

TABLE A-4. Fatal occupational injuries by occupation and event or exposure, 1998

Occupation ¹	Total fatalities (number)	Event or exposure ² (percent)					
		Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful substances or environments	Fires and explosions
Total	6,026	43.6	15.9	15.6	11.6	9.5	3.4
Managerial and professional specialty	637	44.4	31.2	6.6	9.1	6.8	1.7
Executive, administrative, and managerial Administrators and officials, public administration	408	38.7	35.0	8.3	9.6	5.9	2.2
Administrators, protective services	10	50.0	40.0	—	—	—	—
Financial managers	7	—	57.1	—	—	—	—
Managers, marketing, advertising, and public relations	8	50.0	50.0	—	—	—	—
Managers, food serving and lodging establishments	7	85.7	—	—	—	—	—
Managers, properties and real estate	56	17.9	69.6	—	—	7.1	—
Managers, service organizations, n.e.c.	16	25.0	43.8	—	31.2	—	—
Managers and administrators, n.e.c.	10	40.0	50.0	—	—	—	—
Management related occupations	215	35.3	27.0	14.0	13.0	7.4	3.3
Accountants and auditors	62	59.7	25.8	4.8	6.5	—	—
Other financial officers	18	50.0	38.9	—	—	—	—
Business and promotion agents	10	50.0	50.0	—	—	—	—
Construction inspectors	4	75.0	—	—	—	—	—
Inspectors and compliance officers, except construction	6	66.7	—	—	—	—	—
Professional specialty	10	60.0	—	—	—	—	—
Engineers, architects, and surveyors	229	54.6	24.5	3.5	8.3	8.3	—
Engineers	48	62.5	12.5	6.2	6.2	10.4	—
Civil engineers	46	63.0	13.0	—	6.5	10.9	—
Electrical and electronic	9	88.9	—	—	—	—	—
Industrial	9	—	33.3	—	—	33.3	—
Mathematical and computer scientists ...	4	100.0	—	—	—	—	—
Computer systems analysts and scientists	8	62.5	37.5	—	—	—	—
Natural scientists	8	62.5	37.5	—	—	—	—
Health diagnosing occupations	10	70.0	—	—	—	—	—
Physicians	14	21.4	42.9	—	—	21.4	—
Health assessment and treating occupations	8	37.5	—	—	—	—	—
Registered nurses	17	58.8	23.5	—	—	—	—
Teachers, postsecondary	14	64.3	21.4	—	—	—	—
Teachers, except postsecondary	11	63.6	—	—	—	—	—
Teachers, elementary school	37	67.6	21.6	—	—	—	—
Teachers, secondary school	5	60.0	—	—	—	—	—
Social, recreation, and religious workers	8	50.0	50.0	—	—	—	—
Social workers	23	39.1	43.5	—	—	—	—
Clergy	11	45.5	54.5	—	—	—	—
Lawyers and judges	7	42.9	—	—	—	—	—
Lawyers	17	47.1	47.1	—	—	—	—
Writers, artists, entertainers, and athletes	17	47.1	47.1	—	—	—	—
Photographers	40	45.0	22.5	—	15.0	15.0	—
Artists, performers, and related workers	6	100.0	—	—	—	—	—
Athletes	8	—	50.0	—	—	—	—
Technical, sales, and administrative support	14	28.6	—	—	28.6	35.7	—
Technicians and related support occupations	678	45.0	41.7	4.0	5.3	2.9	.7
Health technologists and technicians	168	83.3	7.1	4.2	—	4.2	—
Clinical laboratory technologists and technicians	21	76.2	—	—	—	—	—
Engineering and related technologists and technicians	3	100.0	—	—	—	—	—
Electrical and electronic technicians ...	29	51.7	24.1	17.2	—	—	—
Technicians, except health, engineering, and science	14	50.0	21.4	—	—	—	—
Airplane pilots and navigators	113	94.7	2.7	—	—	2.7	—
Sales occupations	91	100.0	—	—	—	—	—
	396	29.3	59.8	3.8	4.5	1.5	1.0

See footnotes at end of table.

