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Foreword

The National Institute for Occupational Safety and Health (NIOSH) is the federal agency responsible for occupational safety and health research. To meet the complex challenges of the 21st century, the National Occupational Research Agenda (NORA), which was jointly developed by NIOSH and its partners in the mid 1990s, was restructured. From this effort, ten unique industry sectors were formed. The sectors were defined by using the North American Industry Classification System (NAICS). NAICS provides definitions for 20 sectors that NIOSH aggregated into ten sectors. Ten Sector Councils were formed with stakeholder partnerships to stimulate innovative research and to facilitate the transfer of research into workplace practices. To provide guidance and direction, each Sector Council developed a set of goals for improving occupational health surveillance, developing interventions, and supporting the transfer and evaluation of best practices.

Wholesale and Retail Trade (WRT) is one of the largest of the ten sectors, and yet it is the least familiar to many researchers in the occupational safety and health field. As a result, the WRT Sector Council saw the need for an informational resource to (1) assist the public in understanding the occupational safety and health characteristics of the WRT sector, (2) assist researchers in identifying workplace injury, illness, and fatality risks in the WRT sector, and (3) assist employers, workers, and safety and health practitioners in identifying areas where prevention efforts might be needed.

This document was prepared from publically available datasets, primarily from the U.S. Bureau of Labor Statistics (BLS) within the U.S. Department of Labor (DOL). The BLS datasets for the NAICS sectors Wholesale Trade (42) and Retail Trade (44-45) were organized and formatted as a "chartbook." The WRT Chartbook consists of more than 200 combined charts, figures, and tables, along with concise descriptive narratives and reference sources, primarily for the year 2005. Data for the years preceding and following 2005 were used to show trends that affected business within the sector. Multiple-year data also were used to track employment changes, to generate projections for annual and seasonal employment, and to show changes in the number of WRT establishments from year to year.

The 2005 data served as a reference base for the development of the WRT sector goals. The Chartbook provides a snapshot of the status of occupational health and safety in 2005 for the WRT sector. The downstream value of the Chartbook depends on the quality of the data reported to BLS during any given year. Assuming the reporting requirements do not change in any significant ways over the next decade, the 2005 Chartbook can serve as the baseline for evaluating the downstream impact of NORA efforts addressing the WRT sector.

A link to the WRT sector goals is available from the NIOSH Web site: http://www.cdc.gov/niosh/nora/comment/agendas/wholrettrade/.

John Howard, M.D.
Director, National Institute for Occupational Safety and Health
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This Chartbook provides a summary of fatal and nonfatal injury/illness information describing a large population of understudied workplaces and workers: the wholesale and retail trade (WRT) sector. The WRT sector consists of one of ten industry sectors formed from stakeholder meetings conducted throughout the U.S. by NIOSH that served to define the structure of the second decade of NORA. The contents of the WRT Chartbook are based on data from the mid-decade year of 2005. This year was chosen to serve as the baseline for the WRT sector, which corresponds to the launch of the second decade of NORA. The purpose of this Chartbook is to identify high-risk subsectors, as well as industries, occupations, and tasks, in the WRT sector for 2005. Researchers and practitioners will be able to use the Chartbook as a resource to address the controls and prevention needed for reducing the workplace injuries/illnesses and fatalities occurring in the WRT sector. The primary information source for the WRT Chartbook is the U.S. Bureau of Labor Statistics (BLS), which incorporates additional data from the Current Population Survey (CPS) provided by the U.S. Census Bureau, among other related sources [BLS 2010]. The BLS provides through its Web site an extensive set of files containing information on the number and rates of occupational injuries, illnesses, and fatalities. The WRT Chartbook can serve to alert employers, employees, and researchers to hazards in the WRT sector that may affect them, and provide direction for new research and prevention efforts in the sector. The data are presented as tables and charts.

The WRT sector is a product of NIOSH’s efforts to organize the 2002, two-digit North American Industrial Classification System (NAICS) coding [NAICS 2002] into logical groupings that can be readily communicated about and strategically governed and evaluated. As a result, NIOSH combined the wholesale component (sector 42) with the retail component (sectors 44–45) to form the NIOSH Wholesale and Retail Trade Program [NIOSH 2010].

