California Workers' Compensation Institute

IRIS Regional SCORE CARD — Sierra Claims

IRIS Regional Score Cards use subsets of accident year (AY) 2005-2015 claims data from CWCI's Industry Research Information System (IRIS) database to measure and analyze various aspects of claims experience within 8 regions of California. Over the last several months, CWCI has issued Score Cards for 7 regions of the state, so this Score Card is the last in the series. Each of the Score Cards profiles claimant characteristics and shows distributions of claims within the region broken out by industry sector; premium size; claim type; common "nature" and "cause" of injury categories; and primary diagnoses. Several exhibits compare results for the highlighted region against all other regions in the state, and in many cases the exhibits also show the statewide results, providing a wealth of detailed data not only on claims within the region, but within all of California.

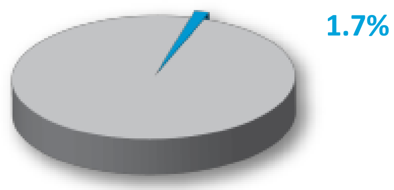
The first seven Score Cards in the series focused on claims filed by residents of Los Angeles County; the Inland Empire/Orange County; the Central Valley; the Bay Area; San Diego County; the Central Coast; and the Northern Counties. This Score Card looks at claims filed by residents of the Sierra region, which runs from the foothills of California's Gold Country east to the Tahoe Basin and along the mountainous eastern flank of the state from Inyo County in the south to Sierra County in the north. This sparsely populated region is home to less than 850,000 Californians and a labor force of about 400,000 workers who account for just 1.7% of all California workers' compensation claims and an equal share of the paid losses in the state.

A list of the exhibits included in the Score Card is provided below. Click the title to go directly to an exhibit.

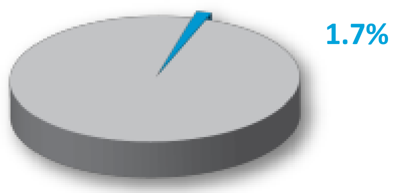
Interactive Table of Contents

Regional Claim and Payment Distributions

AY 2005 – AY 2015 Claims



Sierra Claims as a % of Calif Claims



Sierra Loss Payments as a % of Calif Loss Payments

Region	% of Claims	% of Payments
Los Angeles County	25.6%	31.9%
Inland Empire/O.C.	19.0%	21.0%
Central Valley	18.1%	15.0%
Bay Area	17.5%	15.4%
San Diego	8.1%	6.2%
Central Coast	6.7%	6.3%
North Counties	3.3%	2.5%
Sierras	**1.7%**	**1.7%**
Grand Total	**100.0%**	**100.0%**

IRIS Regional Score Cards analyze data from California workers' comp claims that have been grouped into eight regions based on the injured workers' home ZIP codes. Each Score Card contains accident year (AY) 2005-2015 claims data from CWCI's Industry Research Information System (IRIS) database, plus IRIS data on prescription drugs filled in calendar year 2014; sleep studies, MRIs/diagnostic tests, and nerve conduction studies from calendar years 2013-2015; and data on claims through 2015 that had lien payments. This Score Card focuses on claims filed by workers from the Sierra Region, 11 counties that include much of the Gold Country and the mountainous areas that border Nevada from north of Tahoe south to Death Valley. The region is sparsely populated, home to just 1.7% of the California workforce, and because of the heavy reliance on tourism, it has a different job mix than most other regions of the state. Over the 11-year period covered by the Score Card, the IRIS database captured data on more than 32,000 job injury claims filed by workers living in the Sierras, 1.7% of the nearly 1.9 million claims in the Score Card sample of California claims. Those claims resulted in more than $500 million in loss payments, or 1.7% of the $29.5 billion in benefits paid on all California claims in the sample, so the percentage of losses from the region was in line with the percentage of claims.

Sierra Claims as a Percent of All California Claims by Accident Year

AY 2005 – 2015

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Sierras	2.0%	1.9%	1.9%	1.8%	1.8%	1.7%	1.6%	1.5%	1.4%	1.3%	1.5%
All Other	98.0%	98.1%	98.1%	98.2%	98.2%	98.3%	98.4%	98.5%	98.6%	98.7%	98.5%

Between AY 2005 and AY 2015, claims filed by workers from the Sierras ranged from 1.3% to 2.0% of all California workers' comp claims. That percentage declined from AY 2005 - AY 2014 as other regions grew at a faster clip, but it increased in 2015 when Sierra residents accounted for 1.5% of all claims filed in the state, though that was still below the level noted a decade earlier.

Claim Distribution by Premium Size –Sierras vs. Other Regions

AY 2005 – 2015 Claims

	Under $1,000	$1,000 to $9,999	$10,000 to $49,999	$50,000 to $99,999	$100,000 to $499,999	$500,000 to $999,999	Over $1,000,000
Sierras	2.3%	15.0%	24.7%	12.0%	24.1%	7.7%	14.1%
Other Regions	1.9%	9.2%	18.9%	12.0%	30.5%	10.1%	17.4%

The Sierras have few large employers, so 42% of the claims involved employers paying less than $50,000 in annual premium, the highest proportion of claims against small employers in the state. At the other extreme, about 1 in 7 claims involved employers who paid more than $1 million in annual premium vs. just over 1 in 6 claims in the rest of the state.

Injured Worker Profile

AY 2005 – AY 2015 Claims

	Sierras	All Other	Statewide
Average Age	38.4	38.3	38.3
Average Tenure	4.0	4.6	4.6
Gender			
% Male	64.9%	63.5%	63.5%
% Female	35.1%	36.5%	36.5%
% of Claims			
All Claims Statewide	1.7%	98.3%	100.0%
% of Calif WC Translation Svcs.*	0.1%	99.9%	100.0%

* CY 2013-2015 service dates only. Translation services identified by procedure code.

Injured workers from the Sierras averaged 38.4 years at the time of injury, nearly matching the average of 38.3 years for injured workers from other regions. The average job tenure for workers from the Sierra region at the time of injury was 4.0 years, which was less than the average of 4.6 years noted for other California injured workers. The mix of injuries by gender shows the Sierras had a slightly higher proportion of claims filed by males (64.9% vs. 63.5% elsewhere), though the volume of claims with translation services was disproportionately low as only 0.1% of all California claims with 2013-2015 translation services involved residents from the Sierra region, even though 1.7 percent of all claims involved workers living in this part of the state.

Distribution by Industry Sector

Sierras vs. All Other (AY 2005-2015 Claims)

Industry	Sierras	All Other	Statewide
Construction	16.7%	10.3%	10.4%
Retail Trade	15.6%	11.7%	11.8%
Healthcare	13.0%	12.3%	12.3%
Hotel and Food Services	9.7%	8.7%	8.7%
Manufacturing	5.6%	13.1%	13.0%
Arts and Entertainment	5.5%	1.8%	1.9%
Other Services	4.5%	3.6%	3.6%
Transportation and Warehousing	4.4%	5.8%	5.7%
Clerical Workers	3.9%	7.3%	7.2%
Wholesale Trade	3.1%	4.7%	4.6%
All Other	18.0%	20.8%	20.8%
Grand Total	**100.0%**	**100.0%**	**100.0%**

The distribution of claims by industry sector is very different in the Sierras than in the rest of the state, reflecting the specific, and somewhat limited types of work that are available in this largely undeveloped, rural region, much of which is used for recreation. The top 4 sectors for job injuries in the Sierras are construction, retail trade, healthcare, and hotel and food services. Construction workers account for 1 out every 6 claims in the Sierras (vs. about 1 in 10 claims from other regions); retail workers file 15.6% of the Sierra claims (vs. 11.7% elsewhere); healthcare workers are involved in 13.0% of the region’s claims (vs. 12.3% in the rest of the state); and hotel and food service workers file 9.7% of the claims in the Sierras compared to 8.7% in other parts of California. Workers employed in arts and entertainment and “other services” also account for a larger share of the Sierra region’s claims, while claims from the manufacturing sector, clerical, wholesale trade, and transportation and warehousing all represent a significantly smaller share of the claims in the Sierras compared to the rest of the state.

