



Work-Related Musculoskeletal Disorders (WMSDs) in Washington State Wholesale and Retail Trade

A Summary of Research Study Findings

SEPTEMBER 2015

AUTHORS

Ninica Howard, Principal Investigator
Stephen Bao, Co-Investigator
Jia-Hua Lin, Senior Researcher
Daniel Hunter, Research Investigator
Alysa Haas, Research Analyst

Acknowledgements: We wish to thank Darrin Adams, Naomi Anderson, Randy Clark, Renae Knowles, and Jena Williams for their contributions to this report.

This report was compiled by researchers at the Safety and Health Assessment and Research for Prevention (SHARP) Program in the Washington State Department of Labor and Industries. This research is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH Grant # 5U60OH008487-10).

Publication No. 40-15-2015

Contents

OVERVIEW	3
Why do we study sprains and strains and overexertions?	3
TRENDS	4
What are the injury trends in Wholesale & Retail Trade?	4
How does Wholesale & Retail Trade compare to other industry sectors in Washington State?	5
Which industry groups in Wholesale & Retail Trade have high WMSD claims rates?	6
What is the burden of WMSDs in Wholesale & Retail Trade?	7
What kind of WMSD injuries are occurring in Wholesale & Retail Trade?	8
RESEARCH	9
What are the physical risks in Wholesale & Retail Trade?	9
Job Categories Assessed	10
Level of Risk from Hand Activity	11
Level of Risk from Prolonged Standing	12
Level of Risk from Static Back Postures	13
Level of Risk from Dynamic Back Movement	14
Discussion	15
SOLUTIONS	16
Physical Job Evaluation Checklist for Wholesale & Retail Trade	16
Start With the Basics: General Principles for Preventing Musculoskeletal Injuries and Disorders	16
What other factors could be involved in sprains, strains, and overexertions?	18
Industry Prevention Strategies	20
Additional Resources	23

Why do we study sprains and strains and overexertions?

The Wholesale & Retail Trade sector in Washington State includes a range of industries. Workers in these environments face a multitude of occupational safety hazards, from fractures and dislocations to lacerations and amputations.

However, the most common and most costly types of injuries wholesale/retail workers incur are soft-tissue sprains and strains, generally referred to collectively as work-related musculoskeletal disorders (WMSDs). These injuries can result from years of accumulated stress on muscles, tendons, ligaments, and nerves. Common risk factors for WMSDs include repetitive motions, awkward body postures, forceful hand exertions, and heavy manual material handling.

In 2010 the Safety and Health Assessment and Research for Prevention (SHARP) Program, began a five-year study exploring the physical and organizational factors that may contribute to WMSDs in several major industries of the wholesale/retail sector. Through interviews with company managers, employee representatives, and injured workers, our researchers gained insight into the organizational climate, the nature of existing safety programs, and the context within which WMSDs occur. During site visits to wholesale and retail operations, SHARP researchers assessed physical risk factors for hundreds of jobs using a combination of well-researched evaluation instruments. This report draws on the data collected and summarizes the results of the analyses performed.



What are the injury trends in Wholesale & Retail Trade?

According to Washington State workers' compensation claims data from 2002-2010, wholesale and retail trade ranks fourth (out of six) when compared to other industry sectors in its compensable claims rate of WMSD injuries (for claims that involved more than 3 days away from work).

Six wholesale/retail industry groups rank in the top 25 when ranking industry groups within all industry sectors by compensable claims incidence rate.

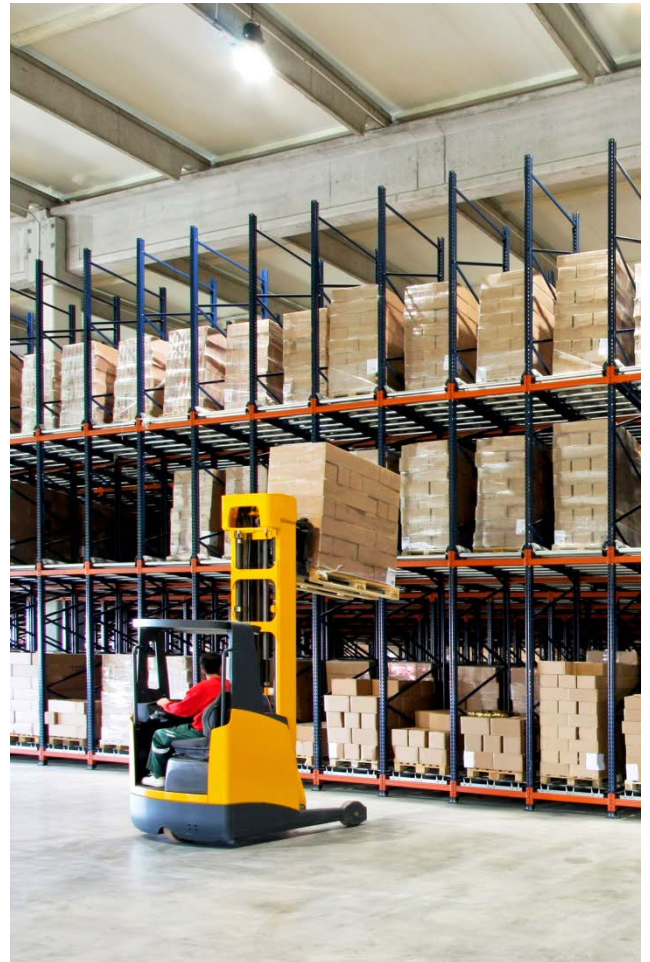
Grocery and Related Product Merchant Wholesalers has the highest number of lost work days among all Wholesale & Retail groups.

Within wholesale and retail trade, the top five industry groups by claims rate are:

1. Beer, Wine, and Liquor Stores
2. Vending Machine Operators
3. Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
4. Grocery and Related Product Merchant Wholesalers
5. Grocery Stores

