

WCIRB 2017 State of the System

The Workers' Compensation Insurance Rating Bureau of California Report on California's Workers' Compensation System

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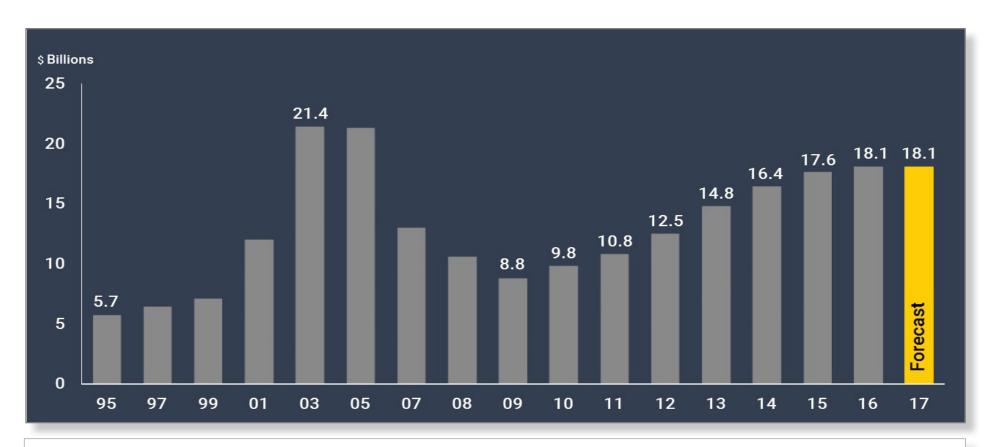
Introduction

The System involves more than 200 insurance system is more than 100 years old. The system involves more than 200 insurance companies providing coverage to nearly 700,000 businesses and delivering medical and wage replacement benefits to almost 800,000 injured workers annually. The Workers' Compensation Insurance Rating Bureau of California (WCIRB), which was established in 1915, is a 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 analyses available to system stakeholders and public policymakers.

This report summarizes the state of the California workers' compensation insurance system as of mid-2017. In the report, we highlight the cost of workers' compensation based on premium paid by California insured employers and how those costs are distributed. We also summarize various key system cost drivers, such as the frequency and cost of claims. Finally, we also provide a summary of insurer combined loss and expense ratios and returns on equity over time. When appropriate, throughout the report, we've shown comparisons of various components of the California system to those of other states. More detailed information on the sources and basis of each of the charts shown in this report can be found in the Detailed Guide Section of this report beginning on Page 46. The detailed data underlying these charts (in Excel format) is also available on the WCIRB's website or by clicking here.

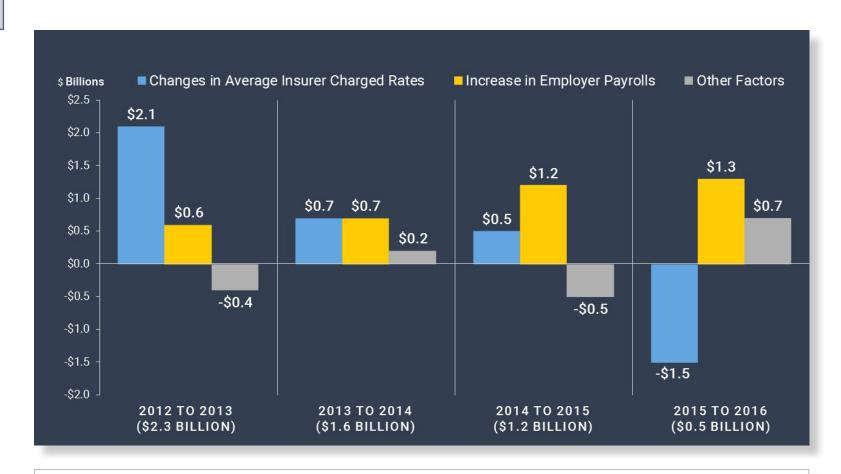


Reported Written Premium



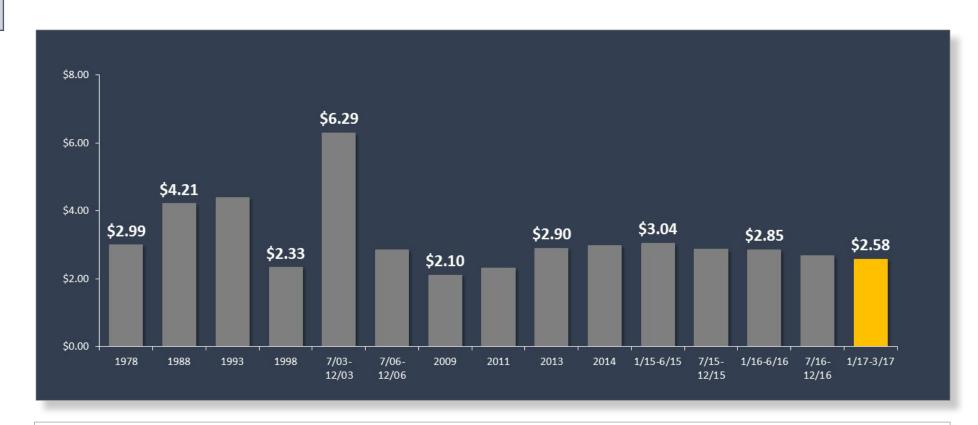
- ▶ With increasing rates and a growing economy, premiums doubled from 2009 to 2015
- ▶ Premiums continued to grow in 2016 (by 3%), but slower than the double-digit rates of growth experienced in 2010 through 2014
- ▶ With recent rate decreases, 2017 premiums are expected to be comparable to 2016 amounts

Drivers of Written Premium Changes



- ▶ Recent rate decreases have begun to reduce premium growth
- ▶ Increases in the workforce and average wages were the primary drivers of premium growth in 2015 and 2016

Average Charged Rate per \$100 of Payroll



- ▶ Due largely to significant SB 863 savings, average insurer rates have decreased 15% since the first half of 2015
- ▶ The Insurance Commissioner has approved five reductions in advisory pure premium rates since 2015, totaling 27% from the January 1, 2015 level
- Current charged rates are on average lower than those charged in the late 1970s as long-term declining claim frequency has largely offset rising medical costs

Rate Comparison by State Based on Oregon Studies



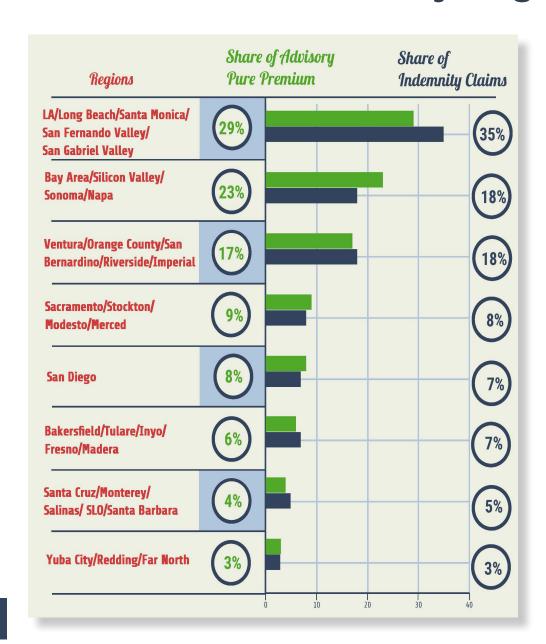
- ▶ California continues to have the highest rates in the country due largely to:
 - » High frequency of permanent disability claims (Chart 19)
 - » High medical costs per claim (Chart 26)
 - A more prolonged pattern of medical treatments (Chart 30)
 - Much higher than average costs of handling claims and delivering benefits (Chart 36)

Distribution of Costs by Industrial Sector



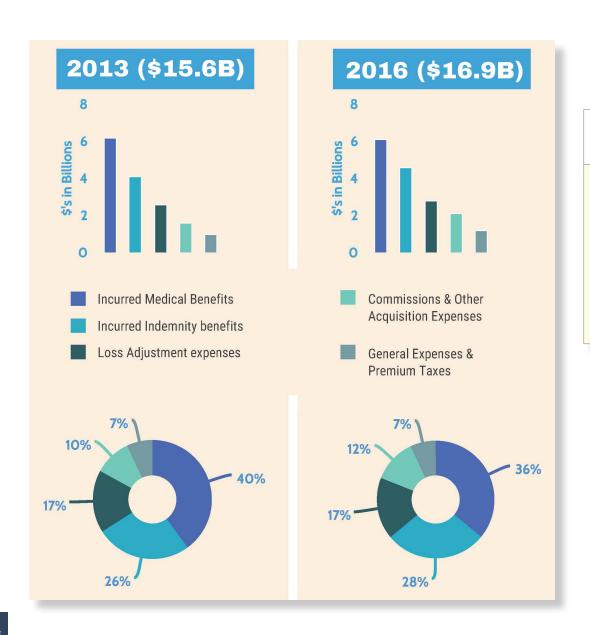
- ► With California's diverse economy, no industrial sector grouping generates more than 17% of statewide advisory pure premium
- ▶ While "white collar" type sectors comprise more than 63% of statewide payroll, these sectors produce only 22% of statewide pure premium
- ► The Utilities and Construction sector comprises only 4% of statewide payroll but 13% of statewide pure premium, as rates for this sector are relatively high

Distribution of Costs by Region



- ▶ 35% of all indemnity claims in California arise from the Los Angeles region but only 29% of advisory pure premium
- ► The Bay Area, Silicon Valley, Sonoma, and Napa region has much lower shares of indemnity claims than advisory pure premium

