



Making Prevention Count

Knowing where high cost workers' compensation claims occur

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SHARP

Promoting Safer, Healthier Workplaces

Summary of Technical Report Number 64-1-2005, **Prioritizing Industries for Occupational Injury and Illness Prevention, Washington State Workers' Compensation Claims Data, 1998-2002.**

Where can health and safety prevention efforts be most effective in reducing severe and costly workplace injuries and illnesses?

The Safety and Health Assessment and Research for Prevention (SHARP) Program examined Washington State workers' compensation data to identify the industries at the highest risk for severe and costly workplace injuries and illnesses. The data will help prioritize where to invest prevention resources for the greatest benefit to workers and employers.

SHARP reviewed data for over 810,000 claims filed from 1998-2002 in the Washington State workers' compensation system. The direct costs of the claims exceeded \$3.9 billion. Just 21 percent were "compensable." Yet those 21 percent compensable claims accounted for 89 percent of the costs and nearly 98 percent of the time-loss days from work.

"Compensable" generally means the worker received benefits beyond payment of medical bills. These may include partial wage-replacement benefits for being off work four or more days, disability payments, loss of earning potential, the worker being kept on salary or the claimant's death.

What illnesses and injuries result in the most compensable claims?

When claims are grouped by common types of injuries, seven different groups accounted for:

- 92 percent of all compensable claims.
- 95 percent of compensable claims' costs.
- 96 percent of time-loss days.

TABLE 1.

Washington State Fund claims by claim count, total costs and time-loss days, 1998-2002.

Measure	Claim Count	Total Costs	Time-loss Days
State Fund (all claims)	810,732	\$4.4 billion	24.9 million days
Compensable claims*	166,722	\$3.9 billion	24.3 million days
Seven most common high cost injury groups	152,707	\$3.7 billion	23.2 million days
Percent of all claims	19%	84%	94%
Percent of compensable claims	92%	95%	96%

*Of claims assigned an industry code (NAICS or WIC)

Seven most common injury groups

Table 2 shows the seven most common injury groups, the number of claims, total costs and time-loss days.

TABLE 2.

Seven most common injury groups Washington State Fund workers' compensation, 1998-2002.

Injury Group	Claim Count	Total Costs	Time-loss Days
Work-related musculoskeletal disorders of the neck, back and upper extremity	67,398	\$1,722 million	12.0 million
Struck by/against	32,994	\$582 million	3.1 million
Fall from same level	16,314	\$405 million	2.6 million
Fall from elevation	13,843	\$443 million	2.6 million
Work-related musculoskeletal disorders of the lower extremity	12,441	\$244 million	1.5 million
Motor vehicle injuries	5,244	\$196 million	0.9 million
Caught in/under/between	4,473	\$84 million	0.4 million
Totals	152,707	\$3,677 million	23.2 million

Identifying industry sectors with the greatest potential for prevention

The seven most common high-cost injury groups do not occur equally in all industries; some have more injuries than others. SHARP analyzed the data using the NAICS industry classification system for grouping employers by industries.

SHARP uses a prevention index (PI) to identify the industry sectors with the greatest potential for prevention of injuries and illnesses:

- First, the data is analyzed to calculate a "claim count" showing which industries have the most claims associated with each injury group.
- Next, a "claim rate" is calculated to determine which industries have the highest number of claims per 10,000 full-time equivalent (FTE) employees.
- Finally, the industries are ranked by both the claim rate and the claim count, and the ranks are averaged to create a prevention index or PI. The PI tells us which industries might most benefit from organized prevention efforts.

The tables that follow list the top 20 industry groups ranked by PI for the seven most common injury groups.

Work-related musculoskeletal disorders of the neck, back and upper extremity

Work-related musculoskeletal disorders of the neck, back and upper extremity include several types of physical conditions affecting muscles, nerves and joints that are not caused by acute trauma. Some examples are back strain, tendonitis, rotator cuff syndrome and carpal tunnel syndrome.

TABLE 3.

