



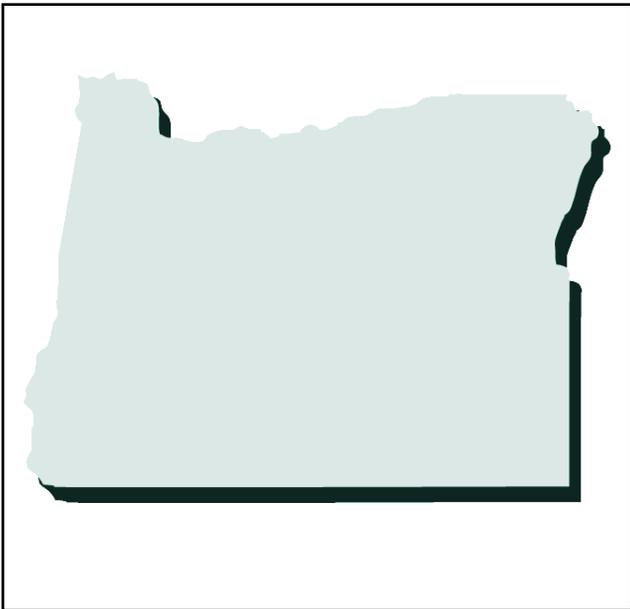
Oregon Compensable Fatality Report

Calendar Year 2003

*Information Management
Division*

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Oregon Compensable Fatality Report

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Introduction

This report presents data about Oregon's fatalities accepted by Workers' Compensation insurers as compensable during the 2003 calendar year, without regard to the date of injury or death. The claims included in this report are those for which the Department of Consumer & Business Services (DCBS) received notification of acceptance by January 31, 2004.

The information presented here may be useful in preventing work-related fatalities. The Occupational Safety and Health Division of the Department of Consumer & Business Services is taking an active role in preventing fatal accidents. OR-OSHA administers a consultative services program that helps employers identify and moderate worksite hazards. OR-OSHA provides information about personal protective equipment, industrial hygiene, and ergonomic worksite designs; trains employers and employees; and enforces Oregon's occupational-safety-and-health rules and standards.

Appendix A and Appendix B, Pages 26-27, explain the scope of the report and methodology for classifying fatal claims. Information about accepted disabling claims can be found on the DCBS Web

site, www.cbs.state.or.us/imd/claimdata.html. More detailed information may be obtained from the Research & Analysis Section of the department's Information Management Division.

IMD also gathers data on work-related fatalities for a federal/state cooperative program. The Census of Fatal Occupational Injuries (CFOI) program is a cooperative program of the U.S. Bureau of Labor Statistics (BLS) and participating states. The fatalities included in the CFOI count are those that occurred in the state during the reference year that were work-related according to the CFOI criteria. CFOI covers a larger population base than that covered by workers' compensation; it includes nearly all workers engaged in legal work activities, regardless of industry or regulatory jurisdiction. An IMD publication, Census of Fatal Occupational Injuries, is available from the Research & Analysis Section of the department's Information Management Division or from the DCBS Web site, www.cbs.state.or.us/imd/claimfat.html. Compensable fatality tables are available in printed form upon request. Call (503) 378-8254 to request tables or to obtain more detailed information about Oregon fatalities.

Findings in brief

- The Workers' Compensation Division was notified by insurers of 41 claims accepted for fatality benefits during the 2003 calendar year. This is a decrease of 11 from the 52 fatalities recorded in 2002. There was an average of 43.8 compensable fatalities a year for the five-year period 1999-2003.
- The logging industry claimed eight compensable fatalities in 2003, 19.5 percent of the total. Seven logging fatalities were reported in 2002.
- There were six compensable fatalities in the construction industry in 2003, all in the private sector. This compares to six compensable fatalities in 2002. During 1999 to 2003, the construction industry averaged 4.8 fatalities a year.
- Ten of the 41 fatalities (24.4 percent) were in the agriculture, forestry, and fishing industries, compared to five (9.6 percent) in 2002.
- There were three compensable fatalities in the public sector in 2003, compared to nine in 2002.
- In 2003, highway motor vehicle accidents were the leading event, claiming 13 lives, compared to 14 highway motor vehicle accidents in 2002. At least one of the 13 workers killed in highway motor vehicle accidents was not wearing a seat belt (10 were unknown).
- Being struck by or against an object was the second leading event, claiming seven lives, compared to nine in 2002.
- There were six victims of aircraft accidents in 2003, compared to one in 2002.
- Assaults and violent acts claimed one worker in 2003, compared to three deaths in 2002.
- Seventeen of the compensable fatalities were considered program-related. Program-related fatalities are those in-state fatalities that might have been prevented by following specific safety regulations, general duty clauses, or good safety and health practices.
- There were 10 service-occupation employees (including firefighters) killed in 2003 compared to eight in 2002. Six loggers, foresters, and fishers were killed in 2003, compared to five in 2002.
- The median age of the 41 workers at injury was 41. The youngest worker killed was a 16-year-old camp counselor. The oldest worker was a 75-year-old logger.
- Of the 41 people who died in work-related accidents, 38 were men and three were women, compared to 47 men and five women in 2002.
- Malheur County claimed the most fatalities in 2003 with eight victims, compared to three in 2002. Five fatalities occurred in Lane County and five occurred outside Oregon. Four occurred in Multnomah County.
- In 2003, August had the most fatalities with 11, followed by October with five. January, February, and December had the fewest fatalities, with one each.
- Sixteen workers died within the first year of working for the employer. Five workers had been employed for a month or less, and five died within their second or third month.

Analysis of compensable fatalities

During the 2003 calendar year, the Workers' Compensation Division of the Department of Consumer & Business Services recorded the acceptance of 41 fatality claims for benefits. This is 11 fewer than the 52 fatalities in 2002. The 34 fatalities in 2001 were the fewest recorded in Oregon since the Occupational Safety and Health Division began collecting data in 1943 (see Figure 1, below, and Table 18, Pages 22-25). For comparison, there was an average of 43.8 compensable fatalities a year for 1999-2003.

Seventeen of the 2003 fatalities were program-related. Program-related fatalities are those in-state fatalities that occur at a workplace over which OR-OSHA has the primary jurisdiction and for which OR-OSHA plans to conduct an investigation of the incident. These fatalities are assumed to have re-

sulted from the violation of a specific Oregon Safe Employment Act rule or general duty clause or from poor safety and health practices. Out-of-state fatal accidents are not considered program-related because they are not within Oregon OSHA's jurisdiction. Of the 2003 compensable fatalities, 41.5 percent were program-related, compared to 57.7 percent in 2002.

The fatality rates in Figure 2, below, are the number of fatalities per 100,000 subject employees. Employment is an estimation of workers' compensation-covered employment based on data supplied by the State of Oregon Employment Department and other sources. Employment increased from approximately 973,900 subject workers in 1983 to 1,583,500 in 2003.

Figure 1. Compensable fatalities, Oregon, calendar years 1984-2003

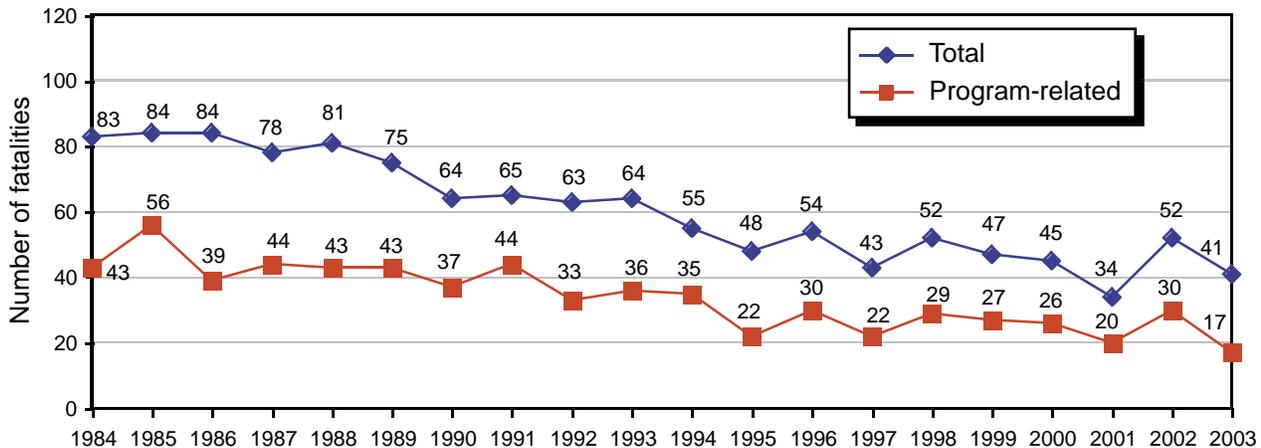
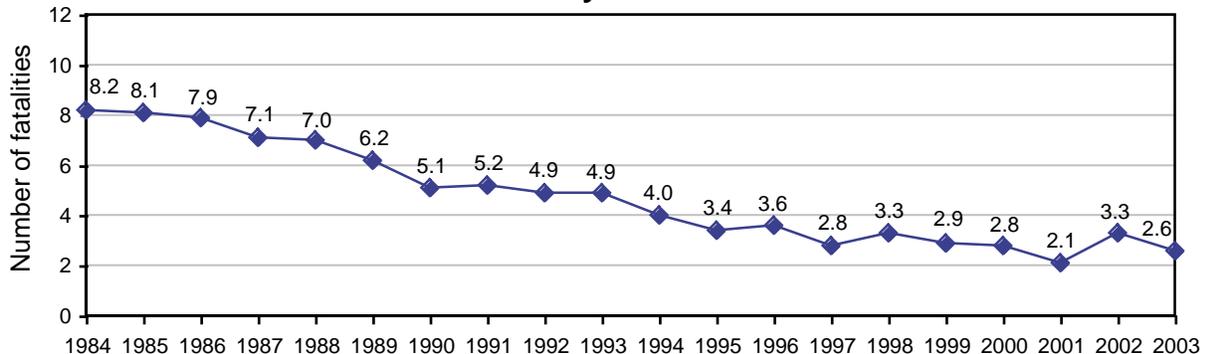


Figure 2. Fatality rates (per 100,000 workers), Oregon, calendar years 1984-2003



Accident event

2003 fatal accidents are summarized in Table 17, Page 20, and Appendix C.

