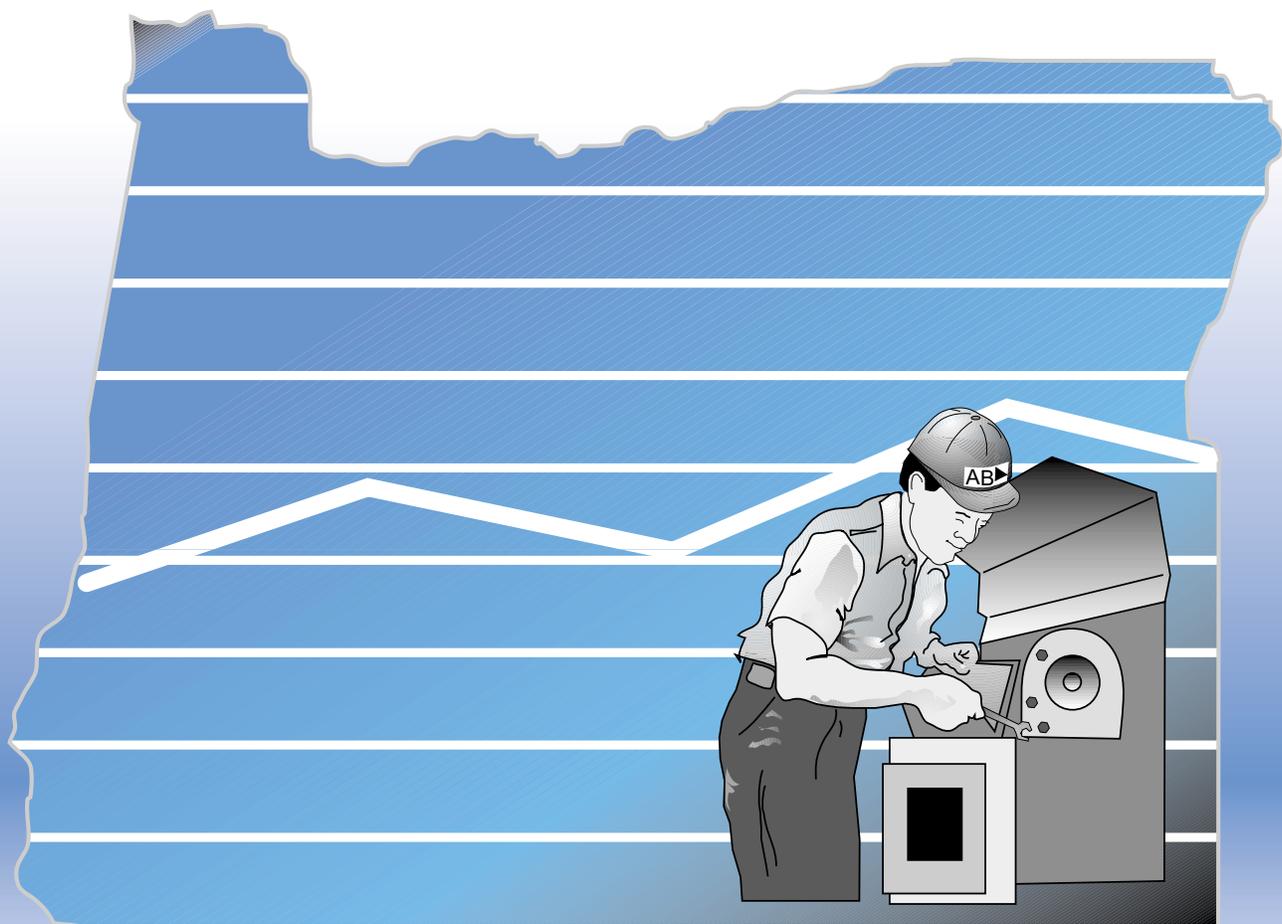


Oregon Compensable Fatality Report, Calendar Year 1998



Research & Analysis Section
Oregon Department of Consumer
& Business Services



December 1999

Oregon Compensable Fatality Report, Calendar Year 1998

Department of Consumer & Business Services
Director, Michael Greenfield

Information Management Division
Administrator, Dan Adelman

Research & Analysis Section
Manager, Ed Bissell
Assistant Manager, Kathy Thomas
Research Analyst, Stacey Barnhart

December 1999

In compliance with the Americans with Disabilities Act (ADA), this publication is available in alternative formats. Please call (503) 378-4100 (V/TTY).

*The information in this report is in the public domain and may be reprinted without permission.
Visit the DCBS Web site at <http://www.cbs.state.or.us>*



Research & Analysis Section
350 Winter St. NE, Room 300
Salem, OR 97301-3880
(503) 378-8254

Table of Contents

	Page
Introduction	1
Findings in Brief	2
Analysis of Industrial Fatalities	3
Accident event	4
Industry	5
Occupation	6
Employer	6
Tenure	6
Age and gender	7
Month of injury	7
County of occurrence	8

Text tables

1. Compensable fatalities by accident event, Oregon, 1998	4
2. Compensable fatalities due to homicide, Oregon, 1990-1998	4
3. Compensable fatalities by accident event within industrial classification, Oregon, 1998	4
4. Compensable fatalities by accident event within occupational classification, Oregon, 1998	6
5. Compensable fatalities by employer size class, Oregon, 1998	6
6. Compensable fatalities by tenure and age group, Oregon, 1998	7
7. Compensable fatalities by age group, Oregon, 1998	7
8. Compensable fatalities by gender, Oregon, 1998	7

Figures

1. Compensable fatalities, Oregon, calendar year 1979-1998	3
2. Fatality rates, Oregon, calendar year 1979-1998	3
3. Compensable fatalities by industry division, Oregon, 1998	5
4. Compensable fatalities within manufacturing, Oregon, 1998	5
5. Compensable fatalities by month of injury, Oregon, 1998	8
6. Distribution of compensable fatalities by county of occurrence, Oregon, 1998	8

Tables

1. Compensable fatalities by accident event, Oregon, 1989-1998	10
2. Compensable fatalities by industry, Oregon, 1989-1998	11
3. Compensable fatalities by occupation, Oregon, 1989-1998	13
4. Compensable fatalities by age group, Oregon, 1989-1998	14
5. Compensable fatalities by gender, Oregon, 1989-1998	15
6. Compensable fatalities by county of occurrence, Oregon, 1989-1998	16
7. Compensable fatalities by month of injury, Oregon, 1989-1998	18
8. Listing of fatalities by industry, Oregon, 1998	19
9. Historical record of Compensable fatalities, 1943-1998	21

Appendices

A. Glossary of terminology	25
B. Technical notes: scope and methodology	25
C. Descriptions of 1998 fatal compensable injuries and illnesses by industry	27

Introduction

This report presents data about Oregon's compensable fatalities. It includes data for the fatalities which have been accepted as compensable deaths during the 1998 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 received notification of acceptance by January 31, 1999.

The information presented here may be useful in preventing many 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. They administer a consultative services program which aids employers in the identification and modification of worksite hazards. They also provide information about personal protective equipment, industrial hygiene and ergonomic worksite design, train employers and employees, and enforce the Oregon Occupational Safety and Health rules and standards.

A glossary of terminology used in this report is found in Appendix A, and further explanation of the scope of the report and the methodology is found in Appendix B. Information on disabling claims can be found in *Oregon Workers' Compensation Claims Characteristics*. More

detailed information may be obtained from the Research & Analysis Section of the department's Information Management Division.

The Department of Consumer & Business Services, Information Management Division, 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 between the U.S. Bureau of Labor Statistics (BLS) and participating states. The fatalities included in the CFOI count are those for which the death or incident occurred in the reference state, during the reference year, and are determined to be work-related according to the CFOI criteria.

