Bureau of Labor Statistics

Washington, D.C. 20212

Technical information: (202) 691-6175 USDL 00-236

Media information: (202) 691-5902 FOR RELEASE: 10 a.m. EDT Internet address: http://stats.bls.gov/oshhome.htm Thursday, August 17, 2000

## NATIONAL CENSUS OF FATAL OCCUPATIONAL INJURIES, 1999

The number of fatal work injuries that occurred during 1999 was 6,023, nearly the same as the previous year's total despite an increase in employment, according to the Census of Fatal Occupational Injuries, conducted by the Bureau of Labor Statistics, U.S. Department of Labor. Decreases in job-related deaths from homicides and electrocutions in 1999 were offset by increases from workers struck by falling objects or caught in running machinery. Homicides fell from the second-leading cause of fatal work injuries to the third, behind highway fatalities and falls. Construction reported the largest number of fatal work injuries for any industry and accounted for one-fifth of the fatality total.

# Profiles of 1999 fatal work injuries

Highway crashes continued as the leading cause of on-the-job fatalities during 1999, accounting for one-fourth of the fatal work injury total. (See table 1 and chart 1.) The number of these fatalities increased slightly over 1998 to reach the highest level since the BLS fatality census began in 1992. Slightly over two-fifths of the 1,491 victims of job-related highway fatalities were employed as truck drivers.

In contrast to fatalities resulting from crashes that occurred on public roadways, the number of workers killed in nonhighway crashes and overturnings or killed after being struck by a vehicle declined from the previous year. The number of workers killed in air, water, and rail vehicle incidents during 1999 was about the same as in 1998.

In 1999, deaths resulting from on-the-job falls increased slightly to 717. This increase, coupled with a decline in homicides, made falls the second-leading cause of fatal work injuries for the first time since the fatality census began in 1992. (See chart 2.) About half of the fatal falls were from a roof, ladder, or scaffold, and slightly over half of the fatal falls occurred in the construction industry.

Now the third-leading cause of on-the-job deaths, workplace homicides fell to the lowest level since the fatality census' inception in 1992. Job-related homicides totaled 645 in 1999, a 10 percent drop from the 1998 total and a 40 percent decline from the 1,080 homicides that occurred in 1994, which had the highest count in the 8-year period. The drop in homicides at work was

Chart 1: The manner in which workplace fatalities occurred, 1999

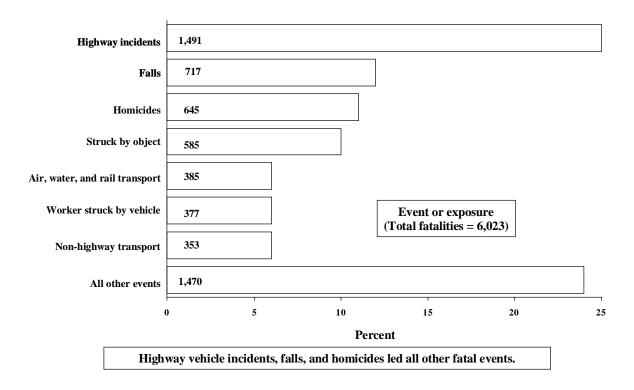
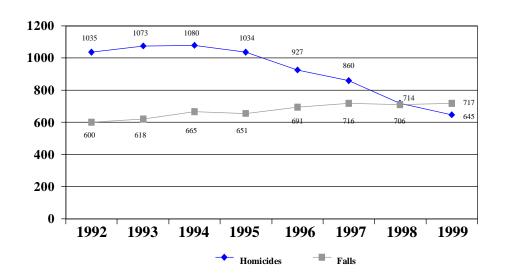


Chart 2: Homicides and Falls 1992-1999



most pronounced in retail trade, where homicides fell by 51 percent from 1994. The following table shows counts of workplace homicides for selected industries during 1994-99.

Industry	1994	1995	1996	1997	1998	1999
Total homicides	1,080	1,034	927	860	714	645
Retail trade	530	422	437	395	286	260
Grocery stores	196	152	146	141	95	76
Eating and drinking places	135	121	135	109	69	94
Gasoline service stations	41	36	23	34	24	17
Taxicab	87	68	50	74	48	51
Detective and armored car services	49	27	29	21	18	17
Police protection	65	61	45	61	50	41

Among the job-related homicides for which a motive could be ascertained from the source documents, robbery continued to be the primary motive, followed by violence by co-workers and customers or clients. Occupations with high numbers of homicides include those that typically engage in cash transactions or have valuables on hand, including managers of food and lodging establishments, sales supervisors and proprietors, cashiers, and taxicab drivers.

