

STATE OF THE SYSTEM WCIRB REPORT ON THE STATE OF THE CALIFORNIA WORKERS' COMPENSATION INSURANCE SYSTEM

Introduction

The workers' compensation insurance system in California is over 100 years old. More than 220 insurance companies provide workers' compensation insurance coverage to nearly 700,000 employers and deliver medical and wage replacement benefits to almost 800,000 injured workers and their families annually. Entering its second century, the Workers' Compensation Insurance Rating Bureau of California (WCIRB) is the licensed rating organization for workers' compensation and is the California Insurance Commissioner's designated statistical agent. As such, the WCIRB monitors the health of the workers' compensation insurance system and makes its data and analysis available to system stakeholders and public policymakers.

This annual report summarizes the state of the California workers' compensation insurance system as of mid-2016. The report is based on the experience of insured employers and does not reflect public or private self-insured employer data. In the report, we highlight the cost of workers' compensation insurance based on premiums paid by California insured employers, show how those premium dollars are distributed among various system cost components, and detail the key cost drivers in the system, such as the frequency of workers' compensation claims and the average cost of claims. We also provide a brief summary on how post-Senate Bill No. 863 (SB 863) costs are emerging several years into its implementation as well as a summary of insurer combined loss and expense ratios and returns on equity over time. When appropriate, throughout the report, we included comparisons of components of the California insurance system to the insurance systems in other states as well as comparisons within California regionally. (Information regarding the sources of data used in our charts can be found beginning on page 31.)

CONTENTS
EXECUTIVE SUMMARY 2
EMPLOYER COSTS3
COST DISTRIBUTIONS7
COST DRIVERS10
SENATE BILL NO. 863 24
INSURER RESULTS28
SUMMARY30
CHART NOTES 31
ABOUT THE AUTHORS 33

EXECUTIVE SUMMARY

The WCIRB's 2016 State of the System Report summarizes the key components of the California workers' compensation insurance system as of mid-2016. Principal results include:

- Growth in California written premiums has slowed compared to that of prior years as insurer rate increases have moderated, while economic expansion has contributed to increased employer payrolls.
- While California continues to have on average the highest workers' compensation insurance rates in the country, beginning in the second half of 2015 rates declined for the first time since 2009. This is largely attributed to very low medical inflation in the past three years since the implementation of Senate Bill 863..
- California's insurance rates are largely driven by the greatest frequency of permanent disability claims in the country, high medical costs per claim propelled by a protracted pattern of medical treatments, and much higher-than-average costs of handling claims and delivering benefits.
- Recent increases in indemnity claim frequency that are counter to trends in other states are largely
 driven by increases in the Los Angeles Basin area. After adjusting for regional differences in wage
 levels and industrial composition, indemnity claim frequency in the Los Angeles Basin area was
 over 30% higher than the statewide average. Comparatively, indemnity claim frequency in the Bay
 Area was approximately 15% lower.
- The proportion of cumulative trauma injuries in the Los Angeles Basin area has more than doubled since 2008 and is almost twice the proportion for the remainder of California.
- While the difference between California medical costs and medical costs in other states has
 moderated with recent declines in California average medical severities since 2010, the average
 California medical benefit per claim remains among the highest in the country with costs more than
 60% above the countrywide median. The length of time a claim remains open with medical benefits
 being paid is a contributing factor with over 60% of estimated medical costs unpaid after 3 years
 compared to the countrywide median of 36%.
- Despite provisions of SB 863, which intended to reduce frictional costs, average allocated loss adjustment expenses in California have increased by 24% since 2012. Within California, average allocated loss adjustment expense costs are over 20% higher in the Los Angeles Basin area compared to the remainder of the state and is the highest ratio of loss adjustment expenses to losses in the country at almost twice the countrywide median.
- Following two consecutive years of significant lien filing reductions in 2013 and 2014, liens filed in 2015 are higher than projected and nearly double the number of liens filed in 2014.
- Since enacting SB 863, savings in medical costs resulting from the new resource-based relative value scale (RBRVS) physician fee schedule, independent medical review (IMR), and other provisions have more than offset higher-than-projected allocated loss adjustment expenses, resulting in greater overall cost savings than initially forecast.
- In recent years, California workers' compensation combined ratios have been more consistent with countrywide averages though long-term returns on net worth have been lower.

EMPLOYER COSTS

"California's high insurance rates are largely driven by the highest frequency of permanent disability claims in the country, very high medical costs per claim driven by a more prolonged pattern of medical treatments, and much higher than average costs of handling claims and delivering benefits."

The cost of workers' compensation benefits provided to injured workers and their families is funded by insurance premiums paid by insured employers conducting business in California. All California private employers operating a business with employees must either purchase a workers' compensation insurance policy from a licensed insurance company or be legally self-insured under the regulation and oversight of the California Department of Industrial Relations Office of Self Insurance Plans.

Chart 1 shows the total premium from workers' compensation insurance policies in California since 1997. The premiums shown below do not reflect premium credits for policies that include deductibles. Workers' compensation premiums continued to grow in 2015 (by 7%), but at a slower pace than the double-digit percentages experienced over the prior five years.

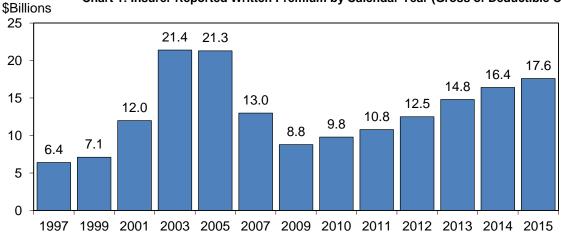


Chart 1: Insurer Reported Written Premium by Calendar Year (Gross of Deductible Credits)

Chart 2 shows that aggregate California premium comprised almost 30% of countrywide premium in 2015, which is up significantly from five years ago, although still below the high of a decade ago. In contrast, California workers make up about 12% of the countrywide workforce.

2015 Market Share

California
Remainder of Country

California
Remainder of Country

2015 Market Share
California
Remainder of Country

21%

29%

Chart 2: California Written Premium as a Percentage of Countrywide Premium

Chart 3 shows the amount of California premium growth from 2012 to 2015 attributable to insurer rate increases, economic expansion as reflected increasing employer payrolls, and other contributing factors. In contrast to the prior years, 2015 payroll increases were the primary driver of the premium growth.

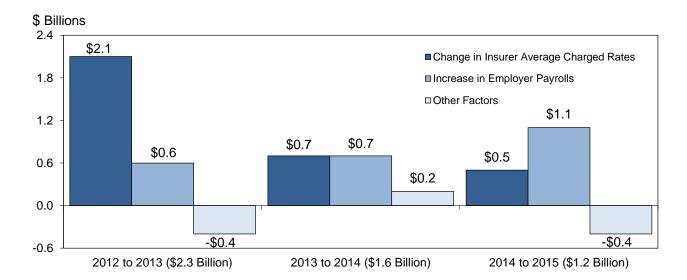


Chart 3: Components of Changes in Written Premium

Chart 4 shows the average rates per \$100 of payroll charged by insurers in California. In the second half of 2015, average insurer rates declined for the first time since 2009 following the 10% reduction in advisory pure premium rates approved by the Insurance Commissioner effective July 1, 2015. With additional advisory pure premium rate decreases approved by the Commissioner January 1, 2016 and July 1, 2016, it is likely that average charged rates will continue to decline over the next few quarters. Notably, current charged rates¹ on average are not significantly different from rates charged in the late 1970s as, over the long-term, declining claim frequency has largely offset medical inflation and overall workers' compensation costs have grown at roughly the same rate as employer payrolls.

