

New York State

Census of Fatal Occupational Injuries

1992-2000

**New York State Department of Health
In Cooperation with the
U.S. Department of Labor
Bureau of Labor Statistics**

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EXECUTIVE SUMMARY

From 1992 to 2000, there were 1,282 work-related deaths reported in New York State (excluding New York City). More than 90% of these fatalities involved men. On average, the construction and agriculture industries had the highest numbers of fatalities. Transportation-related accidents were the most common cause of death among both males and females.

Trend analysis was conducted on data collected by the New York State Census of Fatal Occupational Injuries (CFOI) program from 1992 to 2000. Overall, decreases were seen in homicides as well as fatal injuries to those working in service and technical, sales, and administrative support occupations. Increases were seen in occupational fatalities caused by the victim being struck by a falling object and being involved in a collision between vehicles. An increase was also seen in deaths involving motorized highway vehicles, specifically trucks.

Data generated from the CFOI program, such as those presented in this report, will be used by health and safety professionals to develop strategies for prevention of both fatalities and serious injuries in the future and can be useful in the development of priorities for public health programs in the coming years.

INTRODUCTION

The Occupational Safety and Health Act of 1970 requires the Secretary of Labor to collect, compile and analyze occupational safety and health statistics. Since 1972, the U.S. Bureau of Labor Statistics (BLS), in cooperation with state agencies, has collected injury, illness and fatality statistics.

In 1991, BLS developed the "Census of Fatal Occupational Injuries" (CFOI) program to address the need for an accurate count of work-related fatalities. CFOI, initially implemented in 32 states in 1991, is a joint effort between federal and state governments. Currently, BLS has the commitment of all 50 states, New York City, Washington D.C., Puerto Rico and the Virgin Islands. New York State (excluding New York City) enrolled in the CFOI program in 1993 and collected data retrospectively for 1992.

CFOI PROGRAM

The goal of CFOI is to collect verifiable information on occupational fatalities in a comprehensive and timely manner. CFOI utilizes multiple sources to identify, verify and profile occupational fatalities. Sources of information include death certificates, Workers' Compensation forms, newspaper articles, coroner and medical examiner reports, and law enforcement agencies including local and State police and sheriff's offices. Multiple sources are used in order to provide as complete and accurate information concerning workplace fatalities as possible.

Another important feature of CFOI is the dissemination of the collected information, without personal identifiers, to federal, state and local officials who plan intervention programs, as well as safety and health researchers involved in promoting workplace safety.

Certain criteria must be met in order for a death to be included in CFOI. The fatality must be verified by at least of two independent sources. The decedent must have been employed at the time of the event, and engaged in a work activity or have been present at the site of the incident as a requirement of the job. This broad definition is intended to capture all work-related fatalities that occur while a person is engaged in work. Excluded from the analysis are deaths resulting from occupational illnesses such as mesothelioma and asbestosis.

A complete count of occupational injury deaths occurring in each state during the reference year is compiled for the CFOI program. The count covers all fatal injuries determined to be work-related based on the above criteria; other fatalities that occur at work, including heart attacks and strokes, are also included in the database for research purposes.

The data examined in this publication are fatalities that occurred as the result of traumatic injuries. A traumatic injury is defined as “any unintentional or intentional wound or damage to the body resulting from acute exposure to energy—such as heat or kinetic energy from a crash or a fall—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”.¹ Cases involving heart attacks or strokes are considered injuries if a traumatic work injury was listed as a contributory or underlying cause of death on the death certificate or other medical report.

Information gathered for each fatality includes:

- Employment characteristics — industry type and size, ownership and occupation of employee;
- Fatal incident and its circumstances — nature of injury, part of body affected, source of injury and equipment or machinery involved;
- Demographic characteristics — race, age and sex of the deceased.

Data must meet certain confidentiality requirements in order to be published. The current publication rule for CFOI is that one or both of the following conditions must be met to publish data:

- there are 5 fatalities in a given category; or
- there are 3 separate incidents in the category.

¹ U.S. Department of Labor, Bureau of Labor Statistics. Census of Fatal Occupational Injuries State Operating Manual. March 1996.

NEW YORK STATE WORKPLACE FATALITIES, 1992-2000²

There were 1,282 work-related deaths reported from 1992 to 2000 in New York State (excluding New York City).

Data generated from the CFOI program are useful in monitoring trends of work-related hazards and are used to identify high-risk industries and occupations. Data are also used to develop strategies for preventing both occupational fatalities and serious injuries from occurring in the future.

This report includes tables and charts outlining demographic and occupational characteristics and the circumstances surrounding injuries that led to deaths. New York City data are collected and analyzed separately by the New York City Department of Health and are not included in this report. Totals for major categories may include subcategories not shown separately, and percentages may not add to 100 because of rounding. Numerical data from 1992 to 2000 are presented in tabular format in Appendix A.

Data were analyzed using SAS v8.1. Trend analysis was performed using a t test for simple linear regression. Statistical significance was defined as a two-tailed p-value of <0.05.

It is important to note that the number of deaths reported for 1996 (n=126) excludes 46 work-related deaths that resulted from a commercial airline accident that year. Within this group were airline attendants and pilots (n=40). An additional six individuals were traveling for various business reasons. These 46 fatalities were excluded from data analysis as it was felt that if included, the data would be skewed and difficult to interpret. From a standpoint of public health, this event was not preventable and had the data on the victims of this single tragic event been included, preventable public health concerns may have been masked.

Figures 2, 7-9, 11-13, and 18 comparing national data to New York State data show three lines—one representing national data³, a second representing NYS data including the 1996 airline accident victims, and a third representing NYS excluding the 1996 airline accident victims. The 1996 airline accident victims are included in these figures only as a comparison to national data (which includes these individuals) but were not included in trend analysis.

² New York State data does not include New York City fatalities. New York City collects and analyzes data separately.

³ National data was obtained from the Bureau of Labor Statistics (<http://www.bls.gov>-- accessed 3/18/02)

HIGHLIGHTS

From 1992 through 2000:

- More than 90% of all occupational fatalities involved men.
- On average, approximately one-fourth of all occupational fatalities in New York State occur among the self-employed, including those working in family businesses. A large percentage of these fatalities involve the young and the elderly.
- On average, the construction and agriculture industries had the highest numbers of fatalities (268 or 20.9%, and 241 or 18.8%, respectively).
- The most common cause of death among males was transportation-related accidents (42.3% of deaths). Transportation-related accidents were also the leading cause of death among women (43.0% of deaths).
- For all deaths, (males and females):
 - There was a statistically significant decrease in occupational fatalities due to assaults and violent acts, specifically homicides. This was accompanied by a statistically significant decrease in deaths resulting from gunshot wounds.
 - There was a statistically significant increase in occupational fatalities caused by the victim being struck by a falling object.
 - There was a statistically significant increase in work-related deaths from collisions between vehicles.
 - There was a statistically significant increase in deaths involving motorized highway vehicles, specifically trucks.
 - There was a statistically significant decrease in occupational fatalities among those working in service occupations as well as among those working in technical, sales, and administrative support occupations. This is largely due to the decrease in workplace deaths as a result of homicide.
 - Nearly 84% of the cases reported to the CFOI program were injured and died within 24 hours.

RESULTS

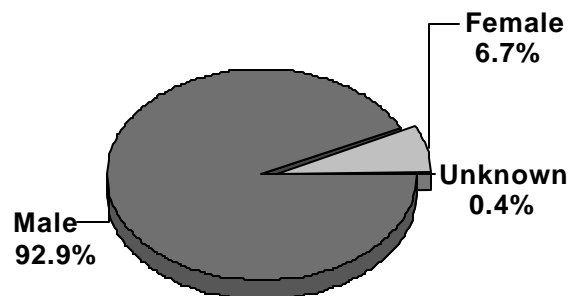
Employee Characteristics

Figures 1 through 5 display the sex, employee status, age and race of fatally injured workers in New York State, excluding New York City, for 1992 through 2000.

More than 90% of the occupational fatalities involved men (Figure 1). The most common cause of death in this group was transportation-related accidents, which accounted for 42.3% of deaths among males. Transportation-related accidents were also the leading cause of death among women (43.0%). Assaults and violent acts account for a large percentage of deaths to females (36.0%).

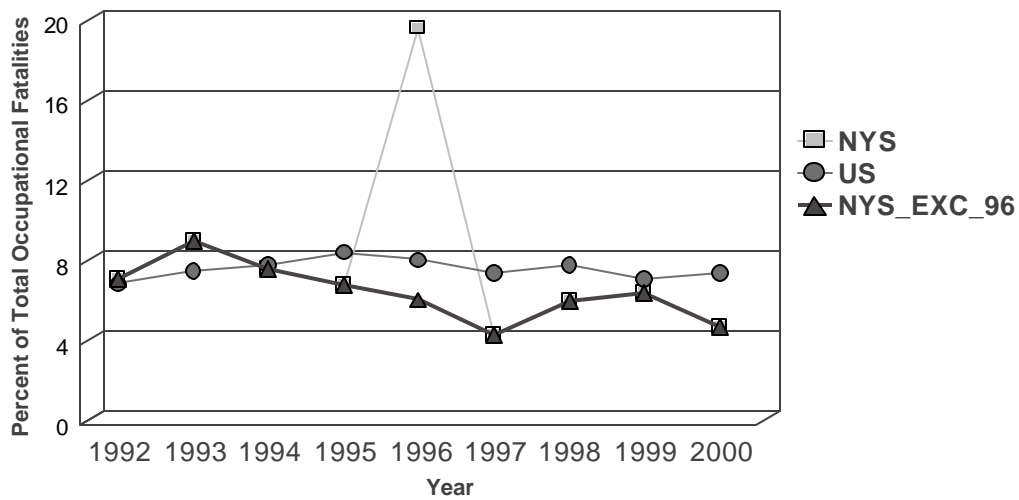
From 1992 to 2000, there was a statistically significant decrease in the percentage of deaths to females when the 1996 airline accident victims are excluded ($p=0.0224$) (Figure 2); this was largely due to a decrease in the number of homicides that have occurred over the nine-year period. When homicides are excluded from analysis, this trend is no longer evident.

**Figure 1: Percent Distribution of Fatal Occupational Injuries by Gender
NYS (excluding NYC), 1992-2000**



excludes 46 victims of a single airline accident

**Figure 2: Percent of Traumatic Occupational Fatalities to Females
NYS (excluding NYC) and US, 1992-2000**

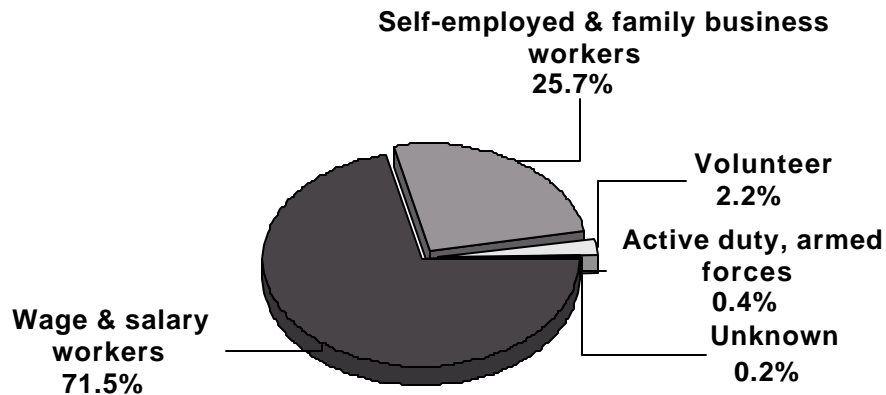


2000 US data are preliminary; NYS_EXC_96 excludes 1996 airline accident victims

A review of employee status data reveals that, while wage and salary workers represent the largest percentage of occupational fatalities, approximately one-quarter of fatally injured workers were self-employed or working in a family business (Figure 3).

Together, the young and the elderly comprise a substantial percentage of those who are self-employed or working in a family business. Thirty-one percent of those fatally injured while self-employed or working in a family business were workers younger than 18 (3.9%) or workers age 65 years or older (27.0%) (data not shown).

