

# Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: All Washington Industries

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# **Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015:**

## **All Washington Industries**

### REPORT SUMMARY

The intent of this report is to estimate the overall trends in workers' compensation claims for work-related musculoskeletal disorders (WMSDs) during the years 2006-2015. WMSDs are defined as non-traumatic soft-tissue injuries of the musculoskeletal system.

The analyses of this report evaluate both the magnitude and the risk of WMSD claims. This report uses workers' compensation claims data from Washington State to examine the WMSD claim frequency, incidence rates, lost workdays, costs and industry distribution. Analyses were performed across 5 body areas: 1) the hand/wrist, 2) the elbow, 3) the shoulder, 4) the back, and 5) the knee. Analyses were also performed across 7 industry sectors: 1) Agriculture, Forestry and Fishing; 2) Construction; 3) Health Care and Social Assistance; 4) Manufacturing; 5) Services; 6) Transportation, Utilities and Warehousing and 7) Wholesale and Retail Trade.

### **Between 2006 and 2015, in Washington State:**

#### **Description of Claims**

- There were 159,633 State-Funded and Self-Insured accepted compensable WMSD claims. This accounted for 39.3% of all accepted claims for this period.
- The decline in WMSDs claims is consistent with the trend that has been happening for over the past 20 years.
- Several factors may help to explain this trend, including successful prevention strategies and a changing workforce from a traditional employment arrangement that includes workers' compensation to a "gig" workforce.
- The industry groups reporting the most number of hours were:
  - 1) Elementary and Secondary Schools (Services sector), 2.0 billion hours
  - 2) Aerospace Product and Parts Manufacturing (Manufacturing sector), 1.6 billion hours
  - 3) General Medical and Surgical Hospitals (Health Care sector), 1.6 billion hours.

#### **Costs**

- Direct costs for WMSD claims totaled \$3.7 billion, or an average of \$378 million/year. This annual average is 12% less than for the period 2002-2010.
- Medical aid costs for WMSD claims were \$1.7 billion – an average of \$172 million/year.
- Shoulder WMSDs were the most costly WMSD (an average of \$65,053/claim).

## **WMSD Types**

- Back WMSDs were the most prevalent WMSD type in each of the seven sectors.
- Across all industry sectors, back WMSDs accounted for the greatest proportion of accepted compensable claims at 16.7%.
- Shoulder WMSDs was the second most common WMSD claims across the industry sectors, accounting for 7.7% of all accepted compensable claims
- Among the body regions, elbow WMSDs had the smallest proportion of all accepted compensable claims, 2.6%

## **Description of Claimants**

- With the sectors of Agriculture, Health Care, Manufacturing and Services, the median age of claimants in all WMSD types (back, shoulder, elbow, hand/wrist, knee) was greater than 40 years.
- Median age was less than 40 years for back claimants in the Construction sector (median age=37 years) and the Wholesale and Retail Trade sector (median age=39 years)
- Across the sectors, knee WMSD claimants were the oldest except in the Agriculture and Construction sectors where shoulder WMSD claimants were the eldest.
- Across the sectors, the youngest claimants were for back WMSDs.
- Across all sectors, hand/wrist WMSDs had the highest prevalence of women claimants (55.6% overall).
- Health Care and Social Assistance had the highest prevalence of women claimants, 89.1%, while Construction had the lowest prevalence of 8.7%.

## **Time Loss**

- The Construction sector saw the highest average number of time loss days per claim for all WMSD types.
- Shoulder WMSD claims had the highest average number of time loss days per claims across the industry sectors (an average of 368.4 lost work days/claim).
- Knee WMSDs had the lowest average number of time loss days per claims for all WMSD types across the different sectors except in the Agriculture, Forestry and Fishing sector, where back WMSD claims had the lowest average of time loss days.

## **Claims Incidence Rates (CIR)**

- The WMSD claims incidence rate for all Washington industries was 69.5 claims per 10,000 FTEs, compared to a CIR for all compensable claims of 176.92 claims/10,000 FTEs.
- Back WMSDs had the highest CIR among the body areas (back, shoulder, elbow, hand/wrist and knee) with 29.55 claims/10,000 FTES.
- The industry groups that had the highest claims incidence rates were:
  - 1) Psychiatric and Substance Abuse Hospital, 796.9 claims/10,000 FTEs

- 2) Urban Transit Systems, 559.89 claims/10,000 FTEs
- 3) Foundation, Structure, and Building Exterior Contractors, 551.41 claims/10,000

### **Prevention Index (PI)**

- For all WMSDs, the Health Care sector scored the worst PI (lowest PI score), indicating a high risk sector.
- For Back WMSDs, the sectors of Construction, Health Care and Wholesale/Retail trade had the worst PI indicating a high risk sector for back WMSDs.
- For Shoulder WMSDs, the Agriculture sector had the highest PI, indicating a low risk sector for shoulder WMSDs.
- For Hand/Wrist WMSDs, the Manufacturing sector scored the worst PI, indicating a high risk sector for hand/wrist WMSDs.
- For Elbow WMSDs, the Construction sector scored the worst PI, indicating a high risk sector for elbow WMSDs.
- For Knee WMSDs, the Agriculture and Health Care sectors scored the better PI's, indicating low risk sectors for knee WMSDs.
- The industry of Foundation, Structure and Building Exterior Contractors ranked highest by PI for all WMSDs, back WMSDs, shoulder WMSDs, elbow WMSDs and knee WMSDs.

## **Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: All Washington Industries**

### INTRODUCTION

The objective of this report is to estimate the overall trends in workers' compensation claims for work-related musculoskeletal disorders (WMSDs) during the years 2006-2015. We also seek to identify industries with the highest rates and numbers of claims in order to inform prevention efforts.

This report uses workers' compensation claims data from Washington State to examine the claim frequency, incidence rates, lost workdays, costs and industry distribution of new upper extremity (hand/wrist, elbow, and shoulder) back, and knee WMSDs.

### METHODS

#### Workers' Compensation System

In Washington State, most employers, except for the self-employed and federal workers such as longshoremen and rail workers, are required to obtain state workers' compensation insurance. The majority of employers obtain this insurance through the Department of Labor and Industries' (L&I) industrial insurance system (L&I State Fund), covering 70% of the workers in Washington State. The remainder of employers, approximately 350 large employers, are self-insured. Washington is the only state in which workers contribute monetarily to the medical aid portion of the State Fund. Claims from the U.S. Department of Energy (Hanford) have been included in the Self-Insured section since roughly 2000.

#### Claims Management Database

Workers' compensation claims data and employment data from the L&I claims management database were obtained for the years 2006-2015. This database consists primarily of two data processing systems. The Medical Information and Payment System (MIPS) receives all billing information generated by provider medical bills for state funded claims. This system records relevant items, such as dates of service, all associated procedure and treatment (CPT) codes, and physician diagnoses as coded by the International Classification of Disease, version 9 (ICD-

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9). The second data processing system, the Labor and Industries' Industrial Insurance System (LINIIS), contains all data necessary for the administration of State Fund (SF) claims (e.g., claim type, nature of injury, occupation, employer information, status, and progress).

Only those closed Self-Insured (SI) compensable claims resulting in four or more days of lost time are coded into the LINIIS system. SI claims are not included in the MIPS database. As such, the SI data in this report are not comparable to the SF data in terms of magnitude or cost.

### Definition of Outcome

For this report, we used accepted State-Fund and Self-Insured claims between 2006 and 2015. This is a new time period for this report. In previous WMSD reports, a period of 9 years was used. Between 2006-2015, rejected claims accounted for approximately 13% of the State Fund claims. Data collected for each claim included:

CLAIM DATA	DESCRIPTION
Claim Identification Number	
Claim Status	Compensable or medical only
Demographics	Date of birth, gender, height, weight
Body Area	Back, shoulder, elbow, hand/wrist, knee
Date of Injury	First date of Injury
Nature of Injury	Principal physical characteristics of the injury
Event Type	Manner in which the injury or illness was produced
Cost of claim	Total costs, time loss payment, medical aid payments
Lost Time Days	
International Classification of Diseases (ICD)	ICD-9 codes
Washington Industrial Code (WIC)	4-digit WIC codes
North American Industrial Classification System (NAICS) codes	4-digit NAICS codes

We extract medical treatment and diagnosis records from the MIPS database for claims with allowed CPT codes. From the LINIIS claim history database, we use the American National Standards Institute (ANSI) z16.2 body area codes to identify and extract claims for general back, elbow, hand/wrist, shoulder, and knee disorders. Only the primary site of a disorder is assigned a z16.2 code, though a Washington State workers' compensation claim may include disorders in more than one body part. Using first date of injury allows us to estimate claims incidence. For example, in LINIIS, if a first date of injury year was 2009, but the first MIPS

allowed bill with an appropriate ICD-9 code was in 2010, for the purposes of these analyses, this was a 2009 claim.

To produce this report, we categorize non-traumatic and traumatic onset to differentiate *cumulative* trauma exposures from acute exposure, such as falls. A combination of body part, nature of injury and non-traumatic event type, using the Occupational Injury and Illness Classification System (OIICS), version 1.01, is required.

For SI compensable closed claims, we extract body part, nature, and event type. We are less confident about the distinction between non-traumatic and traumatic onset status with the Self-Insured data because these data tend to be less complete than SF data for reasons explained above. Costs and time loss are also incomplete for these data. We do not have access to electronic Self-Insured medical records. Consequently, it is only possible to classify SI claims if the injury coding alone clearly indicates a WMSD. These limitations likely result in an under-estimation of the incidence of WMSDs for Self-Insured employers. Additionally, Self-Insured employers do not report the medical costs of their claims.

We review all Washington Workers' Compensation claims coded for occupational injury or illness. This includes all SF claims and accepted SI claims not classified as medical aid only. ⚙️ Primarily, we identify claims with WMSDs if it involves over-exertions, repetitive motions, bodily reactions, and rubbed or abraded incidents that result in diseases or disorders to the musculoskeletal system, abnormal nerve or nervous system conditions, sprains, strains or rheumatisms. We then evaluate the WC claims by body part: back, shoulder, elbow, hand/wrist, and knee.

⚙️ There are three potential ways to classify a WMSD:

- A specific body part code and a general WMSD diagnosis,
- A generalized body part code with a diagnosis that clearly indicates the specific body part,
- The injury coding alone clearly indicates a WMSD.

Data extraction from the L&I databases occurred in July 2017. Reported claim costs in this report reflect actual totals for closed claims. For SF claims that are not closed, costs reflect actual totals to this date *plus* the additional case reserve as estimated by agency staff. The expectation is for costs to develop further for the most recent years.

**Time loss (TL) days**, or missed work days, are paid on a 7-day workweek (20 days of time loss would be reflective of three calendar weeks, not four). While the initial pension reserve is included as part of the total incurred costs, L&I stops counting time loss days as of the date a worker moves to the pension roles. Lost workdays are not reflected as time loss days when an employee is kept on salary.

