



Summary of Workers' Compensation Claims Characteristics, Oregon, 1976-1996

Research & Analysis Section

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by Gary A. Helmer

Introduction

The Department of Consumer and Business Services (the department) was given full responsibility by the Oregon Safe Employment Act of 1973 "... to assure as far as possible safe and healthful working conditions for every working man and woman in Oregon..." in accordance with the Federal Occupational Safety and Health Act of 1970. Since 1971 the department, in cooperation with the U.S. Bureau of Labor Statistics, has conducted an annual survey of occupational injuries and illnesses. In 1976 the federal grant was amended to include the collection of data directly from workers' compensation cases. Each year since 1976 the department has published a report summarizing the characteristics of the year's accepted disabling claims (see the notes for definitions). This report summarizes the changes in the characteristics of Oregon's workers' compensation claims from 1976 to 1996. The yearly claims characteristics publications, other reports covering Oregon's workers' compensation system, and the department's overall statistical summary, *Monitoring the Key Components of Legislative Reform*, are available upon request.

Claims and claims rates

The recent history of Oregon's workers' compensation system can be divided into two periods. Prior to 1989, the trends in the number of workers' compensations claims were exaggerated versions of Oregon's economic trends. In the 1970s and early 1980s, when the employment growth slowed, the number of accepted disabling claims fell (see Table 1). When the economy recovered, the number of accepted disabling claims increased at a faster rate than did employment. One explanation for this pattern is that inexperienced workers, who are more likely than experienced workers to be injured, are also more likely to be fired during economic downturns and hired during economic upswings.

In part because of the growth in the number of claims, Oregon's workers' compensation system was overhauled between 1987 and 1990. During the 1987 legislative session, HB 2900 expanded OR-OSHA's consultative program, required insurers and self-insured employers to provide safety and health loss prevention programs, and increased penalties against employers who violated the state safety and health act. In 1990, continued high workers' compensation costs and the cancellation of the policies of many small employers provided the impetus for further reform. This effort culminated in the passage of SB 1197 during a special session of the Oregon legislature. SB 1197 extended HB 2900 by requiring that all employers with more than ten employees establish

Table 1. Employment, accepted disabling claims, and claims rates, 1976-1996

Year	Covered employment	% growth	Accepted disabling claims			Fatalities	
			Number	% change	Rate	Number	Rate
1976	879,200	4.7%	31,013	-3.6%	3.5	104	11.8
1977	937,100	6.6%	38,657	24.6%	4.1	124	13.2
1978	1,009,000	7.7%	47,844	23.8%	4.7	122	12.1
1979	1,055,100	4.6%	44,697	-6.6%	4.2	137	13.0
1980	1,050,800	-0.4%	44,930	0.5%	4.3	88	8.4
1981	1,026,200	-2.3%	37,498	-16.5%	3.7	75	7.3
1982	968,700	-5.6%	31,535	-15.9%	3.3	67	6.9
1983	973,900	0.5%	34,037	7.9%	3.5	97	10.0
1984	1,013,700	4.1%	37,702	10.8%	3.7	83	8.2
1985	1,034,600	2.1%	38,808	2.9%	3.8	84	8.1
1986	1,064,000	2.8%	40,157	3.5%	3.8	84	7.9
1987	1,105,200	3.9%	41,033	2.2%	3.7	78	7.1
1988	1,161,100	5.1%	43,660	6.4%	3.8	81	7.0
1989	1,214,900	4.6%	39,170	-10.3%	3.2	75	6.2
1990	1,258,600	3.6%	35,857	-8.5%	2.8	64	5.1
1991	1,258,600	0.0%	31,479	-12.2%	2.5	65	5.2
1992	1,280,500	1.7%	30,786	-2.2%	2.4	63	4.9
1993	1,317,100	2.9%	30,741	-0.1%	2.3	64	4.9
1994	1,378,800	4.7%	31,530	2.6%	2.3	55	4.0
1995	1,431,600	3.8%	30,564	-3.1%	2.1	48	3.4
1996	1,487,600	3.9%	28,389	-7.1%	1.9	54	3.6

Notes: Employment figures are estimated workers' compensation covered employment developed primarily from data supplied by the Oregon Employment Department.

Figures are annual average employment. The growth percentage is the change in employment from the previous year.

