SHARP FOCUS

FALLS FROM ELEVATION

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This is a summary of Washington State workers' compensation claims data for falls from elevation. It focuses attention on important safety issues and encourages increased prevention efforts in industries that experience high rates of falls. Falls from elevation include falls from objects such scaffolds, walkways, ladders, and vehicles, as well as falls on stairs, into shafts, or from a roof.

According to the United States Bureau of Labor Statistics, falls from elevation are the fourth leading cause of work-related death in the United States. In 2002, 634 of 5,524 work-related deaths in the United States resulted from falls from elevation. In the years 1997-2001, there were 38,234 workers' compensation claims relating to falls from elevation, costing approximately $440.2 million.[1]

- The average cost of a fall from elevation claim was $11,514, which is more than twice the average cost of an allowed State Fund claim.
- After four years of decline between 1997 and 2000, the total cost for falls from elevation increased in 2001 by 9.3 percent. Annual data, based on the year of injury, are shown in Table 1.
- More than 80 percent of falls occurred in 88 basic risk classifications.[2] The top 10 classifications, ranked by prevention index,[3] are shown in Table 2. They represent 18 percent of claims and 40 percent of the costs of falls from elevation.
- Other classifications with more than 175 claims and average costs in excess of $16,000 per claim, include BUILDING CONSTRUCTION-SHEET METAL WORK, ROAD CONSTRUCTION, MACHINERY DEALERS NOC (NOT OTHERWISE CLASSIFIED), BUILDING CONSTRUCTION NOC, WALLBOARD TAPING-DISCOUNTED, UNDERGROUND UTILITIES, and INTERIOR FINISH CARPENTRY.
- Falls from ladders is the largest subgroup of falls from elevation. It contains 10,463 injuries (27.4% of the total claims) costing almost $115 million.
- Falls from ladders was the leading accident type for ORCHARDS, HVAC, CARPENTRY NOC, PAINTING, ELECTRICAL WIRING, WOOD FRAME BUILDING CONSTRUCTION, and BUILDING CONSTRUCTION NOC.
- Falls-from-vehicles represented 61 percent of the falls in PARCEL PACKAGE DELIVERY and 75 percent of falls in TRUCKING NOC.
- Falls-from-roof was the leading type of accident for ROOFING at 48 percent and falls from ladders was second at 29 percent.
- In at least 25 percent of the fall from elevation cases involving a ladder, the physical condition of the ladder or the way it was used contributed to the injuries sustained in the fall. Ladder movement, ladder falling over, and ladder broke/collapsed were the most frequently recorded contributing conditions.

Table 1 Annual Trend for Falls-from-Elevation

	1997	1998	1999	2000	2001	Total
Claim Count	8,612	8,091	7,567	6,903	7,061	38,234
Claim Rate per 10,000 FTE	69.9	63.4	57.2	51.6	53.3	58.9
Total Cost in Millions	$100.10	$92.80	$85.70	$77.20	$84.40	$440.20
Average Claim Cost	$11,619	$11.47	$11,330	$11,182	$11,951	$11,594

Table 2 Ten Basic Risk Classifications with Greatest Potential for Prevention

Basic Risk Classification	Claim Count	Claim Rate per 10,000 FTE	Total Time-loss Days	Total Cost (millions $)	Average Cost
Orchards	2,910	234.6	215,662	$19.80	$6,815
Wood Frame Building Construction	2,038	280.5	261,165	$41.10	$20,120
Trucking, noc	1,083	190	104,942	$17.90	$16,616
Roofing	868	181.8	131,314	$32.00	$36,871
Painting	688	193.8	95,579	$14.80	$21,467
HVAC Systems	609	168.5	36,056	$6.10	$10,081
Carpentry, noc	505	157.4	88,326	$14.30	$28,351
Logging	406	306.9	39,550	$5.80	$14,285
Insulation Installation	296	258	20,065	$3.50	$11,768

Technical Notes:

1. Ronald Wrona PhD, an Epidemiologist with the Safety and Health Assessment and Research for Prevention (SHARP) program wrote this report. This effort was supported by Cooperative Agreement 5U01OH07292 between the National Institute for Occupational Safety and Health and the Washington State Department of Labor and Industries. The contents are solely the responsibility of the author and do not necessarily represent the official views of NIOSH and the Centers for Disease Control and Prevention. The data for all State Fund claims were extracted on October 8, 2003 with dates of injury between January 1, 1997 and December 31, 2001. Falls from elevation include those claims where the fall was described as having occurred from scaffolds, walkways, platforms, piled materials, vehicles, on stairs, into shafts et al, from a roof, or to a lower level (ANSI Z16.2 Accident Type Codes 030 –039). Employment for rate calculations uses payroll hours submitted to the Department of Labor and Industries. One FTE is 2,000 hours.

2. A basic risk classification is a grouping of businesses having the same or similar exposures to occupational illnesses and injuries. Each classification carries a premium rate reflecting the hazards to which workers in these businesses are exposed. In the State of Washington there are over 300 such classifications as defined in the Washington Administrative Code Chapter 296-17 Sections 501 through 779.

3. The prevention index (which is the average of two rankings – one by claim rate and the second by claim count) provides a way of identifying those risk classes that have high potential payoff for prevention.

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