**Claims costs** are calculated using the date of injury as the “payment” date for all bills. Costs are then adjusted by the Consumer Price Index for Urban Wage Earners and Clerical Workers for Seattle-Tacoma-Bremerton. Time loss payments occur over time, and in some cases, may stretch over years. Some open claims have future anticipated expenditures assigned. Incurred medical costs were adjusted using the Medical Care Series (id CWURA423SAM, CWUSA423SAM), while all other costs were adjusted using the All Items except Medical Care Series (id CWURA423SA0L5, CWUSA423SA0L5).

### Analysis of Claims Data by Industry

To perform analyses by industry group, a 4-digit North American Industry Classification System (NAICS) industry group is assigned to each WMSD claims. NAICS is the standard used by Federal statistical agencies in classifying business establishments. The primary determinant of industry group is the claims charged to the account. The secondary determinant of industry group is the NAICS code assigned most frequently to the account’s business locations by the Department of Labor and Industries. The third determinant was NAICS assignment to the Universal Business Identifier by the Department of Employment Security.

To eliminate unstable rates, those NAICS codes with less than 100  full-time equivalents reported for each year of the reporting period or less than 50 claims total in a WMSD category (for example back WMSDs), for the 10 year reporting period (2006-2015) are excluded from these analyses. This exclusion criteria differs from previous WMSD reports, where NAICS codes with an average of less than 50 FTEs per year were excluded.

 **Full-Time Equivalent (FTE) =**  
2,000 working hours  
per year  
(40 hours/week for 50  
weeks/year)

In addition to analyzing industry groups, WMSD claims were also analyzed by the National Occupational Research Agenda (NORA) sectors, which aggregate 20 NAICS

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sectors into 10 groupings for research and prevention efforts. For this report, we use the following NORA sectors:

- 1) Agriculture, Forestry and Fishing,
- 2) Construction,
- 3) Health Care and Social Assistance,
- 4) Manufacturing,
- 5) Services,
- 6) Transportation, Warehousing and Utilities,
- 7) Wholesale and Retail Trade.

### Demographic Analysis of Claims Data

In our reporting, we include body mass index (BMI) because of an association found between higher BMI and certain WMSDs. BMI is calculated according to the CDC guidelines.

Height and weight are obtained from the initial claim report and were reported for approximately 91% of State Fund compensable claims between 2006-2015.

$$\text{Body Mass Index (BMI)} = \frac{\text{Weight (lbs)}}{\text{Height (in}^2\text{)}} * 703$$

### Statistical Analysis

In this report, descriptive analyses include an all-NORA sectors and individual NORA sector summary of direct workers' compensation costs, age and gender. Also included are statistics describing overall and industry specific data. A comparison of WMSD claims to all non-WMSD claims is performed. We also compare different categories of WMSDs (back, shoulder, elbow, hand/wrist and knee) to all WMSDs claims.

Claims rates, or claims incidence rates (CIR), are calculated using the number of hours worked by employees. These numbers are reported to L&I by all covered employers (SF and SI). Hours by age and gender are not available.

$$\text{Claims Incidence Rate (CIR)} = \frac{\text{\# of Compensable claims}}{10,000 \text{ FTEs}}$$

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When prioritizing industries for intervention purposes, the comparison of frequencies and  incidence rate ratios, or relative risk (RR), is an important consideration. The relative risk is a comparison of an individual industry group claims incidence rate to the rate for all Washington industries.

To help in identifying high risk industries, we use the  Prevention Index (PI). The Prevention Index is based on rankings of the claims frequency and incidence rate, from highest to lowest. Accordingly, a lower PI represents a higher priority.

### Relative Risk (RR)

$$\frac{\text{Industry CIR}}{\text{All Industries CIR}}$$

### Prevention Index (PI)

$$\frac{\text{Frequency Rank} + \text{CIR Rank}}{2}$$

### Description of Workers' Compensation Data Tables

The WC data tables provide detailed workers' compensation data across all industries in Washington State and across individual NORA sectors. Results are presented for a combination of State Fund and Self-Insured (SF + SI) compensable claims, where available. State fund (SF) only data, when presented, are labelled accordingly.

The WC data for the seven individual NORA sectors are presented in sector-specific reports; the data presented are similar to what is presented in this report. These sector-specific reports can be found at: <http://lni.wa.gov/safety/research/pubs/byproject.asp?J=22>.

The sector-specific reports are:

- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: Agriculture, Forestry and Fishing
- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: Construction
- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: Health Care and Social Assistance
- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: Manufacturing
- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: Services

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- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: Transportation, Utilities and Warehousing
- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2006-2015: Wholesale and Retail Trade

The analyses included in this report evaluate both the magnitude and the risk of WMSD claims. For each table, the industry hours, a count of WMSDs claims, the workers' compensation compensable costs, lost workdays, and claims incidence rate (CIR) are provided along with the relative risk (RR). In addition to the Prevention Index (PI), count rank and rate rank are included. Because the PI is an average of these two ranks, it is possible that a very small industry (few reported hours) might have a very high claims incidence rate and thus would be in the top industries based on the prevention index. The same could be true with an industry that has a very large population but a low incidence rate.

As a result of the steps taken to eliminate unstable rates in the industry group analyses (the exclusion of those NAICS codes with less than 100 FTES reported per year and those with less than 50 claims total across the 10-year period of this report), the overall numbers found in the individual industry group data may be lower than those presented in the summary data.

## SUMMARY OF RESULTS

This report describes the distribution of work-related musculoskeletal disorders (WMSDs) of the Back, Upper Extremity (shoulder, elbow and hand/wrist), and knee across all Washington State industries between 2006 and 2015. WMSDs are defined as non-traumatic soft-tissue injuries of the musculoskeletal system.

### Overall Incidence and Costs for All Industries

There were 159,633 State Fund and Self-Insured WMSDs ([Table 1-All](#)), accounting for 39.3% of the claims accepted during this period, an annual average of 15,963 claims/year. Between 2006 and 2015, the WMSD claims cost over \$3.8 billion dollars (adjusted to 2015 dollars) in direct costs. Medical aid costs for these claims totaled \$1.7 billion. The [WSMD claims incidence rate](#)

(CIR) was 69.5 claims/10,000 FTEs. The CIR for all compensable claims during this same period was 177.0 claims/10,000 FTEs. (Table 1-All).

### Magnitude and Cost of Work-Related Musculoskeletal Disorders by Body Region

The majority of WMSDs claims were for the back region, numbering 67, 810 claims or 16.7% of all claims (Table 2-All). The second most common WMSD for 2006-2015 was the shoulder, with less than half the number of claims - 31, 366 claims or 7.7% of all compensable claims.

More than half of the hand/wrist WMSD claimants were women (55.6%), while only about a quarter of knee WMSD claimants were female (28.8%). Across the body regions (shoulder, elbow, hand/wrist, back and knee), the median age of claimants was over 40 years, with shoulder and elbow WMSDs being the oldest, 47 years.

Shoulder WMSDs required the most days off from work, an average of 368.4 time loss days per claim, while also costing the most in direct costs (average \$65,053/claim) (Table 2-All). Knee WMSDs required the least number of days off and were the least expensive claims of the body regions (237.8 time loss days/claim and \$43,728/claim, respectively).

### Distribution of WMSDs by NORA Sector

Across the industry sectors, the overall claims incidence rate (CIR) for WMSDs between 2006 and 2015 was 69.58 claims/10,000 FTEs (Table 4-All). The Transportation, Utilities & Warehousing sector had the highest CIR of 136.21 claims/10,000 FTEs. The Services sector had the most accepted compensable claims (51,201 claims), accounting for 32% of claims across all sectors. The Services sector also had the highest indemnity costs and medical costs for this time period of \$1.05 billion and \$549 million, respectively.

Among the back WMSD claims, the Transportation, Utilities & Warehousing sector also had the highest CIR, 55.50 claims/10,000 FTEs. The overall rate across all sectors was 29.55 claims/10,000 FTEs (Table 5-All). Both the Construction and Services sectors each accounted for 25.7% of the total indemnity costs for back WMSD claims. Similar to all WMSDs, the Services sector had the highest medical aid costs for back WMSDs, \$4.2 million.

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The CIR for shoulder WMSDs across all NORA sectors was 13.71 claims/10,000 FTEs. Though Services had the most reported hours (46% of reported hours for all shoulder WMSD claims), Transportation, Utilities & Warehousing had the highest CIR among industry groups, 31.16 claims/10,000 FTEs ([Table 6-All](#)). Indemnity costs and medical aid costs were highest for the Services sector (\$284.8 million and \$149.2 million, respectively), followed by the Construction section (\$212.7 million and \$87.1 million, respectively).

Elbow WMSDs had the least number of claims among the body regions (10,667 claims) ([Table 7-All](#)). The CIR for elbow WMSDs across all NORA sectors was 4.68 claims/10,000 FTEs. This rate is almost 50% less than the rate for the Construction sector (9.44 claims/10,000 FTEs), the highest among the individual sectors. Two sectors accounted for 56% of the time loss days from elbow WMSDs, the Services sector (1,062,875 days) and the Construction sector (542,497 days).

The CIR for hand/wrist WMSDs in the Manufacturing sector was 16.68 claims/10,000 FTEs ([Table 8-All](#)). The CIR across all sectors was 11.07 claims/10,000 FTEs. Transportation, Utilities & Warehousing sector and Construction sector had similar rates of 14.74 and 14.40 claims/10,000 FTEs, respectively. The Services sector accounted for 38% of the time loss days, and consequently had the highest indemnity costs of \$1.83 million.

Among the knee WMSDs, the CIRs for the Construction (18.71 claims/10,000 FTEs) and Transportation, Utilities & Warehousing (19.70 claims/10,000 FTEs) sectors were more than double that of the CIR across all sectors (8.70 claims/10,000 FTEs) ([Table 9-All](#)). Services accounted for 30% of the indemnity costs and 34% of the medical aid costs. The severity rate (a measure of the severity of an injury) was highest for Transportation, Utilities & Warehousing (3,408 days/10,000 FTEs). This was 2.3 times greater than the severity rate across all sectors, 1,481 days/10,000 FTEs.

### WMSDs by Prevention Index (PI) and 4-Digit NAICS Code

For all WMSDs, the industry group (identified by 4-digit NAICS code) with the highest Prevention Index (PI) was Foundation, Structure and Building Exterior Contractors (NAICS 2381) in the Construction sector ([Table 10-All](#)). This industry had a CIR of 169.41 claims/10,000 FTEs and a claims count of 3,554 claims. From the previous WMSD report, reporting workers' compensation claims from 2002-2010, the industry with the highest PI for all WMSD claims was Scheduled Air Transportation (NAICS 4811) in the Transportation, Utilities & Warehousing sector.

For back WMSDs, the industry with the highest Prevention Index statewide was again Foundation, Structure and Building Exterior Contractors (NAICS 2381) ([Table 11-All](#)). This industry had a CIR of 85.42 claims/10,000 FTEs and claims count of 1,792. In the previous report, the industry with the highest PI for back WMSDs was Nursing Care Facilities (NAICS 6231).

There were three industries for shoulder WMSDs that had the highest PI ([Table 12-All](#)). These were Support Activities for Crop Production (NAICS 1151; Agriculture, Forestry & Fishing), Foundation, Structure, and Building Exterior Contractors (NAICS 2381; Construction) and Grocery Stores (NAICS 4451; Wholesale and Retail Trade). The CIR and claims count for each were 13.19 claims/10,000 FTEs and 218 claims; 31.79 claims/10,000 FTEs and 667 claims, 26.23 claims/10,000 FTEs and 986 claims. In the previous report, the industry with the highest PI was General Freight Trucking (NAICS 4841; Transportation, Utilities & Warehousing).

