

TABLE A-9. Fatal occupational injuries by primary and secondary source of injury by major private industry division, 1999

Primary source and secondary source	Total	Private industry ¹ (percent)								
		Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
Total	6,023	13.4	2.0	19.8	11.9	16.7	3.9	8.4	1.7	12.2
Primary source²										
Vehicles	2,696	15.8	1.3	10.9	7.9	28.2	5.5	5.1	1.4	12.2
Air vehicle	232	8.2	—	3.0	7.8	28.4	—	2.2	3.0	27.6
Aircraft-powered fixed wing	151	7.9	—	—	9.9	30.5	—	—	4.6	33.1
Jet	29	—	—	—	—	37.9	—	—	—	24.1
Propeller-driven aircraft	85	11.8	—	—	11.8	25.9	—	—	—	35.3
Aircraft-powered rotary wing	62	9.7	—	—	—	24.2	—	—	—	14.5
Aircraft-nonpowered	5	—	—	—	—	—	—	—	—	—
Highway vehicle, motorized	1,942	6.2	1.3	13.2	7.3	32.1	6.7	6.3	1.4	12.4
Automobile	415	2.2	—	8.4	7.2	11.8	6.7	10.1	4.8	23.1
Bus	23	—	—	—	—	60.9	—	—	—	—
Motorcycle, moped	18	—	—	—	—	—	—	—	—	27.8
Truck	1,257	7.1	2.1	15.7	7.6	42.0	6.8	4.5	4	6.5
Delivery truck	58	—	—	—	10.3	19.0	20.7	22.4	—	12.1
Dump truck	92	7.6	5.4	34.8	—	27.2	—	—	—	—
Pickup truck	270	15.2	3.3	26.7	9.6	10.4	3.7	8.5	—	12.6
Semitrailer, tractor trailer, trailer truck	567	3.5	1.2	5.8	7.4	69.3	6.3	1.2	—	2.3
Van--passenger or light delivery	149	11.4	—	10.7	5.4	18.1	8.7	10.1	—	23.5
Highway vehicle, nonmotorized	5	—	—	—	—	—	—	—	—	—
Animal or human powered vehicle	5	—	—	—	—	—	—	—	—	—
Bicycle	5	—	—	—	—	—	—	—	—	—
Offroad vehicle, nonindustrial	28	42.9	—	—	—	—	—	—	—	25.0
All terrain vehicle (ATV)	13	69.2	—	—	—	—	—	—	—	—
Golf cart, powered	10	—	—	—	—	—	—	—	—	—
