Prioritizing Industries for Occupational Injury and Illness Prevention and Research, Washington State Workers' Compensation Claims Data, 2002-2010.

Technical Report Number 64-1-2013

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Acknowledgements:

This report was supported in part by Grant Number 5U60OH008487 from CDC – NIOSH. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH or the Centers for Disease Control and Prevention.

April 2013

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REPORT SUMMARY

Background: Surveillance data that systematically evaluates occupational injury and illness by industry are relatively scarce, as are resources for prevention. Prioritizing industries for prevention efforts based on a high rate and high count of workers' compensation claims highlights where these injuries are occurring and where the most benefit of prevention efforts could be gained. This study examines which industry groups are at high risk for seven costly and common injury types and establishes a basis for efficient targeting of prevention resources.

Methods: Washington State Fund (SF) compensable workers' compensation compensable claims from 2002-2010 were analyzed. Payroll hours were used to determine claims' incidence rates by industry group per 10,000 FTE. Claims were analyzed by seven aggregated injury types. We used a prevention index to rank the industry groups for each of the injury types, and to rank the industry groups within their NORA Sector. We also used the prevention index to rank Washington Department of Labor and Industries SF workers compensation risk classes. Industry groups were limited to those who had reported hours in 6 or more of the nine years of the study period, with ≥45 compensable WC claims over the period of the study and ≥100 FTE per year during the study period. Over the nine year period of the study there were 262 NAICS industry groups that met these criteria.

Results: Between 2002-2010, there were 267,581 compensable Washington SF claims, accounting for over 11 billion dollars in direct workers' compensation costs. For 262 industry groups that met inclusion criteria, there were 267,420 compensable claims, and 53,075,809 days of time loss (TL). Seven common, high cost injury types were identified – "Work- Related Musculoskeletal Disorders" ("WMSDs"), "Fall from Elevation", "Fall on Same Level", "Struck By/Against", "Overexertion", "Caught In/Under/Between", and "Motor Vehicle" related claims.

These seven injury types accounted for 87.8% of all compensable SF claims. The top ranked industries for each injury type, and in each NORA Sector were established by prevention index are presented.

By prevention index, for "All Injury Types" combined, the top 5 industries for research and prevention were:

- 2381 Foundation, Structure and Building Exterior Contractors,
- 2361 Residential Building Construction,
- 2383 Building Finishing Contractors,
- 4841 General Freight Trucking, and,
- 2382 Building Equipment Contractors.

Four of these top 5 were in the Construction Sector and 1 in the Transportation, Warehousing & Utilities Sector. These 4 Construction Industry Groups appear highly ranked across nearly every injury type (Building Equipment Contractors does not appear in the top 25 for "Fall on Same Level" nor in "Caught In/Under/Between"; and Residential Building Construction does not appear in the top 25 for "Motor Vehicle").

By prevention index, for "WMSD" injuries, the top 5 industries for research and prevention were:

- 2381 Foundation, Structure, and Building Exterior Contractors,
- 2382 Building Equipment Contractors,
- 6231 Nursing Care Facilities,
- 2383 Building Finishing Contractors, and,
- 2361 Residential Building Construction.

By prevention index, for "Struck By/Against" injuries, the top 5 industries for research and prevention were:

- 6232 Residential Mental Retardation, Mental Health and Substance Abuse Facilities,
- 2381 Foundation, Structure, and Building Exterior Contractors,
- 2361 Residential Building Construction,
- 1133 Logging, and,
- 6243 Vocational Rehabilitation Services.

By prevention index, for “Fall on Same Level” injuries, the top 5 industries for research and prevention were:

- 2381 Foundation, Structure, and Building Exterior Contractors,
- 5617 Services to Buildings and Dwellings,
- 4841 General Freight Trucking,
- 6232 Residential Mental Retardation, Mental Health and Substance Abuse Facilities, and,
- 6231 Nursing Care Facilities.

By prevention index, for “Fall from Elevation” injuries, the top 5 industries for research and prevention were:

- 2381 Foundation, Structure, and Building Exterior Contractors,
- 2383 Building Finishing Contractors,
- 2361 Residential Building Construction,
- 1113 Fruit and Tree Nut Farming, and,
- 4841 General Freight Trucking.

By prevention index, for “Overexertion” injuries, the top 5 industries for research and prevention were:

- 2381 Foundation, Structure, and Building Exterior Contractors,
- 2361 Residential Building Construction,
- 2383 Building Finishing Contractors,
- 4841 General Freight Trucking, and,
- 4842 Specialized Freight Trucking.

By prevention index, for “Caught In/Under/Between” injuries, the top 5 industries for research and prevention were:

- 3219 Other Wood Product Manufacturing,

- 1133 Logging,
- 3323 Architectural and Structural Metals Manufacturing,
- 3211 Sawmills and Wood Preservation, and,
- 2381 Foundation, Structure, and Building Exterior Contractors.

By prevention index, for “Motor Vehicle” injuries, the top 5 industries for research and prevention were:

- 4841 General Freight Trucking,
- 4842 Specialized Freight Trucking,
- 5617 Services to Buildings and Dwellings,
- 1133 Logging, and,
- 2389 Other Specialty Trade Contractors.

Construction industry groups continue to be at high risk for occupational injuries. Non-construction industry groups, 1133 Logging (Agriculture, Forestry & Fishing Sector) and 4841 General Freight Trucking (Transportation, Warehousing & Utilities Sector), also appear highly ranked in each of the top seven injury types (as do other trucking industry groups).

Conclusions: Efficient targeting of resources for prevention is necessary to make the most impact on the burden of occupational injury and illness, and ranking industries for prevention based on claim rate and count can help to prioritize resource allocation for maximum benefit. High risk industry groups identified by prevention index include those in the Construction Sector (NAICS 23), Residential Mental Health Facilities (6232), Nursing Care Facilities (6231), Logging (1133), Trucking industry groups (4841 and 4842), Waste Collection (5621), and Services to Buildings and Dwellings (5617). Using the injury type data and the PI rankings together provides information for effective targeting of prevention efforts and to help inform the setting of policy and research agendas in Washington State.

INTRODUCTION

Occupational injuries and illnesses are common, costly, and a burden to workers and employers. Resources for prevention are limited, and there is a need for data to better target research and prevention activities to maximize their impact. There is relatively little published research on occupational injury and illness surveillance by industry other than the BLS(1). There is little data that characterizes the severity of occupational injury and illness related to direct workers compensation costs and time loss days.

The aim of this report is to identify and prioritize industries in Washington State for occupational injury and illness research and prevention based on a 'prevention index' ranking of industries. The prevention index is the average of the industry's ranking by number of workers' compensation compensable claims (how common are the injuries), and that industry's compensable claims rate (how high is the worker risk).

Ongoing efforts to focus on industry rely on several methods of grouping employer accounts. The North American Industry Classification System (NAICS)(2) defines 20 sectors(3). The National Occupational Research Agenda (NORA)(4) is a partnership program between the National Institute for Occupational Safety and Health (NIOSH)(5) and universities, businesses, labor and other stakeholders, to promote and improve occupational health and safety research and workplace practices. NORA aggregates the 20 NAICS sectors into 10 Sector groups(6) and NIOSH created NORA Sector Councils to establish goals and priorities for research and prevention efforts in each sector(6).

Previous efforts to prioritize Washington State industries for injury prevention reported rankings for seven common costly occupational injury types and identified several NAICS industry groups that ranked highly on the prevention index (PI): NAICS 2381 Foundation, Structure, and Building Exterior Contractors, NAICS 4841 General Freight Trucking, and NAICS 2361 Residential Building Construction(7). This study uses the established PI methodology to rank industry groups by injury type, by NORA Sector, and by Washington SF risk classes for claims between 2002 and 2010. Updated rankings, including NORA Sector data, will identify and prioritize industry groups that have both a high rate and high count of occupational injury and illness, allow for the more efficient allocation of resources for prevention and research, and aid the development of policy, prevention, and safety goals that better address the exposures and events faced by workers in each sector.

METHODS

Washington's Workers' Compensation System

In Washington State, non-federal employers are required to obtain workers' compensation insurance through the Department of Labor and Industries' (L&I) industrial insurance system, unless they meet specific requirements to self-insure, or are covered by an alternative workers' compensation system (e.g. Longshore and Harbor Workers' Compensation Program). L&I administers the State Fund (SF), an industrial insurance program that provides coverage for approximately two-thirds of Washington 3.5 million workers(8). The SF generally does not cover self-employed workers and other excluded types of workers(9), though elective coverage is available. Outside of the SF, there are approximately 450 self-insured (SI) entities (individual companies or groups of companies) that are not included in the State Fund insurance pool.

Workers' Compensation Databases & Claim Information

Data from both SF and SI programs are collected and entered in centralized databases at L&I. These systems include: administrative information necessary to adjudicate a claim; identification of the employer and injured worker; codes characterizing the injury or illness; other necessary medical information; costs associated with disability payments, wage replacement, and pensions; billing information for health care providers, procedures, and treatment; and physician diagnoses codes. Information on SI claims is often incomplete regarding cost and time loss, and therefore SI claims were excluded from this analysis.

Claim costs for closed claims reflect actual paid costs. For claims that are not closed, costs reflect actual totals paid to date plus case reserve estimates for future costs associated with the claim. Indirect costs (to the employer and worker, e.g. lost or reduced productivity, employee turnover, worker psychosocial outcomes) and the administrative costs of managing a claim are not included in the claim costs.

Claims' Coding

In Washington State, a physician and worker initiate a workers' compensation claim by filing a Report of Industrial Injury or Occupational Disease (RIIOD) form, which includes the workers' demographic information, employment and wage information, and a brief description of the incident. The physician provides a medical diagnosis (with ICD-9) code, subjective and objective information regarding the diagnosis, and a diagnostic and treatment plan.

All Washington WC SF claims are coded for nature, part of body affected, source and secondary source, and event or exposure of injury or illness according to the Occupational Injury and Illness Classification System (OIICS) system(10) from the information on the RIIOD form. OIICS codes are assigned at the beginning of a claim, and as such represent an initial description of the injury or illness. As the medical course of the worker's injury evolves, additional coding systems, such as the ICD-9CM codes may reveal additional information about the injury or illness.

Each employer has a North American Industrial Classification System (NAICS)(2) code assigned which identifies the industry associated with the firm's commerce. NAICS groups 'economic activity' into 20 sectors (two digit code), 100 subsectors (three digit code) and 317 NAICS industry groups (four digit code)(2).
Each employer reports hours worked by their employees for payment of the WC insurance premium, and hours are reported on an account level, by a workers compensation risk-classification system, we refer to as the Washington Industrial Classification (WIC) system(11). The risk class system combines industry and occupation to group workplaces by similar risk of workers' compensation loss for insurance purposes (e.g. a painter and an electrician within the same construction company may have the same NAICS code but will be assigned different risk classes).

Data Ascertainment

We identified all SF WC claims with dates of injury or illness from January 1, 2002 to December 31, 2010. Claims were extracted on December 19, 2012. Data extracted for each claim included claim identification number, claim status (medical only; compensable), OIICS codes for nature, part of body, source, and event or exposure of injury or illness, costs associated with the claim and time loss day information. Hours by NAICS industry group were obtained by WC account aggregated over the nine year study period.

A claim is considered a 'compensable' claim if it is categorized by the WC system as a 'compensable', 'kept on salary', 'total permanent disability', 'fatal' or 'loss of earning power' claim. A claim qualifies as a 'compensable' claim if after a 3 day waiting period, the worker qualifies for wage replacement; some cases may have long periods of time loss payments. A claim may change status (i.e., change from non-compensable to compensable) over time. Analysis was restricted to compensable claims. Time loss days are actual days paid without estimation of future days lost.

Injury Type

Claims are classified into 15 injury types. Using OIICS codes, injuries were described by event or exposure code (alone or in combination with OIICS nature or body part affected codes and/or ICD-9 codes) into seven aggregated injury types. For example, "Struck By/Against" includes all OIICS Event or Exposure codes in 01* 'Struck against object or equipment' and 02* 'Struck by object or equipment'. "Work-Related Musculoskeletal Disorders of the neck, back, and upper extremity" ("WMSDs") were classified by identifying claims where the nature was sprain, strain, or overexertion, along with a combination of nature of injury, body part, diagnosis code, or procedure code that indicates the claim is the result of cumulative (repetitive) injury. Claims where the nature is sprain, strain, or overexertion that cannot be identified as being the result of cumulative/repetitive injury, or are clearly identifiable as having an acute onset (e.g. fracture, hernia), are aggregated as "Overexertion".

When referring to these aggregated injury types in this report, the term "injury type" is used.

Other injury types were excluded from analyses because they each comprised less than 2% of compensable claims (“Exposure to Loud Noises”; “Extreme Temperatures”; “Bodily Reaction”; “Abraded”; “Electrical”; “Explosion”; and “Violence”). Claims originally assigned an injury type of “Other” (7.4% of compensable claims) tend to be poorly defined as ‘unclassified/insufficient data’, or ‘accident type NEC’, and as such they were also excluded from analysis.

Claims were analyzed by seven common injury types that were identified as being responsible for the majority (87.8%) of SF compensable claims. The identified injury types were: “WMSD”, “Struck By/Against”, “Fall on Same Level”, “Fall from Elevation”, “Overexertion”, “Caught In/Under/Between”, and “Motor Vehicle”.

Data Analysis

Descriptive analyses of the workers’ compensation claims were conducted to identify high cost, common, occupational injuries for prevention. Claims were aggregated by injury type.

A full time equivalent employee (FTE) was defined as working 2,000 hours per year (40 hours per week for 50 weeks per year). Claim rates are expressed as claims per 10,000 FTE. Rates of time loss days (TL) per 10,000 FTE (calculated as total time loss days / 10,000 FTE) and cost per 10,000 FTE (calculated as total cost ($) / 10,000 FTE) were included as severity measures, “Severity: TL” and “Severity: Cost”, respectively.

For high-cost, common occupational injury types, we utilized a prevention index (PI) to rank industries for prevention activities by seven different injury types and within their NORA Sectors. The PI is the average of the rank orders of the claim count and claim incidence rate or PI = (Count Rank + Incidence Rank)/2. In case of a tie, rate rank was used as the tiebreaker. An ‘expanded PI’ is presented alongside the regular PI in the rankings by Risk Class (Tables 25-32). This expanded PI adds TL days/10,000 FTE and cost per 10,000 FTE in addition to count rank and rate rank.

For determination of the PI, NAICS industry groups were limited to those who had reported hours in 6 or more of the nine years of the study period, with ≥45 compensable WC claims over the period of the study and ≥100 FTE per year during the study period, from 2002 to 2010. Over the nine year period of the study there were 262 NAICS industry groups that met these criteria, with a total of 13,994,560 FTE.

