ind Freq	Intra-Class Indemnity Frequency per \$M Exposure at PY 2016 Level			AY+1 Indemnity Benefit Level	Cumulative Injury Index	Economic Variables (1st Prin. Comp.)	CalOSHA Dummy Variable
		Total	Cumulative	Non-cum.				
1979	0.5%	0.005	-0.053	0.007	0.000	-0.060	0.134	0.000
1980	-6.5%	-0.068	-0.132	-0.066	0.033	-0.066	-0.080	0.000
1981	-3.5%	-0.036	-0.028	-0.036	0.000	0.008	-0.079	0.000
1982	-1.6%	-0.016	0.153	-0.022	0.352	0.175	-0.294	0.000
1983	6.2%	0.060	0.214	0.054	0.081	0.160	0.029	0.000
1984	9.5%	0.091	0.235	0.084	0.000	0.151	0.222	0.000
1985	2.0%	0.020	0.138	0.014	0.000	0.124	0.081	0.000
1986	-2.4%	-0.024	0.039	-0.028	0.000	0.067	0.078	0.000
1987	1.5%	0.015	0.053	0.013	0.000	0.041	0.151	0.000
1988	0.7%	0.007	0.104	0.000	0.000	0.104	0.088	0.000
1989	2.5%	0.024	0.212	0.009	0.046	0.203	0.045	0.000
1990	9.0%	0.087	0.337	0.061	0.071	0.276	-0.121	0.000
1991	0.3%	0.003	0.166	-0.018	0.023	0.184	-0.293	0.000
1992	-11.1%	-0.118	-0.272	-0.098	0.013	-0.174	-0.186	0.068
1993	-14.9%	-0.162	-0.240	-0.153	-0.057	-0.088	-0.022	0.464
1994	-12.8%	-0.136	-0.462	-0.107	0.061	-0.355	0.106	0.173
1995	-4.6%	-0.048	-0.016	-0.050	0.053	0.034	0.092	0.295
1996	-6.8%	-0.070	-0.136	-0.065	0.096	-0.071	0.075	0.000
1997	-3.3%	-0.033	-0.023	-0.034	0.066	0.011	0.138	0.000
1998	-3.8%	-0.038	-0.040	-0.038	0.058	-0.002	0.079	0.000
1999	1.5%	0.014	0.100	0.008	0.040	0.092	0.128	0.000
2000	4.0%	0.039	0.071	0.037	-0.003	0.034	0.066	0.000
2001	-6.9%	-0.072	-0.018	-0.076	-0.007	0.059	-0.101	0.000
2002	-2.3%	-0.023	0.007	-0.026	0.060	0.033	-0.202	0.000
2003	-2.9%	-0.029	-0.005	-0.031	-0.065	0.026	-0.023	0.000
2004	-16.6%	-0.182	-0.209	-0.180	-0.398	-0.030	0.093	0.000
2005	-13.6%	-0.146	-0.298	-0.133	0.051	-0.165	0.141	0.000
2006	-5.7%	-0.059	-0.050	-0.059	0.016	0.009	0.095	0.000
2007	-1.6%	-0.017	0.021	-0.019	0.049	0.040	-0.084	0.000
2008	-2.7%	-0.027	0.038	-0.033	0.006	0.071	-0.308	0.000
2009	-0.2%	-0.002	0.168	-0.018	0.066	0.186	-0.427	0.000
2010	8.9%	0.085	0.139	0.079	0.012	0.060	-0.092	0.000
2011	1.3%	0.013	0.032	0.010	0.003	0.022	0.043	0.000
2012	4.6%	0.045	0.127	0.035	0.025	0.091	0.123	0.000
2013	0.4%	0.004	0.134	-0.014	0.071	0.147	0.151	0.000
2014	0.2%	0.002	0.066	-0.008	0.003	0.074	0.178	0.000
2015	-0.9%	-0.009	0.048	-0.018	0.002	0.066	0.194	0.000
2016	-3.5%	-0.036	0.031	-0.047	0.004	0.079	0.124	0.000
2017*	-3.5%	-0.036	0.083	-0.059	0.004	0.142	0.140	0.000
2018	-0.9%	-0.009	-0.009	-0.009	0.003	0.000	0.129	0.000
2019	-2.4%	-0.024	-0.024	-0.024	0.004	0.000	-0.061	0.000
2020	-1.9%	-0.019	-0.019	-0.019	0.004	0.000	0.002	0.000
2021	-2.3%	-0.023	-0.023	-0.023	0.004	0.000	-0.044	0.000

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

Constant	-0.020			
Std Err of Y Est	0.041			
R Squared	0.544			
No. of Observations	39			
Degrees of Freedom	34			
X Coefficient(s)	0.177	0.270	0.082	-0.133
Std Err of Coef.	0.075	0.064	0.045	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. Economic variables are historical through 2017; December 2018 UCLA Anderson Forecasts for 2018 on. Regression is over AY 1979 through AY 2017. AY 2018 through AY 2021 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 2017 is preliminary and change is based on a comparison of 2017 accidents on 2016 policies to 2016 accidents on 2015 policies.

Indemnity Claim Frequency History and Projections

AY	Intra-Class Indemnity Claim Frequency(a)	Inter-Class Indemnity Claim Frequency Index(b)	Overall Indemnity Claim Frequency	Annual Percent Changes		
				Intra-Class	Inter-Class	Overall
1979	0.557	0.921	0.671	---	---	---
1980	0.521	0.914	0.623	-6.54%	-0.75%	-7.24%
1981	0.502	0.900	0.591	-3.54%	-1.56%	-5.04%
1982	0.494	0.882	0.570	-1.59%	-2.00%	-3.56%
1983	0.525	0.873	0.600	6.20%	-0.98%	5.17%
1984	0.575	0.871	0.656	9.53%	-0.18%	9.32%
1985	0.587	0.867	0.666	2.05%	-0.51%	1.52%
1986	0.573	0.859	0.644	-2.39%	-0.92%	-3.28%
1987	0.582	0.854	0.650	1.53%	-0.56%	0.97%
1988	0.586	0.854	0.654	0.69%	-0.06%	0.64%
1989	0.600	0.853	0.670	2.47%	-0.08%	2.39%
1990	0.655	0.845	0.724	9.04%	-0.89%	8.07%
1991	0.656	0.832	0.715	0.28%	-1.58%	-1.30%
1992	0.584	0.820	0.626	-11.09%	-1.45%	-12.37%
1993	0.497	0.810	0.526	-14.91%	-1.25%	-15.98%
1994	0.433	0.809	0.459	-12.76%	-0.06%	-12.81%
1995	0.413	0.811	0.438	-4.64%	0.16%	-4.49%
1996	0.385	0.800	0.403	-6.78%	-1.25%	-7.94%
1997	0.372	0.791	0.385	-3.27%	-1.23%	-4.46%
1998	0.358	0.786	0.369	-3.76%	-0.60%	-4.34%
1999	0.364	0.774	0.368	1.45%	-1.48%	-0.05%
2000	0.378	0.752	0.372	4.02%	-2.91%	0.99%
2001	0.352	0.753	0.347	-6.91%	0.13%	-6.79%
2002	0.344	0.763	0.343	-2.31%	1.34%	-1.00%
2003	0.334	0.764	0.334	-2.86%	0.20%	-2.67%
2004	0.279	0.763	0.278	-16.65%	-0.21%	-16.82%
2005	0.241	0.760	0.239	-13.59%	-0.31%	-13.85%
2006	0.227	0.754	0.224	-5.69%	-0.81%	-6.46%
2007	0.223	0.749	0.219	-1.64%	-0.68%	-2.31%
2008	0.217	0.740	0.210	-2.71%	-1.18%	-3.86%
2009	0.217	0.727	0.206	-0.20%	-1.82%	-2.02%
2010	0.236	0.713	0.220	8.87%	-1.87%	6.83%
2011	0.239	0.703	0.220	1.27%	-1.42%	-0.17%
2012	0.250	0.694	0.227	4.61%	-1.20%	3.36%
2013	0.251	0.692	0.227	0.37%	-0.36%	0.01%
2014	0.251	0.694	0.228	0.18%	0.22%	0.40%
2015	0.249	0.696	0.227	-0.91%	0.36%	-0.55%
2016(c)	0.240	0.701	0.220	-3.49%	0.68%	-2.83%
2016(d)	0.238	0.701	0.219	---	---	---
2017(e)	0.230	0.703	0.212	-3.52%	0.32%	-3.21%
2018	0.228	0.704	0.210	-0.88%	0.07%	-0.81%
2019	0.222	0.702	0.204	-2.40%	-0.23%	-2.62%
2020	0.218	0.701	0.200	-1.89%	-0.19%	-2.07%
2021	0.213	0.700	0.195	-2.26%	-0.10%	-2.36%
PY						
2008	0.217	0.734	0.208			
2009	0.225	0.721	0.212	3.86%	-1.84%	1.91%
2010	0.237	0.708	0.220	5.30%	-1.67%	3.58%
2011	0.244	0.699	0.223	2.78%	-1.32%	1.41%
2012	0.250	0.693	0.227	2.66%	-0.82%	1.83%
2013	0.251	0.693	0.228	0.28%	-0.10%	0.19%
2014	0.246	0.697	0.225	-1.86%	0.59%	-1.29%
2015	0.240	0.701	0.220	-2.83%	0.57%	-2.26%
2016	0.235	0.702	0.215	-2.05%	0.14%	-1.91%
2017	0.229	0.703	0.211	-2.36%	0.21%	-2.15%
2018	0.226	0.703	0.207	-1.56%	-0.06%	-1.62%
2019	0.221	0.701	0.202	-2.17%	-0.21%	-2.38%
2020	0.216	0.700	0.198	-2.05%	-0.15%	-2.20%

Notes: (a) All frequencies are per \$M exposure at PY 2016 Level.
(b) Index is to AY 1961.
(c) 2016 accidents on 2016 and 2015 policies.
(d) 2016 accidents on 2015 policies only.
(e) AY 2017 is preliminary and percent changes are based on a comparison of 2017 accidents on 2016 policies to 2016 accidents on 2015 policies.
(f) Forecasts below thick solid line.

Source: WCIRB Indemnity Frequency Model

Changes in Incremental Indemnity Claim Counts and Medical Only Claim Counts

Calendar Quarter Evaluation	Change in Statewide Incremental Number of Indemnity Claims		Change in Statewide Incremental Number of Medical-Only Claims	
	Change in Quarterly Increment from Same Quarter at Prior Calendar Year	Change in 4-Quarter Increment from Same Quarter at Prior Calendar Year	Change in Quarterly Increment from Same Quarter at Prior Calendar Year	Change in 4-Quarter Increment from Same Quarter at Prior Calendar Year
	<u>Calendar Year</u>	<u>Calendar Year</u>	<u>Calendar Year</u>	<u>Calendar Year</u>
3/31/2007	-2.4%	---	---	---
6/30/2007	-10.2%	---	-13.5%	---
9/30/2007	0.3%	---	1.2%	---
12/31/2007	-13.4%	-6.3%	-19.4%	---
3/31/2008	-5.8%	-7.2%	-14.8%	-11.6%
6/30/2008	-3.9%	-5.7%	-2.8%	-9.0%
9/30/2008	-19.2%	-10.7%	-17.6%	-13.9%
12/31/2008	-16.7%	-11.4%	-3.8%	-10.3%
3/31/2009	-27.1%	-16.8%	-27.5%	-13.2%
6/30/2009	-14.2%	-19.4%	-27.0%	-19.4%
9/30/2009	-8.2%	-16.8%	-16.7%	-19.2%
12/31/2009	2.5%	-12.8%	-15.8%	-22.0%
3/31/2010	7.4%	-4.1%	-5.2%	-17.1%
6/30/2010	3.9%	1.0%	-1.9%	-10.6%
9/30/2010	6.7%	5.1%	-6.3%	-7.6%
12/31/2010	7.2%	6.3%	3.3%	-2.6%
3/31/2011	2.7%	5.1%	-4.1%	-2.3%
6/30/2011	-1.2%	3.8%	-8.9%	-4.1%
9/30/2011	3.4%	2.9%	-1.3%	-2.7%
12/31/2011	4.5%	2.3%	-7.8%	-5.5%
3/31/2012	-0.4%	1.5%	-1.8%	-4.6%
6/30/2012	8.1%	3.9%	0.1%	-2.6%
9/30/2012	5.5%	4.5%	3.2%	-1.5%
12/31/2012	6.7%	5.1%	5.5%	1.8%
3/31/2013	5.2%	6.4%	-4.2%	1.3%
6/30/2013	10.9%	7.1%	9.0%	3.4%
9/30/2013	6.2%	7.3%	-1.9%	2.0%
12/31/2013	5.4%	7.0%	0.5%	0.8%
3/31/2014	8.6%	7.7%	0.6%	1.9%
6/30/2014	-0.2%	4.8%	-5.8%	-1.8%
9/30/2014	1.1%	3.5%	1.3%	-0.9%
12/31/2014	-0.4%	2.0%	1.7%	-0.6%
3/31/2015	-2.3%	-0.4%	4.2%	0.2%
6/30/2015	2.4%	0.2%	2.7%	2.4%
9/30/2015	3.1%	0.8%	7.8%	4.2%
12/31/2015	2.7%	1.5%	0.7%	3.9%
3/31/2016	5.3%	3.3%	6.3%	4.4%
6/30/2016	2.7%	3.4%	4.6%	4.8%
9/30/2016	-1.2%	2.3%	-3.3%	1.8%
12/31/2016	0.4%	1.7%	-1.3%	1.3%
3/31/2017	2.7%	1.1%	1.3%	0.2%
6/30/2017	4.0%	1.4%	6.3%	0.7%
9/30/2017	0.9%	2.0%	5.2%	3.0%
12/31/2017	1.7%	2.3%	13.3%	6.5%
3/31/2018	-2.1%	1.1%	3.1%	7.0%
6/30/2018	-2.1%	-0.5%	-1.5%	4.9%
9/30/2018	7.7%	1.3%	10.2%	6.2%

Source: WCIRB quarterly calls for experience

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

AY	1st Half Partial PY.RL Sources									
	(AY-1).1	(AY-1).2	(AY-1).3	(AY-1).4	(AY-1).5	to (AY-1).6	to (AY-1).7	to (AY-1).8	to (AY-1).9	to (AY-1).10
2004	5,534	5,951	6,176	6,318	6,436	6,698	6,830	6,837	6,854	6,872
2005	3,343	3,892	4,243	4,497	4,818	4,951	5,014	5,074	5,097	5,098
2006	3,193	3,732	4,071	4,367	4,482	4,582	4,601	4,690	4,738	4,749
2007	3,292	3,857	4,234	4,475	4,620	4,698	4,812	4,831	4,857	4,866
2008	3,099	3,845	4,327	4,591	4,747	4,916	5,013	5,053	5,069	5,063
2009	3,139	4,118	4,647	4,893	5,223	5,313	5,378	5,425	5,457	
2010	3,464	4,452	4,866	5,397	5,444	5,504	5,560	5,572		
2011	3,535	4,582	5,416	5,566	5,703	5,802	5,877			
2012	3,874	5,545	5,947	6,227	6,430	6,526				
2013	4,996	6,334	6,924	7,119	7,301					
2014	5,580	7,063	7,480	7,707						
2015	5,655	7,223	7,705							
2016	5,599	7,109								
2017	5,800									

AY	1st Half Partial PY.RL Development Factors										1st Half Share of Ttl Ind Fifths
	(AY-1).1 to (AY-1).2	(AY-1).2 to (AY-1).3	(AY-1).3 to (AY-1).4	(AY-1).4 to (AY-1).5	(AY-1).5 to (AY-1).6	(AY-1).6 to (AY-1).7	(AY-1).7 to (AY-1).8	(AY-1).8 to (AY-1).9	(AY-1).9 to (AY-1).10	Final Tenths	
2004	1.075	1.038	1.023	1.019	1.041	1.020	1.001	1.002	1.003	6,872	11.5%
2005	1.164	1.090	1.060	1.071	1.027	1.013	1.012	1.005	1.000	5,098	9.9%
2006	1.169	1.091	1.073	1.026	1.022	1.004	1.019	1.010	1.002	4,749	9.7%
2007	1.171	1.098	1.057	1.032	1.017	1.024	1.004	1.005	1.002	4,866	10.3%
2008	1.241	1.126	1.061	1.034	1.036	1.020	1.008	1.003	0.999	5,057	11.0%
2009	1.312	1.129	1.053	1.067	1.017	1.012	1.009	1.006	0.999	5,451	12.8%
2010	1.285	1.093	1.109	1.009	1.011	1.010	1.002	1.006	0.999	5,598	13.2%
2011	1.296	1.182	1.028	1.025	1.017	1.013	1.002	1.006	0.999	5,917	13.6%
2012	1.431	1.072	1.047	1.033	1.015	1.013	1.002	1.006	0.999	6,656	14.2%
2013	1.268	1.093	1.028	1.026	1.015	1.013	1.002	1.006	0.999	7,557	15.3%
2014	1.266	1.059	1.030	1.026	1.015	1.013	1.002	1.006	0.999	8,182	16.1%
2015	1.277	1.067	1.030	1.026	1.015	1.013	1.002	1.006	0.999	8,428	16.1%
2016	1.270	1.067	1.030	1.026	1.015	1.013	1.002	1.006	0.999	8,295	15.8%
2017	1.270	1.067	1.030	1.026	1.015	1.013	1.002	1.006	0.999	8,593	17.7%

AY	Share of Total Indemnity Count 1st Half Partial PY.RL Sources									
	(AY-1).1	(AY-1).2	(AY-1).3	(AY-1).4	(AY-1).5	to (AY-1).6	to (AY-1).7	to (AY-1).8	to (AY-1).9	to (AY-1).10
2004	9.6%	10.0%	10.3%	10.5%	10.7%	11.1%	11.4%	11.5%	11.5%	11.5%
2005	6.7%	7.7%	8.3%	8.7%	9.3%	9.6%	9.8%	9.9%	9.9%	9.9%
2006	6.8%	7.7%	8.4%	8.9%	9.2%	9.4%	9.4%	9.6%	9.7%	9.7%
2007	7.4%	8.4%	9.1%	9.6%	9.8%	10.0%	10.2%	10.2%	10.3%	10.3%
2008	7.3%	8.7%	9.6%	10.1%	10.4%	10.7%	10.9%	11.0%	11.0%	11.0%
2009	8.3%	10.2%	11.2%	11.7%	12.4%	12.6%	12.7%	12.8%	12.8%	
2010	9.1%	10.9%	11.7%	12.9%	12.9%	13.0%	13.1%	13.1%		
2011	9.2%	11.1%	12.7%	12.9%	13.2%	13.4%	13.5%			
2012	9.4%	12.4%	13.0%	13.5%	13.8%	14.0%				
2013	11.5%	13.4%	14.3%	14.6%	14.9%					
2014	12.3%	14.4%	15.0%	15.3%						
2015	12.2%	14.4%	15.0%							
2016	11.9%	14.1%								
2017	13.4%									

Source: WCIRB unit statistical data

Distribution of Cumulative Injury Claims by Injury Type

Permanent Indemnity*

Percentage of All Cumulative Injury Claims						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1999	33.8%	35.1%	35.3%	35.6%	36.1%	1999	---	---	---	---	---
2000	31.6%	34.0%	34.7%	35.4%	34.5%	2000	-6.5%	-3.0%	-1.8%	-0.4%	-4.5%
2001	30.8%	34.4%	36.7%	37.6%	37.9%	2001	-2.5%	1.2%	5.9%	6.0%	10.0%
2002	33.3%	37.4%	38.9%	39.3%	39.1%	2002	8.1%	8.8%	5.8%	4.7%	3.0%
2003	33.5%	37.4%	38.6%	38.8%	39.2%	2003	0.6%	-0.1%	-0.6%	-1.4%	0.2%
2004	28.6%	31.6%	32.8%	33.6%	34.9%	2004	-14.4%	-15.6%	-15.1%	-13.4%	-10.8%
2005	22.0%	25.3%	27.7%	30.0%	31.6%	2005	-23.1%	-19.8%	-15.6%	-10.7%	-9.5%
2006	20.2%	25.1%	28.4%	30.1%	31.0%	2006	-8.4%	-0.9%	2.8%	0.6%	-1.9%
2007	20.7%	26.6%	29.4%	29.9%	31.1%	2007	2.6%	6.1%	3.4%	-0.8%	0.4%
2008	21.6%	27.8%	31.0%	31.2%	33.1%	2008	4.2%	4.4%	5.6%	4.3%	6.2%
2009	24.3%	30.9%	34.2%	36.0%	37.0%	2009	12.8%	11.0%	10.2%	15.6%	11.9%
2010	25.4%	33.2%	36.0%	37.8%	38.5%	2010	4.5%	7.4%	5.2%	5.0%	4.1%
2011	27.7%	34.2%	37.6%	39.3%	40.3%	2011	9.1%	3.1%	4.6%	3.9%	4.7%
2012	29.2%	35.5%	38.8%	40.5%	41.4%	2012	5.4%	3.9%	3.1%	3.0%	2.6%
2013	30.7%	37.6%	40.7%	42.3%	41.8%	2013	5.1%	6.1%	4.7%	4.4%	1.0%
2014	32.9%	39.6%	42.0%	44.2%		2014	7.0%	5.3%	3.4%	4.5%	
2015	33.8%	39.5%	42.4%			2015	2.7%	-0.4%	0.9%		
2016	32.3%	36.8%				2016	-4.3%	-6.8%			
2017	32.2%					2017	-0.4%				

Temporary Indemnity

Percentage of All Cumulative Injury Claims						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1999	19.0%	15.9%	15.0%	14.5%	14.2%	1999	---	---	---	---	---
2000	19.2%	16.3%	16.1%	15.6%	15.1%	2000	0.9%	2.0%	7.5%	8.0%	6.6%
2001	19.9%	18.3%	17.7%	16.7%	16.1%	2001	3.9%	12.6%	10.2%	7.0%	6.3%
2002	20.2%	18.9%	16.8%	15.9%	15.9%	2002	1.6%	3.5%	-5.3%	-4.6%	-1.2%
2003	22.1%	18.6%	17.1%	16.8%	16.4%	2003	9.2%	-2.1%	2.0%	5.2%	3.0%
2004	22.0%	19.2%	18.1%	17.1%	16.1%	2004	-0.3%	3.6%	5.5%	2.3%	-1.9%
2005	21.6%	19.4%	17.9%	16.2%	15.1%	2005	-1.9%	0.8%	-1.0%	-5.3%	-5.9%
2006	21.6%	19.0%	16.5%	15.5%	14.7%	2006	0.2%	-1.9%	-7.7%	-4.9%	-2.4%
2007	22.5%	18.7%	17.2%	16.1%	15.8%	2007	4.0%	-1.5%	4.0%	4.5%	7.0%
2008	22.8%	19.4%	17.5%	16.4%	16.6%	2008	1.6%	3.4%	2.0%	1.4%	5.1%
2009	25.2%	21.7%	19.5%	18.4%	17.9%	2009	10.4%	12.3%	11.3%	12.5%	7.9%
2010	26.4%	21.8%	19.7%	18.9%	18.1%	2010	4.7%	0.3%	0.8%	2.4%	1.3%
2011	26.3%	23.5%	21.8%	20.2%	19.2%	2011	-0.4%	8.0%	10.7%	6.9%	5.9%
2012	27.5%	25.3%	22.5%	21.0%	20.1%	2012	4.6%	7.3%	3.5%	4.2%	5.0%
2013	30.5%	25.6%	22.9%	21.2%	19.6%	2013	10.9%	1.3%	1.8%	0.9%	-2.5%
2014	29.7%	24.7%	21.9%	21.4%		2014	-2.4%	-3.5%	-4.2%	0.8%	
2015	26.9%	23.2%	21.6%			2015	-9.7%	-6.2%	-1.4%		
2016	27.4%	24.1%				2016	2.1%	4.0%			
2017	26.8%					2017	-2.2%				

Medical-Only

Percentage of All Cumulative Injury Claims						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
1999	47.2%	49.0%	49.7%	49.9%	49.7%	1999	---	---	---	---	---
2000	49.3%	49.7%	49.2%	49.0%	50.4%	2000	4.3%	1.5%	-1.0%	-2.0%	1.4%
2001	49.3%	47.3%	45.5%	45.7%	46.0%	2001	0.1%	-4.9%	-7.5%	-6.6%	-8.7%
2002	46.5%	43.6%	44.3%	44.7%	45.0%	2002	-5.7%	-7.8%	-2.6%	-2.2%	-2.1%
2003	44.5%	44.0%	44.2%	44.5%	44.5%	2003	-4.4%	1.0%	-0.3%	-0.6%	-1.3%
2004	49.4%	49.2%	49.1%	49.3%	49.0%	2004	11.0%	11.7%	11.1%	10.8%	10.2%
2005	56.4%	55.3%	54.4%	53.8%	53.3%	2005	14.3%	12.4%	10.8%	9.1%	8.7%
2006	58.2%	55.9%	55.1%	54.4%	54.2%	2006	3.2%	1.1%	1.1%	1.2%	1.8%
2007	56.8%	54.6%	53.4%	53.9%	53.1%	2007	-2.4%	-2.2%	-3.0%	-0.8%	-2.1%
2008	55.6%	52.8%	51.4%	52.5%	50.4%	2008	-2.1%	-3.3%	-3.7%	-2.8%	-5.1%
2009	50.5%	47.4%	46.3%	45.5%	45.1%	2009	-9.2%	-10.3%	-10.0%	-13.2%	-10.4%
2010	48.2%	45.0%	44.3%	43.3%	43.4%	2010	-4.5%	-5.0%	-4.2%	-4.9%	-3.9%
2011	46.0%	42.3%	40.6%	40.5%	40.5%	2011	-4.6%	-6.1%	-8.5%	-6.4%	-6.6%
2012	43.3%	39.3%	38.7%	38.5%	38.5%	2012	-5.8%	-7.2%	-4.7%	-5.0%	-5.0%
2013	38.8%	36.8%	36.4%	36.5%	38.6%	2013	-10.4%	-6.4%	-5.8%	-5.1%	0.3%
2014	37.4%	35.7%	36.0%	34.5%		2014	-3.7%	-2.9%	-1.1%	-5.6%	
2015	39.4%	37.4%	35.9%			2015	5.3%	4.8%	-0.3%		
2016	40.3%	39.5%				2016	2.2%	5.5%			
2017	41.0%					2017	1.8%				

* Includes Permanent Partial, Permanent Total, and Death

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

Source: WCIRB unit statistical data

Indemnity Claim Frequency by Geographic Region

Bay Area

Indemnity Claim Frequency per \$100M of Exposure at AY 2017 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	24.04	24.72	25.25	24.94	24.97	2001	---	---	---	---	---
2002	23.53	23.93	24.16	24.15	24.18	2002	-2.1%	-3.2%	-4.3%	-3.2%	-3.2%
2003	21.94	22.32	22.45	22.55	22.86	2003	-6.8%	-6.7%	-7.1%	-6.6%	-5.5%
2004	19.26	19.50	19.58	19.84	19.89	2004	-12.2%	-12.6%	-12.8%	-12.1%	-13.0%
2005	17.00	17.04	17.31	17.38	17.36	2005	-11.8%	-12.6%	-11.6%	-12.4%	-12.8%
2006	15.54	15.84	15.98	16.00	16.00	2006	-8.6%	-7.0%	-7.7%	-8.0%	-7.8%
2007	14.58	14.84	14.93	14.99	15.03	2007	-6.2%	-6.3%	-6.6%	-6.3%	-6.1%
2008	13.41	13.67	13.83	13.92	13.97	2008	-8.0%	-7.9%	-7.4%	-7.2%	-7.0%
2009	12.74	13.14	13.29	13.39	13.42	2009	-5.0%	-3.9%	-3.9%	-3.8%	-3.9%
2010	12.73	13.29	13.45	13.54	13.57	2010	-0.1%	1.2%	1.2%	1.1%	1.1%
2011	12.40	12.98	13.20	13.31	13.36	2011	-2.6%	-2.4%	-1.8%	-1.7%	-1.6%
2012	12.25	12.78	12.99	13.08	13.12	2012	-1.2%	-1.5%	-1.6%	-1.7%	-1.8%
2013	11.91	12.40	12.55	12.63	12.66	2013	-2.8%	-2.9%	-3.4%	-3.5%	-3.5%
2014	11.79	12.26	12.37	12.46		2014	-1.0%	-1.2%	-1.4%	-1.3%	
2015	11.61	12.28	12.39			2015	-1.5%	0.2%	0.2%		
2016	11.20	11.98				2016	-3.6%	-2.5%			
2017	10.96					2017	-2.1%				

Los Angeles/L.A. Basin

Indemnity Claim Frequency per \$100M of Exposure at AY 2017 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	32.89	34.52	34.93	34.88	34.72	2001	---	---	---	---	---
2002	33.17	34.74	34.68	34.59	34.48	2002	0.8%	0.7%	-0.7%	-0.8%	-0.7%
2003	31.85	32.90	32.67	32.65	32.49	2003	-4.0%	-5.3%	-5.8%	-5.6%	-5.8%
2004	27.80	27.97	28.01	27.96	28.00	2004	-12.7%	-15.0%	-14.3%	-14.4%	-13.8%
2005	23.86	23.84	23.92	24.08	24.16	2005	-14.2%	-14.8%	-14.6%	-13.9%	-13.7%
2006	22.08	22.28	22.50	22.68	22.74	2006	-7.5%	-6.5%	-5.9%	-5.8%	-5.9%
2007	21.25	21.86	22.17	22.35	22.44	2007	-3.8%	-1.9%	-1.5%	-1.5%	-1.3%
2008	20.54	21.55	21.94	22.19	22.30	2008	-3.3%	-1.4%	-1.0%	-0.7%	-0.6%
2009	20.68	21.86	22.35	22.57	22.67	2009	0.7%	1.4%	1.9%	1.7%	1.7%
2010	21.71	23.05	23.60	23.81	23.89	2010	5.0%	5.4%	5.6%	5.5%	5.4%
2011	22.33	23.92	24.45	24.69	24.79	2011	2.8%	3.8%	3.6%	3.7%	3.8%
2012	23.33	25.06	25.55	25.76	25.89	2012	4.5%	4.8%	4.5%	4.3%	4.4%
2013	23.93	25.57	26.01	26.19	26.32	2013	2.6%	2.0%	1.8%	1.7%	1.7%
2014	24.51	26.15	26.55	26.74		2014	2.4%	2.3%	2.1%	2.1%	
2015	24.47	26.03	26.41			2015	-0.2%	-0.4%	-0.5%		
2016	23.76	25.19				2016	-2.9%	-3.2%			
2017	23.42					2017	-1.4%				

San Diego

Indemnity Claim Frequency per \$100M of Exposure at AY 2017 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	33.55	34.39	34.60	34.57	34.35	2001	---	---	---	---	---
2002	32.15	32.48	32.46	32.16	32.27	2002	-4.2%	-5.6%	-6.2%	-7.0%	-6.1%
2003	29.44	29.65	29.40	29.32	29.43	2003	-8.4%	-8.7%	-9.4%	-8.8%	-8.8%
2004	25.75	25.65	25.69	25.57	25.12	2004	-12.5%	-13.5%	-12.6%	-12.8%	-14.6%
2005	22.41	22.48	22.49	21.76	21.52	2005	-13.0%	-12.4%	-12.5%	-14.9%	-14.4%
2006	20.94	20.82	20.22	19.86	19.89	2006	-6.5%	-7.4%	-10.1%	-8.7%	-7.5%
2007	20.20	19.68	19.37	19.07	19.12	2007	-3.5%	-5.5%	-4.2%	-4.0%	-3.9%
2008	18.55	18.62	18.79	18.55	18.64	2008	-8.2%	-5.4%	-3.0%	-2.7%	-2.5%
2009	17.50	18.20	18.39	18.52	18.62	2009	-5.7%	-2.2%	-2.1%	-0.1%	-0.1%
2010	18.18	18.95	19.20	19.40	19.47	2010	3.9%	4.1%	4.4%	4.8%	4.6%
2011	18.50	19.20	19.49	19.69	19.75	2011	1.8%	1.4%	1.5%	1.5%	1.4%
2012	18.66	19.34	19.60	19.72	19.79	2012	0.9%	0.7%	0.5%	0.2%	0.2%
2013	18.40	19.09	19.26	19.34	19.40	2013	-1.4%	-1.3%	-1.7%	-1.9%	-1.9%
2014	18.73	19.52	19.66	19.75		2014	1.8%	2.2%	2.1%	2.1%	
2015	18.97	19.81	20.00			2015	1.3%	1.5%	1.7%		
2016	18.92	19.74				2016	-0.2%	-0.4%			
2017	19.53					2017	3.2%				

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

Indemnity Claim Frequency by Geographic Region

All Other

Indemnity Claim Frequency per \$100M of Exposure at AY 2017 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	40.98	42.74	42.86	43.40	43.96	2001	---	---	---	---	---
2002	40.06	41.21	41.94	42.47	42.81	2002	-2.2%	-3.6%	-2.2%	-2.2%	-2.6%
2003	37.87	39.22	39.73	39.92	40.08	2003	-5.5%	-4.8%	-5.3%	-6.0%	-6.4%
2004	34.56	35.36	35.50	35.69	35.83	2004	-8.8%	-9.8%	-10.7%	-10.6%	-10.6%
2005	30.24	30.69	30.91	31.17	31.35	2005	-12.5%	-13.2%	-12.9%	-12.7%	-12.5%
2006	27.66	28.03	28.37	28.62	28.71	2006	-8.5%	-8.7%	-8.2%	-8.2%	-8.4%
2007	26.22	26.82	27.30	27.58	27.63	2007	-5.2%	-4.3%	-3.8%	-3.7%	-3.8%
2008	24.72	25.50	25.85	26.06	26.13	2008	-5.7%	-4.9%	-5.3%	-5.5%	-5.4%
2009	24.15	24.95	25.15	25.31	25.41	2009	-2.3%	-2.2%	-2.7%	-2.8%	-2.7%
2010	24.58	25.55	25.89	26.01	26.17	2010	1.8%	2.4%	2.9%	2.7%	3.0%
2011	24.83	26.05	26.45	26.62	26.73	2011	1.1%	2.0%	2.2%	2.3%	2.1%
2012	25.41	26.59	26.98	27.17	27.23	2012	2.3%	2.1%	2.0%	2.1%	1.9%
2013	25.26	26.37	26.74	26.87	26.93	2013	-0.6%	-0.8%	-0.9%	-1.1%	-1.1%
2014	25.01	26.11	26.51	26.62		2014	-1.0%	-1.0%	-0.9%	-0.9%	
2015	24.93	26.00	26.43			2015	-0.3%	-0.4%	-0.3%		
2016	23.83	24.85				2016	-4.4%	-4.4%			
2017	22.55					2017	-5.4%				