Distribution of Insured System Costs

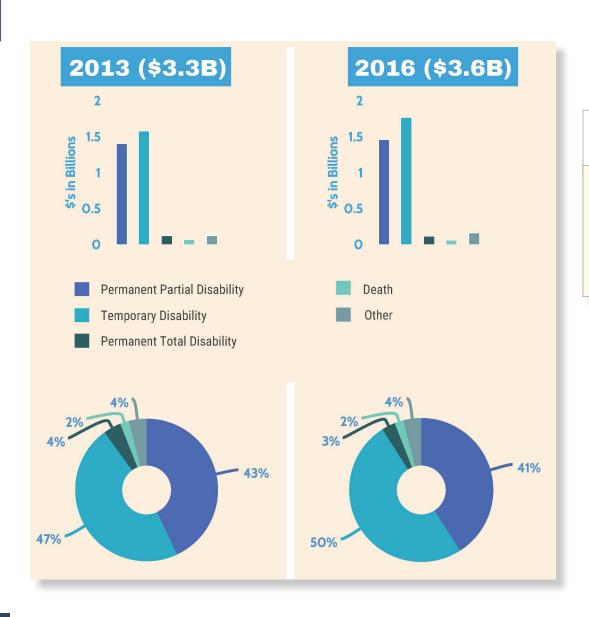


Insights and Recent Trends

- ► With SB 863, the share of medical benefits has declined since 2013
- ► With SB 863 permanent disability increases, indemnity benefits have increased since 2013
- ► Loss adjustment expenses and other expenses have increased since 2013

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Distribution of Paid Indemnity Benefits

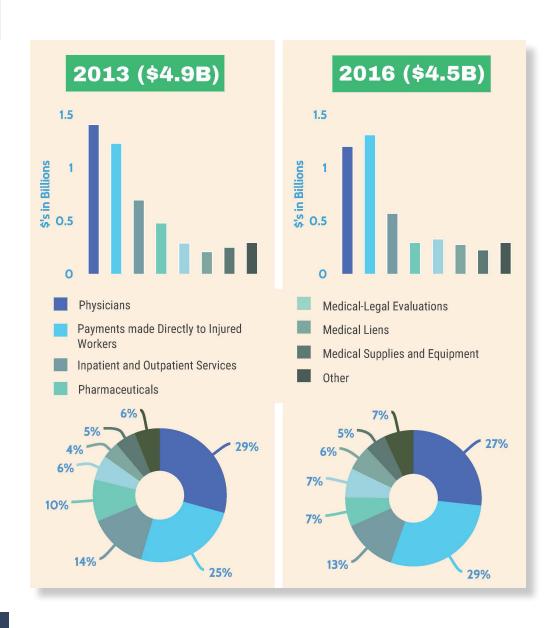




- ► Temporary disability and permanent partial disability benefits comprise over 90% of indemnity benefits
- ► The share of indemnity benefits by type in 2013 and 2016 was generally consistent

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Distribution of Paid Medical Benefits

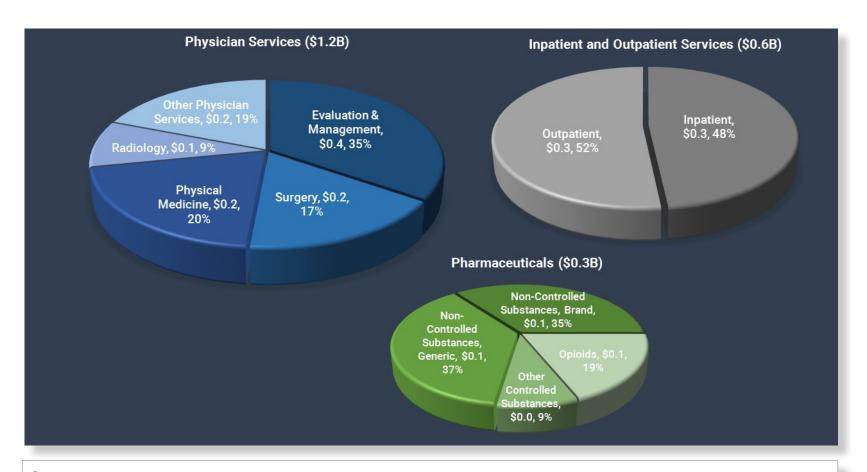




- ► Payments for physician services and pharmaceuticals have decreased
- ► Payments made directly to injured workers, which are primarily for future medical services, have increased due largely to the <u>acceleration in claim settlement rates</u> (Chart 33)
- ▶ The cost of medical-legal evaluations has increased

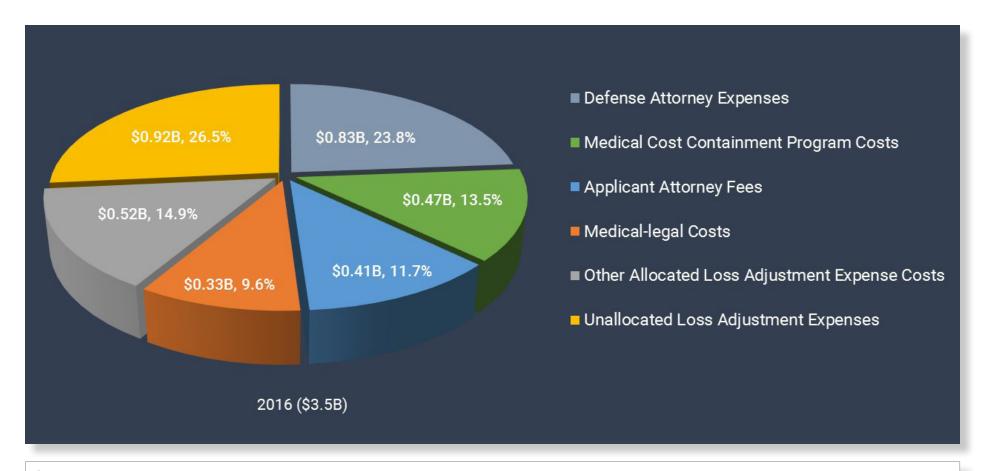
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Distribution of 2016 Paid Medical by Category



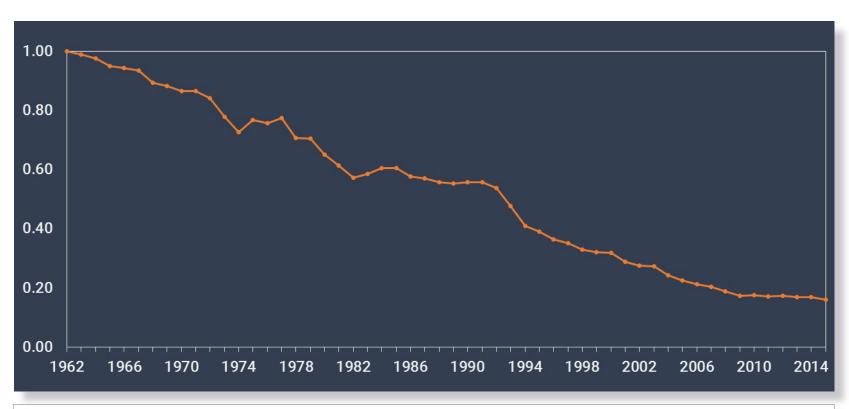
- ▶ More than half of all physician service payments were for evaluation & management or physical medicine services
- The payments for inpatient and outpatient services were roughly evenly distributed
- ► About three-quarters of pharmaceutical payments were for non-controlled substances, while less than one-fifth were for opioids

Distribution of 2016 Paid Frictional Costs



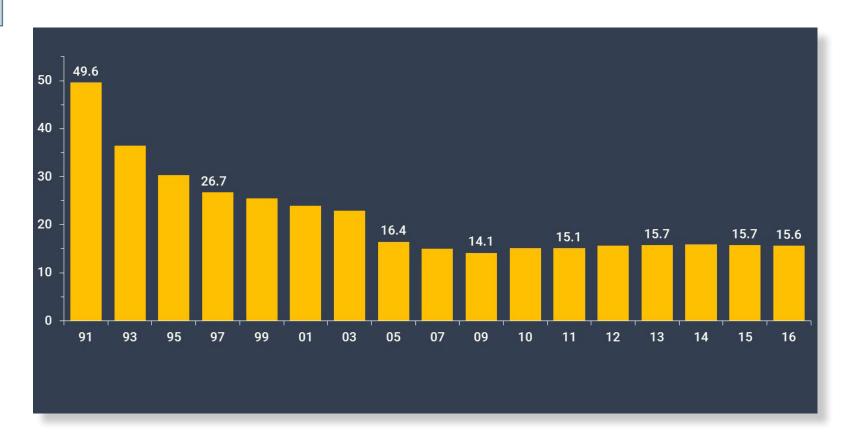
- ▶ Unallocated loss adjustment expenses, defense attorney costs, and applicant's attorney fees comprise two-thirds of all frictional costs
- ► The \$3.5 billion of frictional costs paid in 2016 exceeds the cost of paid indemnity benefits (after excluding applicant's attorney fees which are typically reported in indemnity benefits)

California Claim Frequency Indexed to 1962



- ▶ Claim frequency has declined by more than 80% over the last 50 years which is largely attributable to:
 - » Shifts in economic activity from a more manufacturing-based "blue collar" economy to a more service-based "white collar" economy
 - » Increased mechanization within industries
 - » Greater attention to workplace safety
- ▶ Long-term declines in claim frequency have offset long-term medical inflation, moderating premium rate increases

