

Fatal occupational injuries involving cranes¹ by selected characteristics, 2006-2010

Characteristics	2006	2007	2008	2009	2010
Total	72	67	93	53	39
State of incident					
California	7	-	3	-	-
Florida	8	3	6	3	-
Georgia	-	4	-	-	-
Illinois	-	-	6	-	-
Indiana	-	-	4	3	3
Iowa	-	-	5	-	-
Kansas	-	3	-	-	-
Louisiana	3	3	-	5	4
Michigan	4	-	-	-	-
Minnesota	-	-	3	-	-
Missouri	-	-	-	3	-
New York (including N.Y.C.)	-	4	9	-	-
New York City	-	-	8	-	-
Ohio	3	5	5	-	-
Pennsylvania	3	4	4	3	-
South Carolina	-	4	-	-	-
Texas	12	6	15	9	4
Virginia	3	-	-	-	-
West Virginia	4	-	-	-	-
Employee status					
Wage and salary workers ²	71	66	89	49	36
Self-employed ³	-	-	4	4	-
Sex					
Men	72	67	93	52	37
Age					
20 to 24 years	5	6	11	4	-
25 to 34 years	15	13	23	9	6
35 to 44 years	18	14	21	12	11
45 to 54 years	17	25	24	13	6
55 to 64 years	12	5	11	9	9
65 and over	-	3	3	6	6
Race or ethnic origin⁴					
White	47	50	69	39	28
Black or African American	4	5	8	3	-
Hispanic or Latino	18	11	15	10	6
Event or exposure⁵					
Transportation incidents	7	8	4	5	4
Highway	3	3	-	-	-
Contact with objects and equipment	44	44	68	35	23
Struck by object or equipment	36	30	44	25	16
Struck by falling object or equipment	30	22	31	18	10
Struck by swinging or slipping object	4	6	10	4	4
Caught in or compressed by equipment or objects	8	13	12	6	7
Caught in running equipment or machinery	-	3	3	-	-
Compressed or pinched by rolling, sliding, or shifting objects ...	-	-	-	-	3
Caught in or crushed in collapsing materials	-	-	12	4	-
Caught in or crushed in collapsing structure	-	-	12	3	-
Falls	14	9	11	8	6
Fall to lower level	14	9	11	8	6

See footnotes at end of table.

Fatal occupational injuries involving cranes¹ by selected characteristics, 2006-2010 — Continued

Characteristics	2006	2007	2008	2009	2010
Event or exposure⁵					
Fall from nonmoving vehicle	6	4	7	3	4
Fall to lower level, n.e.c.	5	—	—	5	—
Exposure to harmful substances or environments					
Contact with electric current	6	6	10	5	4
Contact with overhead power lines	4	6	9	3	3
Primary source^{5,6}					
Vehicles	—	3	5	—	—
Structures and surfaces					
Floors, walkways, ground surfaces	14	10	12	13	5
Floors	11	8	8	6	5
Floors	5	3	—	—	—
Ground	5	4	6	6	—
Other structural elements	—	—	—	3	—
Structures	—	—	4	4	—
Machinery					
Material handling (cranes, conveyers, jacks)	31	31	48	24	20
Material handling (cranes, conveyers, jacks)	28	30	47	24	18
Cranes	28	30	45	23	17
Cranes--gantry	—	—	—	3	—
Cranes--mobile, truck, rail mounted	15	16	21	9	5
Cranes--overhead	5	—	3	3	4
Cranes--portal, tower, pillar	—	—	8	—	—
Parts and materials					
Building materials--solid elements	22	22	19	12	10
Building materials--solid elements	12	14	10	5	5
Structural metal materials	8	8	8	4	—
Plates, metal panels	3	—	—	—	—
Machine, tool, and electrical parts	9	—	4	4	—
Vehicle and mobile equipment parts	—	4	3	—	4
Containers					
Containers-variable restraint	—	—	7	—	—
Containers-variable restraint	—	—	5	—	—
Reels, rolls	—	—	4	—	—
Secondary source^{5,7}					
Vehicles	4	—	—	—	—
Highway vehicle, motorized	3	—	—	—	—
Truck	3	—	—	—	—
Structures and surfaces					
Structures	—	5	3	—	3
Structures	—	—	3	—	—
Machinery					
Material handling (cranes, conveyers, jacks)	45	38	48	29	21
Material handling (cranes, conveyers, jacks)	45	38	48	29	21
Cranes	45	37	48	29	20
Cranes--gantry	—	—	4	—	—
Cranes--mobile, truck, rail mounted	11	9	11	4	7
Cranes--overhead	14	7	10	4	7
Cranes--portal, tower, pillar	—	—	5	—	—
Parts and materials					
Building materials--solid elements	7	6	15	4	7
Building materials--solid elements	—	—	—	—	3
Machine, tool, and electrical parts	6	5	11	4	3
Electric parts	6	5	9	3	3
Power lines, transformers, convertors	6	5	9	3	3
Not reported	14	16	24	15	6