Workers struck by objects or equipment accounted for 10 percent of the fatal work injuries in 1999. These types of injuries increased from the previous year. Electrocutions accounted for 5 percent of the fatal injuries and decreased by 17 percent from 1998. Contact with overhead power lines accounted for about two-fifths of the electrocutions.

On average, about 17 workers were fatally injured each day during 1999. Eighty-three percent of fatally injured workers died the day they were injured; 97 percent died within 30 days. There were 235 multiple-fatality incidents (incidents that resulted in two or more worker deaths), resulting in 617 job-related deaths. Although this was a slight increase over the 227 multiple-fatality events reported for 1998, there was a more substantial increase in the number of deaths resulting from these types of incidents in 1999 than in the previous year, when 555 worker deaths occurred.

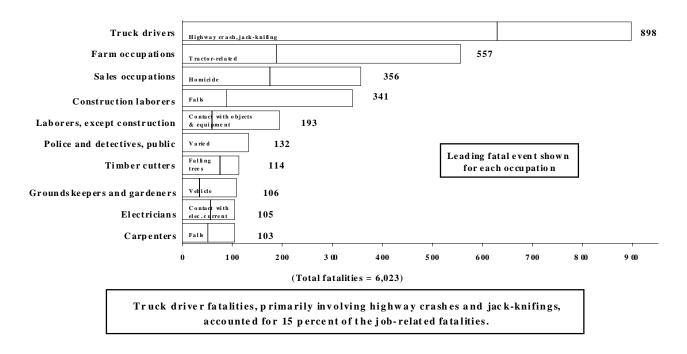
### Occupation highlights (table 2 and chart 3):

- \* Occupations with large numbers of fatal injuries included truck drivers, construction trades, and farm occupations.
- \* Fatal injuries to truck drivers were at their highest level in the 8-year period.
- \* Mechanics and repairers also reported a noticeable increase in fatal work injuries over the previous year, reaching its highest level in the 8-year period.
- \* In contrast, the number of fatalities in sales occupations fell to its lowest level during the same period, primarily because of the drop in homicides.

#### Relative risk (tables 3 and 4):

A comparison of percent distributions of fatalities and employment can be used to evaluate the relative risk of a job-related fatality for a given industry or worker characteristic. For example, the construction industry accounted for 20 percent of the fatality total, 3 times its

Chart 3: Occupations with large numbers of worker fatalities and the leading event, 1999



6 percent share of total employment. While employment can be used to evaluate the relative risk of a fatal work injury, other measures, such as hours worked, also can be used.

## **Industry highlights (table 3):**

- \* Industry divisions with large numbers of fatalities relative to their employment include agriculture, forestry, and fishing; construction; transportation and public utilities; and mining.
- \* Retail trade posted a substantial decline in the number of fatal work injuries in 1999 over the previous year; transportation and public utilities posted a substantial increase.
- \* A decline in fatal work injuries among government workers resulted in the lowest levels during the 8-year period.

## **Demographic highlights (table 4):**

- \* Men, the self-employed, and older workers suffered fatal injuries more often than their employment shares would suggest. Differences in the industries and occupations of these worker groups explain in part their high relative risk of fatal injury on the job.
- \* Highway-related incidents were the leading cause of job-related fatalities among both men and women. Homicides, which had been the leading cause for women, were the second-leading cause in 1999. Falls ranked second for men.

\* Two-fifths of fatally injured workers under 18 years of age were killed while doing farm work; another one-fifth were killed while working for a retail trade establishment.

# State highlights by major regional area (table 5):

- \* In general, the states with the largest number of persons employed have the largest number of work-related fatalities. Four of the largest states--California, Texas, Florida, and New York--accounted for over one-fourth of the total fatalities in the U.S. Each state's and region's industry mix, geographical features, age of population, and other characteristics of the workforce must be considered when evaluating state and region fatality profiles.
- \* In all four regions of the U.S.--Northeast, Midwest, South, and West--highway motor vehicle incidents were the leading event for occupational fatalities. In the Southern and Western states, the second leading event was homicide. In the Northeast and Midwest states, the second-leading events were falls to lower level and being struck by an object, respectively.
- \* About 44 percent of the fatal occupational highway incidents and almost half of the work-related homicides occurred in the South, which has 35 percent of total employment.