All Regions

Indemnity Claim Frequency per \$100M of Exposure at AY 2017 Level						Annual Change					
AY/RL	1	2	3	4	5	AY/RL	1	2	3	4	5
2001	32.56	33.83	34.24	34.18	34.22	2001	---	---	---	---	---
2002	32.26	33.36	33.48	33.51	33.54	2002	-0.9%	-1.4%	-2.2%	-2.0%	-2.0%
2003	30.65	31.43	31.44	31.49	31.53	2003	-5.0%	-5.8%	-6.1%	-6.0%	-6.0%
2004	27.04	27.33	27.39	27.44	27.45	2004	-11.8%	-13.0%	-12.9%	-12.9%	-12.9%
2005	23.46	23.56	23.70	23.77	23.81	2005	-13.2%	-13.8%	-13.5%	-13.4%	-13.3%
2006	21.59	21.82	21.98	22.08	22.13	2006	-8.0%	-7.4%	-7.2%	-7.1%	-7.1%
2007	20.59	21.02	21.25	21.37	21.44	2007	-4.7%	-3.7%	-3.3%	-3.2%	-3.1%
2008	19.47	20.15	20.45	20.62	20.71	2008	-5.4%	-4.2%	-3.8%	-3.5%	-3.4%
2009	19.16	20.03	20.36	20.53	20.62	2009	-1.6%	-0.6%	-0.4%	-0.4%	-0.5%
2010	19.71	20.74	21.12	21.28	21.37	2010	2.9%	3.5%	3.7%	3.6%	3.6%
2011	19.94	21.12	21.53	21.72	21.80	2011	1.2%	1.8%	2.0%	2.1%	2.0%
2012	20.41	21.60	21.97	22.14	22.23	2012	2.3%	2.3%	2.1%	1.9%	2.0%
2013	20.49	21.63	21.94	22.08	22.16	2013	0.4%	0.1%	-0.1%	-0.3%	-0.3%
2014	20.61	21.73	22.04	22.18		2014	0.6%	0.5%	0.4%	0.4%	
2015	20.43	21.64	21.95			2015	-0.9%	-0.4%	-0.4%		
2016	19.79	21.02				2016	-3.1%	-2.9%			
2017	19.33					2016	-2.3%				

Percentage of Cumulative Trauma Indemnity Claims by Policy Year and NAICS Sector at 1st Report Level*

Los Angeles County and Remainder of LA Basin				1st Report Level			
<u>NAICS Sector</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Professional Services	13.8%	15.7%	13.5%	16.5%	15.2%	21.1%	28.5%
Manufacturing	14.3%	15.8%	17.8%	21.8%	22.5%	22.1%	27.4%
Outside Sales & Clerical	17.7%	20.5%	22.7%	23.8%	21.6%	22.8%	24.6%
Finance & Insurance	14.6%	14.2%	30.4%	21.7%	23.7%	28.6%	24.5%
Other Services	13.8%	14.6%	15.1%	16.0%	19.1%	18.0%	22.8%
Hospitality	12.8%	11.6%	16.0%	19.0%	19.3%	19.0%	17.9%
All Sectors	11.6%	11.6%	13.8%	15.3%	15.9%	16.2%	17.7%
Administrative	11.4%	11.2%	13.4%	14.7%	18.6%	18.5%	15.7%
Health	12.5%	9.4%	12.1%	12.9%	12.5%	14.2%	15.0%
Wholesale & Retail	8.3%	9.2%	9.7%	11.6%	12.1%	12.9%	14.9%
Real Estate	12.4%	11.8%	15.2%	16.0%	13.6%	17.8%	14.8%
Arts & Entertainment	8.5%	9.0%	13.4%	15.1%	14.0%	13.3%	13.9%
Agriculture & Mining	7.1%	6.6%	6.4%	10.4%	11.7%	12.3%	12.0%
Education	8.7%	11.2%	11.6%	8.8%	10.4%	11.1%	12.0%
Construction	9.5%	7.2%	8.1%	8.5%	10.5%	11.1%	11.1%
Utilities, Transportation & Warehousing & Public Admin	6.7%	5.6%	8.0%	7.6%	7.7%	7.5%	7.6%
Information	9.8%	9.8%	11.8%	8.7%	8.7%	7.1%	5.3%
Remainder of CA				1st Report Level			
<u>NAICS Sector</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Finance & Insurance	27.7%	26.6%	26.1%	26.8%	22.9%	23.4%	26.8%
Outside Sales & Clerical	17.6%	15.6%	16.9%	18.1%	14.6%	16.1%	17.7%
Professional Services	10.8%	11.1%	11.4%	11.1%	12.1%	9.9%	13.6%
Information	8.0%	6.5%	10.8%	7.6%	10.4%	8.6%	13.0%
Hospitality	6.5%	7.3%	9.0%	9.9%	10.4%	10.5%	11.3%
Manufacturing	7.8%	8.5%	9.1%	10.6%	9.5%	8.4%	9.3%
Health	7.5%	6.3%	7.6%	8.8%	8.2%	8.8%	8.8%
Other Services	6.5%	6.0%	5.9%	7.2%	9.2%	8.4%	8.7%
Administrative	4.7%	4.8%	5.3%	8.0%	8.3%	9.5%	8.7%
All Sectors	7.4%	6.9%	7.5%	8.6%	8.0%	7.8%	8.0%
Arts & Entertainment	7.4%	6.8%	9.0%	7.9%	8.8%	7.9%	7.5%
Real Estate	7.0%	6.4%	6.7%	7.8%	9.4%	8.3%	6.8%
Utilities, Transportation & Warehousing & Public Admin	6.2%	6.6%	6.5%	7.2%	6.3%	6.7%	6.4%
Wholesale & Retail	5.8%	5.6%	6.1%	8.1%	6.9%	6.6%	6.2%
Education	6.2%	5.6%	5.3%	4.5%	5.1%	4.7%	5.2%
Agriculture & Mining	4.6%	4.0%	4.2%	5.1%	5.2%	4.4%	4.4%
Construction	5.6%	3.9%	3.8%	4.0%	3.7%	3.3%	3.9%

*NAICS Sector order based on most recent Policy Year available
Source: Unit Statistical Reported data

Percentage of Cumulative Trauma Indemnity Claims by Policy Year and NAICS Sector at 3rd Report Level*

Los Angeles County and Remainder of LA Basin				3rd Report Level			
NAICS Sector	2008	2009	2010	2011	2012	2013	2014
Outside Sales & Clerical	19.3%	20.3%	19.3%	23.6%	26.3%	26.1%	24.8%
Manufacturing	17.0%	18.2%	18.6%	20.6%	21.5%	24.4%	24.4%
Finance & Insurance	14.0%	15.8%	38.3%	35.8%	31.7%	24.2%	23.9%
Hospitality	11.0%	12.8%	15.3%	14.4%	18.5%	21.6%	21.8%
Other Services	12.9%	17.0%	16.4%	16.9%	18.1%	18.0%	21.5%
Administrative	10.1%	11.3%	13.6%	13.0%	15.5%	17.3%	20.1%
All Sectors	12.1%	13.5%	14.2%	14.8%	16.4%	17.8%	18.2%
Arts & Entertainment	10.7%	9.9%	11.1%	11.3%	14.3%	18.4%	16.5%
Professional Services	14.3%	14.4%	13.5%	17.5%	15.2%	18.5%	16.3%
Real Estate	10.9%	14.7%	13.1%	15.2%	17.2%	18.3%	16.0%
Health	10.8%	13.5%	13.9%	12.6%	14.9%	15.7%	15.4%
Wholesale & Retail	9.6%	9.6%	9.8%	11.2%	12.1%	13.9%	14.3%
Agriculture & Mining	7.9%	6.9%	7.8%	8.2%	7.6%	11.6%	12.7%
Construction	8.5%	11.1%	11.5%	9.5%	10.8%	10.8%	12.6%
Education	8.7%	10.9%	11.6%	12.1%	13.1%	10.5%	11.1%
Information	11.9%	12.3%	11.2%	12.6%	12.7%	11.4%	10.4%
Utilities, Transportation & Warehousing & Public Admin	6.4%	7.9%	8.3%	6.9%	9.2%	9.8%	10.1%
Remainder of CA				3rd Report Level			
NAICS Sector	2008	2009	2010	2011	2012	2013	2014
Finance & Insurance	26.6%	28.4%	27.8%	28.9%	30.1%	26.5%	23.9%
Outside Sales & Clerical	19.8%	20.6%	19.0%	17.7%	18.9%	19.7%	16.9%
Arts & Entertainment	6.3%	7.5%	14.9%	13.1%	11.4%	10.9%	13.8%
Professional Services	15.5%	14.4%	12.5%	13.5%	11.3%	13.5%	13.5%
Hospitality	6.9%	7.3%	8.5%	9.1%	10.6%	11.2%	11.6%
Information	18.5%	7.7%	13.1%	10.3%	11.7%	10.6%	11.2%
Manufacturing	8.0%	8.9%	10.1%	11.8%	11.3%	11.9%	10.9%
Real Estate	4.8%	6.7%	8.3%	8.0%	9.0%	9.7%	10.9%
Other Services	7.1%	8.6%	7.3%	8.3%	8.5%	9.6%	10.1%
Health	7.9%	9.0%	9.3%	7.8%	8.9%	9.8%	9.7%
Administrative	3.6%	5.2%	5.2%	7.2%	8.4%	9.8%	9.5%
All Sectors	7.6%	8.4%	8.6%	8.9%	9.2%	9.9%	9.4%
Wholesale & Retail	5.9%	6.7%	7.1%	7.7%	7.3%	9.1%	7.9%
Utilities, Transportation & Warehousing & Public Admin	7.4%	6.6%	5.9%	7.5%	8.0%	8.3%	7.6%
Agriculture & Mining	3.2%	3.9%	4.4%	5.2%	4.9%	6.1%	6.0%
Education	6.2%	7.0%	6.5%	6.6%	7.3%	5.9%	5.9%
Construction	4.9%	7.0%	6.4%	5.2%	5.2%	5.2%	5.2%

*NAICS Sector order based on most recent Policy Year available
Source: Unit Statistical Reported data

Percentage of Cumulative Trauma Indemnity Claims by Policy Year and NAICS Sector at 5th Report Level*

Los Angeles County and Remainder of LA Basin				5th Report Level			
<u>NAICS Sector</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Finance & Insurance	33.8%	26.4%	22.8%	22.7%	26.2%	33.3%	39.1%
Outside Sales & Clerical	17.5%	17.4%	18.8%	18.4%	20.1%	21.0%	20.2%
Manufacturing	15.2%	14.5%	14.5%	15.4%	18.0%	19.5%	18.7%
Hospitality	8.9%	9.2%	8.9%	9.9%	11.8%	13.6%	15.2%
Other Services	12.2%	10.5%	11.7%	12.3%	14.1%	17.8%	16.5%
All Sectors	11.1%	10.1%	10.7%	11.2%	13.0%	14.4%	14.6%
Real Estate	6.9%	7.6%	8.8%	9.6%	11.0%	15.4%	14.3%
Professional Services	17.0%	15.1%	15.2%	18.1%	16.9%	15.2%	15.3%
Administrative	6.7%	6.5%	7.1%	7.5%	10.8%	11.5%	13.5%
Health	12.3%	11.4%	12.7%	11.1%	11.6%	13.6%	14.7%
Arts & Entertainment	7.7%	7.6%	8.5%	7.9%	11.2%	10.5%	11.8%
Education	8.7%	8.1%	9.3%	8.7%	9.0%	11.3%	13.5%
Information	20.4%	17.3%	16.0%	16.1%	12.7%	12.7%	11.7%
Wholesale & Retail	8.7%	7.6%	8.3%	8.8%	9.9%	10.4%	10.4%
Construction	5.4%	4.2%	5.2%	6.8%	9.5%	11.3%	12.0%
Utilities, Transportation & Warehousing & Public Admin	4.5%	4.8%	5.5%	6.1%	6.8%	8.4%	8.9%
Agriculture & Mining	7.9%	7.2%	6.2%	5.3%	7.6%	7.2%	8.0%
Remainder of CA				5th Report Level			
<u>NAICS Sector</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Finance & Insurance	24.6%	26.5%	27.4%	24.0%	28.4%	30.3%	29.1%
Outside Sales & Clerical	18.4%	17.1%	17.1%	18.8%	20.2%	21.4%	19.6%
Arts & Entertainment	9.4%	7.0%	7.6%	7.2%	9.1%	10.7%	17.9%
Professional Services	16.2%	15.7%	14.7%	15.2%	15.4%	14.1%	13.3%
Information	18.5%	13.0%	11.0%	11.2%	20.7%	9.2%	12.8%
Manufacturing	9.5%	9.0%	9.2%	9.3%	9.2%	10.4%	10.7%
Health	9.3%	9.1%	8.8%	8.1%	8.4%	9.9%	9.3%
All Sectors	7.6%	6.9%	7.1%	7.4%	8.1%	9.2%	9.2%
Hospitality	6.6%	5.8%	6.1%	6.3%	7.0%	8.4%	9.1%
Real Estate	5.5%	4.9%	6.7%	5.0%	4.6%	7.8%	8.3%
Other Services	8.4%	7.7%	7.7%	7.8%	7.5%	9.0%	8.0%
Wholesale & Retail	6.6%	6.3%	6.5%	5.8%	6.4%	7.1%	7.6%
Construction	4.3%	3.4%	4.1%	4.7%	5.9%	7.7%	6.9%
Administrative	3.9%	3.7%	3.0%	3.9%	4.2%	6.0%	6.7%
Utilities, Transportation & Warehousing & Public Admin	5.2%	4.7%	5.0%	6.4%	6.8%	6.6%	6.5%
Education	5.2%	5.3%	5.3%	6.6%	6.3%	7.7%	6.3%
Agriculture & Mining	3.4%	3.1%	3.5%	3.4%	3.6%	4.2%	4.9%

*NAICS Sector order based on most recent Policy Year available
Source: Unit Statistical Reported data

Frequency of Indemnity Claims Caused by Motor Vehicle Accidents

Indemnity Claim Frequency per \$100M of Exposure at AY 2017 Level				Annual Change			
<u>AY/RL</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>AY/RL</u>	<u>1</u>	<u>2</u>	<u>3</u>
2001	1.00	0.93	0.97	2001			
2002	0.85	0.93	0.94	2002	-15.3%	0.5%	-3.2%
2003	0.95	0.97	0.97	2003	12.0%	3.7%	3.3%
2004	0.82	0.80	0.79	2004	-13.5%	-17.2%	-18.2%
2005	0.69	0.66	0.66	2005	-16.4%	-17.1%	-16.5%
2006	0.68	0.65	0.65	2006	-0.9%	-1.5%	-1.4%
2007	0.67	0.65	0.65	2007	-2.0%	-0.4%	-0.6%
2008	0.61	0.60	0.61	2008	-8.5%	-7.4%	-6.4%
2009	0.56	0.56	0.57	2009	-7.4%	-7.2%	-6.8%
2010	0.61	0.60	0.60	2010	7.9%	7.8%	6.4%
2011	0.57	0.57	0.57	2011	-6.9%	-5.6%	-5.1%
2012	0.55	0.56	0.56	2012	-2.3%	-1.7%	-2.1%
2013	0.57	0.57	0.57	2013	3.0%	1.0%	1.8%
2014	0.54	0.54	0.54	2014	-6.2%	-4.8%	-5.3%
2015	0.59	0.59		2015	10.3%	10.2%	
2016	0.62			2016	4.4%		

Percentage of Indemnity Claims			
<u>AY/RL</u>	<u>1</u>	<u>2</u>	<u>3</u>
2001	2.9%	2.8%	2.8%
2002	3.0%	2.9%	2.9%
2003	2.9%	2.9%	2.9%
2004	3.1%	3.0%	2.9%
2005	3.1%	3.0%	2.9%
2006	3.2%	3.0%	3.0%
2007	3.2%	3.1%	3.1%
2008	3.2%	3.0%	3.0%
2009	3.1%	3.0%	2.9%
2010	3.0%	2.9%	2.8%
2011	2.9%	2.8%	2.7%
2012	2.7%	2.6%	2.5%
2013	2.7%	2.6%	2.5%
2014	2.6%	2.4%	2.4%
2015	2.9%	2.7%	
2016	3.0%		

Comparison of Projected Loss Ratios as of September 30, 2018
Accident Year 2012 Projected to 81 Months^[1]

Indemnity

<u>Methodology</u>	Based on Experience Evaluated as of (in months):					
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>Current</u>
3-Year Avg. Incurred	0.259	0.256	0.249	0.246	0.244	0.240
Latest Year Incurred	0.253	0.252	0.247	0.244	0.243	0.240
Latest Yr. Inc. Adj. for Case Reserves	0.295	0.275	0.257	0.249	0.247	0.240
3-Year Avg. Paid	0.252	0.250	0.247	0.243	0.243	0.240
Latest Year Paid	0.257	0.254	0.250	0.244	0.244	0.240
Reform-Adj. Paid ^[2]	0.257	0.254	0.250	0.244	0.244	0.240
Latest Yr. Pd. Adj. for Settlement ^[3]	0.255	0.253	0.249	0.245	0.244	0.240

	Difference from Actual 81-Month Loss Ratio					
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>Current</u>
3-Year Avg. Incurred	7.9%	6.6%	3.7%	2.7%	1.8%	0.0%
Latest Year Incurred	5.4%	5.2%	3.0%	1.6%	1.4%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	22.9%	14.8%	7.1%	3.8%	3.1%	0.0%
3-Year Avg. Paid	4.9%	4.2%	2.9%	1.5%	1.4%	0.0%
Latest Year Paid	7.0%	6.0%	4.1%	1.9%	1.7%	0.0%
Reform-Adj. Paid ^[2]	7.0%	6.0%	4.1%	1.9%	1.7%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	6.5%	5.5%	3.8%	2.3%	1.8%	0.0%

Medical

	Based on Experience Evaluated as of (in months):					
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>Current</u>
3-Year Avg. Incurred	0.383	0.370	0.355	0.342	0.332	0.320
Latest Year Incurred	0.385	0.373	0.355	0.341	0.331	0.320
Latest Yr. Inc. Adj. for Case Reserves	0.419	0.382	0.356	0.347	0.334	0.320
3-Year Avg. Paid	0.325	0.331	0.330	0.327	0.326	0.320
Latest Year Paid	0.341	0.342	0.337	0.330	0.327	0.320
Reform-Adj. Paid ^[2]	0.341	0.342	0.337	0.330	0.327	0.320
Latest Yr. Pd. Adj. for Settlement ^[3]	0.340	0.341	0.337	0.330	0.327	0.320

	Difference from Actual 81-Month Loss Ratio					
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>Current</u>
3-Year Avg. Incurred	19.8%	15.5%	10.8%	6.7%	3.6%	0.0%
Latest Year Incurred	20.2%	16.4%	10.9%	6.4%	3.5%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	30.9%	19.4%	11.1%	8.4%	4.3%	0.0%
3-Year Avg. Paid	1.6%	3.3%	3.2%	2.1%	1.7%	0.0%
Latest Year Paid	6.4%	6.9%	5.3%	3.0%	2.0%	0.0%
Reform-Adj. Paid ^[2]	6.4%	6.9%	5.3%	3.0%	2.0%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	6.1%	6.6%	5.2%	3.1%	2.1%	0.0%

[1] Each loss ratio is projected to incurred losses at 81 months. Loss ratios projected under paid methods are converted to an incurred basis causing the ratio of incurred losses to paid losses reported at 81 months.

[2] The Reform-Adjusted Paid Methodology reflects adjustments for SB 1160.

[3] The Latest Year Claim-Settlement Methodology for projecting ultimate loss ratios also contemplates adjustments for reforms. See [2] above.

Source: WCIRB quarterly calls for experience

**Comparison of Projected Loss Ratios as of September 30, 2018
Accident Year 2013 Projected to 69 Months^[1]**

Indemnity

<u>Methodology</u>	Based on Experience Evaluated as of (in months):				
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>Current</u>
3-Year Avg. Incurred	0.220	0.213	0.207	0.203	0.200
Latest Year Incurred	0.217	0.212	0.207	0.203	0.200
Latest Yr. Inc. Adj. for Case Reserves	0.235	0.220	0.210	0.203	0.200
3-Year Avg. Paid	0.213	0.211	0.207	0.204	0.200
Latest Year Paid	0.210	0.209	0.207	0.204	0.200
Reform-Adj. Paid ^[2]	0.210	0.209	0.207	0.204	0.200
Latest Yr. Pd. Adj. for Settlement ^[3]	0.206	0.205	0.205	0.203	0.200

	Difference from Actual 69-Month Loss Ratio				
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>Current</u>
3-Year Avg. Incurred	10.3%	6.8%	3.8%	1.7%	0.0%
Latest Year Incurred	8.5%	6.1%	3.7%	1.8%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	17.8%	10.2%	4.9%	1.7%	0.0%
3-Year Avg. Paid	6.7%	5.5%	3.8%	2.1%	0.0%
Latest Year Paid	5.0%	4.5%	3.8%	2.3%	0.0%
Reform-Adj. Paid ^[2]	5.0%	4.5%	3.8%	2.3%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	3.0%	2.6%	2.4%	1.4%	0.0%

Medical

	Based on Experience Evaluated as of (in months):				
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>Current</u>
3-Year Avg. Incurred	0.309	0.292	0.276	0.264	0.253
Latest Year Incurred	0.295	0.286	0.272	0.263	0.253
Latest Yr. Inc. Adj. for Case Reserves	0.320	0.291	0.273	0.266	0.253
3-Year Avg. Paid	0.269	0.269	0.264	0.259	0.253
Latest Year Paid	0.273	0.271	0.266	0.261	0.253
Reform-Adj. Paid ^[2]	0.273	0.271	0.266	0.261	0.253
Latest Yr. Pd. Adj. for Settlement ^[3]	0.270	0.268	0.264	0.260	0.253

	Difference from Actual 69-Month Loss Ratio				
	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>Current</u>
3-Year Avg. Incurred	22.1%	15.2%	9.0%	4.3%	0.0%
Latest Year Incurred	16.6%	12.9%	7.5%	4.0%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	26.3%	14.8%	7.7%	5.1%	0.0%
3-Year Avg. Paid	6.4%	6.1%	4.1%	2.4%	0.0%
Latest Year Paid	7.8%	6.9%	5.0%	3.1%	0.0%
Reform-Adj. Paid ^[2]	7.8%	6.9%	5.0%	3.1%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	6.6%	5.7%	4.1%	2.5%	0.0%

[1] Each loss ratio is projected to incurred losses at 69 months. Loss ratios projected under paid methods are converted to an incurred basis causing the ratio of incurred losses to paid losses reported at 69 months.

[2] The Reform-Adjusted Paid Methodology reflects adjustments for SB 1160.

[3] The Latest Year Claim-Settlement Methodology for projecting ultimate loss ratios also contemplates adjustments for reforms. See [2] above.

Source: WCIRB quarterly calls for experience

Comparison of Projected Loss Ratios as of September 30, 2018
Accident Year 2014 Projected to 57 Months^[1]

Indemnity

Methodology	Based on Experience Evaluated as of (in months):			
	<u>21</u>	<u>33</u>	<u>45</u>	<u>Current</u>
3-Year Avg. Incurred	0.187	0.188	0.187	0.185
Latest Year Incurred	0.180	0.184	0.185	0.185
Latest Yr. Inc. Adj. for Case Reserves	0.189	0.191	0.187	0.185
3-Year Avg. Paid	0.186	0.190	0.188	0.185
Latest Year Paid	0.182	0.187	0.187	0.185
Reform-Adj. Paid ^[2]	0.182	0.187	0.187	0.185
Latest Yr. Pd. Adj. for Settlement ^[3]	0.180	0.185	0.186	0.185

Difference from Actual 57-Month Loss Ratio				
	<u>21</u>	<u>33</u>	<u>45</u>	<u>Current</u>
3-Year Avg. Incurred	1.2%	1.8%	1.1%	0.0%
Latest Year Incurred	-2.4%	-0.4%	0.3%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	2.1%	3.1%	1.2%	0.0%
3-Year Avg. Paid	0.5%	2.6%	1.9%	0.0%
Latest Year Paid	-1.4%	1.4%	1.3%	0.0%
Reform-Adj. Paid ^[2]	-1.4%	1.4%	1.3%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	-2.8%	0.2%	0.7%	0.0%

Medical

Based on Experience Evaluated as of (in months):				
	<u>21</u>	<u>33</u>	<u>45</u>	<u>Current</u>
3-Year Avg. Incurred	0.245	0.236	0.228	0.218
Latest Year Incurred	0.229	0.228	0.226	0.218
Latest Yr. Inc. Adj. for Case Reserves	0.239	0.229	0.221	0.218
3-Year Avg. Paid	0.230	0.229	0.224	0.218
Latest Year Paid	0.227	0.226	0.222	0.218
Reform-Adj. Paid ^[2]	0.227	0.226	0.222	0.218
Latest Yr. Pd. Adj. for Settlement ^[3]	0.225	0.224	0.221	0.218

Difference from Actual 57-Month Loss Ratio				
	<u>21</u>	<u>33</u>	<u>45</u>	<u>Current</u>
3-Year Avg. Incurred	12.6%	8.4%	4.6%	0.0%
Latest Year Incurred	5.1%	4.5%	3.7%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	9.6%	5.0%	1.3%	0.0%
3-Year Avg. Paid	5.8%	4.9%	2.8%	0.0%
Latest Year Paid	4.1%	3.6%	2.1%	0.0%
Reform-Adj. Paid ^[2]	4.1%	3.6%	2.1%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	3.3%	2.9%	1.7%	0.0%

[1] Each loss ratio is projected to incurred losses at 57 months. Loss ratios projected under paid methods are converted to an incurred basis causing the ratio of incurred losses to paid losses reported at 57 months.

[2] The Reform-Adjusted Paid Methodology reflects adjustments for SB 1160.

[3] The Latest Year Claim-Settlement Methodology for projecting ultimate loss ratios also contemplates adjustments for reforms. See [2] above.

Source: WCIRB quarterly calls for experience

Comparison of Projected Loss Ratios as of September 30, 2018
Accident Year 2015 Projected to 45 Months^[1]

Indemnity

Methodology	Based on Experience Evaluated as of (in months):		
	<u>21</u>	<u>33</u>	<u>Current</u>
3-Year Avg. Incurred	0.175	0.175	0.172
Latest Year Incurred	0.175	0.174	0.172
Latest Yr. Inc. Adj. for Case Reserves	0.179	0.176	0.172
3-Year Avg. Paid	0.173	0.174	0.172
Latest Year Paid	0.175	0.174	0.172
Reform-Adj. Paid ^[2]	0.175	0.174	0.172
Latest Yr. Pd. Adj. for Settlement ^[3]	0.173	0.173	0.172

Difference from Actual 45-Month Loss Ratio			
	<u>21</u>	<u>33</u>	<u>Current</u>
3-Year Avg. Incurred	1.6%	1.5%	0.0%
Latest Year Incurred	1.8%	1.0%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	4.1%	2.3%	0.0%
3-Year Avg. Paid	0.3%	1.2%	0.0%
Latest Year Paid	1.9%	1.1%	0.0%
Reform-Adj. Paid ^[2]	1.9%	1.1%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	0.5%	0.4%	0.0%

Medical

Based on Experience Evaluated as of (in months):			
	<u>21</u>	<u>33</u>	<u>Current</u>
3-Year Avg. Incurred	0.211	0.209	0.202
Latest Year Incurred	0.205	0.205	0.202
Latest Yr. Inc. Adj. for Case Reserves	0.216	0.208	0.202
3-Year Avg. Paid	0.210	0.207	0.202
Latest Year Paid	0.208	0.206	0.202
Reform-Adj. Paid ^[2]	0.208	0.206	0.202
Latest Yr. Pd. Adj. for Settlement ^[3]	0.206	0.205	0.202

Difference from Actual 45-Month Loss Ratio			
	<u>21</u>	<u>33</u>	<u>Current</u>
3-Year Avg. Incurred	4.4%	3.1%	0.0%
Latest Year Incurred	1.3%	1.3%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	6.7%	2.8%	0.0%
3-Year Avg. Paid	3.8%	2.4%	0.0%
Latest Year Paid	2.6%	1.7%	0.0%
Reform-Adj. Paid ^[2]	2.6%	1.7%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	1.8%	1.2%	0.0%

[1] Each loss ratio is projected to incurred losses at 45 months. Loss ratios projected under paid methods are converted to an incurred basis causing the ratio of incurred losses to paid losses reported at 45 months.

[2] The Reform-Adjusted Paid Methodology reflects adjustments for SB 1160.

[3] The Latest Year Claim-Settlement Methodology for projecting ultimate loss ratios also contemplates adjustments for reforms. See [2] above.

Source: WCIRB quarterly calls for experience

Comparison of Projected Loss Ratios as of September 30, 2018
Accident Year 2016 Projected to 33 Months^[1]

Indemnity

Methodology	Based on Experience Evaluated as of (in months):	
	<u>21</u>	<u>Current</u>
3-Year Avg. Incurred	0.149	0.146
Latest Year Incurred	0.149	0.146
Latest Yr. Inc. Adj. for Case Reserves	0.147	0.146
3-Year Avg. Paid	0.150	0.146
Latest Year Paid	0.150	0.146
Reform-Adj. Paid ^[2]	0.150	0.146
Latest Yr. Pd. Adj. for Settlement ^[3]	0.148	0.146

Difference from Actual 33-Month Loss Ratio

	<u>21</u>	<u>Current</u>
3-Year Avg. Incurred	1.6%	0.0%
Latest Year Incurred	1.8%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	0.6%	0.0%
3-Year Avg. Paid	2.1%	0.0%
Latest Year Paid	2.5%	0.0%
Reform-Adj. Paid ^[2]	2.5%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	1.3%	0.0%

Medical

	Based on Experience Evaluated as of (in months):	
	<u>21</u>	<u>Current</u>
3-Year Avg. Incurred	0.184	0.180
Latest Year Incurred	0.183	0.180
Latest Yr. Inc. Adj. for Case Reserves	0.183	0.180
3-Year Avg. Paid	0.185	0.180
Latest Year Paid	0.184	0.180
Reform-Adj. Paid ^[2]	0.184	0.180
Latest Yr. Pd. Adj. for Settlement ^[3]	0.183	0.180

Difference from Actual 33-Month Loss Ratio

	<u>21</u>	<u>Current</u>
3-Year Avg. Incurred	2.0%	0.0%
Latest Year Incurred	1.9%	0.0%
Latest Yr. Inc. Adj. for Case Reserves	1.9%	0.0%
3-Year Avg. Paid	2.9%	0.0%
Latest Year Paid	2.2%	0.0%
Reform-Adj. Paid ^[2]	2.3%	0.0%
Latest Yr. Pd. Adj. for Settlement ^[3]	1.7%	0.0%

[1] Each loss ratio is projected to incurred losses at 33 months. Loss ratios projected under paid methods are converted to an incurred basis causing the ratio of incurred losses to paid losses reported at 33 months.

[2] The Reform-Adjusted Paid Methodology reflects adjustments for SB 1160.

[3] The Latest Year Claim-Settlement Methodology for projecting ultimate loss ratios also contemplates adjustments for reforms. See [2] above.

