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Census of Fatal Occupational Injuries and Illnesses

Illinois, 2008

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FATAL OCCUPATIONAL INJURIES – 2008

Major Findings for the State of Illinois

- There were 193 injury-related occupational fatalities recorded in 2008 in the state of Illinois. This is a slight increase from the previous year's total of 182 deaths. The majority of these fatalities were wage and salaried workers (69.9 percent) and males (94.8 percent).
- The industries with the greatest percentage of injury-related fatalities in 2008 were construction (16.6); agriculture, forestry and fishing (15.5 percent); transportation and warehousing (11.4 percent); and manufacturing (9.8 percent).
- The occupations with the greatest percentage of injury-related fatalities were management occupations, which include farm owners and operators (21.8 percent); transportation and material moving occupations (21.8 percent); construction and extraction occupations (17.1 percent); and installation, maintenance and repair occupations (7.8 percent).
- For all industries, transportation incidents were the leading cause of death (32.1 percent), followed by assaults and violent acts (19.7), contact with objects and equipment (17.6 percent), falls (15.0 percent), and exposure to harmful substances and environments (11.9 percent).
- Assaults and violent acts were the leading cause of fatalities in the following industries: public administration (71.4 percent); accommodation and food service (60.0 percent); and retail trade (53.8 percent). Contact with objects and

equipment was the leading cause of fatalities for agriculture, forestry and fishing (43.3 percent); manufacturing (26.3 percent); and other services, except public administration (27.3 percent).

- Fifty-three of the state's 102 counties recorded at least one injury-related fatality in 2008. Forty-two of the counties recorded between one and three deaths, while eleven recorded four or more deaths. Cook County, the state's most populous county, tallied 60 fatalities, accounting for 31.1 percent of the state total.

INTRODUCTION

As a participating partner since 1993, the Illinois Department of Public Health, Division of Epidemiologic Studies, has been implementing the Census of Fatal Occupational Injuries (CFOI), partially supported by the U.S. Department of Labor, Bureau of Labor Statistics (BLS). The purpose of the Illinois CFOI is to monitor, with verification, all fatal work injuries by collecting information on the circumstances of each fatality and on the characteristics of each decedent. This report presents data collected by Illinois's CFOI for calendar year 2008.

METHODS

Fatal Occupational Injuries

Data were obtained from multiple source documents. These documents included coroner and medical examiner reports, death certificates, National Transportation

Safety Board reports, news media reports, Mine Safety and Health Administration reports, motor vehicle accident reports, Occupational Safety and Health Administration (OSHA) reports, police reports, workers' compensation reports, and any other source that may substantiate a case.

In 2008, Illinois used 642 source documents to substantiate the 193 injury-related occupational fatalities contained in the system (Table 1). Of the various types of documents, death certificates substantiated 100.0 percent of the cases followed by news media reports (86.0 percent), *OSHA 36* reports (43.0 percent), *OSHA 01* reports (43.0 percent), and *OSHA 170* reports (34.7 percent) (Table 1).

For verification purposes, CFOI requires at least two sources be used. These sources are matched using the decedent's name, place of employment, time and date of fatality, and any other identifiers that may help establish a case and prevent duplication. In a few cases, verification is performed using one document source and a follow-up questionnaire to an informant or employer. Fatalities identified from only one source document are reviewed by BLS, in consultation with the state, to determine if the information is sufficient to warrant entry into the census. If a fatality does not meet BLS requirements, it is considered out-of-scope and is not entered into the system.

The definition of an in-scope case differs for injury-related fatalities and illness-related fatalities. For injury-related fatalities, the incident must have occurred in Illinois, the death must have occurred during the calendar year 2008, and must be work-related according to CFOI criteria. For illness-related fatalities, the death must have occurred in Illinois, must have occurred in 2008 and either the illness causing the fatality must be

work-related according to CFOI criteria or the illness causing the fatality must have occurred while the decedent was at work.

To meet CFOI criteria, an event or exposure resulting in a fatality via injury or illness must have occurred on the employer's premises while the person was there to work, off the employer's premises while the person was working, or the event or exposure causing the fatality was related to the person's work or status as an employee. 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.

In the case of a decedent being stricken by a heart attack, the fatality is captured in the registry and classified as an illness. Because there are many factors that contribute to a heart attack, often making it difficult to establish a clear relationship, heart attacks are covered separately in this report.