As a national program, CFOI provides a uniform definition for work-related fatalities. The program also covers a larger population base than covered by workers' compensation; it includes nearly all workers who are engaged in legal work activities regardless of industry or regulatory coverage of an establishment. A yearly publication, *Oregon Census of Fatal Occupational Injuries*, can be obtained from the Research & Analysis Section of the department's Information Management Division, or from the DCBS Web site at <http://www.cbs.state.or.us>

Findings in Brief

- The Worker's Compensation Division received notification of 52 accepted claims for fatality benefits during the 1998 calendar year. This is an increase of 9 from the 43 fatalities in 1997. The 43 fatalities in 1997 were the lowest number of fatalities ever recorded since the Occupational Safety and Health Division began collecting data in 1943. There were an average of 50.4 compensable fatalities per year for the five-year period 1994-1998.
- There were four compensable fatalities in the construction industry in 1998, compared to 11 in 1997. During the five years 1994-1998, the construction industry averaged 8.6 fatalities per year.
- The logging industry claimed seven compensable fatalities in 1998, compared to one in 1997.
- Eight of the 52 fatalities (15.4 percent) were in the transportation and public utility industry, compared to five (11.6 percent) in 1997.
- There were no fatalities in the public sector in 1998, compared to four fatalities in 1997.
- In 1998, accidents where the worker was involved in a highway motor vehicle accident were the leading event, claiming 17 lives.
- There were five fatalities to workers run over by a vehicle in 1998, compared to two workers in 1997.
- Twenty-nine of the compensable fatalities were considered to be program-related. Program-related fatalities are those in-state fatalities which might have been prevented by following specific safety regulations, general duty clauses or good safety and health practices.
- Seventeen transportation operators and nine farm laborers & managers were among the 52 compensable fatalities.
- The median age of the 52 workers at the time of their injuries was 41. The youngest worker killed was a 19-year-old farm worker killed in a highway motor vehicle accident. The oldest worker was a 77-year-old truck driver who died from a highway motor vehicle accident.
- Of the 52 people who died in work-related accidents, 50 were men and two were women, compared to 40 men and three women in 1997.
- Six compensable fatalities occurred in Multnomah and Lane County. Four occurred in Marion County. Eleven fatalities occurred outside Oregon, compared to three in 1997.
- In 1998, August had the most fatalities with nine followed by September with eight. February had the fewest fatalities with two, compared to four in 1997.

Analysis of Industrial Fatalities

During the 1998 calendar year, the Workers' Compensation Division of the Department of Consumer & Business Services recorded the acceptance of 52 claims for fatality benefits. This is nine more than the 43 fatalities in 1997. The 43 fatalities were the lowest number of fatalities ever recorded in Oregon since the Occupational Safety and Health Division began collecting data in 1943 (see Figure 1 and Table 9). For comparison, there were an average of 50.4 compensable fatalities per year for the five-year period 1994-1998.

Twenty-nine of the 1998 fatalities were program-related. Program-related fatalities are those which might have been prevented by following specific safety regulations,

general duty clauses, or good safety and health practices. Out-of-state fatal accidents are not considered program-related because they are not within Oregon's jurisdiction. Of the 1998 compensable fatalities, 56 percent were program-related, compared to 51 percent in 1997.

The fatality rates in Figure 2 are the numbers of fatalities per 100,000 subject employees. The employment figures are estimated workers' compensation covered employment based on data supplied by the State of Oregon Employment Department. Employment has grown from approximately 1,055,100 subject workers in 1979 to 1,583,900 in 1998.

Figure 1. Compensable fatalities, Oregon, calendar year 1979-1998

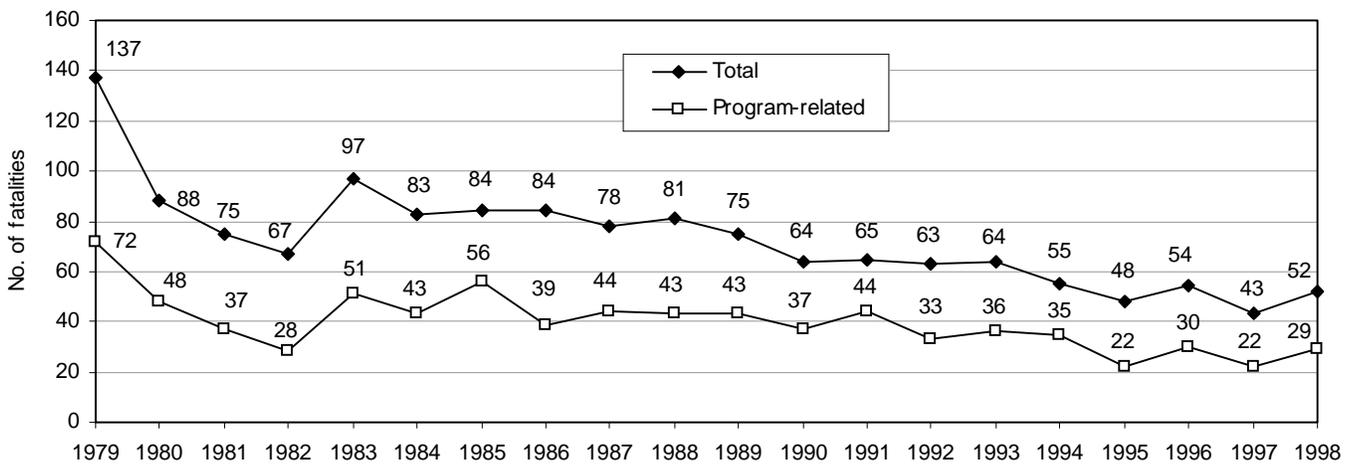
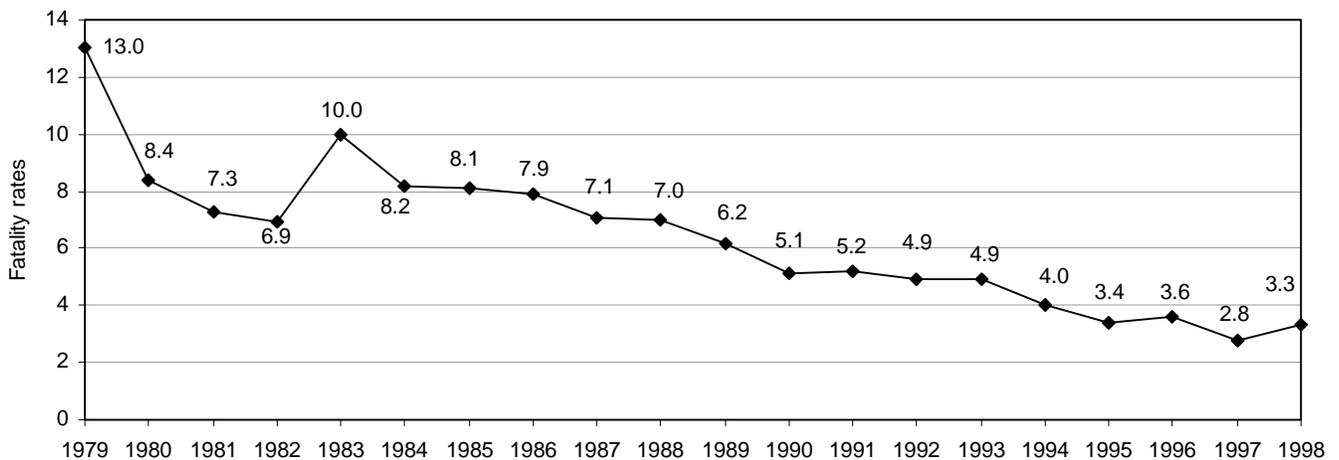


Figure 2. Fatality rates (per 100,000 workers), Oregon, calendar year 1979-1998



Accident event

Highway motor vehicle accidents were the leading type of accident in job-related deaths, claiming 17 lives in 1998. Six fatalities in this category were accidents in which the worker's vehicle overturned, six were the result of collisions with another vehicle, two fatalities occurred when the workers' truck collided with a tree, one fatality occurred when a vehicle went off a bridge, one fatality occurred when a vehicle went into a river, and one fatality occurred when a worker fell from a moving vehicle. Only four of these fatalities were program-related. Transportation accidents are generally not program-related because there are too many variables for safety regulations to control.

The event of being caught in, between, or under equipment or objects, was the second most common event of compensable fatalities, accounting for nine fatalities in 1998. Four fatalities in this category involved workers caught in equipment or objects, three workers were caught in machinery, one worker died from a trench cave-in, and one worker was caught in the hydraulic lift of a truck.

Six workers were involved in industrial vehicle accidents. Four fatalities occurred when industrial vehicles overturned, and two fatalities occurred when workers fell from and were then struck by industrial vehicles.

In 1998, there were two homicides (see Text Table 2). One worker was killed during a robbery attempt and one worker was kidnapped from a place of business (the worker was never found).

Attention should be paid to the events of fatal accidents that have occurred so that similar accidents can be prevented in the future. The 1998 fatal accidents are summarized in Table 8 and Appendix C.