Highway motor-vehicle accidents were the most common event of compensable fatalities and accounted for 13 deaths in 2003. There were five motor vehicle collisions with another vehicle. Eight workers were killed in one of the accident collisions. One accident occurred when the worker's vehicle struck a stationary object. None of the 13 motor-vehicle accidents was program-related because highway motor-vehicle accidents are not within OR-OSHA's jurisdiction and cannot be monitored for a safe work environment.

Being struck by or against an object was the second leading type of event, claiming seven lives in 2003. Four of these workers were struck by falling objects, one was struck by a swinging cable, one was struck by a falling tree that slid backwards, and one was struck when a tree kicked back toward the worker.

Six workers were involved in aircraft accidents. Two fatalities were the result of fires and explosions.

In 2003, there was one homicide (see Table 2). More information about workplace hazards can be found in *Violence in the Workplace*, DCBS publication number 440-2857.

Table 1. Compensable fatalities by accident event, Oregon, 2003

Accident event	WORK-RELATED	
	1999-2003 Average	2003
Struck by object	7.2	7
Caught in/under/between	5.8	1
Falls	3.4	2
Contact with electric current	1.0	2
Toxic/caustic substances	1.4	2
Drowning	0.4	1
Highway accidents	10.4	13
Industrial vehicle accidents	3.4	2
Pedestrian accidents	2.2	1
Aircraft accidents	3.8	6
Water vehicle accidents	0.2	0
Fires and explosions	2.4	2
Assaults and violent acts	1.6	1
Other	0.6	1
Total	43.8	41

Table 2. Compensable fatalities due to homicide, Oregon, 1994-2003

Year of acceptance	No. of fatal claims	Claims due to homicide	Homicides as % of total
1994	55	6	10.9%
1995	48	3	6.3%
1996	54	0	0.0%
1997	43	3	7.0%
1998	52	2	3.8%
1999	47	3	6.4%
2000	45	1	2.2%
2001	34	0	0.0%
2002	52	3	5.8%
2003	41	1	2.4%

Table 3a. Work-related fatalities by accident event, Oregon, 1994-2003

Accident event	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Struck by or against	10	5	9	4	5	4	10	6	9	7	69
Caught in/under/between	6	3	5	3	9	12	6	3	7	1	55
Falls	7	6	5	6	4	3	4	5	3	2	45
Bodily reaction	1	0	0	0	0	0	0	2	0	1	4
Contact with electric current	1	0	0	2	2	2	0	0	1	2	10
Toxic/caustic substances	2	2	2	3	1	2	0	2	1	2	17
Drownings	0	3	0	0	0	0	1	0	0	1	5
Highway motor vehicle accidents	13	13	15	12	17	9	11	5	14	13	122
Industrial vehicle accidents	2	4	2	2	6	4	6	2	3	2	33
Pedestrian accidents	5	4	5	2	5	3	0	4	3	1	32
Aircraft accidents	0	5	10	3	1	5	3	4	1	6	38
Railway accidents	0	0	0	1	0	0	0	0	0	0	1
Water vehicle accidents	0	0	0	1	0	0	1	0	0	0	2
Fires and explosions	2	0	1	1	0	0	2	1	7	2	16
Assaults and violent acts	6	3	0	3	2	3	1	0	3	1	22
Other	0	0	0	0	0	0	0	0	0	0	0
Total	55	48	54	43	52	47	45	34	52	41	471

Table 3b. Program-related fatalities by accident event, Oregon, 1994-2003

Accident event	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Struck by or against	10	4	9	2	2	3	7	4	8	6	55
Caught in/under/between	6	3	5	3	9	12	5	3	6	1	53
Falls	5	5	4	6	4	2	4	4	3	1	38
Bodily reaction	1	0	0	0	0	0	0	1	0	0	2
Contact with electric current	1	0	0	1	1	2	0	0	1	2	8
Toxic/caustic substances	2	2	2	3	1	2	0	1	0	1	14
Drownings	0	0	0	0	0	0	1	0	0	1	2
Highway motor vehicle accidents	2	2	4	3	4	2	1	1	0	0	19
Industrial vehicle accidents	2	3	1	2	5	2	5	2	2	2	26
Pedestrian accidents	4	3	4	1	3	2	0	3	1	1	22
Railway accidents	0	0	0	1	0	0	0	0	0	0	1
Water vehicle accidents	0	0	0	0	0	0	1	0	0	0	1
Aircraft accidents	0	0	0	0	0	0	0	0	0	0	0
Fires and explosions	2	0	1	0	0	0	2	1	7	2	15
Other	0	0	0	0	0	0	0	0	2	0	2
Total	35	22	30	22	29	27	26	20	30	17	258

Industry

Twelve of the 41 fatalities occurred in the manufacturing industry in 2003 (see Figure 3, Page 7). This is a 29.4 percent decrease from the 17 workers killed in 2002. Eight workers died in the logging industry: two in a helicopter crash, two struck by falling objects, one in an industrial-vehicle accident, one struck by a swinging cable, one struck by a falling tree that slid backwards, and one struck by a tree that kicked back. Two fatalities occurred in other wood-products manufacturing. One worker died in an industrial-vehicle accident and the other worker was killed in a fire as a result of an explosion. Two fatalities occurred in other manufacturing: one from inhalation of asbestos and one from health complications due to twisting or bending awkwardly.

Agriculture, forestry, and fishing recorded 10 fatalities in 2003, compared to five compensable fatalities in 2002. Eight of the 10 fatalities involved the same highway motor-vehicle accident, one worker fell off a horse, and one worker fell into a pond and drowned.

Construction had six of the 41 compensable fatalities in 2003. The same number as recorded in 2002. Two workers were electrocuted, one worker was caught between the fork and body of a loader, one worker fell down an elevator shaft, one worker was struck by a falling load, and one worker was killed in a highway motor-vehicle accident.

The public sector recorded three fatalities in 2003 compared to nine compensable fatalities in 2002. Two workers died in highway motor-vehicle accidents, and one worker was killed in a helicopter crash.

As indicated earlier, 41.5 percent of the 2003 fatalities were program-related. Those industries with the highest percentage of program-related fatalities were wholesale trade (100 percent), construction (83.3 percent), and manufacturing (58.3 percent).

Table 4. Compensable fatalities by accident event within industrial classification, Oregon, 2003

Industry	Total	Struck by or against	Caught in/ under/ between	Falls	Other	Toxic/ caustic substance	Hwy motor vehicle accident	Industrial vehicle accident	Pedestrian accident	Aircraft accident	Fires & explosions	Assault & violent acts
Agriculture, forestry, fishing	10	0	0	1	1	0	8	0	0	0	0	0
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	6	1	1	1	2	0	1	0	0	0	0	0
Manufacturing (12)												
Logging	8	5	0	0	0	0	0	1	0	2	0	0
Other manufacturing	2	0	0	0	1	1	0	0	0	0	0	0
Other woods	2	0	0	0	0	0	0	1	0	0	1	0
Sawmills	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, public utilities	5	0	0	0	0	1	2	0	1	1	0	0
Wholesale trade	1	1	0	0	0	0	0	0	0	0	0	0
Retail trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, insurance, real estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	4	0	0	0	0	0	0	0	0	2	1	1
Government	3	0	0	0	0	0	2	0	0	1	0	0
Total	41	7	1	2	4	2	13	2	1	6	2	1

Table 5. Compensable fatalities by occupation within industrial classification, Oregon, 2003

Industry	Total	Prof. & managerial	Technical, admin. support	Sales	Service	Farm labor & managers	Loggers, foresters, & fishers	Mechanics & repairers	Construct. trades	Operators, excluding transport	Precision product & mining	Transportation operators	Laborers excl. farm
Agriculture, forestry, fishing	10	0	0	0	8	2	0	0	0	0	0	0	0
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	6	0	0	0	0	0	0	0	2	0	0	2	2
Manufacturing (12)													
Logging	8	0	2	0	0	0	6	0	0	0	0	0	0
Other manufacturing	2	0	0	0	0	0	0	0	0	2	0	0	0
Other woods	2	0	0	0	0	0	0	0	0	2	0	0	0
Sawmills	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, public utilities	5	1	2	0	0	0	0	0	0	0	1	1	0
Wholesale trade	1	0	0	0	0	0	0	0	0	0	0	1	0
Retail trade	0	0	0	0	0	0	0	0	0	0	0	0	0
Finance, insurance, real estate	0	0	0	0	0	0	0	0	0	0	0	0	0
Services	4	2	0	1	1	0	0	0	0	0	0	0	0
Government	3	2	0	0	1	0	0	0	0	0	0	0	0
Total	41	5	4	1	10	2	6	0	2	4	1	4	2

