

HOSPITALIZATIONS FOR ACUTE WORK-RELATED INJURIES AMONG WASHINGTON RETAIL WORKERS, 2007 – 2012

Data from the Safety and Health Assessment and Research for Prevention (SHARP) program
at the Washington State Department of Labor and Industries

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Introduction

Work-related injuries so severe they result in immediate hospitalization of the worker can be prevented. We examined in-patient hospitalization data and workers' compensation claims data to learn more about these hospitalizations for acute work-related injuries among Washington workers. Here we present the six-year trend in hospitalization rates among Retail Trade, age-specific hospitalization rates, and the types of injuries that result in hospitalization for acute work-related injuries.

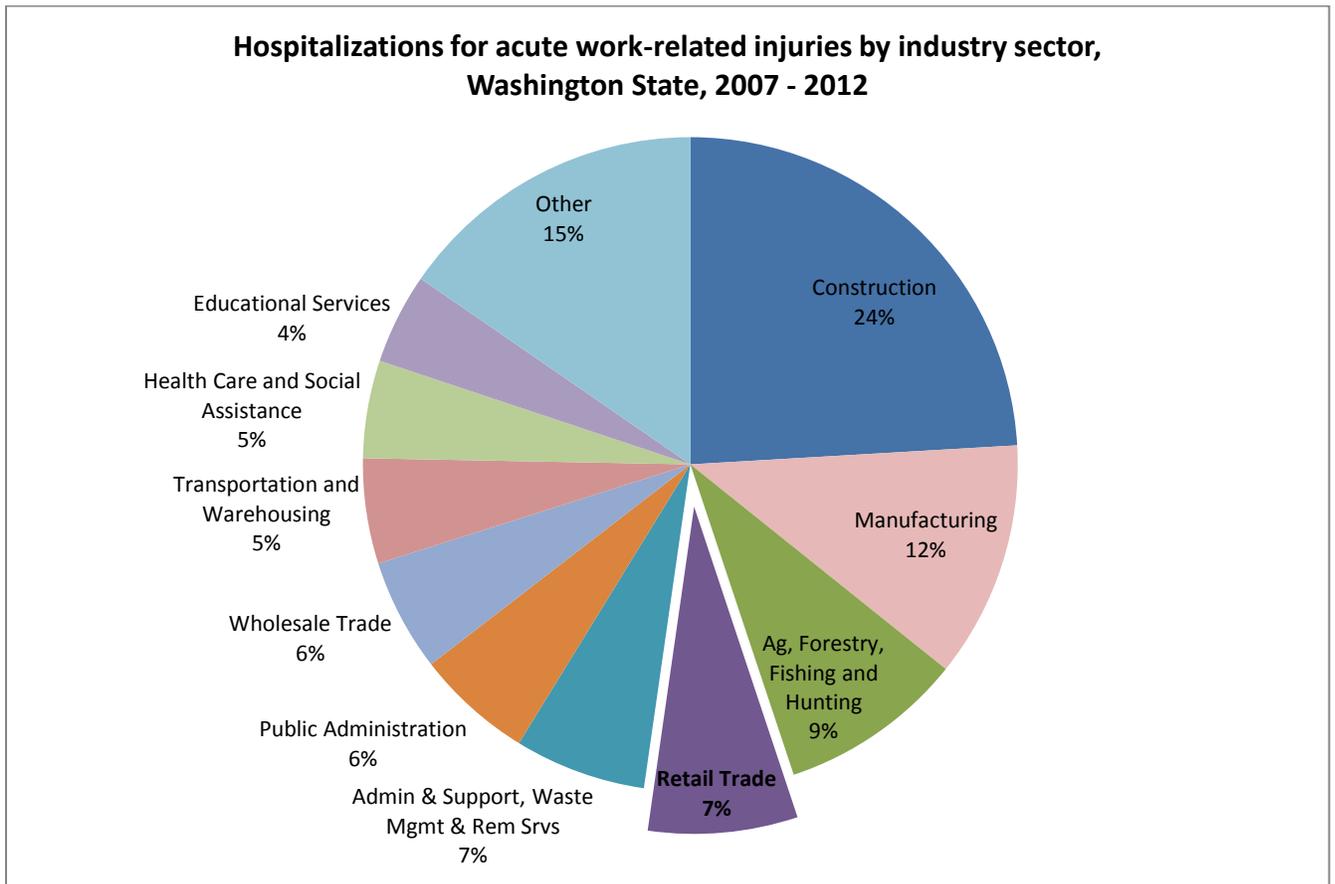
We linked inpatient hospitalization data from the Washington State Department of Health to Labor and Industries (L&I) workers' compensation (WC) claims data. Hospitalizations included in this analysis were limited to those that occurred within one day of the work-related injury. Both state funded workers' compensation claims and claims among self-insured employers are included in the analysis.