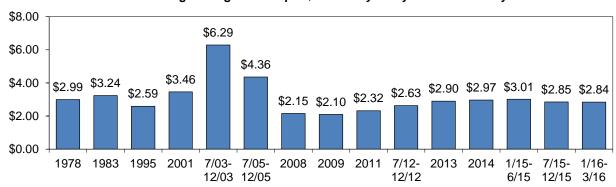


Chart 4: Average Charged Rates per \$100 of Payroll by Insurance Policy Period

Chart 5 compares the national median average charged insurer rate, as reflected in the state of Oregon biennial study of workers' compensation rates, to the comparable average insurer rate for California.² Typically, rates charged in California have been markedly higher than rates charged in other states and, in 2014, California was the only state in the study with an average rate over \$3.00 per \$100 of payroll. California's high insurance rates are largely driven by the highest frequency of permanent disability claims in the country, very high medical costs per claim driven by a more prolonged pattern of medical treatments, and much higher than average costs of handling claims and delivering benefits. Even after reflecting the decreases in average insurer rates charged in California in 2015 and 2016, average rates in California will likely still be significantly higher than in other states.



Chart 5: Insurer Rate Comparison Based on Oregon Studies California vs. National Median Average Charged Rate

_

¹ Since 1995, insurers file their own premium rates with the Insurance Commissioner that may in part be based on the advisory pure premium rates by classification approved by the Insurance Commissioner.

² The average charged rates shown on Chart 5 for California are, for purposes of interstate comparison, based on the state of Oregon industrial mix and, as a result, are not comparable to other measures of average charged rates for California.

The California average charged rates discussed above are based on an average of rates for the approximately 500 industry classifications in the state. The claim costs underpinning the resultant rates among the individual industry classifications can vary significantly due to differences in the inherent risk of a workplace injury among various occupations. For example, the risk of injury for a clerical office employee is much different than the risk of injury for a construction worker.

Chart 6 shows the average January 1, 2016 insurer filed manual rate³ based on insurer rate filings with the California Department of Insurance for classifications grouped by industrial sector. The average insurer filed manual rate for the Clerical and Outside Sales sector and the Information and Professional Services sector are far below the all-industry average, while the average rate for the Construction and Transportation and Utilities sectors are far above.

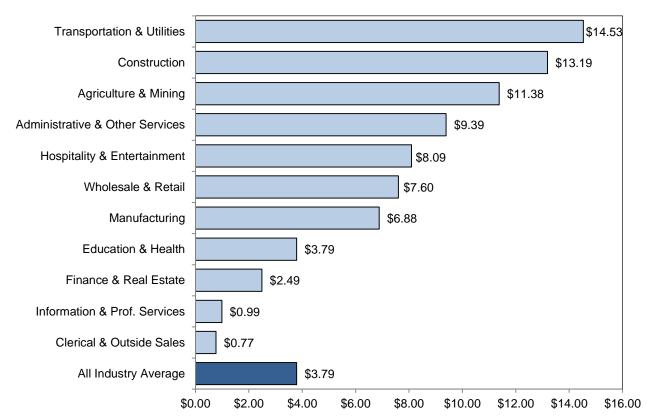


Chart 6: Average Insurer Filed Manual Rates per \$100 Payroll by Industrial Sector

rates shown on Charts 4 and 5 in that the premium an insurer ultimately charges on a workers' compensation policy may reflect additional schedule credits or other premium adjustments applied by the insurer in accordance with their rating plans filed with the Insurance Commissioner.

³ Insurer manual rates are based on the rates by classification that an insurer files with the California Department of Insurance and form the basis for the premium that is charged on a workers' compensation policy. These rates differ from the average charged

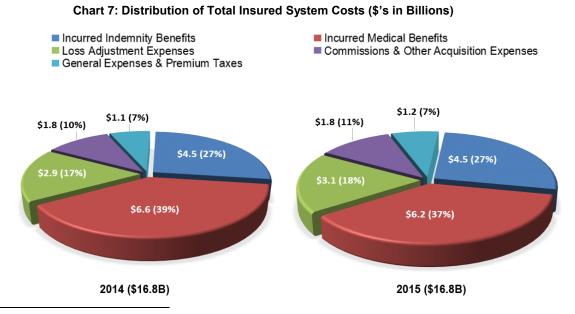
COST DISTRIBUTIONS

"Injured worker indemnity benefits remained consistent at 27% of total costs in 2015, while total medical costs decreased from 39% of total costs in 2014 to 37% in 2015."

"The cost of administering claims, or loss adjustment expenses, increased to 18% of total system costs in 2015 as frictional costs continue to escalate."

The insurance premiums paid by employers for workers' compensation insurance policies primarily fund workers' compensation benefits provided to injured workers and their families and the expenses insurers incur to deliver the benefits. These benefits include the cost of medical treatment for workers' compensation injuries as well as indemnity benefits⁴ paid directly to injured workers.

Chart 7 shows the distribution of California workers' compensation insured system costs incurred in 2015 by cost component compared to 2014. Injured worker indemnity benefits remained consistent at 27% of total costs in 2015, while total medical costs decreased from 39% of total costs in 2014 to 37% in 2015 as medical inflation in California workers' compensation continues to be very low in the post-SB 863 environment. The cost of administering claims, or loss adjustment expenses, however, increased to 18% of total system costs in 2015 as frictional costs continue to escalate.



⁴ Indemnity benefits are provided to injured workers or, in the case of fatal injuries, to their dependents to partially compensate for lost wages, with additional benefits provided if a worker suffers a permanent disability.

Chart 8 shows the distribution of indemnity benefits paid in 2015 by type of benefit compared to what was paid in 2014. Temporary disability and permanent partial disability benefits comprise the vast majority of indemnity benefits (approximately 90%).

Temporary Temporary Disability Disability Permanent 48.7% 50.1% **Permanent Partial** Partial Disability Disability 41.8% 40.6% Other Other Permanent 3.7% Death 4.0% Permanent Total Disability Death 2.2% Total 2.0% 3.6% Disability... 2014 (\$3.3B) 2015 (\$3.4B)

Chart 8: Distribution of Indemnity Benefits Paid

Injured workers receive a variety of medical treatments, which include physician visits, prescription medications, and surgeries. Chart 9 shows the distribution of medical benefits paid in 2015 by type of service compared to 2014. The largest components of medical costs for both 2014 and 2015 are payments for physician services and payments made directly to injured workers, primarily for future medical services. Components with the greatest change, year over year, were payments for pharmaceuticals, which declined from 9% of total medical payments in 2014 to 7% in 2015 and medical payments made directly to injured workers, 5 which increased from 25% to 28% of total medical payments.

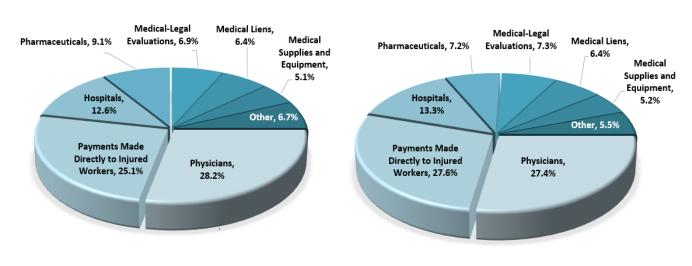


Chart 9: Distribution of Medical Benefits Paid

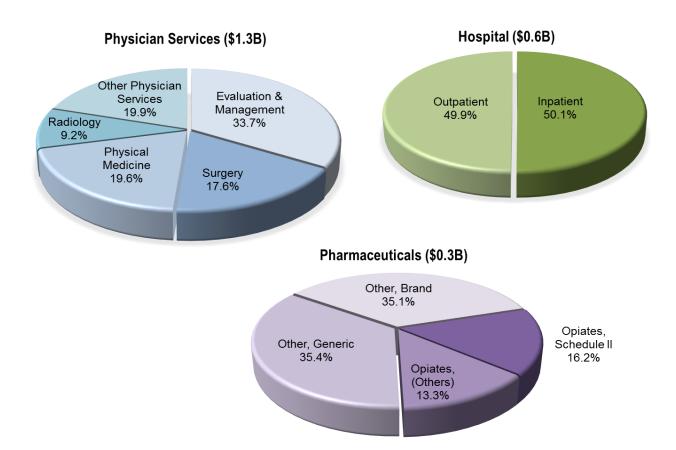
2014 (\$4.7B) 2015 (\$4.6B)

_

⁵ This primarily consists of the component of compromise and release settlements attributable to future medical costs.

Chart 10 provides a further breakdown of the categories of medical payments detailed further by type of medical service provided.