Cause of Injury

Claim Distributions for the Sierras, All Other Regions and Statewide (AY 2005 – 2015 Claims)

	Percent of Claims		
Cause of Injury	**Sierras**	**All Other Regions**	**Statewide**
Strain/Injury: Lifting	10.4%	10.7%	10.7%
Strain/Injury: Not Otherwise Classified (NOC)	8.9%	8.9%	8.9%
Miscellaneous Cause: Other Injury (NOC)	6.2%	5.5%	5.5%
Fall/Slip: Miscellaneous	5.3%	4.8%	4.8%
Fall/Slip: On Same Level	4.1%	4.2%	4.2%
Struck/Injured by: Falling or Flying Object	3.8%	4.2%	4.2%
Strain/Injury: Pushing or Pulling	3.5%	4.0%	4.0%
Hand Tool, Utensil; Not Powered	3.4%	2.9%	2.9%
Miscellaneous (Cut, Puncture, Scrape)	3.3%	3.2%	3.2%
Objects Being Lifted or Handled	3.0%	2.5%	2.5%
All Other	**48.1%**	**49.2%**	**49.1%**

The leading causes of injury for claims from the Sierra region are similar to those of claims from other parts of the state, though there are some slight differences in the proportion of claims ascribed to each of the primary causes. As in other regions, strains (either due to lifting, pushing or pulling or not otherwise classified activities) were the number one cause of injury (22.8% of the Sierra claims vs. 23.6% in other regions), followed by miscellaneous causes not otherwise classified (6.2% of the Sierra claims vs. 5.5% elsewhere). Slip and fall injuries accounted for 9.4% of the injuries in the region compared to 9.0% in the rest of the California. Injuries involving non-powered tools, which may be related to the high percentage of construction claims in the region, as well as injuries caused by objects being lifted or handled, also made up a larger share of the claims in the Sierras.

Nature of Injury

Claim Distributions for the Sierras, All Other Regions and Statewide (AY 2005 – 2015 Claims)

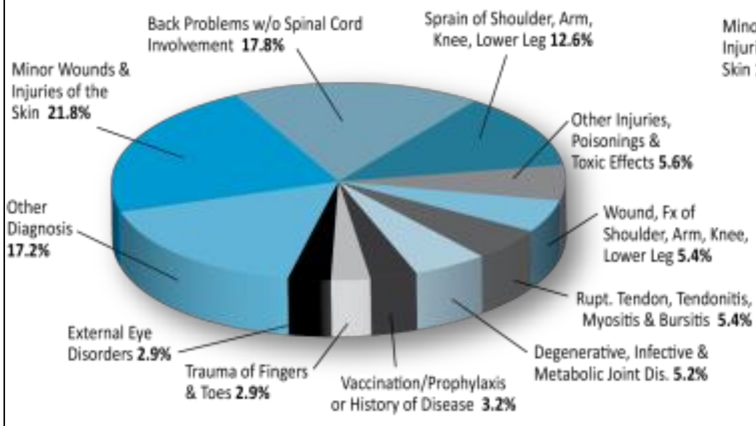
	Percent of Claims		
Nature of Injury	**Sierras**	**All Other Regions**	**Statewide**
Strain	29.2%	28.9%	28.9%
Laceration	13.9%	12.4%	12.4%
Sprain	8.9%	9.5%	9.5%
Contusion	8.6%	10.1%	10.1%
All Other, Not Otherwise Classified (NOC)	8.5%	10.1%	10.0%
All Other Cumulative Injuries	4.9%	4.9%	4.9%
Fracture	4.7%	3.4%	3.4%
Puncture	3.8%	3.6%	3.6%
Foreign Body	2.4%	2.8%	2.8%
Inflammation	2.2%	2.3%	2.3%
All Other	**12.9%**	**12.0%**	**12.1 %**

The list of the most common nature of injury categories among residents of the Sierras shows strains and lacerations were the top 2 categories in the region, together accounting for 43.1% of the claims vs. 41.3% in the rest of the state. Sprains (8.9% of the claims), contusions (8.6%) and all other, not otherwise classified injuries (8.5%) rounded out the top five, but each represented a smaller share of the claims from the Sierras than from the rest of the state. Fractures accounted for a larger share of the Sierra claims (4.7% vs. 3.4%), but claims involving foreign body injuries represented a slightly smaller proportion (2.4% vs. 2.8%).

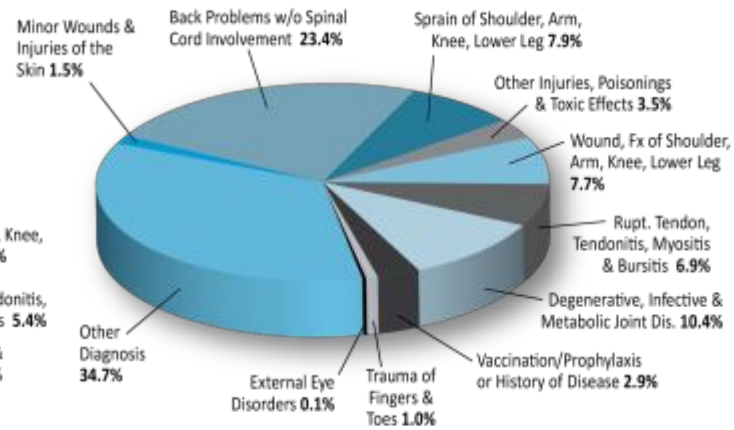
Claim and Payment Distributions by Diagnosis

Claim and Payment Distributions for AY 2005-2015 Claims

Sierra Region
% of Claims by Diagnosis



Sierra Region
% of Payments by Diagnosis



	Sierras		All Other Regions		Statewide	
	% of Claims	% of Total Paid	% of Claims	% of Total Paid	% of Claims	% of Total Paid
Minor Wounds & Injuries to the Skin	21.8%	1.5%	22.5%	2.4%	22.4%	2.4%
Medical Back Problems w/o Spinal Cord Involvement	17.8%	23.4%	19.9%	26.5%	19.8%	26.4%
Sprain of Shoulder, Arm, Knee, Lower Leg	12.6%	7.9%	14.1%	9.2%	14.0%	9.2%
Other Injuries, Poisonings & Toxic Effects	5.6%	3.5%	7.1%	12.1%	7.0%	11.9%
Wound, Fracture of Shoulder, Arm, Knee, Lower Leg	5.4%	7.7%	3.7%	5.7%	3.7%	5.8%
Ruptured Tendon, Tendonitis, Myositis & Bursitis	5.4%	6.9%	5.6%	6.7%	5.6%	6.7%
Degenerative, Infective & Metabolic Joint Disorders	5.2%	10.4%	4.0%	8.4%	4.0%	8.5%
Vaccination/Prophylaxis or History of Disease	3.2%	2.9%	1.5%	1.2%	1.6%	1.2%
Trauma of Fingers & Toes	2.9%	1.0%	3.0%	1.4%	3.0%	1.4%
External Eye Disorders	2.9%	0.1%	3.6%	0.2%	3.6%	0.2%
Other Diagnosis	17.2%	34.7%	15.0%	26.2%	15.3%	20.0%

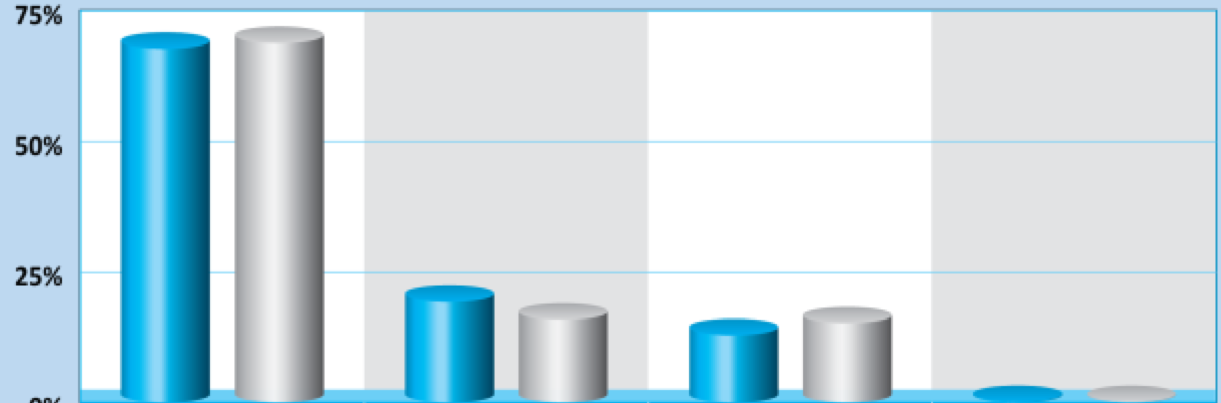
Minor wounds and injuries to the skin; medical back problems without spinal cord involvement (back sprains and strains); shoulder, arm, knee and lower leg sprains; and other injuries, poisonings and toxic effects are the four most common diagnostic categories among workers' compensation claims from the Sierras and from other regions. Compared to the rest of the state, however, the mix of injuries in the Sierras is less concentrated in these four diagnostic categories, as these diagnostic categories combined account for 57.8% of the claims from the Sierras and 36.3% of the loss payments, compared to 63.6% of the claims and 50.2% of the paid losses in other regions.