RESULTS

Fatal Occupational Injuries

When documenting the issue of fatal occupational injuries, CFOI collects data on both the demographics of the decedent and the circumstances surrounding the incident. In 2008, there were 193 fatal occupational injuries, up slightly from the 2007 census (Figure 1). Of the total of injury-related fatalities in 2008, 135 (69.9 percent) of them occurred among wage and salaried workers and 183 (94.8 percent) occurred among men (Table 2). The majority of the fatalities occurred among those 45 to 54 years

of age (22.8 percent) followed closely by those 35 to 44 years of age (21.8 percent) (Table 2). With respect to race, the majority of fatalities occurred among whites, non-Hispanic (71.5 percent), followed by blacks, non-Hispanic (14.0 percent) (Table 2). With respect to ethnicity, 13.0 percent of those fatally injured were of Hispanic origin (Table 2).

The construction industry incurred the most injury-related fatalities with 32 (16.6 percent of the total); followed by agriculture, forestry and fishing (15.5 percent); transportation and warehousing (11.4 percent); and manufacturing (9.8 percent) (Table 3).

The occupations suffering the most injury-related fatalities were management occupations with 42 (21.8 percent of the total), transportation and material moving occupations, also with 42 (21.8 percent), followed by construction and extraction occupations with 33 (17.1 percent) and installation, maintenance, and repair occupations with 15 (7.8 percent). Also of note were protective service occupations with 12 fatalities (6.2 percent), and sales and related occupations with 11 (5.7 percent) (Table 4). Prior to 2003, farm owners were not classified as managers. This change in definition is the reason management occupations are recording more fatalities compared to previous years.

The event or exposure leading to the injury-related fatality is another important variable in describing work-related deaths. In 2008, the category of transportation incidents was the leading cause of all injury-related occupational fatalities with 62 (32.1 percent), followed by assaults and violent acts with 38 (19.7 percent), contact with

objects and equipment with 34 (17.6 percent), falls with 29 (15.0 percent), exposure to harmful substances and environments with 23 (11.9 percent) and finally, fires and explosions with 7 (3.6 percent) (Table 5).

When cross tabulating the event or exposure that caused the injury-related fatality with the industry sector in which the fatality occurred, certain industries are shown to be more susceptible to certain events. Within industry sectors, transportation incidents were the leading cause of death for transportation and warehousing (59.1 percent), and for wholesale trade (55.6 percent). Violent acts and assaults were the leading event for deaths in public administration (71.4 percent), accommodation and food services (60.0 percent) and retail trade (53.8 percent). Contact with objects and equipment was the leading cause for the agriculture, forestry and fishing (43.3 percent), and manufacturing (26.3 percent). Falls were the leading cause in the construction industry (34.4 percent). Other services except public administration had two events as the leading cause; contact with equipment and objects and falls with 27.3 percent each (Table 6).

Fatal Occupational Illnesses

Prior to 2008, CFOI collected information on illness-related occupational fatalities through a manual review of death certificates. Staff reviewed every death certificate from the Department's Division of Vital Records looking for specific combinations of cause of death or underlying cause of death and occupations or industries. When the cause of death and occupation or industry was consistent with known exposure to cancer-causing or other adverse health effect agents (as determined

through scientific publications), CFOI staff ascertained the death to be caused by the occupational exposure and included it in the census (e.g., a decedent with an occupation of coal miner and an industry of coal mine with a cause of death listed as coal workers pneumoconiosis would be included). These occupational illnesses were not substantiated by secondary source documents.

In 2008, the Division of Vital Records implemented an electronic death certificate registration system and phased out the use of paper death certificates. The electronic death registration system did not have the capability of extracting the occupation/industry/cause of death combinations. The Division of Epidemiologic Studies requested read-only access to the database to determine if it was feasible to ascertain fatal occupational illnesses by manual review of the electronic file or for a program that could be used to determine specific combinations of cause of death and occupation/industry. The Division of Vital Records was unable to grant either request but did provide limited access to the system for death certificate review when an occupational fatality had already been identified.

Because of the implementation of the electronic death registration system, CFOI staff was only able to collect information on heart attacks that occurred while the decedent was at work that were identified through source documents other than the death certificate (Table 8). No other illness-related occupational fatalities were collected.