Chart 10: Detailed Distribution of Medical Services Paid in 2015



COST DRIVERS

"In the last several years following the post-recession frequency 'bump' in 2010, indemnity claim frequency in the Los Angeles Basin area has continued to climb, while indemnity claim frequency in other regions of California and in most other states returned to the long-term pattern of steady modest year-to-year decline."

The total cost of workers' compensation claims is primarily driven by the number of injuries incurred (claim frequency) and the average cost associated with those injuries (claim severity). Costs can also be affected by how long claims stay open after the injury occurs. In addition, the cost of administering these claims, or loss adjustment expenses, is a significant driver of total system costs.

Claim Frequency

Chart 11 shows the long-term change in total claim frequency indexed to 1962. As in other states, until 2010 there had been a steady long-term decline in claim frequency in California. Total claim frequency is now less than one-fifth of its level of 50 years ago. This long-term decline in workers' compensation claims is largely attributable to a shift in economic activity in California from a more manufacturing-based "blue collar" economy to a more service-based "white collar" economy, trends toward increased mechanization within industries, and greater attention to workplace safety by employers. This decline in claim frequency has been instrumental in offsetting long-term medical inflation and moderating workers' compensation premium rate increases over the decades.

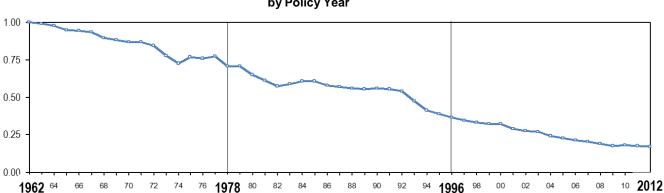


Chart 11: Long-Term California Total Claim Frequency Indexed to 1962 by Policy Year

Chart 12 shows the estimated frequency of workers' compensation indemnity claims filed in California per 1,000 employees from 1991 through 2015. After a period of steady decline over many years, beginning in 2010, the frequency of indemnity claims in California has been increasing at a modest rate. Indemnity claim frequency in 2015 was about 13% above that for 2009. Preliminary first quarter information from accident year 2016 suggests a continuation of the modest increases in indemnity claim frequency experienced over the last several years.

49.6 50 36.5 40 30.4 26.7 25.6 30 24.1 23.0 20 16.4 15.6 15.8 16.2 16.1 15.0 15.1 15.1 14.2 10 0 91 93 95 01 03 05 07 09 10 15 97 99 11 12 13 14

Chart 12: Estimated Indemnity Claims per 1,000 Employees by Accident Year

California's pattern of recent increases in indemnity claim frequency has not followed that of other states, nor has it been consistent throughout the geographic regions of California. Chart 13 shows estimated changes in indemnity claim frequency for both the Los Angeles Basin area and the remainder of California compared to a composite of frequency estimates based on states reporting data to the National Council on Compensation Insurance (NCCI)—an organization that provides a similar function to the WCIRB for many other states. For most years, California frequency changes had been comparable regionally within California and fairly similar to the NCCI composite measure. However, in the last several years following the post-recession frequency "bump" in 2010, indemnity claim frequency in the Los Angeles Basin area? has continued to climb, while indemnity claim frequency in other regions of California and in most other states returned to the long-term pattern of steady modest year-to-year decline.

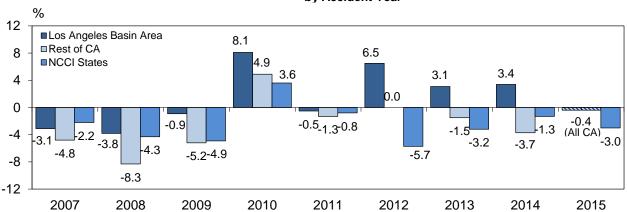


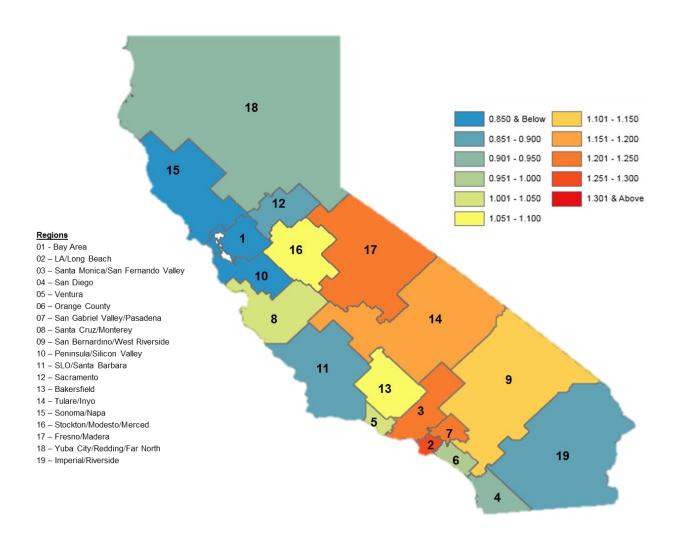
Chart 13: Change in Estimated Indemnity Claim Frequency California Regions vs. NCCI States by Accident Year

⁶ For more information on the recent indemnity claim frequency increases, see the WCIRB's *Analysis of Changes in Indemnity Claim Frequency – January 2016 Update Report*, released January 2016.

⁷ The "Los Angeles Basin area" shown on Chart 13 represents Los Angeles County, Orange County, Riverside County, San Bernardino County, and Ventura County.

As shown in Chart 13, the frequency of claims can differ across the various regions of California. Some of this regional differential in claim frequency can be attributed to the mix of industries within a geographic area as well as regional differences in wage levels. Chart 14 adjusts for these regional differences in wage levels and industrial mix and highlights indemnity claim frequency for policy year 2013 by region relative to statewide indemnity claim frequency. Even after adjusting for these differentials, indemnity claim frequency in the Bay Area and Peninsula/Silicon Valley regions is much lower than the statewide average while indemnity claim frequency in the Los Angeles/Long Beach area is much higher.⁸

Chart 14: Indemnity Claim Frequency Relative to Statewide by Region Adjusted for Regional Wage Differences and Industrial Mix



⁸ For more information on the study of regional cost differences within California, see the WCIRB's *Study of Geographic Differences in California Workers' Compensation Claim Costs*, released November 2015.

Most workers' compensation claims result from a single accident or specific incident causing injury. Other claims may result from a prolonged period of exposure causing cumulative trauma over time. Chart 15 shows the percentage of indemnity claims involving these cumulative injuries for the Los Angeles Basin area compared to the remainder of California. Increases in the number of cumulative injury claims in the Los Angeles Basin area has been a significant driver of the indemnity claim frequency increases experienced over the last several years. The proportion of indemnity claims involving cumulative injury in the Los Angeles Basin area has more than doubled from 2008 to 2014 and the proportion in 2014 is almost twice that for the remainder of the state. WCIRB research has also shown that many cumulative injury claims involve multiple body parts and most involve representation of the injured worker by an applicant attorney, and many are filed following the termination of the employee.

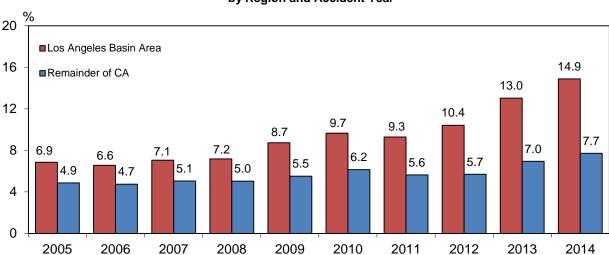
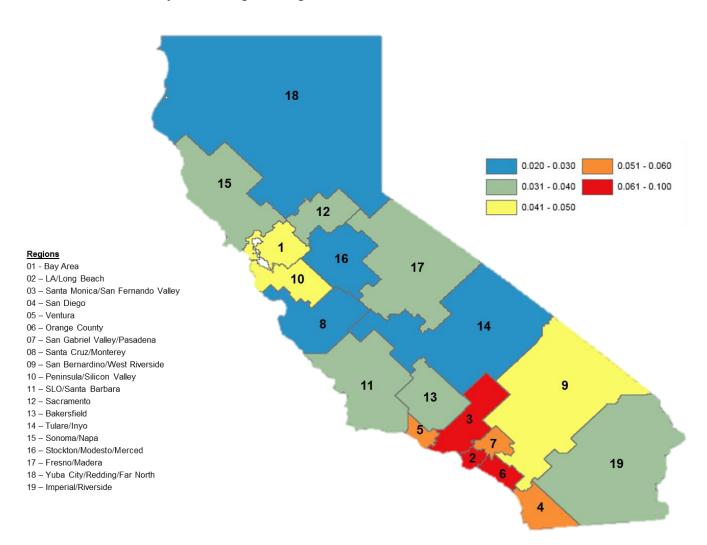


Chart 15: Percentage of Indemnity Claims Involving Cumulative Injury by Region and Accident Year

Chart 16 reflects cumulative injury claims as a share of total claims by region after adjusting for regional differences in wage level and industrial mix. The proportion of claims involving cumulative injury is significantly higher in the Los Angeles/Long Beach, Santa Monica/San Fernando Valley, and Orange County regions compared to other regions in the state.