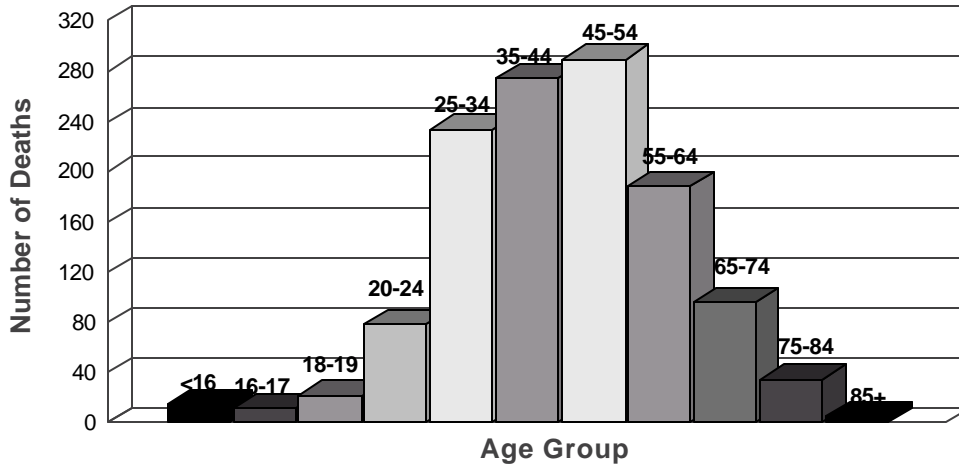
**Figure 3: Percent Distribution of Fatal Occupational Injuries by
Employee Status
NYS (excluding NYC), 1992-2000**



excludes 46 victims of a single airline accident

Figure 4 shows the number of occupational fatalities by age group for 1992-2000. The largest numbers of deaths occurred among those aged 35-54, however a large number of fatally injured workers were workers aged 55 years and over.

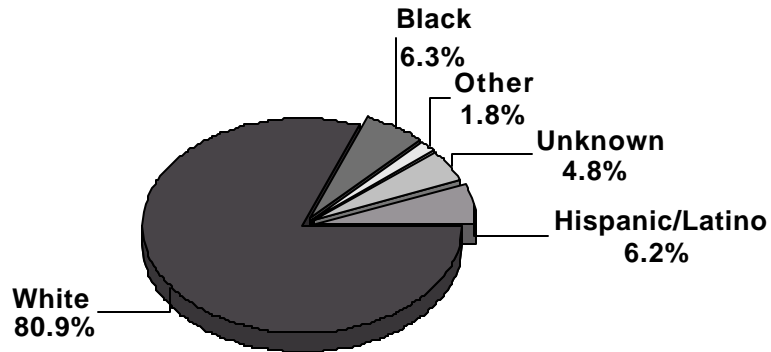
**Figure 4: Number of Fatal Occupational Injuries by Age Group
NYS (excluding NYC), 1992-2000**



excludes 46 victims of a single airline accident

The percent distribution of fatal occupational injuries by race⁴ is displayed in Figure 5. Approximately 81% of occupational fatalities are among Whites while Blacks account for 6.3% of work-related fatalities. Fatal injuries to Hispanic/Latino workers comprise 6.2% of total occupational fatalities.

**Figure 5: Percent Distribution of Fatal Occupational Injuries by Race
NYS (excluding NYC), 1992-2000**



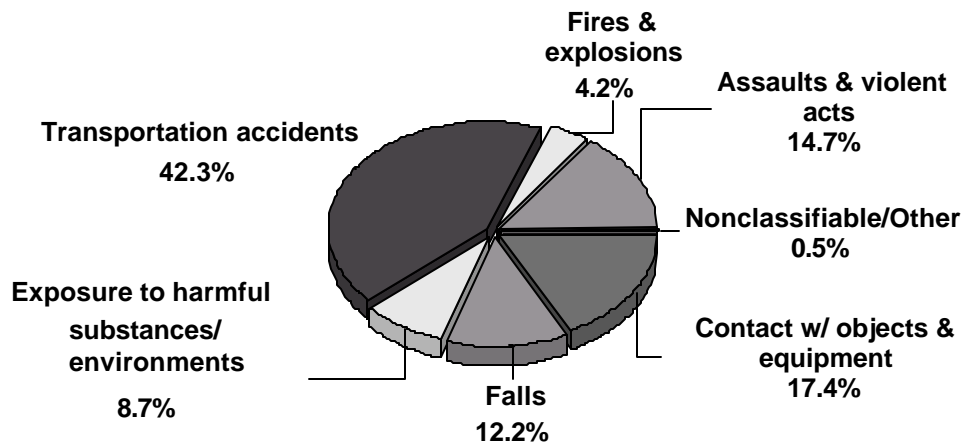
excludes 46 victims of a single airline accident

⁴ Racial/ethnic categories were reported using the 2001 BLS format. In this new format, BLS/CFDI includes each case only once in the race and ethnicity totals. All Hispanics are listed under "Hispanic or Latino" and are not counted in any of the other race categories. In previous years, a category entitled "Hispanic ethnicity" was used in addition to the race categories.

Event/Exposure

Transportation accidents accounted for the largest percentage of occupational fatalities from 1992 to 2000, with 42.3% of deaths occurring as a result of this event (Figure 6). Other major causes of death were contact with objects or equipment (17.4%), assaults and violent acts (14.7%), and falls (12.2%).

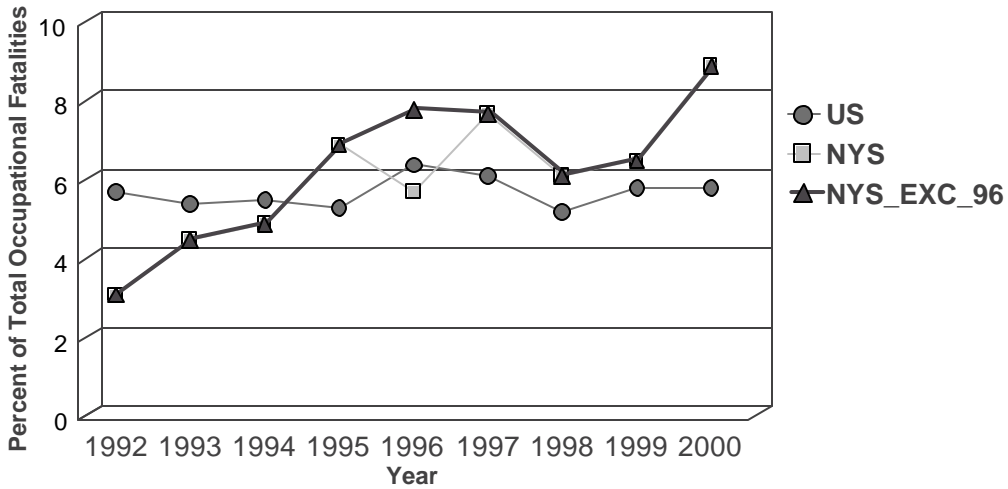
Figure 6: Percent Distribution of Fatal Occupational Injuries by Event/Exposure NYS (excluding NYC), 1992-2000



excludes 46 victims of a single airline accident; Other includes Bodily Reaction/Exertion

Trend analysis of 1992-2000 event/exposure data (excluding 1996 airline accident victims) reveals that there has been a statistically significant increase in deaths due to contact with objects and equipment largely due to an increase in fatal injuries resulting from victims being struck by a falling object ($p=0.0096$) (Figure 7). Forty-three percent of these incidents involved being struck by falling trees or logs.

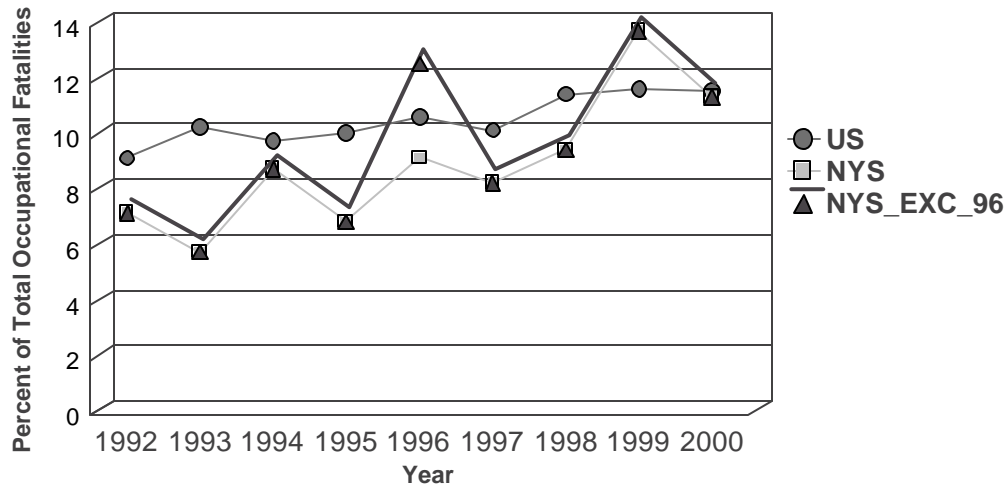
**Figure 7: Percent of Traumatic Occupational Fatalities From Being Struck by a Falling Object
NYS (excluding NYC) and US, 1992-2000**



2000 US data are preliminary; NYS_EXC_96 excludes 1996 airline accident victims

There was also a statistically significant increase in deaths due to collision between vehicles and mobile equipment (excluding 1996 airline accident victims) ($p=0.0250$) (Figure 8).

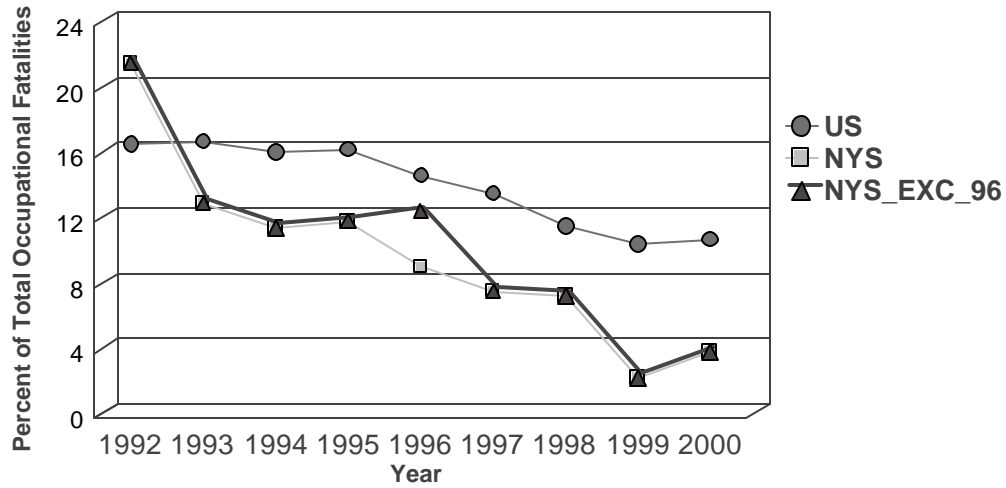
**Figure 8: Percent of Traumatic Occupational Fatalities From Collisions Between Vehicles
NYS (excluding NYC) and US, 1992-2000**



2000 US data are preliminary; NYS_EXC_96 excludes 1996 airline accident victims

From 1992 to 2000 (excluding 1996 airline accident victims), New York State experienced a statistically significant decrease in the percent of occupational fatalities due to assaults and violent acts largely due to the decline in homicides ($p=0.0005$) (Figure 9). This corresponds with the national decrease in work-related deaths due to homicide.