Text table 1. Compensable fatalities by accident event, Oregon, 1998

Accident event	Work-related	
	1994-1998 Average	1998
Struck by object	6.6	5
Caught in/under/between	5.2	9
Falls	5.6	4
Contact with electric current	1.0	2
Toxic/caustic substances	2.0	1
Drowning	0.6	0
Highway motor vehicle accidents	14.0	17
Industrial vehicle accidents	3.2	6
Pedestrian accidents	4.2	5
Aircraft accidents	3.8	1
Fires & explosions	0.8	0
Assaults & violent acts	2.8	2
Other	0.6	0
Total	50.4	52

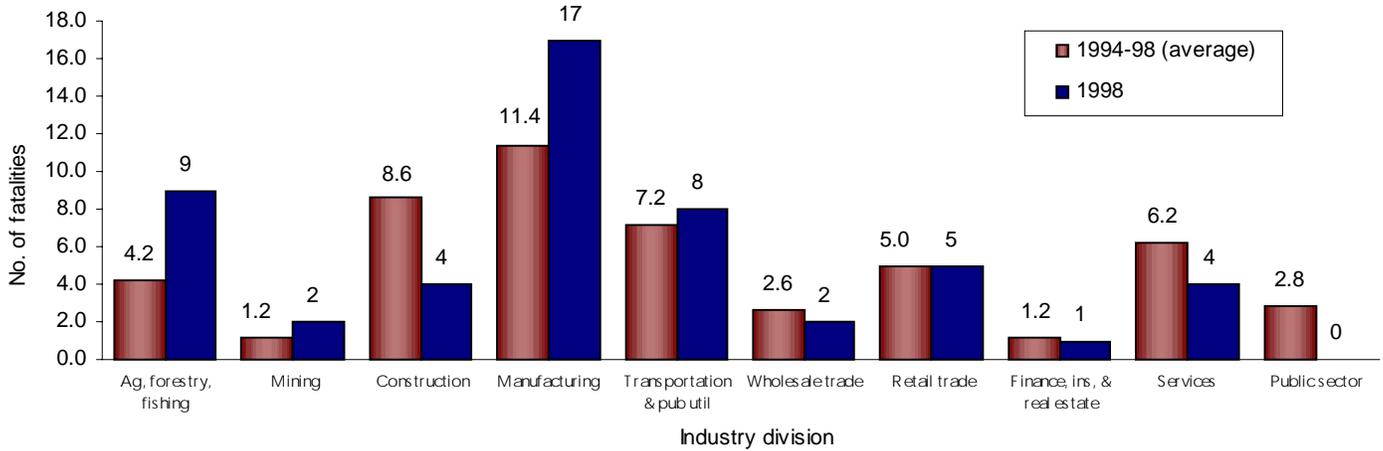
Text table 2. Compensable fatalities due to homicide, Oregon, 1990-1998

Year of acceptance	No. of fatal claims	Claims due to homicide	Homicides as % of total
1990	64	2	3.1%
1991	65	3	4.6%
1992	63	8	12.7%
1993	64	1	1.6%
1994	55	6	10.9%
1995	48	3	6.2%
1996	54	0	0.0%
1997	43	3	7.0%
1998	52	2	3.8%

Text table 3. Compensable fatalities by accident event within industrial classification, Oregon, 1998

Industry	Total	Struck by or against	Caught in/under/between	Falls	Contact w/ electric current	Toxic/caustic substances	Hwy motor vehicle accident	Industrial vehicle accident	Pedestrian accidents	Aircraft accidents	Assault & violent acts
Ag, forestry & fishing	9		2				4	2	1		
Mining	2	1						1			
Construction	4		1	1			1	1			
Manufacturing (17)											
Other manufacturing	7	1	2	1		1	2				
Logging	7	2	1	1				2	1		
Other woods	3		1		1				1		
Transportation & pub. util.	8	1		1			4		1		1
Wholesale trade	2		1				1				
Retail trade	5						3		1		1
Finance, ins, real estate	1									1	
Services	4		1		1		2				
Total	52	5	9	4	2	1	17	6	5	1	2

Figure 3. Compensable fatalities by industry division, Oregon, 1998



Industry

Seventeen of the 52 compensable fatalities occurred in the manufacturing industry in 1998 (see Figure 3). This is a 183 percent increase over the six workers killed in 1997. Seven fatalities occurred in logging. Two of those seven workers were killed by being struck by an object, two workers were killed in industrial vehicle accidents, one worker was caught between a loader and loader deck, one worker fell 15 feet from rigging, and one worker was run over by a log truck loader. Three fatalities occurred in other wood products industries. One of the three workers was killed from being caught in a machine, one worker was electrocuted, and one worker was run over by a truck. Seven fatalities occurred in other manufacturing industries. Two of those seven workers were caught between objects or equipment, two workers were involved in motor vehicle accidents, one worker was struck by a falling beam, one worker fell from a nonmoving truck, and one worker died from inhalation of ammonia.

Nine of the 52 compensable fatalities occurred in the agriculture, forestry, and fishing industry in 1998 (see Figure 3). This is a 125 percent increase over the four

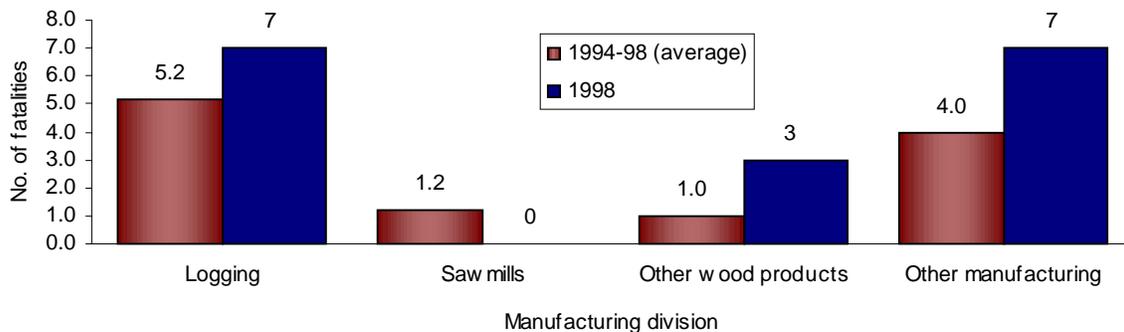
workers killed in 1997. Four of the nine fatalities were motor vehicle accidents, two workers were killed in industrial vehicle accidents, one worker was killed from being caught in a machine, one worker died in a trench cave-in, and one worker was run over by a truck.

Eight workers in the transportation and public utilities industry died in 1998. This is a 60 percent increase from the 5 fatalities in 1997. Four were killed in motor vehicle accidents, one worker was struck by falling pipe, one worker fell from a nonmoving truck, one worker was run over by a truck, and one worker was shot during a robbery.

The public sector recorded no fatalities in 1998 compared to four workers killed in 1997.

As mentioned earlier, 56 percent of the 1998 fatalities were program-related. Table 2 shows manufacturing with 76 percent, construction with 75 percent, and agriculture, forestry, and fishing with 67 percent, had the highest percentages of program-related fatalities.

Figure 4. Compensable fatalities within manufacturing, Oregon, 1998



Occupation

Seventeen transportation operators were among the 52 fatalities in 1998 (see Text table 4 and Table 3). Eight of the 17 were killed in motor vehicle accidents, three were killed in industrial vehicle accidents, two died from falls, one worker was struck by falling pipe, one worker was caught between trailer and truck, one worker was run over by truck, and one worker was killed during a robbery.

Nine farm laborers were killed in 1998, compared to three in 1997. Five of the nine were killed in motor vehicle accidents, one was killed in an industrial vehicle accident, one worker was killed from being caught in machinery, one worker died from a trench cave-in, and one worker was run over by a truck.

Seven loggers were killed in 1998 compared to one logger killed in 1997. Two workers were killed by being struck by an object, two workers were killed in indus-

trial vehicle accidents, one worker was caught between a loader and loader deck, one worker fell 15 feet from rigging, and one worker was run over by a log truck loader.

Employer

Of the three size classes, employers with 11-99 employees had the highest number of fatalities (see Text Table 5).

Text table 5. Compensable fatalities by employer size class, Oregon, 1998

Number of employees	Program-related	
	Program-related	Total
10 or less	7	15
11-99	14	23
100 or more	8	14
Total	29	52

Text table 4. Compensable fatalities by accident event within occupational classification, Oregon, 1998

Occupation	Total	Struck by or against	Caught in/under or between	Falls	Contact w/elec current	Toxic/caustic subst	Hwy motor veh acc	Ind'l vehicle accidents	Pedes-trians	Aircraft accidents	Assaults & violent acts
Professional & managerial	3						2		1		
Technical, admin support	1									1	
Sales occupations	2						1				1
Service occupations	2		1		1						
Farm laborers & managers	9		2				5	1	1		
Loggers, foresters, fishers	7	2	1	1				2	1		
Mechanics & repairers	3					1	1		1		
Construction trades	3	1	1		1						
Operators, exc transport	4	1	3								
Transport operators	17	1	1	2			8	3	1		1
Laborers, except farm	1			1							
Total	52	5	9	4	2	1	17	6	5	1	2

Tenure

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

Twenty-one of the workers (40.4 percent) were with their employer for a year or less at the time of their injury. While this does not indicate whether or not

these workers had similar jobs prior to their employment with their last employer, it does indicate the need for training and supervision of new employees.