The combined WRT is the second largest of the ten NIOSH-defined sectors in terms of number of employees, about 21 million [BLS 2007]. The projected 10-year employee growth (2008–2018) is about 4.3% [BLS 2007]. Currently, the WRT sector consists of nearly 1.6 million companies [U.S. Census Bureau 2010], which represent 146 types of businesses [NAICS 2002]. These businesses range from one-person, one-location establishments to an international chain employing over 1.4 million employees in 4,338 stores in the U.S. alone [Walmart Corporation 2010]. With the exception of chain or franchised businesses, each establishment is unique. They differ in size, type of merchandise, number and bulk of products, and physical nature of the workplace (i.e., warehouse, office, or store). However, the majority of jobs involve some aspects of materials handling (the storage, distribution, and sale of merchandise). Retail workers have the added demands and stresses of long workdays, prolonged standing, and frequent public contact.

This Chartbook is available on the NIOSH Web site at www.cdc.gov/niosh/docs/2012-106/. Full-text bibliographic references are provided.

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Abstract

Injuries, Illnesses, and Fatalities in Wholesale and Retail Trade in 2005: A Chartbook. This document serves as a descriptive epidemiologic reference tool for the wholesale and retail trade (WRT) sector. As such, this document provides information on the factors affecting the occupational health of the WRT workforce. This document provides national surveillance data compiled from the Bureau of Labor Statistics’ files. The information was collected and organized into a “chartbook” to highlight the extent and nature of occupational injuries, illnesses, and fatalities occurring within the WRT sector for the year 2005. The year 2005 serves as the birth and baseline year for the WRT NORA sector.

The WRT Chartbook, consisting of 187 figures and 21 tables, is intended to be a resource for agencies, industry associations, labor unions, and other organizations, as well as employers, researchers, workers, and other individuals. Through narrative text, statistical tables, and charts, the WRT Chartbook describes the magnitude, distribution, and trends of the sector’s occupational injuries, illnesses, and fatalities. The Chartbook data can be used to compare one or more WRT subsectors, industry groups, and/or industries with the overall “private sector” data, a form of benchmarking.

The Chartbook is organized into four distinct chapters:

Chapter 1 gives an overview of the demographic characteristics of the trade industry and its workers. Data are provided on WRT employment trends, on occupations, subsectors, industries, and economic factors, and on workforce demographics, such as age, gender, and race/ethnicity. [Note: See the Glossary entry on Sector, Subsector, and Industry on page VIII for a discussion of how these terms are used within this Chartbook.]

Chapter 2 focuses on fatalities in the WRT sector. Tables and charts provide the context for comparing fatality rates, numbers, and trends across industry sectors and within the WRT sector. Information on events and exposures associated with fatalities is presented for both the wholesale and retail trade sectors. Geographic data show states with the highest number of worker fatalities. Chapter 2 also provides information on the fatalities by occupation, gender, age, and race/ethnicity.

Chapter 3 gives information on nonfatal injuries and illnesses among trade workers. This chapter provides the context for evaluating the impact of nonfatal injuries/illnesses and their severity as measured by cases with days away from work (DAW). The nature of the events and exposures that are associated with nonfatal injuries/illnesses are presented in detail for both the wholesale and retail sectors. The data consist of both the rates and the actual number of cases of injuries/illnesses for subsectors and industries within the WRT sector. The information presented on the types of injuries/illnesses allows one to focus on those injury/illness types that are most prevalent, such as sprains and strains, fractures, and cuts/lacerations. The sources of injury/illness are shown and include items such as containers, vehicles, the floor, worker motion, and parts and materials. Figures identify the parts of the body that are affected. The data are broken down by gender, age, race/ethnicity, and location.

Chapter 4 addresses selected high-risk subsectors and industries from among the 146 distinct types of businesses (71 wholesale businesses and 75 retail businesses) that make up WRT. When the occupational injury, illness, and fatality data are compiled for the overall sector, the resulting counts and rates, though useful for making general comparisons between major industry sectors (2-digit NAICS), mask the reality that certain subsectors and industries experience much higher counts and rates than others. The purpose of Chapter 4 is to examine data specific to the WRT subsectors and industries in order to (1) identify those that experience higher rates and counts of occupational injuries, illnesses, and fatalities and (2) examine characteristics of their workforces, and their injury, illness, and fatality outcomes. Such examination may identify factors that appear to contribute to risk in the high-risk subsectors and industries, which, in turn, may suggest prevention opportunities.