Compensable claims for work-related musculoskeletal disorders of the neck, back and upper extremity

Rank*	NAICS	Industry	FTEs	Claim Count	Claim Rate
1	2381	Foundation, Structure, Bldg Ext Contractors	118,899	3,286	276.4
2	2383	Building Finishing Contractors	66,141	1,687	255.1
3	6231	Nursing Care Facilities	53,574	1,407	262.6
4	6233	Community Care Facilities for the Elderly	53,767	1,282	238.4
5	2361	Residential Building Construction	86,925	1,922	221.1
6	6222	Psychiatric and Substance Abuse Hospitals	14,147	468	330.8
7	3116	Animal Slaughtering and Processing	15,695	464	295.6
8	4841	General Freight Trucking	43,888	1,020	232.4
9	4842	Specialized Freight Trucking	28,830	696	241.4
10	5617	Services to Buildings and Dwellings	82,301	1,570	190.8
11	3219	Other Wood Product Manufacturing	32,274	728	225.6
12	5621	Waste Collection	9,341	354	379.0
13	7213	Rooming and Boarding Houses	38,896	787	202.3
14	2389	Other Specialty Trade Contractors	43,761	836	191.0
15	2362	Nonresidential Building Construction	46,064	849	184.3
16	2371	Utility System Construction	25,628	496	193.5
17	4248	Beer, Wine, and Distilled Alcohol Beverage Merchant Wholesale	18,918	426	225.2
18	1133	Logging	18,080	383	211.8
19	2382	Building Equipment Contractors	176,816	2,692	152.2
20	4451	Grocery Stores	77,911	1,226	157.4

The data are based on Washington State Fund compensable claims for ANSI Z16.2 codes or combination of codes with dates of injury or illness during 1998-2002.

*Prevention Index Rank

Struck by/against

Claims are classified as struck by/against when a moving object impacts a person. This injury type might include people who are struck by a vehicle but are not occupants of the vehicle.

TABLE 4.

Compensable claims for struck by/against injuries

Rank*	NAICS	Industry	FTEs	Claim Count	Claim Rate
1	2381	Foundation, Structure, and Building Exterior Contractors	118,899	2,310	194.3
2	1133	Logging	18,080	920	508.8
3	2361	Residential Building Construction	86,925	1,434	165.0
4	6222	Psychiatric and Substance Abuse Hospitals	14,147	551	389.5
5	3219	Other Wood Product Manufacturing	32,274	565	175.1
6	6232	Residential Mental Retard, Health and Substance Abuse Facilities	13,478	302	224.1
7	1121	Cattle Ranching And Farming	21,517	369	171.5
8	2389	Other Specialty Trade Contractors	43,761	557	127.3
9	4841	General Freight Trucking	43,888	554	126.2
10	2373	Highway, Street, and Bridge Construction	20,429	308	150.8
11	2383	Building Finishing Contractors	66,141	718	108.6
12	3212	Veneer, Plywood, and Eng Wood Prod Mfg	11,288	197	174.5
13	2362	Nonresidential Building Construction	46,064	506	109.8
14	2371	Utility System Construction	25,628	303	118.2
15	4842	Specialized Freight Trucking	28,830	335	116.2
16	3116	Animal Slaughtering and Processing	15,695	203	129.3
17	3323	Architectural and Structural Metals Mfg	28,059	314	111.9
18	3371	Household and Institutional Furniture and Kitchen Cabinet Mfg	24,325	285	117.2
19	3315	Foundries	12,666	180	142.1
20	5617	Services to Buildings and Dwellings	82,301	665	80.8

The data are based on Washington State Fund compensable claims for ANSI Z16.2 codes or combination of codes with dates of injury or illness during 1998-2002.

*Prevention Index Rank

Falls from same level

Falls from same level represent injuries such as slips, trips and falls, that occur when a person loses footing and impacts with the floor or external objects at floor level or above. It does not include falls from elevation.

TABLE 5.

Compensable claims for falls from same level injuries

Rank*	NAICS	Industry	FTEs	Claim Count	Claim Rate
1	1133	Logging	18,080	281	155.4
2	2381	Foundation, Structure, and Building Exterior Contractors	118,899	673	56.6
3	4841	General Freight Trucking	43,888	269	61.3
4	2383	Building Finishing Contractors	66,141	350	52.9
5	7222	Limited-Service Eating Places	191,660	915	47.7
6	5617	Services to Buildings and Dwellings	82,301	392	47.6
7	2361	Residential Building Construction	86,925	411	47.3
8	7221	Full-Service Restaurants	230,217	1,027	44.6
9	4842	Specialized Freight Trucking	28,830	179	62.1
10	7211	Traveler Accommodation	85,895	375	43.7
11	6222	Psychiatric and Substance Abuse Hospitals	14,147	118	83.4
12	7223	Special Food Services	24,969	138	55.3
13	6233	Community Care Facilities for the Elderly	53,767	244	45.4
14	6231	Nursing Care Facilities	53,574	229	42.7
15	3116	Animal Slaughtering and Processing	15,695	89	56.7
16	3114	Fruit & Vegetable Preserving and Specialty Food Mfg	18,227	92	50.5
17	4244	Grocery and Related Product Wholesalers	73,201	265	36.2
18	5621	Waste Collection	9,341	66	70.7
19	6232	Residential Mental Retard, Health and Substance Abuse Facilities	13,478	71	52.7
20	7213	Rooming and Boarding Houses	38,896	157	40.4

The data are based on Washington State fund compensable claims for ANSI Z16.2 codes or combination of codes with dates of injury or illness during 1998-2002.