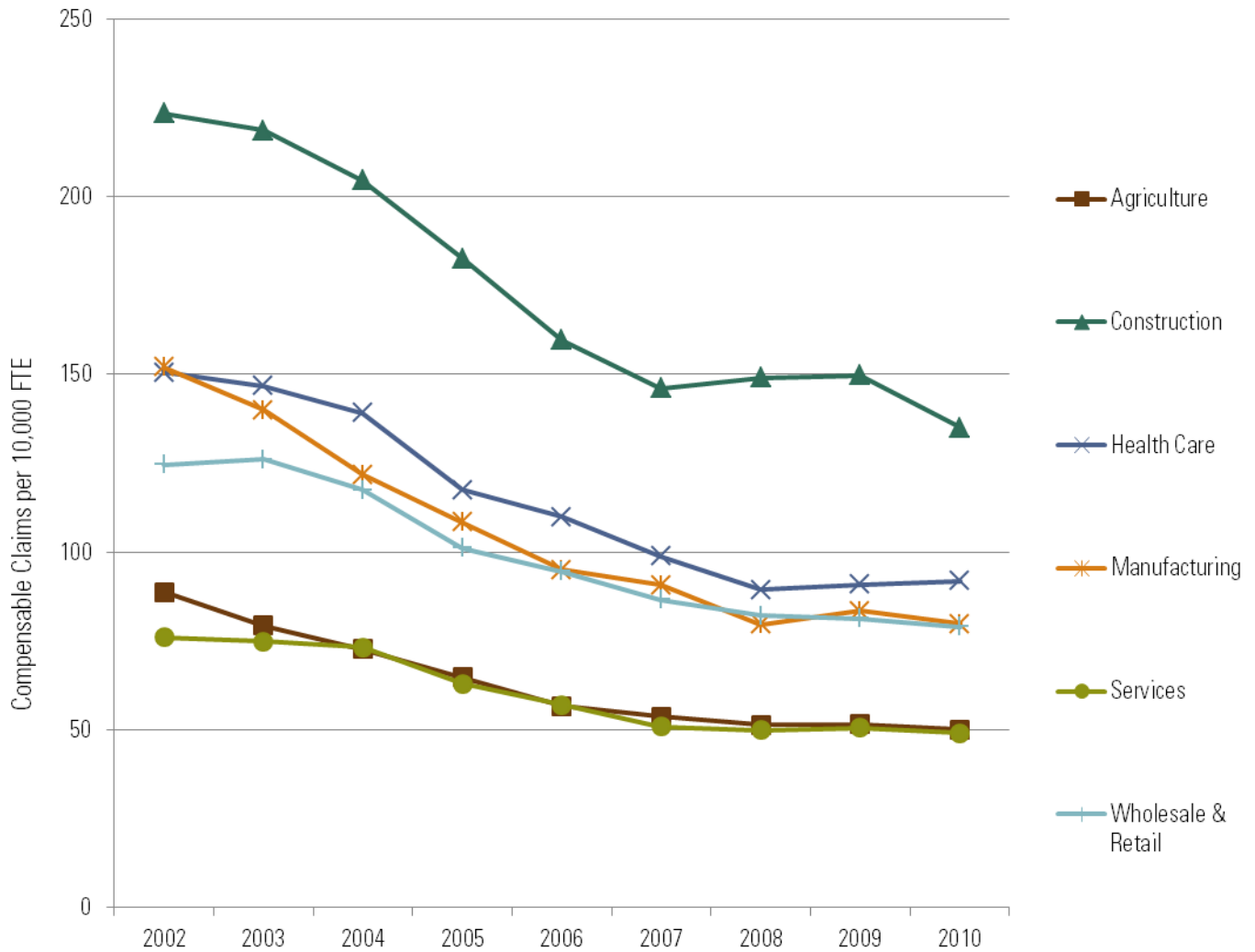
Grocery and Related Product Merchant Wholesalers has the highest number of lost work days among all Wholesale & Retail groups (340,686 lost days). When ranked by non-medical costs, Grocery Stores is the highest industry group (\$61,397,058).

Injuries of the back are the most commonly reported WMSD injury, compared to other body areas.



How does Wholesale & Retail Trade compare to other industry sectors in Washington State?

Washington State, Compensable WMSD Claims Rates, 2002-2010^{1 2}



¹ Compensable Claim = a claim that involved more than 3 days away from work

² FTE = full time equivalent, an employee working 2000 hours/year

Which industry groups in Wholesale & Retail Trade have high WMSD claims rates?

Top 25 Study Industry Groups by Claims Rate, 2002-2010*

Industry Sector	Industry Group Description	Incidence Rate Per 100 FTE**
Services	Waste Collection	2.92
Health Care	Residential Mental Retardation, Mental Health and Substance Abuse Facilities	2.76
Health Care	Psychiatric and Substance Abuse Hospitals	2.64
Wholesale & Retail Trade	Beer, Wine, and Liquor Stores	2.41
Health Care	Other Ambulatory Health Care Services	2.40
Wholesale & Retail Trade	Vending Machine Operators	2.31
Construction	Foundation, Structure, and Building Exterior Contractors	2.15
Manufacturing	Other Furniture Related Product Manufacturing	2.12
Services	Spectator Sports	1.98
Health Care	Nursing Care Facilities	1.98
Manufacturing	Dairy Product Manufacturing	1.96
Wholesale & Retail Trade	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	1.86
Health Care	Community Care Facilities for the Elderly	1.81
Construction	Building Finishing Contractors	1.81
Construction	Residential Building Construction	1.73
Agriculture	Aquaculture	1.71
Wholesale & Retail Trade	Grocery and Related Product Merchant Wholesalers	1.68
Manufacturing	Clay Product and Refractory Manufacturing	1.65
Health Care	General Medical and Surgical Hospitals	1.65
Agriculture	Poultry and Egg Production	1.64
Wholesale & Retail Trade	Grocery Stores	1.64
Wholesale & Retail Trade	Department Stores	1.60
Manufacturing	Sawmills and Wood Preservation	1.59
Manufacturing	Electric Lighting Equipment Manufacturing	1.59
Health Care	Other Residential Care Facilities	1.58

*Washington State, all compensable WMSD claims. This table lists only those industry groups included in the present study, such that the Transportation & Utilities industry group has been omitted. Very small industry groups (those with 50 companies or fewer) have also been excluded.

**FTE = full time equivalent, an employee working 2000 hours/year

What is the burden of WMSDs in Wholesale & Retail Trade?

Cost and Lost Days in Wholesale & Retail Trade (Industry Groups by Rate Rank), 2002-2010*

Industry Group	Non-Medical Costs	Lost Work Days**	Incidence Rate Per 100 FTE***	Rate Rank
All Industries	\$3,881,386,921	28,354,928	0.89	--
All Wholesale & Retail Trade	\$556,498,713	4,368,830	1.02	--
Beer, Wine, and Liquor Stores	\$7,578,974	84,852	2.41	1
Vending Machine Operators	\$4,000,874	34,146	2.31	2
Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	\$10,310,551	99,964	1.86	3
Grocery and Related Product Merchant Wholesalers	\$46,958,437	340,686	1.68	4
Grocery Stores	\$61,397,059	294,883	1.64	5
Department Stores	\$43,475,551	62,115	1.60	6
Other General Merchandise Stores	\$17,820,735	66,491	1.44	7
Building Material and Supplies Dealers	\$45,235,829	321,431	1.26	8
Furniture Stores	\$7,511,118	93,767	1.25	9
Metal and Mineral (except Petroleum) Merchant Wholesalers	\$7,083,755	60,123	1.23	10
Lumber and Other Construction Materials Merchant Wholesalers	\$12,608,479	87,899	1.21	11
Used Merchandise Stores	\$5,763,575	89,902	1.18	12
Lawn and Garden Equipment and Supplies Stores	\$8,348,830	95,113	1.10	13
Petroleum and Petroleum Products Merchant Wholesalers	\$6,129,936	41,611	1.09	14
Automotive Parts, Accessories, and Tire Stores	\$21,382,160	181,524	1.07	15
Other Miscellaneous Store Retailers	\$11,193,139	127,303	0.98	16
Home Furnishings Stores	\$11,175,876	109,845	0.95	17
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	\$7,023,757	67,335	0.94	18
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	\$9,838,069	89,699	0.94	19
Miscellaneous Nondurable Goods Merchant Wholesalers	\$11,622,223	138,110	0.82	20
Specialty Food Stores	\$8,769,052	91,804	0.79	21
Miscellaneous Durable Goods Merchant Wholesalers	\$8,834,067	87,250	0.79	22
Furniture and Home Furnishing Merchant Wholesalers	\$4,039,665	27,930	0.78	23
Paper and Paper Product Merchant Wholesalers	\$2,225,571	19,850	0.77	24
Machinery, Equipment, and Supplies Merchant Wholesalers	\$25,413,683	206,737	0.72	25
Other Motor Vehicle Dealers	\$7,862,107	68,261	0.71	26
Gasoline Stations	\$13,539,718	182,800	0.71	27
Florists	\$1,520,232	28,118	0.70	28
Automobile Dealers	\$49,896,882	388,122	0.65	29
Sporting Goods, Hobby, and Musical Instrument Stores	\$6,486,839	76,921	0.60	30
Chemical and Allied Products Merchant Wholesalers	\$2,804,594	25,109	0.51	31
Health and Personal Care Stores	\$7,775,756	75,251	0.48	32
Direct Selling Establishments	\$10,256,533	94,968	0.47	33
Apparel, Piece Goods, and Notions Merchant Wholesalers	\$2,340,539	27,773	0.47	34
Electronics and Appliance Stores	\$10,731,140	100,423	0.47	35
Office Supplies, Stationery, and Gift Stores	\$5,209,767	60,488	0.46	36
Clothing Stores	\$7,323,844	78,540	0.43	37
Professional and Commercial Equipment and Supplies Merchant Wholesalers	\$9,296,399	86,055	0.41	38
Shoe Stores	\$795,675	10,520	0.40	39
Drugs and Druggists' Sundries Merchant Wholesalers	\$2,814,534	21,145	0.32	40
Wholesale Electronic Markets and Agents and Brokers	\$3,052,951	32,172	0.31	41
Electrical and Electronic Goods Merchant Wholesalers	\$4,838,705	40,561	0.30	42
Electronic Shopping and Mail-Order Houses	\$1,467,271	13,130	0.26	43
Book, Periodical, and Music Stores	\$736,819	11,266	0.26	44