A reference list is provided at the end of each chapter that provides citations of data sources linked to each table and figure included in the Chartbook.

The WRT Chartbook also contains an appendix and a bibliography of additional references. The appendix has a complete breakdown of the 146 types of wholesale and retail subsectors and industries by NAICS code. This listing is a useful view of the variety of industries or businesses included in the WRT sector from the two-digit level through the six-digit level of NAICS.

The WRT Chartbook builds upon the landmark Worker Health Chartbook 2000 (updated in 2004) [NIOSH 2004], which is an epidemiologic reference on occupational morbidity and mortality across all industries in the United States. The Worker Health Chartbook 2004 includes more than 400 figures and tables describing the magnitude, distribution, and trends of the Nation’s occupational injuries, illnesses, and fatalities. The Worker Health Chartbook 2004 is accessible on the NIOSH Web site at: www.cdc.gov/niosh/docs/2004-146/.
Contents

Foreword .......................................................... I

Preface ............................................................. II

Abstract ........................................................... III

Abbreviations ..................................................... V

Glossary ........................................................... VI

Acknowledgments ................................................ IX

Background ....................................................... X

Summary of Findings ........................................... XI

References ......................................................... XIII

Chapter 1 • Characteristics of Wholesale and Retail Trade Workers ............... 1

Chapter 2 • Fatal Injuries Among Wholesale and Retail Trade Workers .......... 15

Chapter 3 • Nonfatal Injuries/Illnesses Among Wholesale and Retail Trade Workers .. 31

Chapter 4 • High-Risk Subsectors and Industries in Wholesale and Retail Trade ..... 55

Appendix • Wholesale and Retail Trade Subsectors by NAICS Code ............... 111
Abbreviations

BLS: Bureau of Labor Statistics
CDC: Centers for Disease Control and Prevention
CFOI: Census of Fatal Occupational Injuries
CPS: Current Population Survey
DAW: days away from work
DOL: Department of Labor
GAO: Government Accountability Office
NAICS: North American Industrial Classification System
NIOSH: National Institute for Occupational Safety and Health
NORA: National Occupational Research Agenda
NTIS: National Technical Information Service
OMB: Office of Management and Budget
OSHA: Occupational Safety and Health Administration
QCEW: Quality Census of Employment and Wages
SIC: Standard Industrial Classification
SOC: Standard Occupational Classification
WRT: Wholesale and Retail Trade
Glossary

**Cases involving days away from work:** Cases involving days away from work are cases requiring at least one day away from work with or without days of job transfer or restriction.

**Cases involving job transfer or restriction:** Job transfer or restriction cases occur when, as a result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

**Centers for Disease Control and Prevention:** The Centers for Disease Control and Prevention (CDC) is headquartered in Atlanta, Georgia and is an agency of the U.S. Department of Health and Human Services. CDC is recognized as the lead federal agency for protecting the safety and health of the people of the United States. CDC provides credible information to enhance health decisions and promote health through strong partnerships with other public and nongovernment organizations. CDC develops and applies disease prevention and control, occupational and environmental health, and health promotion and education activities designed to improve the health of people not only in the U.S., but also, through its Center for Global Health, around the world.

**Civilian labor force:** The civilian labor force comprises all civilians classified as employed and unemployed.

**Employed persons:** Employed persons are all persons who fit into one of the following categories during the reference week of the U.S. Census Bureau’s Current Population Survey (CPS): (1) persons who did any work at all as paid employees, worked in their own business or profession or on their own farm, or worked 15 or more hours as unpaid workers in a family-operated enterprise and (2) persons who did not work but had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, child-care problems, labor disputes, maternity or paternity leave, or other family or personal obligations—whether or not they were paid by their employers for the time off and whether or not they were seeking other jobs.

**Establishment:** An establishment is an economic unit, such as a farm, mine, factory, or store that produces goods or provides services. An establishment is typically located at a single physical location and is engaged in one, or predominantly one, type of economic activity for which a single industrial classification may be applied. An enterprise, on the other hand, may consist of more than one location performing the same, or different, types of economic activities. Each establishment of that enterprise is assigned a NAICS code based on its own primary business activity (http://www.census.gov/eos/www/naics/faqs/faqs.html#q2). The BLS Quality Census of Employment and Wages (QCEW) program collects data at the establishment level whenever possible. An employer can have one or more establishments. A large manufacturer, for example, might have several manufacturing plants, and each one would be considered a separate establishment [BLS 2008].