**Figure 9: Percent of Traumatic Occupational Fatalities From Homicide
NYS (excluding NYC) and US, 1992-2000**

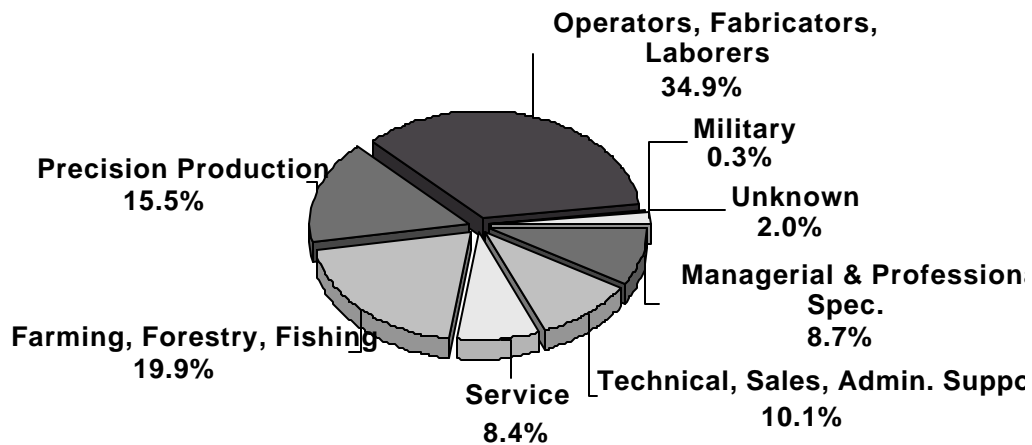


2000 US data are preliminary; NYS_EXC_96 excludes 1996 airline accident victims

Occupation

Figure 10 displays the occupational groups within which the fatal injury occurred. Operator, fabricator and laborer occupations, a group which includes machine operators, motor vehicle operators, and construction laborers, represent the largest percentage of total fatalities (34.9%), followed by those working in farming, forestry and fishing occupations (19.9%).

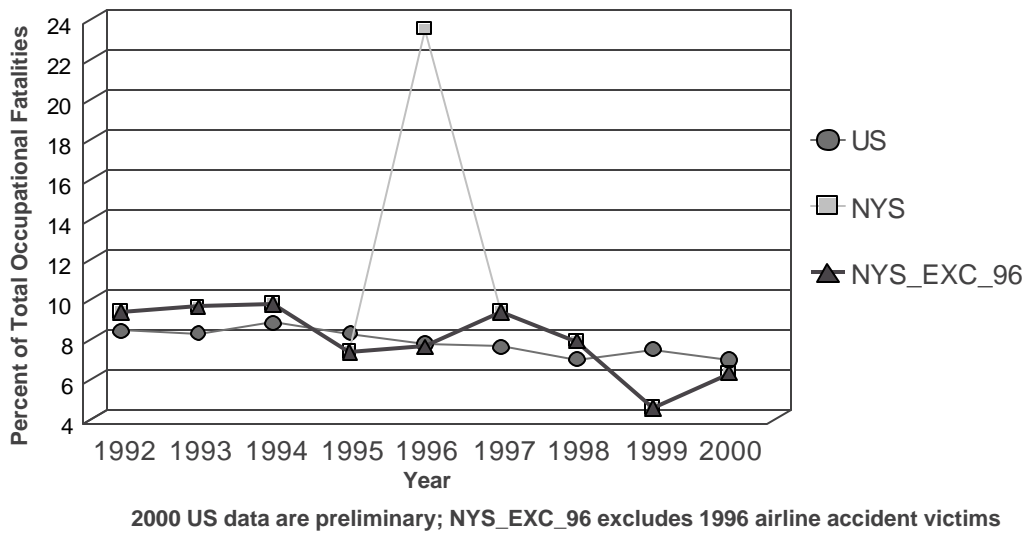
**Figure 10: Percent Distribution of Fatal Occupational Injuries by Occupation
NYS (excluding NYC), 1992-2000**



excludes 46 victims of a single airline accident

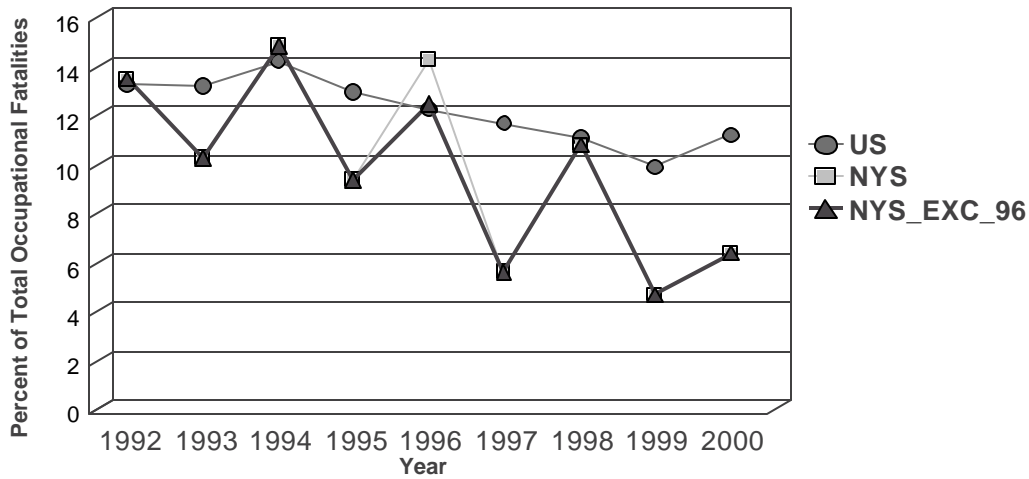
Trend analysis of work-related fatalities from 1992 to 2000 (excluding 1996 airline accident victims) reveals a statistically significant decrease in deaths to those employed in service occupations ($p=0.0192$) (Figure 11) as well as to those employed in technical, sales, and administrative support occupations ($p=0.0258$) (Figure 12).⁵ These decreasing trends are largely due to the decrease in workplace deaths as a result of homicide. When homicides are excluded from analysis, these trends are no longer evident.

**Figure 11: Percent of Traumatic Occupational Fatalities to Those Working in Service Occupations
NYS (excluding NYC) and US, 1992-2000**



⁵ The peak in 1996 represents the increased percentage of deaths to those working in these two occupation categories as a result of the airplane accident. The data on these airline-related fatalities were excluded from analysis.

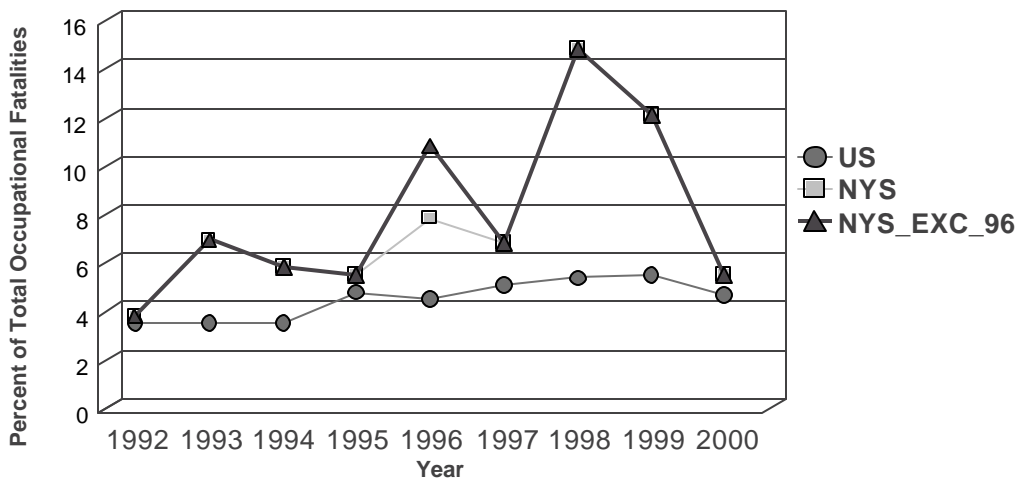
**Figure 12: Percent of Traumatic Occupational Fatalities to Those Working in Technical, Sales, Administrative Occupations
NYS (excluding NYC) and US, 1992-2000**



2000 US data are preliminary; NYS_EXC_96 excludes 1996 airline accident victims

It is important to note that from 1992 to 1999 only (excluding 1996 airline accident victims), there was a statistically significant increase in fatalities to those in operating, fabricating, and laboring occupations, specifically among construction laborers ($p=0.0168$) (Figure 13). A small increase in deaths to those in laboring occupations, excluding construction, was also noted during this time period.⁶ When 2000 data are added, these trends are no longer statistically significant.

**Figure 13: Percent of Traumatic Occupational Fatalities to Construction Laborers
NYS (excluding NYC) and US, 1992-2000**



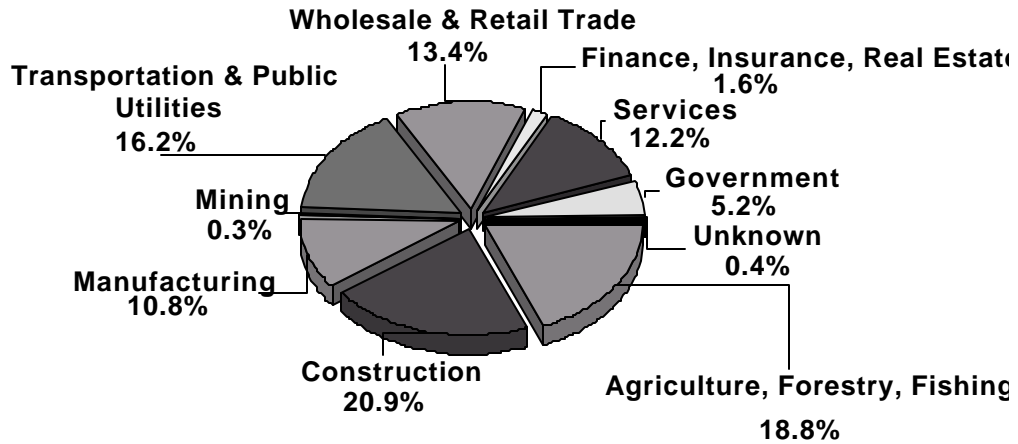
2000 US data are preliminary; NYS_EXC_96 excludes 1996 airline accident victims

⁶ Data do not meet publication criteria.

Industry

Figure 14 displays the percent of occupational fatalities by industry group. The largest number of fatalities occurred in the construction industry (20.9%) and the agriculture, forestry and fishing industry (18.8%).

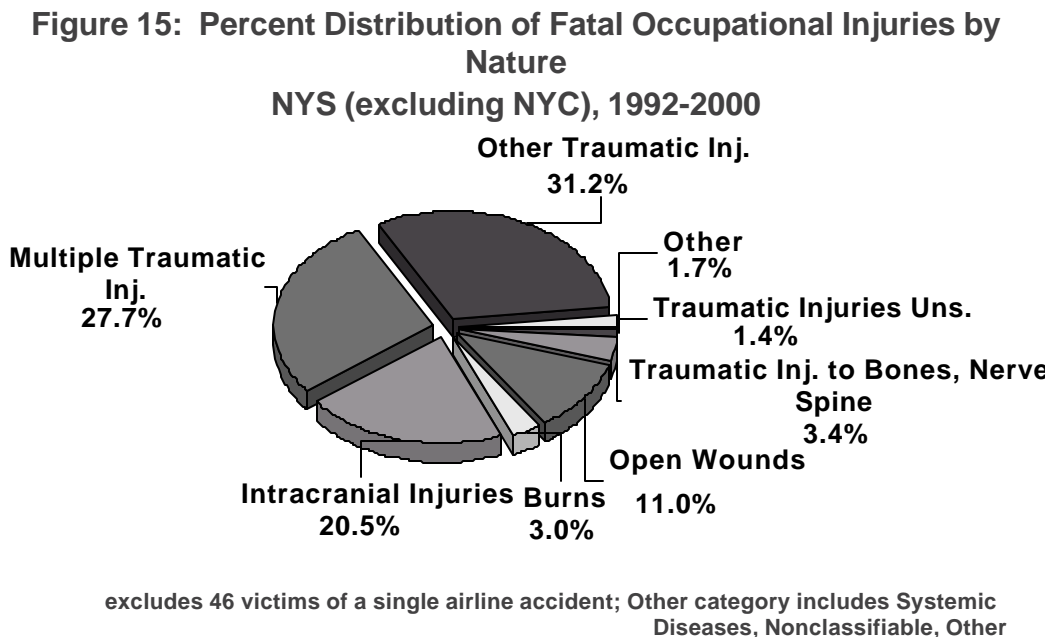
**Figure 14: Percent Distribution of Fatal Occupational Injuries by Industry
NYS (excluding NYC), 1992-2000**



excludes 46 victims of a single airline accident

Nature

In terms of the nature of the fatal occupational injury, the largest percentages of workers die as a result of multiple traumatic injuries and disorders and from other traumatic injuries and disorders (a category which includes asphyxiations, strangulations and suffocations; electrocutions and electric shocks; and internal injuries to organs and blood vessels of the trunk) (Figure 15).