TABLES and FIGURES

Table 1. Distribution of Injury Source Documents by Type, Illinois, 2008

Source Document	Number	Percentage of Total Documents	Percentage of Total Fatalities
Total	645		
Death certificate	196 ¹	30.4	100.0
News media report	166	25.7	86.0
<i>OSHA 36</i> ²	83	12.9	43.0
<i>OSHA 01</i> ³	83	12.9	43.0
<i>OSHA 170</i> ⁴	67	10.4	34.7
Other ⁵	38	6.0	19.7
Coroner's/M.E.'s report	5	>1.0	2.6
Transfer from other states	3	>1.0	1.6
NTSB report	3	>1.0	1.6
State workers' compensation	1	>1.0	>1.0

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

¹Includes death certificates for cases determined to be out of scope

²*OSHA 36* is a pre-inspection form used to record data pertaining to fatality/catastrophe that occurs in an establishment under OSHA's or a state OSHA's jurisdiction. It is completed at the time the event is initially reported to OSHA. Its purpose is to provide OSHA with enough information on the event to determine whether to investigate.

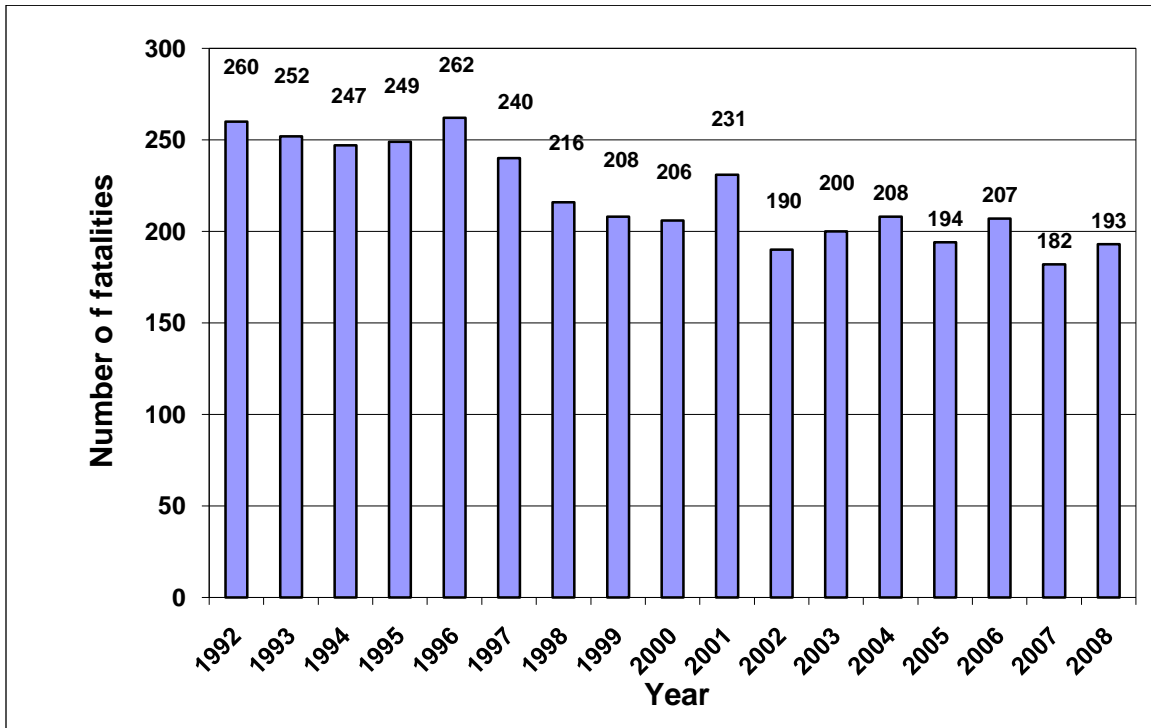
³*OSHA 01* is used to record data related to the inspection of a workplace. It also is used to record whether an anticipatory warrant/subpoena was served, denial of entry information, and information on cases that are terminated before becoming inspections.

⁴*OSHA 170* is used to record a summary of the results of investigations of all events involving fatalities, catastrophes, amputations, hospitalizations of two or more days, significant publicity, or property damage.

