Table 4. Number, percent distribution, and experimental rate of fatal work injuries by selected worker characteristics, 1992

Characteristic	Fatalities		Employment <sup>1</sup>	Fatalities per 100,000
Characteristic	Number	Percent	(in thousands)	employed <sup>2</sup>
Total	6,083	100	119,583	5 .
Employment status				
Wage and salary workersSelf-employed <sup>3</sup>	4,876 1,207	80 20	108,802 10,362	4 11
Sex and age				
Men	5,657 426	93 7	65,209 53,955	9
Both sexes:				
Under 20 years	169 528	3 9	5,921 12,664	3 4
20 to 24 years	1,521	25	33,068	5
35 to 44 years	1,511	25	31,953	5
45 to 54 years	1,143	19	21,283	5
55 to 64 years	751	12	11,269	7
65 years and older	460	8	3,427	13
Race				
White	5,069	83	102,643	5
Black	608	10	12,252	5
Asian or Pacific Islander	166	3	-	-
Other	240	4	<del>-</del>	-
Hispanic origin		_		
Hispanic <sup>4</sup>	508	8	9,090	6

<sup>&</sup>lt;sup>1</sup> Employment is expressed as an annual average and is derived from the Current Population Survey, 1992. "Total" employment and "Under 20 years" includes an unpublished CPS estimate of workers 14-15 years of age (419,000), which is not included in the other employment categories. All employment categories include the military, based upon the CPS estimate for resident Armed Forces (1,566,000).

source document to determine that the fatality is indeed work-related. (The appendix explains how cases with only one source document are processed.)

For a fatality to be considered within the scope of the program, the decedent must have been employed (that is, working for pay, compensation, or profit or in the family business) at the time of the event and engaged in a legal work activity<sup>8</sup> or present at the site of the incident as a requirement of his or her job. This definition allows the inclusion of all injury-related<sup>9</sup> fatalities that occur while a person is in a work status; it is generally broader than the criteria used by Federal and State agencies administering specific laws or regulations.

Partial information on fatal occupational illnesses (nontraumatic conditions such as asbestosis and occupational cancers) is being compiled primarily from State workers' compensation reports. Because of the latency period of many occupational illnesses and the resulting difficulty associated with linking illnesses to work, it is

(W) in rate calculations. These rates are experimental. (See appendix.)

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

<sup>4</sup> Persons identified as Hispanic may be of any race.

NOTE: Percentages and employment numbers may not add to totals because of rounding. Dashes indicate that data do not meet publication criteria.

SOURCE: Census of Fatal Occupational Injuries, Bureau of Labor Statistics, in cooperation with Federal and State agencies, 1992.

difficult to compile a complete count of all fatal illnesses in a given year. Thus, information on illness-related deaths is excluded from this article.<sup>10</sup>

A public-use fatality database will be available for safety and health researchers, policy officials, and others involved in promoting safety in the workplace. Because census data are collected under a pledge of confidentiality, data elements identifying the deceased or the company are deleted from the database.

## **Experimental fatality rates**

Fatal work injury rates measure how frequently fatalities occur within various worker groups. BLS has developed experimental rates using annual average employment estimates from the 1992 Current Population Survey. (See appendix for research notes on developing fatality rates.)

Census of Fatal Occupational Injury rates were calculated for major industry divisions, selected occupations,

<sup>&</sup>lt;sup>2</sup>The rate represents the number of fatal occupational injuries per 100,000 employed and was calculated as follows: (N/W) x 100,000, where N = number of fatal work injuries and W = employment. "N" was adjusted to maintain consistency with employment coverage

and other demographic characteristics. It should be noted that these rates do not measure the independent effect of a single characteristic, such as age, sex, industry, or occupation. Rates, however, are useful in idenitfying potential "high risk" groups for further study, such as older workers and the self-employed. Many safety experts consider aggregate totals of fatalities equally important in developing intervention strategies. For example, a single fatality in a rare occupation such as rattlesnake milking would result in a high fatality rate for the occupation, yet would pose a minimal hazard because there are few of these

workers employed in this occupation. 12

## National profile of fatalities

The national data are aggregates of the combined State data. The aggregate data show that work-related fatalities are distributed nationally among all industries and occupations. They also show which specific groups of workersare at higher risk of a fatal incident. State profiles of fatally injured workers may differ from the corresponding national profile. Later in 1993, States are expected to-release their individual fatality counts and fatality profiles

Table 5. Number, percent distribution, and experimental rate of fatal occupational injuries by occupation, 1992

	Fatalities		Employment <sup>1</sup>	Fatalities per 100,000
Characteristic	Number	Percent	(in thousands)	employed <sup>2</sup>
Total	6,083	100	119,583	5
Managerial and professional specialty	694	11	31,153	2
Executive, administrative, and managerial	437	7	14,767	3
Professional specialty	257	4	16,386	2
echnical, sales, and administrative support.	814	13	36,808	2
Technicians and related support	199	3	4,253	5
Sales occupations	497	8	13,919	4
Administrative support occupations, including clerical .	118	2	18,636	1
Service occupations	526	9	16,096	3
Protective service	273	4	2,096	13
arming, forestry, and fishing	931	15	3,456	26
Farming occupations	680	11	3,287	20
Forestry and logging occupations	155	3	109	142
Precision production, craft, and repair	1,054	17	13,128	8
Mechanics and repairers	269	4	4,441	6
Construction trades	578	10	4,790	12
Supervisors	88	1	654	13
Carpenters	86	1	1,236	7
Electricians	83	1	663	13
Operators, fabricators, and laborers	1,882	31	16,957	11
Machine operators, assemblers, and inspectors	223	4	7,524	3
Transportation and material moving occupations	1,100	18	4,878	23
Motor vehicle operators	856	14	3,706	23
Truck drivers	685	11	2,694	25
Taxicab drivers and chauffeurs	106	2	214	50
Material moving equipment operators	163	3	1,009	16
Handlers, equipment cleaners, helpers, and laborers	559	9	4,556	12
Construction laborers	226	4	654	34
Military occupations (Resident Armed Forces)	<sup>4</sup> 154	3	1,566	10