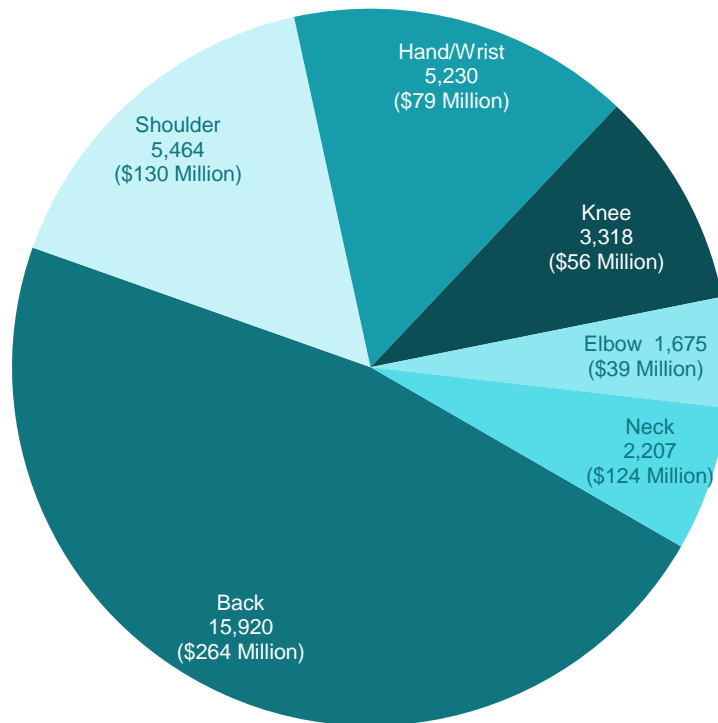
*Washington State, All Compensable WMSD Claims

**Lost work days included total time loss for state fund claims only; does not include self-insured employers.

***FTE = full time equivalent, an employee working 2000 hours/year

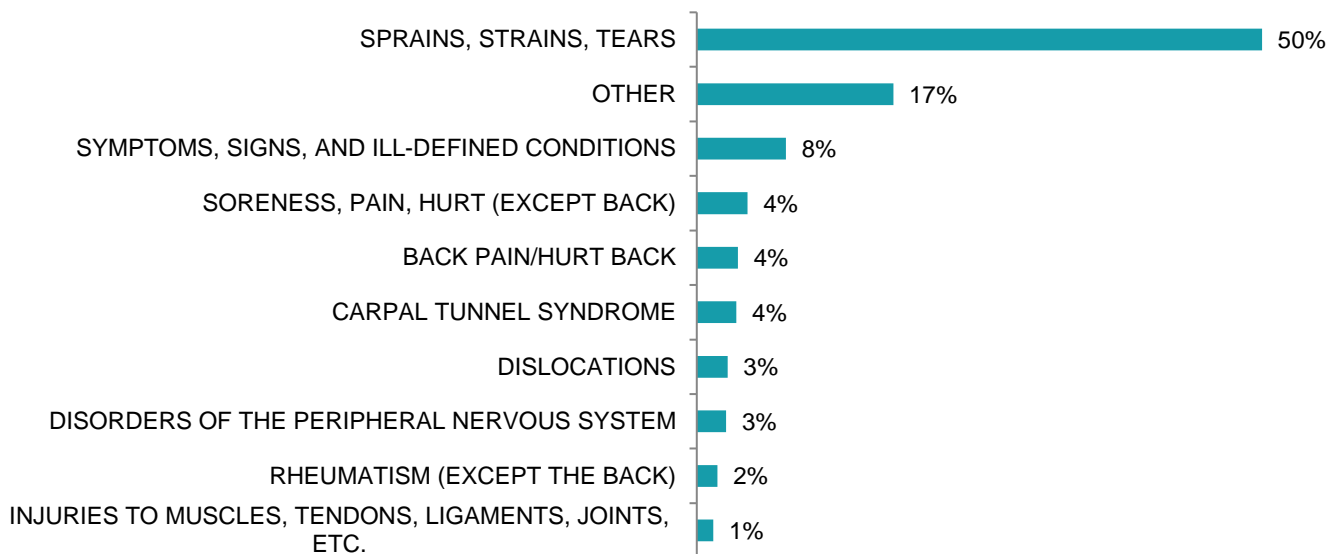
What kind of WMSD injuries are occurring in Wholesale & Retail Trade?

WMSD Claims & Non-Medical Costs in Wholesale & Retail Trade by Body Area, 2002-2010³



Number of Claims (and Non-Medical Costs)

WMSD Claims in Wholesale & Retail Trade – Top 10 “Nature of Injury” Categories, 2002-2010⁴



³ Washington State, All Compensable WMSD Claims. A claim may include more than one body area. WMSD claims with uncategorized body area have been excluded.

⁴ Washington State, All Compensable WMSD Claims. Excluded categories include remaining 4% of claims.

What are the physical risks in Wholesale & Retail Trade?

Focus Industry Groups:

- ▶ Machinery, Equipment, and Supplies Merchants
- ▶ Building Material and Supplies Dealers
- ▶ Grocery and Related Product Merchant Wholesalers
- ▶ Grocery Stores

Methods

To assess the physical risk factors in Wholesale & Retail Trade, SHARP researchers visited 6 machinery and equipment wholesalers, 8 building material and supply dealers and 2 grocery stores. At each site, we assessed risk factors specific to 4 body parts; the back, the shoulder, the hand and wrist, and the knee. We evaluated 578 jobs for WMSD risk factors. Based on the exposure to these risk factors, we then determined the magnitude of risk of injury as either low, moderate, high, or very high.

The physical risk factors that were evaluated are those that have been associated with WMSDs. These risk factors are:

- Awkward postures
- Lifting
- Pushing, pulling, carrying
- High hand forces
- Highly repetitive motions
- Repeated impacts of the hand or knee
- Vibration (whole body, hand)

Results

The charts in the following pages display some of the notable findings from our analyses.