Indemnity Claims per 1,000 Employees

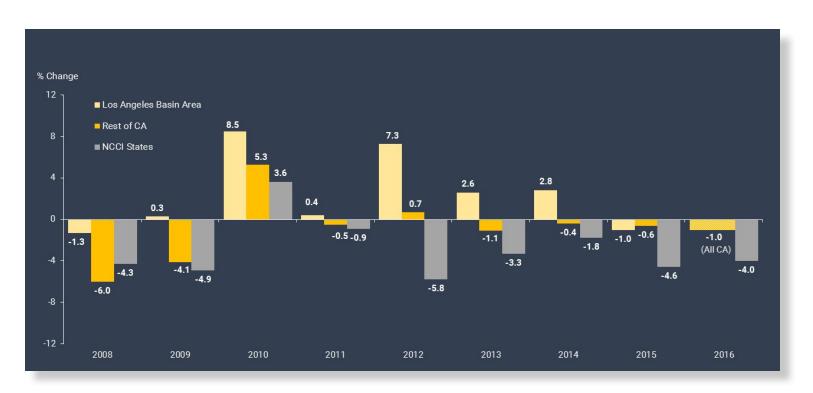


Insights and Recent Trends

- ▶ Indemnity claim frequency declined steadily from 1991 through 2009
- ► Although 2016 indemnity claim frequency is 11% above 2009, it is 69% below 1991 frequency

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Change in Claim Frequency by Region

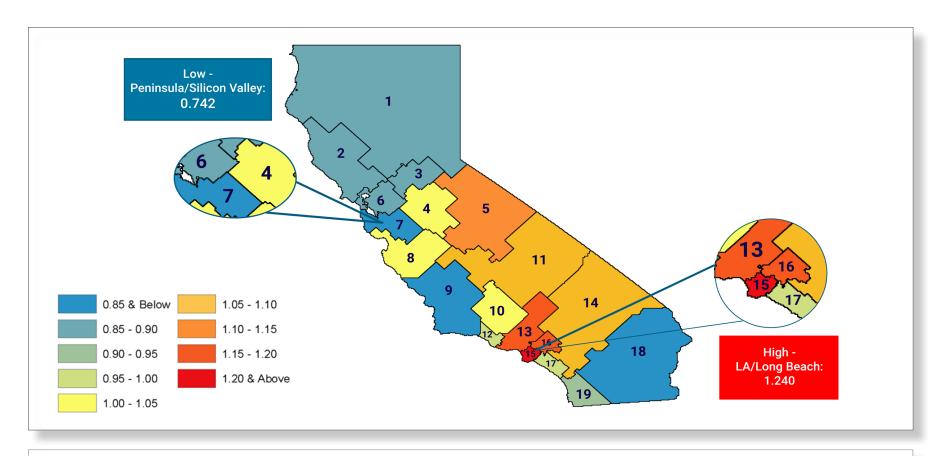


Insights and Recent Trends

- ► For most years California frequency changes have been comparable regionally to those in NCCI states
- ▶ All regions showed a significant post-recession increase in claim frequency in 2010
- ▶ Claim frequency in the Los Angeles Basin continued to increase in 2012, 2013, and 2014, while frequency in other regions of California and in most other states returned to the long-term pattern of modest year-to-year decline

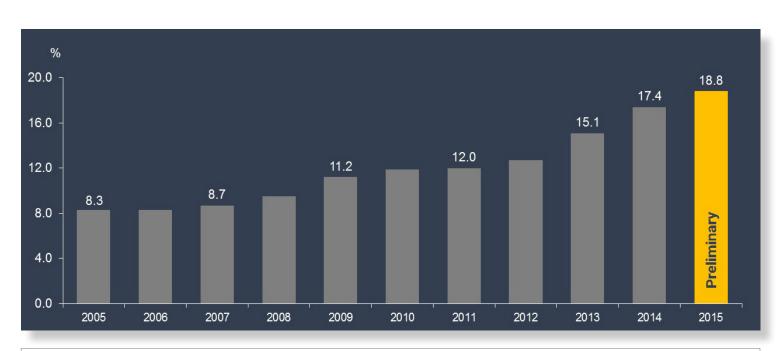
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Regional Differences in Indemnity Claim Frequency



- ► There are significant differences in frequency rates across California, even after adjusting for regional differences in industrial mix and wage levels
- ► Frequency in the Los Angeles/Long Beach area is 24% higher than the statewide average
- ▶ Frequency in the Peninsula/Silicon Valley area is 26% lower than the statewide average

Percent of Indemnity Claims Involving Cumulative Injury

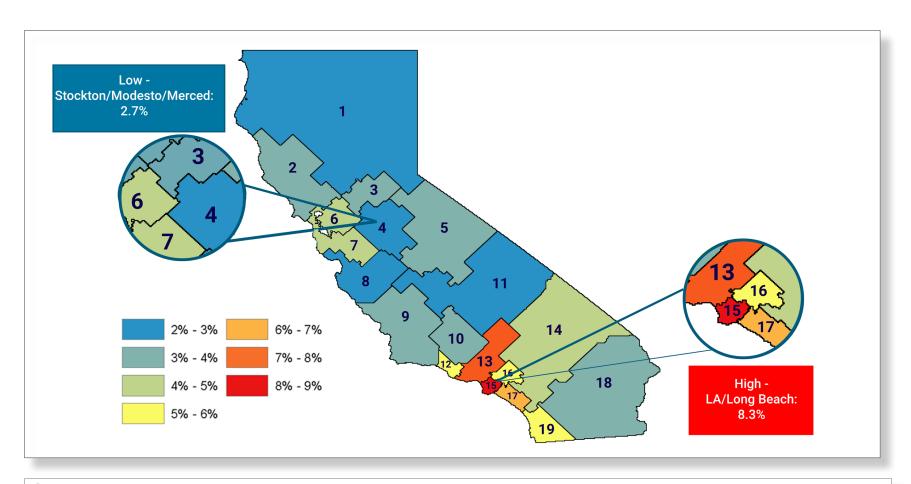


Insights and Recent Trends

- ▶ Almost one-fifth of indemnity claims in 2015 involve cumulative injury, more than doubling from 2007
- ▶ WCIRB research has also shown that for cumulative injury claims:
 - » Many involve multiple body parts
 - Most are filed in Southern California
 - Most involve representation of the injured worker by an attorney
 - Many are filed following the termination of the employee
 - » Most are initially denied either in part or in whole

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Regional Differences in Proportion of Cumulative Injury Claims

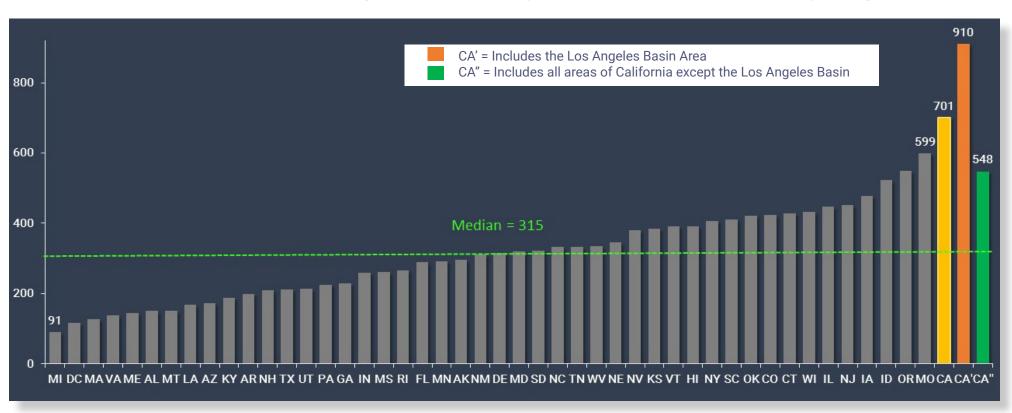


- ▶ Cumulative injury claims are filed much more frequently in the Los Angeles/Long Beach area than in other regions of California
- ► Cumulative injury claims are filed less frequently in the more rural areas of California

Indemnity Claims per 1,000 Employees by State

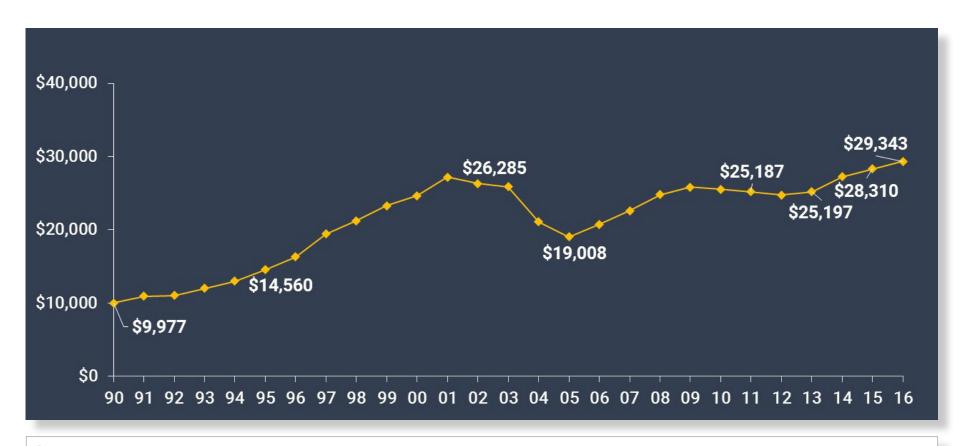


Permanent Disability Claims per 100,000 Employees



- ► California has by far the highest permanent partial disability claim frequency in the country
- California high frequency is not driven by industrial mix or the number of severe injuries as the state's industrial mix is not more hazardous than the typical state and California does not have a disproportionate share of serious accidents
- ▶ Permanent disability claim frequency is significantly higher in the Los Angeles Basin area than in the rest of the state