Plant and industrial powered vehicles, tractors	344	61.0	—	6.7	11.9	6.4	3.8	2.0	—	3.8
Forklift	105	6.7	—	13.3	33.3	13.3	11.4	6.7	—	9.5
Platform lift truck--high or low lift	5	—	—	—	—	—	—	—	—	—
Tractor	230	88.3	—	3.9	—	—	—	—	—	—
Rail vehicle	34	—	—	—	14.7	73.5	—	—	—	—
Water vehicle	105	61.9	—	4.8	—	16.2	—	—	—	—
Barge	8	—	—	—	—	62.5	—	—	—	—
Motorboat	15	53.3	—	—	—	—	—	—	—	—
Ships--other than sail powered	7	—	—	—	—	—	—	—	—	—
Tugboat, commercial fishing boat	60	83.3	—	—	—	10.0	—	—	—	—
Structures and surfaces	792	6.2	2.0	52.9	10.2	3.9	2.7	4.2	1.3	10.9
Floors, walkways, ground surfaces	683	6.3	1.0	52.6	11.3	4.1	2.8	4.1	1.2	11.4
Floors	237	—	—	43.9	20.7	3.0	5.5	6.8	—	14.8
Ground	300	12.3	1.7	61.3	5.0	3.7	—	—	—	8.0
Sidewalks, paths, outdoor walkways	31	—	—	41.9	—	—	—	—	—	19.4
Street, road	21	—	—	57.1	—	—	—	—	—	—
Surfaces below ground level, n.e.c.	25	—	—	72.0	—	—	—	—	—	—
Ditches, channels, trenches, excavations	22	—	—	77.3	—	—	—	—	—	—
Parking lots	21	—	—	33.3	—	28.6	—	—	—	23.8
Other structural elements	42	—	—	64.3	—	—	—	—	—	—
Roof	7	—	—	71.4	—	—	—	—	—	—
Walls	20	—	—	80.0	—	—	—	—	—	—
Structures	61	—	14.8	49.2	—	—	—	—	—	—
Buildings--office, plant, residential	20	—	—	55.0	—	—	—	—	—	—
Mines, caves, tunnels	8	—	87.5	—	—	—	—	—	—	—
Scaffolds, staging	6	—	—	—	—	—	—	—	—	—
Towers, poles	13	—	—	46.2	—	—	—	—	—	—
Other structures	9	—	—	66.7	—	—	—	—	—	—
Machinery	494	21.5	3.8	30.4	24.9	3.6	2.6	1.6	—	5.9
Agricultural and garden machinery	78	80.8	—	—	—	—	—	—	—	6.4
Harvesting and threshing machinery	27	92.6	—	—	—	—	—	—	—	—
Balers	6	83.3	—	—	—	—	—	—	—	—
Combines	9	100.0	—	—	—	—	—	—	—	—