NOTE: Numbers and percentages may not add to totals due to exclusion of categories that do not meet publication criteria.

⁵Includes, but is not limited to motor vehicle accident reports, the Coroners' Case Fatality form, the Illinois Police and Fire Motorcycle Association Memorial Web page, the Mine Safety and Health Administration Fatal Investigation Report, and the Officer Down Memorial Page Inc.

Figure 1. Number of Fatal Occupational Injuries, Illinois, 1992-2008



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

Table 2. Distribution of Fatal Occupational Injuries by Selected Socio-Demographic Characteristics, Illinois, 2008

	Number	Percentage
Total	193	100.0
Employee Status		
Wage and salary workers	135	69.9
Self-employed ¹	58	30.1
Gender		
Male	183	94.8
Female	10	5.2
Age		
<20	0	0.0
20-24	13	6.7
25-34	34	17.6
35-44	42	21.8
45-54	44	22.8
55-64	28	14.5
65 years and older	30	15.5
Race		
White	138	71.5
Black	27	14.0
Hispanic Origin		
Hispanic ²	25	13.0
Non-Hispanic	168	87.0

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

¹Includes paid and unpaid family workers and may include owners of incorporated businesses or members of partnerships.

²Persons identified as Hispanic may be of any race.

NOTE: Numbers and percentages may not add to totals due to exclusion of categories that do not meet publication criteria. (Categories with less than three cases do not meet publication criteria.)

Table 3. Distribution of Fatal Occupational Injuries by Industry¹, Illinois, 2008

	Number	Percentage
Total	193	100.0
Construction	32	18.7
Specialty trade contractors	24	12.4
Construction of buildings	8	4.1
Agriculture, forestry, fishing and hunting	30	15.5
Crop production	25	13.0
Animal production	4	2.1
Transportation and warehousing	22	11.4
Truck transportation	13	6.7
Transit and ground passenger transportation	4	2.1
Rail transportation	3	1.6
Manufacturing	19	9.8
Primary metal manufacturing	5	2.6
Food manufacturing	4	2.1
Retail trade	13	6.7
Motor vehicle and parts dealers	3	1.6
Other services, except public administration	11	5.7
Repair and maintenance	9	4.7
Wholesale trade	9	4.7
Merchant wholesalers, durable goods	5	2.6
Merchant wholesalers, nondurable goods	3	1.6
Public administration	7	3.6
Administrative and support and waste management and remediation services	6	3.1
Arts, entertainment, and recreation	5	2.6
Accommodation and food services	5	2.6
Professional, scientific, and technical services	4	2.1

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

¹North American Industry Classification System, 2002 edition.

NOTE: Numbers and percentages may not add to totals due to exclusion of categories that do not meet publication criteria. (Categories with less than three cases do not meet publication criteria.)

Table 4. Distribution of Fatal Occupational Injuries by Occupation¹, Illinois, 2008

	Number	Percentage
Total	193	100.0
Management occupations	42	21.8
Agricultural managers	39	20.2
Miscellaneous managers	5	2.6
Construction managers	3	1.6
Property, real estate, and community association managers	3	1.6
Transportation and material moving occupations	42	21.8
Driver/sales workers and truck drivers	19	9.8
Laborers and material movers, hand	11	5.7
Taxi drivers and chauffeurs	4	2.1
Construction and extraction occupations	33	17.1
Construction laborers	10	5.2
Carpenters	4	2.1
Pipelayers, plumbers, pipefitters, and steamfitters	3	1.6
Installation, maintenance, and repair occupations	15	7.8
Bus and truck mechanics and diesel engine specialists	4	2.1
Industrial machinery installation, repair and maintenance workers	4	2.1
Protective service occupations	12	6.2
Police officers	4	2.1
Security guards and gaming surveillance officers	4	2.1
Sales and related occupations	11	5.7
First-line supervisors/managers, sales workers	3	3.1
Cashiers	3	3.1
Retail salespersons	3	1.6
Arts, design, entertainment, sports and media occupations	4	2.1
Building and ground cleaning and maintenance occupations	4	2.1
Office and administrative support occupations	4	2.1
Farming, fishing and forestry occupations	4	2.1
Production occupations	4	2.1
Business and financial operations occupations	3	1.6
Architecture and engineering occupations	3	1.6

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

¹Standard Occupational Classification Manual, 2000 edition.

