



**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 a period of several months, CWCI has been issuing Score Cards for different regions of the state, each profiling claimant characteristics and showing 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 six 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; and the Central Coast. This Score Card looks at claims filed by residents of the 9 northernmost counties of the state, the rural region stretching from Humboldt and Del Norte Counties on the Pacific Coast across the top tier of the state to Modoc, Lassen, and Plumas Counties on the Nevada border. The region is home to just over a half million Californians and a labor force of about 220,000 workers, or about 1.1% of the the statewide total, but they account for 3.3% of all California workers' compensation claims and 2.5% of 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.

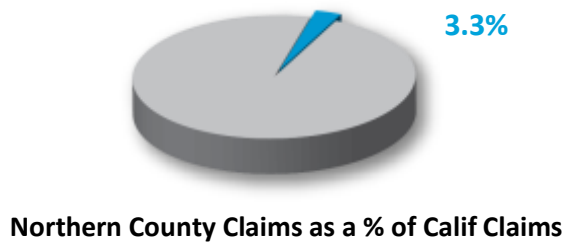
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**Regional Claim and Payment Distributions**

AY 2005 – AY 2015 Claims



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%
<b>North Counties</b>	<b>3.3%</b>	<b>2.5%</b>
Sierras	1.7%	1.7%
<b>Grand Total</b>	<b>100.0%</b>	<b>100.0%</b>

IRIS Regional Score Cards analyze data from California workers' comp claims that have been grouped into 8 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 Northern Counties, which stretches 300 miles across the top of California, bordered by the Pacific Ocean to the west, Oregon to the north, and Nevada to the east. The region includes 9 counties: Del Norte; Humboldt; Lassen; Modoc; Plumas; Shasta; Siskiyou, Tehama; and Trinity, and is one of the most rural areas of the state (no city in the region has more than 90,000 people). Blue-collar jobs in high-risk industries such as agriculture and ranching, timber, and fishing dominate the region. For the 11-year period covered by the Score Card, the IRIS database captured data on nearly 63,000 job injury claims filed by Northern County residents -- 3.3% of the nearly 1.9 million claims in the Score Card sample of California claims, resulting in \$738 million in paid losses, or 2.2% of the \$29.5 billion in losses paid on those claims.

**Northern County 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
<b>No. Counties</b>	3.9%	3.7%	3.4%	3.4%	3.1%	3.0%	2.8%	2.7%	2.8%	2.9%	3.0%
<b>All Other</b>	96.1%	96.3%	96.6%	96.6%	96.9%	97.0%	97.2%	97.3%	97.2%	97.1%	97.0%

Between AY 2005 and AY 2015, claims filed by Northern County residents ranged between 2.7% and 3.9% of all California workers' comp claims. That percentage declined from 3.9% in 2005 to 3.1% in the recession year of 2009, and has remained at or below 3% ever since the state's economy began to recover in 2010. The most recent data show that workers living in the Northern Counties accounted for 3.0% of all claims filed in the state in AY 2015, matching the highest level in the last 6 years.

**Claim Distribution by Premium Size – Northern Counties 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
<b>No. Counties</b>	1.3%	11.0%	22.5%	14.5%	32.3%	8.5%	9.9%
<b>Other Regions</b>	1.9%	9.3%	18.8%	11.9%	30.3%	10.2%	17.7%

There are fewer large employers in the Northern Counties compared to other regions, so a smaller share of the Northern County claims involved employers paying over \$500,000 in annual premium (18.4% vs. 27.9% in the rest of the state).



**Injured Worker Profile**

AY 2005 – AY 2015 Claims

	Northern Counties	All Other	Statewide
Average Age	37.7	38.4	38.3
Average Tenure	4.0	4.7	4.6
<b>Gender</b>			
% Male	70.6%	63.3%	63.5%
% Female	29.4%	36.7%	36.5%
<b>% of Claims</b>			
All Claims Statewide	3.3%	96.7%	100.0%
% of Calif WC Translation Svcs.*	3.1%	96.9%	100.0%

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

Injured workers from the Northern Counties averaged 37.7 years at the time of injury, slightly younger than the 38.4 year average for injured workers from other regions. The average job tenure for Northern County workers on their date of injury was 4.0 years, or nearly 15% less than the average of 4.7 years noted for other California injured workers. The prevalence of blue collar jobs in the region is evidenced by the mix of injuries by gender, as males accounted for 70.6% of all Northern County claims -- higher than any other region, and 7.3 percentage points above the level noted for the rest of California. The region accounted for 3.1% of all claims with translation services, slightly below the proportion of all claims that came from the region.

**Distribution by Industry Sector**

Northern Counties vs. All Other (AY 2005-2015 Claims)

Industry	No. Counties	All Other	Statewide
Agriculture	23.3%	6.2%	6.8%
Construction	13.5%	10.3%	10.4%
Retail Trade	11.6%	11.8%	11.8%
Manufacturing	10.4%	13.0%	13.0%
Healthcare	10.0%	12.4%	12.3%
Hotel and Food Services	5.8%	8.8%	8.7%
Clerical Workers	4.1%	7.4%	7.2%
Wholesale Trade	3.6%	4.6%	4.6%
Transportation & Warehousing	3.1%	5.8%	5.7%
Other Services	2.5%	3.7%	3.6%
All Other	12.1%	16.0%	15.9%
<b>Grand Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

The agriculture sector – which includes ranching, forestry, fishing and hunting -- is the number one sector for work injury claims in the Northern Counties, accounting for 23.3% of all claims in the region – higher than any other region of the state and nearly 4 times the proportion noted for all other regions combined. Claims from the construction sector rank second, representing 13.5% of the Northern County claims, which is also well above the 10.3% level found in the rest of the state. Retail trade ranks third, accounting for 11.6% of the region’s claims (which is similar to the 11.8% share noted in other parts of California). Manufacturing and healthcare workers each account for about 1 in 10 claims from the Northern Counties, the hotel and food service sector accounts for 5.8%, and clerical workers account for 4.1%, though those proportions are all well below the levels noted in other parts of California.



**Cause of Injury**

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

Cause of Injury	Percent of Claims		
	No. Counties	All Other Regions	Statewide
Strain/Injury: Lifting	10.1%	10.7%	10.7%
Strain/Injury: Not Otherwise Classified (NOC)	8.4%	8.9%	8.9%
Miscellaneous Cause: Other Injury (NOC)	6.9%	5.5%	5.5%
Fall/Slip: Miscellaneous	5.3%	4.7%	4.8%
Miscellaneous Cause: Animal or Insect	4.6%	2.0%	2.1%
Struck/Injured by: Falling or Flying Object	3.7%	4.2%	4.2%
Strain/Injury: Pushing or Pulling	3.6%	4.0%	4.0%
Fall/Slip: On Same Level	3.4%	4.2%	4.2%
Miscellaneous (Cut, Puncture, Scrape)	3.3%	3.2%	3.2%
Miscellaneous Cause: Foreign Body in Eye	3.2%	2.6%	2.6%
<b>All Other</b>	<b>47.5%</b>	<b>50.0%</b>	<b>49.8%</b>

The top 10 causes of injury noted in the Northern Counties accounted for more than half of all claims in the region. Strains (either due to lifting or not otherwise classified activities) were the leading cause of injury, which tracks with the results from other regions, but a higher share of the claims in the region involved “miscellaneous” injuries caused by “other injuries not otherwise classified; falls and slips; animals or insects (which were more than twice as prevalent as in the rest of the state); and foreign bodies in the eye.