Figure 3. Compensable fatalities by industry division, Oregon, 2003

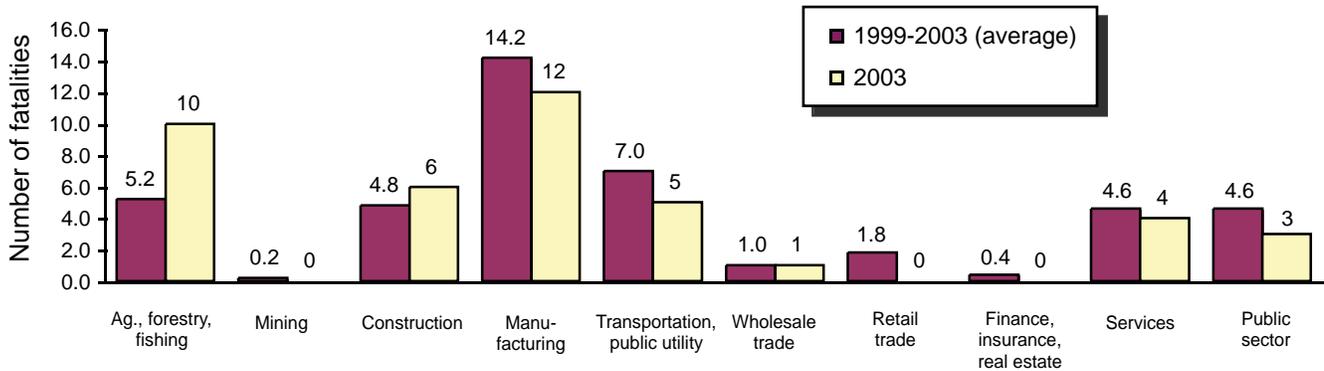


Figure 4. Compensable fatalities within manufacturing division, Oregon, 2003

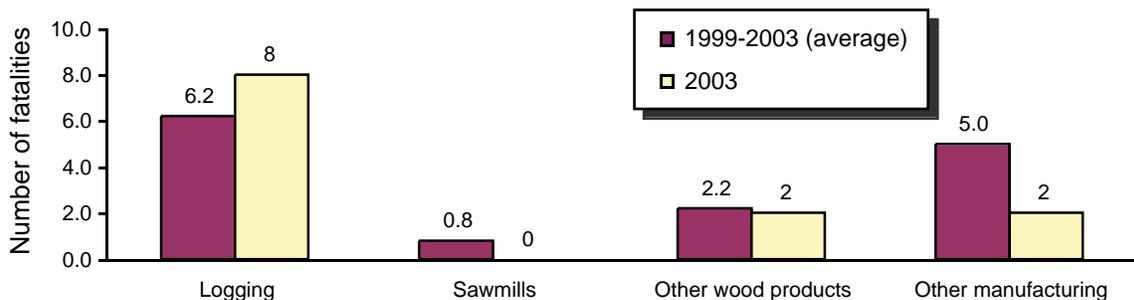


Table 6a. Work-related fatalities by industry, Oregon, 1994-2003

Industry	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
PRIVATE SECTOR											
Agriculture, forestry, fishing	4	3	1	4	9	3	5	3	5	10	47
Mining	0	1	2	1	2	0	1	0	0	0	7
Construction	9	14	5	11	4	5	3	4	6	6	67
Manufacturing subtotal	14	5	16	6	17	14	18	10	17	12	129
Logging	7	3	9	1	7	2	9	5	7	8	58
Sawmills	3	0	2	1	0	3	0	0	1	0	10
Other wood products	1	0	1	0	3	3	3	1	2	2	16
Other manufacturing	3	2	4	4	7	6	6	4	7	2	45
Transportation, public utilities	4	8	10	5	8	9	8	7	6	5	70
Wholesale trade	3	2	4	2	2	1	1	1	1	1	18
Retail trade	7	4	3	6	5	2	1	3	3	0	34
Finance, insurance, real estate	2	2	1	0	1	1	1	0	0	0	8
Services	8	8	7	4	4	6	6	2	5	4	54
Private sector subtotal	51	47	49	39	52	41	44	30	43	38	434
PUBLIC SECTOR											
State government											
Construction	0	0	1	0	0	1	0	0	0	0	2
Services	1	0	0	0	0	0	0	0	0	0	1
Public administration	3	1	0	4	0	2	0	1	1	1	13
Subtotals	4	1	1	4	0	3	0	1	1	1	16
Local government											
Construction	0	0	1	0	0	0	0	0	0	0	1
Transportation, public utilities	0	0	0	0	0	0	0	1	0	0	1
Services	0	0	1	0	0	1	0	0	0	1	3
Public administration	0	0	2	0	0	2	1	2	8	1	16
Subtotal	0	0	4	0	0	3	1	3	8	2	21
Public sector subtotal	4	1	5	4	0	6	1	4	9	3	37
Total	55	48	54	43	52	47	45	34	52	41	471

Note: Fatalities are classified according to the 1987 edition of the Standard Industrial Classification Manual.

Table 6b. Program-related fatalities by industry, Oregon, 1994-2003

Industry	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
PRIVATE SECTOR											
Agriculture, forestry, fishing	3	2	1	2	6	2	5	3	4	1	29
Mining	0	1	2	0	0	0	1	0	0	0	4
Construction	7	11	3	10	3	5	3	4	3	5	54
Manufacturing subtotal	13	3	13	5	13	10	12	6	11	7	93
Logging	6	1	8	1	6	1	5	3	5	5	41
Sawmills	3	0	2	0	0	3	0	0	1	0	9
Other wood products	1	0	1	0	3	3	2	1	1	2	14
Other manufacturing	3	2	2	4	4	3	5	2	4	0	29
Transportation, public utilities	0	1	3	0	2	4	1	1	0	2	14
Wholesale trade	3	0	0	1	1	1	0	1	0	1	8
Retail trade	0	2	2	0	2	0	1	1	3	0	11
Finance, insurance, real estate	1	0	0	0	0	1	0	0	0	0	2
Services	4	2	3	1	2	1	2	2	4	1	22
Private sector subtotal	31	22	27	19	29	24	25	18	25	17	237
PUBLIC SECTOR											
State government											
Construction	0	0	1	0	0	1	0	0	0	0	2
Services	1	0	0	0	0	0	0	0	0	0	1
Public administration	3	0	0	3	0	1	0	1	1	0	9
Subtotal	4	0	1	3	0	2	0	1	1	0	12
Local government											
Construction	0	0	1	0	0	0	0	0	0	0	1
Public administration	0	0	1	0	0	1	1	1	4	0	8
Subtotal	0	0	2	0	0	1	1	1	4	0	9
Public sector subtotal	4	0	3	3	0	3	1	2	5	0	21
Total	35	22	30	22	29	27	26	20	30	17	258

Note: Fatalities are classified according to the 1987 edition of the Standard Industrial Classification Manual.

Occupation

Ten service occupation workers were among the 41 fatalities in 2003 (see Table 7, below) compared to eight in 2002. Nine of the ten were killed in highway motor-vehicle accidents. Eight of those nine workers were killed in the same accident. One worker was killed in a cannon explosion.

Five workers in professional and managerial occupations were killed in 2003. Three workers were killed in aircraft accidents, and two workers were killed in highway motor-vehicle accidents.

Six workers in logging, forestry, and fishing occupations were killed in 2003. Five workers were struck by objects, and one worker was killed in an industrial-vehicle accident.

Table 7. Compensable fatalities by accident event within occupational classification, Oregon, 2003

Occupation	Total	Struck by or against	Caught in/ under/ between	Falls	Other*	Toxic/caustic substance	Hwy motor vehicle accident	Industrial vehicle accident	Pedestrian accident	Aircraft accident	Fires & explosions	Assault & violent acts
Professional and managerial	5	0	0	0	0	0	2	0	0	3	0	0
Technical, admin. support	4	0	0	0	0	0	0	0	1	3	0	0
Sales occupations	1	0	0	0	0	0	0	0	0	0	0	1
Service occupations	10	0	0	0	0	0	9	0	0	0	1	0
Firefighters	9	0	0	0	0	0	9	0	0	0	0	0
Farm laborers and managers	2	0	0	1	1	0	0	0	0	0	0	0
Loggers, foresters, fishers	6	5	0	0	0	0	0	1	0	0	0	0
Loggers	6	5	0	0	0	0	0	1	0	0	0	0
Construction trades	2	1	0	1	0	0	0	0	0	0	0	0
Precision product, mining	1	0	0	0	0	1	0	0	0	0	0	0
Operators, except transport	4	0	0	0	1	1	0	1	0	0	1	0
Transportation operators	4	1	0	0	1	0	2	0	0	0	0	0
Truck drivers	3	1	0	0	0	0	2	0	0	0	0	0
Material moving eq. oper.	1	0	0	0	1	0	0	0	0	0	0	0
Laborers, except farm	2	0	1	0	1	0	0	0	0	0	0	0
Total	41	7	1	2	4	2	13	2	1	6	2	1

*Other includes: bodily reaction, contact with electric current, and drowning.

Table 8a. Work-related fatalities by occupation, Oregon, 1994-2003

Occupation	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Professional and managerial	3	5	11	4	3	8	3	0	5	5	47
Technical, administrative support	2	7	4	3	1	2	3	3	3	4	32
Sales occupations	3	2	2	2	2	0	2	0	3	1	17
Service occupations	5	3	2	5	2	4	2	7	8	10	48
Farm laborers and managers	3	2	2	3	9	2	4	0	4	2	31
Loggers, foresters, fishers	9	5	10	1	7	5	9	5	6	6	63
Mechanics and repairers	6	2	3	3	3	4	2	0	3	0	26
Construction trades	6	6	4	7	3	2	3	3	4	2	40
Operators, except transport	2	1	0	2	4	2	2	5	3	4	25
Precision products, mining	1	0	1	0	0	2	2	0	1	1	8
Transportation operators	9	10	9	10	17	9	11	7	10	4	96
Laborers, except farm	6	5	6	3	1	7	2	4	2	2	38
Total	55	48	54	43	52	47	45	34	52	41	471

Table 8b. Program-related fatalities by occupation, Oregon, 1994-2003

Occupation	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Professional and managerial	1	0	2	2	1	2	0	0	4	0	12
Technical, administrative support	1	1	0	1	0	0	1	0	1	1	6
Sales occupations	0	0	1	0	0	0	1	0	3	0	5
Service occupations	3	0	1	2	1	0	1	4	4	1	17
Farm laborers and managers	3	1	2	2	5	1	4	0	3	1	22
Loggers, foresters, fishers	8	4	10	0	6	4	4	4	5	5	50
Mechanics and repairers	6	1	2	2	3	3	1	0	3	0	21
Construction trades	6	5	4	7	2	2	3	3	3	2	37
Operators, except transport	2	1	0	2	3	2	0	5	2	2	19
Precision products, mining	0	0	1	0	0	2	2	0	1	1	7
Transportation operators	1	5	3	2	7	4	7	2	0	2	33
Laborers, except farm	4	4	4	2	1	7	2	2	1	2	29
Total	35	22	30	22	29	27	26	20	30	17	258

Note: Occupations are classified according to the 1990 Census of Population Alphabetical Index of Industries and Occupations.