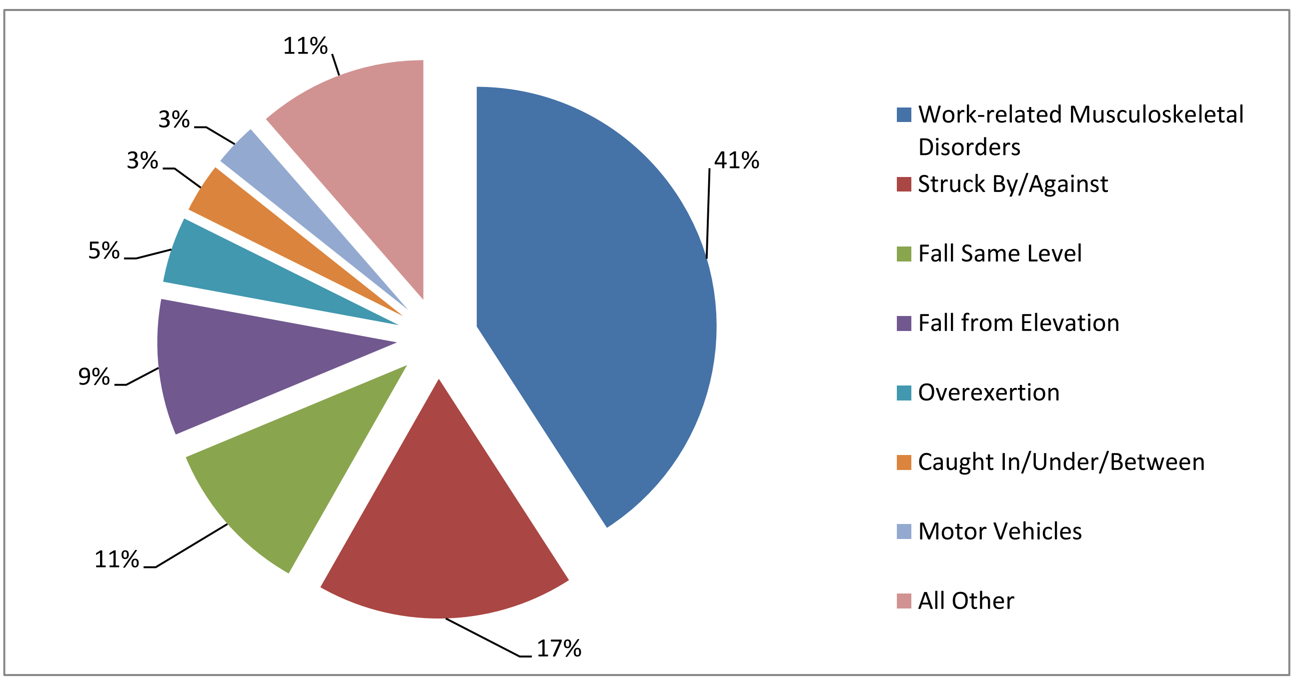
RESULTS

Between 2002 and 2010, there were 267,581 compensable claims in the WA SF, accounting for 11.03 billion dollars (total incurred, CPI adjusted). In the 262 industry groups that met the inclusion criteria, there were 267,420 compensable claims, with 53,075,809 days of time loss (TL) over the 9 year study period.

Injury Distribution

Tables 1-8 present the distribution of claims by injury type (overall, and within each NORA Sector). Seven common, high cost injury types were identified (Figure 1, Table 1): "Work- Related Musculoskeletal Disorders" ("WMSDs'), "Fall from Elevation", "Fall on Same Level", "Struck By/Against", "Overexertion", "Caught In/Under/Between", and "Motor Vehicle". These 7 injury types accounted for 87.8% of compensable claims, 90% of claim costs and 92% of TL days. These seven injury types were consistently the leading injury types in all sectors, with only slight variability in order (e.g. "WMSD" was the leading type in all Sectors, except the Agriculture, Forestry, and Fishing Sector (Table 2), in which "Struck By/Against" was the largest type).

Figure 1. Distribution of claims by Injury Type in the Washington State Fund, 2002-2010.



Tables 2-8 can be used to identify Sector-specific priorities for injury prevention. For example, “Fall from Elevation” is in the top 3 injury types for: Agriculture, Forestry, and Fishing; Construction; and Transportation, Warehousing, and Utilities. However, “Fall on Same Level” appears in the top 3 injury types in: Healthcare and Social Assistance; Manufacturing; Services; and Wholesale and Retail Trade.

Prevention Index Rankings

Tables 9-16 present the prevention index ranking of industry groups by injury type.

Overall, by PI for “All Injury Types”, the top 5 industry groups for research and prevention efforts in the WA SF are: Foundation, Structure, and Building Exterior Contractors (NAICS 2381); Residential Building Construction (NAICS 2361); Building Finishing Contractors (NAICS 2383); General Freight Trucking (NAICS 4841); and Building Equipment Contractors (NAICS 2382).

Four of these top 5 were in the Construction Sector and 1 in the Transportation, Warehousing & Utilities Sector. These 4 Construction Industry Groups appear highly ranked in the PIs for nearly all of the 7 identified common injury types (Building Equipment Contractors does not appear in the top 25 for “Fall on Same Level” nor in “Caught In/Under/Between”; and Residential Building Construction does not appear in the top 25 for “Motor Vehicle”). The next 5 industry groups in the top 25 for “All Injury Types” are: Residential Mental Retardation, Mental Health and Substance Abuse Facilities (NAICS 6232) (6th), Logging (NAICS 1133) (7th), Other Specialty Trade Contractors (NAICS 2389) (8th), Specialized Freight Trucking (NAICS 4842) (9th), and Services to Buildings and Dwellings (NAICS 5617) (10th). These industry groups also appear several times highly ranked in the PIs for other injury types, and Logging, Other Specialty Trade Contractors, and Services to Buildings and Dwellings appear in the top 25 of each of the seven identified common injury types.

The top 10 industry groups for research and prevention efforts for “WMSDs” (the result of cumulative/repetitive injury) were similar to those of “All Injury Types” and including Nursing Care Facilities (NAICS 6231), and Community Care Facilities for the Elderly (NAICS 6233).

The top 5 industry groups for research and prevention for "Overexertion" injuries (acute onset), were similar to those of "All Injury Types", with the only difference being Specialized Freight Trucking (NAICS 4842) ranked 5th (instead of Building Equipment Contractors (NAICS 2382), ranked 7th). Unlike the PI for WMSDs, Nursing Care Facilities (NAICS 6231) were only ranked 16th, and Community Care Facilities for the Elderly (NAICS 6233) was not ranked in the top 25 industry groups for prevention.

Fall injuries, both "Fall on Same Level" and "Fall from Elevation", make up a combined 20% of compensable claims in the WA SF. The PI for "Fall on Same Level" injuries includes Foundation, Structure, and Building Exterior Contractors (NAICS 2381), General Freight Trucking (4841), and Logging (NAICS 1133). It also includes 3 other Construction Sector industry groups, as well as 6 industry groups each (24%) from the Healthcare and Social Assistance and Services Sectors. The fourth and fifth rankings were in industry groups from the Healthcare and Social Assistance Sector: Residential Mental Retardation, Mental Health and Substance Abuse Facilities (NAICS 6232) and Nursing Care Facilities (NAICS 6231), respectively. Services Sector industry groups Traveler Accommodation (NAICS 7211), Justice, Public Order, and Safety Activities (9221) and Full Service Restaurants (7221) were all in the top 12. Logging (NAICS 1133) had the highest Severity: Time Loss rate, 22,656 per 10,000 FTE – 2 days time loss per FTE (the next highest, Foundation, Structure, and Building Exterior Contractors (NAICS 2381), was 13,384 days TL/10,000 FTE).

The PI for "Fall from Elevation" injuries includes many of the same industry groups as the PI for "Fall on Same Level" injuries. Eight of the top 25 PI industry groups (32%) of "Fall from Elevation" injuries occur in the Construction Sector (NAICS 23). Only two of the 10 Construction Sector industry groups (Other Heavy and Civil Engineering Construction (NAICS 2379), and Land Subdivision (NAICS 2372)) are not represented in the top 25 PI for "Fall from Elevation". The Agriculture, Forestry, and Fishing Sector and the Services Sector each contributed 5 industry groups (20% each) to the top 25 PI. The highest Severity: Time Loss rate was for Foundation, Structure, and Building Exterior Contractors (NAICS 2381) (37,528 days TL/10,000 FTE). Building Finishing Contractors (NAICS 2383) and Residential Building Construction (NAICS 2361) also had Severity:

Time Loss rates over 30,000 days TL/10,000 FTE (followed by 4841 General Freight Trucking and 1133 Logging with Severity: Time Loss rates over 22,000 days TL/10,000 FTE).

In addition to Construction industry groups and Logging, the PI for "Struck By/Against" included Residential Mental Retardation, Mental Health and Substance Abuse Facilities (NAICS 6232) as the highest rate and overall PI rank, and Vocational Rehabilitation Services (NAICS 6243) (5^{th}). Logging (NAICS 1133) had the highest Severity: Time Loss rate – 67,211 TL days per 10,000 FTE, or 6.7 days of time loss per FTE.

"Caught In/Under/Between" injuries happen when a worker is "squeezed, crushed, pinched or compressed between two or more objects, or between parts of an object" (10). The Manufacturing Sector had 9 of the top 25 industry groups by PI (36%). Other Wood Product Manufacturing (NAICS 3219), Logging (NAICS 1133), Architectural and Structural Metals Manufacturing (NAICS 3323) and Sawmills and Wood Preservation (NAICS 3211) made up the top 4 industries by PI. Logging (NAICS 1133) had the highest Severity: Time Loss rate – 8,580 TL days per 10,000 FTE.

As might be expected, the Transportation, Warehousing, and Utility Sector made up 32% (8 industry groups) of the top 25 industry groups by PI for "Motor Vehicle" injuries (Table 16). Four of the 5 trucking industry groups were represented in the top 25 for "Motor Vehicle" injuries: General Freight Trucking (NAICS 4841), Specialized Freight Trucking (NAICS 4842), Local Messengers and Local Delivery (NAICS 4922), and Couriers and Express Delivery Services (NAICS 4921); only Waste Collection (NAICS 5621) was not represented in the top 25 – it ranked 26^{th}.

For an overall view of the NORA Sectors, Table 17 is a PI ranking of the 7 NORA Sectors for "All Injury Types", and Tables 18-24 present PI rankings of industry groups within their sectors ("All Injury Types").

Risk Class

Tables 25-32 present PI rankings by Risk Class. In addition to the traditional PI rankings, the tables for risk class present an 'expanded PI' ranking alongside (the expanded PI method includes TL days and cost data, to gauge some level of severity).

For "All Injury Types", the top 10 risk classes for prevention were: 0510 Wood Frame Building Construction; 7201 State Patient or Health Care Personnel, not otherwise classified (N.O.C.); 0507 Roofing Work – Construction and Repair; 1102 Trucking N.O.C.; 0516 Carpentry, N.O.C; 5001 Logging Operations, N.O.C.; 0101 Excavation and Grading, N.O.C.; 0540 Wallboard Installation – Discounted Rate; 0518 Non Wood Frame Building Construction; and 7117 Temporary Help – Machine Operation. These are similar to the results by NAICS – many workers in Construction work, Trucking, and Logging. Logging Operations, N.O.C. had the highest severity in TL days (836,357.2 per 10,000 FTE) and in cost per 10,000 FTE (Table 25). Logging, N.O.C. was consistently ranked in the top 25 for prevention in "All Injury Types", and 5/7 of the injury type PIs (neither in "Motor Vehicle" injuries, where 5003 Log Hauling was ranked; nor in "Overexertion"). When looking at the expanded PI rankings, 0507 Roofing Work – Construction and Repair ranks first (driven by claim count), while 5001 Logging Operations, N.O.C. ranks 2nd (low number of claims, but ranking first in rate, TL, and cost ranks – Logging is a small industry that faces very high risks (#1 rate rank) and high injury severity as judged by TL/cost).

In the top 25 risk classes for "WMSD" prevention (Table 26), were several found in Construction industries, as well as Healthcare and Social Assistance - 72011 State Patient or Health Care Personnel, N.O.C., 0510 Wood Frame Building Construction, 6108 Nursing Homes, 1102 Trucking, N.O.C., and 0507 Roofing Work – Construction and Repair were the top five.

In the top 25 risk classes for "Struck By/Against" prevention (Table 27), construction work, logging, and manufacturing are all represented. Notably, 5001 Logging is ranked 2nd (1st by expanded PI), and has a compensable claim rate, a Severity: Time Loss rate, and a Severity: Cost rate that far exceeds the others in the top 25.

In the top 25 risk classes for “Fall on Same Level” prevention (Table 28), were 7201 State Patient or Health Care, 1102 Trucking, N.O.C., 5001 Logging, N.O.C., risk classes in Construction work (wood frame, roofing), and Motels and Hotels. Nursing Homes and Janitorial Service were also in the top 10.

In the top 25 risk classes for “Fall from Elevation” prevention (Table 29), were many risk classes found in Construction industries such 0507 Roofing Work – Construction and Repair and 0504 Painting: Building and Structures – Exterior Work, as well as agricultural work , 4803 Orchards (ranked 4th). The 1102 Trucking, N.O.C. and 5001 Logging Operations, N.O.C. risk classes were also highly ranked for prevention.

In the top 25 risk classes for “Overexertion” prevention (Table 30), were many risk classes found in Construction, Transportation, and Manufacturing industries. The highest Severity: TL rate was found in 0302 Masonry Construction (13,392.5 / 10,000 FTE), which also had the highest Severity: Cost rate ($3,606,536 / 10,000 FTE).

In the top 25 risk classes for “Caught In/Under/Between” prevention (Table 31), 7117 Temporary Help – Machine Operation is ranked the highest, followed by 2903 Wood Products Manufacturing, N.O.C, 1002 Sawmills and Automated Shake and Shingle Mills, 5001 Logging Operations, N.O.C., and 5208 Iron Works – Shop. In addition to very high compensable claim rate per 10,000 FTE, 5001 Logging, N.O.C and 7117 Temporary Help – Machine Operation both have extremely high Severity: Time Loss and Severity: Cost rates.

The top 25 risk classes for “Motor Vehicle” injury prevention (Table 32) is dominated by transportation work, as would be expected. Risk classes 1102 Trucking, N.O.C, 1101 Parcel and Package Delivery Service, 5003 Log Hauling, 1404 Cabulance and Paratransit, and 1407 Bus Companies – Private, make up the top five. Non-transport risk classes are also represented, such as Law Enforcement Officers (6905 County & City, 7103 State Government) and 6602 Janitorial Services.

DISCUSSION

Despite being a relatively small industry group (35,322 FTE), 1133 Logging has the highest compensable claim rate/10,000 FTE (748.0) for “All Injury Types” (Rate rank: 1st; count rank: 26th; overall PI rank: 7th; Table 9) and appears in the Top 25 PI in each of the top seven common, high-cost injuries analyzed (and ranks in the Top 5 in “Struck By/Against”, “Caught In/Under/Between”, and “Motor Vehicle”). A severity measure of TL days/10,000 FTE was included (demonstrating burden). Of industries ranked by PI to be in the top 25 for “All Injury Types” – 1133 Logging had the highest - 204,306 days TL per 10,000 FTE – and Logging also had the highest days TL/10,000 FTE in “Falls on Same Level”, “Struck By/Against”, and “Caught In/Under/Between” injuries. The risk class 5001 Logging Operations, N.O.C. is ranked in the top 25 for “All Injury Types” and in the top 10 of 4 out of 7 injury types (not in the PI for “WMSD”s, “Overexertion”, or “Motor Vehicle”); in addition to very high compensable claim rates per 10,000 FTE, when taking into account some measure of the severity of the injuries (using the expanded PI, or by looking at the Severity: Time Loss and Severity: Cost rates), one can see that risk class 5001 Logging consistently has rates several times greater than other risk classes in the PIs. Specifically, in “Struck By/Against” (Table 11, Table 27) Logging workers face the highest risk for these injuries. Looking at the Severity: Time Loss rates, Logging workers have 6.7 days TL per FTE (Table 11) to more than 35 days TL per FTE (Table 27) for “Struck By/Against” injuries, several times higher than that of other industry groups/risk classes ranked for these injuries (for example, in Table 27, the Logging Operations Severity: Time Loss rate of 351,876 per 10,000 FTE is 5x higher than the second highest, 0517 Factory Built Home Set-Up By Contractor/Manufacturer, 66,746 / 10,000 FTE).