TABLE A-4. Fatal occupational injuries by occupation and event or exposure, 1998 — Continued

Occupation ¹	Total fatalities (number)	Event or exposure ² (percent)					
		Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful substances or environments	Fires and explosions
Supervisors and proprietors, sales occupations	185	14.6	73.0	5.4	5.4	—	—
Sales representatives, finance and business services	31	64.5	25.8	—	—	—	—
Real estate sales occupations	6	—	50.0	—	—	—	—
Sales representatives, commodities except retail	24	66.7	20.8	—	—	—	—
Sales representatives, mining, manufacturing, and wholesale	24	66.7	20.8	—	—	—	—
Sales workers, retail and personal services	152	33.6	58.6	2.0	4.6	—	—
Sales workers, motor vehicles and boats	20	60.0	40.0	—	—	—	—
Sales counter clerks	15	—	86.7	—	—	—	—
Cashiers	52	—	88.5	—	—	—	—
Street and door-to-door sales workers	6	100.0	—	—	—	—	—
News vendors	14	85.7	—	—	—	—	—
Administrative support occupations, including clerical	114	43.0	29.8	4.4	14.9	6.1	—
Supervisors, administrative support occupations	6	50.0	—	—	—	—	—
Secretaries, stenographers, and typists	12	—	41.7	—	—	—	—
Secretaries	12	—	41.7	—	—	—	—
Information clerks	13	—	61.5	—	—	—	—
Records processing occupations, except financial	7	42.9	—	—	—	—	—
Financial records processing occupations	5	—	60.0	—	—	—	—
Mail and message distributing occupations	25	72.0	16.0	—	12.0	—	—
Mail carriers, postal service	12	83.3	—	—	—	—	—
Messengers	9	66.7	—	—	—	—	—
Material recording, scheduling, and distributing clerks	22	36.4	22.7	—	27.3	—	—
Traffic, shipping, and receiving clerks	10	40.0	—	—	—	—	—
Miscellaneous administrative support	19	52.6	21.1	—	—	—	—
Service occupations	439	34.2	41.2	3.2	5.9	7.7	7.3
Private household occupations	6	—	—	—	—	50.0	—
Protective service occupations	257	39.7	42.4	2.3	1.2	5.8	8.2
Firefighting and fire prevention occupations, including supervisors	45	40.0	—	—	—	11.1	42.2
Firefighting occupations	43	39.5	—	—	—	11.6	41.9
Police and detectives, including supervisors	137	46.7	47.4	—	—	2.2	—
Police and detectives, public services	86	45.3	52.3	—	—	—	—
Sheriffs, bailiffs, and other law enforcement officers	34	55.9	32.4	—	—	—	—
Correctional institution officers	8	37.5	37.5	—	—	—	—
Guards, including supervisors	75	26.7	56.0	5.3	—	9.3	—
Guards and police, except public service	65	23.1	61.5	4.6	—	9.2	—
Service occupations, except protective and household	176	26.1	40.3	4.5	13.1	9.1	6.2
Food preparation and service occupations	50	10.0	62.0	—	10.0	12.0	—
Supervisors, food preparation and service occupations	10	30.0	30.0	—	—	—	—
Bartenders	6	—	100.0	—	—	—	—
Waiters and waitresses	8	—	87.5	—	—	—	—
Cooks	13	—	53.8	—	—	—	—
Kitchen, workers, food preparation	7	—	71.4	—	—	—	—
Health service occupations	17	52.9	35.3	—	—	—	—
Nursing aides, orderlies, and attendants	15	53.3	33.3	—	—	—	—
Cleaning and building service occupations, except household	69	26.1	30.4	4.3	18.8	10.1	10.1
Maids and housemen	5	—	60.0	—	—	—	—

See footnotes at end of table.

TABLE A-4. Fatal occupational injuries by occupation and event or exposure, 1998 — Continued