*Prevention Index Rank

Falls from elevation

A claim for a fall from elevation represents an injury that occurs when a person falls and impacts below the working area, such as falls from ladders, scaffolding or a roof. It does not include falls from the same level.

TABLE 6.

Compensable claims for fall from elevation injuries

Rank*	NAICS	Industry	FTEs	Claim Count	Claim Rate
1	2381	Foundation, Structure, and Building Exterior Contractors	118,899	1,448	121.8
2	2383	Building Finishing Contractors	66,141	776	117.3
3	2361	Residential Building Construction	86,925	808	93.0
4	1113	Fruit and Tree Nut Farming	113,062	950	84.0
5	1133	Logging	18,080	232	128.3
6	4841	General Freight Trucking	43,888	362	82.5
7	4842	Specialized Freight Trucking	28,830	237	82.2
8	2389	Other Specialty Trade Contractors	43,761	255	58.3
9	2362	Nonresidential Building Construction	46,064	262	56.9
10	2382	Building Equipment Contractors	176,816	814	46.0
11	5617	Services to Buildings and Dwellings	82,301	393	47.8
12	2371	Utility System Construction	25,628	119	46.4
13	2373	Highway, Street, and Bridge Construction	20,429	104	50.9
14	1151	Support Activities for Crop Production	34,688	133	38.3
15	1119	Other Crop Farming	23,314	99	42.5
16	4244	Grocery and Related Product Wholesalers	73,201	213	29.1
17	5621	Waste Collection	9,341	57	61.0
18	2379	Other Heavy & Civil Engineering Construction	15,395	68	44.2
19	5311	Lessors of Real Estate	69,407	201	29.0
20	3273	Cement and Concrete Product Manufacturing	14,361	64	44.6

The data are based on Washington State fund compensable claims for ANSI Z16.2 codes or combination of codes with dates of injury or illness during 1998-2002.

*Prevention Index Rank

Lower extremity musculoskeletal disorders

Lower extremity musculoskeletal disorders are instances of overexertion of the leg, knee or foot. Such disorders include bursitis of the knee, plantar fasciitis and tendonitis that are not caused by acute trauma.

TABLE 7.

Compensable claims for lower extremity work-related musculoskeletal disorders

Rank*	NAICS	Industry	FTEs	Claim Count	Claim Rate
1	2383	Building Finishing Contractors	66,141	390	59.0
2	2381	Foundation, Structure, and Building Exterior Contractors	118,899	643	54.1
3	2361	Residential Building Construction	86,925	400	46.0
4	4841	General Freight Trucking	43,888	239	54.5
5	1133	Logging	18,080	156	86.3
6	2382	Building Equipment Contractors	176,816	696	39.4
7	5617	Services to Buildings and Dwellings	82,301	315	38.3
8	5621	Waste Collection	9,341	99	106.0
9	4842	Specialized Freight Trucking	28,830	153	53.1
10	2362	Nonresidential Building Construction	46,064	183	39.7
11	2389	Other Specialty Trade Contractors	43,761	174	39.8
12	9221	Justice, Public Order, and Safety Activities	77,992	298	38.2
13	2373	Highway, Street, and Bridge Construction	20,429	93	45.5
14	2371	Utility System Construction	25,628	101	39.4
15	4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesale	18,918	81	42.8
16	6222	Psychiatric and Substance Abuse Hospitals	14,147	60	42.4
17	6231	Nursing Care Facilities	53,574	149	27.8
18	6233	Community Care Facilities for the Elderly	53,767	147	27.3
19	4441	Building Material and Supplies Dealers	83,609	198	23.7
20	2211	Electric Power Gen, Trans & Distribution	12,989	51	39.3

The data are based on Washington State Fund compensable claims for ANSI Z16.2 codes or combination of codes with dates of injury or illness during 1998-2002.

*Prevention Index Rank

Motor vehicle collisions

Motor vehicle claims include injuries to the occupants of vehicles that are involved in collisions.

TABLE 8.