Chart 16: Cumulative Injury Claims as a Share of Total Claims by Region Adjusted for Regional Wage Differences and Industrial Mix



Indemnity claim frequency in California is higher than in most other states. Chart 17 shows indemnity claim frequency per 1,000 workers across the country, ranking California as the 4th highest state, with an indemnity frequency rate more than 60% higher than the median state.

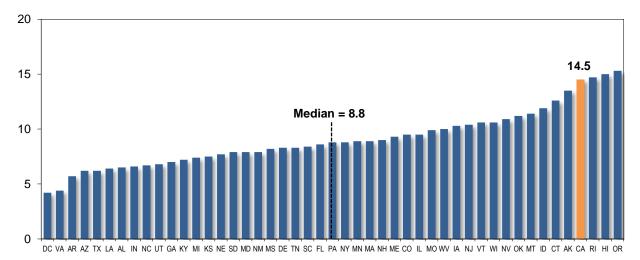


Chart 17: Countrywide Estimated Indemnity Claims per 1,000 Employees

Many employees injured at the workplace will suffer some form of permanent disability, and claims involving permanent partial disability generate the vast majority of costs in the workers' compensation system. Chart 18 shows the frequency of permanent partial disability claims per 100,000 workers. California has the highest permanent partial disability claim frequency in the country, which is over 25% higher than the second-highest state and more than twice the countrywide median. California does not have a particularly more hazardous industrial mix yet has a significantly higher rate of permanent partial disability claims than other states, including those states that utilize the American Medical Association (AMA) Guides 5th Edition to determine permanent partial disability ratings as is used in California. As a result, the differences from other states appear to be more related to the interpretation and application of California's Permanent Disability Rating Schedule rather than the California industrial mix or the actual AMA Guides upon which the Schedule is predicated.

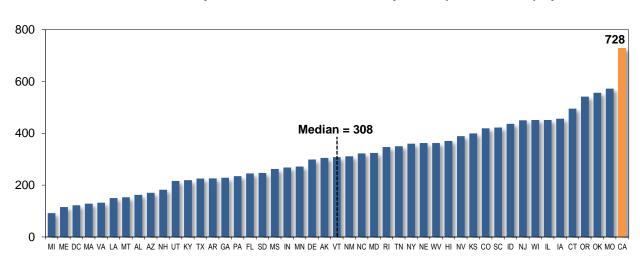


Chart 18: Countrywide Permanent Partial Disability Claims per 100,000 Employees

Claim Severity

In addition to the number of claims reported, the average cost, or 'severity', of claims is also a driver of workers' compensation system costs. Chart 19 shows the average cost of indemnity benefits per indemnity claim. While indemnity costs per claim have tripled over the last 25 years, average indemnity costs since 2009 had been fairly stable through 2013. Average indemnity costs per claim increased by 8% in 2014 and by 4% in 2015, which is primarily attributable to SB 863 increases to permanent disability benefits effective in 2014 and increases in wage levels affecting indemnity benefit levels.

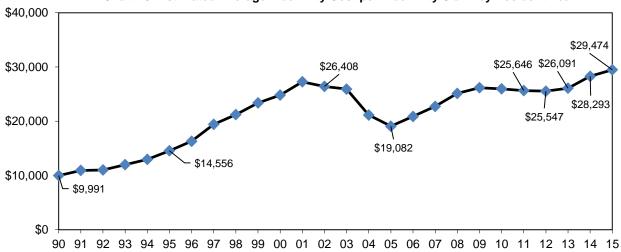


Chart 19: Estimated Average Indemnity Cost per Indemnity Claim by Accident Year

Chart 20 shows changes in average indemnity costs for California compared to those for the composite of NCCI states. Changes in average indemnity costs per claim in California have generally been consistent with countrywide indemnity cost changes from NCCI over time, with the differences in 2014 and 2015 likely driven by the SB 863 increases to California's permanent disability benefits.

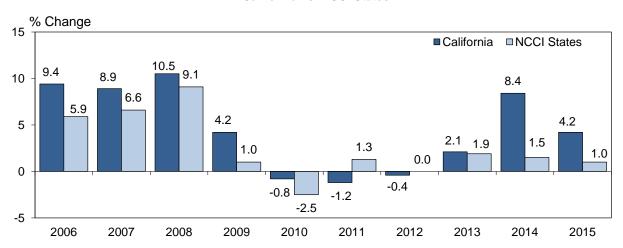


Chart 20: Estimated Change in Indemnity Cost per Indemnity Claim by Accident Year California vs. NCCI States

Chart 21 compares average indemnity costs per indemnity claim by state. California indemnity costs per indemnity claim are more than 30% above the national median level. The higher-than-average indemnity costs are largely driven by the high proportion of indemnity claims involving permanent disability benefits in California.

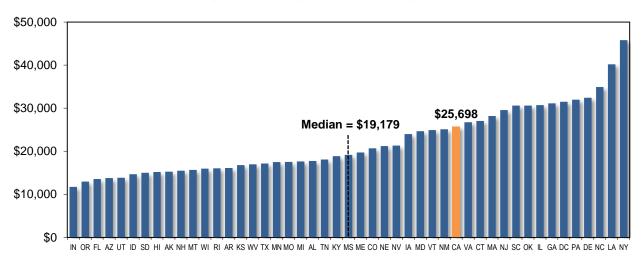


Chart 21: Countrywide Indemnity Cost per Indemnity Claim

Medical costs comprise almost 60% of the total cost of claims in the California workers' compensation system. Chart 22 shows average medical costs per indemnity claim in California. While increasing almost five-fold since 1990, the average medical cost per indemnity claim over the last four years, since the implementation of SB 863, have decreased by over 8%.

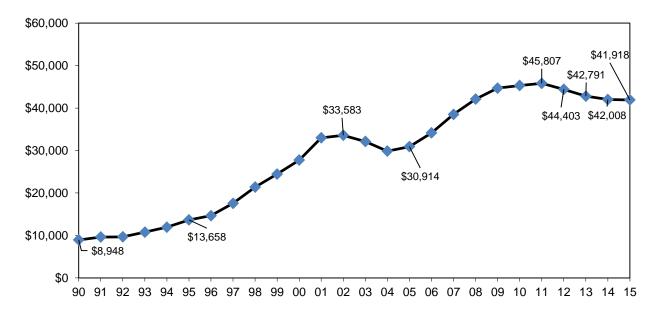


Chart 22: Estimated Average Medical Cost per Indemnity Claim by Accident Year

Chart 23 shows average medical costs by region relative to statewide average medical costs for policy year 2013 at first report level (incurred costs valued approximately 18 months after the policy inception date). As medical costs are paid over many years in California, the ultimate medical costs of a claim are often much different than the early report level estimated costs. Nevertheless, average medical costs based on early evaluations of a claim are generally somewhat lower in Northern California and somewhat higher in Southern California. WCIRB research also suggests that more medical costs are paid later in the life of a claim in Southern California than in Northern California, so regional differences in average medical costs per claim based on comparisons later in the life of a claim are likely more pronounced.