Age and gender

During the years 1999-2003, the 41-45 and 46-50 age groups averaged the most (6.6) work-related fatalities (see Table 9). In 2003, the 21-25 age group had the most fatalities, with seven.

The median age of the 2003 compensable fatalities was 41. The median age for 1999-2003 compensable fatalities was 42. In 2003, the youngest worker killed was a 16-year-old camp counselor who died in an explosion as he tried to fix a cannon that had malfunctioned during a flag ceremony.

The oldest worker was a 75-year-old logger who was operating a bulldozer. The machine became unbalanced when the tracks of the vehicle struck rocks and it rolled over an embankment down a 600-foot slope.

Of the 41 compensable fatalities in 2003, 38 were men and three were women. One woman's death was a homicide, one died in an airplane crash, and one was involved in a highway motor-vehicle accident. This compares to five women killed in 2002.

Table 9. Compensable fatalities by age group, Oregon, 2003

Age group	1999-2003 average	2003	2003 program-related
17 and under	0.6	1	1
18-20	2.6	3	1
21-25	4.0	7	3
26-30	4.6	3	0
31-35	4.0	3	3
36-40	4.4	3	2
41-45	6.6	6	2
46-50	5.6	6	2
51-55	5.4	5	1
56-60	2.6	3	1
61 and over	3.4	1	1
Total	43.8	41	17
Median age	42.0	41	37

Table 10. Compensable fatalities by gender, Oregon, 2003

Gender	1999-2003 Average	2003
Male	40.4	38
Female	3.4	3
Total	43.8	41

Table 11a. Work-related fatalities by age group, Oregon, 1994-2003

Age group	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
17 and under	1	0	0	1	0	1	1	0	0	1	5
18-20	2	0	0	1	2	4	5	0	1	3	18
21-25	6	3	7	4	7	2	2	4	5	7	47
26-30	7	8	6	8	4	6	3	4	7	3	56
31-35	6	10	8	4	4	4	4	2	7	3	52
36-40	7	9	3	6	8	3	3	6	7	3	55
41-45	8	4	9	6	6	10	3	4	10	6	66
46-50	5	8	10	3	2	6	8	4	4	6	56
51-55	9	1	4	2	7	7	8	4	3	5	50
56-60	2	2	4	5	3	2	2	4	2	3	29
61 and over	2	3	3	3	9	2	6	2	6	1	37
Total	55	48	54	43	52	47	45	34	52	41	471

Table 11b. Program-related fatalities by age group, Oregon, 1994-2003

Age group	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
17 and under	1	0	0	1	0	0	0	0	0	1	3
18-20	2	0	0	0	1	3	2	0	0	1	9
21-25	3	3	4	4	4	2	2	2	3	3	30
26-30	5	2	5	2	2	4	2	3	4	0	29
31-35	4	5	4	3	4	2	3	2	6	3	36
36-40	5	5	1	4	4	0	3	4	3	2	31
41-45	6	2	5	2	4	6	1	1	4	2	33
46-50	2	2	4	2	1	4	4	2	3	2	26
51-55	4	1	3	1	4	4	3	2	2	1	25
56-60	1	0	2	1	2	1	1	2	1	1	12
61 and over	2	2	2	2	3	1	5	2	4	1	24
Total	35	22	30	22	29	27	26	20	30	17	258

Table 12a. Work-related fatalities by gender, Oregon, 1994-2003

Gender	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Women	10	4	2	3	2	5	3	1	5	3	38
Men	45	44	52	40	50	42	42	33	47	38	433
Total	55	48	54	43	52	47	45	34	52	41	471

Table 12b. Program-related fatalities by gender, Oregon, 1994-2003

Gender	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Women	3	1	0	1	0	2	2	1	2	0	12
Men	32	21	30	21	29	25	24	19	28	17	246
Total	35	22	30	22	29	27	26	20	30	17	258

Tenure

An employee's tenure is the length of time that person had worked for the employer at the time of injury or the diagnosis of the illness that led to the fatality.

Sixteen of the workers (39.0 percent) had worked for their employer a year or less at the time of injury. While information is not available about

whether these worker's were doing similar work at the time of injury, it does indicate the need for training and supervision of new employees. Table 13, below, shows the distribution of tenure and age at injury. The deaths of experienced workers point out the need for programs to reinforce safety training, as well.

Table 13. Compensable fatalities by tenure and age group, Oregon, 2003

Tenure	AGE AT THE TIME OF INJURY										
	Total	20 & under	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61 & over
A month or less	5	0	2	1	0	1	1	0	0	0	0
2nd-3rd months	5	2	2	1	0	0	0	0	0	0	0
4th-6th months	3	1	1	0	0	0	0	0	1	0	0
7th-12th months	3	0	0	0	0	1	2	0	0	0	0
2nd year	5	1	1	0	0	1	1	1	0	0	0
3rd year	2	0	0	0	1	0	0	0	1	0	0
4th-5th years	1	0	0	0	0	0	0	1	0	0	0
6th-10th years	10	0	0	1	2	0	1	3	1	1	1
11th-25th years	2	0	0	0	0	0	0	0	1	1	0
26th and more	2	0	0	0	0	0	0	0	1	1	0
Unknown	3	0	1	0	0	0	1	1	0	0	0
Total	41	4	7	3	3	3	6	6	5	3	1

Month of injury

On the average, most work-related fatalities during 1999-2003 occurred in August (see Figure 5). In 2003, August had the most fatalities with 11, followed by October with five. January, February, and December had the least number of fatalities, with one each.

Figure 5. Compensable fatalities by month of injury, Oregon, 2003

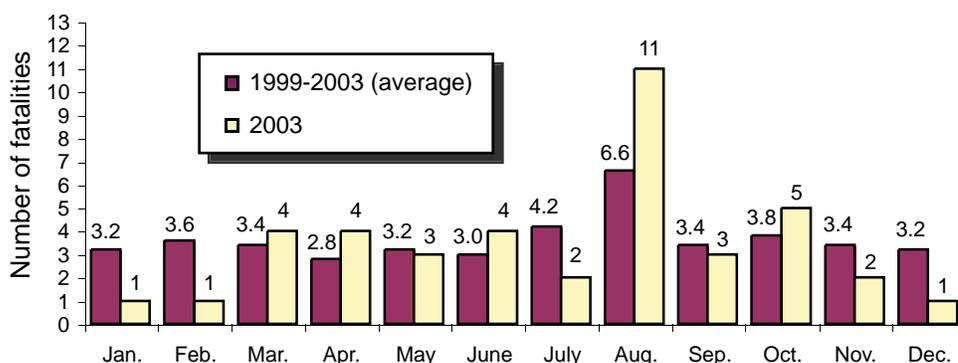


Table 14a. Work-related fatalities by month of injury, Oregon, 1994-2003

Month of injury	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
January	9	2	3	5	3	5	5	2	3	1	38
February	3	2	4	4	2	7	2	4	4	1	33
March	4	5	4	2	3	4	3	1	5	4	35
April	3	3	6	2	4	1	4	2	3	4	32
May	4	5	5	5	4	4	4	2	3	3	39
June	3	7	1	6	4	3	5	0	3	4	36
July	8	3	4	4	4	6	4	2	7	2	44
August	2	3	3	4	9	5	6	6	5	11	54
September	5	5	3	4	8	1	3	6	4	3	42
October	5	5	8	3	3	3	2	2	7	5	43
November	5	2	7	1	4	1	4	4	6	2	36
December	4	6	6	3	4	7	3	3	2	1	39
Total	55	48	54	43	52	47	45	34	52	41	471

Table 14b. Program-related fatalities by month of injury, Oregon, 1994-2003

Month of injury	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
January	4	0	1	2	2	1	2	1	0	0	13
February	2	0	2	3	0	5	1	2	3	0	18
March	3	2	1	0	1	0	1	1	5	0	14
April	0	1	5	0	1	0	3	2	1	2	15
May	3	3	3	1	3	2	1	1	1	3	21
June	2	4	1	4	2	3	2	0	1	3	22
July	6	1	3	3	2	4	3	2	6	1	31
August	2	2	3	2	7	4	4	1	4	2	31
September	1	3	3	3	4	0	2	5	1	1	23
October	5	4	3	1	1	3	2	1	3	3	26
November	3	1	3	0	2	1	3	2	4	1	20
December	4	1	2	3	4	4	2	2	1	1	24
Total	35	22	30	22	29	27	26	20	30	17	258

Note: These data reflect the month of injury for those claims accepted in the calendar year specified. Some workers died in a prior year or were injured in one month and died in another.

Region

Table 15 shows the most common types of fatalities in three regions of Oregon. Transportation accidents (consisting of highway motor vehicle, industrial vehicle, pedestrian, and aircraft) were the most frequent type of accident in all three regions. They made up a larger proportion of the accidents in eastern Oregon (69.2 percent) than in the western Oregon area (37.5 percent).

Accidents put in the “struck by or against” category are those in which the worker is struck by an object or strikes against a stationary or moving object. These accidents accounted for 25.0 percent of the deaths in western Oregon, but only accounted for 7.7 percent in the eastern Oregon area.

