

Appendix C. Partial data on fatal illnesses collected through the CFOI program, 1991-93

This appendix presents partial data on fatal illnesses collected through the Census of Fatal Occupational Injuries (CFOI), 1991-93. These data do not represent all deaths from occupational illnesses. These partial data cover non-traumatic conditions such as asbestosis, occupational cancers, and heart attacks. (See the technical note for the definition of occupational illness.)

It is difficult to compile a complete count of fatal occupational illnesses because the latency periods for many of these conditions may span years. In addition, there is some difficulty in linking illnesses to work exposures. Data presented in this appendix are incomplete, therefore, and do not represent all deaths that result from occupational diseases.

CFOI data collection methods require that the work relationship of work injury fatalities be substantiated by two or more independent sources. CFOI procedures do not require States to substantiate the work relationship of illnesses, however, because of the difficulty of associating diseases with workplace exposures.

Some of the illnesses presented in this appendix were the result of workplace exposures, such as asbestosis. Others, particularly some heart attacks and strokes, may have been the result of nonwork-related conditions or exposures. In still other instances, a workplace exposure or physical exertion may have aggravated a pre-existing condition. These partial data are presented for research purposes and without the implication that all illnesses had work-related causes.

Partial data on fatal illnesses by year, 1991-93

| Year | Fatal Illnesses |
|-------------------|-----------------|
| 1991 ¹ | 1,099 |
| 1992 | 1,361 |
| 1993 | 1,466 |

¹ Only 32 States participated in the 1991 CFOI program.

NOTE: These partial data on fatal illnesses were collected through the Census of Fatal Occupational Injuries, 1991-93. These data do not represent all deaths from occupational illnesses. The majority of these illnesses are heart attacks that occurred at work.

Table C-1. Fatal illnesses by selected worker characteristics, 1991-1993

| Nature ¹ | Total fatalities (number) | Percent distribution of fatalities by: | | | | | | | | |
|---|---------------------------|--|-------|--------------------|-------------|-------------|-------------|-------------------|-------|-------|
| | | Sex | | Age | | | | | Race | |
| | | Men | Women | Less than 35 years | 35-44 years | 45-54 years | 55-64 years | 65 years and over | White | Black |
| Total | 3,926 | 93 | 7 | 6 | 16 | 30 | 31 | 17 | 81 | 10 |
| Systemic diseases and disorders | 3,669 | 93 | 7 | 6 | 16 | 31 | 32 | 16 | 81 | 10 |
| Nervous system and sense organs diseases | 12 | 83 | - | 50 | - | - | - | - | 83 | - |
| Circulatory system diseases | 3,351 | 93 | 7 | 6 | 17 | 33 | 33 | 12 | 80 | 10 |
| Hypertensive disease | 32 | 97 | - | - | 19 | 34 | 34 | 9 | 59 | 34 |
| Ischemic heart disease, including heart attack | 2,797 | 94 | 6 | 5 | 16 | 33 | 33 | 12 | 81 | 9 |
| Myocardial infarction (heart attack) | 2,631 | 94 | 6 | 5 | 16 | 33 | 34 | 12 | 81 | 8 |
| Ischemic heart disease, n.e.c. | 140 | 94 | 6 | 6 | 27 | 31 | 29 | 6 | 79 | 18 |
| Diseases of pulmonary circulation | 31 | 90 | 10 | 13 | 26 | 19 | 23 | 19 | 68 | 26 |
| Pulmonary heart disease | 21 | 95 | - | - | 19 | 29 | 29 | 14 | 71 | 19 |
| Other forms of heart disease | 182 | 92 | 8 | 11 | 19 | 31 | 28 | 11 | 81 | 13 |
| Heart failure | 66 | 92 | 8 | 6 | 18 | 33 | 29 | 14 | 80 | 12 |
| Ill-defined descriptions and complications of heart disease | 11 | 100 | - | 36 | - | - | - | - | 64 | - |
| Cerebrovascular disease | 98 | 79 | 21 | 9 | 23 | 30 | 33 | 4 | 61 | 23 |
| Stroke | 62 | 82 | 18 | 6 | 24 | 31 | 31 | 6 | 56 | 24 |
| Diseases of arteries, arterioles, capillaries | 202 | 89 | 11 | 8 | 18 | 34 | 27 | 13 | 83 | 10 |
| Aneurysm--nontraumatic | 68 | 78 | 22 | 16 | 22 | 32 | 19 | 10 | 78 | 15 |
| Respiratory system diseases | 294 | 95 | 5 | 4 | 4 | 8 | 22 | 63 | 84 | 10 |
| Pneumonia, influenza | 18 | 78 | 22 | 22 | 17 | - | 22 | 28 | 56 | 39 |
| Chronic obstructive pulmonary disease and allied conditions | 32 | 81 | 19 | 12 | - | 22 | 19 | 41 | 88 | 12 |
| Pneumoconioses | 222 | 99 | 1 | - | 1 | 5 | 22 | 71 | 87 | 8 |
| Coal workers' pneumoconioses | 65 | 100 | - | - | - | - | 12 | 88 | 98 | - |
| Asbestosis | 132 | 98 | 2 | - | - | 8 | 24 | 67 | 84 | 8 |
| Silicosis | 15 | 100 | - | - | - | - | 53 | 33 | 67 | 27 |
| Other respiratory system diseases | 17 | 88 | - | - | - | - | 29 | 41 | 71 | - |
| Pulmonary fibrosis, n.e.c. | 10 | 90 | - | - | - | - | 40 | 50 | 60 | - |
| Infectious and parasitic diseases | 16 | 69 | 31 | 38 | 38 | - | - | - | 56 | 25 |
| Cancer | 188 | 99 | - | - | 3 | 11 | 32 | 52 | 87 | 7 |
| Other diseases, conditions, and disorders | 53 | 91 | 9 | 15 | 36 | 15 | 28 | - | 74 | 11 |

¹ Based on the 1992 BLS Occupational Injury and Illness Classification Structures. The nature identifies the principal physical characteristics of the injury or illness.

categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

Dashes indicate no data reported or data that do not meet publication criteria.