Chart 23: Incurred Medical Costs on Indemnity Claims Relative to Statewide by Region

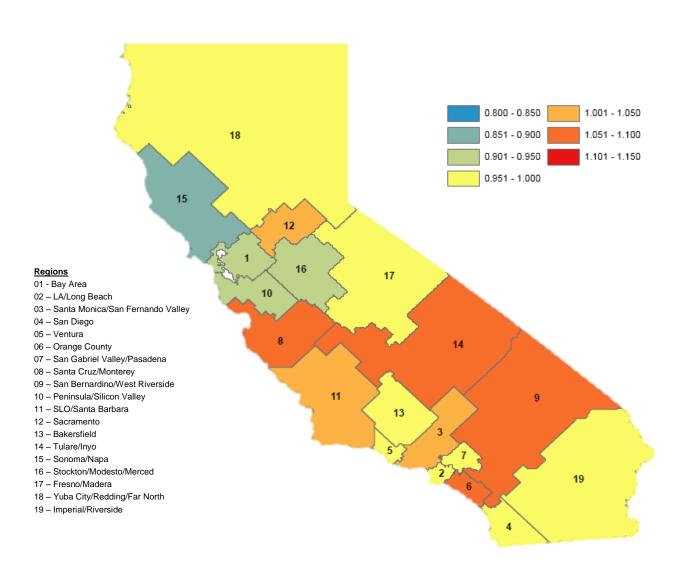


Chart 24 compares changes in average medical costs for California with that for NCCI states. Estimated average medical cost per indemnity claim in California declined over the last few years largely as the result of the medical reforms included in SB 863, while other states' medical costs have generally increased.

Chart 24: Estimated Change in Medical Costs per Indemnity Claim by Accident Year California vs. NCCI States

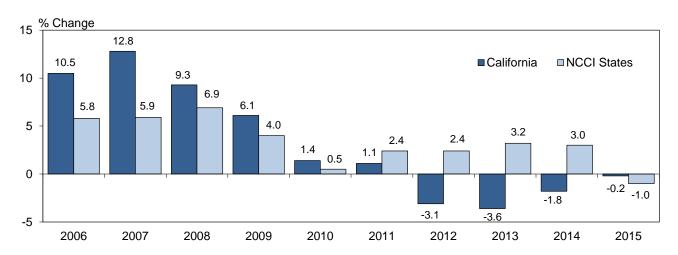
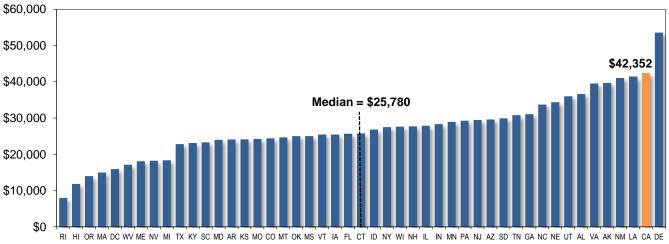


Chart 25 compares the average medical cost per indemnity claim by state. While average California medical costs have been decreasing over the last several years, they are still the second-highest in the country with an average cost more than 60% above the median level.

Chart 25: Countrywide Medical Cost per Indemnity Claim



California is a very high cost medical state; however, medical cost levels are not necessarily higher early in the life of a claim. The most recent Workers Compensation Research Institute (WCRI) Compscope benchmark study⁹ showed that California medical payments through 36 months on claims with seven or more days of lost time was 9% below the 18-state median measure.

The higher cost of medical in California is largely the result of the duration of medical payments. Chart 26 shows the estimated percentage of ultimate medical cost paid after three years by state. California is by far the slowest-paying state for medical benefits at three years, with a percentage of ultimate costs paid almost 30% lower than the countrywide median.

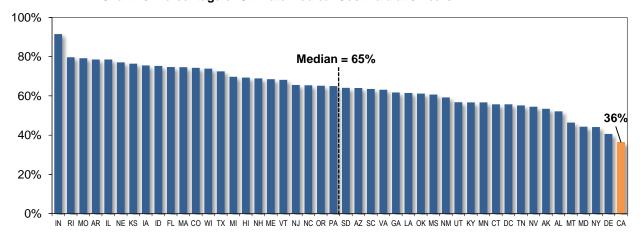


Chart 26: Percentage of Ultimate Medical Cost Paid at 3 Years

This prolonged payment pattern in California is in part driven by the duration of time it takes to report claims in California and the length of time they stay open. Chart 27 shows the percentage of the estimated total number of indemnity claims unreported after 12 months for California and a number of other states for which similar information was readily available. Almost three times as many indemnity claims are unreported at 12 months in California when compared to the other states in this interstate comparison. Many of the late-reported claims in California involve cumulative trauma injuries which are often filed following the employee's termination.

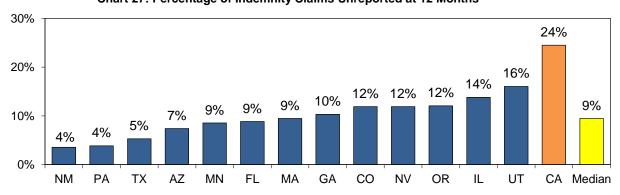
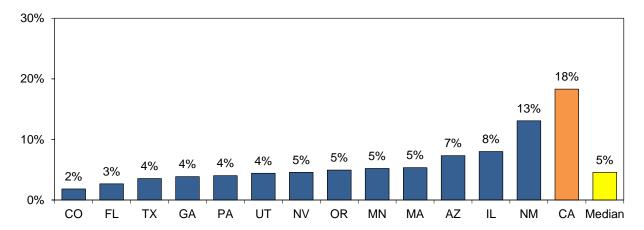


Chart 27: Percentage of Indemnity Claims Unreported at 12 Months

⁹ CompScope Benchmarks for California, 16th Edition, WCRI, 2016. For claims arising from October 1, 2011 through September 30, 2012 evaluated as of March 31, 2015.

The rate at which claims are settled and closed also impacts the amount of late-term medical payments. Chart 28 shows the percentage of indemnity claims that remain open after five years from the beginning of the year of injury. Almost one-fifth of indemnity claims remain open in California at 60 months compared to 5% for the median state in this interstate comparison. In fact, it takes 11 years in California before only 5% of the indemnity claims remain open compared to 5 years for the median of the 11 comparison states.

Chart 28: Percentage of Reported Indemnity Claims Open after 60 Months



Loss Adjustment Expenses

In addition to indemnity and medical costs, insurers incur expenses related to the handling and administration of workers' compensation claims. These expenses, known as loss adjustment expenses, include the cost of insurer claims staff to administer the claims, the cost of attorney and other legal expenses in defending claims, the cost of medical cost containment programs, and other court and claims-related expenses.

Chart 29 shows the average cost of loss adjustment expenses that can be allocated to a particular claim for private insurers writing business in California. Allocated loss adjustment expenses (ALAE) per indemnity claim have increased steadily since 2005. Instead of declining following the enactment of SB 863 in 2013 as was expected, ALAE per indemnity claim increased by 24% over the last three years. The WCIRB is researching the factors underlying the recent higher-than-expected ALAE costs and anticipates publishing its findings later this year.

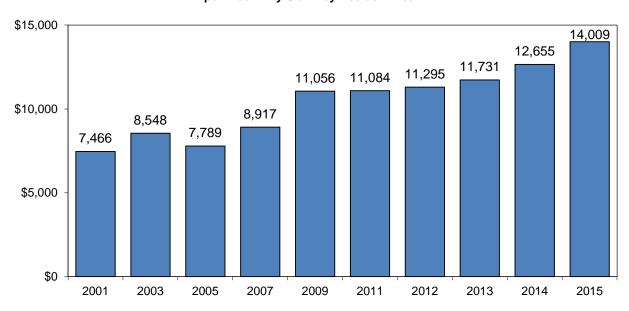


Chart 29: Estimated Average Allocated Loss Adjustment Expense Cost per Indemnity Claim by Accident Year

¹⁰ Excludes the State Compensation Insurance Fund.

¹¹ The WCIRB initially projected an approximate 13% decrease in allocated loss adjustment expenses following the implementation of SB 863. See *Updated WCIRB Evaluation of the Cost Impact of Senate Bill No. 863*, WCIRB, October 12, 2012 for more information.