Source: WCIRB quarterly calls for experience

Average Incurred Indemnity Loss per Reported Indemnity Claim
As of September 30, 2018

Accident Year	Evaluated as of (in months):									
	9	21	33	45	57	69	81	93	105	117
1993										11,729
1994									12,497	12,596
1995								14,172	14,383	14,498
1996							16,114	16,429	16,650	16,700
1997						18,158	18,617	18,948	18,968	19,001
1998					19,437	20,270	20,776	20,880	20,901	21,002
1999				19,936	21,277	22,061	22,344	22,431	22,603	22,702
2000			18,804	21,290	22,545	22,944	23,156	23,487	23,671	23,794
2001		14,661	20,459	22,953	24,167	24,635	25,212	25,553	25,875	26,047
2002	9,682	15,080	19,849	21,711	22,472	23,281	23,696	24,059	24,299	24,567
2003	10,269	15,235	19,481	21,057	22,323	23,083	23,695	24,126	24,590	24,993
2004	9,680	13,203	15,521	17,087	17,841	18,644	19,162	19,737	20,114	20,423
2005	7,694	10,517	13,261	14,705	15,840	16,650	17,389	17,965	18,278	18,502
2006	7,552	10,999	14,330	16,138	17,380	18,410	19,165	19,616	19,890	20,072
2007	7,408	11,729	15,593	17,691	18,931	19,956	20,670	21,233	21,478	21,717
2008	7,718	12,749	16,963	19,545	21,107	22,051	22,718	23,160	23,454	23,622
2009	7,981	13,289	17,581	20,295	21,903	22,942	23,557	23,961	24,322	24,563
2010	7,919	13,025	17,495	19,924	21,396	22,325	22,927	23,333	23,604	
2011	7,978	13,458	17,523	19,889	21,134	21,933	22,443	22,889		
2012	8,245	13,497	17,429	19,407	20,681	21,554	22,026			
2013	8,453	13,452	17,151	19,190	20,239	20,946				
2014	8,513	13,538	17,653	19,851	21,140					
2015	8,822	14,138	18,321	20,395						
2016	8,980	14,236	18,073							
2017	9,146	14,572								
2018	9,698									

Accident Year	Annual Change									
	9	21	33	45	57	69	81	93	105	117
1994										7.4%
1995									15.1%	15.1%
1996								15.9%	15.8%	15.2%
1997							15.5%	15.3%	13.9%	13.8%
1998						11.6%	11.6%	10.2%	10.2%	10.5%
1999					9.5%	8.8%	7.5%	7.4%	8.1%	8.1%
2000				6.8%	6.0%	4.0%	3.6%	4.7%	4.7%	4.8%
2001			8.8%	7.8%	7.2%	7.4%	8.9%	8.8%	9.3%	9.5%
2002		2.9%	-3.0%	-5.4%	-7.0%	-5.5%	-6.0%	-5.8%	-6.1%	-5.7%
2003	6.1%	1.0%	-1.9%	-3.0%	-0.7%	-0.9%	0.0%	0.3%	1.2%	1.7%
2004	-5.7%	-13.3%	-20.3%	-18.9%	-20.1%	-19.2%	-19.1%	-18.2%	-18.2%	-18.3%
2005	-20.5%	-20.3%	-14.6%	-13.9%	-11.2%	-10.7%	-9.3%	-9.0%	-9.1%	-9.4%
2006	-1.8%	4.6%	8.1%	9.7%	9.7%	10.6%	10.2%	9.2%	8.8%	8.5%
2007	-1.9%	6.6%	8.8%	9.6%	8.9%	8.4%	7.9%	8.2%	8.0%	8.2%
2008	4.2%	8.7%	8.8%	10.5%	11.5%	10.5%	9.9%	9.1%	9.2%	8.8%
2009	3.4%	4.2%	3.6%	3.8%	3.8%	4.0%	3.7%	3.5%	3.7%	4.0%
2010	-0.8%	-2.0%	-0.5%	-1.8%	-2.3%	-2.7%	-2.7%	-2.6%	-3.0%	
2011	0.7%	3.3%	0.2%	-0.2%	-1.2%	-1.8%	-2.1%	-1.9%		
2012	3.4%	0.3%	-0.5%	-2.4%	-2.1%	-1.7%	-1.9%			
2013	2.5%	-0.3%	-1.6%	-1.1%	-2.1%	-2.8%				
2014	0.7%	0.6%	2.9%	3.4%	4.5%					
2015	3.6%	4.4%	3.8%	2.7%						
2016	1.8%	0.7%	-1.3%							
2017	1.8%	2.4%								
2018	6.0%									

Annual Trend*										
All-Year	0.1%	0.3%	-0.1%	-0.2%	-0.1%	0.2%	0.8%	1.6%	2.5%	3.4%
R ²	0.003	0.018	0.005	0.009	0.005	0.006	0.106	0.265	0.394	0.494
5-Year	3.0%	2.1%	1.4%	0.7%	-0.7%	-2.1%	-1.1%	1.6%	4.8%	7.6%
R ²	0.946	0.942	0.673	0.237	0.233	0.991	0.486	0.302	0.794	0.987

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Incurred Medical Loss per Reported Claim
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1997										5,083
1998									6,098	6,301
1999								6,873	7,140	7,381
2000							7,501	7,812	8,087	8,223
2001						8,437	8,750	9,149	9,544	9,862
2002					8,439	8,798	9,235	9,593	9,905	10,180
2003				7,725	8,123	8,652	9,032	9,389	9,756	10,048
2004			5,612	6,199	6,736	7,168	7,616	7,955	8,229	8,450
2005		4,609	5,370	5,928	6,348	6,900	7,296	7,651	7,947	8,040
2006	3,934	4,870	5,943	6,621	7,168	7,665	8,075	8,411	8,596	8,712
2007	4,170	5,464	6,704	7,549	8,198	8,776	9,239	9,557	9,735	9,811
2008	4,488	6,179	7,541	8,550	9,392	10,007	10,420	10,712	10,837	10,884
2009	5,054	6,876	8,543	9,713	10,689	11,316	11,682	11,898	11,995	12,067
2010	5,103	7,133	9,020	10,330	11,105	11,639	11,958	12,107	12,216	
2011	5,321	7,743	9,589	10,815	11,616	12,034	12,270	12,389		
2012	5,603	7,812	9,462	10,381	10,989	11,396	11,579			
2013	5,631	7,797	9,170	9,978	10,445	10,697				
2014	5,627	7,471	8,760	9,528	9,926					
2015	5,793	7,477	8,766	9,467						
2016	5,749	7,523	8,674							
2017	5,950	7,400								
2018	6,100									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1998										24.0%
1999									17.1%	17.1%
2000								13.7%	13.3%	11.4%
2001							16.7%	17.1%	18.0%	19.9%
2002						4.3%	5.5%	4.9%	3.8%	3.2%
2003					-3.7%	-1.7%	-2.2%	-2.1%	-1.5%	-1.3%
2004				-19.8%	-17.1%	-17.1%	-15.7%	-15.3%	-15.6%	-15.9%
2005			-4.3%	-4.4%	-5.8%	-3.7%	-4.2%	-3.8%	-3.4%	-4.9%
2006		5.7%	10.7%	11.7%	12.9%	11.1%	10.7%	9.9%	8.2%	8.4%
2007	6.0%	12.2%	12.8%	14.0%	14.4%	14.5%	14.4%	13.6%	13.2%	12.6%
2008	7.6%	13.1%	12.5%	13.3%	14.6%	14.0%	12.8%	12.1%	11.3%	10.9%
2009	12.6%	11.3%	13.3%	13.6%	13.8%	13.1%	12.1%	11.1%	10.7%	10.9%
2010	1.0%	3.7%	5.6%	6.4%	3.9%	2.9%	2.4%	1.8%	1.8%	
2011	4.3%	8.6%	6.3%	4.7%	4.6%	3.4%	2.6%	2.3%		
2012	5.3%	0.9%	-1.3%	-4.0%	-5.4%	-5.3%	-5.6%			
2013	0.5%	-0.2%	-3.1%	-3.9%	-4.9%	-6.1%				
2014	-0.1%	-4.2%	-4.5%	-4.5%	-5.0%					
2015	2.9%	0.1%	0.1%	-0.6%						
2016	-0.8%	0.6%	-1.1%							
2017	3.5%	-1.6%								
2018	2.5%									

Annual Trend*										
All-Year	3.4%	4.0%	4.6%	4.3%	4.0%	3.8%	3.9%	4.0%	4.2%	4.9%
R ²	0.866	0.693	0.698	0.629	0.568	0.573	0.635	0.664	0.649	0.619
5-Year	1.9%	-1.0%	-2.2%	-3.5%	-3.3%	-1.3%	2.6%	6.6%	9.5%	10.9%
R ²	0.900	0.585	0.864	0.964	0.748	0.239	0.434	0.879	0.955	0.997

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Indemnity Case Outstanding per Open Indemnity Claim
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										23,261
1994									25,743	27,799
1995								27,111	30,228	30,959
1996							29,251	32,262	33,552	32,261
1997						28,454	31,769	33,325	32,368	35,003
1998					26,056	29,833	32,293	32,148	32,346	33,540
1999				23,019	26,184	27,585	28,016	28,395	29,959	30,847
2000			20,514	23,099	24,012	23,622	24,297	25,323	26,157	27,049
2001		15,667	19,830	20,067	19,594	19,632	20,853	22,027	23,729	24,717
2002	9,795	16,027	17,843	16,802	16,124	17,528	18,073	19,065	20,314	22,303
2003	10,352	15,062	15,668	15,153	16,416	17,957	20,355	22,686	26,371	30,244
2004	9,765	12,441	12,807	13,962	15,083	17,501	19,103	22,521	24,686	27,595
2005	7,421	9,265	10,967	12,191	14,418	16,622	20,323	23,707	25,778	27,759
2006	6,943	9,760	12,049	14,347	16,670	19,639	22,106	24,787	26,552	27,971
2007	6,688	10,230	13,171	15,619	17,406	19,470	22,427	26,135	28,092	30,708
2008	6,861	10,906	13,827	16,201	17,991	19,939	22,762	25,406	29,469	32,211
2009	7,138	11,461	13,963	16,271	18,337	20,678	22,613	25,334	28,447	31,642
2010	7,099	11,093	14,002	15,608	17,464	19,148	21,271	24,155	27,200	
2011	7,187	11,768	14,102	16,484	18,387	20,261	22,534	26,253		
2012	7,462	11,731	14,334	15,678	17,856	19,988	23,243			
2013	7,654	11,682	13,915	15,477	16,774	19,283				
2014	7,762	11,842	14,439	16,453	19,685					
2015	8,148	12,596	15,956	18,600						
2016	8,234	12,979	16,398							
2017	8,581	14,081								
2018	9,180									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										19.5%
1995									17.4%	11.4%
1996								19.0%	11.0%	4.2%
1997							8.6%	3.3%	-3.5%	8.5%
1998						4.8%	1.7%	-3.5%	-0.1%	-4.2%
1999					0.5%	-7.5%	-13.2%	-11.7%	-7.4%	-8.0%
2000				0.3%	-8.3%	-14.4%	-13.3%	-10.8%	-12.7%	-12.3%
2001			-3.3%	-13.1%	-18.4%	-16.9%	-14.2%	-13.0%	-9.3%	-8.6%
2002		2.3%	-10.0%	-16.3%	-17.7%	-10.7%	-13.3%	-13.4%	-14.4%	-9.8%
2003	5.7%	-6.0%	-12.2%	-9.8%	1.8%	2.5%	12.6%	19.0%	29.8%	35.6%
2004	-5.7%	-17.4%	-18.3%	-7.9%	-8.1%	-2.5%	-6.2%	-0.7%	-6.4%	-8.8%
2005	-24.0%	-25.5%	-14.4%	-12.7%	-4.4%	-5.0%	6.4%	5.3%	4.4%	0.6%
2006	-6.4%	5.3%	9.9%	17.7%	15.6%	18.1%	8.8%	4.6%	3.0%	0.8%
2007	-3.7%	4.8%	9.3%	8.9%	4.4%	-0.9%	1.5%	5.4%	5.8%	9.8%
2008	2.6%	6.6%	5.0%	3.7%	3.4%	2.4%	1.5%	-2.8%	4.9%	4.9%
2009	4.0%	5.1%	1.0%	0.4%	1.9%	3.7%	-0.7%	-0.3%	-3.5%	-1.8%
2010	-0.5%	-3.2%	0.3%	-4.1%	-4.8%	-7.4%	-5.9%	-4.7%	-4.4%	
2011	1.2%	6.1%	0.7%	5.6%	5.3%	5.8%	5.9%	8.7%		
2012	3.8%	-0.3%	1.6%	-4.9%	-2.9%	-1.4%	3.1%			
2013	2.6%	-0.4%	-2.9%	-1.3%	-6.1%	-3.5%				
2014	1.4%	1.4%	3.8%	6.3%	17.4%					
2015	5.0%	6.4%	10.5%	13.0%						
2016	1.1%	3.0%	2.8%							
2017	4.2%	8.5%								
2018	7.0%									

Annual Trend*										
All-Year	-0.3%	-0.5%	-0.9%	-1.1%	-1.5%	-1.9%	-1.8%	-1.3%	-0.7%	0.2%
R ²	0.015	0.022	0.074	0.120	0.200	0.321	0.298	0.193	0.071	0.009
5-Year	3.9%	4.8%	4.1%	2.9%	1.5%	-1.0%	0.4%	-0.4%	0.6%	4.1%
R ²	0.948	0.949	0.788	0.399	0.151	0.219	0.034	0.039	0.057	0.838

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Medical Case Outstanding per Open Indemnity Claim
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										42,326
1994									37,137	45,123
1995								37,093	47,678	54,697
1996							31,812	38,244	43,818	48,392
1997						26,660	35,720	44,040	50,611	59,760
1998					24,674	33,847	42,039	47,780	56,147	70,579
1999				18,041	24,317	30,997	37,057	44,424	58,252	71,006
2000			15,370	19,899	24,218	29,173	35,038	45,525	54,389	61,860
2001		12,826	15,918	18,496	21,578	26,158	32,125	40,985	54,118	66,302
2002	11,398	13,743	15,329	17,256	19,718	24,709	31,634	40,018	49,024	60,080
2003	12,165	13,251	14,767	16,934	20,528	27,460	35,567	43,800	55,718	68,413
2004	11,702	12,512	13,912	17,685	23,358	29,740	37,979	47,473	56,516	68,611
2005	12,283	13,246	16,542	20,452	24,634	32,891	41,450	51,803	62,660	69,064
2006	11,540	14,598	18,798	23,649	29,107	36,500	44,150	55,005	64,020	70,979
2007	12,599	15,781	20,355	25,465	31,817	38,801	48,398	58,909	67,586	76,190
2008	12,937	17,193	21,115	26,262	32,759	40,263	49,095	58,924	68,382	75,347
2009	14,039	17,711	22,245	26,979	33,667	40,483	47,869	56,809	64,483	73,962
2010	14,155	17,807	22,808	27,852	32,872	38,894	45,460	51,062	58,800	
2011	14,692	19,414	23,735	29,230	36,253	41,558	48,382	55,916		
2012	15,564	19,447	23,638	27,330	32,403	38,681	46,010			
2013	14,771	18,990	22,226	26,155	30,492	36,421				
2014	14,829	18,194	21,180	25,175	30,459					
2015	15,469	18,449	22,868	28,699						
2016	15,377	19,110	23,955							
2017	16,562	20,608								
2018	17,395									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										6.6%
1995									28.4%	21.2%
1996								3.1%	-8.1%	-11.5%
1997							12.3%	15.2%	15.5%	23.5%
1998						27.0%	17.7%	8.5%	10.9%	18.1%
1999					-1.4%	-8.4%	-11.9%	-7.0%	3.7%	0.6%
2000				10.3%	-0.4%	-5.9%	-5.4%	2.5%	-6.6%	-12.9%
2001			3.6%	-7.0%	-10.9%	-10.3%	-8.3%	-10.0%	-0.5%	7.2%
2002		7.2%	-3.7%	-6.7%	-8.6%	-5.5%	-1.5%	-2.4%	-9.4%	-9.4%
2003	6.7%	-3.6%	-3.7%	-1.9%	4.1%	11.1%	12.4%	9.5%	13.7%	13.9%
2004	-3.8%	-5.6%	-5.8%	4.4%	13.8%	8.3%	6.8%	8.4%	1.4%	0.3%
2005	5.0%	5.9%	18.9%	15.6%	5.5%	10.6%	9.1%	9.1%	10.9%	0.7%
2006	-6.1%	10.2%	13.6%	15.6%	18.2%	11.0%	6.5%	6.2%	2.2%	2.8%
2007	9.2%	8.1%	8.3%	7.7%	9.3%	6.3%	9.6%	7.1%	5.6%	7.3%
2008	2.7%	8.9%	3.7%	3.1%	3.0%	3.8%	1.4%	0.0%	1.2%	-1.1%
2009	8.5%	3.0%	5.4%	2.7%	2.8%	0.5%	-2.5%	-3.6%	-5.7%	-1.8%
2010	0.8%	0.5%	2.5%	3.2%	-2.4%	-3.9%	-5.0%	-10.1%	-8.8%	
2011	3.8%	9.0%	4.1%	4.9%	10.3%	6.9%	6.4%	9.5%		
2012	5.9%	0.2%	-0.4%	-6.5%	-10.6%	-6.9%	-4.9%			
2013	-5.1%	-2.3%	-6.0%	-4.3%	-5.9%	-5.8%				
2014	0.4%	-4.2%	-4.7%	-3.7%	-0.1%					
2015	4.3%	1.4%	8.0%	14.0%						
2016	-0.6%	3.6%	4.8%							
2017	7.7%	7.8%								
2018	5.0%									

Annual Trend*										
All-Year	2.5%	3.2%	3.4%	3.5%	3.0%	2.7%	2.5%	2.5%	2.7%	3.1%
R ²	0.922	0.851	0.783	0.747	0.607	0.589	0.634	0.704	0.690	0.712
5-Year	4.0%	2.1%	0.6%	-1.2%	-3.2%	-2.1%	-1.2%	-2.4%	-2.1%	2.0%
R ²	0.911	0.484	0.031	0.091	0.521	0.466	0.324	0.444	0.332	0.564

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Paid Indemnity Loss per Reported Indemnity Claim
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										11,232
1994									11,658	11,802
1995								12,947	13,236	13,451
1996							14,197	14,718	15,100	15,392
1997						15,432	16,244	16,874	17,288	17,506
1998					15,594	16,904	17,894	18,585	18,994	19,393
1999				14,582	16,887	18,519	19,577	20,216	20,751	21,156
2000			11,356	15,288	17,899	19,514	20,485	21,308	21,883	22,291
2001		6,155	12,111	16,566	19,560	21,281	22,492	23,322	23,937	24,380
2002	1,969	6,142	11,913	16,181	18,773	20,353	21,437	22,187	22,687	23,101
2003	2,039	6,289	12,120	16,179	18,611	20,151	21,174	21,889	22,486	23,029
2004	1,957	5,929	10,039	12,941	14,701	15,902	16,781	17,518	18,160	18,748
2005	1,882	5,445	8,887	11,335	12,957	14,076	14,933	15,672	16,363	16,881
2006	2,015	5,710	9,611	12,155	13,969	15,325	16,428	17,281	17,954	18,413
2007	2,120	6,169	10,319	13,205	15,250	16,766	17,946	18,860	19,481	20,053
2008	2,320	6,695	11,217	14,662	17,093	18,801	20,008	20,875	21,475	21,959
2009	2,362	6,712	11,534	15,153	17,725	19,522	20,811	21,726	22,441	22,994
2010	2,334	6,701	11,530	15,204	17,706	19,423	20,646	21,480	22,071	
2011	2,377	6,808	11,664	15,125	17,466	19,098	20,235	21,106		
2012	2,461	6,912	11,670	15,100	17,338	19,017	20,022			
2013	2,461	6,912	11,699	15,181	17,390	18,804				
2014	2,431	7,023	12,197	15,820	18,132					
2015	2,478	7,337	12,664	16,345						
2016	2,609	7,519	12,704							
2017	2,632	7,703								
2018	2,845									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										5.1%
1995									13.5%	14.0%
1996								13.7%	14.1%	14.4%
1997							14.4%	14.6%	14.5%	13.7%
1998						9.5%	10.2%	10.1%	9.9%	10.8%
1999					8.3%	9.6%	9.4%	8.8%	9.3%	9.1%
2000				4.8%	6.0%	5.4%	4.6%	5.4%	5.5%	5.4%
2001			6.6%	8.4%	9.3%	9.1%	9.8%	9.4%	9.4%	9.4%
2002		-0.2%	-1.6%	-2.3%	-4.0%	-4.4%	-4.7%	-4.9%	-5.2%	-5.2%
2003	3.5%	2.4%	1.7%	0.0%	-0.9%	-1.0%	-1.2%	-1.3%	-0.9%	-0.3%
2004	-4.0%	-5.7%	-17.2%	-20.0%	-21.0%	-21.1%	-20.7%	-20.0%	-19.2%	-18.6%
2005	-3.8%	-8.2%	-11.5%	-12.4%	-11.9%	-11.5%	-11.0%	-10.5%	-9.9%	-10.0%
2006	7.1%	4.9%	8.1%	7.2%	7.8%	8.9%	10.0%	10.3%	9.7%	9.1%
2007	5.2%	8.1%	7.4%	8.6%	9.2%	9.4%	9.2%	9.1%	8.5%	8.9%
2008	9.4%	8.5%	8.7%	11.0%	12.1%	12.1%	11.5%	10.7%	10.2%	9.5%
2009	1.8%	0.3%	2.8%	3.4%	3.7%	3.8%	4.0%	4.1%	4.5%	4.7%
2010	-1.2%	-0.2%	0.0%	0.3%	-0.1%	-0.5%	-0.8%	-1.1%	-1.6%	
2011	1.8%	1.6%	1.2%	-0.5%	-1.4%	-1.7%	-2.0%	-1.7%		
2012	3.6%	1.5%	0.1%	-0.2%	-0.7%	-0.4%	-1.1%			
2013	0.0%	0.0%	0.2%	0.5%	0.3%	-1.1%				
2014	-1.2%	1.6%	4.3%	4.2%	4.3%					
2015	1.9%	4.5%	3.8%	3.3%						
2016	5.3%	2.5%	0.3%							
2017	0.9%	2.4%								
2018	8.1%									

Annual Trend*										
All-Year	2.3%	1.7%	0.8%	0.3%	0.2%	0.4%	0.9%	1.7%	2.5%	3.3%
R ²	0.900	0.745	0.149	0.021	0.007	0.028	0.120	0.254	0.380	0.479
5-Year	3.8%	2.9%	2.5%	2.0%	0.4%	-1.0%	-0.3%	2.6%	5.7%	8.3%
R ²	0.932	0.983	0.919	0.822	0.138	0.969	0.055	0.505	0.858	0.990

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Average Paid Medical Loss per Indemnity Claim
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
2000										19,851
2001									22,431	23,339
2002								21,818	22,748	23,503
2003							19,818	20,948	21,901	22,755
2004						16,496	17,840	19,003	20,084	21,102
2005					15,148	16,843	18,298	19,472	20,845	21,791
2006				14,515	16,994	18,941	20,600	22,032	23,192	24,044
2007			12,614	16,212	18,960	21,255	23,279	24,879	26,024	26,944
2008		8,972	13,880	17,905	21,170	23,858	25,886	27,358	28,455	29,282
2009	3,592	9,267	14,489	18,980	22,689	25,490	27,452	28,885	29,907	30,716
2010	3,590	9,128	14,492	19,312	22,890	25,414	27,299	28,623	29,509	
2011	3,190	8,575	13,919	18,275	21,420	23,825	25,428	26,624		
2012	3,093	8,407	13,395	17,401	20,215	22,316	23,659			
2013	3,274	8,093	12,798	16,472	19,047	20,745				
2014	3,058	7,916	12,546	16,060	18,444					
2015	3,159	7,954	12,518	15,995						
2016	3,207	8,122	12,555							
2017	3,400	8,413								
2018	3,606									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
2001										17.6%
2002									1.4%	0.7%
2003								-4.0%	-3.7%	-3.2%
2004							-10.0%	-9.3%	-8.3%	-7.3%
2005						2.1%	2.6%	2.5%	3.8%	3.3%
2006					12.2%	12.5%	12.6%	13.1%	11.3%	10.3%
2007				11.7%	11.6%	12.2%	13.0%	12.9%	12.2%	12.1%
2008			10.0%	10.4%	11.7%	12.2%	11.2%	10.0%	9.3%	8.7%
2009		3.3%	4.4%	6.0%	7.2%	6.8%	6.0%	5.6%	5.1%	4.9%
2010**	-0.1%	-1.5%	0.0%	1.8%	0.9%	-0.3%	-0.6%	-0.9%	-1.3%	
2011**	-11.1%	-6.1%	-4.0%	-5.4%	-6.4%	-6.3%	-6.9%	-7.0%		
2012	-3.0%	-2.0%	-3.8%	-4.8%	-5.6%	-6.3%	-7.0%			
2013	5.8%	-3.7%	-4.5%	-5.3%	-5.8%	-7.0%				
2014	-6.6%	-2.2%	-2.0%	-2.5%	-3.2%					
2015	3.3%	0.5%	-0.2%	-0.4%						
2016	1.5%	2.1%	0.3%							
2017	6.0%	3.6%								
2018	6.1%									

Annual Trend*										
All-Year	-0.2%	-1.5%	-1.1%	0.0%	1.8%	3.6%	4.4%	4.5%	4.1%	4.0%
R ²	0.009	0.624	0.327	0.000	0.171	0.448	0.640	0.697	0.676	0.691
5-Year	4.1%	1.0%	-1.5%	-3.4%	-5.3%	-5.3%	-2.5%	1.8%	6.4%	9.2%
R ²	0.951	0.462	0.701	0.915	0.988	0.943	0.448	0.223	0.857	0.981

*Trend is based on an exponential distribution.

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

Source: WCIRB quarterly calls for experience

Average Paid Medical Loss per Claim**
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1997										4,276
1998									5,038	5,214
1999								5,726	5,947	6,200
2000							6,219	6,510	6,846	7,077
2001						6,918	7,330	7,739	8,043	8,345
2002					6,832	7,340	7,832	8,200	8,528	8,783
2003				5,784	6,479	7,060	7,472	7,864	8,188	8,483
2004			3,712	4,529	5,188	5,689	6,115	6,475	6,815	7,135
2005		2,473	3,446	4,276	4,915	5,417	5,839	6,188	6,589	6,864
2006	1,162	2,586	3,805	4,720	5,444	6,006	6,494	6,912	7,247	7,495
2007	1,166	2,922	4,288	5,375	6,196	6,889	7,494	7,970	8,310	8,586
2008	1,415	3,285	4,846	6,108	7,140	7,983	8,617	9,077	9,419	9,683
2009	1,566	3,584	5,367	6,900	8,152	9,099	9,757	10,238	10,583	10,852
2010	1,564	3,711	5,685	7,419	8,699	9,596	10,268	10,748	11,067	
2011	1,584	3,943	6,095	7,800	9,027	9,951	10,571	11,028		
2012	1,623	3,972	6,040	7,656	8,781	9,608	10,134			
2013	1,702	3,931	5,941	7,454	8,509	9,186				
2014	1,649	3,865	5,815	7,245	8,202					
2015	1,688	3,874	5,774	7,160						
2016	1,703	3,933	5,780							
2017	1,745	3,912								
2018	1,841									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1998										22.0%
1999									18.1%	18.9%
2000								13.7%	15.1%	14.2%
2001							17.9%	18.9%	17.5%	17.9%
2002						6.1%	6.8%	6.0%	6.0%	5.2%
2003					-5.2%	-3.8%	-4.6%	-4.1%	-4.0%	-3.4%
2004				-21.7%	-19.9%	-19.4%	-18.2%	-17.7%	-16.8%	-15.9%
2005			-7.2%	-5.6%	-5.3%	-4.8%	-4.5%	-4.4%	-3.3%	-3.8%
2006		4.6%	10.4%	10.4%	10.8%	10.9%	11.2%	11.7%	10.0%	9.2%
2007	0.4%	13.0%	12.7%	13.9%	13.8%	14.7%	15.4%	15.3%	14.7%	14.6%
2008	21.3%	12.4%	13.0%	13.6%	15.2%	15.9%	15.0%	13.9%	13.3%	12.8%
2009	10.7%	9.1%	10.7%	13.0%	14.2%	14.0%	13.2%	12.8%	12.4%	12.1%
2010	-0.1%	3.6%	5.9%	7.5%	6.7%	5.5%	5.2%	5.0%	4.6%	
2011	1.3%	6.2%	7.2%	5.1%	3.8%	3.7%	3.0%	2.6%		
2012	2.5%	0.7%	-0.9%	-1.9%	-2.7%	-3.5%	-4.1%			
2013	4.8%	-1.0%	-1.6%	-2.6%	-3.1%	-4.4%				
2014	-3.1%	-1.7%	-2.1%	-2.8%	-3.6%					
2015	2.3%	0.2%	-0.7%	-1.2%						
2016	0.9%	1.5%	0.1%							
2017	2.5%	-0.5%								
2018	5.5%									

Annual Trend*										
All-Year	3.3%	3.8%	4.8%	4.6%	4.3%	4.1%	4.3%	4.5%	4.7%	5.4%
R ²	0.779	0.723	0.765	0.671	0.578	0.552	0.594	0.629	0.653	0.654
5-Year	2.6%	0.1%	-1.2%	-2.2%	-1.8%	0.2%	4.1%	8.5%	11.5%	12.4%
R ²	0.913	0.021	0.870	0.986	0.604	0.008	0.641	0.920	0.975	0.997

*Trend is based on an exponential distribution.

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

Source: WCIRB quarterly calls for experience

Average Paid Indemnity Loss per Closed Indemnity Claim**
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										10,404
1994									10,589	10,798
1995								11,487	11,846	12,129
1996							12,406	12,930	13,364	13,766
1997						13,077	13,928	14,643	15,207	15,504
1998					12,565	13,987	15,207	16,138	16,631	17,190
1999				11,056	13,440	15,215	16,631	17,496	18,226	18,897
2000			6,672	10,897	13,914	15,978	17,435	18,254	19,183	19,901
2001		2,327	6,491	11,376	15,279	17,209	18,352	19,667	20,536	21,131
2002	1,002	2,092	6,484	11,663	14,748	16,398	17,973	18,964	19,696	20,231
2003	1,264	2,695	7,651	12,054	14,363	16,517	17,735	18,582	19,264	19,884
2004	938	2,741	6,266	8,995	11,514	12,894	13,857	14,645	15,419	16,305
2005	953	2,445	4,712	7,808	9,895	11,122	12,089	12,962	13,997	14,770
2006	1,233	2,473	5,582	8,436	10,521	12,040	13,302	14,594	15,591	16,348
2007	1,085	2,749	6,008	9,010	11,324	13,053	14,682	16,026	16,984	17,903
2008	1,205	3,140	6,529	9,925	12,619	14,958	16,688	17,996	18,994	19,823
2009	1,449	3,266	6,878	10,436	13,530	15,899	17,710	19,164	20,147	21,023
2010	1,237	3,227	6,984	10,905	13,968	16,255	17,992	19,340	20,269	
2011	1,277	3,574	7,494	11,392	14,291	16,489	18,083	19,295		
2012	1,451	3,911	8,087	11,831	14,541	16,641	18,030			
2013	1,634	4,380	8,437	12,195	14,917	16,718				
2014	1,642	4,560	9,050	12,973	15,795					
2015	1,730	5,014	9,845	13,713						
2016	1,861	5,394	9,913							
2017	1,983	5,399								
2018	2,136									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										3.8%
1995									11.9%	12.3%
1996								12.6%	12.8%	13.5%
1997							12.3%	13.2%	13.8%	12.6%
1998						7.0%	9.2%	10.2%	9.4%	10.9%
1999					7.0%	8.8%	9.4%	8.4%	9.6%	9.9%
2000				-1.4%	3.5%	5.0%	4.8%	4.3%	5.3%	5.3%
2001			-2.7%	4.4%	9.8%	7.7%	5.3%	7.7%	7.0%	6.2%
2002		-10.1%	-0.1%	2.5%	-3.5%	-4.7%	-2.1%	-3.6%	-4.1%	-4.3%
2003	26.2%	28.9%	18.0%	3.3%	-2.6%	0.7%	-1.3%	-2.0%	-2.2%	-1.7%
2004	-25.8%	1.7%	-18.1%	-25.4%	-19.8%	-21.9%	-21.9%	-21.2%	-20.0%	-18.0%
2005	1.6%	-10.8%	-24.8%	-13.2%	-14.1%	-13.7%	-12.8%	-11.5%	-9.2%	-9.4%
2006	29.4%	1.1%	18.5%	8.0%	6.3%	8.3%	10.0%	12.6%	11.4%	10.7%
2007	-12.0%	11.2%	7.6%	6.8%	7.6%	8.4%	10.4%	9.8%	8.9%	9.5%
2008	11.1%	14.2%	8.7%	10.2%	11.4%	14.6%	13.7%	12.3%	11.8%	10.7%
2009	20.2%	4.0%	5.4%	5.1%	7.2%	6.3%	6.1%	6.5%	6.1%	6.1%
2010	-14.6%	-1.2%	1.5%	4.5%	3.2%	2.2%	1.6%	0.9%	0.6%	
2011	3.2%	10.8%	7.3%	4.5%	2.3%	1.4%	0.5%	-0.2%		
2012	13.6%	9.4%	7.9%	3.8%	1.7%	0.9%	-0.3%			
2013	12.6%	12.0%	4.3%	3.1%	2.6%	0.5%				
2014	0.5%	4.1%	7.3%	6.4%	5.9%					
2015	5.4%	10.0%	8.8%	5.7%						
2016	7.6%	7.6%	0.7%							
2017	6.5%	0.1%								
2018	7.7%									

Annual Trend*										
All-Year	4.7%	6.0%	2.9%	1.1%	0.6%	0.6%	1.1%	1.7%	2.5%	3.2%
R ²	0.852	0.938	0.521	0.133	0.049	0.059	0.137	0.267	0.390	0.488
5-Year	6.8%	6.0%	5.8%	4.7%	2.9%	1.2%	1.8%	4.5%	7.2%	9.4%
R ²	0.997	0.936	0.957	0.981	0.937	0.929	0.680	0.760	0.925	0.993

*Trend is based on an exponential distribution.

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

Source: WCIRB quarterly calls for experience

Average Paid Medical Loss per Closed Indemnity Claim***
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
2000										16,391
2001									18,204	19,087
2002								17,786	18,752	19,530
2003							15,844	16,872	17,747	18,586
2004						12,248	13,444	14,511	15,588	16,911
2005					10,591	12,160	13,438	14,674	16,276	17,631
2006				9,353	11,581	13,516	15,222	17,034	18,547	19,847
2007			7,272	10,319	12,893	15,121	17,429	19,556	21,221	22,814
2008		4,536	8,017	11,421	14,479	17,698	20,225	22,183	23,862	25,204
2009	2,997	4,697	8,312	12,304	16,127	19,397	22,078	24,211	25,748	27,257
2010	2,785	4,650	8,612	13,138	17,038	20,164	22,765	24,883	26,318	
2011	1,782	4,178	8,446	12,889	16,523	19,733	21,958	23,751		
2012	1,824	4,483	8,877	13,017	16,313	18,904	20,697			
2013	1,994	4,798	8,896	12,804	15,984	18,160				
2014	1,951	4,862	9,091	12,871	15,810					
2015	2,019	5,186	9,528	13,139						
2016	2,166	5,484	9,496							
2017	2,236	5,592								
2018	2,410									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
2001										16.4%
2002									3.0%	2.3%
2003								-5.1%	-5.4%	-4.8%
2004							-15.1%	-14.0%	-12.2%	-9.0%
2005						-0.7%	0.0%	1.1%	4.4%	4.3%
2006					9.3%	11.2%	13.3%	16.1%	14.0%	12.6%
2007				10.3%	11.3%	11.9%	14.5%	14.8%	14.4%	15.0%
2008			10.2%	10.7%	12.3%	17.0%	16.0%	13.4%	12.4%	10.5%
2009		3.6%	3.7%	7.7%	11.4%	9.6%	9.2%	9.1%	7.9%	8.1%
2010**	-7.1%	-1.0%	3.6%	6.8%	5.6%	4.0%	3.1%	2.8%	2.2%	
2011**	-36.0%	-10.1%	-1.9%	-1.9%	-3.0%	-2.1%	-3.5%	-4.5%		
2012	2.4%	7.3%	5.1%	1.0%	-1.3%	-4.2%	-5.7%			
2013	9.3%	7.0%	0.2%	-1.6%	-2.0%	-3.9%				
2014	-2.1%	1.3%	2.2%	0.5%	-1.1%					
2015	3.5%	6.7%	4.8%	2.1%						
2016	7.3%	5.7%	-0.3%							
2017	3.2%	2.0%								
2018	7.8%									

Annual Trend*										
All-Year	-1.3%	2.5%	2.6%	3.3%	4.6%	5.9%	6.1%	5.8%	5.0%	4.7%
R ²	0.056	0.654	0.893	0.688	0.685	0.756	0.746	0.693	0.635	0.667
5-Year	5.4%	4.4%	2.1%	0.3%	-1.8%	-1.9%	0.4%	5.2%	9.3%	11.7%
R ²	0.983	0.959	0.874	0.175	0.969	0.588	0.017	0.681	0.939	0.990

*Trend is based on an exponential distribution.

