



**Commonwealth of Puerto Rico**  
**Department of Labor and Human Resources**  
**Bureau Labor Statistics**  
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**Secretary of Labor**

# Census of Fatal Occupational Injuries

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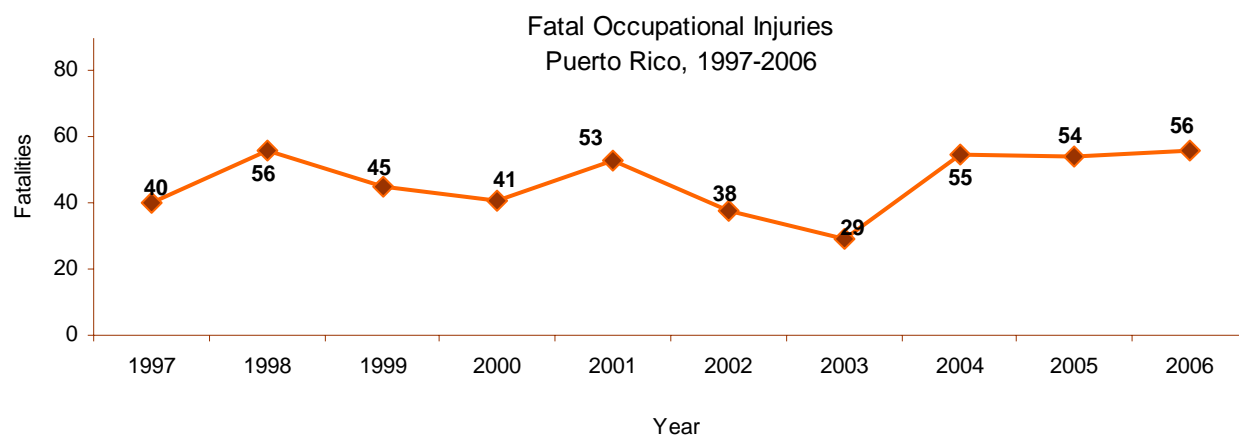


## Introduction

The Census of Fatal Occupational Injuries (CFOI) is conducted by The Division of Occupational Safety and Health Statistics of the Puerto Rico Department of Labor and Human Resources in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics (BLS).

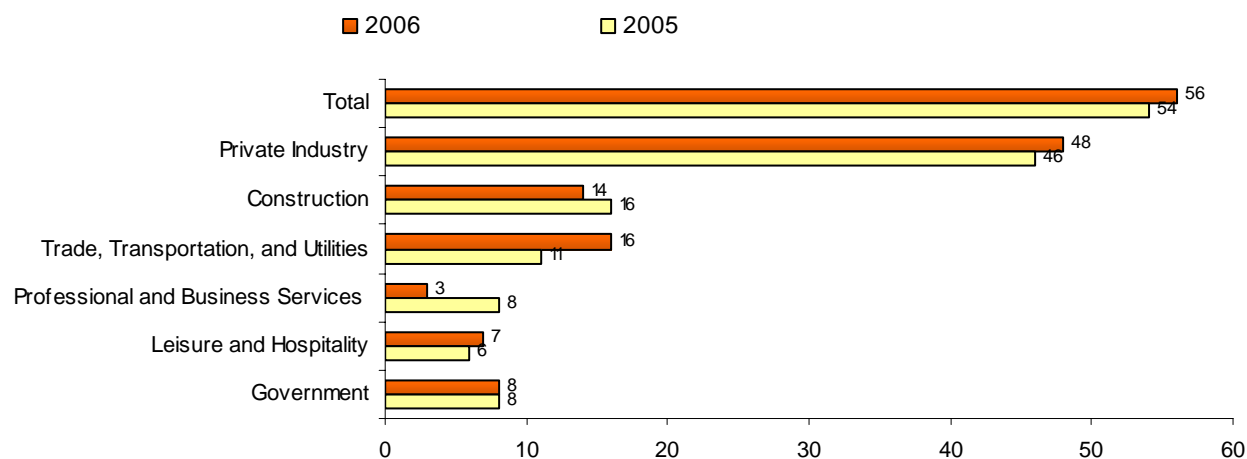
The Census of Fatal Occupational Injuries , provides the most complete count of fatal work injuries available. The program uses different data sources to identify, verify and profile fatal work injuries. Information about each workplace fatality (occupation and other worker characteristics, equipment being used, and circumstances of the event) is obtained by cross-referencing source documents, such as death certificates, workers' compensation records, newspaper articles, follow-back questionnaires, toxicology reports and other administrative records. This method assures counts are as complete and accurate as possible.

## Historical Fatality Counts, 1997-2006



The Puerto Rico CFOI program registered 56 work-related fatalities during 2006, two more than the incidents recorded in 2005. Of the 56 deaths reported, 52 were male and 4 women. The above chart presents a historical count of work related fatalities from 1997 through 2006. The highest number of fatal occupational injuries during this period was observed in 1998 and 2006 with 56 deaths each one.

## Fatal Work Injuries by Industry



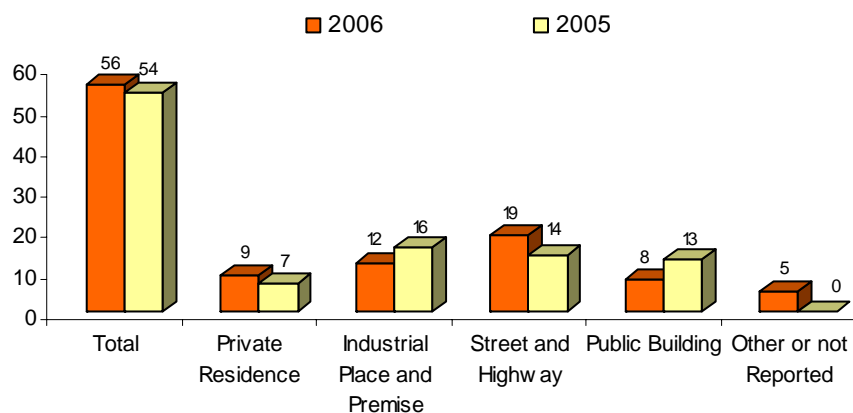
Trade, Transportation, and Utilities had the highest number of fatalities with 16 cases or 28.5 percent of the total, while Construction accounted 14 cases or 25.0 percent. Professional and Business Services decrease from 8 cases in 2005 to 3 cases in 2006.

## Fatal Work Injuries by Worker Activity

Worker Activity	2006	2005
Vehicular and Transportation Operations	11	9
Constructing, Repairing, Cleaning	23	18
Protective Service Activities	5	10
Tending Retail Establishment	3	8

The worker activity in Constructing, Repairing, Cleaning, increase from 18 cases or 33.3 percent of the total in 2005 to 23 cases or 41.0 percent of the total in 2006, at the time of the fatal injury. Followed by Vehicular and Transportation Operation with 11 cases or 19.6 percent of the total.

## Fatal Work Injuries by Location



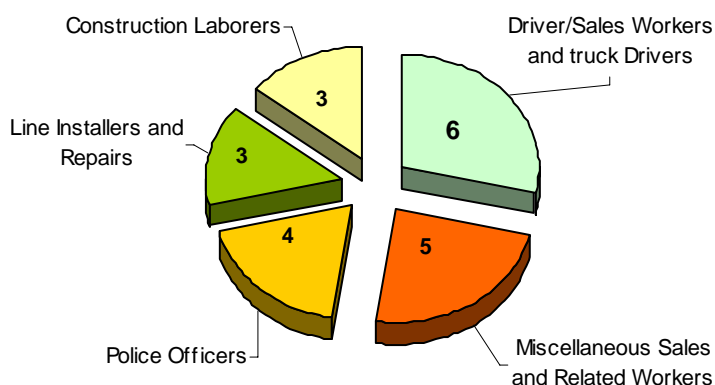
Fatal Injuries on Street and Highway increase from 25.0 percent in 2005 to 33.9 percent of the total cases in 2006. Followed by Industrial Places and Premises with 21.4 percent.

## Fatal Work Injuries by Age Group

Age	2006		2005	
	Total Fatalities	Percent	Total Fatalities	Percent
Total	56	100.0	54	100.0
20 to 24 years	7	12.5	7	13.0
25 to 34 years	10	17.8	22	40.7
35 to 44 years	14	25.0	12	22.2
45 to 54 years	9	16.0	5	9.3
55 to 64 years	13	23.2	5	9.3

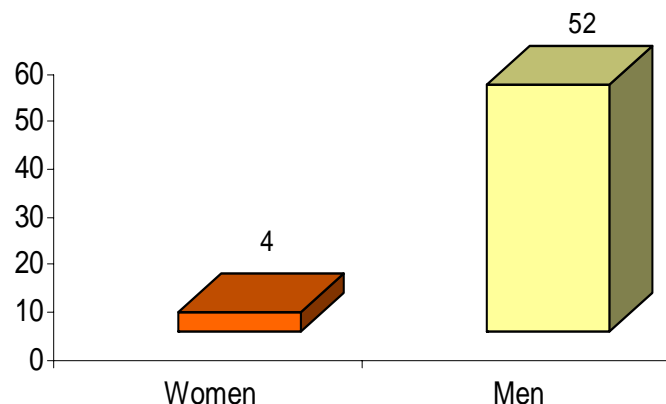
Workers in the age group from 35 to 44 years sustained the highest number of occupational fatalities in 2006 with 14 deaths or 25.0 percent. Followed by the group of 55 to 64 with 13 cases, 25 to 34 with 10 cases, 45 to 54 with 9 cases and 20 to 24 with 7 cases. In 2005 the age group with highest number of cases were in 25 to 34 years.

## Occupations with the Largest Number of Worker Fatalities



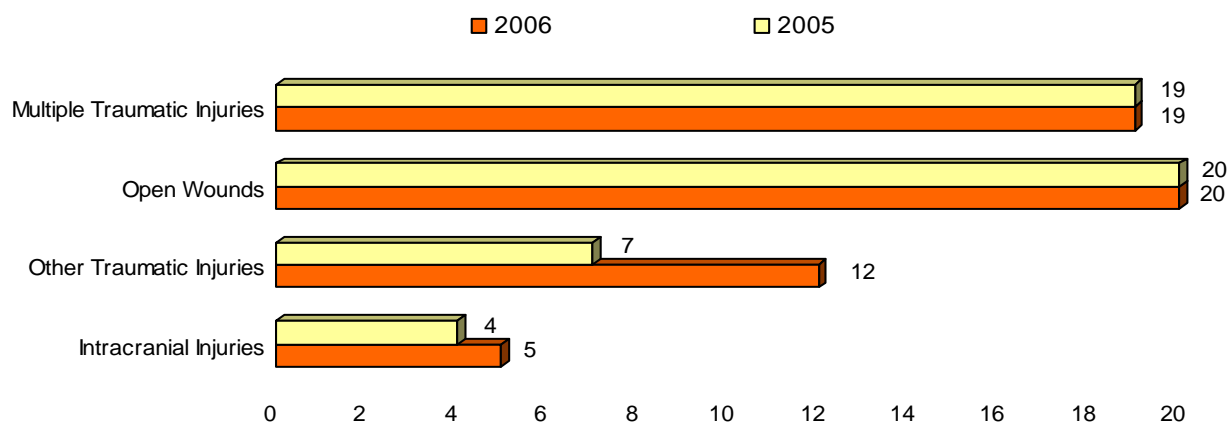
During 2006 the occupation with the largest number of worker fatalities was Driver/Sales Workers and Truck Drivers with 6 cases, representing 10.7 percent of the 56 cases.

## Fatality Work Injuries by Gender



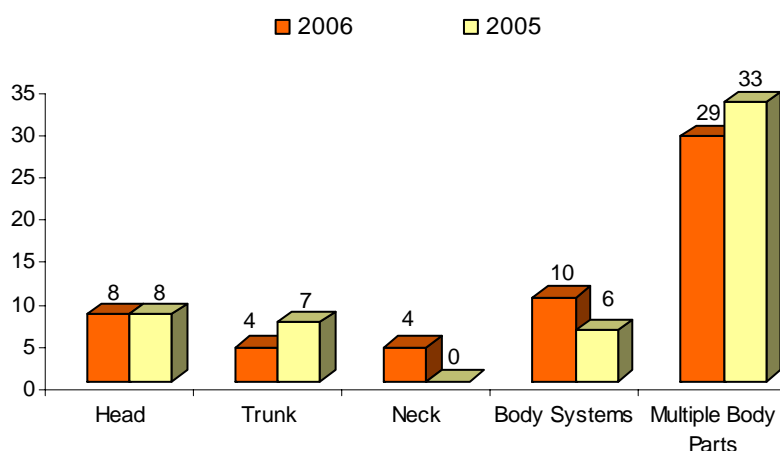
The 93 percent of the occupational fatalities involved men, and the 7 percent occurred to women during 2006.

## Fatal Occupational Injuries by Nature



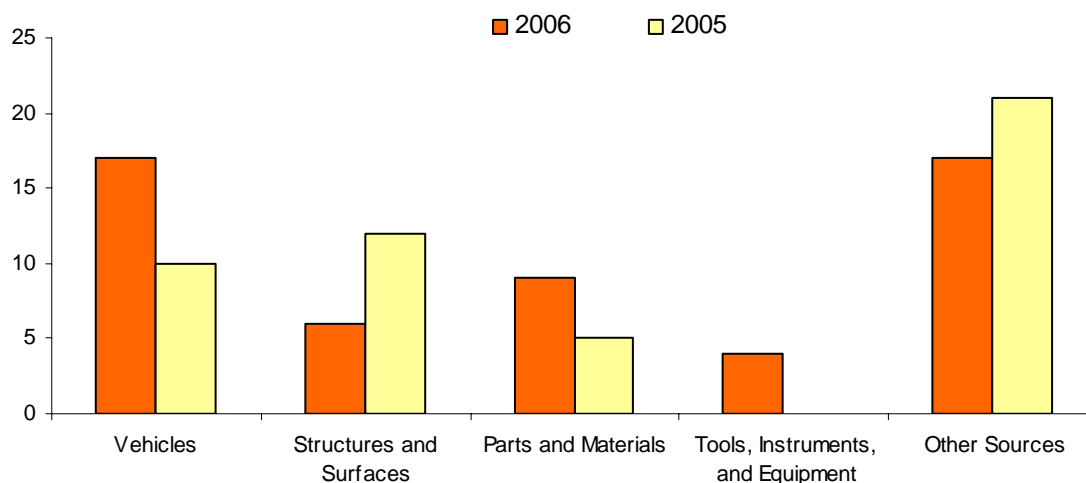
Open Wounds continued to be the most leading nature of cases, accounting for 20 cases (35.7 percent) of total fatalities in 2006. All the cases in this category were due to gunshot wounds. Followed by Multiple Traumatic Injuries with 19 cases (35.1 percent). All the cases in this category were due to Intracranial Injuries and Injuries to Internal Organs.

## Fatal Occupational Injuries by Part of Body



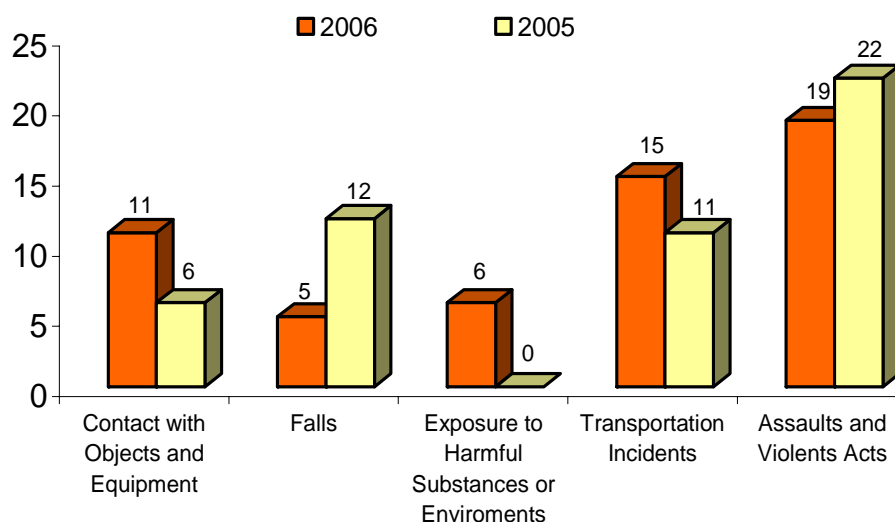
The Multiple Body Parts category accounted for the greatest portion of 56 cases with 29 incidents or 51.7 percent. It reflect a decrease of 4 cases when compared to 2005.

## Fatal Occupational Injuries by Source



Vehicles, (highway vehicles and trucks) produced the greatest number of job related fatalities with 17 incidents or 30.3 percent of the total deaths during 2006. Also 30.3 percent of total fatalities were in Other Sources category, bullets were the object that directly produced the number of job related fatalities with 15 incidents (See table 3).

## Fatal Occupational Injuries by Event



Assaults and Violent Acts continued to be the leading manner in which the greatest number of work-related fatalities occurred with 19 cases, mostly due to homicides of which 15 were due to shooting. This represents 33.9 percent of all work-related fatalities (56), a decrease of 3 cases when compared to 2005.



**Table : 1 Fatal Occupational Injuries to Private Sector Wage and Salary Workers, Government Workers, and Self- Employed Workers by Industry, Puerto Rico, 2006**

Industry <sup>1</sup>	Fatalities		Private sector wage and salary workers <sup>2</sup>		Government workers <sup>3</sup>		Self-employed workers <sup>4</sup>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Total</b> .....	56	100.0	38	100.0	8	100.0	10	100.0
<b>Goods Producing</b> .....	17	30.4	16	42.1	--	--	--	--
<b>Construction</b> .....	14	25.0	13	34.2	--	--	--	--
<b>Construction</b> .....	14	25.0	13	34.2	--	--	--	--
Construction of buildings.....	7	12.5	6	15.8	--	--	--	--
Residential Building Construction.....	5	8.9	4	10.5	--	--	--	--
Residential Building Construction.....	5	8.9	4	10.5	--	--	--	--
New Single-family Housing Construction (except operative builders.....	3	5.4	3	7.9	--	--	--	--
Specialty Trade Contractors.....	6	10.7	6	15.8	--	--	--	--
Building Equipment Contractors.....	6	10.7	6	15.8	--	--	--	--
Electrical Contractors.....	3	5.4	3	7.9	--	--	--	--
<b>Service providing</b> .....	39	69.6	22	57.9	8	100.0	9	90.0
<b>Trade, Transportation, and Utilities</b> .....	16	28.6	10	26.3	--	--	--	--
<b>Retail Trade</b> .....	9	16.1	5	13.2	--	--	--	--
Nonstore Retailers.....	5	8.9	--	--	--	--	--	--
<b>Transportation and Warehousing</b> .....	4	7.1	4	10.5	--	--	--	--
Truck Transportation.....	3	5.4	3	7.9	--	--	--	--
<b>Professional and Business Services</b> .....	3	5.4	3	7.9	--	--	--	--
<b>Leisure and Hospitality</b> .....	7	12.5	5	13.2	--	--	--	--
<b>Arts, Entertainment, and Recreation</b> .....	3	5.4	3	7.9	--	--	--	--
<b>Accommodation and Food Services</b> .....	4	7.1	--	--	--	--	--	--
Food Services and Drinking Places.....	4	7.1	--	--	--	--	--	--
Drinking Places (Alcoholic Beverages).....	3	5.4	--	--	--	--	--	--
Drinking Places (Alcoholic Beverages).....	3	5.4	--	--	--	--	--	--
<b>Other Services</b> .....	3	5.4	3	7.9	--	--	--	--
<b>Other Services, except Public Administration</b> .....	3	5.4	3	7.9	--	--	--	--
<b>Public Administration</b> .....	6	10.7	--	--	6	75.0	--	--
<b>Public Administration</b> .....	6	10.7	--	--	6	75.0	--	--
Justice, Public Order, and Safety Activities.....	4	7.1	--	--	4	50.0	--	--
Justice, Public Order, and Safety Activities.....	4	7.1	--	--	4	50.0	--	--
Police Protection.....	4	7.1	--	--	4	50.0	--	--

<sup>1</sup> Classified according to the North American Industry Classification System, 2002.

<sup>2</sup> May include volunteers and workers receiving other types of compensation.

<sup>3</sup> Includes fatalities to workers employed by governmental organizations regardless of industry.

<sup>4</sup> 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.

NOTE: Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. Data for 2006 are preliminary.

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



**Table : 2 Fatal Occupational Injuries Resulting from Transportation Incidents and Homicides by Occupation, Puerto Rico, 2006**

Occupation <sup>1</sup>	Total fatalities (number)	Transportation incidents					Homicides		
		Total	Highway incidents	Non-highway incidents	Worker struck by vehicle	All other transportation incidents	Total	Homicides by shooting	All other homicides
Total.....	56	15	9	--	--	--	18	15	3
Protective service occupations.....	6	--	--	--	--	--	5	5	--
Law enforcement workers.....	4	--	--	--	--	--	3	3	--
Police officers.....	4	--	--	--	--	--	3	3	--
Police and sheriff's patrol officers.....	4	--	--	--	--	--	3	3	--
Food preparation and serving related occupations.....	3	--	--	--	--	--	3	--	--
Personal care and service occupations.....	4	--	--	--	--	--	--	--	--
Sales and related occupations.....	6	--	--	--	--	--	3	3	--
Other sales and related workers.....	5	--	--	--	--	--	--	--	--
Miscellaneous sales and related workers.....	5	--	--	--	--	--	--	--	--
Construction and extraction occupations.....	12	--	--	--	--	--	--	--	--
Construction trades workers.....	9	--	--	--	--	--	--	--	--
Construction laborers.....	3	--	--	--	--	--	--	--	--
Construction laborers.....	3	--	--	--	--	--	--	--	--
Installation, maintenance, and repair occupations.....	7	--	--	--	--	--	--	--	--
Other installation, maintenance, and repair occupations.....	6	--	--	--	--	--	--	--	--
Line installers and repairers.....	3	--	--	--	--	--	--	--	--
Transportation and material moving occupations.....	11	9	8	--	--	--	--	--	--
Motor vehicle operators.....	7	7	6	--	--	--	--	--	--
Driver/sales workers and truck drivers.....	6	6	5	--	--	--	--	--	--

<sup>1</sup> Based on the 2000 Standard Occupational Classification System.

NOTE: Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. Data for 2006 are preliminary.

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

**Table : 3 Fatal Occupational Injuries by Selected Industry, Puerto Rico, All Ownerships, 2006**

Characteristic	All Industries <sup>1</sup> 2006	All Industries <sup>1</sup> 2005
<b>Total:</b>	56	54
<b>Employee status:</b>		
Wage and salary workers	46	45
Self-employed	10	9
<b>Gender:</b>		
Men	52	53
Women	4	--
<b>Age:</b>		
Under 16 years	--	--
16 to 17 years	--	--
18 to 19 years	--	--
20 to 24 years	7	7
25 to 34 years	10	22
35 to 44 years	14	12
45 to 54 years	9	5
55 to 64 years	13	5
65 years and over	--	--
<b>Race or ethnic origin<sup>2</sup>:</b>		
White, non-Hispanic	--	--
Black, non-Hispanic	--	--
Hispanic or Latino	55	54
American Indian, Aleut, Eskimo	--	--
Asian	--	--
Pacific Islander	--	--
Multiple races	--	--
Other or not reported	--	--
<b>Event or exposure<sup>3</sup>:</b>		
Contact with objects and equipment	11	6
Struck by object	4	--
Struck by falling object	--	--
Caught in or compressed by equipment or objects	4	--
Caught in running equipment or machinery	--	--
Falls	5	12
Fall to lower level	5	12
Fall from ladder	--	--
Fall from roof	--	--
Fall from scaffold, staging	--	--
Exposure to harmful substances or environments	6	--
Contact with electric current	5	--
Exposure to caustic, noxious, or allergenic substances	--	--
Oxygen deficiency (including drowning)	--	--
Transportation incidents	15	11
Highway incidents	9	4
Collision between vehicles, mobile equipment	--	--
Non-collision incidents	7	--
Non-highway incident, except rail, air, water	--	--
Overturned	--	--
Worker struck by vehicle, mobile equipment	--	--
Aircraft incidents	--	--
Fires and explosions	--	--
Assaults and violent acts	19	22
Homicides	18	20
Self inflicted injuries	--	--
Other or not reported	--	--

**Table : 3 Fatal Occupational Injuries by Selected Industry, Puerto Rico, All Ownerships, 2006 (Cont.)**

Characteristic	All Industries <sup>1</sup> 2006	All Industries <sup>1</sup> 2005
<b>Primary source<sup>3,4</sup>:</b>		
Vehicles	17	10
Highway vehicles	15	7
Automobiles	--	--
Trucks	14	4
Plant and industrial powered vehicles, tractors	--	--
Forklifts	--	--
Tractors	--	--
Structures and surfaces	6	12
Floors, walkways, ground surfaces	5	11
Machinery	--	--
Agriculture and garden machinery	--	--
Construction, logging, and mining machinery	--	--
Material handling machinery	--	--
Parts and materials	9	5
Machine, tool, and electric parts	5	--
Persons, plants, animals, and minerals	--	--
Persons -other than injured worker	--	--
Robber	--	--
Co-worker, former co-worker	--	--
Trees, logs	--	--
Chemicals and chemical products	--	--
Tools, instruments, and equipment	4	--
Containers	--	--
Other	17	21
Bullets and pellets	15	20
Fire, flame, smoke	--	--
<b>Secondary source<sup>3,5</sup>:</b>		
Vehicles	--	7
Highway vehicles	--	5
Plant and industrial powered vehicles, tractors	--	--
Structures and surfaces	13	9
Floors, walkways, ground surfaces	12	3
Structures	--	5
Machinery	--	--
Parts and materials	--	--
Machine, tool, and electric parts	--	--
Persons, plants, animals, and minerals	18	20
Persons -other than injured worker	18	20
Robber	3	6
Co-worker, former co-worker	--	--
Trees, logs	--	--
Chemicals and chemical products	--	--
Tools, instruments, and equipment	--	--
Containers	--	--
Other	--	--
Liquids (including water)	--	--
No secondary source	22	12

**Table : 3 Fatal Occupational Injuries by Selected Industry, Puerto Rico, All Ownerships, 2006 (Cont.)**

Characteristic	All Industries <sup>1</sup> 2006	All Industries <sup>1</sup> 2005
<b>Nature<sup>3</sup>:</b>		
Intracranial injuries	5	4
Other traumatic injuries	12	7
Internal injuries	--	--
Asphyxiations, suffocations	3	4
Drownings	--	--
Electrocutions	5	--
Poisonings, toxic effects	--	--
Open wounds	20	20
Gunshot wounds	15	20
Burns (heat, chemical, etc.)	--	--
Multiple traumatic injuries	19	19
Intracranial injuries and injuries to internal organs	12	12
<b>Part of body<sup>3</sup>:</b>		
Head	8	8
Trunk	4	7
Chest	--	--
Back	--	3
Neck	4	--
Lower extremities	--	--
Upper extremities	--	--
Body systems	10	6
Multiple	29	33
<b>Worker activity:</b>		
Vehicular and transportation operations	11	9
Using or operating tools, machinery	--	--
Constructing, repairing, cleaning	23	18
Protective service activities	5	10
Materials handling operations	--	--
Physical activities	--	3
Other activities	12	8
Tending a retail establishment	3	8
Not reported	--	4
<b>Location:</b>		
Private residence	9	7
Farm	--	--
Mine, quarry	--	--
Industrial place and premises	12	16
Place for recreation or sports	--	--
Street and highway	19	14
Public building	8	13
Residential institutions	--	--
Other or not reported	5	--

**Table : 3 Fatal Occupational Injuries by Selected Industry, Puerto Rico, All Ownerships, 2006 (Cont.)**

Characteristic	All Industries <sup>1</sup> 2006	All Industries <sup>1</sup> 2005
<b>Occupation:</b>		
Management occupations	--	--
Business and financial operations occupations	--	--
Computer and mathematical occupations	--	--
Architecture and Engineering occupations	--	--
Life, physical, and social science occupations	--	--
Community and social services occupations	--	--
Legal occupations	--	--
Education, training, and library occupations	--	--
Arts, design, entertainment, sports, and media occupations	--	--
Healthcare practitioners and technical occupations	--	--
Healthcare support occupations	--	--
Protective service occupations	6	13
Food preparation and serving related occupations	3	4
Building and grounds cleaning and maintenance occupations	--	--
Personal care and service occupations	4	--
Sales and related occupations	6	3
Office and administrative support occupations	--	--
Farming, fishing, and forestry occupations	--	--
Construction and extraction occupations	12	13
Installation, maintenance, and repair occupations	7	6
Production occupations	--	--
Transportation and material moving occupations	11	8
Military specific occupations <sup>6</sup>	--	--

<sup>1</sup>Mining includes fatalities at all establishments categorized as Mining (Sector 21) in the North American Industry Classification System, 2002, including establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in Oil and Gas Extraction.

<sup>2</sup>Persons identified as Hispanic or Latino may be of any race. The race categories shown exclude data for Hispanics and Latinos.

<sup>3</sup>Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

<sup>4</sup>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.

<sup>5</sup>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. For most falls, the secondary source identifies the equipment or surface from which the worker fell.

<sup>6</sup>Military specific occupations include fatalities to persons identified as resident armed forces regardless of individual occupation listed.

NOTE: Dashes indicate no data or data that do not meet publication criteria. Totals for major categories may include subcategories not shown separately.

Data for 2006 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, June 04, 2008.

## Census of Fatal Occupational Injuries: Work Relationship Criteria

A **work relationship** exists if an event or exposure results in the fatal injury or illness of a person:

- (1) ON the *employer's premises* and the person was there to *work*; or
- (2) OFF the *employer's premises* and the person was there to *work*, or the event or exposure was related to the person's *work* or status as an employee.

The *employer's premises* include buildings, grounds, parking lots, and other facilities and property used in the conduct of business. *Work* is defined as duties, activities, or tasks that produce a product or result; that are done in exchange for money, goods, services, profit, or benefit; and, that are legal activities in the United States. The following are clarifications of the CFOI work relationship criteria.

### Traumatic injury

A traumatic injury is any unintentional or intentional wound or damage to the body resulting from acute exposure to energy--such as heat or electricity or kinetic energy from a crash--or from the absence of such essentials as heat or oxygen caused by a specific event, incident, or series of events within a single workday or shift.

### Occupational disease (illness)

An occupational disease is defined as a condition produced in the work environment over a period longer than one workday or shift. Usually an illness is due to repetitive factors over a period of time. It may result from systemic infection, repeated stress or strain, exposure to toxins, poisons, fumes, or other continuing conditions of the work environment.

### Volunteer workers

Fatalities to volunteer workers who are exposed to the same work hazards and perform the same duties or functions as paid employees and that meet the CFOI work relationship criteria are IN scope.

### Institutionalized persons

Fatalities to institutionalized persons, including inmates of penal and mental institutions, sanitariums, and homes for the aged, infirm and needy, are OUT of scope unless they are

employed off the premises of their institutions. **Suicides** and **homicides** that meet the CFOI work relationship criteria are IN scope.

### **Fatal heart attacks and strokes**

Are IN scope if they occurred ON or OFF the employer's premises and the person were there to work. Those fatal heart attacks and strokes that occurred under other circumstances are OUT of scope, unless work relationship is verified.

### **Travel status**

Fatal events or exposures that occurred when a person was in travel status are IN scope if the travel was for work purposes or was a condition of employment. The exclusion pertaining to recreational activities also applies to a person who was in travel status.

### **Recreational activities**

Fatal events or exposures that occurred during a person's recreational activities which were not required by the person's employer are OUT of scope.

### **Commuting**

Fatal events or exposures that occurred during a person's normal commute to or from work are OUT of scope.

### **Off-duty police**

Homicides occurring to off-duty police officers are generally IN scope. Other fatalities to off-duty police are in scope if the worker was performing a police-related function, such as directing traffic at the scene of an accident or rescuing someone from a fire.

### **Undocumented workers**

Fatalities to undocumented workers are IN scope provided they meet the other work-relationship criteria.

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