Among diagnoses that account for a larger share of claims in the Sierras are wounds and fractures of the shoulder, arm, knee, and lower leg (5.4% vs. 3.7% elsewhere); degenerative, infective and metabolic joint disorders (5.2% vs. 4.0%); and vaccinations/prophylaxis or history of disease – primarily screenings for harmful exposures (3.2% vs. 1.5%). These three diagnostic categories also represented a larger share of the loss dollars in the Sierras, together representing 21.0% of the paid losses in the region compared to 15.3% of the loss payments in the rest of the state. External eye disorders were less prevalent among the Sierra claims, representing 2.9% of the diagnoses, compared to 3.6% elsewhere, but those tend to be relatively minor injuries, consuming only 0.1% of the loss payments in the Sierras, and 0.2% of the paid losses in the rest of the state.

Claim and Payment Distribution by Claim Type (Med-Only, TD, PD, Death)

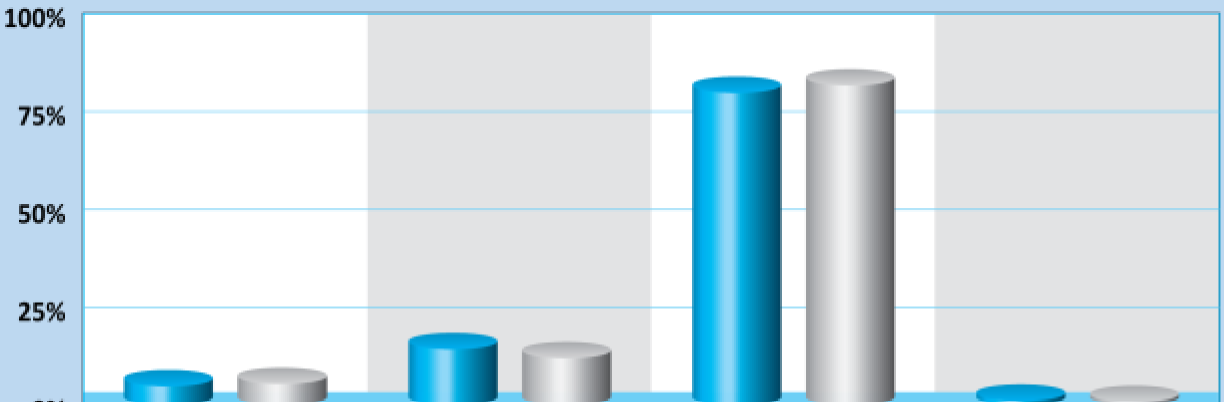
Sierras vs. All Other Regions (AY 2005 – AY 2015 Claims)

Percent of Claims



	Medical Only	Temporary Disability	Permanent Disability	Death
Sierras	67.7%	19.3%	12.9%	< 0.1%
All Other	68.8%	15.9%	15.2%	< 0.1%
Statewide	68.8%	16.0%	15.1%	< 0.1%

Percent of Payments



	Medical Only	Temporary Disability	Permanent Disability	Death
Sierras	4.8%	14.3%	79.8%	1.1%
All Other	5.4%	12.0%	81.7%	0.8%
Statewide	5.4%	12.1%	81.7%	0.8%

Only 12.9% of all claims filed by residents of the Sierras result in a permanent disability, which is 2.3 percentage points below the proportion noted for all other regions combined (only the Central Valley has a lower share). On the other hand, temporary disability claims comprise 19.3% percent of the Sierra claims, which is the highest percentage of TD claims in the state, and 3.4 percentage points above the proportion noted in the rest of the state, indicating that although job injuries in the region result in lost-time, the injured workers tend to go back to work sooner and without a permanent impairment. Medical-only claims also comprise a slightly smaller share of the Sierra claims: 67.7% vs. 68.8% in the rest of the state.

The mix of claims in the Sierras is also reflected in the distribution of paid losses by claim type. Med-only claims account for 4.8% of the total loss payments in the region compared to 5.4% in other regions; temporary disability claims account for 14.3% vs. 12.0% elsewhere; PD claims represent 79.8% of the paid losses on claims from the Sierras (vs. 81.7% in the rest of California), while death claims consume 1.1% of the loss dollars in the Sierras compared to 0.8% in the rest of the state.

Median and Average Notice and Treatment Time Lags					
Injury Date to Employer Notice, Carrier Notice & First Treatment: Sierras vs. All Other Regions (AY 2005 vs. 2013)					
		AY 2005		AY 2013	
		Median Number of Days	Average Number of Days	Median Number of Days	Average Number of Days
Employer Notification	Sierras	1.0	10.5	1.0	10.4
	All Other Regions	1.0	12.0	1.0	12.0
	Statewide	1.0	12.0	1.0	12.0
Carrier Notification	Sierras	7.0	29.2	6.0	24.2
	All Other Regions	8.0	36.0	6.0	34.1
	Statewide	8.0	35.8	6.0	34.0
Time to First Treatment	Sierras	1.0	25.6	1.0	21.2
	All Other Regions	1.0	28.6	1.0	35.0
	Statewide	1.0	28.6	1.0	34.8

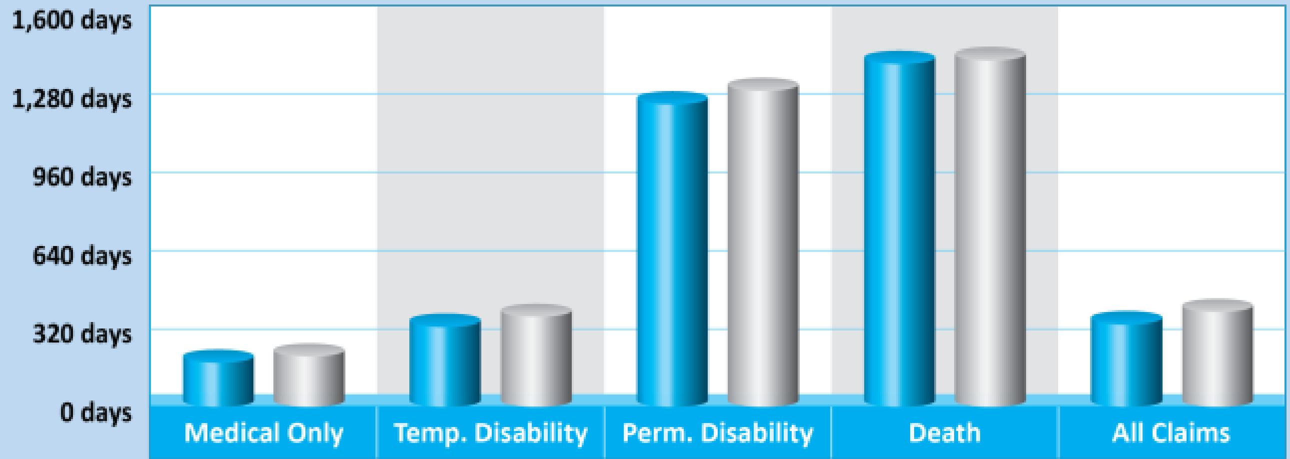
The table above compares the time lags between the date of injury and the employer notice, carrier notice, and initial treatment for AY 2005 and AY 2013 claims filed by workers from the Sierras, other regions, and statewide. The median is the midpoint in a series of numbers – the point at which half the values are greater than amount shown, and half are less. For AY 2005 and AY 2013 claims from the Sierras, other regions and statewide, the median time to employer notice was one day, so in half of all claims the employer knew of the injury within a day. The median time to carrier notice for claims from the Sierras improved from 7 days in AY 2005 to 6 days in AY 2013, while the median for other regions improved from 8 to 6 days, as did the statewide median. The median time to first treatment for claims from the Sierras remained at 1 day, which was the same as the median for all other regions and statewide.