**Fatal occupational injury rate:** Fatal occupational injury rates are determined by combining the number of fatal occupational injuries identified by the Census of Fatal Occupational Injuries (CFOI), which is organized by the Bureau of Labor Statistics (BLS), with the average annual number of employed workers from the CPS, conducted for BLS by the Census Bureau. These rates depict the risk that certain workers (such as those in a given occupation or industry) have of incurring a fatal injury. The formula for calculating an annual occupational injury rate is

\[
\text{Fatal injury} = \left( \frac{N}{W} \right) \times 100,000
\]

where

- \( N \) = the number of fatally injured workers ages 16 and older.
- \( W \) = the number of employed workers ages 16 and older.

For example, in computing the fatal occupational injury rate for 1994,

\[
N = 6,588 - 25 \text{ workers under age 16} = 6,563 \text{ (from 1994 CFOI)}
\]

and

\[
W = 124,469,000 \text{ (from CPS 1994 annual average plus resident military figures derived from Census Bureau data)}.
\]

Thus

\[
\text{Fatality rate} = \left( \frac{6,563}{124,469,000} \right) \times 100,000 = 5 \text{ deaths per 100,000 workers}
\]
Because neither hours nor employment figures are collected in the CFOI, fatality rates are calculated using annual average employment estimates from the CPS. Employment-based fatality rates measure the incidence of a fatal injury for all workers in the group regardless of exposure time. Such measures do not reflect the movement of persons into and out of the labor force, the length of their workweek or work year, or the effect of multiple jobholders.

Hispanic or Latino workers: Hispanic or Latino workers are those who trace their origins to a Spanish-speaking country or culture. Origins may include the heritage, nationality group, ancestry, or country of birth of the person or person’s parents or ancestors. People who identify their origin as Hispanic or Latino may be of any race.

Nonfatal occupational injury/illness incidence rate: Nonfatal injury/illness Incidence rates for all U.S. industry, or by industry sectors, represent the number of injuries and illnesses per 100 full-time workers and are calculated as:

\[(N/EH) \times 200,000\]

where,

\(N\) = number of illnesses

\(EH\) = total hours worked by all employees during the calendar year

200,000 = base for 10,000 equivalent full-time workers (working 40 hours per week, 50 weeks per year)

Rates per 10,000 workers can be converted to rates per 100 workers by moving the decimal point two places to the left and rounding the resulting rate to the nearest 0.1.

North American Industry Classification System (NAICS): For more than 60 years, the Standard Industrial Classification (SIC) system served as the structure for collecting, aggregating, presenting, and analyzing data on the U.S. economy. In 1997, the North American Industry Classification System (NAICS) was adopted to replace the SIC system. The NAICS is the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. economy. As a result, it is possible for users to assemble a comprehensive statistical picture of an industry within the U.S. The NAICS also provides a consistent system for economic analysis across the three North American Free Trade Agreement partners—Canada, Mexico, and the United States. The 2007 definitions from NAICS may be accessed on the Web at http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007. The official NAICS manual can be obtained in print or CD-ROM versions from the National Technical Information Service (NTIS) by calling 1–800–553–6847 or (703) 605–6000, or visiting the NTIS Website at http://www.ntis.gov/products/naics.aspx.

Occupation: Occupation is a set of activities or tasks that workers are paid to perform. Workers who perform essentially the same tasks are in the same occupation whether or not they are in the same industry. Some occupations are concentrated in a few industries and others may be found in the majority of industries.

Current, recent, or usual job activity information is collected by many agencies to help characterize an occupation. Questions are used to obtain information about the kind of work and the most important activities or duties. This information, in conjunction with data on industry or employer and class of worker (e.g., private or public sector, nonprofit, self-employed), is used to classify jobs by occupational class. BLS codes occupation in injury/illness cases based upon job titles and incident descriptions supplied by employers.

Occupational injury: An occupational injury is any injury that results from a work-related event or
from a single instantaneous exposure in the work environment.

