

Table A-7. Fatal occupational injuries by primary and secondary source of injury, 1993

Source of injury ¹	Fatalities			
	Primary source ²		Secondary source ³	
	Number	Percent	Number	Percent
Total	6,271	100.0	6,271	100.0
Vehicles	2,536	40.4	957	15.3
Air vehicle	284	4.5	36	.6
Aircraft--powered fixed wing	162	2.6	14	.2
Jet	34	.5	7	.1
Propeller-driven aircraft	65	1.0	—	—
Aircraft--powered rotary wing	71	1.1	11	.2
Aircraft--nonpowered	—	—	4	.1
Highway vehicle, motorized	1,697	27.1	756	12.1
Automobile	457	7.3	200	3.2
Bus	16	.3	8	.1
Truck	1,012	16.1	420	6.7
Delivery truck	39	.6	9	.1
Dump truck	79	1.3	29	.5
Pickup truck	172	2.7	62	1.0
Semitrailer, tractor trailer, trailer truck	443	7.1	204	3.3
Van--passenger or light delivery	66	1.1	20	.3
Highway vehicle, nonmotorized	4	.1	—	—
Animal or human powered vehicle	4	.1	—	—
Offroad vehicle, nonindustrial	15	.2	—	—
All terrain vehicle (ATV)	7	.1	—	—
Plant and industrial powered vehicles, tractors	347	5.5	61	1.0
Forklift	64	1.0	28	.4
Platform lift truck--high or low lift	4	.1	—	—
Powered industrial carrier, except forklift	7	.1	4	.1
Tractor	269	4.3	28	.4
Rail vehicle	56	.9	78	1.2
Water vehicle	122	1.9	23	.4
Barge	19	.3	6	.1
Canoe, kayak, rowboat, raft	6	.1	—	—
Motorboat	11	.2	—	—
Ships--other than sail powered	11	.2	9	.1
Tugboat, commercial fishing boat	51	.8	5	.1
Structures and surfaces	655	10.4	512	8.2
Floors, walkways, ground surfaces	556	8.9	140	2.2
Floors	163	2.6	20	.3
Ground	217	3.5	64	1.0
Sidewalks, paths, outdoor walkways	21	.3	—	—
Street, road	13	.2	18	.3
Surfaces below ground level, n.e.c.	12	.2	14	.2
Ditches, channels, trenches, excavations	8	.1	14	.2
Parking lots	12	.2	—	—
Other structural elements	37	.6	137	2.2
Fences, fence panels	—	—	6	.1
Gates	5	.1	—	—
Roof	13	.2	75	1.2
Walls	9	.1	17	.3
Structures	54	.9	226	3.6
Bridges, dams, locks	8	.1	43	.7
Buildings--office, plant, residential	4	.1	20	.3
Mines, caves, tunnels	15	.2	13	.2
Scaffolds, staging	5	.1	53	.8
Towers, poles	19	.3	48	.8
Other structures	—	—	46	.7
Guardrails, road dividers	—	—	34	.5
Machinery	498	7.9	185	3.0
Agricultural and garden machinery	118	1.9	9	.1
Harvesting and threshing machinery	33	.5	—	—
Balers	15	.2	—	—
Combines	7	.1	—	—
Mowing machinery	32	.5	—	—
Lawn mowers--riding	5	.1	—	—
Mowers, tractor	20	.3	—	—
Plowing, planting, and fertilizing machinery	14	.2	—	—
Plowing and cultivating machinery	5	.1	—	—
Construction, logging, and mining machinery	187	3.0	39	.6
Excavating machinery	52	.8	16	.3
Backhoes	19	.3	8	.1
Bulldozers	25	.4	8	.1
Loaders	60	1.0	7	.1
Bucket loaders	8	.1	—	—
Front end loaders	34	.5	4	.1
Logging and wood processing machinery--specialized	24	.4	8	.1
Forwarder/yarder, skidder	8	.1	—	—
Skidder--cable and grapple	5	.1	—	—
Mining and drilling machinery	17	.3	—	—

See footnotes at end of table.