Text table 6 shows the distribution of tenure and age at the time of injury. The deaths of experienced workers point out the need for programs to reinforce safety and to combat worker complacency.

Text table 6. Compensable fatalities by tenure and age group, Oregon, 1998

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	1		1		2			1	1		6
2nd - 3rd months		2			2			1			5
4th - 6th months		1		1	1					1	4
7th - 12th months		3	1	1		1					6
2nd year		1	1							2	4
3rd year				1		1	1	2			5
4th - 5th years			1	1	1	1	1			2	7
6th - 10th years					1	2			1	2	6
11th - 25th years					1	1		3	1		6
26th and more										1	1
Missing	1									1	2
Total	2	7	4	4	8	6	2	7	3	9	52

Age and gender

During the past five years, 1994-1998, the 26-30, 36-40, and the 41-45 age groups have been the groups with the most compensable fatalities (see Text table 7). In 1998, the 61 and over age group had the most fatalities with nine, followed by the 36-40 age group with eight.

The median age of the 1998 compensable fatalities was 41 while the median age for 1994-1998 fatalities was 39. In 1998, the youngest worker was a 19-year-old farm worker who died from a highway motor vehicle accident. The oldest worker was a 77-year-old truck driver who died from a motor vehicle accident. Five of the nine fatalities to workers 25 and under were program-related.

Of the 52 compensable fatalities, 50 were men and two were women. This compares to three women killed in 1997. One woman was killed during a robbery attempt, and one woman was kidnapped and has never been found.

Month of injury

On the average, for the last five years, the most compensable fatalities have occurred in September (see Figure 5). In 1998, February had the least number of fatalities with two. August had the most with nine followed by September with eight. In August, four truck drivers, one farm worker, one laborer, one electrician, one mechanic, and one motor transportation worker were killed.

Text table 7. Compensable fatalities by age group, Oregon, 1998

Age group	1994-1998		1998 Program-related
	Average	1998	
17 and under	0.4	0	0
18-20	1.0	2	1
21-25	5.4	7	4
26-30	6.6	4	2
31-35	6.4	4	4
36-40	6.6	8	4
41-45	6.6	6	4
46-50	5.6	2	1
51-55	4.6	7	4
56-60	3.2	3	2
61 and over	4.0	9	3
Total	50.4	52	29
Median age	39	41	40

Text table 8. Compensable fatalities by gender, Oregon, 1998

Gender	1994-1998	
	average	1998
Male	46.2	50
Female	4.2	2
Total	50.4	52

County of occurrence

Twelve percent of the 1998 compensable fatalities occurred in Multnomah county (six). Multnomah is the state's most populous county, followed by Washington and Lane counties.

The six fatalities in Multnomah county consisted of three workers killed from being caught in equipment or objects, two workers killed in motor vehicle accidents, and one worker who fell from a nonmoving vehicle.

Eleven of the 52 fatalities occurred outside of Oregon. In Washington, a logger was run over by a log truck loader, a manager was in a motor vehicle accident, a truck driver was in a motor vehicle accident, a truck driver was struck by falling pipe, an electrician was struck by a falling beam, and a recreational worker was electrocuted. In California, a truck driver fell from a nonmoving vehicle, and a pilot was killed in a plane crash. In Idaho, two truck drivers were killed in the same motor vehicle accident, and in Nevada, a truck driver was killed in a motor vehicle accident.

Figure 5. Compensable fatalities by month of injury, Oregon, 1998

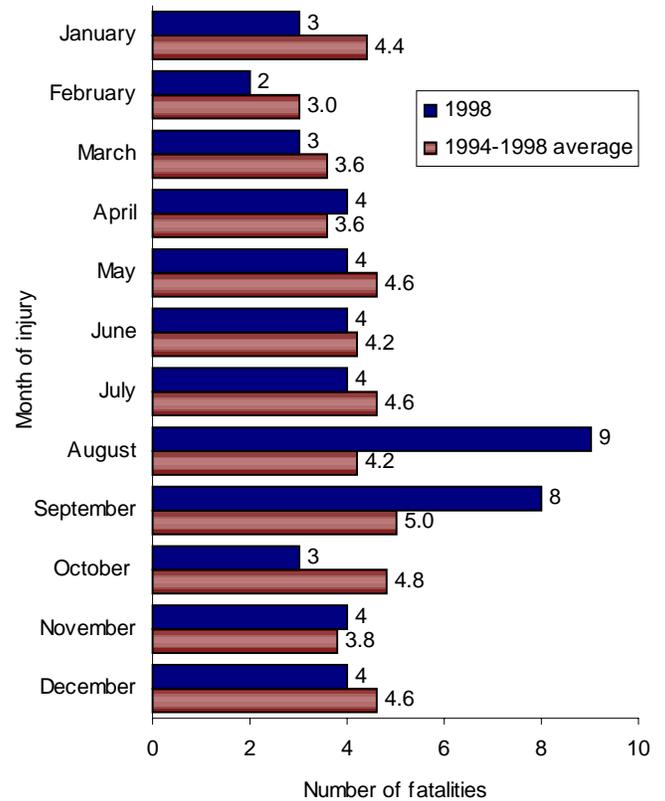
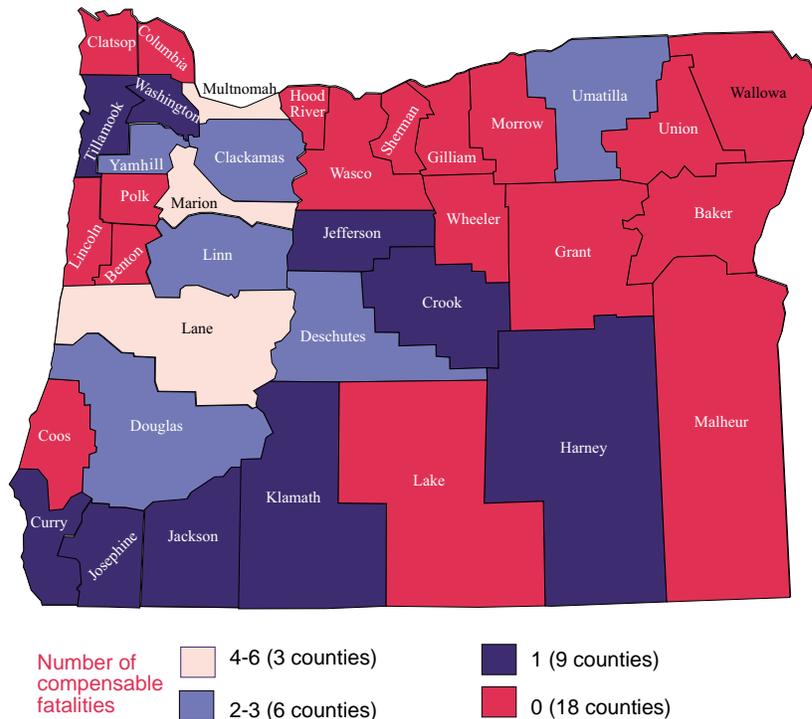


Figure 6. Distribution of compensable fatalities by county of occurrence, Oregon, 1998



Note: Eleven fatalities occurred outside Oregon.