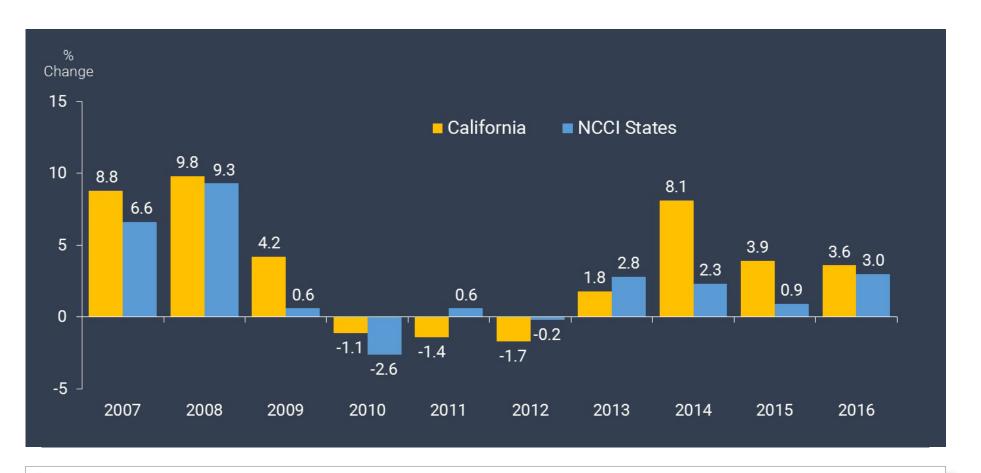
Average Indemnity Cost per Indemnity Claim



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- ► Average indemnity costs per claim increased by 4% in 2016 and 16% since 2013, primarily driven by:
 - » Increases to permanent disability benefits attributed to SB 863 (Chart 40)
 - » Improvement in the California economy as reflected in increases in average wage levels
- ▶ Over the longer-term, average indemnity costs per claim have tripled since 1990

Change in Indemnity Cost per Indemnity Claim



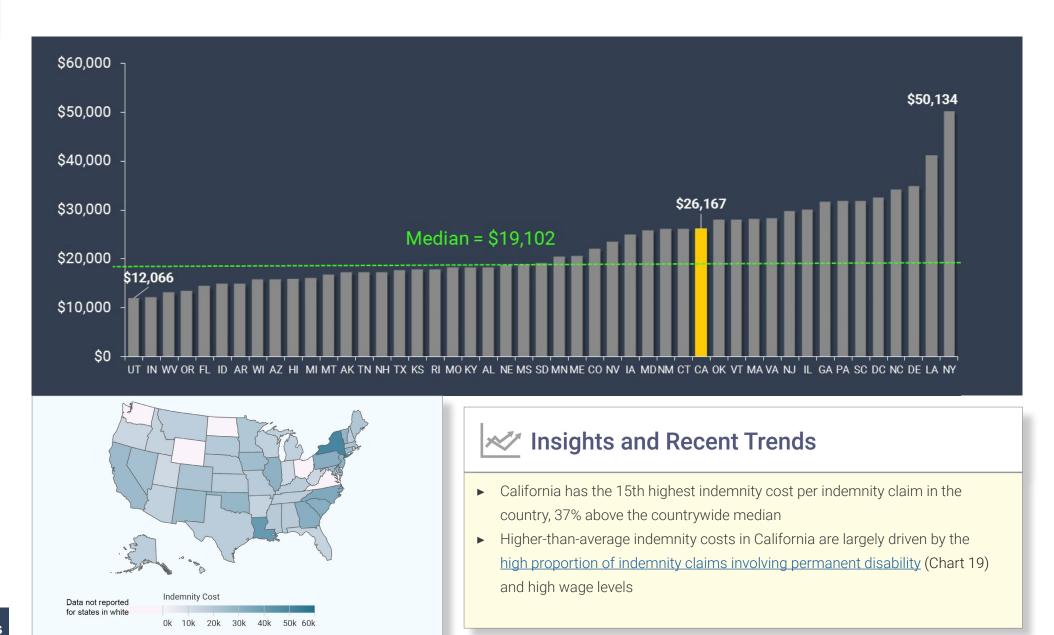
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Insights and Recent Trends

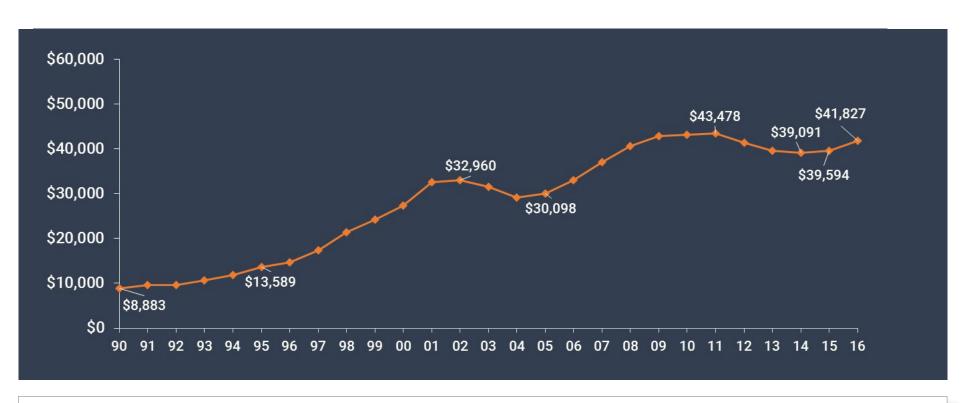
- ▶ The 2016 change in average indemnity costs per claim in California is generally consistent with that for NCCI states
- ► Changes in average indemnity costs per claim for 2014 and 2015 in California differed from NCCI's states primarily due to SB 863 increases in California permanent disability benefits (Chart 40)

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Indemnity Cost per Indemnity Claim by State

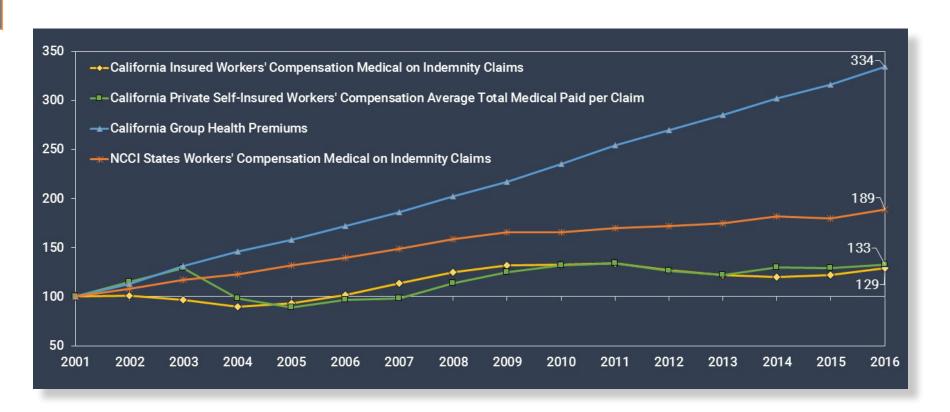


Average Medical Cost per Indemnity Claim



- ▶ Medical costs per indemnity claim in 2016 are almost five times that of 1990
- From 2011 to 2014, average medical costs decreased by 10%, primarily driven by SB 863 provisions (Chart 40) including those related to independent medical review and medical fee schedules
- ▶ Average medical costs per indemnity claim increased by 6% in 2016, which may be a sign of a return to the long-term rate of medical cost inflation

Medical Cost Level Indexed to 2001



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Insights and Recent Trends

- ► The rate of growth in California workers' compensation medical costs, based both on insured and self-insured loss experience, is well below that in other states and in group health premiums
- ► The reforms of 2002-2004 as well as SB 863 have significantly reduced medical inflation over the last 25 years as compared to other systems

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Change in Medical Costs per Indemnity Claim



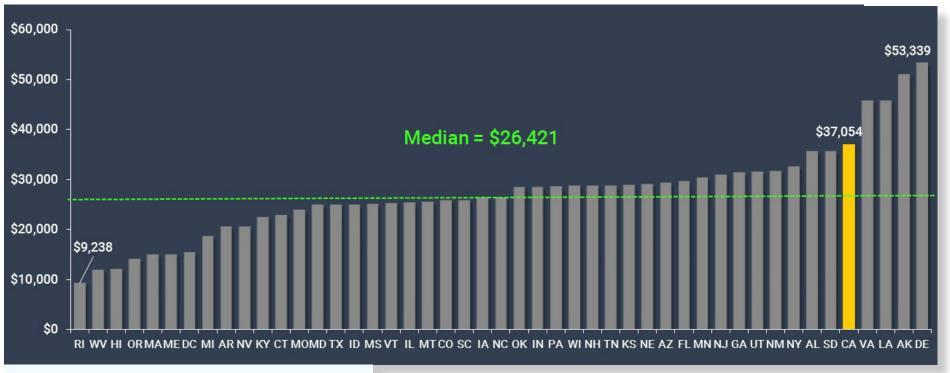
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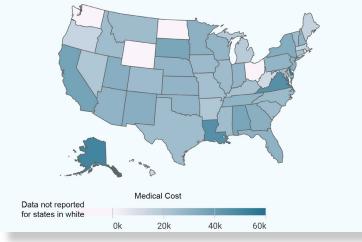
Insights and Recent Trends

- ▶ The 2015 and 2016 changes in average medical costs per claim in California are fairly consistent with those for the NCCI states
- ► Changes in average medical costs per claim for 2012 through 2014 were significantly lower in California largely as a result of the medical reforms in SB 863 (Chart 40)