See footnotes at end of table.

TABLE A-9. **Fatal occupational injuries by primary and secondary source of injury by major private industry division, 1999** —
Continued

Primary source and secondary source	Total	Private industry ¹ (percent)								
		Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
Primary source² – continued										
Mowing machinery	30	63.3	—	—	—	—	—	—	—	16.7
Lawn mowers--riding	8	—	—	—	—	—	—	—	—	—
Mowers, tractor	20	80.0	—	—	—	—	—	—	—	—
Plowing, planting, and fertilizing machinery	6	100.0	—	—	—	—	—	—	—	—
Other agricultural and garden machinery	14	85.7	—	—	—	—	—	—	—	—
Feed grinders, crushers, mixers--agricultural	6	100.0	—	—	—	—	—	—	—	—
Construction, logging, and mining machinery	191	15.7	4.7	47.6	15.2	4.2	—	—	—	—
Excavating machinery	60	8.3	—	61.7	—	—	—	—	—	—
Backhoes	29	—	—	69.0	—	—	—	—	—	—
Bulldozers	19	—	—	47.4	—	—	—	—	—	—
Loaders	55	30.9	—	38.2	10.9	—	—	—	—	—
Bucket loaders	6	—	—	—	—	—	—	—	—	—
Front end loaders	34	23.5	—	38.2	—	—	—	—	—	—
Logging and wood processing machinery--specialized	24	—	—	—	66.7	—	—	—	—	—
Chippers	7	—	—	—	—	—	—	—	—	—
Forwarder/yarder, skidder	6	—	—	—	100.0	—	—	—	—	—
Mining and drilling machinery	8	—	—	—	—	—	—	—	—	—
Road grading and surfacing machinery ..	34	—	—	61.8	—	—	—	—	—	—
Graders, levellers, planers, scrapers ..	15	—	—	60.0	—	—	—	—	—	—
Steam rollers, road pavers	14	—	—	71.4	—	—	—	—	—	—
Heating, cooling, and cleaning machinery and appliances	20	—	—	—	—	—	—	—	—	30.0
Cooling and humidifying machinery and appliances	12	—	—	—	—	—	—	—	—	—
Washers, dryers, and cleaning machinery and appliances	7	—	—	—	—	—	—	—	—	—
Material handling (cranes, conveyers, jacks)	109	9.2	4.6	42.2	27.5	—	—	—	—	6.4
Conveyors--powered	19	—	—	—	47.4	—	—	—	—	—
Cranes	47	—	—	53.2	19.1	—	—	—	—	—
Cranes--mobile, truck, rail mounted ...	26	—	—	46.2	19.2	—	—	—	—	—
Elevators	30	—	—	56.7	26.7	—	—	—	—	—
Bucket or basket hoist--truck mounted	10	—	—	60.0	—	—	—	—	—	—
Manlifts	7	—	—	—	—	—	—	—	—	—
Metal, woodworking, and special material machinery	39	—	—	—	87.2	—	—	—	—	—
Bending, rolling, shaping machinery	5	—	—	—	—	—	—	—	—	—
Extruding, injecting, forming, molding machinery	13	—	—	—	100.0	—	—	—	—	—
Lathes	5	—	—	—	—	—	—	—	—	—
Other metal, woodworking, and special material machinery	7	—	—	—	71.4	—	—	—	—	—
Special process machinery	29	—	—	—	55.2	—	—	—	—	—
Packaging, bottling, wrapping machinery	10	—	—	—	70.0	—	—	—	—	—
Miscellaneous machinery	18	—	—	—	27.8	—	—	—	—	—
Parts and materials	397	6.0	4.0	38.8	13.9	11.8	3.5	4.0	—	10.6
Building materials--solid elements	121	—	5.0	52.1	18.2	6.6	5.0	4.1	—	—
Bricks, blocks, structural stone	18	—	—	72.2	—	—	—	—	—	—
Pipes, ducts, tubing	38	—	—	55.3	—	13.2	—	—	—	—
Structural metal materials	40	—	—	52.5	25.0	—	—	—	—	—
Bars, rods, reinforcing bar (rebar)	10	—	—	60.0	—	—	—	—	—	—
Wood, lumber	19	—	—	36.8	26.3	—	—	—	—	—
Other building materials--solid elements	6	—	—	—	—	—	—	—	—	—
Fasteners, connectors, ropes, ties	50	—	—	12.0	12.0	—	—	10.0	—	26.0
Ropes, ties	48	—	—	12.5	12.5	—	—	10.4	—	27.1
Rope, twine, string	25	—	—	—	—	—	—	—	—	24.0
Machine, tool, and electrical parts	168	8.9	4.2	46.4	8.3	11.3	—	—	—	8.9