Table 15. Compensable fatalities by accident event within regions, Oregon, 2003

Region	Total	Struck by or against	Caught in/ under/ between	Falls	Other	Toxic/ caustic substance	Hwy motor vehicle accident	Industrial vehicle accident	Pedestrian accident	Aircraft accident	Fires & explosions	Assault & violent acts
Eastern Oregon	13	1	1	1	1	0	9	0	0	0	0	0
Portland Metro	7	2	0	1	1	1	1	0	1	0	0	0
Western Oregon	16	4	0	0	2	1	2	2	0	2	2	1
Out of state	5	0	0	0	0	0	1	0	0	4	0	0
Total	41	7	1	2	4	2	13	2	1	6	2	1

County of occurrence

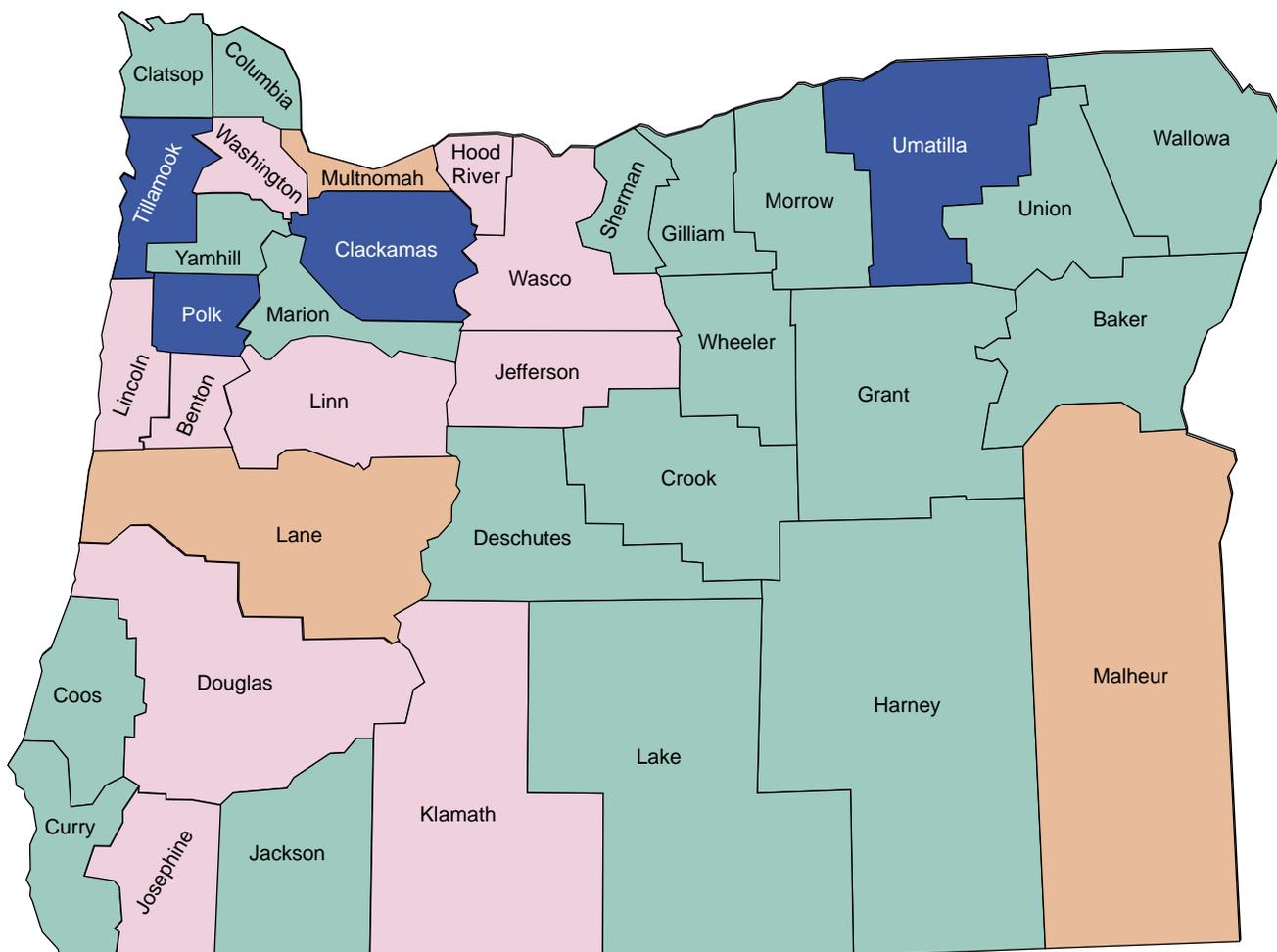
In Oregon, Malheur County had the most fatalities with eight, followed by Lane County, with five (see Figure 6 and Table 16). In 2002, Multnomah and Coos counties had the most fatalities, accounting for six each.

The eight fatalities in Malheur County in 2003 resulted from one highway motor-vehicle accident claiming all eight workers. The five fatalities in Lane County included a worker exposed to

asbestos, two workers who died in a helicopter crash, a victim of homicide, and a worker in an industrial accident.

Five of the 41 fatalities in 2003 occurred outside Oregon, compared to six in 2002. In California, a CEO and a consultant were killed in a plane crash. In Tennessee, a helicopter pilot died in a helicopter crash. In Washington, a helicopter pilot died in a helicopter crash. And, in Oklahoma, a truck driver was killed in a motor-vehicle accident.

Figure 6. Distribution of compensable fatalities by county of occurrence, Oregon, 2003



Number of compensable fatalities

- 0 (19 counties)
- 2-3 (4 counties)
- 1 (10 counties)
- 4-8 (3 counties)

Note: Five fatalities occurred outside of Oregon.

Table 16a. Work-related fatalities by county of occurrence, Oregon, 1994-2003

County	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Baker	1	0	0	1	0	0	0	1	1	0	4
Benton	0	1	1	1	0	1	1	1	1	1	8
Clackamas	3	3	3	3	3	2	4	2	4	2	29
Clatsop	0	1	2	1	0	0	1	0	0	0	5
Columbia	2	0	1	0	0	1	0	1	0	0	5
Coos	0	2	2	1	0	3	3	0	6	0	17
Crook	1	0	2	0	1	0	1	0	0	0	5
Curry	1	0	0	0	1	0	0	0	0	0	2
Deschutes	2	2	0	0	2	0	1	0	1	0	8
Douglas	2	3	1	1	3	1	1	2	5	1	20
Gilliam	0	0	1	1	0	0	1	0	0	0	3
Grant	0	1	1	2	0	0	1	1	0	0	6
Harney	1	0	0	0	1	0	0	0	0	0	2
Hood River	0	0	1	0	0	0	1	1	0	1	4
Jackson	3	2	3	2	1	3	2	1	1	0	18
Jefferson	0	0	0	0	1	0	0	0	1	1	3
Josephine	0	0	0	0	1	1	0	0	1	1	4
Klamath	0	0	1	3	1	0	0	0	3	1	9
Lake	0	0	0	0	0	0	1	0	1	0	2
Lane	5	2	5	1	6	5	3	2	3	5	37
Lincoln	3	0	3	1	0	1	0	1	0	1	10
Linn	3	2	1	2	3	0	3	0	0	1	15
Malheur	1	0	0	1	0	0	0	0	3	8	13
Marion	2	1	4	1	4	5	1	3	3	0	24
Morrow	0	0	1	1	0	2	1	0	0	0	5
Multnomah	8	5	6	5	6	8	3	6	6	4	57
Polk	1	3	2	1	0	1	0	1	0	2	11
Sherman	0	0	0	0	0	0	1	0	0	0	1
Tillamook	0	0	1	1	1	1	1	2	0	3	10
Umatilla	2	1	2	0	2	2	0	0	1	2	12
Union	2	0	0	2	0	0	1	0	1	0	6
Wallowa	2	0	0	1	0	0	0	0	0	0	3
Wasco	2	0	1	1	0	0	0	0	1	1	6
Washington	2	8	0	3	1	3	1	0	1	1	20
Wheeler	0	0	0	2	0	0	0	0	0	0	2
Yamhill	1	0	1	1	3	3	2	1	2	0	14
Out of state	5	11	7	3	11	4	10	8	6	5	70
Unknown	0	0	1	0	0	0	0	0	0	0	1
Total	55	48	54	43	52	47	45	34	52	41	471

Table 16b. Program-related fatalities by county of occurrence, Oregon, 1994-2003

County	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Baker	0	0	0	0	0	0	0	1	0	0	1
Benton	0	1	1	0	0	1	0	1	0	0	4
Clackamas	2	3	1	3	3	2	4	2	3	0	23
Clatsop	0	0	1	1	0	0	1	0	0	0	3
Columbia	1	0	1	0	0	1	0	1	0	0	4
Coos	0	0	2	0	0	1	1	0	6	0	10
Crook	1	0	1	0	1	0	1	0	0	0	4
Curry	1	0	0	0	1	0	0	0	0	0	2
Deschutes	1	1	0	0	1	0	0	0	0	0	3
Douglas	2	2	1	0	2	1	1	1	4	1	15
Gilliam	0	0	0	1	0	0	1	0	0	0	2
Grant	0	1	1	1	0	0	1	1	0	0	5
Harney	0	0	0	0	0	0	0	0	0	0	0
Hood River	0	0	0	0	0	0	1	1	0	1	3
Jackson	3	1	3	1	0	2	2	0	1	0	13
Jefferson	0	0	0	0	0	0	0	0	0	0	0
Josephine	0	0	0	0	1	0	0	0	0	1	2
Klamath	0	0	1	2	1	0	0	0	2	1	7
Lake	0	0	0	0	0	0	1	0	0	0	1
Lane	3	1	5	1	4	4	2	2	2	1	25
Lincoln	1	0	2	0	0	1	0	0	0	1	5
Linn	3	0	1	2	2	0	3	0	0	1	12
Malheur	1	0	0	1	0	0	0	0	2	0	4
Marion	1	0	1	0	2	5	1	3	2	0	15
Morrow	0	0	0	1	0	2	1	0	0	0	4
Multnomah	4	4	3	4	5	3	2	4	4	4	37
Polk	1	2	1	0	0	1	0	1	0	1	7
Sherman	0	0	0	0	0	0	0	0	0	0	0
Tillamook	0	0	0	0	1	0	0	1	0	3	5
Umatilla	2	1	1	0	2	0	0	0	1	1	8
Union	2	0	0	1	0	0	1	0	0	0	4
Wallowa	2	0	0	0	0	0	0	0	0	0	2
Wasco	2	0	1	0	0	0	0	0	1	0	4
Washington	1	5	0	3	1	3	1	0	1	1	16
Wheeler	0	0	0	0	0	0	0	0	0	0	0
Yamhill	1	0	1	0	2	0	1	1	1	0	7
Unknown	0	0	1	0	0	0	0	0	0	0	1
Total	35	22	30	22	29	27	26	20	30	17	258