Tables

Table 1	Accident event, Oregon, 1989-1998
Table 2	Industry, Oregon, 1989-1998
Table 3	Occupation, Oregon, 1989-1998
Table 4	Age group, Oregon, 1989-1998
Table 5	Gender, Oregon, 1989-1998
Table 6	County of occurrence, Oregon, 1989-1998
Table 7	Month of injury, Oregon, 1989-1998
Table 8	Listing of fatalities by industry, Oregon, 1998
Table 9	Historical record of compensable fatalities, 1943-1998

Table 1. Accident event**Table 1a. Compensable fatalities by accident event, Oregon, 1989-1998**

Accident event	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Struck by or against	25	13	11	7	8	10	5	9	4	5	97
Caught in/under/between	7	9	5	7	8	6	3	5	3	9	62
Falls	2	1	6	5	10	7	6	5	6	4	52
Bodily reaction	3	0	3	1	3	1	0	0	0	0	11
Contact with electric current	3	6	8	1	2	1	0	0	2	2	25
Toxic/caustic substances	2	1	7	5	1	2	2	2	3	1	26
Drownings	1	0	0	0	0	0	3	0	0	0	4
Highway motor vehicle accidents	22	21	14	22	18	13	13	15	12	17	167
Industrial vehicle accidents	1	2	1	2	2	2	4	2	2	6	24
Pedestrian accidents	2	2	4	1	5	5	4	5	2	5	35
Aircraft accidents	3	4	2	1	3	0	5	10	3	1	32
Railway accidents	0	0	0	0	0	0	0	0	1	0	1
Water vehicle accidents	0	0	0	0	0	0	0	0	1	0	1
Fires & explosions	0	1	1	2	3	2	0	1	1	0	11
Assaults & violent acts	2	2	3	8	1	6	3	0	3	2	30
Other	2	2	0	1	0	0	0	0	0	0	5
Total	75	64	65	63	64	55	48	54	43	52	583

Table 1b. Program-related fatalities by accident event, Oregon, 1989-1998

Accident event	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Struck by or against	24	12	11	6	7	10	4	9	2	2	87
Caught in/under/between	7	8	5	6	8	6	3	5	3	9	60
Falls	2	1	5	5	9	5	5	4	6	4	46
Bodily reaction	0	0	1	0	1	1	0	0	0	0	3
Contact with electric current	3	6	8	1	2	1	0	0	1	1	23
Toxic/caustic substances	2	1	7	4	1	2	2	2	3	1	25
Drownings	1	0	0	0	0	0	0	0	0	0	1
Highway motor vehicle accidents	1	2	3	6	1	2	2	4	3	4	28
Industrial vehicle accidents	1	2	1	2	2	2	3	1	2	5	21
Pedestrian accidents	1	2	2	1	2	4	3	4	1	3	23
Railway accidents	0	0	0	0	0	0	0	0	1	0	1
Fires & explosions	0	1	1	1	3	2	0	1	0	0	9
Other	1	2	0	1	0	0	0	0	0	0	4
Total	43	37	44	33	36	35	22	30	22	29	331

Table 2. Industry

Table 2a. Compensable fatalities by industry, Oregon, 1989-1998

Industry	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
PRIVATE SECTOR											
Agriculture, forestry & fishing	3	3	5	10	6	4	3	1	4	9	48
Mining	0	0	0	0	1	0	1	2	1	2	7
Construction	10	8	11	6	11	9	14	5	11	4	89
Manufacturing subtotal	33	36	28	11	20	14	5	15	6	17	185
Logging	22	19	13	3	11	7	3	8	1	7	94
Sawmills	1	5	4	3	2	3	0	2	1	0	21
Other wood products	4	3	2	3	1	1	0	1	0	3	18
Other manufacturing	6	9	9	2	6	3	2	4	4	7	52
Transportation & public utilities	8	7	4	9	9	4	8	11	5	8	73
Wholesale trade	2	2	2	5	2	3	2	4	2	2	26
Retail trade	5	3	1	5	4	7	4	3	6	5	43
Finance, insurance & real estate	1	1	0	1	0	2	2	1	0	1	9
Services	10	4	11	8	4	8	8	7	4	4	68
Private sector subtotal	72	64	62	55	57	51	47	49	39	52	548
PUBLIC SECTOR											
State government											
Construction	0	0	0	1	0	0	0	1	0	0	2
Services	0	0	0	1	0	1	0	0	0	0	2
Government	2	0	0	1	3	3	1	0	4	0	14
Subtotal	2	0	0	3	3	4	1	1	4	0	18
Local government											
Construction	0	0	0	0	1	0	0	1	0	0	2
Transportation & public utilities	0	0	0	0	1	0	0	0	0	0	1
Services	0	0	1	1	0	0	0	1	0	0	3
Government	1	0	2	4	2	0	0	2	0	0	11
Subtotal	1	0	3	5	4	0	0	4	0	0	17
Public sector subtotal	3	0	3	8	7	4	1	5	4	0	35
Total	75	64	65	63	64	55	48	54	43	52	583

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

Table 2. Industry (continued)

Table 2b. Program-related fatalities by industry, Oregon, 1989-1998

Industry	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
PRIVATE SECTOR											
Agriculture, forestry & fishing	2	0	5	7	4	3	2	1	2	6	32
Mining	0	0	0	0	1	0	1	2	0	0	4
Construction	4	7	10	6	9	7	11	3	10	3	70
Manufacturing subtotal	29	24	23	10	13	13	3	13	5	13	146
Logging	21	13	11	3	6	6	1	8	1	6	76
Sawmills	1	5	3	3	2	3	0	2	0	0	19
Other wood products	3	3	2	3	0	1	0	1	0	3	16
Other manufacturing	4	3	7	1	5	3	2	2	4	4	35
Transportation & public utilities	2	3	0	1	2	0	1	3	0	2	14
Wholesale trade	0	1	1	3	1	3	0	0	1	1	11
Retail trade	2	1	0	0	2	0	2	2	0	2	11
Finance, insurance & real estate	0	0	0	1	0	1	0	0	0	0	2
Services	3	1	3	2	2	4	2	3	1	2	23
Private sector subtotal	42	37	42	30	34	31	22	27	19	29	313
PUBLIC SECTOR											
State government											
Construction	0	0	0	1	0	0	0	1	0	0	2
Services	0	0	0	0	0	1	0	0	0	0	1
Government	0	0	0	0	1	3	0	0	3	0	7
Subtotal	0	0	0	1	1	4	0	1	3	0	10
Local government											
Construction	0	0	0	0	1	0	0	1	0	0	2
Government	1	0	2	2	0	0	0	1	0	0	6
Subtotal	1	0	2	2	1	0	0	2	0	0	8
Public sector subtotal	1	0	2	3	2	4	0	3	3	0	18
Total	43	37	44	33	36	35	22	30	22	29	331

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

Table 3. Occupation

Table 3a. Compensable fatalities by occupation, Oregon, 1989-1998

Occupation	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Professional and managerial	7	5	4	9	2	3	5	11	4	3	53
Technical, administrative support	4	4	3	4	5	2	7	4	3	1	37
Sales occupations	3	3	0	4	2	3	2	2	2	2	23
Service occupations	2	0	3	5	4	5	3	2	5	2	31
Farm laborers and managers	2	2	4	4	5	3	2	2	3	9	36
Loggers, foresters, fishers	22	17	14	11	12	9	5	10	1	7	108
Mechanics and repairers	4	3	9	2	7	6	2	3	3	3	42
Construction trades	9	4	5	4	8	6	6	4	7	3	56
Operators, except transport	8	6	5	1	3	2	1	0	2	4	32
Precision products, mining	2	0	2	1	2	1	0	1	0	0	9
Transportation operators	10	14	6	13	9	9	10	9	10	17	107
Laborers, except farm	2	6	10	5	5	6	5	6	3	1	49
Total	75	64	65	63	64	55	48	54	43	52	583

Table 3b. Program-related fatalities by occupation, Oregon, 1989-1998

Occupation	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Professional and managerial	2	1	1	3	0	1	0	2	2	1	13
Technical, administrative support	0	1	0	0	2	1	1	0	1	0	6
Sales occupations	0	1	0	0	0	0	0	1	0	0	2
Service occupations	1	0	0	1	1	3	0	1	2	1	10
Farm laborers and managers	2	0	4	3	4	3	1	2	2	5	26
Loggers, foresters, fishers	21	10	12	9	5	8	4	10	0	6	85
Mechanics and repairers	2	1	8	1	5	6	1	2	2	3	31
Construction trades	5	4	5	4	8	6	5	4	7	2	50
Operators, except transport	6	5	5	1	2	2	1	0	2	3	27
Precision products, mining	1	0	2	1	1	0	0	1	0	0	6
Transportation operators	1	8	1	6	3	1	5	3	2	7	37
Laborers, except farm	2	6	6	4	5	4	4	4	2	1	38
Total	43	37	44	33	36	35	22	30	22	29	331

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

Table 4. Age group

Table 4a. Compensable fatalities by age group, Oregon, 1989-1998

Age group	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
17 and under	1	1	1	1	0	1	0	0	1	0	6
18 - 20	3	2	3	3	0	2	0	0	1	2	16
21 - 25	3	15	8	4	6	6	3	7	4	7	63
26 - 30	10	8	5	3	10	7	8	6	8	4	69
31 - 35	10	6	8	11	9	6	10	8	4	4	76
36 - 40	17	5	4	8	7	7	9	3	6	8	74
41 - 45	10	4	3	11	11	8	4	9	6	6	72
46 - 50	5	5	7	4	6	5	8	10	3	2	55
51 - 55	8	7	11	5	13	9	1	4	2	7	67
56 - 60	5	4	9	5	1	2	2	4	5	3	40
61 and over	3	7	6	8	1	2	3	3	3	9	45
Total	75	64	65	63	64	55	48	54	43	52	583