See footnotes at end of table.

Fatal occupational injuries involving cranes¹ by selected characteristics, 2006-2010 — Continued

Characteristics	2006	2007	2008	2009	2010
Nature⁵					
Intracranial injuries	16	13	16	8	7
Multiple intracranial injuries	9	9	8	3	4
Multiple traumatic injuries and disorders	31	30	43	26	17
Intracranial injuries and injuries to internal organs	3	8	10	—	3
Other combinations of traumatic injuries	8	8	14	6	—
Other traumatic injuries and disorders	24	21	31	16	12
Asphyxiations/strangulations, suffocations ⁸	4	—	—	—	—
Electrocutions, electric shocks	6	6	9	4	3
Internal injuries to organs and blood vessels of the trunk	13	14	20	9	7
Part of body⁵					
Head	16	13	16	8	7
Cranial region, including skull	16	13	16	8	7
Brain	16	13	16	8	7
Trunk	14	16	20	10	7
Chest, including ribs, internal organs	6	5	8	—	—
Multiple trunk locations	7	7	10	4	3
Body systems	10	7	11	6	4
Multiple body parts	30	28	44	27	19
Worker activity					
Vehicular and transportation operations	9	12	11	5	5
Driving, operating	5	4	5	4	3
Industrial or construction vehicle	4	3	5	3	—
Riding in, on	—	3	—	—	—
Directing, flagging traffic	—	—	4	—	—
Using or operating tools, machinery	18	11	21	15	12
Operating heavy equipment	15	8	20	14	8
Crane	15	8	20	13	8
Constructing, repairing, cleaning	32	31	47	26	17
Construction, assembling, dismantling	20	22	35	20	9
Constructing, assembling	7	3	12	4	6
Installing	5	6	7	—	—
Dismantling, removing	7	10	9	9	—
Repair, maintenance	10	6	8	4	5
Repairing	3	—	—	—	—
Maintenance	—	4	5	—	4
Inspecting or checking	—	—	3	—	—
Materials handling operations	10	7	8	3	3
Loading, unloading (packing, unpacking) materials	4	3	5	—	—
Materials handling, n.e.c.	4	—	—	—	—
Physical activity⁹, n.e.c.	—	6	4	3	—
Location					
Street or highway	10	4	9	7	6
Other highway (State or U.S.)	3	—	—	—	—
Local road or street	—	—	3	—	—
Road construction ¹⁰	4	—	3	4	3
Industrial place or premise	48	51	75	43	30
Dockyard	3	3	6	8	3

See footnotes at end of table.

Fatal occupational injuries involving cranes¹ by selected characteristics, 2006-2010 — Continued