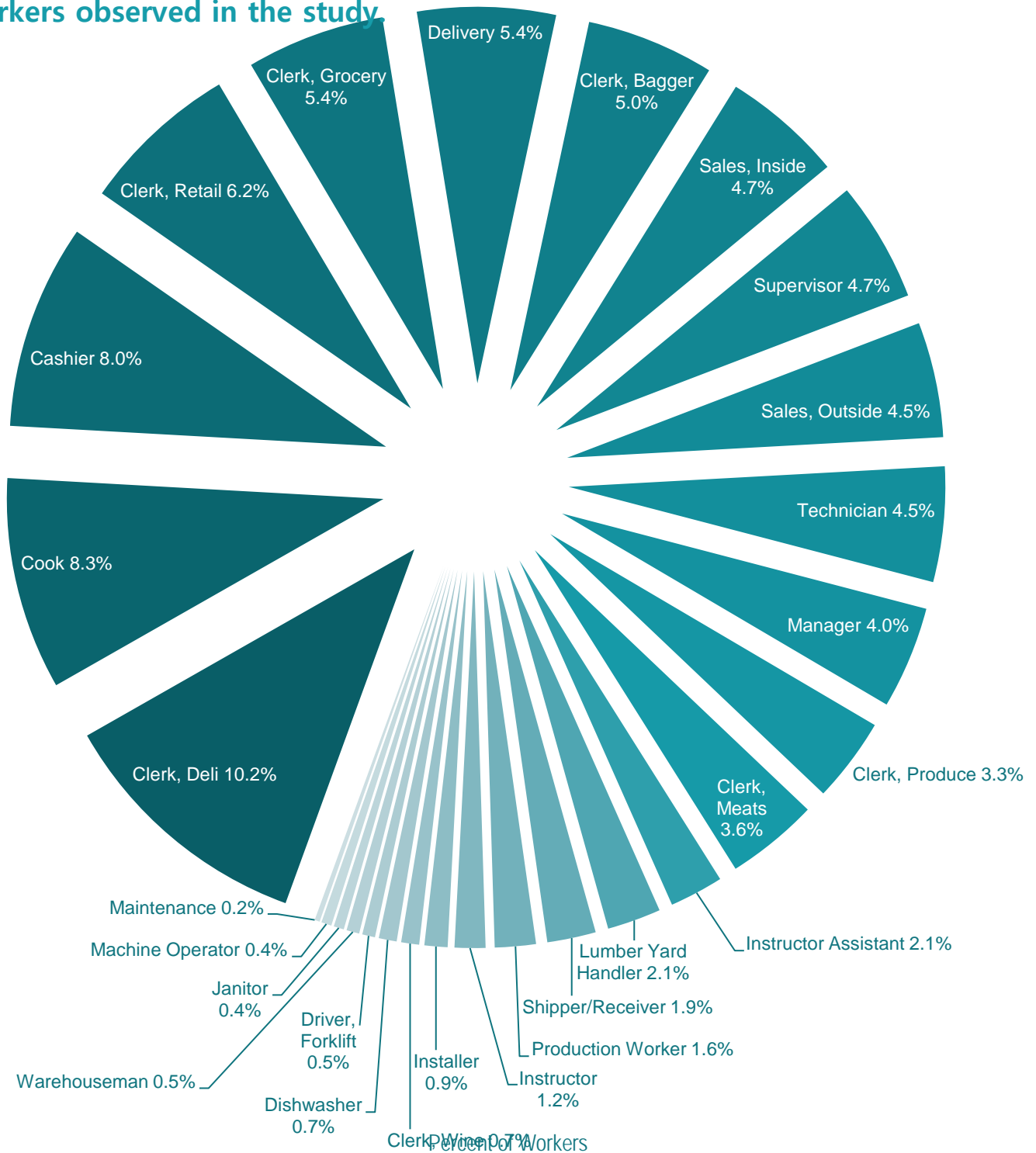
- Job Categories Assessed
- Level of Risk from Hand Activity
- Level of Risk from Prolonged Standing
- Level of Risk from Static Back Postures
- Level of Risk from Dynamic Back Movement

The charts that follow illustrate the level of risk (very high, high, moderate, low) posed by each risk factor. The level of risk is determined by these factors:

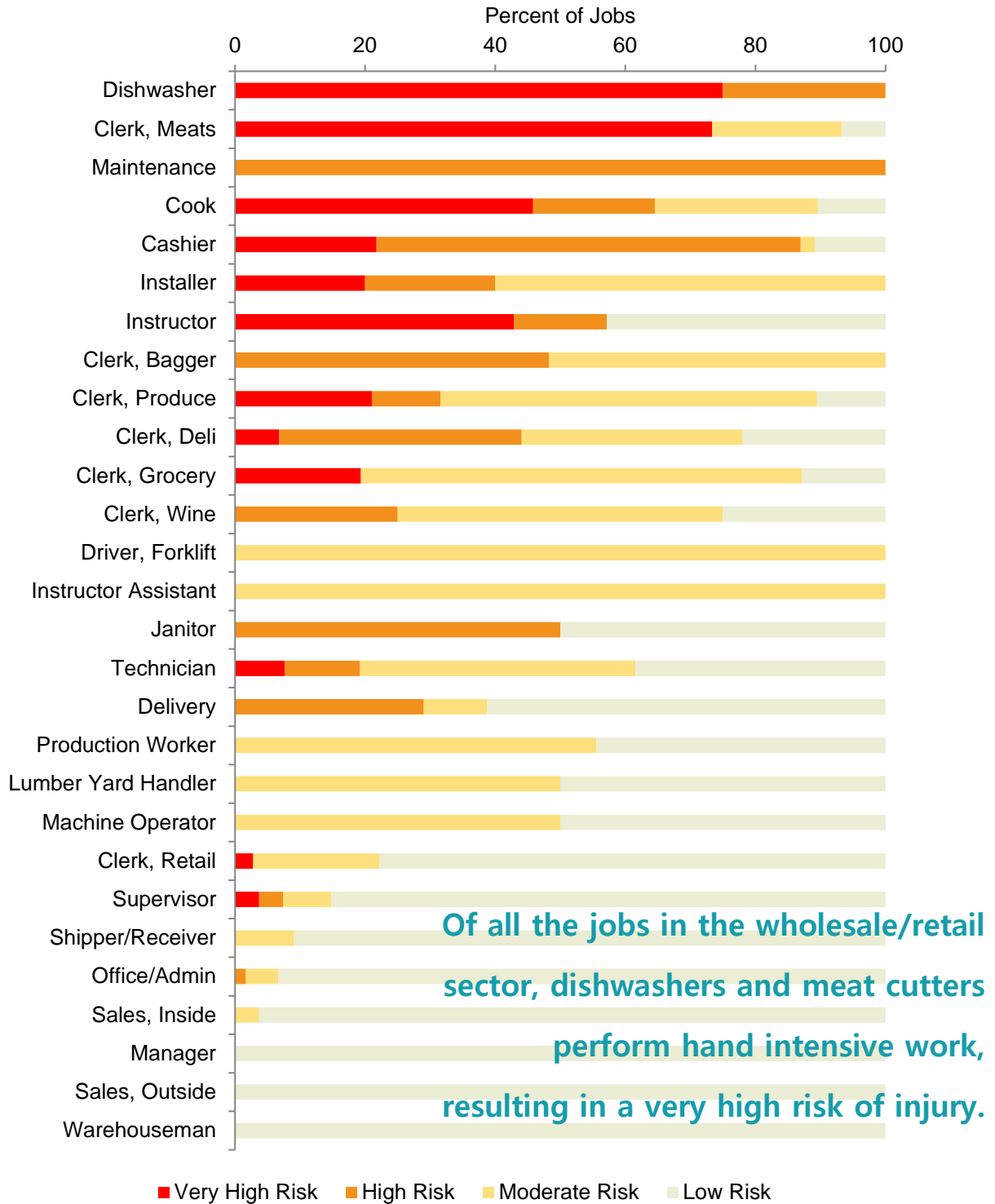
- The duration of exposure to the risk factor (How long?)
- The frequency of exposure to the risk factor (How often?)
- The intensity of the exposure to the risk factor (How much?)