Claims rates are the number of claims per 100 workers.

Disabling claims include fatalities.

Fatality rates are the number of fatality claims per 100,000 workers.

safety and health committees and that employers with ten or fewer employees establish safety committees if they had a lost workday cases incidence rate in the top ten percent of rates for employers in the same industry or were subject to a premium classification in the highest 25 percent of premium rates.

In SB 1197, the legislature also changed the definitions of compensability for both injuries and diseases. The reforms required that a compensable injury be established by medical evidence supported by objective findings. In addition, the compensable injury had to be the major contributing cause of a consequential condition for that condition to be compensable. If the compensable injury was combined with a preexisting condition, the resultant condition was compensable only to the extent that the compensable injury remained the major contributing cause of the disability or need for treatment. Injuries from recreational and social activities were excluded. Injuries that arose from the use of alcohol or drugs were excluded when it was proved by clear and convincing evidence that the alcohol or drug was the major contributing cause of the injury. (In 1995, the legislature reduced the standard of proof to the “preponderance of evidence.”) Likewise, the definition of a compensable occupational disease was changed. To be compensable, the disease had to be caused by substances or activities to which an employee was not ordinarily subjected, the employment had to be the major contributing factor, and the existence of the disease had to be established by objective medical evidence.

Legislative reforms and the increased number of safety committees have not been the only changes. Oregon employers obtain workers’ compensation insurance from private insurers or the SAIF Corporation, or they choose to be self-insured. Between 1989 and 1991, SAIF dropped the coverage of a large number of small employers and instituted claims handling procedures that resulted in a higher claims denial rate. More recently, changes in claims management by insurers and employers, such as return-to-work programs that help employees get back to work quickly, may be reducing the number of accidents that are classified as accepted and disabling.

Also, Oregon’s economy has changed over the past 20 years. There are fewer workers in the hazardous wood products industry, and more workers in comparatively safer services industries. Although this employment shift has had some effect, claims rates have declined in all industries, and the available information indicates that this economic shift has had a fairly small role in the recent reductions in the number of claims.

These factors have helped to recreate Oregon’s workers’ compensation environment. In most recent years, Oregon has had a slowly decreasing number of accepted disabling claims coming from an expanding pool of workers. Between 1988 and 1996, the number of workers covered by Oregon’s workers’ compensation law increased 28 percent, and the number of accepted disabling claims declined 35 percent. Because of this pattern, the claims rate fell from 3.8 claims per 100 workers in 1988 to 1.9 in 1996.

Industries and occupations

Claims counts and rates for Oregon’s industry divisions and important industries within divisions are shown in Table 2. To some degree, the changes in the distribution of claims reflect the changes in Oregon’s mix of industries. The changes in claims rates show that safety has increased in all industries.

In 1976, 42 percent of the accepted disabling claims came from the manufacturing division; in 1996, 21 percent came from manufacturing. The largest drops in claims have come from the wood products and food products industries. In 1976, the wood products industry produced 20 percent of the claims and 38 percent of the fatalities; in 1996, it had seven percent of the claims and 22 percent of the fatalities.

A quarter of Oregonians work in the services sector, and this division now provides the second largest number of claims. Health and social services and business services (such as personnel supply companies and building maintenance services) produce the largest number of claims. The retail sector employs nearly 20 percent of Oregonians, and it produced 18 percent of the claims in 1996. Almost a third of the retail sector claims came from employees of eating and drinking establishments.

The three divisions with more claims in 1996 than in 1991 were construction, transportation and public utilities, and mining. The 11 percent increase in construction claims resulted from a 52 percent increase in employment that more than offset a drop in the claims rate from 5.5 to 4.0 claims per 100 workers. Historically, the construction industry has had the highest claims rate; in 1996, however, its rate was lower than the rates in either the mining or the transportation and public utilities industries.