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

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

Source: WCIRB quarterly calls for experience

Ratio of Incremental Paid Indemnity to Indemnity Claims Open During the Period
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
1993										6,456
1994									6,325	4,806
1995								6,941	6,656	5,884
1996							7,815	8,141	7,441	6,530
1997						9,610	8,715	8,614	6,868	4,784
1998					9,991	9,137	8,992	7,915	6,294	6,872
1999				10,624	10,014	9,983	8,463	6,802	6,928	6,627
2000			11,058	10,783	10,332	8,610	7,088	7,525	6,694	5,942
2001		5,805	11,010	10,938	9,540	7,623	7,170	6,244	5,988	5,360
2002	1,969	5,702	10,467	9,714	8,088	6,953	6,465	5,947	5,056	5,117
2003	2,039	5,772	9,900	8,772	7,600	6,785	6,116	5,633	5,911	6,646
2004	1,957	5,393	7,138	6,825	5,925	5,724	5,613	5,850	6,397	7,356
2005	1,882	4,926	6,359	6,167	5,862	5,662	5,587	6,110	7,183	6,952
2006	2,015	5,069	7,244	6,574	6,601	6,682	7,042	6,966	7,153	6,407
2007	2,120	5,546	7,711	7,327	7,242	7,274	7,286	7,548	6,887	8,149
2008	2,320	6,018	8,299	8,471	8,238	7,809	7,571	7,411	6,834	7,475
2009	2,362	6,056	8,591	8,570	8,338	8,080	7,931	7,723	8,269	8,442
2010	2,334	6,090	8,676	8,845	8,480	8,300	8,262	8,039	7,786	
2011	2,377	6,226	8,827	8,584	8,336	8,374	8,295	9,031		
2012	2,461	6,311	8,738	8,776	8,386	9,169	8,065			
2013	2,461	6,286	8,778	9,094	8,782	8,427				
2014	2,431	6,419	9,619	9,810	9,599					
2015	2,478	6,776	10,075	10,495						
2016	2,609	6,922	10,211							
2017	2,632	7,168								
2018	2,845									

Accident	Annual Change									
Year	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
1994										-25.6%
1995									5.2%	22.4%
1996								17.3%	11.8%	11.0%
1997							11.5%	5.8%	-7.7%	-26.7%
1998						-4.9%	3.2%	-8.1%	-8.4%	43.7%
1999					0.2%	9.3%	-5.9%	-14.1%	10.1%	-3.6%
2000				1.5%	3.2%	-13.8%	-16.3%	10.6%	-3.4%	-10.3%
2001			-0.4%	1.4%	-7.7%	-11.5%	1.2%	-17.0%	-10.5%	-9.8%
2002		-1.8%	-4.9%	-11.2%	-15.2%	-8.8%	-9.8%	-4.8%	-15.6%	-4.5%
2003	3.5%	1.2%	-5.4%	-9.7%	-6.0%	-2.4%	-5.4%	-5.3%	16.9%	29.9%
2004	-4.0%	-6.6%	-27.9%	-22.2%	-22.0%	-15.6%	-8.2%	3.9%	8.2%	10.7%
2005	-3.8%	-8.7%	-10.9%	-9.6%	-1.1%	-1.1%	-0.4%	4.4%	12.3%	-5.5%
2006	7.1%	2.9%	13.9%	6.6%	12.6%	18.0%	26.0%	14.0%	-0.4%	-7.8%
2007	5.2%	9.4%	6.4%	11.4%	9.7%	8.9%	3.5%	8.4%	-3.7%	27.2%
2008	9.4%	8.5%	7.6%	15.6%	13.8%	7.4%	3.9%	-1.8%	-0.8%	-8.3%
2009	1.8%	0.6%	3.5%	1.2%	1.2%	3.5%	4.8%	4.2%	21.0%	12.9%
2010	-1.2%	0.6%	1.0%	3.2%	1.7%	2.7%	4.2%	4.1%	-5.8%	
2011	1.8%	2.2%	1.7%	-3.0%	-1.7%	0.9%	0.4%	12.3%		
2012	3.6%	1.4%	-1.0%	2.2%	0.6%	9.5%	-2.8%			
2013	0.0%	-0.4%	0.5%	3.6%	4.7%	-8.1%				
2014	-1.2%	2.1%	9.6%	7.9%	9.3%					
2015	1.9%	5.6%	4.7%	7.0%						
2016	5.3%	2.2%	1.4%							
2017	0.9%	3.5%								
2018	8.1%									

Annual Trend*										
All-Year	2.3%	1.7%	0.0%	-0.2%	-0.4%	-0.3%	-0.1%	0.3%	0.8%	2.1%
R ²	0.900	0.666	0.000	0.003	0.017	0.011	0.002	0.010	0.121	0.404
5-Year	3.8%	3.4%	4.6%	5.3%	3.0%	1.9%	1.7%	4.5%	3.6%	5.6%
R ²	0.932	0.981	0.919	0.951	0.662	0.372	0.534	0.781	0.453	0.575

*Trend is based on an exponential distribution.

Source: WCIRB quarterly calls for experience

Ratio of Incremental Paid Medical to Indemnity Claims Open During the Period**
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
2001										11,067
2002									9,427	9,395
2003								9,009	9,543	10,581
2004							8,558	9,259	10,860	12,783
2005						8,537	9,447	9,718	14,230	12,730
2006					8,999	9,585	10,587	11,654	12,316	11,794
2007				9,118	9,697	10,972	12,444	13,199	12,662	13,063
2008			9,090	9,918	11,035	12,220	12,621	12,501	12,381	12,617
2009		8,128	9,436	10,649	11,983	12,515	12,026	12,029	11,789	12,344
2010	3,590	8,022	9,763	11,609	12,070	12,153	12,663	12,667	11,646	
2011	3,190	7,714	9,808	10,774	11,148	12,262	11,656	12,370		
2012	3,093	7,612	9,255	10,243	10,499	11,442	10,742			
2013	3,274	7,104	8,721	9,611	10,201	10,099				
2014	3,058	7,024	8,733	9,540	9,895					
2015	3,159	7,035	8,756	9,923						
2016	3,207	7,221	8,850							
2017	3,400	7,466								
2018	3,606									

Accident	Annual Change									
Year	0-9	9-21	21-33	33-45	45-57	57-69	69-81	81-93	93-105	105-117
2002										-15.1%
2003									1.2%	12.6%
2004								2.8%	13.8%	20.8%
2005							10.4%	5.0%	31.0%	-0.4%
2006						12.3%	12.1%	19.9%	-13.5%	-7.4%
2007					7.8%	14.5%	17.5%	13.3%	2.8%	10.8%
2008				8.8%	13.8%	11.4%	1.4%	-5.3%	-2.2%	-3.4%
2009			3.8%	7.4%	8.6%	2.4%	-4.7%	-3.8%	-4.8%	-2.2%
2010**		-1.3%	3.5%	9.0%	0.7%	-2.9%	5.3%	5.3%	-1.2%	
2011**	-11.1%	-3.8%	0.5%	-7.2%	-7.6%	0.9%	-8.0%	-2.3%		
2012	-3.0%	-1.3%	-5.6%	-4.9%	-5.8%	-6.7%	-7.8%			
2013	5.8%	-6.7%	-5.8%	-6.2%	-2.8%	-11.7%				
2014	-6.6%	-1.1%	0.1%	-0.7%	-3.0%					
2015	3.3%	0.2%	0.3%	4.0%						
2016	1.5%	2.7%	1.1%							
2017	6.0%	3.4%								
2018	6.1%									

Annual Trend*										
All-Year	0.4%	-1.5%	-1.1%	-0.2%	0.6%	2.4%	3.2%	4.6%	2.7%	2.8%
R ²	0.034	0.572	0.425	0.004	0.028	0.238	0.379	0.700	0.308	0.476
5-Year	4.1%	1.3%	-0.9%	-2.3%	-4.7%	-4.8%	-3.5%	-1.2%	-1.8%	0.1%
R ²	0.951	0.631	0.292	0.556	0.949	0.791	0.682	0.292	0.679	0.001

*Trend is based on an exponential distribution.

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

Source: WCIRB quarterly calls for experience

Ratio of Quarterly Paid Medical to Indemnity Claims Inventory*
Through September 30, 2018

Development	Evaluation Years													
Period	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
3/0	1,104	1,201	1,147	1,289	1,553	1,615	1,714	1,601	1,587	1,672	1,847	1,737	2,105	2,126
6/3	2,100	2,477	2,330	2,870	3,029	3,071	3,139	3,000	3,013	2,873	3,178	3,160	3,356	3,498
9/6	2,048	2,440	2,517	2,952	3,160	3,137	3,108	3,148	3,269	3,080	3,089	3,221	3,310	3,606
12/9	2,174	2,431	2,697	3,012	3,075	3,134	3,065	3,243	3,033	2,983	2,951	3,157	3,361	
12/0	4,282	4,839	5,103	6,035	6,228	6,172	6,076	6,139	6,065	5,902	5,997	6,232	6,547	
15/12	2,257	2,284	2,571	2,927	3,040	3,131	3,159	3,354	3,316	3,074	3,130	3,134	3,406	3,445
18/15	2,096	2,430	2,186	2,680	2,784	2,924	2,982	3,221	3,187	2,838	2,871	3,005	3,038	3,149
21/18	1,751	1,881	2,168	2,474	2,616	2,711	2,802	2,975	2,914	2,827	2,824	2,816	2,790	2,930
24/21	1,669	1,834	2,190	2,407	2,537	2,603	2,738	3,035	2,929	2,747	2,705	2,788	2,868	
24/12	6,361	6,360	7,576	8,762	9,141	9,420	9,576	10,215	9,966	9,299	9,274	9,358	9,482	
27/24	1,720	1,495	1,728	2,214	2,353	2,531	2,563	2,740	3,022	2,862	2,784	2,807	2,887	2,808
30/27	1,653	1,865	1,801	2,337	2,607	2,708	2,857	2,988	3,162	3,035	3,027	3,051	3,013	3,076
33/30	1,544	1,632	1,807	2,342	2,560	2,770	2,912	3,100	3,196	3,177	3,003	2,980	2,923	3,089
36/33	1,591	1,704	1,965	2,389	2,596	2,731	2,889	3,406	3,308	3,119	3,093	3,066	3,035	
36/24	5,781	5,540	6,452	8,158	8,942	9,452	9,861	10,661	11,007	10,483	10,159	10,082	9,878	
39/36	1,670	1,471	1,710	2,032	2,278	2,500	2,680	3,019	3,258	3,175	3,264	3,022	3,033	3,104
42/39	1,602	1,981	1,791	2,146	2,524	2,786	2,944	3,124	3,539	3,462	3,343	3,108	3,256	3,471
45/42	1,595	1,646	1,836	2,166	2,517	2,735	3,083	3,246	3,427	3,691	3,371	3,208	3,005	3,219
48/45	1,634	1,812	1,953	2,251	2,551	2,913	3,072	3,411	3,629	3,432	3,272	3,404	3,126	
48/36	5,676	5,551	6,360	7,478	8,645	9,621	10,316	11,224	12,024	11,865	11,390	10,757	10,452	

Development	Year-to-Year Change													
Period	04-to-05	05-to-06	06-to-07	07-to-08	08-to-09	09-to-10	10-to-11	11-to-12	12-to-13	13-to-14	14-to-15	15-to-16	16-to-17	17-to-18
3/0	50.7%	8.8%	-4.6%	12.4%	20.5%	4.0%	6.1%	-6.6%	-0.8%	5.4%	10.5%	-6.0%	21.2%	1.0%
6/3	11.6%	17.9%	-6.0%	23.2%	5.5%	1.4%	2.2%	-4.4%	0.4%	-4.6%	10.6%	-0.6%	6.2%	4.2%
9/6	-1.6%	19.1%	3.1%	17.3%	7.0%	-0.7%	-0.9%	1.3%	3.9%	-5.8%	0.3%	4.3%	2.8%	8.9%
12/9	5.3%	11.8%	11.0%	11.7%	2.1%	1.9%	-2.2%	5.8%	-6.5%	-1.7%	-1.1%	7.0%	6.5%	
12/0	8.4%	13.0%	5.5%	18.2%	3.2%	-0.9%	-1.5%	1.0%	-1.2%	-2.7%	1.6%	3.9%	5.1%	
15/12	-17.4%	1.2%	12.6%	13.8%	3.9%	3.0%	0.9%	6.2%	-1.1%	-7.3%	1.8%	0.1%	8.7%	1.1%
18/15	-20.6%	15.9%	-10.1%	22.6%	3.9%	5.0%	2.0%	8.0%	-1.1%	-10.9%	1.1%	4.7%	1.1%	3.7%
21/18	-21.4%	7.4%	15.3%	14.1%	5.8%	3.6%	3.4%	6.2%	-2.1%	-3.0%	-0.1%	-0.3%	-0.9%	5.0%
24/21	-11.9%	9.8%	19.4%	9.9%	5.4%	2.6%	5.2%	10.8%	-3.5%	-6.2%	-1.5%	3.1%	2.8%	
24/12	-17.8%	0.0%	19.1%	15.7%	4.3%	3.0%	1.7%	6.7%	-2.4%	-6.7%	-0.3%	0.9%	1.3%	
27/24	-24.8%	-13.1%	15.6%	28.1%	6.3%	7.6%	1.2%	6.9%	10.3%	-5.3%	-2.8%	0.9%	2.8%	-2.7%
30/27	-27.0%	12.8%	-3.5%	29.8%	11.5%	3.9%	5.5%	4.6%	5.8%	-4.0%	-0.3%	0.8%	-1.3%	2.1%
33/30	-23.2%	5.7%	10.7%	29.6%	9.3%	8.2%	5.1%	6.5%	3.1%	-0.6%	-5.5%	-0.8%	-1.9%	5.7%
36/33	-12.7%	7.1%	15.3%	21.6%	8.7%	5.2%	5.8%	17.9%	-2.9%	-5.7%	-0.8%	-0.9%	-1.0%	
36/24	-22.3%	-4.2%	16.5%	26.4%	9.6%	5.7%	4.3%	8.1%	3.2%	-4.8%	-3.1%	-0.8%	-2.0%	
39/36	-18.8%	-11.9%	16.2%	18.8%	12.1%	9.8%	7.2%	12.6%	7.9%	-2.6%	2.8%	-7.4%	0.4%	2.3%
42/39	-23.0%	23.7%	-9.6%	19.8%	17.6%	10.4%	5.7%	6.1%	13.3%	-2.2%	-3.4%	-7.0%	4.7%	6.6%
45/42	-17.4%	3.2%	11.5%	18.0%	16.2%	8.7%	12.7%	5.3%	5.6%	7.7%	-8.7%	-4.9%	-6.3%	7.1%
48/45	-11.1%	10.9%	7.8%	15.2%	13.3%	14.2%	5.4%	11.0%	6.4%	-5.4%	-4.7%	4.0%	-8.2%	
48/36	-17.2%	-2.2%	14.6%	17.6%	15.6%	11.3%	7.2%	8.8%	7.1%	-1.3%	-4.0%	-5.6%	-2.8%	

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

Source: WCIRB accident year experience calls.

Estimated Ultimate Severities by Injury Type

Indemnity Severity Adjusted to PY 2020 Benefit Level					Medical Severity Adjusted to PY 2020 Benefit Level**						
Accident Year	Ultimate Indemnity Severity		Permanent		Accident Year	Ultimate Medical Severity**			Permanent		
	Partial	Temporary	Partial	Temporary		Partial	Temporary	Medical	Partial	Temporary	Medical
2001	43,995	3,800	46,630	5,783	2001	47,863	4,725	750	26,821	2,648	421
2002	41,975	3,860	45,930	5,893	2002	48,874	5,298	847	28,444	3,084	493
2003	41,384	4,089	47,715	5,762	2003	48,132	5,580	897	29,389	3,407	547
2004	35,598	4,005	51,007	5,504	2004	48,877	5,270	833	39,475	4,256	673
2005	34,090	3,781	58,342	5,105	2005	53,831	5,296	844	43,477	4,277	682
2006	36,838	3,777	58,056	4,970	2006	58,115	5,485	871	46,750	4,412	701
2007	39,280	4,064	59,420	5,231	2007	62,856	6,358	957	49,619	5,019	756
2008	41,498	4,546	56,726	5,736	2008	65,112	6,913	1,034	51,196	5,436	813
2009	41,428	5,185	56,338	6,497	2009	65,137	7,772	1,141	51,011	6,087	894
2010	40,182	6,084	53,911	7,510	2010	63,122	8,983	1,170	49,285	7,014	914
2011	38,689	6,452	51,091	7,839	2011	58,024	8,642	1,124	46,566	6,935	902
2012	37,583	6,874	48,432	8,144	2012	53,614	8,720	1,120	45,199	7,352	944
2013	36,298	7,134	45,121	8,391	2013	49,604	8,227	1,155	45,959	7,622	1,070
2014	38,505	7,186	42,974	8,172	2014	48,054	8,063	1,218	47,324	7,940	1,199
2015	39,062	7,443	42,513	8,231	2015	47,841	8,303	1,230	48,176	8,361	1,238
2016	39,073	7,927	41,968	8,629	2016	47,615	8,776	1,295	47,901	8,829	1,303
2017*	38,830	8,140	40,926	8,658	2017*	47,097	8,970	1,303	47,380	9,024	1,311

Accident Year	Annual Change		Annual Change		Accident Year	Annual Change			Annual Change		
	Partial	Temporary	Partial	Temporary		Partial	Temporary	Medical	Partial	Temporary	Medical
2001	---	---	---	---	2001	---	---	---	---	---	---
2002	-4.6%	1.6%	-1.5%	1.9%	2002	2.1%	12.1%	12.8%	6.0%	16.5%	17.2%
2003	-1.4%	5.9%	3.9%	-2.2%	2003	-1.5%	5.3%	5.9%	3.3%	10.5%	11.1%
2004	-14.0%	-2.1%	6.9%	-4.5%	2004	1.5%	-5.6%	-7.1%	34.3%	24.9%	22.8%
2005	-4.2%	-5.6%	14.4%	-7.3%	2005	10.1%	0.5%	1.3%	10.1%	0.5%	1.3%
2006	8.1%	-0.1%	-0.5%	-2.6%	2006	8.0%	3.6%	3.2%	7.5%	3.2%	2.8%
2007	6.6%	7.6%	2.4%	5.3%	2007	8.2%	15.9%	9.9%	6.1%	13.8%	7.8%
2008	5.6%	11.8%	-4.5%	9.6%	2008	3.6%	8.7%	8.1%	3.2%	8.3%	7.6%
2009	-0.2%	14.1%	-0.7%	13.3%	2009	0.0%	12.4%	10.3%	-0.4%	12.0%	9.9%
2010	-3.0%	17.3%	-4.3%	15.6%	2010	-3.1%	15.6%	2.5%	-3.4%	15.2%	2.2%
2011	-3.7%	6.0%	-5.2%	4.4%	2011	-8.1%	-3.8%	-4.0%	-5.5%	-1.1%	-1.3%
2012	-2.9%	6.5%	-5.2%	3.9%	2012	-7.6%	0.9%	-0.3%	-2.9%	6.0%	4.7%
2013	-3.4%	3.8%	-6.8%	3.0%	2013	-7.5%	-5.7%	3.2%	1.7%	3.7%	13.4%
2014	6.1%	0.7%	-4.8%	-2.6%	2014	-3.1%	-2.0%	5.4%	3.0%	4.2%	12.0%
2015	1.4%	3.6%	-1.1%	0.7%	2015	-0.4%	3.0%	1.0%	1.8%	5.3%	3.3%
2016	0.0%	6.5%	-1.3%	4.8%	2016	-0.5%	5.7%	5.3%	-0.6%	5.6%	5.2%
2017*	-0.6%	2.7%	-2.5%	0.3%	2017*	-1.1%	2.2%	0.7%	-1.1%	2.2%	0.7%

* Accident year 2017 experience is partial in that it only reflects experience from policy year 2016.

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

Source: WCIRB unit statistical data

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

Policy Year	Average Incurred Indemnity Severity	Annual Change	Median Incurred Indemnity Severity	Annual Change
1999	11,132	---	2,953	---
2000	12,408	11.5%	3,640	23.3%
2001	13,468	8.5%	4,320	18.7%
2002	13,985	3.8%	4,930	14.1%
2003	13,905	-0.6%	5,000	1.4%
2004	11,397	-18.0%	4,100	-18.0%
2005	9,945	-12.7%	3,400	-17.1%
2006	10,643	7.0%	3,520	3.5%
2007	11,291	6.1%	3,966	12.7%
2008	11,947	5.8%	4,402	11.0%
2009	12,136	1.6%	4,717	7.2%
2010	11,976	-1.3%	4,791	1.6%
2011	12,514	4.5%	5,000	4.4%
2012	12,304	-1.7%	5,000	0.0%
2013	12,577	2.2%	5,250	5.0%
2014	13,008	3.4%	5,274	0.5%
2015	13,314	2.4%	5,330	1.1%
2016	13,527	1.6%	5,417	1.6%

Policy Year	Average Incurred Medical Severity	Annual Change	Median Incurred Medical Severity	Annual Change
1999	10,243	---	4,809	---
2000	11,934	16.5%	5,600	16.4%
2001	13,853	16.1%	6,989	24.8%
2002	15,151	9.4%	7,797	11.6%
2003	14,501	-4.3%	7,575	-2.8%
2004	13,129	-9.5%	6,750	-10.9%
2005	13,457	2.5%	6,331	-6.2%
2006	14,791	9.9%	6,924	9.4%
2007	16,095	8.8%	7,942	14.7%
2008	17,273	7.3%	9,000	13.3%
2009	17,828	3.2%	9,723	8.0%
2010	17,676	-0.9%	9,409	-3.2%
2011	17,894	1.2%	9,388	-0.2%
2012	17,640	-1.4%	9,500	1.2%
2013	17,046	-3.4%	9,477	-0.2%
2014	17,032	-0.1%	9,241	-2.5%
2015	16,749	-1.7%	9,347	1.1%
2016	17,462	4.3%	9,157	-2.0%

Source: WCIRB Unit Statistical Data

Changes in the Number of Weeks of Temporary Disability Benefits

First Survey Level

<u>Accident Year</u>	<u>Average TD Duration</u>	<u>Change</u>	<u>Median TD Duration</u>	<u>Change</u>
2004	51.4	-----	39.2	-----
2005	56.7	10.3%	46.5	18.5%
2006	59.0	4.2%	49.6	6.8%
2007	63.1	6.9%	56.2	13.3%
2008	67.4	6.8%	63.4	12.8%
2009	64.8	-3.8%	58.5	-7.7%
2010	61.7	-4.7%	55.0	-6.1%
2011	59.6	-3.6%	48.8	-11.2%
2012	58.7	-1.4%	49.6	1.6%
2013	56.0	-4.6%	49.5	0.0%
2014	55.9	-0.2%	50.3	1.6%
2015	50.1	-10.5%	43.1	-14.3%
2016	48.6	-2.8%	39.4	-8.7%

Second Survey Level

<u>Accident Year</u>	<u>Average TD Duration</u>	<u>Change</u>	<u>Median TD Duration</u>	<u>Change</u>
2003	54.5	-----	43.3	-----
2004	51.9	-4.7%	41.8	-3.5%
2005	57.1	9.9%	50.4	20.8%
2006	58.6	2.6%	51.2	1.4%
2007	64.0	9.2%	58.4	14.1%
2008	69.2	8.2%	66.7	14.4%
2009	66.2	-4.3%	61.9	-7.3%
2010	60.8	-8.2%	56.0	-9.5%
2011	62.4	2.5%	52.8	-5.7%
2012	58.1	-6.8%	52.0	-1.5%
2013	59.4	2.3%	52.8	1.5%
2014	57.1	-3.9%	52.3	-0.9%
2015	54.8	-4.0%	44.0	-16.0%

Source: WCIRB Permanent Disability Claim Survey
Data is recast from survey proportions to true proportions.

Average Permanent Disability Ratings by Type of Loss

All Permanent Disability Claims						Cumulative Permanent Disability Claims						Non-Cumulative Permanent Disability Claims					
Average Permanent Disability Rating						Average Permanent Disability Rating						Average Permanent Disability Rating					
PY/RL	1	2	3	4	5	PY/RL	1	2	3	4	5	PY/RL	1	2	3	4	5
2001	18.6	23.4	26.1	26.7	26.9	2001	16.9	21.2	23.6	24.2	24.4	2001	18.8	23.6	26.4	26.9	27.1
2002	18.7	23.5	24.7	25.4	25.2	2002	16.9	20.4	21.4	22.0	22.1	2002	18.9	23.9	25.2	25.8	25.6
2003	19.8	22.0	23.2	23.0	22.6	2003	17.4	19.1	20.2	20.1	19.9	2003	20.0	22.3	23.6	23.3	23.0
2004	16.3	18.2	18.8	18.4	18.2	2004	15.0	16.0	16.7	16.4	16.7	2004	16.4	18.4	19.1	18.6	18.4
2005	12.5	14.6	15.8	16.1	16.9	2005	11.0	12.7	14.4	15.3	16.4	2005	12.6	14.8	15.9	16.2	16.9
2006	11.8	14.2	15.5	16.6	17.2	2006	10.3	12.3	12.7	14.6	16.0	2006	12.0	14.4	15.6	16.7	17.2
2007	12.0	14.6	16.6	17.5	18.1	2007	10.9	13.5	13.5	15.5	16.7	2007	12.1	14.7	16.7	17.6	18.2
2008	12.8	15.5	17.3	18.2	18.3	2008	12.4	14.4	16.1	17.4	17.6	2008	12.9	15.7	17.4	18.3	18.4
2009	12.5	15.2	16.8	17.3	17.3	2009	11.5	14.0	15.8	16.2	16.6	2009	12.6	15.3	16.9	17.4	17.4
2010	12.7	15.0	15.8	16.1	16.6	2010	12.4	14.9	15.4	15.7	16.4	2010	12.7	15.0	15.9	16.2	16.6
2011	12.6	14.4	15.1	15.8	16.3	2011	11.8	13.4	14.2	14.8	15.6	2011	12.7	14.5	15.2	15.9	16.5
2012	11.7	13.0	14.1	14.9	15.3	2012	10.9	12.1	13.1	13.9	14.3	2012	11.8	13.2	14.3	15.1	15.5
2013	11.2	12.8	13.8	14.4		2013	10.3	11.5	12.4	13.1		2013	11.3	13.1	14.1	14.7	
2014	10.7	12.2	13.4			2014	10.1	10.9	12.0			2014	10.9	12.5	13.6		
2015	10.1	12.0				2015	9.4	11.0				2015	10.3	12.2			
2016	10.1					2016	9.0					2016	10.4				

Count of Permanent Disability Claims						Count of Permanent Disability Claims						Count of Permanent Disability Claims					
PY/RL	1	2	3	4	5	PY/RL	1	2	3	4	5	PY/RL	1	2	3	4	5
2001	87,732	97,918	102,995	105,833	106,169	2001	7,749	10,546	11,058	11,524	11,569	2001	79,983	87,372	91,937	94,309	94,600
2002	84,211	96,994	101,877	102,617	103,228	2002	9,284	11,078	11,784	11,975	12,161	2002	74,927	85,916	90,093	90,642	91,067
2003	72,753	83,307	86,811	87,080	88,430	2003	7,824	9,320	9,756	10,101	10,348	2003	64,929	73,987	76,055	76,979	78,082
2004	55,724	62,004	65,470	67,410	70,372	2004	5,130	6,060	6,722	7,227	7,958	2004	50,594	55,944	58,748	60,183	62,414
2005	45,067	53,120	56,970	60,958	61,722	2005	3,463	4,592	5,383	6,197	6,821	2005	41,604	48,528	51,587	54,761	55,101
2006	42,384	51,362	57,892	59,647	60,965	2006	3,324	4,271	5,677	6,216	6,585	2006	39,060	46,641	52,215	53,431	54,380
2007	40,159	53,324	57,504	60,145	61,007	2007	3,256	4,816	5,797	6,326	6,596	2007	36,903	48,508	51,707	53,819	54,411
2008	39,867	50,766	56,318	58,294	59,068	2008	3,414	5,047	6,109	6,595	6,925	2008	36,453	45,719	50,209	51,699	52,143
2009	38,727	50,679	55,149	56,650	58,566	2009	3,782	5,585	6,624	7,273	7,823	2009	34,945	45,094	48,525	49,377	50,743
2010	38,833	51,715	56,323	58,831	59,820	2010	3,985	5,767	6,780	7,643	8,197	2010	35,848	45,948	49,543	51,188	51,623
2011	41,715	53,010	57,939	60,117	61,957	2011	4,230	6,243	7,635	8,495	9,176	2011	37,485	46,767	50,304	51,622	52,781
2012	41,005	53,428	59,482	62,494	64,447	2012	4,991	7,478	9,052	10,091	10,663	2012	36,014	45,950	50,430	52,403	53,784
2013	41,949	56,146	63,704	66,831		2013	6,327	9,358	11,179	11,915		2013	35,622	46,788	52,525	54,916	
2014	45,032	59,647	66,302			2014	7,173	10,608	11,836			2014	37,859	49,039	54,466		
2015	46,233	60,633				2015	7,905	10,898				2015	38,328	49,735			
2016	45,548					2016	8,347					2016	37,201				

Median Permanent Disability Rating						Median Permanent Disability Rating						Median Permanent Disability Rating					
PY/RL	1	2	3	4	5	PY/RL	1	2	3	4	5	PY/RL	1	2	3	4	5
2001	14.5	19.5	23.0	24.0	24.0	2001	15.0	17.5	19.5	19.5	20.0	2001	15.0	19.5	23.0	24.0	23.5
2002	15.0	19.5	22.0	22.0	21.5	2002	14.5	15.5	17.5	18.0	19.0	2002	16.0	20.5	22.0	22.5	23.0
2003	17.0	19.0	20.0	19.5	19.5	2003	14.5	14.5	14.5	15.0	14.5	2003	17.0	19.0	20.0	20.0	19.5
2004	12.5	14.5	14.5	14.5	14.5	2004	10.5	11.5	12.5	12.0	12.5	2004	12.5	14.5	14.5	15.0	14.5
2005	10.0	9.5	11.5	11.5	12.5	2005	8.0	9.5	10.0	11.0	12.0	2005	9.5	10.5	12.0	12.0	13.0
2006	8.5	9.5	11.5	13.0	13.0	2006	6.5	9.0	10.0	10.5	12.0	2006	8.5	10.0	12.0	13.0	12.5
2007	9.0	10.5	12.5	13.0	14.0	2007	7.5	9.5	11.0	11.5	11.5	2007	9.0	10.5	13.0	14.0	14.0
2008	10.0	10.5	12.5	13.5	13.5	2008	8.5	10.0	11.0	12.0	12.0	2008	10.0	12.0	13.0	14.0	14.0
2009	10.0	11.0	13.0	12.5	12.5	2009	9.5	10.0	10.5	12.0	12.0	2009	10.0	10.5	13.0	14.0	14.0
2010	10.0	11.0	12.0	13.0	12.5	2010	10.0	11.0	10.5	12.0	12.0	2010	9.5	10.5	12.0	12.5	13.0
2011	10.0	10.5	12.0	13.0	13.0	2011	9.5	10.0	11.0	11.0	11.5	2011	10.0	11.0	11.5	12.5	13.0
2012	10.0	9.5	10.5	11.5	12.0	2012	9.0	9.5	9.5	10.0	10.0	2012	9.5	9.5	10.5	12.0	11.5
2013	9.0	9.5	9.5	11.0		2013	8.0	8.5	10.0	10.0		2013	8.5	9.5	11.0	10.5	
2014	7.5	10.0	9.5			2014	8.0	7.5	8.5			2014	9.0	10.0	9.5		
2015	8.0	10.0				2015	7.0	7.5				2015	7.5	10.0			
2016	7.5					2016						2016	8.0				

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

Source: WCIRB unit statistical data

Average Paid ALAE^[1] per Reported Indemnity Claim - Private Insurers
As of September 30, 2018

Accident	Evaluated as of (in months):									
Year	9	21	33	45	57	69	81	93	105	117
1993										2,024
1994									1,998	2,035
1995								2,130	2,200	2,240
1996							2,373	2,503	2,568	2,649
1997						2,749	2,941	3,070	3,198	3,317
1998					2,808	3,156	3,376	3,600	3,786	3,916
1999				2,559	3,061	3,385	3,665	3,926	4,118	4,170
2000			2,182	3,027	3,552	3,973	4,400	4,689	4,815	4,974
2001		1,204	2,438	3,249	4,198	4,919	5,406	5,637	5,885	6,055
2002	441	1,496	2,719	4,056	4,870	5,502	5,870	6,174	6,375	6,551
2003	433	1,508	3,196	4,373	5,268	5,811	6,223	6,518	6,753	6,953
2004	316	1,551	2,951	4,130	4,900	5,442	5,845	6,146	6,376	6,567
2005	346	1,408	2,700	3,754	4,521	5,070	5,486	5,807	6,072	6,306
2006	358	1,464	2,818	3,880	4,668	5,273	5,730	6,070	6,385	6,615
2007	369	1,601	3,003	4,148	5,021	5,688	6,222	6,645	6,962	7,201
2008	408	1,725	3,257	4,586	5,579	6,337	6,918	7,361	7,679	7,902
2009	458	1,920	3,681	5,132	6,247	7,093	7,736	8,183	8,505	8,742
2010	496	2,053	3,833	5,292	6,400	7,229	7,808	8,217	8,503	
2011	494	2,067	3,810	5,267	6,395	7,160	7,718	8,101		
2012	505	2,120	3,995	5,520	6,569	7,324	7,825			
2013	535	2,317	4,259	5,683	6,679	7,348				
2014	593	2,519	4,428	5,821	6,747					
2015	662	2,592	4,519	5,852						
2016	650	2,656	4,591							
2017	693	2,788								
2018	795									

Accident	Annual Change									
Year	9	21	33	45	57	69	81	93	105	117
1994										0.5%
1995									10.1%	10.1%
1996								17.5%	16.7%	18.3%
1997							24.0%	22.6%	24.5%	25.2%
1998						14.8%	14.8%	17.3%	18.4%	18.1%
1999					9.0%	7.3%	8.6%	9.1%	8.8%	6.5%
2000				18.3%	16.0%	17.3%	20.1%	19.4%	16.9%	19.3%
2001			11.8%	7.3%	18.2%	23.8%	22.9%	20.2%	22.2%	21.7%
2002		24.3%	11.5%	24.9%	16.0%	11.9%	8.6%	9.5%	8.3%	8.2%
2003	-2.0%	0.8%	17.5%	7.8%	8.2%	5.6%	6.0%	5.6%	5.9%	6.1%
2004	-27.0%	2.8%	-7.7%	-5.6%	-7.0%	-6.4%	-6.1%	-5.7%	-5.6%	-5.5%
2005	9.7%	-9.2%	-8.5%	-9.1%	-7.7%	-6.8%	-6.1%	-5.5%	-4.8%	-4.0%
2006	3.6%	4.0%	4.4%	3.4%	3.3%	4.0%	4.5%	4.5%	5.2%	4.9%
2007	3.0%	9.3%	6.6%	6.9%	7.6%	7.9%	8.6%	9.5%	9.0%	8.9%
2008	10.6%	7.8%	8.4%	10.6%	11.1%	11.4%	11.2%	10.8%	10.3%	9.7%
2009	12.2%	11.3%	13.0%	11.9%	12.0%	11.9%	11.8%	11.2%	10.7%	10.6%
2010	8.3%	6.9%	4.1%	3.1%	2.4%	1.9%	0.9%		0.0%	
2011	-0.4%	0.7%	-0.6%	-0.5%	-0.1%	-0.9%	-1.2%	-1.4%		
2012	2.3%	2.6%	4.9%	4.8%	2.7%	2.3%	1.4%			
2013	5.8%	9.3%	6.6%	2.9%	1.7%	0.3%				
2014	10.9%	8.7%	4.0%	2.4%	1.0%					
2015	11.6%	2.9%	2.0%	0.5%						
2016	-1.7%	2.5%	1.6%							
2017	6.6%	5.0%								
2018	14.8%									

Annual Trend ^[2]										
All-Year	4.8%	5.1%	4.4%	4.6%	5.1%	5.8%	6.9%	8.0%	9.1%	9.8%
R ²	0.804	0.948	0.919	0.872	0.857	0.857	0.857	0.870	0.890	0.908
14-Year	6.4%	5.6%	4.2%	3.5%	3.6%	4.1%	5.0%	5.8%	6.8%	8.1%
R ²	0.979	0.963	0.872	0.824	0.826	0.820	0.821	0.849	0.865	0.861
5-Year	6.5%	4.3%	3.4%	2.7%	1.5%	0.8%	2.5%	5.2%	8.0%	8.7%
R ²	0.869	0.945	0.921	0.925	0.937	0.788	0.543	0.750	0.945	0.985

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

^[2] Trend is based on exponential distribution.

Source: WCIRB accident year experience calls.