There are some limitations to using a severity measure of TL/10,000 FTE and Costs/10,000 FTE. First, they reflect cumulative data and do not allow meaningful comparison across injury type. However, these severity measurements do allow for an assessment of injury type burden to employers and industry groups, and to make comparisons of injury burden across industries (within the same injury type). Second, the severity measures for time loss and costs may be significantly influenced by a comparatively greater prevalence of high cost and lengthy time loss claims across industries or risk classes. The relationship between these two severity measures and median time loss and costs indicate the degree to which the severity measures are influenced by these claims at the high end of the cost and time loss distribution. It appears likely that the distribution of high cost and lengthy time loss claims are greater in Logging.

Certain trucking industry groups (4841 General Freight Trucking; 4842 Specialized Freight Trucking; 4921 Couriers; 4922 Local Messengers and Delivery; 5621Waste Collection) were also represented in several of the injury type PIs. In the PI for “Motor Vehicle” injuries, General Freight Trucking ranks 1^{st} and Specialized Trucking 2^{nd}; Local Messengers and Delivery 12^{th}, and Couriers 21^{st}. However, these industry groups are not limited to “Motor Vehicle” injuries, as General Freight Trucking appears in the Top 25 of “All Injury Types”, as well as the Top 25 for all 7 identified injury types. Specialized Freight Trucking is highly ranked in “All Injury Type” as well as 6 out of the 7 injury types (all but “Caught In/Under/Between”); and Waste Collection is ranked in the Top 25 overall (23^{rd}) as well as in 4 injury types (“WMSD”, “Fall Same Level”, “Overexertion” and “Struck By/Against”).

Other industry groups were also represented in most or all of the top 25 PIs: NAICS 5617 Services to Buildings and Dwellings (Services Sector) also appears in the Top 25 of “All Injury Types” as well as in the Top 25 for all of the top seven injury types; and NAICS 6232 Residential Mental Retardation, Mental Health and Substance Abuse Facilities (Healthcare & Social Assistance Sector) also ranked in the Top 25 overall as well as the Top 25 in “WMSD”, “Fall on Same Level”, and “Struck By/Against”.

There were not enough compensable claims for “Violence” injuries during the study period to analyze them by industry group (<1% of compensable claims), but it may be worth noting that 60% of these claims occur in the Services Sector (data not shown). In addition to their relative rarity, prevention measures for “Violence” may differ substantially from other occupational health and safety prevention measures.

Several of the high risk industry groups identified (Construction Sector, Logging, Trucking industry groups) are the same ones identified in our previous study that examined WA WC claims data from 1998-2002 by PI (7), showing that there is still considerable need and opportunity for prevention efforts in these industries.

Another limitation to this report is that the injury and illness rates reported in this study are dependent on the completeness of reporting of cases and employee work hours to the workers' compensation system. There are potential barriers to the filing of a workers' compensation claim (e.g. fear of retribution, failure to recognize occupational injury/illness by the physician, worker, or employer, administrative barriers, availability of other medical insurance providers). The extent of underreporting of injuries and illness to the WA WC system is unknown(12). WC premiums are dependent on employer reporting of work hours, and there may also be underreporting (or overreporting) of work hours (because insurance premiums are dependent on the claims' experience in a particular risk class, there may be under or over reporting in high/low premium risk classes), which may affect the accuracy of the comparisons between risk classes. Additionally, data coding in large administrative databases such as the WA WC system is not always complete or accurate and there is a chance for miscoding (for example, OIICS coding takes place at the initial assessment of the claim, and the injury or illness may be poorly defined on the initial claim form, and thus the coding may not reflect the true nature of the injury or illness associated with the claim). The extent to which this introduces error in our estimates is uncertain, however, it is likely to be small as misclassification and poor compliance with necessary administrative data is likely random.

Resources for prevention are scarce, and identifying which industry groups and risk classes are at highest risk and could most benefit from prevention activities for common, high, cost injuries is an important step to characterize the nature of occupational injuries in WA, and inform future action.

In conclusion, industry groups in Washington State were ranked by prevention index and seven common high-cost injuries were identified. These injuries comprise the majority of compensable claims, claim costs, and time loss days. Using the injury type data and the PI rankings together provides data to guide occupational injury prevention efforts to the industry groups that may benefit the most and to assist employers in these industries identify problem areas. Ranking industries by claim count and rank can identify high risk/cost situations and better focus research and prevention efforts on the specific events faced by workers in individual industry groups and by the National Occupational Research Agenda Sectors.

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Table 1. Distribution of claims by Injury Type in the Washington State Fund, 2002-2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
Total All Injury Types	267,420	100.0%	191.1	$9,532	43	37,926
Work-related Musculoskeletal Disorders**	108,225	40.5%	77.3	$12,498	56	18,406
Struck By/Against (010 - 029)	45,921	17.2%	32.8	$5,648	25	4,672
Fall Same Level (130-139)	27,930	10.4%	20.0	$10,819	49	4,225
Fall from Elevation (100 - 129)	24,311	9.1%	17.4	$14,179	68	4,329
Other (9999)	19,805	7.4%	14.2	$7,957	38	2,401
Overexertion±	11,739	4.4%	8.4	$7,100	33	1,090
Caught In/Under/Between (030- 049)	8,736	3.3%	6.2	$8,027	30	700
Motor Vehicles (400 - 490)	7,842	2.9%	5.6	$14,265	56	1,380
Exposure to Loud Noises (350-352)	4,287	1.6%	3.1	$10,605	44	11
Extreme Temperatures (320-324)	2,323	0.9%	1.7	$1,647	9	62
Bodily Reaction (210-219)	1,863	0.7%	1.3	$9,799	43	288
Abraded (050 – 069, 230)	1,324	0.5%	0.9	$1,475	6	43

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.
All NORA Sectors. State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE).
There were 262 Industry Groups that met the inclusion criteria. Injury types excluded from the table were: Electrical, Explosion, and Violence (<0.5% of claims).

Table 2. Distribution of claims by Injury Type in the NORA Agriculture, Forestry & Fishing Sector in WA SF, 2002 - 2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
All Injury Types	12,364	-	289.6	$9,785	53	58,932
Struck By/Against (010 - 029)	2,827	22.9%	66.2	$6,569	33	11,917
Work-related Musculoskeletal Disorders**	2,666	21.6%	62.4	$14,109	70	15,509
Fall from Elevation (100 - 129)	2,596	21.0%	60.8	$11,666	83	13,550
Fall Same Level (130-139)	1,264	10.2%	29.6	$11,745	63	6,671
Other (9999)	868	7.0%	20.3	$8,141	45	3,604
Caught In/Under/Between (030- 049)	778	6.3%	18.2	$11,355	42	2,857
Overexertion±	418	3.4%	9.8	$6,920	38	939
Motor Vehicles (400 - 490)	396	3.2%	9.3	$26,056	110	3,079
Exposure to Loud Noises (350-352)	203	1.6%	4.8	$12,177	53	2
Abraded (050 - 069, 230)	82	0.7%	1.9	$1,316	7	44
Bodily Reaction (210-219)	69	0.6%	1.6	$8,335	42	450
Extreme Temperatures (320-324)	56	0.5%	1.3	$1,857	10	49

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.

State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560; Agriculture, Forestry & Fishing Sector is NAICS 11 - 426,917 FTEs - 3.1% of the SF workforce. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE). Injury types excluded from the table were: Electrical, Explosion, and Violence (<0.5% of claims).

Table 3. Distribution of claims by Injury Type in the NORA Construction Sector in WA SF, 2002 - 2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
All Injury Types	53,781	-	477.5	$14,828	69	116,759
Work-related Musculoskeletal Disorders**	19,852	36.9%	176.2	$21,764	105	55,488
Struck By/Against (010 - 029)	9,962	18.5%	88.4	$7,102	32	13,826
Fall from Elevation (100 - 129)	7,632	14.2%	67.8	$22,695	106	20,867
Other (9999)	3,807	7.1%	33.8	$12,953	65	7,625
Fall Same Level (130-139)	3,611	6.7%	32.1	$19,155	89	8,577
Overexertion±	2,433	4.5%	21.6	$8,530	42	3,247
Exposure to Loud Noises (350-352)	2,148	4.0%	19.1	$145,348	956	73
Caught In/Under/Between (030- 049)	1,562	2.9%	13.9	$11,309	45	1,633
Motor Vehicles (400 - 490)	1,108	2.1%	9.8	$22,105	99	3,088
Abraded (050 - 069, 230)	382	0.7%	3.4	$1,668	7	185
Bodily Reaction (210-219)	354	0.7%	3.1	$14,104	59	829
Extreme Temperatures (320-324)	245	0.5%	2.2	$3,608	17	118

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.

State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560; Construction Sector is NAICS 23 -1,126,376 FTEs - 8.0% of the SF workforce. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE). Injury types excluded from the table were: Electrical, Explosion, and Violence (<0.5% of claims).

Table 4. Distribution of claims by Injury Type in the NORA Manufacturing Sector in WA SF, 2002-2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
All Injury Types	25,259	-	239.1	$9,786	36	42,640
Work-related Musculoskeletal Disorders**	10,197	40.4%	96.5	$14,264	56	22,956
Struck By/Against (010 - 029)	5,023	19.9%	47.5	$5,942	21	5,293
Caught In/Under/Between (030- 049)	1,990	7.9%	18.8	$9,425	26	1,920
Fall Same Level (130-139)	1,805	7.1%	17.1	$12,412	48	3,730
Other (9999)	1,664	6.6%	15.7	$8,353	33	2,693
Overexertion±	1,381	5.5%	13.1	$6,460	24	1,248
Fall from Elevation (100 - 129)	1,270	5.0%	12.0	$16,904	57	2,813
Exposure to Loud Noises (350-352)	459	1.8%	4.3	$268,936	1,748	33
Motor Vehicles (400 - 490)	324	1.3%	3.1	$11,204	45	697
Extreme Temperatures (320-324)	298	1.2%	2.8	$3,028	17	128
Abraded (050 - 069, 230)	225	0.9%	2.1	$1,279	4	62
Bodily Reaction (210-219)	168	0.7%	1.6	$8,946	43	369

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.

State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560; Manufacturing Sector is NAICS 31-33 - 1,056,569 FTEs - 7.5% of the SF workforce. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE). Injury types excluded from the table were: Electrical, Explosion, and Violence (<0.5% of claims).

Table 5. Distribution of claims by Injury Type in the NORA Wholesale & Retail Trade Sector in WA SF, 2002-2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
All Injury Types	46,045	-	175.4	$9,001	39	32,762
Work-related Musculoskeletal Disorders**	20,008	43.5%	76.2	$11,455	49	17,089
Struck By/Against (010 - 029)	7,352	16.0%	28.0	$5,266	21	3,714
Fall Same Level (130-139)	4,544	9.9%	17.3	$11,794	50	3,664
Fall from Elevation (100 - 129)	3,559	7.7%	13.6	$11,204	52	2,764
Other (9999)	3,346	7.3%	12.7	$8,110	37	2,008
Overexertion±	2,506	5.4%	9.5	$6,735	30	1,085
Caught In/Under/Between (030- 049)	1,656	3.6%	6.3	$7,363	28	577
Motor Vehicles (400 - 490)	1,438	3.1%	5.5	$13,638	53	1,303
Exposure to Loud Noises (350-352)	446	1.0%	1.7	$8,034	33	2
Bodily Reaction (210-219)	311	0.7%	1.2	$9,925	43	251
Extreme Temperatures (320-324)	283	0.6%	1.1	$1,978	10	59

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.

State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560; Wholesale & Retail Trade Sector is NAICS 42, 44-45 - 2,625,104 FTEs - 18.8% of the SF workforce. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE). Injury types excluded from the table were: Abraded, Electrical, Explosion, and Violence (<0.5% of claims).

Table 6. Distribution of claims by Injury Type in the NORA Transportation, Warehousing & Utilities Sector in WA SF, 2002-2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
All Injury Types	18,588	-	351.3	$9,586	42	65,310
Work-related Musculoskeletal Disorders**	7,419	39.9%	140.2	$11,284	45	27,153
Struck By/Against (010 - 029)	2,500	13.4%	47.2	$6,490	29	7,173
Fall from Elevation (100 - 129)	1,853	10.0%	35.0	$12,737	54	8,176
Fall Same Level (130-139)	1,817	9.8%	34.3	$10,829	50	6,877
Other (9999)	1,465	7.9%	27.7	$7,679	34	4,176
Motor Vehicles (400 - 490)	1,454	7.8%	27.5	$14,847	69	7,362
Overexertion±	852	4.6%	16.1	$7,235	33	2,108
Caught In/Under/Between (030- 049)	509	2.7%	9.6	$7,472	32	1,382
Exposure to Loud Noises (350-352)	330	1.8%	6.2	$99,636	402	8
Bodily Reaction (210-219)	160	0.9%	3.0	$7,055	32	387

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.

State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560; Transportation, Warehousing & Utilities Sector is NAICS 48-49, 22 - 529,193 FTEs - 3.8% of the SF workforce. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE). Injury types excluded from the table were: Extreme Temperatures, Abraded, Electrical, Explosion, and Violence (<0.5% of claims).

Table 7. Distribution of claims by Injury Type in the NORA Services Sector in WA SF, 2002-2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
All Injury Types	85,985	-	126.7	$8,173	38	23,326
Work-related Musculoskeletal Disorders**	35,299	41.1%	52.0	$11,071	50	11,405
Struck By/Against (010 - 029)	13,809	16.1%	20.3	$4,548	21	2,580
Fall Same Level (130-139)	11,561	13.4%	17.0	$9,346	43	3,389
Other (9999)	6,951	8.1%	10.2	$6,630	33	1,548
Fall from Elevation (100 - 129)	6,414	7.5%	9.5	$11,583	55	2,160
Overexertion±	3,269	3.8%	4.8	$6,895	32	636
Motor Vehicles(400 - 490)	2,695	3.1%	4.0	$10,824	41	812
Caught In/Under/Between (030- 049)	2,024	2.4%	3.0	$5,298	26	328
Extreme Temperatures (320-324)	1,275	1.5%	1.9	$1,336	7	55
Bodily Reaction (210-219)	665	0.8%	1.0	$9,404	42	210
Exposure to Loud Noises (350-352)	612	0.7%	0.9	$3,955	17	2

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.

State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560; Services Sector is NAICS 51-56, 61, 71-72, 81, 91 - 6,786,626 FTEs - 48.5% of the SF workforce. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE). Injury types excluded from the table were: Abraded, Electrical, Explosion, and Violence (<0.5% of claims).

Table 8. Distribution of claims by Injury Type in the NORA Healthcare & Social Assistance Sector in WA SF, 2002-2010.