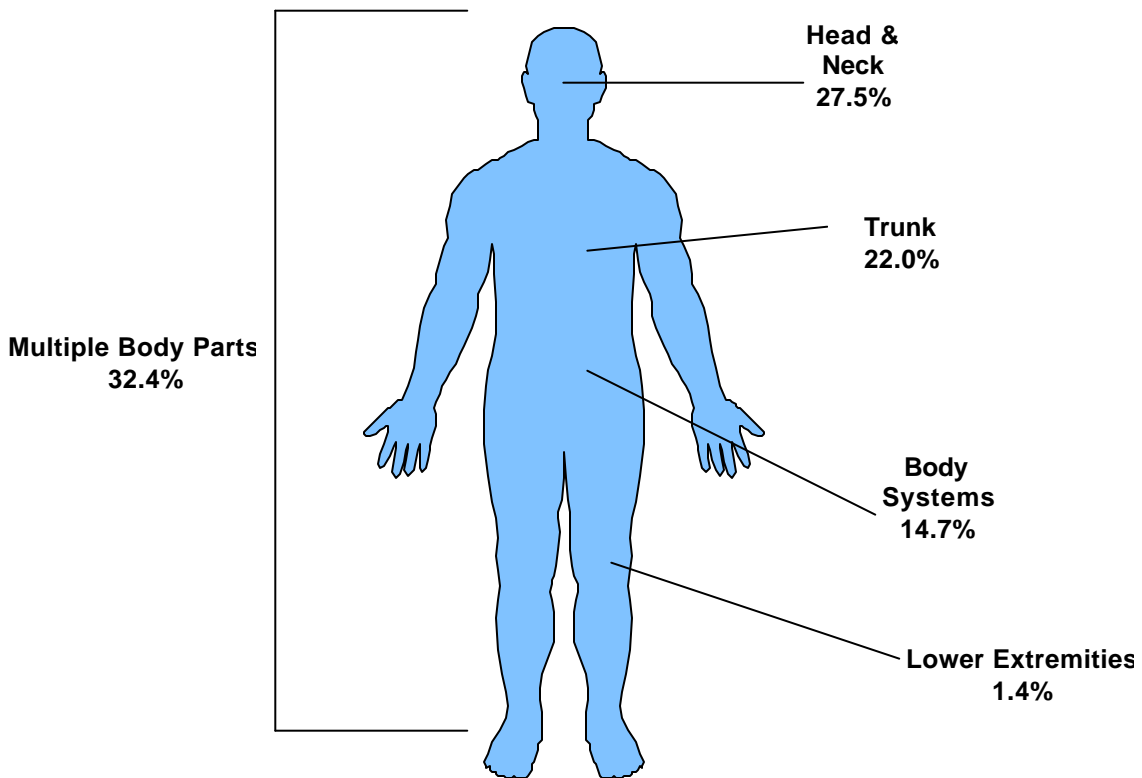
Trend analysis of 1992-2000 data (excluding 1996 airline accident victims) reveals a statistically significant decrease in deaths resulting from open wounds largely due to the decrease in deaths from gunshot wounds ($p=0.0036$). This coincides with the decrease seen in homicides as 71.6% of homicides involved gunshot wounds.

An increase in deaths resulting from intracranial injuries and injuries to internal organs is also evident however this increase is largely due to a change in coding from the more general "multiple traumatic injuries" to the more specific "intracranial injuries and injuries to internal organs".

Part of Body

Figure 16 presents data on the body part to which the fatal occupational injury occurred. The largest percentages of deaths result from injuries to multiple body parts and the head and neck area.

Figure 16: Percent Distribution of Fatal Occupational Injuries by Part of Body



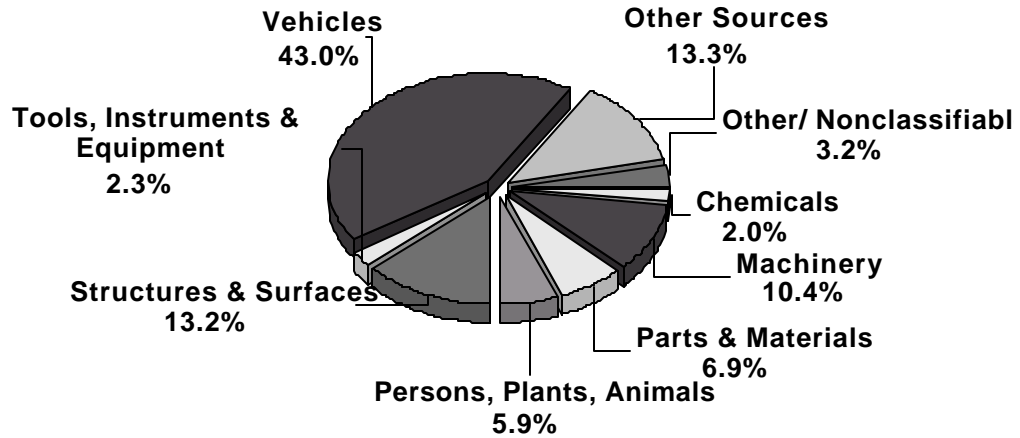
*Nonclassifiable 2.0%

Excludes 46 victims of a single airline accident

Source

Vehicles, including air, highway and industrial powered vehicles were the most frequently reported source of fatal occupational injuries in New York State from 1992 to 2000 (Figure 17).

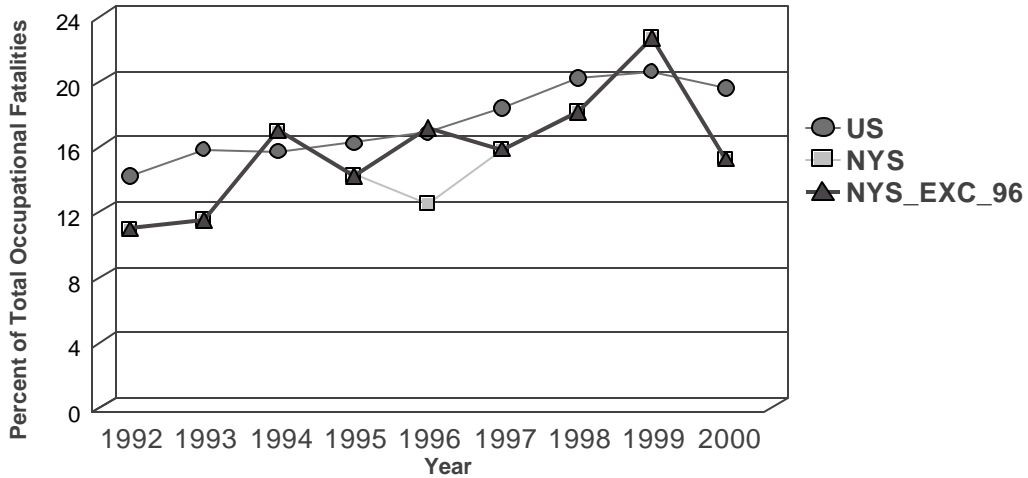
**Figure 17: Percent Distribution of Fatal Occupational Injuries by Source
NYS (excluding NYC), 1992-2000**



excludes 46 victims of a single airline accident; Other/ Nonclass. includes Furniture, Containers

Trend analysis of 1992-2000 data (excluding 1996 airline accident victims) reveals a statistically significant increase in deaths involving motorized highway vehicles, largely due to an increase in fatalities involving trucks ($p=0.0344$) (Figure 18). Nationally, from 1992 to 1998, both the number of fatalities and the fatality rates of truckdrivers followed an increasing trend.⁷

**Figure 18: Percent of Traumatic Occupational Fatalities Involving Trucks
NYS (excluding NYC) and US, 1992-2000**



2000 US data are preliminary; NYS_EXC_96 excludes 1996 airline accident victims

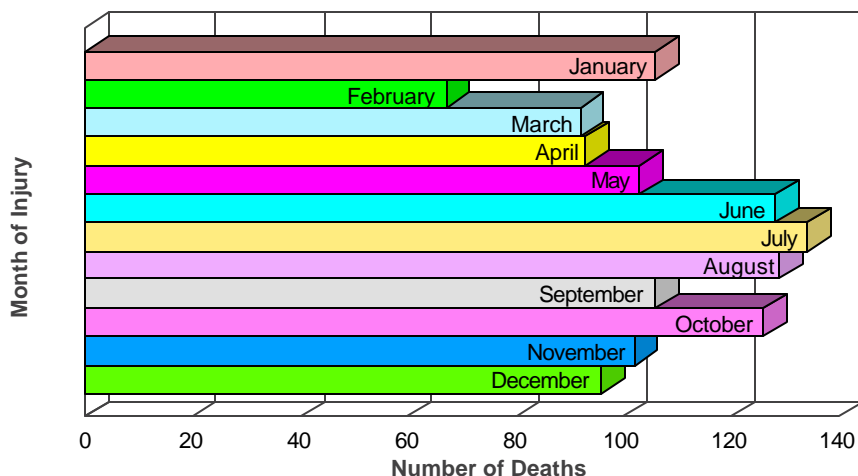
At the other end of the spectrum, there has been a decrease in fatalities involving ammunition.⁷ This coincides with the decrease in the number of work-related fatalities attributable to homicide (Figure 9).

⁷ U.S. Department of Labor, Bureau of Labor Statistics. *Fatal Workplace Injuries in 1998 and 1999: A Collection of Data and Analysis*. August 2001.

Month of Injury

The largest numbers of workers in New York State were fatally injured during the summer months of June through August and in October (Figure 19).

**Figure 19: Number of Fatal Occupational Injuries by Month
NYS (excluding NYC), 1992-2000**



excludes 46 victims of a single airline accident

The most common industries in which these summer and autumn fatalities occurred were the construction and agriculture, forestry and fishing industries; the most common occupations were operators, fabricators, and laborers and farming, forestry, and fishing. Approximately 36% of deaths in June through August were in operator, fabricator, and laborer occupations while 24% of deaths were in farming, forestry, and fishing occupations.

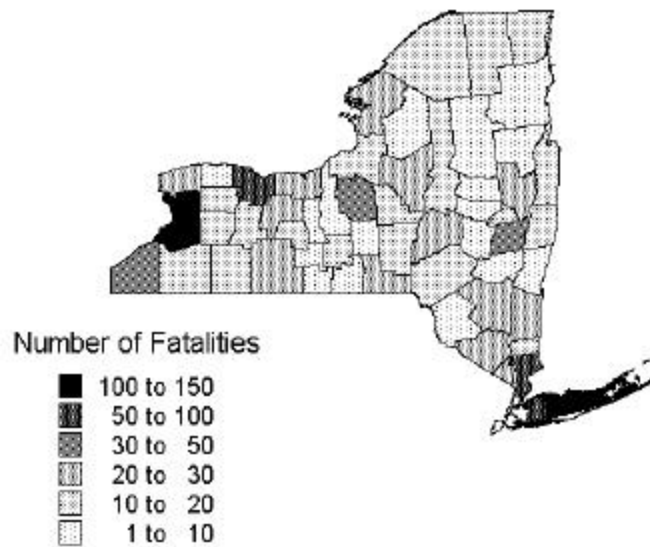
Latency Period

Nearly 84% of the cases reported to the CFOI program were injured and died within 24 hours—a fact that testifies to the severity of these workplace injuries.