Percentage of Represented Permanent Disability Claims by Region and Loss Type
First and Second Survey Level, Open Claims Only

<u>First Survey Level</u>			
% of Represented			
	<u>Northern California</u>	<u>Southern California</u>	
			<u>CT Claims</u> <u>Non-CT Claims</u>
AY 2011	66.6%	80.9%	88.3% 73.5%
AY 2012	67.8%	82.3%	89.8% 74.9%
AY 2013	69.3%	84.1%	91.8% 76.5%
AY 2014	68.4%	83.0%	90.6% 75.5%
AY 2015	67.0%	81.4%	88.8% 74.0%
AY 2016	66.7%	81.0%	88.4% 73.6%
<u>Second Survey Level</u>			
% of Represented			
	<u>Northern California</u>	<u>Southern California</u>	
			<u>CT Claims</u> <u>Non-CT Claims</u>
AY 2011	69.7%	84.7%	92.4% 77.0%
AY 2012	72.0%	87.4%	95.4% 79.5%
AY 2013	72.3%	87.8%	95.8% 79.8%
AY 2014	69.9%	84.9%	92.6% 77.2%
AY 2015	70.8%	86.0%	93.8% 78.2%

Note: Claims are assigned to Northern and Southern California regions based on the WCAB office code reported on the Permanent Disability Claim Survey forms. If the WCAB office code was not reported, the zip code of the claimant's residence was used.

Source: WCIRB Permanent Disability Claim Survey for each accident year (AY)
Data is recast from survey proportions to true proportions.

Distribution of Total ALAE & M CCP Components - Private Insurers

<u>Calendar Year</u>	<u>M CCP</u>	<u>Defense Expense</u>	<u>Other Paid ALAE</u>	<u>Paid ALAE</u>
2005	20.2%	54.9%	24.9%	100.0%
2006	22.6%	44.3%	33.1%	100.0%
2007	24.2%	49.0%	26.8%	100.0%
2008	31.8%	43.0%	25.2%	100.0%
2009	27.8%	45.4%	26.8%	100.0%
2010	27.7%	45.4%	26.9%	100.0%
2011	27.3%	46.1%	26.6%	100.0%
2012	27.7%	46.3%	26.0%	100.0%
2013	28.0%	47.1%	24.9%	100.0%
2014	28.8%	45.1%	26.2%	100.0%
2015	28.4%	42.3%	29.3%	100.0%
2016	26.5%	43.3%	30.2%	100.0%
2017	24.8%	45.8%	29.5%	100.0%

Source: WCIRB expense calls, aggregate indemnity and medical cost calls and quarterly calls for experience

Applicant Attorney Expense Paid - Private Insurers

<u>Calendar Year</u>	<u>Applicant Attorney Amounts paid (in \$millions)</u>	<u>Incurred Losses (in \$millions)</u>	<u>Applicant Attorney Expenses Paid as a Percent of Incurred Losses</u>
2003	192	10,423	1.8%
2004	249	9,073	2.7%
2005	228	7,559	3.0%
2006	209	5,540	3.8%
2007	196	5,444	3.6%
2008	177	5,711	3.1%
2009	221	5,700	3.9%
2010	253	6,260	4.0%
2011	280	7,500	3.7%
2012	340	8,533	4.0%
2013	353	9,501	3.7%
2014	330	9,632	3.4%
2015	327	9,408	3.5%
2016	354	9,622	3.7%
2017	348	8,916	3.9%

Source: WCIRB expense calls and quarterly calls for experience

Changes in the Number and Cost of Medical-Legal Reports by Service Year

Service Year	Number of Med-Legal Reports per Claim ^[1] by Service Year							
	<u>Southern</u>	<u>Central</u>	<u>Northern</u>	<u>All</u>	<u>Southern</u>	<u>Central</u>	<u>Northern</u>	<u>All</u>
2013	0.21	0.21	0.25	0.22	---	---	---	---
2014	0.22	0.23	0.25	0.23	6.5%	7.5%	0.3%	4.9%
2015	0.22	0.24	0.25	0.23	-2.7%	7.6%	0.4%	-0.5%
2016	0.23	0.28	0.25	0.24	8.3%	13.7%	-0.2%	7.2%
2017	0.23	0.26	0.24	0.24	-2.7%	-6.3%	-5.6%	-3.9%
2018 Prelim	0.21	0.26	0.22	0.22	-7.2%	-1.3%	-4.4%	-5.4%

Service Year	Med-Legal Payment per report by Service Year on All Claims ^[2]							
	<u>Southern</u>	<u>Central</u>	<u>Northern</u>	<u>All</u>	<u>Southern</u>	<u>Central</u>	<u>Northern</u>	<u>All</u>
2013	\$1,689	\$1,064	\$1,305	\$1,485	---	---	---	---
2014	\$1,859	\$1,222	\$1,382	\$1,636	10.1%	14.8%	6.0%	10.1%
2015	\$1,821	\$1,285	\$1,368	\$1,624	-2.0%	5.1%	-1.1%	-0.8%
2016	\$1,878	\$1,244	\$1,354	\$1,643	3.1%	-3.2%	-1.0%	1.2%
2017	\$1,692	\$1,029	\$1,242	\$1,467	-9.9%	-17.3%	-8.3%	-10.7%
2018 Prelim	\$1,634	\$1,024	\$1,238	\$1,423	-3.4%	-0.5%	-0.3%	-3.0%

^[1] Includes claims with any medical transaction for the service year.

^[2] Includes services on all claims on the 10 most recent accident years for the service year and where payment for the service was made within the same service year.

Source: WCIRB medical data call (MDC).

Average Paid MCCP per Reported Indemnity Claim - Statewide

As of September 30, 2018

Accident	Evaluated as of (in months):						
<u>Year</u>	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>	<u>81</u>
2012	2,616	1,315	1,619	1,839	2,011	2,118	2,187
2013	2,603	1,167	1,489	1,729	1,867	1,959	
2014	2,291	1,131	1,475	1,687	1,828		
2015	2,369	1,134	1,424	1,628			
2016	2,217	1,055	1,324				
2017	2,136	1,032					
2018	2,308						

Accident	Annual Change					
<u>Year</u>	<u>9</u>	<u>21</u>	<u>33</u>	<u>45</u>	<u>57</u>	<u>69</u>
2013	-0.5%	-11.2%	-8.1%	-6.0%	-7.2%	-7.5%
2014	-12.0%	-3.1%	-0.9%	-2.4%	-2.1%	
2015	3.4%	0.3%	-3.5%	-3.5%		
2016	-6.4%	-7.0%	-7.0%			
2017	-3.6%	-2.1%				
2018	8.1%					

Annual Trend^[1]

All-Year	-2.8%	-4.2%	-4.4%	-3.8%	-4.7%
R ²	0.651	0.886	0.936	0.963	0.906

^[1] Trend is based on exponential distribution using accident years 2012 and subsequent.
Source: WCIRB accident year experience calls.

Item AC19-03-02
12/31/2018 Experience – Review of Methodologies

Staff has prepared a preliminary analysis of statewide experience through December 31, 2018, which is included in Exhibits 1 through 8. This information reflects insurers writing almost 100% of the market based on 2018 premium levels. The methodologies used were consistent with those reflected in the January 1, 2019 Pure Premium Rate Filing. Wage and loss levels were projected to April 1, 2020 (the approximate midpoint of experience on policies incepting between July 1, 2019 and December 31, 2019) and premiums were adjusted to the industry average filed pure premium rate level as of July 1, 2018 as reflected in the January 1, 2019 Pure Premium Rate Filing.

As shown on Exhibit 8, the projected loss to the industry average filed pure premium ratio for policies incepting between July 1, 2019 and December 31, 2019 based on December 31, 2018 experience is 0.537. (The policy year 2019 loss to pure premium ratio reflected in the January 1, 2019 Pure Premium Rate Filing based on March 31, 2018 experience was 0.588. The projected loss to payroll ratio based on September 30, 2018 experience was 0.568.)

Additional supplemental information is included in Exhibits 9 through 12.

**California Workers' Compensation
Accident Year Experience as of December 31, 2018**

<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>
1986	3,506,609,097	1,383,026,565	4,788,651	1,140,282,820	33,187,391	21,402,611	2,582,688,038	0.737
1987	4,374,085,383	1,505,778,665	7,131,265	1,331,572,885	40,319,531	57,800,940	2,942,603,286	0.673
1988	5,173,049,472	1,702,765,078	6,281,439	1,538,273,396	36,240,683	44,377,505	3,327,938,101	0.643
1989	5,674,529,942	1,938,547,635	8,311,492	1,793,337,737	51,473,556	41,463,725	3,833,134,145	0.675
1990	5,698,665,461	2,256,550,833	8,264,209	2,037,311,679	49,657,180	61,873,142	4,413,657,043	0.775
1991	5,863,319,243	2,472,902,165	14,210,978	2,190,906,502	55,948,392	62,288,530	4,796,256,567	0.818
1992	5,681,466,382	1,972,657,867	13,330,526	1,753,008,950	59,189,719	60,298,567	3,858,485,629	0.679
1993	5,928,480,359	1,690,479,536	13,742,640	1,502,728,868	76,987,895	46,501,294	3,330,440,233	0.562
1994	5,022,749,028	1,623,604,140	20,404,970	1,459,373,331	89,528,939	44,540,808	3,237,452,188	0.645
1995	3,778,975,599	1,757,933,154	28,708,324	1,607,809,755	105,628,464	60,193,904	3,560,273,601	0.942
1996	3,736,857,547	1,945,388,042	33,969,249	1,702,419,781	110,219,431	72,185,704	3,864,182,207	1.034
1997	3,916,944,392	2,304,930,418	42,729,020	1,994,822,370	136,961,684	105,036,097	4,584,479,589	1.170
1998	4,322,051,270	2,758,468,326	55,497,710	2,613,822,288	230,973,781	200,236,116	5,858,998,221	1.356
1999	4,537,629,086	3,037,190,855	55,890,599	3,004,723,530	198,939,518	248,881,828	6,545,626,330	1.443
2000	5,905,419,052	3,406,655,659	73,002,618	3,526,719,801	236,807,233	412,222,546	7,655,407,857	1.296
2001	10,094,684,192	4,808,650,286	114,243,888	5,304,498,015	402,545,637	622,352,995	11,252,290,821	1.115
2002	13,405,893,679	4,739,586,049	104,630,972	5,420,727,998	357,523,086	891,270,459	11,513,738,564	0.859
2003	19,429,675,115	4,504,507,455	157,833,689	4,987,263,223	373,213,300	1,280,403,393	11,303,221,060	0.582
2004	23,043,963,090	3,173,627,668	134,396,508	3,989,785,201	323,031,400	1,390,085,640	9,010,926,417	0.391
2005	21,350,709,483	2,497,209,231	119,156,372	3,586,973,854	316,443,124	1,122,025,929	7,641,808,510	0.358
2006	17,205,061,787	2,580,640,871	133,414,619	3,686,475,911	348,094,529	912,697,425	7,661,323,355	0.445
2007	13,252,379,499	2,711,347,875	147,609,912	3,945,739,408	394,218,724	744,381,959	7,943,297,878	0.599
2008	10,744,360,124	2,753,597,248	164,539,549	3,932,599,063	399,617,783	541,460,372	7,791,814,015	0.725
2009	8,877,640,496	2,613,217,733	169,160,473	3,726,934,481	394,156,818	550,425,770	7,453,895,275	0.840
2010	9,398,228,398	2,625,412,336	171,465,099	3,807,907,762	370,337,254	626,109,038	7,601,231,489	0.809
2011	10,129,285,077	2,577,963,899	193,204,092	3,433,445,278	418,726,915	846,186,628	7,469,526,812	0.737
2012	11,692,134,220	2,580,785,179	240,542,133	3,287,359,245	462,195,740	1,060,488,540	7,631,370,837	0.653
2013	14,149,827,161	2,577,021,270	267,339,977	3,089,565,585	510,633,421	1,812,020,849	8,256,581,102	0.584
2014	15,997,914,039	2,600,103,684	385,356,259	2,897,153,685	607,969,397	3,105,080,160	9,595,663,185	0.600
2015	17,059,168,432	2,447,181,411	529,900,056	2,655,802,771	822,940,758	3,502,506,805	9,958,331,801	0.584
2016	17,953,150,757	2,011,382,503	710,771,368	2,229,566,394	1,063,280,336	4,062,465,488	10,077,466,089	0.561
2017	17,665,705,827	1,306,465,180	944,548,668	1,641,060,547	1,353,658,228	4,942,996,525	10,188,729,148	0.577
2018	17,389,135,792	446,867,475	820,958,275	734,621,263	1,458,225,625	6,447,540,214	9,908,212,852	0.570

* Shown for informational purposes only.

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

Source: WCIRB quarterly experience calls

Incurred Indemnity Loss Development Factors

Accident Year	<u>24/12</u>	<u>36/24</u>	<u>48/36</u>	<u>60/48</u>	<u>72/60</u>	<u>84/72</u>	<u>96/84</u>	Age-to-Age (in months)				<u>120/96</u>	<u>132/120</u>	<u>144/132</u>	<u>156/144</u>	<u>168/156</u>	<u>180/168</u>	<u>192/180</u>	<u>204/192</u>
1992																			0.999
1993																		1.000	1.000
1994																		1.002	1.000
1995																		1.001	1.002
1996																		1.001	1.001
1997																		1.002	1.001
1998																		1.002	1.001
1999													1.004	1.002	1.003	1.004	1.002	1.002	1.001
2000												1.004	1.004	1.005	1.003	1.001	1.004	1.002	1.000
2001												1.006	1.007	1.006	1.005	1.003	1.002	1.001	1.001
2002											1.009	1.010	1.007	1.005	1.003	1.002	1.002	1.003	1.002
2003											1.015	1.015	1.009	1.006	1.004	1.003	1.002	1.002	
2004											1.018	1.014	1.007	1.007	1.003	1.001	1.002		
2005											1.016	1.012	1.006	1.005	1.006	1.003			
2006											1.015	1.009	1.007	1.004	1.005				
2007											1.012	1.011	1.005	1.007					
2008											1.019	1.009	1.006						
2009											1.014	1.009							
2010											1.014								
2011											1.012								
2012											1.019								
2013											1.023								
2014											1.022								
2015											1.030								
2016											1.024								
2017											1.026								
Selected (a)	1.913	1.246	1.101	1.059	1.032	1.023	1.019	1.012	1.011	1.007	1.006	1.004	1.002	1.002	1.002	1.002	1.002	1.001	
Cumulative	3.163	1.653	1.327	1.205	1.138	1.103	1.078	1.058	1.045	1.034	1.028	1.022	1.017	1.015	1.013	1.013	1.013	1.011	

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

Incurred Indemnity Loss Development Factors (Continued)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	ULT/408Inc.(b)
1983										1.000	1.001	1.001	1.001	1.001	1.001	1.000	1.001	
1984									1.001	1.001	1.000	1.001	1.001	1.001	1.001	1.000	1.001	
1985								1.001	1.000	1.001	1.001	1.001	1.001	1.001	0.999	1.000	1.000	
1986							1.001	1.000	1.001	1.002	1.001	1.000	0.999	1.000	1.000	1.000	1.000	
1987						1.000	1.000	1.001	1.002	1.000	1.001	1.001	1.001	1.001	1.001	1.000	1.001	
1988					1.000	1.001	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1989			1.000	0.999	1.000	1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1990					1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
1991		1.001	1.001	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	
1992		0.998	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	1.000	
1993		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	1.000	1.000	1.000	
1994		1.001	1.001	1.002	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	
1995		1.003	1.001	0.998	1.000	1.001	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996		1.003	1.000	1.000	1.000	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1997		1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998		1.003	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	1.000	
1999		1.000	1.000	1.002	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	
2000		1.002	1.001															
2001		1.001																
Selected (a)	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
Cumulative	1.010	1.008	1.008	1.007	1.007	1.006	1.005	1.005	1.005	1.005	1.005	1.005	1.004	1.004	1.004	1.003	1.003	1.003

(b) The ULT/408Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the second and third evaluations, and extrapolated to 80 development years.

Incurred Medical Loss Development Factors

Accident Year	Age-to-Age (in months) (b)															
	<u>24/12</u>	<u>36/24</u>	<u>48/36</u>	<u>60/48</u>	<u>72/60</u>	<u>84/72</u>	<u>96/84</u>	<u>108/96</u>	<u>120/108</u>	<u>132/120</u>	<u>144/132</u>	<u>156/144</u>	<u>168/156</u>	<u>180/168</u>	<u>192/180</u>	<u>204/192</u>
1993																1.007
1994															1.021	1.011
1995														1.016	1.005	1.009
1996													1.018	1.013	1.014	1.005
1997												1.012	1.015	1.012	1.003	1.007
1998											1.020	1.017	1.004	1.014	1.008	1.012
1999										1.019	1.018	1.013	1.011	1.013	1.005	0.999
2000									1.017	1.024	1.018	1.018	1.012	1.006	0.999	0.995
2001								1.034	1.035	1.022	1.017	1.015	1.013	1.001	0.997	0.994
2002							1.036	1.029	1.028	1.022	1.014	1.010	0.999	0.997	1.000	0.999
2003						1.042	1.042	1.037	1.029	1.018	1.011	1.003	0.998	0.999	1.001	
2004					1.060	1.061	1.043	1.032	1.026	1.012	1.006	1.001	0.996	0.998		
2005				1.074	1.084	1.055	1.045	1.032	1.020	1.006	1.006	0.999	1.000			
2006			1.103	1.081	1.066	1.048	1.040	1.022	1.012	1.000	1.001	1.005				
2007		1.204	1.124	1.081	1.070	1.050	1.032	1.018	1.004	1.008	1.001					
2008	1.527	1.212	1.129	1.092	1.061	1.041	1.026	1.010	1.004	1.002						
2009	1.604	1.227	1.140	1.087	1.061	1.030	1.016	1.007	1.005							
2010	1.620	1.245	1.134	1.077	1.045	1.025	1.012	1.008								
2011	1.667	1.222	1.125	1.069	1.034	1.016	1.010									
2012	1.592	1.188	1.092	1.056	1.031	1.015										
2013	1.559	1.150	1.086	1.039	1.022											
2014	1.523	1.159	1.079	1.035												
2015	1.511	1.146	1.064													
2016	1.498	1.124														
2017	1.440															
Selected (a)	1.440	1.124	1.064	1.035	1.022	1.015	1.010	1.008	1.012	1.008	1.007	1.006	1.003	1.002	1.002	1.001
Cumulative	2.010	1.396	1.242	1.167	1.128	1.103	1.087	1.076	1.068	1.055	1.047	1.041	1.035	1.032	1.029	1.028

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

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

Incurred Medical Loss Development Factors (Continued)

Accident Year	<u>216/204</u>	<u>228/216</u>	<u>240/228</u>	<u>252/240</u>	<u>264/252</u>	<u>276/264</u>	<u>288/276</u>	<u>300/288</u>	<u>312/300</u>	<u>324/312</u>	<u>336/324</u>	<u>348/336</u>	<u>360/348</u>	<u>372/360</u>	<u>384/372</u>	<u>396/384</u>	<u>408/396</u>	<u>ULT/408inc (c)</u>
1983										1.004	1.002	1.006	1.003	1.004	1.003	1.003	0.997	
1984									1.003	1.002	1.003	1.001	1.003	1.001	1.001	0.997	1.001	
1985								1.003	1.003	1.003	1.005	1.002	1.003	0.998	0.999	0.999	1.000	
1986								1.005	1.006	1.004	1.005	1.000	1.002	0.998	0.999	0.999	1.000	
1987						1.011	1.006	1.007	1.003	1.004	1.005	1.001	1.002	0.998	1.001	1.006		
1988					1.005	1.005	0.999	1.002	1.003	1.003	1.002	0.998	0.997	1.001	1.000			
1989				1.005	1.005	1.008	1.006	1.000	1.003	0.999	0.999	0.999	0.999	1.000				
1990			1.007	1.005	1.003	1.003	1.003	0.997	1.002	1.000	1.000	0.998	0.999					
1991		1.005	1.006	1.002	1.003	1.002	1.003	1.001	1.000	0.999	0.998							
1992		1.004	1.002	1.005	1.003	1.005	1.000	0.999	1.001	0.999								
1993	1.007	1.011	1.014	1.004	0.999	1.000	0.996	0.999	0.998									
1994	1.011	1.004	1.007	1.006	1.001	0.996	0.995	1.001										
1995	1.015	0.996	1.006	0.999	1.006	0.992	0.999											
1996	1.008	1.005	1.001	0.998	0.999	0.997												
1997	1.001	0.994	0.998	0.997	0.998													
1998	1.001	1.001	0.994	1.001														
1999	0.999	0.995	1.002															
2000	0.996	0.999																
2001	1.002																	

Selected (a)
Cumulative

1.001
1.027

0.998
1.025

1.001
1.027

0.998
1.025

1.001
1.027

0.998
1.025

1.001
1.027

0.998
1.025

1.001
1.027

0.998
1.025

1.001
1.027

0.998
1.025

1.001
1.027

0.998
1.025

(c) The ULT/408inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the second and third evaluations, and extrapolated to 80 development years.

Paid Indemnity Loss Development Factors

Accident Year	<u>24/12</u>	<u>36/24</u>	<u>48/36</u>	<u>60/48</u>	<u>72/60</u>	<u>84/72</u>	<u>96/84</u>	Age-to-Age (in months)					<u>132/120</u>	<u>144/132</u>	<u>156/144</u>	<u>168/156</u>	<u>180/168</u>	<u>192/180</u>	<u>204/192</u>
1993																			1.003
1994																		1.003	1.003
1995																		1.005	1.003
1996																		1.004	1.004
1997																		1.006	1.005
1998																		1.006	1.006
1999																		1.007	1.006
2000																		1.007	1.004
2001																		1.007	1.005
2002																		1.006	1.005
2003																		1.006	1.005
2004																		1.006	1.005
2005																		1.007	1.007
2006																		1.008	1.008
2007																		1.010	
2008																			
2009																			
2010																			
2011																			
2012																			
2013																			
2014																			
2015																			
2016																			
2017																			
Selected (a)	3.186	1.586	1.244	1.129	1.072	1.051	1.041	1.027	1.024	1.019	1.016	1.012	1.009	1.007	1.006	1.005	1.006	1.005	
Cumulative	9.760	3.063	1.931	1.553	1.375	1.283	1.221	1.173	1.142	1.115	1.094	1.077	1.065	1.055	1.047	1.040	1.047	1.040	

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

Paid Indemnity Loss Development Factors (Continued)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	Age-to-Age (in months)										360/348	372/360	384/372	396/384	408/396	408Inc/408Pd (b)	ULT/408Inc (c)
1983										1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.005					
1984									1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.005					
1985								1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.005					
1986							1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.005					
1987						1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.005					
1988					1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1989				1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1990			1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1991		1.002	1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1992	1.002	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1993	1.002	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1994	1.004	1.003	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1995	1.005	1.005	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.003					
1996	1.005	1.004	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.001	1.003					
1997	1.004	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.001	1.003					
1998	1.006	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.001	1.003					
1999	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.001	1.003					
2000	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.001	1.003					
2001	1.005																				1.003					

Selected (a)
Cumulative

1.004
1.036

1.004
1.007

1.001
1.008

1.001
1.009

1.001
1.010

1.001
1.011

1.001
1.012

1.001
1.012

1.001
1.013

1.001
1.014

1.001
1.015

1.002
1.017

1.002
1.019

1.002
1.022

1.003
1.024

1.003
1.027

1.004
1.031

1.004
1.036

1.004
1.007

1.004
1.003

- (b) Three-year averages of the 408Inc/408Pd factors are selected.
(c) The ULT/408Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the second and third evaluations, and extrapolated to 80 development years.

Paid Medical Loss Development Factors

Unadjusted (a) Accident Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192
1993																
1994															1.011	1.012
1995														1.018	1.018	1.015
1996													1.020	1.018	1.016	1.013
1997												1.022	1.019	1.016	1.014	1.014
1998											1.030	1.021	1.019	1.019	1.015	1.017
1999										1.032	1.025	1.025	1.016	1.016	1.018	1.015
2000										1.027	1.023	1.020	1.020	1.017	1.013	1.010
2001								1.031	1.034	1.030	1.022	1.022	1.022	1.017	1.012	1.011
2002								1.038	1.032	1.024	1.023	1.018	1.016	1.012	1.011	1.010
2003						1.057	1.048	1.041	1.030	1.030	1.026	1.019	1.016	1.013	1.012	
2004						1.070	1.055	1.040	1.036	1.034	1.024	1.018	1.015	1.012		
2005				1.138	1.092	1.073	1.054	1.049	1.038	1.031	1.021	1.019	1.014			
2006			1.220	1.140	1.095	1.068	1.056	1.042	1.034	1.025	1.020	1.015				
2007		1.413	1.230	1.142	1.097	1.075	1.057	1.041	1.031	1.022	1.020					
2008	2.325	1.421	1.241	1.148	1.103	1.072	1.051	1.035	1.027	1.018						
2009	2.408	1.447	1.251	1.160	1.104	1.067	1.046	1.032	1.024							
2010	2.479	1.468	1.265	1.152	1.096	1.066	1.043	1.030								
2011	2.580	1.470	1.248	1.145	1.095	1.058	1.041									
2012	2.561	1.468	1.247	1.143	1.087	1.056										
2013	2.492	1.464	1.238	1.130	1.077											
2014	2.518	1.462	1.226	1.121												
2015	2.533	1.439	1.217													
2016	2.479	1.410														
2017	2.372															

Adjusted (b) Accident Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192
2000																
2001															1.012	1.011
2002														1.012	1.011	1.010
2003														1.013	1.012	
2004													1.016	1.012		
2005												1.018	1.015	1.012		
2006											1.021	1.019	1.014			
2007										1.025	1.020	1.015				
2008								1.031	1.027	1.018						
2009						1.066	1.046	1.032	1.024							
2010					1.095	1.059	1.043	1.030								
2011					1.088	1.058										
2012				1.143	1.080											
2013			1.238	1.132												
2014		1.462	1.228	1.124												
2015	2.533	1.440	1.219													
2016	2.480	1.410														
2017	2.372															
Selected (c)	2.372	1.410	1.219	1.124	1.080	1.058	1.043	1.030	1.027	1.022	1.020	1.017	1.015	1.012	1.012	1.010
Cumulative Unadjusted for Impact of SB 1160	7.413	3.125	2.216	1.818	1.618	1.498	1.416	1.357	1.318	1.283	1.256	1.231	1.210	1.192	1.177	1.164
Cumulative Adjusted for Impact of SB 1160(d)	7.161	3.019	2.157	1.784	1.600	1.489										

- (a) Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.
 (b) These factors are adjusted for the losses paid prior to July 1, 2017 by -3.6%, -3.8%, -3.4%, -0.9%, and -0.1% to accident years 2011 to 2016, respectively, for the SB 1160 lien reforms.
 (c) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.
 (d) The cumulative factors for 24, 36, 48, 60, and 72 months are adjusted by -3.4%, -2.7%, -1.9%, -1.1%, and -0.6%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Paid Medical Loss Development Factors (Continued)

Unadjusted (a) Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	408inc/408Pd (e)	ULT/408inc (f)
1983																			
1984																			
1985																			
1986																			
1987																			
1988																			
1989																			
1990																			
1991																			
1992																			
1993																			
1994																			
1995																			
1996																			
1997																			
1998																			
1999																			
2000																			
2001																			

Adjusted (b) Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	384/372	396/384	408/396	408inc/408Pd (e)	ULT/408inc (f)
1983																			
1984																			
1985																			
1986																			
1987																			
1988																			
1989																			
1990																			
1991																			
1992																			
1993																			
1994																			
1995																			
1996																			
1997																			
1998																			
1999																			
2000																			
2001																			

Selected (c)	1.010	1.009	1.008	1.008	1.008	1.010	1.007	1.005	1.004	1.003	1.003	1.003	1.003	1.004	1.003	1.003	1.003	1.027	1.022
Cumulative	1.152	1.140	1.130	1.121	1.112	1.104	1.093	1.086	1.081	1.076	1.073	1.070	1.067	1.063	1.059	1.055	1.053		

(e) Six-year averages of the 408inc/408Pd factors are selected.
(f) The ULT/408inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the second and third evaluations, and extrapolated to 80 development years.

Selected Indemnity Development Factors - Paid to Age 252, Incurred from Age 252 to Ultimate

Accident Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192	216/204	228/216	240/228	252/240	252Inc/252Pd (c)
1992																					
1993																					1.013
1994																					1.014
1995																					1.018
1996																					1.023
1997																					1.021
1998																					1.020
1999																					1.020
2000																					1.003
2001																					1.004
2002																					1.004
2003																					1.005
2004																					1.007
2005																					1.008
2006																					1.008
2007																					1.010
2008																					1.012
2009																					1.012
2010																					1.016
2011																					1.016
2012																					1.018
2013																					1.023
2014																					1.027
2015																					1.031
2016																					1.031
2017																					1.027
Selected (a)	3.178(c)	1.558(c)	1.222(c)	1.110(c)	1.062(c)	1.043(d)	1.041	1.027	1.024	1.019	1.016	1.012	1.009	1.007	1.006	1.005	1.004	1.004	1.003	1.003	1.020
Cumulative	9.140	2.876	1.846	1.510	1.360	1.280	1.227	1.179	1.148	1.121	1.100	1.083	1.070	1.061	1.053	1.046	1.041	1.037	1.033	1.030	

- (a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent paid age-to-age factors. Paid development factors are selected to age 252, where an incurred-to-paid ratio is chosen, and subsequently, six-year average incurred loss development factors are selected until ultimate.
- (b) A three-year average of the 252Inc/252Pd factor is selected.
- (c) 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 252, Incurred from Age 252 to Ultimate (Continued)

Accident Year	Age-to-Age (in months)															
	<u>264/252</u>	<u>276/264</u>	<u>288/276</u>	<u>300/288</u>	<u>312/300</u>	<u>324/312</u>	<u>336/324</u>	<u>348/336</u>	<u>360/348</u>	<u>372/360</u>	<u>384/372</u>	<u>396/384</u>	<u>408/396</u>	<u>ULT/408Inc (d)</u>		
1981								0.999	1.001							
1982						1.000	1.000	1.001	1.001							
1983					1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.001			
1984					1.001	1.001	1.000	1.001	1.001	1.000	0.999	1.000	1.000			
1985				1.001	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000			
1986			1.001	1.000	1.001	1.002	1.001	1.000	0.999	1.000	1.000	1.000	1.000			
1987		1.000	1.000	1.001	1.002	1.000	1.001	1.001	1.001	1.001	1.001					
1988	1.000	1.001	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
1989	1.000	1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000							
1990	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001								
1991	1.000	1.000	1.000	1.000	1.000	1.000	1.000									
1992	1.001	1.001	1.000	1.000	1.000	1.000										
1993	1.001	1.000	1.000	1.000	1.000											
1994	1.001	1.001	0.999	1.001												
1995	1.000	1.001	1.000													
1996	1.001	1.001														
1997	1.001	1.001														
1998																
Selected (a)	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000			
Cumulative	1.007	1.006	1.005	1.005	1.005	1.005	1.005	1.005	1.004	1.004	1.004	1.003	1.003	1.003		

(d) The ULT/408Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the second and third evaluations, 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>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							112,953
2010						116,346	116,606
2011					116,642	116,962	117,192
2012				122,644	123,425	123,853	123,991
2013			129,795	131,351	132,105	132,329	
2014		132,280	136,513	138,121	138,665		
2015	111,249	138,668	142,906	143,653			
2016	113,196	142,055	145,926				
2017	117,690	142,617					
2018	117,668						

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):						
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-Ultimate</u>
2010						1.002	
2011					1.003	1.002	
2012				1.006	1.003	1.001	
2013			1.012	1.006	1.002		
2014		1.032	1.012	1.004			
2015	1.246	1.031	1.005				
2016	1.255	1.027					
2017	1.212						
Latest Year	1.212	1.027	1.005	1.004	1.002	1.001	
Cumulative	1.266	1.044	1.017	1.011	1.007	1.006	1.005

Acc. Year	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
Ult. Claim Counts	148,929	148,957	148,370	145,299	139,704	133,095	124,570

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							100,159
2010						100,110	105,203
2011					95,359	101,990	106,724
2012				92,123	102,503	109,534	114,211
2013			83,885	100,816	112,042	118,996	
2014		65,554	90,196	108,020	119,677		
2015	30,329	70,621	97,916	116,059			
2016	32,355	76,164	104,079				
2017	36,044	80,881					
2018	37,394						

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

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

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							88.2%
2010						85.4%	89.8%
2011					81.0%	86.6%	90.6%
2012				74.0%	82.3%	87.9%	91.7%
2013			63.0%	75.7%	84.2%	89.4%	
2014		46.9%	64.6%	77.3%	85.7%		
2015	20.9%	48.6%	67.4%	79.9%			
2016	21.8%	51.3%	70.1%				
2017	24.2%	54.3%					
2018	25.1%						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							104,113
2010						104,784	107,453
2011					100,861	105,267	107,949
2012				99,501	106,712	111,374	114,211
2013			93,364	106,311	114,015	118,996	
2014		75,857	98,000	111,590	119,677		
2015	36,483	78,895	101,925	116,059			
2016	37,254	80,562	104,079				
2017	37,401	80,881					
2018	37,394						

F. Average Paid Indemnity per Closed Claim

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							18,107
2010						16,732	18,439
2011					14,940	16,906	18,428
2012				12,620	15,184	17,093	18,353
2013			9,559	12,991	15,451	17,109	
2014		5,630	10,178	13,782	16,349		
2015	2,352	6,209	10,945	14,483			
2016	2,504	6,573	11,032				
2017	2,602	6,645					
2018	2,862						

- (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>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							19,531
2010						18,293	19,259
2011					16,554	17,946	18,853
2012				14,393	16,300	17,578	18,353
2013			11,350	14,142	15,904	17,109	
2014		7,211	11,623	14,522	16,349		
2015	2,728	7,373	11,644	14,483			
2016	2,789	7,131	11,032				
2017	2,677	6,645					
2018	2,862						

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

Accident Year	Evaluated as of (in months)						
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							2,033,386
2010						1,916,786	2,069,398
2011					1,669,654	1,889,119	2,035,155
2012				1,432,150	1,739,390	1,957,767	2,096,095
2013			1,059,715	1,503,415	1,813,351	2,035,922	
2014		547,028	1,139,023	1,620,525	1,956,599		
2015	99,531	581,725	1,186,796	1,680,891			
2016	103,897	574,520	1,148,151				
2017	100,116	537,462					
2018	107,036						

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

Accident Year	Evaluated as of (in months)						
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							563,612
2010						625,953	499,199
2011					671,779	552,696	437,358
2012				774,620	644,860	521,655	415,922
2013			854,439	774,640	621,686	487,371	
2014		740,056	897,338	791,041	617,483		
2015	299,095	776,449	893,841	760,169			
2016	311,490	769,249	860,723				
2017	320,423	767,186					
2018	339,832						

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

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

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

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							44,052
2010						38,554	43,779
2011					31,564	36,915	41,779
2012				25,380	30,822	36,431	42,528
2013			18,611	25,369	30,986	36,554	
2014		11,091	19,374	26,279	32,520		
2015	3,696	11,411	19,867	27,548			
2016	3,853	11,675	20,568				
2017	3,925	12,427					
2018	4,233						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							-174,182
2010						-180,200	-98,503
2011					-173,663	-121,006	-51,180
2012				-187,252	-129,732	-67,032	
2013			-176,415	-139,403	-61,136		
2014		-114,260	-151,195	-93,817			
2015	-22,746	-94,411	-79,649				
2016	-18,876	-51,345					
2017	-5,326						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							389,431
2010						445,753	400,697
2011					498,116	431,690	386,178
2012				587,368	515,128	454,623	415,922
2013			678,025	635,237	560,550	487,371	
2014		625,796	746,142	697,224	617,483		
2015	276,349	682,038	814,192	760,169			
2016	292,614	717,904	860,723				
2017	315,098	767,186					
2018	339,832						

(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>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							2,422,817
2010						2,362,539	2,470,094
2011					2,167,769	2,320,809	2,421,333
2012				2,019,518	2,254,518	2,412,390	2,512,017
2013			1,737,740	2,138,653	2,373,900	2,523,293	
2014		1,172,824	1,885,165	2,317,749	2,574,082		
2015	375,880	1,263,763	2,000,989	2,441,059			
2016	396,511	1,292,424	2,008,874				
2017	415,214	1,304,649					
2018	446,867						

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

Accident Year	Evaluated as of (in months)					
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>
2009						
2010						1.046
2011					1.071	1.043
2012				1.116	1.070	1.041
2013			1.231	1.110	1.063	
2014		1.607	1.229	1.111		
2015	3.362	1.583	1.220			
2016	3.259	1.554				
2017	3.142					
Latest Year	3.142	1.554	1.220	1.111	1.063	1.041
3-Year Average	3.255	1.582	1.227	1.112	1.068	1.043

O. Paid Indemnity Loss Development Factors (i)

Accident Year	Evaluated as of (in months)					
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>
2010						1.060
2011					1.086	1.056
2012				1.136	1.088	1.049
2013			1.258	1.129	1.072	
2014		1.637	1.256	1.129		
2015	3.280	1.618	1.242			
2016	3.235	1.582				
2017	3.150					

- (h) Each amount is the sum of the adjusted paid indemnity on closed claims (Item H) and the adjusted paid indemnity on open claims (Item L).
- (i) Development factors are based on paid indemnity losses from the same insurer mix as that used in the adjustment for changes in claim settlement rates and applied in the calculation of the development factors in Item N.