Table A-7. Fatal occupational injuries by primary and secondary source of injury, 1993 — Continued

Source of injury ¹	Fatalities			
	Primary source ²		Secondary source ³	
	Number	Percent	Number	Percent
Drilling machines, drilling augers	6	.1	—	—
Road grading and surfacing machinery	24	.4	—	—
Graders, levellers, planers, scrapers	9	.1	—	—
Steam rollers, road pavers	8	.1	—	—
Heating, cooling, and cleaning machinery and appliances	10	.2	15	.2
Cooling and humidifying machinery and appliances	5	.1	4	.1
Heating and cooking machinery and appliances	—	—	9	.1
Material handling (cranes, conveyers, jacks)	103	1.6	95	1.5
Conveyors--gravity	—	—	7	.1
Conveyors--powered	30	.5	—	—
Cranes	31	.5	31	.5
Cranes--mobile, truck, rail mounted	8	.1	6	.1
Cranes--overhead	—	—	5	.1
Overhead hoists	—	—	4	.1
Derricks	—	—	6	.1
Elevators	33	.5	24	.4
Bucket or basket hoist--truck mounted	6	.1	13	.2
Manlifts	8	.1	5	.1
Jacks	—	—	18	.3
Metal, woodworking, and special material machinery	30	.5	13	.2
Special process machinery	26	.4	6	.1
Food and beverage processing machinery--specialized	6	.1	—	—
Textile, apparel, leather production machinery	4	.1	—	—
Miscellaneous machinery	19	.3	7	.1
Parts and materials	462	7.4	158	2.5
Building materials--solid elements	121	1.9	32	.5
Bricks, blocks, structural stone	18	.3	4	.1
Pipes, ducts, tubing	29	.5	5	.1
Structural metal materials	43	.7	10	.2
Bars, rods, reinforcing bar (rebar)	6	.1	—	—
Plates, metal panels	8	.1	—	—
Wood, lumber	23	.4	7	.1
Other building materials--solid elements	4	.1	—	—
Fasteners, connectors, ropes, ties	44	.7	18	.3
Ropes, ties	37	.6	14	.2
Chains, n.e.c.	4	.1	—	—
Rope, twine, string	13	.2	—	—
Wire--nonelectrical	—	—	5	.1
Hoisting accessories	—	—	6	.1
Machine, tool, and electrical parts	233	3.7	75	1.2
Electric parts	212	3.4	68	1.1
Electrical wiring	71	1.1	4	.1
Motors	6	.1	—	—
Power lines, transformers, convertors	93	1.5	58	.9
Switchboards, switches, fuses	17	.3	—	—
Metal materials--nonstructural	11	.2	—	—
Vehicle and mobile equipment parts	41	.7	23	.4
Tires, inner tubes, wheels	22	.4	7	.1
Wheels, tire rims	11	.2	—	—
Engine parts and accessories	4	.1	—	—
Trailers	7	.1	11	.2
Persons, plants, animals, and minerals	354	5.6	1,281	20.4
Animals and animal products	40	.6	11	.2
Insects, arachnids	6	.1	—	—
Mammals, except humans	33	.5	10	.2
Cattle	19	.3	—	—
Horses	8	.1	4	.1
Food products--fresh or processed	26	.4	—	—
Metallic minerals	6	.1	—	—
Metal ores--nonradiating	5	.1	—	—
Nonmetallic minerals, except fuel	51	.8	13	.2
Boulders	—	—	5	.1
Dirt, earth	31	.5	—	—
Rocks, crushed stone	9	.1	5	.1
Sand, gravel	5	.1	—	—
Person--other than injured or ill worker	26	.4	1,037	16.5
Co-worker, former co-worker or injured worker	—	—	69	1.1
Relative of injured worker	—	—	20	.3
Plants, trees, vegetation--not processed	177	2.8	109	1.7
Cash grain crops	10	.2	—	—
Field crops	4	.1	—	—
Trees, logs	162	2.6	103	1.6
Chemicals and chemical products	156	2.5	77	1.2
Aromatics and hydrocarbon derivatives, except halogenated	6	.1	—	—
Halogens and halogen compounds	4	.1	—	—
Chemical products--general	35	.6	25	.4

See footnotes at end of table.