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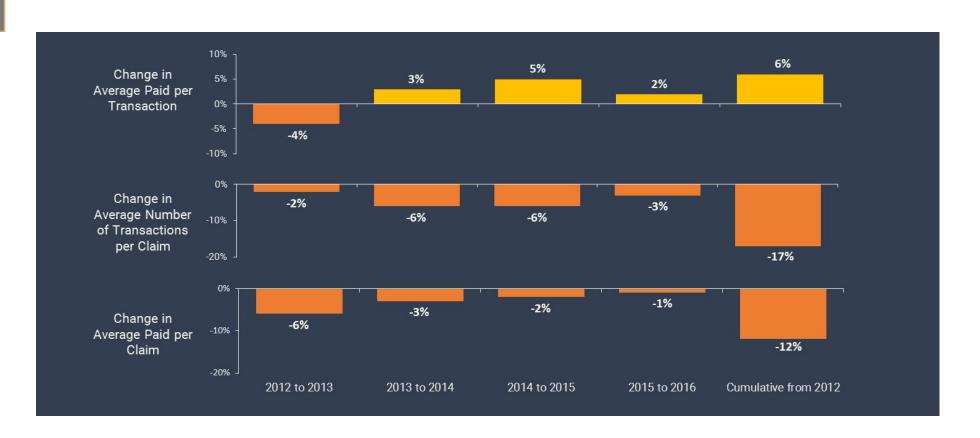
Medical Cost per Indemnity Claim by State





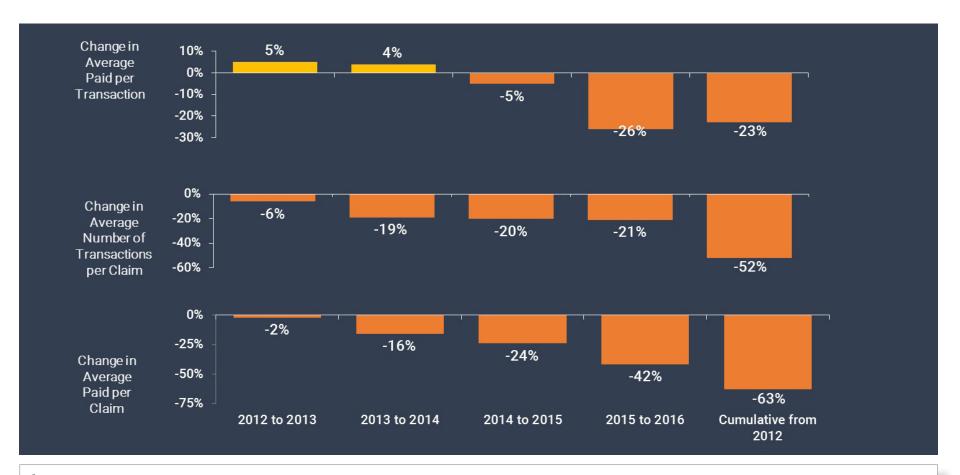
- Despite recent decreases in California medical costs, they are still the 5th highest in the country and 40% above the countrywide median
- The significantly higher medical costs in California are largely driven by the long duration of medical payments in California (Chart 30)

Change in Medical Service Cost Levels



- ▶ Average medical paid per transaction steadily increased since 2013
- ▶ The number of medical service transactions per claim decreased by 17% since 2012, which is largely attributable to SB 863 (Chart 40)
- ► Total medical costs paid per claim have decreased by 12% since 2012

Change in Pharmaceutical Cost Levels



- ▶ Average pharmaceutical costs paid per transaction decreased by 26% in 2016, due largely to changes in federal government pricing
- The number of pharmaceutical transactions per claim dropped by half since the implementation of SB 863 (2012 to 2016)
- ▶ In total, pharmaceutical costs paid per claim have decreased by over 60% since 2012

Opioid Costs per 100 Claims



- ▶ The use of opioids in California has declined sharply over the last several years
- ► The cost of opioid prescriptions per 100 claims has declined by two thirds since 2013

Percent of Ultimate Medical Cost Paid at 3 Years



- ► California has by far the longest duration of medical payments
- ► The prolonged payment pattern in California is in large part driven by:
 - » The duration of time it takes to report claims (Chart 31)
 - The length of time claims stay open (Chart 32)
 - A high proportion of permanent disability (Chart 19) and cumulative injury (Chart 16) claims
 - » High rates of litigation (Chart 37)

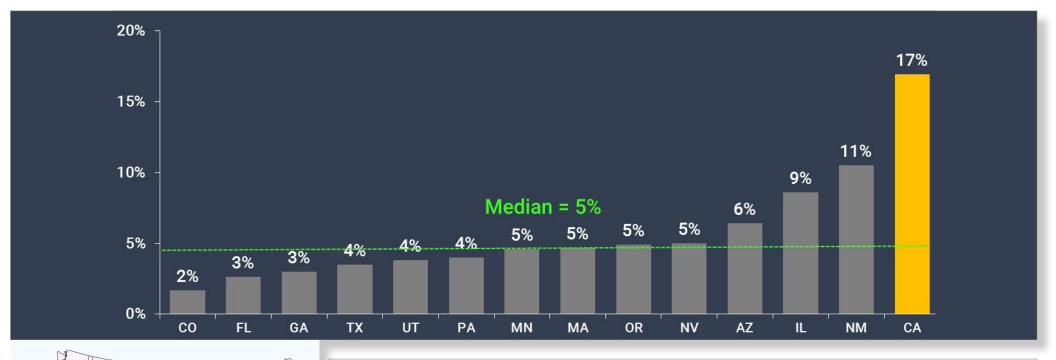
Percent of Indemnity Claims Unreported at 12 Months





- ► California has the slowest pattern of indemnity claim reporting at 12 months with the proportion of claims unreported more than twice the comparison state median
- ► A large proportion of the late-reported claims in California <u>involve</u> <u>cumulative injuries</u> (Chart 16), many of which are filed following the employee's termination

Percent of Indemnity Claims Open at 60 Months





- ► California has the highest proportion of indemnity claims open at 60 months at more than three times the comparison state median
- ► The slower rate of claim closure in California is in part attributable to:
 - » The high volume of medical liens filed (Chart 38)
 - Higher rates of permanent disability (Chart 19) and cumulative injury (Chart 16) claim frequency
 - A high complexity of <u>handling and settling claims</u> (Chart 35), resulting in <u>frequent attorney</u> <u>involvement</u> (Chart 37) and disputes

Percent of Open Indemnity Claims Closed During Next Year

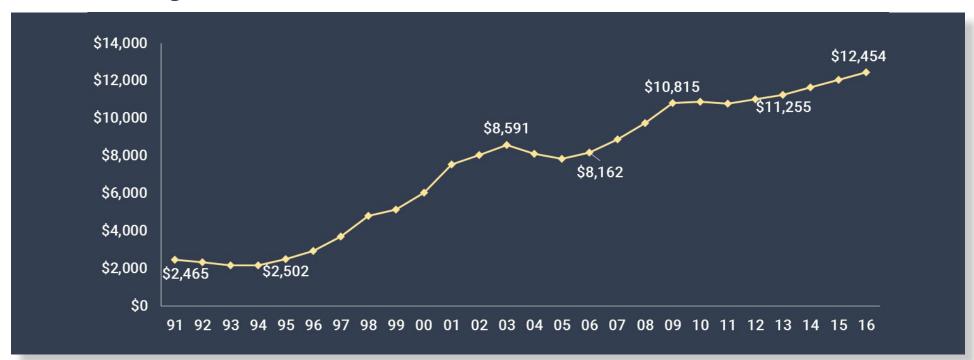


Insights and Recent Trends

- Over the most recent four years, claims have been closing much guicker
- ► The increased rates of claims closing over the last few years is in part attributable to <u>SB 863 provisions</u> (Chart 40) related to liens, independent medical review, independent bill review, and spinal surgeries

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Average Allocated Loss Adjustment Expenses Cost per Indemnity Claim



- ► Allocated loss adjustment expense (ALAE) costs per indemnity claim have increased steadily in California and in 2016 are five times the average cost for 1991
- ► Instead of <u>declining following SB 863 in 2013 as was expected</u> (Chart 40), average ALAE costs increased by 11% since 2013
- ▶ Some of the recent increases in ALAE costs may be attributable to:
 - » The increased rate of cumulative injury claim filings (Chart 16)
 - Acceleration in the rate of claim settlement (Chart 33)
 - » Disputes arising from the transition into the SB 863 reforms as the new reforms are challenged and interpreted through the legal system

Ratios of Loss Adjustment Expenses to Losses



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- ► California by far has the highest loss adjustment expense ratio at more than 10 percentage points greater than the second-highest state and almost twice the countrywide median
- ► Among the reasons for the high LAE in California are:
 - » High proportion of <u>permanent disability claims</u> (Chart 19) and <u>cumulative injury claims</u> (Chart 16)
 - » High litigation rates (Chart 37)
 - A large number of active liens (Chart 38)
 - Claims typically remain open longer in California (Chart 32)

Cost to Deliver \$1 of Benefits



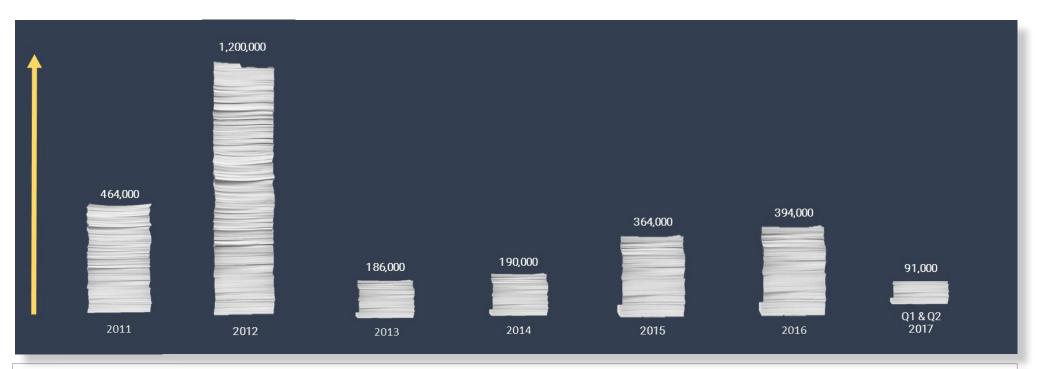
- ▶ California administrative costs are multiples higher than other medical benefit systems such as Medicare and the average for private group health insurance
- ► California administrative costs are more than double the cost to provide \$1 of benefits compared to the median state workers' compensation system