Table 4b. Program-related fatalities by age group, Oregon, 1989-1998

Age group	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
17 and under	0	0	0	0	0	1	0	0	1	0	2
18 - 20	3	2	3	2	0	2	0	0	0	1	13
21 - 25	3	9	7	4	5	3	3	4	4	4	46
26 - 30	7	4	3	2	5	5	2	5	2	2	37
31 - 35	5	3	7	3	5	4	5	4	3	4	43
36 - 40	10	1	3	3	3	5	5	1	4	4	39
41 - 45	7	3	1	6	5	6	2	5	2	4	41
46 - 50	1	4	4	4	2	2	2	4	2	1	26
51 - 55	3	4	7	1	10	4	1	3	1	4	38
56 - 60	3	4	5	4	0	1	0	2	1	2	22
61 and over	1	3	4	4	1	2	2	2	2	3	24
Total	43	37	44	33	36	35	22	30	22	29	331

Table 5. Gender

Table 5a. Compensable fatalities by gender, Oregon, 1989-1998

Gender	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Women	8	3	4	7	4	10	4	2	3	2	47
Men	67	61	61	56	60	45	44	52	40	50	536
Total	75	64	65	63	64	55	48	54	43	52	583

Table 5b. Program-related fatalities by gender, Oregon, 1989-1998

Gender	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Women	3	2	1	3	1	3	1	0	1	0	15
Men	40	35	43	30	35	32	21	30	21	29	316
Total	43	37	44	33	36	35	22	30	22	29	331

Table 6. County of occurrence

Table 6a. Compensable fatalities by county of occurrence, Oregon, 1989-1998

County	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Baker	2	1	0	0	0	1	0	0	1	0	5
Benton	1	1	0	1	2	0	1	1	1	0	8
Clackamas	2	4	4	3	5	3	3	3	3	3	33
Clatsop	1	0	3	0	0	0	1	2	1	0	8
Columbia	1	1	0	1	0	2	0	1	0	0	6
Coos	1	1	5	4	2	0	2	2	1	0	18
Crook	0	1	1	1	1	1	0	2	0	1	8
Curry	3	1	0	0	1	1	0	0	0	1	7
Deschutes	1	2	2	3	3	2	2	0	0	2	17
Douglas	12	6	3	6	5	2	3	1	1	3	42
Gilliam	0	0	0	0	0	0	0	1	1	0	2
Grant	0	2	1	3	0	0	1	1	2	0	10
Harney	0	1	0	1	0	1	0	0	0	1	4
Hood River	2	0	0	0	0	0	0	1	0	0	3
Jackson	2	1	3	3	4	3	2	3	2	1	24
Jefferson	0	3	0	1	1	0	0	0	0	1	6
Josephine	2	0	2	0	0	0	0	0	0	1	5
Klamath	4	2	1	3	2	0	0	1	3	1	17
Lake	1	0	0	0	0	0	0	0	0	0	1
Lane	10	9	9	1	9	5	2	5	1	6	57
Lincoln	2	2	0	2	3	3	0	3	1	0	16
Linn	5	1	2	1	1	3	2	1	2	3	21
Malheur	0	1	0	1	0	1	0	0	1	0	4
Marion	3	2	3	3	1	2	1	4	1	4	24
Morrow	0	1	0	0	0	0	0	1	1	0	3
Multnomah	7	6	11	8	12	8	5	6	5	6	74
Polk	2	1	0	1	0	1	3	2	1	0	11
Sherman	0	0	0	0	0	0	0	0	0	0	0
Tillamook	1	2	0	0	3	0	0	1	1	1	9
Umatilla	0	0	3	1	0	2	1	2	0	2	11
Union	0	0	0	0	0	2	0	0	2	0	4
Wallowa	0	0	1	0	0	2	0	0	1	0	4
Wasco	0	0	1	1	0	2	0	1	1	0	6
Washington	2	5	3	4	4	2	8	0	3	1	32
Wheeler	0	1	0	1	0	0	0	0	2	0	4
Yamhill	1	1	1	3	0	1	0	1	1	3	12
Out-of-state	7	4	6	6	5	5	11	7	3	11	65
Unknown	0	0	0	0	0	0	0	1	0	0	1
Overseas	0	1	0	0	0	0	0	0	0	0	1
Total	75	64	65	63	64	55	48	54	43	52	583

Table 6. County of occurrence (con't.)

Table 6b. Program-related fatalities by county of occurrence, Oregon, 1989-1998

County	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Baker	1	0	0	0	0	0	0	0	0	0	1
Benton	1	1	0	1	2	0	1	1	0	0	7
Clackamas	1	3	4	2	5	2	3	1	3	3	27
Clatsop	1	0	2	0	0	0	0	1	1	0	5
Columbia	1	1	0	1	0	1	0	1	0	0	5
Coos	0	1	4	1	2	0	0	2	0	0	10
Crook	0	1	1	1	1	1	0	1	0	1	7
Curry	0	1	0	0	1	1	0	0	0	1	4
Deschutes	0	1	1	1	0	1	1	0	0	1	6
Douglas	10	6	2	4	3	2	2	1	0	2	32
Gilliam	0	0	0	0	0	0	0	0	1	0	1
Grant	0	1	1	2	0	0	1	1	1	0	7
Harney	0	0	0	0	0	0	0	0	0	0	0
Hood River	1	0	0	0	0	0	0	0	0	0	1
Jackson	2	0	2	2	2	3	1	3	1	0	16
Jefferson	0	2	0	0	0	0	0	0	0	0	2
Josephine	2	0	2	0	0	0	0	0	0	1	5
Klamath	4	0	1	1	1	0	0	1	2	1	11
Lake	1	0	0	0	0	0	0	0	0	0	1
Lane	5	3	7	1	4	3	1	5	1	4	34
Lincoln	2	1	0	1	3	1	0	2	0	0	10
Linn	0	0	2	1	1	3	0	1	2	2	12
Malheur	0	0	0	0	0	1	0	0	1	0	2
Marion	2	2	2	1	0	1	0	1	0	2	11
Morrow	0	1	0	0	0	0	0	0	1	0	2
Multnomah	4	5	6	6	6	4	4	3	4	5	47
Polk	2	1	0	1	0	1	2	1	0	0	8
Sherman	0	0	0	0	0	0	0	0	0	0	0
Tillamook	1	1	0	0	2	0	0	0	0	1	5
Umatilla	0	0	1	1	0	2	1	1	0	2	8
Union	0	0	0	0	0	2	0	0	1	0	3
Wallowa	0	0	1	0	0	2	0	0	0	0	3
Wasco	0	0	1	0	0	2	0	1	0	0	4
Washington	2	4	3	2	3	1	5	0	3	1	24
Wheeler	0	1	0	1	0	0	0	0	0	0	2
Yamhill	0	0	1	2	0	1	0	1	0	2	7
Unknown	0	0	0	0	0	0	0	1	0	0	1
Total	43	37	44	33	36	35	22	30	22	29	331

Table 7. Month of injury

Table 7a. Compensable fatalities by month of injury, Oregon, 1989-1998

Month of injury	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
January	7	8	8	4	4	9	2	3	5	3	53
February	3	4	5	5	8	3	2	4	4	2	40
March	4	9	1	3	10	4	5	4	2	3	45
April	8	5	10	8	1	3	3	6	2	4	50
May	7	5	4	3	4	4	5	5	5	4	46
June	10	1	5	4	2	3	7	1	6	4	43
July	4	8	5	3	4	8	3	4	4	4	47
August	11	6	11	12	4	2	3	3	4	9	65
September	6	6	2	9	4	5	5	3	4	8	52
October	4	5	7	5	10	5	5	8	3	3	55
November	8	4	5	5	10	5	2	7	1	4	51
December	3	3	2	2	3	4	6	6	3	4	36
Total	75	64	65	63	64	55	48	54	43	52	583

Table 7b. Program-related fatalities by month of injury, Oregon, 1989-1998

Month of injury	Calendar year										Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
January	4	6	6	1	2	4	0	1	2	2	28
February	2	1	4	5	6	2	0	2	3	0	25
March	1	3	1	2	7	3	2	1	0	1	21
April	4	3	8	6	0	0	1	5	0	1	28
May	5	4	2	3	1	3	3	3	1	3	28
June	6	0	3	1	1	2	4	1	4	2	24
July	4	5	5	0	1	6	1	3	3	2	30
August	5	5	7	6	3	2	2	3	2	7	42
September	3	4	1	6	0	1	3	3	3	4	28
October	2	3	4	1	7	5	4	3	1	1	31
November	6	1	2	1	7	3	1	3	0	2	26
December	1	2	1	1	1	4	1	2	3	4	20
Total	43	37	44	33	36	35	22	30	22	29	331

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.