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

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

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

Accident Year	Evaluated as of (in months)					
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>
2010						-1.36%
2011					-1.42%	-1.19%
2012				-1.75%	-1.61%	-0.77%
2013			-2.20%	-1.67%	-0.89%	
2014		-1.79%	-2.10%	-1.64%		
2015	2.51%	-2.13%	-1.77%			
2016	0.75%	-1.75%				
2017	-0.24%					

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

Accident Year	Evaluated as of (in months)					
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>
2010						1.046
2011					1.072	1.043
2012				1.117	1.070	1.043
2013			1.232	1.110	1.062	
2014		1.606	1.231	1.110		
2015	3.360	1.584	1.222			
2016	3.259	1.558				
2017	3.178					
Latest Year	3.178	1.558	1.222	1.110	1.062	1.043
3-Year Average	3.266	1.583	1.228	1.113	1.068	1.044

(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 252, Incurred from Age 252 to Ultimate (Continued)

Accident Year	Age-to-Age (in months)															
	<u>264/252</u>	<u>276/264</u>	<u>288/276</u>	<u>300/288</u>	<u>312/300</u>	<u>324/312</u>	<u>336/324</u>	<u>348/336</u>	<u>360/348</u>	<u>372/360</u>	<u>384/372</u>	<u>396/384</u>	<u>408/396</u>	<u>ULT/408Inc (g)</u>		
1984									1.003	1.001	0.997	1.000	1.001			
1985								1.002	1.003	0.998	0.999	0.999	1.000			
1986							1.005	1.000	1.002	0.998	1.001	1.006				
1987						1.004	1.005	1.001	0.997	1.001	1.000					
1988					1.003	1.003	1.002	0.998	0.999	1.000						
1989				1.000	1.003	0.999	0.999	0.998	0.999							
1990			1.003	0.997	1.002	1.000	0.998									
1991		1.002	1.003	1.001	1.000	0.999	0.998									
1992	1.003	1.005	1.000	0.999	1.001	0.999										
1993	0.999	1.000	0.996	0.999	0.998											
1994	1.001	0.996	0.995	1.001												
1995	1.006	0.992	0.999													
1996	0.999	0.997														
1997	0.998															
1998																

Selected (c)	1.001	0.999	0.999	1.000	1.001	1.001	1.002	1.000	1.001	1.000	1.000	1.001	1.000			
Cumulative	1.025	1.024	1.025	1.026	1.026	1.025	1.025	1.023	1.023	1.023	1.023	1.023	1.022	1.022		

(g) The UL T/408Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 108-to-120 through 348-to-360 factors, excluding the second and third evaluations, and extrapolated to 80 development years.

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

A. Total Reported Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							112,953
2010						116,346	116,606
2011					116,642	116,962	117,192
2012				122,644	123,425	123,853	123,991
2013			129,795	131,351	132,105	132,329	
2014		132,280	136,513	138,121	138,665		
2015	111,249	138,668	142,906	143,653			
2016	113,196	142,055	145,926				
2017	117,690	142,617					
2018	117,668						

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):						
	<u>12-24</u>	<u>24-36</u>	<u>36-48</u>	<u>48-60</u>	<u>60-72</u>	<u>72-84</u>	<u>84-Ultimate</u>
2010						1.002	
2011					1.003	1.002	
2012				1.006	1.003	1.001	
2013			1.012	1.006	1.002		
2014		1.032	1.012	1.004			
2015	1.246	1.031	1.005				
2016	1.255	1.027					
2017	1.212						
Latest Year	1.212	1.027	1.005	1.004	1.002	1.001	
Cumulative	1.266	1.044	1.017	1.011	1.007	1.006	1.005

Acc. Year	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
Ult. Claim Counts	148,929	148,957	148,370	145,299	139,704	133,095	124,570

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>
2009							100,159
2010						100,110	105,203
2011					95,359	101,990	106,724
2012				92,123	102,503	109,534	114,211
2013			83,885	100,816	112,042	118,996	
2014		65,554	90,196	108,020	119,677		
2015	30,329	70,621	97,916	116,059			
2016	32,355	76,164	104,079				
2017	36,044	80,881					
2018	37,394						

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

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

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							88.2%
2010						85.4%	89.8%
2011					81.0%	86.6%	90.6%
2012				74.0%	82.3%	87.9%	91.7%
2013			63.0%	75.7%	84.2%	89.4%	
2014		46.9%	64.6%	77.3%	85.7%		
2015	20.9%	48.6%	67.4%	79.9%			
2016	21.8%	51.3%	70.1%				
2017	24.2%	54.3%					
2018	25.1%						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							104,113
2010						104,784	107,453
2011					100,861	105,267	107,949
2012				99,501	106,712	111,374	114,211
2013			93,364	106,311	114,015	118,996	
2014		75,857	98,000	111,590	119,677		
2015	36,483	78,895	101,925	116,059			
2016	37,254	80,562	104,079				
2017	37,401	80,881					
2018	37,394						

F. Average Paid Medical per Closed Indemnity Claim

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							22,638
2010						20,799	23,429
2011					17,263	20,228	22,419
2012				13,802	17,054	19,404	21,062
2013			9,995	13,604	16,491	18,542	
2014		5,833	10,088	13,701	16,382		
2015	2,533	6,281	10,483	13,872			
2016	2,745	6,519	10,520				
2017	2,855	6,676					
2018	2,971						

- (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)						
	12	24	36	48	60	72	84
2009							24,812
2010						23,201	24,669
2011					19,691	21,721	23,029
2012				16,042	18,425	20,041	21,062
2013			11,878	14,948	17,049	18,542	
2014		7,335	11,535	14,472	16,382		
2015	2,909	7,336	11,152	13,872			
2016	3,024	7,029	10,520				
2017	2,929	6,676					
2018	2,971						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							2,583,272
2010						2,431,117	2,650,798
2011					1,986,014	2,286,549	2,485,998
2012				1,596,193	1,966,141	2,232,029	2,405,528
2013			1,108,949	1,589,123	1,943,898	2,206,467	
2014		556,377	1,130,448	1,614,894	1,960,564		
2015	106,144	578,778	1,136,704	1,609,998			
2016	112,662	566,295	1,094,941				
2017	109,555	539,944					
2018	111,093						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							878,330
2010						931,792	761,326
2011					919,300	768,480	616,151
2012				957,333	819,795	678,628	561,204
2013			958,899	888,781	725,583	577,509	
2014		821,301	941,183	831,744	653,136		
2015	363,213	830,662	899,911	784,065			
2016	378,145	825,373	864,973				
2017	402,769	826,222					
2018	423,552						

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

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

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

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							68,650
2010						57,391	66,767
2011					43,193	51,327	58,859
2012				31,366	39,184	47,393	57,383
2013			20,886	29,107	36,165	43,314	
2014		12,309	20,321	27,631	34,397		
2015	4,489	12,207	20,002	28,414			
2016	4,678	12,526	20,670				
2017	4,933	13,383					
2018	5,276						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							-271,444
2010						-268,245	-150,226
2011					-237,650	-168,249	-72,102
2012				-231,419	-164,925	-87,203	
2013			-197,982	-159,943	-71,353		
2014		-126,804	-158,583	-98,644			
2015	-27,622	-101,003	-80,190				
2016	-22,916	-55,091					
2017	-6,694						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							606,886
2010						663,547	611,100
2011					681,650	600,231	544,049
2012				725,913	654,870	591,425	561,204
2013			760,917	728,838	654,230	577,509	
2014		694,497	782,600	733,100	653,136		
2015	335,591	729,659	819,722	784,065			
2016	355,229	770,282	864,973				
2017	396,075	826,222					
2018	423,552						

- (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)						
	12	24	36	48	60	72	84
2009							226,170
2010						221,014	224,051
2011					208,699	212,211	215,699
2012				211,754	217,001	221,485	223,711
2013			210,488	218,127	224,459	227,642	
2014		223,780	235,304	242,666	247,208		
2015	156,439	236,616	246,994	253,739			
2016	167,744	252,134	264,300				
2017	186,219	272,276					
2018	199,977						

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

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2009							3,416,328
2010						3,359,027	3,531,052
2011				3,117,283		3,353,052	3,509,856
2012				2,533,860	2,838,011	3,044,939	3,190,443
2013			2,080,354	2,536,088	2,822,586	3,011,618	
2014		1,474,653	2,148,353	2,590,660	2,860,909		
2015	598,174	1,545,053	2,203,420	2,647,802			
2016	635,634	1,588,711	2,224,214				
2017	691,849	1,638,442					
2018	734,621						

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

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2010						1.051
2011					1.076	1.047
2012				1.120	1.073	1.048
2013			1.219	1.113	1.067	
2014		1.457	1.206	1.104		
2015	2.583	1.426	1.202			
2016	2.499	1.400				
2017	2.368					
Latest Year	2.368	1.400	1.202	1.104	1.067	1.048

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

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

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

P. Paid Medical Loss Development Factors (i)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2010						1.066
2011					1.094	1.058
2012				1.141	1.086	1.054
2013			1.234	1.129	1.076	
2014		1.462	1.224	1.120		
2015	2.533	1.438	1.218			
2016	2.480	1.413				
2017	2.368					

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

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2010						-1.40%
2011					-1.66%	-1.05%
2012				-1.84%	-1.24%	-0.64%
2013			-1.24%	-1.41%	-0.88%	
2014		-0.33%	-1.50%	-1.40%		
2015	1.97%	-0.86%	-1.37%			
2016	0.79%	-0.93%				
2017	0.01%					

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

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2010						1.051
2011					1.077	1.048
2012				1.122	1.074	1.051
2013			1.223	1.116	1.071	
2014		1.457	1.210	1.108		
2015	2.583	1.428	1.202			
2016	2.500	1.397				
2017	2.372					
Latest Year	2.372	1.397	1.202	1.108	1.071	1.051
3-Year Average	2.485	1.427	1.212	1.115	1.074	1.050

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

(j) Each factor represents the change in age-to-age development factors from Item P to those in Item O.

(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item Q)] and [the adjusted paid medical age-to-age development factor from Exhibit 2.6.1].

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

**Developed Indemnity Loss Ratios Using Selected Loss Development Factors
Adjusted for Changes in Claim Settlement Rates
Based on Experience as of December 31, 2018**

Accident Year	Development Factors			
	(1) Paid or Incurred Loss Ratio(a)	(2) Annual(b)	(3) Cumulative	(4) Projected Ultimate Loss Ratio (4) = (1) x (3)
1986	0.396	1.000	1.003	0.397
1987	0.346	1.000	1.003	0.347
1988	0.330	1.000	1.004	0.332
1989	0.343	1.000	1.004	0.344
1990	0.397	1.000	1.004	0.399
1991	0.424	1.001	1.005	0.426
1992	0.350	1.000	1.005	0.351
1993	0.287	1.000	1.005	0.289
1994	0.327	1.000	1.005	0.329
1995	0.473	1.000	1.005	0.475
1996	0.530	1.000	1.005	0.532
1997	0.599	1.001	1.006	0.603
1998	0.651	1.001	1.007	0.655
1999	0.669	1.003	1.030	0.689
2000	0.577	1.003	1.033	0.596
2001	0.476	1.004	1.037	0.494
2002	0.354	1.004	1.041	0.368
2003	0.232	1.005	1.046	0.243
2004	0.138	1.006	1.053	0.145
2005	0.117	1.007	1.061	0.124
2006	0.150	1.009	1.070	0.161
2007	0.205	1.012	1.083	0.222
2008	0.256	1.016	1.100	0.282
2009	0.294	1.019	1.121	0.330
2010	0.279	1.024	1.148	0.321
2011	0.255	1.027	1.179	0.300
2012	0.221	1.041	1.227	0.271
2013	0.182	1.043	1.280	0.233
2014	0.163	1.062	1.360	0.221
2015	0.143	1.110	1.510	0.217
2016	0.112	1.222	1.846	0.207
2017	0.074	1.558	2.876	0.213
2018	0.026	3.178	9.140	0.235

(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
Based on Experience as of December 31, 2018**

	(1)	(2)	(3)	(4)	(5)
	Reform Adjusted				
	<u>Development Factors</u>				
	<u>Paid or Incurred Loss Ratio(a)</u>	<u>Annual(b)</u>	<u>Cumulative</u>		<u>Projected Ultimate Loss Ratio (1) x (4)</u>
<u>Accident Year</u>			<u>Unadjusted for Reforms(b)</u>	<u>Adjusted for Reforms(b)</u>	
1986	0.335	1.000	1.022	1.022	0.342
1987	0.314	1.001	1.023	1.023	0.321
1988	0.304	1.000	1.023	1.023	0.311
1989	0.325	1.000	1.023	1.023	0.333
1990	0.366	1.001	1.023	1.023	0.375
1991	0.383	1.000	1.023	1.023	0.392
1992	0.319	1.002	1.025	1.025	0.327
1993	0.266	1.001	1.025	1.025	0.273
1994	0.308	1.001	1.026	1.026	0.317
1995	0.453	1.000	1.026	1.026	0.465
1996	0.485	0.999	1.025	1.025	0.497
1997	0.544	0.999	1.024	1.024	0.557
1998	0.658	1.001	1.025	1.025	0.675
1999	0.662	1.008	1.118	1.118	0.741
2000	0.597	1.008	1.127	1.127	0.673
2001	0.525	1.009	1.138	1.138	0.598
2002	0.404	1.010	1.149	1.149	0.465
2003	0.257	1.010	1.161	1.161	0.298
2004	0.173	1.012	1.175	1.175	0.203
2005	0.168	1.012	1.189	1.189	0.200
2006	0.214	1.015	1.207	1.207	0.259
2007	0.298	1.017	1.228	1.228	0.366
2008	0.366	1.020	1.253	1.253	0.459
2009	0.420	1.022	1.280	1.280	0.537
2010	0.405	1.027	1.315	1.315	0.533
2011	0.339	1.030	1.355	1.355	0.459
2012	0.281	1.043	1.413	1.413	0.397
2013	0.218	1.051	1.485	1.476	0.322
2014	0.181	1.071	1.590	1.572	0.285
2015	0.156	1.108	1.762	1.729	0.269
2016	0.124	1.202	2.119	2.061	0.256
2017	0.093	1.397	2.960	2.859	0.266
2018	0.042	2.372	7.020	6.782	0.287

- (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) See Exhibits 2.6.1 and 2.6.2.

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)	(4a) Annual Cost Impact on Indemnity (c)	(5a) Composite Indemnity Adjustment Factor (d)	
1986	0.0	0.0	1.6	1.6	1.551	
1987	0.0	0.0	1.9	1.9	1.522	
1988	0.0	0.0	1.5	1.5	1.500	
1989	0.0	0.0	1.5	1.5	1.478	
1990	2.3	19.9	1.7	24.7	1.184	
1991	4.9	14.8	0.8	21.4	0.976	
1992	1.8	-8.3	1.6	-5.2	1.029	
1993	0.2	-18.1	0.4	-17.6	1.249	
1994	-5.1	0.2	0.6	-4.3	1.305	
1995	6.3	0.6	1.0	8.0	1.209	
1996	5.3	0.4	1.2	7.0	1.130	
1997	9.7	0.2	1.6	11.7	1.011	
1998	6.5	0.0	1.8	8.4	0.933	
1999	5.7	0.0	2.1	7.9	0.864	
2000	3.9	0.0	3.1	7.1	0.807	
2001	-0.3	0.0	0.2	-0.1	0.808	
2002	-0.7	0.0	0.4	-0.3	0.828	(e)
2003	7.3	0.0	1.2	8.6	0.826	(e)
2004	-6.0	-13.7	1.7	-17.5	1.137	(e)
2005	-31.6	-15.3	1.1	-41.5	1.544	
2006	5.6	-5.7	1.6	1.2	1.526	
2007	1.6	0.0	1.6	3.2	1.478	
2008	4.8	0.6	0.7	6.2	1.393	
2009	0.4	1.4	0.2	2.0	1.365	
2010	0.4	0.0	1.0	1.4	1.346	
2011	0.0	0.0	1.6	1.6	1.325	
2012	0.3	0.0	2.1	2.4	1.294	
2013	2.6	0.2	0.4	3.2	1.254	
2014	7.0	1.5	1.7	10.4	1.135	
2015	0.3	0.0	2.3	2.6	1.106	
2016	0.3	0.0	1.0	1.3	1.092	
2017	0.5	0.0	1.5	2.0	1.071	
2018	0.4	0.0	2.0	2.4	1.046	
2019	0.4	0.0	2.2	2.6		
4/1/2020	0.3 (Annual 0.5)	0.0	1.6 (Annual 2.1)	1.9		

- (a) Based on WCIRB evaluations of the average impact of legislative changes on the cost of indemnity benefits. These annual changes in benefits reflect the WCIRB's retrospective estimates of the cost impact of recent legislation as reflected in emerging post-reform costs. The annual cost impacts have been segregated between claim severity and claim frequency impacts.
- (b) These impacts are based on the weekly wages (See Exhibit 5.1) of injured workers and the legislatively scheduled benefits for that year.
- (c) $\{ [\text{Column (1)} / 100 + 1.0] \times [\text{Column (2)} / 100 + 1.0] \times [\text{Column (3)} / 100 + 1.0] - 1.0 \} \times 100$.
- (d) These factors represent the combined impact of the annual benefit changes on claim severity shown in Column (1), claim frequencies shown in Column (2) and wage inflation impact on benefits shown in Column (3), adjusted to the 4/1/2020 level.
- (e) On-level factors for accident years 2002, 2003 and 2004 adjust the portion of permanent disability claims that are estimated to not be subject to the January 1, 2005 PDRS (95% for accident year 2002, 75% for accident year 2003 and 40% for accident year 2004) to the January 1, 2005 PDRS level, and adjust for the corresponding utilization impacts on all 2002, 2003 and 2004 indemnity claims.

Annual Medical Cost Level Change - Non-Legislative

Accident 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)
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	0.0%	4.2%	0.3%	0.3%
2015	0.933	0.067	0.0%	3.1%	0.2%	0.2%
2016	0.918	0.082	0.0%	5.4%	0.4%	0.4%
2017	0.906	0.094	0.0%	2.2%	0.2%	0.2%
2018	0.906	0.094	0.0%	2.2%	0.2%	0.2%
2019	0.906	0.094	0.0%	2.4%	0.2%	0.2%
4/1/2020	0.906	0.094	0.0% (Annual 0.0%)	2.0% (Annual 2.7%)	0.2%	0.2%

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

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

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

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

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

Annual Medical Cost Level Change - Legislative

Accident Year	(1) Annual Legislative Cost Impact on Medical Severity(a)	(2) Annual Legislative Cost Impact on Medical Due to Frequency Changes(b)	(3) Annual Total Legislative Cost Impact on Medical(c)
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	-3.0%	0.0%	-3.0%
2012	-4.9%	0.0%	-4.9%
2013	-9.1%	0.2%	-8.9%
2014	-6.2%	1.3%	-5.0%
2015	-2.4%	0.0%	-2.4%
2016	-0.3%	0.0%	-0.3%
2017	-0.2%	0.0%	-0.2%
2018	0.0%	0.0%	0.0%
2019	0.0%	0.0%	0.0%
4/1/2020	0.0%	0.0%	0.0%

- (a) Reflects the WCIRB's most recent estimates of the cost impact of legislation including SB 863 provisions effective 1/1/2013 and 1/1/2014. Does not include the impact of the SB 1160 lien provisions on future medical costs, which are reflected in the medical loss development projections.
- (b) This reflects the annual percentage impact on medical costs due to changes in the frequency of indemnity claims as a result of benefit changes.
- (c) $[\text{Column (1)} + 1.0] \times [\text{Column (2)} + 1.0] - 1.0$

Total Medical Cost Level Factors

Accident Year	(1) Annual Non-Legislative Cost Impact on Medical (a)	(2) Annual Legislative Cost Impact on Medical(b)	(3) Total Annual Cost Impact on Medical(c)	(4) Composite Medical On-level Factor(d)
1986	3.0%	0.0%	3.0%	0.809
1987	3.8%	0.0%	3.8%	0.779
1988	3.8%	0.0%	3.8%	0.750
1989	3.0%	0.0%	3.0%	0.729
1990	3.7%	19.1%	23.5%	0.590
1991	3.6%	12.9%	16.9%	0.505
1992	3.0%	-7.9%	-5.2%	0.532
1993	2.7%	-18.7%	-16.5%	0.637
1994	-2.3%	-2.3%	-4.6%	0.668
1995	0.9%	0.5%	1.4%	0.658
1996	1.0%	0.4%	1.4%	0.649
1997	0.7%	0.2%	0.9%	0.643
1998	0.8%	12.6%	13.5%	0.567
1999	2.5%	12.6%	15.4%	0.491
2000	1.7%	7.0%	8.8%	0.451
2001	2.9%	6.6%	9.7%	0.412
2002	2.0%	-5.6%	-3.7%	0.427
2003	1.4%	-6.0%	-4.7%	0.448
2004	0.0%	-33.9%	-33.9%	0.678
2005	0.0%	-13.9%	-13.9%	0.787
2006	0.3%	-5.1%	-4.8%	0.827
2007	1.8%	0.1%	1.9%	0.812
2008	0.2%	0.5%	0.7%	0.806
2009	0.4%	1.0%	1.4%	0.795
2010	0.3%	0.0%	0.3%	0.793
2011	0.3%	-3.0%	-2.7%	0.815
2012	0.1%	-4.9%	-4.8%	0.856
2013	0.1%	-8.9%	-8.8%	0.939
2014	0.3%	-5.0%	-4.7%	0.985
2015	0.2%	-2.4%	-2.2%	1.007
2016	0.4%	-0.3%	0.1%	1.006
2017	0.2%	-0.2%	0.0%	1.006
2018	0.2%	0.0%	0.2%	1.004
2019	0.2%	0.0%	0.2%	
4/1/2020	0.2%	0.0%	0.2%	

- (a) See Exhibit 4.2, Column (6).
- (b) See Exhibit 4.3, Column (3).
- (c) $\text{Column (3)} = [1.0 + \text{Column (1)}] \times [1.0 + \text{Column (2)}] - 1.0$.
- (d) These factors adjust the annual impact shown in Column (3) to the 4/1/2020 level.

Annual Wage Level Changes

<u>Year</u>	<u>Annual Wage Level Change(a)</u>	<u>Factor to a 4/1/2020 Wage Level</u>
1986	4.7	3.248
1987	5.6	3.076
1988	4.4	2.947
1989	4.3	2.825
1990	5.0	2.691
1991	2.3	2.630
1992	4.7	2.512
1993	1.2	2.482
1994	1.8	2.438
1995	2.9	2.370
1996	3.4	2.292
1997	4.7	2.189
1998	5.2	2.081
1999	6.2	1.959
2000	9.0	1.797
2001	0.6	1.787
2002	1.1	1.767
2003	3.6	1.706
2004	5.0	1.625
2005	3.2	1.574
2006	4.6	1.505
2007	4.5	1.440
2008	2.1	1.411
2009	0.5	1.404
2010	3.0	1.363
2011	3.1	1.322
2012	4.1	1.270
2013	0.7	1.261
2014	3.3	1.221
2015	4.4	1.169
2016	1.9	1.147
2017	2.9	1.115
2018	3.9	1.073
Projected:		
2019	4.2	
4/1/2020	3.0	(Annual = 4.0)

(a) Historical wage changes through 2017 are based on Bureau of Labor Statistics data. Forecasts for 2018 to 2020 are based on the average of wage level projections made by the UCLA Anderson School of Business as of December 2018 and those made by the California Department of Finance as of November 2018.

Premium Adjustment Factors

	(1)	(2a)	(2b)	(2c)	(3)	(4)	(5)	(6)	(7)
		Ratio of Industry Average Charged Rates to Advisory Pure Premium	Factor to Industry Average Filed Pure Premium Rate Level as of July 1, 2018 (c)	Factor to Adjust Insurer Premium to an Industry Average Filed Pure Premium Rate Level as of July 1, 2018 (d)	Adjustment to Remove Surcharge Premium (e)	Average Experience Modification (f)	Off-Balance Correction in Advisory July 1, 2018 Pure Premium Rates	Factor to Adjust for Impact of Premium Resulting from Audits (g)	Composite Premium Adjustment Factor (h)
Calendar Year	Factor to a 4/1/2020 Wage Level (a)	Rates (b)	July 1, 2018 (c)	July 1, 2018 (d)	Premium (e)	Modification (f)	Rates	Audits (g)	Factor (h)
1986	3.248	---	---	0.792	0.991	0.983	1.015	---	2.554
1987	3.076	---	---	0.696	0.992	0.983	1.015	---	2.129
1988	2.947	---	---	0.622	0.993	0.963	1.015	---	1.863
1989	2.825	---	---	0.613	0.993	0.945	1.015	---	1.792
1990	2.691	---	---	0.598	0.991	0.942	1.015	---	1.666
1991	2.630	---	---	0.553	0.987	0.939	1.015	---	1.507
1992	2.512	---	---	0.531	0.982	0.940	1.015	---	1.373
1993	2.482	---	---	0.524	0.981	0.949	1.015	---	1.325
1994	2.438	---	---	0.600	0.986	0.948	1.015	---	1.500
1995	2.370	---	---	0.812	0.995	0.958	1.015	---	1.970
1996	2.292	1.023	0.863	0.844	1.000	0.935	1.015	---	2.037
1997	2.189	0.989	0.861	0.871	1.000	0.949	1.015	---	1.978
1998	2.081	0.965	0.897	0.930	1.000	0.959	1.015	---	1.987
1999	1.959	0.972	0.907	0.933	1.000	0.954	1.015	---	1.888
2000	1.797	1.005	0.822	0.818	1.000	0.970	1.015	---	1.493
2001	1.787	1.029	0.724	0.704	1.000	0.969	1.015	---	1.278
2002	1.767	1.157	0.648	0.560	1.000	0.991	1.015	---	0.984
2003	1.706	1.267	0.530	0.418	1.000	1.005	1.015	---	0.700
2004	1.625	1.397	0.539	0.386	1.000	0.981	1.015	---	0.630
2005	1.574	1.470	0.649	0.441	1.000	0.982	1.015	---	0.697
2006	1.505	1.447	0.836	0.578	1.000	0.956	1.015	---	0.896
2007	1.440	1.493	1.139	0.763	1.000	0.931	1.015	0.985	1.145
2008	1.411	1.426	1.356	0.951	1.000	0.946	1.015	0.991	1.384
2009	1.404	1.366	1.337	0.979	1.000	0.937	1.015	1.034	1.494
2010	1.363	1.384	1.310	0.947	1.000	0.941	1.015	1.005	1.357
2011	1.322	1.401	1.309	0.934	1.000	0.982	1.015	---	1.239
2012	1.270	1.223	1.079	0.882	1.000	1.000	1.015	---	1.104
2013	1.261	1.138	0.869	0.764	1.000	0.983	1.015	---	0.965
2014	1.221	1.126	0.800	0.710	1.000	0.961	1.015	---	0.889
2015	1.169	1.109	0.778	0.702	1.000	0.951	1.015	---	0.850
2016	1.147	1.148	0.838	0.730	1.000	0.949	1.015	---	0.869
2017	1.115	1.156	0.925	0.800	1.000	0.956	1.015	---	0.919
2018	1.073	1.193	1.047	0.878	1.000	0.958	1.015	---	0.969

- (a) See Exhibit 5.1.
- (b) Based on WCIRB calendar year experience calls. The industry average charged rates reflect most rating plan adjustments but do not reflect the application of deductible credits or retrospective rating plan adjustments.
- (c) Reflects (1) advisory pure premium rate level changes to bring premium to the advisory July 1, 2018 pure premium rate level and (2) an additional adjustment factor, which is the ratio of the average advisory July 1, 2018 pure premium rate (\$1.78) to the industry average filed pure premium rate as of July 1, 2018 (\$2.13).
- (d) $(2b) \div (2a)$. This column adjusts premiums at the industry average charged rate level to the industry average filed pure premium rate level as of July 1, 2018.
- (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.

2018 Accident Year Indemnity Claim Frequency Model
As of PY 2016 Preliminary 1st Set & December 2018 UCLA

AY	Annual %	Annual Log Differences					Economic Variables (1st Prin. Comp.)	CalOSHA Dummy Variable
	Changes Intra- Class Ind Freq	Intra-Class Indemnity Frequency per \$M Exposure at FY 2016 Level			AY+1 Indemnity Benefit Level	Cumulative Injury Index		
		Total	Cumulative	Non-cum.				
1962	----	----	----	----	----	----	----	
1963	2.0%	0.020	----	----	0.000	----	-0.029	0.000
1964	0.3%	0.003	----	----	0.000	----	0.004	0.000
1965	-0.3%	-0.003	----	----	0.000	----	0.020	0.000
1966	1.7%	0.017	----	----	0.000	----	0.191	0.000
1967	1.8%	0.017	----	----	0.000	----	-0.146	0.000
1968	1.4%	0.014	----	----	0.049	----	0.059	0.000
1969	2.7%	0.026	----	----	0.000	----	0.044	0.000
1970	1.8%	0.018	----	----	0.000	----	-0.337	0.000
1971	1.5%	0.015	----	----	0.162	----	-0.186	0.000
1972	-4.3%	-0.044	----	----	0.040	----	0.161	0.000
1973	7.0%	0.067	----	----	0.049	----	0.090	0.000
1974	19.2%	0.176	----	----	0.058	----	-0.035	0.000
1975	12.5%	0.118	----	----	0.000	----	-0.300	0.000
1976	0.8%	0.008	----	----	0.063	----	0.085	0.000
1977	4.3%	0.042	----	----	0.001	----	0.112	0.000
1978	-8.7%	-0.091	----	----	0.000	----	0.173	0.000
1979	0.5%	0.005	-0.053	0.007	0.000	-0.060	0.134	0.000
1980	-6.5%	-0.068	-0.132	-0.066	0.033	-0.066	-0.080	0.000
1981	-3.5%	-0.036	-0.028	-0.036	0.000	0.008	-0.079	0.000
1982	-1.6%	-0.016	0.153	-0.022	0.352	0.175	-0.294	0.000
1983	6.2%	0.060	0.214	0.054	0.081	0.160	0.029	0.000
1984	9.5%	0.091	0.235	0.084	0.000	0.151	0.222	0.000
1985	2.0%	0.020	0.138	0.014	0.000	0.124	0.081	0.000
1986	-2.4%	-0.024	0.039	-0.028	0.000	0.067	0.078	0.000
1987	1.5%	0.015	0.053	0.013	0.000	0.041	0.151	0.000
1988	0.7%	0.007	0.104	0.000	0.000	0.104	0.088	0.000
1989	2.5%	0.024	0.212	0.009	0.046	0.203	0.045	0.000
1990	9.0%	0.087	0.337	0.061	0.071	0.276	-0.121	0.000
1991	0.3%	0.003	0.166	-0.018	0.023	0.184	-0.293	0.000
1992	-11.1%	-0.118	-0.272	-0.098	0.013	-0.174	-0.186	0.068
1993	-14.9%	-0.162	-0.240	-0.153	-0.057	-0.088	-0.022	0.464
1994	-12.8%	-0.136	-0.462	-0.107	0.061	-0.355	0.106	0.173
1995	-4.6%	-0.048	-0.016	-0.050	0.053	0.034	0.092	0.295
1996	-6.8%	-0.070	-0.136	-0.065	0.096	-0.071	0.075	0.000
1997	-3.3%	-0.033	-0.023	-0.034	0.066	0.011	0.138	0.000
1998	-3.8%	-0.038	-0.040	-0.038	0.058	-0.002	0.079	0.000
1999	1.5%	0.014	0.100	0.008	0.040	0.092	0.128	0.000
2000	4.0%	0.039	0.071	0.037	-0.003	0.034	0.066	0.000
2001	-6.9%	-0.072	-0.018	-0.076	-0.007	0.059	-0.101	0.000
2002	-2.3%	-0.023	0.007	-0.026	0.060	0.033	-0.202	0.000
2003	-2.9%	-0.029	-0.005	-0.031	-0.065	0.026	-0.023	0.000
2004	-16.6%	-0.182	-0.209	-0.180	-0.398	-0.030	0.093	0.000
2005	-13.6%	-0.146	-0.298	-0.133	0.051	-0.165	0.141	0.000
2006	-5.7%	-0.059	-0.050	-0.059	0.016	0.009	0.095	0.000
2007	-1.6%	-0.017	0.021	-0.019	0.049	0.040	-0.084	0.000
2008	-2.7%	-0.027	0.038	-0.033	0.006	0.071	-0.308	0.000
2009	-0.2%	-0.002	0.168	-0.018	0.066	0.186	-0.427	0.000
2010	8.9%	0.085	0.139	0.079	0.012	0.060	-0.092	0.000
2011	1.3%	0.013	0.032	0.010	0.003	0.022	0.043	0.000
2012	4.6%	0.045	0.127	0.035	0.025	0.091	0.123	0.000
2013	0.4%	0.004	0.134	-0.014	0.071	0.147	0.151	0.000
2014	0.2%	0.002	0.066	-0.008	0.003	0.074	0.178	0.000
2015	-0.9%	-0.009	0.048	-0.018	0.002	0.066	0.194	0.000
2016	-3.5%	-0.036	0.031	-0.047	0.004	0.079	0.124	0.000
2017*	-3.5%	-0.036	0.083	-0.059	0.004	0.142	0.140	0.000
2018	-0.9%	-0.009	-0.009	-0.009	0.003	0.000	0.129	0.000
2019	-2.4%	-0.024	-0.024	-0.024	0.004	0.000	-0.061	0.000
2020	-1.9%	-0.019	-0.019	-0.019	0.004	0.000	0.002	0.000
2021	-2.3%	-0.023	-0.023	-0.023	0.004	0.000	-0.044	0.000

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

Constant	-0.020
Std Err of Y Est	0.041
R Squared	0.544
No. of Observations	39
Degrees of Freedom	34

X Coefficient(s)	0.177	0.270	0.082	-0.133
Std Err of Coef.	0.075	0.064	0.045	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 2017; December 2018 UCLA Anderson Forecasts for 2018 on.