Allocated loss adjustment expense levels differ regionally across California. Chart 30 compares average paid ALAE costs per indemnity claim for the Los Angeles Basin area and the remainder of California. At earlier periods, average paid ALAE is over 20% higher in the Los Angeles Basin area and at later periods it is over 27% higher.

\$10,000 ■Los Angeles Basin Area \$8,434 ■Remainder of CA \$8,000 \$6.627 \$6,000 \$4,000 \$2,710 \$2,232 \$2,000 \$0 Policy Year 2013 at 1st Report Level Policy Year 2010 at 4th Report Level (18 Months after Policy Inception) (54 Months after Policy Inception)

Chart 30: Average Paid Allocated Loss Adjustment Expense Cost per Indemnity Claim by Region

California has a high cost of delivering benefits compared to other states. Chart 31 compares the ratios of total loss adjustment expenses to losses for California to those for other states. California has by far the highest loss adjustment expense ratio, which is over 10 percentage points greater than the second-highest state, and almost twice the countrywide median. Among the reasons for the high loss adjustment expenses or benefit delivery costs in California are a greater-than-average proportion of permanent disability claims, high litigation rates (particularly in the Los Angeles Basin area) and a large number of active liens. The high number of independent medical reviews (IMR) conducted pursuant to SB 863 in California is also impacting loss adjustment expenses.

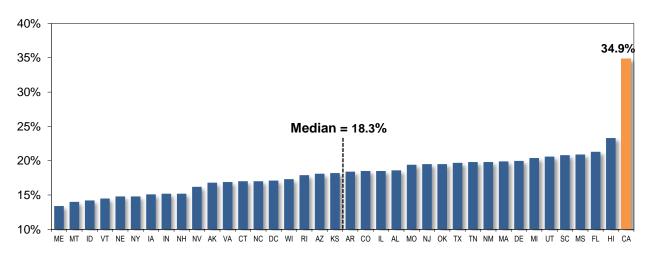


Chart 31: Countrywide Ratios of Loss Adjustment Expense Costs to Losses

SENATE BILL NO. 863 (2012)

"Overall SB 863 savings are \$800 million annually equating to 4.1% of annual total system costs. This is significantly greater than originally projected."

In September 2012, Governor Brown signed Senate Bill No. 863 (SB 863) into law. SB 863 included a series of comprehensive reforms to the California workers' compensation system intended to increase compensation paid to injured employees and improve medical care and delivery in exchange for controlling costs paid by employers. SB 863 resulted in significant increases in permanent partial disability benefits effective January 1, 2013 and January 1, 2014.

In early 2013, the WCIRB provided the California Department of Insurance a multi-year plan to monitor the emerging costs and savings from SB 863. Evaluating the major aspects of SB 863, including the resource-based relative value scale (RBRVS) schedule promulgated in late 2013, the WCRIB initially estimated the combined impact of the various cost saving reform measures would offset the cost of the permanent partial disability benefit increases. ¹³

The most recent report on SB 863 was released in November of 2015.14 The WCIRB's current estimate of overall SB 863 savings, as summarized in the WCIRB's 2015 SB 863 Cost Monitoring Report, is \$800 million annually equating to 4.1% of annual total system costs. This is significantly greater than originally projected and is based on better than projected savings in medical costs exceeding the greater than projected level of frictional costs. The SB 863 components believed to be impacting the lower-than-expected post-SB 863 medical costs include; the new physician fee schedule based on RBRVS, independent medical review (IMR), independent bill review (IBR), reduced fees for ambulatory surgery centers, lien reforms, reforms related to spinal implant hardware, and provisions related to medical provider networks (MPN).

Among the factors believed to be impacting the higher-than-expected loss adjustment expenses, or frictional costs, are more IMRs than anticipated, increased frequency of cumulative trauma injury claims, increased rates of injured workers being represented by attorneys, and, despite the creation of the IMR process, a greater-than-expected number of expedited hearings on medical issues. The WCIRB will

¹² Senate Bill No. 863 WCIRB Cost Monitoring Plan, WCIRB, March 27, 2013.

¹³ See *Updated WCIRB Evaluation of the Cost Impact of Senate Bill No. 863*, WCIRB, October 12, 2012 and the WCIRB's Amended January 1, 2014 Pure Premium Rate Filing submitted on October 23, 2013.

¹⁴ Senate Bill No. 863 WCIRB Cost Monitoring Report – 2015 Retrospective Evaluation, WCIRB, November 16, 2015.

continue to evaluate post-SB 863 costs as they emerge. The WCIRB's 2016 comprehensive SB 863 Cost Monitoring Report will be published this November.

Chart 32 summarizes the WCIRB's original cost estimate of the key components of SB 863 and the results emerging based on the WCIRB's most recent retrospective assessment.

Chart 32: WCIRB Cost Evaluation of SB 863Summary of Estimates

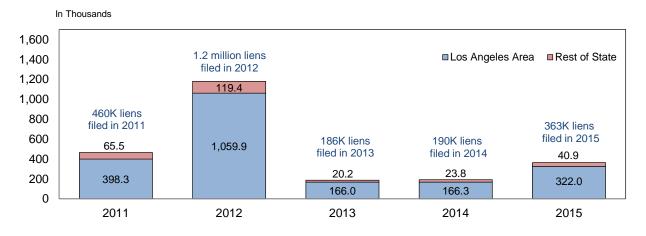
SB 863 Provisions	WCIRB Original Cost Estimates (in billions)	Updated WCIRB Assessment	Updated WCIRB Cost Estimates (in billions)
2013 & 2014 PD Benefit Changes	+\$0.9		+\$0.9
Liens	(\$0.5)		(\$0.5)
IMR (Impact on Frictional Costs)	(\$0.2)		+\$0.1
RBRVS Fee Schedule	+\$0.3		\$0.0
Other Reforms	(\$0.7)		(\$0.8)
Indemnity Claim Frequency	Small Increase		
Indemnity Severities	Increase		
Medical Severities	No Impact		(\$0.5)
Total Estimate – All Items	(\$0.2)		(\$0.8)

Indicates that the cost savings are emerging at levels less than projected or cost increases are emerging at levels greater than projected. Indicates cost savings are emerging generally consistently with projections.

▲ Indicates cost savings are emerging generally consistently with projections.

SB 863 included a number of provisions related to liens, including a \$150 fee for all new liens filed and a statute of limitations on filing liens based on the date of service. Chart 33 summarizes the number of liens filed before and after the enactment of SB 863. In 2013 and 2014, the number of liens filed was approximately 60% lower than the number filed in 2011 (prior to the signing of SB 863), compared to a reduction of about 40% initially projected by the WCIRB. However, the number of liens filed in 2015 was almost double that of 2014 and the most recent data shows the number filed in the first quarter of 2016 is almost 50% higher than the first quarter of 2015. Some of this increase may be attributable to the transition of the lien statute of limitations pursuant to SB 863 for liens with dates of service on or after July 1, 2013, which would affect those liens beginning in 2015. However, not all the sharp upturn in the number of lien filings in 2015 and 2016 appears to be attributable to the change in the lien statute of limitations.

Chart 33: Number of Liens Filed



¹⁵ For liens with dates of service on or after July 1, 2013, an 18 month statute of limitations applies to file the lien. For liens with dates of service before July 1, 2013, a 3-year statute of limitations applies.

SB 863 also established a new independent medical review (IMR) process to resolve medical treatment disputes. Chart 34 shows the number of IMRs filed in 2014 and 2015 compared to initial WCIRB projections. Even after excluding duplicate and other invalid IMR requests, the number of IMRs filed in 2014 and 2015 was three times higher than initial WCIRB projections.

Chart 34: Number of Independent Medical Reviews Filed in 2014 and 2015

In 2013, the Division of Workers' Compensation adopted a new physician fee schedule effective January 1, 2014, based on the RBRVS schedule used by Medicare that will be phased in over a four-year period of time. Chart 35 compares the changes in costs by fee schedule component in 2014 and 2015, representing the first two years of the four-year phase-in compared to initial WCIRB projections. The emerging data for most components are somewhat below initial WCIRB projections. This is driven by a reduction in the utilization of physician services measured by the number of physician transactions occurring on each claim. In particular, emerging savings in the special services and reports category are significantly greater than initial cost estimates, as many of the reports that were reimbursed under the pre-RBRVS schedule are no longer being separately reimbursed. As a result, the total physician cost per fee schedule claim is emerging at a significantly lower level than initially projected for 2014 and 2015.