NOTE: These partial data on fatal illnesses were collected through the Census of Fatal Occupational Injuries, 1991-93. These data do not represent all deaths from occupational illnesses. Only 32 States participated in the 1991 CFOI program. Totals for major

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, in cooperation with State and Federal agencies, Census of Fatal Occupational Injuries, 1993.

Table C-2. Fatal heart attacks that occurred at work by selected characteristics, occupation, and industry, 1991¹-93

| Characteristics | Fatal heart attacks | Characteristics | Fatal heart attacks |
|--|---------------------|---|---------------------|
| Total (number) | 2,631 | Occupation (number) | 2,631 |
| Percent | 100 | Percent | 100 |
| Sex: | | Managers and professionals | 11 |
| Men | 94 | Executives, administrators, and managers | 7 |
| Women | 6 | Technical, sales, and adminis- trative support | 11 |
| Age: | | Service occupations | 18 |
| Under 35 years | 5 | Protective service | 8 |
| 35 - 44 years | 16 | Janitors and cleaners | 5 |
| 45 - 54 years | 33 | Farming, forestry, and fishing | 6 |
| 55 - 64 years | 34 | Precision production, craft, and repair | 18 |
| 65 and over | 12 | Mechanics and repairers | 6 |
| Race: | | Construction trades | 8 |
| White | 81 | Operators, fabricators, and laborers | 35 |
| Black | 8 | Machine operators | 6 |
| Other or unspecified | 11 | Truck drivers | 14 |
| Worker activity: | | Laborers | 6 |
| Vehicular operations | 14 | Industry (number) | 2,631 |
| Driving or operating a vehicle ... | 11 | Percent | 100 |
| Driving a truck | 7 | Agriculture, forestry, and fishing | 5 |
| Using, operating tools, machinery | 5 | Mining | 2 |
| Constructing, repairing, cleaning .. | 10 | Construction | 12 |
| Handling materials (lifting, carrying, loading) | 7 | Special trades contractors | 6 |
| Protective service activities | 3 | Manufacturing | 18 |
| Other service, retail activities | 6 | Transportation and public utilities ... | 13 |
| Other physical activities | 20 | Trucking and warehousing | 9 |
| Sitting | 7 | Wholesale trade | 5 |
| Walking | 5 | Retail trade | 9 |
| Standing | 4 | Finance, insurance, real estate | 3 |
| Other or unspecified | 35 | Services | 16 |
| Day of week: | | Business services | 5 |
| Sunday | 6 | Government | 17 |
| Monday | 21 | Local | 12 |
| Tuesday | 16 | | |
| Wednesday | 16 | | |
| Thursday | 16 | | |
| Friday | 16 | | |
| Saturday | 9 | | |

¹Only 32 States participated in the 1991 CFOI program.

NOTE: These partial data on fatal heart attacks at work were collected through the Census of Fatal Occupational Injuries, 1991-93. It is not implied that the causes of these heart attacks were work-related in all cases. Totals for

major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 1991-93.

Table C-3. Fatal asbestos-related illnesses by selected characteristics, 1991¹-93

| Characteristic | Fatal illnesses | Characteristic | Fatal illnesses |
|--|-----------------|---|-----------------|
| Total (number) | 294 | Occupation (number) | 294 |
| Percent | 100 | Percent | 100 |
| Sex: | | Managers and professionals | 6 |
| Men | 99 | Precision production, craft, and repair | 56 |
| Women | 1 | Mechanics and repairers | 8 |
| | | Vehicle, mobile equipment mechanics, repairers | 5 |
| Age: | | Construction trades | 30 |
| Under 45 years | 1 | Electricians | 5 |
| 45 - 54 years | 8 | Plumbers, pipe fitters, steam fitters | 8 |
| 55 - 64 years | 28 | Precision production | 17 |
| 65 and over | 63 | Precision metal workers | 10 |
| | | Operators, fabricators, and laborers | 21 |
| Race: | | Machine operators, assemblers and inspectors | 13 |
| White | 88 | Machine operators | 5 |
| Black | 7 | Welders and cutters | 5 |
| Other or unspecified | 5 | Handlers, equipment cleaners, helpers, and laborers | 6 |
| | | Military | 10 |
| Nature of illness: | | Other | 7 |
| Asbestosis | 45 | Industry (number) | 294 |
| Cancer, primarily lung cancer and mesothelioma | 49 | Percent | 100 |
| Other or unspecified respiratory diseases | 6 | Mining | 2 |
| Other diseases | 1 | Construction | 22 |
| | | Special trades contractors | 19 |
| | | Plumbing, heating, air conditioning | 5 |
| | | Masonry, stonework, tile setting, plastering | 4 |
| | | Manufacturing | 40 |
| | | Petroleum refining | 6 |
| | | Ship, boat building and repair | 20 |
| | | Transportation and public utilities | 7 |
| | | Wholesale and retail trade | 4 |
| | | Government | 19 |
| | | Federal | 14 |
| | | Ship, boat building and repair | 8 |
| | | National security | 4 |
| | | Other | 6 |

¹ Only 32 States participated in the 1991 CFOI program.
 NOTE: These partial data on fatal asbestos-related illnesses were collected through the Census of Fatal Occupational Injuries, 1991-93. These data do not represent all

deaths from asbestos-related illnesses. Totals for major categories may include subcategories not shown separately.
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 1991-93.