Percent of Permanent Disability Claims Represented



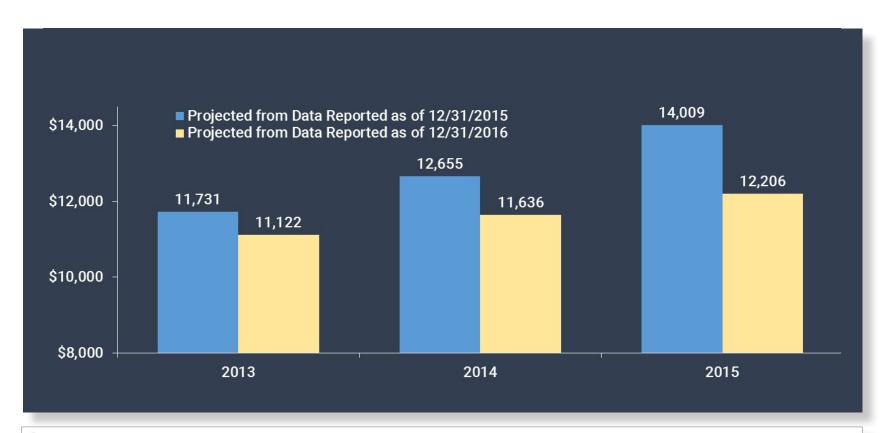
- ▶ Rates of legal representation in Southern California are significantly higher than in Northern California
- ▶ Rates of legal representation have been increasing steadily since 2009 in both Northern California and Southern California
- ▶ Legal representation rates in California are higher than for most other states

Number of Liens Filed



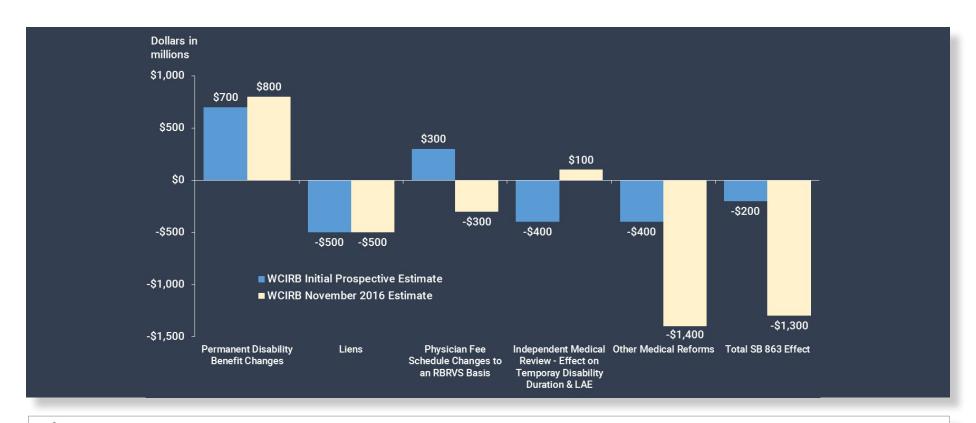
- ▶ In 2013 and 2014, lien filings were 60% lower than the pre-reform (2011) level
- ► Lien filings approximately doubled from 2014 to 2016
- ▶ SB 1160 and AB 1244, enacted in 2016, included additional lien reforms that the WCIRB estimated would reduce lien filing by 10% due to:
 - » Restrictions on the ability to reassign liens to third parties
 - » Requirement that every lien must be filed with a declaration under penalty of perjury
 - » A stay on all liens filed by providers indicted for fraud and a consolidated process to handle liens from providers convicted of fraud
- ► Lien filings dropped significantly in the first two quarters of 2017 compared to recent prior quarters, but some of the decrease may be a temporary transition effect

Change in Projected ALAE per Indemnity Claim



- ▶ Actuarially projected ALAE costs by accident year have declined by as much as 13% over the last year
- ► This recent reduction in projected future ALAE may be related to:
 - » Fewer disputes arising over the <u>SB 863 reforms which are now fully implemented</u> (Chart 40)
 - Increases in the rate claims are closing (Chart 33), requiring fewer expenses in the future

WCIRB Cost Evaluation of SB 863



- ▶ SB 863 increases to permanent disability benefits and savings from the lien reforms are generally emerging as initially projected
- ▶ Instead of increasing costs, the new physician fee schedule based on the Medicare Fee Schedule has decreased costs
- Savings to frictional costs resulting from the new Independent Medical Review (IMR) process have not materialized, as significantly more IMRs than projected are being filed
- ▶ IMR in addition to independent bill review and other SB 863 medical reforms have resulted in more than \$1 billion additional savings
- ▶ In total, SB 863 has saved \$1.3 billion in annual statewide costs compared to \$0.2 billion initially projected

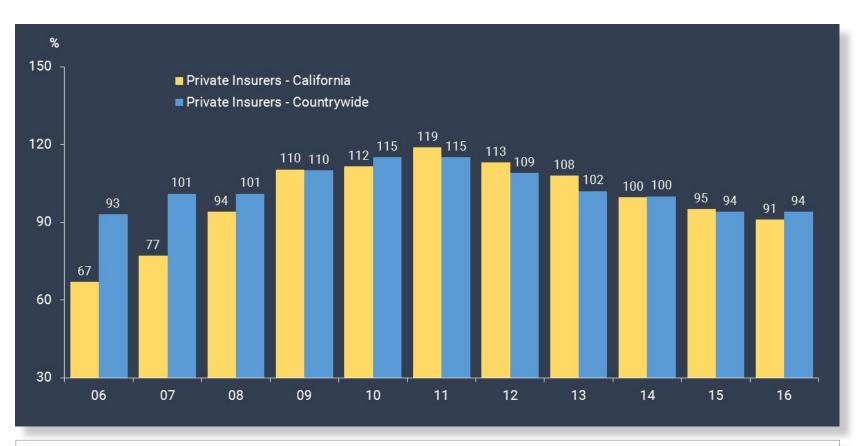
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Projected Combined Loss and Expense Ratios



- ► Combined ratios in California have historically been very cyclical and volatile with a 131% improvement from 1999 to 2005, followed by a 78% deterioration from 2005 to 2009, and then a 42% improvement from 2009 through 2014
- ▶ Recent industry ratios have been fairly stable, with 2016 being the fourth consecutive year of industry-wide underwriting profit

Private Insurer Reported Combined Ratios



Insights and Recent Trends

- ▶ California private insurer combined loss and expense ratios have decreased steadily since 2011
- ▶ In 2016, the California private insurer combined ratio of 91% is below the countrywide ratio for the first time since 2010

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Average Return on Net Worth



- ► California workers' compensation returns have been more volatile than the rest of the country
- ▶ Over the long-term, California workers' compensation returns have been comparable to the countrywide average for workers' compensation but well below the Fortune Magazine all-industry average

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Summary of the California Workers' Compensation System

Component	Recent Trends	Comparisons within California or to Other States
Premiums	Premium levels are flattening with economic growth being offset by recent rate decreases	California still has significantly higher share of premiums compared to its share of the workforce
Insurer Rates	Current rates 15% lower than 2015 levels	California rates remain highest in country
Claim Frequency	Overall frequency in Los Angeles area moderating, but cumulative injury claim frequency continues to increase	California permanent disability claim frequency is highest in the country
Average Indemnity Costs	Recent increases 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	Increased significantly in 2016 after several years of decreases driven by SB 863	California still among highest medical costs in nation; changes in 2015 and 2016 comparable to countrywide figures
Long-term Medical Costs	Rate of claim settlement increasing in recent years, but significant medical benefits still paid in later periods	Indemnity claims reported and settled much slower in California than in other states but gap is narrowing
Loss Adjustment Expenses	Recent increases in LAE driven by high rates of representation, accelerating claim settlement, and increased cumulative injury claim frequency; however, most recent data showing indications of trend moderating	California loss adjustment expenses highest in country; administrative costs significantly higher than in other benefit delivery systems
SB 863	\$1.3 billion total savings driven by significant medical cost reductions partially offset by permanent disability benefit increases and frictional cost savings not materializing	N/A
Insurer Profitability	Combined ratios continuing to improve	California combined ratio in 2016 below countrywide average but long-term overall returns still below all-industry average

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More Info

Chart 1: Reported Written Premium

- » Total premium from workers' compensation policies in California
- » Does not reflect premium credits for policies that include deductibles (i.e., data is on a "first-dollar" basis)
- » Data is categorized by the calendar year in which the policies incepted

Source Data

» WCIRB aggregate financial data calls

Return to Chart 1 >

Chart 2: Drivers of Written Premium Changes

- » Annual California premium growth attributed to several key contributors
- » Contributors include: changes in insurer rates, economic expansion as reflected in increasing employer payrolls, and other contributing factors (e.g., change in average experience modification, more or less premium captured in audits of older policies, and transitions in and out of self-insurance)
- » Values sum to the total change in premium (in billions of dollars) for that year

Source Data

- » WCIRB aggregate financial data calls and published California annual wage information
- » Premiums are based on written premiums gross of any deductible credits

Return to Chart 2 >

Chart 3: Average Charged Rate per \$100 of Payroll

- Average rates per \$100 of payroll charged by insurers in California
- » Shows the average cost of workers' compensation insurance paid by California employers
- » Differs from advisory pure premium rates, which are approved by the California Insurance Commissioner, are advisory and only reflect the estimated cost of losses and loss adjustment expenses
- Since 1995, insurers file their own premium rates with the Insurance Commissioner that may in part be based on the Commissioner's approved advisory pure premium rates
- Data is categorized by insurance policy periods