Chart 35: Change in Physician Payments in 2014 and 2015 Compared to Initial Projections

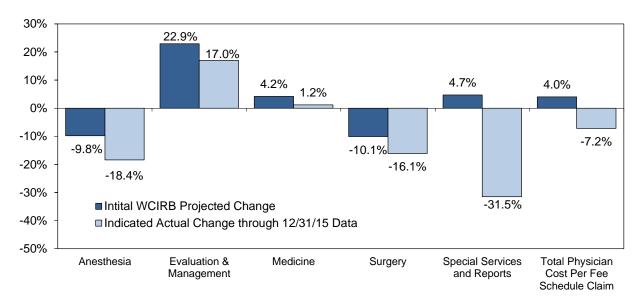
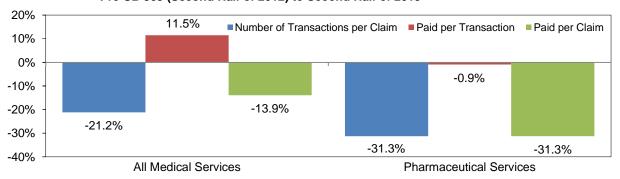


Chart 36 shows the post-SB 863 changes in number of medical transactions per claim, average paid cost per transaction, and average paid per claim. A sharp decline in the number of medical transactions per claim has resulted in an approximate 14% decrease in average medical costs per claim since the second half of 2012. In particular, a significant decrease in the number of pharmaceutical transactions per claim has led to an almost one-third decrease in average pharmaceutical costs per claim from the second half of 2012 to the second half of 2015.

Chart 36: Change in Medical Cost Levels
Pre-SB 863 (Second Half of 2012) to Second Half of 2015



INSURER RESULTS

"California combined loss and expense ratios continue to improve, and for the most recent two years have been much more consistent with countrywide ratios than in the past."

A commonly used measure to evaluate the profitability of insurers from an underwriting perspective is the relationship between losses and expenses to premium (typically referred to as the combined ratio). Due to investment income earned on collected premiums as claims are paid out over many years, insurers can generate a profit with a combined ratio above 100%, assuming a favorable investment climate. However, industry combined ratios significantly above 110% could, over a sustained period, threaten the competitive viability of the insurance market.

Chart 37 shows the historical calendar year combined ratios of private insurers writing workers' compensation business in California compared to the countrywide average for private insurers as published by the NCCI. California's combined loss and expense ratios continue to improve and for the more recent two years have been much more consistent with countrywide ratios than in the past.

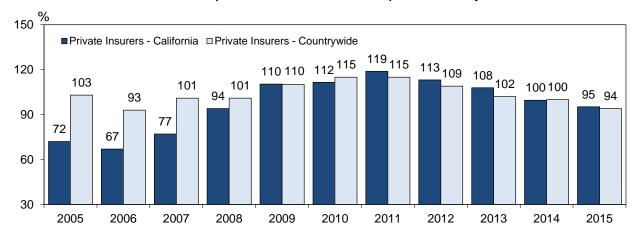


Chart 37: Insurer Reported Combined Loss and Expense Ratios by Calendar Year

As mentioned, combined ratios are ratios of losses and insurer expenses to premiums. These ratios do not include or account for the impact of investment income, federal income taxes, or insurer profits. The National Association of Insurance Commissioners (NAIC) annually publishes a summary of total insurer profitability by line of insurance and state based on calendar year information reported by each insurer to the NAIC. The NAIC estimates the total return to the industry after reflecting premiums, losses, and expenses, as well as allocations of an insurer's total investment income, federal income taxes, and policyholder surplus to California workers' compensation.

Chart 38 shows the estimated NAIC return on net worth for California workers' compensation over the fifteen years through calendar year 2014. For comparison purposes the chart also shows the Fortune Magazine all-industry average return and the total countrywide workers' compensation return. California workers' compensation insurance market returns have been volatile and, on average over the long-term, have been below the countrywide workers' compensation average return as well as the Fortune Magazine all-industry average.

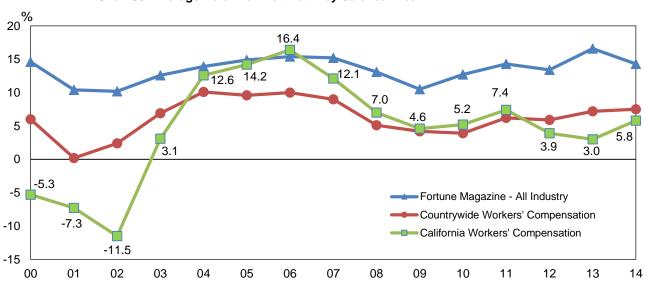


Chart 38: Average Return on Net Worth by Calendar Year

Arithmetic Average Returns	10 Years	15 Years
Fortune Magazine – All Industry	14.0%	13.5%
Total Countrywide Workers' Compensation	6.9%	6.3%
California Workers' Compensation	8.0%	4.7%

SUMMARY

Chart 39 summarizes some of the key components of the California workers' compensation insurance system discussed in this report and their comparison within the California workers' compensation market or to other workers' compensation information where applicable.

Chart 39: Summary of the California Workers' Compensation Insurance System

Component	Recent Trends	Comparisons within California or to Other States
Premiums	Increases in written premium continuing but at lower rate than prior years; economic growth largest component of premium growth	California premiums comprise almost 30% of countrywide premium
Insurer Rates	First decreases since 2009; rates comparable to those in the 1970s	California rates remain highest in country
Claim Frequency	Continued modest increases, particularly for cumulative trauma injury claims and in Los Angeles Basin area	California permanent disability claim frequency is the highest in the country; recent patterns in non-Los Angeles regions more similar to countrywide patterns
Average Indemnity Costs	Increases in 2014 and 2015 consistent with SB 863 projections and wage growth	California indemnity costs higher than countrywide median; short-term historical changes comparable to countrywide
Average Medical Costs	Decreasing over last few years, believed to be attributable to SB 863	Medical costs somewhat higher in Southern California; California still among the highest in the nation but gap is narrowing
Long-term Medical Costs	Significant percentage of medical benefits paid in later periods	Indemnity claims reported and settled much slower in California than in other states
Loss Adjustment Expenses	Continued increases despite SB 863 reforms	California loss adjustment expenses higher in Los Angeles area and continue to be highest in the country
SB 863	Liens increasing in 2015 while medical severities and RBRVS emerging favorably; allocated loss adjustment expenses increasing rather than decreasing as expected	N/A
Insurer profitability	Combined ratios improving	Most recent California WC combined ratios consistent with countrywide averages but long-term overall returns far below all-industry average