County of Injury

The counties with the largest numbers of fatalities from 1992-2000 were Suffolk and Erie which each had greater than 100 fatalities over the nine year time period (Figure 20). Suffolk and Erie Counties have the first and third largest populations in New York State, respectively.⁸

Figure 20: Number of Fatal Occupational Injuries by County of Injury, 1992-2000



excludes 1996 airline accident victims

⁸ U.S. Census Bureau. QuickFacts. Census 2000. (<http://quickfacts.census.gov>)

DISCUSSION

Deaths from traumatic occupational injuries represent a significant public health concern. Occupational fatalities represent enormous emotional and financial costs to both families and society. Work-related deaths are, however, preventable. Data generated from the CFOI program, such as those presented here, will be used by health and safety professionals to develop strategies for prevention of both fatalities and serious injuries in the future. Information regarding cause of death, type of industry, and type of occupation can be useful in the development of priorities for public health programs in the coming years.

Recently, CFOI data were used to set “target conditions” for the Fatality Assessment and Control Evaluation (FACE) project. In cooperation with the National Institute for Occupational Safety and Health (NIOSH), New York State is studying traumatic work-related fatalities by collecting information on factors leading to fatal injuries. Recommendations for prevention of future fatalities are made and distributed to employers, workers, and other organizations interested in promoting workplace safety. New York State FACE project staff evaluate occupational fatalities involving the young (under 18) and the elderly (60 years of age or older) with special priority being given to any fatality involving machinery or within the agriculture industry. These “target conditions” are subject to change as other public health priorities become apparent.

In addition to the trend analyses described throughout this report, other occupations experienced increases in fatalities over the nine-year time period, however the numbers were too small to report due to confidentiality requirements. These occupations included deaths to electricians and deaths to those working in forestry and logging occupations.

Fatalities involving trees and logs as well as parts and materials were also found to increase from 1992 to 2000 but again represented a small number of the fatalities experienced in New York State.

Although these fatalities represent a small minority of deaths in New York State each year, they must be held in consideration when developing intervention programs to address workplace deaths in the future.

APPENDIX A

Table 1: Number and Percent of Fatal Occupation Injuries by Selected Characteristics, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Worker Characteristics	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Employee Status																		
Wage & salary workers	102	82.3	108	71.1	126	70.4	106	67.5	95	75.4	107	69.5	95	65.1	91	74.6	86	70.5
Self-employed ³	21	16.9	42	27.6	47	26.3	47	29.9	27	21.4	39	25.3	47	32.2	26	21.3	34	27.9
Volunteer	0	0	--	-- ⁴	5	2.8	3	1.9	3	2.4	8	5.2	4	2.7	--	-- ⁴	--	-- ⁴
Sex																		
Male	115	92.7	138	90.8	164	91.6	145	92.4	115	91.3	147	95.5	137	93.8	114	93.4	116	95.1
Female	9	7.3	14	9.2	14	7.8	11	7.0	8	6.3	7	4.5	9	6.2	8	6.6	6	4.9
Age																		
<20	4	3.2	3	2.0	9	5.0	4	2.5	4	3.2	3	1.9	8	5.5	7	5.7	6	4.9
20-24	10	8.1	10	6.6	14	7.8	5	3.2	11	8.7	12	7.8	5	3.4	--	-- ⁴	9	7.4
25-34	28	22.6	30	19.7	35	19.6	30	19.1	19	15.1	26	16.9	30	20.5	17	13.9	19	15.6
35-44	34	27.4	32	21.1	38	21.2	42	26.8	23	18.3	27	17.5	23	15.8	25	20.5	30	24.6
45-54	28	22.6	27	17.8	38	21.2	34	21.7	33	26.2	38	24.7	29	19.9	33	27.0	29	23.8
55-64	13	10.5	22	14.5	26	14.5	24	15.3	17	13.5	22	14.3	26	17.8	20	16.4	19	15.6
65-74	6	4.8	20	13.2	10	5.6	10	6.4	8	6.3	11	7.1	15	10.3	10	8.2	6	4.9
75-84	--	-- ⁴	4	2.6	3	1.7	5	3.2	--	-- ⁴	6	3.9	4	2.7	6	4.9	4	3.3
Unknown	0	0	3	2.0	6	3.4	--	-- ⁴	9	7.1	9	5.8	4	2.7	--	-- ⁴	0	0
Race ⁵																		
White	100	80.6	129	84.9	146	81.6	125	79.6	99	78.6	123	79.9	116	79.5	103	84.4	96	78.7
Black	7	5.6	8	5.3	10	5.6	14	8.9	7	5.6	14	9.1	7	4.8	10	8.2	4	3.3
Hispanic/Latino	11	8.9	5	3.3	5	2.8	10	6.4	8	6.3	6	3.9	10	6.8	8	6.6	16	13.1
Other ⁶	4	3.2	--	-- ⁴	3	1.7	--	-- ⁴	--	-- ⁴	--	-- ⁴	6	4.1	0	0	3	2.5
Unknown	--	-- ⁴	7	4.6	15	8.4	7	4.5	11	8.7	9	5.8	7	4.8	--	-- ⁴	3	2.5

¹ Not all categories are presented and percentages may not add to 100 due to rounding.

² Excludes 46 victims of a single airline accident.

³ Includes paid and unpaid family workers, and may include owners of incorporated businesses or member of partnerships.

⁴ Data do not meet publication criteria.

⁵ Racial/ethnic categories were reported using the 2001 BLS format. In this new format, BLS/CFOI includes each case only once in the race and ethnicity totals. All Hispanics are listed under "Hispanic/Latino" and are not counted in any of the other race categories. In previous years, a category entitled "Hispanic ethnicity" was used in addition to the race categories.

⁶ Includes American Indian/Alaskan Native, Asian, Native Hawaiian/Pacific Islander and Other races.

Table 2: Number and Percent of Fatal Occupational Injuries by Event/Exposure, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Event/Exposure	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Contact with Objects/ Equip.	15	12.1	22	14.5	26	14.5	27	17.2	23	18.3	33	21.4	26	17.8	21	17.2	30	24.6
Struck by object	7	5.6	9	5.9	14	7.8	18	11.5	14	11.1	17	11.0	12	8.2	12	9.8	18	14.8
<i>by falling object</i>	4	3.2	7	4.6	9	5.0	11	7.0	10	7.9	12	7.8	9	6.2	8	6.6	11	9.0
Caught in equip./ objects	7	5.6	10	6.6	10	5.6	8	5.1	4	3.2	13	8.4	9	6.2	6	4.9	8	6.6
<i>in running equip.</i>	5	4.0	3	2.0	7	3.9	7	4.5	3	2.4	10	6.5	6	4.1	5	4.1	7	5.7
Caught in collapsing material	--	-- ⁴	--	-- ⁴	--	-- ⁴	--	-- ⁴	5	4.0	--	-- ⁴	5	3.4	3	2.5	4	3.3
Falls	19	15.3	17	11.2	16	8.9	16	10.2	17	13.5	11	7.1	21	14.4	17	13.9	23	18.9
Fall to lower level	18	14.5	15	9.9	12	6.7	15	9.6	14	11.1	10	6.5	18	12.3	14	11.5	20	16.4
<i>from roof</i>	6	4.8	--	-- ⁴	--	-- ⁴	5	3.2	5	4.0	3	1.9	4	2.7	4	3.3	7	5.7
<i>from scaffold, staging</i>	3	2.4	3	2.0	3	1.7	-- ⁴	-- ⁴	--	-- ⁴	--	-- ⁴	6	4.1	--	-- ⁴	0	0
Fall on same level	--	-- ⁴	--	-- ⁴	4	2.2	--	-- ⁴	3	2.4	--	-- ⁴	3	2.1	--	-- ⁴	--	-- ⁴
Exposure to Substances/Envir.	9	7.3	16	10.5	16	8.9	17	10.8	6	4.8	11	7.1	13	8.9	16	13.1	7	5.7
Contact with electric current	5	4.0	6	3.9	11	6.1	12	7.6	4	3.2	6	3.9	8	5.5	8	6.6	6	4.9
Oxygen deficiency	3	2.4	5	3.3	--	-- ⁴	--	-- ⁴	0	0	3	1.9	4	2.7	3	2.5	0	0
Transportation Accidents	45	36.3	59	38.8	89	49.7	62	39.5	47	37.3	66	42.9	66	45.2	58	47.5	50	41.0
Highway accident	22	17.7	27	17.8	40	22.3	24	15.3	26	20.6	30	19.5	28	19.2	38	31.1	25	20.5
<i>collision between vehicles</i>	9	7.3	9	5.9	16	8.9	11	7.0	16	12.7	13	8.4	14	9.6	17	13.9	14	11.5
<i>noncollision accident</i>	8	6.5	7	4.6	13	7.3	8	5.1	3	2.4	10	6.5	10	6.8	9	7.4	7	5.7
Nonhighway accident	11	8.9	12	7.9	22	12.3	20	12.7	10	7.9	18	11.7	17	11.6	6	4.9	13	10.7
<i>overturned</i>	7	5.6	8	5.3	12	6.7	12	7.6	4	3.2	11	7.1	10	6.8	3	2.5	10	8.2
Worker struck by vehicle	6	4.8	9	5.9	20	11.2	12	7.6	10	7.9	14	9.1	18	12.3	9	7.4	8	6.6
<i>struck in roadway</i>	3	2.4	4	2.6	6	3.4	--	-- ⁴	--	-- ⁴	4	2.6	9	6.2	7	5.7	--	-- ⁴
<i>struck in nonroadway</i>	3	2.4	3	2.0	8	4.5	4	2.5	7	5.6	9	5.8	7	4.8	--	-- ⁴	5	4.1
Aircraft accident	--	-- ⁴	8	5.3	5	2.8	6	3.8	0	0	--	-- ⁴	--	-- ⁴	--	-- ⁴	--	-- ⁴
Fires and Explosions	--	-- ⁴	9	5.9	5	2.8	8	5.1	7	5.6	14	9.1	5	3.4	--	-- ⁴	--	-- ⁴
Assaults and Violent Acts	33	26.6	28	18.4	27	15.1	25	15.9	26	20.6	16	10.4	15	10.3	8	6.6	10	8.2
Homicides	27	21.8	20	13.2	21	11.7	19	12.1	16	12.7	12	7.8	11	7.5	3	2.5	5	4.1
Self-inflicted injury	4	3.2	8	5.3	6	3.4	5	3.2	6	4.8	4	2.6	--	-- ⁴	5	4.1	4	3.3