Table 8. Listing of fatalities

Table 8. Listing of fatalities by industry, Oregon, 1998

Accident event	Program-related	Injury description	Age	Sex	Tenure	Injury mo/yr	County	Occupation	SIC
Agriculture, forestry & fishing									
Caught in	+	Caught in drilling machine	38	M	68	12/97	Crook	Farm worker	0191
Caught in	+	Trench cave-in	22	M	4	10/98	Umatilla	Farm worker	0139
HMV accident		Pickup collided with oncoming vehicle	66	M	4	10/98	Marion	Farm worker	0191
HMV accident		Pickup blew tire and overturned	19	M	1	02/98	Linn	Farm worker	0191
HMV accident		Pickup overturned	24	M	16	04/98	Harney	Farm worker	0191
HMV accident	+	Fell from back of moving truck	51	M	257	08/98	Clackamas	Farm worker	0139
Industrial vehicle acc	+	Fell from and struck by tractor	20	M	*	06/98	Klamath	Farm worker	0139
Industrial vehicle acc	+	Tractor overturned	35	M	48	09/98	Yamhill	Forester, exc logging	0811
Pedestrian	+	Run over by semi-truck	52	M	197	11/98	Marion	Supv, farm worker	0811
Mining									
Struck by		Struck by broken sledge hammer	40	M	1	04/98	Jackson	Crushing mach oper	1429
Industrial vehicle acc		Bulldozer overturned	67	M	324	09/98	Lane	Bulldozer operator	1429
Construction									
Caught in	+	Caught in hydraulic lift of truck	31	M	35	09/98	Multnomah	Supervisor, NEC	1521
Fall	+	Fell to ground - same level	33	M	6	08/98	Clackamas	Laborer	1799
HMV accident		Car overturned	54	M	2	07/97	Out-of-state	Mgr. & Admin. NEC	1542
Industrial vehicle acc	+	Bulldozer overturned	51	M	1	07/98	Lane	Bulldozer operator	1794
Other manufacturing									
Struck by		Struck by falling beam	52	M	183	07/98	Out-of-state	Electrician	2037
Caught in	+	Caught between machine & material	39	M	37	09/98	Multnomah	Machine oper, unsp	3442
Caught in	+	Caught between trailer & truck	59	M	124	08/98	Linn	Truck driver	3273
Fall	+	Fell from nonmoving truck	58	M	65	05/98	Tillamook	Truck driver	2048
Contact with	+	Inhalation of ammonia	31	M	7	05/98	Linn	Ind'l machine repairer	2034
HMV accident		Pickup collided with oncoming vehicle	43	M	93	03/97	Douglas	Driver-sales worker	2026
HMV accident		Motor coach was struck by semi-truck	66	M	24	09/98	Out-of-state	Truck driver	3716
Logging									
Struck by	+	Struck by falling branch	43	M	99	04/98	Josephine	Timber faller	2411
Struck by	+	Struck by broken cable	22	M	2	01/98	Marion	Chaser	2411
Caught in	+	Caught between loader & loader deck	24	M	11	12/97	Umatilla	Chaser	2411
Fall	+	Fell 15 feet from rigging	39	M	3	06/98	Lane	Choker setter	2411
Industrial vehicle acc	+	Fell from and struck by tractor	41	M	36	03/98	Curry	Hook tender	2411
Industrial vehicle acc	+	Loader overturned	43	M	264	09/98	Washington	Loader operator	2411
Pedestrian		Run over by log truck loader	25	M	7	04/98	Out-of-state	Chaser	2411
Other woods									
Caught in	+	Caught in debarker	28	M	39	07/98	Lane	Barker operator	2436
Contact w/elec. current	+	Contact with hot terminal	64	M	118	08/98	Deschutes	Electrician	2431
Pedestrian	+	Run over by dump truck	49	M	60	12/97	Clackamas	Property manager	2435
Transportation & public utilities									
Struck by		Struck by falling pipe	27	M	22	09/98	Out-of-state	Truck driver	4213
Fall	+	Fell 10 ft. from nonmoving truck	45	M	12	12/98	Multnomah	Truck driver	4212
HMV accident		Truck collided into trees	66	M	24	08/98	Out-of-state	Truck driver	4212
HMV accident		Semi-truck overturned	29	M	1	11/98	Out-of-state	Truck driver	4212
HMV accident	+	Semi-truck jack-knifed, then collided into guardrail	67	M	84	08/98	Douglas	Truck driver	4213
HMV accident		Truck collided into trees	56	M	1	08/98	Out-of-state	Truck driver	4212
Pedestrian		Run over by semi-truck	39	M	3	03/98	Out-of-state	Truck driver	4213
Assault/violent act		Homicide - shot during robbery	36	F	1	10/98	Marion	Taxicab driver	4121

Table 8. Listing of fatalities (cont.)

Table 8. Listing of fatalities by industry, Oregon, 1998

Accident event	Program-related	Injury description	Age	Sex	Tenure	Injury mo/yr	County	Occupation	SIC
Wholesale trade									
Caught in	+	Caught in corrugated pipe machine	24	M	7	01/97	Yamhill	Machine operator	5074
HMV accident		Pickup was struck by vehicle	41	M	60	06/98	Jefferson	Inspector, agriculture	5191
Retail trade									
HMV accident	+	Pickup went over bridge	70	M	55	08/98	Douglas	Motor trans occ, nec	5271
HMV accident		Pickup overturned	77	M	*	11/98	Yamhill	Truck driver	5511
HMV accident		Truck went into river	50	M	36	06/97	Multnomah	Supervisor, sales	5531
Pedestrian	+	Run over by front-end loader	40	M	256	05/98	Lane	Truck mechanic	5261
Assault/violent act		Homicide - kidnapped, never found	37	F	4	01/97	Lane	Cashier	5411
Finance, Insurance, & Real Estate									
Aircraft accident		Airplane crash	53	M	31	05/98	Out-of-state	Airplane pilot	6221
Services									
Caught in	+	Caught between railcar & dock	55	M	26	11/98	Multnomah	Security officer	7381
Contact w/elec. current		Contact with electrical part	21	M	3	09/98	Out-of-state	Attendant, recreation	7999
HMV accident		Car was struck by automobile	61	M	48	02/98	Deschutes	Engineer	8711
HMV accident	+	Van was struck by automobile	26	M	11	08/97	Multnomah	Not spec mechanic	7699

Notes: + indicates the fatality was program-related.

Tenure is given in months.

* indicates the tenure is not known.

Table 9. Historical record of compensable fatalities

Compensable fatalities by industry, Oregon, 1998-1986

Industry	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986
Ag, forestry & fishing ¹	9	4	1	3	4	6	10	5	3	3	8	2	6
Mining	2	1	2	1	0	1	0	0	0	0	0	1	0
Construction	4	11	5	14	9	11	6	11	8	10	9	9	7
Manufacturing subtotal	17	6	15	5	14	20	11	28	36	33	33	25	32
Logging ²	7	1	8	3	7	11	3	13	19	22	22	15	25
Sawmills	0	1	2	0	3	2	3	4	5	1	3	0	2
Other wood products	3	0	1	0	1	1	3	2	3	4	5	4	2
Other manufacturing	7	4	4	2	3	6	2	9	9	6	3	6	3
Transp & public utilities	8	5	11	8	4	9	9	4	7	8	10	15	20
Wholesale trade ³	2	2	4	2	3	2	5	2	2	2	2	5	1
Retail trade ³	5	6	3	4	7	4	5	1	3	5	3	8	4
Finance, ins & real estate ³	1	0	1	2	2	0	1	0	1	1	0	1	2
Services ³	4	4	7	8	8	4	8	11	4	10	6	10	9
Government	0	4	5	1	4	7	8	3	0	3	10	2	3
Total	52	43	54	48	55	64	63	65	64	75	81	78	84

Compensable fatalities by industry, Oregon, 1985-1976

Industry	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976
Ag, 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
Transp & 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, ins & real estate ³	1	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

¹Agriculture, forestry & fishing excludes forestry and fishing from 1966-71.

²Logging includes log hauling from 1945-71.