Table 17. Listing of fatalities by industry, Oregon, 2003

Event of injury	Program-related	Injury description	Age	Sex	Tenure (months)	Injury mo/yr	County	Occupation	SIC
Agriculture, forestry, fishing									
Fall		Fell off horse	52	M	35	09/03	Umatilla	Horse trainer	0752
Drowning	+	Fell into pond and drowned	23	M	13	05/03	Tillamook	Landscape laborer	0782
HMV accident		Van struck oncoming semi-truck	21	M	1	08/03	Malheur	Firefighter	0851
HMV accident		Van struck oncoming semi-truck	23	M	5	08/03	Malheur	Firefighter	0851
HMV accident		Van struck oncoming semi-truck	24	M	2	08/03	Malheur	Firefighter	0851
HMV accident		Van struck oncoming semi-truck	22	M	2	08/03	Malheur	Firefighter	0851
HMV accident		Van struck oncoming semi-truck	19	M	5	08/03	Malheur	Firefighter	0851
HMV accident		Van struck oncoming semi-truck	26	M	1	08/03	Malheur	Firefighter	0851
HMV accident		Van struck oncoming semi-truck	20	M	2	08/03	Malheur	Firefighter	0851
HMV accident		Van struck oncoming semi-truck	38	M	1	08/03	Malheur	Firefighter	0851
Construction									
Struck by	+	Struck by falling load from forklift	32	M	25	06/03	Washington	Framer	1521
Caught in	+	Caught between fork and body of loader	32	M	96	06/03	Klamath	Construction laborer	1521
Fall	+	Fall down elevator shaft	41	M	12	05/03	Multnomah	Carpenter	1521
Contact w/elec. current	+	Pile driver energized by overhead powerline	34	M	63	10/03	Hood River	Heavy equipment oper.	1611
Contact w/elec. current	+	Contact w/guardrail energized by powerline	20	M	14	11/03	Umatilla	Construction laborer	1611
HMV accident		Truck struck car, oncoming truck, then exploded	48	M	24	09/03	Wasco	Truck driver	1799
Logging									
Struck by	+	Struck by falling metal sheave	42	M	1	04/03	Polk	Chaser	2411
Struck by	+	Struck by a snag	52	M	78	05/03	Tillamook	Cutter	2411
Struck by	+	Struck by skyline cable	37	M	17	04/03	Lincoln	Hook tender	2411
Struck by		Struck when tree kicked back	55	M	4	08/03	Jefferson	Timber faller	2411
Struck by	+	Struck by tree that slid backwards	24	M	0	10/03	Douglas	Logging laborer	2411
Industrial accident	+	Bulldozer rolled over embankment	75	M	75	09/03	Lane	Logging laborer	2411
Aircraft accident		Helicopter crash	56	M	88	03/03	Out of state	Helicopter pilot	2411
Aircraft accident		Helicopter crash	44	M	10	07/03	Out of state	Helicopter pilot	2411
Other manufacturing									
Bodily reaction		Twisted or bent awkward. Died of complications.	41	M	103	03/03	Clackamas	Manufacturing specialist	3425
Inhalation of		Inhalation of asbestos	28	M	77	06/67	Lane	Furnace operator	3339
Other woods									
Industrial accident	+	Riding in manlift that overturned	46	M	*	12/03	Josephine	Fabricator	2439
Fire	+	Wood dust sparked explosion and fire	50	M	107	08/03	Linn	Wood products worker	2499
Transportation, public utilities									
Inhalation of	+	Exposure to chemical fumes	22	M	*	06/03	Multnomah	Waste water technician	4959
HMV accident		Semi truck involved in head-on collision	44	M	22	03/03	Out of state	Truck driver	4213
HMV accident		Pickup collided head-on with a minivan	43	M	*	01/03	Clackamas	Lead engineer	4813
Pedestrian	+	Pedestrian struck by sports utility vehicle	57	M	380	10/03	Multnomah	Field data technician	4924
Aircraft accident		Helicopter crash	57	M	230	10/03	Lane	Helicopter pilot	4581

Notes: + indicates the fatality was program-related.
* indicates the tenure is not known.

(continued on next page)

Table 17. Listing of fatalities by industry, Oregon, 2003, continued

Event of injury	Program-related	Injury description	Age	Sex	Tenure (months)	Injury mo/yr	County	Occupation	SIC
Wholesale trade									
Struck by	+	Struck by car falling from a truck	37	M	12	07/03	Multnomah	Tow truck driver	5093
Services									
Aircraft accident		Airplane crash	46	M	70	04/03	Out of state	Chief executive officer	8742
Aircraft accident		Airplane crash	49	F	51	04/03	Out of state	Event consultant	8742
Explosion	+	Explosion of cannon	16	M	2	08/03	Tillamook	Camp counselor	8641
Assault & violent act		Homicide - strangled	28	F	2	02/02	Lane	Bank cashier	7363
Government									
HMV accident		Van collided with pickup truck in intersection	46	F	86	11/03	Benton	Educational assistant	8211
HMV accident		Crushed when fire truck ran into a tree	53	M	297	03/03	Polk	Firefighter captain	9224
Aircraft accident		Helicopter crash	53	M	352	10/03	Lane	Forester	9512

Notes: + indicates the fatality was program-related.
 * indicates the tenure is not known.

Table 18. Historical record of compensable fatalities by industry, Oregon, 2003-1996

Industry	2003	2002	2001	2000	1999	1998	1997	1996
Agriculture, forestry, fishing ¹	10	5	3	5	3	9	4	1
Mining	0	0	0	1	0	2	1	2
Construction	6	6	4	3	5	4	11	5
Manufacturing subtotal	12	17	10	18	14	17	6	16
Logging ²	8	7	5	9	2	7	1	9
Sawmills	0	1	0	0	3	0	1	2
Other wood products	2	2	1	3	3	3	0	1
Other manufacturing	2	7	4	6	6	7	4	4
Transportation, public utilities	5	6	7	8	9	8	5	10
Wholesale trade ³	1	1	1	1	1	2	2	4
Retail trade ³	0	3	3	1	2	5	6	3
Finance, insurance, real estate ³	0	0	0	1	1	0	1	2
Services ³	4	5	2	6	6	4	4	7
Government	3	9	4	1	6	0	4	5
Total	41	52	34	45	47	52	43	54

Table 18. Historical record of compensable fatalities by industry, Oregon, 1995-1986, continued

Industry	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986
Agriculture, forestry, fishing ¹	3	4	6	10	5	3	3	8	2	6
Mining	1	0	1	0	0	0	0	0	1	0
Construction	14	9	11	6	11	8	10	9	9	7
Manufacturing subtotal	5	14	20	11	28	36	33	33	25	32
Logging ²	3	7	11	3	13	19	22	22	15	25
Sawmills	0	3	2	3	4	5	1	3	0	2
Other wood products	0	1	1	3	2	3	4	5	4	2
Other manufacturing	2	3	6	2	9	9	6	3	6	3
Transportation, public utilities	8	4	9	9	4	7	8	10	15	20
Wholesale trade ³	2	3	2	5	2	2	2	2	5	1
Retail trade ³	4	7	4	5	1	3	5	3	8	4
Finance, insurance, real estate ³	2	0	1	0	1	1	0	1	1	2
Services ³	8	8	4	8	11	4	10	6	10	9
Government	1	4	7	8	3	0	3	10	2	3
Total	48	55	64	63	65	64	75	81	78	84

¹ Agriculture, forestry & fishing excludes forestry and fishing, 1966-1971.

² Logging includes log hauling, 1945-1971.

³ Finance, insurance & real estate, wholesale trade, retail trade, and services were combined, 1945-1975.

Retail trade was included with wholesale trade, 1976-1979.

Note: Fatalities are classified according to the 1987 edition of the Standard Industrial Classification Manual.

Table 18. Historical record of compensable fatalities by industry, Oregon, 1985-1976, continued

Industry	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976
Agriculture, forestry, fishing ¹	3	10	7	5	10	4	22	2	6	5
Mining	1	1	0	0	0	3	3	1	2	0
Construction	11	10	11	7	10	13	11	22	11	10
Manufacturing subtotal	39	30	40	21	24	33	52	47	61	51
Logging ²	27	18	24	14	10	18	26	29	37	28
Sawmills	3	2	6	1	3	1	12	5	7	8
Other wood products	4	3	2	2	4	5	5	7	8	4
Other manufacturing	5	7	8	4	7	9	9	6	9	11
Transportation, public utilities	9	10	12	10	12	7	21	15	9	7
Wholesale trade ³	4	2	4	7	6	7	14	16	16	13
Retail trade ³	2	4	8	5	2	5				
Finance, insurance, real estate ³	9	4	3	0	1	4	2	0	1	1
Services ³	5	4	7	3	6	4	7	7	6	7
Government	9	8	5	9	4	8	5	12	12	10
Total	84	83	97	67	75	88	137	122	124	104

Table 18. Historical record of compensable fatalities by industry, Oregon, 1975-1966, continued

Industry	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966
Agriculture, forestry, fishing ¹	9	6	8	6	7	12	17	11	8	5
Mining	0	3	3	1	1	3	2	5	1	1
Construction	15	17	14	24	15	15	19	16	21	21
Manufacturing subtotal	52	48	65	46	59	61	46	51	50	70
Logging ²	25	26	37	26	42	37	28	40	32	45
Sawmills	8	6	14	4	4	4	8	5	6	5
Other wood products	5	2	4	6	4	6	3	2	1	7
Other manufacturing	14	14	10	10	9	14	7	4	11	13
Transportation, public utilities	19	26	17	15	14	12	2	10	15	12
Wholesale trade ³	25	13	26	30	21	25	29	17	30	12
Retail trade ³										
Finance, insurance, real estate ³										
Services ³										
Government	12	10	11	11	15	9	16	8	11	5
Total	132	123	144	133	132	137	131	118	136	126

¹ Agriculture, forestry & fishing excludes forestry and fishing, 1966-1971.