### Background of the program

The Census of Fatal Occupational Injuries, part of the BLS occupational safety and health statistics program, provides the most complete count of fatal work injuries available because it uses diverse state and federal data sources to identify, verify, and profile fatal work injuries. Information about each workplace fatality (occupation and other worker characteristics, equipment being used, and circumstances of the event) is obtained by cross-referencing source documents, such as death certificates, workers' compensation records, and reports to federal and state agencies. This method assures counts are as complete and accurate as possible.

This is the eighth year that the fatality census has been conducted in all 50 states and the District of Columbia. The BLS fatality census is a federal/state cooperative venture in which costs are shared equally. Additional state-specific data are available from the participating state agencies listed in table 6.

Another BLS program, the Survey of Occupational Injuries and Illnesses, profiles worker and case characteristics of nonfatal workplace injuries and illnesses that result in lost worktime and presents frequency counts and incidence rates by industry. Copies of the 1998 news release on nonfatal injuries and illnesses are available from BLS by calling (202) 691-6179 or by accessing the Website listed below. Incidence rates for 1999 by industry will be published in December 2000, and information on 1999 worker and case characteristics will be available in April 2001. For additional data, access the BLS Internet site: http://www.bls.gov/oshhome.htm. To request a copy of BLS Report 934, which includes several articles and highlights 1997 fatality data, e-mail your address to CFOIstaff@bls.gov or write to Bureau of Labor Statistics, 2 Massachusetts Avenue, NE, Room 3180, Washington, DC 20212.

Table 1. Fatal occupational injuries by event or exposure, 1994-99

	Fatalities					
Event or exposure <sup>1</sup>	1994-98	1998²	1999			
	average	Number	Number	Percent		
Total	6,280	6,055	6,023	100		
Transportation incidents	2,640 1,374	2,645 1,442	2,613 1,491	43 25		
Collision between vehicles, mobile equipment	662	707	711	12		
Moving in same direction	113	120	129	2		
Moving in opposite directions, oncoming	240	272	269	4		
Moving in intersection	136	143	160	3		
Vehicle struck stationary object or equipment	272	307	334	6		
Noncollision	368	375	388	6		
Jackknifed or overturnedno collision	280	302	321	5		
Nonhighway (farm, industrial premises)	387	388	353	6		
Overturned	215	217	206	3		
Aircraft	304	224	227	4		
Worker struck by a vehicle	382	413	377	6		
Water vehicle	104	112	102	2		
Rail vehicle	78	60	56	1		
Assaults and violent acts	1,168	962	893	15		
Homicides	923	714	645	11		
Shooting	748	574	506	8		
Stabbing	68	61	60	1		
Other	107	79	79	1		
Self-inflicted injuries	215	221	208	3		
Contact with objects and equipment	984	944	1,029	17		
Struck by object	564	520	585	10		
Struck by falling object	364	319	358	6		
Struck by flying object	60	59	55	1		
Caught in or compressed by equipment or objects	281	266	302	5		
Caught in running equipment or machinery	148	129	163	3		
Caught in or crushed in collapsing materials	124	140	128	2		
Falls	686	706	717	12		
Fall to lower level	609	625	634	11		
Fall from ladder	101	111	96	2		
Fall from roof	146	157	153	3		
Fall from scaffold	89	98	92	2		
Fall on same level	53	51	66	1		
Exposure to harmful substances or environments	583	576	529	9		
Contact with electric current	322	334	278	5		
Contact with overhead powerlines	136	153	124	2		
Contact with temperature extremes	45	48	50	1		
Exposure to caustic, noxious, or allergenic substances	118	105	106	2		
Inhalation of substance	66	48	55	1		
Oxygen deficiency	96	87	93	2		
Drowning, submersion	77	75	75	1		
Fires and explosions	199	206	216	4		
•						
Other events or exposures <sup>3</sup>	21	16	26	-		

<sup>&</sup>lt;sup>1</sup> Based on the 1992 BLS Occupational Injury and Illness Classification Structures.
<sup>2</sup> The BLS news release issued Aug. 4, 1999, reported a total of 6,026 fatal work injuries for calendar year 1998. Since then, an additional 29 job-related fatalities were identified, bringing the total job-related fatality count for 1998 to 6,055.