Regression is over AY 1979 through AY 2017. AY 2018 through AY 2021 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 2017 is preliminary and change is based on a comparison of 2017 accidents on 2016 policies to 2016 accidents on 2015 policies.

**Projection of Indemnity Severity Trends by Accident Year
Based on Experience as of December 31, 2018**

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	9,973	---	1.895	18,895	---
1991	10,861	8.9%	1.792	19,459	3.0%
1992	11,004	1.3%	1.732	19,063	-2.0%
1993	11,971	8.8%	1.722	20,614	8.1%
1994	12,964	8.3%	1.804	23,382	13.4%
1995	14,590	12.5%	1.680	24,512	4.8%
1996	16,389	12.3%	1.577	25,838	5.4%
1997	19,478	18.8%	1.414	27,551	6.6%
1998	21,454	10.1%	1.305	27,991	1.6%
1999	23,514	9.6%	1.209	28,427	1.6%
2000	24,820	5.6%	1.129	28,010	-1.5%
2001	27,099	9.2%	1.130	30,614	9.3%
2002	26,185	-3.4%	1.158	30,310	-1.0%
2003	25,813	-1.4%	1.155	29,823	-1.6%
2004	21,051	-18.4%	1.373	28,897	-3.1%
2005	19,023	-9.6%	1.578	30,024	3.9%
2006	20,721	8.9%	1.471	30,482	1.5%
2007	22,532	8.7%	1.425	32,110	5.3%
2008	24,633	9.3%	1.350	33,264	3.6%
2009	25,780	4.7%	1.342	34,605	4.0%
2010	25,402	-1.5%	1.324	33,625	-2.8%
2011	25,129	-1.1%	1.303	32,740	-2.6%
2012	24,739	-1.6%	1.272	31,474	-3.9%
2013	24,235	-2.0%	1.235	29,933	-4.9%
2014	24,967	3.0%	1.135	28,341	-5.3%
2015	25,268	1.2%	1.106	27,957	-1.4%
2016	24,799	-1.9%	1.092	27,093	-3.1%
2017	24,869	0.3%	1.071	26,642	-1.7%
2018	26,598	7.0%	1.046	27,814	4.4%

(6) Estimated Annual Exponential Trend Based on 1990 to 2018: 1.3%

(7) Estimated Annual Exponential Trend Based on 2005 to 2018: -1.4%

(8) Estimated Annual Exponential Trend Based on 2014 to 2018: -0.9%

Selected Indemnity Severity Trend: -0.5%

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

Source: WCIRB experience calls.

**Projection of Medical Severity Trends by Accident Year
Based on Experience as of December 31, 2018**

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	8,731	---	0.921	8,040	---
1991	9,330	6.9%	0.903	8,428	4.8%
1992	9,469	1.5%	0.873	8,263	-2.0%
1993	10,482	10.7%	0.856	8,970	8.6%
1994	11,608	10.7%	0.899	10,439	16.4%
1995	13,334	14.9%	0.891	11,883	13.8%
1996	14,329	7.5%	0.882	12,644	6.4%
1997	17,018	18.8%	0.876	14,912	17.9%
1998	21,020	23.5%	0.772	16,228	8.8%
1999	24,090	14.6%	0.669	16,114	-0.7%
2000	26,777	11.2%	0.615	16,459	2.1%
2001	31,551	17.8%	0.560	17,681	7.4%
2002	31,805	0.8%	0.582	18,510	4.7%
2003	30,363	-4.5%	0.611	18,539	0.2%
2004	28,019	-7.7%	0.808	22,630	22.1%
2005	28,869	3.0%	0.808	23,316	3.0%
2006	31,466	9.0%	0.804	25,312	8.6%
2007	35,128	11.6%	0.789	27,730	9.6%
2008	37,943	8.0%	0.786	29,833	7.6%
2009	39,916	5.2%	0.783	31,260	4.8%
2010	40,201	0.7%	0.781	31,389	0.4%
2011	36,541 (c)	---	0.803	29,325 (c)	---
2012	34,403	-5.9%	0.843	29,003	-1.1%
2013	31,707	-7.8%	0.927	29,377	1.3%
2014	30,272	-4.5%	0.985	29,812	1.5%
2015	29,484	-2.6%	1.007	29,690	-0.4%
2016	28,717	-2.6%	1.006	28,890	-2.7%
2017	28,929	0.7%	1.006	29,103	0.7%
2018	30,202	4.4%	1.004	30,323	4.2%

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 (5).
- (b) These adjustment factors are based on Exhibit 4.4, excluding the impact of frequency, and including the impact of SB 1160 provisions applicable to outstanding medical losses.
- (c) Severities for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Severities for accident years 2010 and prior do reflect MCCP costs.

Source: WCIRB experience calls.

**Projection of Medical Severity Trends by Accident Year
Adjusted to Remove the Cost of Medical Cost Containment Programs (MCCP)
Based on Experience as of December 31, 2018**

(1) Accident Year	MCCP Included				MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b)			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change
2005	28,869	---	23,316	---	27,354	---	22,092	---
2006	31,466	9.0%	25,312	8.6%	29,501	7.8%	23,731	7.4%
2007	35,128	11.6%	27,730	9.6%	32,794	11.2%	25,888	9.1%
2008	37,943	8.0%	29,833	7.6%	34,627	5.6%	27,226	5.2%
2009	39,916	5.2%	31,260	4.8%	36,587	5.7%	28,653	5.2%
2010	40,202	0.7%	31,389	0.4%	36,812	0.6%	28,743	0.3%
2011	40,040	-0.4%	32,133	2.4%	36,541	-0.7%	29,325	2.0%
2012	37,651	-6.0%	31,741	-1.2%	34,403	-5.9%	29,003	-1.1%
2013	34,769	-7.7%	32,214	1.5%	31,707	-7.8%	29,377	1.3%
2014	33,163	-4.6%	32,659	1.4%	30,272	-4.5%	29,812	1.5%
2015	32,174	-3.0%	32,399	-0.8%	29,484	-2.6%	29,690	-0.4%
2016	31,288	-2.8%	31,476	-2.9%	28,717	-2.6%	28,890	-2.7%
2017	31,604	1.0%	31,794	1.0%	28,929	0.7%	29,103	0.7%
2018	33,156	4.9%	33,289	4.7%	30,202	4.4%	30,323	4.2%

Estimated Annual Exponential Trend

Trend Based on 1990 to 2018:

Trend Based on 2005 to 2018:

Trend Based on 2014 to 2018:

5.7%
2.0%
0.2%

Selected Medical Severity Trend:

2.5%

(a) Estimated ultimate severities for all accident years were derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts.

(b) Adjustments to accident years 2005 through 2010 based on WCIRB's Annual Calls for Direct California Workers' Compensation Aggregate Indemnity and Medical Costs.

(c) Ultimate severities are on-leveled based on adjustment factors shown on Exhibit 6.3.

Source: WCIRB experience calls.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2018**

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
1987	0.347	1.522	2.129	0.248
1988	0.332	1.500	1.863	0.267
1989	0.344	1.478	1.792	0.284
1990	0.399	1.184	1.666	0.284
1991	0.426	0.976	1.507	0.276
1992	0.351	1.029	1.373	0.263
1993	0.289	1.249	1.325	0.272
1994	0.329	1.305	1.500	0.286
1995	0.475	1.209	1.970	0.292
1996	0.532	1.130	2.037	0.295
1997	0.603	1.011	1.978	0.308
1998	0.655	0.933	1.987	0.308
1999	0.689	0.864	1.888	0.316
2000	0.596	0.807	1.493	0.322
2001	0.494	0.808	1.278	0.312
2002	0.368	0.828	0.984	0.310
2003	0.243	0.826	0.700	0.286
2004	0.145	1.137	0.630	0.262
2005	0.124	1.544	0.697	0.275
2006	0.161	1.526	0.896	0.273
2007	0.222	1.478	1.145	0.286
2008	0.282	1.393	1.384	0.284
2009	0.330	1.365	1.494	0.302
2010	0.321	1.346	1.357	0.318
2011	0.300	1.325	1.239	0.321
2012	0.271	1.294	1.104	0.318
2013	0.233	1.254	0.965	0.303
2014	0.221	1.135	0.889	0.282
2015	0.217	1.106	0.850	0.282
2016	0.207	1.092	0.880	0.257
2017	0.213	1.071	0.919	0.248
2018	0.235	1.046	0.969	0.254
				Projections (d)
2019				0.243
4/1/2020				0.238

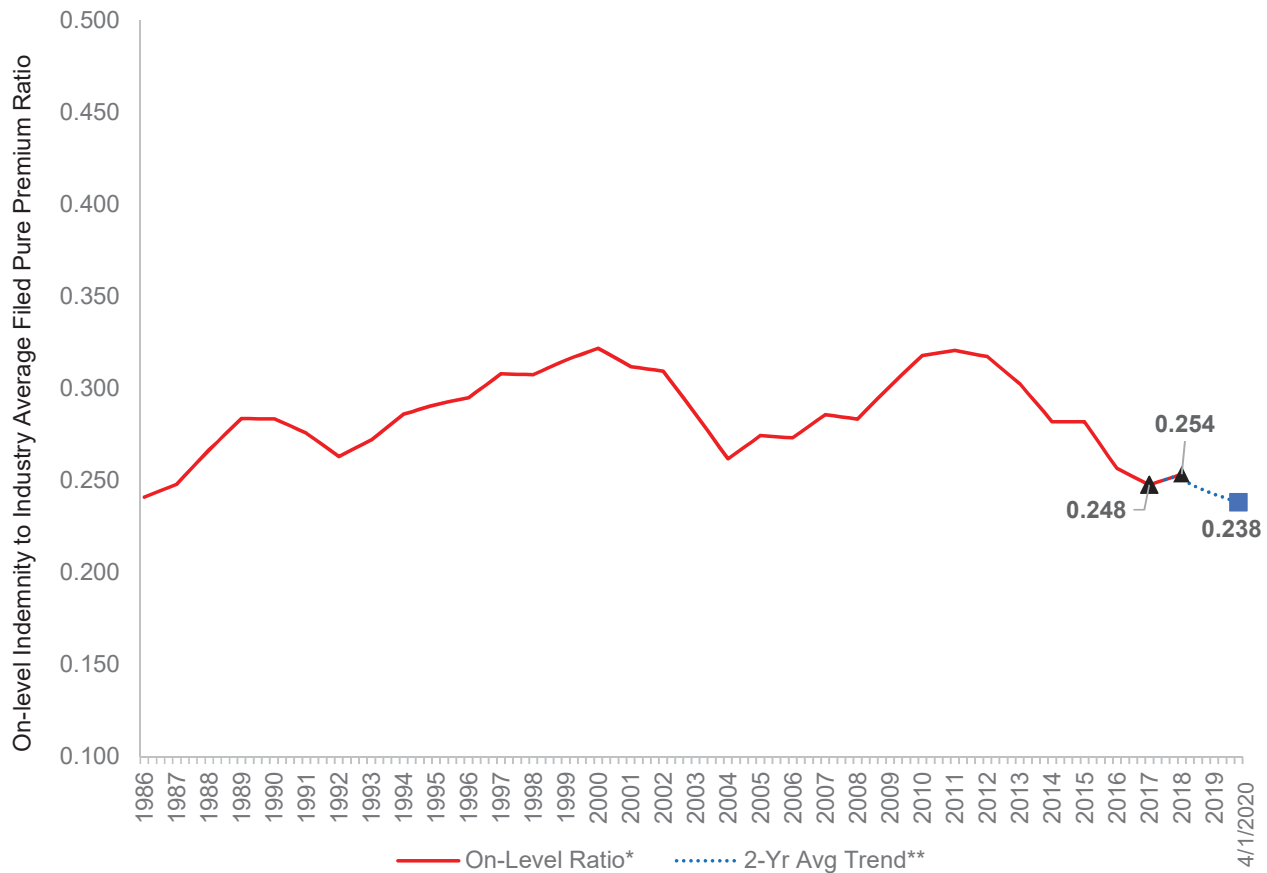
(a) See Exhibit 3.1.

(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 2018 from Exhibit 12, and projected frequency trends for accident years 2019 and 2020 from Exhibit 6.1; these trends were then separately applied to the 2017 and 2018 on-level ratios.

**On-Level Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2018**



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

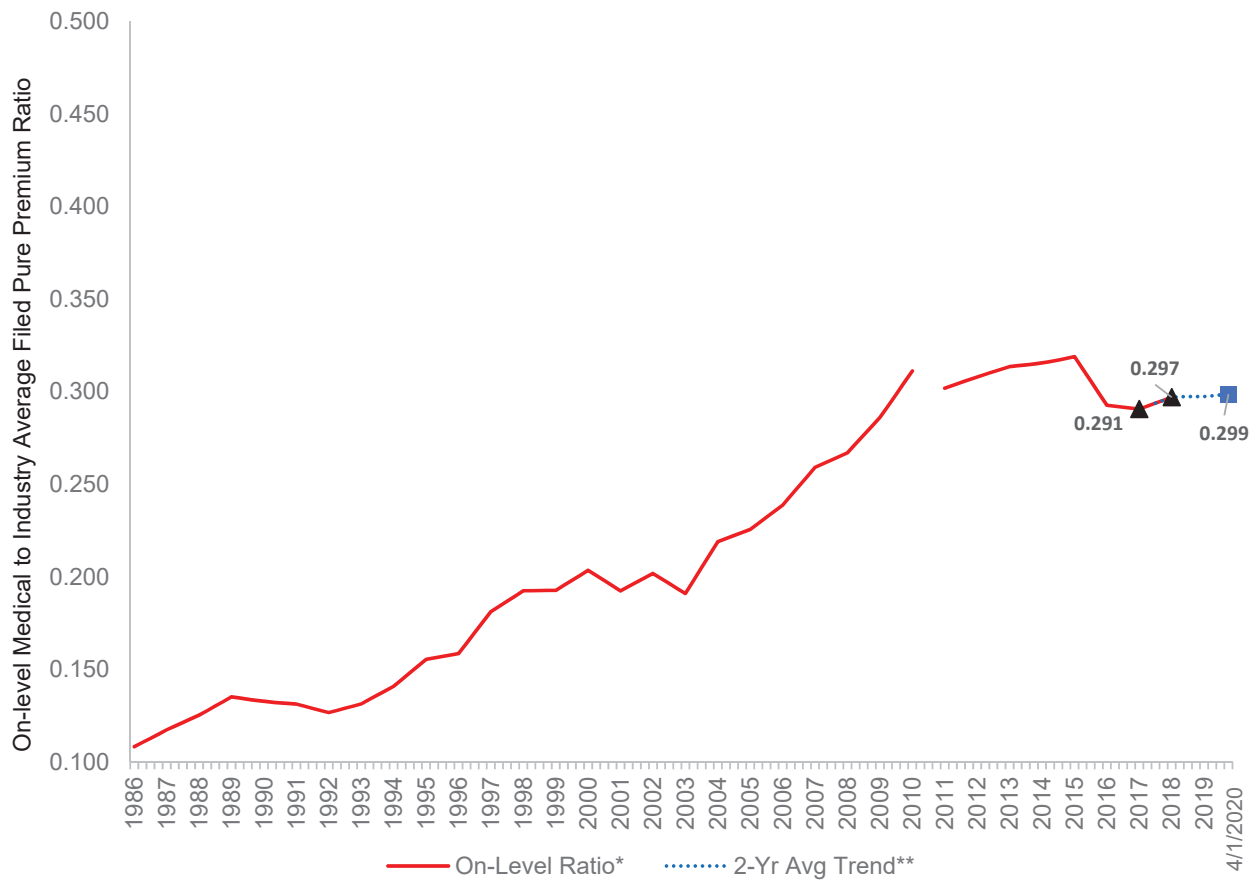
** The 4/1/2020 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2017 and 2018 years.

**Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2018**

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
1987	0.321	0.779	2.129	0.117
1988	0.311	0.750	1.863	0.125
1989	0.333	0.729	1.792	0.135
1990	0.375	0.590	1.666	0.133
1991	0.392	0.505	1.507	0.131
1992	0.327	0.532	1.373	0.127
1993	0.273	0.637	1.325	0.131
1994	0.317	0.668	1.500	0.141
1995	0.465	0.658	1.970	0.155
1996	0.497	0.649	2.037	0.159
1997	0.557	0.643	1.978	0.181
1998	0.675	0.567	1.987	0.192
1999	0.741	0.491	1.888	0.193
2000	0.673	0.451	1.493	0.204
2001	0.598	0.412	1.278	0.192
2002	0.465	0.427	0.984	0.202
2003	0.298	0.448	0.700	0.191
2004	0.203	0.678	0.630	0.219
2005	0.200	0.787	0.697	0.226
2006	0.259	0.827	0.896	0.239
2007	0.366	0.812	1.145	0.259
2008	0.459	0.806	1.384	0.267
2009	0.537	0.795	1.494	0.286
2010	0.533	0.793	1.357	0.311
2011	0.459	0.815	1.239	0.302
2012	0.397	0.856	1.104	0.308
2013	0.322	0.939	0.965	0.314
2014	0.285	0.985	0.889	0.315
2015	0.269	1.007	0.850	0.319
2016	0.256	1.006	0.880	0.293
2017	0.266	1.006	0.919	0.291
2018	0.287	1.004	0.969	0.297
				Projections (d)
2019				0.297
4/1/2020				0.299

- (a) See Exhibit 3.2. Medical loss ratios for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Ratios for accident years 2010 and prior do reflect MCCP costs.
- (b) See Exhibit 4.4.
- (c) See Exhibit 5.2.
- (d) These on-level ratios were projected based on an estimated annual medical severity trend from Exhibit 6.4, the actual frequency trend for accident year 2018 from Exhibit 12, and projected frequency trends for accident years 2019 and 2020 from Exhibit 6.1; these trends were then separately applied to the 2017 and 2018 on-level ratios.
- (e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

**On-Level Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2018**



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

** The 4/1/2020 medical to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2017 and 2018 years.

**Indicated Loss to Industry Average Filed Pure Premium Ratios
For Policies with Effective Dates between January 1, 2019 and December 31, 2019
Based on Experience as of December 31, 2018**

	<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)	0.238	0.299	0.537

Quarterly Incurred Indemnity Loss Development Factors
Through December 31, 2018

Age in	Accident Year																					
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
6/3									2.417	2.724	2.785	3.031	3.116	3.052	3.238	3.344	3.303	3.209	3.201	3.356	3.200	
9/6									1.656	1.776	1.820	1.848	1.904	2.001	1.966	1.940	1.960	1.948	1.945	1.874	2.002	
12/9									1.448	1.511	1.510	1.530	1.564	1.632	1.587	1.585	1.570	1.578	1.578	1.580	1.579	
15/12	1.229	1.260	1.268	1.250	1.257	1.238	1.180	1.149	1.189	1.234	1.248	1.293	1.306	1.306	1.303	1.301	1.301	1.313	1.309	1.298		
18/15	1.172	1.202	1.188	1.184	1.206	1.167	1.101	1.103	1.140	1.158	1.182	1.194	1.197	1.195	1.206	1.178	1.190	1.187	1.189	1.177		
21/18	1.145	1.140	1.150	1.148	1.153	1.127	1.066	1.096	1.117	1.128	1.139	1.153	1.140	1.146	1.141	1.141	1.132	1.137	1.134	1.139		
24/21	1.126	1.112	1.121	1.111	1.117	1.094	1.045	1.082	1.098	1.106	1.106	1.114	1.119	1.117	1.111	1.104	1.114	1.111	1.104	1.100		
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	1.079			
30/27	1.078	1.069	1.074	1.082	1.064	1.051	1.040	1.054	1.057	1.072	1.075	1.075	1.080	1.071	1.068	1.067	1.074	1.066	1.064			
33/30	1.045	1.058	1.048	1.062	1.047	1.032	1.036	1.042	1.049	1.053	1.059	1.052	1.064	1.053	1.060	1.047	1.055	1.050	1.047			
36/33	1.043	1.046	1.039	1.046	1.035	1.020	1.029	1.033	1.039	1.043	1.051	1.049	1.049	1.043	1.041	1.043	1.042	1.035	1.037			
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	1.031				
42/39	1.027	1.028	1.034	1.030	1.023	1.018	1.020	1.020	1.031	1.033	1.036	1.038	1.035	1.032	1.028	1.031	1.030	1.027				
45/42	1.024	1.026	1.026	1.020	1.009	1.019	1.018	1.024	1.026	1.028	1.030	1.035	1.027	1.033	1.022	1.024	1.024	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	1.020	1.016				
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	1.019					
54/51	1.019	1.018	1.013	1.009	1.007	1.017	1.009	1.017	1.021	1.020	1.021	1.020	1.020	1.016	1.019	1.015	1.014					
57/54	1.014	1.017	1.012	1.006	1.008	1.011	1.011	1.018	1.017	1.014	1.018	1.017	1.015	1.014	1.013	1.011	1.014					
60/57	1.013	1.014	1.007	1.005	1.008	1.009	1.011	1.013	1.019	1.016	1.013	1.015	1.012	1.014	1.012	1.012	1.011					
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	1.009						
66/63	1.014	1.009	1.005	1.006	1.011	1.008	1.010	1.013	1.016	1.014	1.015	1.013	1.013	1.009	1.010	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	1.010	1.007						
72/69	1.009	1.006	1.005	1.005	1.005	1.009	1.009	1.013	1.011	1.009	1.009	1.009	1.010	1.008	1.007	1.006						
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	1.006							
78/75	1.007	1.004	1.003	1.007	1.005	1.006	1.006	1.012	1.009	1.010	1.006	1.006	1.006	1.006	1.005							
81/78	1.005	1.002	1.003	1.004	1.004	1.005	1.006	1.010	1.009	1.007	1.007	1.006	1.006	1.007	1.005							
84/81	1.003	1.003	1.005	1.003	1.006	1.006	1.007	1.008	1.005	1.009	1.006	1.004	1.007	1.004	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	1.006								
90/87	1.001	1.003	1.003	1.003	1.003	1.004	1.008	1.008	1.008	1.008	1.004	1.005	1.005	1.005								
93/90	1.001	1.002	1.004	1.003	1.002	1.005	1.006	1.008	1.006	1.007	1.006	1.003	1.004	1.005								
96/93	1.002	1.003	1.001	1.004	1.002	1.006	1.006	1.003	1.002	1.003	1.004	1.004	1.003	1.003								

Source: WCIRB accident year experience calls

Quarterly Incurred Medical Loss Development Factors *
Through December 31, 2018

Age in	Accident Year																				
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
6/3									2.584	2.662	2.782	2.892	2.992	2.757	2.853	2.843	2.921	2.863	3.019	3.199	2.891
9/6									1.650	1.744	1.717	1.807	1.800	1.827	1.833	1.819	1.840	1.884	1.755	1.741	1.819
12/9									1.453	1.443	1.466	1.454	1.488	1.521	1.484	1.500	1.482	1.451	1.487	1.448	1.462
15/12	1.144	1.168	1.201	1.207	1.203	1.197	1.132	1.145	1.138	1.182	1.167	1.199	1.206	1.228	1.211	1.207	1.199	1.206	1.215	1.185	
18/15	1.093	1.116	1.123	1.144	1.151	1.126	1.086	1.087	1.103	1.106	1.126	1.135	1.129	1.141	1.136	1.117	1.114	1.094	1.095	1.087	
21/18	1.078	1.086	1.101	1.122	1.116	1.093	1.055	1.061	1.073	1.081	1.090	1.097	1.101	1.103	1.085	1.088	1.077	1.082	1.069	1.069	
24/21	1.074	1.072	1.080	1.083	1.082	1.060	1.040	1.052	1.070	1.074	1.067	1.074	1.080	1.080	1.067	1.064	1.055	1.059	1.057	1.047	
27/24	1.044	1.061	1.070	1.080	1.075	1.042	1.034	1.048	1.055	1.058	1.053	1.071	1.066	1.072	1.058	1.048	1.046	1.048	1.041		
30/27	1.044	1.052	1.058	1.070	1.051	1.038	1.039	1.049	1.046	1.054	1.057	1.048	1.063	1.052	1.046	1.037	1.044	1.037	1.032		
33/30	1.035	1.047	1.051	1.059	1.035	1.018	1.032	1.030	1.041	1.045	1.045	1.051	1.055	1.045	1.046	1.031	1.033	1.033	1.026		
36/33	1.037	1.042	1.035	1.040	1.029	1.016	1.024	1.034	1.042	1.033	1.042	1.040	1.041	1.037	1.028	1.026	1.027	1.021	1.021		
39/36	1.029	1.032	1.034	1.037	1.018	1.012	1.028	1.025	1.027	1.029	1.033	1.031	1.040	1.039	1.027	1.021	1.023	1.022			
42/39	1.025	1.031	1.036	1.026	1.019	1.013	1.017	1.020	1.025	1.035	1.036	1.037	1.037	1.031	1.022	1.026	1.022	1.017			
45/42	1.025	1.033	1.032	1.023	1.012	1.019	1.033	1.021	1.025	1.029	1.026	1.030	1.028	1.027	1.021	1.018	1.017	1.015			
48/45	1.028	1.023	1.026	1.017	1.008	1.013	1.025	1.018	1.022	1.025	1.029	1.034	1.022	1.023	1.020	1.018	1.014	1.009			
51/48	1.019	1.020	1.024	1.014	1.009	1.013	1.018	1.015	1.020	1.021	1.021	1.026	1.024	1.019	1.014	1.013	1.010				
54/51	1.025	1.027	1.017	1.016	1.010	1.012	1.021	1.019	1.022	1.022	1.027	1.023	1.019	1.018	1.015	1.011	1.009				
57/54	1.027	1.024	1.014	1.007	1.011	1.017	1.020	1.018	1.019	1.019	1.023	1.020	1.017	1.018	1.013	1.007	1.008				
60/57	1.021	1.021	1.015	1.009	1.008	1.014	1.020	1.019	1.018	1.017	1.019	1.016	1.015	1.014	1.012	1.007	1.007				
63/60	1.014	1.020	1.013	1.012	1.008	1.016	1.015	1.021	1.015	1.018	1.016	1.020	1.015	1.009	1.009	1.005					
66/63	1.023	1.016	1.010	1.012	1.015	1.013	1.015	1.022	1.019	1.018	1.017	1.015	1.010	1.008	1.008	1.006					
69/66	1.025	1.013	1.006	1.008	1.016	1.018	1.015	1.023	1.017	1.017	1.015	1.014	1.010	1.008	1.008	1.005					
72/69	1.020	1.009	1.007	1.009	1.015	1.010	1.014	1.015	1.013	1.014	1.012	1.011	1.010	1.007	1.005	1.005					
75/72	1.015	1.008	1.006	1.008	1.010	1.009	1.012	1.012	1.011	1.018	1.013	1.008	1.006	1.001	1.003						
78/75	1.012	1.012	1.008	1.012	1.010	1.011	1.018	1.013	1.012	1.012	1.010	1.008	1.008	1.006	1.005						
81/78	1.006	1.006	1.006	1.009	1.010	1.014	1.018	1.017	1.016	1.009	1.009	1.005	1.006	1.006	1.004						
84/81	1.008	1.006	1.009	1.014	1.009	1.007	1.012	1.011	1.008	1.010	1.008	1.007	1.005	1.001	1.003						
87/84	1.005	1.008	1.008	1.010	1.009	1.010	1.012	1.014	1.012	1.008	1.007	1.004	1.003	1.001							
90/87	1.002	1.005	1.008	1.008	1.009	1.012	1.009	1.009	1.013	1.008	1.006	1.006	1.003	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	1.003	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	1.002	1.001							

Source: WCIRB accident year experience calls

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

Quarterly Paid Indemnity Loss Development Factors
Through December 31, 2018

Age in	Accident Year																					
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
6/3									4.376	4.495	4.553	4.807	4.911	4.722	4.854	5.099	5.076	5.056	5.087	5.060	4.987	
9/6									2.259	2.375	2.377	2.398	2.452	2.432	2.484	2.462	2.462	2.484	2.456	2.445	2.538	
12/9									1.812	1.834	1.810	1.825	1.861	1.869	1.877	1.866	1.879	1.910	1.882	1.892	1.894	
15/12	1.499	1.536	1.538	1.552	1.550	1.516	1.491	1.456	1.482	1.488	1.481	1.507	1.532	1.539	1.506	1.539	1.540	1.559	1.571	1.544		
18/15	1.380	1.399	1.395	1.401	1.403	1.379	1.331	1.306	1.306	1.327	1.332	1.343	1.355	1.361	1.361	1.353	1.364	1.372	1.366	1.358		
21/18	1.323	1.298	1.303	1.303	1.311	1.297	1.241	1.217	1.233	1.235	1.243	1.259	1.257	1.261	1.261	1.263	1.267	1.264	1.256	1.260		
24/21	1.259	1.257	1.256	1.258	1.260	1.244	1.183	1.181	1.195	1.191	1.194	1.206	1.209	1.215	1.213	1.204	1.216	1.211	1.206	1.206		
27/24	1.186	1.199	1.203	1.200	1.205	1.186	1.140	1.142	1.151	1.149	1.153	1.162	1.165	1.168	1.164	1.159	1.170	1.176	1.161			
30/27	1.157	1.161	1.165	1.175	1.172	1.161	1.122	1.117	1.126	1.129	1.130	1.141	1.141	1.137	1.134	1.141	1.147	1.142	1.137			
33/30	1.118	1.125	1.130	1.142	1.136	1.123	1.097	1.096	1.100	1.101	1.108	1.114	1.116	1.112	1.111	1.111	1.115	1.107	1.104			
36/33	1.102	1.103	1.103	1.115	1.111	1.097	1.085	1.081	1.080	1.084	1.092	1.094	1.098	1.091	1.091	1.096	1.092	1.089	1.088			
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	1.071				
42/39	1.067	1.071	1.077	1.080	1.073	1.063	1.059	1.058	1.058	1.062	1.067	1.067	1.071	1.070	1.065	1.064	1.066	1.062				
45/42	1.057	1.054	1.063	1.064	1.056	1.049	1.047	1.049	1.047	1.051	1.058	1.059	1.057	1.055	1.054	1.052	1.050	1.050				
48/45	1.049	1.050	1.055	1.053	1.046	1.044	1.041	1.044	1.043	1.047	1.049	1.051	1.050	1.048	1.048	1.048	1.045	1.041				
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	1.039					
54/51	1.035	1.038	1.036	1.037	1.034	1.035	1.030	1.028	1.035	1.036	1.038	1.041	1.038	1.036	1.036	1.033	1.032					
57/54	1.029	1.033	1.037	1.030	1.028	1.026	1.025	1.028	1.030	1.032	1.033	1.033	1.032	1.033	1.028	1.027	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	1.025	1.025					
63/60	1.023	1.026	1.024	1.021	1.022	1.019	1.019	1.021	1.023	1.025	1.025	1.024	1.026	1.025	1.025	1.021						
66/63	1.023	1.023	1.023	1.021	1.019	1.019	1.019	1.020	1.025	1.025	1.025	1.025	1.023	1.022	1.022	1.018						
69/66	1.019	1.021	1.020	1.017	1.016	1.017	1.016	1.021	1.020	1.020	1.020	1.022	1.020	1.019	1.022	1.017						
72/69	1.018	1.016	1.018	1.016	1.016	1.015	1.017	1.015	1.020	1.019	1.019	1.019	1.019	1.019	1.016	1.014						
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	1.014							
78/75	1.014	1.014	1.012	1.013	1.012	1.011	1.012	1.015	1.017	1.016	1.015	1.016	1.016	1.015	1.013							
81/78	1.013	1.013	1.011	1.012	1.011	1.010	1.012	1.015	1.015	1.016	1.015	1.015	1.013	1.012	1.011							
84/81	1.011	1.011	1.013	1.010	1.010	1.009	1.011	1.013	1.015	1.014	1.013	1.012	1.013	1.013	1.011							
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	1.011								
90/87	1.008	1.009	1.010	1.009	1.008	1.008	1.011	1.012	1.013	1.012	1.011	1.010	1.010	1.010								
93/90	1.009	1.009	1.008	1.008	1.007	1.008	1.012	1.011	1.011	1.012	1.010	1.010	1.009	1.009								
96/93	1.008	1.009	1.006	1.007	1.007	1.007	1.008	1.011	1.011	1.008	1.010	1.010	1.009	1.010								

Source: WCIRB accident year experience calls

Quarterly Paid Medical Loss Development Factors *
Through December 31, 2018

Age in	Accident Year																				
Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
6/3									5.308	5.615	6.579	6.101	6.048	5.854	5.989	6.284	5.604	5.720	5.897	5.238	5.462
9/6									2.348	2.381	2.348	2.375	2.361	2.327	2.398	2.498	2.428	2.287	2.326	2.249	2.351
12/9									1.716	1.765	1.731	1.723	1.756	1.746	1.763	1.736	1.750	1.705	1.752	1.737	1.723
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	1.434	
18/15	1.241	1.267	1.286	1.310	1.330	1.295	1.243	1.230	1.227	1.259	1.243	1.259	1.268	1.282	1.284	1.263	1.265	1.278	1.262	1.250	
21/18	1.164	1.168	1.192	1.219	1.211	1.179	1.153	1.151	1.163	1.173	1.170	1.178	1.182	1.187	1.192	1.193	1.192	1.189	1.173	1.170	
24/21	1.132	1.124	1.149	1.159	1.154	1.125	1.115	1.118	1.127	1.133	1.132	1.137	1.144	1.153	1.154	1.148	1.146	1.146	1.141	1.131	
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	1.111		
30/27	1.077	1.088	1.101	1.108	1.103	1.077	1.084	1.087	1.097	1.100	1.100	1.106	1.107	1.111	1.109	1.111	1.111	1.105	1.100		
33/30	1.065	1.072	1.086	1.089	1.077	1.063	1.071	1.065	1.081	1.083	1.086	1.092	1.094	1.093	1.094	1.090	1.089	1.082	1.082		
36/33	1.055	1.066	1.069	1.076	1.061	1.055	1.062	1.062	1.071	1.072	1.072	1.077	1.083	1.082	1.078	1.080	1.076	1.071	1.067		
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	1.061			
42/39	1.044	1.049	1.055	1.054	1.041	1.044	1.049	1.054	1.055	1.058	1.059	1.061	1.068	1.063	1.062	1.057	1.059	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	1.045	1.044			
48/45	1.035	1.039	1.044	1.037	1.032	1.035	1.037	1.043	1.043	1.046	1.047	1.050	1.051	1.046	1.045	1.046	1.041	1.040			
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	1.037				
54/51	1.031	1.036	1.032	1.027	1.030	1.029	1.034	1.034	1.035	1.035	1.036	1.042	1.038	1.035	1.035	1.034	1.032				
57/54	1.026	1.030	1.027	1.024	1.024	1.024	1.029	1.031	1.034	1.031	1.033	1.038	1.034	1.034	1.031	1.028	1.026				
60/57	1.026	1.028	1.026	1.021	1.023	1.026	1.028	1.029	1.028	1.032	1.032	1.035	1.030	1.030	1.030	1.023	1.022				
63/60	1.023	1.025	1.022	1.019	1.019	1.020	1.024	1.024	1.024	1.024	1.027	1.027	1.026	1.027	1.025	1.022					
66/63	1.026	1.021	1.020	1.020	1.018	1.021	1.023	1.024	1.026	1.026	1.029	1.029	1.024	1.028	1.023	1.021					
69/66	1.021	1.022	1.019	1.018	1.016	1.019	1.021	1.023	1.023	1.021	1.024	1.024	1.022	1.020	1.020	1.017					
72/69	1.022	1.018	1.016	1.017	1.018	1.016	1.021	1.021	1.022	1.022	1.023	1.021	1.020	1.019	1.016	1.015					
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	1.015						
78/75	1.018	1.015	1.014	1.015	1.016	1.015	1.016	1.018	1.017	1.022	1.019	1.018	1.017	1.016	1.015						
81/78	1.015	1.014	1.013	1.014	1.013	1.014	1.018	1.018	1.015	1.019	1.018	1.015	1.015	1.013	1.012						
84/81	1.013	1.012	1.013	1.012	1.012	1.013	1.016	1.016	1.015	1.018	1.015	1.015	1.015	1.013	1.013						
87/84	1.013	1.011	1.010	1.012	1.012	1.012	1.014	1.013	1.015	1.017	1.013	1.013	1.011	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	1.011	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	1.010	1.009							
96/93	1.010	1.010	1.008	1.010	1.010	1.009	1.013	1.015	1.016	1.011	1.012	1.010	1.009	1.009							