See footnotes at end of table.

TABLE A-9. **Fatal occupational injuries by primary and secondary source of injury by major private industry division, 1999** —
Continued

Primary source and secondary source	Total	Private industry ¹ (percent)								
		Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
Primary source² – continued										
Electric parts	152	8.6	—	51.3	5.9	11.8	—	—	—	9.2
Electrical wiring	43	—	—	62.8	—	—	—	—	—	—
Generators	5	—	—	—	—	—	—	—	—	—
Power lines, transformers, convertors	76	7.9	—	52.6	—	14.5	—	—	—	6.6
Switchboards, switches, fuses	5	—	—	—	—	—	—	—	—	—
Metal materials--nonstructural	6	—	—	—	—	—	—	—	—	—
Vehicle and mobile equipment parts	44	—	—	13.6	20.5	29.5	—	—	—	15.9
Tires, inner tubes, wheels	20	—	—	—	—	—	—	—	—	25.0
Wheels, tire rims	9	—	—	—	—	—	—	—	—	—
Engine parts and accessories	6	—	—	—	—	—	—	—	—	—
Trailers	8	—	—	—	—	—	—	—	—	—
Persons, plants, animals, and minerals	306	31.4	4.6	10.8	30.7	4.6	—	4.9	—	6.9
Animals and animal products	48	77.1	—	—	—	—	—	—	—	—
Insects, arachnids	5	—	—	—	—	—	—	—	—	—
Mammals, except humans	42	83.3	—	—	—	—	—	—	—	—
Cattle	24	87.5	—	—	—	—	—	—	—	—
Horses	15	80.0	—	—	—	—	—	—	—	—
Food products--fresh or processed	30	43.3	—	—	20.0	—	—	—	—	—
Nonmetallic minerals, except fuel	50	—	28.0	42.0	10.0	—	—	—	—	—
Boulders	5	—	—	—	—	—	—	—	—	—
Dirt, earth	25	—	—	72.0	—	—	—	—	—	—
Rocks, crushed stone	15	—	80.0	—	—	—	—	—	—	—
Sand, gravel	5	—	—	—	—	—	—	—	—	—
Person--other than injured or ill worker	31	—	—	—	—	—	—	29.0	—	38.7
Robber	10	—	—	—	—	—	—	60.0	—	—
Plants, trees, vegetation--not processed	139	29.5	—	5.8	58.3	4.3	—	—	—	—
Trees, logs	135	28.1	—	5.9	59.3	4.4	—	—	—	—
Chemicals and chemical products	159	8.8	5.7	17.0	15.7	10.7	—	9.4	—	22.0
Alkalies	5	—	—	—	—	—	—	—	—	—
Aromatics and hydrocarbon derivatives, except halogenated	5	—	—	—	—	—	—	—	—	—
Chemical products--general	56	—	—	14.3	12.5	10.7	—	14.3	—	28.6
Drugs, alcohol, medicines	46	—	—	15.2	—	13.0	—	15.2	—	32.6
Explosives, blasting agents, n.e.c.	8	—	—	—	—	—	—	—	—	—
Coal, natural gas, petroleum fuels and products	19	—	26.3	—	—	—	—	—	—	—
Natural gas	6	—	—	—	—	—	—	—	—	—
Petroleum fuels, distillates, products, unspecified	7	—	—	—	—	—	—	—	—	—
Other chemicals	59	18.6	—	15.3	15.3	8.5	—	10.2	—	18.6
Oxygen and oxygen compounds, n.e.c.	34	14.7	—	23.5	—	—	—	14.7	—	26.5
Carbon monoxide	25	—	—	20.0	—	—	—	20.0	—	24.0
Sulfur and sulfur compounds	10	—	—	—	—	—	—	—	—	—
Multiple chemicals or chemical mixtures, n.e.c.	6	—	—	—	—	—	—	—	—	—
Tools, instruments, and equipment	132	6.1	—	18.9	6.8	9.1	—	30.3	—	20.5
Handtools--nonpowered	84	—	—	7.1	6.0	10.7	—	39.3	—	25.0
Cutting handtools	59	—	—	—	—	11.9	—	49.2	—	18.6
Knives	52	—	—	—	—	11.5	—	53.8	—	17.3
Striking and nailing handtools	6	—	—	—	—	—	—	—	—	—
Turning handtools, screwdrivers, wrenches	8	—	—	—	—	—	—	—	—	—
Handtools--powered	15	—	—	66.7	—	—	—	—	—	—
Cutting handtools	7	—	—	71.4	—	—	—	—	—	—
Welding and heating handtools	5	—	—	—	—	—	—	—	—	—
Ladders	11	—	—	63.6	—	—	—	—	—	—
Ladders--movable	10	—	—	70.0	—	—	—	—	—	—
Extension ladders	5	—	—	—	—	—	—	—	—	—
Recreation and athletic equipment	8	—	—	—	—	—	—	—	—	—