Table 3: Number and Percent of Fatal Occupational Injuries by Occupation, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Occupation	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Managerial & Professional	14	11.3	12	7.9	16	8.9	18	11.5	8	6.3	16	10.4	8	5.5	9	7.4	11	9.0
Exec., admin. & managerial	4	3.2	6	3.9	9	5.0	12	7.6	5	4.0	11	7.1	5	3.4	--	-- ⁴	4	3.3
Professional specialty	10	8.1	6	3.9	7	3.9	6	3.8	3	2.4	5	3.2	3	2.1	7	5.7	7	5.7
Tech., Sales, Admin. Support	17	13.7	16	10.5	27	15.1	15	9.6	16	12.7	9	5.8	16	11.0	6	4.9	8	6.6
Technical & related support	--	-- ⁴	4	2.6	7	3.9	5	3.2	--	-- ⁴	--	-- ⁴	3	2.1	--	-- ⁴	--	-- ⁴
Sales	9	7.3	11	7.2	16	8.9	9	5.7	13	10.3	6	3.9	9	6.2	4	3.3	6	4.9
Administrative support	6	4.8	--	-- ⁴	4	2.2	--	-- ⁴	--	-- ⁴	0	0	4	2.7	--	-- ⁴	--	-- ⁴
Service Occupations	12	9.7	15	9.9	18	10.1	12	7.6	10	7.9	15	9.7	12	8.2	6	4.9	8	6.6
Protective service	7	5.6	8	5.3	9	5.0	8	5.1	6	4.8	11	7.1	7	4.8	3	2.5	4	3.3
Other service occupations	4	3.2	7	4.6	9	5.0	4	2.5	4	3.2	4	2.6	5	3.4	3	2.5	4	3.3
Farming, Forestry & Fishing	19	15.3	32	21.1	35	19.6	27	17.2	21	16.7	33	21.4	38	26.0	22	18.0	28	23.0
Farm operators/ managers	7	5.6	14	9.2	17	9.5	11	7.0	12	9.5	20	13.0	19	13.0	9	7.4	14	11.5
Other agricultural	10	8.1	16	10.5	16	8.9	10	6.4	6	4.8	7	4.5	11	7.5	11	9.0	7	5.7
<i>Farm occup., excl. manager</i>	7	5.6	15	9.9	10	5.6	4	2.5	5	4.0	7	4.5	8	5.5	9	7.4	6	4.9
Forestry & logging	--	-- ⁴	--	-- ⁴	--	-- ⁴	6	3.8	3	2.4	4	2.6	7	4.8	--	-- ⁴	6	4.9
Precision Prod., Craft, Repair	24	19.4	29	19.1	24	13.4	23	14.6	17	13.5	18	11.7	11	7.5	21	17.2	32	26.2
Mechanics & repairers	7	5.6	8	5.3	8	4.5	10	6.4	4	3.2	8	5.2	--	-- ⁴	7	5.7	12	9.8
Construction trades	13	10.5	16	10.5	13	7.3	12	7.6	11	8.7	10	6.5	8	5.5	12	9.8	16	13.1
Precision production	4	3.2	4	2.6	3	1.7	--	-- ⁴	--	-- ⁴	0	0	--	-- ⁴	--	-- ⁴	4	3.3
Operators, Fabricators, Labor.	38	30.6	45	29.6	52	29.1	58	36.9	49	38.9	54	35.1	60	41.1	57	46.7	35	28.7
Machine operators, assemb.	6	4.8	4	2.6	8	4.5	7	4.5	6	4.8	8	5.2	5	3.4	4	3.3	3	2.5
Transport. & material moving	19	15.3	24	15.8	27	15.1	28	17.8	21	16.7	25	16.2	19	13.0	28	23.0	18	14.8
Handlers, equip. cleaners	13	10.5	17	11.2	17	9.5	23	14.6	22	17.5	21	13.6	36	24.7	25	20.5	14	11.5
<i>Construction laborers</i>	5	4.0	11	7.2	11	6.1	9	5.7	14	11.1	11	7.1	22	15.1	15	12.3	7	5.7
Unknown	0	0	--	-- ⁴	6	3.4	3	1.9	5	4.0	9	5.8	--	-- ⁴	0	0	0	0

Table 4: Number and Percent of Fatal Occupational Injuries by Industry, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Industry	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Agriculture, Forestry, Fishing	20	16.1	31	20.4	33	18.4	22	14.0	23	18.3	31	20.1	34	23.3	21	17.2	26	21.3
Ag. production- crops	11	8.9	3	2.0	4	2.2	--	-- ⁴	5	4.0	4	2.6	15	10.3	4	3.3	8	6.6
Ag. production- livestock	4	3.2	26	17.1	22	12.3	15	9.6	11	8.7	21	13.6	12	8.2	12	9.8	12	9.8
Agricultural services	3	2.4	--	-- ⁴	6	3.4	5	3.2	5	4.0	3	1.9	6	4.1	5	4.1	4	3.3
Construction	28	22.6	28	18.4	30	16.8	33	21.0	29	23.0	23	14.9	40	27.4	32	26.2	25	20.5
General bldg. contractors	7	5.6	6	3.9	6	3.4	5	3.2	4	3.2	5	3.2	4	2.7	10	8.2	5	4.1
Heavy construction	10	8.1	9	5.9	6	3.4	12	7.6	15	11.9	8	5.2	16	11.0	9	7.4	--	-- ⁴
Special trade contractors	11	8.9	13	8.6	18	10.1	16	10.2	10	7.9	10	6.5	20	13.7	13	10.7	18	14.8
Manufacturing	10	8.1	14	9.2	15	8.4	30	19.1	14	11.1	21	13.6	9	6.2	10	8.2	16	13.1
Lumber & wood products	--	-- ⁴	--	-- ⁴	--	-- ⁴	8	5.1	--	-- ⁴	6	3.9	4	2.7	--	-- ⁴	5	4.1
Transportation/Public Utilities	15	12.1	20	13.2	34	19.0	27	17.2	19	15.1	23	14.9	21	14.4	32	26.2	17	13.9
Trucking & warehousing	5	4.0	6	3.9	17	9.5	13	8.3	8	6.3	12	7.8	7	4.8	12	9.8	10	8.2
Electric, gas, sanitary service	--	-- ⁴	4	2.6	6	3.4	5	3.2	3	2.4	3	1.9	6	4.1	6	4.9	3	2.5
Wholesale & Retail Trade	23	18.5	23	15.1	27	15.1	13	8.3	22	17.5	24	15.6	12	8.2	13	10.7	15	12.3
Wholesale trade	6	4.8	4	2.6	5	2.8	--	-- ⁴	8	6.3	3	1.9	0	0	4	3.3	6	4.9
Food stores	6	4.8	--	-- ⁴	5	2.8	6	3.8	3	2.4	6	3.9	4	2.7	3	2.5	--	-- ⁴
Auto dealers/ service stations	--	-- ⁴	8	5.3	4	2.2	--	-- ⁴	4	3.2	5	3.2	3	2.1	--	-- ⁴	3	2.5
Eating & drinking places	5	4.0	4	2.6	7	3.9	--	-- ⁴	4	3.2	5	3.2	--	-- ⁴	3	2.5	--	-- ⁴
Finance, Insur., Real Estate	--	-- ⁴	--	-- ⁴	5	2.8	3	1.9	0	0	--	-- ⁴	4	2.7	--	-- ⁴	--	-- ⁴
Services	20	16.1	22	14.5	21	11.7	18	11.5	14	11.1	20	13.0	19	13.0	6	4.9	17	13.9
Government	6	4.8	11	7.2	10	5.6	8	5.1	5	4.0	10	6.5	6	4.1	7	5.7	4	3.3

Table 5: Number and Percent of Fatal Occupational Injuries by Nature, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Nature	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Traumatic Injuries, Uns.	0	0	--	-- ⁴	10	5.6	--	-- ⁴	5	4.0	0	0	0	0	0	0	0	0
Trauma Bones, Nerves, Spine	6	4.8	5	3.3	7	3.9	7	4.5	5	4.0	4	2.6	3	2.1	5	4.1	--	-- ⁴
Fractures	--	-- ⁴	--	-- ⁴	4	2.2	--	-- ⁴	--	-- ⁴	0	0	--	-- ⁴	3	2.5	0	0
Open Wounds	23	18.5	17	11.2	21	11.7	25	15.9	19	15.1	12	7.8	11	7.5	6	4.9	7	5.7
Gunshot wounds	22	17.7	13	8.6	19	10.6	19	12.1	16	12.7	8	5.2	8	5.5	4	3.3	3	2.5
Burns	--	-- ⁴	5	3.3	3	1.7	5	3.2	--	-- ⁴	6	3.9	6	4.1	7	5.7	3	2.5
Intracranial Injuries	20	16.1	30	19.7	26	14.5	37	23.6	34	27.0	36	23.4	33	22.6	25	20.5	22	18.0
Multiple Traumatic Injuries	36	29.0	37	24.3	51	28.5	30	19.1	32	25.4	36	23.4	43	29.5	38	31.1	52	42.6
Intracranial & intern. organs	8	6.5	--	-- ⁴	13	7.3	3	1.9	--	-- ⁴	--	-- ⁴	10	6.8	20	16.4	50	41.0
Other Traumatic Injuries	34	27.4	54	35.5	57	31.8	46	29.3	29	23.0	56	36.4	49	33.6	40	32.8	35	28.7
Asphyxiations, strangulations	5	4.0	8	5.3	12	6.7	4	2.5	3	2.4	11	7.1	10	6.8	9	7.4	5	4.1
Electrocutions, elec. shocks	5	4.0	6	3.9	11	6.1	12	7.6	4	3.2	6	3.9	7	4.8	6	4.9	6	4.9
Internal organs, blood vessels	19	15.3	24	15.8	32	17.9	24	15.3	17	13.5	30	19.5	27	18.5	21	17.2	19	15.6

Table 6: Number and Percent of Fatal Occupational Injuries by Body Part, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Part of Body	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Head and Neck	37	29.8	40	26.3	40	22.3	55	35.0	42	33.3	42	27.3	38	26.0	30	24.6	28	23.0
Cranial region	20	16.1	34	22.4	28	15.6	45	28.7	39	31.0	36	23.4	33	22.6	25	20.5	22	18.0
Neck, including throat	4	3.2	4	2.6	4	2.2	5	3.2	--	-- ⁴	3	1.9	3	2.1	--	-- ⁴	--	-- ⁴
Trunk	29	23.4	32	21.1	44	24.6	35	22.3	27	21.4	37	24.0	33	22.6	23	18.9	22	18.0
Chest	16	12.9	20	13.2	23	12.8	8	5.1	5	4.0	3	1.9	9	6.2	--	-- ⁴	13	10.7
Multiple trunk locations	6	4.8	7	4.6	18	10.1	23	14.6	18	14.3	32	20.8	24	16.4	21	17.2	4	3.3
Lower Extremities	--	-- ⁴	--	-- ⁴	4	2.2	3	1.9	3	2.4	0	0	--	-- ⁴	3	2.5	--	-- ⁴
Body Systems	14	11.3	31	20.4	25	14.0	23	14.6	11	8.7	26	16.9	22	15.1	20	16.4	16	13.1
Multiple Body Parts	42	33.9	46	30.3	56	31.3	36	22.9	37	29.4	46	29.9	52	35.6	45	36.9	55	45.1
Nonclassifiable	--	-- ⁴	--	-- ⁴	10	5.6	5	3.2	5	4.0	3	1.9	0	0	0	0	0	0