Two industries ranked the highest by Prevention Index (PI) for elbow WMSDs ([Table 13-All](#)). The first was Support Activities for Crop Production (NAICS 1151; Agriculture, Forestry & Fishing) with a claims rate of 6.11 claims/10,000 FTEs and 101 claims. The second industry was Foundation, Structure, and Building Exterior Contractors (NAICS 2381; Construction) with a claims rate of 13.92 claims/10,000 FTEs and 292 claims. Previously, though still in the Construction sector, the industry Building Equipment Contractors (NAICS 2382) ranked the highest by PI for elbow WMSDs.

Among hand/wrist WMSDs, two industries, one in the Agriculture sector and the other in Wholesale/Retail sector, ranked the highest by PI ([Table 14-All](#)). These were Support Activities for Crop Production (NAICS 1151) and Grocery Stores (NAICS 4451). Support Activities for

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Crop Production had a claims incidence rate of 6.11 claims/10,000 FTEs, while the rate for Grocery Stores was 29.58. These top ranked industries differed from the previous report, where Building Equipment Contractors (NAICS 2382) ranked highest across all Washington industries by PI.

Among the Washington industries that experienced knee WMSDs between 2006 and 2015, four industries ranked highest by Prevention Index ([Table 15-All](#)). These were Logging (NAICS 1133); Foundation, Structure, and Building Exterior Contractors (NAICS 2381); Aerospace Product and Parts Manufacturing (NAICS 3364); and Beverage Manufacturing (NAICS 3121). Foundations, Structure, and Building Contractors had the highest CIR, 24.36 claims/10,000 FTEs, while Aerospace Product and Parts Manufacturing had the most number of claims, 1,303. In the previous report, Building Equipment Contractors (NAICS 2382) ranked highest by PI for knee WMSDs.

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Table 1-All. ALL INDUSTRIES: Workers' Compensation Compensable Claims, 2006-2015: All Claims & Non-Traumatic Musculoskeletal Disorders (WMSDs) of the Back, Upper Extremity & Knee.

	All Compensable Claims	Non-Traumatic Soft-Tissue Disorders (WMSDs)
Total Compensable Claims, <i>SF+SI</i>	406,494	159,633
% of ALL Compensable Claims	100.0%	39.3%
Indemnity Costs, SF+SI (\$Million)	\$8,856.90	\$3,783.70
Medical Costs, SF (\$Million)	\$4,615.20	\$1,725.90
Average Number Claims per Year, <i>SF+SI</i>	40,649.4	17,737.0
Percent Female, <i>SF+SI</i>	36.2%	40.2%
Median Age, <i>SF+SI</i>	44	44
Median Body Mass Index*, <i>SF Only</i>	28.1	28.2
Median Tenure Months <sup>†</sup> , <i>SF Only</i>	24	33
Claims Rate (Claims per 10,000 FTE <sup>‡</sup> ), <i>SF+SI</i>	177	69.5
Severity Rate (Time Loss Days per 10,000 FTE), <i>SF Only</i>	32,638.0	14,189.3
Average Time Loss Days per Claim, <i>SF Only</i>	252.9	284.7
Median Time Loss Days per Claim, <i>SF Only</i>	46	59
Average Total Direct Costs per Claim, <i>SF Only</i>	\$45,219	\$49,175
Median Total Direct Costs per Claim, <i>SF Only</i>	\$9,933	\$13,038

*SF=State Fund; SI=Self-Insured, FTE=full-time equivalent*

\*Body Mass Index =weight (kg) / height (meters<sup>2</sup>)

Hgt / Wt were available for 91.1% of SF Comp

†Tenure was available for 90.0% of SF Comp

‡ 1 FTE= 2,000 hours worked/year

ALL WASHINGTON STATE INDUSTRIES

Table 2-AII. ALL INDUSTRIES: Workers' Compensation Compensable Claims, 2006-2015: Work-Related Musculoskeletal Disorders (WMSDs) by **Body Part**.

	Shoulder	Elbow	Hand / Wrist	Back	Knee
Total Compensable Claims, SF+SI	31,366	10,696	25,275	67,810	19,910
% of ALL Compensable Claims	7.7%	2.6%	6.2%	16.7%	4.9%
Indemnity Costs, SF+SI (\$Million)	\$1,014.60	\$333.60	\$549.60	\$1,624.20	\$430.40
Medical Costs, SF (\$Million)	\$471.60	\$187.40	\$269.70	\$777.60	\$204.50
Average Number Claims per Year, SF+SI	3,136.6	1,069.6	2,527.5	6,781.0	1,991.0
Percent Female, SF+SI	38.2%	44.3%	55.6%	36.8%	28.8%
Median Age, SF+SI	47	43	46	41	47
Median Body Mass Index*, SF	28.3	28.2	28.3	27.8	29.4
Median Tenure Months <sup>+</sup> , SF	38	36	47	24	36
Claims Rate (Claims per 10,000 FTE <sup>‡</sup> ), SF+SI	13.7	4.7	11	29.5	8.7
Severity Rate (Time Loss Days per 10,000 FTE), SF	3,808.7	1,750.5	2,446.3	6,518.7	1,478.8
Average Time Loss Days per Claim, SF	368.4	364.6	285.4	290.3	237.6
Median Time Loss Days per Claim, SF	125	109	74	37	57
Average Total Direct Costs per Claim, SF	\$65,053	\$56,705	\$45,769	\$49,678	\$43,728
Median Total Direct Costs per Claim, SF	\$30,836	\$19,401	\$15,102	\$6,984	\$15,342

*SF=State Fund; SI=Self-Insured, FTE=full-time equivalent*

\*Body Mass Index =weight (kg) / height (meters<sup>2</sup>)

Hgt / Wt were available for 91.1% of SF Comp

<sup>+</sup>Tenure was available for 90.0% of SF Comp

<sup>‡</sup> 1 FTE= 2,000 hours worked/year

ALL WASHINGTON STATE INDUSTRIES

Table 3-AII. ALL INDUSTRIES: Washington Workers' Compensation Compensable **All Claims**, 2006-2015: By Industry Sector

	# of Industry Groups in Sector	Reported Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Claims Rate Ratio (State Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Severity Rate Ratio <sup>++</sup>	Count Rank (State Wide)	Rate Rank (State Wide)	PI <sup>¥</sup> (State Wide)
<b>All Sectors</b> <sup>♦</sup>	<b>265</b>	<b>457760</b>	<b>404,939</b>	<b>176.92</b>	<b>1.00</b>	<b>\$8,803.63</b>	<b>\$4,587.33</b>	<b>53,414,224</b>	<b>32,612.37</b>	<b>1.00</b>			
Agriculture	15	15847	18,679	235.74	1.33	\$405.22	\$317.52	3,147,111	46,065.55	1.41	7	3	5
Construction	10	27118	47,773	352.33	1.99	\$2,071.69	\$1,076.08	12,471,960	98,639.44	2.14	5	2	3.5
Health Care	18	57898	52,260	180.53	1.02	\$850.17	\$436.94	5,880,299	30,359.69	0.31	3	5	4
Manufacturing	67	51639	50,815	196.81	1.11	\$1,134.20	\$429.53	4,910,202	38,413.59	1.27	4	4	4
Services	84	212137	137,016	129.18	0.73	\$2,500.49	\$1,399.17	16,155,110	20,063.85	0.52	1	7	4
Trade	46	76701	69,088	180.15	1.02	\$1,153.82	\$621.54	7,250,962	27,396.54	1.37	2	6	4
Transp/Util/Warehse	25	16420	29,308	356.97	2.02	\$688.04	\$306.55	3,598,580	69,565.79	2.54	6	1	3.5

<sup>^</sup>*SF=state fund, SI=Self Insured*

<sup>♦</sup>Complete Sector Name:

Agriculture: Agriculture, Forestry & Fishing

Trade: Wholesale & Retail Trade

Transp/Util/Warehse: Transportation, Utilities & Warehousing

Health Care: Health Care & Social Assistance

\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>++</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¥</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 4-AII. ALL INDUSTRIES: Washington Workers' Compensation Compensable **WMSD Claims**, 2006-2015: By Industry Sector

	# of Industry Groups in Sector	Reported Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Claims Rate Ratio (State Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Severity Rate Ratio <sup>++</sup>	Count Rank (State Wide)	Rate Rank (State Wide)	PI <sup>¥</sup> (State Wide)
<b>All Sectors<sup>♦</sup></b>	<b>223</b>	<b>457,706</b>	<b>159,245</b>	<b>69.58</b>	<b>1.00</b>	<b>\$3,767.58</b>	<b>\$1,719.44</b>	<b>23,254,765</b>	<b>14,201</b>	<b>1.00</b>			
Agriculture	10	15,847	3,935	49.66	0.71	\$105.33	\$63.67	798,331	11,685	0.82	7	6	6.5
Construction	10	27,118	15,738	116.07	1.67	\$831.77	\$351.38	5,051,330	39,950	3.42	5	2	3.5
Health Care	17	57,898	25,858	89.32	1.28	\$424.97	\$209.90	2,998,327	15,480	0.39	3	3	3
Manufacturing	50	51,626	21,124	81.83	1.18	\$549.05	\$189.91	2,459,989	19,254	1.24	4	4	4
Services	75	212,116	51,201	48.28	0.69	\$1,057.49	\$540.51	7,149,197	8,880	0.46	1	7	4
Trade	41	76,701	30,220	78.80	1.13	\$532.80	\$264.68	3,414,712	12,902	1.45	2	5	3.5
Transp/Util/Warehse	20	16,399	11,169	136.21	1.96	\$266.18	\$99.40	1,382,879	26,787	2.08	6	1	3.5

<sup>^</sup>*SF=state fund, SI=Self Insured*

<sup>♦</sup>Complete Sector Name:

Agriculture: Agriculture, Forestry & Fishing

Trade: Wholesale & Retail Trade

Transp/Util/Warehse: Transportation, Utilities & Warehousing

Health Care: Health Care & Social Assistance

\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>++</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¥</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 5-AII. ALL INDUSTRIES: Washington Workers' Compensation Compensable **Back WMSD Claims**, 2006-2015: By Industry Sector