Hospitalization rates were calculated two ways using two different sources of employment data. First, we calculated hospitalization rates by full time equivalents (FTE)¹ using employer-reported data on hours worked, collected quarterly by L&I. From this, we produced estimates of the hospitalization rate per 10,000 FTE, in Retail Trade and all industries, between 2007 and 2012. The hospitalization rate for all industries was standardized to the 2012 industry mix to minimize the impact of changes in industry composition on the overall hospitalization rate. Hours worked are not available by worker age so a second data source was needed to calculate age-specific hospitalization rates. We used the US Census' Quarterly Workforce Indicators (QWI) data on number of workers employed to calculate hospitalization rates by age. QWI data is available through the second quarter of 2012. Age-specific rates are presented as hospitalizations per 100,000 workers. Due to the differences in employment data, the quarterly hospitalizations rates used to assess the trend over time cannot be compared to the age-specific hospitalization rates.

Injury type is determined from the description of the injury provided in the initial report of accident. These accident reports are submitted to L&I as part of the initiation of a WC claim. Injury narratives are coded according to the Occupational Injury and Illness Classification System.

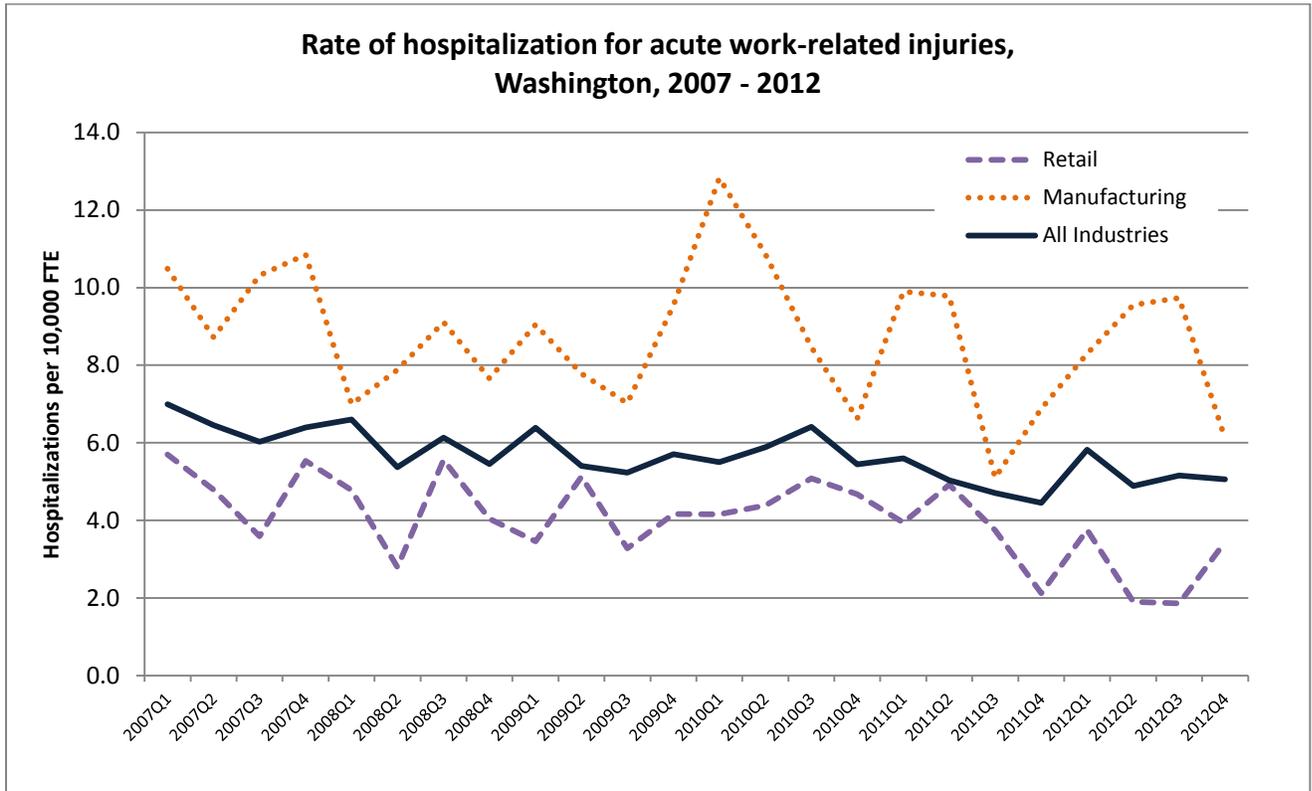
¹ 1 FTE=2,000 hours

Hospitalizations for work-related injuries by industry sector

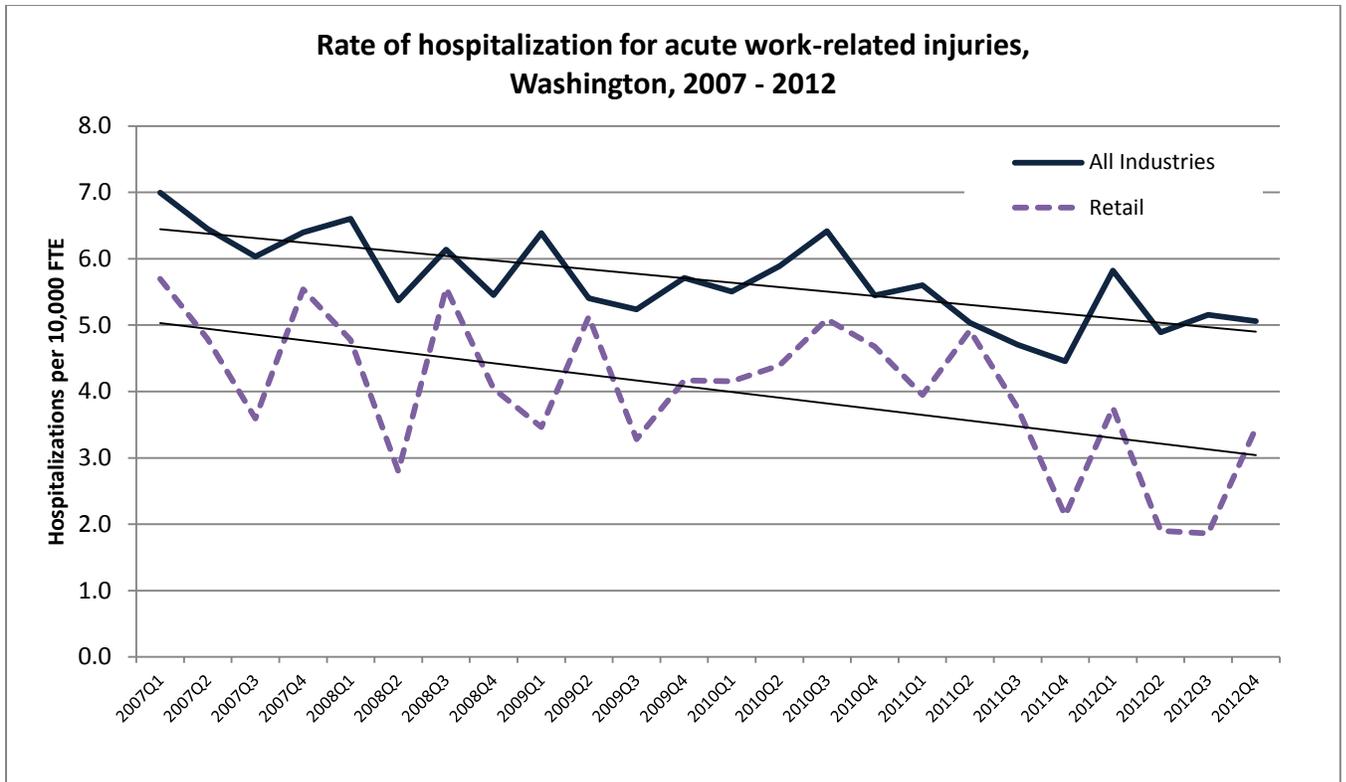


- Between 2007 and 2012, hospitalizations within one day of acute work-injury among Retail Workers accounted for 7% of such hospitalizations in Washington.
- As an industry, Retail Trade experienced the fourth largest number of hospitalizations for acute work-related injuries, a total of 399 between 2007 and 2012; only Construction, Manufacturing, and Agriculture, Forestry, Fishing and Hunting saw more hospitalizations for acute work-related injuries during the same time period.