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

<sup>&</sup>lt;sup>2</sup> Employment is expressed as an annual average and is derived from the Current Population Survey, 1992. "Total" employment includes an unpublished CPS estimate of workers 14-15 years of age (419,000). The other categories include workers 16 years and older only.

<sup>3&#</sup>x27;The rate represents the number of fatal occupational injuries per 100,000 employed and was calculated as follows: (N/W) x 100,000, where N = number of fatal work injuries and W = employment. "N" was adjusted to maintain consistency with employment coverage

<sup>(</sup>W) in rate calculations. These rates are experimental. (See appendix.)

<sup>&</sup>lt;sup>4</sup> Includes 16 workers not reported as active duty military, but reported as working in a military occupation.

NOTE: Totals for major categories may include subcategories not shown separately. Percentages and employment numbers may not add to totals because of rounding. There were 28 fatalities for which there was insufficient information to determine an occupational classification.

SOURCE: Census of Fatal Occupational Injuries, Bureau of Labor Statistics, in cooperation with Federal and State agencies, 1992.

Event and source of injury. Highway accidents and homicides were the major events accounting for approximately one-third of the 6,083 workplace injury fatalities during 1992. Highway vehicle accidents led all other event categories, accounting for 18 percent of the total. (See table

2.) Homicides, a close second, accounted for 17 percent the fatally injured workers, and was the leading manner of fatal work place fatalities for women. Falls to lower levels and being struck by objects or equipment each accounted for nearly 10 percent of fatal work injuries.

Table 6. Number, percent distribution, and experimental rate of fatal occupational injuries by industry, 1992

SIC code <sup>1</sup> Industry		Fat	alities	Employment <sup>2</sup> (in thousands)	Fatalities per 100,000 employed <sup>3</sup>
	Industry	Number	Percent		
	Total	6,083	100	119,583	5
	Private industry	5,384	89	99,493	5
01-02,07-09	Agriculture, forestry, and fishing	800	13	3,295	24
01	Agricultural production—crops	401	7	· _	_
02	Agricultural production—livestock	164	3	_	
07	Agricultural services	136	2	-	-
10-14	Mining	182	3	663	27
12	Coal mining	60	1	_ [	_
13	Oil and gas extraction	83	1	-	-
15-17	Construction	903	15	6,501	14
15	General building contractors	169	3	-	_
16	Heavy construction, except building	240	4	_	_
17	Special trades contractors	494	8		-
20-39	Manufacturing	751	12	19,841	4
20	Food and kindred products	93	2		_
24	Lumber and wood products	220	4	-	-
40-42,44-49	Transportation and public utilities	884	15	6,687	13
41	Local and interurban transit	124	2	-	_
<del>1</del> 2	Trucking and warehousing	443	7	-	_
<del>1</del> 5	Air transportation	93	2	-	_
49	Public utilities	86	1	-	-
50,51	Wholesale trade	244	4	4,757	5
52-59	Retail trade	710	12	19,490	4
54	Food stores	205	3	_	_
55	Auto dealers and gas stations	108	2	-	_
58	Eating and drinking places	187	3	-	_
60-67	Finance, insurance, and real estate	118	2	7,555	2
70-89	Services	725	12	30,704	2
73	Detective, guard, and other business services	200	3		_
75	Auto repair, services, and parking	73	1	-	-
91-97	Government: <sup>4</sup>	699	11	19,671	4
	Federal	241	4	4,902	5
	State	112	2	4,769	2
	Local	338	6	9,996	3

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

NOTE: Totals for major categories may include subcategories not shown separately. Percentages and employment numbers may not add to totals because of rounding. There were 67 fatalities for which there was insufficient information to determine an industry classification. Dashes indicate that rates were not calculated for these industries.

SOURCE: Census of Fatal Occupational Injuries, Bureau of Labor Statistics, in cooperation with Federal and State agencies, 1992.

<sup>&</sup>lt;sup>2</sup> Employment is expressed as an annual average and is derived from the Current Population Survey, 1992. "Total" employment includes an unpublished CPS estimate of workers 14-15 years of age (419,000). The other categories include workers 16 years and older only.

only.

The rate represents the number of fatal occupational injuries per 100,000 employed and was calculated as follows: (N/W) x 100,000, where N = number of fatal work injuries and W = employment. "N" was adjusted to maintain consistency with employment coverage (W) in rate calculations. These rates are experimental and were calculated only for division level industries. (See appendix.)

<sup>&</sup>lt;sup>4</sup> Also includes fatalities to workers employed by governmental organizations in other SICs.