**Nature of Injury**

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

Nature of Injury	Percent of Claims		
	Northern Counties	All Other Regions	Statewide
Strain	30.4%	28.8%	28.9%
Laceration	12.7%	12.4%	12.4%
Contusion	10.3%	10.1%	10.1%
All Other, Not Otherwise Classified (NOC)	8.3%	10.1%	10.0%
Sprain	6.9%	9.6%	9.5%
All Other Cumulative Injuries	5.6%	4.9%	4.9%
Fracture	4.7%	3.4%	3.4%
Puncture	4.2%	3.4%	3.6%
Foreign Body	4.1%	2.7%	2.8%
Multiple Physical Injuries	1.9%	1.8%	1.8%
<b>All Other</b>	<b>10.9%</b>	<b>12.8%</b>	<b>12.6%</b>

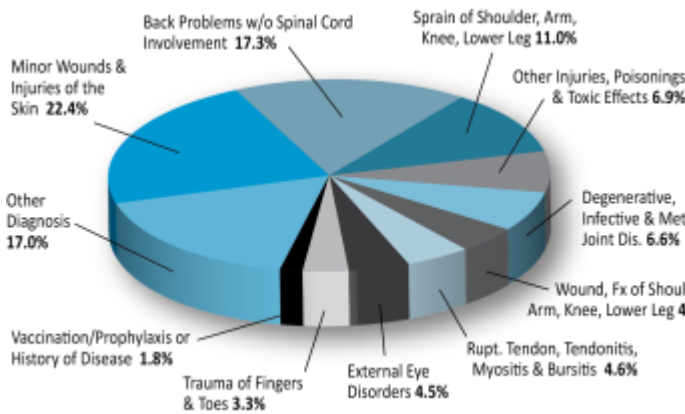
The list of the most common injury categories shows that compared to claims from the rest of California, the Northern Counties had a higher proportion of claims that involved strains, foreign bodies, fractures, punctures, and all other cumulative injuries. On the other hand, there were fewer claims for “all other, not otherwise classified” injuries and sprains. The top 3 nature of injury category in the Northern County claims matched the top 3 for the rest of the state, with strains topping the list with 30.4% of the claims, followed by lacerations (12.7%), and contusions (10.3%). Overall, the top 10 nature of injury categories accounted for 89.1% of all job injuries in the Northern Counties, compared to 87.2% of the claims from other parts of California.



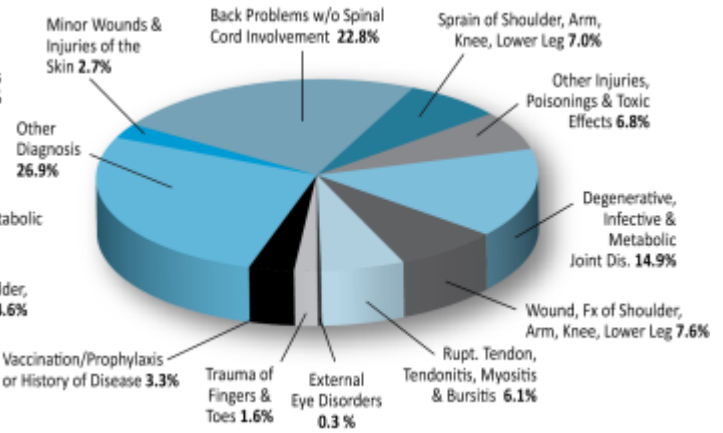
**Claim and Payment Distributions by Diagnosis**

Claim and Payment Distributions for AY 2005-2015 Claims

**Northern Counties  
% of Claims by Diagnosis**



**Northern Counties  
% of Payments by Diagnosis**



		Northern Counties		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	22.4%	2.7%	22.4%	2.4%	22.4%	2.4%
	Medical Back Problems w/o Spinal Cord Involvement	17.3%	22.8%	19.9%	26.5%	19.8%	26.4%
	Sprain of Shoulder, Arm, Knee, Lower Leg	11.0%	7.0%	14.2%	9.2%	14.0%	9.2%
	Other Injuries, Poisonings & Toxic Effects	6.9%	6.8%	7.0%	12.1%	7.0%	11.9%
	Degenerative, Infective & Metabolic Joint Disorders	6.6%	14.9%	3.9%	8.3%	4.0%	8.5%
	Wound, Fracture of Shoulder, Arm, Knee, Lower Leg	4.6%	7.6%	3.7%	5.7%	3.7%	5.8%
	Ruptured Tendon, Tendonitis, Myositis & Bursitis	4.6%	6.1%	5.7%	6.7%	5.6%	6.7%
	External Eye Disorders	4.5%	0.3%	3.5%	0.2%	3.6%	0.2%
	Trauma of Fingers & Toes	3.3%	1.6%	3.0%	1.4%	3.0%	1.4%
	Vaccination/Prophylaxis or History of Disease	1.8%	3.3%	1.6%	1.2%	1.6%	1.2%
	Other Diagnosis	17.0%	26.9%	15.1%	26.3%	15.3%	26.3%

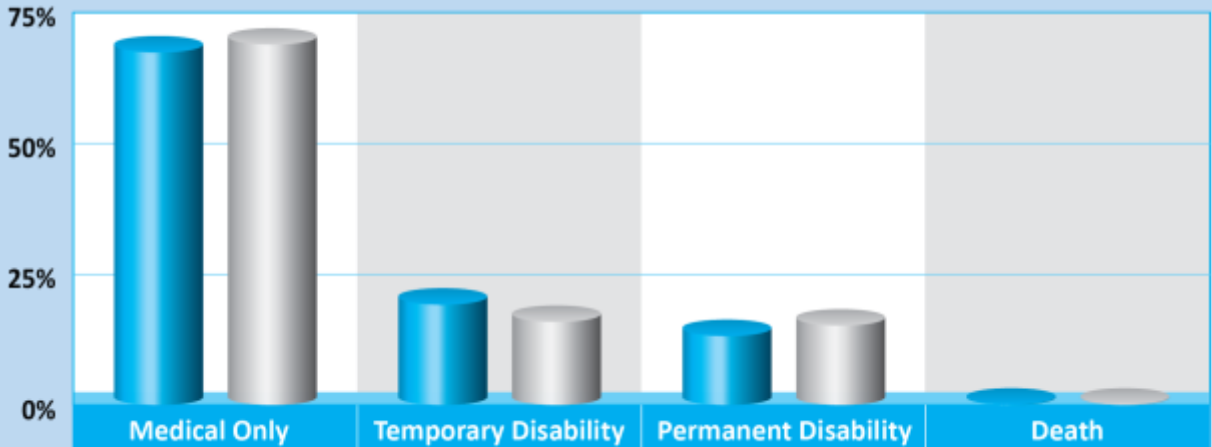
The top diagnostic categories for Northern County claims, as in the rest of the state, are minor wounds and injuries to the skin, medical back problems without spinal cord involvement (back sprains and strains), and shoulder, arm, knee and lower leg sprains, though back sprains and strains and the other sprains are less prevalent in this region and consume a smaller share of paid losses. Altogether, the top 3 diagnoses account for 50.7% of Northern County claims and 32.5% of the loss payments vs. 56.5% of claims and 38.1% of the paid losses in other regions. Other injuries, poisonings and toxic effects -- often non-specific or ill-defined injuries, were the fourth most common diagnosis in the Northern Counties and in other regions, representing about 7% of the claims, but in the Northern Counties, they represented only 6.8% of total loss payments vs. 12.1% in other regions. On the other hand, claims with a diagnosis of degenerative, infective, and metabolic joint disorders comprised a larger share of the Northern County cases (6.6% vs. 3.9%) and loss payments (14.9% vs. 8.3%). Wounds and fractures of the shoulder, arm, knee or lower leg were also more prevalent (4.6% vs. 3.7% elsewhere) and took a larger share of the region's loss payments (7.6% vs. 5.7%); as were external eye disorders (4.5% of the claims and 0.3% of the dollars vs. 3.5% of the claims and 0.2% of paid losses elsewhere). Vaccination/prophylaxis or history of disease -- likely related to working with animals -- represented 1.8% of the diagnoses in the Northern Counties vs. 1.6% in other regions, but these claims consumed 3.3% of Northern County losses vs. 1.2% elsewhere.