Injury Type (OIICS* Event or Exposure Codes)	**# Claims**	**% of Claims**	**Claim Rate / 10,000 FTE**	**Median Cost**	**Median days TL**	**Severity: TL**
All Injury Types	24,762	-	174.1	$8,043	39	34,190
Work-related Musculoskeletal Disorders**	12,564	50.7%	88.3	$9,331	45	18,887
Struck By/Against (010 - 029)	4,326	17.5%	30.4	$5,832	30	5,466
Fall Same Level (130-139)	3,284	13.3%	23.1	$9,043	41	4,444
Other (9999)	1,659	6.7%	11.7	$5,503	30	1,803
Fall from Elevation (100 - 129)	943	3.8%	6.6	$9,954	40	1,392
Overexertion±	859	3.5%	6.0	$7,629	40	1,085
Motor Vehicles (400 - 490)	396	1.6%	2.8	$12,596	46	590
Caught In/Under/Between (030- 049)	189	0.8%	1.3	$3,755	24	156
Bodily Reaction (210-219)	133	0.5%	0.9	$9,748	43	158

* Occupational Injury and Illness Classification System (OIICS). ** WMSDs are defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating cumulative or repetitive injury. ±Overexertion is defined as sprain, strain, or overexertion, along with a combination of nature of injury, body part, and diagnosis codes indicating acute or unknown onset injury.

State Fund (SF) compensable claims only. Total Full-Time Equivalents (FTEs) - 13,994,560; Healthcare & Social Assistance Sector is NAICS 62 & 54194 - 1,422,208 FTEs - 10.2% of the SF workforce. FTEs are calculated as total hours/2000. Severity TL = (TL days/10,000 FTE). Injury types excluded from the table were: Extreme Temperatures, Exposure to Loud Noises, Abraded, Electrical, Explosion, and Violence (<0.5% of claims).

Table 9. Top 25 NAICS Industry Groups by Prevention Index for WA SF, "All Injury Types", 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	9,312	676.3	$13,196	68	161,159	2	3	1
C	2361	Residential Building Construction	186,292	9,792	525.6	$11,280	57	129,804	10	2	2
C	2383	Building Finishing Contractors	160,942	8,281	514.5	$13,697	71	136,950	11	4	3
U	4841	General Freight Trucking	89,627	4,985	556.2	$10,779	55	137,877	8	11	4
C	2382	Building Equipment Contractors	276,061	12,495	452.6	$17,782	77	105,487	18	1	4
H	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	48,764	3,251	666.7	$6,354	33	115,168	3	19	6
A	1133	Logging	35,322	2,642	748.0	$14,347	66	204,306	1	26	7
C	2389	Other Specialty Trade Contractors	123,197	5,456	442.9	$13,214	62	111,986	21	9	8
U	4842	Specialized Freight Trucking	46,765	2,685	574.2	$9,130	49	116,432	7	25	9
S	5617	Services to Buildings and Dwellings	192,258	7,860	408.8	$7,489	43	82,849	30	5	10
H	6231	Nursing Care Facilities	122,719	4,437	361.6	$6,649	33	63,675	41	12	11
S	5621	Waste Collection	21,310	1,316	617.6	$7,665	34	90,504	5	53	12
M	3219	Other Wood Product Manufacturing	48,441	2,032	419.5	$8,869	30	74,729	26	32	12
C	2373	Highway, Street, and Bridge Construction	45,004	1,880	417.7	$30,101	108	109,069	27	35	14
H	6243	Vocational Rehabilitation Services	55,612	2,179	391.8	$5,206	28	60,168	35	30	15
C	2371	Utility System Construction	57,242	2,147	375.1	$19,443	78	96,020	38	31	16
C	2362	Nonresidential Building Construction	108,886	3,580	328.8	$25,025	94	72,752	54	16	17
S	9221	Justice, Public Order, and Safety Activities	137,032	4,149	302.8	$9,360	30	37,377	65	13	18
M	3211	Sawmills and Wood Preservation	26,888	1,131	420.6	$9,902	34	83,822	24	58	19
S	8111	Automotive Repair and Maintenance	132,964	3,730	280.5	$10,053	45	65,058	73	15	20
T	4244	Grocery and Related Product Merchant Wholesalers	194,917	5,187	266.1	$9,441	43	48,304	81	10	21
M	3323	Architectural and Structural Metals Manufacturing	45,395	1,572	346.3	$10,914	41	57,173	49	44	22
H	6233	Community Care Facilities for the Elderly	96,742	2,740	283.2	$7,686	39	56,851	71	24	23
U	2213	Water, Sewage and Other Systems	109,958	3,060	278.3	$9,755	26	30,818	74	22	24
S	5613	Employment Services	245,383	6,118	249.3	$5,687	42	44,743	92	8	25
M	3365	Railroad Rolling Stock Manufacturing	1,538	97	630.5	$12,618	45	205,034	4	232	107

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 262 NAICS Industry Groups ranked in the PI for All Injury Types. Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 10. Top 25 NAICS Industry Groups by Prevention Index for "Work-related Musculoskeletal Disorder" Injuries, WA SF, 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	3,093	224.6	$20,159	104	67,900	6	3	1
C	2382	Building Equipment Contractors	276,061	5,449	197.4	$24,382	116	66,018	8	1	1
H	6231	Nursing Care Facilities	122,719	2,749	224.0	$6,771	34	41,390	7	6	3
C	2383	Building Finishing Contractors	160,942	3,010	187.0	$20,681	102	61,894	11	4	4
C	2361	Residential Building Construction	186,292	3,259	174.9	$16,380	82	52,147	15	2	5
U	4841	General Freight Trucking	89,627	1,736	193.7	$12,762	64	51,096	10	12	6
U	4842	Specialized Freight Trucking	46,765	1,069	228.6	$10,844	55	48,269	5	25	7
S	5617	Services to Buildings and Dwellings	192,258	2,993	155.7	$9,324	53	37,180	26	5	8
H	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	48,764	954	195.6	$7,776	39	34,252	9	27	9
H	6233	Community Care Facilities for the Elderly	96,742	1,582	163.5	$8,459	45	35,777	21	15	9
C	2389	Other Specialty Trade Contractors	123,197	1,937	157.2	$18,085	97	48,742	25	11	9
S	5621	Waste Collection	21,310	584	274.1	$8,665	36	44,037	1	48	12
H	6243	Vocational Rehabilitation Services	55,612	852	153.2	$5,927	37	27,587	29	28	13
T	4451	Grocery Stores	135,103	1,712	126.7	$8,405	41	22,866	49	14	14
S	9221	Justice, Public Order, and Safety Activities	137,032	1,730	126.2	$11,122	33	15,364	51	13	15
A	1133	Logging	35,322	587	166.2	$20,652	110	53,986	20	47	16
C	2362	Nonresidential Building Construction	108,886	1,381	126.8	$31,997	127	36,529	48	19	16
C	2371	Utility System Construction	57,242	778	135.9	$22,614	97	41,291	43	30	18
U	2213	Water, Sewage and Other Systems	109,958	1,358	123.5	$12,085	30	15,423	53	21	19
U	4811	Scheduled Air Transportation	14,958	389	260.1	$7,462	38	29,391	3	72	20
C	2373	Highway, Street, and Bridge Construction	45,004	661	146.9	$32,855	133	47,897	34	41	20
M	3219	Other Wood Product Manufacturing	48,441	698	144.1	$14,209	56	37,809	37	39	22
H	6239	Other Residential Care Facilities	52,453	738	140.7	$6,391	37	31,487	40	36	22
S	8111	Automotive Repair and Maintenance	132,964	1,564	117.6	$15,262	71	33,924	62	16	24
T	4244	Grocery and Related Product Merchant Wholesalers	194,917	2,106	108.0	$10,543	46	21,143	71	10	25
M	3115	Dairy Product Manufacturing	2,226	59	265.1	$9,733	57	51,103	2	209	95
U	4852	Interurban and Rural Bus Transportation	13,125	318	242.3	$9,512	48	34,119	4	87	28

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 224 NAICS Industry Groups ranked in the PI for 'Musculoskeletal Disorder' (MSD). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 11. Top 25 NAICS Industry Groups by Prevention Index for "Struck By/Against" Injuries, WA SF, 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
H	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	48,764	1,534	314.6	$5,820	32	57,473	1	3	1
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	2,042	148.3	$6,550	33	22,274	6	2	2
C	2361	Residential Building Construction	186,292	2,283	122.5	$6,164	26	17,579	8	1	3
A	1133	Logging	35,322	783	221.7	$10,842	53	67,211	2	12	4
H	6243	Vocational Rehabilitation Services	55,612	686	123.4	$5,339	31	19,013	7	14	5
C	2383	Building Finishing Contractors	160,942	1,457	90.5	$6,178	28	13,346	16	5	5
C	2389	Other Specialty Trade Contractors	123,197	1,132	91.9	$7,754	38	16,369	15	9	7
M	3219	Other Wood Product Manufacturing	48,441	566	116.8	$5,831	19	13,212	10	20	8
S	5617	Services to Buildings and Dwellings	192,258	1,298	67.5	$4,850	28	8,904	32	8	9
A	1121	Cattle Ranching and Farming	30,181	361	119.6	$7,468	35	20,360	9	32	10
U	4841	General Freight Trucking	89,627	671	74.9	$7,688	38	15,516	28	16	11
M	3323	Architectural and Structural Metals Manufacturing	45,395	383	84.4	$7,646	28	10,200	20	28	12
C	2362	Nonresidential Building Construction	108,886	687	63.1	$14,398	60	9,248	37	13	13
S	5613	Employment Services	245,383	1,378	56.2	$3,607	28	7,048	45	7	14
C	2382	Building Equipment Contractors	276,061	1,486	53.8	$6,341	29	7,600	48	4	14
M	3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	40,933	338	82.6	$5,170	21	6,596	21	35	16
U	4842	Specialized Freight Trucking	46,765	357	76.3	$6,098	28	11,819	25	33	17
C	2373	Highway, Street, and Bridge Construction	45,004	341	75.8	$20,661	66	16,821	26	34	18
M	3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	20,562	210	102.1	$4,704	14	12,691	11	50	19
C	2371	Utility System Construction	57,242	364	63.6	$15,641	58	16,204	36	31	20
T	4233	Lumber and Other Construction Materials Merchant Wholesalers	60,059	370	61.6	$5,628	20	5,829	38	30	21
S	8111	Automotive Repair and Maintenance	132,964	661	49.7	$6,083	23	8,095	51	17	21
S	5621	Waste Collection	21,310	190	89.2	$5,702	30	11,896	18	55	23
S	9221	Justice, Public Order, and Safety Activities	137,032	659	48.1	$7,309	26	6,105	55	18	23
M	3211	Sawmills and Wood Preservation	26,888	207	77.0	$6,471	30	12,680	24	52	25

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 160 NAICS Industry Groups ranked in the PI for 'Struck By/Against'.

Table 12. Top 25 NAICS Industry Groups by Prevention Index for "Fall on Same Level" Injuries, WA SF, 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	735	53.4	$17,616	89	13,384	5	4	1
S	5617	Services to Buildings and Dwellings	192,258	902	46.9	$10,173	52	10,353	10	3	2
U	4841	General Freight Trucking	89,627	511	57.0	$12,798	65	13,328	4	12	3
H	6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	48,764	332	68.1	$7,242	39	11,767	2	20	4
H	6231	Nursing Care Facilities	122,719	545	44.4	$9,137	41	7,684	14	10	5
A	1133	Logging	35,322	312	88.3	$13,751	64	22,656	1	24	6
S	7211	Traveler Accommodation	143,566	566	39.4	$7,750	46	9,438	17	8	6
C	2361	Residential Building Construction	186,292	686	36.8	$14,912	73	10,847	20	5	6
S	9221	Justice, Public Order, and Safety Activities	137,032	536	39.1	$10,560	35	6,063	18	11	9
C	2383	Building Finishing Contractors	160,942	569	35.4	$18,399	95	10,458	24	7	10
S	7221	Full-Service Restaurants	470,343	1,426	30.3	$6,097	37	6,024	35	1	11
H	6243	Vocational Rehabilitation Services	55,612	264	47.5	$4,426	23	5,866	9	29	12
H	6233	Community Care Facilities for the Elderly	96,742	351	36.3	$8,394	44	6,866	23	18	13
T	4471	Gasoline Stations	90,133	330	36.6	$9,627	60	8,501	21	21	14
C	2389	Other Specialty Trade Contractors	123,197	410	33.3	$16,825	77	9,310	30	15	15
T	4451	Grocery Stores	135,103	443	32.8	$9,917	49	6,701	31	14	15
T	4244	Grocery and Related Product Merchant Wholesalers	194,917	556	28.5	$11,926	59	5,939	38	9	17
U	4842	Specialized Freight Trucking	46,765	211	45.1	$10,715	62	11,684	13	35	18
S	7139	Other Amusement and Recreation Industries	119,277	343	28.8	$8,022	43	4,666	36	19	19
H	6239	Other Residential Care Facilities	52,453	191	36.4	$10,197	51	8,688	22	43	20
U	2213	Water, Sewage and Other Systems	109,958	310	28.2	$10,082	28	2,864	40	25	20
S	7223	Special Food Services	56,334	193	34.3	$7,369	45	8,802	27	42	22
S	5621	Waste Collection	21,310	104	48.8	$11,152	37	7,044	8	63	23
A	1121	Cattle Ranching and Farming	30,181	121	40.1	$10,406	43	8,031	16	56	24
H	6244	Child Day Care Services	102,059	277	27.1	$5,565	26	4,875	44	28	24
U	4884	Support Activities for Road Transportation	12,318	82	66.6	$8,726	43	11,242	3	79	32
S	7222	Limited-Service Eating Places	638,644	1,233	19.3	$5,711	32	3,226	80	2	32

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 131 NAICS Industry Groups ranked in the PI for 'Fall on Same Level'. Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 13. Top 25 NAICS Industry Groups by Prevention Index for "Fall From Elevation" Injuries, WA SF, 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	1,628	118.2	$27,754	125	37,528	1	2	1
C	2383	Building Finishing Contractors	160,942	1,627	101.1	$21,994	119	32,433	2	3	2
C	2361	Residential Building Construction	186,292	1,683	90.3	$20,093	104	30,265	5	1	3
A	1113	Fruit and Tree Nut Farming	166,286	1,509	90.7	$10,243	87	18,667	4	4	4
U	4841	General Freight Trucking	89,627	687	76.7	$14,698	66	23,011	7	7	5
C	2389	Other Specialty Trade Contractors	123,197	624	50.7	$21,441	97	15,458	10	8	6
S	5617	Services to Buildings and Dwellings	192,258	857	44.6	$13,048	73	11,960	12	6	6
U	4842	Specialized Freight Trucking	46,765	320	68.4	$12,311	54	18,266	8	13	8
A	1133	Logging	35,322	285	80.7	$13,361	68	22,107	6	16	9
C	2382	Building Equipment Contractors	276,061	1,128	40.9	$17,323	75	10,488	17	5	9
A	1151	Support Activities for Crop Production	68,594	296	43.2	$11,515	81	10,046	13	15	11
C	2362	Nonresidential Building Construction	108,886	430	39.5	$33,587	103	10,752	19	10	12
C	2371	Utility System Construction	57,242	238	41.6	$20,453	81	10,375	15	19	13
T	4244	Grocery and Related Product Merchant Wholesalers	194,917	519	26.6	$13,928	72	5,212	30	9	14
C	2373	Highway, Street, and Bridge Construction	45,004	185	41.1	$57,144	220	12,474	16	26	15
T	4233	Lumber and Other Construction Materials Merchant Wholesalers	60,059	176	29.3	$16,544	54	5,392	25	28	16
A	1119	Other Crop Farming	28,587	117	40.9	$17,410	91	9,369	17	39	17
S	5311	Lessors of Real Estate	78,228	185	23.6	$19,206	75	6,896	35	26	18
T	4441	Building Material and Supplies Dealers	99,576	224	22.5	$12,003	62	4,227	40	21	18
T	4442	Lawn and Garden Equipment and Supplies Stores	40,403	116	28.7	$9,209	51	5,051	26	40	20
S	8111	Automotive Repair and Maintenance	132,964	256	19.3	$13,118	63	4,890	49	18	21
S	5613	Employment Services	245,383	418	17.0	$9,108	61	3,985	57	11	22
U	2213	Water, Sewage and Other Systems	109,958	213	19.4	$11,125	29	2,475	46	23	23
A	1111	Oilseed and Grain Farming	17,793	80	45.0	$13,058	74	11,167	11	61	24
S	5313	Activities Related to Real Estate	110,988	200	18.0	$19,146	73	6,399	50	24	25
S	7112	Spectator Sports	7,065	68	96.3	$14,361	88	24,348	3	72	26

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 105 NAICS Industry Groups ranked in the PI for 'Fall From Elevation'. Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 14. Top 25 NAICS Industry Groups by Prevention Index for "Overexertion" Injuries, WA SF, 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	425	30.9	$9,134	46	5,042	2	3	1
C	2361	Residential Building Construction	186,292	474	25.4	$7,922	42	4,050	5	1	2
C	2383	Building Finishing Contractors	160,942	379	23.5	$8,453	42	3,559	9	4	3
U	4841	General Freight Trucking	89,627	218	24.3	$7,993	43	3,348	7	10	4
U	4842	Specialized Freight Trucking	46,765	152	32.5	$6,521	33	3,029	1	19	5
C	2389	Other Specialty Trade Contractors	123,197	270	21.9	$9,350	47	3,507	13	7	5
C	2382	Building Equipment Contractors	276,061	472	17.1	$8,428	34	2,232	20	2	7
S	5617	Services to Buildings and Dwellings	192,258	323	16.8	$6,582	41	2,425	22	5	8
C	2362	Nonresidential Building Construction	108,886	190	17.4	$7,983	32	1,610	19	14	9
M	3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	40,933	97	23.7	$6,184	19	2,548	8	29	10
T	4441	Building Material and Supplies Dealers	99,576	167	16.8	$6,617	32	2,141	22	15	10
S	8111	Automotive Repair and Maintenance	132,964	213	16.0	$7,393	32	2,383	26	11	10
M	3323	Architectural and Structural Metals Manufacturing	45,395	100	22.0	$7,223	33	2,177	12	28	13
T	4244	Grocery and Related Product Merchant Wholesalers	194,917	260	13.3	$6,914	32	1,634	36	8	14
S	5613	Employment Services	245,383	295	12.0	$5,867	35	1,388	41	6	15
H	6231	Nursing Care Facilities	122,719	167	13.6	$6,361	34	1,816	33	15	16
T	4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	31,599	74	23.4	$6,307	29	2,258	10	40	17
M	3219	Other Wood Product Manufacturing	48,441	90	18.6	$6,294	22	1,641	18	32	17
C	2371	Utility System Construction	57,242	97	16.9	$8,590	42	3,484	21	29	17
A	1133	Logging	35,322	77	21.8	$9,681	49	2,489	14	37	20
S	5621	Waste Collection	21,310	60	28.2	$7,820	40	2,669	3	51	21
T	4413	Automotive Parts, Accessories, and Tire Stores	61,547	91	14.8	$6,146	28	1,409	27	31	22
T	4421	Furniture Stores	38,995	73	18.7	$5,799	26	2,869	17	42	23
U	2213	Water, Sewage and Other Systems	109,958	138	12.6	$6,943	24	1,483	39	21	24
T	4451	Grocery Stores	135,103	156	11.5	$6,991	30	1,266	43	17	24
M	3315	Foundries	21,074	54	25.6	$6,321	21	2,782	4	57	27

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 72 NAICS Industry Groups ranked in the PI for 'Overexertion'.

Table 15. Top 25 NAICS Industry Groups by Prevention Index for "Caught In/Under/Between" Injuries, WA SF, 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
M	3219	Other Wood Product Manufacturing	48,441	198	40.9	$7,609	26	4,266	3	8	1
A	1133	Logging	35,322	150	42.5	$10,423	46	8,580	2	12	2
M	3323	Architectural and Structural Metals Manufacturing	45,395	157	34.6	$11,515	37	2,665	6	10	3
M	3211	Sawmills and Wood Preservation	26,888	125	46.5	$10,081	22	6,558	1	16	4
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	296	21.5	$10,026	43	2,279	18	2	5
C	2389	Other Specialty Trade Contractors	123,197	235	19.1	$10,946	42	2,405	22	5	6
S	5613	Employment Services	245,383	369	15.0	$4,483	33	1,803	26	1	6
T	4244	Grocery and Related Product Merchant Wholesalers	194,917	290	14.9	$8,198	39	2,208	27	3	8
C	2361	Residential Building Construction	186,292	275	14.8	$11,342	50	2,039	28	4	9
M	3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	20,562	77	37.4	$15,105	40	6,728	5	30	10
A	1151	Support Activities for Crop Production	68,594	128	18.7	$9,945	31	3,454	23	15	11
A	1121	Cattle Ranching and Farming	30,181	79	26.2	$14,224	50	5,830	10	29	12
T	4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	17,203	65	37.8	$10,226	40	3,113	4	36	13
M	3315	Foundries	21,074	66	31.3	$17,937	28	2,071	7	34	14
M	3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	40,933	90	22.0	$6,040	19	2,237	16	25	14
S	5617	Services to Buildings and Dwellings	192,258	229	11.9	$7,010	35	1,299	35	6	14
M	3222	Converted Paper Product Manufacturing	20,623	64	31.0	$14,284	25	2,414	8	37	17
C	2371	Utility System Construction	57,242	104	18.2	$12,849	43	1,799	24	21	17
M	3261	Plastics Product Manufacturing	38,300	81	21.1	$12,642	30	1,732	19	27	19
U	4841	General Freight Trucking	89,627	125	13.9	$8,898	33	3,125	31	16	20
C	2362	Nonresidential Building Construction	108,886	139	12.8	$27,869	66	1,106	34	13	20
C	2383	Building Finishing Contractors	160,942	189	11.7	$10,909	45	1,679	38	9	20
A	1112	Vegetable and Melon Farming	25,409	63	24.8	$12,032	43	2,318	12	38	23
M	3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	19,535	58	29.7	$11,271	48	6,395	9	42	24
U	4931	Warehousing and Storage	46,696	81	17.3	$8,024	40	1,850	25	27	25

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 56 NAICS Industry Groups ranked in the PI for 'Caught In/Under/Between'. Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 16. Top 25 NAICS Industry Groups by Prevention Index for "Motor Vehicle" Injuries, WA SF, 2002-2010.

NORA Sector	4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Rate Rank (All SF)	Count Rank (All SF)	Overall SF PI Rank
U	4841	General Freight Trucking	89,627	485	54.1	$16,802	95	19,356	4	1	1
U	4842	Specialized Freight Trucking	46,765	195	41.7	$12,888	65	11,040	7	4	2
S	5617	Services to Buildings and Dwellings	192,258	392	20.4	$10,044	46	4,275	13	2	3
A	1133	Logging	35,322	116	32.8	$36,999	137	11,045	8	12	4
C	2389	Other Specialty Trade Contractors	123,197	172	14.0	$27,467	114	4,860	16	5	5
U	4852	Interurban and Rural Bus Transportation	13,125	97	73.9	$9,778	39	12,326	2	21	6
C	2382	Building Equipment Contractors	276,061	281	10.2	$16,395	65	2,767	21	3	7
U	2213	Water, Sewage and Other Systems	109,958	151	13.7	$11,890	29	1,785	17	9	8
S	9221	Justice, Public Order, and Safety Activities	137,032	171	12.5	$11,091	21	1,138	20	6	8
C	2373	Highway, Street, and Bridge Construction	45,004	110	24.4	$49,632	190	8,729	12	15	10
T	4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	43,144	106	24.6	$11,963	48	6,102	11	17	11
U	4922	Local Messengers and Local Delivery	9,428	70	74.2	$11,048	69	14,388	1	30	12
C	2371	Utility System Construction	57,242	105	18.3	$16,124	75	4,227	14	19	13
C	2383	Building Finishing Contractors	160,942	148	9.2	$12,878	75	2,522	24	10	14
T	4413	Automotive Parts, Accessories, and Tire Stores	61,547	102	16.6	$12,351	52	3,963	15	20	15
T	4411	Automobile Dealers	203,980	158	7.7	$9,708	36	1,669	28	7	15
U	4859	Other Transit and Ground Passenger Transportation	14,452	68	47.1	$14,440	65	9,047	6	31	17
U	4884	Support Activities for Road Transportation	12,318	65	52.8	$21,065	87	14,913	5	33	18
S	5321	Automotive Equipment Rental and Leasing	24,882	75	30.1	$6,500	43	3,113	9	29	18
U	4921	Couriers and Express Delivery Services	9,336	62	66.4	$18,432	109	21,547	3	36	20
C	2381	Foundation, Structure, and Building Exterior Contractors	137,685	111	8.1	$19,723	82	2,291	26	14	21
S	9211	Executive, Legislative, and Other General Government Support	174,326	116	6.7	$10,445	32	1,196	30	12	22
T	4244	Grocery and Related Product Merchant Wholesalers	194,917	124	6.4	$17,603	71	1,720	31	11	22
S	5616	Investigation and Security Services	69,344	88	12.7	$7,736	31	2,998	19	24	24
H	6241	Individual and Family Services	92,488	88	9.5	$12,662	51	1,868	22	24	25

NORA Sector key: A = Agriculture, Forestry & Fishing; C = Construction; M = Manufacturing; T = Wholesale & Retail Trade; U = Transportation, Warehousing & Utilities; S= Services; H = Healthcare & Social Assistance.

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE). There were 48 NAICS Industry Groups ranked in the PI for 'Motor Vehicle'.

Table 17. Prevention Index by NORA Sector for All Injury Types, WA SF, 2002-2010.

NORA Sector (# Industry Groups)	FTE	% of SF Workforce	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Sector Rate Rank	Sector Count Rank	Sector PI Rank
All (262)	13,994,560	-	267,420	191.1	$9,532	43	37,926	-	-	-
Construction (10)	1,126,376	8.0	53,781	477.5	$14,828	69	116,759	1	2	1
Transportation, Warehousing & Utilities (23)	529,193	3.8	18,588	351.3	$9,586	42	65,310	2	6	2
Manufacturing (67)	1,056,569	7.5	25,259	239.1	$9,786	36	42,640	4	4	2
Wholesale & Retail Trade (46)	2,625,104	18.8	46,045	175.4	$9,001	39	32,762	5	3	2
Services (84)	6,786,626	48.5	85,985	126.7	$8,173	38	23,326	7	1	2
Agriculture, Forestry & Fishing (15)	426,917	3.1	12,364	289.6	$9,785	53	58,932	3	7	6
Healthcare & Social Assistance (17)	1,422,208	10.2	24,762	174.1	$8,043	39	34,190	6	5	7

State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 18. Prevention Index for all Industry Groups within the NORA Agriculture, Forestry & Fishing Sector in WA SF, 2002 - 2010.

4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Within Sector Rate Rank	Within Sector Count Rank	Within Sector PI Rank	Overall PI Rank
1133	Logging	35,322	2,642	748.0	$14,347	66	204,306	1	2	1	7
1153	Support Activities for Forestry	5,306	238	448.5	$7,539	51	107,470	2	9	2	74
1121	Cattle Ranching and Farming	30,181	983	325.7	$9,698	42	62,496	7	4	2	37
1113	Fruit and Tree Nut Farming	166,286	3,848	231.4	$8,360	57	41,738	12	1	4	35
1151	Support Activities for Crop Production	68,594	1,657	241.6	$8,514	44	44,507	11	3	5	43
1152	Support Activities for Animal Production	4,125	174	421.8	$13,200	68	107,761	3	11	5	95
1123	Poultry and Egg Production	2,812	118	419.7	$10,511	47	59,061	4	13	7	114
1141	Fishing	4,924	171	347.3	$4,485	38	54,743	6	12	8	118
1111	Oilseed and Grain Farming	17,793	453	254.6	$10,636	48	47,528	10	8	8	91
1129	Other Animal Production	6,168	177	286.9	$10,890	66	59,472	9	10	10	136
1114	Greenhouse, Nursery, and Floriculture Production	25,219	567	224.8	$8,227	40	34,657	13	6	10	101
1119	Other Crop Farming	28,587	633	221.4	$11,315	52	41,882	14	5	10	91
1132	Forest Nurseries and Gathering of Forest Products	1,151	47	408.5	$9,785	49	112,858	5	15	13	159
1125	Aquaculture	3,414	108	316.4	$5,115	27	39,557	8	14	14	149
1112	Vegetable and Melon Farming	25,409	495	194.8	$10,182	53	39,656	15	7	14	134

There were 15 industries in the Agriculture, Forestry, & Fishing Sector that met the claim count and FTE inclusion criteria (≥45 compensable WC claims over the period of the study and ≥100 FTE per year); the overall PI Rank is of all 262 industry groups (all sectors) that met the inclusion criteria. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 19. Prevention Index for all Industry Groups within the NORA Construction Sector in WA SF, 2002 - 2010.

4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Within Sector Rate Rank	Within Sector Count Rank	Within Sector PI Rank	Overall PI Rank
2381	Foundation, Structure, and Building Exterior Contractors	137,685	9,312	676.3	$13,196	68	161,159	1	3	1	1
2361	Residential Building Construction	186,292	9,792	525.6	$11,280	57	129,804	2	2	1	2
2382	Building Equipment Contractors	276,061	12,495	452.6	$17,782	77	105,487	4	1	3	4
2383	Building Finishing Contractors	160,942	8,281	514.5	$13,697	71	136,950	3	4	4	3
2389	Other Specialty Trade Contractors	123,197	5,456	442.9	$13,214	62	111,986	5	5	5	8
2373	Highway, Street, and Bridge Construction	45,004	1,880	417.7	$30,101	108	109,069	6	8	6	14
2371	Utility System Construction	57,242	2,147	375.1	$19,443	78	96,020	7	7	6	16
2362	Nonresidential Building Construction	108,886	3,580	328.8	$25,025	94	72,752	9	6	8	17
2379	Other Heavy and Civil Engineering Construction	15,018	543	361.6	$22,695	96	77,910	8	9	9	55
2372	Land Subdivision	12,860	223	173.4	$6,282	32	36,986	10	10	10	184

There were 10 industries in the Construction Sector that met the claim count and FTE inclusion criteria (≥45 compensable WC claims over the period of the study and ≥100 FTE per year); the overall PI Rank is of all 262 industry groups (all sectors) that met the inclusion criteria. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 20. Prevention Index for Top 25 Industry Groups within the NORA Manufacturing Sector in WA SF, 2002 - 2010.

4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Within Sector Rate Rank	Within Sector Count Rank	Within Sector PI Rank	Overall PI Rank
3219	Other Wood Product Manufacturing	48,441	2,032	419.5	$8,869	30	74,729	7	1	1	12
3211	Sawmills and Wood Preservation	26,888	1,131	420.6	$9,902	34	83,822	6	4	2	19
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	20,562	850	413.4	$6,739	26	65,930	8	8	3	26
3273	Cement and Concrete Product Manufacturing	23,024	868	377.0	$15,007	53	58,311	11	6	4	29
3323	Architectural and Structural Metals Manufacturing	45,395	1,572	346.3	$10,914	41	57,173	16	2	5	22
3315	Foundries	21,074	840	398.6	$10,869	30	58,397	10	9	6	32
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	40,933	1,347	329.1	$7,922	33	55,720	17	3	7	26
3116	Animal Slaughtering and Processing	20,323	755	371.5	$9,846	39	65,866	13	11	8	38
3117	Seafood Product Preparation and Packaging	27,842	866	311.0	$5,802	27	51,484	21	7	9	40
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	19,535	628	321.5	$11,806	55	69,855	18	15	10	56
3366	Ship and Boat Building	19,020	594	312.3	$9,038	29	56,783	20	17	11	64
3261	Plastics Product Manufacturing	38,300	930	242.8	$9,710	39	42,958	33	5	12	58
3324	Boiler, Tank, and Shipping Container Manufacturing	20,623	605	293.4	$10,928	42	69,751	9	32	13	85
3222	Converted Paper Product Manufacturing	5,504	223	405.1	$11,114	37	45,388	25	16	13	66
3372	Office Furniture (including Fixtures) Manufacturing	10,231	323	315.7	$15,413	53	71,780	19	24	15	87
3115	Dairy Product Manufacturing	2,226	136	611.0	$8,427	39	136,771	2	43	16	88
3362	Motor Vehicle Body and Trailer Manufacturing	4,191	179	427.1	$10,035	36	94,485	5	41	17	90
3311	Iron and Steel Mills and Ferroalloy Manufacturing	2,631	133	505.6	$9,308	39	93,673	3	44	18	100
3329	Other Fabricated Metal Product Manufacturing	22,801	573	251.3	$9,743	42	46,803	30	18	19	83
3279	Other Nonmetallic Mineral Product Manufacturing	8,517	259	304.1	$7,215	34	49,609	24	25	20	96
3365	Railroad Rolling Stock Manufacturing	1,538	97	630.5	$12,618	45	205,034	1	49	21	107
3113	Sugar and Confectionery Product Manufacturing	5,461	195	357.1	$8,899	38	73,679	14	37	22	104
3121	Beverage Manufacturing	38,996	819	210.0	$8,391	38	33,013	41	10	22	80
3118	Bakeries and Tortilla Manufacturing	20,163	477	236.6	$7,514	34	48,708	35	19	24	102
3312	Steel Product Manufacturing from Purchased Steel	1,998	89	445.4	$15,724	57	103,368	4	51	25	125

There were 67 industries in the Manufacturing Sector that met the claim count and FTE inclusion criteria (≥45 compensable WC claims over the period of the study and ≥100 FTE per year); the overall PI Rank is of all 262 industry groups (all sectors) that met the inclusion criteria. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 21. Prevention Index for Top 25 Industry Groups within the NORA Wholesale & Retail Trade Sector in WA SF, 2002 - 2010.

4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Within Sector Rate Rank	Within Sector Count Rank	Within Sector PI Rank	Overall PI Rank
4244	Grocery and Related Product Merchant Wholesalers	194,917	5,187	266.1	$9,441	43	48,304	7	1	1	21
4233	Lumber and Other Construction Materials Merchant Wholesalers	60,059	1,637	272.6	$9,464	34	41,042	4	9	2	34
4441	Building Material and Supplies Dealers	99,576	2,636	264.7	$9,209	38	51,958	8	5	2	30
4451	Grocery Stores	135,103	3,399	251.6	$6,778	32	39,094	10	3	2	28
4421	Furniture Stores	38,995	1,027	263.4	$5,624	33	46,589	9	12	5	47
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	31,599	853	269.9	$7,209	31	36,419	6	17	6	50
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	43,144	1,059	245.5	$9,814	34	48,917	12	11	6	53
4413	Automotive Parts, Accessories, and Tire Stores	61,547	1,467	238.4	$8,629	35	48,283	13	10	6	47
4442	Lawn and Garden Equipment and Supplies Stores	40,403	1,015	251.2	$7,528	38	46,066	11	13	9	51
4539	Other Miscellaneous Store Retailers	193,377	3,410	176.3	$9,941	40	34,708	26	2	10	60
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	17,203	611	355.2	$11,812	38	67,080	1	28	11	54
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	96,908	1,916	197.7	$9,703	45	40,179	22	7	11	62
4543	Direct Selling Establishments	42,236	926	219.2	$11,147	48	49,557	16	15	13	70
4471	Gasoline Stations	90,133	1,745	193.6	$9,256	50	40,710	24	8	14	69
4529	Other General Merchandise Stores	34,795	811	233.1	$7,539	42	43,487	14	19	15	72
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	132,914	2,255	169.7	$12,572	40	28,682	27	6	15	71
4411	Automobile Dealers	203,980	3,215	157.6	$10,413	40	34,752	29	4	15	72
4239	Miscellaneous Durable Goods Merchant Wholesalers	48,734	970	199.0	$7,327	31	29,831	21	14	18	81
4245	Farm Product Raw Material Merchant Wholesalers	8,935	252	282.0	$9,500	44	53,847	3	36	19	104
4247	Petroleum and Petroleum Products Merchant Wholesalers	9,755	264	270.6	$15,291	62	59,285	5	34	19	107
4533	Used Merchandise Stores	36,170	737	203.8	$6,492	32	33,465	18	21	19	88
4422	Home Furnishings Stores	36,640	743	202.8	$9,344	45	42,502	20	20	22	91
4412	Other Motor Vehicle Dealers	34,543	703	203.5	$10,488	35	42,271	19	23	23	96
4542	Vending Machine Operators	4,077	121	296.8	$9,677	54	80,034	2	42	24	151
4521	Department Stores	16,541	376	227.3	$7,225	43	46,249	15	32	25	122

There were 46 industries in the Wholesale & Retail Trade Sector that met the claim count and FTE inclusion criteria (≥45 compensable WC claims over the period of the study and ≥100 FTE per year); the overall PI Rank is of all 262 industry groups (all sectors) that met the inclusion criteria. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 22. Prevention Index for all Industry Groups within the NORA Transportation, Warehousing & Utilities Sector in WA SF, 2002 - 2010.

4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Within Sector Rate Rank	Within Sector Count Rank	Within Sector PI Rank	Overall PI Rank
4841	General Freight Trucking	89,627	4,985	556.2	$10,779	55	137,877	2	1	1	4
4842	Specialized Freight Trucking	46,765	2,685	574.2	$9,130	49	116,432	1	3	2	9
4884	Support Activities for Road Transportation	12,318	677	549.6	$8,304	46	114,947	3	8	3	30
4811	Scheduled Air Transportation	14,958	717	479.3	$7,538	38	64,346	7	6	4	33
2213	Water, Sewage and Other Systems	109,958	3,060	278.3	$9,755	26	30,818	13	2	5	24
4852	Interurban and Rural Bus Transportation	13,125	655	499.1	$8,588	39	75,599	6	9	5	36
4922	Local Messengers and Local Delivery	9,428	477	506.0	$9,450	56	112,232	5	10	5	45
4931	Warehousing and Storage	46,696	1,185	253.8	$10,792	44	44,680	14	4	8	46
4881	Support Activities for Air Transportation	32,594	814	249.7	$6,464	33	36,662	15	5	9	62
4882	Support Activities for Rail Transportation	2,498	128	512.5	$16,620	64	115,055	4	17	10	99
4921	Couriers and Express Delivery Services	9,336	371	397.4	$6,245	35	75,144	8	13	10	67
4859	Other Transit and Ground Passenger Transportation	14,452	455	314.8	$10,910	41	65,831	12	11	12	77
2211	Electric Power Generation, Transmission and Distribution	28,334	690	243.5	$11,941	36	27,226	16	7	12	79
4889	Other Support Activities for Transportation	4,764	164	344.2	$6,535	35	64,685	10	16	14	129
4855	Charter Bus Industry	3,735	123	329.4	$6,471	45	55,959	11	18	15	139
4911	Postal Service	2,198	79	359.4	$6,313	16	38,338	9	21	16	147
4853	Taxi and Limousine Service	8,167	167	204.5	$12,724	59	45,279	18	15	17	180
4883	Support Activities for Water Transportation	15,981	316	197.7	$10,715	43	34,968	19	14	17	160
4885	Freight Transportation Arrangement	34,053	426	125.1	$8,388	43	24,731	22	12	19	185
2212	Natural Gas Distribution	4,812	99	205.7	$7,824	32	14,980	17	20	20	195
4851	Urban Transit Systems	5,370	106	197.4	$7,242	42	22,685	20	19	21	204
4854	School and Employee Bus Transportation	3,112	60	192.8	$15,733	78	44,031	21	22	22	222
4831	Deep Sea, Coastal, and Great Lakes Water Transportation	7,885	45	57.1	$8,311	30	7,492	23	23	23	259

There were 23 industries in the Transportation, Warehousing & Utilities Sector that met the claim count and FTE inclusion criteria (≥45 compensable WC claims over the period of the study and ≥100 FTE per year); the overall PI Rank is of all 262 industry groups (all sectors) that met the inclusion criteria. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 23. Prevention Index for Top 25 Industry Groups within the NORA Services Sector in WA SF, 2002 - 2010.

4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Within Sector Rate Rank	Within Sector Count Rank	Within Sector PI Rank	Overall PI Rank
5617	Services to Buildings and Dwellings	192,258	7,860	408.8	$7,489	43	82,849	4	1	1	10
9221	Justice, Public Order, and Safety Activities	137,032	4,149	302.8	$9,360	30	37,377	8	5	2	18
8111	Automotive Repair and Maintenance	132,964	3,730	280.5	$10,053	45	65,058	9	6	3	20
5613	Employment Services	245,383	6,118	249.3	$5,687	42	44,743	11	4	3	25
5621	Waste Collection	21,310	1,316	617.6	$7,665	34	90,504	1	18	5	12
5311	Lessors of Real Estate	78,228	1,875	239.7	$9,761	46	49,598	12	10	6	42
7211	Traveler Accommodation	143,566	3,067	213.6	$6,443	38	42,793	17	7	7	43
9211	Executive, Legislative, and Other General Government Support	174,326	3,050	175.0	$10,214	36	27,967	22	8	8	65
7139	Other Amusement and Recreation Industries	119,277	2,016	169.0	$7,171	33	26,062	25	9	9	76
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	21,331	750	351.6	$9,449	43	72,642	6	29	10	41
7223	Special Food Services	56,334	1,223	217.1	$7,093	37	46,375	15	20	10	61
8114	Personal and Household Goods Repair and Maintenance	20,813	703	337.8	$12,432	57	86,675	7	31	12	49
7221	Full-Service Restaurants	470,343	7,023	149.3	$4,862	24	24,260	36	2	12	68
5313	Activities Related to Real Estate	110,988	1,750	157.7	$10,301	44	39,096	29	11	14	81
5629	Remediation and Other Waste Management Services	14,777	565	382.4	$16,984	72	87,876	5	36	15	51
5622	Waste Treatment and Disposal	10,944	449	410.3	$8,007	31	63,855	3	43	16	58
7222	Limited-Service Eating Places	638,644	6,837	107.1	$5,194	27	14,987	45	3	17	84
5321	Automotive Equipment Rental and Leasing	24,882	568	228.3	$7,687	38	36,441	14	35	18	96
8129	Other Personal Services	90,669	1,361	150.1	$7,029	39	27,342	35	15	19	94
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	32,568	661	203.0	$12,772	45	40,398	19	33	20	103
7112	Spectator Sports	7,065	347	491.2	$9,762	63	76,338	2	52	21	56
8123	Drycleaning and Laundry Services	26,516	554	208.9	$9,175	46	45,547	18	37	22	112
7224	Drinking Places (Alcoholic Beverages)	67,862	1,025	151.0	$7,103	38	31,114	34	22	23	107
5611	Office Administrative Services	51,495	805	156.3	$7,706	40	31,444	30	27	24	120
8134	Civic and Social Organizations	53,445	829	155.1	$8,723	43	32,109	31	26	24	117

There were 84 industries in the Services (except Public Safety) Sector that met the claim count and FTE inclusion criteria (≥45 compensable WC claims over the period of the study and ≥100 FTE per year); the overall PI Rank is of all 262 industry groups (all sectors) that met the inclusion criteria. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 24. Prevention Index for all Industry Groups within the NORA Healthcare & Social Assistance Sector in WA SF, 2002 - 2010.

4-digit NAICS (Industry Group)	NAICS Industry Group Description	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median days TL	Severity: TL	Within Sector Rate Rank	Within Sector Count Rank	Within Sector PI Rank	Overall PI Rank
6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	48,764	3,251	666.7	$6,354	33	115,168	1	2	1	6
6231	Nursing Care Facilities	122,719	4,437	361.6	$6,649	33	63,675	3	1	2	11
6243	Vocational Rehabilitation Services	55,612	2,179	391.8	$5,206	28	60,168	2	5	3	15
6233	Community Care Facilities for the Elderly	96,742	2,740	283.2	$7,686	39	56,851	4	3	3	23
6239	Other Residential Care Facilities	52,453	1,361	259.5	$7,037	35	56,682	6	7	5	39
6216	Home Health Care Services	166,139	2,296	138.2	$12,214	81	37,685	9	4	5	86
6241	Individual and Family Services	92,488	1,622	175.4	$8,414	46	38,638	8	6	7	77
6221	General Medical and Surgical Hospitals	21,644	600	277.2	$6,763	30	37,603	5	13	8	75
6219	Other Ambulatory Health Care Services	22,921	456	198.9	$8,590	38	36,124	7	14	9	126
6244	Child Day Care Services	102,059	1,163	114.0	$5,510	25	19,498	12	9	9	134
6214	Outpatient Care Centers	123,894	1,106	89.3	$9,226	36	15,596	14	10	11	140
6211	Offices of Physicians	233,103	1,319	56.6	$12,217	36	10,559	17	8	12	160
6242	Community Food and Housing, and Emergency and Other Relief Services	18,817	254	135.0	$5,807	35	24,986	10	16	13	192
6213	Offices of Other Health Practitioners	101,095	786	77.7	$15,054	58	18,355	15	11	13	168
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals	13,316	167	125.4	$8,601	49	26,949	11	17	15	221
6215	Medical and Diagnostic Laboratories	28,288	290	102.5	$12,726	43	21,559	13	15	15	199
6212	Offices of Dentists	121,408	724	59.6	$20,947	79	17,945	16	12	15	181

There were 17 industries in the Healthcare & Social Assistance Sector that met the claim count and FTE inclusion criteria (≥45 compensable WC claims over the period of the study and ≥100 FTE per year); the overall PI Rank is of all 262 industry groups (all sectors) that met the inclusion criteria. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE).

Table 25. Top 25 Risk Classes by Prevention Index for WA SF Compensable Claims, "All Injury Types", 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
0510	Wood Frame Building Construction	98,996	9,181	927.4	$8,799	54	222,107	$47,103,969	13	2	17	19	1	3
7201	State Patient or Health Care Personnel, N.O.C.	31,685	3,810	1,202.5	$5,531	31	207,786	$40,577,440	6	12	19	28	2	5
0507	Roofing Work - Construction and Repair	23,645	3,193	1,350.4	$10,579	82	358,944	$83,403,178	5	21	5	4	3	1
1102	Trucking, N.O.C.	81,173	5,876	723.9	$10,979	60	177,920	$42,772,011	27	3	30	26	4	6
0516	Carpentry, N.O.C.	51,082	3,558	696.5	$12,006	76	198,603	$44,755,075	28	15	21	23	5	7
5001	Logging Operations, N.O.C.	6,287	1,739	2,766.2	$11,605	63	836,357	$209,888,217	1	44	1	1	6	2
0101	Excavation and Grading, N.O.C.	61,182	3,855	630.1	$12,792	81	161,191	$44,838,276	36	11	37	22	7	11
0540	Wallboard Installation - Discounted Rate	9,614	1,506	1,566.5	$15,606	125	546,613	$124,058,077	2	52	3	2	8	4
0518	Non Wood Frame Building Construction	53,485	3,300	617.0	$15,742	145	163,157	$48,630,991	37	18	36	18	9	12
7117	Temporary Help - Machine Operation	9,120	1,396	1,530.6	$5,109	35	266,836	$43,358,452	3	59	9	25	10	8
0504	Painting: Building and Structures - Exterior Work	22,910	1,689	737.2	$12,231	88	235,457	$52,070,548	25	45	13	14	11	9
6907	Moving and Storage Companies	12,737	1,357	1,065.4	$5,228	34	186,001	$33,976,790	9	62	25	39	12	16
4305	Solid Waste Collection Services/Landfill Operations	18,235	1,502	823.7	$7,146	34	123,528	$30,394,689	18	53	47	48	12	20
1101	Parcel and Package Delivery Service	76,883	3,975	517.0	$8,003	42	102,915	$20,823,012	63	10	58	75	14	30
0217	Concrete Work - Foundations and Sidewalks	37,577	2,230	593.5	$8,178	57	143,881	$31,265,025	43	34	41	43	15	18
0306	Plumbing	61,227	3,209	524.1	$11,341	58	117,746	$30,945,222	60	20	48	45	16	23
0307	HVAC Systems, Installation, Service and Repair	51,501	2,751	534.2	$8,850	46	107,798	$27,074,648	54	27	55	53	17	26
0302	Masonry Construction	13,835	1,251	904.2	$12,070	82	270,465	$68,229,288	15	67	8	8	18	10
0511	Glass Installation: Buildings	12,686	1,035	815.8	$10,178	48	168,716	$39,534,926	20	72	32	29	19	17
7118	Temporary Help - Construction	7,225	866	1,198.6	$6,323	44	260,450	$46,398,863	7	86	10	21	20	13
2903	Wood Products Manufacturing, N.O.C.	55,914	2,840	507.9	$7,000	28	87,155	$18,043,188	67	26	82	95	20	44
0502	Floor Covering Installation	14,098	958	679.5	$9,505	61	183,930	$36,107,875	30	76	26	34	22	20
5307	State Government - All Other Employees, N.O.C.	99,738	3,999	400.9	$10,146	38	72,155	$17,407,574	99	9	111	101	23	59
0301	Landscape Construction and Renovation	38,604	1,907	494.0	$6,241	39	91,205	$18,130,898	70	41	74	93	24	47
0512	Insulation Installation and Asbestos Abatement Work	12,668	867	684.4	$9,733	67	179,242	$43,860,529	29	85	29	24	25	22
7119	Temporary Help - Vehicle Operation	2,608	356	1,365.0	$4,370	30	228,570	$33,228,438	4	157	15	41	56	33

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 26. Top 25 Risk Classes by Prevention Index for WA SF Compensable Claims for "Work-related Musculoskeletal Disorders", 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
7201	State Patient or Health Care Personnel, N.O.C.	31,685	1,318	416.0	$5,561	34	71,324	$13,974,943	9	18	36	45	1	9
0510	Wood Frame Building Construction	98,996	2,710	273.7	$12,547	83	88,572	$16,998,145	26	4	25	26	2	4
6108	Nursing Homes	155,791	3,525	226.3	$6,464	35	43,743	$7,396,346	38	2	82	101	3	35
1102	Trucking, N.O.C.	81,173	1,940	239.0	$13,820	77	65,038	$14,240,492	33	8	41	42	4	13
0507	Roofing Work - Construction and Repair	23,645	976	412.8	$13,097	103	124,459	$25,555,209	10	33	8	10	5	2
0516	Carpentry, N.O.C.	51,082	1,246	243.9	$15,093	97	85,637	$17,581,932	32	23	27	22	6	8
0540	Wallboard Installation - Discounted Rate	9,614	650	676.1	$28,527	211	306,036	$65,778,148	1	55	2	1	7	1
6907	Moving and Storage Companies	12,737	657	515.8	$5,817	40	102,922	$17,814,389	5	53	14	21	8	6
0518	Non Wood Frame Building Construction	53,485	1,242	232.2	$24,555	205	81,344	$22,004,010	35	24	30	12	9	7
1101	Parcel and Package Delivery Service	76,883	1,645	214.0	$9,994	48	46,739	$8,725,308	48	11	72	79	9	33
6904	County and City Fire Fighters - Salaried	38,087	987	259.1	$7,454	26	18,928	$6,210,538	28	32	180	125	11	88
2105	Beer, Wine and Soft Drink Distributors	28,217	811	287.4	$6,050	33	43,656	$8,932,193	24	38	83	75	12	34
4305	Solid Waste Collection Services/Landfill Operations	18,235	676	370.7	$9,169	39	64,260	$15,153,823	13	50	42	37	13	16
0306	Plumbing	61,227	1,320	215.6	$15,254	75	61,384	$14,810,912	47	17	45	38	14	17
0302	Masonry Construction	13,835	577	417.0	$18,553	147	160,354	$38,006,080	8	58	5	4	15	3
0217	Concrete Work - Foundations and Sidewalks	37,577	921	245.1	$14,711	103	74,467	$15,833,478	31	35	33	31	15	15
7117	Temporary Help - Machine Operation	9,120	522	572.3	$6,663	56	143,048	$19,832,014	3	64	6	18	17	5
0307	HVAC Systems, Installation, Service and Repair	51,501	1,130	219.4	$11,447	62	55,643	$12,660,267	43	27	52	49	18	24
5307	State Government - All Other Employees, N.O.C.	99,738	1,875	188.0	$11,858	44	39,531	$8,632,771	72	9	97	83	19	44
0502	Floor Covering Installation	14,098	495	351.1	$12,152	88	109,196	$21,066,452	16	67	10	15	20	9
1501	County and Tribal Councils-All Other Employees, N.O.C.	56,346	1,116	198.1	$9,603	38	33,180	$8,164,190	58	28	123	90	21	56
0511	Glass Installation: Buildings	12,686	450	354.7	$13,105	63	89,185	$20,548,343	15	74	24	16	22	14
0101	Excavation and Grading, N.O.C.	61,182	1,184	193.5	$18,596	116	61,464	$15,685,052	67	25	44	32	23	21
2102	Warehouses, N.O.C., Grocery Dist, & Recycle Centers	33,352	713	213.8	$6,278	34	33,938	$6,738,155	49	47	118	114	24	71
0301	Landscape Construction and Renovation	38,604	769	199.2	$8,189	55	48,544	$8,876,086	55	41	64	77	24	38

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 27. Top 25 Risk Classes by Prevention Index for WA SF Compensable Claims for "Struck By/Against", 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
0510	Wood Frame Building Construction	98,996	2,495	252.0	$5,120	28	34,452	$8,273,423	6	2	9	14	1	2
5001	Logging Operations, N.O.C.	6,287	665	1057.8	$9,216	55	351,876	$100,158,299	1	10	1	1	2	1
0507	Roofing Work - Construction and Repair	23,645	516	218.2	$3,478	24	28,232	$5,787,743	9	13	20	30	3	6
0516	Carpentry, N.O.C.	51,082	774	151.5	$6,966	40	26,300	$5,803,872	21	5	23	29	4	8
2903	Wood Products Manufacturing, N.O.C.	55,914	762	136.3	$4,894	16	15,100	$3,627,075	26	7	60	64	5	17
0101	Excavation and Grading, N.O.C.	61,182	814	133.0	$8,050	54	29,564	$9,111,519	30	4	16	9	6	3
7117	Temporary Help - Machine Operation	9,120	342	375.0	$3,538	27	36,579	$7,107,010	3	34	7	18	7	4
0518	Non Wood Frame Building Construction	53,485	609	113.9	$7,821	64	22,621	$7,902,625	40	11	31	16	8	9
0217	Concrete Work - Foundations and Sidewalks	37,577	450	119.8	$4,583	31	20,175	$4,548,943	37	18	35	49	9	13
0540	Wallboard Installation - Discounted Rate	9,614	235	244.4	$6,840	43	49,592	$12,403,658	7	51	5	4	10	5
7118	Temporary Help - Construction	7,225	221	305.9	$3,613	32	52,123	$9,077,591	4	55	4	10	11	7
5208	Iron Works - Shop	14,311	240	167.7	$5,448	26	19,122	$4,991,075	15	50	40	42	12	15
0511	Glass Installation: Buildings	12,686	224	176.6	$6,460	22	24,098	$6,199,512	14	53	25	22	13	10
2907	Cabinet and Countertop Manufacturing - Wood	36,645	412	112.4	$5,208	21	9,073	$2,355,612	42	25	94	94	13	47
0513	Interior Finish Carpentry	46,912	476	101.5	$4,850	21	9,955	$2,810,424	52	15	84	79	13	40
7114	Temporary Help - Assembly	24,315	310	127.5	$2,859	27	14,003	$2,636,881	31	38	63	85	16	37
1102	Trucking, N.O.C.	81,173	709	87.3	$6,773	37	17,629	$4,645,463	65	8	49	47	17	22
6907	Moving and Storage Companies	12,737	203	159.4	$3,796	26	21,713	$3,935,317	18	60	33	54	18	19
0302	Masonry Construction	13,835	202	146.0	$6,439	41	23,073	$6,397,008	22	61	28	21	19	11
0307	HVAC Systems, Installation, Service and Repair	51,501	446	86.6	$5,849	29	12,715	$3,700,575	66	19	71	60	20	36
0306	Plumbing	61,227	495	80.8	$6,706	33	13,724	$3,619,269	74	14	66	66	21	39
1002	Sawmills and Automated Shake and Shingle Mills	26,280	279	106.2	$7,217	29	17,319	$5,287,535	48	42	52	39	22	26
0301	Landscape Construction and Renovation	38,604	361	93.5	$3,175	20	8,788	$1,962,612	61	31	96	110	23	62
4305	Solid Waste Collection Services/Landfill Operations	18,235	211	115.7	$4,862	32	17,713	$3,702,332	39	57	48	59	24	33
3404	Metal Goods Manufacturing, N.O.C. - Under 9 Gauge	59,552	471	79.1	$5,215	22	8,419	$2,616,172	80	16	102	86	24	56
7119	Temporary Help - Vehicle Operation	2,608	71	272.2	$2,940	20	31,004	$5,714,051	5	133	13	31	52	27
4803	Orchards	211,564	827	39.1	$3,675	26	4,922	$1,047,878	153	3	144	158	62	112
0517	Factory Built Home Set-Up By Contractor/Manufacturer	1,134	46	405.5	$5,181	35	66,746	$17,559,829	2	169	2	2	66	24
3905	Restaurants and Taverns	958,752	2,640	27.5	$2,041	14	2,417	$537,800	186	1	196	208	80	158

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 28. Top 25 Risk Classes by Prevention Index for WA SF Compensable Claims for "Fall on Same Level", 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
7201	State Patient or Health Care Personnel, N.O.C.	31,685	375	118.4	$6,427	31	18,133	$3,638,958	4	16	15	18	1	4
1102	Trucking, N.O.C.	81,173	580	71.5	$11,695	71	19,130	$4,062,034	14	7	13	12	2	3
0510	Wood Frame Building Construction	98,996	604	61.0	$10,212	76	17,038	$3,438,419	22	4	17	20	3	5
0507	Roofing Work - Construction and Repair	23,645	300	126.9	$12,868	121	37,552	$8,375,088	3	25	3	3	4	1
4905	Motels and Hotels	91,453	557	60.9	$7,067	46	13,712	$2,328,967	23	9	24	37	5	9
5001	Logging Operations, N.O.C.	6,287	225	357.9	$6,856	50	92,182	$19,991,592	1	35	1	1	6	2
7103	State Government - Law Enforcement Officers	52,131	323	62.0	$10,390	36	10,725	$3,169,201	20	20	43	22	7	10
6108	Nursing Homes	155,791	747	47.9	$8,152	39	8,687	$1,692,659	40	2	69	81	8	30
6602	Janitorial Service	84,008	451	53.7	$8,346	57	12,553	$2,032,664	29	14	32	53	9	15
5307	State Government - All Other Employees, N.O.C.	99,738	457	45.8	$10,960	41	7,843	$2,044,265	45	12	80	52	10	29
0518	Non Wood Frame Building Construction	53,485	278	52.0	$18,365	174	17,505	$4,614,419	34	26	16	9	11	8
1101	Parcel and Package Delivery Service	76,883	352	45.8	$8,506	55	10,854	$2,262,034	46	17	40	40	12	22
6705	Ski Facilities	5,208	108	207.4	$9,361	38	22,842	$5,616,502	2	63	7	8	13	7
6104	Schools, Churches and Day Care - All Other Staff	52,088	258	49.5	$8,827	42	9,633	$1,786,563	36	30	54	72	14	30
0540	Wallboard Installation - Discounted Rate	9,614	104	108.2	$16,221	163	38,326	$8,574,737	5	66	2	2	15	6
0308	Lawn Care Maintenance	47,457	230	48.5	$9,661	50	10,350	$1,838,864	38	33	47	65	15	28
6511	Chore Services	81,741	348	42.6	$9,880	57	10,212	$1,654,153	56	18	48	88	17	35
3407	Gas or Oil Dealers	20,745	127	61.2	$8,521	43	12,090	$3,268,511	21	54	34	21	18	16
0217	Concrete Work - Foundations and Sidewalks	37,577	184	49.0	$8,003	67	11,482	$2,657,539	37	39	35	29	19	20
6509	Boarding Homes and Retirement Centers	178,575	664	37.2	$7,449	45	8,029	$1,467,503	75	3	78	101	20	50
4305	Solid Waste Collection Services/Landfill Operations	18,235	114	62.5	$11,304	47	7,919	$1,867,451	19	60	79	62	21	39
6110	Home Health Services and Nursing Care, N.O.C.	21,273	124	58.3	$10,604	60	15,925	$3,823,795	25	56	19	15	22	11
0101	Excavation and Grading, N.O.C.	61,182	267	43.6	$13,629	104	13,439	$3,542,748	54	27	27	19	22	14
0516	Carpentry, N.O.C.	51,082	229	44.8	$15,201	90	13,804	$2,898,826	49	34	23	25	24	17
0301	Landscape Construction and Renovation	38,604	180	46.6	$11,452	70	10,856	$2,217,766	44	40	39	41	25	25
3905	Restaurants and Taverns	958,752	2,800	29.2	$5,819	38	6,048	$996,880	109	1	112	135	35	85
6103	Schools, Churches and Day Care - Prof./Clerical Staff	379,429	602	15.9	$9,778	29	2,242	$519,129	162	5	186	182	68	139

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 29. Top 25 Risk Classes by Prevention Index for WA SF Compensable Claims for "Fall from Elevation", 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
0507	Roofing Work - Construction and Repair	23,645	853	360.7	$22,020	139	127,828	$34,293,168	1	4	1	1	1	1
0504	Painting: Building and Structures - Exterior Work	22,910	568	247.9	$17,528	131	90,007	$20,156,874	4	6	4	4	2	2
0510	Wood Frame Building Construction	98,996	1,747	176.5	$15,273	96	55,935	$12,374,712	8	2	8	9	2	4
4803	Orchards	211,564	2,286	108.1	$9,005	86	23,750	$3,437,315	14	1	20	37	4	11
0540	Wallboard Installation - Discounted Rate	9,614	259	269.4	$18,315	180	98,400	$23,898,030	2	18	2	2	5	3
1102	Trucking, N.O.C.	81,173	865	106.6	$12,138	63	28,764	$6,482,755	17	3	17	19	5	8
0516	Carpentry, N.O.C.	51,082	550	107.7	$25,675	178	43,821	$11,618,078	15	7	11	10	7	6
0541	Wallboard Taping - Discounted Rate	10,117	229	226.4	$13,495	119	64,284	$15,126,306	5	21	7	6	8	5
5001	Logging Operations, N.O.C.	6,287	158	251.3	$9,133	64	88,487	$20,068,992	3	36	5	5	9	7
0307	HVAC Systems, Installation, Service and Repair	51,501	360	69.9	$14,179	71	17,613	$4,441,632	26	13	32	31	9	17
0101	Excavation and Grading, N.O.C.	61,182	406	66.4	$20,016	139	22,997	$5,863,048	29	12	21	24	11	13
0512	Insulation Installation and Asbestos Abatement Work	12,668	180	142.1	$10,781	69	38,247	$9,526,740	10	33	12	11	12	9
1101	Parcel and Package Delivery Service	76,883	444	57.8	$10,722	56	11,183	$2,529,866	37	9	51	53	13	24
0518	Non Wood Frame Building Construction	53,485	326	61.0	$29,632	221	18,327	$6,107,517	33	14	30	22	14	16
0521	Painting: Buildings - Interior Work	32,231	225	69.8	$16,458	132	26,267	$5,241,177	27	22	19	25	15	15
0519	Sheet Metal Siding, Gutters and Downspout Installation	6,290	122	194.0	$12,328	90	71,782	$14,918,998	6	48	6	7	16	10
0601	Electrical Wiring: Buildings and Structures	96,683	457	47.3	$11,355	69	10,527	$2,609,247	46	8	55	50	16	28
0306	Plumbing	61,227	326	53.2	$15,527	90	15,689	$4,246,234	42	14	35	32	18	20
6602	Janitorial Service	84,008	409	48.7	$9,092	75	12,243	$2,448,044	45	11	46	55	18	27
7118	Temporary Help - Construction	7,225	117	161.9	$14,465	102	48,419	$9,053,412	9	51	10	13	20	12
0302	Masonry Construction	13,835	134	96.9	$16,523	157	36,615	$9,258,020	19	43	13	12	21	14
6907	Moving and Storage Companies	12,737	131	102.8	$5,904	31	21,434	$4,814,783	18	45	23	28	22	19
0217	Concrete Work - Foundations and Sidewalks	37,577	197	52.4	$13,364	108	16,005	$3,027,365	44	29	34	43	23	24
4910	Property and Building Management Services	126,473	433	34.2	$17,022	75	10,915	$2,349,756	65	10	52	59	24	35
0511	Glass Installation: Buildings	12,686	109	85.9	$11,391	81	20,602	$4,484,890	21	56	25	30	25	21
3905	Restaurants and Taverns	958,752	582	6.1	$5,064	31	961	$178,072	161	5	162	172	79	129

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 30. Top 25 Risk Class by Prevention Index for WA SF Compensable Claims for Work 'Overexertion', 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
0510	Wood Frame Building Construction	98,996	417	42.1	$7,243	43	6,963	$1,443,499	11	2	11	10	1	1
0302	Masonry Construction	13,835	83	60.0	$9,082	43	13,392	$3,606,536	4	44	1	1	11	2
0507	Roofing Work - Construction and Repair	23,645	112	47.4	$6,283	54	8,403	$1,637,653	7	31	6	9	6	3
0516	Carpentry, N.O.C.	51,082	171	33.5	$6,869	38	5,238	$1,173,373	15	13	15	15	2	4
7117	Temporary Help - Machine Operation	9,120	70	76.8	$5,371	29	12,136	$2,094,603	1	52	2	5	12	5
0540	Wallboard Installation - Discounted Rate	9,614	64	66.6	$8,723	53	12,098	$2,644,363	3	56	3	2	16	6
0518	Non Wood Frame Building Construction	53,485	173	32.3	$6,799	54	3,841	$1,362,659	19	11	25	12	3	7
0217	Concrete Work - Foundations and Sidewalks	37,577	119	31.7	$7,393	44	7,213	$1,384,313	20	26	10	11	10	7
6907	Moving and Storage Companies	12,737	88	69.1	$5,524	33	5,309	$1,040,169	2	39	14	17	7	9
1102	Trucking, N.O.C.	81,173	245	30.2	$7,629	43	4,017	$831,636	27	4	23	27	5	10
0511	Glass Installation: Buildings	12,686	59	46.5	$6,600	42	8,173	$1,785,627	9	59	7	7	21	11
1101	Parcel and Package Delivery Service	76,883	239	31.1	$5,944	30	3,457	$740,850	25	5	36	34	3	14
0306	Plumbing	61,227	173	28.3	$7,990	38	3,802	$788,421	32	11	28	29	8	14
2105	Beer, Wine and Soft Drink Distributors	28,217	111	39.3	$5,846	27	3,820	$786,804	13	32	26	30	9	16
0513	Interior Finish Carpentry	46,912	115	24.5	$7,803	35	4,644	$957,258	44	28	18	19	23	17
6409	Machinery and Machinery Dealers, N.O.C.	36,375	101	27.8	$6,971	27	3,504	$1,031,427	33	36	32	18	22	18
0301	Landscape Construction and Renovation	38,604	111	28.8	$6,657	39	3,818	$646,252	30	32	27	43	18	20
0101	Excavation and Grading, N.O.C.	61,182	154	25.2	$6,562	42	3,296	$778,376	43	17	41	32	17	21
2907	Cabinet and Countertop Manufacturing - Wood	36,645	114	31.1	$5,492	22	3,030	$654,434	24	29	45	42	12	23
1002	Sawmills and Automated Shake and Shingle Mills	26,280	83	31.6	$6,645	27	2,684	$887,069	23	44	51	23	20	24
3402	Machine Shops and Machinery Mfg., N.O.C.	90,984	210	23.1	$6,221	25	2,625	$517,898	48	7	55	56	14	34
0307	HVAC Systems, Installation, Service and Repair	51,501	139	27.0	$6,531	29	2,076	$636,329	36	20	70	46	15	37
2903	Wood Products Manufacturing, N.O.C.	55,914	128	22.9	$6,456	24	2,716	$482,503	50	23	50	64	24	41
3411	Automobile Dealers, Rentals and Service Shops	157,664	308	19.5	$7,513	31	2,105	$503,118	62	3	69	58	19	42
3404	Metal Goods Manufacturing, N.O.C. - Under 9 Gauge	59,552	134	22.5	$6,564	27	2,243	$502,198	52	22	61	59	25	44
7118	Temporary Help - Construction	7,225	41	56.7	$7,365	47	11,101	$2,568,772	5	79	4	3	33	13
3905	Restaurants and Taverns	958,752	457	4.8	$5,959	30	498	$86,084	123	1	118	125	65	98

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 31. Top 25 Risk Classes by Prevention Index for WA SF Compensable Claims for "Caught In/Under/Between", 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
7117	Temporary Help - Machine Operation	9,120	158	173.2	$5,244	34	20,727	$4,508,851	1	8	2	2	1	1
2903	Wood Products Manufacturing, N.O.C.	55,914	277	49.5	$8,172	28	6,171	$1,782,325	8	1	12	12	1	4
1002	Sawmills and Automated Shake and Shingle Mills	26,280	150	57.1	$8,604	43	8,079	$2,629,326	5	10	6	3	3	2
5001	Logging Operations, N.O.C.	6,287	88	140.0	$9,765	61	33,004	$9,075,856	2	28	1	1	4	3
5208	Iron Works - Shop	14,311	83	58.0	$7,894	23	4,160	$1,148,041	4	30	24	25	5	6
3906	Bakeries - Wholesale, N.O.C.	24,170	100	41.4	$8,529	19	3,172	$1,016,214	12	22	40	32	5	12
0101	Excavation and Grading, N.O.C.	61,182	196	32.0	$8,569	43	4,133	$1,485,410	29	6	25	16	7	5
3404	Metal Goods Manufacturing, N.O.C. - Under 9 Gauge	59,552	190	31.9	$9,563	31	2,645	$856,145	30	7	52	43	8	19
2907	Cabinet and Countertop Manufacturing - Wood	36,645	122	33.3	$6,254	18	1,990	$616,448	27	15	65	70	9	37
3402	Machine Shops and Machinery Mfg., N.O.C.	90,984	232	25.5	$7,295	20	1,803	$636,630	42	3	69	66	10	39
5209	Metal Goods Manufacturing, N.O.C. - 9 Gauge or More	15,828	64	40.4	$5,498	17	3,373	$971,062	14	37	37	36	11	17
2104	Fruit & Vegetable Packing - Fresh	109,362	264	24.1	$7,595	31	2,982	$730,629	50	2	45	54	12	25
3304	Meat, Fish and Poultry Dealers - Wholesale	39,426	110	27.9	$7,266	27	2,816	$657,446	37	18	48	61	13	30
3902	Fruit/Vegetable Canneries/Food Product Mfg., N.O.C.	52,498	133	25.3	$9,271	39	5,212	$1,002,936	43	13	16	33	14	11
2004	Iron and Steel Merchants	9,216	52	56.4	$9,672	30	2,092	$906,356	6	51	62	39	15	27
7114	Temporary Help - Assembly	24,315	82	33.7	$4,305	39	5,346	$728,377	25	32	14	55	15	18
0510	Wood Frame Building Construction	98,996	232	23.4	$8,780	45	2,819	$663,128	55	3	47	60	17	31
6908	Paper Products Manufacturing	10,857	49	45.1	$10,865	40	6,656	$2,075,123	9	55	11	10	18	7
5103	Foundries, N.O.C.	12,333	50	40.5	$10,955	20	2,710	$1,236,350	13	53	51	19	19	21
2102	Warehouses, N.O.C., Grocery Dist, & Recycle Centers	33,352	90	27.0	$6,512	25	2,985	$752,924	39	27	44	53	19	29
3510	Plastic Goods Mfg., N.O.C.	55,258	131	23.7	$8,438	27	1,744	$656,599	52	14	71	62	19	45
4101	Printing	37,485	94	25.1	$5,546	22	2,384	$710,368	44	23	56	58	22	40
2002	Freight Handling Services	16,220	56	34.5	$6,423	39	4,651	$1,221,911	24	46	21	21	23	13
6409	Machinery and Machinery Dealers, N.O.C.	36,375	91	25.0	$7,995	24	1,653	$797,916	45	26	72	50	24	43
0103	Drilling and Geophysical Exploration, N.O.C.	4,526	37	81.8	$9,285	42	4,695	$1,628,965	3	69	18	14	25	10
3905	Restaurants and Taverns	958,752	208	2.2	$2,213	15	189	$37,285	146	5	141	146	73	117

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.

Table 32. Top 25 Risk Classes by Prevention Index for WA SF Compensable Claims for "Motor Vehicle", 2002-2010.

Risk Class	WIC Industry	FTE	# Claims (COUNT)	Claim Rate / 10,000 FTE (RATE)	Median Cost	Median Days TL	Severity: TL	Severity: Cost	Rate Rank	Count Rank	TL days rank	Cost Rank	PI Rank	Expanded PI Rank
1102	Trucking, N.O.C.	81,173	599	73.8	$13,686	84	25,908	$7,252,938	4	1	4	3	1	1
1101	Parcel and Package Delivery Service	76,883	327	42.5	$10,758	71	11,999	$2,467,002	11	3	10	12	2	4
5003	Log Hauling	7,186	98	136.4	$29,246	112	47,355	$13,786,038	2	15	1	1	3	2
1404	Cabulance and Paratransit	5,687	89	156.5	$15,303	68	35,907	$8,097,964	1	20	3	2	4	3
1407	Bus Companies - Private	16,069	95	59.1	$9,299	70	9,374	$2,208,014	5	17	14	18	5	7
6905	County and City Law Enforcement Officers	32,048	128	39.9	$10,405	26	4,402	$2,339,566	13	12	38	14	6	8
1501	County and Tribal Councils-All Other Employees, N.O.C.	56,346	178	31.6	$6,591	30	4,845	$1,107,953	17	8	33	36	6	11
0101	Excavation and Grading, N.O.C.	61,182	174	28.4	$27,649	188	10,276	$3,036,602	20	9	12	8	8	6
6602	Janitorial Service	84,008	191	22.7	$7,815	43	5,248	$1,078,426	25	6	29	39	9	17
7103	State Government - Law Enforcement Officers	52,131	144	27.6	$11,032	21	2,204	$918,563	22	10	63	42	10	26
1109	Auto Towing Services	6,007	64	106.5	$21,448	113	37,999	$7,112,619	3	30	2	4	11	5
4305	Solid Waste Collection Services/Landfill Operations	18,235	69	37.8	$7,899	40	5,062	$1,826,436	15	29	30	21	12	13
4808	Diversified Field Crops	39,066	83	21.2	$11,912	70	5,751	$1,675,853	28	22	24	23	13	15
6511	Chore Services	81,741	134	16.4	$12,309	65	4,346	$719,482	40	11	40	51	14	27
3411	Automobile Dealers, Rentals and Service Shops	157,664	226	14.3	$8,241	42	2,906	$632,717	49	4	53	60	15	36
0607	Household Appliance Installation, Service and Repair	37,280	79	21.2	$18,304	83	6,561	$1,607,681	29	25	19	25	16	16
0308	Lawn Care Maintenance	47,457	87	18.3	$13,999	63	3,414	$825,177	35	21	45	45	17	30
3101	Redi-Mix Concrete Dealers	10,683	42	39.3	$13,100	56	7,702	$2,337,929	14	48	16	15	18	10
0307	HVAC Systems, Installation, Service and Repair	51,501	83	16.1	$7,878	32	2,903	$885,075	41	22	54	43	19	34
6309	Hardware, Auto Parts and Sporting Good Stores	193,257	216	11.2	$9,522	41	2,244	$445,129	59	5	61	71	20	53
5307	State Government - All Other Employees, N.O.C.	99,738	128	12.8	$19,858	51	2,709	$792,291	53	12	56	49	21	39
1105	Septic Tank Pumping and Street Sweeping Services	8,562	36	42.0	$21,937	100	16,338	$3,542,829	12	57	5	5	22	9
6110	Home Health Services and Nursing Care, N.O.C.	21,273	46	21.6	$10,612	66	5,277	$1,091,359	26	45	28	37	23	25
0107	Underground Utility Line Const. & Pipelaying, N.O.C.	25,874	49	18.9	$28,717	104	5,860	$2,361,891	33	39	23	13	24	20
2202	Carpet Cleaning	5,301	30	56.6	$7,820	41	14,440	$2,208,859	8	65	6	17	25	14
6303	Sales Personnel - Outside, N.O.C.	495,258	344	6.9	$17,593	55	1,415	$536,886	71	2	75	67	25	58

Expanded PI rank takes into account: Rate Rank, Count Rank, TL days, and Cost. State Fund (SF) compensable claims only; FTE = (hours/2000); Severity TL = (TL days/10,000 FTE); Severity: Cost = (Total $/10,000 FTE). Included are industry groups in the Top 5 by Count or Rate Rank (grey shade) but not in the Top 25 by Prevention Index.