

# 2015 Hospital Workers' Compensation Benchmark Study

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Sixth Edition

# Hospital Workers' Compensation Benchmark Study

PRESENTED BY BEECHER CARLSON INSURANCE SERVICES


Beecher Carlson is pleased to present this sixth edition of the Hospital Workers' Compensation Benchmark Study. We appreciate the opportunity and strive to continuously demonstrate value and support for the hospital industry through our efforts in developing this analysis. We acknowledge the support of all participants and look forward to discussions of the implementation and execution of strategies driven by the findings of this study.

Identifying the key elements that drive the total cost of risk and developing strategies to reduce those costs are shared objectives for the hospital industry. We welcome the opportunity to discuss what this information may mean for your organization and to identify methods and opportunities for reducing claims. The frequency and severity of claims are the key drivers of costs for workers' compensation. This study will provide a variety of methods to measure and review both; if you can have fewer claims that cost less on average, you will reduce your organization's overall costs.

Beyond these foundational measurements, we begin to consider the frequency of severe claims as well as the other key performance indicators specifically related to overall workers' compensation costs.

## SCOPE OF STUDY

The 2015 Hospital Benchmark Study includes claim information from 2010 through 2014 and valued as of December 31, 2014 representing:

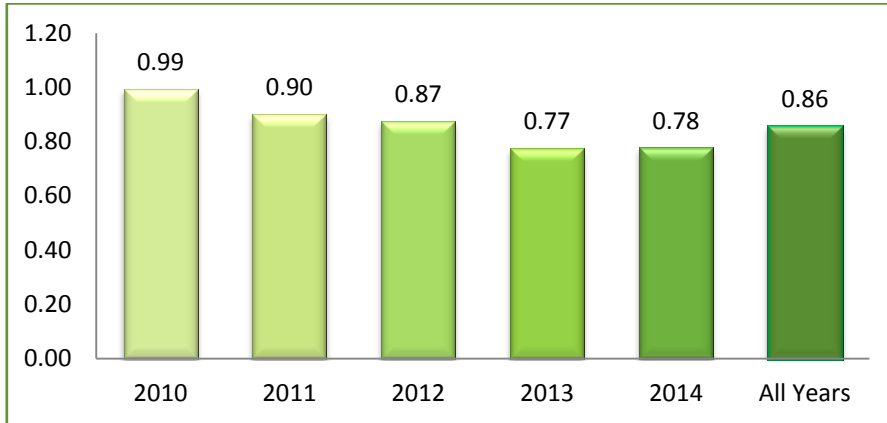
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- **more than 686 hospitals in forty-one states,**
  - **145,000 Non-Zero Claims over the five year period,**
  - **more than 22,000 Lost Time Claims, and**
  - **\$912 million in Incurred and \$706 million in Paid workers' compensation losses.**

## Key Observations

- **Frequency of claims in 2010 compared to 2014 and as measured against Payroll is down by 21 percent and as measured by Man-hours is down by more than 18 percent.**
- **Frequency of claims resulting in lost time from work or indemnity payments as measured both by Payroll and Man-hours is down by 31 percent when comparing 2010 to 2014.**
- **Ultimate developed claim severity on average is down by 7.2 percent for Non-Zero Claims over the five-year period.**
- **Claim severity increases the later the claim is reported to the carrier or administrator. An opportunity exists to reduce the average cost per claim by more than 14 percent by having them reported within the first seven days for Lost Time Claims.**

# The Data | Frequency

## Frequency per \$1 Million Payroll (Non-Zero)



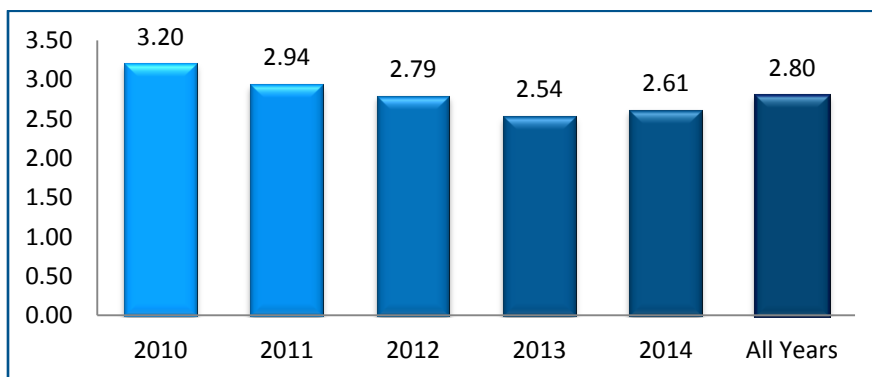
**There is a 21.2 percent reduction in frequency per \$1 million Payroll noted between 2010 and 2014.**

**The Best Performers are less than .20, and the highest frequency levels are over 4.00.**

A key factor in reducing the overall cost of workers' compensation claims is to reduce the frequency at which those claims occur. The chart above illustrates claim frequency relative to Payroll. As illustrated in a later chart on Lag Time, very few claims are reported beyond the year in which the loss occurs.

While there is a 21.2 percent reduction in the frequency of claims relative to Payroll over the five-year period, it is important to consider the increase in Payroll over that same period. As the rate of pay increases, the denominator also increases, possibly causing a reduction in the frequency rate per Payroll. The reduction identified is lower than the 28.5% reduction in frequency noted in the fifth edition study. This indicates a possible slowing of reductions in frequency. To validate, the frequency rate of payroll is compared to Man-hours.

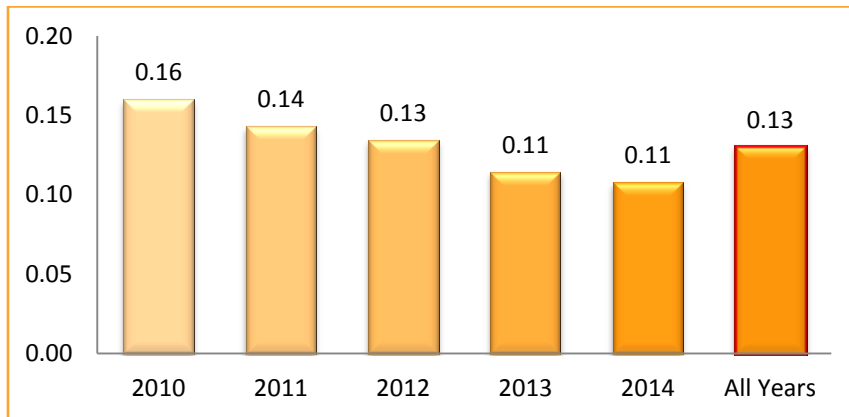
## Frequency per 100,000 Man-hours (Non-Zero)



**An 18.4 percent reduction in frequency compared to Man-hours reduces the likelihood that the increase in pay is the only reason for a reduction in the frequency of claims.**

In order to mitigate the impact of increased pay over the five-year period, frequency relative to Man-hours worked is measured. This measurement shows an 18.4 percent reduction over the five years in frequency of the Non-Zero Claims. This reduces the likelihood that increased pay alone is responsible for the downward trend and supports a reduction in frequency.

## Frequency per \$1,000,000 Payroll (Lost Time)



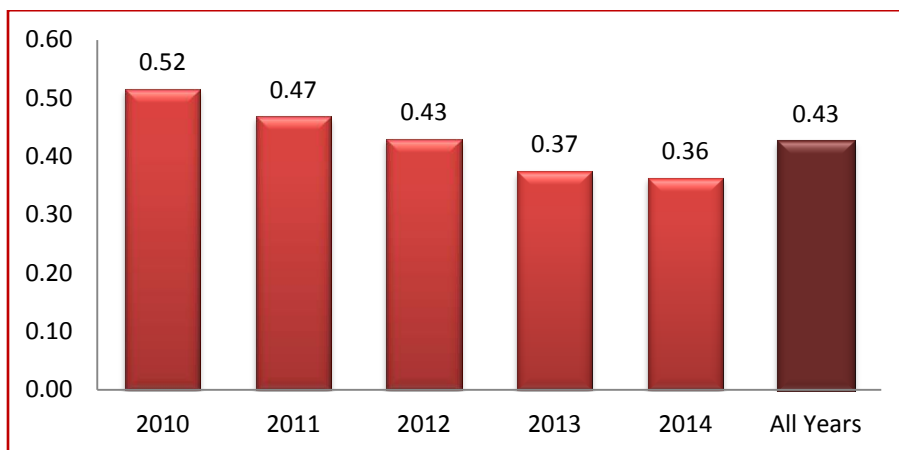
Over the same five-year period, the frequency of Lost Time Claims compared to Payroll is down 31.3 percent.