The shift in the industries of injured workers is seen to a lesser extent in the shift in claimants’ occupations (see Table 3). There has been a decline in the percentage of

Table 2. Accepted disabling claims and claims rates by industry, Oregon, 1976-1996

Industry	Accepted disabling claims						Claims rates (per 100 workers)				
	1976	1981	1986	1991	1996	% change: 1976-1996	1976	1981	1986	1991	1996
Agriculture, forestry, fishing	1,300	1,823	2,049	1,365	1,129	-13.2%	3.1	4.4	4.5	2.6	1.8
Mining	80	148	82	54	81	1.3%	5.3	6.7	5.4	3.4	4.3
Construction	2,461	3,140	2,971	2,816	3,128	27.1%	6.7	8.4	8.8	5.5	4.0
Manufacturing	13,038	13,271	12,625	8,082	5,995	-54.0%	6.7	6.5	6.4	3.8	2.5
Food & kindred products	2,010	2,261	1,842	1,271	737	-63.3%					
Lumber & wood products	6,239	5,402	6,275	3,218	2,056	-67.0%					
Other manufacturing	4,789	5,608	4,508	3,593	3,202	-33.1%					
Transportation & public utilities	2,060	2,811	2,811	2,644	2,967	44.0%	4.9	5.4	5.5	4.3	4.3
Trucking & warehousing	1,538	2,060	2,033	1,830	2,045	33.0%					
Other trans. & utilities	522	751	778	814	922	76.6%					
Wholesale trade	2,075	2,428	2,200	1,775	1,551	-25.3%	3.8	3.6	3.2	2.2	1.7
Retail trade	3,833	5,326	6,689	5,710	5,058	32.0%	2.5	2.9	3.4	2.4	1.8
Eating & drinking places	1,149	1,808	2,311	1,796	1,611	40.2%					
Other retail trade	2,684	3,518	4,378	3,914	3,447	28.4%					
Finance, insurance, real estate	343	545	610	561	523	52.5%	0.7	0.8	0.9	0.7	0.6
Services	2,899	4,402	6,317	5,665	5,278	82.1%	2.0	2.3	2.8	1.9	1.4
Business services	403	545	1,213	1,274	1,468	264.3%					
Health services	1,153	1,868	2,335	1,903	1,477	28.1%					
Social services	193	285	432	522	526	172.5%					
Other services	1,150	1,704	2,337	1,966	1,807	57.1%					
State government	671	868	1,300	687	652	-2.8%	1.3	1.6	2.4	1.1	1.2
Local government	2,253	2,736	2,443	2,113	2,009	-10.8%	2.2	2.3	2.1	1.6	1.3
Education	800	961	938	892	748	-6.5%					
Other local government	1,453	1,775	1,505	1,221	1,261	-13.2%					
Total	31,013	37,498	40,157	31,479	28,389	-8.5%	3.5	3.7	3.8	2.5	1.9
Registered employers	62,884	70,824	68,803	67,410	76,966	22.4%					
Subject employees	879,200	1,026,200	1,064,000	1,258,600	1,487,600	69.2%					

Notes: The totals include the claims for which the industries were unknown.

Claims rates are unavailable for the industries within each division.

1976 and 1981 claims are coded according to the Standard Industrial Classification manual, 1972 edition.

Later claims are coded according to the Standard Industrial Classification manual, 1987 edition.

Table 4. Age and gender of claimants, Oregon, 1976 and 1996

Age and gender		1976	1996
Under 18	Women	0.8%	0.4%
	Men	1.8%	0.6%
18 - 25	Women	5.2%	4.8%
	Men	24.1%	11.8%
26 - 35	Women	4.5%	7.8%
	Men	22.3%	19.8%
36 - 45	Women	3.9%	9.5%
	Men	13.0%	19.3%
46 - 65	Women	5.8%	8.7%
	Men	18.0%	16.3%
Over 65	Women	0.1%	0.3%
	Men	0.6%	0.6%
Total		100.0%	100.0%
Women		20.3%	31.5%
Men		79.7%	68.5%

Table 3. Distribution of claimants' occupations, Oregon, 1981 and 1996

Occupation	1981	1996
Professional, managerial	5.0%	5.5%
Technical & administrative support	4.6%	6.8%
Sales occupations	2.6%	5.7%
Service workers	15.4%	17.7%
Farm workers & managers	4.0%	3.5%
Foresters, loggers, fishers, hunters	3.8%	2.8%
Mechanics & repairers	6.1%	6.1%
Construction trades	5.7%	8.6%
Precision production occupations	4.9%	3.5%
Operators, exc. transport	16.9%	11.7%
Transport equipment operators	10.9%	11.1%
Laborers, exc. farm	20.0%	17.1%
Total	100.0%	100.0%

Note: The distributions exclude the claims with unreported occupation codes.

workers whose occupations are chiefly manufacturing jobs: precision production occupations and non-transport machinery operators. Also, in 1981, 41 percent of the injured non-farm laborers were in the manufacturing division; in 1996, 22 percent of the non-farm laborers worked in manufacturing.