Job Categories Assessed

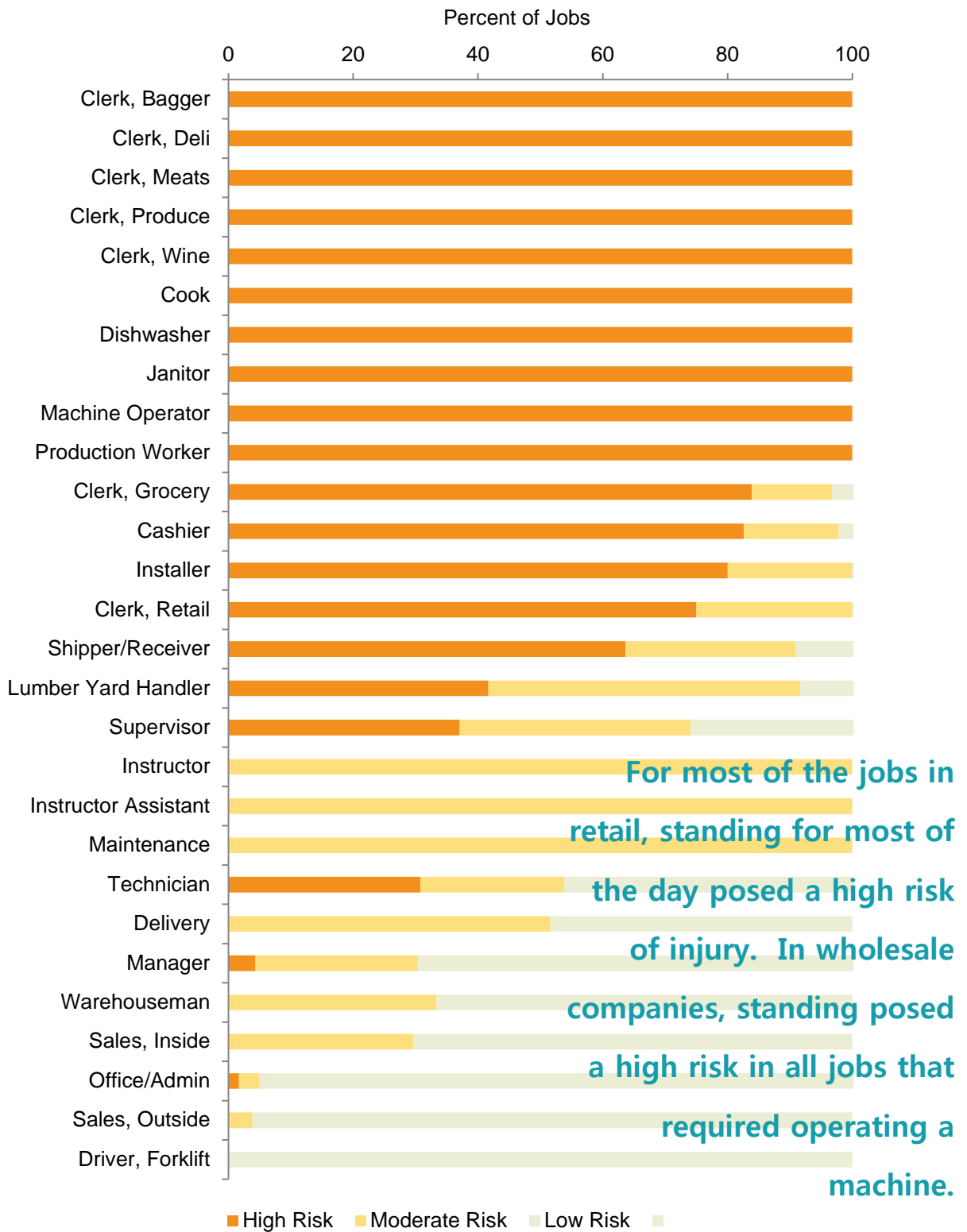
We assessed a representative sample of each site's job categories. Each item below shows the percentage of all workers observed in the study.