Non-Zero Claims, claims with at least \$1 paid or incurred, can be an accurate measurement of frequency due to the variability between reserving philosophies, reporting requirements, and the numerous methods for handling “medical only” losses. While it is important to utilize it for each individual organization, the following analysis of the frequency of Lost Time Claims may be more helpful, providing the greatest insight from the figures considered.

During the same five years, there is a 31.3 percent reduction in the frequency of Lost Time Claims from 2010 to 2014 when measured against Payroll, moving from 0.16 Lost Time Claims for every \$1 million in Payroll to 0.11 claims.

It is essential in considering this indicator to remember that while increased payroll is factored into the analysis, the 31.3 percent reduction compared to the Non-Zero rate change of 21.2 percent illustrates an improvement in the number of Lost Time Claims overall. Unfortunately, it is not as significant as the 42 percent reduction in the prior year’s study.

## Frequency per 100,000 Man-hours (Lost Time)



When compared to Man-hours, the reduction is only 30.8%, thus removing the possible effect of increased pay during the same period.

Just as with the earlier analysis against Payroll, it is important to consider the impact of increased pay during that same period of time and measure frequency against Man-hours worked.

Similar to the findings in the Non-Zero Claims, the rate of frequency for Lost Time Claims shows a reduction from 2010 to 2014 in the number of Lost Time Claims for every 100,000 Man-hours over the five-year period. In every frequency comparison, however, the trends appear to be lower than in the 2014 study and warn of a potential slowing of decreases measured in prior years.

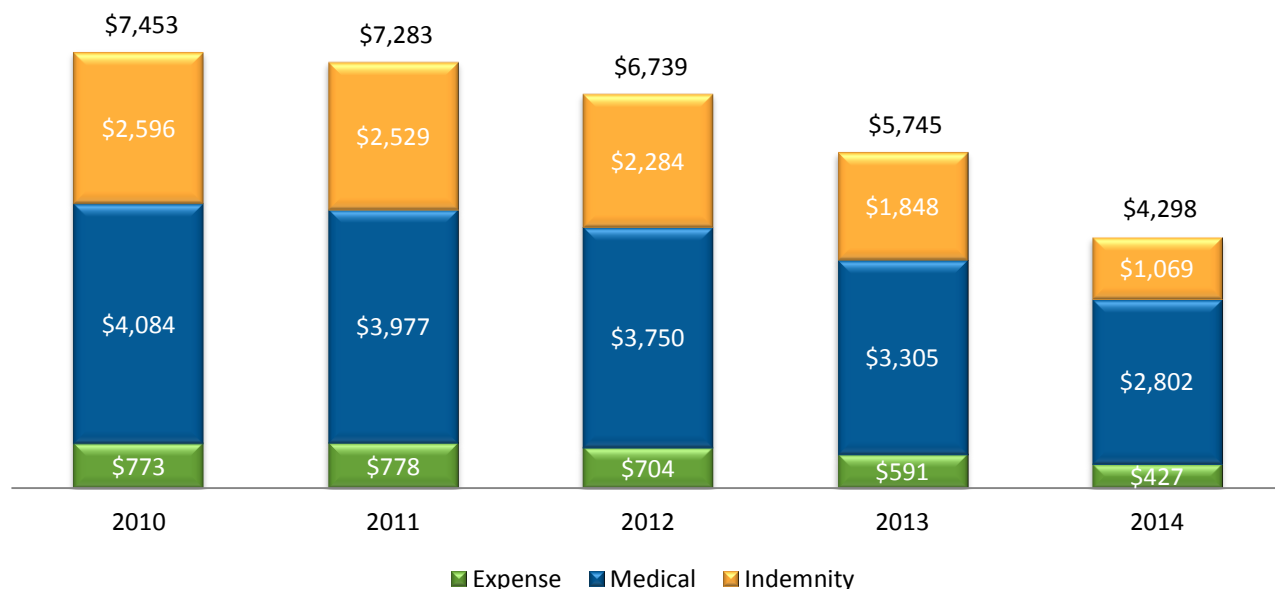
# The Data | Severity

Challenges impacting efforts to reduce overall costs include but certainly are not limited to medical inflation, an aging workforce, pharmaceutical costs, Medicare Set-Asides, and increased obesity. The abundant factors driving individual costs for each claim make it difficult to manage claims.

It is important when evaluating an organization's losses to consider all factors. Any one benchmark or measure considered alone can give a misconception of loss prevention and mitigation efforts. For example, some organizations can experience an unexpected increase in severity with few claims, but find their overall costs decreasing. Thus, none of the factors considered in this study or in an organization's own analysis should be evaluated without considering all factors.

In measuring severity, first analyzed is the average cost per Non-Zero Claim. Over the five-year period, this figure is \$6,304 per claim with 2014 being \$4,298. The most recent year is expected to be the lowest as these figures are Undeveloped Actual Costs. This lower figure illustrates the "recency" or "green" nature of the newest loss year. This is down slightly from \$6,499 in the prior year's study, but the most recent year average is up from \$4,127 (comparing 2013 to 2014 at the same maturity).

## Average Incurred (Non-Zero)

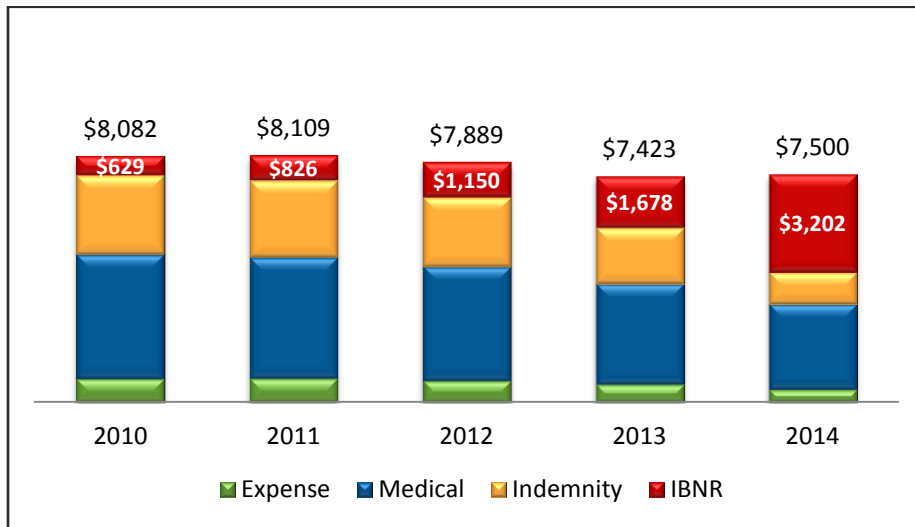


It is also important to consider the cost allocation between the three claim components: expense, medical, and indemnity.

As claims are open longer, the payments tend to increase, including any settlements or payments for lost wages. Thus, an increase in all components is expected, but the larger increases are in the indemnity and medical portions.

To reduce the “recency effect” and compare loss years on an apples-to-apples basis, the losses have been developed using countrywide loss development factors as provided by the National Council on Compensation Insurance, Inc. (NCCI). The factors allow present-day incurred figures to be developed to projected ultimates.