Source Data

» WCIRB aggregate financial data calls and unit statistical data

Return to Chart 3 >

Chart 4: Rate Comparison by State Based on Oregon Studies

- » California average charged insurer rates per \$100 payroll compared to the countrywide median average charged insurer rates
- Based on the state of Oregon biennial study of workers' compensation rates with each state's average rates adjusted to the Oregon industrial mix
- » Shows how California workers' compensation rates compare to those charged in other states
- » Data is categorized by rate effective period

Source Data

- » Oregon Workers' Compensation Premium Rate Ranking Summary
- Data is based on the Oregon classification mix and, as a result, the California average rates shown differ from other measures of the California average charged insurer rate

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Chart 5: Distribution of Costs by Industrial Sector

- » Total proportion of premium (based on the Insurance Commissioner's approved advisory pure premium rates) and payroll attributed to each industrial sector
- » Shows the concentration of insured employer payrolls by industry
- » Shows the relationship between payroll and advisory pure premium by industry

Source Data

- » WCIRB unit statistical data for policy year 2014
- » Industries are based on WCIRB classifications mapped to the North American Industry Classification System (NAICS)

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Chart 6: Distribution of Costs by Region

- » Total proportion of premium (based on the Insurance Commissioner's approved advisory pure premium rates) and claims involving indemnity benefits attributed to each California region
- » Shows the concentration of advisory pure premium by region
- » Shows the relationship between advisory pure premium and the number of indemnity claims filed by region

Source Data

- » WCIRB unit statistical data for policy year 2013 at 1st report level
- » Region information is based on WCIRB unit statistical data linked with Hoover's/Dun and Bradstreet location information as well as WCIRB medical transaction data

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Chart 7: Distribution of Insured System Costs

- » Distribution of total California workers' compensation insured system costs incurred in 2013 and 2016 by cost component
- » Shows the major cost categories funded by the workers' compensation insurance premiums paid by California employers
- Data shown in billions of dollars as well as the percentage of the total system costs for that year

Source Data

- » 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 the calendar year

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Chart 8: Distribution of Paid Indemnity Benefits

- » Distribution of indemnity benefits paid in 2013 and 2016 by type of benefit
- 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
- Indemnity benefits by type generally depend on the extent of the injury to the injured worker, the injured worker's pre-injury weekly wage, and statutorily defined benefit levels

Source Data

» WCIRB aggregate financial data calls

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Chart 9: Distribution of Paid Medical Benefits

- » Distribution of medical benefits paid in 2013 and 2016 by type of medical service
- » Includes information on a variety of medical treatments that are provided to injured workers, including physician visits, prescription medications, medical-legal evaluations, and surgeries

Source Data

- » WCIRB aggregate financial data calls and medical transaction data
- » Figures exclude medical cost containment program payments (which are included as a portion of loss adjustment expenses)

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Chart 10: Distribution of 2016 Paid Medical By Category

» Distribution of physician services, inpatient and outpatient services, and pharmaceutical payments made in 2016 by detailed type of service

Source Data

» WCIRB medical transaction data

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Chart 11: Distribution of 2016 Paid Frictional Costs

- » Distribution of the major categories of frictional costs including allocated loss adjustment expense, or ALAE, unallocated loss adjustment expenses, or ULAE, applicant attorney fees, medical cost containment program costs, and medical-legal costs paid in 2016
- » ALAE are the costs associated with defending workers' compensation claims when there are disputes and managing the cost of medical treatment (i.e., medical cost containment)
- » ULAE are the costs associated with insurer claims staff in administering workers' compensation claims

Source Data

» WCIRB aggregate financial data calls and claim surveys

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Chart 12: California Claim Frequency Indexed to 1962

- » Reported claim counts compared to reported payroll adjusted for wage inflation indexed to 1962
- » Shows trends in the frequency of workers' compensation injuries
- » Changes in claim frequency can be driven by changes in the mix of industries in California, the mechanization within industries, workplace safety practices, indemnity benefit levels, and the overall state of the California economy
- » Data is categorized by the year of injury

Source Data

» WCIRB unit statistical data

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Chart 13: Indemnity Claims per 1,000 Employees

- » Estimated number of workers' compensation indemnity claims filed in California per 1,000 insured employees
- » Shows trends in the frequency of workers' compensation injuries
- » Changes in claim frequency can be driven by changes in the mix of industries in California, the mechanization within industries, workplace safety practices, indemnity benefit levels, and the overall state of the California economy
- » Data is categorized by the year the injury occurred (accident year)

Source Data

- » WCIRB unit statistical data developed to 5th report level for data through accident year 2015
- » Accident year 2016 is based on changes in indemnity claim counts from aggregate financial data calls as of March 31, 2017 compared to estimated changes in statewide employment
- For more information on recent indemnity claim frequency changes, see the WCIRB's <u>Analysis of Changes in Indemnity Claim Frequency – January 2016</u> <u>Update</u> Report

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Chart 14: Change in Indemnity Claim Frequency by Region

- Estimated changes in indemnity claim frequency for the Los Angeles Basin area and the remainder of California
- » Shows regional differences in California indemnity claim frequency trends
- » California data is also 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

Source Data

» WCIRB figures based on WCIRB unit statistical data (through 2015) and aggregate financial data calls (for 2016)

- » California regional information (available only through 2015) is based on the employer zip code reported on the California workers' compensation policy
- "Los Angeles Basin area" represents Los Angeles County, Orange County, Riverside County, San Bernardino County, and Ventura County
- » NCCI estimates are based on the May 18, 2017 State of the Line Presentation (2016 estimate is preliminary)

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Chart 15: Regional Differences in Indemnity Claim Frequency

- » Heat map of California regions showing indemnity claim frequency levels relative to the statewide average frequency
- » Shows which regions in California have higher or lower claim frequency rates when compared to the state as whole
- » The mix of industries and average wage levels can significantly impact claim frequency rates, so the data is adjusted to remove these differences across regions to show the figures on a comparable basis

Source Data

- » WCIRB unit statistical data for policy year 2013 at 1st report level
- Region information obtained by linking WCIRB policy and unit statistical data with Hoover's/Dun and Bradstreet location information as well as WCIRB medical transaction data
- » For more information on the study of regional cost differences within California, see the WCIRB's <u>2016 Study of Geographic Differences in California Workers'</u> Compensation Claim Costs

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Chart 16: Percent of Indemnity Claims Involving Cumulative Injury

- Proportion of total indemnity claims that involve a cumulative injury
- » Most workers' compensation claims (i.e., non-cumulative injuries) result from a single accident or specific incident causing injury
- » Cumulative injuries result from a prolonged period of exposure (many years in some cases) causing cumulative trauma over time

Source Data

- » WCIRB unit statistical data developed to 10th report level
- » Cumulative injury also includes occupational disease claims
- For more information on recent trends in cumulative injury claim frequency, see the WCIRB's <u>Analysis of Changes in Indemnity Claim Frequency – January 2016</u> <u>Update</u> Report

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Chart 17: Regional Differences in Proportion of Cumulative Injury Claims

- » Heat map of California regions showing their proportion of cumulative injury claims as a share of total claims
- » The data is adjusted to remove differences in the mix of industries and average wage » levels by region to show the figures on a comparable basis

Source Data

- » WCIRB unit statistical data for policy year 2013 at 1st report level
- » Region information obtained by linking WCIRB unit statistical data with Hoover's/Dun and Bradstreet location information as well as WCIRB medical transaction data
- » For more information on the study of regional cost differences within California, see the WCIRB's <u>2016 Study of Geographic Differences in California Workers'</u> <u>Compensation Claim Costs</u>

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Chart 18: Indemnity Claims per 1,000 Employees by State

» Comparison of California indemnity claim frequency per 1,000 insured employees to that of other states

Source Data

» 2017 NCCI Annual Statistical Bulletin for policy year 2013 at 1st report level

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Chart 19: Permanent Disability Claims per 100,000 Employees

- » Comparison of California permanent partial disability claim frequency per 100,000 insured employees to that of other states
- » Approximately one-half of all indemnity claims in California involve some form of permanent disability
- Claims involving permanent disability generate the vast majority of costs in the workers' compensation system
- » Permanent partial disability in California is determined based on the <u>American Medical Association (AMA) Guides 5th Edition</u>
- Other states that utilize the <u>AMA Guides 5th Edition</u> do not have a significantly higher rate of permanent disability claims

Source Data

» 2017 NCCI Annual Statistical Bulletin for policy year 2013 at 1st report level

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Chart 20: Average Indemnity Cost per Indemnity Claim

- » Average cost of indemnity benefits per indemnity claim
- » Changes in indemnity costs per claim can be driven by changes in statutory benefit levels, changes in average weekly wage levels on which a large proportion indemnity benefits are predicated, and changes in the mix of the types of indemnity benefits (such as permanent disability benefits) Chart 8

Source Data

- » WCIRB aggregate financial data calls as of March 31, 2017
- » Values are developed to a final or ultimate cost basis by the WCIRB

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Chart 21: Change in Indemnity Cost per Indemnity Claim

» Changes in average indemnity costs for California by accident year compared to those for the composite of NCCI states

Source Data

- » California estimates are based on WCIRB aggregate financial data calls
- » NCCI estimates are based on the May 18, 2017 State of the Line Presentation (2016 estimate is preliminary)

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Chart 22: Indemnity Cost per Indemnity Claim by State

» Comparison of California average indemnity cost per indemnity claim to that of other states

Source Data

» 2017 NCCI Annual Statistical Bulletin based on policy year 2013 at 1st report level developed to a final or ultimate cost basis

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Chart 23: Average Medical Cost per Indemnity Claim

- » Average cost of medical benefits per indemnity claim by accident year
- » Changes in medical costs per claim can be driven by changes in reimbursement rates from California medical fee schedules, legislative reforms impacting the medical benefit delivery system, changes in the utilization of <u>medical services</u> (Chart 10), and overall medical cost inflation