Six-year trend in work-related hospitalization rates



- Although there were a large number of hospitalizations for acute work-related injuries in Retail Trade, the industry also employs a substantial workforce. As a fraction of the total Retail workforce, hospitalizations are lower than most other industry sectors and lower than the overall rate for all Washington workplaces.
- By comparison, for every 10,000 FTE, approximately twice as many hospitalizations for acute work-related injuries occur in Manufacturing than in Retail Trade.



- Like the trend for all industries, the rate of hospitalizations for acute work-related injuries in Retail Trade is decreasing over time.

Types of workplace injuries that result in hospitalization

Hospitalizations for acute work-related injuries in Retail Trade by injury type, Washington State, 2007 - 2012

Injury type	Number of Hospitalizations	
TOTAL	399	100%
Slip, trip, falls	99	25%
Falls from elevation	59	15%
Struck by or against objects	46	12%
Transportation accidents	33	8%
Caught in, compressed by, crushed by	24	6%
Sprain or strain	20	5%
Assaults and violent acts	18	5%
Overexertion	12	3%
Contact with temperature extremes	6	2%
Explosion	6	2%
Other	22	6%
Nonclassifiable	36	9%
Missing	18	5%

- Over half of the hospitalizations for acute work-related injuries in Retail Trade were attributable to one of three injuries: a slip, trip, or fall; a fall from elevation; or being struck by or against an object (such as shelves, doors, or equipment).
- One out of every four hospitalizations in Retail Trade was the result of a slip, trip, or fall.

Work-related hospitalization rate by worker age

Hospitalizations for acute work-related injuries in Retail Trade by age group, Washington, 2007 – 2012.Q2

Age group	Employment*	Number of Hospitalizations		Age-specific rate of hospitalization (per 100,000 workers*)
14-21	1,090,999	19	5%	1.7
22-24	686,347	23	6%	3.4
25-34	1,597,635	62	16%	3.9
35-44	1,225,350	66	18%	5.4
45-54	1,249,918	80	21%	6.4
55-64	794,278	76	20%	9.6
65-99	243,551	50	13%	20.5

*Employment data by age measured as total number of workers employed (total hours worked not available by age group). Employment data available through the second quarter of 2012.

- The rate of hospitalizations for work-related injuries increased with age, from 1.7 hospitalizations per 100,000 workers aged 14-21 years to 20.5 hospitalizations per 100,000 workers aged 65-99 years.
- Over 40% of hospitalizations occurred among workers aged 45 – 64 years.
- Employment measured as total number of workers likely does not reflect comparable workloads across age groups. A preferred measure of employment would be full time equivalents (FTE), however FTE are not available by age group. The age-specific rates as calculated should be interpreted with care.

Type of work-related injury by age of hospitalized worker

Hospitalizations for acute work-related injuries in Retail Trade by injury type and worker age group, Washington, 2007 – 2012

	14-21 yrs		22-24 yrs		25-34 yrs		35-44 yrs		45-54 yrs		55-64 yrs		65-99 yrs		Total	
Slip, trip, fall	3	14%	3	12%	10	16%	8	12%	16	19%	30	37%	29	52%	99	25%
Falls from elevation	1	5%	4	16%	5	8%	12	18%	13	16%	15	18%	9	16%	59	15%
Struck by objects	5	24%	4	16%	10	16%	16	24%	7	8%	3	4%	1	2%	46	12%
Transportation accidents	5	24%	2	8%	4	6%	5	7%	9	11%	5	6%	3	5%	33	8%
Caught in, crushed by	1	5%	3	12%	5	8%	7	10%	3	4%	5	6%	0	0%	24	6%
Sprain or strain	0	0%	2	8%	3	5%	5	7%	4	5%	4	5%	2	4%	20	5%
Assaults and violent acts	1	5%	0	0%	8	13%	4	6%	4	5%	0	0%	1	2%	18	5%
Other	4	19%	5	20%	11	17%	8	12%	19	23%	10	12%	7	13%	64	16%
Nonclassifiable	1	5%	2	8%	8	13%	3	4%	8	10%	10	12%	4	7%	36	9%
TOTAL	21	100%	25	100%	64	100%	68	100%	83	100%	82	100%	56	100%	399	100%

- Work-related injuries resulting in hospitalizations differ by age group.
 - Transportation accidents are among the leading causes of work-related hospitalizations among workers aged 14 – 21 years.
 - Being struck by an object (such as shelves, doors, or equipment) is a leading cause of hospitalization for workers age 14 through 44 years.
 - For workers aged 55 years and older, slips, trips, and falls were the most common injury resulting in a hospitalization.
 - While rare, assault and violent acts were more common among workers aged 25-33 years compared with any other age group.