The spread between the average and median time lags for employer and carrier notifications and to first treatment were less for claims from the Sierras than for claims from other regions, indicating that in the Sierras the average time lags to these key claim events were less skewed by outlier claims in which the injury notifications and treatment were delayed for long periods. In addition, between AY 2005 and AY 2013 the average time lag to carrier notification for claims from the Sierras declined from 29.2 to 24.2 days while elsewhere the average only declined from 36.0 to 34.1 days. Over the same period, the average time to first treatment on the Sierra claims fell from 25.6 to 21.2 days, which was in sharp contrast to other regions, where the average time to first treatment increased by nearly a week, from 28.6 to 35.0 days, which may reflect the growth of cumulative trauma claims in other parts of the state outside of the Sierras.

The AY 2013 claims data show that the average time elapsed between the injury date and the employer notification was 1.6 days faster in the Sierras than in the rest of the state (10.4 days vs. 12.0 days); the average time lag to claims administrator notification was 9.9 days faster (24.2 days vs. 34.1 days); and the average time to first treatment was 13.8 days faster (21.2 days vs. 35.0 days).

Average Claim Duration

Average Number of Days (AY 2005-2015 Closed & Resolved Claims)

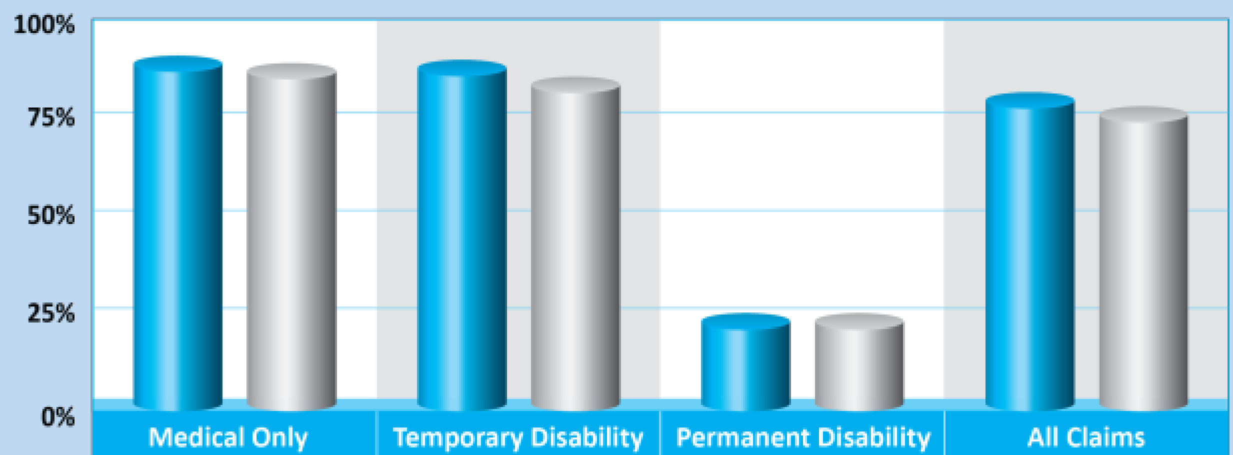


	Medical Only	Temp. Disability	Perm. Disability	Death	All Claims
Sierras	182	328	1,236	1,402	338
All Other	207	368	1,291	1,416	388
Statewide	206	367	1,290	1,416	387

Overall, claims from the Sierras closed more quickly than claims from other parts of California, with the number of days from claim filing to claim closure for all AY 2005-2015 claims averaging 338 days for the Sierras, 50 days less than the average for other parts of the state. For medical-only claims, the average claim duration in the Sierras was 25 days less; among TD claims the average claim duration was 40 days less; among permanent disability claims the average claim duration was 55 days less; and among death claims the average claim duration was 14 days less. Among the characteristics of claims from the Sierras that are associated with shorter claim durations are the shorter time lags to employer and claims administrator notification and to initial treatment, the relatively high proportion of TD claims and low proportion of PD claims, lower levels of attorney involvement, fewer treatment visits, and a relatively low level of lien activity.

Claim Closure Rates by Claim Type at 24 Months Post Injury

Sierras vs. All Other Regions (AY 2005 – AY 2013 Claims)

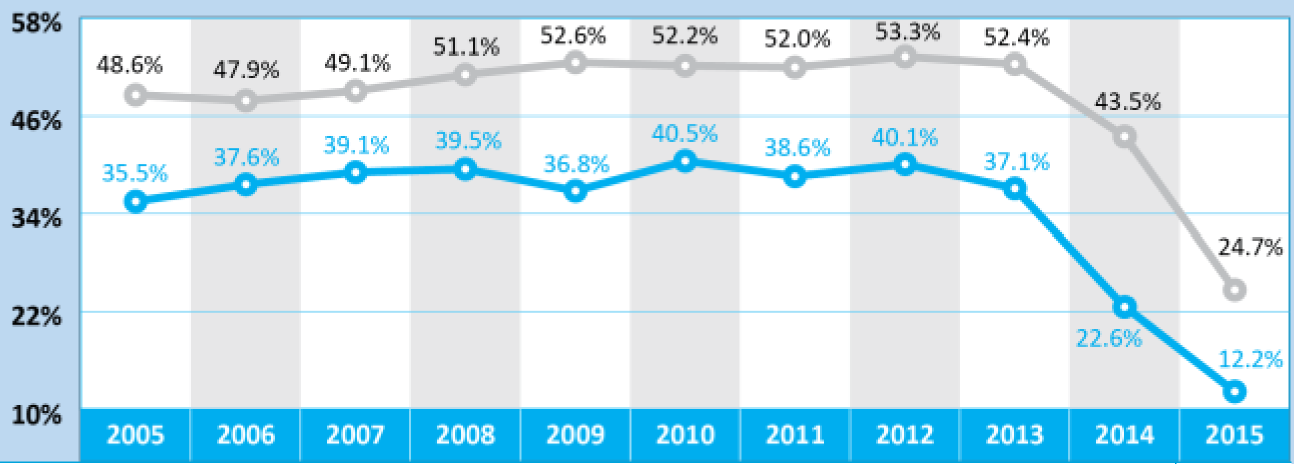


	Medical Only	Temporary Disability	Permanent Disability	All Claims
Sierras	86.7%	85.6%	20.9%	77.3%
All Other	84.8%	81.3%	20.9%	73.7%

At 2 years post injury, the overall claim closure rate for claims from the Sierras is 77.3%, 3.6 percentage points higher than the rate for claims from the rest of California. While the 24-month claim closure rate for PD claims is the same in the Sierras as in other parts of the state (20.9%); the claim closure rate for medical-only claims is 1.9 percentage points higher than in the rest of the state, and 4.3 percentage points higher for TD claims.

Attorney Involvement Rates for Indemnity (TD & PD) Claims

Sierras vs. All Other Regions (AY 2005 – AY 2015 Claims)

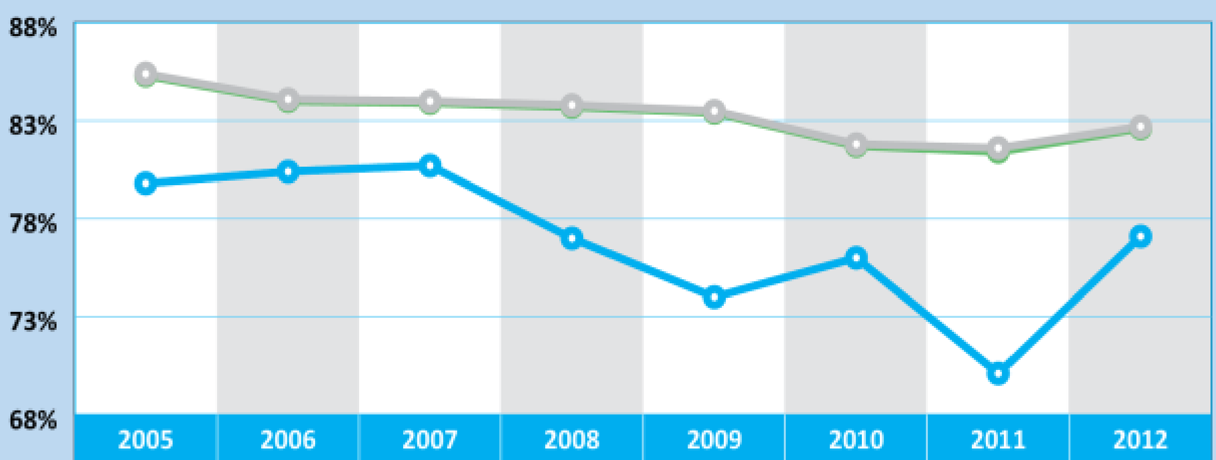


Sierras	**AY 2005 – AY 2015 Average**	36.3%
Other Regions	**AY 2005 – AY 2015 Average**	49.0%
Statewide	**AY 2005 – AY 2015 Average**	48.8%

Only 36.3% of AY 2005-2015 indemnity claims filed by workers living in the Sierras involved attorneys, which is the lowest attorney involvement rate in the state, and 12.7 percentage points below the 49.0% rate for indemnity claims from all other regions. Among lost-time claims, the level of attorney involvement in the Sierras was well below the level noted for other parts of California in each of the 11 years studied, ranging from 10.0 percentage points to 15.8 percentage points less than in the rest of the state.