See footnotes at end of table.

TABLE A-9. **Fatal occupational injuries by primary and secondary source of injury by major private industry division, 1999** —
Continued

Primary source and secondary source	Total	Private industry ¹ (percent)								
		Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
Primary source² – continued										
Containers	71	12.7	–	14.1	32.4	16.9	–	–	–	8.5
Containers-nonpressurized	28	–	–	17.9	32.1	–	–	–	–	–
Tanks, bins, vats	17	–	–	–	35.3	–	–	–	–	–
Containers-pressurized	18	–	–	–	–	–	–	–	–	–
Containers-variable restraint	22	27.3	–	–	36.4	–	–	–	–	–
Bundles, bales	11	54.5	–	–	–	–	–	–	–	–
Reels, rolls	11	–	–	–	45.5	–	–	–	–	–
Other	976	7.7	0.8	8.1	9.8	9.7	3.1	24.7	4.7	16.1
Furniture and fixtures	19	–	–	26.3	–	–	–	–	–	–
Cases, cabinets, racks, and shelves	7	–	–	–	–	–	–	–	–	–
Other fixtures	7	–	–	–	–	–	–	–	–	–
Ammunition	635	4.7	–	1.6	5.7	10.4	3.8	35.0	5.8	18.4
Bullets	618	4.5	–	1.6	5.5	10.7	3.9	34.6	5.7	18.8
Atmospheric and environmental conditions	178	11.2	–	25.3	21.3	5.6	–	5.6	–	11.2
Fire, flame, smoke	123	5.7	–	21.1	25.2	4.9	–	7.3	–	12.2
Fire, flame	93	6.5	–	25.8	26.9	5.4	–	7.5	–	12.9
Smoke, fire gases	25	–	–	–	24.0	–	–	–	–	–
Temperature extreme	36	27.8	–	25.0	13.9	–	–	–	–	–
Steam, vapors, liquids	93	21.5	–	15.1	12.9	14.0	–	–	–	10.8
Scrap, waste, debris	6	–	–	–	–	–	–	–	–	–
Secondary source³										
Vehicles	1,001	8.7	1.1	11.9	9.1	30.9	6.7	6.1	1.6	13.7
Air vehicle	7	–	–	–	–	–	–	–	–	–
Highway vehicle, motorized	861	7.9	1.0	11.1	7.7	30.9	6.7	6.7	1.7	14.8
Automobile	182	4.9	–	12.1	4.4	22.5	4.4	12.1	2.7	18.7
Bus	13	–	–	–	–	38.5	–	–	–	–
Truck	583	9.4	1.4	11.3	8.9	34.8	6.9	5.7	.9	12.0
Delivery truck	8	–	–	–	–	–	–	–	–	–
Dump truck	41	–	–	19.5	–	22.0	12.2	–	–	14.6
Pickup truck	99	11.1	–	6.1	9.1	23.2	–	11.1	–	17.2
Semitrailer, tractor trailer, trailer truck	333	9.6	–	10.5	9.0	42.9	6.3	5.4	–	8.4
Van--passenger or light delivery	34	–	–	–	–	20.6	–	–	–	35.3
Plant and industrial powered vehicles, tractors	56	16.1	–	19.6	32.1	16.1	–	–	–	–
Forklift	45	–	–	22.2	37.8	15.6	–	–	–	–
Platform lift truck--high or low lift	6	–	–	–	–	–	–	–	–	–
Tractor	10	60.0	–	–	–	–	–	–	–	–
Rail vehicle	60	10.0	–	16.7	8.3	41.7	8.3	–	–	–
Water vehicle	12	–	–	–	–	41.7	–	–	–	–
Barge	6	–	–	–	–	–	–	–	–	–
Structures and surfaces	892	5.5	1.9	36.8	10.1	18.0	3.5	2.9	1.7	10.7
Floors, walkways, ground surfaces	274	9.9	–	18.2	15.0	17.2	3.3	2.9	2.2	17.2
Floors	38	–	–	57.9	23.7	–	–	–	–	–
Ground	108	13.0	–	7.4	11.1	20.4	–	–	–	23.1
Street, road	18	–	–	–	–	–	–	–	–	–
Surfaces below ground level, n.e.c.	44	20.5	–	18.2	13.6	18.2	–	–	–	–
Ditches, channels, trenches, excavations	35	22.9	–	22.9	14.3	20.0	–	–	–	–
Parking lots	7	–	–	–	–	–	–	–	–	–
Other structural elements	220	3.6	–	67.7	5.0	5.5	3.2	–	–	8.6
Doors	5	–	–	–	–	–	–	–	–	–
Fences, fence panels	9	–	–	–	–	–	–	–	–	–
Roof	125	–	–	83.2	–	–	–	–	–	6.4
Walls	26	–	–	26.9	–	19.2	–	–	–	19.2
Windows	5	–	–	–	–	–	–	–	–	–
Structures	383	3.7	3.7	31.9	9.1	25.8	3.9	4.2	1.8	7.0
Bridges, dams, locks	39	–	–	–	–	48.7	–	–	–	–

See footnotes at end of table.

TABLE A-9. **Fatal occupational injuries by primary and secondary source of injury by major private industry division, 1999** —
Continued

