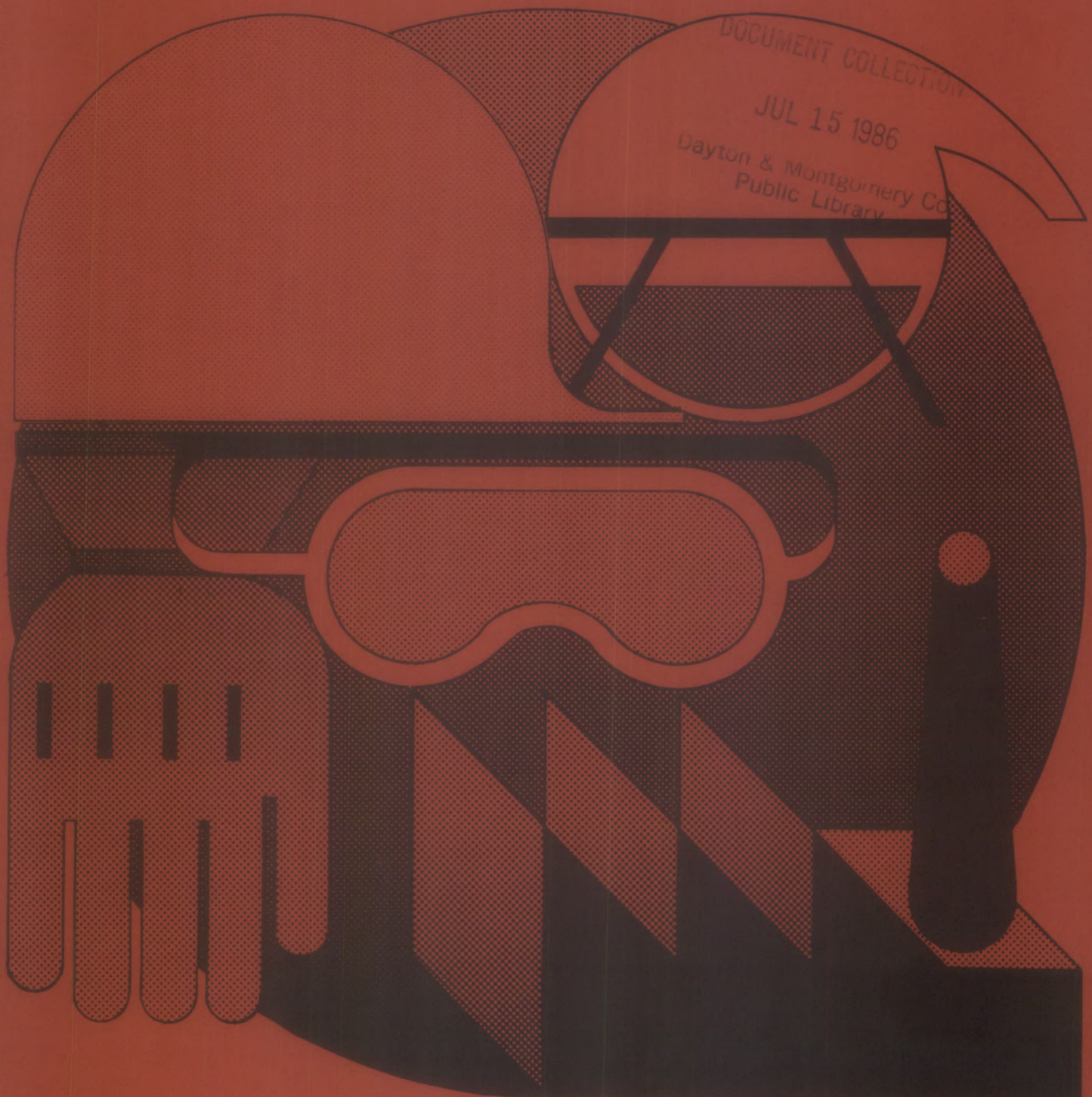
# Injuries to Warehouse Workers

U.S. Department of Labor
Bureau of Labor Statistics
April 1986

Bulletin 2257





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U.S. Department of Labor
William E. Brock, Secretary

Bureau of Labor Statistics
Janet L. Norwood, Commissioner
April 1986

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# Preface

This bulletin summarizes the results of a Bureau of Labor Statistics' survey of warehouse workers who were injured on the job in September 1984. The findings of this survey will assist the Occupational Safety and Health Administration (OSHA) in developing safety standards, compliance strategy, and training programs for reducing work-related injuries.

The survey was conducted by the BLS Office of Occupational Safety and Health Statistics, in cooperation with the following State agencies:

Alaska Department of Labor, Workers' Compensation Division
Industrial Commission of Arizona, Division of Administrative Management, Research and Statistics
California Department of Industrial Relations, Division of Labor Statistics and Research
Colorado Department of Labor and Employment, Division of Labor/Statistics
Delaware Department of Labor, Division of Industrial Affairs, OSH Statistics Section
Hawaii Department of Labor and Industrial Relations, OSH Research Section
Indiana Department of Labor, Survey Operations
Iowa Bureau of Labor, Research and Statistics
Kentucky Labor Cabinet, Occupational Safety and Health Program
Maine Department of Labor, Bureau of Labor Standards
Maryland Department of Licensing and Regulation, Division of Labor and Industry, Research and Statistics Unit
Michigan Department of Labor, MIOSHA Information Section
Missouri Department of Labor and Industrial Relations, Division of Workers' Compensation, Statistical Section
Nebraska Workmen's Compensation Court, Statistics Section
New Mexico Occupational Health and Safety Bureau
North Carolina Department of Commerce, Industrial Commission
Industrial Commission of Ohio, Division of Safety and Hygiene
Oregon Workers' Compensation Department, Research and Statistics Section
Tennessee Department of Labor, Division of Labor Standards, Research Section
Texas Industrial Accident Board and Department of Health
Utah Industrial Commission, Statistics Division
Vermont Department of Labor and Industry
Virginia Department of Labor and Industry, Division of Research and Statistics
Washington Department of Labor and Industries, Industrial Insurance Division, Data Analysis Section
Wisconsin Department of Industry, Labor, and Human Relations, Workers' Compensation Division
Wyoming Department of Labor and Statistics, Research and Statistics Section .

The following offices of the Occupational Safety and Health Administration of the U.S. Department of Labor contributed to the planning and development of the survey: Compliance, Standards Development, Statistical Studies and Analysis, Regulatory Analysis, and Training. The Office of Safety Research of the National Institute for Occupational Safety and Health also contributed. The analysis of the survey findings and the computer tabulations were prepared by Maryrose Cline-Buso. Helen McDonald directed the survey.

A list of other Work Injury Reports published since 1978 appears at the end of this bulletin.

# Contents

# Injuries to Warehouse Workers

## Introduction

According to a 1981 analysis of job risk by occupation, workers in warehouse occupations are at a higher than average risk of injury.[1] At the request of the Occupational Safety and Health Administration, the Bureau of Labor Statistics conducted a survey of injured warehouse workers in 1984 to obtain more information on the actions and hazards associated with their work-related injuries. Workers were asked to describe the activity, location, and material movement equipment used at the time of their accident. As a measure of the severity of the injuries, information was obtained on the nature of the injury and the part of body affected, the number of days lost from work, and the amount of hospitalization required. Workers indicated the personal protective equipment they were wearing or using at the time of their accident, the extent of safety training received for the job they were doing when injured, and their experience in warehouse work. They were also asked about worksite conditions or other factors they felt contributed to the accident and how similar accidents could be prevented in the future. The survey results represent 2,700 warehouse workers who were injured on the job in September 1984 in 26 States.

## Survey results

*Industry classification and occupation.* Injured warehouse workers were largely concentrated in the wholesale and retail trade industries (table 1). Forty-seven percent of the injured worked for wholesale trade establishments, most frequently grocery, automotive parts, machinery, and construction material distributors (chart 1). Retail trade firms, mostly food stores, employed 21 percent of the workers and manufacturers, 15 percent. The transportation and public utilities industry accounted for 8 percent of those injured.

Most of the workers reported job titles which reflected specific job duties (table 2). Order selectors, pullers, or pickers was the job title of 24 percent of the injured; 11 percent were forklift operators. Other frequently cited occupations were: Shipping or receiving clerk; loader, unloader, or checker; stocker, stock clerk, or filler; and warehouse manager or supervisor. Thirty-two percent were classified under the general title of warehouse worker.

*Age and sex of worker and work experience.* Nearly three-fourths of the workers studied were under 35 years of age; one-half of these were 25 to 34 years old (table 3). Nine out of ten injured warehouse workers were men.