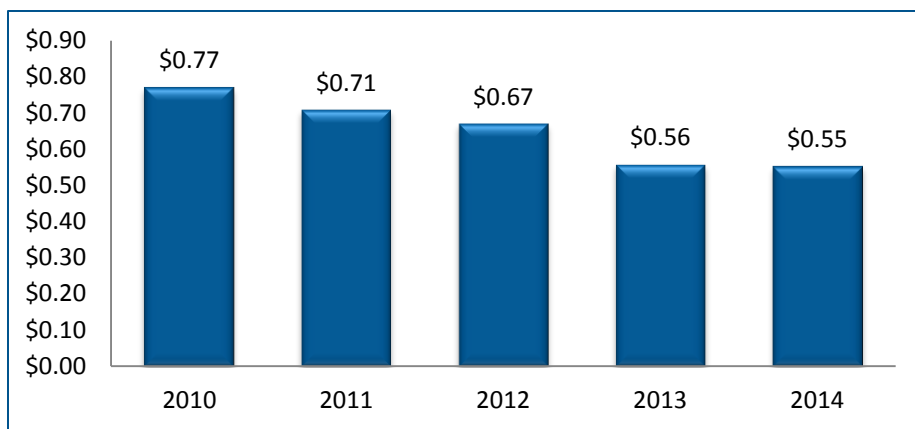
### Average Ultimate Severity Non-Zero Developed



**Average ultimate severity for 2014 is projected to be down 7.2 percent compared to 2010. Additionally, 2010 and 2011 are projecting less than estimated in 2014.**

The average incurred developed loss amount per claim is projected to be 7.2 percent less in 2014 than for 2010. In addition, 2013 is projected to be lower than 2014. Loss years 2010 and 2011 are developing out to be approximately 7 percent lower than forecasted in the prior report. While lower developed average severity is a positive factor, it is also important to be mindful of a slowing in the frequency reductions that could negate the benefit of reducing the severity per claim. It is essential to consider all factors when reviewing performance indicators and benchmarks.

### Loss Rate per \$100 Payroll by Year Limited to \$500K

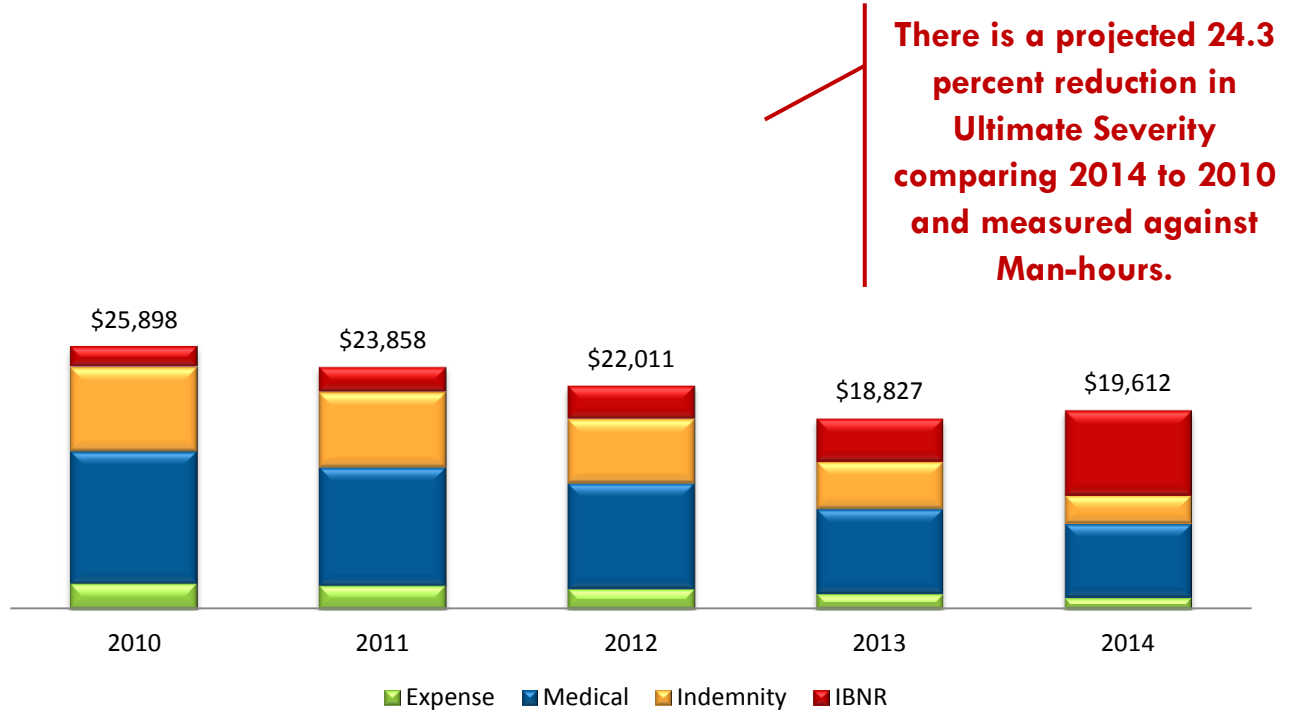


**The Loss Rate per \$100 Payroll over the five years is down 28.6 percent.**

While average severity per claim is lower following the spikes observed in 2010 and 2011, it is important to consider the projected costs compared to exposures. To illustrate the importance of the overall picture, the severity of losses in conjunction with frequency against a defined exposure base is analyzed. For this analysis, loss rates relative to both Payroll and Man-hours are considered.

Over the last five years, the study shows a 28.6 percent reduction in the rate per Payroll to an ultimate developed rate of \$0.55 per \$100 Payroll for 2014. This is similar to the rate of reduction from the prior year study, which was 29.5 percent for the period 2009 to 2013.

## Ultimate Costs per 100,000 Man-hours (Non-Zero Claims)



Again, to mitigate the impact of Payroll increases and the possible dilution of a severity pattern due to higher compensation, a total of costs against 100,000 Man-hours for Non-Zero Claims is analyzed.

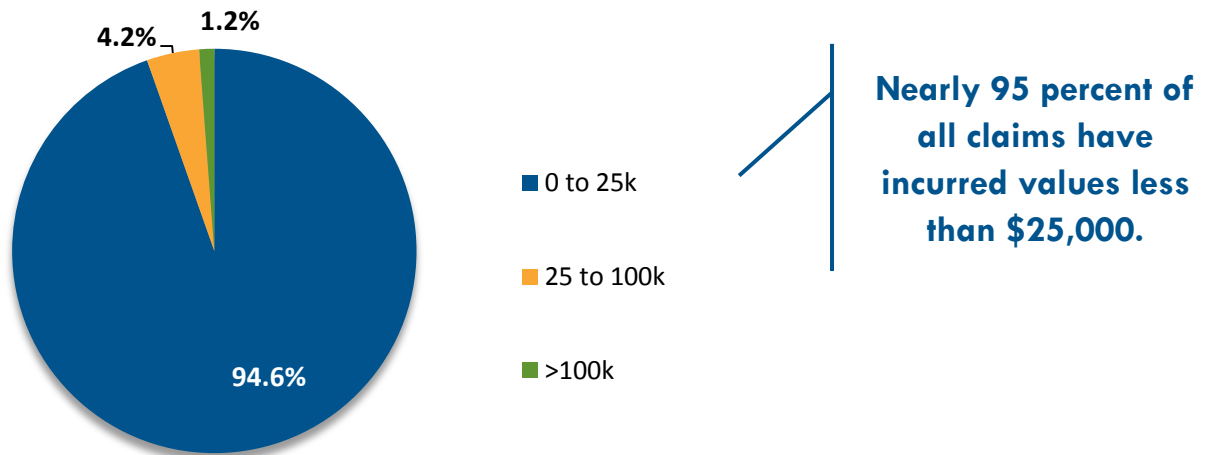
In considering loss costs per 100,000 Man-hours worked, the average cost has gone from \$25,898 to \$19,612 over the last five years when developed using NCCI loss development factors. This is a projected reduction in severity of 24.3 percent.

The reduction is slightly less than the 29.5 percent reduction noted in the prior year's study; however, spiked estimates in 2010 and 2011 are down and projected to be more in line with the other five-year period.