Table A-7. Fatal occupational injuries by primary and secondary source of injury, 1993 — Continued

Source of injury ¹	Fatalities			
	Primary source ²		Secondary source ³	
	Number	Percent	Number	Percent
Drugs, alcohol, medicines	25	.4	—	—
Explosives, blasting agents, n.e.c.	—	—	7	.1
Solvents, degreasers, n.e.c.	—	—	10	.2
Coal, natural gas, petroleum fuels and products	15	.2	32	.5
Coal and coal products	4	.1	—	—
Petroleum, crude oil	—	—	5	.1
Petroleum fuels, distillates, products, unspecified	7	.1	22	.4
Gasoline, diesel fuel, jet fuel	4	.1	14	.2
Propane	—	—	4	.1
Other chemicals	86	1.4	13	.2
Ammonia and ammonium compounds	10	.2	—	—
Oxygen and oxygen compounds, n.e.c.	48	.8	6	.1
Carbon monoxide	40	.6	5	.1
Sewer gas, mine gas, methane	6	.1	—	—
Sulfur and sulfur compounds	9	.1	—	—
Multiple chemicals or chemical mixtures, n.e.c.	8	.1	—	—
Tools, instruments, and equipment	137	2.2	120	1.9
Handtools--nonpowered	97	1.5	7	.1
Cutting handtools	77	1.2	—	—
Knives	69	1.1	—	—
Striking and nailing handtools	4	.1	—	—
Handtools--powered	19	.3	17	.3
Boring handtools	5	.1	—	—
Cutting handtools	7	.1	7	.1
Welding and heating handtools	—	—	8	.1
Handtools--power not determined	4	.1	—	—
Ladders	9	.1	72	1.1
Ladders--fixed	—	—	4	.1
Ladders--movable	6	.1	27	.4
Extension ladders	4	.1	7	.1
Step ladders	—	—	6	.1
Containers	78	1.2	52	.8
Containers--nonpressurized	40	.6	32	.5
Barrels, kegs, drums	5	.1	—	—
Tanks, bins, vats	21	.3	27	.4
Containers--pressurized	16	.3	10	.2
Boilers	5	.1	5	.1
Containers--variable restraint	19	.3	10	.2
Bundles, bales	13	.2	10	.2
Reels, rolls	6	.1	—	—
Other	1,394	22.2	257	4.1
Ammunition	1,024	16.3	—	—
Bullets	983	15.7	—	—
Explosive devices	7	.1	—	—
Atmospheric and environmental conditions	172	2.7	78	1.2
Fire, flame, smoke	116	1.8	23	.4
Flood	—	—	5	.1
Temperature extreme	27	.4	5	.1
Steam, vapors, liquids	104	1.7	132	2.1
Scrap, waste, debris	7	.1	—	—
Not reported	—	—	2,672	42.6

¹ Based on the 1992 BLS Occupational and Illness Classification Structures.

² The primary source of injury identifies the object, substance, or exposure that directly produced or inflicted the injury. For transportation incidents, the source identifies the vehicle in which the deceased was an occupant.

³ The secondary source of injury, if any, identifies the object, substance, or person that generated the source of injury or that contributed to the event or exposure. For vehicle collisions, the deceased's vehicle is the primary source and the other object (truck, road, divider, etc.) is the secondary source. For most homicides, the "bullet" is the

primary source and the "perpetrator" is the secondary source. Secondary source was coded for 3,599 cases.

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

Dashes indicate no data reported or data 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, 1993.