Fifty-seven percent of the injured workers had worked for their employers at least 1 year at the time of their accidents; 24 percent had 5 or more years of service (table 4). Industry experience was even greater. Seventy-nine percent of all warehouse workers surveyed had worked 1 or more years in warehousing jobs, and more than one-half of these workers indicated that they had over 5 years of experience (chart 2).

*Length of time in shift.* Injured workers were asked to provide information about when their accidents occurred during the workday. Relatively few accidents happened during the first hour; the largest proportion occurred during the second to fourth hours of the shift (chart 3).

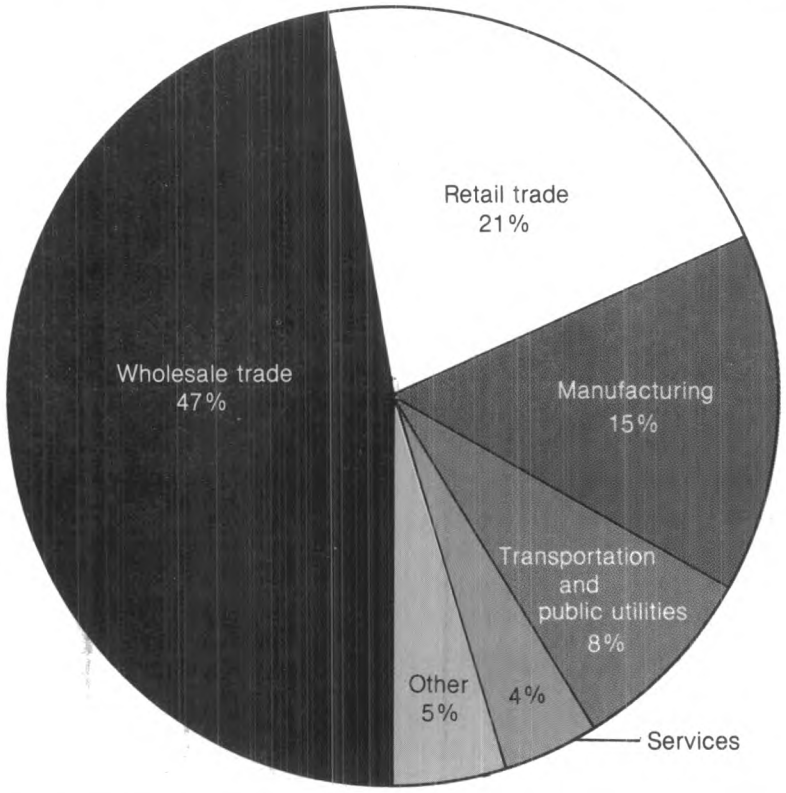
*Personal protective equipment.* Three out of every five injured workers were not wearing or using any type of personal protective equipment when injured (table 6). Twenty-three percent were wearing gloves, and a similar proportion, steel-toed safety shoes or boots. Hard hats or some form of protective eyewear were each worn by 5 percent of the workers.

*Safety training.* Safety training for the job being done at the time of injury was reported by 54 percent of the workers (table 7). The safety subjects most frequently covered were: Training in housekeeping practices, such as keeping aisles and floors free of trash and clutter; how to lift properly; how to operate forklifts safely; when and where to use personal protective equipment; and how to safely operate powered equipment, most commonly powered pallet jacks and cranes.

Safety training took the form of on-the-job training for nearly one-third of the workers. Printed materials containing safety information were distributed to slightly more than one-fifth, and one-fifth received their training in more formal safety meetings.

[1] Norman Root and Deborah Sebastian, "BLS Develops Measure of Job Risk by Occupation," *Monthly Labor Review,* October 1981, pp. 26-30.

**Chart 1. Industry distribution of injured warehouse workers, September 1984**



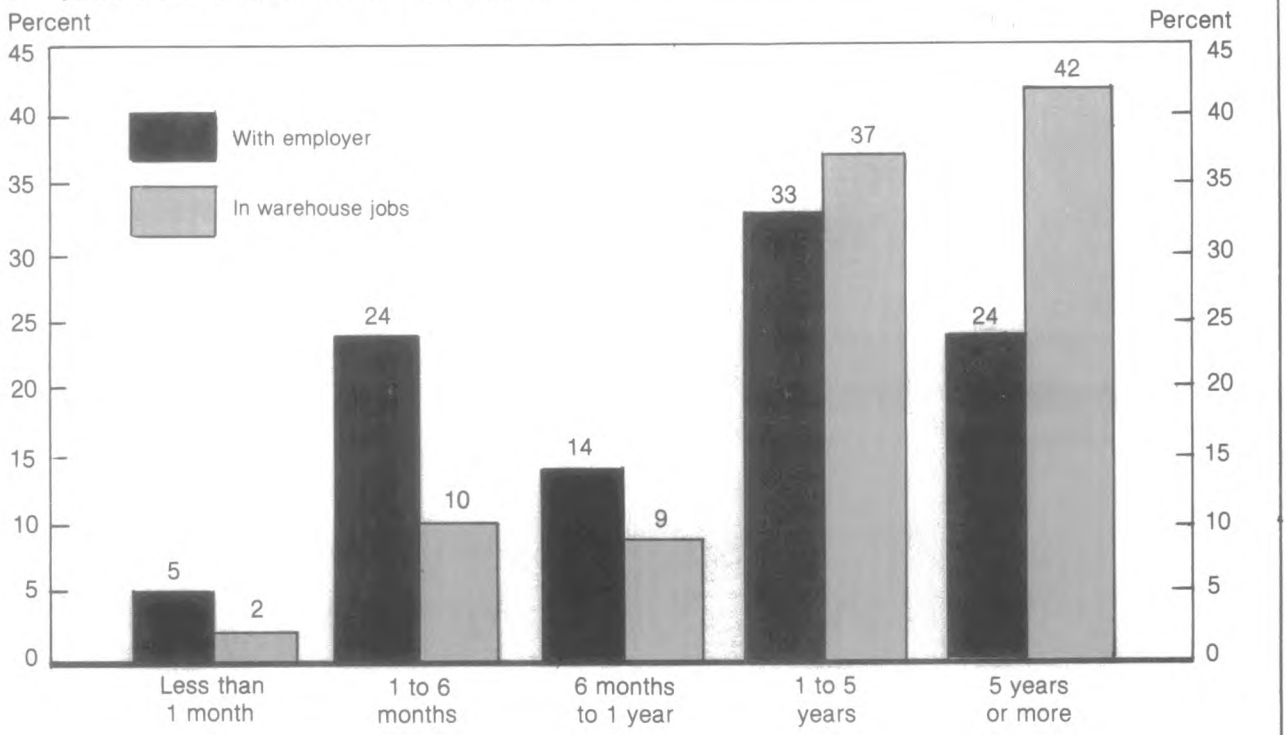

Three-tenths of the workers noted that their companies had labor-management committees which met on safety issues, a nearly equal proportion said their companies had no such committee, and the remaining two-fifths did not know whether such a committee existed.

*Activity of worker at time of accident and equipment used.* The flow of goods into and out of a warehouse forms a common pattern of activities in most warehouses. Goods coming into the warehouse are unloaded from vehicles, inventoried, and placed into storage. The process of warehousing incoming goods may occur at the same time that goods are prepared for leaving the warehouse. Activities involved when goods are moved out of the warehouse include getting the merchandise removed from storage, readied for shipping, and loaded onto vehicles for transport away from the warehouse. Almost three-tenths of the injuries occurred to workers while they were loading or unloading a vehicle (table 8). Moving stock to or from storage ranked next in frequency, along with selecting (picking) items, and stacking or placing stock (chart 4). All but 6 percent of the injured workers reported that the type of work being performed at the time of accident was the same as they performed during the course of a normal workday (table 8).

Thirteen percent of the injured workers were operating mechanized lifting/handling equipment at the time of their accidents, most frequently forklifts and powered pallet jacks. Working with (although not operating) lifting/handling equipment was indicated by 25 percent, including workers manually loading or unloading forklifts or using handtrucks.

*Manual materials handling.* Increased mechanization and sophisticated material handling equipment do not totally eliminate the need for manual materials handling in warehousing. Nearly two-thirds of the injured warehouse workers were manually lifting, carrying, or handling materials at the time of their injury (table 9). When asked if they could have used lifting/handling equipment, such as forklifts, handtrucks, and dollies, to perform their tasks, 9 out of 10 said no, and 7 out of 10 explained that the material had to be moved by hand at some stage. Some who were working with lifting/handling equipment still had to manually place the goods on the forklifts or dollies. Close to 1 in 5 said the work space was not adequate in which to use the equipment. Ten percent indicated they could have used lifting/handling equipment but most felt, prior to their accidents, that it was unnecessary or too much trouble to use.