**It is important to note that the industry development factors used in this study may not be reflective of an organization's actual future development.**

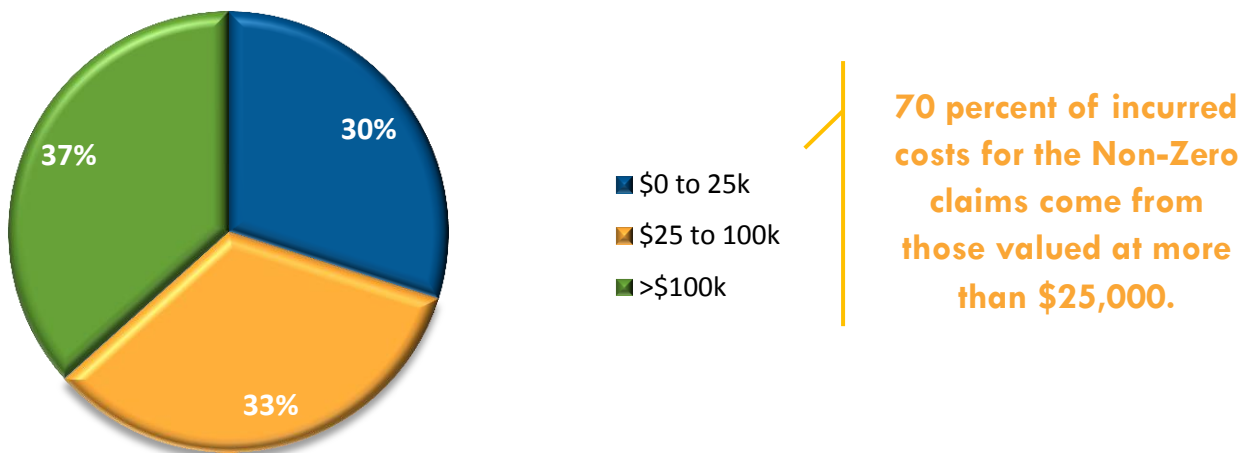
# The Data | Frequency of Severe Claims

## Percent of Total Claim Counts by Size of Incurred Loss (Non-Zero)



When addressing the overall cost of risk, it is essential to clarify and understand what claims are driving an organization's costs. In analyzing the losses for the study, it was found that 94.6 percent of all Non-Zero Claims had total incurred values of \$25,000 or less. This is consistent with previous findings.

## Incurred Percent of Total Incurred Loss by Size of Incurred Loss (Non-Zero)

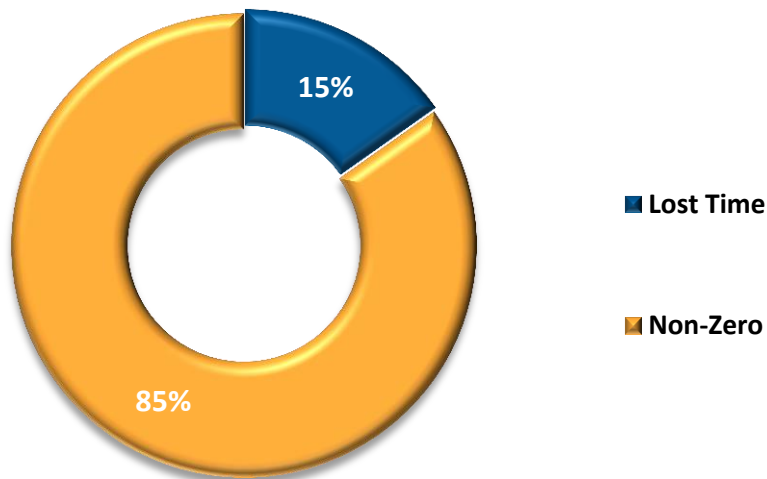


This means 5.4 percent of all Non-Zero Claims having incurred values greater than \$25,000 account for 70% of all costs!

As strategies to reduce costs are developed, this shifts the efforts and focus to identify the factors that can impact and reduce the severity of that body of claims.



## Percent of Lost Time Claims

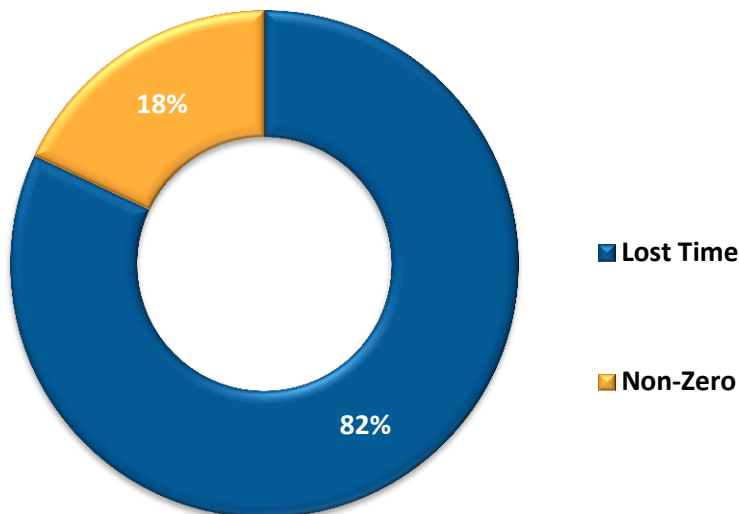


To identify the claims responsible for the greatest costs and offer the opportunity to reduce the overall cost of risk, several key performance indicators are considered that assist in the analysis of an individual organization's loss experience.

It is essential in measuring the frequency of severe cases to consider those that result in time lost from work or indemnity payments relative to those that are medical only, or Non-Zero Claims without indemnity.

For this year's study, the ratio is the same as noted in the prior year study with 15 percent of all Non-Zero Claims resulting in Lost Time Claims where some indemnity dollars were either paid or incurred. This means on average one out of every 6.7 claims results in Lost Time. The best performers in the study had ratios of less than 8 percent Lost Time, or one claim out of every 12.5 claims.