² Logging includes log hauling, 1945-1971.

³ Finance, insurance & real estate, wholesale trade, retail trade, and services were combined, 1945-1975.
Retail trade was included with wholesale trade, 1976-1979.

Note: Fatalities are classified according to the 1987 edition of the Standard Industrial Classification Manual.

Table 18. Historical record of compensable fatalities by industry, Oregon, 1965-1956, continued

Industry	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Agriculture, forestry, fishing ¹	2	2	4	4	5	7	9	2	6	10
Mining	3	5	2	3	2	5	2	0	3	0
Construction	27	11	15	29	20	18	15	28	25	22
Manufacturing subtotal	35	48	52	46	59	65	77	61	70	81
Logging ²	20	34	35	32	37	40	59	42	50	64
Sawmills	2	3	5	3	7	3	9	7	11	5
Other wood products	1	3	3	6	4	8	4	3	7	5
Other manufacturing	12	8	9	5	11	14	5	9	2	7
Transportation, public utilities	13	6	6	7	6	6	6	9	5	8
Wholesale trade ³	9	14	18	17	12	16	9	13	10	7
Retail trade ³										
Finance, insurance, real estate ³										
Services ³										
Government	12	10	9	9	9	9	10	7	8	12
Total	132	96	106	115	113	126	128	120	127	140

Table 18. Historical record of compensable fatalities by industry, Oregon, 1955-1945, continued

Industry	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945
Agriculture, forestry, fishing ¹	6	6	4	9	4	4	7	7	9	7	13
Mining	3	2	1	0	6	0	3	2	1	0	2
Construction	12	20	15	19	33	18	21	18	19	19	12
Manufacturing subtotal	97	80	81	102	86	111	65	89	89	74	72
Logging ²	70	48	58	67	68	90	50	65	50	33	32
Sawmills	14	20	13	26	14	13	8	15	27	27	17
Other wood products	5	2	7	2	0	1	2	1	1	1	0
Other manufacturing	8	10	3	7	4	7	5	8	11	13	23
Transportation, public utilities	5	6	8	8	8	3	10	6	9	13	5
Wholesale trade ³	13	22	8	8	8	29	12	8	7	7	9
Retail trade ³											
Finance, insurance, real estate ³											
Services ³											
Government	5	7	8	10	5	10	11	8	7	3	4
Total	141	143	125	156	150	155	129	138	141	123	117

¹ Agriculture, forestry & fishing excludes forestry and fishing, 1966-1971.

² Logging includes log hauling, 1945-1971.

³ Finance, insurance & real estate, wholesale trade, retail trade, and services were combined, 1945-1975.
Retail trade was included with wholesale trade, 1976-1979.

Note: Fatalities are classified according to the 1987 edition of the Standard Industrial Classification Manual.

Table 18. Historical record of compensable fatalities by industry, Oregon, 1944-1943, continued

Industry	1944	1943
Logging and log hauling	42	53
Sawmills and allied	9	14
Shipbuilding	24	34
Other industries	47	61
Total	122	162

Note: Data were derived from SIAC Statistical Analysis of Claims for 1943-1965, APD annual fatality reports for 1966-1971, WCB annual fatality summaries for 1972-1975 (except mining), Oregon Work Injuries and Illnesses for 1976-1987, and Oregon Industrial Fatality Reports since 1988.

Data from 1980 on were coded using the 1987 edition of the Standard Industrial Classification Manual. The earlier data remain coded according to the classification originally used.

Not all the recorded fatalities during 1966-1976 were accepted as compensable claims.

Appendix A

Glossary

Accepted fatality claim:

A claim accepted by an insurer for fatality benefits and received by the Workers' Compensation Division. Also called a compensable fatality.

Occupation:

Identification of the nature of work of the employee. The occupation is classified in accordance with the Bureau of Labor Statistics' Occupational Coding Manual.

Program-related fatality:

A compensable fatality that might have been prevented by following a specific safety regulation, general duty clause, or good safety and health practices. (For specific criteria, see Appendix B.)

Standard industrial classification (SIC):

A classification system developed by the Office of Statistical Standards, Executive Office of the President/Office of Management and Budget, for use in classifying firms by the type of activity in which they engage. Each establishment of a firm is assigned an industry code for its major activity, which is determined by the product or group of products produced or services rendered. The 1987 SIC Manual was used for coding fatalities from 1980.

Tenure:

The length of time, in months, that an employee had been working for the employer at the time of the fatal injury or the diagnosis of the fatal illness.

The department:

Oregon Department of Consumer & Business Services.

Accident event or exposure:

Identification of the event or exposure situation that directly resulted in the injury or illness.

Appendix B

Scope and methodology

Scope

The data presented in this report are based on accepted disabling-work-injury and illness-claim documents received by the Workers' Compensation Division of the Department of Consumer & Business Services during the 2003 calendar year for employees covered by Oregon Workers' Compensation law. The law covers every employer who employs one or more subject workers in Oregon. Excluded from mandatory coverage are the following nonsubject workers: household employees; casual labor; employees subject to federal laws (Railroad Retirement Act, Federal Longshoremen's and Harbor Workers' Compensation Act, Jones Act, and Federal Employees' Compensation Act); City of Portland police and firefighters; workers engaged in the transportation of interstate commerce of goods, persons, or property by rail, water, aircraft, or motor vehicle and whose employer has no fixed place of business in Oregon; sole proprietors; partners and officers of corporations; amateur athletes; newspaper carriers; employees of religious, charitable, or relief organizations who work primarily for board and lodging or who receive only nominal reimbursements; owners of boating equipment engaged in the transportation of the public for recreational down-river boating activities pursuant to a federal permit; and owners and leaseholders of motor vehicles used as taxicabs or to transport logs, poles, pilings, rocks, gravel, sand, dirt, or asphalt concrete (see ORS 656.027). Any employer who has nonsubject workers may elect coverage by purchasing workers' compensation insurance to cover compensation liability.

Starting in 1992, a classification structure known as the Occupational Injury and Illness Classification System was implemented by the Bureau of Labor and Statistics (BLS). In 1996, Oregon converted its old coding structure to the new one. As a result of this change, "Type of Accident" became "Accident event." Historical data were also converted to the new coding structure. As a result, data may differ from previous years' publications.

The BLS Occupational Injury and Illness Classification System enables safety and health professionals and other data users to better monitor work injuries and illnesses, educate workers about hazards associated with various jobs, promote safer work practices through enhanced job safety training, develop new safety equipment, assess and improve workplace safety standards, and target research.

Appendix B, *continued*

Methodology

Fatal claims are reported to the Workers' Compensation Division on Form 801, Worker's and Employer's Report of Occupational Injury or Disease. The Workers' Compensation claims file is matched with the employer file to obtain the SIC. The victim's age, sex, tenure, and the county of occurrence are obtained directly from the claim document. Data are subject to change due to new information received by the department and may differ slightly from previous years' publications.

The nature of business of the employer is classified according to the Standard Industrial Classification Manual, 1987 Edition. The industrial code (SIC) is assigned to the employer registration account. The industrial groupings used in this report are defined as follows:

Industry	2-digit SIC
Agriculture, forestry, fishing	01-09
Mining	10-14
Construction	15-17
Manufacturing.....	20-39
Logging	(241)
Sawmills.....	(242)
Other wood	(243-249)
Other manufacturing	(20-23, 25-39)
Transportation, public utilities	40-49
Wholesale trade	50-51
Retail trade	52-59
Finance, insurance, real estate	60-67
Services.....	70-89
Government.....	91-97

Note that government claims include all claims against publicly owned employers, regardless of the SIC assigned.

Claims for workers employed by leasing companies are counted in the industry in which they were employed at the time of injury, i.e., the SIC of the client employer.

Fatalities for the years 1980-88 were reclassified from the 1972/1977-edition SICs to 1987-edition SICs. This conversion resulted in a recount of 1988 fatalities.

Appendix B, *continued*

The occupation of the worker is classified in accordance with the Bureau of Labor Statistics Occupational Coding Manual. The occupational groupings used in this report:

Occupation	Codes
Professional and managerial	003 - 199
Technical, administrative support ...	203 - 235 and 303 - 389
Sales occupations	243 - 280
Service occupations	400 - 469
Farm laborers and managers	470 - 489
Loggers, foresters, fishers	494 - 499 and 890 - 901
Mechanics and repairers	503 - 549
Construction trades	550 - 599
Precision products, mining	613 - 699
Operators, except transport.....	704 - 799
Transport equipment operators	803 - 859
Laborers, except farm	863 - 899

A fatal case is recorded as program-related if it occurs at a workplace over which the Oregon Occupational Safety and Health Division has the primary jurisdiction, and OR-OSHA plans to conduct an investigation. OR-OSHA investigates an incident based on the assumption that the fatal injury or illness resulted from the violation of a specific Oregon Safe Employment Act rule or the general duty clause. OR-OSHA also investigates if there is a violation of a good safety or health practice that would be the subject of a safety or expanded enforcement letter. The plans to investigate an incident are indicated on the OR-OSHA 36(S) form.

If there is not an OR-OSHA 36(S) form, the case is recorded as program-related if the narrative description of the case indicates that there is a high probability that the injury or illness resulted from a violation of a specific Oregon Safe Employment Act rule, general duty clause, or good safety and health practice.

Fatalities that occur out-of-state are not considered to be under this jurisdiction. Transportation accidents are rarely considered to be program-related since there are too many variables for safety regulations to attempt to control. Homicides are not regarded as program-related.