Level of Risk from Hand Activity

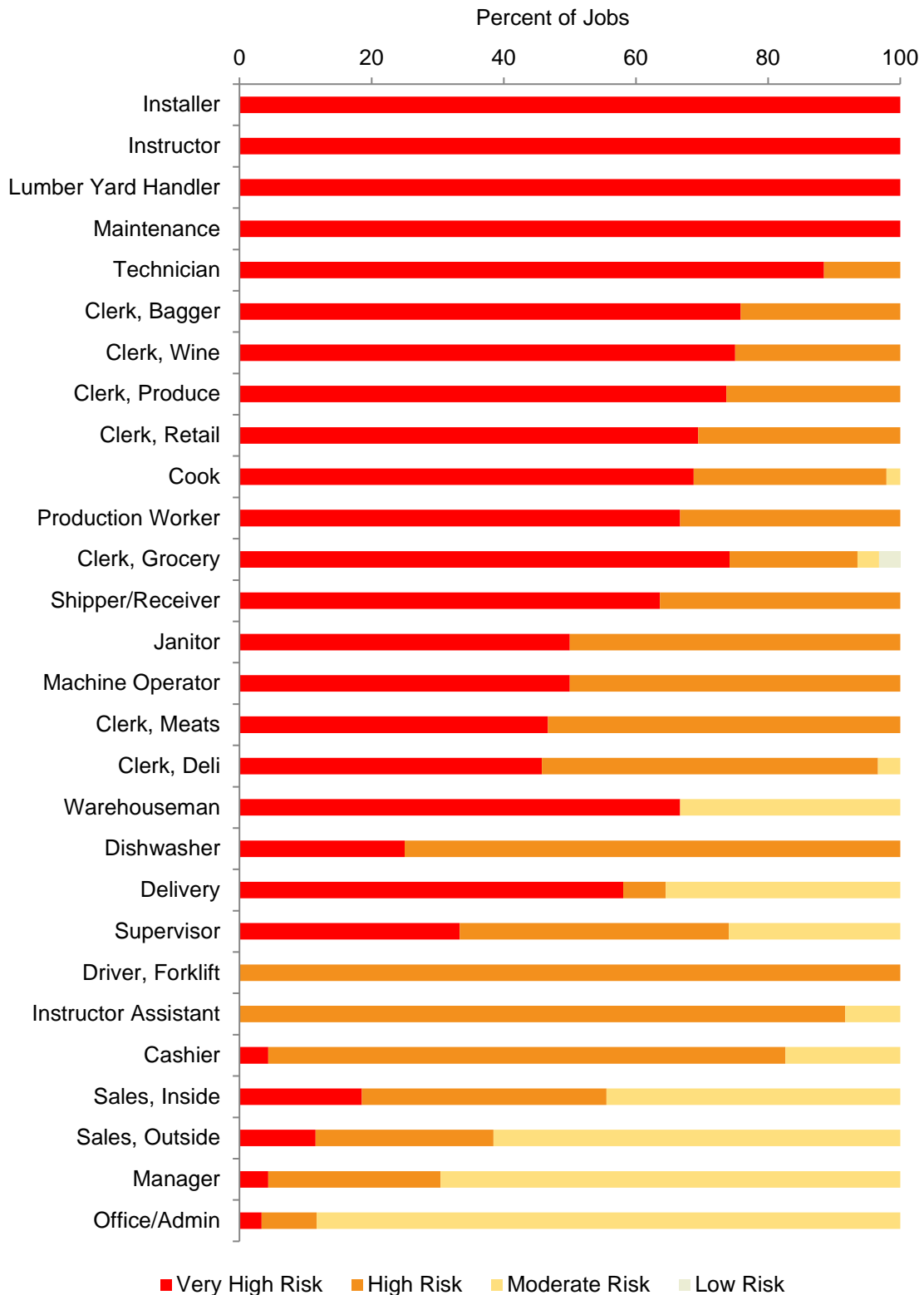


Level of Risk from Prolonged Standing

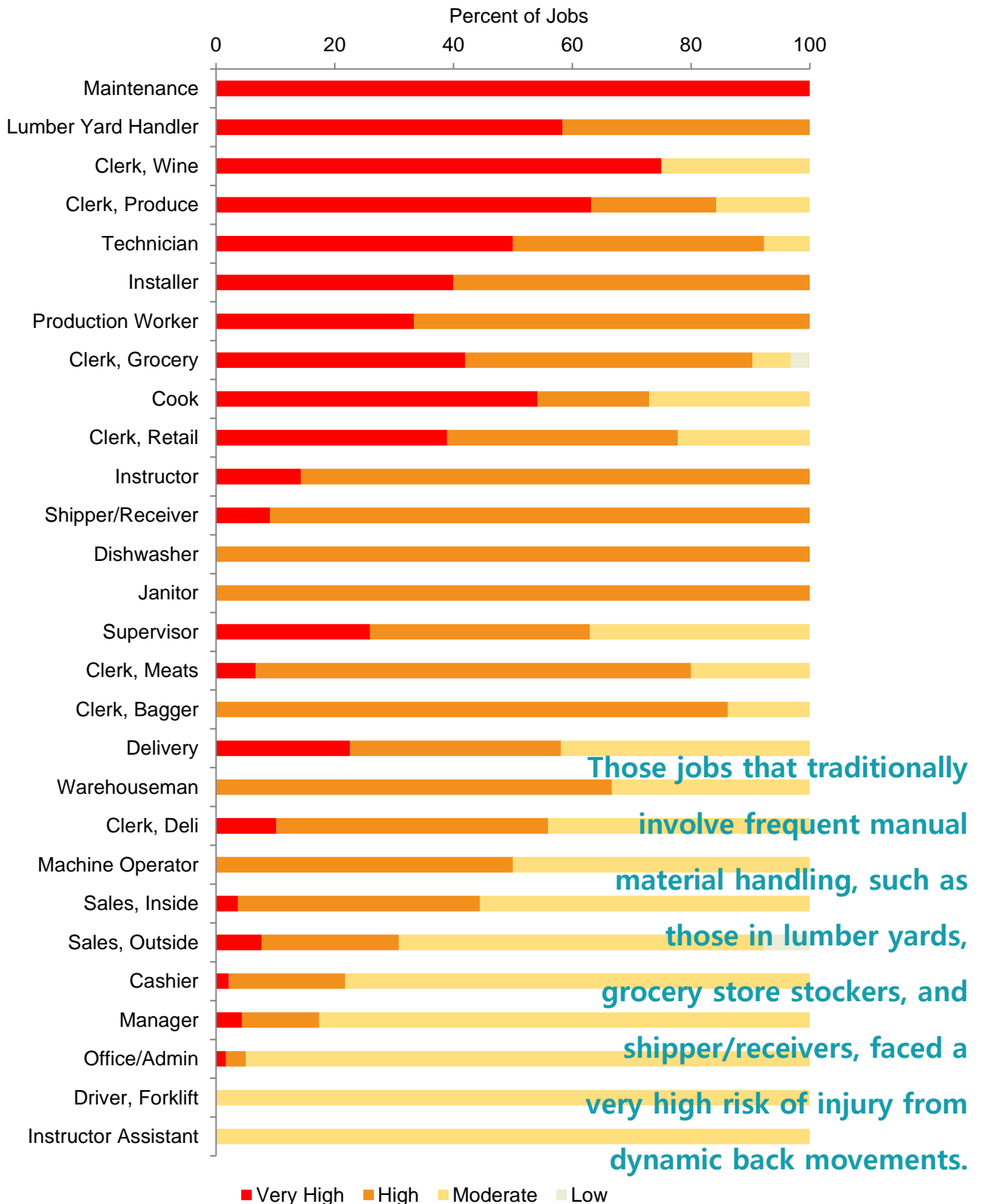


Level of Risk from Static Back Postures

A very high risk of injury from static back postures most often occurred in those jobs where long periods of time were spent.



Level of Risk from Dynamic Back Movement



Discussion

Among the wholesale/retail companies involved in our study, there was great diversity in the services provided and the processes used to provide those services. As a result, collectively within this industry, every risk factor of interest posed more than a minimal risk (with the exception of repeated impacts to the hands or knees). Several assessed risk factors produced interesting results:

- Prolonged standing was very common among the jobs in the wholesale/retail industry – 51% of the jobs required standing for more than 6 hours per day.
- In 25% of the jobs, manual material handling activities (carrying, pushing/pulling and lifting) posed a high or very high risk of injury.
- Workers in 43% of the jobs reported sometimes to oftentimes having difficulty keeping up with the work demands.
- Over a quarter of the jobs (29%) had hand activity levels that posed a high or very high risk of injury.
- Repeated impacts of the hand or knee were not observed in any of the jobs evaluated.

Exposure to a single risk factor can pose a high risk but exposure to a combination of risk factors increases that risk. Risk factor combinations that have been previously associated with increased injury risk include awkward back postures with frequent/heavy lifting, awkward wrist postures with highly repetitive motions, and awkward wrist postures with forceful hand exertions

Although the design of our study did not allow us to determine if risk factors occurred simultaneously, it was possible to identify where these risk factors occurred in the same job. Additionally, if the duration of exposure to each of these risk factors were for longer periods, then the likelihood that these risk factors occurred at the same time was high. The following risk combinations were found among the jobs in manufacturing:

- The combination of high risk from forceful pinching and deviated wrist postures was most often seen in the jobs of deli workers and meat cutters. This most likely occurred during knife work.
- The combination of high risk from forceful gripping and deviated wrist postures occurred frequently with cashiers and grocery baggers. This was most likely the result of the frequent handling of grocery items.
- The combination of high risk from awkward back postures and high risk from lifting occurred for delivery truck drivers and for technicians. These technicians all repaired large equipment.

This study identified physical risk factors specific to the Wholesale & Retail Trade sector. Prevention activities focused on jobs with high demands for manual material handling, high hand activity, and prolonged standing should contribute to the reduction of WMSDs in this industry sector.

Physical Job Evaluation Checklist for Wholesale & Retail Trade

In an effort to help increase general awareness of physical factors that contribute to work-related musculoskeletal disorders and injuries (WMSDs), such as sprains and strains, SHARP researchers developed a Physical Job Evaluation Checklist tailored especially for workers in the wholesale/retail sector. This checklist can quickly assess levels of risk for the back, shoulder, hand/wrist, and knee in a given job.