## Percent of Lost Time Costs

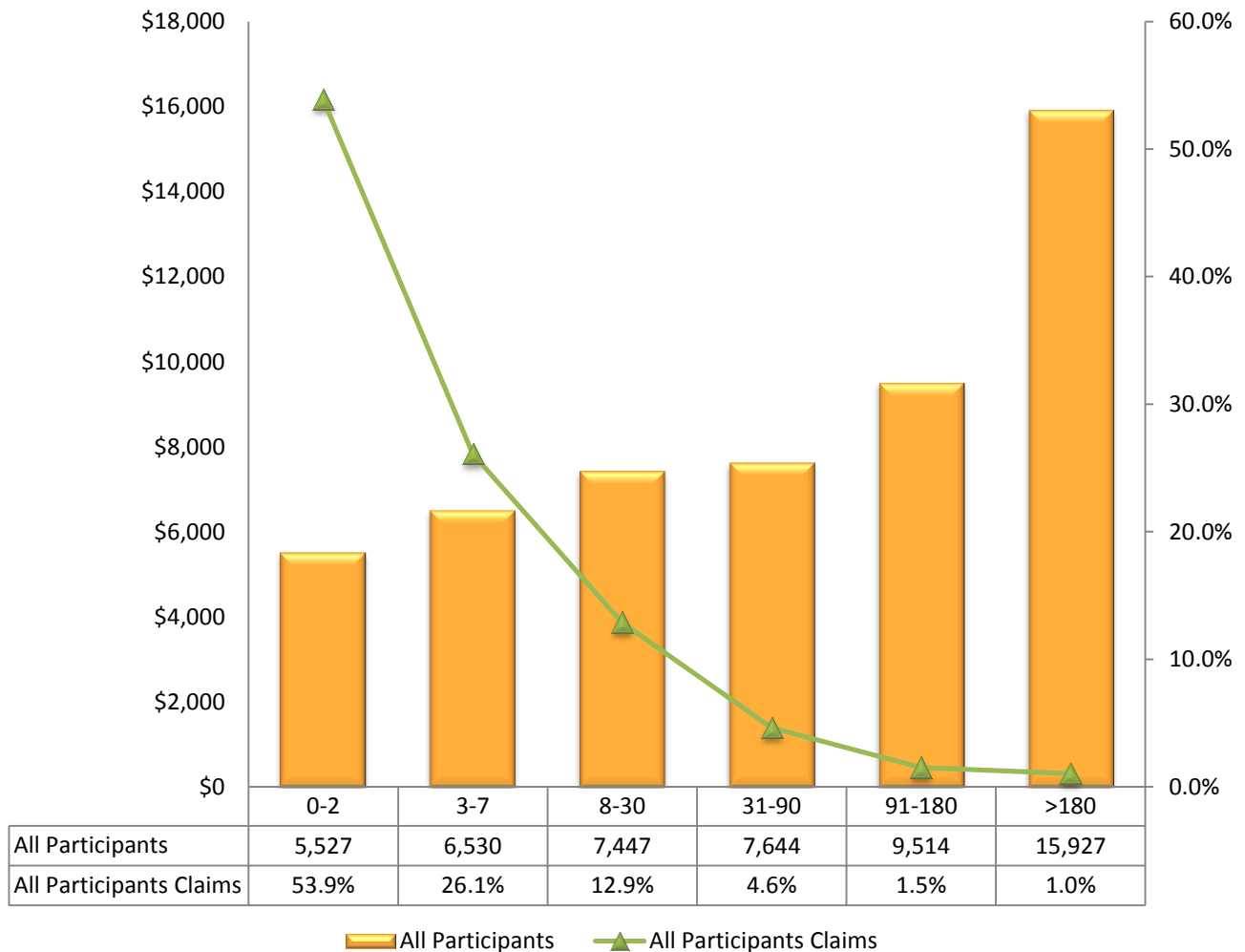


**Only 15 percent of the claims involve Lost Time, but they account for 82 percent of all incurred costs.**

It is just as important to recognize the impact those 15 percent of all claims have on the overall costs. Approximately 82 percent of the costs from the five-year period are tied to the Lost Time Claims.

This nearly inverse measure falls in line with the "80-20 Rule" and should assist in directing efforts for mitigation and cost reduction. Organizations seeing their ratios of Lost Time Claims go up can expect overall costs to increase as well.

## Average Incurred Losses by Reporting Lag



In addition to the benefits evident in returning employees to work or keeping them at work to mitigate the overall cost of risk, there is a clear trend over the last four studies that indicates the importance of prompt claims reporting. Every year has provided evidence that claim costs increase significantly for losses with greater lag time before reporting than those addressed early and promptly.

This result is in direct contrast to the expectation that the most catastrophic claims are known and reported almost immediately. The trend indicates a 15.4 percent higher incurred cost for claims reported on days three to seven at \$6,530 versus \$5,527 for those reported in the first two days.

Interestingly, claims reported after the eighth day but before the thirty-first day have dropped as a percentage of the total claims. The five percent reduction from the prior year's study puts all of the change into the first two days. In that study, 18 percent of the claims were reported in the second through fourth week, and that has dropped to only 13 percent in this study.

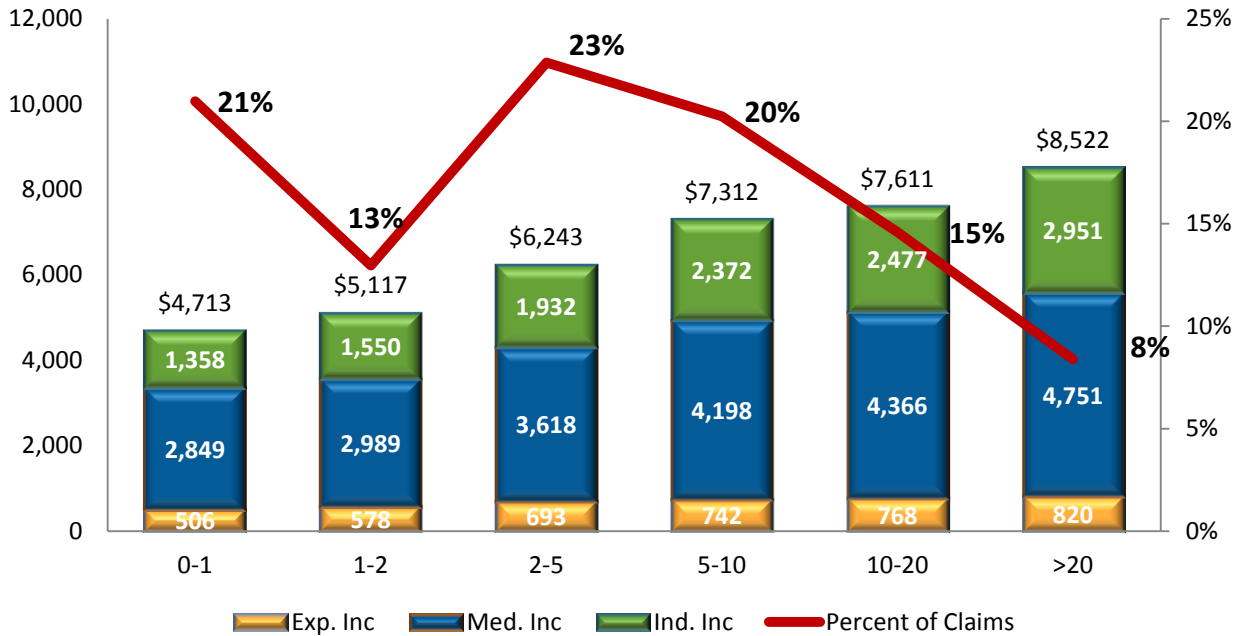
The greatest opportunity is the 20 percent of claims reported after the first seven days. While the average cost increases significantly when Reporting Lag increases, at a minimum, 14 percent or more could be saved with earlier claim handling and management for nearly one out of five of all claims.

The best performer has 95 percent of claims reported in the first seven days. This organization also has the lowest ratio of Lost Time Claims to Non-Zero Claims.

# Tenure and Training | Loss Findings

## Time on the Job | Incurred Losses

In the prior year's study, the median age for all employees with claims in the database was calculated at approximately 43 years. Not all organizations track the employee's age or date of birth in the workers' compensation loss data, but then tenure of the employees was figured by calculating the number of years between the Date of Hire and the Date of Loss.



Consistent with prior findings, there is an increase in the average cost per claim as tenure increases. One would assume care and treatment of a longer tenured employee (likely an older employee) would be more expensive and indemnity would be higher due to level of compensation.

In contrast to the severity finding noted above, the percentage of overall claims goes down as tenure rises. The interesting variant is noted with the employee group that has been with the organization between one and two years. This category results in the lowest percentage of claims with a relatively low average incurred value. Based on discussions with the participants, 21 percent of claims for new employees with zero to one year tenure is likely due to them being new in the position or at that facility.

The opportunity for further investigation is why employees in the two to five year and five to ten year tenure categories account for similar percentages of claims. Speculation points to employees getting more comfortable in their position and becoming relaxed with policies and procedures. This invites a discussion of retraining and enforcing safety programs with refresher courses and consequences. Further analysis of each organizations workers' compensation claims to the overall employee database would be valuable as each hospital investigates its own results in tenure and the impact on workers' compensation costs.

