Health Care Workers Compensation Barometer

December 2014
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Introduction

Aon’s Actuarial and Analytics professionals are pleased to present the second report in our biennial study of workers compensation (WC) in the health care industry.

This study is designed with health care risk managers in mind, to enable them to measure, maintain and reduce their workers compensation exposure; “Measure” themselves against their peers, “maintain” standards of practice and safety levels and “reduce” their overall cost of risk. Because of the unique demographic of hospitals, a benchmark that enables risk managers to compare their workers compensation exposures to health care peers is valuable for controlling the probability and/or impact of unfortunate events.

According to an OSHA report released in September 2013, there are 6.8 work-related injuries and illnesses for every 100 full-time hospital employees. Rates of OSHA-recordable injuries and illnesses are broadly decreasing in all industries in the United States, including in hospitals. However, the injury and illness rate in hospitals remains nearly double the rate for private industry as a whole, and it is also higher than the rates in construction and manufacturing—two industries that are traditionally thought to be relatively hazardous. Roughly a third of hospital injuries that result in missed work days stem from interaction with patients, both through violence and patient-handling activities.¹

All participants were asked to submit a historical loss run, valued on or after December 31, 2013 and to complete a benchmark survey. Forty-four health care systems responded representing roughly 1,150 health care facilities.

The health care workers compensation database consists of 257,110 non-zero claims, representing $1.6 billion in incurred loss dollars from 50 states (including the District of Columbia). The database contains historical claim information for ten accident years (2004 through 2013). The estimated payroll for all states, for the 2013 year, totals $30 billion.

The study explores trends in frequency, severity, and overall loss rates related to workers compensation for health care systems. Unless otherwise noted, these statistics can be defined as follows:

- **Frequency**—number of claims per $100,000 of payroll.
- **Severity (limited to $500,000 per occurrence)**—average loss per claim, where loss includes medical, indemnity and expense.
- **Loss Rate (limited to $500,000 per occurrence)**—annual incurred dollars per hundred of payroll.
- **Payroll**—Exposure base used for analysis, assumed to be audited from participant.

The study aggregates participants’ responses to the benchmark survey questions. The survey questions were designed to provide additional insights into important issues including:

- Identifying the top concerns of health care risk managers,
- Use of pre-screening testing for employment (including both drug and psychological),
- Return to work programs, and
- Use of safety committees within hospital personnel.

Participation in the health care workers compensation barometer was open to Aon clients and non-clients. Aon is solely responsible for the design, conduct and interpretation of the barometer analysis and holds the copyright thereto.

Executive Summary

Key Findings

Based on our actuarial analysis of the workers compensation claim data we find the following:

Workers Compensation Trends
- For the 2015 accident year, we project health care systems will experience an annual loss rate of $0.75 per $100 of payroll. This projection applies at the countrywide level and is made assuming a $500,000 per occurrence limit. We project that loss rates are increasing at a 1% annual rate.
- The frequency of workers compensation claims has been slowly and consistently decreasing over the ten year experience period studied. We project claim frequency to decrease at an annual trend rate of 1%.
- Claim severity, including medical, indemnity and defense costs, has been slowly increasing at a trend rate of 2% per year.

Managing Workers Compensation Costs
- Patient Management (including handling and lifting) has been identified as the number one concern by risk managers participating in our benchmark survey. This was followed closely by Materials Handling (including needle sticks, hazardous exposures). Within the pandemic of Ebola, we would anticipate Materials Handling to rise to the number one position very soon.
- Eighty percent of respondents self-insure their workers compensation risks.
- Retentions between $500,000 and $750,000 are the most popular, but one third of respondents have retentions greater than $750,000.
- Almost ninety percent of the survey respondents have a return to work program but only sixty-five percent have metrics in place to test the effectiveness of their return to work program. All survey respondents with metrics in place indicated that their program is effective, but roughly twenty-five percent of those indicated that, while the program is effective, it could be improved.
- All survey respondents use employee pre-screening, with almost ninety percent utilizing both drug testing and ergonomics testing. Roughly half perform a “physical capabilities test” while only five percent perform any kind of psychological testing.
- Fifty-eight percent of the survey respondents have experienced a Merger or Acquisition (M&A) in the last three years. Multiple Employee Benefit Programs/HR Issues is the number one issue with M&As.
- Roughly three-fourths of the survey respondents have a formal Safe Patient Handling Program, with twelve percent of those being unsatisfied with their current program.
- Ninety-five percent of survey respondents have a “Formal” Safety Committee, and who is on the committee is divided with fifty-seven percent being management only and forty-three percent being management and hourly employees.
- Only seventeen percent of survey respondents have a safety incentive program in place.

Department and Occupation Analysis
- Home Health has the highest average indemnity payment out of the departments profiled. This is potentially driven by patient handling and higher exposure to automobile accidents.
- Similar to the Department analysis, Home Health Care Aide has the highest average indemnity payment among the various occupation types. The second most costly occupation is Central Supply Clerk. This type of employee is responsible for receiving and shipping of supplies, which can involve heavy lifting and maneuvering of shipments.
- Nurses are the most common occupation type among the workers compensation claims database. Nurses tend to work very close and often with the patient.

State Trends
- Frequency, severity and loss rate benchmark statistics vary by state. We have separately analyzed eleven individual states. These eleven states account for roughly 53% of our database.
Executive Summary

Countrywide Advisory Benchmarks

The following table presents a summary of our findings for health care workers compensation.

<table>
<thead>
<tr>
<th>Advisory Benchmark</th>
<th>Projected 2015 Benchmark</th>
<th>Selected Annual Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency*</td>
<td>0.095</td>
<td>-1.00%</td>
</tr>
<tr>
<td>Severity</td>
<td>$7,930</td>
<td>2.00%</td>
</tr>
<tr>
<td>Loss Rate*</td>
<td>$0.75</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

* per $100,000 of Payroll

State Advisory Benchmarks

The health care workers compensation database includes claims from 50 states, including the District of Columbia. In this report, we provide benchmark statistics for states having the necessary volume of experience to make the resulting benchmark statistics credible. In measuring credibility, we reviewed payroll, claim counts, and volatility of the results.

The following table provides benchmark statistics by state for individually reviewed states in the database. The database participation percentage for each state is determined using 2013 payroll.

<table>
<thead>
<tr>
<th>Advisory Benchmark</th>
<th>Aon Database</th>
<th>Projected 2015 Loss Rate*</th>
<th>Selected Annual Loss Rate Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>4.9%</td>
<td>$2.18</td>
<td>3.00%</td>
</tr>
<tr>
<td>Florida</td>
<td>15.6%</td>
<td>$0.69</td>
<td>2.00%</td>
</tr>
<tr>
<td>Kentucky</td>
<td>1.5%</td>
<td>$1.03</td>
<td>0.00%</td>
</tr>
<tr>
<td>Maryland</td>
<td>1.0%</td>
<td>$0.76</td>
<td>2.00%</td>
</tr>
<tr>
<td>Missouri</td>
<td>2.2%</td>
<td>$0.79</td>
<td>1.00%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>4.9%</td>
<td>$0.66</td>
<td>1.00%</td>
</tr>
<tr>
<td>New York</td>
<td>2.8%</td>
<td>$1.43</td>
<td>1.00%</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>7.4%</td>
<td>$0.74</td>
<td>-1.00%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>1.7%</td>
<td>$0.90</td>
<td>1.00%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>6.7%</td>
<td>$0.48</td>
<td>0.00%</td>
</tr>
<tr>
<td>Virginia</td>
<td>4.4%</td>
<td>$1.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>All Other States</td>
<td>47.0%</td>
<td>$0.60</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

* per $100 of Payroll

Additional sections of this report present detailed findings of our barometer analysis. Please contact us, should you have any questions regarding this report.