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

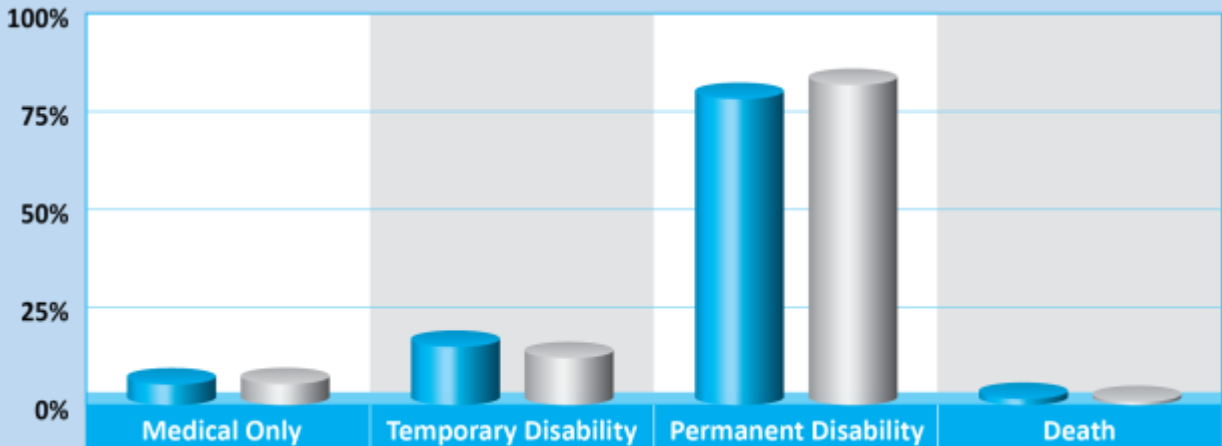
Northern Counties vs. All Other Regions (AY 2005 – AY 2015 Claims)

Percent of Claims



	Medical Only	Temporary Disability	Permanent Disability	Death
<b>No. Counties</b>	67.4%	19.2%	13.2%	< 0.1%
<b>All Other</b>	68.9%	15.9%	15.2%	< 0.1%
<b>Statewide</b>	68.8%	16.0%	15.1%	< 0.1%

Percent of Payments



	Medical Only	Temporary Disability	Permanent Disability	Death
<b>No. Counties</b>	5.3%	14.9%	78.2%	1.6%
<b>All Other</b>	5.4%	12.0%	81.8%	0.8%
<b>Statewide</b>	5.4%	12.1%	81.7%	0.8%

Claim and payment distributions for Northern County claims show a slightly different mix of claims in this region compared to the rest of the state, with more temporary disability claims (19.2% in the Northern Counties vs. 15.9% elsewhere), but fewer medical only cases and notably, fewer permanent disability claims, which tend to be some of the most serious and expensive claims.

The distribution of paid losses by claim type shows similar differences compared to other parts of the state. Medical-only claims account for 5.3% of the Northern County paid loss payments, just below the 5.4% in other regions, but temporary disability claims account for 14.9% vs. 12.0% elsewhere; while PD claims represent 78.2% of the Northern Counties' paid losses – the lowest share of any of the 8 regions of the state and 3.6 percentage points less than the 81.8% share noted for the rest of California. On the other hand, death claims, though still less than 0.1% of the region's claims, account for 1.6% of the total loss payments in the Northern Counties, double the proportion noted for the rest of California and the highest percentage in the state.

**Median and Average Notice and Treatment Time Lags**

Injury Date to Employer Notice, Carrier Notice &amp; First Treatment: No. Counties 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
<b>Employer Notification</b>	No. Counties	1.0	8.5	1.0	7.2
	All Other Regions	1.0	12.2	1.0	12.3
	Statewide	1.0	12.0	1.0	12.0
<b>Carrier Notification</b>	No. Counties	7.0	22.4	6.0	22.1
	All Other Regions	8.0	36.6	6.0	34.4
	Statewide	8.0	35.8	6.0	34.0
<b>Time to First Treatment</b>	No. Counties	1.0	20.5	1.0	20.3
	All Other Regions	1.0	28.9	1.0	35.3
	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 Northern Counties, 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 Northern Counties, 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 Northern Counties 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 Northern Counties remained at 1 day, matching the median for all other regions and statewide.

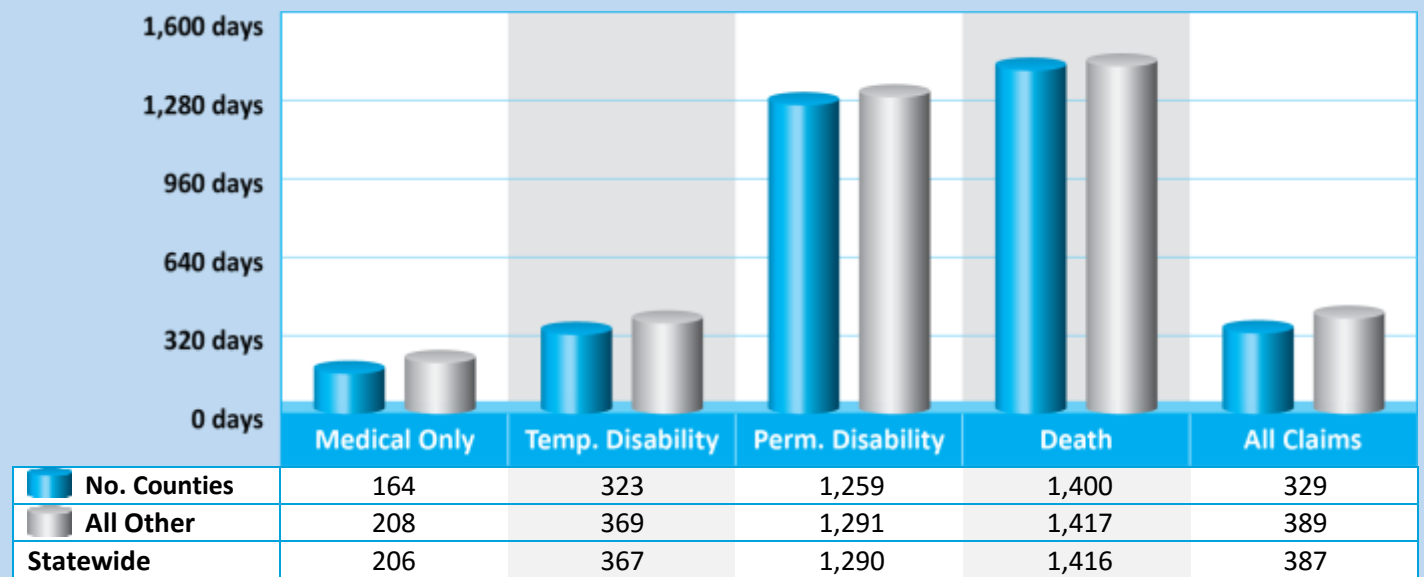
The difference between the average and median time lags for employer and carrier notifications and to first treatment was significantly less for claims from the Northern Counties than for claims from other regions, indicating that among Northern County claims the average time lags to these key claim events were less skewed by outlier claims in which the injury notifications and treatment were delayed for long periods. In addition to having faster employer and claims administrator notifications and initial treatment, between AY 2005 and AY 2013 the average time to employer notification for the Northern County claims improved from 8.5 to 7.2 days, while in the rest of the state the average time to employer notification remained more than 12 days. Similarly, over that same 9-year period, the average time lag to initial treatment on the Northern County claims edged down from 20.5 to 20.3 days, which was in sharp contrast to the rest of the state, where the average time to first treatment increased by nearly a week, from 28.9 days to 35.3 days. Again, this result suggests that the average time lags noted for the Northern Counties may be less skewed by outlier claims in which the notifications and treatment are delayed for extended periods.

The AY 2013 claims data show that the average time elapsed between the injury date and the employer notification was 5.1 days faster in the Northern Counties than in the rest of the state (7.2 days vs. 12.3 days); the average time lag to claims administrator notification was 12.3 days faster (22.1 days vs. 34.4 days); and the average time to first treatment was 15 days faster (20.3 days vs. 35.3 days).



**Average Claim Duration**

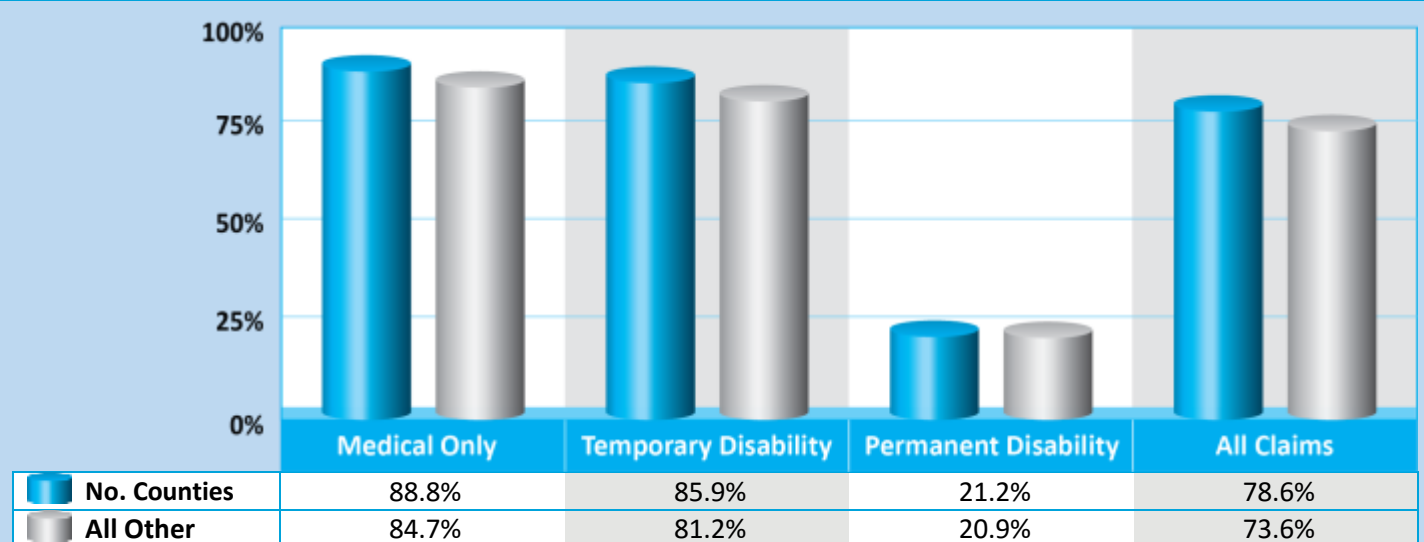
Average Number of Days (AY 2005-2015 Closed & Resolved Claims)



Average claim durations for all types of claims were shorter in the Northern Counties than other regions, with the number of days from claim filing to claim closure for all AY 2005-2015 claims averaging 329 in this part of the state, a full 2 months (60 days) less than the average for other regions. Among med-only claims, average claim duration in the Northern Counties was 34 days less; among TD claims the average claim duration was 46 days less; among PD claims the average claim duration was 32 days less; and among death claims the average claim duration was 17 days less. The Score Card noted several characteristics in the claims from the Northern Counties that are associated with shorter claim durations: faster notifications and initial treatment; a different injury mix (with a high percentage of specific injuries); a different mix of medical services; a large share of the claims from the agricultural sector; less attorney involvement; and a low level of lien activity relative to the region's claim volume.

**Claim Closure Rates by Claim Type at 24 Months Post Injury**

No. Counties vs. All Other Regions (AY 2005 – AY 2013 Claims)



At 2 years post injury the overall claim closure rate for claims from the Northern Counties is 78.6%, 5 percentage points higher than the rate for claims from other regions, and the highest 2-year closure rate in the state. Higher claim closure rates in the Northern Counties are noted across all claim types, but are most evident among med-only and TD claims, as the claim closure rate is 4.1 percentage points higher than in the rest of the state for med-only claims and 4.7 percentage points higher for TD claims.



**Attorney Involvement Rates for Indemnity (TD & PD) Claims**

No. Counties vs. All Other Regions (AY 2005 – AY 2015 Claims)

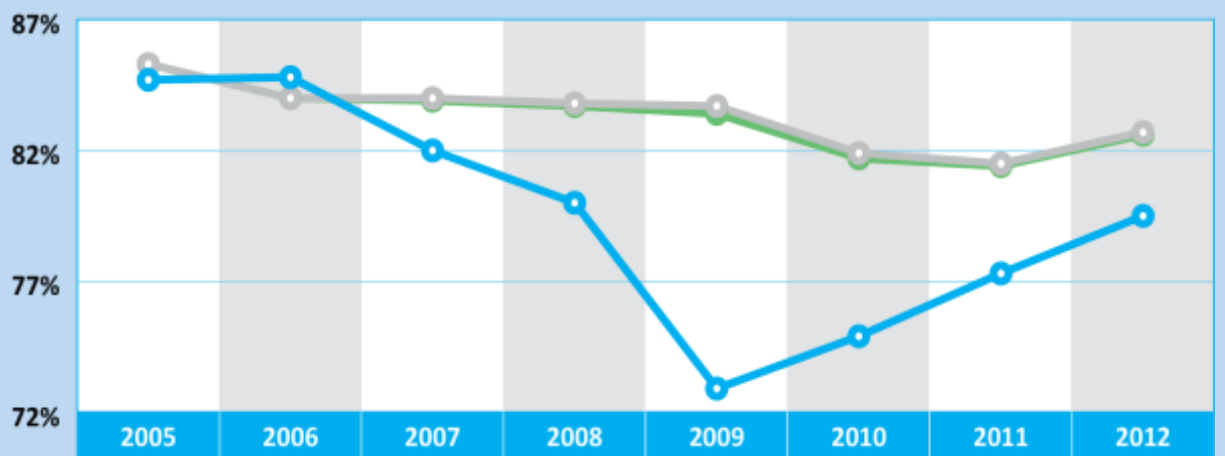


<b>No. Counties</b>	<b>AY 2005 – AY 2015 Average</b>	39.6%
<b>Other Regions</b>	<b>AY 2005 – AY 2015 Average</b>	49.1%
<b>Statewide</b>	<b>AY 2005 – AY 2015 Average</b>	48.8%

Less than 40% of AY 2005-2015 indemnity claims filed by residents of the Northern Counties involved attorneys, which was the second lowest attorney involvement rate in the state (only the Sierras had a lower rate), and 10.5 percentage points below the 49.1% rate noted for indemnity claims from all other regions. Attorney involvement rates in the Northern Counties were well below the rates recorded for the rest of the state in each of the 11 years examined for the Score Card. Other than AY 2014 and AY 2015 claims, where the data is the least developed, attorney involvement rates for Northern County lost-time claims ranged from 8.7 to 13.1 percentage points less than the rates for indemnity claims from other regions.

**Attorney Involvement Rates on PD Claims ≥ 36 Months Old**

No. Counties vs. All Other Regions (AY 2005 – AY 2012 Claims)



<b>No. Counties</b>	84.7%	84.8%	82.0%	80.0%	72.9%	74.9%	77.3%	79.5%
<b>All Other</b>	85.3%	84.0%	84.0%	83.8%	83.7%	81.9%	81.5%	82.7%
<b>Statewide</b>	85.3%	84.0%	83.9%	83.7%	83.4%	81.7%	81.4%	82.6%

Only 15% of all claims result in PD, but due to the severity of the injuries and the complexity and expense of the claims, disputes often arise over issues such as compensability, the nature and extent of the disability, or medical care. As a result, attorney involvement in PD claims is higher than in other claims, though attorneys often do not become involved until well after the injury date. Data on PD claims that were at least 3 years old (AY 2005-2012 cases) show attorney involvement on Northern County cases was typically less than in other regions, ranging from 0.8 percentage points above to 10.8 percentage points below other areas.



Permanent Disability Rates at 36 Months Post Injury

AY 2005 – AY 2012 Claims



	2005	2006	2007	2008	2009	2010	2011	2012
<b>No. Counties</b>	12.0%	11.2%	11.6%	13.2%	14.6%	14.7%	14.5%	15.2%
<b>All Other</b>	12.7%	12.1%	12.7%	13.9%	15.7%	16.1%	15.9%	16.9%
<b>Statewide</b>	12.7%	12.1%	12.7%	13.9%	15.6%	16.0%	15.9%	16.8%

From AY 2005 through AY 2010, the percentage of claims that received PD payments within 36 months of injury was consistently lower in the Northern Counties than in other parts of California, which may be associated with the differences in the mix of jobs and injuries in this region (i.e., the high percentage of claims involving joint pain, external eye disorders and broken bones that in many cases do not result in permanent impairment), the lower levels of attorney involvement, and the faster notifications and time to first treatment. As in other regions, the percentage of claims from the Northern Counties that involved PD payments at 36 months dipped briefly after the 2005 PD Rating Schedule was adopted, but then began to rise by AY 2007, increasing in the wake of several court rulings (Almaraz/Guzman, Ogilvie) that allowed PD in cases where previously there had been none. By AY 2012, 15.2 percent of all claims filed by residents of the Northern Counties involved a PD award at 36 months post injury, which was still 1.7 percentage points less than the rate noted in the rest of the state, but up 4 percentage points from the low noted in AY 2006.



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

AY 2005-2014\* Indemnity Claims, No. Counties vs. All Other Regions and Statewide

**Visits at 12 Months**

Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
No. Counties	8.5	1.1	2.2	0.6	7.0	0.7
All Other	8.8	1.1	2.1	1.1	8.9	1.0
<b>Statewide</b>	<b>8.8</b>	<b>1.1</b>	<b>2.1</b>	<b>1.1</b>	<b>8.8</b>	<b>1.0</b>

**Paid at 12 Months**

Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
No. Counties	\$786	\$1,378	\$411	\$125	\$536	\$26
All Other	\$925	\$1,253	\$467	\$249	\$704	\$37
<b>Statewide</b>	<b>\$919</b>	<b>\$1,258</b>	<b>\$465</b>	<b>\$244</b>	<b>\$697</b>	<b>\$36</b>

**Visits at 24 Months**

Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
No. Counties	10.6	1.3	2.6	0.9	8.6	0.9
All Other	11.3	1.4	2.6	1.7	11.1	1.2
<b>Statewide</b>	<b>11.3</b>	<b>1.4</b>	<b>2.6</b>	<b>1.6</b>	<b>11.0</b>	<b>1.2</b>

**Paid at 24 Months**

Region	E/M	Surgery	Radiology	Medicine	PT	Chiro
No. Counties	\$ 963	\$1,784	\$506	\$206	\$664	\$34
All Other	\$1,206	\$1,731	\$612	\$411	\$896	\$46
<b>Statewide</b>	<b>\$1,196</b>	<b>\$1,733</b>	<b>\$607</b>	<b>\$403</b>	<b>\$887</b>	<b>\$45</b>

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

The table above shows the average number of visits per indemnity claim at 12 and 24 months post injury for various types of medical services, along with the average amounts paid for those visits for claims from the Northern Counties and claims from the rest of the state. At both the 12- and 24-month benchmarks, claims from the Northern Counties averaged fewer visits than claims from the rest of the state for evaluation/management (E/M) services (office visits), Medicine Section services (cardiovascular, nerve and muscle testing, psych testing and psychotherapy, and physician-administered drugs), physical therapy and chiropractic manipulation. On the flip side, the Northern County claims averaged about the same number of visits for surgery and radiology services.

The average amounts paid at both 12 and 24 months post injury for all categories of medical services except surgery were lower on claims from the Northern Counties than in the rest of the state. The average paid for surgery services in the first year post injury was \$125 (10%) higher in the Northern Counties than in other regions, but that differential declined to \$53 (3.1%) at the 2-year benchmark. As for other treatment categories, 24-month payments in the Northern Counties averaged \$243 (20.1%) less for evaluation/management services; \$106 (17.3%) less for radiology; \$205 (49.9%) less for Medicine Section services; \$232 (25.9%) less for physical therapy; and \$12 less for chiropractic manipulation. These differences in the average amounts paid for medical services between the Northern Counties 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, or the availability of lower rates negotiated with network providers in the region.

**PPO/MPN Utilization – 1st Year Visits**

## Network Utilization by Type of Service – Northern Counties vs. All Other

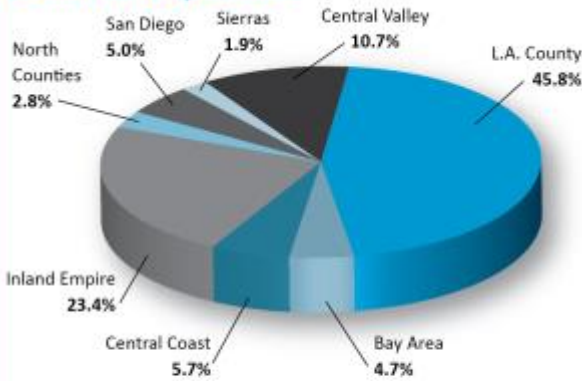
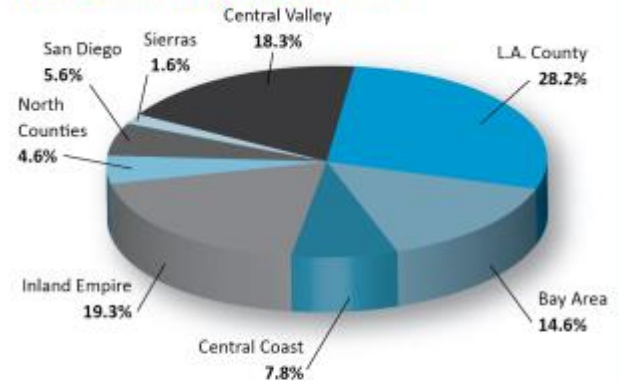
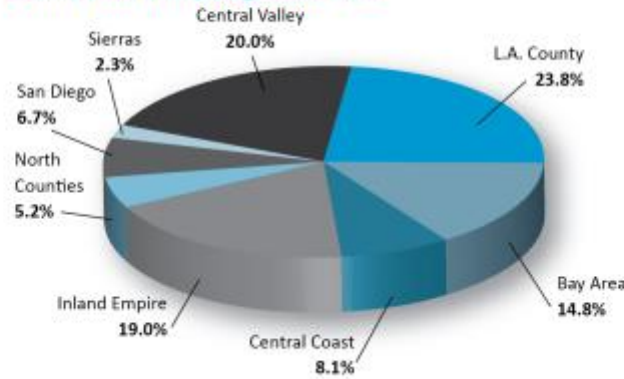
Type of Service		2005 – 2009	2010 – 2015
Evaluation/Management	Northern Counties	70.0%	75.6%
	All Other	79.8%	88.5%
Surgery	Northern Counties	64.8%	67.0%
	All Other	71.3%	78.6%
Radiology	Northern Counties	56.1%	63.2%
	All Other	68.7%	79.3%
Medicine Section	Northern Counties	57.7%	65.9%
	All Other	68.3%	76.9%
Physical Therapy	Northern Counties	44.2%	63.5%
	All Other	63.7%	78.0%
Chiropractic Manipulation	Northern Counties	52.4%	64.0%
	All Other	57.3%	79.7%
Total Visits	Northern Counties	<b>59.7%</b>	<b>69.3%</b>
	All Other	<b>71.5%</b>	<b>82.6%</b>

The table above compares network utilization rates for first-year medical services for AY 2005-2009 and AY 2010-2015 claims from the Northern Counties and from all other regions, broken out by treatment category. Overall, in the Northern Counties the percentage of first-year workers' comp medical services rendered by network providers has been significantly lower than in other parts of the state across all medical service categories, and has remained so since Medical Provider Networks were first introduced in 2005. As in other regions, however, network penetration in the Northern Counties has increased since the MPNs began operations, with the overall network utilization rate climbing from 59.7% of all treatment visits in 2005-2009 to 69.3% in 2010-2015, about a 10 percentage point increase, which nearly matches the growth seen in other parts of California.

The network utilization rates by service category for the most recent six-year period (2010-2015) show that the use of networks has been greatest for E/M services both in the Northern Counties (75.6%) and other parts of California (88.5%). Network penetration in the Northern Counties for other medical service categories ranges from a low of 63.2% for radiology to a high of 67.0% for surgery, with the region's network utilization rates ranging from 11.0 percentage points lower than in the rest of the state for Medicine Section services to 16.1 percentage points lower for radiology, underscoring the relative scarcity of many medical specialties in rural areas of California.

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

CY 2013 – CY 2015

**Claims with Sleep Studies**

**Claims with Nerve Conduction Tests**

**Claims with MRIs/Diagnostic Tests**


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 from the Northern Counties accounted for 2.9% of California workers' comp claims during this 3-year period, and the distribution of claims with sleep studies shows the region accounted for about the same percentage of the sleep study claims, 2.8%.

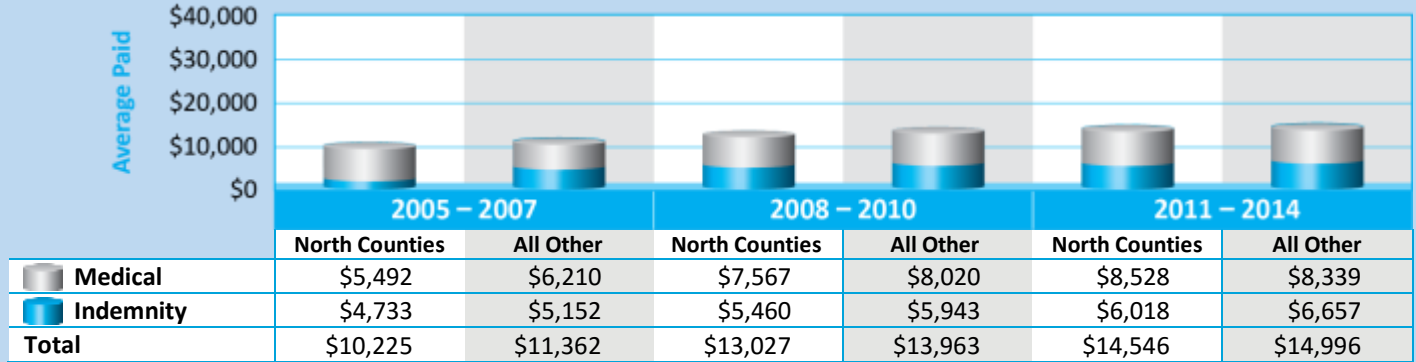
In contrast, 4.6% of the 2013-2015 claims with nerve conduction tests involved residents of the Northern Counties, which was disproportionately high relative to the region's overall claim volume during this period, though it does track with the region's high incidence of claims involving degenerative, infective, and metabolic joint disorders as nerve conduction tests are often used to evaluate numbness, tingling, burning or weakness of the arms and legs. Similarly, the Northern Counties accounted for 5.6% of all claims that had MRIs and diagnostic tests, which was also a disproportionately high share as it was twice the region's percentage of total California claim volume during the period.



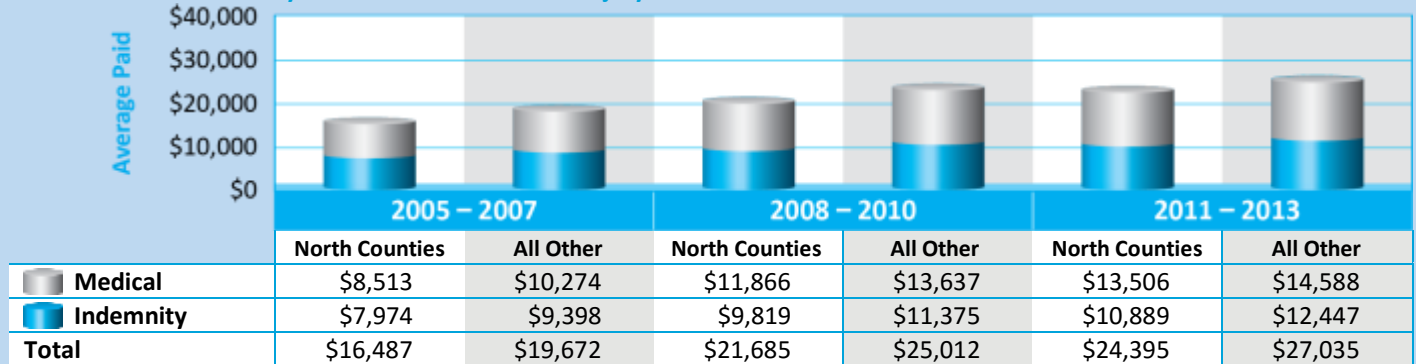
**Loss Development at 12, 24 and 36 Months**

Average Paid, AY 05-07, AY 08-10, AY 11-14 Indemnity Claims – No. Counties vs. All Other