Occupation ¹	Total fatalities (number)	Event or exposure ² (percent)					
		Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful substances or environments	Fires and explosions
Janitors and cleaners	56	25.0	30.4	5.4	17.9	8.9	12.5
Personal service occupations	40	35.0	32.5	7.5	10.0	7.5	—
Barbers	4	—	100.0	—	—	—	—
Attendants, amusement and recreation facilities	7	42.9	—	—	—	—	—
Guides	11	63.6	—	—	27.3	—	—
Farming, forestry, and fishing	921	48.8	5.5	27.9	6.4	9.8	1.3
Farming operators and managers	370	55.7	4.9	26.2	4.6	7.0	1.4
Farmers, except horticultural	277	54.9	5.1	28.5	4.0	5.8	1.4
Horticultural specialty farmers	11	—	—	27.3	27.3	27.3	—
Managers, farms, except horticultural	81	64.2	4.9	17.3	3.7	8.6	—
Other agricultural and related occupations	361	43.8	8.0	21.9	9.4	15.0	1.7
Farm occupations, except managerial	238	46.2	10.9	23.5	5.9	10.9	2.1
Supervisors, farm workers	16	37.5	—	18.8	—	25.0	—
Farm workers	218	47.2	11.5	22.9	6.4	10.1	1.4
Nursery workers	4	—	—	75.0	—	—	—
Related agricultural occupations	123	39.0	2.4	18.7	16.3	22.8	—
Supervisors, related agricultural occupations	10	40.0	—	30.0	—	—	—
Groundskeepers and gardeners, except farm	108	38.0	2.8	17.6	17.6	23.1	—
Forestry and logging occupations	118	16.9	3.4	67.8	5.1	5.1	—
Supervisors, forestry, and logging workers	20	—	—	75.0	—	—	—
Forestry workers, except logging	9	44.4	—	—	—	—	—
Timber cutting and logging occupations	89	15.7	3.4	71.9	4.5	3.4	—
Fishers, hunters, and trappers	72	90.3	—	—	—	5.6	—
Fishers, including vessel captains and officers	71	90.1	—	—	—	5.6	—
Precision production, craft, and repair	1,084	19.2	6.7	19.4	28.2	20.8	5.4
Mechanics and repairers	285	23.9	9.8	28.1	12.3	17.2	8.8
Supervisors, mechanics and repairers	12	41.7	—	—	—	25.0	—
Mechanics and repairers, except supervisors	273	23.1	9.9	28.6	12.8	16.8	8.8
Vehicle and mobile equipment mechanics, repairers	136	25.0	14.0	39.7	5.9	3.7	11.8
Automobile mechanics and apprentices	48	25.0	22.9	37.5	—	—	10.4
Bus, truck, and stationary engine mechanics	39	20.5	7.7	46.2	7.7	—	12.8
Automobile body and related repairers	8	—	62.5	—	—	—	—
Heavy equipment mechanics	28	25.0	—	39.3	14.3	—	14.3
Farm equipment mechanics	5	60.0	—	—	—	—	—
Industrial machinery repairers	18	—	—	38.9	—	38.9	—
Electrical and electronic equipment repairers	41	26.8	9.8	7.3	22.0	29.3	—
Electronic repairers, communications and industrial equipment	24	—	16.7	—	20.8	45.8	—
Household appliance and power tool repairers	8	87.5	—	—	—	—	—
Telephone line installers and repairers	6	—	—	—	66.7	—	—
Heating, air conditioning, and refrigeration mechanics	17	17.6	—	—	17.6	47.1	—
Miscellaneous mechanics and repairers	58	22.4	6.9	20.7	22.4	20.7	6.9
Elevator installers and repairers	5	—	—	60.0	—	—	—
Construction trades	631	16.8	3.2	13.5	39.0	25.0	2.4
Supervisors, construction occupations	89	39.3	7.9	12.4	18.0	20.2	—
Supervisors, electricians and power transmission installers	7	—	—	—	—	57.1	—
Supervisors, n.e.c.	73	46.6	4.1	12.3	19.2	15.1	—
Construction trades, except supervisors	542	13.1	2.4	13.7	42.4	25.8	2.4

See footnotes at end of table.

TABLE A-4. Fatal occupational injuries by occupation and event or exposure, 1998 — Continued

Occupation ¹	Total fatalities (number)	Event or exposure ² (percent)					
		Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful substances or environments	Fires and explosions
Brickmasons, stonemasons, and apprentices	13	23.1	—	23.1	46.2	—	—
Carpenters and apprentices	90	5.6	3.3	15.6	63.3	12.2	—
Drywall installers	6	—	—	—	50.0	—	—
Electricians and apprentices	124	14.5	—	15.3	15.3	51.6	—
Electrical power installers and repairers	34	14.7	—	—	20.6	44.1	14.7
Painters, construction and maintenance	41	14.6	—	—	46.3	22.0	7.3
Plumbers, pipefitters, steamfitters, and apprentices	33	15.2	—	30.3	33.3	12.1	—
Insulation workers	10	50.0	—	—	40.0	—	—
Paving, surfacing, and tamping equipment operators	6	66.7	—	—	—	—	—
Roofers	50	6.0	—	—	78.0	14.0	—
Structural metal workers	52	—	—	9.6	82.7	5.8	—
Drillers, earth	8	—	—	—	—	62.5	—
Extractive occupations	60	18.3	—	45.0	11.7	8.3	13.3
Supervisors, extractive occupations	9	55.6	—	—	—	—	—
Drillers, oil wells	15	20.0	—	20.0	20.0	—	26.7
Mining machine operators	20	15.0	—	80.0	—	—	—
Precision production occupations	108	21.3	22.2	16.7	16.7	13.0	9.3
Precision metal working occupations	33	12.1	24.2	24.2	21.2	18.2	—
Machinists	18	16.7	27.8	27.8	22.2	—	—
Sheet metal workers	10	—	—	—	—	40.0	—
Plant and system operators	13	—	—	—	23.1	23.1	—
Operators, fabricators, and laborers	2,151	54.0	7.4	17.6	9.9	7.0	4.0
Machine operators, assemblers, and inspectors	221	15.8	9.5	35.3	10.4	13.1	15.4
Machine operators and tenders, except precision	135	14.8	9.6	45.9	6.7	11.1	11.1
Metal working and plastic working machine operators	10	—	—	70.0	—	—	—
Metal and plastic processing machine operators	6	—	—	83.3	—	—	—
Molding and casting machine operators	4	—	—	75.0	—	—	—
Woodworking machine operators	9	—	—	88.9	—	—	—
Sawing machine operators	6	—	—	83.3	—	—	—
Textile, apparel, and furnishings machine operators	8	—	50.0	—	—	—	—
Machine operators, assorted materials	100	18.0	6.0	41.0	7.0	12.0	15.0
Separating, filtering, and clarifying machine operators	5	60.0	—	—	—	—	—
Furnace, kiln, and oven operators except food	9	—	—	44.4	—	—	—
Crushing and grinding machine operators	6	—	—	66.7	—	—	—
Slicing and cutting machine operators	8	—	—	37.5	—	—	37.5
Miscellaneous machine operators, n.e.c.	35	17.1	8.6	45.7	—	17.1	—
Machine operators, not specified	22	22.7	—	54.5	—	—	13.6
Fabricators, assemblers, and hand working occupations	79	19.0	10.1	16.5	15.2	15.2	24.1
Welders and cutters	65	18.5	6.2	16.9	13.8	16.9	27.7
Assemblers	12	—	33.3	—	—	—	—
Production inspectors, testers, samplers, and weighers	7	—	—	42.9	—	—	—
Transportation and material moving occupations	1,257	73.7	7.6	11.0	2.7	3.1	1.8
Motor vehicle operators	1,020	78.2	8.8	7.7	2.3	2.1	.7
Truck drivers	879	82.0	3.4	8.6	2.5	2.4	.8
Driver-sales workers	36	75.0	16.7	—	—	—	—
Bus drivers	13	76.9	—	—	—	—	—
Taxicab drivers and chauffeurs	82	39.0	61.0	—	—	—	—