Appendix C

Descriptions of 2003 fatal compensable injuries and illnesses by industry

Agriculture, forestry, fishing – 10 fatalities

SIC 01-09

- A horse trainer was riding a horse when the bridle came off. The trainer lost control of the horse. It stopped abruptly, and threw the victim over its head.
- A landscape laborer was placing large rocks around a pond while his coworker worked above him on a steeply-sloped access to the pond's edge. A wheelbarrow, loaded with rocks, fell over towards the victim; he slipped on the plastic liner as he tried to avoid the falling rocks and fell into the pond. His knee-high rubber waders filled with water, forcing him to the bottom of the pond (16 feet) where he drowned. Protective equipment was not worn. The victim didn't know how to swim (program-related).
- Eight firefighters were involved in a head-on collision with a truck and trailer. The driver of the van tried to pass a truck and trailer on a corner with a solid yellow line. The van, which was traveling over 80 MPH, did not have enough room to pass and drove head on into another semi truck and trailer. Both the semi truck and the van caught fire just seconds after impact. All eight firefighters, including the driver of the van, died in the crash.

Construction – 6 fatalities

SIC 15-17

- A framer was crushed by a load of lumber that fell from a forklift driven by a coworker. The load of lumber (about 2,626 pounds) was being lifted to the second story of a house under construction and was extended beyond the ability of the rough-terrain-type forklift to counterbalance. The forklift upended, causing the load to shift and fall onto the victim, who was guiding the forklift driver while standing on a ladder through a stairwell hole. The worker fell eight feet. The victim was wearing a hardhat (program-related).
- A construction laborer was operating a skid-steer loader. The victim had removed the lap bar safety device and then leaned out the front of the loader with a hammer. He was trying to retrieve a piece of wood placed under the load that was resting on the front forks. A tool belt he was wearing got caught on a lever and caused the front forks to lower to the ground, crushing the victim's head between the forklift assembly and frame of the machine (program-related).
- A carpenter was part of a crew installing floor joists in a three-story house under construction. He was sent to the other side of the building to get a small piece of plank material. He fell 23 feet through an unprotected elevator shaft opening on the second floor to the cement base of the shaft. The worker was not wearing fall protection. The roof of the building was not yet installed and it was raining (program-related).

Appendix C, *continued*

- A heavy-equipment operator, running a truck-mounted pile driver was electrocuted when the boom of the truck contacted a high-voltage (7kV) overhead power line. When the equipment contacted the power line, the operator jumped from the vehicle. The current arced from the vehicle to him, completing the circuit to the ground. (program-related)
- A construction laborer was helping remove bolts that held a guardrail to a post alongside a highway. The crew had been removing/replacing guardrails in a work zone when the pile-driving vehicle moved forward and the tower of the vehicle contacted an 8kV overhead power line, energizing the guardrail and electrocuting the victim. (program-related)
- A truck driver was traveling in a flatbed one-ton pickup truck that crossed the centerline when a tire blew out. The victim struck a car and then collided with an oncoming semi truck. The worker's truck was loaded with barrels of toluene paint (flammable) that burst into flames upon impact.

Manufacturing – 12 fatalities

SIC 20-39

- A manufacturing specialist sprained his ankle while hanging bars on a paintline. The victim underwent corrective surgery six months later to repair his medial tendon. After the surgery, he spent much of the time with his leg elevated to reduce swelling and pain. He died from deep vein thrombosis/pulmonary emboli about three weeks after his surgery.
- A furnace operator had been exposed to asbestos in his early years of employment. He died from malignant pleural mesothelioma due to the asbestos exposure.
- A logging chaser was struck in the head by a metal sheave that fell from a cable on a delimber. The accident occurred when a yarder was bringing a turn of logs to the landing. Some logs hung up on a stump, the guy lines failed, and the yarder overturned. The yarder struck the back of the stoker boom on the delimber, breaking the guy line sheave on the stoker, and the sheave fell onto the victim's head. (program-related)
- A logging cutter was felling timber and attempted to fell a tree onto a snag (dead tree) to knock it over. The victim fell the tree, but it only brushed the snag, fracturing the top half without breaking it off. The victim waited for a while, then continued bucking and sizing the log he had fallen. The butt of the fallen tree was against the snag tree and the vibrations from the chainsaw caused the 10-15 foot snag to break and fall on the victim. (program-related)
- A hook tender, yarding logs, had just attached a skyline cable of a yarder to a tailhold strap. The skyline was on the upper side of a previous landing that had logs and debris piled up, which created a 90-degree siwash (a bad slash) in the line, as opposed to being on the downhill side and in a straight line between the yarder and tailhold. As the yarder took up the slack in cable, it whipped down the hill and back, striking the victim. (program-related)

Appendix C, *continued*

- A timber faller, was cutting a 93-foot tree that hit other trees as it was falling. It kicked back 12 feet and hit the victim in the chest. A Humboldt face cut was used on the tree, producing a notch of just 15 degrees, instead of the usual 45-90 degrees. The back cut was made at and below the horizontal component of the Humboldt's face cut, failing to provide a platform that would block the tree from kicking back once the hinge broke.
- A logging laborer was helping fall a pine tree (22-inch diameter, 105 feet tall). A timber faller (coworker) made cuts and asked the victim to wedge the tree. As the tree was about to fall, the victim turned his back to the tree and crouched down. The falling tree struck another tree and shot backwards off the stump. The airborne butt portion of the tree struck the victim. The victim was wearing a hardhat found nearby with a crack. (program-related)
- A logging laborer was operating a bulldozer (with grapples attached at rear), using the blade to clear trees and grade a new road on a steep hill. When the tracks of the vehicle struck rock, he attempted to turn around with the grapples and blade raised to allow clearance. This unbalanced the machine, causing it to roll over the embankment and down a 600-foot slope. He was tossed from the rolling machine. He was not wearing a seatbelt. He was the oldest worker, age 75. (program-related)
- A helicopter pilot had just released a load of logs off the helicopter. For an unknown reason, the helicopter crashed and, seconds later, exploded. The helicopter came to rest 75 feet down a ravine. The incident occurred in Tennessee.
- A helicopter pilot was dropping water on a wildfire when the helicopter crashed for unknown reasons (possible mechanical failure). The incident occurred in Washington.
- A fabricator, banding the upper portion of trusses, was standing on a work platform attached to a forklift elevated about 14 feet. Another part was needed from a different work area, so the forklift driver drove the forklift in reverse (with the victim still elevated) and made a sharp left turn that unbalanced the forklift, causing it to overturn. The victim fell to the asphalt surface. No fall protection was used. (program-related)
- A wood products worker sustained burns when wood dust ignited and sparked an explosion at a sawdust packaging plant. The victim had pushed the start button for a fan, causing a fuse in an electrical box to arc, which caused an explosion. The electrical box was not dust-proof and over-current protection of power and lighting circuits had been modified in a hazardous way in violation of code. (program-related)

Appendix C, *continued*

Transportation, public utilities – 5 fatalities

SIC 40-49

- A wastewater technician was using a high-pressure washer to clean out a 13-foot-tall, 15,000 gallon, wastewater discharge tank that had previously stored antifreeze waste and contained a mixture of toxic chemicals, including hydrofluoric acid. He had to lean into the confined space of the tank to check progress and did not wear a respirator. The victim developed respiratory symptoms and was hospitalized. He died three weeks later from the poisoning. (program-related)
- A truck driver was involved in a head-on collision on the freeway. The incident occurred in Oklahoma.
- A lead engineer was driving a company pickup on the highway. His vehicle crossed over the centerline, made a sudden left turn into oncoming traffic, and struck a minivan head-on. The victim was wearing a seatbelt.
- A field data technician was locating a gas line on the shoulder of the road. He had parked his company pickup on the bike lane and sidewalk. He was standing next to the left quarter-panel of his truck, when someone driving an SUV and talking on a cell phone drifted over and struck the victim and then his truck. The victim was wearing an orange reflective vest and had put out two orange cones. It was a dry, clear day with good visibility. (program-related)
- A helicopter pilot was flying with a forester (passenger) scouting for waterholes for future fire suppression, when the helicopter became entangled in an unmarked powerline and crashed into the river. The power line (ground cable, not charged) was about 250 feet above the ground and was not equipped with the plastic and rubber spheres that identify electric wires. A seatbelt was worn. The passenger was also killed (see SIC 91-97).

Wholesale trade – 1 fatality

SIC 50-51

- A tow truck driver was standing on the back of a flatbed tow truck (four-car carrier) when a crushed car that was being loaded by a forklift onto the upper deck above the cab, tipped forward off the forks and fell onto the worker, crushing his head. (program-related)

Services – 4 fatalities

SIC 70-89

- A chief executive officer (pilot) and his event consultant (passenger) were flying a small airplane back from a conference when the plane crashed, killing both workers. The incident occurred in California.

Appendix C, *continued*

- A camp counselor had tried to fire a small ceremonial cannon during a flag ceremony, but it malfunctioned. After the ceremony, he added additional black powder and again tried to ignite the charge. The cannon exploded, resulting in fatal shrapnel wounds to the victim's head. The cannon was overloaded with black powder and projectiles. The black powder used was an inappropriate grade for the cannon and the worker was not properly trained to use the cannon. He was the youngest worker, age 16 (program-related).
- A bank cashier was sexually assaulted and strangled at work. She was the only one in the bank at the time.

Government – 3 fatalities

SIC 91-97

- An educational assistant was driving her van through a traffic-controlled intersection and making a left-hand turn onto the highway. A pickup on the highway, ran the stop light and crashed into the victim's van. The victim was not wearing a seatbelt and was ejected from the vehicle.
- A firefighter captain was riding in the passenger seat of a fire truck on a narrow roadway (no shoulder) en route to a training exercise. The truck encountered another vehicle coming toward it and tried to make room. It left the pavement, went into a ditch, and was stopped by the trunk of a tree, about two feet to the right of the roadway. A branch encroached the cab of truck and crushed the victim, who was wearing a seatbelt, against the passenger seat.
- A forester was riding in a helicopter, scouting for waterholes for future forest fire suppression. The helicopter became entangled in an unmarked power line (ground cable, not charged) and crashed into the river. The damage to the helicopter was extreme. The power line was approximately 250 ft above the ground and was not equipped with the plastic and rubber spheres that identify electric wires. The pilot also died (see SIC 40-49). A seatbelt was worn.



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