Table 7: Number and Percent of Fatal Occupational Injuries by Source, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Source	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Chemicals & Chem. Products	--	-- ⁴	7	4.6	3	1.7	3	1.9	--	-- ⁴	4	2.6	--	-- ⁴	--	-- ⁴	--	-- ⁴
Containers	--	-- ⁴	3	2.0	--	-- ⁴	5	3.2	--	-- ⁴	3	1.9	--	-- ⁴	--	-- ⁴	0	0
Machinery	11	8.9	12	7.9	22	12.3	20	12.7	5	4.0	19	12.3	16	11.0	15	12.3	13	10.7
Agricultural & garden	--	-- ⁴	--	-- ⁴	--	-- ⁴	--	-- ⁴	--	-- ⁴	3	1.9	5	3.4	--	-- ⁴	3	2.5
Construction, logging, mining	3	2.4	7	4.6	12	6.7	12	7.6	--	-- ⁴	7	4.5	5	3.4	6	4.9	3	2.5
Material handling	--	-- ⁴	--	-- ⁴	3	1.7	--	-- ⁴	0	0	3	1.9	3	2.1	--	-- ⁴	5	4.1
Parts & Materials	5	4.0	10	6.6	11	6.1	11	7.0	11	8.7	10	6.5	10	6.8	10	8.2	10	8.2
Machine, tool, electric parts	3	2.4	5	3.3	6	3.4	7	4.5	4	3.2	3	1.9	6	4.1	5	4.1	3	2.5
Persons, Plants, & Animals	8	6.5	10	6.6	5	2.8	8	5.1	12	9.5	7	4.5	10	6.8	7	5.7	8	6.6
Trees, logs	--	-- ⁴	4	2.6	--	-- ⁴	6	3.8	5	4.0	5	3.2	6	4.1	5	4.1	6	4.9
Structures & Surfaces	20	16.1	17	11.2	18	10.1	18	11.5	17	13.5	17	11.0	24	16.4	17	13.9	21	17.2
Containers	--	-- ⁴	3	2.0	--	-- ⁴	5	3.2	--	-- ⁴	3	1.9	--	-- ⁴	--	-- ⁴	0	0
Floors, walkways, ground	19	15.3	15	9.9	17	9.5	17	10.8	14	11.1	11	7.1	21	14.4	13	10.7	19	15.6
Tools, Instruments, Equipment	--	-- ⁴	5	3.3	--	-- ⁴	--	-- ⁴	3	2.4	--	-- ⁴	4	2.7	3	2.5	7	5.7
Vehicles	47	37.9	63	41.4	84	46.9	61	38.9	50	39.7	70	45.5	65	44.5	57	46.7	54	44.3
Air vehicle	--	-- ⁴	8	5.3	5	2.8	6	3.8	0	0 ²	--	-- ⁴	--	-- ⁴	--	-- ⁴	--	-- ⁴
Highway vehicle, motorized	29	23.4	37	24.3	54	30.2	38	24.2	41	32.5	44	28.6	47	32.2	44	36.1	36	29.5
<i>automobile</i>	11	8.9	13	8.6	17	9.5	12	7.6	10	7.9	12	7.8	14	9.6	8	6.6	11	9.0
<i>truck</i>	14	11.3	18	11.8	31	17.3	23	14.6	22	17.5	25	16.2	27	18.5	28	23.0	19	15.6
Industrial powered vehicles	12	9.7	14	9.2	19	10.6	13	8.3	6	4.8	20	13.0	15	10.3	9	7.4	13	10.7
<i>tractor</i>	11	8.9	14	9.2	19	10.6	11	7.0	--	-- ⁴	18	11.7	15	10.3	8	6.6	10	8.2
Other Sources	27	21.8	23	15.1	25	14.0	25	15.9	23	18.3	17	11.0	14	9.6	10	8.2	6	4.9
Ammunition	22	17.7	13	8.6	19	10.6	19	12.1	16	12.7	8	5.2	8	5.5	4	3.3	3	2.5
Atmospheric & environ. cond.	--	-- ⁴	6	3.9	5	2.8	4	2.5	4	3.2	6	3.9	5	3.4	3	2.5	--	-- ⁴
Nonclassifiable	--	-- ⁴	--	-- ⁴	5	2.8	4	2.5	--	-- ⁴	5	3.2	0	0	0	0	0	0

Table 8: Number and Percent of Fatal Occupational Injuries by Month of Injury, NYS (excluding NYC), 1992-2000¹

	1992		1993		1994		1995		1996 ²		1997		1998		1999		2000	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	124	100	152	100	179	100	157	100	126	100	154	100	146	100	122	100	122	100
Month of Injury	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
January	10	8.1	15	9.9	12	6.7	14	8.9	12	9.5	15	9.7	13	8.9	9	7.4	6	4.9
February	7	5.6	9	5.9	7	3.9	6	3.8	9	7.1	11	7.1	6	4.1	5	4.1	7	5.7
March	6	4.8	10	6.6	13	7.3	10	6.4	5	4.0	13	8.4	15	10.3	9	7.4	11	9.0
April	7	5.6	15	9.9	12	6.7	16	10.2	10	7.9	9	5.8	9	6.2	9	7.4	6	4.9
May	9	7.3	8	5.3	8	4.5	12	7.6	6	4.8	16	10.4	12	8.2	13	10.7	19	15.6
June	10	8.1	22	14.5	18	10.1	9	5.7	17	13.5	16	10.4	9	6.2	14	11.5	13	10.7
July	11	8.9	12	7.9	17	9.5	18	11.5	13	10.3	18	11.7	20	13.7	12	9.8	13	10.7
August	15	12.1	10	6.6	14	7.8	21	13.4	14	11.1	14	9.1	16	11.0	11	9.0	14	11.5
September	13	10.5	11	7.2	19	10.6	17	10.8	7	5.6	10	6.5	13	8.9	9	7.4	7	5.7
October	17	13.7	20	13.2	24	13.4	13	8.3	8	6.3	14	9.1	14	9.6	13	10.7	3	2.5
November	12	9.7	10	6.6	17	9.5	10	6.4	18	14.3	7	4.5	9	6.2	10	8.2	9	7.4
December	7	5.6	10	6.6	18	10.1	11	7.0	7	5.6	11	7.1	10	6.8	8	6.6	14	11.5

APPENDIX B

GLOSSARY

Administrative support (occupation): includes, but is not limited to, computer equipment operators; secretaries, stenographers, and typists; information clerks; mail and message distributing occupations; adjusters and investigators.¹

Agricultural services (industry): includes establishments primarily engaged in performing soil preparation services, crop services, veterinary services, other animal services, farm labor and management services, and landscape and horticultural services, for others on a contract or fee basis.²

Agriculture, forestry and fishing (industry): includes establishments primarily engaged in agricultural production, forestry, commercial fishing, hunting and trapping, and related services.²

Assaults and violent acts (event): includes cases in which a person was injured or made ill by intentional assaults or by violent, harmful actions of unknown intent. This includes assaults and violent acts by persons (homicides); self-inflicted injury; and assaults by animals.³

Atmospheric and environmental conditions (source): classifies conditions of the environment such as air pressure, temperature, and other atmospheric conditions as well as events such as natural disasters. This includes earthquakes, floods, etc.³

Bodily reaction and exertion (event): cases, usually non-impact, in which injury or illness resulted from free bodily motion, from excessive physical effort, or from repetition of a bodily motion.³

Body systems (part of body): classifies the various systems of the body. This code applies when the functioning of an entire body system has been affected without specific injury to any other part of the body.³

Caught in/crushed in collapsing materials (event): applies when a person, or part of a person's body was squeezed, pinched, compressed or crushed in landslides, cave-ins, or collapsing structures, or other collapsing materials.³

Caught in (or compressed by) equipment/objects (event): includes cases in which the injury was produced when a person or part of a person was injured by being squeezed, crushed, pinched or compressed between two or more objects, or between parts of an object.³

Chemical and allied products (industry): includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes.²

Chemicals and chemical products (source): includes chemicals and chemical products in various states—liquids, gas, fumes, vapors, and solids. These include acids; agricultural chemicals and other pesticides; drugs, alcohol, medicine; oxygen and carbon monoxide, etc.³

Collisions between vehicles/mobile equipment (event): cases in which the injured person was an occupant of a vehicle involved in a highway collision in which both vehicles were in motion or between a moving vehicle and a stationary vehicle.³

Construction (industry): includes establishments primarily engaged in construction. The term construction includes new work, additions, alterations, reconstruction, installations, and repairs.²

Construction trades (occupation): includes, but is not limited to, brickmasons and stonemasons; carpenters; electricians; painters; plumbers; insulation workers; roofers.¹

Contact with objects/equipment (event): injuries produced by contact between the injured person and the source of injury except when contact was due to falls, transportation accidents, fires, explosions, assaults, or violent acts. This includes being struck by an object; being caught in or compressed by equipment/objects; being caught in or crushed in collapsing materials, etc.³

Containers (source): classifies receptacles that are commonly used to hold, store, or carry materials. These include boxes, crates, cartons; oxygen tanks; boilers; bundles, bales, etc.³

Effects of environmental conditions (nature): classifies injuries or disorders that are a result of adverse environmental conditions. This includes hypothermia, heat stroke, etc.³

Electric, gas, and sanitary services (industry): includes establishments engaged in the generation, transmission, and/or distribution of electricity or gas or steam. Water and irrigation systems, and sanitary systems engaged in the collection and disposal of garbage, sewage, and other wastes by means of destroying or processing materials, are also included.²

Employee status: indicates whether the decedent was employed—working for pay or other compensation—at the time of the incident or exposure and the type of employment.⁴

Executive, administrative, managerial (occupation): includes, but is not limited to, legislators; accountants and auditors; managers of food serving and lodging establishments; postmasters; construction inspectors.¹

Event: identifies the event or exposure which directly results in the injury or illness.⁴

Exposure to harmful substances/environments (event): cases in which the injury or illness resulted from contact with, or exposure to, a condition or substance in the environment. This includes contact with electric current; contact with extreme temperatures; exposure to caustic, noxious, or allergenic substances; oxygen deficiency, etc.³

Falls (event): events in which the injury was produced by impact between the injured person and the source of injury when the motion producing contact was generated by gravity. This includes falls to a lower level; jumps to a lower level; falls on the same level, etc.³

Farming, forestry and fishing (occupation): includes farm operators and managers; other agricultural and related occupations; forestry and logging occupations; fishers, hunters, and trappers.¹

Finance, insurance and real estate (industry): this category includes, but is not limited to, depository and nondepository credit institutions, brokers/dealers, insurance agents/brokers, buyers/sellers and developers of real estate.²

Furniture and fixtures (source): classifies furniture; lighting and plumbing fixtures; and floor, wall, and window coverings.³

General building contractors (industry): includes general contractors and operative builders primarily engaged in the construction of residential, farm, industrial, commercial, or other buildings.²

Government (industry): also referred to as public administration; includes the executive, legislative, judicial, administrative and regulatory activities of Federal, State, local, and international governments.²

Handlers, equipment cleaners, helpers, and laborers (occupation): includes, but is not limited to, construction laborers; garbage collectors; stock handlers and baggers; garage and service station related occupations.¹

Heavy construction (industry): includes, but is not limited to, general contractors primarily engaged in heavy construction other than building, such as highways and streets, bridges, sewers, railroads, irrigation projects, flood control projects and marine construction.²

Highway accident (event): includes accidents to vehicle occupants occurring on that part of the public highway, street, or road normally used for travel as well as the shoulder and surrounding areas, telephone poles, bridge abutments, trees aligning roadway, etc.³

Highway vehicles, motorized (source): classifies vehicles which are operated primarily on highways and used for transportation, hauling, delivering, and emergencies. These include automobiles, buses, motorcycles, trucks, etc.³

Homicide: used throughout this report to indicate assaults or violent acts by person/s resulting in death.

Illness: 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.⁴

Industrial powered vehicles (source): classifies forklifts, powered industrial carriers, and tractors which are used for carrying and transporting heavy materials.³

Injury (traumatic): 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 a fall—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.⁴

Intracranial injuries (nature): classifies traumatic injuries to the cranium or skull and the structures within. This includes cerebral hemorrhages, concussions, etc.³

Latency period: time between the incident or exposure and death.