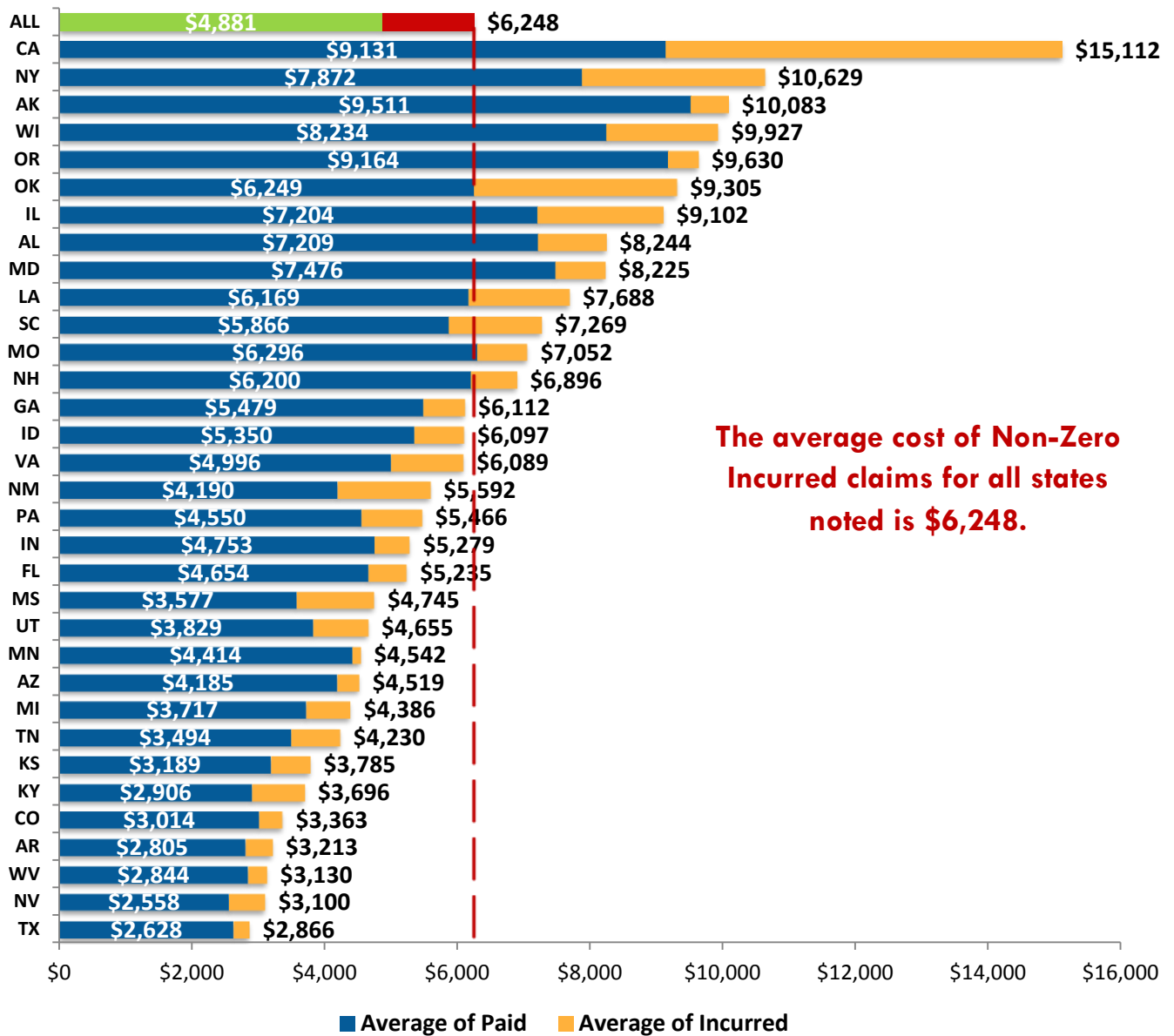
Applying the percentage of claims by tenure to the average cost per tenure indicates that employees with one to two years tenure and employees with more than 20 years tenure are the least expensive; further, employees with between two to five years and five to ten years tenure are the most expensive and costly for workers' compensation.

# The Data | Jurisdiction

Many organizations face challenges specific to their individual jurisdictions and locations. Pay rates, compensation laws, compensability issues, and the court system can further impact results and costs. While there are opportunities to still address all the prior elements, they all must be tempered with an awareness and understanding of the laws and statutes of each state.

To consider the possible impact of each state's laws, the average claim severity for all Non-Zero and Lost Time Claims was calculated. Each state's figures are broken down into paid and outstanding for a total incurred value and then ranked from highest to lowest in average severity.

## Average Non-Zero Incurred (2010 - 2014)

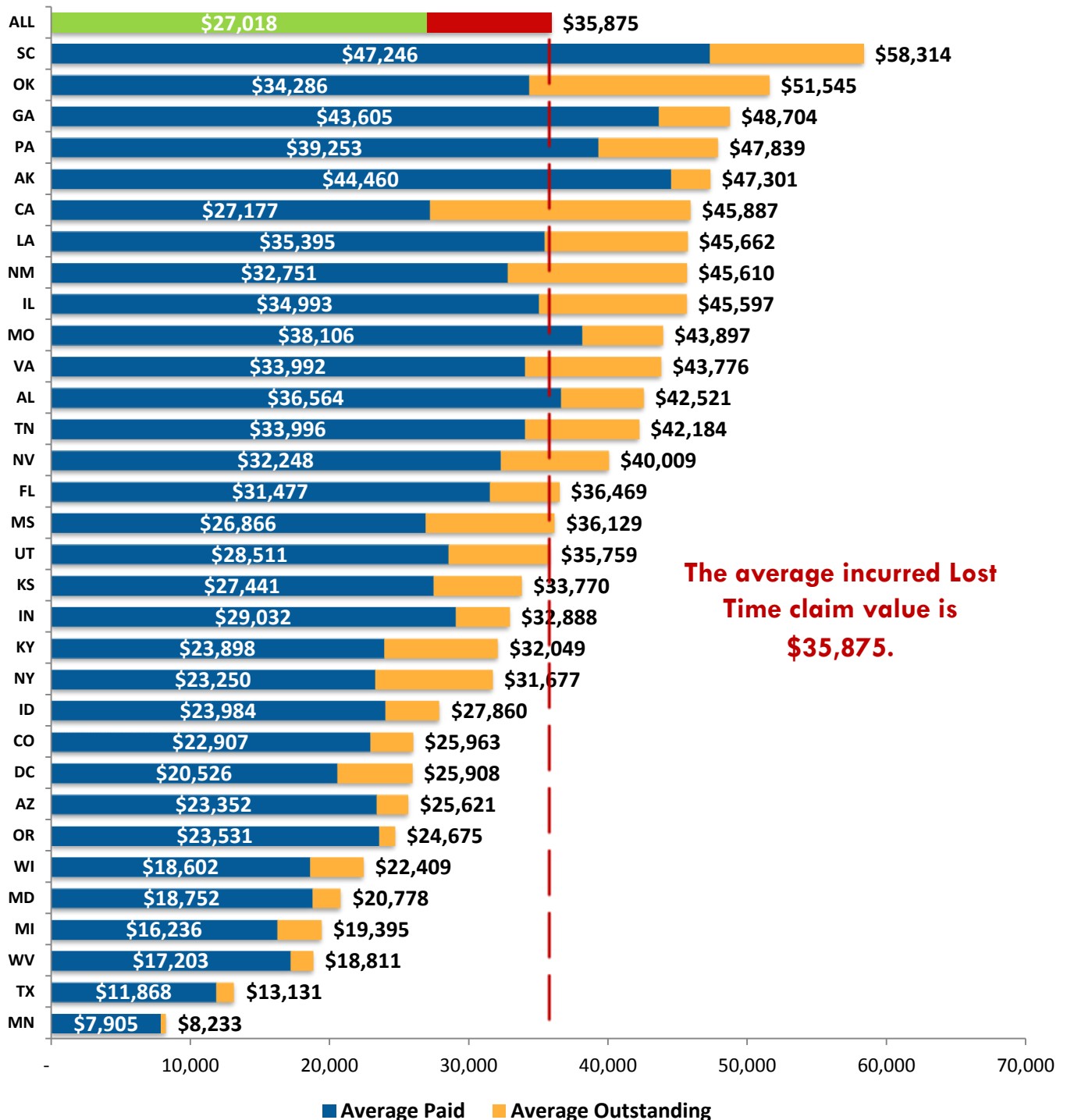


**The average cost of Non-Zero Incurred claims for all states noted is \$6,248.**

It is essential that severity, just like in prior discussions, not be considered alone or factored in as one element. Further, due to the limited volume of claims data in certain states, only states with at least 500 Non-Zero Claims and 50 Lost Time Claims have been included.

To mitigate the impact of the volume of Non-Zero Claims and reserving differences based on claims handling criteria in certain regions and organizations, as well as to address those Lost Time Claims driving a majority of the costs, the average costs for Lost Time Claims over the five-year period was also reviewed and analyzed.

### Average Incurred Lost Time Claim (2010-2014)



# Benchmarking the Benchmark | Looking Back

## Historical Key Performance Indicators | Comparison of Last Four Benchmark Studies at Similar Points in Time

With the aggregation of data obtained over the last several years, it is the natural progression to evaluate the study against itself similar to an organization's best benchmark being a comparison of its own performance at a prior time. The overall objectives are improvement and cost reductions. While participating organizations have changed, along with some of the analyses performed, there are some specific measures worthy of consideration.