See footnotes at end of table.

TABLE A-4. **Fatal occupational injuries by occupation and event or exposure, 1998** — Continued

Occupation ¹	Total fatalities (number)	Event or exposure ² (percent)					
		Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful substances or environments	Fires and explosions
Transportation occupations, except motor vehicles	40	77.5	—	7.5	—	7.5	—
Rail transportation occupations	15	86.7	—	—	—	—	—
Railroad conductors and yardmasters	4	75.0	—	—	—	—	—
Locomotive operating occupations	5	100.0	—	—	—	—	—
Railroad brake, signal, and switch operators	5	80.0	—	—	—	—	—
Water transportation occupations	25	72.0	—	—	—	12.0	—
Ship captains and mates, except fishing boats	3	100.0	—	—	—	—	—
Sailors and deckhands	18	66.7	—	—	—	16.7	—
Material moving equipment operators	197	49.2	2.5	28.4	5.1	7.6	7.1
Operating engineers	46	58.7	—	23.9	6.5	8.7	—
Hoist and winch operators	14	—	—	—	—	—	50.0
Crane and tower operators	12	—	—	50.0	—	—	—
Excavating and loading machine operators	24	45.8	—	45.8	—	—	—
Grader, dozer, and scraper operators	20	65.0	—	25.0	—	—	—
Industrial truck and tractor equipment operators	46	65.2	—	23.9	8.7	—	—
Handlers, equipment cleaners, helpers, and laborers	673	29.7	6.2	24.1	23.2	12.2	4.5
Helpers, construction and extractive occupations	19	—	—	15.8	42.1	26.3	—
Helpers, construction trades	17	—	—	17.6	47.1	29.4	—
Construction laborers	335	30.4	1.2	22.4	31.9	12.5	1.5
Freight, stock, and material handlers	80	48.8	10.0	18.8	8.8	8.8	5.0
Garbage collectors	25	76.0	—	20.0	—	—	—
Stevedores	11	72.7	—	—	—	—	—
Stock handlers and baggers	10	—	50.0	—	—	—	—
Garage and service station related occupations	24	25.0	45.8	16.7	—	—	12.5
Vehicle washers and equipment cleaners	12	33.3	33.3	—	—	—	—
Laborers, except construction	192	24.0	5.7	31.8	16.1	13.0	8.9
Military occupations⁵	88	71.6	9.1	11.4	—	6.8	—

¹ Based on the 1990 Occupational Classification System developed by the Bureau of the Census.

² Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

³ Includes highway, nonhighway, air, water, and rail fatalities.

⁴ Includes violence by persons, self-inflicted injury, and assaults by animals.

⁵ Resident armed forces.

rounding.

There were 28 fatalities for which there was insufficient information to determine a specific occupation classification.

Dashes indicate no data reported or data that do not meet publication criteria.

n.e.c. means "not elsewhere classified."

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

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