<sup>&</sup>lt;sup>3</sup> Includes the category "Bodily reaction and exertion."

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dashes indicate less than 0.5 percent or data that are not available or that do not meet publication criteria.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, in cooperation with state and federal agencies, Census of Fatal

Occupational Injuries, 1994-99.

Table 2. Fatal occupational injuries by occupation and major event or exposure, 1999

Occupation <sup>1</sup>	Fata	llities	Major event or exposure <sup>2</sup> (percent of total for occupation)			
	Number	Percent	Highway³	Homicide	Struck by object	Fall to lower level
Total	6,023	100	25	11	10	11
Managerial and professional specialty	597	10	24	19	4	7
Executive, administrative, and managerial	371	6	22	26	5	8
Professional specialty	226	4	27	8	3	6
Technical, sales, and administrative support	610	10	27	32	2	3
Technicians and related support occupations	158	3	16	-	3	3
Airplane pilots and navigators	94	2	-	_	-	-
Sales occupations	356	6	28	49	2	2
Supervisors and proprietors, sales occupations	140	2	13	62	4	2
Sales workers, retail and personal services	144	2	27	51	-	-
Cashiers	55	1	-	80	-	-
Administrative support occupations, including clerical	96	2	44	19	-	4
Service occupations	468	8	20	33	1	9
Protective service occupations	261	4	26	32	l i	3
Firefighting and fire prevention occupations,	20.		20	02		
including supervisors	57	1	18	_	_	5
Police and detectives, including supervisors	132	2	39	36	-	_
Guards, including supervisors	72	1	10	50	-	4
Farming, forestry, and fishing	897	15	13	2	21	5
Farming operators and managers	362	6	13	1	15	3
Farmers, except horticultural	233	4	13		17	3
Managers, farms, except horticultural	118	2	13	_	10	4
Other agricultural and related occupations	335	6	18	4	14	8
Farm workers, including supervisors	206	3	22	4	9	4
Groundskeepers and gardeners, except farm	106	2	8	_	26	15
Forestry and logging occupations	122	2	6	-	67	3
Timber cutting and logging occupations	114	2	6	-	70	3
Fishers, hunters, and trappers	78	1	-	-	-	-
Fishers, including vessel captains and officers	78	1	-	-	-	-
Precision production, craft, and repair	1,142	19	11	3	12	28
Mechanics and repairers	353	6	12	7	19	13
Construction trades	633	11	11	1	7	39
Carpenters and apprentices	103	2	6	-	13	48
Electricians and apprentices	105	2	15	-	4	12
Painters	38	1	-	-	-	68
Roofers	59	1	5	-	-	85
Structural metal workers	43	1	-	-	19	77
Operators, fabricators, and laborers	2,194	36	37	5	10	8
Machine operators, assemblers, and inspectors	216	4	5	4	14	15
Transportation and material moving occupations	1,320	22	56	6	7	2
Motor vehicle operators	1,063	18	67	8	5	2
Truck drivers	898	15	70	2	6	2
Driver-sales workers	42	1	79	10	-	-
Taxicab drivers and chauffeurs	74	1	28	69	-	-
Material moving equipment operators	205	3	14	-	14	5
Handlers, equipment cleaners, helpers, and laborers	658	11	11	4	14	17
Construction laborers	341	6	11	-	14	25
Laborers, except construction	193	3	11	6	16	10
Military <sup>4</sup>	80	1	24	-	4	_

<sup>&</sup>lt;sup>1</sup> Based on the 1990 Occupational Classification System developed by the Bureau of the Census.

 $<sup>^{\</sup>rm 2}$  The figure shown is the percent of the total fatalities for that occupational group.

<sup>&</sup>lt;sup>3</sup> "Highway" includes deaths to vehicle occupants resulting from traffic incidents that occur on the public roadway, shoulder, or surrounding area. It excludes incidents occurring entirely off the roadway, such as in parking lots and on farms; incidents involving trains; and deaths to pedestrians or

other nonpassengers.

AResident armed forces.

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

There were 35 fatalities for which there was insufficient information to determine an occupation classification. Dashes indicate less than 0.5 percent or

data that are not available or that do not meet publication criteria.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999.

Table 3. Fatal occupational injuries and employment by industry, 1999

			Fata	Employment <sup>2</sup>			
Industry	SIC Code <sup>1</sup>	1994-98 average	1998 (revised)	19	99	(in thous	ands)
		Number	Number	Number	Percent	Number	Percent
Total		6,280	6,055	6,023	100	134,666	100
Private industry		5,625	5,457	5,461	91	114,570	85
Agriculture, forestry, and fishing	. 01 . 02	826 379 170 168	840 380 174 170	807 350 163 164	13 6 3 3	3,349 955 993 1,317	2 1 1 1
Mining  Coal mining  Oil and gas extraction	. 12	159 37 84	147 30 76	121 35 50	2 1 1	562 84 329	- - -
Construction	. 15 . 16	1,082 191 253 629	1,174 213 272 680	1,190 183 280 709	20 3 5 12	8,479 - - -	6 - - -
Manufacturing	. 20	733 75 191	698 72 172	719 83 190	12 1 3	19,994 1,643 824	15 1 1
Transportation and public utilities	. 41 . 42 . 45	948 100 528 90 88	911 85 564 74 83	1,006 102 605 74 86	17 2 10 1	7,947 593 2,679 864 1,029	6 - 2 1 1
Wholesale trade		253	229	237	4	5,173	4
Retail trade	. 54 . 55	683 187 116 155	570 135 120 107	507 115 82 145	8 2 1 2	22,300 3,511 2,238 6,718	17 3 2 5
Finance, insurance, and real estate		109	92	105	2	8,610	6
Services  Business services  Automotive repair, services, and parking	. 73	773 203 111	763 196 133	732 161 132	12 3 2	38,240 6,756 1,576	28 5 2
Government³		656 204 126 319 104	598 162 136 296 102	562 147 108 301 91	9 2 2 5 2	20,096 4,427 5,237 10,433	15 3 4 8

<sup>&</sup>lt;sup>1</sup> Standard Industrial Classification Manual, 1987 Edition.

<sup>&</sup>lt;sup>2</sup> Employment is an annual average of employed civilians 16 years of age and older from the Current Population Survey, 1999, adjusted to include data for resident armed forces from the Department of Defense.

<sup>&</sup>lt;sup>3</sup> Includes fatalities to workers employed by government organizations regardless of industry.

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. There were 37 fatalities for which there was insufficient information to determine a specific industry classification, though a distinction between private sector and government was made for each. Dashes indicate less than 0.5 percent or data that are not available or that do not meet publication criteria.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1994-99.

Table 4. Fatal occupational injuries and employment by selected worker characteristics, 1999

Characteristics	Fatalities		Employ (in thous		Most frequent events <sup>2</sup>	
	Number	Percent	Number	Percent	(percent of total)	
Total	6,023	100	134,666	100	Highway (25), falls (12)	
Employee status						
Wage and salary workers	4,884	81	124,445	92	Highway (27), falls (13)	
Self-employed <sup>3</sup>	1,139	19	10,221	8	Highway (14), homicides (14)	
Sex						
Men	5,582	93	72,457	54	Highway (24), falls (12)	
Women	441	7	62,209	46	Highway (34), homicides (29)	
Age⁴						
Under 16 years	26	-	-	-	Highway (35), nonhighway (19)	
16 to 17 years	46	1	2,796	2	Highway (28), homicides (17)	
18 to 19 years	122	2	4,494	3	Highway (26), struck by object (11)	
20 to 24 years	450	7	13,242	10	Highway (26), homicides (11)	
25 to 34 years	1,171	19	31,280	24	Highway (24), homicides (12)	
35 to 44 years	1,499	25	36,983	28	Highway (24), falls (13)	
45 to 54 years	1,326	22	28,671	21	Highway (25), homicides (12)	
55 to 64 years	814	14	13,317	10	Highway (25), falls (14)	
65 years and over	559	9	3,883	3	Highway (23), nonhighway (16)	
Race						
White	4,990	83	113,023	84	Highway (26), falls (12)	
Black	626	10	15,284	11	Highway (23), homicides (19)	
American Indian, Aleut, Eskimo	57	1	-	-	Highway (18), falls (14)	
Asian, Pacific Islander	191	3	-	-	Homicides (46), highway (13)	
Other or not reported	159	3	-	-	Highway (20), falls and homicides (13)	
Hispanic origin						
Hispanic <sup>5</sup>	725	12	13,811	12	Highway (21), falls (16)	

<sup>&</sup>lt;sup>1</sup> Employment is an annual average of employed civilians 16 years of age and older, plus resident armed forces, from the Current Population Survey, 1999, adjusted to include data for resident armed forces from the Department of Defense.

NOTE: Totals may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dashes indicate less than 0.5 percent or data that are not available or that do not meet publication criteria.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999.

<sup>&</sup>lt;sup>2</sup> "Highway" includes deaths to vehicle occupants resulting from traffic incidents that occur on the public roadway, shoulder, or surrounding area. It excludes incidents occurring entirely off the roadway, such as in parking lots and on farms. "Nonhighway" includes transport-related deaths of vehicle occupants that occur or originate entirely off the roadway. Incidents involving trains and deaths to pedestrians or other nonpassengers are excluded from both categories.

<sup>&</sup>lt;sup>3</sup> Includes paid and unpaid family workers and may include owners of incorporated businesses or members of partnerships.

<sup>&</sup>lt;sup>4</sup> There were 10 fatalities for which age was not reported.

<sup>&</sup>lt;sup>5</sup> Persons identified as Hispanic may be of any race.

Table 5. Fatal occupational injuries by state and event or exposure, 1999

Table 5. Fatal occupational i	Total fa		Event or exposure <sup>2</sup> (percent of state total for 1999)					
State of injury	1998 (revised)	1999	Transpor- tation incidents <sup>3</sup>	Assaults and violent acts <sup>4</sup>	Contact with objects and equipment	Falls	Exposure to harmful substances or environments	Fires and explosions
Total⁵	6,055	6,023	43	15	17	12	9	4
Northeast	853	756	36	18	15	17	8	5
Connecticut	57	38	34	34	13	11	-	-
Maine	26	32	50	9	22	9	-	-
Massachusetts New Hampshire	44 23	82 14	32 36	10 21	13	24 -	6	15
New Jersey	103	103	34	17	17	21	9	_
New York (including N.Y.C.) .	243	241	30	25	12	18	11	2
New York City	94	120	13	44	8	22	8	3
Pennsylvania	235	221	41	12	18	15	5	7
Rhode Island	12 16	11 14	36 43	- 29	-	-	27	-
Vermont	1,340	1,417	43 44	12	20	- 11	9	4
Illinois	216	208	34	17	19	14	11	4
Indiana	155	171	46	15	16	12	7	3
lowa	68	80	52	-	26	4	10	8
Kansas	98	81	49	5	23	12	6	-
Michigan	179 88	182 72	34 65	15 7	18 17	13 7	10 4	10
Minnesota Missouri	145	72 164	48	11	17	10	10	3
Nebraska	56	65	51	9	26	6	-	5
North Dakota	24	22	36	-	41	-	-	-
Ohio	186	222	43	12	20	15	9	2
South Dakota	28	45	58	7	16	-	13	-
Wisconsin	97	105	45	11	22	10	10	3
South Alabama	2,619 135	2,565 123	44 38	15 10	16 22	11 11	10 10	3 8
Arkansas	86	76	49	8	12	5	17	8
Delaware	11	14	36	29	-	-	-	-
District of Columbia	13	14	21	21	-	36	-	-
Florida	384 202	345 229	39 44	17 17	15 16	16 10	10	2 3
Georgia Kentucky	117	120	49	14	18	8	7	3
Louisiana	159	141	39	9	26	8	16	4
Maryland	78	82	40	29	12	11	6	-
Mississippi	113	128	52	6	20	14	6	-
North CarolinaOklahoma	228 75	222 99	43 44	19 14	14 13	11 11	10 12	2 5
South Carolina	111	139	53	16	9	9	8	6
Tennessee	150	154	49	12	18	8	8	4
Texas	523	468	44	15	15	12	12	3
Virginia	177	154	42	17	12	12	13	3
West Virginia	57	57	35	12	33	9	9	-
West	1,334 43	1,264 42	46 74	16 7	17 12	11	6	2
Alaska Arizona	74 74	70	39	23	24	4	9	-
California	626	591	44	19	14	12	7	3
Colorado	77	98	47	18	15	10	5	4
Hawaii	12	32	28	56	-	<u>.</u>		-
Idaho	51 50	43	44 45	9	23	12	7	-
Montana Nevada	58 60	49 57	45 37	10 18	29 19	6 18	7	6
New Mexico	48	39	54	13	19	13	'-	
Oregon	72	69	52	7	26	7	7	-
Utah	67	54	56	6	24	11	-	-
Washington	113	88	49	9	19	15	7	-
Wyoming	33	32	56	-	28	9	-	-

Includes other events and exposures such as bodily reaction, in addition to those shown separately. Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

Includes highway, nonhighway, air, water, and rail fatalities and fatalities to workers struck by vehicles.