³Finance, insurance & real estate, wholesale trade, retail trade, and services were combined from 1945-75.

Retail trade was included with wholesale trade from 1976-79.

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

Table 9. Historical record of compensable fatalities (con't)**Compensable fatalities by industry, Oregon, 1975-1966**

Industry	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966
Ag, 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
Transp & 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, ins & 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

Compensable fatalities by industry, Oregon, 1965-1956

Industry	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Ag, 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
Transp & 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, ins & real estate ³										
Services ³										
Government	10	10	9	9	9	9	10	7	8	12
Total	99	96	106	115	113	126	128	120	127	140

¹Agriculture, forestry & fishing excludes forestry and fishing from 1966-71.²Logging includes log hauling from 1945-71.³Finance, insurance & real estate, wholesale trade, retail trade, and services were combined from 1945-75. Retail trade was included with wholesale trade from 1976-79.

Table 9. Historical record of compensable fatalities (con't)

Compensable fatalities by industry, Oregon 1955-1945

Industry	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945
Ag, 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
Transp & public utilities	5	6	8	8	8	3	10	6	9	13	5
Wholesale trade ³	13	22	8	8	8	9	12	8	7	7	9
Retail trade ³											
Finance, ins & 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

¹Agriculture, forestry & fishing excludes forestry and fishing from 1966-71.

²Logging includes log hauling from 1945-71.

³Finance, insurance & real estate, wholesale trade, retail trade, and services were combined from 1945-75. Retail trade was included with wholesale trade from 1976-79.

Compensable fatalities by industry, Oregon 1944-1943

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

Note: The 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 1976-87, and *Oregon Industrial Fatality Report* since 1988.

Data from 1980 forward 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 of the recorded fatalities from 1966-76 were accepted as compensable claims.

Appendices

Appendix A Glossary of terminology

Appendix B Technical notes: scope and methodology

Appendix C Descriptions of 1998 fatal cases by industry

Glossary of Terminology

Accepted fatality claims:

Claims accepted by insurers and received by the Workers' Compensation Division for fatal benefits. Also called work-related or compensable fatalities.

Occupation:

Identification of the nature of work of the employee. The occupation is classified in accordance with the 1990 Census of Population Alphabetical Index of Industries and Occupations.

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 Man-

agement and Budget, for use in classifying firms by the type of activity in which they are engaged. 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 Edition of the SIC manual was utilized for coding all fatalities from 1980 forward.

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 which directly resulted in the injury or illness.

Appendix B

Technical Notes

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 1998 calendar year for employees covered under the 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 in 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.

Due to an increased demand by users for a more detailed coding structure, Bureau of Labor and Statistics (BLS) recognized that a new, comprehensive, detailed coding scheme would be needed.

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

Appendix B (cont.)

The BLS Occupational Injury and Illness Classification System will enable 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.

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, updated information 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.

The occupation of the worker is classified in accordance with the 1990 Census of Population Alphabetical Index of Industries

and Occupations. The occupational groupings used in this report are:

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 occurred at a workplace over which the Oregon Occupational Safety and Health Division had the primary jurisdiction, and if OR-OSHA plans to conduct an investigation of the 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 from the 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.

Descriptions of 1998 Fatal Compensable Injuries and Illnesses by Industry

Agriculture, forestry & fishing - 9 fatalities SIC 01-09

- A farm worker was digging post holes and got caught in the drilling machine while standing next to it (program-related).
- A farm worker was excavating a large water pipeline when the loose soil caved-in. Worker was buried (program-related).
- A farm worker was driving a pickup and ran a stop sign. He was struck broadside by an oncoming pickup.
- A farm worker was an unrestrained passenger in the back of a pickup. The pickup blew a tire and the worker was thrown from the pickup when it overturned (youngest worker, age 19).
- A farm worker lost control of a pickup after coming out of a slight curve in the road; the wheels slipped on the loose gravel causing the pickup to do a 180 degree turn and slide down an embankment.
- A farm worker was riding in the back of a slow moving truck. The truck went into a curve, the worker lost his balance, and fell from the back of the moving truck (program-related).
- A farm worker was operating a tractor. The tractor overturned and landed on the worker (program-related).
- A forester was driving a farm tractor down a hill when the tractor overturned (program-related).
- A farm worker supervisor was on the roadway when a semi-truck was backing up in anticipation of getting a load. As the truck backed-up, the worker was run over (program-related).

Mining - 2 fatalities SIC 10-14

- A crushing machine operator was trying to dislodge rocks from a jaw crusher with a sledge hammer. The sledge hammer broke and was ejected from the machine, striking the worker.
- A bulldozer operator was operating a bulldozer on a narrow pit bench when it collapsed causing the bulldozer to overturn.

Construction - 4 fatalities SIC 15-17

- A supervisor was crushed between the hydraulic lift of a truck and the truck (program-related).

- A laborer fell to the ground on the same level (program-related).
- A manager was killed when his car overturned.
- A bulldozer operator was operating a bulldozer that went over an embankment and into a canal (program-related).

Manufacturing - 17 fatalities SIC 20-39

- An electrician was lifted up in a tractor bucket. Worker fell from the tractor and a beam fell on top of him.
- A machine operator was crushed between a hydraulic glass moving machine and a large piece of glass (program-related).
- A truck driver was unhitching a trailer when the load shifted causing the back of the trailer to tip, thus crushing the worker between the tongue and the back of the truck (program-related).
- A truck driver fell from a nonmoving truck while unloading feed off the truck (program-related).
- An industrial machine repairer was lifted by a forklift to work on a pipe and valve. There was a significant ammonia leak. The worker was immediately overcome by the ammonia and killed (program-related).
- A driver-sales worker veered his pickup into oncoming traffic and collided with another vehicle.
- A truck driver was driving a motor coach through an intersection and was broadsided by a semi-truck.
- A timber faller was struck by a falling branch (program-related).
- A logging chaser was killed when a mainline broke causing the cable to whip back towards the worker, striking his head (program-related).
- A logging chaser became wedged between the counterweight of a loader machine and the loader deck area (program-related).
- A choker setter fell 15 feet from the rigging after the rigging got caught in tree (program related).
- A hook tender was operating a tractor on a 65 degree slope. The worker fell from and was struck by the tractor (program-related).
- A loader operator was operating a loader on a 33 degree slope. The ground gave way causing the loader to overturn (program-related).
- A logging chaser was standing behind a log truck loader. The operator of the loader did not see the worker and backed up over him.

Manufacturing (cont.)

- A barker machine operator was cleaning around the feeder deck on a bark machine. The bark machine became activated, crushing the worker (program-related).
- An electrician was re-wiring a transformer when he became electrocuted by a recircuiting of the wiring from the hot terminal (program-related).
- A property manager was standing behind a dump truck. The truck backed up and the worker was run over (program-related).

Transportation and public utilities - 8 fatalities SIC 40-49

- A truck driver was in process of unloading a truck. The load of plastic pipe came off the truck and crushed the worker.
- A truck driver fell 10 ft from a nonmoving truck (program-related).
- Two truck drivers, one a passenger and one the driver, were killed when the truck left the road and collided with trees.
- A truck driver was driving a semi-truck that overturned.
- A truck driver lost control of a semi-truck. The truck jack-knifed and collided with a guardrail (program-related).
- A truck driver pulled over to tie down the tarp on his load. The worker slipped off the truck, landed in traffic, and was run over by a semi-truck.
- A taxicab driver was shot by a customer while being robbed.

Wholesale trade - 2 fatalities SIC 50-51

- A machine operator was running plastic pipe through a corrugated pipe machine. The worker was pulled into the machine (program-related).
- An agricultural inspector's pickup was struck by a vehicle that failed to stop at a stop sign.

Retail trade - 5 fatalities SIC 52-59

- A motor transportation driver lost control of a truck and went off a bridge (program-related).
- A truck driver's pickup rolled several times (oldest worker, age 77).
- A sales supervisor lost control of a truck and drove into a river.
- A truck mechanic was crossing a road in the yard, when a front-end loader came around a corner and ran over the worker (program-related).
- A cashier was abducted from a place of business. The worker has not been found yet.

Finance, insurance & real estate - 1 fatality SIC 60-67

- An airplane pilot was giving a demo flight and his plane crashed.

Services - 4 fatalities SIC 70-89

- A security officer was crushed between a railcar and the loading dock (program-related).
- A recreational attendant was working on equipment and came into contact with an electrical part which electrocuted him.
- An engineer's car was struck by an on-coming automobile.
- A mechanic was driving through an intersection when another driver drove through a stop sign and collided with worker's van (program-related).