**Chart 2. Length of service with employer and length of service in warehouse jobs of injured warehouse workers, September 1984**




*Location of worker at time of accident.* More than one-half of the workers were injured while in the storage area of the warehouse (table 10). However, injuries also occurred in other warehouse areas where the primary function was the loading and unloading of materials rather than storage. Fourteen percent of the accidents took place on a loading dock, while 15 percent were in trucks, usually at the loading dock.

Sixty-eight percent of the workers were injured while working at ground (floor) level. Workers must also climb ladders to obtain products, walk up stairs to an upper storage area, and sometimes climb shelves, racks, or piled materials to reach stock. A total of 7 percent of the workers were on these elevated surfaces at the time of their accidents. Being in or on a vehicle was cited by 23 percent.

Unfamiliarity with the worksite did not seem to be a problem among the injured workers. Only 4 percent indicated that they were working in a location different from their normal worksite (table 8).

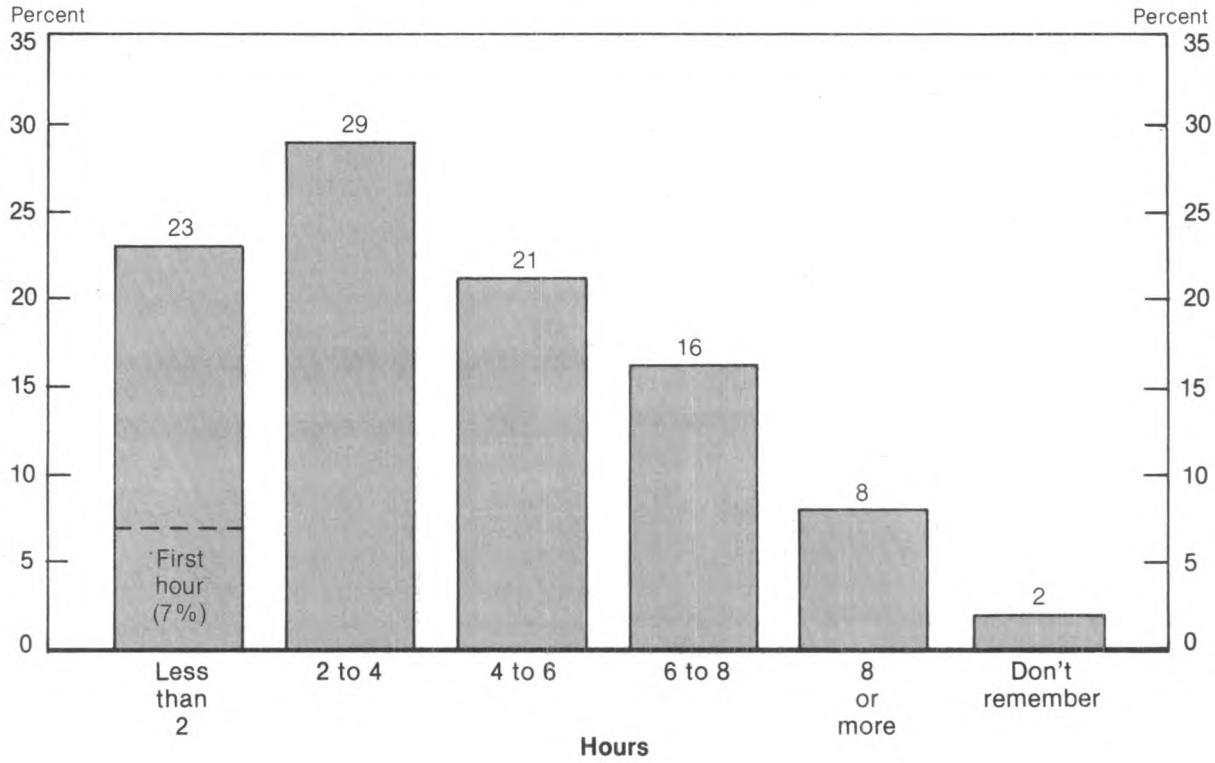
*Description of accident.* Information on the type of accident describes a single event which produces a worker's injury. However, accidents are not always the result of a single, isolated event. Some are the result of an unusual or unexpected event preceding the accident. For example, a warehouse worker might suffer a muscle sprain or strain while just lifting a box. Another worker lifting a box may injure a muscle because the contents of the box shifted suddenly. In both cases, the type of accident could be overexertion, but, in the second situation, the accident was affected by the preceding event—the box's contents shifting. This bulletin attempts to identify both the events leading to the accident (table 11), the type of accident (table 12), and the relationship between these two.

Overall, 38 percent of the workers were injured by overexertion, mostly while manually lifting or handling materials. For the majority of these workers, nothing unusual preceded their accidents (text table 1). Their injuries were usually the result of a single act of lifting, carrying, or wielding objects. However, a few workers noted losing their balance or their grip on objects, or that materials had shifted.

Twenty-six percent were struck by falling, flying, or swinging objects. Nearly one-half of these accidents involved preceding events; the unexpected movement of work materials accounted for the largest proportion.

Falls from elevations accounted for 6 percent of the accidents. One-third of these falls occurred after the surface beneath the worker, such as a stack of piled materials, shifted or broke. This included a worker who

**Chart 3. Hours worked prior to accident of injured warehouse workers, September 1984**




**Text table 1. Percent distribution of type of accident by preceding events: Injuries to warehouse workers, selected States, September 1984**

| Preceding event | Type of accident | | | |
|---|---|---|---|---|
| | Over-exertion | Struck by | Fall from elevation | Other |
| Total | 100 | 100 | 100 | 100 |
| No preceding event | 92 | 54 | 36 | 58 |
| Working surface shifted, slipped, or broke | 0 | 1 | 33 | 3 |
| Worker lost balance, slipped, or tripped | 2 | 3 | 27 | 28 |
| Worker lost grip on object holding onto or working with | 1 | 10 | 0 | 3 |
| Work materials shifted, slipped, or broke | 5 | 32 | 3 | 8 |

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.
SOURCE: Survey questionnaires.

said the floor of the trailer he was working in caved in and another who fell when the ladder he was standing on shifted.

Most of the remaining types of accidents involved workers striking against objects or falling to the same level because they lost their grip on objects or slipped or tripped and lost their balance.

Finally, the source of injury identifies the object or substance which produced the injury. Nearly 70 different sources of injury were given; the most common (29 percent) were boxes, barrels, or containers (table 13). Other frequent sources included metal items, such as structural metal, pipes, fittings, or fasteners, 11 percent; vehicles, usually forklifts or powered pallet jacks, 11 percent; and working surfaces, 10 percent.

*Severity of injury.* Information on the nature of workers' injuries, days away from work, and hospitalization helps to determine the severity of workers' injuries. Muscle sprains and strains, the most common injury, were sustained by 55 percent of the workers (table 14). Bruises were next in frequency, along with cuts, lacerations, and punctures, accounting for 21 and 18 percent, respectively. Thirteen percent suffered fractures.

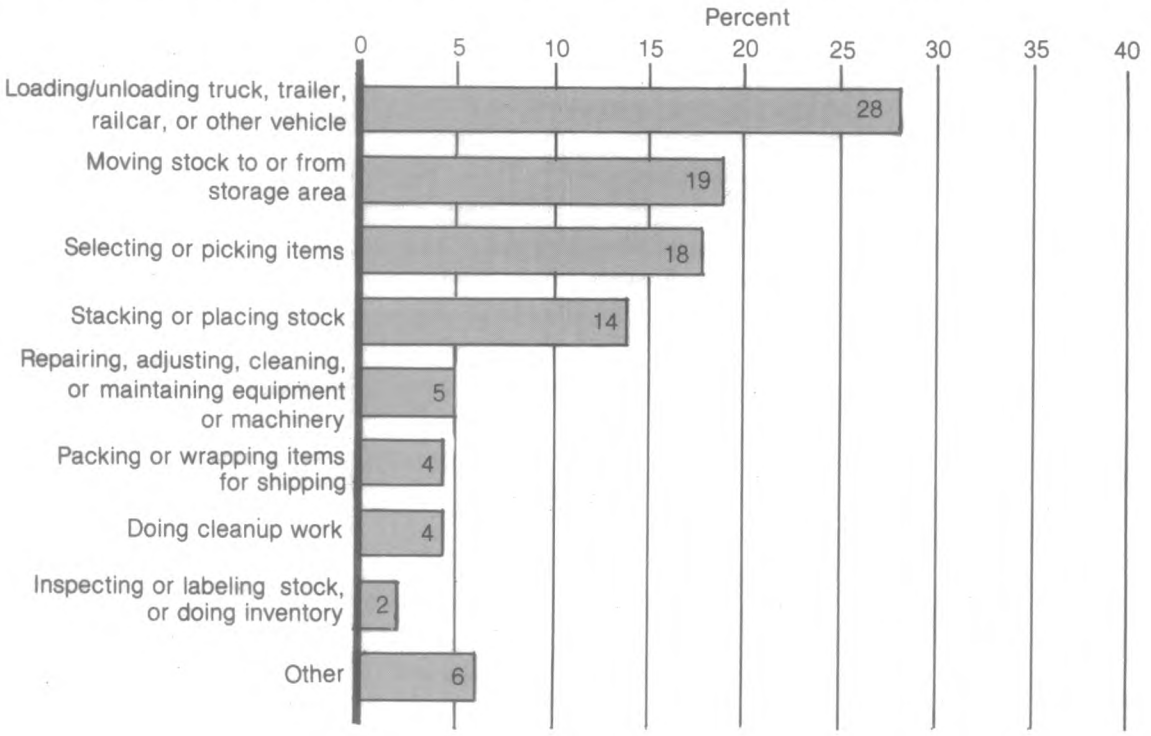
More than two-fifths of the workers experienced injuries to the trunks of their bodies, particularly their backs (table 15). Less frequently, injuries were to the lower extremities, specifically the foot, and to the upper extremities, usually the fingers.