Demographic characteristics

The demographic characteristics of Oregon's injured workers have changed along with the changes in industries and occupations. In 1976, 48 percent of the claimants were men aged 35 or under; in 1996, 32 percent of the claimants were men aged 35 or under (see Table 4). The percentage of claimants who were women increased from 20 percent to 32 percent. The percentage of injured workers who were women reached its zenith in 1992, when one-third of the injured workers were women. This percentage has declined slightly each year since 1992.

Injuries to workers aged 17 and under are of special interest because of the restrictions placed on the types of activities they may perform. The number of young Oregonians with accepted disabling claims fell from 792 in 1976 to 292 in 1996.

One of the important trends in Oregon's worker's compensation system has been the steady decline in the wages of injured workers compared to the wages of all Oregon workers. In 1981, the average weekly wage (AWW) of an injured worker was \$18.70 higher than the statewide AWW (see Table 5). In 1996, the AWW of injured workers was \$78.03 less than the statewide average.

A 1993 department study, *Differences in Average Weekly Wages, Workers Disabled on the Job and All Oregon Workers, 1982-1990*, looked for explanations of this trend. The study showed that changes in the industrial mix during the 1980s had little impact. The AWW of

injured workers declined in comparison to the AWW of all workers in all industries except the agriculture, forestry, and fishing division. The study found several possible explanations for the increasing difference. First, the increasing difference in wages was strongly correlated with the decline in the unemployment rate between 1982 and 1990. This result would have been expected if the economic expansion brought new, low-wage workers into the work force. These inexperienced workers would have had an above-average likelihood of being injured. In the early 1990s, however, the unemployment rate increased, but the wage differential of injured workers continued to increase.

The second explanation for the increasing wage differential was the increasing percentage of injured workers who were women. On average, women have earned less than men. Therefore, as the percentage of injured workers who were women grew closer to the percentage of all Oregon workers who were women, the wage differential should have grown. Again, however, this explanation doesn't hold true during the 1990s. The percentage of women in Oregon's work force has increased, while the percentage of the injured population who are women has declined.

The third explanation is the difference in educational levels. In 1990, while about 40 percent of employed Oregonians aged 25 and over had no more than a high school education, 72 percent of the injured workers had no more than a high school education. In 1996, 67 percent of the injured workers had no more than a high school education. It is often reported that the wage gap between those with and those without a college education is increasing. Because the majority of injured workers do not have a college education, the increasing wage differential may be the result of this education gap. The department will be exploring this possibility further.

Injury and disease descriptions

Table 6 shows the characteristics of the events that produced the claims in 1981 and in 1995. (1976 data are not available. Also, the department adopted a new coding system in 1996, so some comparisons between 1996 data and earlier data are misleading. Therefore, we have used 1995 data in this table.)

The top portion of the table shows the events that caused the claims in 1981 and 1995. In both years, 36 percent of the claims resulted from overexertion. An increasing percentage of the claims are from bodily reaction (where

Table 5. Average weekly wage and related statistics, Oregon, 1981-1996

	Claimant AWW	Statewide AWW	Difference	Unemployment rate	% women	% educ. high school or less
1981	\$311.03	\$292.33	\$18.70	9.9%	25.8%	n/a
1986	\$326.36	\$347.73	(\$21.37)	8.5%	29.0%	n/a
1991	\$372.70	\$424.86	(\$52.16)	6.0%	32.7%	70.3%
1996	\$436.77	\$514.80	(\$78.03)	5.9%	31.5%	66.9%

Table 6. Claims characteristics, Oregon, 1981 and 1995

a single incident of bodily motion causes a strain upon the worker's body) and repetitive motion (where multiple incidents of bodily motion cause strain). A smaller portion of the claims now result from workers being struck by objects or against objects. These claims are more often likely to occur in the manufacturing industry, especially in the logging industry, so this decline reflects the change in the industrial mix.