Attorney Involvement Rates on PD Claims ≥ 36 Months Old

Sierras vs. All Other Regions (AY 2005 – AY 2012 Claims)

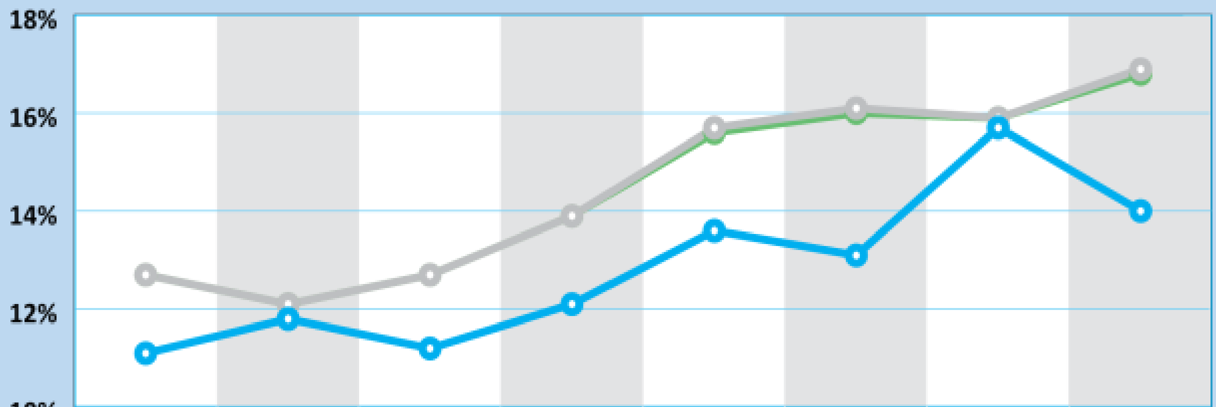


	2005	2006	2007	2008	2009	2010	2011	2012
Sierras	79.8%	80.4%	80.7%	77.0%	74.0%	76.0%	70.1%	77.1%
All Other	85.4%	84.1%	84.0%	83.8%	83.5%	81.8%	81.6%	82.7%
Statewide	85.3%	84.0%	83.9%	83.7%	83.4%	81.7%	81.4%	82.6%

Most PD claims involve attorneys, as the complexity and expense of these cases often lead to disputes over issues such as the compensability of the injury, the nature and extent of the disability, or the appropriate medical care. Attorneys often do not become involved in a claim until well after the injury date, however, and the involvement of applicants' attorneys often hinges on the potential level of permanent disability, as they are paid a percentage (generally 15%) of the injured workers' PD award. Among AY 2005-AY 2012 PD claims that were at least 36 months old, attorney involvement rates in the Sierras ranged from 3.3 to 11.5 percentage points below the attorney involvement rates for similar claims from other regions.

Permanent Disability Rates at 36 Months Post Injury

AY 2005 – AY 2012 Claims



	2005	2006	2007	2008	2009	2010	2011	2012
Sierras	11.1%	11.8%	11.2%	12.1%	13.6%	13.1%	15.7%	14.0%
All Other	12.7%	12.1%	12.7%	13.9%	15.7%	16.1%	15.9%	16.9%
Statewide	12.7%	12.1%	12.7%	13.9%	15.6%	16.0%	15.9%	16.8%

From AY 2005 through AY 2012, the percentage of claims from the Sierras that had PD paid at 36 months post injury was consistently less than the percentage noted in other parts of California, which may be related to the differences in the job mix and income levels in this region, the faster notifications and time to first treatment, and the lower levels of attorney involvement. The proportion of Sierra claims involving PD payments at the 36-month benchmark dipped slightly for AY 2007 claims – shortly after the 2005 PD Rating Schedule was adopted – but then began to trend up, climbing steadily from 11.2% in AY 2007 to 15.7% in AY 2011. In the Sierras, as in other regions, that uptrend in the percentage of claims that involved PD payments followed several court rulings (Almaraz/Guzman, Ogilvie) that allowed PD in cases where previously there had been none. By AY 2011, the percentage of claims from the Sierras that involved a PD award at 36 months post injury was almost the same as in the rest of the state, though by AY 2012, the proportion of Sierra claims with PD fell to 14.0%, still well above the level noted five years earlier, but 2.9 percentage points below the level noted in other regions.

Average Number of Visits & Average Amounts Paid at 12 & 24 Months by Fee Schedule Section

AY 2005-2014* Indemnity Claims, Sierras vs. All Other Regions and Statewide

Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
Visits at 12 Months						
Sierras	7.6	1.1	2.1	0.7	7.5	0.6
All Other	8.8	1.1	2.1	1.2	8.8	1.0
Statewide	**8.8**	**1.1**	**2.1**	**1.1**	**8.8**	**1.0**
Paid at 12 Months						
Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
Sierras	$763	$1,719	$455	$125	$584	$21
All Other	$922	$1,249	$465	$247	$699	$37
Statewide	**$919**	**$1,258**	**$465**	**$244**	**$697**	**$36**
Visits at 24 Months						
Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
Sierras	9.7	1.4	2.6	1.0	9.1	0.7
All Other	11.3	1.4	2.6	1.7	11.0	1.2
Statewide	**11.3**	**1.4**	**2.6**	**1.6**	**11.0**	**1.2**
Paid at 24 Months						
Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
Sierras	$986	$2,263	$556	$210	$710	$27
All Other	$1,201	$1,722	$608	$407	$890	$46
Statewide	**$1,196**	**$1,733**	**$607**	**$403**	**$887**	**$45**

*12-month data is for AY 2005-2014 claims; 24-month data is for AY 2005-2013 claims.

Data on the average number of visits per indemnity claim for various categories of medical services at 12 and 24 months post injury show that claims from the Sierras involved fewer treatment visits for evaluation and management (office visits), Medicine Section services (e.g., cardiovascular, nerve and muscle testing, psych testing and psychotherapy, and physician-administered drugs and biologicals), physical therapy, and chiropractic management; though they averaged the same number of visits for surgery and radiology.

Although the volume of surgical services at 12 and 24 months post injury is the same in the Sierras as in other regions, the average amounts paid for those services were significantly higher in the Sierras than in the rest of the state (37.6% higher at 12 months and 31.4% higher at 24 months). This may be due in part to the use of designated “rural hospitals” which are allowed to charge higher fees, as well as greater reliance on non-network providers. Other than surgical services, however, the average amounts paid at 12- and 24-months for all other major categories of treatment were less in the Sierras than in other regions, with the most notable difference being in the amount paid for Medicine Section services, which had a much lower volume of visits in the Sierras than elsewhere, contributing to average 12- and 24-month payments that were only about half as much as in other regions. The differences in the average medical payments between the Sierras and other parts of California may reflect multiple factors beyond the differences in the number of visits, including the number of services per visit, the mix of services provided, and the availability of lower rates negotiated with network providers in the region.

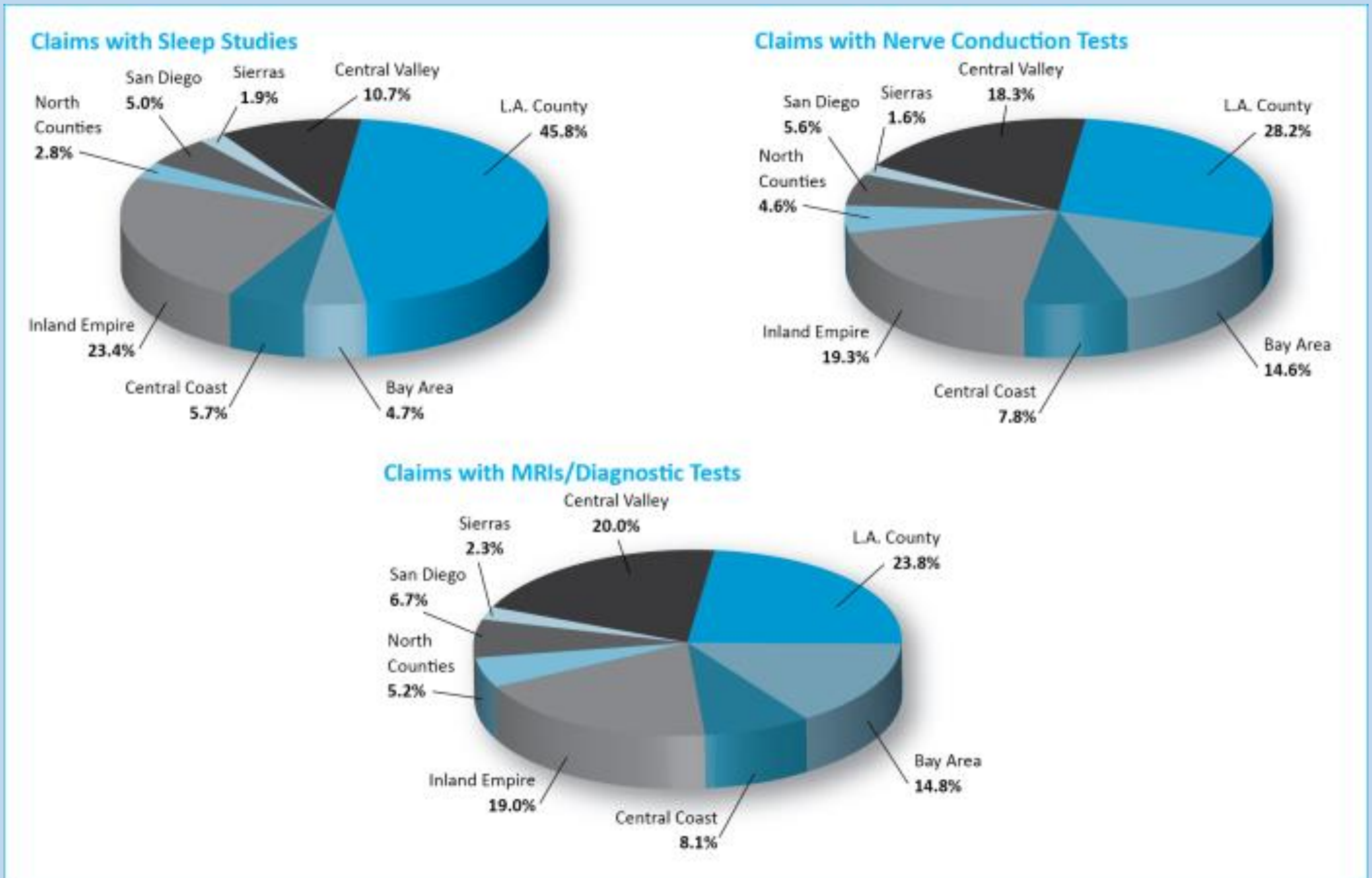
PPO/MPN Utilization – 1st Year Visits			
Network Utilization by Type of Service – Sierras vs. All Other			
Type of Service		**2005 – 2009**	**2010 – 2015**
Evaluation/Management	**Sierras**	78.7%	81.0%
	All Other	79.4%	88.2%
Surgery	**Sierras**	67.7%	71.9%
	All Other	71.1%	78.3%
Radiology	**Sierras**	62.5%	72.5%
	All Other	68.3%	78.8%
Medicine Section	**Sierras**	70.0%	74.6%
	All Other	68.0%	76.6%
Physical Therapy	**Sierras**	58.4%	71.9%
	All Other	63.2%	77.6%
Chiropractic Manipulation	**Sierras**	55.2%	73.1%
	All Other	57.2%	79.5%
Total Visits	**Sierras**	**68.5%**	**76.0%**
	All Other	**71.1%**	**82.3%**

The table above compares network utilization rates for first-year medical services for AY 2005-2009 and AY 2010-2015 claims from the Sierras and from all other regions, broken out by treatment category. Due to the remoteness of the region and the sparse population, medical providers and facilities are not as readily available as in more developed regions, as evidenced by the network utilization data. Since medical provider networks (MPNs) were introduced in 2005, the percentage of all first-year workers' comp medical services rendered by network providers has been consistently lower in the Sierras than in the rest of the state. The overall network utilization in the Sierras did increase from 68.5% of all treatment visits in 2005-2009 to 76.0% in 2010-2015, but at the same time, it continued to lag the rest of the state where the network utilization rate grew from 71.1% to 82.3%.

The breakdown of network utilization by service category for the most recent six-year period (2010-2015) shows that network penetration is greatest for Evaluation/Management services both for the Sierras (81.0%) and other parts of California (88.2%). Among the Sierra claims, the use of networks for other types of medical services ranged from a low of 71.9% for surgery and for physical therapy to a high of 74.6% for Medicine Section services. Compared to the rest of the state, network utilization rates on AY 2010-2015 claims from the Sierras ranged from 2.0 percentage points lower for Medicine Section services to 7.2 percentage points lower for evaluation/management services.

Regional Distribution of Claims with Sleep Studies, Nerve Conduction Tests, & MRIs/Diagnostic Tests

CY 2013 – CY 2015



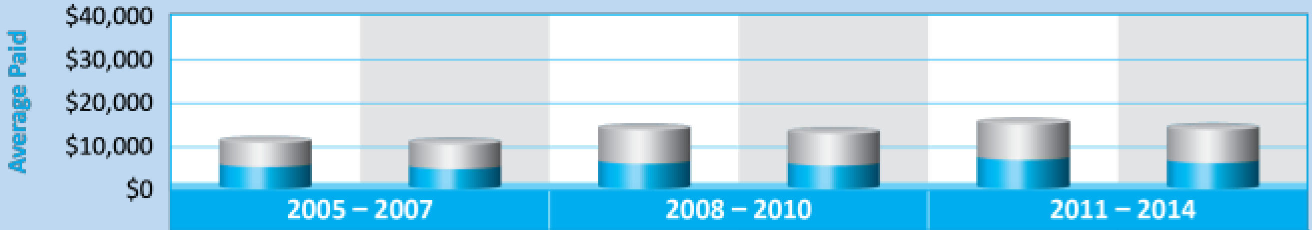
Medical services such as sleep studies, MRIs and diagnostic tests, and nerve conduction tests have been associated with high-cost workers' compensation claims. The pie charts above show the regional distributions of 2013-2015 claims that involved each of these types of services.

Claims by injured workers living in the Sierras accounted for only 1.4% of all California workers' comp claims during this 3-year period, but the distribution of claims with sleep studies shows the region accounted for a relatively high 1.9% of the sleep study claims during this time frame. The proportion of 2013-2015 claims with nerve conduction tests that involved workers from the Sierras was also relatively high (1.6%) given the percentage of all claims from the region. Most notably, the Sierras accounted for 2.3% of all California workers' comp claims with MRIs and diagnostic tests, which was also disproportionately high compared to the 1.4% of all claims that originated in the region during this period.

Loss Development at 12, 24 and 36 Months

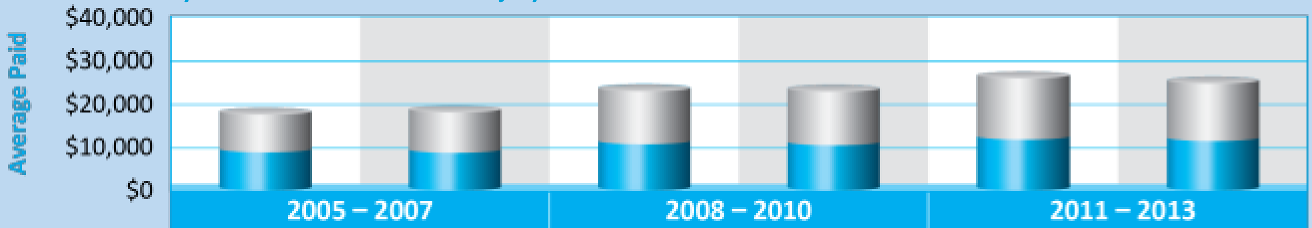
Average Paid, AY 05-07, AY 08-10, AY 11-14 Indemnity Claims – Sierras vs. All Other

AY 2005 – 2014 Indemnity Claims – 12 Months Post Injury



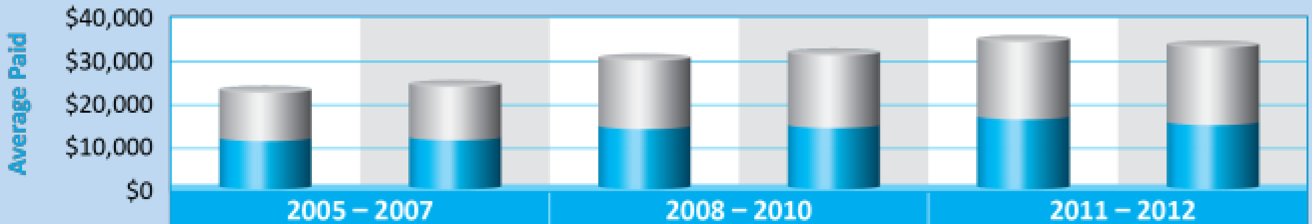
	Sierras	All Other	Sierras	All Other	Sierras	All Other
Medical	$6,058	$6,179	$8,455	$7,991	$8,975	$8,334
Indemnity	$5,606	$5,120	$6,412	$5,912	$7,298	$6,622
Total	$11,664	$11,299	$14,867	$13,903	$16,273	$14,956

AY 2005 – 2013 Indemnity Claims – 24 Months Post Injury



	Sierras	All Other	Sierras	All Other	Sierras	All Other
Medical	$9,539	$10,208	$13,391	$13,568	$15,504	$14,531
Indemnity	$9,542	$9,326	$11,631	$11,304	$12,699	$12,386
Total	$19,081	$19,534	$25,022	$24,872	$28,203	$26,917

AY 2005 – 2012 Indemnity Claims – 36 Months Post Injury



	Sierras	All Other	Sierras	All Other	Sierras	All Other
Medical	$12,257	$13,523	$17,241	$18,305	$19,509	$19,554
Indemnity	$12,080	$12,243	$15,029	$15,389	$17,522	$16,063
Total	$24,337	$25,766	$32,270	$33,694	$37,031	$35,617

A comparison of average loss payments at different development levels for indemnity claims from the Sierras to those from other regions presents a mixed bag. Since AY 2008, average first-year payments for medical care have been higher for the Sierra claims, which could reflect a number of factors, including shorter delays in initial treatment for Sierra claims, lower network utilization rates, higher amounts paid for surgery, higher costs associated with having to travel for treatment, as well as fewer CT claims in which initial treatment may not occur until well after the injury date. Likewise, average indemnity paid at both the 12- and 24-month benchmarks have been higher for the Sierra claims than in the rest of the state, which may be associated with the shorter time lags in the initiation of TD – a factor that would tend to diminish as the claims age, though even in the most recent claims for which 36-month data was available (AY 2011-2012), the average indemnity paid at the 3-year benchmark was still 9.1% higher in the Sierras than elsewhere ($17,522 vs. $16,063). A review of the average 36-month paid losses on indemnity claims from the Sierras over time shows they increased 52.2% from $24,337 on AY 2005-2007 claims to $37,031 on AY 2011-2012 claims, far outpacing the 38.2% growth in average loss payments for claims from other regions, which rose from $25,766 to $35,617.

A closer look at the increase in the average 36-month loss payments shows average medical losses on the Sierra claims rose 59.2% from $12,257 in AY 2005-2007 to $19,509 in AY 2011- 2012, well ahead of the 44.6% growth in other regions; while at the same time average 36-month indemnity on lost-time claims in the Sierras increased from $12,080 to $17,522 (+45%), again, well ahead of the growth in average indemnity payments in the rest of the state, which rose from $12,243 to $16,063 (+31.2%).

Regional Distribution of Prescription Drugs by Drug Category			
CY 2014 Sierras vs. All Other and Statewide			
	Sierras	All Other Regions	Statewide
Analgesics – Opioid	30.8%	27.3%	27.4%
Analgesics – Anti-Inflammatory	13.8%	18.8%	18.6%
Antidepressants	7.9%	6.3%	6.3%
Musculoskeletal Therapy Agents	7.6%	9.4%	9.4%
Anticonvulsants	7.6%	6.9%	6.9%
Ulcer Drugs	3.5%	7.0%	6.9%
Dermatologicals	3.0%	5.1%	5.0%
All Other	**25.8%**	**19.2%**	**19.5%**

Opioids were the number one category of drugs dispensed to injured workers in the Sierras and in the rest of California in 2014, but in the Sierras, they accounted for 30.8% of the prescriptions, which was 3.5 percentage points higher than in the rest of the state. Anti-inflammatory analgesics ranked second in terms of volume, but they represented just 13.8% of the prescriptions in the Sierras, which was 5.0 percentage points less than in other regions. Antidepressants (7.9% of the Sierra prescriptions) and anticonvulsants (7.6%) each accounted for a larger share of the prescriptions in the Sierras, while musculoskeletal therapy agents (7.6%), ulcer drugs (3.5%), and dermatologicals (3.0%) each represented notably smaller percentages of the workers' comp prescriptions in the Sierras than in other parts of the state.

Regional Distribution of Prescription Drug Payments by Drug Category			
CY 2014 Sierras vs. All Other and Statewide			
	Sierras	All Other Regions	Statewide
Analgesic – Opioid	32.5%	25.7%	25.9%
Analgesics – Anti-Inflammatory	8.9%	15.2%	15.0%
Antidepressants	8.7%	6.1%	6.2%
Anticonvulsants	6.8%	6.8%	6.8%
Dermatologicals	5.9%	11.3%	11.1%
Antipsychotic/Antimanic	4.2%	2.2%	2.3%
Ulcer Drugs	3.5%	8.7%	8.5%
All Other	**29.5%**	**24.0%**	**24.2%**

The distribution of the prescription drug dollars among the major drug categories was markedly different in the Sierras compared to other regions. Opioid analgesics (i.e., Vicodin, Tramadol, Percocet and Oxycontin) were the number one drug category in terms of the 2014 prescription drug spend, but they accounted for 32.5% of the prescription drug dollars in the Sierras vs. 25.7% in the rest of California. Anti-inflammatory analgesics (i.e., Ibuprofen, Naproxen, Celecoxib) ranked second in terms of the total drug spend, but accounted for just 8.9% of the prescription payments in the Sierras compared 15.2% elsewhere. Antidepressants also took a larger share of the prescription dollars in the Sierras (8.7% vs. 6.1% in other regions), as did antipsychotic/antimanic drugs, which had nearly double the percentage of the prescription drug spend in the Sierras than in the rest of the state (4.2% vs. 2.2%). Conversely, dermatologicals consumed just 5.9% of the prescription payments in the Sierras vs. 11.3% in other regions, while ulcer drugs accounted for only 3.5% of the prescription dollars in the Sierras, less than half the 8.7% share noted for the rest of California. Anticonvulsants were the only major drug category where the percentage of the drug payments in the Sierras (6.8%) matched the percentage noted for the rest of the state.

Top 20 Prescription Drugs by Volume				
Sierras vs. Other Regions (Calendar Year 2014)				
		% of Total Prescriptions		
Generic Name	**Common Name**	**Sierras**	**Other Regions**	**Statewide**
Hydrocodone-Acetaminophen	Vicodin	16.6%	14.6%	14.7%
Ibuprofen	Advil	5.4%	6.0%	5.9%
Gabapentin	Neurontin	4.7%	4.1%	4.1%
Tramadol	Ultram	2.9%	4.6%	4.6%
Cyclobenzaprine	Flexeril	2.9%	4.1%	4.1%
Oxycodone-Acetaminophen	Endocet/Percocet	2.9%	1.6%	1.7%
Celecoxib	Celebrex	2.7%	1.7%	1.7%
Duloxetine	Cymbalta	2.6%	1.6%	1.6%
Naprosyn	Aleve	2.5%	5.3%	5.2%
Oxycodone	Oxycontin	2.5%	1.6%	1.6%
Morphine	Morphine	1.9%	0.8%	0.8%
Omeprazole	Prilosec	1.8%	4.7%	4.6%
Diclofenac	Voltaren	1.7%	2.3%	2.3%
Zolpidem	Ambien	1.4%	1.6%	1.6%
Pregabalin	Lyrica	1.4%	1.5%	1.5%
Meloxicam	Mobic	1.4%	1.2%	1.2%
Tizanidine	Zanaflex	1.2%	1.4%	1.3%
Lidocaine	Lidocaine	1.1%	1.9%	1.9%
Carisprodol	Soma	1.1%	1.3%	1.3%
Alprazolam	Xanax	1.1%	0.7%	0.8%
Top 20		**59.8%**	**62.6%**	**62.5%**

The table above shows the top 20 drugs dispensed to injured workers living in the Sierras in calendar year 2014, as well as the distribution of those drugs in other regions and statewide. As in the rest of California, the opioid combination drug hydrocodone-acetaminophen (Vicodin) was the most prescribed drug on the Sierras, where it accounted for 16.6% of the prescriptions – 2 percentage points higher than in the rest of the state. The nonsteroidal anti-inflammatory drug (NSAID) ibuprofen (Advil) used for inflammation and pain ranked second, accounting for 5.4% of the prescriptions in the Sierras vs. 6.0% of the prescriptions in the rest of the state, while the anti-convulsant gabapentin ranked third, representing 4.7% of the region's prescriptions, which was slightly higher than the 4.1% share noted in the rest of the state. The opioid tramadol, the muscle relaxant cyclobenzaprine (flexeril), and the opioid combination drug oxycodone/acetaminophen rounded out the top 5, each accounting for 2.9% of the prescriptions dispensed to injured workers in the Sierras in 2014.

Among other drugs there were several that represented a significantly larger share of the prescriptions in the Sierras than in other parts of the state, including the nonsteroidal anti-inflammatory celecoxib; duloxetine, used as an antidepressant and for nerve pain; the opioid painkillers oxycodone and morphine, and the antianxiety drug alprazolam. On the other hand, drugs that accounted for a smaller share of the workers' comp prescriptions in the Sierras were the NSAIDs naprosyn and diclofenac; the antacid omeprazole; and the numbing agent lidocaine, which is often an ingredient in compounded medications.

Altogether, the top 20 drugs in the Sierras accounted for 59.8% of the total workers' compensation prescriptions, while in the rest of the state these drugs comprised 62.6% of the workers' comp prescription medications.

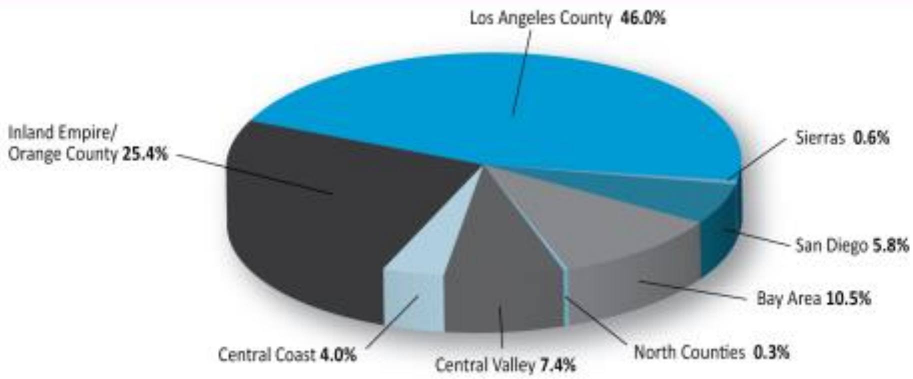
Top 20 Prescription Drugs by Total Payments				
Sierras vs. Other Regions (Calendar Year 2014)				
		% of Total Prescription Payments		
Generic Name	**Common Name**	**Sierras**	**Other Regions**	**Statewide**
Hydrocodone w/Acetaminophen	Vicodin	7.3%	6.5%	6.5%
Oxycodone	Oxycontin	6.5%	5.1%	5.1%
Celecoxib	Celebrex	5.8%	3.8%	3.9%
Duloxetine	Cymbalta	5.0%	3.3%	3.3%
Oxycodone w/ Acetaminophen	Endocet/Percocet	4.4%	2.2%	2.3%
Morphine	Morphine	4.0%	1.4%	1.5%
Pregbalin	Lyrica	3.4%	4.1%	4.1%
Lidocaine	Lidocaine	3.0%	5.5%	5.4%
Diclofenac	Voltaren	2.6%	2.8%	2.8%
Fentanyl	Fentanyl	2.6%	2.3%	2.3%
Gabapentin	Neurontin	2.5%	2.2%	2.2%
Omeprazole	Prilosec	1.6%	6.1%	5.4%
Tramadol	Ultram	1.5%	3.5%	3.4%
Cyclobenzaprine	Flexeril	1.3%	2.4%	2.4%
Naprosyn	Aleve	1.1%	2.6%	2.5%
Tapentadol	Nucynta	1.1%	1.0%	1.0%
Tizanidine	Zanaflex	0.6%	0.7%	0.7%
Zolpidem	Ambien	0.6%	0.6%	0.6%
Ibuprofen	Advil	0.5%	1.6%	1.6%
Pantoprazole	Protonix	0.5%	1.3%	1.3%
Top 20		**55.9%**	**59.0%**	**58.3%**

The table above lists the top 20 drugs dispensed to injured workers in the Sierras in 2014 based on total drug spend, and compares the percentage of the workers' comp prescription drug dollars spent on those drugs to all other regions and statewide. Opioids accounted for a large share of the total drug spend in the Sierras, as hydrocodone with acetaminophen (Vicodin) and oxycodone were at the top of the list, while oxycodone with acetaminophen (#5), morphine (#6), and fentanyl (#10) also were among the region's top 10 prescriptions in terms of total payments. Together, these 5 opioid painkillers consumed 20.8 cents out of every dollar spent on workers' comp prescriptions in the Sierras vs. 17.5 cents out every prescription dollar spent elsewhere.

Drugs that accounted for a higher share of the workers' comp prescription dollars in the Sierras than in other parts of the state included the nonsteroidal anti-inflammatory celecoxib; duloxetine, which is used as an antidepressant and for nerve pain; and the anticonvulsant gabapentin, also used for nerve pain. Common workers' comp medications that accounted for a significantly smaller share of the total drug spend in the Sierras than in other parts of the state included the antacids omeprazole and pantoprazole; the opioid tramadol; the muscle relaxant cyclobenzaprine (also used for pain); and the NSAIDs naprosyn and ibuprofen.

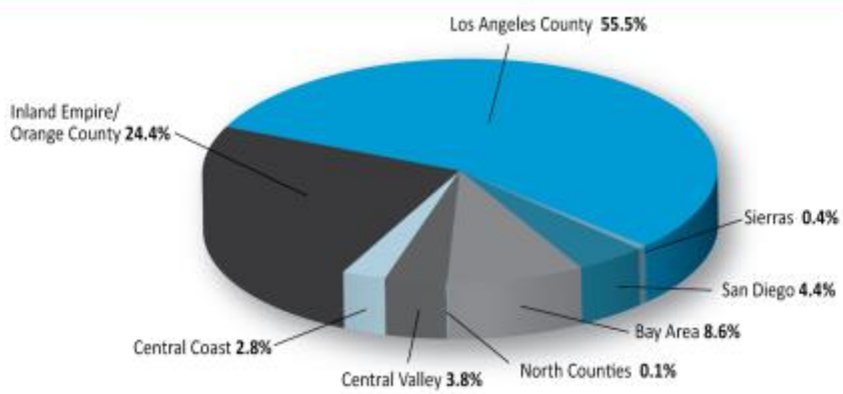
Overall, the prescription drug dollars were less concentrated in the Sierras than in other regions, as the top 20 medications accounted for 55.9% of the total drug spend while those same drugs consumed 59.0% of the total drug payments in the rest of California.

Distribution of California Workers' Comp Claims with Lien Payments by Region



Liens for medical care and other services have become a significant cost driver in California workers' compensation. To determine the distribution of liens across California, the author used the IRIS database to draw a sample of claims that had lien payments then used the injured workers' home ZIP codes to group the claim sample into the 8 Score Card regions. The regional distribution of those lien claims is shown above. Los Angeles County and the Inland Empire/Orange County accounted for most (71.4%) of the claims with lien payments, while few lien claims originate in the Sierras. Although residents of the Sierras accounted for 1.7% of all claims in the state, they were only associated with 0.6% of the claims that had lien payments.

Distribution of California Workers' Comp Lien Dollars Paid by Region



The distribution of workers' compensation lien payments by region shows that nearly 80% of these payments were made on claims from residents of Los Angeles County, Orange County and the Inland Empire. Claims by residents of the Sierras, who account for 1.7% of paid losses in California workers' compensation, represent just 0.4% of the workers' comp lien payments.

IRIS Regional Scorecards are based on Industry Research Information System data, compiled and maintained by the California Workers' Compensation Institute, 1333 Broadway, Suite 510, Oakland CA 94612, (510) 251-9470, www.cwci.org.

About CWCI: The California Workers' Compensation Institute, incorporated in 1964, is a private, non-profit organization of insurers and self-insured employers conducting and communicating research and analyses to improve the California workers' compensation system.