	# of Industry Groups in Sector	Reported Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Claims Rate Ratio (State Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Severity Rate Ratio <sup>**</sup>	Count Rank (State Wide)	Rate Rank (State Wide)	PI <sup>*</sup> (State Wide)
<b>All Sectors</b> <sup>♦</sup>	<b>166</b>	<b>457,489</b>	<b>67,594</b>	<b>29.55</b>	<b>1.00</b>	<b>\$1,613.31</b>	<b>\$773.54</b>	<b>10,658,500</b>	<b>6,513</b>	<b>1.00</b>			
Agriculture	7	15,847	1,752	22.11	0.75	\$47.07	\$27.54	350,023	5,123	0.79	7	6	6.5
Construction	9	27,118	7,313	53.93	1.83	\$415.39	\$171.42	2,501,236	19,782	3.04	4	2	3
Health Care	17	57,898	12,864	44.44	1.50	\$190.85	\$106.45	1,554,261	8,025	1.23	3	3	3
Manufacturing	31	51,626	7,199	27.89	0.94	\$200.18	\$82.33	1,071,278	8,385	1.29	5	5	5
Services	51	211,902	20,516	19.36	0.66	\$417.10	\$221.14	2,944,699	3,663	0.56	1	7	4
Trade	35	76,701	13,400	34.94	1.18	\$233.00	\$121.40	1,610,587	6,085	0.93	2	4	3
Transp/Util/Warehse	16	16,397	4,550	55.50	1.88	\$109.71	\$43.26	626,416	12,137	1.86	6	1	3.5

<sup>^</sup>*SF=state fund, SI=Self Insured*

♦ Complete Sector Name:

Agriculture: Agriculture, Forestry & Fishing

Trade: Wholesale & Retail Trade

Transp/Util/Warehse: Transportation, Utilities & Warehousing

Health Care: Health Care & Social Assistance

\* Indemnity Costs = non-medical direct costs

# Claims Rate = Number of compensable claims per 10,000 FTEs

## Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

\*Severity rate = time loss days per 10,000 FTEs

\*\* Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

\*PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 6-AII. ALL INDUSTRIES: Washington Workers' Compensation Compensable **Shoulder WMSD Claims**, 2006-2015: By Industry Sector

	# of Industry Groups in Sector	Reported Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Claims Rate Ratio (State Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Severity Rate Ratio <sup>++</sup>	Count Rank (State Wide)	Rate Rank (State Wide)	PI <sup>¥</sup> (State Wide)
<b>All Sectors<sup>♦</sup></b>	<b>126</b>	<b>456,394</b>	<b>31,285</b>	<b>13.71</b>	<b>1.00</b>	<b>\$1,008.39</b>	<b>\$469.82</b>	<b>6,241,326</b>	<b>3,827</b>	<b>1.00</b>			
Agriculture	5	15,821	802	10.14	0.74	\$27.27	\$17.59	206,580	3,030	0.84	7	6	6.5
Construction	9	27,118	3,147	23.21	1.69	\$212.72	\$87.05	1,294,595	10,239	3.18	5	2	3.5
Health Care	15	57,898	4,600	15.89	1.16	\$110.07	\$55.36	771,222	3,982	0.90	3	4	3.5
Manufacturing	23	51,396	4,460	17.36	1.27	\$151.62	\$55.36	693,372	5,476	1.37	4	3	3.5
Services	33	211,082	9,887	9.37	0.68	\$284.83	\$149.24	1,928,468	2,411	0.63	1	7	4
Trade	28	76,701	5,837	15.22	1.11	\$143.42	\$74.61	929,201	3,511	0.90	2	5	3.5
Transp/Util/Warehse	13	16,378	2,552	31.16	2.27	\$78.46	\$30.61	417,888	8,111	2.11	6	1	3.5

<sup>^</sup>*SF=state fund, SI=Self Insured*

♦Complete Sector Name:

Agriculture: Agriculture, Forestry & Fishing

Trade: Wholesale & Retail Trade

Transp/Util/Warehse: Transportation, Utilities & Warehousing

Health Care: Health Care & Social Assistance

\* Indemnity Costs = non-medical direct costs

# Claims Rate = Number of compensable claims per 10,000 FTEs

## Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

+Severity rate = time loss days per 10,000 FTEs

++ Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

¥PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 7-AII. ALL INDUSTRIES: Washington Workers' Compensation Compensable **Elbow WMSD Claims**, 2006-2015: By Industry Sector

Sector	# of Industry Groups	# of Reported Hours (100,000)	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Claims Rate		Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity		Count Rank (State Wide)	Rate Rank (State Wide)	PI <sup>*</sup> (State Wide)
					Ratio (State Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>			Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Severity Rate Ratio <sup>**</sup>			
<b>All Sectors<sup>♦</sup></b>	<b>54</b>	<b>455,522</b>	<b>10,667</b>	<b>4.68</b>	<b>1.00</b>	<b>\$335.33</b>	<b>\$187.40</b>	<b>2,882,019</b>	<b>1,772</b>	<b>1.00</b>			
Agriculture	2	15,691	305	3.89	0.83	\$7.33	\$5.69	87,414	1,294	0.73	7	6	6.5
Construction	8	27,118	1,280	9.44	2.02	\$78.67	\$39.49	542,497	4,291	2.42	4	1	2.5
Health Care	8	57,831	1,256	4.34	0.93	\$35.96	\$18.90	316,914	1,639	0.93	5	5	5
Manufacturing	5	51,414	1,464	5.69	1.22	\$41.30	\$23.40	342,535	2,704	1.53	3	3	3
Services	19	210,562	3,941	3.74	0.80	\$111.75	\$65.59	1,062,875	1,333	0.75	1	7	4
Trade	8	76,582	1,781	4.65	0.99	\$44.63	\$26.34	408,332	1,546	0.87	2	4	3
Transp/Util/Warehse	4	16,324	640	7.84	1.67	\$15.69	\$7.99	121,452	2,366	1.34	6	2	4

<sup>^</sup>*SF=state fund, SI=Self Insured*

<sup>♦</sup> Complete Sector Name:

Agriculture: Agriculture, Forestry & Fishing

Trade: Wholesale & Retail Trade

Transp/Util/Warehse: Transportation, Utilities & Warehousing

Health Care: Health Care & Social Assistance

\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>\*\*</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>\*</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 8-AII. ALL INDUSTRIES: Washington Workers' Compensation Compensable **Hand/Wrist WMSD Claims**, 2006-2015: By Industry Sector

Industry Sector	# of Industry Groups in Sector	Reported Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Claims Rate Ratio (State Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Severity Rate Ratio <sup>++</sup>	Count Rank (State Wide)	Rate Rank (State Wide)	PI <sup>¥</sup> (State Wide)
<b>All Sectors</b> <sup>♦</sup>	<b>108</b>	<b>457,084</b>	<b>25,297</b>	<b>11.07</b>	<b>1.00</b>	<b>\$553.14</b>	<b>\$270.36</b>	<b>4,042,745</b>	<b>2,473</b>	<b>1.00</b>			
Agriculture	3	15,842	584	7.37	0.67	\$13.82	\$8.78	125,645	1,840	0.74	7	7	7
Construction	8	27,118	1,952	14.40	1.30	\$97.76	\$45.20	635,260	5,024	2.73	5	3	4
Health Care	14	57,898	3,596	12.42	1.12	\$66.05	\$31.94	479,407	2,475	0.49	4	4	4
Manufacturing	22	51,556	4,300	16.68	1.51	\$91.51	\$37.36	549,983	4,317	1.74	3	1	2
Services	35	211,590	8,919	8.43	0.76	\$183.83	\$99.18	1,553,470	1,936	0.45	1	6	3.5
Trade	18	76,701	4,739	12.36	1.12	\$77.22	\$38.84	566,950	2,142	1.11	2	5	3.5
Transp/Util/Warehse	8	16,378	1,207	14.74	1.33	\$22.95	\$9.05	132,030	2,563	1.20	6	2	4

<sup>^</sup>*SF=state fund, SI=Self Insured*

<sup>♦</sup>Complete Sector Name:

Agriculture: Agriculture, Forestry & Fishing

Trade: Wholesale & Retail Trade

Transp/Util/Warehse: Transportation, Utilities & Warehousing

Health Care: Health Care & Social Assistance

\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>++</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¥</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 9-AII. ALL INDUSTRIES: Washington Workers' Compensation Compensable **Knee WMSD Claims**, 2006-2015: By Industry Sector

	# of Industry Groups in (100,000), Sector	Reported Hours <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Claims Rate Ratio (State Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Severity Rate Ratio <sup>++</sup>	Count Rank (State Wide)	Rate Rank (State Wide)	PI <sup>¥</sup> (State Wide)
<b>All Sectors</b> <sup>♦</sup>	<b>76</b>	<b>455743</b>	<b>19,833</b>	<b>8.70</b>	<b>1.00</b>	<b>\$428.73</b>	<b>\$203.41</b>	<b>2,415,019</b>	<b>1,481</b>	<b>1.00</b>			
Agriculture	4	15842	597	7.54	0.87	\$16.93	\$10.25	129,838	1,901	1.28	7	5	6
Construction	8	27118	2,537	18.71	2.15	\$98.05	\$46.85	628,368	4,970	3.36	4	2	3
Health Care	9	57898	1,983	6.85	0.79	\$36.01	\$18.73	235,062	1,214	0.82	5	6	5.5
Manufacturing	8	50238	2,634	10.49	1.20	\$56.66	\$15.99	176,108	1,419	0.96	3	3	3
Services	24	211546	7,225	6.83	0.78	\$129.69	\$69.19	758,124	945	0.64	1	7	4
Trade	14	76701	3,242	8.45	0.97	\$53.85	\$28.28	311,561	1,177	0.80	2	4	3
Transp/Util/Warehse	9	16399	1,615	19.70	2.26	\$37.54	\$14.12	175,958	3,408	2.30	6	1	3.5

<sup>^</sup>*SF=state fund, SI=Self Insured*

<sup>♦</sup>Complete Sector Name:

Agriculture: Agriculture, Forestry & Fishing

Trade: Wholesale & Retail Trade

Transp/Util/Warehse: Transportation, Utilities & Warehousing

Health Care: Health Care & Social Assistance

\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>++</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¥</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 10-All. **TOP Industries:** Washington Workers' Compensation Compensable **WMSD Claims**, 2006-2015:  
By Prevention Index 1-20