Respectfully submitted,

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Countrywide Benchmark Statistics

The cost of workers compensation risk is subject to a complicated set of influences.

The analysis of historical data provides a basis for estimating the cost of current and future risk. Frequency, severity and loss rates are the fundamental statistics used within this report to describe workers compensation risk.
Loss Rate
The health care industry has experienced little volatility in the workers compensation loss rates. The loss rates have been very stable during the period 2007 to present, with slight movement up and down.

Claim Frequency
Frequency continues on a slow and steady decline. There are several contributing factors to this decline. Our survey results showed that seventy-four percent of the survey respondents have a formal Safe Patient Handling Program. This, coupled with “no manual lift” policies, ergonomics training, and effective safety committees has enhanced the overall environment of the workplace, keeping it safer and keeping employees injury-free.

Severity
The severity amounts shown in the graph have been limited to $500,000 per occurrence. Limiting large claims reduces the effect of “outlier” events. As with our prior Barometer report, the $500,000 limit is the most prevalent seen in the data in this barometer study and again was chosen as our limit for this analysis.

Continued inflationary trend is apparent during the years analyzed in our report.
Closed Year Results

Liability payments are reported separately by indemnity, medical, and expense. In this section, we present average payments by type for closed claims between years 2008 and 2013. Results are based on closed claims only and are organized by the year that the claim was closed or settled.

**Average Indemnity Paid**
This graph presents average indemnity paid from the health care workers compensation database. Indemnity amounts for closed workers compensation claims have increased steadily over the years, with a high of $18,100 in 2013.

**Average Medical Paid**
This graph presents average medical paid from the health care workers compensation database. Medical amounts for closed workers compensation claims have increased over the years, with a high of $4,800 in 2013.

**Average Expense Paid**
This graph presents average expense paid from the health care workers compensation database. Expense amounts for closed workers compensation claims have increased over the years to a high of $1,190 in 2013, which is almost double what it had been in 2008.
Claim Statistics

The average lag time is defined as the number of days between the date of loss and the claim reported date. The graph below shows that 25% of the claims were reported immediately (zero days), 52% were reported within the first three days (0–3 days), and 66% of all claims were reported within the first week (0–7 days).

Countrywide Benchmark Statistics

**Countrywide Report Lag (Incident to Report): Percent of Claims Reported**

<table>
<thead>
<tr>
<th>Report Lag in Days</th>
<th>0</th>
<th>3</th>
<th>7</th>
<th>30</th>
<th>&gt;30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Claims</td>
<td>25%</td>
<td>52%</td>
<td>66%</td>
<td>85%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Countrywide Report Lag (Incident to Report): Average Severity–Unlimited**

<table>
<thead>
<tr>
<th>Report Lag in Days</th>
<th>0</th>
<th>3</th>
<th>7</th>
<th>30</th>
<th>&gt;30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Severity</td>
<td>$5,500</td>
<td>$7,200</td>
<td>$7,800</td>
<td>$8,400</td>
<td>$9,400</td>
</tr>
</tbody>
</table>
Lag time statistics are important because as the lag time increases, so does the average severity. A loss reported with 0 days lag had an average severity of $5,500 whereas a claim that was reported after 30 days had an average severity of over $9,400. Therefore, a claim reported more than one month after the incident occurred is roughly 71% more costly than a claim reported immediately.

We examined the demographic of non-zero claims and determined the following loss stratification:

### Distribution of Claim Counts and Incurred Dollars by Size of Loss

<table>
<thead>
<tr>
<th>Size of Loss</th>
<th>% of Claim Counts</th>
<th>% of Total Incurred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $5,000</td>
<td>88.7%</td>
<td>12.0%</td>
</tr>
<tr>
<td>$5,001 to $50,000</td>
<td>8.9%</td>
<td>26.5%</td>
</tr>
<tr>
<td>$50,001 to $100,000</td>
<td>1.3%</td>
<td>15.5%</td>
</tr>
<tr>
<td>$100,001 to $250,000</td>
<td>0.8%</td>
<td>22.1%</td>
</tr>
<tr>
<td>$250,001 to $500,000</td>
<td>0.2%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Greater than $500,000</td>
<td>0.1%</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

As seen above, more than 88% of claims contributed only 12% to the total incurred dollars.
Survey Results

To better understand the concerns, characteristics, risk maturity, and resources available to participating risk managers, we provided a survey with the benchmark data call.

In addition to the loss run and exposure data, we also asked them to complete a brief benchmark survey, consisting of 33 questions. Our goal was to highlight the specific concerns/issues that the health care industry faces.

The results of these survey questions are provided on the following pages.
1. What is your number one concern/risk?

Reason this is important
To highlight issues that are the most important to risk managers.

Survey Result

Number one concern

Aon Interpretation
Patient Handling is clearly the leading concern selected by survey participants. Patient Handling is a cause of loss that is unique to the health care industry. It accounts for one third of all claims, and has the highest average indemnity payment out of all causes of loss. Slip/Trip/Fall injuries and Push/Pull injuries are the second and third most costly indemnity payments, respectively.

Cause of Loss: Average Indemnity Paid–Unlimited
2. What is your number one, two and three concern/risk?

*Note: The scores for one, two, and three are added together.*

**Reason this is important**
To highlight all issues important to risk managers.

**Survey Result**

| Number one, two, and three concerns |
|-----------------|----------------|----------------|----------------|----------------|
| Patient Management (incl handling, lifting) | 25% | Materials Handling (incl needle sticks, hazardous exposures) | 19% | Aging Workforce | 15% |
| Managing Costs and Budgets | 11% | Employee Morale/Satisfaction | 10% | Regulatory or Legislative Changes | 6% |
| Workplace Violence (incl co-worker, family and patient) | 6% | Return to Work Program | 4% | Merger & Acquisition Issues | 4% |

**Aon Interpretation**

When combining all the scores for first, second and third concerns, Patient Management is still in the top spot, but it is followed closely by Materials Handling.

Hospital workers are accustomed to and trained in working with communicable diseases. Using gloves, a gown, and a mask are standard protocol for infectious disease control. Materials handling has a small average indemnity paid (relative to other causes of loss), but the frequency of these types of claims appear to be on the rise in our database, when compared to the 2012 Aon Health Care Workers Compensation Barometer.

Both Return to Work Programs and Mergers and Acquisition Issues rank last. It’s our conjecture that most facilities have some type of return to work program (over ninety percent of the survey respondents indicated that they did have a return to work program in place), and that it is operating efficiently. Additionally, while some of the participants of this survey have experienced a merger or acquisition, the issues related to such apparently don’t supersede those of Patient Management and Materials Handling.
3. Do you use employment pre-screening? Do you drug test? Do you perform a “physical capabilities test”? Do you do any psychological testing?

**Reason this is important**
The best line of defense is a good offense. The screening process reveals important information about a candidate’s behavior which can help an employer assess potential risk posed by the candidate, perhaps mitigating future workers compensation claims.

**Survey Result**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you do drug testing?</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>Do you perform a “physical capabilities” test?</td>
<td>52%</td>
<td>48%</td>
</tr>
</tbody>
</table>

**Aon Interpretation**
All survey respondents answered that they do use employee pre-screening, eighty-eight percent utilize drug testing, and roughly half perform a “physical capabilities test”.