The Physical Job Evaluation Checklist was developed from observations of the more common jobs performed in machinery, building material, and grocery wholesaler/retail companies and the evaluation of WMSD risk based on those observations. The checklist is comprised of items for WMSD risk factors that were assessed to pose more than a minimal risk.

While the checklist was developed using observations from machinery, building material, and grocery wholesaler/retail companies, other industries in wholesale/retail may have similar job activities and may benefit from the use of the Physical Job Evaluation Checklist.

This checklist is **not** intended to predict injury. Instead, the purpose of the Physical Job Evaluation Checklist is:

- 1) To help identify aspects of the job that pose a risk for the back, shoulder, hand/wrist and knee injury
- 2) To help prioritize injury prevention efforts by identifying the jobs or the aspects of the job that pose the greatest risk of injury

Physical Job Evaluation Checklist, Wholesale/Retail - SHARP Program, Washington State Department of Labor and Industries

TUTORIAL	JOB BASICS	BACK	WORK POSTURES	SHOULDER
NECK	HAND EXERTIONS	REPETITION - HAND	REPETITION - FOOT	GRIPPING
LIFTING	CARRYING	PUSHING/PULLING	HAND/ARM VIBRATION	WHOLE BODY VIBRATION

PINCH GRIP DURATION
Total hours DURING THIS WORK pinching an unsupported object weighing 2 lbs. or more PER HAND or using a force of 4 lbs. or more PER HAND (like pinching half a ream of paper) for: hours

POWER GRIP DURATION
Total hours DURING THIS WORK gripping an unsupported object(s) weighing 10 lbs. or more PER HAND or using a force of 10 lbs. or more PER HAND (like opening jumper cables) for: hours

IF DURATION IS MORE THAN 3 HOURS:
Does this work also involve: No other risk factors, OR

Select all that apply below:

Highly repetitive motions

Wrist flexion > 30°

Ulnar deviation > 30°

Wrist extension > 45°

HOME PAGE
WHOLESALE/RETAIL

Welcome to the Physical Job Evaluation Checklist!

This checklist is intended to help the user determine the level of risk of developing work-related musculoskeletal disorders and injuries (WMSDs) through the observation and measurement of the work performed. Users of the checklist will be able to identify high risk jobs and be able to prioritize injury prevention efforts. This checklist can also be used to evaluate injury prevention solutions by comparing pre- and post-solution results. This tool cannot, however, predict injury or provide specific suggestions or solutions for reducing risk.

INSTRUCTIONS

- 1 Select the industry sector you are working with by clicking SELECT INDUSTRY.
- 2 To collect observational data, begin by clicking PRINT PAPER FORM.
- 3 Print a copy of the form for each job/task you plan to assess.
- 4 Observe the work performed by the worker as you fill out each page of the form.
- 5 After completing the form, return to this screen, select your industry, and click LAUNCH CHECKLIST.
- 6 Transfer your information from the paper form to the fields in the electronic checklist.
- 7 For some sections of the checklist, certain fields are required to calculate risk. However, you are not required to complete all sections.
- 8 Based on the results of the job report, consider ways you can change work practices and improve processes at your organization in order to minimize worker risk.

SELECT INDUSTRY PRINT PAPER FORM LAUNCH CHECKLIST

Developed in Excel 2010 for Windows. Other versions may cause errors. Recommended screen resolution is 1920x1080.

Ver. 1.0, September 2016

Washington State Department of Labor & Industries

**Download the
checklist
(click here)**

<http://www.lni.wa.gov/Safety/Research/Wmsd/WMSD2010.asp>

Start With the Basics: General Principles for Preventing Musculoskeletal Injuries and Disorders

The physical risk factors in a workplace that can contribute to the development of musculoskeletal injuries and disorders can be both numerous and complicated. However, there are several basic principles and “safe practices” that should be considered when attempting to eliminate or reduce these physical risk factors. If you have jobs that have more than one of these risk factors occurring at the same time (combination exposures), these should be your first priority for improvement. Finally, involve workers in brainstorming solutions if physical risk factors are found.

Awkward Postures:

Avoid holding the body in the same position for long periods of time (static postures).

- Try to move from that posture, even if for a short period of time.
- Use a machine to do the task.
- Keep the body moving (dynamic movements)--vary the levels or distance in which the work is performed.

Avoid working with the limbs far from the torso.

- Adjust (lower) the height of the work to below shoulder level.
- Frequently performed activities should be performed directly in front of the body.

Avoid hand tools or the orientation of objects that cause the wrist to bend up (extension) or down (flexion) or to the side (ulnar deviation).

- Use tools with bent handles.
- Use jigs or work surfaces that can orient the object to keep the wrist straight.

Avoid working with the back bend forward (back flexion) for long periods of time.

- Raise the work to at least waist level.
- Provide a stool so that workers can sit while doing the lower activities.
- Alternate with work that is performed standing up straight.

High Hand Forces:

When grasping an object with any kind of force, avoid using a pinch grip (grasping with the tips of the fingers). A power grip (holding the object with the fingers wrapped around it) can generate more force.

- Use a vise or a jig to hold the object.
- Use a tool to hold the object that requires a power grip.

Repetitive Motions:

Avoid having to perform quick motions repeatedly.

- See if it is possible to use a machine instead.
- Alternate the performance of repetitive tasks with less repetitive ones.

Heavy, Awkward and Frequent Lifting:

- Avoid lifting objects that:
 - can't be lifted close to the body,
 - require twisting during the lift,
 - are too big or of a shape that doesn't allow a good hold by the hands,
 - require the start and end of the lift to be greater than between knee or shoulder level.
- Use a machine to do the lifting.
- Arrange space so that heavier objects are kept between knee and shoulder height.
- Store less used, lighter, smaller objects below knee level or above shoulder level if there are no other alternatives.

What other factors could be involved in sprains, strains, and overexertions?

Important WMSD risks described by injured wholesale/retail workers

Over the course of our research we conducted many physical exposure assessments of jobs at companies throughout Washington State. Risk factors were evaluated using a set of established tools designed to assess factors such as posture, force, and repetition. However, we also conducted interviews with workers from the wholesale/retail sector that had filed workers' compensation claims for sprains, strains, and other WMSDs. These interviews helped shed light on factors, other than physical, that our tools could not measure but which may have contributed to, or exacerbated, their injuries. These factors could be summarized into three categories: working through injury, years of cumulative trauma, and heavy workload. The following are excerpts taken from interviews that illustrate aspects of the work environment our physical assessments could not capture.