Source Data

- » WCIRB aggregate financial data calls as of March 31, 2017
- Data excludes the cost of medical-only claims and, for consistency of comparison, includes the cost of medical cost containment programs
- » Values are developed to a final or ultimate cost basis by the WCIRB

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Chart 24: Medical Cost Level Indexed to 2001

- » The average medical cost indexed to 2001 through 2016 for several workers' compensation systems and for California group health premium levels
- » Compares medical inflation levels over the last 15 years in different systems
- » Data is categorized by year of injury for the California insured and NCCI state data and by calendar year for California Private Insurer and California Group Health Premium data

Source Data

- » WCIRB aggregate financial data calls excluding the cost of medical-only claims and including the cost of medical cost containment programs and developed to a final or ultimate cost basis by the WCIRB
- » NCCI state estimates are based on the May 18, 2017 State of the Line Presentation (2016 estimate is preliminary)
- » Self-insured cost estimates are from annual summaries published by the California Department of Industrial Relations
- » Summary group health cost information is from the California Employer Health Benefits Survey published by the California Healthcare Foundation

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Chart 25: Change in Medical Costs per Indemnity Claim

» Changes in average medical costs per indemnity claim for California by accident year compared to those for the composite of NCCI states

Source Data

- » California estimates are based on WCIRB aggregate financial data calls and include the cost of medical cost containment programs
- » estimates are based on the May 18, 2017 State of the Line Presentation (2016 estimate is preliminary)

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Chart 26: Medical Cost per Indemnity Claim by State

» Comparison of California average medical cost per indemnity claim to that of other states

Source Data

» 2017 NCCI Annual Statistical Bulletin based on policy year 2013 at 1st report level developed to a final or ultimate cost basis

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Chart 27: Change in Medical Services Cost Levels

- » Annual changes in the average paid per medical service transaction, the average number of medical service transactions per claim, and the average total paid for medical services per claim
- » Data is categorized by the year in which the medical service was performed

Source Data

» WCIRB medical transaction data

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Chart 28: Change in Pharmaceutical Cost Levels

- » Annual changes in the average paid per pharmaceutical transaction, the average number of pharmaceutical transactions per claim, and the average total paid for pharmaceuticals per claim
- » Data is categorized by the year in which the medical service was performed
- » These costs do not reflect the impact of the new drug formulary expected to be adopted effective January 1, 2018, which is anticipated to further reduce pharmaceutical costs

Source Data

» WCIRB medical transaction data

Chart 29: Opioid Costs per 100 Claims

- » Total dollars paid for opioid prescriptions per 100 claims with medical services in a particular service year
- » Opioids are among the most powerful drugs prescribed for pain relief
- » According to the <u>Food and Drug Administration</u>, although opioids can help manage pain when used properly, when abused they can cause serious harm including addition, overdose, and death

Source Data

» WCIRB medical transaction data

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Chart 30: Percent of Ultimate Medical Cost Paid at 3 Years

- » Comparison of the estimated percentage of ultimate medical costs paid after three years to that of other states
- » High numbers represent states which pay medical costs faster while low numbers represent states which pay medical costs slower

Source Data

» 2017 NCCI Annual Statistical Bulletin based on the average of the two most recent development years

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Chart 31: Percent of Indemnity Claims Unreported at 12 Months

- » Comparison of the California percentage of the estimated total number of indemnity claims that have not yet been reported by the end of the first 12 months of the year of injury to that of other states
- » Workers' compensation indemnity claims can sometimes be reported much later after the time of the injury, for a variety of reasons

Source Data

- » California figures are from WCIRB aggregate financial data
- » 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

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Chart 32: Percent of Indemnity Claims Open at 60 Months

- » Comparison of the California percentage of the reported number of indemnity claims that are still open at 60 months (or 5 years) from the beginning of the year of injury to that of other states
- » Workers' compensation claims remain open while statutory indemnity benefits are paid and medical treatment is provided to injured workers
- » Other factors that may keep claims open include the existence of unsettled medical liens or unresolved disputes regarding medical treatment or the extent of permanent disability

Source Data

- » California figures are from WCIRB aggregate financial data
- » 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

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Chart 33: Percent of Open Indemnity Claims Closed During Next Year

- » Ratio of the number of open indemnity claims that were closed during the subsequent calendar year
- » Higher closing rates indicate claims have been moving quicker through the system, reducing the need for future costs
- » Data is based on claims open after two years and is categorized by calendar period

Source Data

» WCIRB aggregate financial data calls

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Chart 34: Average Allocated Loss Adjustment Expenses per Indemnity Claim

- Average cost of loss adjustment expenses that can be allocated to a particular claim ("allocated loss adjustment expenses" or "ALAE")
- » ALAE costs include the cost of attorney and other legal expenses in defending claims, the cost of medical cost containment programs, the cost of independent medical and independent medical bill reviews and other court-related expenses
- » Legal expenses arise on claims during disputes over medical treatment or the extent of permanent disability, in the course of handling liens filed on claims, and during the process of settling claims
- » Average ALAE costs differ regionally in California and are over 20% higher in the Los Angeles Basin area than in the rest of the state

Source Data

- » WCIRB aggregate financial data as of March 31, 2017 for private insurers writing workers' compensation business in California
- » Values are developed to a final or ultimate cost basis by the WCIRB
- » Figures exclude the cost of medical cost containment programs for consistency of comparison
- » For more information on recent ALAE cost trends, see the WCIRB's <u>Emerging Trends</u> in California Workers' Compensation ALAE Costs

Chart 35: Ratios of Loss Adjustment Expenses to Losses

- » Comparison of the ratio of total loss adjustment expenses to losses for California to that of other states
- » Loss adjustment expenses (or LAE) include the cost of insurer claim 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 claimsrelated expenses

Source Data

» 2017 NCCI Annual Statistical Bulletin and the WCIRB's July 1, 2017 Pure Premium Rate Filing

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Chart 36: Cost to Deliver \$1 of Benefits

- » Compares the California cost to deliver \$1 of benefits measured as loss adjustment expense costs and other related claims administrative costs to administrative costs in other systems that provide medical benefits
- » California administrative costs include allocated loss adjustment expenses, unallocated loss adjustment expenses, medical-legal costs, applicant attorney fees, and the cost of medical cost containment programs

Source Data

- » Workers' compensation figures are from WCIRB aggregate financial data calls and the 2017 NCCI Annual Statistical Bulletin
- » Medicare figures are from the Centers for Medicare and Medicaid Services 2016 Medicare Trustees Report
- » Private group health insurance figures are estimated from a number of published studies on group health administrative costs

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Chart 37: Percent of Permanent Disability Claims Represented

- » Percentage of claims involving permanent disability that involve representation by an applicant's attorney for the injured worker by accident year
- » A represented claim will typically involve more legal expenses than a non-represented claim

Source Data

- » WCIRB Permanent Disability Claim Survey
- » Regional information is based on the Workers' Compensation Appeals Board office to which the claim is assigned

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Chart 38: Number of Liens Filed

- » Number of liens filed by year of lien filing
- » The majority of liens are filed by medical providers for costs of treatment over the amount reimbursed or for medical treatment
- » Liens typically involve significant legal and administrative costs in addition to the lien settlement amount

Source Data

» California Division of Workers' Compensation Electronic Adjudication Management System

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Chart 39: Change in Projected ALAE Per Indemnity Claim

- » Comparison of average accident year ALAE costs actuarially projected at the end of 2015 to average ALAE costs projected at the end of 2016
- » Highlights changes in the ALAE cost payment pattern (or "development") of ALAE costs over time

Source Data

- » WCIRB aggregate financial data calls for private insurers writing workers' compensation business in California
- » Values are developed to a final or ultimate cost basis by the WCIRB
- » Figures exclude the cost of medical cost containment programs

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Chart 40: WCIRB Cost Evaluation of SB 863

- » WCIRB estimates of the cost impact of the major provisions of SB 863 in millions of dollars
- » Compares the WCIRB's initial prospective estimates made in October of 2012 to its November 2016 retrospective estimates

Source Data

- » <u>Senate Bill No. 863 WCIRB Cost Monitoring Report 2016 Retrospective Evaluation</u>
- » Dollar estimates are based on the total workers' compensation system including the self-insured market

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Chart 41: Projected Combined Loss and Expense Ratios

- » Ratios of WCIRB projected losses and expenses to insurer premium by accident year
- » Combined ratios are a commonly used measure to evaluate the profitability of insurers from an underwriting perspective
- » 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
- » Industry combined ratios significantly over 110% could, over a sustained period, threaten the competitive viability of the insurance market

Source Data

- » WCIRB aggregate financial data calls
- » Loss and loss adjustment expense amounts shown are based WCIRB projections using the actuarial methodologies reflected in the WCIRB's July 1, 2017 Pure Premium Rate Filing

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Chart 42: Private Insurer Reported Combined Ratios

- » Comparison of the ratio of losses and expenses to insurer premium for private insurers writing workers' compensation business in California to the countrywide average for private insurers by calendar year
- » Combined ratios are a commonly used measure to evaluate the profitability of insurers from an underwriting perspective
- » 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
- » Industry combined ratios significantly over 110% could, over a sustained period, threaten the competitive viability of the insurance market

Source Data

- » California ratios are based on WCIRB aggregate financial data calls
- Countrywide estimate is based on the NCCI May 18, 2017 State of the Line Presentation computed based on Annual Statement data (the 2016 estimate is preliminary)

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Chart 43: Average Return on Net Worth

- » Summary of total return on net worth for California workers' compensation compared to countrywide workers' compensation and the Fortune Magazine allindustry average
- » Reflects the impact of investment income, federal income taxes, and insurer profits, as reported by the National Association of Insurance Commissioners (NAIC), that are not included in insurer combined ratios

Source Data

- » NAIC Report on Profitability in 2015
- 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

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