NOTE: Numbers and percentages may not add to totals due to exclusion of categories that do not meet publication criteria. (Categories with less than three cases do not meet publication criteria.)

Table 5. Distribution of Fatal Occupational Injuries by Event or Exposure¹, Illinois, 2008

	Number	Percentage
Transportation incidents	62	32.1
Highway accidents	29	15.0
Non-highway accident, except rail, air and water	17	8.8
Pedestrian struck by vehicle, mobile equipment	11	5.7
Assaults and violent acts	38	19.7
Assaults and violent acts by persons	24	12.4
Self-inflicted injury	14	7.3
Contact with objects and equipment	34	17.6
Caught in or compressed by equipment or objects	14	7.3
Struck by object or equipment	13	6.7
Caught in or crushed by collapsing materials	7	3.6
Falls	29	15.0
Fall on same level	4	2.1
Fall to lower level	25	13.0
<i>Fall from ladder</i>	6	3.1
<i>Fall from roof</i>	7	3.6
<i>Fall from non-moving vehicle</i>	4	2.1
Exposure to harmful substances or environments	23	11.9
Exposure to caustic, noxious or allergenic substances	11	5.7
Contact with electric current	7	3.6
Oxygen deficiency	5	2.6
Fires and explosions	7	3.6
Fire, unintended or uncontrolled	5	2.6
TOTAL	193	100.0

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

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

NOTE: Numbers and percentages may not add to totals due to exclusion of categories that do not meet publication criteria. (Categories with less than three cases do not meet publication criteria.)

Industry	Event or Exposure												
	Total fatalities	Transportation		Violent acts and assaults		Contact with equipment		Falls		Exposure to harmful substances		Fires and explosions	
	Number	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Transportation and warehousing	22	13	59.1	--	--	4	18.1	--	--	3	13.6	--	--
Agriculture, forestry and fishing	30	11	36.7	--	--	13	43.3	4	13.3	--	--	--	--
Construction	32	6	18.8	--	--	4	12.5	11	34.4	9	28.1	--	--
Manufacturing	19	3	15.8	4	21.1	5	26.3	3	15.8	--	--	--	--
Retail trade	13	3	23.1	7	53.8	--	--	--	--	--	--	--	--
Other services, except public administration	11	--	--	--	--	3	27.3	3	27.3	--	--	--	--
Wholesale trade	9	5	55.6	--	--	--	--	--	--	--	--	--	--
Administrative and support and waste management and remediation services	6	--	--	--	--	--	--	--	--	--	--	--	--
Accommodation and food service	5	--	--	3	60.0	--	--	--	--	--	--	--	--
Public administration	7	--	--	5	71.4	--	--	--	--	--	--	--	--
Total	154	41	26.6	19	12.3	29	18.8	21	13.6	12	7.8	--	--

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

NOTE: Numbers and percentages may not add to totals due to exclusion of categories that do not meet publication criteria. (Categories with less than three cases do not meet publication criteria.)

Dashes indicate categories with less than three cases.

Table 7. Number of Fatal Occupational Injuries by County, Illinois, 2008

County	Number
Cook	60
DuPage	7
Effingham	3
Henry	3
Kane	5
Lake	9
LaSalle	5
Livingston	3
McHenry	3
Macon	4
Madison	6
Marion	3
Peoria	8
St. Clair	6
White	3
Will	12
Winnebago	7

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

NOTE: Counties recording two or fewer fatalities do not meet publication criteria.

Table 8. Number of Heart Attacks by Industry and Occupation, Illinois, 2008		
Industry	Number	Percentage
Transportation and public utilities	13	37.1
Government	11	31.4
Services	3	8.6
Manufacturing	3	8.6
Retail trade and wholesale trade	4	11.4
Total	35	97.5
Occupation		
Operators, fabricators and laborers	14	40.0
Services	10	28.6
Managerial and professional	5	14.3
Precision production, craft and repair	4	11.4
Total	35	94.3

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with the Illinois Department of Public Health.

NOTE: Numbers and percentages may not add to totals due to exclusion of categories that do not meet publication criteria. (Categories with less than three cases do not meet publication criteria).