Characteristics	2006	2007	2008	2009	2010
Location					
Construction site	11	24	36	21	10
Factory, plant	18	14	25	6	9
Industrial place or premises, nec	10	3	3	5	—
Other specified place	4	4	6	—	3
River	3	—	—	—	—
Sea	—	3	—	—	3
Private residence	5	4	—	—	—
Residential construction ¹¹	3	4	—	—	—
Occupation¹² (SOC)					
Management occupations	—	3	—	—	—
Building and grounds cleaning and maintenance occupations	4	—	—	—	—
Grounds maintenance workers	3	—	—	—	—
Grounds maintenance workers	3	—	—	—	—
Construction and extraction occupations	35	21	37	24	10
Supervisors, construction and extraction workers	5	—	4	3	3
First-line supervisors/managers of construction trades and extraction workers	5	—	4	3	3
First-line supervisors/managers of construction trades and extraction workers	5	—	4	3	3
Construction trades workers	27	18	33	17	7
Carpenters	—	3	—	—	—
Carpenters	—	3	—	—	—
Construction laborers	10	8	12	6	5
Construction laborers	10	8	12	6	5
Electricians	8	—	4	4	—
Electricians	8	—	4	4	—
Structural iron and steel workers	—	4	9	4	—
Structural iron and steel workers	—	4	9	4	—
Extraction workers	3	—	—	—	—
Installation, maintenance, and repair occupations	7	10	11	4	7
Other installation, maintenance, and repair occupations	5	8	9	—	6
Industrial machinery installation, repair, and maintenance workers	5	3	7	—	5
Industrial machinery mechanics	4	—	—	—	—
Maintenance and repair workers, general	—	—	—	—	3
Maintenance workers, machinery	—	—	4	—	—
Line installers and repairers	—	3	—	—	—
Production occupations	14	9	13	4	5
Metal workers and plastic workers	10	6	10	3	3
Welding, soldering, and brazing workers	7	4	6	—	—
Welders, cutters, solderers, and brazers	6	4	6	—	—
Other production occupations	—	3	—	—	—
Transportation and material moving occupations	9	19	26	20	14
Motor vehicle operators	4	4	3	3	—
Driver/sales workers and truck drivers	4	4	3	3	—
Truck drivers, heavy and tractor-trailer	4	4	3	—	—
Material moving workers	5	14	20	16	11
Crane and tower operators	3	8	16	11	7
Crane and tower operators	3	8	16	11	7
Laborers and material movers, hand	—	4	—	3	3
Laborers and freight, stock, and material movers, hand	—	4	—	3	3

See footnotes at end of table.

Fatal occupational injuries involving cranes¹ by selected characteristics, 2006-2010 — Continued

Characteristics	2006	2007	2008	2009	2010
Industry¹³ (NAICS)					
Private industry¹⁴	69	67	90	51	39
Goods-producing	51	56	79	40	34
Natural resources and mining	8	7	3	—	—
Mining¹⁵	7	6	3	—	—
Mining (except oil and gas)	3	—	—	—	—
Nonmetallic mineral mining and quarrying	3	—	—	—	—
Stone mining and quarrying	3	—	—	—	—
Support activities for mining	3	3	—	—	—
Support activities for mining	3	3	—	—	—
Support activities for oil and gas operations	3	—	—	—	—
Construction	26	36	51	28	15
Construction	26	36	51	28	15
Construction of buildings	—	13	11	4	—
Residential building construction	—	3	—	—	—
Residential building construction	—	3	—	—	—
Nonresidential building construction	—	10	8	3	—
Industrial building construction	—	3	4	—	—
Commercial and institutional building construction	—	7	4	3	—
Heavy and civil engineering construction	13	6	10	7	8
Utility system construction	4	4	7	—	3
Oil and gas pipeline and related structures construction	—	—	4	—	—
Highway, street, and bridge construction	6	—	3	3	3
Highway, street, and bridge construction	6	—	3	3	3
Other heavy and civil engineering construction	3	—	—	3	—
Other heavy and civil engineering construction	3	—	—	3	—
Specialty trade contractors	11	16	30	16	4
Foundation, structure, and building exterior contractors	5	4	18	9	—
Structural steel and precast concrete contractors	—	—	9	4	—
Nonresidential structural steel and precast concrete contractors	—	—	5	3	—
Masonry contractors	—	—	6	—	—
Building equipment contractors	3	5	3	—	—
Other specialty trade contractors	—	6	9	4	4
Site preparation contractors	—	—	—	3	—
Nonresidential site preparation contractors	—	—	—	3	—
All other specialty trade contractors	—	4	8	—	4
Nonresidential all other specialty trade contractors	—	—	7	—	3
Manufacturing	17	13	25	10	16
Manufacturing	17	13	25	10	16
Nonmetallic mineral product manufacturing	—	5	—	—	—
Cement and concrete product manufacturing	—	5	—	—	—
Other concrete product manufacturing	—	5	—	—	—
Primary metal manufacturing	6	—	10	3	—
Iron and steel mills and ferroalloy manufacturing	—	—	5	—	—
Iron and steel mills and ferroalloy manufacturing	—	—	5	—	—
Iron and steel mills	—	—	4	—	—
Foundries	4	—	—	—	—
Ferrous metal foundries	4	—	—	—	—
Iron foundries	3	—	—	—	—
Fabricated metal product manufacturing	5	3	7	—	4
Architectural and structural metals manufacturing	4	—	4	—	3
Plate work and fabricated structural product manufacturing	3	—	4	—	—
Fabricated structural metal manufacturing	—	—	3	—	—
Machinery manufacturing	—	3	—	—	—
Transportation equipment manufacturing	—	—	3	—	3
Ship and boat building	—	—	3	—	—
Ship and boat building	—	—	3	—	—