Seventy-seven percent of the injured workers lost days away from work as a result of their injuries (table 16).[2] The average lost-time case resulted in 16 days away from work, which is close to the national average of 17 for all lost-workday injury cases.[3] Slightly less than one-

[2] See appendix A for differences in reporting requirements among the States included in this study.

[3] *Occupational Injuries and Illnesses in the United States by Industry, 1983,* Bulletin 2236 (Bureau of Labor Statistics, 1985), table 6.

**Chart 4. Activity of warehouse worker at time of accident, September 1984**




tenth of the workers were hospitalized overnight, with an average hospital stay of 5 nights (table 17).

*Conditions or factors contributing to the accident.* Forty-six percent of the injured workers indicated that conditions at the worksite contributed to their accidents (table 18). Twenty-two percent considered a limited work area or space responsible, at least in part, for their accidents. Other contributing conditions, each accounting for 7 or 8 percent, were slippery floor surfaces, cluttered work areas, and tools or equipment in bad condition or not working properly.

An even larger proportion of workers, almost 3 out of 4, felt that more general factors also contributed. Working too fast or working in an awkward position each were indicated by 1 out of 4 workers. About 1 out of 6 blamed lifting, carrying, or handling an object that was too heavy, while slightly fewer (1 out of 7) noted that working under stress was a factor. Nearly 1 out of 10 cited working when tired or fatigued, and a similar proportion gave their carelessness as a possible cause of their accidents.

*Preventative measures.* Three in four injured workers felt their type of accident could have been prevented (table 19). Having more help to do the job was indicated by 1 in 4 workers, and 1 in 5 claimed that having more time to perform the task might have helped. About 1 in 5 also felt that safer work procedures on their part might prevent accidents and nearly 1 in 6 workers felt that making the work area safer would help.

When asked if their employers had taken action after the accident to prevent a similar accident from occurring to others, 43 percent did not know of any actions taken, in some instances because they had not yet returned to work. Another 41 percent indicated that no actions were taken. The remaining 16 percent noted preventative actions by their employers. A number of workers who had suffered overexertion injuries said that their employer explained proper manual lifting methods to them, and in some cases, to their co-workers as well. For virtually all of these injured workers, this was a refresher of previous training. Several of the workers noted that equipment involved in the accident was repaired afterwards. Some acknowledged the hiring of additional help while others noted that safety meetings were held.

## Limitations of the data

The data in this bulletin represent the population of injured warehouse workers reported in the 26 cooperating States during the reference period of September 1984. However, the user should note the following limitations: States participating in data collection may not be representative of the country as a

whole; government and coal and metallic and nonmetallic mining are not included; reporting requirements for workers' compensation reports, the basis for selecting injuries for study, vary among States; and the reference period is not intended to represent the entire year.

Incidence rates of the injuries studied were not generated, nor can they be inferred from the data, because information on hours of work for the survey period is not available. See appendix A for the scope and methodology of the survey.

**Table 1. Industry and number of employees: Injuries to warehouse workers, selected States, September 1984**

| Industry and number of people employed | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| **Industry** | |
| Agriculture, forestry, and fishing | 1 |
| Mining [1] | ([2]) |
| Construction | 2 |
| Manufacturing | 15 |
| Transportation and public utilities | 8 |
| Wholesale trade | 47 |
| Wholesale trade—durable goods | 22 |
| Wholesale trade—nondurable goods | 25 |
| Retail trade | 21 |
| Building materials and garden supplies | 2 |
| General merchandise stores | 4 |
| Food stores | 7 |
| Automotive dealers and service stations | 1 |
| Apparel and accessory stores | ([2]) |
| Furniture and home furnishings stores | 3 |
| Eating and drinking places | ([2]) |
| Miscellaneous retail | 3 |
| Finance, insurance, and real estate | – |
| Services | 4 |
| Other industries, not elsewhere classified | 1 |
| **Number of people employed in worker's company** | |
| 1 to 10 employees | 18 |
| 11 or more employees | 82 |

[1] Limited to oil and gas extraction.
[2] Less than 0.5 percent.
NOTE: Dash indicates no data were reported. Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.
SOURCE: Industry obtained from State workers' compensation reports; number of employees obtained from survey questionnaires.

**Table 2. Occupation: Injuries to warehouse workers, selected States, September 1984**

| Occupation | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| Cleanup person or maintenance person | 1 |
| Forklift operator | 11 |
| Loader, unloader, or checker | 6 |
| Order selector, puller, or picker | 24 |
| Shipping or receiving clerk, shipper, or packer | 7 |
| Stocker, stock clerk, or filler | 5 |
| Warehouse manager or supervisor | 5 |
| Other | 8 |
| Warehouse worker, uns. | 32 |

uns. = unspecified.
NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.
SOURCE: Survey questionnaires.

**Table 3. Age and sex of worker: Injuries to warehouse workers, selected States, September 1984**

| Age and sex | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| **Age** | |
| 16-19 years | 8 |
| 20-24 years | 28 |
| 25-34 years | 38 |
| 35-44 years | 15 |
| 45-54 years | 8 |
| 55-64 years | 3 |
| 65 years or more | (1) |
| **Sex** | |
| Men | 90 |
| Women | 10 |

[1] Less than 0.5 percent.

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: State workers' compensation reports.

**Table 4. Length of service: Injuries to warehouse workers, selected States, September 1984**

| Length of service | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| **Length of service with employer** | |
| Less than 1 month | 5 |
| 1 to 6 months | 24 |
| 6 months to 1 year | 14 |
| 1 to 5 years | 33 |
| 5 years or more | 24 |
| **Length of service in warehouse jobs** | |
| Less than 1 month | 2 |
| 1 to 6 months | 10 |
| 6 months to 1 year | 9 |
| 1 to 5 years | 37 |
| 5 years or more | 42 |

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 5. Length of time in shift before accident occurred: Injuries to warehouse workers, selected States, September 1984**

| Length of time in shift before accident occurred | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| Less than 1 hour | 7 |
| 1 to 2 hours | 16 |
| 2 to 4 hours | 29 |
| 4 to 6 hours | 21 |
| 6 to 8 hours | 16 |
| 8 hours or more | 8 |
| Don't remember | 2 |

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 6. Personal protective equipment worn or used: Injuries to warehouse workers, selected States, September 1984**

| Personal protective equipment | Percent |
|---|---|
| Total, 2,700 injured workers | (1) |
| Hard hat | 5 |
| Gloves | 23 |
| Steel-toed safety shoes or steel-toed boots | 22 |
| Safety glasses, goggles, or other eye protection | 5 |
| Safety belt tied off with lanyard | 1 |
| Seat belt | – |
| Other | 2 |
| Not wearing or using protective equipment | 61 |

[1] Because more than one response is possible, the sum of the percentages may not add to 100. Percentages are based on the total number of persons who answered the question.

NOTE: Dash indicates no data were reported. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 7. Safety training: Injuries to warehouse workers, selected States, September 1984**

| Safety training | Percent |
|---|---|
| **Safety training for job being done when injured** | |
| Total, 2,700 injured workers | (1) |
| Forklift operator training course | 23 |
| How to operate other power equipment | 13 |
| Proper manual lifting methods | 28 |
| When and where to use personal protective equipment | 16 |
| Importance of keeping floor and aisles free of trash and other objects | 29 |
| Provided written safe-job procedures for the job doing when injured | 4 |
| Other safety training | 3 |
| Never received safety training for job being done when injured | 46 |
| **Source of safety training** | |
| Total, 2,700 injured workers | (1) |
| Printed materials | 22 |
| Films | 18 |
| On-the-job training | 32 |
| Safety meetings | 20 |
| Other | 1 |
| Never received safety training for the job | 48 |
| **Whether worker's company had a labor-management committee to meet on safety issues** | |
| Total, 2,700 injured workers | 100 |
| No | 32 |
| Yes | 30 |
| Don't know | 38 |

[1] Because more than one response is possible, the sum of the percentages may not add to 100. Percentages are based on the total number of persons who answered the question.