Just like with any workers' compensation analysis, three main categories are evaluated: frequency, severity, and the frequency of severe claims. Due to changes in reserving patterns and claims handling philosophies, paid data was found to be most helpful for this review. All developed losses were removed from consideration in order to maintain focus on the data in its basic form.

### Historical Data comes from this and three prior Benchmark Studies:

- 2015 – Loss years 2010 to 2014
- 2014 – Loss years 2009 to 2013
- 2013 – Loss years 2007 to 2011
- 2011- Loss years 2006 to 2010

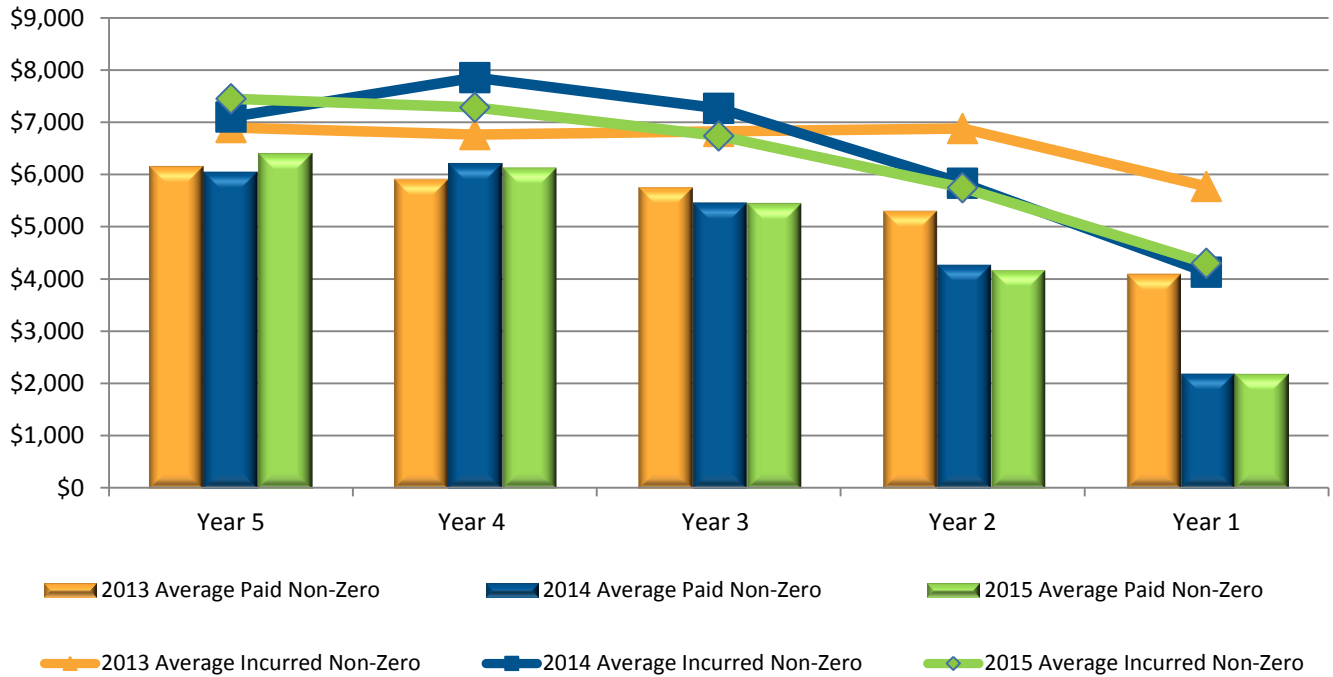
### Historical Frequency

Frequency reduction indicates fewer claims and ultimately reduced opportunities for loss costs to be paid. In comparing the five-year average frequency per Payroll for Non-Zero Claims, there is a 13 percent reduction from the 2013 study to the 2015 study. While this reduction could be due to the increase in pay because of inflation between 2007 and 2014, the frequency of Non-Zero Claims per 100,000 Man-hours is also down 8.2 percent in the same comparison.

Further positive results are evident in comparing the same groups of claims for Lost Time frequency, with a 23.5 percent reduction from the 2013 study that had a five-year average frequency per \$1 million in Payroll of .17 to the current 2015 study that is at .13. Again, the increase in Payroll over that time period likely has an impact on this review, so the Man-hours comparison between the two studies was evaluated finding a 17.3 percent reduction.

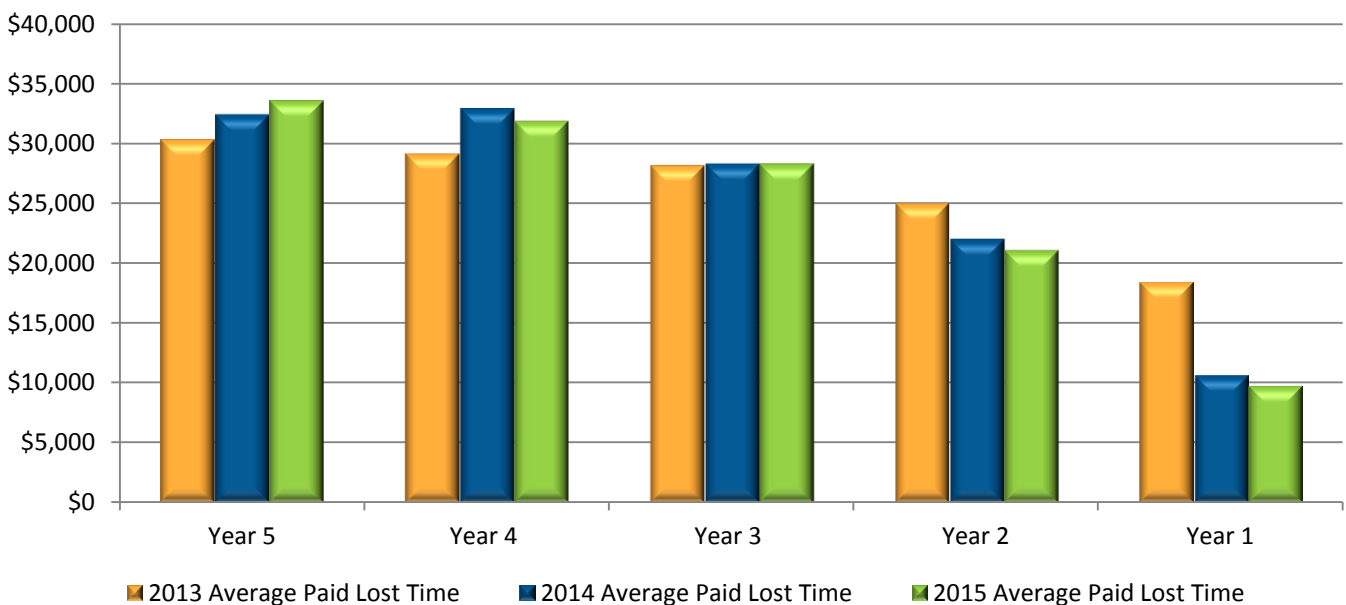
If the reduction in frequency per Payroll is accepted as purely a result of increased pay between 2007 and 2014, then the ratio of Man-hours reductions to payroll reductions point to between 4.8 percent and 6.2 percent of the reductions being due to increased pay. The average national inflation rate during this seven-year span was 1.6 percent. Compounded, it is a total percentage change between 11 and 12 percent. Even still, there seems to be evidence of a slight reduction in all claims but more importantly a reduction in the Lost Time Claims overall.

## Severity



While there is a slight downward trend in frequency, it is even more important to offset the inflationary impact of claims handling, higher payroll for Lost Time Claims, and increased medical costs. All of these can affect overall severity. The chart illustrates the correlating five-year spans represented in the 2013, 2014, and 2015 studies all compared at similar points in time. The trends are consistent, and the five years of data for the 2014 and 2015 studies are lower in loss years one, two and, slightly, three.