See footnotes at end of table.

Fatal occupational injuries involving cranes¹ by selected characteristics, 2006-2010 — Continued

Characteristics	2006	2007	2008	2009	2010
Industry¹³ (NAICS)					
Ship building and repairing	—	—	3	—	—
Service-providing	18	11	11	11	5
Trade, transportation, and utilities	11	7	8	7	4
Wholesale trade	4	—	—	—	—
Merchant wholesalers, durable goods	3	—	—	—	—
Transportation and warehousing	4	5	5	5	3
Support activities for transportation	—	3	3	3	—
Support activities for water transportation	—	3	—	3	—
Marine cargo handling	—	3	—	—	—
Professional and business services	4	—	—	—	—
Administrative and waste services	3	—	—	—	—
Administrative and support services	3	—	—	—	—
Government^{14,16}	3	—	3	—	—

¹ Includes fatal injuries where the source of the injury was a crane, where the secondary source of the injury was a crane, or where the worker activity was operating a crane.

² May include volunteers and workers receiving other types of compensation.

³ Includes self-employed workers, owners of unincorporated businesses and farms, paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships.

⁴ Persons identified as Hispanic or Latino may be of any race. The racial categories shown exclude data for Hispanics and Latinos.

⁵ Based on the BLS Occupational Injury and Illness Classification Manual.

⁶ The primary source of injury identifies the object, substance, or exposure that directly produced or inflicted the injury. For most transportation incidents, the primary source identifies the vehicle in which the deceased was an occupant. For most falls, the primary source identifies the surface or object contacted.

⁷ 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 "assailant" is the secondary source. For most falls, the secondary source identifies the equipment or surface from which the worker fell.

⁸ May include some asphyxiations due to chest compressions.

⁹ Includes, but is not limited to, walking, sitting, running, and climbing ladders or stairs.

¹⁰ The road construction location category was implemented in 1995. Includes road construction workers and vehicle occupants fatally injured in work zones. Work zones include construction, maintenance, and utility work on a road, street, or highway.

¹¹ The residential construction location category was implemented in 1998.

¹² Occupation data from 2003 to the present are based on the 2000 Standard Occupational Classification system.

¹³ Industry data from 2003 to 2008 are based on the 2002 North American Industry Classification System. Industry data from 2009 to the present are based on the 2007 North American Industry Classification System.

¹⁴ Includes all fatal occupational injuries meeting these ownership criteria across all specified years, regardless of industry classification system.

¹⁵ Includes fatal injuries at all establishments categorized as Mining (Sector 21) in the North American Industry Classification System including establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in Oil and Gas Extraction.

¹⁶ Includes fatal injuries to workers employed by governmental organizations regardless of industry.

NOTE: Data for all years are revised and final. Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. N.e.c. means "not elsewhere classified." CFOI fatality counts exclude illness-related deaths unless precipitated by an injury event.

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