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 8. Activity of worker at time of accident: Injuries to warehouse workers, selected States, September 1984**

| Activity | Percent |
|---|---|
| **Activity of worker at time of accident** | |
| Total, 2,700 injured workers | 100 |
| Loading/unloading truck, trailer, railcar, or other vehicle | 28 |
| Moving stock to or from storage area | 19 |
| Stacking or placing stock | 14 |
| Selecting or picking items | 18 |
| Packing or wrapping items for shipping | 4 |
| Inspecting or labeling stock, or doing inventory | 2 |
| Doing cleanup work | 4 |
| Repairing, adjusting, cleaning, or maintaining equipment or machinery | 5 |
| Other | 6 |
| **Lifting/handling equipment worker was working with or operating** | |
| Total, 2,700 injured workers | 100 |
| Workers operating lifting/handling equipment at time of accident | 13 |
| Forklift | 7 |
| Powered pallet jack | 4 |
| Manual cart, handtruck, or dolly | |
| Shrink wrap or other wrapping machine | ([1]) |
| Platform on forklift or crane to lift worker | 1 |
| Conveyor | ([1]) |
| Crane | ([1]) |
| Other | 1 |
| Workers working with lifting/handling equipment at time of accident (i.e., unloading cartons from forklift, pushing handcart, etc.) | 25 |
| Forklift | 6 |
| Powered pallet jack | 5 |
| Manual cart, handtruck, or dolly | 10 |
| Shrink wrap or other wrapping machine | 1 |
| Platform on forklift or crane to lift worker | 1 |
| Conveyor | 2 |
| Crane | – |
| Other | 1 |
| Workers not operating or working with lifting/handling equipment at time of accident | 61 |
| **Whether location, equipment, or type of work were different in any way from worker's normal work** | |
| Total, 2,700 injured workers | ([2]) |
| Yes—using different equipment | 1 |
| Yes—working at different location | 4 |
| Yes—doing different type of work | 6 |
| No | 90 |

[1] Less than 0.5 percent.

[2] Because more than one response is possible, the sum of the percentages may not add to 100. Percentages are based on the total number of persons who answered the question.

NOTE: Dash indicates no data were reported. Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 9. Manual materials handling: Injuries to warehouse workers, selected States, September 1984**

| Manual materials handling | Percent |
|---|---|
| **Manual materials handling at time of accident** | |
| Total, 2,700 injured workers | 100 |
| Workers manually handling materials | 64 |
| Workers not manually handling materials | 36 |
| **Whether worker could have used lifting/handling equipment to lift, carry, or move objects** | |
| Total, 1,720 injured workers | 100 |
| No--there was not enough space to use it | 18 |
| No--the material had to be moved by hand | 70 |
| No--other reason | 1 |
| Yes | 10 |
| **If yes: Type of equipment worker could have used[1]** | |
| Total, 180 injured workers | [2] |
| Forklift | 62 |
| Powered pallet jack | 7 |
| Manual cart, handtruck, or dolly | 24 |
| Conveyor | – |
| Crane | 11 |
| Other | 4 |
| **Why worker wasn't using this equipment[1]** | |
| Total, 180 injured workers | [2] |
| Did not think it was necessary | 40 |
| In bad condition or not working properly | 8 |
| Too much trouble to use | 18 |
| Did not know how to operate | – |
| Not authorized to use that type of equipment | 4 |
| Other | 34 |

[1] Due to the small number of responses, the sampling errors for these estimates are generally higher than those of other survey estimates. See note on data reliability in appendix A.

[2] Because more than one response is possible, the sum of the percentages may not add to 100. Percentages are based on the total number of persons who answered the question.

NOTE: Dash indicates no data were reported. Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 10. Location of worker at time of accident: Injuries to warehouse workers, selected States, September 1984**

| Location | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| **Worksite location** | |
| Inside truck, trailer, or railcar | 15 |
| Temporary storage area of warehouse | 21 |
| Long-term storage area of warehouse | 30 |
| Loading dock | 14 |
| Other area of warehouse | 10 |
| Outdoor location (other than loading dock) | 8 |
| Other | 3 |
| **Elevation at worksite** | |
| At ground or floor level | 68 |
| On piled or stacked materials | 2 |
| On a ladder | 2 |
| On stairs | ([1]) |
| On a shelf or rack | 3 |
| In or on a vehicle | 23 |
| Other | 3 |

[1] Less than 0.5 percent.

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 11. Events leading to accident: Injuries to warehouse workers, selected States, September 1984**

| Events leading to accident | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| No preceding events | 68 |
| Working surface shifted, moved, or broke | 4 |
| Work materials shifted, slipped, or broke | 13 |
| Worker lost balance, slipped, or tripped | 11 |
| Worker lost grip on object holding onto or working with | 4 |

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 12. Type of accident: Injuries to warehouse workers, selected States, September 1984**

| Type of accident | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| Struck against | 8 |
| Struck against, uns. | (1) |
| Stationary object | 7 |
| Moving object | 1 |
| Struck by | 26 |
| Struck by, uns. | 1 |
| Falling object | 14 |
| Flying object | 1 |
| Struck by, n.e.c. | 11 |
| Fall from elevation | 6 |
| Fall from elevation, uns. | (1) |
| From scaffolds, etc. | (1) |
| From ladders | 1 |
| From piled materials | 1 |
| From vehicles | 2 |
| On stairs | (1) |
| Into shafts, etc. | (1) |
| Fall to lower level, n.e.c. | 3 |
| Fall on same level | 6 |
| Fall on same level, uns. | (1) |
| Fall to the walkway, etc. | 4 |
| Fall onto or against objects | 1 |
| Fall on same level, n.e.c. | 1 |
| Caught in, under, between | 7 |
| Caught in, under, between, uns. | 1 |
| Inrunning or meshing objects | 1 |
| Moving and stationary objects | 3 |
| Two or more moving objects | (1) |
| Caught in, under, between, n.e.c. | 1 |
| Rubbed or abraded | 2 |
| Vibrating objects | (1) |
| Foreign matter in eyes | 2 |
| Bodily reaction | 3 |
| Overexertion | 38 |
| Overexertion, uns. | 2 |
| Lifting objects | 28 |
| Pulling or pushing objects | 4 |
| Wielding or throwing objects | 3 |
| Overexertion, n.e.c. | 1 |
| Contact with electric current | (1) |
| Contact with temperature extremes | (1) |
| Hot objects or substances | (1) |
| Contact with radiations, caustics, etc. | 1 |
| By absorption | 1 |
| Contact with radiations, caustics, etc., n.e.c. | (1) |
| Explosions | (1) |
| Accident type, n.e.c. | (1) |
| Nonclassifiable | 2 |

[1] Less than 0.5 percent.

n.e.c. = not elsewhere classified.

uns. = unspecified.

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: State workers' compensation reports.

**Table 13. Source of injury: Injuries to warehouse workers, selected States, September 1984**

| Source of injury | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| Animals, insects, etc. | (1) |
| Bodily motion | 3 |
| Boilers, pressure vessels | (1) |
| Boxes, barrels, containers | 29 |
| Buildings and structures | 2 |
| Ceramic items | (1) |
| Chemicals, chemical compounds | 1 |
| Conveyors | 1 |
| Electric apparatus | 1 |
| Food products | 2 |
| Furniture, fixtures, etc. | 5 |
| Glass items, n.e.c. | 1 |
| Handtools, not powered | 3 |
| Hammer | (1) |
| Knife | 2 |
| Pliers | (1) |
| Shovel | (1) |
| Handtools, not powered, n.e.c. | 1 |
| Handtools, powered | (1) |
| Heating equipment (nonelectric), n.e.c. | 1 |
| Hoisting apparatus | 1 |
| Ladders | (1) |
| Liquids, n.e.c. | (1) |
| Machines | 1 |
| Machines, uns. | (1) |
| Agitators, mixers | (1) |
| Drilling, boring | (1) |
| Saws | (1) |
| Screening, separating | (1) |
| Machines, n.e.c. | 1 |
| Mechanical power transmission apparatus | (1) |
| Metal items | 11 |
| Metal items, uns. | 1 |
| Automobile parts | 1 |
| Structural metal | 1 |
| Pipe and fittings | 2 |
| Metal parts (execpt automobile) | 1 |
| Metal fasteners | 2 |
| Metal binders | (1) |
| Metal chips, splinters, particles | 1 |
| Metal items, n.e.c. | 3 |
| Mineral items, nonmetallic, n.e.c. | (1) |
| Paper and pulp | 1 |
| Particles (unidentified) | 1 |
| Plastic items, n.e.c. | 1 |
| Pumps and prime movers | (1) |
| Soaps, detergents, etc., n.e.c. | (1) |
| Vehicles | 11 |
| Vehicles, uns. | (1) |
| Aircraft | (1) |
| Highway vehicles, powered | 1 |
| Plant or industrial vehicles | 9 |
| Dollies or other nonpowered vehicles | 2 |
| Forklifts or other powered carriers | 7 |
| Powered towing vehicles | (1) |
| Rail vehicles | (1) |
| Vehicles, n.e.c. | (1) |
| Wood items | 8 |
| Lumber | 2 |
| Skids, pallets | 6 |
| Wood items, n.e.c. | (1) |
| Working surfaces | 10 |
| Working surfaces, uns. | 2 |
| Floor | 5 |
| Ground | 1 |

See footnotes at end of table.