Includes homicides, self-inflicted injuries, and animal attacks.

<sup>&</sup>lt;sup>5</sup> Includes 21 fatalities that occurred outside the territorial boundaries of the United States in 1999.

NOTE: Percentages may not add to 100 because of rounding. Dashes indicate less than 0.5 percent or data that are not available or that do not

meet publication criteria.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1998-99.

Table 6. CFOI participating state agencies and telephone numbers

State	Agency	Telephone number
Alabama	Department of Labor	(334) 242-3460
Alaska	Department of Labor and Workforce Development	(907) 465-4539
Arizona	Industrial Commission of Arizona	(602) 542-3739
Arkansas	Department of Labor	(501) 682-4542
California	Department of Industrial Relations	(415) 703-4757
Colorado	Department of Public Health	(303) 692-2173
Connecticut	Labor Department	(860) 566-4380
Delaware	Department of Labor	(302) 761-8223
District of Columbia	Center for Health Statistics	(202) 442-5922
Florida	Department of Labor and Employment Security	(850) 922-8953
		, ,
Georgia	Department of Labor	(404) 656-2966
Hawaii	Department of Labor and Industrial Relations	(808) 586-9001
Idaho	Industrial Commission	(208) 334-6090
Illinois	Department of Public Health	(217) 785-1873
Indiana	Department of Labor	(317) 232-2668
Iowa	Department of Labor Services	(515) 281-5151
Kansas	Department of Health and Environment	(785) 296-1058
Kentucky	Labor Cabinet	(502) 564-3070
Louisiana	Department of Labor	(225) 342-3126
Maine	Bureau of Labor Standards	(207) 624-6440
Maryland	Division of Labor and Industry	(410) 767-2356
Massachusetts	Department of Public Health	(617) 624-5628
Michigan	Department of Consumer and Industry Services	(517) 322-5258
Minnesota	Department of Labor and Industry	(651) 296-3885
Mississippi	Department of Health	(601) 576-7400
Missouri	Department of Health	(573) 571-6155
Montana	Department of Labor and Industry	(406) 444-3297
Nebraska	Workers' Compensation Court	(402) 471-3547
Nevada	Division of Industrial Relations	(775) 687-3298
New Hampshire	Department of Public Health	(603) 271-4647
New Jersey	Department of Health and Senior Services	(609) 984-1863
New Mexico	Occupational Health and Safety Bureau	(505) 827-4230
New York State	Department of Health	(518) 402-7900
New York City	Department of Health	(212) 788-4585
North Carolina	Department of Labor	(919) 733-0337
North Dakota	Bureau of Labor Statistics	(312) 353-7200
Ohio	Department of Health	(614) 466-4183
Oklahoma	Department of Labor	(405) 528-1500
Oregon	Department of Consumer and Business Services	(503) 378-8254
Pennsylvania	Department of Health	(717) 783-2548
Rhode Island	Department of Health	(401) 277-2812
South Carolina	Department of Labor	(803) 734-4298
South Dakota	Bureau of Labor Statistics	(312) 353-7200
Tennessee	Department of Labor and Workforce Development	(615) 741-1749
Texas	Workers' Compensation Commission	(512) 804-4651
Utah	Labor Commission	(801) 530-6823
Vermont	Department of Labor and Industry	(802) 828-2195
Virginia	Department of Labor and Industry	(804) 786-6427
Washington	Department of Labor and Industries	(360) 902-5510
West Virginia	Department of Labor	(304) 558-7890
Wisconsin	Department of Workforce Development	(608) 266-7850
Wyoming	Bureau of Labor Statistics	(816) 426-2483

#### TECHNICAL NOTES

#### **Definitions**

For a fatality to be included in the census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job. These criteria are generally broader than those used by federal and state agencies administering specific laws and regulations. (Fatalities that occur during a person's commute to or from work are excluded from the census counts.)