Primary source and secondary source	Total	Private industry ¹ (percent)								
		Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
Secondary source³ – continued										
Buildings--office, plant, residential	32	–	–	21.9	–	–	–	–	–	25.0
Mines, caves, tunnels	10	–	–	–	–	–	–	–	–	–
Scaffolds, staging	95	–	–	71.6	20.0	–	–	–	–	–
Towers, poles	71	–	7.0	39.4	–	19.7	–	–	–	8.5
Other structures	130	–	–	8.5	5.4	48.5	8.5	5.4	–	4.6
Guardrails, road dividers	91	–	–	–	5.5	59.3	9.9	–	–	–
Machinery	238	10.1	6.3	29.0	19.7	9.7	2.9	2.9	–	16.0
Agricultural and garden machinery	8	75.0	–	–	–	–	–	–	–	–
Construction, logging, and mining machinery	52	–	17.3	38.5	19.2	13.5	–	–	–	–
Excavating machinery	18	–	–	50.0	–	–	–	–	–	–
Backhoes	7	–	–	71.4	–	–	–	–	–	–
Bulldozers	5	–	–	–	–	–	–	–	–	–
Loaders	10	–	–	60.0	–	–	–	–	–	–
Front end loaders	7	–	–	–	–	–	–	–	–	–
Logging and wood processing machinery--specialized	7	–	–	–	85.7	–	–	–	–	–
Mining and drilling machinery	8	–	75.0	–	–	–	–	–	–	–
Drilling machines, drilling augers	5	–	100.0	–	–	–	–	–	–	–
Road grading and surfacing machinery ..	5	–	–	–	–	–	–	–	–	–
Heating, cooling, and cleaning machinery and appliances	10	–	–	–	–	–	–	–	–	50.0
Heating and cooking machinery and appliances	5	–	–	–	–	–	–	–	–	–
Material handling (cranes, conveyers, jacks)	134	10.4	–	31.3	15.7	10.4	–	–	–	21.6
Conveyors--powered	8	–	–	–	62.5	–	–	–	–	–
Cranes	32	–	–	50.0	15.6	–	–	–	–	–
Cranes--mobile, truck, rail mounted ...	7	–	–	–	–	–	–	–	–	–
Cranes--overhead	5	–	–	–	–	–	–	–	–	–
Overhead hoists	12	–	–	41.7	–	–	–	–	–	–
Elevators	43	–	–	34.9	–	11.6	–	–	–	20.9
Bucket or basket hoist--truck mounted	26	–	–	38.5	–	–	–	–	–	23.1
Manlifts	12	–	–	–	–	–	–	–	–	–
Jacks	37	13.5	–	16.2	13.5	–	–	–	–	37.8
Metal, woodworking, and special material machinery	15	–	–	–	60.0	–	–	–	–	–
Special process machinery	8	–	–	–	–	–	–	–	–	–
Miscellaneous machinery	7	–	–	–	–	–	–	–	–	–
Parts and materials	218	14.2	–	42.7	11.9	11.0	5.0	2.8	–	4.1
Building materials--solid elements	51	–	–	52.9	13.7	–	–	–	–	–
Bricks, blocks, structural stone	6	–	–	–	–	–	–	–	–	–
Pipes, ducts, tubing	7	–	–	–	–	–	–	–	–	–
Structural metal materials	26	–	–	61.5	–	–	–	–	–	–
Wood, lumber	9	–	–	–	–	–	–	–	–	–
Fasteners, connectors, ropes, ties	13	–	–	–	–	–	–	–	–	–
Ropes, ties	11	–	–	–	–	–	–	–	–	–
Machine, tool, and electrical parts	123	13.8	–	43.9	11.4	10.6	4.9	–	–	–
Electric parts	117	14.5	–	43.6	10.3	10.3	5.1	–	–	–
Electrical wiring	18	–	–	38.9	33.3	–	–	–	–	–
Power lines, transformers, convertors	83	19.3	–	47.0	–	10.8	–	–	–	–
Switchboards, switches, fuses	6	–	–	–	–	–	–	–	–	–
Vehicle and mobile equipment parts	23	26.1	–	26.1	–	–	–	–	–	–
Trailers	19	26.3	–	26.3	–	–	–	–	–	–
Persons, plants, animals, and minerals	914	8.4	–	3.6	7.0	12.9	4.2	29.6	3.8	18.6
Animals and animal products	27	48.1	–	–	–	–	–	–	–	–
Mammals, except humans	23	43.5	–	–	–	–	–	–	–	–
Cattle	8	–	–	–	–	–	–	–	–	–
Horses	10	70.0	–	–	–	–	–	–	–	–

See footnotes at end of table.

TABLE A-9. **Fatal occupational injuries by primary and secondary source of injury by major private industry division, 1999** —
Continued