**Table 13. Source of injury: Injuries to warehouse workers, selected States, September 1984—Continued**

| Source of injury | Percent |
|---|---|
| Ramps | (1) |
| Runways, platforms | (1) |
| Stairs, steps | (1) |
| Street, road | (1) |
| Working surfaces, n.e.c. | (1) |
| Rubber products | (1) |
| Miscellaneous, n.e.c. | (1) |
| Nonclassifiable | 4 |

[1] Less than 0.5 percent.

n.e.c. = not elsewhere classified.

uns. = unspecified.

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: State workers' compensation reports.

**Table 14. Nature of injury: Injuries to warehouse workers, selected States, September 1984**

| Nature of injury | Percent |
|---|---|
| Total, 2,700 injured workers | (1) |
| Fracture | 13 |
| Cut, laceration, or puncture | 18 |
| Bruise or contusion | 21 |
| Muscle sprain or strain, torn ligaments, or pulled muscle | 55 |
| Dislocation | 4 |
| Hernia | 4 |
| Object in eye(s) | 1 |
| Concussion | 1 |
| Other | 4 |

[1] Because more than one response is possible, the sum of the percentages may not add to 100. Percentages are based on the total number of persons who answered the question.

NOTE: See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 15. Part of body affected: Injuries to warehouse workers, selected States, September 1984**

| Part of body | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| Head | 5 |
| Head, uns. | 1 |
| Brain | (1) |
| Ear(s) | (1) |
| Eye(s) | 3 |
| Face | 1 |
| Head, multiple | (1) |
| Head, n.e.c. | (1) |
| Neck | 2 |
| Upper extremities | 22 |
| Upper extremities, uns. | (1) |
| Arm(s) | 4 |
| Arm(s), uns. | 1 |
| Upper arm(s) | (1) |
| Elbow(s) | 1 |
| Forearm(s) | 2 |
| Arm(s), multiple | (1) |
| Arm(s), n.e.c. | (1) |
| Wrist(s) | 4 |
| Hand(s) | 3 |
| Finger(s) | 10 |
| Upper extremities, multiple | 1 |
| Trunk | 41 |
| Trunk, uns. | (1) |
| Abdomen | 5 |
| Back | 28 |
| Chest | 3 |
| Hip(s) | 1 |
| Shoulder(s) | 3 |
| Trunk, multiple | 1 |
| Lower extremities | 24 |
| Leg(s) | 7 |
| Leg(s), uns. | 1 |
| Thigh(s) | 1 |
| Knee(s) | 4 |
| Lower leg(s) | 1 |
| Leg(s), multiple | (1) |
| Ankle(s) | 5 |
| Foot or feet | 9 |
| Toe(s) | 3 |
| Lower extremities, multiple | (1) |
| Multiple parts | 5 |
| Nonclassifiable | (1) |

[1] Less than 0.5 percent.
n.e.c. = not elsewhere classified.
uns. = unspecified.
NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.
SOURCE: State workers' compensation reports.

**Table 16. Estimated days away from work: Injuries to warehouse workers, selected States, September 1984**

| Days away from work | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| No days away from work | 23 |
| 1 to 5 days | 27 |
| 6 to 10 days | 12 |
| 11 to 15 days | 8 |
| 16 to 20 days | 6 |
| 21 to 25 days | 4 |
| 26 to 30 days | 4 |
| 31 to 40 days | 4 |
| 41 to 60 days | 1 |
| More than 60 days | 3 |
| Lost-time cases for which days away from work were not estimated | 8 |
| | Mean |
| Mean days away from work per lost-workday case | 16 |

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.
SOURCE: Survey questionnaires.

**Table 17. Length of hospitalization required: Injuries to warehouse workers, selected States, September 1984**

| Length of hospitalization | Percent |
|---|---|
| Total, 2,700 injured workers | 100 |
| No hospitalization required | 91 |
| 1 night | 1 |
| 2 nights | 2 |
| 3 nights | 1 |
| 4 nights | 1 |
| 5 nights | 1 |
| 6 nights or more | 3 |
| Hospitalized cases for which length of hospitalization was not estimated | 1 |
| | Mean |
| Mean length (nights) of hospitalization per hospitalized case | 5 |

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.
SOURCE: Survey questionnaires.

**Table 18. Conditions or factors contributing to the accident: Injuries to warehouse workers, selected States, September 1984**

| Conditions or factors workers felt contributed to accident | Percent |
|---|---|
| **Worksite conditions** | |
| Total, 2,700 injured workers | (1) |
| Slippery floor surface | 7 |
| Working in a limited area or space | 22 |
| Poor lighting | 3 |
| Lifting/handling equipment lacked safety features | 1 |
| Cluttered work area | 8 |
| Structure was broken or in bad condition | 4 |
| Tools or equipment in bad condition or not working properly | 8 |
| Other | 7 |
| No conditions at worksite led to accident | 54 |
| **Other contributing factors** | |
| Total, 2,700 injured workers | (1) |
| Working when tired or fatigued | 9 |
| Co-worker's activity | 6 |
| Worker had previous physical condition which contributed to accident | 2 |
| Working too fast | 25 |
| Working when under stress | 15 |
| Was careless in what you were doing | 8 |
| Lifting, carrying, or moving an object that was too heavy | 17 |
| In an awkward position | 25 |
| Not given proper training or instructions for job | 2 |
| Safety rules were not enforced | 4 |
| Other | 7 |
| No other factors contributed to accident | 27 |

[1] Because more than one response is possible, the sum of the percentages may not add to 100. Percentages are based on the total number of persons who answered the question.

NOTE: See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

**Table 19. Accident prevention: Injuries to warehouse workers, selected States, September 1984**

| Accident prevention | Percent |
|---|---|
| **Actions, methods, or procedures that worker feels would have prevented accident** | |
| Total, 2,700 injured workers | (1) |
| Making area safer before working | 16 |
| More or better safety training | 9 |
| Using protective equipment | 5 |
| Using safer work procedures on workers' part | 19 |
| Having company enforce safe work practices | 8 |
| More help to do job | 24 |
| Providing more or better safety features on equipment | 5 |
| Using lifting/handling equipment | 5 |
| More time to do job | 21 |
| Other | 13 |
| Do not think it could have been prevented | 24 |
| **Employer action(s) taken to prevent accident from happening to others** | |
| Total, 2,700 injured workers | 100 |
| No action(s) taken by employer | 41 |
| Action(s) was taken by employer | 16 |
| Worker did not know if action(s) was taken by employer | 43 |

[1] Because more than one response is possible, the sum of the percentages may not add to 100. Percentages are based on the total number of persons who answered the question.

NOTE: Due to rounding, percentages may not add to 100. See appendix A for the scope of the survey.

SOURCE: Survey questionnaires.

# Appendix A. Survey Explanatory Note

## Scope of survey

The survey was designed to develop information on injuries to workers employed in selected warehouse occupations in the private sector. The injuries studied occurred during the month of September 1984. Included were workers in occupations identified as "warehouse workers, not elsewhere classified" according to the 1970 Bureau of Census classification of occupations. Other Census occupations which were included in the study were shipping and receiving clerks; stock clerks and storekeepers; forklift and tow motor operators; freight and material handlers; and stock handlers provided that one of two criteria were met: (1) the department in which the worker was working was warehouse, or (2) the industry according to the Standard Industrial Classification system was Public Warehousing (SIC 442) or Wholesale Trade (SIC's 50 and 51). Injury cases were excluded from the survey if they involved on-the-road vehicle accidents, assaults, or fatalities.