While any sort of testing/pre-screening costs the employer money and time, this investment in the workforce is a wise one.
4. Do you do any ergonomic training?

**Reason this is important**

Employers are responsible for providing a safe and healthy workplace for their employees. Training is an important element in the ergonomic process because it makes workers aware of ergonomics, its benefits, and it encourages them to be proactive about ergonomics related concerns in the workplace.

According to OSHA, two of the top five jobs with work related Musculoskeletal Disorders (“MSD”) (including those of the neck, upper extremities and low back) are nursing assistants and registered nurses. The Bureau of Labor Statistics (BLS) reported that health care was one of the industries with the highest MSD rates.

**Survey Result**

<table>
<thead>
<tr>
<th>Do you do any ergonomic training?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>87%</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>13%</td>
</tr>
</tbody>
</table>

**Aon Interpretation**

Eighty-seven percent of the survey respondents use ergonomic training.

Employers are responsible for providing a safe and healthy workplace for their workers. A strong commitment by management is critical to the overall success of an ergonomic process. Management should define clear goals and objectives for the ergonomic process, discuss them with their workers, assign responsibilities to designated staff members, and communicate clearly with the workforce.

According to OSHA, in the health care industry, MSDs represent over 70% of the workers’ compensation costs in most hospitals. In addition, according to the CDC (Centers for Disease Control and Prevention), rates of occupational illnesses and injuries in the health care field have risen over the past ten years.

Staff reductions, the transition from inpatient to outpatient care, and the increasing age of health care employees have contributed to the mental and physical load on health care personnel often leading to stress and injuries.
5. Have you experienced a Merger or Acquisition (M&A) in the last three years? Please site biggest challenge.

Reason this is important
Mergers and acquisitions among hospitals and health systems is on the rise. This uptick in M&A seems to be driven by the Patient Protection and Affordable Care Act (PPACA) and regulatory pressures.

Survey Result

Have you experienced an M&A?

<table>
<thead>
<tr>
<th></th>
<th>No 58%</th>
<th>Yes 42%</th>
</tr>
</thead>
</table>

Number one M&A concern

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Employee Benefit Programs/HR Issues</td>
<td></td>
<td></td>
<td></td>
<td>22%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budgeting and Financial Issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combining Safety Cultures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Employee Layoffs or Retention and Morale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
</tr>
</tbody>
</table>

Aon Interpretation
Forty-two percent of survey respondents have experienced a merger or acquisition (M&A) within the past three years. Of those who have experienced an M&A, the number one concern is Multiple Employee Benefit Programs/HR Issues. The number two concern is equally divided between Budgeting and Financial Issues and Combining Safety Cultures.

According to Aon Hewitt, Mergers & Acquisitions (M&A) Solutions Group, a huge factor in the success of any M&A is people—part of the equation that’s too often overlooked. The health care industry is a challenging environment that emphasizes the need to manage resources, while simultaneously providing quality care. There needs to be high efficiency along with positive margins, and this goal has proven to be formidable for the hospital administration.
6. Do you have a “Formal” Safe Patient Handling Program?

**Reason this is important**
Research has shown that developing and implementing a comprehensive safe patient handling program is instrumental in cost savings. Many worker safety solutions are consistent with, and can even enhance, patient safety. These types of programs provide a systematic framework for protecting workers and making safety a part of everyone’s job.

**Survey Result**

**Do you have a Safe Patient Handling Program?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>74%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>26%</td>
</tr>
</tbody>
</table>

**Aon Interpretation**
Results showed seventy-four percent of the survey respondents have a formal Safe Patient Handling Program.

Our research has discovered that the most successful safe patient handling program is a proactive, collaborative process. The most successful programs would appear to include: management leadership, employee participation, education and training, and program evaluation and improvement.

Health care systems with successful safe patient handling programs have found they can significantly reduce the number of employee injuries and lost work days from injuries. Safe patient handling has been associated with not only fewer injuries but also a decrease in the severity of injuries. The Safe Patient Handling Programs: Effectiveness and Cost Savings report, published by OSHA, provides case examples that demonstrate how safe patient handling translates into cost savings (https://www.osha.gov/dsg/hospitals/documents/3.5_SPH_effectiveness_508.pdf).
7. How satisfied are you with your Safe Patient Handling Program? How difficult is it to obtain funding for your Safe Patient Handling Program?

Reason this is important
Research has shown that developing and implementing a comprehensive safe patient handling program is instrumental in cost savings. Many worker safety solutions are consistent with, and can even enhance, patient safety. These types of programs provide a systematic framework for protecting workers and making safety a part of everyone’s job.

Survey Result

How satisfied are you with the program?

| Satisfied: Program Sustainable | 0% |
| Satisfied but concerned about sustaining the program | 88% |
| Not satisfied | 12% |

How difficult is it to obtain funding for your program?

| Difficult to get funding | 0% |
| vinden funding as needed | 45% |
| Have an annual operating budget | 41% |
| Have a difficult time getting funding | 18% |

Aon Interpretation
Eighty-eight percent of survey respondents stated that, while they were satisfied with their safe patient handling program, they were concerned about its sustainability. Twelve percent are not satisfied with the program at all.

Funding appears to be an issue for only eighteen percent of the survey respondents.

Many safe patient or resident mobility programs stall because they fail to realize the importance of following a continuous improvement platform and drive greater results for all aspects of the program. Any program should follow a defined process and strive to continually improve. Based on “Four Tactics to Tune Up a Safe Patient Mobility Program” by Vicki Missar, some highlights of a successful program:

- **Assess the written program.** Review all program documentation annually: easy to understand, accurately reflects program elements, and is it missing any essential items. Be aware of any documentation that becomes stale or outdated.

- **Review metrics and milestones.** Measure what matters. Choose three or four leading indicators and lagging indicators to gauge program performance.

- **Refine plan and evaluate administrative process.**

- **Quality review session.** Having an open and honest dialogue, continually identifying areas of improvement will ensure that the program stays on target.
8. Have you adopted “No manual lift” in your facility(s)?

**Reason this is important**
With Patient Handling as the top concern, eliminating unsafe manual lifting of patients would significantly increase the safety of patients and staff.

**Survey Result**

<table>
<thead>
<tr>
<th>Have you adopted “no manual lift” in your facility(s)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 81%</td>
</tr>
<tr>
<td>Yes 19%</td>
</tr>
</tbody>
</table>

**Aon Interpretation**

In theory, eliminating all manual lifting of patients is the best method of reducing risk of injury to the employee. The survey response would indicate, by eighty-one percent of the respondents not adopting the “no manual lift” policy, that it’s perhaps impossible to completely eliminate the risk. One respondent did indicate that they follow “NIOSH standards in our policy—no lifting over 35 pounds without an assist device”. NIOSH stands for the National Institute for Occupational Safety and Health.

Several states have adopted “no manual lift” policies and some of the latest legislation to be introduced is the “Nurse and Health Care Worker Protection Act of 2013”.
9. Do you have any safety incentive programs in place? Are they “Results-Based” or “Process-Based”? Types of rewards?

Reason this is important
Managing Costs is identified as a top concern amongst health care risk managers.

Survey Result
Do you have any safety incentive programs in place?

<table>
<thead>
<tr>
<th>Yes</th>
<th>17%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>83%</td>
</tr>
</tbody>
</table>

Aon Interpretation
Only a small percentage of respondents have safety incentive programs in place, and seventy-five percent of those are “results-based”, meaning that the employee receives something for remaining injury free.

The types of rewards identified were awards (both cash and non-monetary), gift certificates, luncheons, and public recognition.
10. Do you have a formal Return to Work program in place?

Reason this is important
One of the ways to reduce costs associated with a claim is to minimize the magnitude of the loss. A tool in accomplishing this is a comprehensive Return to Work program.

Survey Result
Do you have a “formal” return to work program?

<table>
<thead>
<tr>
<th>Yes</th>
<th>87%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>13%</td>
</tr>
</tbody>
</table>

Aon Interpretation
Eighty-seven percent of the respondents do have a Return to Work (RTW) program in place. There are several benefits from an RTW program including: instilling a positive relationship between employers and employees (a well taken care of employee is more likely to readily return to full duty as soon as medically feasible), controlling worker compensation claims costs and preventing and/or limiting lost work day cases.

It has been researched that an early return to work reduces the chances that the employee will never return to the workplace. (Department of Labor)

A successful RTW program contains the following elements:

- Short-term modification of work schedule/job duties to accommodate any restrictions imposed by the employee’s physician;
- Modifications that vary based on the type of injury, the employee’s current physical ability, skills and pre-injury responsibilities; and progressive return to full duty.
11. Do you have metrics in place to test the effectiveness of your return to work program? Is your return to work program effective?

Reason this is important
One of the ways to reduce costs associated with a claim is to minimize the magnitude of the loss. A tool in accomplishing this is a comprehensive Return to Work program.

Survey Result

<table>
<thead>
<tr>
<th>Metrics in place to test the effectiveness of the RTW program?</th>
<th>Is your return to work program effective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 35%</td>
<td>No 0%</td>
</tr>
<tr>
<td>Yes 65%</td>
<td>Yes, very effective 74%</td>
</tr>
</tbody>
</table>

Yes, but it could be improved 26%

Aon Interpretation
Sixty-five percent of respondents have metrics in place to test the effectiveness of their RTW program and seventy-four percent see their program as very effective. No respondents answered that their RTW program was not effective.

Risk Managers understand the positive impact that an effective RTW program can have on improving the health and productivity of their workforce. The fact that twenty-six percent see areas where their RTW program can be improved upon shows us that the dynamic of a successful RTW program is ever-evolving as well.
12. How long can an employee be on WC before significant intervention? How long can an employee be on “light duty” before significant intervention?

Reason this is important
One of the ways to reduce costs associated with a claim is to minimize the magnitude of the loss. A tool in accomplishing this is by managing the time an employee is out of work or on light duty.

Survey Result

<table>
<thead>
<tr>
<th>How long can an employee be on WC before significant intervention?</th>
<th>How long can an employee be on “light duty” before significant intervention?</th>
</tr>
</thead>
<tbody>
<tr>
<td>120+ days</td>
<td>12%</td>
</tr>
<tr>
<td>90 days</td>
<td>18%</td>
</tr>
<tr>
<td>60 days</td>
<td>5%</td>
</tr>
<tr>
<td>Less than 60 days</td>
<td>68%</td>
</tr>
</tbody>
</table>

Aon Interpretation
Sixty-eight percent of respondents indicated that significant intervention occurs within 60 days of an employee being on workers compensation. Only nine percent responded that significant intervention occurs after 120 days.

Forty-three percent of respondents indicated that, while an employee is on “light duty”, significant intervention occurs within 60 days. Fourteen percent responded that significant intervention occurs after 120 days of an employee being on “light duty”.

A communication plan that keeps the employer in contact with the injured employee is key to mitigating claims. Regular, appropriate contact (“checking-in”) safeguards that the employee will not feel abandoned by the employer and the employer will know about the employee’s progress toward returning to work.
13. Do you have a “Drug Utilization Review”?
(ie. Manage the distribution/use of opiates to employees on WC)

Reason this is important
To aid in managing the costs of workers compensation claims it is important to manage the distribution and length of time that an employee is on medication. Managing the types of prescription medications that are habit forming or addicting is also a key factor in cost control.

Survey Result
Do you have a “drug utilization review”?

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>39%</td>
</tr>
<tr>
<td>Yes</td>
<td>61%</td>
</tr>
</tbody>
</table>

Aon Interpretation
Sixty-one percent of respondents indicated that they have a “Drug Utilization Review” (DUR) or a way to manage the distribution and/or use of opiates to employees on WC.

DUR programs serve as a means of improving the quality of patient care, enhancing therapeutic outcomes, and reducing inappropriate pharmaceutical expenditures, thus reducing overall health care costs.

There are three types of DURs:

1. **Prospective**—planning drug therapy before a drug is dispensed.
   Useful to avoid:
   • Drug-disease contraindications
   • Incorrect drug dosage
   • Drug-drug interactions
   • Clinical abuse/misuse

2. **Concurrent**—involves the ongoing monitoring of drug therapy.

3. **Retrospective**—drug therapy is reviewed after the patient has received the medication.
   Useful to avoid:
   • Over/under utilization
   • Clinical abuse/misuse
   • Inappropriate duration of treatment
14. If you have carpeting in your facility, estimate the percentage of facility with carpeting

**Reason this is important**
Slip/trip/fall claims continue to be costly and make up almost thirty percent of the average indemnity paid in our database.

**Survey Result**

<table>
<thead>
<tr>
<th>Estimated percentage of facility with carpeting?</th>
</tr>
</thead>
<tbody>
<tr>
<td>20% to 30%</td>
</tr>
<tr>
<td>24%</td>
</tr>
<tr>
<td>10% to 20%</td>
</tr>
<tr>
<td>24%</td>
</tr>
<tr>
<td>Less than 10%</td>
</tr>
<tr>
<td>24%</td>
</tr>
<tr>
<td>more than 30%</td>
</tr>
<tr>
<td>28%</td>
</tr>
</tbody>
</table>

**Slip/Trip/Fall Claims Only: Average Indemnity Paid—Unlimited**

<table>
<thead>
<tr>
<th>Indemnity Paid—Unlimited</th>
<th>Facilities with Greater than 30% Carpeting</th>
<th>$14,700</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Facilities</td>
<td></td>
<td>$12,800</td>
</tr>
</tbody>
</table>

**Aon Interpretation**
The respondents are divided almost equally in the percentages of the facility with carpeting. Twenty-eight percent of respondents answered that their facilities were more than 30% carpeted.

The average indemnity paid for all Slip/Trip/Fall claims is $12,800. For those facilities with thirty percent or greater carpeting, the average indemnity paid for Slip/Trip/Fall claims rises to $14,700.
15. Do you have a “Formal” Safety Committee? Who is on the Safety Committee?

Reason this is important
It has been shown that Safety Committees are useful in keeping up to date on current safety procedures and making sure staff is well-informed.

Survey Result

<table>
<thead>
<tr>
<th>Do you have a “formal” safety committee?</th>
<th>Who is on the safety committee?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 5%</td>
<td>Management and Hourly Employees 43%</td>
</tr>
<tr>
<td>Yes 95%</td>
<td>Management Only 57%</td>
</tr>
</tbody>
</table>

Aon Interpretation
Ninety-five percent of the respondents answered that they have a “formal” safety committee in place, but the members of that committee are divided. Fifty-seven percent of those committees include management only; while forty-three percent include both management and hourly employees.

A program in place is a good first step, however, it takes effective implementation and commitment to protect workers and reduce injuries and illnesses.

According to OSHA, a formal safety and health management system can help hospitals realize a wide range of benefits, including:

- Fewer injuries, illnesses, and infections.
- Reduced costs for workers compensation claims and lower health insurance premiums.
- Less absenteeism and higher return-to-work rates following injury or illness.
- Improved work practices, leading to increased efficiency and greater patient safety and satisfaction.
- Higher job satisfaction, morale, and employee retention.
- Enhanced reputation.
Analysis of Workers Compensation Claims by Department and Occupation

This year, for the first time, we requested participants send their department and occupation information for each claim within the loss data. Approximately 40% of the participants were able to provide both department- and occupation-type detail. These data fields contain text that is not standardized from participant to participant. Thus there was a need to normalize the data into a number of uniform categories.
Department

The goal of the department analysis was to identify a few key areas of the health care system that are easily categorized and which provide interesting insights into the workers compensation landscape. These areas include Administration, Emergency Department, Home Health, Intensive Care Unit, Lab, Obstetrics, and Surgery.

As shown below, the highest average indemnity cost is for Home Health. Home Health employees typically work with the elderly population, which often needs assistance with dressing, bathing, and housework. In some cases, patients have limited communication abilities, incoherence, significant physical and mental ailments, and other challenging situations. Due to the nature of their work, patient handling is a common service provided by a home health employee. As shown on page 10, patient handling results in the highest severity among other causes of loss. Another possible contributing factor to high costs for Home Health is its higher exposure to automobile accidents while on the job.

Average Indemnity Paid—Unlimited

<table>
<thead>
<tr>
<th>Department</th>
<th>Average Indemnity Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Health</td>
<td>$15,200</td>
</tr>
<tr>
<td>Admin</td>
<td>$11,200</td>
</tr>
<tr>
<td>ICU</td>
<td>$10,300</td>
</tr>
<tr>
<td>OB</td>
<td>$10,000</td>
</tr>
<tr>
<td>ED</td>
<td>$7,200</td>
</tr>
<tr>
<td>Surgery</td>
<td>$6,200</td>
</tr>
<tr>
<td>Lab</td>
<td>$6,000</td>
</tr>
</tbody>
</table>
Occupation

Occupation allows us the ability to breakdown the department field to a more granular level. This gives us the opportunity to identify the specific types of employees that drive costs. We can take it a step further and also look at the frequency of workers compensation claims by occupation.

Severity of Claims by Occupation

We used closed claims only for occupation types with more than ten indemnity claims. This resulted in 35 unique occupation types.

The following “word cloud” gives us a visual aid in representing the highest average indemnity (i.e. lost time) for the resulting 35 occupation types: the larger the word represents the more costly the occupation within workers compensation liability claims.

The table on page 28 lists the top 10 most costly workers compensation indemnity payments by occupation type.

The occupation with the highest indemnity cost is Home Health Care Aide. This follows our conclusion above in the Department analysis. As previously discussed, home health care employees are often physically handling the patient due to the patient’s condition and needs. In addition, there are other occupations in the list below that could be considered part of the home health division, including case manager and nurse. It is important to remember that home health care employees have higher exposure to automobile accidents, which can also contribute to their high severity ranking.

The second most costly occupation is Central Supply Clerk. This type of employee is responsible for receiving and shipping of supplies, which can involve heavy lifting and maneuvering of shipments. As shown on page 10, “Push/Pull” and “Strain/Sprain” are among the most severe causes of loss, which could both be potential causes of loss experienced by a Central Supply Clerk.
### Average Indemnity Paid and Cost Ranking by Occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Average Indemnity—Unlimited</th>
<th>Indemnity Severity Rank (out of 35)</th>
<th>Resulting Medical Severity Rank (out of 35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Health Care Aide</td>
<td>$26,100</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Central Supply Clerk</td>
<td>$24,000</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EMT</td>
<td>$22,700</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Lab Tech</td>
<td>$19,500</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Multi Skilled Tech</td>
<td>$18,800</td>
<td>5</td>
<td>29</td>
</tr>
<tr>
<td>Diagnostic Technician</td>
<td>$18,400</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>Case Manager</td>
<td>$15,400</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Patient Care Technician</td>
<td>$14,500</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>Nurse</td>
<td>$14,400</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Patient Services Representative</td>
<td>$14,000</td>
<td>10</td>
<td>17</td>
</tr>
</tbody>
</table>

Interestingly, we were able to compare the severity rankings between average indemnity cost and average medical cost. As shown above, the two most costly occupations, Home Health Care Aide and Central Supply Clerk, also have high average medical costs, at fourth and third, respectively. Another notable observation is the large difference between indemnity severity and medical severity rankings for a number of occupation types. As seen above, occupation types such as EMT, Lab Tech, and Patient Care Technician have significantly lower medical severity rankings compared to its indemnity severity ranking.

### Frequency of Claims by Occupation

The following “word cloud” gives us a visual aid in representing the 50 most common occupation types within our claims database: the larger the word represents the more common occupation within workers compensation liability claims.
The following table lists the 10 most frequent workers compensation claims by occupation listed in the claim database. The most frequent occupation is “Nurse.” Nurses tend to spend the most time with the patient, assuming an active role of facilitating medical care, medication, and are often the ones tending to the patient’s various needs.

### Frequency of claims by occupation

<table>
<thead>
<tr>
<th>Rank</th>
<th>Occupation</th>
<th>Percentage of all claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nurse</td>
<td>57.48%</td>
</tr>
<tr>
<td>2</td>
<td>Custodial Worker</td>
<td>8.54%</td>
</tr>
<tr>
<td>3</td>
<td>Admin Support</td>
<td>8.19%</td>
</tr>
<tr>
<td>4</td>
<td>Food Services Worker</td>
<td>5.90%</td>
</tr>
<tr>
<td>5</td>
<td>Building Maintenance Worker</td>
<td>2.70%</td>
</tr>
<tr>
<td>6</td>
<td>Administrator</td>
<td>2.19%</td>
</tr>
<tr>
<td>7</td>
<td>Nursing Assistant</td>
<td>1.97%</td>
</tr>
<tr>
<td>8</td>
<td>Patient Care Technician</td>
<td>1.95%</td>
</tr>
<tr>
<td>9</td>
<td>Diagnostic Technician</td>
<td>1.14%</td>
</tr>
<tr>
<td>10</td>
<td>Physician</td>
<td>1.03%</td>
</tr>
</tbody>
</table>

### Take Away

The collection and processing of department and occupation information within our database allows us to explore the driving forces behind workers compensation claims in the health care industry. Risk managers can use this information to identify the most common and costly claims and assist them in making operational decisions within their health care system.
State-Specific Benchmark Statistics

This section profiles states where credible results were produced based on the volume of data, stability of results, and the number of systems represented in the data. Because workers compensation is administered on a State-by-State basis, there is significant variability of the provisions by State. The following are presented for each State:

The darker bar, labeled 2014, represents a forecast based on trending the 2013 bar using our selected trend factors.

- Loss rate per $100 of payroll limited to $500,000 per occurrence
- Claim frequency per $100,000 of payroll
- Loss severity (average size per claim) limited to $500,000 per occurrence.
California

2013 Payroll: $1.472B, Annual Frequency Trend: 1.0%, Annual Severity Trend: 2.0%

Loss Rate
California loss rates are almost three times the Countrywide rate in more recent years.

According to Aon’s California Workers Compensation Advisory Bulletin, released in July 2014, large medical severity trends have stabilized.

Claim Frequency
The claim frequency in California is similar to Countrywide, however, California exhibits a 1% annual increasing trend compared to Countrywide’s decreasing frequency trend.

According to Aon’s California Workers Compensation Advisory Bulletin, released in July 2014, the recent benefit increases per Senate Bill No. 863 could be a contributing factor towards the increasing frequency trend.

Severity
The 2014 California severity is more than two and a half times that of the Countrywide average at $21,690. California’s severity is increasing at 2% annually.
Florida

2013 Payroll: $4.723B, Annual Frequency Trend: -1.0%, Annual Severity Trend: 3.0%

Loss Rate
Florida loss rates are increasing at an annual 2% trend since 2011. However, Florida loss rates remain lower than Countrywide over the experience period.

Claim Frequency
The claim frequency in Florida mirrors Countrywide over the experience period shown.

Severity
Florida severity has been increasing at an annual rate of 3% and remains below the Countrywide average over the experience period.

The Florida workers compensation law is under much scrutiny and if declared unconstitutional could result in lifting the limits on benefits to injured employees and subsequently increasing costs to employers.²


State-Specific Benchmark Statistics
Kentucky

2013 Payroll: $0.457B, Annual Frequency Trend: -1.0%, Annual Severity Trend: 1.0%

Loss Rate
Kentucky loss rates are relatively flat since 2010. The 2014 Kentucky loss rate is approximately 39% higher than the Countrywide rate.

Claim Frequency
The claim frequency in Kentucky follows the same Countrywide 1% annual decreasing trend, but remains higher than Countrywide over the experience period.

Severity
Severity in Kentucky is increasing at a lower annual rate than Countrywide, 1% compared to Countrywide of 2%.
Maryland

2013 Payroll: $0.290B, Annual Frequency Trend: 0.0%, Annual Severity Trend: 2.0%

Loss Rate
Maryland loss rates are increasing at an annual rate of 2%. The 2014 loss rate for Maryland is the same as the industry.

Claim Frequency
The claim frequency in Maryland is similar to Countrywide and exhibits a flat annual trend.

Severity
Severity in Maryland is increasing at 2%, annually. The 2014 loss rate is approximately 5% lower than the Countrywide loss rate.
Missouri

2013 Payroll: $0.665B, Annual Frequency Trend: 0.0%, Annual Severity Trend: 1.0%

Loss Rate
Loss rates for Missouri are relatively stable over the experience period, with an exception of 2008, which is increasing at a modest 1% annual rate.

Claim Frequency
Frequency in Missouri exhibits a flat trend and is approximately 36% higher than Countrywide.

Severity
Missouri severity is on the rise, but at a lower annual rate than Countrywide. Severity for Missouri is approximately 23% lower than industry.
New Jersey

2013 Payroll: $1.481B, Annual Frequency Trend: 0.0%, Annual Severity Trend: 1.0%

Loss Rate
Loss rates in New Jersey have declined from 2009 to 2012, but appear to be on the rise at a moderate annual rate of 1%.

Claim Frequency
The claim frequency in New Jersey is significantly lower than the industry, coming in at more than 50% lower.

Severity
New Jersey severity is almost double the Countrywide severity.
New York

2013 Payroll: $0.836B, Annual Frequency Trend: 1.0%, Annual Severity Trend: 0.0%

Loss Rate
New York loss rates are almost double that of Countrywide and are increasing at an annual rate of 1%.

According to Aon’s New York Workers Compensation Advisory Bulletin, released in May 2014, “the elimination of the Re-opened Cases Fund (25-A) has the potential to increase the cost of workers compensation for employers. The extent of this increase will depend on a number of variables and will vary from employer to employer.”

Claim Frequency
The claim frequency in New York is on the rise at an annual rate of 1% and remains above the industry since 2011.

According to Aon’s New York Workers Compensation Advisory Bulletin, released in May 2014, due to the elimination of the Re-opened Cases Fund (25-A), re-opened claims are no longer part of the WCB fund and will need to be added to the employers’ data, effective 1/1/2014. This could potentially change the claim frequency trend going forward.

Severity
New York severity had been fairly stable since 2008 and is approximately 1.80 times the Countrywide severity.
Pennsylvania

2013 Payroll: $2.259B, Annual Frequency Trend: 0.0%, Annual Severity Trend: -1.0%

Loss Rate
Pennsylvania loss rates are moving closer to Countrywide loss rates in recent years. Loss rates for Pennsylvania are decreasing at a rate of 1%, annually.

Claim Frequency
The claim frequency in Pennsylvania remains at a stable 0% trend.

Severity
Pennsylvania severity has decreased since 2009 and is projected to continue to decrease at 1%, annually. The 2014 severity for Pennsylvania is 16% lower than the industry.
South Carolina

2013 Payroll: $0.522B, Annual Frequency Trend: 0.0%, Annual Severity Trend: 1.0%

Loss Rate
South Carolina loss rates are approximately 20% higher than Countrywide.

Claim Frequency
The claim frequency in South Carolina is similar to the industry.

Severity
South Carolina severity is approximately 20% higher than the industry.
Tennessee

2013 Payroll: $2.030B, Annual Frequency Trend: 0.0%, Annual Severity Trend: 0.0%

Loss Rate
Tennessee loss rates are approximately 35% lower than Countrywide and are the lowest of the states published within this report.

Claim Frequency
The claim frequency in Tennessee exhibits a flat annual trend.

Severity
Tennessee severity exhibits a 0% annual trend. The 2014 Tennessee severity is 32% lower than Countrywide.
Virginia

2013 Payroll: $1.342B, Annual Frequency Trend: 0.0%, Annual Severity Trend: 0.0%

Loss Rate
Virginia loss rates exhibit a 0% annual trend and remain more than 1.30 times the Countrywide loss rates.

Claim Frequency
The claim frequency in Virginia is stable over the experience period, but remains higher than the industry.

Severity
Virginia severity has a 0% annual trend and is similar to the industry in 2014.
All Other States

2013 Payroll: $14.254B, Annual Frequency Trend: -1.0%, Annual Severity Trend: 2.0%

Loss Rate
All Other States loss rates exhibit low volatility from year to year. The 2014 loss rate of $0.60 is 19% lower than Countrywide.

Claim Frequency
All Other States claim frequency mirrors that of Countrywide.

Severity
All Other States severity is increasing at a 2% annual rate, however, severity remains 19% lower than the industry.
Increased/Decreased Limit Factors

Increased/decreased limit factors are used to restate ultimate losses or loss rates at different loss limits. The chart below shows increased limit factor (“ILF”) relative to a base of $500,000 per occurrence.

The following table presents increased limits factors for the total health care workers compensation database.

<table>
<thead>
<tr>
<th>Size of loss distribution</th>
<th>ILF to $500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Limit</td>
<td>Upper Limit</td>
</tr>
<tr>
<td>0</td>
<td>100,000</td>
</tr>
<tr>
<td>100,000</td>
<td>250,000</td>
</tr>
<tr>
<td>250,000</td>
<td>500,000</td>
</tr>
<tr>
<td>500,000</td>
<td>750,000</td>
</tr>
<tr>
<td>750,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>1,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>2,000,000</td>
<td>3,000,000</td>
</tr>
</tbody>
</table>

Example of how to use ILFs:
The 2015 countrywide loss rate at $500,000 per occurrence is $0.75. To calculate the loss rate at $1,000,000 per occurrence, you would select the ILF from the table with an upper limit of $1,000,000 (1.039). Increased limit factors are multiplicative. In this example, the countrywide loss rate at $1,000,000 per occurrence is $0.78 ($0.75 x 1.039).
### State Relativities

We have observed that frequency is fairly consistent from state to state, hence, the relativities below should be applied to Countrywide severity. A state with a relativity of 1.00 reflects an estimated severity equal to Countrywide from page 3.

<table>
<thead>
<tr>
<th>State</th>
<th>Abbrev</th>
<th>Relativity</th>
<th>State</th>
<th>Abbrev</th>
<th>Relativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>AL</td>
<td>0.950</td>
<td>Montana</td>
<td>MT</td>
<td>1.650</td>
</tr>
<tr>
<td>Alaska</td>
<td>AK</td>
<td>1.450</td>
<td>Nebraska</td>
<td>NE</td>
<td>0.800</td>
</tr>
<tr>
<td>Arizona</td>
<td>AZ</td>
<td>1.050</td>
<td>Nevada</td>
<td>NV</td>
<td>0.700</td>
</tr>
<tr>
<td>Arkansas</td>
<td>AR</td>
<td>0.500</td>
<td>New Hampshire</td>
<td>NH</td>
<td>0.950</td>
</tr>
<tr>
<td>California</td>
<td>CA</td>
<td>1.950</td>
<td>New Jersey</td>
<td>NJ</td>
<td>0.800</td>
</tr>
<tr>
<td>Colorado</td>
<td>CO</td>
<td>0.850</td>
<td>New Mexico</td>
<td>NM</td>
<td>1.000</td>
</tr>
<tr>
<td>Connecticut</td>
<td>CT</td>
<td>1.050</td>
<td>New York</td>
<td>NY</td>
<td>1.100</td>
</tr>
<tr>
<td>Delaware</td>
<td>DE</td>
<td>0.650</td>
<td>North Carolina</td>
<td>NC</td>
<td>1.100</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>DC</td>
<td>0.550</td>
<td>North Dakota</td>
<td>ND</td>
<td>N/A</td>
</tr>
<tr>
<td>Florida</td>
<td>FL</td>
<td>1.150</td>
<td>Ohio</td>
<td>OH</td>
<td>0.350</td>
</tr>
<tr>
<td>Georgia</td>
<td>GA</td>
<td>0.750</td>
<td>Oklahoma</td>
<td>OK</td>
<td>1.850</td>
</tr>
<tr>
<td>Hawaii</td>
<td>HI</td>
<td>0.900</td>
<td>Oregon</td>
<td>OR</td>
<td>0.850</td>
</tr>
<tr>
<td>Idaho</td>
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Database

Forty-four health care organizations representing approximately 1,150 facilities provided loss and exposure data for this Barometer study. These participants ranged in size, from small community hospitals to large multi-state systems.

In total, the workers compensation database included 257,110 non-zero claims representing $1.6 billion of incurred loss dollars. We have considered any zero dollar claims (incurred claims with a zero reported dollar amount) to be incident or record only entries and excluded them from consideration. The database included historical claims data for ten accident years (2004 through 2013).

All workers compensation analysis results published in this report are based on total incurred losses (medical, indemnity and expense dollars), and are limited to $500,000 per occurrence unless otherwise noted. This limit was applied on a per claim basis, and we did not analyze the data for multiple claimant events.

Data Collection

The data call for the 2014 Aon Health Care Workers Compensation Cost Barometer was issued in July of 2014 to Aon Risk Solutions and Aon Global Risk Consulting and data was collected through September, 2014. Participation from clients and non-clients was requested. The database was finalized and closed on September 30, 2014.

The following data items were collected from participants and used in our analysis:

Loss Data
Participants submitted individual loss (claim level) detail, valued on or after December 31, 2013, in a Microsoft Excel compatible format. Unless otherwise noted, it was assumed that all losses are on a first dollar, unlimited basis. “Claim level detail” includes all items of the loss run, including “claims”, “events”, “incidents”, and “notice only”. Ten years of accident-year loss data was collected where feasible. Both closed and open claims were included.

Required fields included: facility name, state, occurrence date, report date, close date, total incurred loss, total paid loss, and total outstanding reserve.

Additional fields (if available) included: indemnity incurred, medical incurred, expense incurred, indemnity paid, medical paid, expense paid, indemnity outstanding, medical outstanding, expense outstanding, description of Injury/nature of Injury/cause of Injury, body part(s) involved in injury and date of birth of claimant.

Exposure Data
Participants submitted a listing of payroll, by calendar or policy year. Multi-facility and multi-state systems were asked to provide payroll by facility and/or by state.

Survey Data
Participants were asked a series of survey questions pertaining to their workers compensation program and risk management departments. Sixty percent of participants responded to the survey, in addition to supplying the loss and exposure data.
Actuarial Analysis

The accident year statistics presented in this report are based on an actuarial analysis of the underlying loss and exposure databases. The actuarial analysis estimates the ultimate cost of workers compensation in a given accident year by accounting for both late reported claims and additional “development” on existing claims. We have assumed there are no multiple claimant occurrences.

Performing an actuarial analysis involves developing a qualitative understanding of the risk and applying actuarial techniques and methods to the available data. These methods attempt to project unpaid and/or unreported losses to their ultimate settlement value. Each method requires certain underlying assumptions and varies in its responsiveness to loss data. As a result, not all methods are appropriate for use in all circumstances. For each unique situation, actuaries assess the strengths and weaknesses inherent in the results of each method in producing reasonable estimates of ultimate loss.

The following actuarial methods were employed in developing the results contained in this report:

Paid and Incurred Loss Development Methods
The development method tracks the changes in paid or reported losses over time (e.g., in annual evaluations). The Paid and Incurred Loss Development Methods are based on the assumption that losses from a group of claims are reported or paid in a sufficiently consistent pattern such that prior experience can be used to predict future development. The term “loss development” is used to describe the changes in loss amounts, either paid or reported, that occur over time in a group of claims. In order to reflect loss development arithmetically, incremental loss development factors are calculated by dividing loss amounts at a given evaluation date by those values in the immediately preceding evaluation date. A multiplicative process is then used to calculate a cumulative loss development factor.

The Loss Development Methods can be applied using either cumulative paid losses or incurred losses (cumulative paid losses plus case reserves). For a given group of claims (grouped by accident year, report year, or on some other basis), cumulative paid or incurred losses are multiplied by the appropriate cumulative loss development factor to estimate ultimate losses.

The Paid and Incurred Loss Development Methods rely heavily on data as of the most recent evaluation date and assume past patterns are predictive of future development. The Incurred Loss Development Method assumes that claim reporting and case reserving practices remain relatively consistent over time. One advantage of the incurred development method is that it uses the greatest amount of data available by including payments and case reserve estimates. A potential disadvantage is that estimates can be distorted by changes in reserving philosophy.

The Paid Loss Development Method assumes that claim payment and settlement patterns remain relatively consistent over time. A primary advantage of this method is that estimates are not distorted by changes in reserving philosophy since case reserves are not used in the calculation. However, the estimates can be influenced by unusual large settlements or changes in payment pattern.

If the program under study has inadequate history to develop predictive loss development patterns, then other sources of loss development information may be considered.
Outstanding Loss Development Method

The Outstanding Loss Development Method is similar to the Paid and Incurred Loss Development Methods. The difference is that the projected values are “unpaid losses” and not ultimate losses. It uses assumed paid and reported loss development factors to derive the development factor for case outstanding. The following presents the formula for the case outstanding development factor:

\[
\frac{(\text{Reported LDF to Ultimate} - 1.00) \times (\text{Paid LDF to Ultimate}) + 1.00}{\text{Paid LDF to Ultimate} - \text{Reported LDF to Ultimate}}
\]

The resulting case development factor includes provisions for case reserves and IBNR (the broad definition of IBNR, which includes development on known claims). The ultimate loss estimate equals paid loss plus (case reserve times reserve development factor).

Since the Outstanding Loss Development Method relies on both the payout and reporting patterns to determine the future changes in case reserves, this method is susceptible to distortion due to changes in case reserving practices and payment patterns.

Paid and Incurred Bornhuetter-Ferguson (BF) Methods

The BF method is a combination of the paid or incurred development method and an a priori expected loss figure estimated from other alternative sources. Effectively, a “credibility” weight, which is equivalent to the inverse of the selected development factor, is given to the development method, and the complement of the weight is given to the a priori expected amount. The BF method avoids potential distortions caused by random variations in paid or incurred amounts at early development ages. In our analysis, a priori expected loss rates (ELRs) are selected from experience of more mature years. The assumed ELRs are then applied to the subject exposure to arrive at the expected loss amounts.

As the weight assigned to the Loss Development Methods is equal to the percent of losses paid or reported, estimates for immature periods will principally be based on the a priori expected amount. For more mature periods, the BF Method estimates will principally be based on the Loss Development Methods. Thus, the BF Methods are less responsive than the Loss Development Methods and more responsive than the assumed a priori loss estimate.

Incurred/Paid Cape Cod Methods

In the incurred Cape Cod method, the expected amount of unreported loss and ALAE is calculated directly. The estimate of unreported loss and ALAE is determined based on a measure of expected total loss and the reporting pattern associated with the selected incurred development factors. The unreported amount is added to the incurred loss and ALAE as of the average valuation date to produce the ultimate loss and ALAE estimate.

The paid Cape Cod method is similar to the incurred Cape Cod method except that the expected amount of unpaid loss and ALAE is calculated rather than the expected unreported amount. The unpaid amount is added to the paid loss and ALAE as of the average valuation date to produce the ultimate loss and ALAE estimate.

The Cape Cod methods are particularly effective in estimating ultimate loss and ALAE for the more recent policy periods. One advantage of the Cape Cod methods is the stability of their estimates over time. A potential disadvantage is that they do not react quickly to changes in the claims handling environment.
Frequency-Severity Method
In the frequency-severity method, the ultimate loss is estimated as the product of average claim cost (i.e., severity) and number of claims. The ultimate loss is separately derived for reported and unreported claims. For reported claims, the ultimate loss is derived by multiplying the number of reported claims by the ultimate average cost of reported claims. The ultimate loss for unreported claims equals the product of the estimated number of unreported claims and the average severity of these claims. The number of unreported claims is calculated as the ultimate claim counts (using the claim development method similar to the loss development method described earlier) minus the number of reported claims. The average severity for unreported claims is calculated as the weighted average of ultimate severity from all prior years, adjusted for claim cost inflation.
Conditions and Limitations

Inherent Uncertainty
Actuarial calculations produce estimates of inherently uncertain future contingent events. We believe that the estimates provided represent reasonable provisions based on the appropriate application of actuarial techniques to the available data. However, there is no guarantee that actual future payments will not differ from estimates included herein.

Extraordinary Future Emergence
Our projections make no provision for the extraordinary future emergence of losses or types of losses not sufficiently represented in the historical data or which are not yet quantifiable.

Data Reliance
In conducting this analysis, we relied upon the provided data without audit or independent verification; however, we reviewed it for reasonableness and consistency. Any inaccuracies in quantitative data or qualitative representations could have a significant effect on the results of our review and analysis.

Use and Distribution
Use of this report is limited for the specific purpose described in the Introduction section. Other uses are prohibited without an executed release with Aon.
Definitions

**Accident Year**
Accident year (also called occurrence year) is the year in which an incident giving rise to a claim occurred. All of the loss rate, frequency, and severity analyses are grouped by accident year, unless specifically noted otherwise.

**Claim**
A claim is a demand by an individual to recover for a loss. It provides wage replacement and medical benefits to employees injured in the course of employment.

**Expense**
Refers to costs, in addition to indemnity and medical payments, that are incurred in handling claims.

**Exposure**
Actuaries select an exposure base such that the incident of claims will tend to vary directly with the exposure of the entity at risk. Consideration must be taken to both the historical loss level and corresponding exposures in evaluating historical claim liabilities and expected future costs. It is important to choose an exposure base that is relevant to the situation of each risk group. Exposures may be measured by payroll (per $100), sales, revenues, receipts (per $1000), or per employee or vehicle, among others.

For this study, we used an exposure base of payroll.

**Frequency (or Claim Frequency)**
The mean number of loss events occurring during a time period relative to an exposure base. For this study, the frequency is measured on an annual basis as the ultimate number of claims projected for the given time period divided by $100,000 of payroll.

**Indemnity**
Compensation for a particular loss suffered. In the case of workers compensation, indemnity is the wage replacement for the injured worker while they recover/rehabilitate.

**Incurred Losses (also called Reported Losses)**
The total of actual paid losses, paid expense and all outstanding reserves.

**Loss Development**
Loss development refers to the change in the estimated value of losses attributable to a body of claims or to a time period until all the claims are closed.

**Limit of Loss**
The amount by which an individual loss is capped. In this study, the limit of loss was $500,000 per occurrence. This means that any individual loss in excess of this limit, was capped or restricted to a maximum of $500,000.

**Loss Rate**
Rating technique to establish the prospective rate to be applied to an exposure base. The rate is arrived at by dividing the expected or ultimate losses by the estimated exposure. In the case of workers compensation, that rate is expressed per $100 of payroll.
Loss Trend
Loss trend is the change in claim frequency and/or severity from one time period to the next. Factors that affect the frequency and severity of claims are constantly changing over time. Examples of causes include inflation, societal attitudes toward legal action, and changes in laws. Actuaries use trend factors to adjust historical loss experience to comparable levels.

Medical
This is the portion of benefits to the injured employee that covers all costs related to diagnosis, treatment and recovery from a work-related injury.

Non-Zero Claims
Any claim that has an incurred loss amount greater than zero.

Paid Losses
Those losses where dollars have been paid, including expense payments.

Severity
Severity refers to the average total dollar amount of claim, including indemnity and expense. In this report, we measure the average severity for a given year by multiplying the loss rate by the frequency rate, to get the average size of an individual claim.

TPA
Third Party Administrator of claims.

Workers Compensation (WC)
A form of insurance providing wage replacement and medical benefits to employees injured in the course of employment in exchange for mandatory relinquishment of the employee’s right to sue his or her employer for the tort of negligence.
About Aon’s Actuarial & Analytics Practice

Aon’s Actuarial & Analytics Practice is the third largest North American property and casualty consulting firm, providing actuarial services to clients for more than 20 years. Our international capabilities are matched by our strong local presence that positions us to deliver timely results and meaningful communication to every level of your organization.

Our practice is comprised of highly skilled and experienced professionals in the risk quantification and analysis field. We have more than 100 consultants and 50+ Fellows and Associates of the Casualty Actuarial Society. As part of Aon Global Risk Consulting, we are dedicated to expanding our solutions to help our clients effectively and proactively manage their risk in the current dynamic and challenging global economic market.
About Aon

Aon plc (NYSE:AON) is the leading global provider of risk management, insurance and reinsurance brokerage, and human resources solutions and outsourcing services. Through its more than 66,000 colleagues worldwide, Aon unites to empower results for clients in over 120 countries via innovative and effective risk and people solutions and through industry-leading global resources and technical expertise. Aon has been named repeatedly as the world’s best broker, best insurance intermediary, best reinsurance intermediary, best captives manager, and best employee benefits consulting firm by multiple industry sources. Visit aon.com for more information on Aon and aon.com/manchesterunited to learn about Aon’s global partnership with Manchester United.

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Risk. Reinsurance. Human Resources.