Data presented in this release include deaths occurring in 1999 that resulted from traumatic occupational injuries. An injury is defined as any intentional or unintentional wound or damage to the body resulting from acute exposure to energy, such as heat, electricity, or kinetic energy from a crash or from the absence of such essentials as heat or oxygen caused by a specific event, incident, or series of events within a single workday or shift. Included are open wounds, intracranial and internal injuries, heatstroke, hypothermia, asphyxiations, acute poisonings resulting from short-term exposures limited to the worker's shift, suicides and homicides, and work injuries listed as underlying or contributory causes of death.

Information on work-related fatal illnesses are not reported in the BLS census and are excluded from the attached tables because the latency period of many occupational illnesses and the difficulty of linking illnesses to work make identification of a universe problematic. Partial information on fatal occupational illnesses, compiled separately, is available in BLS Report 934.

# Measurement techniques and limitations

Data for the Census of Fatal Occupational Injuries are compiled from various federal, state, and local administrative sources--including death certificates, workers' compensation reports and claims, reports to various regulatory agencies, medical examiner reports, and police reports--as well as news reports. Diverse sources are used because studies have shown that no single source captures all job-related fatalities. Source documents are matched so that each fatality is counted only once. To ensure that a fatality occurred while the decedent was at work, information is verified from two or more independent source documents or from a source document and a follow-up questionnaire. Approximately 30 data elements are collected, coded, and tabulated, including information about the worker, the fatal incident, and the machinery or equipment involved.

Identification and verification of work-related fatalities.

Because some state laws and regulations prohibit enumerators from contacting the next-of-kin, it was not possible to independently verify work relationship (whether a fatality is job related) for 102 fatal work injuries in 1999; however, the information on the initiating source document for these cases was sufficient to determine that the incident was likely to be job-related. Data for these fatalities, which primarily affected self-employed workers, are included

in the Census of Fatal Occupational Injuries counts. An additional 19 fatalities submitted by states were not included because the initiating source document had insufficient information to determine work relationship, which could not be verified by either an independent source document or a follow-up questionnaire.

States may identify additional fatal work injuries after data collection closeout for a reference year. In addition, other fatalities excluded from the published count because of insufficient information to determine work relationship may subsequently be verified as work related. States have up to one year to update their initial published state counts. This procedure ensures that fatality data are disseminated as quickly as possible and that no legitimate case is excluded from the counts. Thus, each year's report should be considered preliminary until the next year's data are issued. Increases in the published counts based on additional information have averaged less than 100 fatalities per year or less than 1.5 percent of the total.

## Federal/state agency coverage

The Census of Fatal Occupational Injuries includes data for all fatal work injuries, whether they are covered by the Occupational Safety and Health Administration (OSHA) or other federal or state agencies or are outside the scope of regulatory coverage. Thus, any comparison between the BLS fatality census counts and those released by other agencies should take into account the different coverage requirements and definitions being used.

Several federal and state agencies have jurisdiction over workplace safety and health. OSHA and affiliated agencies in states with approved safety programs cover the largest portion of America's workers. However, injuries and illnesses occurring in certain industries or activities such as coal, metal, and nonmetal mining and highway, water, rail, and air transportation, are excluded from OSHA coverage because they are covered by other federal agencies, such as the Mine Safety and Health Administration and various agencies within the Department of Transportation. Fatalities occurring in activities regulated by federal agencies other than OSHA accounted for about 16 percent of the fatal work injuries in 1999.

Fatalities occurring among several other groups of workers are generally not covered by any federal or state agencies. These groups include self-employed and unpaid family workers, which accounted for about 19 percent of the fatalities; laborers on small farms, accounting for about 2 percent of the fatalities; and state and local government employees in states without OSHA-approved safety programs, which accounted for about 3 percent. (Approximately one-half of the states have approved OSHA safety programs, which cover state and local government employees.)

ACKNOWLEDGMENTS: BLS thanks the participating states for their efforts in collecting accurate, comprehensive, and useful data on fatal work injuries. BLS also appreciates the efforts of all federal, state, local, and private sector agencies that submitted source documents used to identify fatal work injuries. Among these agencies are the Occupational Safety and Health Administration; the National Transportation Safety Board; the U.S. Coast Guard; the Mine Safety and Health Administration; the Employment Standards Administration (Federal Employees' Compensation and Longshore and Harbor Workers' divisions); the Department of Energy; the National Association of Chiefs of Police; United Steelworkers of America; state vital statistics registrars, coroners, and medical examiners; state departments of health, labor, and industries and workers' compensation agencies; state and local police departments; and state farm bureaus.