Machine operators, assemblers, and inspectors (occupation): includes, but is not limited to, metalworking and plastic working machine operators; woodworking machine operators; printing machine operators; welders and cutters; production testers.¹

Machinery (source): classifies heavy and light machinery which perform specific functions or processes under power. Machinery is defined as a combination of smaller machines (elements or parts) which are capable of motion and are contained in a stationary frame. Computer, audio, and video products, as well as heating, cooling and cleaning machinery and appliance are also included in this definition.³

Managerial and professional specialty (occupation): includes executive, administrative, and managerial occupations and professional specialty occupations.¹

Manufacturing (industry): includes establishments engaged in the mechanical or chemical transformation of materials or substances into new products; these establishments are usually described as plants, factories, or mills.²

Material handling machinery (source): classifies machinery which perform specific material handling functions or processes. This includes conveyors, cranes, elevators, jacks, etc.³

Mechanics and repairers (occupation): includes, but is not limited to, vehicle mechanics and repairers; industrial machinery repairers; electrical and electronic equipment and repairers.¹

Multiple traumatic injuries and disorders (nature): classifies combinations of multiple traumatic injuries or disorders from more than one subgroup within the traumatic injuries and disorders division. For example, an incident which involved a burn and a fracture, of equal severity.³

N.E.C.: not elsewhere classified

Nature: identifies the injury or illness in terms of its principal physical characteristic.⁴

Noncollision accident (event): incidents in which the vehicle that the injured person occupied did not make contact with a vehicle or object other than the road or driving surface. This includes jack-knifed or overturned; ran off highway; struck by shifting load, etc.³

Nonhighway accident (event): except air, rail, water. Nonhighway accidents which injure the occupants are accidents that occur or originate entirely off the highway or that occur or originate on industrial, commercial, residential, or farm premises.³

Open wounds (nature): classifies traumatic injuries involving open wounds—broken skin or outward opening, beyond the superficial skin surface. This includes gunshot wounds, lacerations, amputations, etc.³

Operators, fabricators, & laborers (occupation): includes machine operators, assemblers, and inspectors; transportation and material moving occupations; and handlers, equipment cleaners, helpers, and laborers.¹

Other agricultural and related occupations: includes, but is not limited to, farm workers; nursery workers; groundskeepers and gardeners; animal caretakers.¹

Other service occupations: includes, but is not limited to, waiters and waitresses; bartenders; nursing aides, orderlies, and attendants; janitors and cleaners; pest control occupations; hairdressers; guides; ushers; family child care providers.¹

Other sources (source): classified here are ammunition and explosive devices; apparel and textiles; atmospheric and environmental conditions; paper, books, magazines; scrap, waste, debris; steam, vapors, liquids, n.e.c.; and other sources n.e.c.³

Other traumatic injuries and disorders (nature): classifies other traumatic injuries or disorders that are not assigned to other major groups in the traumatic injuries and disorders division. This includes, asphyxiations/strangulations, suffocations, drownings, electrocutions, etc.³

Ownership: differentiates between the several levels of government and the private sector of the economy for the employer for which the decedent was working at the time of the incident or exposure.⁴

Oxygen deficiency (event): applies only to cases in which the injury or illness resulted from lack of oxygen, without the involvement of harmful substances. This includes drowning; choking; depletion of oxygen from cave-in or collapsed materials, etc.³

Part of body: identifies the part of the injured or ill person's body directly affected by the injury or illness.⁴

Parts and materials (source): classifies machine parts, tool parts, and automobile parts, as well as building materials, insulating materials, and nonstructural metal materials. Many of these parts and materials are the smaller components of larger machines, tools, vehicles, buildings, etc. This includes bricks, lumber, siding, pipes, ropes, etc.³

Persons, plants, animals (source): classifies living organisms (including infectious and parasitic agents) and their products, as well as raw, metallic and nonmetallic minerals. This includes animals and animal products; food products; persons; plants, trees, vegetation, etc.³

Precision production (occupation): includes, but is not limited to, precision metal working occupations; precision woodworking occupations; precision food production occupations; plant and system operators.¹

Precision production, craft, and repair (occupation): includes mechanics and repairers; construction trades; extractive occupations (drillers, explosives workers, etc.); precision production occupations.¹

Professional specialty (occupation): includes engineers; mathematical, computer, and natural scientists; health diagnosing occupations; health assessment and treating occupations; teachers; social scientists; social, recreation, and religious workers; writers, artists, entertainers, and athletes.¹

Protective service (occupation): includes firefighting and fire prevention occupations; police and detectives; and guards.¹

Retail trade (industry): includes establishments engaged in selling merchandise for personal or household consumption and rendering services incidental to the sale of the goods.²

Self-inflicted injury (event): includes cases where the worker was hurt by a self-inflicted injury that was intentional or of unknown intent.³

Services (industry): includes establishments primarily engaged in providing a wide variety of services for individuals, business and government establishments, and other organizations. Hotels and other lodging places; establishments providing personal, business, repair, and amusement services; health, legal, engineering, and other professional services; educational institutions; membership organizations, and other miscellaneous services, are included.²

Services (occupation): includes private household occupations; protective service occupations; food preparation and service occupations; health service occupations; cleaning and building service occupations; personal service occupations.¹

Special trade contractors (industry): includes special trade contractors who undertake activities of a type that are specialized either to building construction, including work on mobile homes, or to both building and non-building projects. These activities include, but are not limited to, painting, electrical work, plumbing, heating, roofing, and sheet metal work.²

Source: identifies the object, substance, or bodily motion which directly produced the injury or illness.⁴

Struck by object (event): applies to injuries produced by forcible contact or impact between the injured person and the source of the injury when the motion producing the contact is primarily that of the source of the injury rather than the person.³

Structures and surfaces (source): classifies all types of structures and structural elements including building structures and systems, bridges, stadia, tunnels, towers, and dams as well as other structural elements. Also classified here are walking, working, and road surfaces.³

Surface wounds and bruises (nature): classifies traumatic bruises and other injuries that occur to the surface of the body and generally do not involve open wounds. This includes blisters, foreign bodies, etc.³

Systemic diseases and disorders (nature): classifies toxic and non-toxic diseases or disorders affecting systems of the body. Diseases or disorders included may affect the whole named body system, or more commonly, affect only a part of the named body systems at the time of diagnosis. This includes diseases of the blood, circulatory system diseases, respiratory system diseases, etc.³

Technical, sales, and administrative support (occupation): includes technicians and related support occupations; sales occupations; and administrative support occupations, including clerical.¹

Technicians and related support (occupation): includes, but is not limited to, health technologists and technicians; science technicians; airplane pilots and navigators; computer programmers.¹

Tools, instruments, and equipment (source): classifies handtools (nonpowered; powered), ladders, equipment (photographic; protective; recreation, athletic), and instruments (medical and surgical). Also includes clocks, eating and cooking utensils, firearms, wheelchairs, etc.³

Transportation and material moving (occupation): includes, but is not limited to, motor vehicle operators (truck drivers, bus drivers, etc.); rail transportation occupations; water transportation occupations; operating engineers; crane and tower operators.¹

Transportation and public utilities (industry): includes establishments providing, to the general public or to other business enterprises, passenger and freight transportation, communications services, or electricity, gas, steam, water or sanitary services, and all establishments of the United States Postal Service.²

Traumatic injuries and disorders, unspecified (nature): classifies traumatic injuries and disorders when the only information available describes the incident as traumatic. For example, employee was hurt in car accident.³

Traumatic injuries to bones, nerves, spinal cord (nature): classifies traumatic injuries to the bones, nerves, or spinal cord which include breaking and dislocating bones and cartilage and traumatic injury to the brain, spinal cord, and nerves. This includes dislocations, fractures, etc.³

Traumatic injuries to muscles, tendons, ligaments, joints, etc. (nature): classifies traumatic injuries that affect the muscles, tendons, ligaments or joints. This includes sprains, strains, tears, etc.³

Trucking and warehousing (industry): includes establishments furnishing local or long-distance trucking or transfer services, or those engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature.²

Trunk (part of body): classifies the main part of the body, where the head and limbs are attached. This includes the chest, back, etc.³

Uns.: unspecified

Vehicles (source): classifies vehicles that generally move on wheels, runners, water or air. A vehicle serves the primary purpose of transporting people (e.g., automobiles, passenger trains) but it may serve as a means of carrying or transferring goods (e.g., forklifts, wheelbarrows) or may serve primarily as a recreational device (e.g., canoes, bicycles).³

Volunteer: includes those working without pay or other compensation.⁴

Wage and salary workers: includes those working for pay or other compensation.⁴

Wholesale trade (industry): includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm, construction contractors, or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.²

Work: 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.⁴

Work relationship: exists if an event or exposure results in a fatal injury or illness to 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.⁴

Worker struck by vehicle (event): applies to pedestrians and other nonoccupants who are hit by vehicles or other powered industrial mobile equipment whether on the highway, street, or road, or off the highway.³

Endnotes

¹ U.S. Census Bureau. 1990 Occupational Classification System.

² Executive Office of the President, Office of Management and Budget. Standard Industrial Classification Manual. 1987.

³ U.S. Department of Labor, Bureau of Labor Statistics. Occupational Injury and Illness Classification Manual. December 1992.

⁴ U.S. Department of Labor, Bureau of Labor Statistics. Census of Fatal Occupational Injuries State Operating Manual. March 1996.

PROGRAMS/REGISTRIES

The New York State Department of Health coordinates a number of occupational programs within New York, and monitors various occupationally related illnesses and injuries. Assistance is available for both employers and employees on a variety of occupational health issues. Descriptions of the programs are provided below. For further information, contact:

New York State Department of Health
Bureau of Occupational Health
Flanigan Square, Rm. 230
547 River Street
Troy, NY 12180
518-402-7900

New York State Network of Occupational Health Clinics

The New York State Department of Health coordinates a statewide network of occupational health clinics. The clinics help prevent occupational disease by providing diagnostic services, medical screening, treatment, referral and educational services for workers exposed to toxic substances and other occupational hazards. An additional health center dealing primarily with agricultural health is located in Cooperstown.

Occupational Health Clinics

Albany/New Paltz

Eastern New York Occupational and Environmental Health Program
1873 Western Avenue
Albany, NY 12203
518-690-4420 or 800-419-1230

Buffalo

Union Occupational Health Center
450 Grider Street
Buffalo, NY 14215
716-894-9366

Cooperstown

New York Center for Agricultural Medicine & Health
One Atwell Road
Cooperstown, NY 13326
607-547-6023 or 800-343-7527

Long Island

Long Island Occupational and Environmental Health Center
625 Belle Terre Road, Suite 207
Port Jefferson, NY 11777
631-642-9100

New York City/Mt. Sinai

Mount Sinai - I.J. Selikoff Center for Occupational and Environmental Medicine
1 Gustave L. Levy Place, P.O. Box 1058
New York, NY 10029
212-987-6043

Yonkers Office 914-964-4737
Queens Satellite 718-278-2736

New York City/Health and Hospitals Corporation

Bellevue/NYU Occupational and Environmental Medicine Clinic
Bellevue Hospital, Room CD349
1st Avenue and 27th Street
New York, NY 10016
212-562-4572

Rochester

Finger Lakes Occupational Health Services
2180 South Clinton Ave., Suite D
Rochester, NY 14618
585-274-4554 or 800-925-8615

Syracuse/Binghamton

Central New York Occupational Health Clinical Center
6712 Brooklawn Parkway, Suite 204
Syracuse, NY 13211
315-432-8899

Pesticide Poisoning Registry

The Pesticide Poisoning Registry monitors both the acute and chronic effects of pesticide exposure. Occurrences of pesticide poisonings are investigated; consultation and diagnostic information is offered to physicians; and education and information about preventive practices are provided. Physicians and health care facilities must report confirmed or suspected pesticide poisonings within 48 hours. Clinical laboratories must report abnormally depressed cholinesterase levels and abnormally elevated tissue levels of pesticides within 48 hours.

Heavy Metals Registry

The Heavy Metals Registry provides individuals with information regarding the potential adverse health effects of heavy metals. Industrial hygiene efforts are directed to both the employer, who has specific responsibilities to provide a safe workplace, and the employee, in the form of training about hazardous conditions and the use of protective equipment. Clinical laboratories, physicians and hospitals are required to report to the Heavy Metals Registry when conducting biological monitoring for arsenic, cadmium, mercury and lead. Further information is available from the New York State Department of Health, Bureau of Occupational Health.

Occupational Lung Disease Registry

Physicians are required to report suspected cases of occupational lung disease to the New York State Department of Health, Bureau of Occupational Health within 10 days of diagnosis. These diseases include pneumoconioses and other lung diseases from probably causative agents. For further information about the registry or to report a case, contact the OLDR by calling toll-free at 1-866-807-2130.

Fatality Assessment and Control Evaluation (FACE)

Through a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH), the New York State Department of Health is studying traumatic work-related fatalities in New York State, excluding New York City. The Fatality Assessment and Control Evaluation (FACE) project collects information on the factors that lead to fatal injuries in the workplace. Recommendations for prevention of future injuries are made and distributed to employers, workers, and other organizations interested in promoting workplace safety. For further information about the FACE program or to report a work-related fatality, contact the FACE program by calling 1-866-807-2130 (toll free).

Report prepared by: Jennifer L. Hallisey, MPH, Richard T. Davis

Principal Investigator Census of Fatal Occupational Injuries: Richard T. Davis

Co-Principal Investigator: Jennifer L. Hallisey, MPH

Copies of this report are available from:

New York State Department of Health

Bureau of Occupational Health

Flanigan Square, Room 230

547 River Street

Troy, NY 12180

(518) 402-7900

www.health.state.ny.us/nysdoh/environ/cfoi/contents.htm