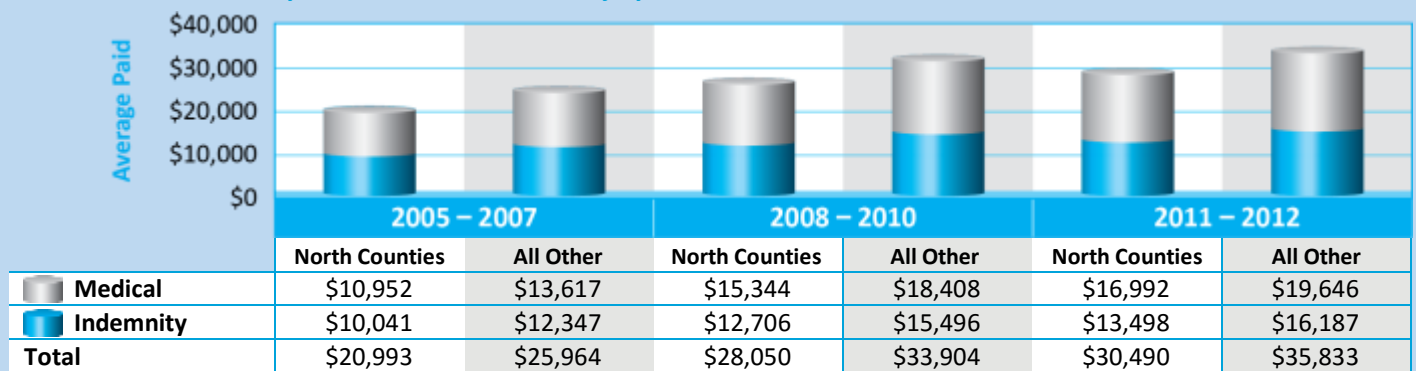
**AY 2005 – 2014 Indemnity Claims – 12 Months Post Injury**



**AY 2005 – 2013 Indemnity Claims – 24 Months Post Injury**



**AY 2005 – 2012 Indemnity Claims – 36 Months Post Injury**



The table above compares average paid losses for indemnity claims from the Northern Counties to the average amounts paid on claims from other regions for 3 periods (AY 2005-2007, AY 2008-2010, and AY 2011 through the most recent year available). Average amounts paid for medical and indemnity benefits, and total losses, are noted at 12, 24, and 36 months post injury to show loss development on claims from each period.

Over the past decade, total loss payments per claim have been consistently lower on claims from the Northern Counties than on claims from other regions at the 12- 24- and 36-month benchmarks. Except for first-year medical losses on AY 2011-2014 claims, average medical payments on the Northern County claims have been less than those from other regions, while average indemnity payments have been less across all three time periods and at all three benchmarks, due in part to the region’s relatively low average wages, as the average TD and PD payments are partially tied to the injured workers’ at-injury wages.

The most fully developed data in the Score Card show that while average claim costs in the Northern Counties remain significantly lower than in other parts of California, they have increased at a faster rate in recent years. Average 36-month paid losses on indemnity claims from the Northern Counties increased 45.2% from \$20,993 on AY 2005-2007 claims to \$30,490 on AY 2011-2012 claims, compared to 38.0% growth in average loss payments for claims from other regions, which rose from \$25,964 to \$35,833. Taking a closer look at the growth in 36-month claim payments shows average medical losses at the 3-year benchmark increased 55.1% on claims from the Northern Counties vs. the 44.3% growth noted elsewhere, while average 36-month indemnity in the Northern Counties rose 34.4% compared to a 31.1% increase in average indemnity payments in the rest of the state.

**Regional Distribution of Prescription Drugs by Drug Category**

CY 2014 Northern Counties vs. All Other and Statewide

	Northern Counties	All Other Regions	Statewide
Analgesics – Opioid	30.7%	27.2%	27.4%
Analgesics – Anti-Inflammatory	17.1%	18.7%	18.6%
Musculoskeletal Therapy Agents	8.3%	9.4%	9.4%
Anticonvulsants	7.5%	6.9%	6.9%
Antidepressants	5.8%	6.3%	6.3%
Ulcer Drugs	3.8%	7.1%	6.9%
Dermatologicals	2.4%	5.2%	5.0%
<b>All Other</b>	<b>24.4%</b>	<b>19.2%</b>	<b>19.5%</b>

The distribution of 2014 workers' compensation prescription drugs by major drug category shows that opioids topped the list both in the Northern Counties and elsewhere, though they represented a higher proportion of the prescriptions in the Northern Counties than in the rest of the state (30.7% vs. 27.2%). Anti-inflammatory analgesics ranked second, with 17.1% of the Northern County prescriptions, but that share was 1.6 percentage points less than in other regions, while musculoskeletal therapy agents were the third most frequently prescribed category of drugs in the Northern Counties, with 8.3% of the prescriptions, though that percentage also was less than the 9.4% share noted in the rest of the state. Among the four other major drug categories, only anticonvulsants represented a higher proportion of the prescriptions in the Northern Counties, while antidepressants, ulcer drugs and dermatologicals each comprised a smaller share of the Northern Counties' prescriptions, with the most notable differences being in the utilization of ulcer drugs (3.8% vs. 7.1%) and dermatologicals (2.4% vs. 5.2%).

**Regional Distribution of Prescription Drug Payments by Drug Category**

CY 2014 Northern Counties vs. All Other and Statewide

	Northern Counties	All Other Regions	Statewide
Analgesic – Opioid	31.4%	25.5%	25.9%
Analgesics – Anti-Inflammatory	14.5%	15.0%	15.0%
Anticonvulsants	9.2%	6.6%	6.8%
Antidepressants	6.0%	6.2%	6.2%
Ulcer Drugs	5.0%	8.7%	8.5%
Dermatologicals	4.5%	11.5%	11.1%
Musculoskeletal Therapy Agents	3.9%	5.5%	5.4%
<b>All Other</b>	<b>25.5%</b>	<b>21.0%</b>	<b>21.1%</b>

Opioid painkillers were the top drug category in terms of the 2014 prescription drug spend both in the Northern Counties, where they accounted for 31.4% of the prescription drug dollars, and in the rest of the state, where they accounted for 25.5%. Anti-inflammatory analgesics (i.e., Ibuprofen, Celecoxib, Naproxen) ranked second in terms of prescription payments, but represented a slightly smaller share (14.5%) of the total workers' comp prescription drug spend in the region vs. 15.0% in other parts of California. Anticonvulsants accounted for a larger share of the Northern Counties' prescription drug payments compared to other regions (9.2% vs. 6.6%); and antidepressants represented a similar share; but ulcer drugs, dermatologicals and musculoskeletal therapy agents each consumed a much smaller share of the prescription drug dollars in the Northern Counties than in the rest of the state, with the biggest disparity being in the proportion that paid for dermatologicals (4.5% vs 11.5% in other regions).



**Top 20 Prescription Drugs by Volume**

Northern Counties vs. Other Regions (Calendar Year 2014)

Generic Name	Common Name	% of Total Prescriptions		
		No. Counties	Other Regions	Statewide
Hydrocodone-Acetaminophen	Vicodin	16.7%	14.6%	14.7%
Ibuprofen	Advil	7.0%	5.9%	5.9%
Tramadol	Ultram	4.6%	4.6%	4.6%
Gabapentin	Neurontin	4.0%	4.2%	4.1%
Celecoxib	Celebrex	3.8%	1.6%	1.7%
Naprosyn	Aleve	3.2%	5.3%	5.2%
Cyclobenzaprine	Flexeril	3.2%	4.2%	4.1%
Pregbalin	Lyrica	2.4%	1.5%	1.5%
Oxycodone	Oxycontin	2.1%	1.6%	1.6%
Oxycodone-Acetaminophen	Endocet/Percocet	2.0%	1.7%	1.7%
Omeprazole	Prilosec	1.9%	4.7%	4.6%
Diclofenac	Voltaren	1.9%	2.3%	2.3%
Duloxetine	Cymbalta	1.9%	1.6%	1.6%
Tizanidine	Zanaflex	1.2%	1.4%	1.3%
Carisprodol	Soma	1.2%	1.4%	1.3%
Meloxicam	Mobic	1.2%	1.2%	1.2%
Zolpidem	Ambien	1.0%	1.6%	1.6%
Morphine	Morphine	0.9%	0.9%	0.8%
Fentanyl	Fentanyl	0.9%	0.5%	0.5%
Lidocaine	Lidocaine	0.8%	1.9%	1.9%
<b>Top 20</b>		<b>61.9%</b>	<b>62.7%</b>	<b>62.2%</b>

The top 20 drugs provided to injured workers in the Northern Counties in calendar year 2014 are shown above, along with the distribution of those drugs in other regions and statewide. The opioid combination drug hydrocodone-acetaminophen (Vicodin) was the most prescribed drug in the Northern Counties and in the rest of the state, accounting for 1 in 6 prescriptions in the Northern Counties vs. 1 in 7 prescriptions in other regions. The nonsteroidal anti-inflammatory drug (NSAID) ibuprofen ranked second, with 7.0% of the Northern Counties' prescriptions vs. 5.9% of the prescriptions in other parts of California, while the opioid painkiller tramadol was the third most prescribed drug in the region, representing 4.6% of all prescriptions – the same proportion noted in other regions. The anti-convulsant gabapentin ranked fourth in terms of prescription volume in the Northern Counties (4.0% vs. 4.2% elsewhere), while the anti-inflammatory celecoxib rounded out the top 5 drugs, accounting for 3.8% of all prescriptions dispensed in the region, more than twice the 1.6% share noted in the rest of the state.

Other drugs that represented a larger share of the prescriptions in the Northern Counties than in other parts of the state included the anticonvulsant pregbalin; the opioids oxycodone, oxycodone with acetaminophen, and fentanyl; and duloxetine, used as an antidepressant and for nerve pain. Other top 20 drugs that represented a significantly smaller share of the prescriptions in the Northern Counties than in the rest of California included the antacid omeprazole; the NSAID diclofenac; the sleeping aid zolpidem, and the numbing agent lidocaine, which is often used as an ingredient in compounded medications.

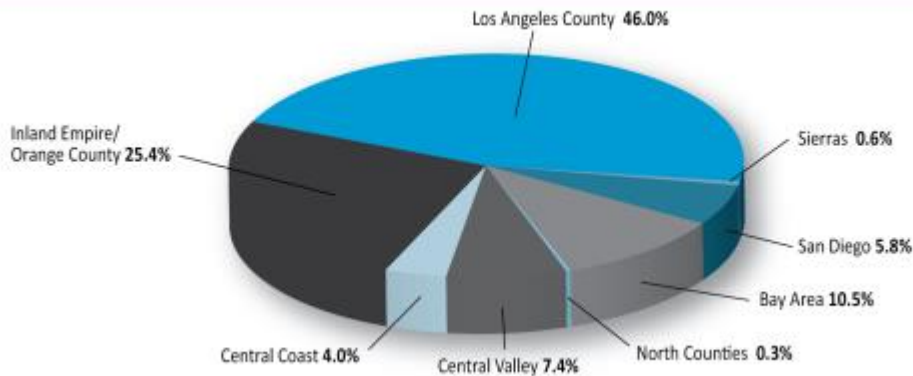
**Top 20 Prescription Drugs by Total Payments**

North Counties vs. Other Regions (Calendar Year 2014)

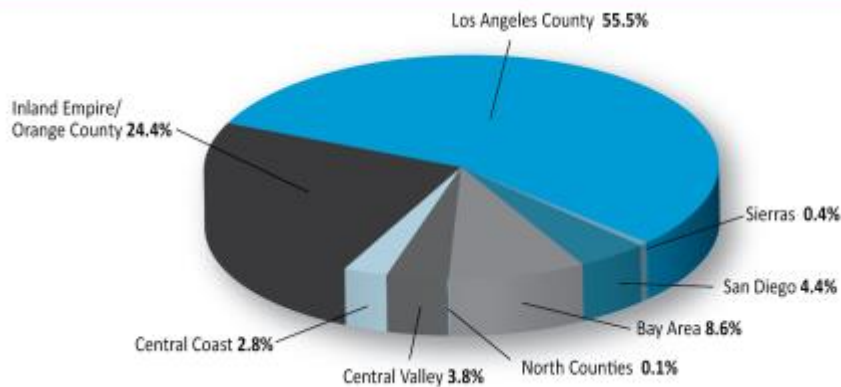
Generic Name	Common Name	% of Total Prescription Payments		
		North Counties	Other Regions	Statewide
Celecoxib	Celebrex	9.7%	3.6%	3.9%
Hydrocodone-Acetaminophen	Vicodin	8.1%	6.4%	6.5%
Oxycodone	Oxycontin	7.7%	5.0%	5.1%
Pregbalin	Lyrica	6.6%	3.9%	4.1%
Duloxetine	Cymbalta	4.2%	3.3%	3.3%
Fentanyl	Fentanyl	3.0%	2.2%	2.3%
Diclofenac	Voltaren	2.6%	2.8%	2.8%
Oxycodone w/Acetaminophen	Endocet/Percocet	2.5%	2.3%	2.3%
Lidocaine	Lidocaine	2.1%	5.6%	5.4%
Morphine	Morphine	2.0%	1.5%	1.5%
Tramadol	Ultram	1.8%	3.5%	3.4%
Gabapentin	Neurontin	1.8%	2.2%	2.2%
Omeprazole	Prilosec	1.6%	5.6%	5.4%
Ibuprofen	Advil	1.2%	1.6%	1.6%
Naprosyn	Aleve	1.1%	2.6%	2.5%
Tapentadol	Nucynta	1.1%	1.0%	1.0%
Flurbiprofen	Ansaid	1.0%	3.5%	3.3%
Cyclobenzaprine	Flexeril	1.0%	2.5%	2.4%
Pantoprazole	Protonix	0.8%	1.3%	1.3%
Tizanidine	Zanaflex	0.6%	0.7%	0.7%
<b>Top 20</b>		<b>60.5%</b>	<b>61.1%</b>	<b>61.0%</b>

The table above lists the top 20 drugs dispensed to injured workers from the Northern Counties 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. Unlike other regions, the anti-inflammatory celecoxib topped the list in the Northern Counties, accounting for 9.7% of the prescription drug dollars, more than 2-1/2 times the proportion noted for the rest of the state. Hydrocodone with acetaminophen (Vicodin) which accounted for the biggest share of the total drug spend in all other regions of the state ranked second in the Northern Counties, followed by oxycodone, though both of these opioids consumed a larger percentage of the prescription dollars in the Northern Counties than in the rest of the state. Three other opioids (#6 fentanyl, #8 oxycodone with acetaminophen, #10 morphine) also were among the top 10 prescriptions in terms of the region's total drug spend; while tramadol ranked #11, so opioids comprised 6 of the region's 11 most costly medications. Together, these 6 opioid painkillers consumed more than 25.1 cents out of every dollar spent on workers' comp prescription drugs in the Northern Counties compared to 20.9 cents out every prescription dollar spent elsewhere.

Other drugs that consumed a higher share of the total drug spend on Northern County claims compared to other parts of the state included the anticonvulsant pregbalin and the antidepressant duloxetine, which is also used nerve pain. Prescription drugs from the region's top 20 list that accounted for a smaller share of the Northern Counties' total drug spend compared to other regions included lidocaine, a numbing agent that is often found in compound drugs; the antacids omeprazole and pantoprazole; the nonsteroidal anti-inflammatories ibuprofen, naprosyn, and flurbiprofen; and the muscle relaxant cyclobenzaprine.

**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' 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, which accounted for 44.6% of all claims in the state accounted for 71.4% of the claims with lien payments. In contrast, residents of the Northern Counties accounted for only 3.3% of all claims in the state and only associated with 0.3% 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. In contrast, claims from the Northern Counties account for 2.5% of all California workers' compensation paid losses, but only 0.1% of 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](http://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.

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