CHART NOTES

- Chart 1 Source of the data is WCIRB aggregate financial data calls. Premiums shown are gross of any deductible credits.
- Chart 2 Data sources include WCIRB aggregate financial data calls and the National Council on Compensation Insurance (NCCI) May 13, 2016 State of the Line Presentation. The 2015 estimate is preliminary. Premiums are net of any deductible credits.
- Chart 3 Data sources include WCIRB aggregate financial data calls and published California annual wage information. Premiums shown are gross of any deductible credits.
- Chart 4 Data sources include WCIRB aggregate financial data calls and unit statistical data.
- Chart 5 Rates are per \$100 of payroll. The information in this chart is based on the state of Oregon biennial rate comparison and is based on the state of Oregon classification mix and, as a result, the California average charged rates shown on this exhibit differ from other measures of the California average charged rate.
- Chart 6 Manual rates are based on insurer rate filings and do not necessarily represent the final premium charged to the employer, which may involve several additional adjustments. Data sources include WCIRB unit statistical data and insurer rate filings with the California Department of Insurance. The average rates shown are based on policy year 2013 distribution of payroll by classification and insurer.
- Chart 7 The source of the data is WCIRB aggregate financial data calls. Changes in total insurer reserves by calendar year have been apportioned to indemnity and medical benefits based on the distribution of indemnity and medical payments during that calendar year.
- Chart 8 The source of the data is WCIRB aggregate financial data calls.
- Chart 9 Data sources include WCIRB aggregate financial data calls and WCIRB medical transaction data. Excludes medical cost containment program payments.
- Chart 10 The source of the data is WCIRB medical transaction data.
- Chart 11 The source of the data is claim counts and payrolls reported in WCIRB unit statistical data. Payrolls have been adjusted for the impact of wage inflation.
- Chart 12 The information in this graph through accident year 2014 is based on WCIRB unit statistical data developed to the 5th report level. Accident year 2015 is based on changes in reported indemnity claim counts from WCIRB aggregate financial data calls as of March 31, 2016 compared to estimated changes in statewide employment.
- Chart 13 WCIRB information is based on WCIRB unit statistical data at the first report level (through 2014) and aggregate financial data calls (2015). Region information is based on the employer zip code reported on the California workers' compensation policy. Regional break out of the 2015 change for California is not available at this time. NCCI estimates are based on the May 13, 2016 State of the Line Presentation (NCCI 2015 estimate is preliminary and the 2010 and 2011 estimates have been adjusted to remove the impact of audit premium and other factors).
- Chart 14 The source of the data is WCIRB unit statistical data from policy year 2013 at the 1st report level. Unit statistical data was linked with Hoover's/Dun and Bradstreet data to develop information on the numbers of employees and operations at employers' locations geographically. Individual claims were linked with WCIRB medical transaction data to locate claims geographically. Estimates were controlled for geographic differences in industrial mix and average wage level.
- Chart 15 The source of the data is WCIRB unit statistical data. Cumulative injury also includes occupational disease claims. Region information is based on the employer zip code reported on the California workers' compensation policy.
- Chart 16 The source of the data is WCIRB unit statistical data from policy year 2013 at 1st report level. Unit statistical data was linked with Hoover's/Dun and Bradstreet data to develop information on the numbers of employees and operations at employers' locations geographically. Individual claims were linked with WCIRB medical transaction data to locate claims geographically. Estimates were controlled for geographic differences in industrial mix and average wage level.
- Chart 17 The source of the data is the 2016 NCCI Annual Statistical Bulletin for 2012 policy year at the 1st report level.
- Chart 18 The source of the data is the 2016 NCCI Annual Statistical Bulletin for 2012 policy year at the 1st report level.
- Chart 19 The source of the data is WCIRB aggregate financial data calls as of March 31, 2016. Values are developed to a final or ultimate cost basis by the WCIRB.

- Chart 20 The source of the data is WCIRB aggregate financial data calls. NCCI estimates are based on the May 13, 2016 State of the Line Presentation (2015 NCCI estimate is preliminary).
- Chart 21 The source of the data is the 2016 NCCI Annual Statistical Bulletin for 2012 policy year at the 1st report level. Values are developed to a final or ultimate cost basis.
- Chart 22 Source of the data is WCIRB aggregate financial data calls as of March 31, 2016. Values are developed to a final or ultimate cost basis by the WCIRB. The average costs shown exclude the cost of medical-only claims and includes the cost of medical cost containment programs.
- Chart 23 The source of the data is WCIRB unit statistical data from policy year 2013 at 1st report level. Unit statistical data was linked with Hoover's/Dun and Bradstreet data to develop information on the numbers of employees and operations at employers' locations geographically. Individual claims were linked with WCIRB medical transaction data to locate claims geographically. Estimates were controlled for geographic differences in industrial mix and average wage level.
- Chart 24 The source of the data is WCIRB aggregate financial data calls. All years reflect the cost of medical cost containment programs. The NCCI estimates are based on the May 13, 2016 State of the Line Presentation (2015 estimate is preliminary).
- Chart 25 The source of the data is the 2016 NCCI Annual Statistical Bulletin for 2012 policy year at the 1st report level. Values are developed to a final or ultimate cost basis.
- Chart 26 The source of the data is the 2016 NCCI Annual Statistical Bulletin based on the average of the two most recent development years.
- Chart 27 The source of the data is WCIRB aggregate financial data calls based on the most recent development year. Individual state summaries were provided by NCCI, the Minnesota Workers' Compensation Insurers Association, the Workers' Compensation Rating & Inspection Bureau of Massachusetts, and the Pennsylvania Compensation Rating Bureau.
- Chart 28 The source of the data is WCIRB aggregate financial data calls based on the most recent development year. Individual state summaries were provided by NCCI, the Minnesota Workers' Compensation Insurers Association, the Workers' Compensation Rating & Inspection Bureau of Massachusetts, and the Pennsylvania Compensation Rating Bureau.
- Chart 29 The source of the data is WCIRB aggregate financial data calls from private insurers writing workers' compensation business in California as of March 31, 2016. Values are developed to a final or ultimate cost basis by the WCIRB. Data excludes the cost of medical cost containment programs.
- Chart 30 The source of the data is WCIRB unit statistical data. Data includes the cost of medical cost containment programs. Region information is based on the employer zip code reported on the California workers' compensation policy.
- Chart 31 The source of the data is the 2016 NCCI Annual Statistical Bulletin. Figures represent loss adjustment expenses as a percentage of losses for the most recent filed pure premium rates or loss costs by state.
- Chart 33 The source of the data is the Division of Workers' Compensation Electronic Adjudication Management System.
- Chart 34 The source of the data is the Division of Workers' Compensation from information collected from the IMR vendor.
- Chart 35 The source of the data is WCIRB medical transaction data. Changes shown are based on the change in medical payments per fee schedule claim for that fee schedule component from 2013 to 2015.
- Chart 36 The source of the data is WCIRB medical transaction data. Changes shown are based on the change in the component from the second half of 2012 to the second half of 2015.
- Chart 37 The source of the data is WCIRB aggregate financial data calls. Countrywide estimates are from the NCCI May 13, 2016 State of the Line Presentation and was computed based on Annual Statement data. The 2015 NCCI estimate is preliminary.
- Chart 38 The source of the data is the NAIC Report on Profitability in 2014.

ABOUT THE AUTHORS

The WCIRB Report on the State of the California Workers' Compensation Insurance System was written and compiled by the WCIRB Actuarial Services team.

David Bellusci, FCAS, MAAA	Executive Vice President and Chief Actuary
Tony Milano, FCAS, MAAA	Vice President and Actuary
Ward Brooks, FCAS, MAAA	Vice President of Research
Duc Ta	Lead Actuarial Analyst
Chris Wong	Actuarial Analyst
Mike Firkus	Associate Actuarial Analyst
Esther Li	Associate Actuarial Analyst
Bailey Schoefer	Actuarial Intern

ABOUT THE WCIRB

The WCIRB is a private, nonprofit association of all insurers licensed to write workers' compensation insurance in California. It is a licensed rating organization pursuant to the California Insurance Code and operates as the Insurance Commissioner's designated statistical agent for workers' compensation in the state of California.

The WCIRB collects a wide range of statistical information on insured payrolls, premiums, losses, and insurer expenses from each insurer writing workers' compensation policies in California. That information is then validated, compiled and analyzed to provide the Commissioner, insurers, employers, and other stakeholders with important cost information related to the California workers' compensation system.

Since its founding in 1915, the WCIRB has served as a trusted, integral and objective part of the California workers' compensation system and is proud of its Century of Service in support of a healthy workers' compensation system.

Notice

This WCIRB Report on the State of the California Workers' Compensation Insurance System was developed by the Workers' Compensation Insurance Rating Bureau of California (WCIRB) for the convenience of its users. The WCIRB has made reasonable efforts to ensure the accuracy of this Report. You must make an independent assessment regarding the use of this Report based upon your particular facts and circumstances.

© 2016 Workers' Compensation Insurance Rating Bureau of California. All rights reserved.

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

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

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

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

Workers' Compensation Insurance Rating Bureau of California 1221 Broadway, Suite 900 Oakland, CA 94612

888.229.2474 (CA-WCIRB) www.wcirb.com Twitter: @WCIRB