The survey covered the 26 States shown in appendix B. To identify cases within the scope of the survey, staff of the participating State agencies reviewed Employer's Reports of Injuries required by State workers' compensation laws. Of the 2,700 reports meeting the critera, a systematic random sample of 1 out of 3.5 reports was selected, and a questionnaire was mailed to each injured worker in the sample; cooperation was voluntary. During the survey period, 424 survey questionnaires were returned and found to be within the scope of the survey, resulting in a response rate of 55 percent.

Although the data were aggregated for all participating States, it should be noted that the workers' compensation cases selected for study reflect differences in reporting requirements. Workers' compensation cases involving medical treatment, regardless of lost time, are reported in the following States: Hawaii, Indiana, Maine, Nebraska, North Carolina, Texas, Utah, Vermont, Washington, and Wyoming. The remaining participating States require reports for cases involving the following number of days away from work: 1 day—Alaska, California, and Ohio; 2 days—Kentucky; 3 days—Missouri; 4 days—Colorado, Delaware, Iowa, Maryland, Oregon, and Wisconsin; 7 days—Michigan; and 8 days—Arizona, New Mexico, Tennessee, and Virginia. Although participating States provided a broad geographic and industrial mix, they were not selected statistically to represent the country as a whole.

Information on the employer's industry classification, the worker's age, sex, and part of body injured, the source of injury, type of accident, and occupation were classified based on information furnished by the employer in the workers' compensation report. Accident descriptions from the questionnaire were coded by BLS to reflect any events which may have preceded workers' accidents, and to identify equipment operators. Job titles provided on the questionnaire were coded by BLS to develop a more complete description of workers' occupations.

## Weighting and estimation procedures

A weighting procedure was used to make the sample of injured workers account for all in-scope injured workers in the 26 participating States. For this survey, an original weight of 3.5, which is the inverse of the probability of selection, was applied to each sample member's response.

Forty-five percent of the workers selected to participate in the survey did not return the questionnaire. These are referred to as unit nonrespondents. A weighting-class nonresponse adjustment procedure was used to reduce the bias due to nonresponse in the estimates. In this procedure, the sample is partitioned into cells, and a unit nonresponse adjustment factor is calculated within each cell. This procedure is based on the assumption that, within each cell, the response distribution of the unit nonrespondents would be the same as the response distribution of the respondents.

To determine the set of cells for unit nonresponse adjustment, a comparison of the following characteristics was made between respondents and nonrespondents: Age, sex, nature of injury, part of body affected, source, type of accident, and industry. The greatest difference between respondents and nonrespondents was in the type of accident distribution. Further, it was determined that the survey responses varied by type of accident. Therefore, a type of accident partition (overexertion cases and other types of accidents) was used to adjust for unit nonresponse.

In addition to workers not returning the questionnaire, a small number responded to the survey but did not answer all of the questions. These are referred to as item nonrespondents. To account for this type of nonresponse, it was assumed that the response distribution of the item nonrespondents would be the same as the response distribution of the item respondents.

For each question, a final weight for each respondent

was calculated as the original weight times an adjustment factor for unit and item nonresponse.

The estimate of the total number of in-scope injured workers for each question is equal to the sum of the final weights of the respondents.

The estimate of the percent of workers giving a particular answer to a question is the sum of the final weights of the respondents giving a particular answer divided by the estimate of the total number of in-scope injured workers.

Estimates of mean lost workdays and nights of hospitalization do not include cases in which workers indicated lost time or hospitalization but failed to provide numerical estimates of the amount of time.

## Reliability

All estimates derived from a sample survey are subject to sampling and nonsampling errors. Sampling errors occur because observations are made on a sample, not on the entire universe. Estimates based on the different possible samples of the same size and sample design could differ. The standard errors, which are a measure of the sampling error in the estimates, are calculated as part of the survey's estimation process and are available upon request.*

Nonsampling errors in the estimates can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, mistakes in recording or coding the data, definitional difficulties, etc. To minimize the nonsampling errors in the estimates, the completed questionnaires are edited and apparent inconsistencies are checked.

# Appendix B. Participating State Agencies

**States participating in survey of injuries to warehouse workers, September 1984**

# Appendix C. Survey Questionnaire

Bureau of Labor Statistics
Work Injury Report–Warehouse Workers

U.S. Department of Labor

The information collected on this form by the Bureau of Labor Statistics and the State Agencies cooperating in its statistical program will be held in confidence and will be used for statistical purposes only.

*This report is authorized by law 29 U.S.C. 2. Your voluntary cooperation is needed to make the results of this survey comprehensive, accurate, and timely.*

Form Approved
O.M.B. No. 1220-0047
Approval Expires 9/30/86

Survey Code 2 8 4 | Case Number | Date of Accident

**A. What were you doing at the time of your accident?**
*(Check the one answer closest to what you were doing.)*
1. ☐ Loading/unloading truck, trailer, railcar, or other vehicle
2. ☐ Moving stock (boxes, barrels, containers, etc.) to or from storage area
3. ☐ Stacking or placing stock
4. ☐ Selecting or picking items
5. ☐ Packing or wrapping items for shipping
6. ☐ Inspecting or labeling stock, or doing inventory
7. ☐ Doing cleanup work (sweeping floors, dumping trash, etc.)
8. ☐ Repairing, adjusting, cleaning, or maintaining equipment or machinery
9. ☐ Other: *(Describe)* _____

**B. Which best describes where you were when your accident occurred?**
*(Check one.)*
1. ☐ Inside truck, trailer, or railcar
2. ☐ Temporary storage (staging) area of warehouse
3. ☐ Long term storage area of warehouse
4. ☐ Loading dock
5. ☐ Other area of warehouse: *(Describe)* _____
6. ☐ Outdoor location (other than loading dock)
7. ☐ Other: *(Describe)* _____

**C. Were you at ground or floor level at the time of your accident?**
*(Check one.)*
1. ☐ Yes
2. ☐ No–on piled or stacked materials
3. ☐ No–on ladder
4. ☐ No–on stairs
5. ☐ No–on shelf or rack
6. ☐ No–in or on vehicle
7. ☐ No–other: *(Describe)* _____

**D. What equipment were you operating or using at the time of your accident?** *(Check one.)*
1. ☐ Forklift
2. ☐ Powered pallet jack
3. ☐ Manual cart, handtruck, or dolly
4. ☐ Shrink wrap or other wrapping machine
5. ☐ Platform on forklift or crane to lift worker: *(Describe)* _____
6. ☐ Conveyor
7. ☐ Crane
8. ☐ Other: *(Describe)* _____
9. ☐ Not operating or using any equipment

**E. Was the location, equipment, or type of work different in any way from your normal work?** *(Check all that apply.)*
1. ☐ Yes–using different equipment
2. ☐ Yes–working at different location
3. ☐ Yes–doing different type of work
4. ☐ No

**F. Describe the events leading to your accident.**

(Be as specific as possible. For example: Sprained back lifting case of merchandise that broke, struck by box that fell off dolly, foot run over by forklift that was accidentally activated, etc.)

_____
_____
_____
_____
_____
_____
_____
_____
_____

***IF YOU WERE MANUALLY LIFTING, CARRYING, OR MOVING OBJECTS, COMPLETE G AND H;***

***IF NOT, GO TO I.***

**IF YOU WERE *MANUALLY* LIFTING, CARRYING, OR MOVING OBJECTS:**

**G. Describe the object you were lifting, carrying, or moving.** *(For example: Case of canned goods, box of paper goods, etc.)*

_____

**H. Could you have used lifting/handling equipment (such as a dolly, forklift, etc.) for this work?** *(Check one.)*
1. ☐ No–not enough space to use it
2. ☐ No–material had to be moved by hand
3. ☐ No–other reason: *(Explain)* _____
4. ☐ Yes

If yes:

a. What type of equipment could you have used?
*(Check all that apply.)*
1. ☐ Forklift
2. ☐ Powered pallet jack
3. ☐ Manual cart, handtruck, or dolly
4. ☐ Conveyor
5. ☐ Crane
6. ☐ Other: *(Describe)* _____

b. Why weren't you using it? *(Check all that apply.)*
1. ☐ Did not think it was necessary
2. ☐ In bad condition or not working properly
3. ☐ Too much trouble to use
4. ☐ Did not know how to operate
5. ☐ Not authorized to use that type of equipment
6. ☐ Other: *(Describe)* _____

_____

*CONTINUE WITH I, BELOW.*

**I. Were there any conditions at the worksite which you feel contributed to your accident?** *(Check all that apply.)*
1. ☐ Slippery floor surface: *(Describe)* _____
2. ☐ Working in a limited area or space
3. ☐ Poor lighting
4. ☐ Lifting/handling equipment lacked safety features (such as roll bar, overhead guard, backup warning, etc.): *(Explain)* _____
5. ☐ Cluttered work area (trash lying on floor, etc.)
6. ☐ Structure was broken or in bad condition
7. ☐ Tools or equipment in bad condition or not working properly
8. ☐ Other: *(Describe)* _____
9. ☐ No conditions at worksite contributed to injury