PI <sup>¶</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>^</sup>	NAICS Code Description	Reported			Claims				Severity				PI <sup>¶</sup> Rank (Sector Wide)	
				Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>	Claims Rate <sup>#</sup>	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , <i>SF only</i> <sup>^</sup>	Rate Ratio <sup>**</sup> (Sector Wide)	Count Rank (Sector Wide)	Rate Rank (Sector Wide)		
1	CON	2381	Foundation, Structure, and Building Exterior Contractors	4,196	3,554	169.41	1.46	\$ 189.45	\$ 82.28	1,199,731	57,188	1.43	1	1	1	1
2	SERV	9211	Executive, Legislative, and Other General Government Support	15,273	10,379	135.92	2.82	\$ 154.97	\$ 23.74	235,364	10,119	1.14	1	4	2.5	1
2	TRAD	4451	Grocery Stores	7,518	5,022	133.61	1.70	\$ 57.57	\$ 20.26	253,375	16,197	1.26	1	4	2.5	1
2	TUW	4811	Scheduled Air Transportation	1,459	1,505	206.26	1.51	\$ 17.47	\$ 2.24	24,032	16,746	0.63	2	3	2.5	1
5	CON	2383	Building Finishing Contractors	3,445	2,277	132.21	1.14	\$ 124.10	\$ 53.42	820,124	53,809	1.35	4	2	3	2
5	CON	2361	Residential Building Construction	3,736	2,392	128.06	1.10	\$ 109.08	\$ 55.64	737,818	43,583	1.09	3	3	3	2
5	AG	1133	Logging	1,466	563	76.81	1.55	\$ 35.01	\$ 7.86	146,139	54,090	4.63	3	3	3	1
5	HLTH	6221	General Medical and Surgical Hospitals	16,278	11,176	137.31	1.54	\$ 115.13	\$ 6.05	82,826	20,624	1.33	1	5	3	1
9	AG	1151	Support Activities for Crop Production	3,305	901	54.52	1.10	\$ 14.19	\$ 14.50	152,394	10,967	0.94	2	5	3.5	2
9	HLTH	6231	Nursing Care Facilities	3,387	2,345	138.48	1.55	\$ 37.65	\$ 28.02	372,159	25,143	1.62	3	4	3.5	2
9	MAN	3121	Beverage Manufacturing	1,194	721	120.78	1.48	\$ 12.66	\$ 5.91	77,102	19,835	1.03	2	5	3.5	1
9	TUW	4921	Couriers and Express Delivery Services	1,395	1,404	201.30	1.48	\$ 25.80	\$ 2.04	29,343	27,335	1.02	3	4	3.5	2
9	TUW	4841	General Freight Trucking	2,988	2,589	173.27	1.27	\$ 79.90	\$ 30.38	448,720	45,944	1.72	1	6	3.5	2
9	TUW	4851	Urban Transit Systems	508	655	258.08	1.89	\$ 11.87	\$ 2.56	31,996	28,329	1.06	6	1	3.5	2
15	AG	1114	Greenhouse, Nursery, and Floriculture Production	887	284	64.01	1.29	\$ 7.54	\$ 6.49	88,554	19,958	1.71	4	4	4	3
15	HLTH	6233	Community Care Facilities for the Elderly	4,146	2,808	135.46	1.52	\$ 49.24	\$ 42.35	574,862	28,249	1.82	2	6	4	3
15	MAN	3211	Sawmills and Wood Preservation	913	582	127.43	1.56	\$ 19.94	\$ 74.10	103,486	32,368	1.68	5	3	4	2
15	SERV	9221	Justice, Public Order, and Safety Activities	3,538	2,507	141.70	2.94	\$ 639.08	\$ 360.65	338,689	19,143	2.16	5	3	4	2
15	TRAD	4244	Grocery and Related Product Merchant Wholesalers	4,340	2,837	130.75	1.66	\$ 48.41	\$ 25.39	308,817	20,963	1.62	3	5	4	2
15	TRAD	4529	Other General Merchandise Stores	2,693	1,849	137.34	1.74	\$ 21.51	\$ 4.16	56,422	17,805	1.38	5	3	4	2

<sup>^</sup>NAICS= North American Industry Classification System; <sup>SF</sup>=State Fund; <sup>SI</sup>=Self-Insured

AG = Agriculture, Forestry & Fishing

CON = Construction

HLTH = Health Care & Social Assistance

MAN = Manufacturing

SERV = Services

TRAD = Wholesale and Retail Trade

TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>\*\*</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¶</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 10-All. **TOP Industries:** Washington Workers' Compensation Compensable **WMSD Claims**, 2006-2015:  
By Prevention Index 21-30

PI <sup>#</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>^</sup>	NAICS Code Description	Reported		Claims Rate <sup>#</sup>	Claims				Severity					
				Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>		Rate (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Time Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate <sup>+</sup> , (Sector Wide)	Rate Ratio <sup>++</sup> (Sector Wide)	Count Rank (Sector Wide)	Rate Rank (Sector Wide)	PI <sup>#</sup> Rank (Sector Wide)	PI <sup>#</sup> Rank (Sector Wide)
21	CON	2382	Building Equipment Contractors	6,977	3,281	94.05	0.81	\$ 153.70	\$ 66.34	922,076	26,432	0.66	2	7	4.5	4
21	CON	2389	Other Specialty Trade Contractors	2,213	1,252	113.16	0.97	\$ 64.44	\$ 28.85	405,180	36,621	0.92	5	4	4.5	4
21	HLTH	6219	Other Ambulatory Health Care Services	852	803	188.41	2.11	\$ 10.69	\$ 5.23	57,725	17,100	1.10	8	1	4.5	4
21	SERV	5617	Services to Buildings and Dwellings	5,094	3,085	121.12	2.51	\$ 72.35	\$ 52.38	722,461	31,439	3.54	4	5	4.5	3
21	TRAD	4521	Department Stores	9,112	4,949	108.62	1.38	\$ 40.64	\$ 2.37	33,776	13,142	1.02	2	7	4.5	4
26	AG	1123	Poultry and Egg Production	114	76	133.81	2.69	\$ 0.96	\$ 0.75	7,777	16,161	1.38	9	1	5	4
26	MAN	3116	Animal Slaughtering and Processing	1,068	642	120.28	1.47	\$ 12.27	\$ 6.62	84,504	38,071	1.98	4	6	5	3
26	TRAD	4441	Building Material and Supplies Dealers	4,685	2,562	109.37	1.39	\$ 42.66	\$ 15.92	204,038	16,098	1.25	4	6	5	5
29	AG	1113	Fruit and Tree Nut Farming	6,093	1,074	35.26	0.71	\$ 16.47	\$ 14.59	155,005	5,717	0.49	1	10	5.5	5
29	TRAD	4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	945	679	143.66	1.82	\$ 11.48	\$ 7.68	90,952	22,334	1.73	9	2	5.5	6
29	TUW	4852	Interurban and Rural Bus Transportation	303	338	222.84	1.64	\$ 5.04	\$ 0.29	3,756	23,420	0.87	9	2	5.5	5
29	TUW	4842	Specialized Freight Trucking	1,265	1,085	171.56	1.26	\$ 40.68	\$ 18.34	279,274	47,193	1.76	4	7	5.5	5

<sup>^</sup>NAICS= North American Industry Classification System; <sup>SF</sup>=State Fund; <sup>SI</sup>=Self-Insured

AG = Agriculture, Forestry & Fishing

CON = Construction

HLTH = Health Care & Social Assistance

MAN = Manufacturing

SERV = Services

TRAD = Wholesale and Retail Trade

TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs

# Claims Rate = Number of compensable claims per 10,000 FTEs

## Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

+Severity rate = time loss days per 10,000 FTEs

++ Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

\*PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 11-All. **TOP Industries:** Washington Workers' Compensation Compensable **Back WMSD Claims**, 2006-2015:  
By Prevention Index 1-20

PI <sup>#</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>A</sup>	NAICS Code Description	Reported			Claims			Time		Severity			PI <sup>#</sup> Rank (Sector Wide)	
				Hours (100,000), <i>SF+SI<sup>A</sup></i>	Claims Count, <i>SF+SI<sup>A</sup></i>	Claims Rate <sup>#</sup>	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+SI<sup>A</sup></i>	Medical Aid (\$Million), <i>SF only<sup>A</sup></i>	Loss Days, <i>SF only<sup>A</sup></i>	Severity Rate <sup>+</sup> , <i>SF only<sup>A</sup></i>	Rate Ratio <sup>++</sup> (Sector Wide)	Count Rank (Sector Wide)	Rate Rank (Sector Wide)		
1	CON	2381	Foundation, Structure, and Building Exterior Contractors	4,196	1,792	85.42	1.58	\$ 101.41	\$ 43.68	610,863	29,118	1.47	1	1	1	1
2	TUW	4921	Couriers and Express Delivery Services	1,395	577	82.73	1.49	\$ 8.69	\$ 1.08	14,509	13,516	1.11	2	1	1.5	1
3	AG	1114	Greenhouse, Nursery, and Floriculture Production	887	149	33.58	1.52	\$ 3.69	\$ 3.54	45,629	10,284	0.76	4	1	2.5	1
3	CON	2361	Residential Building Construction	3,736	1,203	64.40	1.19	\$ 57.33	\$ 25.52	393,219	23,227	1.17	3	2	2.5	2
3	MAN	3121	Beverage Manufacturing	1,194	375	62.82	2.25	\$ 6.74	\$ 3.80	48,448	12,464	1.49	2	3	2.5	1
3	SERV	5617	Services to Buildings and Dwellings	5,094	1,572	61.72	3.19	\$ 36.86	\$ 27.12	359,299	15,635	4.27	3	2	2.5	1
7	HLTH	6233	Community Care Facilities for the Elderly	4,146	1,664	80.27	1.81	\$ 26.88	\$ 23.98	333,821	16,404	2.04	2	4	4	1
7	HLTH	6231	Nursing Care Facilities	3,387	1,379	81.44	1.83	\$ 18.96	\$ 15.70	204,115	13,790	1.72	3	3	3.5	1
7	TRAD	4244	Grocery and Related Product Merchant Wholesalers	4,340	1,351	62.26	1.78	\$ 21.51	\$ 12.40	146,467	9,942	1.63	3	3	3	1
10	AG	1133	Logging	1,466	180	24.56	1.11	\$ 14.62	\$ 2.86	53,028	19,627	1.97	3	4	3.5	2
10	AG	1151	Support Activities for Crop Production	3,305	357	21.60	0.98	\$ 5.20	\$ 4.99	56,527	4,068	0.21	2	5	3.5	2
10	AG	1112	Vegetable and Melon Farming	865	136	31.44	1.42	\$ 4.39	\$ 2.79	31,056	7,180	1.76	5	2	3.5	2
10	CON	2383	Building Finishing Contractors	3,445	1,107	64.27	1.19	\$ 62.25	\$ 27.64	410,238	26,916	1.36	4	3	3.5	3
10	SERV	9211	Executive, Legislative, and Other General Government Support	15,273	3,939	51.58	2.66	\$ 56.30	\$ 8.74	99,853	4,293	1.17	1	6	3.5	2
10	TUW	4842	Specialized Freight Trucking	1,265	504	79.69	1.44	\$ 20.37	\$ 8.42	137,909	23,305	1.92	4	3	3.5	2
16	AG	1113	Fruit and Tree Nut Farming	6,093	493	16.18	0.73	\$ 6.67	\$ 5.86	59,986	2,212	0.09	1	7	4	5
16	HLTH	6221	General Medical and Surgical Hospitals	16,278	5,312	65.27	1.47	\$ 47.15	\$ 2.66	38,151	9,500	1.18	1	7	5.5	3
16	HLTH	6219	Other Ambulatory Health Care Services	852	492	115.44	2.60	\$ 5.96	\$ 3.24	38,131	11,296	1.41	7	1	2.5	3
16	TUW	4841	General Freight Trucking	2,988	1,097	73.42	1.32	\$ 33.93	\$ 12.42	183,592	18,798	1.55	1	7	4	3
16	TUW	4811	Scheduled Air Transportation	1,459	562	77.02	1.39	\$ 4.19	\$ 0.66	5,685	3,961	0.33	3	5	4	3

<sup>A</sup>NAICS= North American Industry Classification System; <sup>SF</sup>=State Fund; <sup>SI</sup>=Self-Insured

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TRAD = Wholesale and Retail Trade

TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs

# Claims Rate = Number of compensable claims per 10,000 FTEs

## Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

+ Severity rate = time loss days per 10,000 FTEs

\*\* Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

\*PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 11-All. **TOP Industries:** Washington Workers' Compensation Compensable **Back WMSD Claims**, 2006-2015:  
By Prevention Index 21-30

PI <sup>#</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>^</sup>	NAICS Code Description	Reported			Claims			Time	Severity			PI <sup>#</sup> Rank (Sector Wide)		
				Hours (100,000), <i>SF+SI<sup>^</sup></i>	Claims Count, <i>SF+SI<sup>^</sup></i>	Claims Rate <sup>#</sup>	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+SI<sup>^</sup></i>	Medical Aid (\$Million), <i>SF only<sup>^</sup></i>	Loss Days, <i>SF only<sup>^</sup></i>	Severity Rate <sup>+</sup> , <i>SF only<sup>^</sup></i>	Rate Ratio <sup>++</sup> (Sector Wide)	Count Rank (Sector Wide)		Rate Rank (Sector Wide)	
21	CON	2389	Other Specialty Trade Contractors	2,213	614	55.49	1.03	\$ 34.34	\$ 15.12	218,769	19,773	1.00	5	4	4.5	4
21	TRAD	4529	Other General Merchandise Stores	2,693	831	61.73	1.77	\$ 7.92	\$ 1.89	28,210	8,902	1.46	5	4	4.5	2
21	TUW	4851	Urban Transit Systems	508	206	81.17	1.46	\$ 3.28	\$ 0.95	10,979	9,721	0.80	7	2	4.5	5
24	AG	1121	Cattle Ranching and Farming	897	116	25.85	1.17	\$ 3.56	\$ 2.14	29,388	6,598	0.68	7	3	5	6
24	CON	2382	Building Equipment Contractors	6,977	1,340	38.41	0.71	\$ 66.82	\$ 28.07	384,251	11,015	0.56	2	8	5	5
24	TRAD	4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	945	369	78.07	2.23	\$ 5.61	\$ 3.75	45,464	11,164	1.83	8	2	5	3
24	TRAD	4451	Grocery Stores	7,518	1,841	48.98	1.40	\$ 19.50	\$ 7.73	95,979	6,136	1.01	2	8	5	3
28	HLTH	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	951	403	84.79	1.91	\$ 8.87	\$ 5.36	78,545	16,526	2.06	9	2	3	5
28	MAN	3115	Dairy Product Manufacturing	484	166	68.65	2.46	\$ 1.59	\$ 0.58	5,315	12,007	1.43	10	1	5.5	2
28	MAN	3211	Sawmills and Wood Preservation	913	222	48.61	1.74	\$ 8.19	\$ 2.95	44,606	13,952	1.66	5	6	5.5	2
28	SERV	9221	Justice, Public Order, and Safety Activities	3,538	959	54.20	2.80	\$ 27.58	\$ 12.01	132,280	7,477	2.04	6	5	5.5	3
28	TRAD	4441	Building Material and Supplies Dealers	4,685	1,254	53.53	1.53	\$ 19.09	\$ 6.96	97,344	7,680	1.26	4	7	5.5	5

<sup>^</sup>NAICS= North American Industry Classification System; <sup>SF</sup>=State Fund; <sup>SI</sup>=Self-Insured

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\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>++</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¥</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 12-All. **TOP Industries:** Washington Workers' Compensation Compensable **Shoulder WMSD Claims**, 2006-2015:  
By Prevention Index 1-20

PI <sup>#</sup> Rank	NORA Sector	NAICS Code <sup>^</sup>	NAICS Code Description	Reported			Claims			Time	Severity		Count Rank	Rate Rank	PI <sup>#</sup> Rank	PI <sup>#</sup> Rank
				Hours (100,000)	Claims Count,	Claims Rate <sup>#</sup>	Rate Ratio	Indemnity Costs*	Medical Aid	Loss Days, SF	Severity Rate <sup>+</sup> , SF	Rate Ratio <sup>++</sup>				
1	AG	1151	Support Activities for Crop Production	3,305	218	13.19	1.30	\$ 5.36	\$ 5.34	48,969	3,524	1.16	1	2	1.5	1
1	CON	2381	Foundation, Structure, and Building Exterior Contractors	4,196	667	31.79	1.37	\$ 43.75	\$ 19.22	306,933	14,631	1.43	2	1	1.5	1
1	TRAD	4451	Grocery Stores	7,518	986	26.23	1.72	\$ 16.33	\$ 6.17	80,703	5,159	1.47	1	2	1.5	1
4	AG	1133	Logging	1,466	140	19.10	1.88	\$ 8.38	\$ 2.26	42,761	15,827	5.22	3	1	2	2
4	TUW	4811	Scheduled Air Transportation	1,459	342	46.87	1.50	\$ 6.35	\$ 0.96	12,185	8,491	1.05	2	2	4	1
6	CON	2383	Building Finishing Contractors	3,445	437	25.37	1.09	\$ 31.90	\$ 13.56	210,340	13,801	1.35	3	2	2.5	2
6	SERV	9221	Justice, Public Order, and Safety Activities	3,538	588	33.24	3.55	\$ 183.45	\$ 12.03	101,672	5,747	2.38	3	2	2.5	1
6	TUW	4841	General Freight Trucking	2,988	660	44.17	1.42	\$ 27.67	\$ 10.88	164,537	16,847	2.08	1	4	5	2
9	MAN	3116	Animal Slaughtering and Processing	1,068	149	27.91	1.61	\$ 5.44	\$ 3.16	41,899	18,877	3.45	2	4	3	1
9	MAN	3219	Other Wood Product Manufacturing	1,045	146	27.93	1.61	\$ 4.93	\$ 2.94	35,781	9,656	1.76	3	3	3	1
9	SERV	9211	Executive, Legislative, and Other General Government Support	15,273	1,963	25.71	2.74	\$ 379.65	\$ 6.47	52,799	2,270	0.94	1	5	3	2
9	TRAD	4244	Grocery and Related Product Merchant Wholesalers	4,340	558	25.72	1.69	\$ 12.80	\$ 6.86	83,909	5,696	1.62	3	3	3	2
13	AG	1113	Fruit and Tree Nut Farming	6,093	210	6.89	0.68	\$ 4.18	\$ 4.01	41,762	1,540	0.51	2	5	3.5	3
13	AG	1114	Greenhouse, Nursery, and Floriculture Production	887	52	11.72	1.16	\$ 1.93	\$ 1.31	20,867	4,703	1.55	4	3	3.5	3
13	CON	2361	Residential Building Construction	3,736	436	23.34	1.01	\$ 25.96	\$ 10.46	169,679	10,023	0.98	4	3	3.5	3
13	HLTH	6233	Community Care Facilities for the Elderly	4,146	532	25.66	1.62	\$ 13.48	\$ 10.77	147,312	7,239	1.82	2	5	3.5	1
13	MAN	3211	Sawmills and Wood Preservation	913	141	30.87	1.78	\$ 6.73	\$ 2.96	40,124	12,550	2.29	5	2	3.5	3
13	TUW	4851	Urban Transit Systems	508	165	65.01	2.09	\$ 3.48	\$ 0.85	10,992	9,732	1.20	6	1	10.5	3

<sup>^</sup>NAICS= North American Industry Classification System; SF=State Fund; SI=Self-Insured

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HLTH = Health Care & Social Assistance

MAN = Manufacturing

SERV = Services

TRAD = Wholesale and Retail Trade

TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs

# Claims Rate = Number of compensable claims per 10,000 FTEs

## Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

\*Severity rate = time loss days per 10,000 FTEs

\*\* Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¥</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 12-All. **TOP Industries:** Washington Workers' Compensation Compensable **Shoulder WMSD Claims**, 2006-2015:  
By Prevention Index 21-30

PI <sup>¶</sup> Rank	NORA (State Wide)	NAICS Code <sup>^</sup> Sector	NAICS Code Description	Reported			Claims			Time	Severity		Count Rank	Rate Rank	PI <sup>¶</sup> Rank	PI <sup>¶</sup> Rank
				Hours (100,000) SF+SI <sup>^</sup>	Claims Count, SF+SI <sup>^</sup>	Claims Rate <sup>#</sup>	Rate (Sector Wide)	Indemnity Costs* (\$Million), SF+SI <sup>^</sup>	Medical Aid (\$Million), SF only <sup>^</sup>	Loss Days, SF only <sup>^</sup>	Severity Rate <sup>+</sup> , SF only <sup>^</sup>	Rate Ratio <sup>++</sup> (Sector Wide)				
19	HLTH	6221	General Medical and Surgical Hospitals	16,278	1,846	22.68	1.43	\$ 27.66	\$ 2.13	28,525	7,103	1.78	1	7	4	2
20	AG	1119	Other Crop Farming	1,208	50	8.28	0.82	\$ 1.42	\$ 1.22	9,839	1,682	0.56	5	4	4.5	5
20	CON	2382	Building Equipment Contractors	6,977	712	20.41	0.88	\$ 45.21	\$ 19.23	262,684	7,530	0.74	1	8	4.5	4
20	HLTH	6231	Nursing Care Facilities	3,387	424	25.04	1.58	\$ 10.88	\$ 8.15	106,677	7,207	1.81	3	6	4.5	3
20	HLTH	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	951	148	31.14	1.96	\$ 3.68	\$ 2.63	36,405	7,660	1.92	7	2	4.5	3
20	TRAD	4529	Other General Merchandise Stores	2,693	335	24.88	1.63	\$ 6.47	\$ 1.38	19,150	6,043	1.72	5	4	4.5	3
20	TUW	4921	Couriers and Express Delivery Services	1,395	279	40.00	1.28	\$ 6.69	\$ 0.48	7,042	6,560	0.81	3	6	12	4
20	TUW	4842	Specialized Freight Trucking	1,265	266	42.06	1.35	\$ 11.01	\$ 5.58	77,816	13,150	1.62	4	5	16	4
27	CON	2389	Other Specialty Trade Contractors	2,213	238	21.51	0.93	\$ 14.19	\$ 6.68	89,202	8,062	0.79	6	4	5	5
27	SERV	5617	Services to Buildings and Dwellings	5,094	561	22.03	2.35	\$ 201.98	\$ 13.16	195,573	8,511	3.53	4	6	5	3
27	TRAD	4521	Department Stores	9,112	878	19.27	1.27	\$ 9.93	\$ 0.55	4,697	1,828	0.52	2	8	5	4

<sup>^</sup>NAICS= North American Industry Classification System; SF=State Fund; SI=Self-Insured

AG = Agriculture, Forestry & Fishing  
 CON = Construction  
 HLTH = Health Care & Social Assistance  
 MAN = Manufacturing  
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 TRAD = Wholesale and Retail Trade  
 TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs  
<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs  
<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate  
<sup>+</sup>Severity rate = time loss days per 10,000 FTEs  
<sup>++</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate  
<sup>¶</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 13-All. **TOP Industries:** Washington Workers' Compensation Compensable **Elbow WMSD Claims**, 2006-2015:  
By Prevention Index 1-20

PI <sup>#</sup> Rank	NORA Sector	NAICS Code <sup>^</sup>	NAICS Code Description	Reported		Claims Rate <sup>#</sup>	Claims			Time		Severity		Count Rank	Rate Rank	PI <sup>#</sup> Rank	PI <sup>#</sup> Rank
				Hours (100,000), <i>SF+SI</i> <sup>^</sup>	Claims Count, <i>SF+SI</i> <sup>^</sup>		Rate (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+SI</i> <sup>^</sup>	Medical Aid (\$Million), <i>SF only</i> <sup>^</sup>	Loss Days, <i>SF only</i> <sup>^</sup>	Severity Rate*, <i>SF only</i> <sup>^</sup>	Rate Ratio** (Sector Wide)	Rate Ratio (Sector Wide)				
1	AG	1151	Support Activities for Crop Production	3305	101	6.11	1.57	\$ 1.63	\$ 2.08	26,037	1,874	1.45	1	1	1	1	
1	CON	2381	Foundation, Structure, and Building Exterior Contractors	4,196	292	13.92	1.47	\$ 16.06	\$ 6.93	121,098	5,772	1.35	1	1	1	1	
3	TRAD	4244	Grocery and Related Product Merchant Wholesalers	4,340	167	7.70	1.65	\$ 3.59	\$ 2.30	37,058	2,516	1.63	2	1	1.5	1	
3	TRAD	4451	Grocery Stores	7,518	266	7.08	1.52	\$ 3.36	\$ 2.20	31,828	2,035	1.32	1	2	1.5	1	
3	TUW	4842	Specialized Freight Trucking	1,265	87	13.76	1.75	\$ 2.18	\$ 1.48	21,652	3,659	1.55	2	1	1.5	1	
6	AG	1113	Fruit and Tree Nut Farming	6093	82	2.69	0.69	\$ 1.45	\$ 1.18	17,791	656	0.51	2	2	2	2	
6	HLTH	6233	Community Care Facilities for the Elderly	4,146	157	7.57	1.74	\$ 2.96	\$ 2.60	37,409	1,838	1.12	2	2	2	1	
6	MAN	3219	Other Wood Product Manufacturing	1,045	56	10.71	1.88	\$ 1.49	\$ 0.74	12,947	3,494	1.29	2	2	2	1	
6	TUW	4841	General Freight Trucking	2,988	137	9.17	1.17	\$ 4.82	\$ 2.20	35,743	3,660	1.55	1	3	2	2	
10	CON	2361	Residential Building Construction	3,736	198	10.60	1.12	\$ 11.17	\$ 12.96	79,831	4,716	1.10	3	2	2.5	2	
11	HLTH	6213	Offices of Other Health Practitioners	2,461	106	8.61	1.98	\$ 4.22	\$ 2.21	44,498	3,616	2.21	5	1	3	2	
11	MAN	3364	Aerospace Product and Parts Manufacturing	17,567	259	2.95	0.52	\$ 4.46	\$ 1.13	11,584	1,361	0.50	1	5	3	2	
11	MAN	3261	Plastics Product Manufacturing	1,302	56	8.61	1.51	\$ 1.79	\$ 1.19	16,696	2,890	1.07	2	4	3	2	
11	MAN	3211	Sawmills and Wood Preservation	913	50	10.95	1.92	\$ 1.59	\$ 0.58	9,040	2,828	1.05	5	1	3	2	
11	TUW	4881	Support Activities for Air Transportation	1,068	51	9.55	1.22	\$ 1.04	\$ 0.73	10,530	1,973	0.83	4	2	3	3	
16	CON	2383	Building Finishing Contractors	3,445	174	10.10	1.07	\$ 14.07	\$ 5.46	98,058	6,434	1.50	4	3	3.5	3	
16	HLTH	6231	Nursing Care Facilities	3,387	124	7.32	1.69	\$ 2.82	\$ 2.02	29,802	2,013	1.23	4	3	3.5	3	
16	MAN	3399	Other Miscellaneous Manufacturing	1,189	52	8.75	1.54	\$ 1.72	\$ 1.27	18,695	3,394	1.26	4	3	3.5	5	
16	TRAD	4411	Automobile Dealers	4,228	124	5.87	1.26	\$ 6.10	\$ 2.79	45,680	2,161	1.40	4	3	3.5	3	
16	TUW	4811	Scheduled Air Transportation	1,459	61	8.36	1.07	\$ 0.70	\$ 0.17	1,609	1,121	0.47	3	4	3.5	4	

<sup>^</sup>NAICS= North American Industry Classification System; <sup>SF</sup>=State Fund; <sup>SI</sup>=Self-Insured

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TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

\*Severity rate = time loss days per 10,000 FTEs

<sup>\*\*</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>^</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 13-All. **TOP Industries:** Washington Workers' Compensation Compensable **Elbow WMSD Claims**, 2006-2015:  
By Prevention Index 21-30

PI <sup>¶</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>^</sup>	NAICS Code Description	Reported			Claims			Time			Severity			PI <sup>¶</sup> Rank
				Hours (100,000), <i>SF+SI<sup>^</sup></i>	Claims Count, <i>SF+SI<sup>^</sup></i>	Claims Rate <sup>#</sup>	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+SI<sup>^</sup></i>	Medical Aid (\$Million), <i>SF only<sup>^</sup></i>	Loss Days, <i>SF only<sup>^</sup></i>	Severity Rate <sup>+</sup> , <i>SF only<sup>^</sup></i>	Ratio <sup>++</sup> (Sector Wide)	Count Rank (Sector Wide)	Rate Rank (Sector Wide)		
21	HLTH	6221	General Medical and Surgical Hospitals	16,278	212	2.60	0.60	\$ 2.08	\$ 0.35	5,028	1,252	0.76	1	7	4	4
22	CON	2382	Building Equipment Contractors	6,977	266	7.63	0.81	\$ 14.67	\$ 6.05	105,473	3,023	0.70	2	7	4.5	4
22	CON	2389	Other Specialty Trade Contractors	2,213	109	9.85	1.04	\$ 6.67	\$ 2.61	45,524	4,115	0.96	5	4	4.5	4
22	HLTH	6211	Offices of Physicians	8,070	144	3.57	0.82	\$ 3.20	\$ 2.10	23,485	716	0.44	3	6	4.5	5
22	SERV	5617	Services to Buildings and Dwellings	5,094	259	10.17	2.72	\$ 7.28	\$ 5.99	98,581	4,290	3.22	4	5	4.5	1
26	HLTH	6212	Offices of Dentists	3,397	93	5.48	1.26	\$ 7.62	\$ 2.29	48,348	2,998	1.83	6	4	5	6
26	SERV	9221	Justice, Public Order, and Safety Activities	3,538	191	10.80	2.88	\$ 4.46	\$ 2.89	28,576	1,615	1.21	6	4	5	2
26	TRAD	4441	Building Material and Supplies Dealers	4,685	111	4.74	1.02	\$ 3.34	\$ 1.29	24,254	1,914	1.24	5	5	5	4

<sup>^</sup>NAICS= North American Industry Classification System; *SF=State Fund; SI=Self-Insured*

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HLTH = Health Care & Social Assistance

MAN = Manufacturing

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TRAD = Wholesale and Retail Trade

TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs

# Claims Rate = Number of compensable claims per 10,000 FTEs

## Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

\*Severity rate = time loss days per 10,000 FTEs

\*\* Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

¶PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 14-All. **TOP Industries:** Washington Workers' Compensation Compensable **Hand/Wrist WMSD Claims**, 2006-2015:  
By Prevention Index 1-20

PI <sup>#</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>A</sup>	NAICS Code Description	Reported			Claims			Time			Severity			PI <sup>#</sup> Rank (Sector Wide)
				Hours (100,000), <i>SF+S<sup>I</sup></i>	Claims Count, <i>SF+S<sup>I</sup></i>	Claims Rate <sup>#</sup>	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+S<sup>I</sup></i>	Medical Aid (\$Million), <i>SF only<sup>A</sup></i>	Loss Days, <i>SF</i> <i>only<sup>A</sup></i>	Severity Rate <sup>+</sup> , <i>SF</i> <i>only<sup>A</sup></i>	Severity Ratio <sup>**</sup> (Sector Wide)	Count Rank (Sector Wide)	Rate Rank (Sector Wide)	PI <sup>#</sup> Rank (Sector Wide)	
1	AG	1151	Support Activities for Crop Production	3305	193	11.68	1.58	\$ 2.48	\$ 3.12	35,075	2,524	1.37	1	1	1	1
1	TRAD	4451	Grocery Stores	7,518	1,112	29.58	2.39	\$ 10.74	\$ 4.15	55,190	3,528	1.65	1	1	1	1
3	CON	2381	Foundation, Structure, and Building Exterior Contractors	4,196	419	19.97	1.39	\$ 20.95	\$ 8.14	137,003	6,531	1.30	2	1	1.5	1
3	MAN	3116	Animal Slaughtering and Processing	1,068	193	36.16	2.17	\$ 3.13	\$ 2.06	28,397	12,794	2.96	2	1	1.5	1
5	TUW	4811	Scheduled Air Transportation	1,459	176	24.12	1.64	\$ 1.40	\$ 0.14	1,278	891	0.35	2	2	2	1
6	AG	1113	Fruit and Tree Nut Farming	6093	136	4.46	0.61	\$ 2.17	\$ 1.76	22,819	842	0.46	2	3	2.5	2
6	AG	1133	Logging	1466	81	11.05	1.50	\$ 4.36	\$ 0.73	16,592	6,141	3.34	3	2	2.5	2
6	CON	2383	Building Finishing Contractors	3,445	277	16.08	1.12	\$ 15.97	\$ 5.69	108,093	7,092	1.41	3	2	2.5	2
6	HLTH	6221	General Medical and Surgical Hospitals	16,278	1,299	15.96	1.28	\$ 9.83	\$ 0.72	10,220	2,545	1.03	1	4	2.5	1
10	CON	2361	Residential Building Construction	3,736	277	14.83	1.03	\$ 13.67	\$ 13.76	92,849	5,485	1.09	3	3	3	3
10	HLTH	6212	Offices of Dentists	3,397	336	19.78	1.59	\$ 15.45	\$ 5.60	106,886	6,627	2.68	3	3	3	2
10	TRAD	4521	Department Stores	9,112	766	16.81	1.36	\$ 5.21	\$ 0.40	9,256	3,601	1.68	2	4	3	2
10	TRAD	4244	Grocery and Related Product Merchant Wholesalers	4,340	406	18.71	1.51	\$ 7.04	\$ 3.84	56,229	3,817	1.78	3	3	3	2
10	TRAD	4529	Other General Merchandise Stores	2,693	273	20.28	1.64	\$ 2.93	\$ 0.54	9,326	2,943	1.37	4	2	3	2
10	TUW	4841	General Freight Trucking	2,988	209	13.99	0.95	\$ 6.02	\$ 2.63	39,001	3,993	1.56	1	5	3	2
16	CON	2382	Building Equipment Contractors	6,977	438	12.56	0.87	\$ 18.22	\$ 7.70	129,211	3,704	0.74	1	6	3.5	4
16	TUW	4921	Couriers and Express Delivery Services	2,170	122	17.49	1.19	\$ 2.10	\$ 0.16	3,985	3,712	1.45	4	3	3.5	3
16	TUW	2211	Electric Power Generation, Transmission and Distribution	508	168	15.49	1.05	\$ 2.32	\$ 0.54	4,415	1,387	0.54	3	4	3.5	3
16	TUW	4851	Urban Transit Systems	15,273	68	26.79	1.82	\$ 1.03	\$ 0.29	4,944	4,377	1.71	6	1	3.5	3
20	SERV	9211	Executive, Legislative, and Other General Government Support	15,273	1,293	16.93	2.01	\$ 16.24	\$ 2.70	30,606	1,316	0.68	1	8	4.5	1

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\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>\*\*</sup>Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>\*</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 14-All. **TOP Industries:** Washington Workers' Compensation Compensable **Hand/Wrist WMSD Claims**, 2006-2015:  
By Prevention Index 21-30

PI <sup>#</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>^</sup>	NAICS Code Description	Reported			Claims			Time	Severity		Count Rank	Rate Rank	PI <sup>#</sup> Rank	PI <sup>#</sup> Rank
				Hours (100,000), <i>SF+SI<sup>^</sup></i>	Claims Count, <i>SF+SI<sup>^</sup></i>	Claims Rate <sup>#</sup>	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), <i>SF+SI<sup>^</sup></i>	Medical Aid (\$Million), <i>SF only<sup>^</sup></i>	Loss Days, <i>SF only<sup>^</sup></i>	Severity Rate <sup>+</sup> , <i>SF only<sup>^</sup></i>	Rate Ratio <sup>++</sup> (Sector Wide)				
21	HLTH	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	951	111	23.35	1.88	\$ 1.41	\$ 1.14	15,953	3,357	1.36	8	2	5	3
21	SERV	9231	Administration of Human Resource Programs	3,380	329	19.47	2.31	\$ 8.17	\$ 4.38	53,073	3,140	1.62	7	3	5	2
23	CON	2389	Other Specialty Trade Contractors	2,213	140	12.65	0.88	\$ 5.88	\$ 2.69	41,531	3,754	0.75	6	5	5.5	5
23	HLTH	6233	Community Care Facilities for the Elderly	4,146	258	12.45	1.00	\$ 3.90	\$ 3.59	49,223	2,419	0.98	4	7	5.5	4
23	HLTH	6213	Offices of Other Health Practitioners	2,461	192	15.60	1.26	\$ 6.14	\$ 3.25	61,858	5,027	2.03	6	5	5.5	4
23	TUW	4842	Specialized Freight Trucking	1,265	85	13.44	0.91	\$ 2.51	\$ 1.31	19,268	3,256	1.27	5	6	5.5	6
27	CON	2373	Highway, Street, and Bridge Construction	1,387	101	14.56	1.01	\$ 5.82	\$ 1.64	25,219	5,399	1.07	8	4	6	6
27	HLTH	6211	Offices of Physicians	8,070	450	11.15	0.90	\$ 7.66	\$ 4.23	41,322	1,259	0.51	2	10	6	6
27	HLTH	6222	Psychiatric and Substance Abuse Hospitals	587	100	34.07	2.74	\$ 1.93	\$ 1.15	19,489	6,640	2.68	11	1	6	6

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\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>+</sup>Severity rate = time loss days per 10,000 FTEs

<sup>++</sup> Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¥</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 15-All. **TOP Industries:** Washington Workers' Compensation Compensable **Knee WMSD Claims**, 2006-2015:  
By Prevention Index 1-20

PI <sup>¶</sup> Rank (State Wide)	NORA Sector	NAICS Code <sup>A</sup>	NAICS Code Description	Reported			Claims			Time		Severity		Count Rank	Rate Rank	PI <sup>¶</sup> Rank	PI Rank
				Hours (100,000), SF+SI <sup>A</sup>	Claims Count, SF+SI <sup>A</sup>	Claims Rate <sup>#</sup>	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), SF+SI <sup>A</sup>	Medical Aid (\$Million), SF only <sup>A</sup>	Loss Days, SF only <sup>A</sup>	Severity Rate <sup>+</sup> , SF only <sup>A</sup>	Ratio <sup>++</sup> (Sector Wide)	(Sector Wide)				
1	AG	1133	Logging	1,466	123	16.78	2.23	\$ 7.39	\$ 2.16	37,810	13,995	7.36	2	1	1.5	1	
1	CON	2381	Foundation, Structure, and Building Exterior Contractors	4,196	511	24.36	1.30	\$ 22.67	\$ 11.20	147,715	7,041	1.42	2	1	1.5	1	
1	MAN	3364	Aerospace Product and Parts Manufacturing	17,567	1,303	14.83	1.41	\$ 228.21	\$ 3.96	2,744	322	0.23	1	2	1.5	1	
1	MAN	3121	Beverage Manufacturing	1,194	90	15.08	1.44	\$ 12.49	\$ 4.25	4,809	1,237	0.87	2	1	1.5	1	
5	AG	1113	Fruit and Tree Nut Farming	6,093	171	5.61	0.74	\$ 3.17	\$ 2.89	32,393	1,195	0.63	1	3	2	2	
5	TUW	4921	Couriers and Express Delivery Services	1,395	253	36.27	1.84	\$ 5.34	\$ 0.27	3,907	3,640	1.07	2	2	2	1	
7	CON	2382	Building Equipment Contractors	6,977	635	18.20	0.97	\$ 20.21	\$ 10.68	135,289	3,878	0.78	1	4	2.5	2	
7	SERV	9211	Executive, Legislative, and Other General Government Support	1,527	1,731	22.67	3.32	\$ 23.05	\$ 4.79	41,314	1,776	1.88	1	4	2.5	1	
7	SERV	9221	Justice, Public Order, and Safety Activities	354	511	28.88	4.23	\$ 10.71	\$ 7.17	61,312	3,465	3.67	3	2	2.5	1	
7	TUW	4841	General Freight Trucking	2,988	368	24.63	1.25	\$ 11.01	\$ 4.52	63,424	6,494	1.91	1	4	2.5	2	
11	AG	1119	Other Crop Farming	1,208	51	8.45	1.12	\$ 0.80	\$ 0.83	8,072	1,380	0.73	4	2	3	3	
11	CON	2383	Building Finishing Contractors	3,445	355	20.61	1.10	\$ 13.43	\$ 6.89	106,525	6,989	1.41	4	2	3	3	
11	CON	2361	Residential Building Construction	3,736	357	19.11	1.02	\$ 11.17	\$ 5.66	74,035	4,373	0.88	3	3	3	3	
11	HLTH	6233	Community Care Facilities for the Elderly	4,146	223	10.76	1.57	\$ 4.58	\$ 3.22	40,442	1,987	1.64	2	4	3	1	
11	HLTH	6221	General Medical and Surgical Hospitals	16,278	792	9.73	1.42	\$ 9.51	\$ 0.55	6,637	1,653	1.36	1	5	3	1	
11	HLTH	6231	Nursing Care Facilities	3,387	195	11.52	1.68	\$ 3.47	\$ 2.32	28,695	1,939	1.60	3	3	3	1	
11	TRAD	4441	Building Material and Supplies Dealers	4,685	313	13.36	1.58	\$ 5.05	\$ 1.69	15,030	1,186	1.01	3	3	3	1	
11	TRAD	4244	Grocery and Related Product Merchant Wholesalers	4,340	293	13.50	1.60	\$ 5.16	\$ 2.41	27,944	1,897	1.61	4	2	3	1	
19	AG	1151	Support Activities for Crop Production	3,305	91	5.51	0.73	\$ 1.84	\$ 1.56	17,156	1,235	0.65	3	4	3.5	4	
19	MAN	3221	Pulp, Paper, and Paperboard Mills	1,117	82	14.68	1.40	\$ 37.85	\$ 0.68	9,662	4,056	2.86	4	3	3.5	3	
19	TRAD	4521	Department Stores	9,112	523	11.48	1.36	\$ 3.90	\$ 0.12	1,501	584	0.50	1	6	3.5	3	
19	TUW	4851	Urban Transit Systems	508	99	39.01	1.98	\$ 1.87	\$ 0.36	3,238	2,867	0.84	6	1	3.5	3	

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\* Indemnity Costs = non-medical direct costs

<sup>#</sup> Claims Rate = Number of compensable claims per 10,000 FTEs

<sup>##</sup> Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

<sup>\*</sup>Severity rate = time loss days per 10,000 FTEs

<sup>\*\*</sup>Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

<sup>¶</sup>PI, Prevention Index = (rate rank + count rank) / 2

ALL WASHINGTON STATE INDUSTRIES

Table 15-All. **TOP Industries:** Washington Workers' Compensation Compensable **Knee WMSD Claims**, 2006-2015:  
By Prevention Index 21-30

PI* Rank	NORA Sector	NAICS Code^	NAICS Code Description	Reported			Claims			Time		Severity		Count Rank	Rate Rank	PI*	PI Rank
				Hours (100,000), SF+SI^	Claims Count, SF+SI^	Claims Rate#	Rate Ratio (Sector Wide)	Indemnity Costs* (\$Million), SF+SI^	Medical Aid (\$Million), SF only^	Loss Days, SF only^	Severity Rate+, SF only^	Rate Ratio** (Sector Wide)					
23	TUW	4842	Specialized Freight Trucking	1,265	155	24.51	1.24	\$ 5.57	\$ 2.47	34,570	5,842	1.71	3	5	4	4	
24	TRAD	4451	Grocery Stores	7,518	376	10.00	1.18	\$ 4.13	\$ 1.85	19,852	1,269	1.08	2	7	4.5	4	
25	HLTH	6241	Individual and Family Services	3,335	120	7.20	1.05	\$ 3.30	\$ 2.18	31,484	1,927	1.59	4	6	5	4	
25	HLTH	6219	Other Ambulatory Health Care Services	852	60	14.08	2.06	\$ 0.71	\$ 0.45	3,290	975	0.80	9	1	5	4	
25	HLTH	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	951	62	13.04	1.90	\$ 2.22	\$ 1.52	14,249	2,998	2.47	8	2	5	4	
25	MAN	3211	Sawmills and Wood Preservation	913	66	14.45	1.38*	\$ 27.38	\$ 0.91	10,564	3,304	2.33	6	4	5	4	
25	SERV	5617	Services to Buildings and Dwellings	5,094	352	13.82	2.02	\$ 5.91	\$ 5.66	65,128	2,834	3.00	4	6	5	3	
25	TRAD	4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	945	81	17.14	2.03	\$ 1.18	\$ 0.75	8,939	2,195	1.86	9	1	5	5	
25	TUW	4811	Scheduled Air Transportation	1,459	154	21.11	1.07	\$ 1.91	\$ 0.36	3,295	2,296	0.67	4	6	5	5	

**^NAICS= North American Industry Classification System; SF=State Fund; SI=Self-Insured**

AG = Agriculture, Forestry & Fishing

CON = Construction

HLTH = Health Care & Social Assistance

MAN = Manufacturing

SERV = Services

TRAD = Wholesale and Retail Trade

TUW = Transportation, Utilities & Warehousing

\* Indemnity Costs = non-medical direct costs

# Claims Rate = Number of compensable claims per 10,000 FTEs

## Claims Rate Ratio = Compensable Claims Rate / All Sectors Claims Rate

\*Severity rate = time loss days per 10,000 FTEs

\*\* Severity Rate Ratio = Severity Rate / All Sectors Severity Rate

‡PI, Prevention Index = (rate rank + count rank) / 2