While incurred figures show a reduction in comparing the greenest or most recent years, it should be noted that the years closest to maturity, loss years four and five, are much closer and similar in projections. The opportunity here is for the organizations to pay particular attention to the lower amounts paid and incurred, closely managing the most recent loss years to beat the incurred reserves and the ultimate projections.



To further evaluate the apparent reductions, especially in the most recent loss years in the current study, historical paid severity for Lost Time Claims between the same three studies were compared. While the paid amounts show significant reductions in comparison to the figures paid at similar points in time for the prior two studies, the third year comparison is nearly flat. Further, the fourth and fifth year comparisons point to slight increases in loss years four and five.

Comparing these figures for Lost Time Claims to exposures may help clarify what the severity trend is actually doing. The following results are very positive.

STUDY	Five Year Average Amount Paid for Lost Time Claims per \$100 Payroll	Five Year Average Amount Paid for Lost Time Claims per 100,000 Man-hours
2015	\$0.346	\$11,196
2014	\$0.402	\$13,404
2013	\$0.572	\$17,389
Reduction from 2013 Study to 2015 Study	39.5%	35.6%

### Frequency of Severe Claims and Other Key Performance Indicators

In the annual study report provided to participating locations, claims are categorized according to the incurred value for each claim into stratified loss layers. Over the last three studies, the percentage of claims in the \$0 to \$25,000 total incurred range has gone from 94.2 percent to 94.6 percent. The 0.4 percent change was a shift of 0.1 percent out of the \$25,000 to \$100,000 “bucket” and 0.3 percent from the >\$100,000 incurred group of claims. This supports a reduction in the number of severe claims.

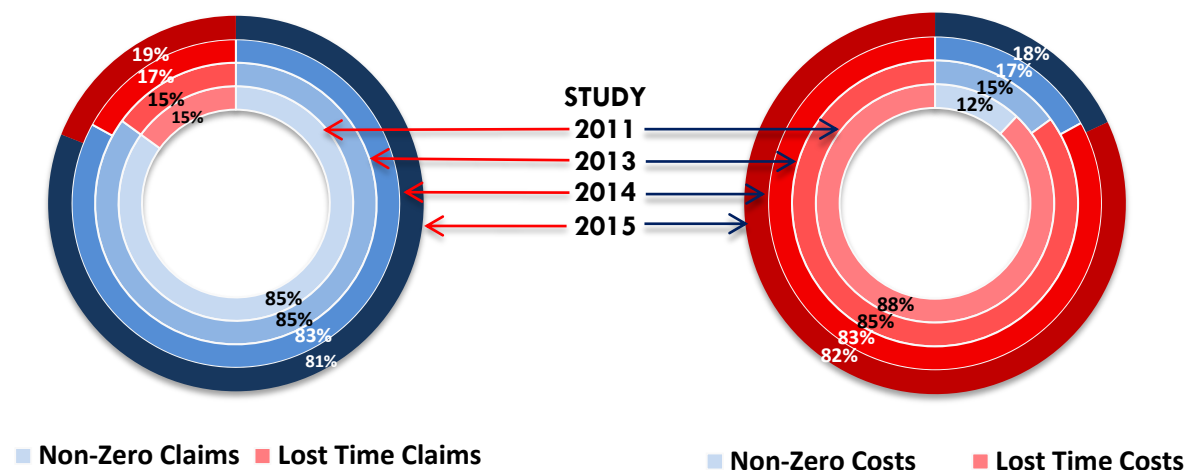
Comparing the same groups of data in the three studies for percentage of overall costs showed a similar shift of 3.2 percent of the 40.8 percent of the costs in the >\$100,000 incurred group of claims of 0.9 percent into the \$25,000 to \$100,000 layer, and 2.3 percent into the \$0 to \$25,000 layer.

### Ratio of Lost Time to Non-Zero Claims

Another key performance indicator that supports the reductions evident in frequency and severity is the ratio of Lost Time Claims and costs associated with those claims to Non-Zero Claims. Over the last four studies, there is definite improvement illustrated by an increase from 81 percent of claims resulting in Lost Time in the 2011 study to 85 percent in the 2014 and 2015 studies. While this 4 percent shift may not seem significant, it is important to consider the 88 percent of costs for Lost Time Claims in 2011’s study dropped to 82 percent of the costs in 2015.

Percentage of Lost Time Claims to Non-Zero

Percentage of Costs for Non-Zero versus Lost Time Claims





Keeping the employees in the facilities through modified or alternative duty with “Stay at Work” programs along with an emphasis on return to work initiatives provides significant loss cost reductions.



### Key Performance Indicator

While a number of data elements point to very positive trends, one key performance indicator that is indicating a slight decline over the last several studies is Lag Time. This simple measurement between the date of loss and the date a claim is in the hands of an adjuster or claims handler can be closely tied to the ultimate outcome of many files. It is a potential driver for an overall reduction in loss costs.

The 2011 study set the initial benchmark with 82 percent of the claims being reported within the first seven days. Eleven percent of claims were reported between eight and 30 days, and 4 percent were between 31 and 90 days. The final three percent were reported after the first three months, and this figure has been consistent in the four most recent studies.

A cause for concern, the current 2015 study has 80 percent of the claims reported in the first seven days, and the rest shift to the two categories between eight and 90 days. While this only represents a small portion of all claims, those claims on average will cost between 14 and 17 percent more than those reported in the first seven days.

Though a very small shift, this pattern could point to delays in reporting by the employees to their supervisors or by the supervisors to the adjusters. This results in a missed opportunity for proactive return or “stay at work” efforts or to be involved in supporting the management of the employee’s care.

### Jurisdictional Trend History

The following states are in the top six for the Average Highest Incurred Costs for Non-Zero or Lost Time in this 2015 study. For states with more than 10 percent reduction in their average results between the 2011 and 2015 studies, the number is written in green. Red text indicates states with an increase.

#### States with Highest Average Incurred for Non-Zero Claims in 2015

- As compared to Prior Studies

STATE	2011 STUDY	2013 STUDY	2014 STUDY	2015 STUDY
ALL STATES	\$7,271	\$6,609	\$6,562	\$6,248
California	\$12,902	\$13,277	\$12,920	\$15,112
New York	\$10,601	\$9,475	\$7,143	\$10,629
Alaska	\$12,608	\$13,508	\$11,274	\$10,083
Wisconsin	\$12,519	\$12,447	N/A*	\$9,927
Oregon	\$7,676	\$8,149	\$9,766	\$9,630
Oklahoma	\$7,091	\$8,657	\$7,233	\$9,305

\*Not enough loss data in Study for Wisconsin to record figures.

#### States with Highest Average Incurred for Lost Time Claims in 2015

- As compared to Prior Studies

STATE	2011 STUDY	2013 STUDY	2014 STUDY	2015 STUDY
ALL STATES	\$34,389	\$32,871	\$37,136	\$35,875
South Carolina	\$50,326	\$51,224	\$53,496	\$58,314
Oklahoma	\$43,689	\$46,497	\$45,581	\$51,545
Georgia	\$60,443	\$49,702	\$45,939	\$48,704
Pennsylvania	N/A*	\$48,898	\$52,400	\$47,839
Alaska	\$34,444	\$36,119	\$48,453	\$47,301
California	\$40,061	\$45,198	\$41,468	\$45,887

\*Not enough loss data in Study for Pennsylvania to record figures.

If your loss data or results do not reflect the findings of this study and you would like to discuss your organizations loss experience in light of the benchmark study, Beecher Carlson is a full service risk and insurance brokerage consulting firm that can assist with data analysis and operational assessments to develop specific strategies to reduce your overall cost of risk.

Contact Beecher Carlson with any questions, if you are interested in receiving additional copies of the 2015 Hospital Workers' Compensation Benchmark Study, or if you are interested in participating in the 2016 Benchmark Study and evaluating how your organization compares. Send all inquiries to Kevin Gabhart at [kgabhart@beechercarlson.com](mailto:kgabhart@beechercarlson.com). Please be sure to include your name, the organization you represent, your phone number, and your email address.

**Special thanks to Kyung Yoon, Andrew Golub, Aaron Newhoff,  
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