The second portion of the table shows the nature of the injuries and illnesses that resulted from the injury events. There has been an increase in the number of claims resulting from carpal tunnel syndrome and from musculoskeletal and tissue diseases, which are caused by repetitive trauma that usually affect workers' shoulders and upper extremities. The declining percentage of claims resulting from contusions come from the fewer incidents in which workers were struck by objects; it may also reflect return-to-work programs that return employees to work quickly enough that their claims are not defined as disabling.

The third portion of Table 6 shows the part of the body affected by the injury event. The increases in carpal tunnel syndrome and musculoskeletal diseases are reflected in the increased percentages of claims involving the trunk (other than the back), arms, and wrists. The back remains the most frequent body part injured.

The final portion of the table shows the object that directly caused the injuries or diseases. The "self injured" category is used when the injury was not caused by some external object; it is usually used for bodily reaction and repetitive motion events. Floors, walks, and the ground are usually the sources of injury in falls, although workers also fall onto other items. Containers are most often the sources of injury in overexertion claims. In four percent of the cases, another person is the direct cause of the injury. In the majority of these cases, the injury resulted from overexertion while moving a person; other cases include inadvertent striking of the worker, as when a patient falls against a nursing aide; other cases involve intentional assaults, often during the commission of a crime.

Injury event	1981	1995
Overexertion	35.9%	35.9%
Bodily reaction, repetitive motion	13.0%	16.6%
Struck by or against object	19.9%	15.6%
Caught in equipment or material	5.2%	4.9%
Fall to same level	9.5%	10.1%
Fall from elevation	8.1%	8.1%
Transportation accident	2.9%	3.6%
Harmful exposure	3.7%	3.0%
Assault, violent act	0.8%	1.0%
Other event	1.0%	1.2%
Total	100.0%	100.0%
Nature of the injury or disease	1981	1995
Injuries		
Sprain, strain	53.1%	54.1%
Fracture	8.9%	8.6%
Bruise, contusion	11.6%	7.6%
Cut, laceration	9.9%	7.4%
Dislocation	2.2%	3.1%
Burn	2.2%	1.4%
Amputation	0.6%	0.7%
Intracranial injury	0.5%	0.6%
Multiple injury	1.8%	3.5%
Other injury	0.5%	0.5%
Diseases		
Musculoskeletal, tissue disease	2.8%	4.2%
Carpal tunnel syndrome	0.9%	3.8%
Hernia	2.5%	2.2%
Other disease	2.7%	2.3%
Total	100.0%	100.0%
Body part affected	1981	1995
Head	3.3%	3.0%
Neck	2.0%	2.4%
Back	31.1%	27.0%
Trunk, exc. back	12.4%	13.1%
Arm(s)	5.8%	6.6%
Wrist(s)	4.3%	7.5%
Hand(s)	12.9%	10.7%
Leg(s)	11.1%	12.0%
Ankle(s)	4.4%	3.8%
Foot (feet)	4.7%	3.9%
Body system	0.7%	0.6%
Multiple parts	7.3%	9.4%
Total	100.0%	100.0%
Source of the injury or disease	1981	1995
Self injured	13.5%	17.2%
Floor, walk, ground	15.6%	16.0%
Container	13.9%	14.7%
Vehicle	7.5%	9.6%
Machinery	8.8%	7.0%
Hand tool	5.9%	5.2%
Other person	4.0%	4.2%
Furniture, fixture	3.1%	3.8%
Wood, lumber	5.3%	3.4%
Building material, exc. lumber	2.9%	2.7%
Other source	19.5%	16.1%
Total	100.0%	100.0%

Note: The figures are percentages of classifiable claims.



Notes:

1. Accepted disabling claims entitle workers to compensation for disability or death. This type of claim excludes temporary disability suffered during the first three calendar days after the employee leaves work as a result of the injury or disease, unless the worker is a hospital inpatient or dies. If the employee leaves work the day of the injury, that day is considered the first day of the three-day period.
2. The claims rate is the number of accepted disabling claims per 100 workers. The fatality rate is the number of accepted fatality claims per 100,000 workers.
3. Injury claims result from one-time or traumatic events. Disease claims result from infection, the cumulative effect of repetitive events, the growth of tumors, general symptoms, or mental disorders.

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