Primary source and secondary source	Total	Private industry ¹ (percent)								
		Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
Secondary source³ – continued										
Nonmetallic minerals, except fuel	21	23.8	–	42.9	–	–	–	–	–	–
Dirt, earth	8	–	–	–	–	–	–	–	–	–
Rocks, crushed stone	6	–	–	–	–	–	–	–	–	–
Person--other than injured or ill worker	631	3.0	–	1.1	4.1	10.9	4.0	40.1	4.9	20.4
Co-worker, former co-worker or injured worker	68	8.8	–	–	10.3	11.8	16.2	17.6	–	23.5
Relative of injured worker	29	–	–	–	–	–	–	24.1	–	20.7
Robber	243	–	–	–	–	13.2	4.1	61.3	2.1	14.0
Plants, trees, vegetation--not processed	183	20.8	–	7.7	16.4	21.3	4.9	2.7	–	13.1
Trees, logs	176	19.9	–	8.0	16.5	22.2	5.1	2.8	–	13.6
Chemicals and chemical products	85	–	–	27.1	32.9	8.2	–	–	–	14.1
Aromatics and hydrocarbon derivatives, except halogenated	6	–	–	–	–	–	–	–	–	–
Metallic particulates, trace elements, dusts, powders, fumes	5	–	–	–	–	–	–	–	–	–
Chemical products--general	23	–	–	47.8	39.1	–	–	–	–	–
Explosives, blasting agents, n.e.c.	9	–	–	–	66.7	–	–	–	–	–
Solvents, degreasers, n.e.c.	9	–	–	77.8	–	–	–	–	–	–
Coal, natural gas, petroleum fuels and products	37	–	–	24.3	16.2	–	–	–	–	21.6
Natural gas	9	–	–	–	–	–	–	–	–	–
Petroleum fuels, distillates, products, unspecified	22	–	–	–	–	–	–	–	–	27.3
Gasoline, diesel fuel, jet fuel	12	–	–	–	–	–	–	–	–	41.7
Other chemicals	7	–	–	–	–	–	–	–	–	–
Oxygen and oxygen compounds, n.e.c.	5	–	–	–	–	–	–	–	–	–
Tools, instruments, and equipment	208	8.7	2.4	30.8	13.0	7.7	2.9	8.7	2.4	13.0
Handtools--nonpowered	6	–	–	–	–	–	–	–	–	–
Handtools--powered	26	–	–	–	30.8	–	–	–	–	–
Cutting handtools	11	–	–	–	72.7	–	–	–	–	–
Welding and heating handtools	12	–	–	–	–	–	–	–	–	–
Ladders	101	–	–	54.5	10.9	5.9	–	6.9	–	10.9
Ladders--movable	62	–	–	59.7	12.9	–	–	–	–	8.1
Extension ladders	20	–	–	70.0	–	–	–	–	–	–
Step ladders	11	–	–	–	–	–	–	–	–	–
Medical and surgical instruments	5	–	–	–	–	–	–	–	–	–
Needles and syringes	5	–	–	–	–	–	–	–	–	–
Protective equipment, except clothing	6	–	–	–	–	–	–	–	–	–
Other tools	63	17.5	–	–	9.5	–	–	15.9	–	14.3
Firearms	62	17.7	–	–	9.7	–	–	16.1	–	14.5
Pistol, handgun, revolver	32	–	–	–	–	–	–	–	–	15.6
Shotgun	11	–	–	–	–	–	–	–	–	–
Containers	74	17.6	–	16.2	33.8	14.9	–	–	–	–
Containers-nonpressurized	50	20.0	–	20.0	30.0	12.0	–	–	–	–
Boxes, crates, cartons	5	–	–	–	–	–	–	–	–	–
Tanks, bins, vats	42	19.0	–	21.4	31.0	14.3	–	–	–	–
Containers-pressurized	17	–	–	–	41.2	–	–	–	–	–
Boilers	8	–	–	–	75.0	–	–	–	–	–
Containers-variable restraint	5	–	–	–	–	–	–	–	–	–
Other	284	28.2	2.1	13.7	11.3	17.3	2.5	2.5	–	9.2
Furniture and fixtures	15	–	–	–	–	–	–	–	–	–
Cases, cabinets, racks, and shelves	6	–	–	–	–	–	–	–	–	–
Furniture	5	–	–	–	–	–	–	–	–	–
Atmospheric and environmental conditions	118	26.3	–	15.3	10.2	19.5	–	–	–	11.0
Fire, flame, smoke	17	–	–	–	–	41.2	–	–	–	–
Fire, flame	13	–	–	–	–	–	–	–	–	–
Steam, vapors, liquids	111	29.7	–	9.0	7.2	20.7	–	–	–	9.0

See footnotes at end of table.

TABLE A-9. **Fatal occupational injuries by primary and secondary source of injury by major private industry division, 1999** —
Continued

Primary source and secondary source	Total	Private industry ¹ (percent)								
		Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
Secondary source³ – continued										
Not reported	2,109	20.2	2.8	19.4	13.7	13.6	3.1	4.9	1.3	10.1

¹ Classified according to the *Standard Industrial Classification Manual, 1987*.

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.

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.

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

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries