

**DEPARTMENT OF LABOR AND HUMAN RESOURCES  
BUREAU LABOR STATISTICS**

# PUERTO RICO



## CENSUS OF FATAL OCCUPATIONAL INJURIES, 2007

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).

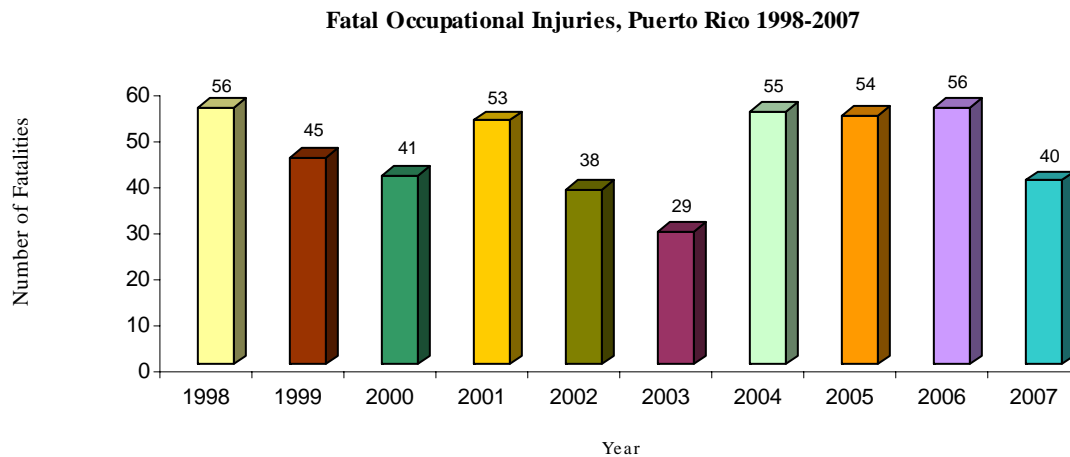
The Census of Fatal Occupational injuries, provides the most complete count of fatal work injuries available. The program uses different data sources to identify, verify and profile fatal work injuries. Information about each workplace fatality (occupation and other worker characteristics, equipment 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.



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## Historical Fatality Counts, 1998-2007

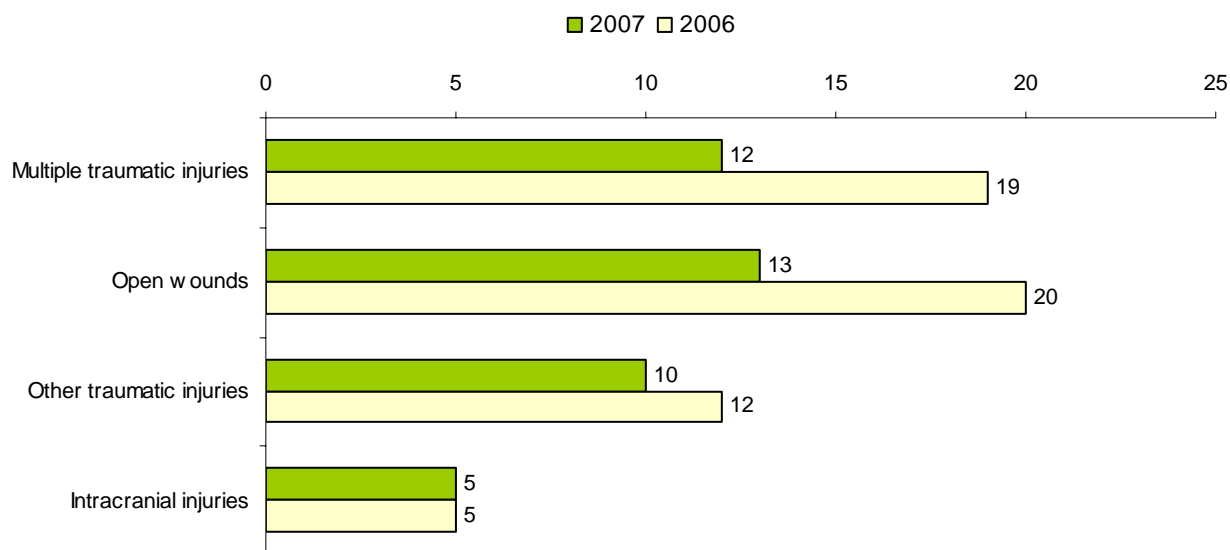
The Puerto Rico CFOI program, registered 40 work-related fatalities during 2007, sixteen less than incidents recorded in 2006. The following chart presents a historical count of work related fatalities from 1998 through 2007. The highest number of fatal occupational injuries during this period was observed in 1998 and 2006 with 56 deaths each one. The lowest number of fatal occupational injuries was 2003 with 29 cases.



## Overviews

- Construction had the highest number of fatalities during 2007 with 16 cases or 40.0 percent. Trade transportation and utilities accounted 7 cases, a decreased of 9 cases compare to 2006, when reported 16 cases. Another industry that registered a reduction of fatalities during 2007 was entertainment and accommodation with 3 cases, four less than last year when reported 7 cases.
- The occupational activity of construction, repair and cleaning, continues to record the highest number of occupational fatalities with 19 cases or 47.5 percent.
- Occupational deaths in establishments and their properties recorded 27.5 percent of all deaths in 2007.
- The workers in the age group 45 to 54 years received the highest number of occupational fatalities in 2007 with 12 deaths or 30.0 percent. In 2006, the age group with the highest number of cases was 35 to 44 years, reported 13 cases or 23.2 percent.
- During 2007 the occupation with the highest number of deaths was , construction and extraction with 13 cases, representing 32.5 percent of the 40 cases.
- One hundred percent of all occupational deaths in 2007 were male.

## Fatal Occupational Injuries by Nature



Open wounds remains the leader in the nature of the cases, recording 13 cases (32.5 percent) of all deaths in 2007. All cases in this category were by gunshot wounds. Followed by multiple traumatic injuries with 12 cases (30.0 percent). See table 3.

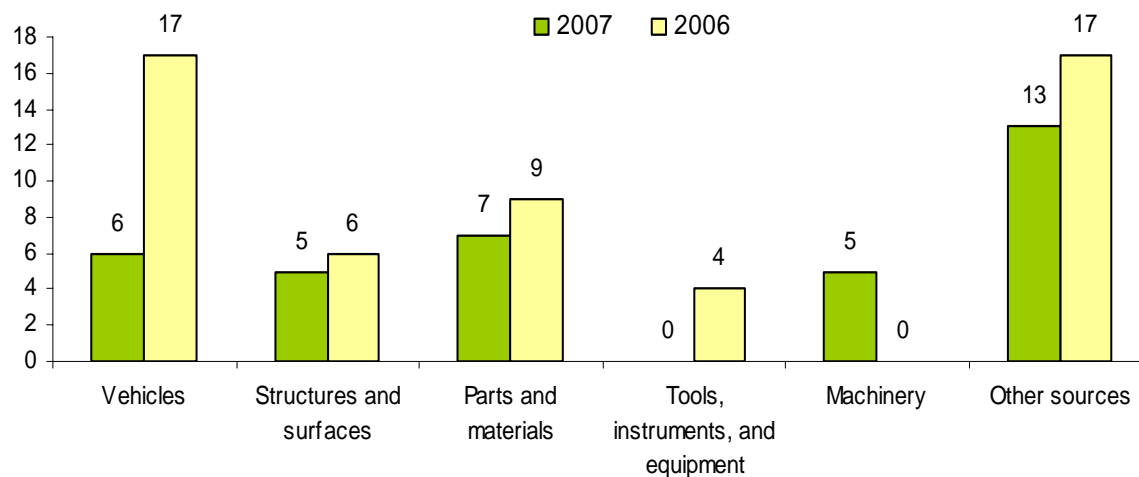
## Fatal Occupational Injuries by Part of Body

Part of body	2007		2006	
	Cases	Percent	Cases	Percent
Total	40	100.0	56	100.0
Head	7	17.5	8	14.2
Trunk	-	-	4	7.1
Neck	-	-	4	7.1
Body system	6	15.0	10	17.8
Multiples body parts	24	60.0	29	51.7

The category of multiple body parts accounted for the greatest portion of 40 cases with 24 incidents or 60.0 percent. This reflected a decrease of 5 cases when compared to 2006.

Note: Totals for major categories may include subcategories not shown separately.

## Fatal Occupational Injuries by Source



The category of other sources where the bullets were the object that directly caused the largest number of work-related deaths, reported of 13 cases or 32.5 percent of total fatalities in 2007. Followed by parts and material with 7 cases or 17.5 percent.

## Fatal Occupational Injuries by Event

Event	Total Fatalities 2007	Total Fatalities 2006
Total	40	56
Contact with objects and equipment	3	11
Falls	5	5
Exposure to harmful substances or environments	7	6
Transportation incidents	8	15
Assaults and violent acts	17	19

Assaults and violent acts continued to be the main event that caused the largest number of work-related deaths, with a total of 17 cases, mostly murders, of which 13 were by gunfire. See table 3. This represents 42.5 percent of all occupational deaths (40), a decrease of 2 cases compared with 2006.

## Fatal Occupational Injuries by Worker Activity and Location

Worker Activity	Number of cases	Percent	Location	Number of cases	Percent
Total	40	100.0	Total	40	100.0
Vehicular and transportation operation	5	12.5	Private residence	10	25.0
Constructing, repairing, cleaning	19	47.5	Industrial places and premises	11	27.5
Protective service activities	5	12.5	Street and highway	6	15.0
Tending retail establishment	6	15.0	Public building	9	22.5

The worker activity with the highest number of fatalities during 2007 was constructing, repairing, cleaning with 19 cases or 47.5 percent, a decreased of 4 cases when compare to last year that reported 23 cases. See table 3.

Industrial places and premises was the location where most accidents occurred during 2007 with 11 cases. It was followed by private residence with 10 cases. During 2006, the place where most occupational fatalities occurred was roads and highway with 19 cases, see table 3.



Table 1: Fatal Occupational Injuries to Private Sector Wage and Salary Workers, Government Workers, and Self-Employed Workers by Industry, Puerto Rico, 2007

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> .....	40	100.0	30	100.0	3	100.0	7	100.0
<b>Goods Producing</b> .....	18	45.0	16	53.3	--	--	--	--
<b>Construction</b> .....	16	40.0	14	46.7	--	--	--	--
<b>Construction</b> .....	16	40.0	14	46.7	--	--	--	--
Construction of buildings.....	4	10.0	4	13.3	--	--	--	--
Specialty Trade Contractors.....	7	17.5	6	20.0	--	--	--	--
Building Equipment Contractors.....	3	7.5	3	10.0	--	--	--	--
<b>Service providing</b> .....	22	55.0	14	46.7	3	100.0	5	71.4
<b>Trade, Transportation, and Utilities</b> .....	7	17.5	6	20.0	--	--	--	--
<b>Retail Trade</b> .....	4	10.0	3	10.0	--	--	--	--
<b>Professional and Business Services</b> .....	6	15.0	6	20.0	--	--	--	--
<b>Administrative and Support and Waste Management and Remediation Services</b> .....	6	15.0	6	20.0	--	--	--	--
Administrative and Support Services.....	3	7.5	3	10.0	--	--	--	--
Investigation and Security Services.....	3	7.5	3	10.0	--	--	--	--
Investigation, Guard, and Armored Car Services.....	3	7.5	3	10.0	--	--	--	--
Security Guards and Patrol Services.....	3	7.5	3	10.0	--	--	--	--
Waste Management and Remediation Services.....	3	7.5	3	10.0	--	--	--	--
<b>Leisure and Hospitality</b> .....	3	7.5	--	--	--	--	3	42.9
<b>Accommodation and Food Services</b> .....	3	7.5	--	--	--	--	3	42.9
Food Services and Drinking Places.....	3	7.5	--	--	--	--	3	42.9
<b>Other Services, except Public Administration</b> .....	3	7.5	--	--	--	--	--	--
<b>Public Administration</b> .....	3	7.5	--	--	3	100.0	--	--
<b>Public Administration</b> .....	3	7.5	--	--	3	100.0	--	--

<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.

<sup>5</sup> 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.

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 2007 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, 2007

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.....	40	8	--	3	4	--	15	13	--
Protective service occupations.....	6	--	--	--	--	--	5	5	--
Other protective service workers.....	4	--	--	--	--	--	3	3	--
Security guards and gaming surveillance officers.....	4	--	--	--	--	--	3	3	--
Security guards.....	4	--	--	--	--	--	3	3	--
Food preparation and serving related occupations.....	3	--	--	--	--	--	--	--	--
Sales and related occupations.....	3	--	--	--	--	--	--	--	--
Construction and extraction occupations.....	13	--	--	--	--	--	4	--	--
Construction trades workers.....	10	--	--	--	--	--	--	--	--
Installation, maintenance, and repair occupations.....	6	--	--	--	--	--	--	--	--
Other installation, maintenance, and repair occupations.....	4	--	--	--	--	--	--	--	--
Transportation and material moving occupations.....	7	4	--	--	--	--	--	--	--
Material moving workers.....	5	3	--	--	--	--	--	--	--
Refuse and recyclable material collectors.....	3	--	--	--	--	--	--	--	--
Refuse and recyclable material collectors.....	3	--	--	--	--	--	--	--	--

<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 2007 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, 2007

Characteristic	All Industries <sup>1</sup> 2007	All Industries <sup>1</sup> 2006
<b>Total:</b>	40	56
<b>Employee status:</b>		
Wage and salary workers	33	46
Self-employed	7	10
<b>Gender:</b>		
Men	40	52
Women	--	4
<b>Age:</b>		
Under 16 years	--	--
16 to 17 years	--	--
18 to 19 years	--	--
20 to 24 years	3	7
25 to 34 years	10	10
35 to 44 years	8	14
45 to 54 years	12	9
55 to 64 years	6	13
65 years and over	--	--
<b>Race or ethnic origin<sup>2</sup>:</b>		
White, non-Hispanic	--	--
Black, non-Hispanic	--	--
Hispanic or Latino	40	55
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	3	11
Struck by object	3	4
Struck by falling object	--	--
Caught in or compressed by equipment or objects	--	4
Caught in running equipment or machinery	--	--
Falls	5	5
Fall to lower level	5	5
Fall from ladder	--	--
Fall from roof	--	--
Fall from scaffold, staging	--	--
Exposure to harmful substances or environments	7	6
Contact with electric current	5	5
Exposure to caustic, noxious, or allergenic substances	--	--
Oxygen deficiency (including drowning)	--	--
Transportation incidents	8	15
Highway incidents	--	9
Collision between vehicles, mobile equipment	--	--
Non-collision incidents	--	7
Non-highway incident, except rail, air, water	3	--
Overturned	--	--

Table 3: Fatal Occupational Injuries by Selected Industry, Puerto Rico, 2007

Characteristic	All Industries <sup>1</sup> 2007	All Industries <sup>1</sup> 2006
Worker struck by vehicle, mobile equipment	4	--
Aircraft incidents	--	--
Fires and explosions	--	--
Assaults and violent acts	17	19
Homicides	15	18
Self inflicted injuries	--	--
Other or not reported	--	--
<b>Nature<sup>3</sup></b>		
Intracranial Injuries	5	5
Other traumatic injuries	10	12
Internal injuries	--	--
Asphyxiations, suffocations	--	3
Drownings	--	--
Electrocutions	5	5
Poisonings, toxic effects	--	--
Open wounds	13	20
Gunshot wounds	13	15
Burns (heat, chemical, etc.)	--	--
Multiple traumatic injuries	12	19
Intracranial injuries and injuries to internal organs	--	12
<b>Part of body<sup>3</sup>:</b>		
Head	7	8
Trunk	--	4
Chest	--	--
Back	--	--
Neck	--	4
Lower extremities	--	--
Upper extremities	--	--
Body systems	6	10
Multiple	24	29
<b>Worker activity:</b>		
Vehicular and transportation operations	5	11
Using or operating tools, machinery	--	--
Constructing, repairing, cleaning	19	23
Protective service activities	5	5
Materials handling operations	--	--
Physical activities	--	--
Other activities	8	12
Tending a retail establishment	6	3
Not reported	--	--
<b>Location:</b>		
Private residence	10	9
Farm	--	--
Mine, quarry	--	--

Table 3: Fatal Occupational Injuries by Selected Industry, Puerto Rico, 2007

Characteristic	All Industries <sup>1</sup> 2007	All Industries <sup>1</sup> 2006
Industrial place and premises	11	12
Place for recreation or sports	-	-
Street and highway	6	19
Public building	9	8
Residential institutions	-	-
Other or not reported	-	5
<b>Primary source<sup>3,4</sup>:</b>		
Vehicles	6	17
Highway vehicles	6	15
Automobiles	--	--
Trucks	5	14
Plant and industrial powered vehicles, tractors	--	--
Forklifts	--	--
Tractors	--	--
Structures and surfaces	5	6
Floors, walkways, ground surfaces	4	5
Machinery	5	--
Agriculture and garden machinery	--	--
Construction, logging, and mining machinery	3	--
Material handling machinery	--	--
Parts and materials	7	9
Machine, tool, and electric parts	3	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	13	17
Bullets and pellets	13	15
Fire, flame, smoke	--	--
<b>Secondary source<sup>3,5</sup>:</b>		
Vehicles	6	--
Highway vehicles	5	--
Plant and industrial powered vehicles, tractors	--	--
Structures and surfaces	3	13
Floors, walkways, ground surfaces	--	12
Structures	--	--
Machinery	--	--
Parts and materials	--	--
Machine, tool, and electric parts	--	--
Persons, plants, animals, and minerals	15	18
Persons -other than injured worker	15	18
Robber	4	3

Table 3: Fatal Occupational Injuries by Selected Industry, Puerto Rico, 2007

Characteristic	All Industries <sup>1</sup> 2007	All Industries <sup>1</sup> 2006
Co-worker, former co-worker	--	--
Trees, logs	--	--
Chemical and chemical products	--	--
Tools, instruments, and equipment	--	--
Containers	--	--
Other	--	--
Liquids (including water)	--	--
No secondary source	22	12
<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	6
Food preparation and serving related occupations	3	3
Building and grounds cleaning and maintenance occupations	--	--
Personal care and service occupations	--	4
Sales and related occupations	3	6
Office and administrative support occupations	--	--
Farming, fishing, and forestry occupations	--	--
Construction and extraction occupations	13	12
Installation, maintenance, and repair occupations	6	7
Production occupations	--	--
Transportation and material moving occupations	7	11
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 transportation incidents, the primary source identifies the source identifies the vehicle in which the deceased was an occupant. For mostfalls, 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 2007 are preliminary.

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

## **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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