Compensable claims for motor vehicles injuries

Rank*	NAICS	Industry	FTEs	Claim Count	Claim Rate
1	4841	General Freight Trucking	43,888	261	59.5
2	4842	Specialized Freight Trucking	28,830	175	60.7
3	4921	Couriers	5,804	87	149.9
4	1133	Logging	18,080	90	49.8
5	4922	Local Messengers and Local Delivery	7,443	63	84.6
6	4855	Charter Bus Industry	6,020	56	93.0
7	4413	Automotive Parts, Accessories, and Tire Stores	38,929	112	28.8
8	4859	Other Transit & Ground Pass Transport	4,059	47	115.8
9	2373	Highway, Street, and Bridge Construction	20,429	75	36.7
10	5617	Services to Buildings and Dwellings	82,301	190	23.1
11	4884	Support Activities for Road Transportation	4,732	42	88.8
12	2389	Other Specialty Trade Contractors	43,761	92	21.0
13	2382	Building Equipment Contractors	176,816	225	12.7
14	5321	Automotive Equipment Rental and Leasing	10,389	40	38.5
15	4231	MV and MV Parts and Supplies Merchant Wholesalers	19,500	52	26.7
16	5616	Investigation and Security Services	33,425	65	19.4
17	4244	Grocery & Related Product Wholesalers	73,201	91	12.4
18	8111	Automotive Repair and Maintenance	80,087	98	12.2
19	5621	Waste Collection	9,341	33	35.3
20	3273	Cement and Concrete Product Manufacturing	14,361	38	26.5

The data are based on Washington State Fund compensable claims for ANSI Z16.2 codes or combination of codes with dates of injury or illness during 1998-2002.
 *Prevention Index Rank

Caught in/under/between

Caught in/under/between claims represent non-impact injuries produced by squeezing, pinching, or crushing between a moving object and a stationary object, between two moving objects or between parts of an object.

TABLE 9.

Compensable claims for caught in/under/between injuries

Rank*	NAICS	Industry	FTEs	Claim Count	Claim Rate
1	3219	Other Wood Product Mfg	32,274	148	45.9
2	1133	Logging	18,080	72	39.8
3	3222	Converted Paper Product Mfg	11,863	54	45.5
4	1121	Cattle Ranching and Farming	21,517	66	30.7
5	3323	Architectural and Structural Metals Mfg	28,059	72	25.7
6	3116	Animal Slaughtering and Processing	15,695	51	32.5
7	3315	Foundries	12,666	43	33.9
8	3211	Sawmills & Wood Preservation	10,973	41	37.4
9	2371	Utility System Construction	25,628	57	22.2
10	3273	Cement and Concrete Product Mfg	14,361	43	29.9
11	3261	Plastics Product Mfg	32,264	65	20.1
12	1151	Support Activities for Crop Production	34,688	68	19.6
13	4841	General Freight Trucking	43,888	73	16.6
14	4244	Grocery and Related Product Wholesalers	73,201	110	15.0
15	2381	Foundation, Structure, and Building Exterior Contractors	118,899	164	13.8
16	1112	Vegetable and Melon Farming	20,109	45	22.4
17	3212	Veneer, Plywood, and Engineered Wood Prod Mfg	11,288	35	31.0
18	5613	Employment Services	142,519	179	12.6
19	8113	Commercial & Industrial Machinery & Equip Repair & Maint	10,144	32	31.5
20	1119	Other Crop Farming	23,314	47	20.2

The data are based on Washington State Fund compensable claims for ANSI Z16.2 codes or combination of codes with dates of injury or illness during 1998-2002.

*Prevention Index Rank

Conclusions

The seven different high-cost injury groups account for 95 percent of all State Fund compensable claim costs and over 96 percent of all compensable claim time-loss days. Focusing injury-prevention efforts in these areas will provide the greatest benefit to employers and workers. Special emphasis in the industries at high risk for these types of injuries is warranted.

Does your company need assistance?

The Department of Labor and Industries (L&I) offers safety and health consultations at no additional cost to help you prevent injuries at your workplace. A safety and health consultant will evaluate your workplace and help you identify and eliminate hazards. To request an on-site consultation, please call your regional L&I office and ask for a safety and health consultation supervisor or go to www.SafetyConsultants.LNI.wa.gov.

L&I also offers online training modules, a video library, workshops and specialized publications to help you meet safety and health requirements and teach safety to your employees. For complete information, please go to www.LNI.wa.gov/safety/traintools/.

Full report available

This document is a summary of Technical Report Number 64-1-2005, **Prioritizing Industries for Occupational Injury and Illness Prevention, Washington State Workers' Compensation Claims Data, 1998-2002**. For a full discussion and detailed methodology, contact the SHARP Program to obtain a copy of the full report.

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Promoting Safer, Healthier Workplaces

August 2005
64-2-2005

Supported in part by Cooperative Agreement 5 U01 OH07292 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official view of NIOSH or the Centers for Disease Control and Prevention (CDC).