**J. Were there any other factors which you feel contributed to your accident?** *(Check all that apply.)*
1. ☐ Working when tired or fatigued
2. ☐ Co-worker's activity: *(Explain)* _____
3. ☐ Previous physical condition: *(Explain)* _____
4. ☐ Working too fast
5. ☐ Working under stress
6. ☐ Was careless in what you were doing
7. ☐ Lifting, carrying, or moving an object that was too heavy
8. ☐ In an awkward position
9. ☐ Not given proper training or instructions for job
10. ☐ Safety rules were not enforced
11. ☐ Other: *(Describe)* _____
12. ☐ No other factors contributed to injury

**CONTINUE ON REVERSE SIDE.**

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**K. What were your injuries?** *(Check all that apply.)*

1. ☐ Fracture(s)—Indicate area(s) broken (leg, rib, ankle, etc.) _____
2. ☐ Cuts, lacerations, or punctures
3. ☐ Bruises, contusions
4. ☐ Muscle sprain or strain, torn ligaments, or pulled muscle
5. ☐ Dislocation
6. ☐ Hernia
7. ☐ Object in eye(s)
8. ☐ Brain concussion
9. ☐ Other: *(Describe)* _____

**L. Did your injury cause you to lose time from work beyond the day of injury?**

1. ☐ No 2. ☐ Yes

**If yes:**

a. How long were you (or do you expect to be) out of work? **(NOTE: Do not count the day of the injury, days on light duty work, normal days off, or holidays.)**

_____ Workdays

b. Have you returned to work? *(Check one.)*

1. ☐ No—still off because of injury
2. ☐ Yes—returned to regular job duties
3. ☐ Yes—returned to restricted activity (light duty)
4. ☐ Other: *(Explain)* _____

**M. Did your injury require you to be hospitalized overnight or longer?**

1. ☐ No 2. ☐ Yes

**If yes:**

a. How long were you (or do you expect to be) in the hospital?

_____ Nights

**N. How long had you been working during your shift before your accident occurred?** *(Check one.)*

1. ☐ Less than 1 hour
2. ☐ 1 to 2 hours
3. ☐ 2 to 4 hours
4. ☐ 4 to 6 hours
5. ☐ 6 to 8 hours
6. ☐ 8 hours or more
7. ☐ Don't remember

**O. What was your job title at the time of your accident?**
(Be specific: Forklift operator, picker, selector, order puller, cleanup person, laborer, checker, etc.)

_____

**P. How long had you worked at this job before your accident occurred?** *(Check one.)*

1. ☐ Less than 1 month
2. ☐ 1 to 6 months
3. ☐ 6 months to 1 year
4. ☐ 1 to 5 years
5. ☐ 5 years or more

**Q. Overall, how long had you been employed in warehouse jobs?** (Include all warehouse jobs you have had.) *(Check one.)*

1. ☐ Less than 1 month
2. ☐ 1 to 6 months
3. ☐ 6 months to 1 year
4. ☐ 1 to 5 years
5. ☐ 5 years or more

**R. What type of protective equipment were you *wearing* or *using* at the time of your accident?** *(Check all that apply.)*

1. ☐ Hard hat
2. ☐ Gloves
3. ☐ Steel-toed safety shoes or steel-toed boots
4. ☐ Safety glasses, goggles, or other eye protection
5. ☐ Safety belt tied off with lanyard
6. ☐ Seat belt
7. ☐ Other: *(Describe)* _____
8. ☐ Not wearing or using protective equipment

**S. What safety training *(if any)* did you receive for this job?** *(Check all that apply.)*

1. ☐ Forklift operator training course
2. ☐ How to operate other powered equipment: *(Describe equipment)* _____
3. ☐ Proper manual lifting methods
4. ☐ When and where to use protective equipment: (hard hat, safety shoes, safety belt and lanyard, etc.)
5. ☐ Importance of keeping floor and aisles free of trash and other objects
6. ☐ Provided written safe job procedures for job doing when injured
7. ☐ Other safety training: *(Describe)* _____
8. ☐ Never received safety training for this job

**T. If you did receive safety training for this job, how was it given?** *(Check all that apply.)*

1. ☐ Printed materials (posters, booklets, etc.)
2. ☐ Films
3. ☐ On-the-job training
4. ☐ Safety meetings
5. ☐ Other: *(Describe)* _____
6. ☐ Never received safety training for this job

**U. Does your company have a labor-management committee that meets on safety issues?** *(Check one.)*

1. ☐ No 2. ☐ Yes 3. ☐ Don't know

**V. How many people are currently employed in the establishment where you work?** *(Check one.)*

1. ☐ 1 to 10 employees
2. ☐ 11 or more employees

**W. How do you think your accident could have been prevented?** *(Check all that apply.)*

1. ☐ Making area safer before working
2. ☐ More or better safety training
3. ☐ Using protective equipment: *(Describe)* _____
4. ☐ Using safer work procedures on your part
5. ☐ Having company enforce safe work practices
6. ☐ More help to do job
7. ☐ Providing more or better safety features on equipment (backup warning, overhead guard, roll bar, etc.): *(Describe)* _____
8. ☐ Using lifting/handling equipment
9. ☐ More time to do job
10. ☐ Other: *(Describe)* _____
11. ☐ Do not think it could have been prevented

**X. Did your employer take any action(s) after your accident to prevent this type of accident from happening to others?** *(Check one.)*

1. ☐ No
2. ☐ Yes: *(Describe)* _____
3. ☐ Don't know

# Work Injury Reports

The following reports may be purchased from the U.S. Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. Cost $9.95 for paper copy, $5.95 for fiche. Add $3 for handling fee.

- Survey of Ladder Accidents Resulting in Injuries
  NTIS Accession No. PB83 207985 (1978)
- Survey of Welding and Cutting Accidents Resulting in Injuries
  NTIS Accession No. PB83 208017 (1978)
- Survey of Scaffold Accidents Resulting in Injuries
  NTIS Accession No. PB83 208009 (1978)
- Survey of Power Saw Accidents Resulting in Injuries
  NTIS Accession No. PB83 207993 (1978)
- Accidents Involving Eye Injuries
  NTIS Accession No. PB83 182535 (1980)
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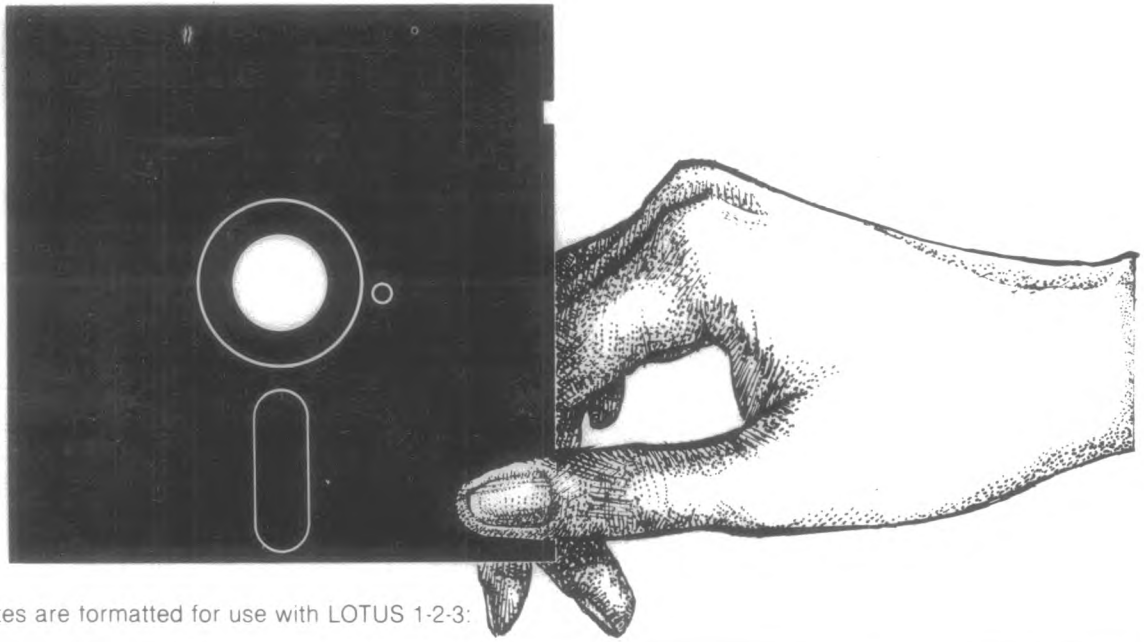

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