Source: WCIRB accident year experience calls

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

Reported Indemnity Claim Count Development

Accident	Development															
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204
1993																1.000
1994															1.000	1.000
1995														1.000	1.001	1.000
1996													1.000	1.000	1.000	1.000
1997												1.000	1.000	1.000	1.000	1.000
1998											1.000	1.001	1.000	1.000	1.000	1.000
1999										1.000	1.001	1.000	1.000	1.000	1.000	1.000
2000									1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
2001								1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002							1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003						0.998	0.999	0.999	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2004					0.999	1.000	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000		
2005				1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
2006			1.004	1.002	1.001	1.000	1.001	1.001	1.000	1.000	1.000	1.000				
2007		1.013	1.006	1.004	1.002	1.000	1.001	1.000	1.000	1.000	1.000					
2008	1.145	1.022	1.011	1.005	1.003	1.001	1.001	1.001	1.000	1.000						
2009	1.189	1.028	1.011	1.006	1.004	1.001	1.001	1.001	1.001							
2010	1.215	1.029	1.011	1.006	1.002	1.002	1.001	1.001								
2011	1.229	1.032	1.013	1.005	1.003	1.002	1.001									
2012	1.244	1.034	1.010	1.006	1.003	1.001										
2013	1.248	1.025	1.012	1.006	1.002											
2014	1.219	1.032	1.012	1.004												
2015	1.246	1.031	1.005													
2016	1.255	1.027														
2017	1.212															
Latest Year																
Age-to-Age																
1.212	1.027	1.005	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Age-to-Ultimate																
1.266	1.044	1.017	1.011	1.007	1.006	1.005	1.004	1.003	1.002	1.002	1.001	1.002	1.002	1.002	1.002	1.002

Quarterly Reported Indemnity Claim Count Development Factors

Accident Year	Development														
	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2008	2.539	1.651	1.336	1.093	1.025	1.015	1.010	1.008	1.006	1.004	1.003	1.003	1.002	1.003	1.002
2009	2.681	1.683	1.382	1.109	1.036	1.021	1.012	1.009	1.007	1.007	1.005	1.004	1.003	1.002	1.002
2010	2.688	1.708	1.407	1.124	1.037	1.021	1.015	1.011	1.008	1.005	1.005	1.003	1.004	1.003	1.001
2011	2.691	1.738	1.424	1.123	1.041	1.026	1.018	1.010	1.010	1.006	1.005	1.004	1.004	1.003	1.002
2012	2.749	1.727	1.420	1.123	1.050	1.028	1.018	1.012	1.010	1.007	1.004	1.004	1.003	1.003	1.002
2013	2.821	1.739	1.421	1.138	1.045	1.027	1.016	1.010	1.009	1.007	1.004	1.004	1.003	1.002	1.002
2014	2.778	1.723	1.421	1.130	1.045	1.025	1.017	1.012	1.010	1.005	1.004	1.004	1.003	1.002	1.002
2015	2.794	1.744	1.414	1.136	1.047	1.024	1.016	1.013	1.008	1.005	1.003	1.003	1.002	1.001	1.002
2016	2.731	1.720	1.412	1.141	1.046	1.027	1.017	1.013	1.010	1.005	1.004				
2017	2.824	1.691	1.414	1.130	1.043	1.025	1.015								
2018	2.812	1.736	1.418												

Reported Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>	<u>72</u>	<u>84</u>	<u>96</u>	<u>108</u>	<u>120</u>	<u>132</u>	<u>144</u>	<u>156</u>	<u>168</u>	<u>180</u>	<u>192</u>	<u>204</u>
1993																	99.0%
1994																98.8%	98.9%
1995															98.4%	98.5%	98.7%
1996														98.0%	98.2%	98.4%	98.6%
1997													97.4%	97.7%	97.9%	98.1%	98.4%
1998											96.7%	97.1%	97.4%	97.7%	98.0%	98.2%	
1999										96.0%	96.5%	96.9%	97.3%	97.6%	97.9%	98.1%	
2000									94.7%	95.5%	96.2%	96.6%	97.1%	97.5%	97.7%	98.0%	
2001									92.3%	93.5%	94.5%	95.2%	96.0%	96.5%	96.9%	97.3%	97.6%
2002								90.8%	92.4%	93.7%	94.7%	95.8%	96.4%	96.9%	97.4%	97.7%	98.1%
2003							88.4%	90.6%	92.4%	93.7%	95.2%	95.9%	96.4%	97.0%	97.5%	97.9%	
2004						85.3%	88.3%	90.6%	92.4%	94.3%	95.4%	96.1%	96.8%	97.3%	97.8%		
2005					81.3%	85.5%	88.5%	90.8%	93.1%	94.5%	95.5%	96.4%	97.1%	97.6%			
2006				74.3%	81.0%	85.2%	88.3%	91.2%	93.1%	94.4%	95.6%	96.5%	97.2%				
2007			63.6%	73.6%	80.3%	84.7%	88.9%	91.4%	93.3%	94.9%	96.0%	96.8%					
2008		48.2%	61.9%	72.1%	79.2%	85.1%	88.9%	91.6%	93.7%	95.1%	96.2%						
2009	26.7%	46.3%	60.0%	70.7%	79.1%	84.6%	88.7%	91.9%	93.9%	95.4%							
2010	26.9%	46.8%	60.7%	72.6%	80.7%	86.0%	90.2%	92.9%	94.8%								
2011	27.6%	47.2%	62.2%	73.8%	81.8%	87.2%	91.1%	93.7%									
2012	27.6%	48.0%	63.4%	75.1%	83.0%	88.4%	92.1%										
2013	27.0%	48.3%	64.6%	76.8%	84.8%	89.9%											
2014	26.6%	49.6%	66.1%	78.2%	86.3%												
2015	27.3%	50.9%	68.5%	80.8%													
2016	28.6%	53.6%	71.3%														
2017	30.6%	56.7%															
2018	31.8%																

Estimated Ultimate Indemnity Claim Settlement Ratios

Accident	Evaluated as of (in months):																
Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
1993																	98.9%
1994																98.5%	98.6%
1995															98.0%	98.3%	98.5%
1996														97.7%	97.9%	98.2%	98.4%
1997													97.1%	97.4%	97.7%	97.9%	98.2%
1998												96.4%	96.8%	97.2%	97.5%	97.8%	98.0%
1999										95.7%	96.2%	96.7%	97.0%	97.4%	97.7%	97.9%	97.9%
2000										94.3%	95.2%	95.8%	96.4%	96.9%	97.3%	97.6%	97.8%
2001									92.0%	93.3%	94.2%	95.0%	95.8%	96.3%	96.7%	97.1%	97.5%
2002								90.7%	92.3%	93.6%	94.5%	95.6%	96.2%	96.7%	97.2%	97.6%	97.9%
2003							88.5%	90.7%	92.4%	93.6%	95.0%	95.8%	96.3%	96.9%	97.4%	97.7%	
2004						85.4%	88.4%	90.6%	92.4%	94.2%	95.2%	95.9%	96.7%	97.2%	97.7%		
2005					81.1%	85.3%	88.5%	90.7%	93.0%	94.4%	95.4%	96.3%	96.9%	97.5%			
2006				73.8%	80.6%	84.9%	88.0%	91.0%	92.9%	94.2%	95.5%	96.3%	97.0%				
2007			62.6%	72.9%	79.8%	84.4%	88.6%	91.2%	93.0%	94.7%	95.8%	96.6%					
2008		46.0%	60.4%	71.2%	78.5%	84.6%	88.4%	91.2%	93.5%	94.9%	96.1%						
2009	21.3%	43.9%	58.5%	69.7%	78.3%	84.1%	88.2%	91.5%	93.6%	95.1%							
2010	21.0%	44.3%	59.1%	71.5%	79.9%	85.4%	89.8%	92.6%	94.5%								
2011	21.2%	44.5%	60.6%	72.7%	81.0%	86.6%	90.6%	93.4%									
2012	20.9%	45.3%	61.8%	74.0%	82.3%	87.9%	91.7%										
2013	20.6%	46.0%	63.0%	75.7%	84.2%	89.4%											
2014	20.7%	46.9%	64.6%	77.3%	85.7%												
2015	20.9%	48.6%	67.4%	79.9%													
2016	21.8%	51.3%	70.1%														
2017	24.2%	54.3%															
2018	25.1%																

Quarterly Ultimate Settlement Ratios

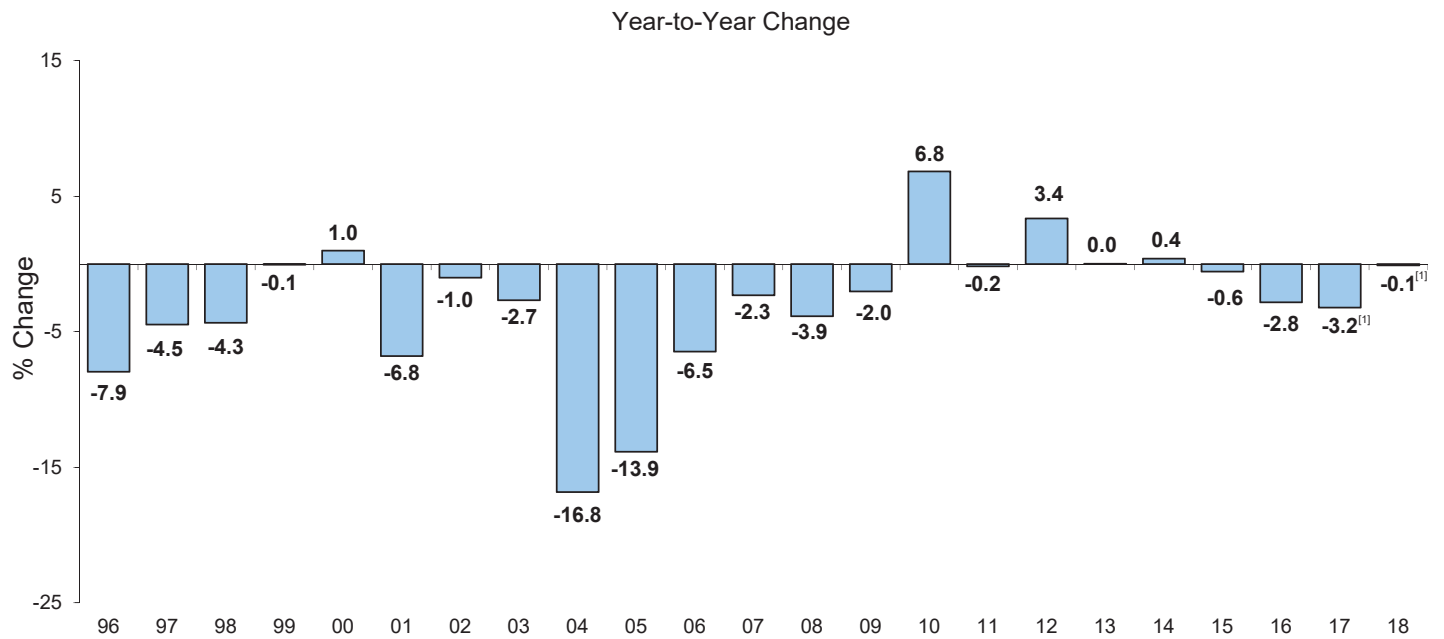
Accident Year	Evaluated as of (in months):															
	<u>3</u>	<u>6</u>	<u>9</u>	<u>12</u>	<u>15</u>	<u>18</u>	<u>21</u>	<u>24</u>	<u>27</u>	<u>30</u>	<u>33</u>	<u>36</u>	<u>39</u>	<u>42</u>	<u>45</u>	<u>48</u>
2009	0.7%	4.7%	12.2%	21.3%	29.6%	35.7%	40.0%	44.0%	47.6%	51.3%	55.0%	58.5%	61.5%	64.6%	67.1%	69.6%
2010	0.6%	4.7%	11.9%	21.1%	29.9%	35.9%	40.3%	44.5%	48.3%	52.3%	55.8%	59.3%	62.5%	65.9%	68.9%	71.8%
2011	0.8%	5.1%	12.0%	21.3%	29.7%	35.9%	40.4%	44.7%	48.6%	52.9%	56.8%	60.8%	64.1%	67.1%	70.2%	72.9%
2012	0.8%	5.1%	12.1%	21.2%	29.5%	35.9%	40.7%	45.6%	49.7%	54.0%	58.3%	62.1%	65.5%	68.7%	71.7%	74.4%
2013	0.9%	5.1%	11.8%	20.9%	29.3%	35.9%	41.3%	46.3%	50.9%	55.4%	59.5%	63.4%	67.0%	70.3%	73.2%	76.0%
2014	0.7%	4.8%	11.7%	20.7%	29.5%	36.2%	42.0%	47.1%	51.8%	56.3%	60.6%	64.6%	68.0%	71.5%	74.4%	77.2%
2015	0.8%	4.8%	12.1%	21.0%	30.2%	37.5%	43.2%	48.5%	53.5%	58.6%	63.0%	67.0%	70.6%	73.9%	76.8%	79.5%
2016	0.8%	5.1%	12.3%	21.8%	31.6%	39.4%	45.3%	51.1%	56.1%	61.3%	65.6%	69.9%				
2017	0.8%	5.6%	13.3%	23.8%	33.7%	41.5%	47.6%	53.4%								
2018	1.0%	5.9%	14.1%	25.0%												

Accident Year	Quarterly Incremental Change														
	<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>
2009	4.0%	7.5%	9.1%	8.3%	6.0%	4.4%	4.0%	3.7%	3.6%	3.7%	3.5%	3.0%	3.0%	2.5%	2.5%
2010	4.1%	7.2%	9.2%	8.8%	6.0%	4.3%	4.3%	3.8%	4.0%	3.5%	3.5%	3.2%	3.4%	3.0%	2.9%
2011	4.3%	6.9%	9.3%	8.5%	6.1%	4.5%	4.3%	3.9%	4.4%	3.9%	4.0%	3.3%	3.1%	3.0%	2.7%
2012	4.2%	7.1%	9.1%	8.3%	6.4%	4.8%	4.9%	4.1%	4.3%	4.2%	3.9%	3.4%	3.2%	3.0%	2.7%
2013	4.2%	6.7%	9.1%	8.4%	6.6%	5.4%	5.0%	4.5%	4.5%	4.1%	3.9%	3.5%	3.4%	2.9%	2.7%
2014	4.0%	6.9%	9.0%	8.8%	6.7%	5.8%	5.1%	4.7%	4.5%	4.2%	4.0%	3.4%	3.5%	2.9%	2.8%
2015	3.9%	7.3%	8.9%	9.2%	7.3%	5.6%	5.3%	5.1%	5.1%	4.3%	4.0%	3.6%	3.4%	2.9%	2.6%
2016	4.2%	7.2%	9.5%	9.8%	7.8%	6.0%	5.8%	5.0%	5.2%	4.3%	4.3%				
2017	4.7%	7.7%	10.6%	9.8%	7.8%	6.1%	5.8%								
2018	4.9%	8.2%	10.9%												

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 84% to 100% of the total California workers' compensation insured market measured using 2018 earned premium levels).

Source: WCIRB quarterly calls for experience

California Workers' Compensation Estimated Indemnity Claim Frequency by Accident Year



^[1] The 2016-2017 estimate is based on partial year unit statistical data. The 2017-2018 estimates are based on comparison of claim counts based on WCIRB accident year experience as of December 31, 2018 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.

Item AC19-03-03

Impact of Wage Inflation on Indemnity Benefits

In the California Department of Insurance (CDI) Decision on the January 1, 2019 Pure Premium Rate Filing, the CDI recommended that the WCIRB analyze the impact of wage inflation on indemnity severity trends given the relatively low permanent disability weekly maximums relative to average wage levels.

The WCIRB has valued the cost impact of legislative changes and wage inflation on indemnity benefits using a model that reflects a distribution of costs by claim type and permanent disability rating interval. The model is based on unit statistical data and other sources of claim characteristic information. The model compares the average cost of benefits by claim type under the current benefit structure (including weekly benefit minimums and maximums) to the structure reflected in the proposal being evaluated. The parameters and data underlying the model are periodically reviewed and updated.

Impact of Wage Inflation on Indemnity Projections

The impact of wage inflation on indemnity benefits is related to both the change in wage levels and the minimum and maximum weekly amount for each type of benefit, primarily temporary disability and permanent disability. The impact of wage inflation on indemnity is greatest when wage inflation and the maximum benefits are both high. For temporary disability, the maximum weekly benefit, which is by statute linked to the state average weekly wage, is relatively higher (\$1,251 as of 2019) and also indexed with wage inflation each year. For permanent disability, the maximum weekly benefit of \$290 is significantly lower and is fixed by statute and not indexed with wage inflation. As a result, general wage inflation as well as recent increases in minimum wage laws has reduced the impact of wage inflation on permanent disability benefits over time. However, the current approach to on-level indemnity losses for wage inflation in pure premium projections assumes a fixed relationship for all accident years and does not reflect this depreciative effect. Staff does not believe this is a concern for temporary disability benefits, for which the maximums are higher and indexed with wage inflation, but may distort the impact of wage inflation on permanent disability benefits.

To estimate the impact of the wage inflation by indemnity benefit type, staff has updated its model with unit statistical data from policy years 2013 through 2015, which includes accident years 2014 through 2016 claims. Staff reviewed several alternative wage inflation assumptions in the model to analyze the sensitivity of wage inflation estimates. Exhibits 1.1 to 1.3 show an illustrative example of the impact of a 3% wage inflation assumption per year on accident years 2018 to 2020. For example, to compute the impact of a 3% wage inflation on 2018 indemnity benefits, the average disability benefits for each claim type is calculated based on trended weekly wages of injured workers from accident years 2014 through 2016 and the statutorily scheduled benefits for accident year 2018.

Exhibit 2 shows the year-to-year change in indemnity benefits under various wage inflation rates. Although wage inflation has a decreasing impact on permanent partial disability benefits over time, that impact is small (even with a 10% per year wage inflation), as the vast majority of permanent disability benefits are already capped at the weekly permanent disability maximum. Most of the impact of wage inflation on indemnity benefits comes from temporary disability benefits, for which the weekly maximums are higher and indexed with wage inflation. As a result, staff does not recommend deviating from the current approach of assuming a constant relationship between wage inflation and indemnity benefit levels in the projection period (which is at most three years). Staff will continue to update the model regularly with the latest available claims and wage data to monitor the relationship between wage inflation and indemnity benefit levels.

Impact of Wage Inflation on Historical Accident Years

As part of the indemnity on-leveling process, the WCIRB estimates the impact wage inflation has on indemnity benefits and reflects on-level adjustments based on those estimates for historical accident years. Exhibit 3, Column (4) shows the estimated annual impact of the corresponded wage inflation for 2014 through 2020 as included in the January 1, 2019 Pure Premium Rate Filing.

The WCIRB's current approach for reflecting the annual impact of wage inflation on indemnity benefits as shown on Exhibit 3, Column (4) is based on fitting a linear regression to results estimated by the WCIRB's legislative evaluation model with unit statistical data from policy years 2008 and 2009. Mindful of recent increases in minimum wage laws and to reflect the latest available unit statistical data, staff has recomputed the annual impact for accident years 2014 through 2016 using unit statistical data from the prior accident year. For example, the estimated annual impact of a 3.3% increase in average wages on 2014 indemnity benefits utilizes weekly wages of injured workers from accident year 2013 trended forward by 3.3%. The estimated average weekly benefit by benefit type is then computed based on legislative scheduled benefits for accident year 2014 (i.e., benefit minimums and maximums). The updated results are shown on this basis for accident years 2014 through 2016 in Exhibit 3, Column (5). Although the difference between the values projected by the linear regression model and the updated values are small, staff believes it is worthwhile to utilize the latest available information for the completed accident years once it becomes available. Staff plans to update the annual impact of wage inflation on indemnity benefits for other historical years by the time of the next annual pure premium rate filing.

Estimated Cost Impact of 3% Wage Inflation on Indemnity Benefits
For Injuries Occurring in 2018

	Benefit Effective 1/1/2018 <u>0% Wage Inflation</u>	Benefit Effective 1/1/2018 <u>3% Wage Inflation</u>
<u>Death</u>		
1. Effect of amendment on death	\$211,579.17	\$213,235.45 1.008
<u>Permanent Total</u>		
2. Average compensation	\$1,361.20	\$1,393.08
3. Effect of amendment on permanent total		1.023
<u>Major 70-99.75</u>		
4. Average duration, temporary disability	92.8	92.8
5. Average compensation, temporary disability	\$712.91	\$728.99
6. Average duration, permanent disability	568.9	568.9
7. Average compensation, permanent disability	\$280.38	\$280.81
8. Average duration, life pension	1119.9	1119.9
9. Average compensation, life pension	\$217.20	\$217.90
10. Average cost of education vouchers	2,426.71	2,426.71
11. Average total cost: (4)x(5)+(6)x(7)+(8)x(9)+(10)	\$471,352.50	\$473,874.88
12. Effect of amendment on major 70-99.75		1.005
<u>Major 25-69.75</u>		
13. Average duration, temporary disability	69.8	69.8
14. Average compensation, temporary disability	\$554.68	\$568.48
15. Average duration, permanent disability	163.5	163.5
16. Average compensation, permanent disability	\$275.47	\$276.40
17. Average cost of education vouchers	\$1,446.52	\$1,446.52
18. Average total cost: (13)x(14)+(15)x(16)+(17)	\$85,199.91	\$86,314.75
19. Effect of amendment on major 25-69.75		1.013
<u>Minor 15-24.75</u>		
20. Average duration, temporary disability	55.7	55.7
21. Average compensation, temporary disability	\$508.78	\$521.61
22. Average duration, permanent disability	64.4	64.4
23. Average compensation, permanent disability	\$271.54	\$272.73
24. Average cost of education vouchers	\$881.69	\$881.69
25. Average total cost: (20)x(21)+(22)x(23)+(24)	\$46,696.19	\$47,486.64
26. Effect of amendment on minor 15-24.75		1.017
<u>Minor 0.25-14.75</u>		
27. Average duration, temporary disability	36.8	36.8
28. Average compensation, temporary disability	\$470.65	\$482.73
29. Average duration, permanent disability	20.2	20.2
30. Average compensation, permanent disability	\$270.45	\$271.92
31. Average cost of education vouchers	\$382.34	\$382.34
32. Average total cost, (27)x(28)+(29)x(30)+(31)	\$23,163.44	\$23,637.91
33. Effect of amendment on minor 0.25-14.75		1.020
<u>Temporary</u>		
34. Average compensation	\$486.34	\$498.80
35. Effect of amendment on temporary		1.026

[1] The average benefits have been calculated based on inflation adjusted weekly wages of injured workers from accident years 2014 to 2016 and the legislatively scheduled benefits for accident year 2018.

Estimated Cost Impact of 3% Wage Inflation on Indemnity Benefits (with 3% on 2018)
For Injuries Occurring in 2019

	Benefit Effective 1/1/2019 <u>0% Wage Inflation</u>	Benefit Effective 1/1/2019 <u>3% Wage Inflation</u>
<u>Death</u>		
1. Effect of amendment on death	\$213,767.50	\$215,464.63 1.008
<u>Permanent Total</u>		
2. Average compensation	\$1,401.95	\$1,434.79
3. Effect of amendment on permanent total		1.023
<u>Major 70-99.75</u>		
4. Average duration, temporary disability	92.8	92.8
5. Average compensation, temporary disability	\$734.25	\$750.81
6. Average duration, permanent disability	568.9	568.9
7. Average compensation, permanent disability	\$280.81	\$281.25
8. Average duration, life pension	1119.9	1119.9
9. Average compensation, life pension	\$217.90	\$218.46
10. Average cost of education vouchers	2,378.24	2,378.24
11. Average total cost: (4)x(5)+(6)x(7)+(8)x(9)+(10)	\$474,313.86	\$476,728.05
12. Effect of amendment on major 70-99.75		1.005
<u>Major 25-69.75</u>		
13. Average duration, temporary disability	69.8	69.8
14. Average compensation, temporary disability	\$571.30	\$585.51
15. Average duration, permanent disability	163.5	163.5
16. Average compensation, permanent disability	\$276.40	\$277.25
17. Average cost of education vouchers	\$1,417.91	\$1,417.91
18. Average total cost: (13)x(14)+(15)x(16)+(17)	\$86,482.75	\$87,611.87
19. Effect of amendment on major 25-69.75		1.013
<u>Minor 15-24.75</u>		
20. Average duration, temporary disability	55.7	55.7
21. Average compensation, temporary disability	\$524.02	\$537.23
22. Average duration, permanent disability	64.4	64.4
23. Average compensation, permanent disability	\$272.73	\$273.78
24. Average cost of education vouchers	\$864.20	\$864.20
25. Average total cost: (20)x(21)+(22)x(23)+(24)	\$47,603.49	\$48,406.40
26. Effect of amendment on minor 15-24.75		1.017
<u>Minor 0.25-14.75</u>		
27. Average duration, temporary disability	36.8	36.8
28. Average compensation, temporary disability	\$484.75	\$497.19
29. Average duration, permanent disability	20.2	20.2
30. Average compensation, permanent disability	\$271.92	\$273.22
31. Average cost of education vouchers	\$374.69	\$374.69
32. Average total cost, (27)x(28)+(29)x(30)+(31)	\$23,704.74	\$24,188.95
33. Effect of amendment on minor 0.25-14.75		1.020
<u>Temporary</u>		
34. Average compensation	\$500.91	\$513.74
35. Effect of amendment on temporary		1.026

[1] The average benefits have been calculated based on inflation adjusted weekly wages of injured workers from accident years 2014 to 2016 and the legislatively scheduled benefits for accident year 2019.

Estimated Cost Impact of 3% Wage Inflation on Indemnity Benefits (3% on 2018, 2019)

For Injuries Occurring in 2020

	Benefit Effective 1/1/2020 <u>0% Wage Inflation</u>	Benefit Effective 1/1/2020 <u>3% Wage Inflation</u>
<u>Death</u>		
1. Effect of amendment on death	\$216,064.37	\$217,799.06 1.008
<u>Permanent Total</u>		
2. Average compensation	\$1,445.46	\$1,479.42
3. Effect of amendment on permanent total		1.023
<u>Major 70-99.75</u>		
4. Average duration, temporary disability	92.8	92.8
5. Average compensation, temporary disability	\$757.18	\$774.27
6. Average duration, permanent disability	568.9	568.9
7. Average compensation, permanent disability	\$281.25	\$281.59
8. Average duration, life pension	1119.9	1119.9
9. Average compensation, life pension	\$218.46	\$218.93
10. Average cost of education vouchers	2,330.30	2,330.30
11. Average total cost: (4)x(5)+(6)x(7)+(8)x(9)+(10)	\$477,271.00	\$479,574.88
12. Effect of amendment on major 70-99.75		1.005
<u>Major 25-69.75</u>		
13. Average duration, temporary disability	69.8	69.8
14. Average compensation, temporary disability	\$588.90	\$603.60
15. Average duration, permanent disability	163.5	163.5
16. Average compensation, permanent disability	\$277.25	\$278.01
17. Average cost of education vouchers	\$1,389.58	\$1,389.58
18. Average total cost: (13)x(14)+(15)x(16)+(17)	\$87,820.15	\$88,970.60
19. Effect of amendment on major 25-69.75		1.013
<u>Minor 15-24.75</u>		
20. Average duration, temporary disability	55.7	55.7
21. Average compensation, temporary disability	\$540.14	\$553.80
22. Average duration, permanent disability	64.4	64.4
23. Average compensation, permanent disability	\$273.78	\$274.72
24. Average cost of education vouchers	\$846.89	\$846.89
25. Average total cost: (20)x(21)+(22)x(23)+(24)	\$48,550.78	\$49,372.11
26. Effect of amendment on minor 15-24.75		1.017
<u>Minor 0.25-14.75</u>		
27. Average duration, temporary disability	36.8	36.8
28. Average compensation, temporary disability	\$499.63	\$512.48
29. Average duration, permanent disability	20.2	20.2
30. Average compensation, permanent disability	\$273.22	\$274.40
31. Average cost of education vouchers	\$367.10	\$367.10
32. Average total cost, (27)x(28)+(29)x(30)+(31)	\$24,271.14	\$24,768.21
33. Effect of amendment on minor 0.25-14.75		1.020
<u>Temporary</u>		
34. Average compensation	\$516.28	\$529.55
35. Effect of amendment on temporary		1.026

[1] The average benefits have been calculated based on inflation adjusted weekly wages of injured workers from accident years 2014 to 2016 and the legislatively scheduled benefits for accident year 2020.

Estimated Cost Impact of Wage Inflation on Indemnity Benefits

For Injuries Occurring in 2018 to 2020

Cost Impact on AY2018 with Annual Wage Inflation Assumption of:							
Benefit Type	Distribution	1.0%	2.0%	3.0%	5.0%	8.0%	10.0%
Death Benefit	2%	1.00263	1.00523	1.00783	1.01293	1.02032	1.02515
Life Pension	3%	1.00108	1.00215	1.00322	1.00496	1.00714	1.00841
Permanent Total	4%	1.00787	1.01565	1.02343	1.03899	1.06185	1.07681
Major 70-99.75	8%	1.00051	1.00103	1.00154	1.00259	1.00393	1.00454
Major 25-69.75	13%	1.00118	1.00231	1.00338	1.00540	1.00816	1.00976
Minor 15-24.75	9%	1.00153	1.00299	1.00437	1.00692	1.01039	1.01239
Minor 0.25-14.75	6%	1.00191	1.00373	1.00545	1.00864	1.01297	1.01550
Permanent Disability	35%	1.00123	1.00241	1.00354	1.00566	1.00852	1.01014
Temporary	55%	1.00860	1.01712	1.02555	1.04224	1.06697	1.08329
Indemnity	100%	1.00554	1.01102	1.01643	1.02709	1.04277	1.05300

Cost Impact on AY2019 with Annual Wage Inflation Assumption of:							
Benefit Type		1.0%	2.0%	3.0%	5.0%	8.0%	10.0%
Death Benefit		1.00266	1.00532	1.00794	1.01298	1.02029	1.02511
Life Pension		1.00108	1.00201	1.00258	1.00359	1.00503	1.00601
Permanent Total		1.00794	1.01580	1.02342	1.03876	1.06034	1.07288
Major 70-99.75		1.00052	1.00106	1.00155	1.00202	1.00234	1.00262
Major 25-69.75		1.00114	1.00214	1.00305	1.00452	1.00568	1.00631
Minor 15-24.75		1.00147	1.00273	1.00385	1.00565	1.00694	1.00765
Minor 0.25-14.75		1.00184	1.00340	1.00478	1.00708	1.00873	1.00959
Permanent Disability		1.00119	1.00225	1.00319	1.00465	1.00573	1.00634
Temporary		1.00864	1.01721	1.02555	1.04176	1.06570	1.08131
Indemnity		1.00557	1.01106	1.01640	1.02673	1.04177	1.05160

Cost Impact on AY2020 with Annual Wage Inflation Assumption of:							
Benefit Type		1.0%	2.0%	3.0%	5.0%	8.0%	10.0%
Death Benefit		1.00277	1.00540	1.00803	1.01303	1.02040	1.02468
Life Pension		1.00108	1.00166	1.00213	1.00313	1.00462	1.00479
Permanent Total		1.00790	1.01587	1.02349	1.03861	1.05734	1.06605
Major 70-99.75		1.00052	1.00102	1.00122	1.00144	1.00170	1.00167
Major 25-69.75		1.00109	1.00201	1.00275	1.00342	1.00443	1.00484
Minor 15-24.75		1.00140	1.00253	1.00344	1.00415	1.00530	1.00571
Minor 0.25-14.75		1.00175	1.00314	1.00432	1.00520	1.00666	1.00724
Permanent Disability		1.00115	1.00209	1.00283	1.00344	1.00439	1.00473
Temporary		1.00869	1.01727	1.02564	1.04153	1.06486	1.07975
Indemnity		1.00559	1.01109	1.01644	1.02650	1.04153	1.05110

Green - Wage change has lesser impact on loss compare to prior year.

Impact of Wage Inflation on Indemnity Benefits

	(1)	(2)	(3)	(4)	(5)
				Estimated Impact of Wage Inflation on Indemnity Benefit	
Accident Year	Maximum TD Benefit ^[1]	Maximum PPD Benefit ^[1]	Wage Inflation ^[2]	Regression Method ^[3]	Trending Weekly Wage from Prior AY ^[4]
2014	\$1,075	\$290	3.3%	1.7%	1.6%
2015	\$1,103	\$290	4.4%	2.3%	2.2%
2016	\$1,128	\$290	1.9%	1.0%	1.0%
2017	\$1,173	\$290	2.7%	1.4%	---
2018	\$1,215	\$290	4.2%	2.2%	---
2019	\$1,251	\$290	3.9%	2.0%	---
2020	Not yet available		3.2%	1.7%	---

Notes:

^[1] Maximum weekly benefits as specified by legislation.

^[2] Historical wage changes through 2016 are based on Bureau of Labor Statistics data. Forecasts for 2017 to 2020 are based on the average of wage level projections made by the UCLA Anderson School of Business as of June 2018 and those made by the California Department of Finance as of April 2018.

^[3] These impacts are based on fitting a linear regression to results estimated by the WCIRB's legislative evaluation model with unit statistical data from policy years 2008 and 2009.

^[4] These impacts are based on trending weekly wages of injured workers from the prior accident year and the legislatively scheduled benefits for the specified year.