Working Through Injury

I got hurt on Sunday when I dropped the box, and then the following Monday I filled a ten gallon order and was lifting two five-gallon buckets into the back of this truck. And that's when I was re-injured, that it really exacerbated what had happened the day before. And that finished me off. -- Sales clerk, back injury, 239 time-loss days

I started getting a lump down on my wrist, and as I'd work through the day it'd start swelling up. Then it just started getting bigger and bigger, and I guess pretty soon it just started pushing against that nerve. And that's how it all started. --Deli clerk, hand/wrist injury, 48 time-loss days

I was just putting away product, and I twisted wrong and it got progressively worse throughout the day. I was grabbing boxes left and right, and it just got worse and worse throughout the day. I was hunched over and barely able to walk and I went to the manager and said I gotta go. --Sales clerk, back injury, 4 time-loss days

I was in the process of getting those pallets to put into the truck and I stepped from the forklift and my knee felt funny. I probably have gotten on and off the forklift in the past 35 years probably 10,000-15,000 times. And this particular time when I stepped off it went "oosh". It felt weird. It felt different. I took some Tylenol and by 3 p.m. I couldn't continue to work. I worked through most of the day, but throughout the day the pain level continued to increase. --Sales clerk, knee injury, 58 time-loss days

Years of Cumulative Trauma

I've done this job almost consecutively for 20 years. I've done a lot of repetitive motion. We recently went to where we put the plastic front on to the shelf so it kind of clips into the metal part. So that you don't pull that whole strip off, you're pushing down on the shelf but you're pulling up on the tag, which is a very unnatural thing to do. In my left hand I have trigger finger and it wasn't until this past year that I started having trouble with my hands. --Sales clerk, hand/wrist injury, kept on salary

That was my third six-day week in a row. And there was like two or three cases left, and I just stopped. I went to pick it up. Went to stand up, and couldn't stand up. And that was it. And I just laid there for a while. I already had so many years of repetitive motion and being on my knees, I'm thinking maybe it was just a time bomb. It was just a matter of time. --Merchandiser, knee injury, 253 time-loss days

I try to move from different departments sometimes because you're gonna wear yourself out; 34 years is a long time. That's a long time to do something over and over, like wrapping. Wrapping is hard. I mean, it is. --Deli clerk, back injury, 17 time-loss days

I'm the kind of person that has spent my whole entire life doing manual labor jobs. When I went and saw my doctor he said he sees this a lot in guys my age who have spent their life doing nothing but manual labor jobs, where the shoulder just finally gives out. He pretty much just said that my shoulder has kind of had it. --Freight driver, shoulder injury, 192 time-loss days

Heavy Workload

I just took some time off. I wore a wrist support and it healed up pretty quickly and then I went back to doing it. Then I got re-injured from doing the same thing, especially how demanding it was to go even faster in this short amount of time. --Fruit cutter, hand/wrist injury, kept on salary

We only had about forty more sheets of drywall going upstairs. I'd been doing this a lot that day. I don't know what happened. I might have been getting tired to where my arms were getting worked out too much and then I over did it. --Delivery driver, shoulder injury, 201 time-loss days

So the next week comes up and my boss does the same thing. He sends people all over the place, but he doesn't send anybody to help me. I was close to thirty hours for the week when I was injured. It'd been a very, very, very tough previous two days. I had already worked eight and a half hours on that day, and I had two more stores to call on when I finished that one. --Merchandiser, shoulder injury, 595 time-loss days

I was working too many hours. The workload is very heavy for one person. I know how to lift and support myself and all that. I believe that I had just been there too many hours, pushing it too hard, lifting the heavy stuff, and my back just said no more. --Merchandiser, back injury, 111 time-loss days

Industry Prevention Strategies

Lessons learned from Wholesale & Retail insiders

After interviewing a wide range of employers in the wholesale/retail industry, we learned about several interesting injury prevention strategies that could work for others as well.

Rethink the Safety Incentive Program

Providing monetary incentives for zero time-loss claims may sound like a good idea at first. But one company found that this actually led to underreporting of injuries, while injuries continued to occur. So, they decided to convert their incentive program to a behavior based model.

Corporate just started a new program where people accumulate credits for company merchandise by contributing positive feedback on potentially improving safety practices or behaviors. It's not about penalizing someone. It's keeping each other safe. We're like a family here. –Inside Sales

Their new program rewarded workers who suggested new or innovative solutions for reducing risk or promoting worker health, demonstrated regular safety oriented practices like wearing all required personal protective equipment, and participated in ongoing safety trainings and safety meetings.

Performing Regular Safety Audits

Rather than putting a safety program into place and waiting for injury rates to drop, proactive employers routinely revisit standard operating procedures to critically examine the potential for injuries and consider the possibility of introducing improved, safer ways of conducting business. One employer we spoke to has developed a simple checklist system that keeps everyone involved:

We fill out monthly safety checklists. It used to only be done by the three safety committee members, but now for the last year or so we've been rotating through all store employees over the course of the year. New eyes catch things we might not, and that way every employee is more aware of the safety concerns at all times. It helps them catch things even if they're not doing the checklist, and each checklist is reviewed at each safety committee meeting. –Office Administrator

Taking Care of Your People

When an employee is injured on the job, the goal is for them to return to work. However, this may not mean returning them to full duty. It may not even mean light duty, depending on the situation. Some employers have found that to retain valued workers, they must offer them the flexibility to take paid leave to receive treatment or just to rest and recover. This not only prevents re-injury, but instills in workers the reassurance that they are valued by the company.

We just had a guy who came back from an injury, but we didn't have any work. I talked to him, told him to keep going to therapy, told him it does make a difference. Encourage them not to rush it, take as long as they need to heal. It's not just now, it's the rest of your life if you don't take care of yourself. –Field Ops Manager

We encourage workers to take paid leave to seek physical therapy or other medical care. They don't have to clock out to do that stuff. We also offer generous sick leave to rest and recover. –Service Manager

Of course, preventing injuries should be the most important goal. As one manager explained, good people are hard to replace:

Our biggest challenge is finding good people. What works best for safety? It's hard to say. Good technicians are hard to find. Who wants them to get injured? It's just too expensive to train them, much less replace them. –General Service Manager

Foster a Culture of Safety and Health

Employers that are committed to developing and managing a successful health and safety program foster a culture of safety. Not only do they address machine guarding and PPE, but also the fit of tools and workstations to workers and their overall well-being.

Keeping lines of communication open when workers need to voice their concerns is critical, as one employer reported:

We have open monthly meetings to review past issues. When issues are raised, I assign employees the task of overseeing their resolution. That keeps them engaged and part of the process of making work a safer place. –Service Manager

Fostering a culture of safety means keeping worker health a top priority.

Reduce Day-to-Day Risk

Some employers we worked with have realized the benefits of reducing the time their employees spend performing particularly high-risk activities. For some, that means periodically rotating workers in and out of certain tasks to allow others to perform them:

I don't send the same guys out to the big jobs day after day; we'll change schedules if guys work late one day so they're not falling asleep at the wheel the next day. We're rotating all the time between ground drop (low intensity) and conveyor jobs (high intensity). –Safety Manager

Often, it's the little things that have the biggest impact. Small, incremental changes can come from anyone in the organization who sees a problem, thinks of a solution, and advocates for its implementation. Over time, these improvements can transform a company into a safer and healthier place for employees and a more productive and profitable one for the company.

I think we need to do more with the safety tips that come our way, and try to implement those more with our workers, particularly with repetitive tasks. –Store Manager

Cashiers were asked for their opinions and they determined the height of the registers. –Security Director

When we have safety meetings, employees are pretty open about their concerns, and give a lot of suggestions that would be more comfortable for them. –Manager

Additional Resources

WMSDs

- Work-Related Musculoskeletal Disorders of the Back, Upper Extremity, and Knee in Washington State, 2002-2010
 - Report Summary: http://www.lni.wa.gov/Safety/Research/Files/WMSD_TR_EXP_Summary2.pdf
 - Full Report: http://www.lni.wa.gov/Safety/Research/Files/WMSD_TechReport2015.pdf
- Perceptions of risk from workers in high risk industries with work related musculoskeletal disorders
<http://iospress.metapress.com/content/e3553913x0503461/>

L&I Programs

- SHARP Program
<http://www.lni.wa.gov/Safety/Research/default.asp>
- Sprains & Strains Prevention Resources
<http://www.lni.wa.gov/safety/SprainsStrains/>
- DOSH Consultations
<http://www.lni.wa.gov/Safety/Consultation/default.asp>