**Occupational Illness:** An occupational illness is any abnormal condition or disorder (other than one resulting from an occupational injury) caused by exposure to factors associated with employment. Occupational illness includes acute and chronic illnesses and diseases that may be caused by inhalation, absorption, ingestion, or direct contact.

**Race:** Race refers to a human population distinguished as a group by certain physical characteristics. However, the concept of race involves self-identification. Racial categories are sociopolitical constructs and should not be interpreted as being scientific or anthropological. Racial categories include both racial and national-origin groups. The racial classifications used by federal agencies since 1997 follow the standards set forth in the October 30, 1997, Federal Register Notice entitled *Revisions to the Standard Classification of Federal Data on Race and Ethnicity*. The Office of Management and Budget (OMB) requires five minimum categories for race: white, black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander. OMB also states that respondents should be offered the option to select one or more races.

**Rates:** See Fatal occupational injury incidence rate and Nonfatal occupational injury/illness incidence rate above.

**Severity:** Severity of an injury or illness is estimated by using information provided by employers about the number of days away from work to recuperate from each disabling condition. If, as a result of injury or illness, the worker did not return to work by the end of the survey year, the employer reports an approximate return date that, in conjunction with the date of injury or illness, yields an estimated number of days away from work (DAW) for that case. Two basic measures of severity are used with the characteristics of DAW cases: (1) median days away from work (the point at which half of the DAW cases have a longer duration and half have a shorter duration), and (2) the distribution of DAW cases involving various of absences from work ranging from 1 to 31 days or longer.

**Standard Occupational Classification (SOC):** According to the Bureau of Labor Statistics, the Standard Occupational Classification (SOC) System was developed as a universal
occupational classification system that government agencies and private industry could use to produce comparable data. It covers all occupations in which work is performed for pay or profit, reflecting the current occupational structure in the U.S. In the 2000 version of the SOC (which is used in this Chartbook), occupations are clustered within 23 major occupational groups. Within the 23 major groups are 96 minor groups, 449 broad occupations, and 821 detailed occupations.

Occupations with similar skills or work activities are grouped at each of the four levels of hierarchy to facilitate comparisons. For example, the major occupational group “Sales and related occupations” (41-0000) is divided into five minor groups, “Supervisors, sales workers” (41-1000), “Retail sales workers” (41-2000), “Sales representatives, services” (41-3000), “Sales representatives, wholesale and manufacturing” (41-4000), and “Other sales and related workers” (41-9000). The minor group “Retail sales workers” contains broad occupations such as “Cashiers” (41-2010), “Counter and Rental Clerks and Parts Salespersons” (41-2010), and “Retail salespersons” (41-2020). The broad occupation “Cashiers” includes detailed occupations such as “Cashiers (except gaming)” (41-2011), and “Gaming change persons and boot cashiers” (41-2012).

The current version is the 2010 SOC (Available on-line at: http://www.bls.gov/soc/).

**Surveillance:** Surveillance is the systematic, ongoing collection or acquisition of information about occupational diseases, injuries, and hazards. Surveillance includes the analysis and interpretation of surveillance data, the dissemination of data or information derived from surveillance to appropriate audiences for prevention and control, and the development of surveillance methodology.
Acknowledgments

This document was prepared by the staff of the National Institute for Occupational Safety and Health (NIOSH). All contributors are affiliated with NIOSH unless otherwise indicated.

The WRT Chartbook includes a substantial amount of information based on data and other contributions from the Office of Safety, Health, and Working Conditions, Bureau of Labor Statistics. The nature and extent of the content of the Chartbook provided a significant challenge to our technical reviewers. We extend our thanks for their time, constructive comments, and suggestions. We are particularly grateful for the suggestions and comments provided by the technical reviewers from the Office of the Director; namely, Drs. Rodger Rosa and Rene Pana-Cryan.

Special appreciation is extended to Vanessa Williams and Susan Afanuh who provided much needed support in the final stages of the production of this publication. Ms. Williams was instrumental in the final editing, layout, and formatting. Ms. Afanuh drafted the “Alt Text” for each of the more than 200 tables and charts for this document, ensuring that this document was 508 Compliant, but more importantly ensuring that this document would meet the needs of those with limited vision.

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Background

The wholesale trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The wholesaling process is an intermediate step in the distribution of merchandise. Wholesalers are organized to sell or arrange the purchase or sale of (1) goods for resale (that is, goods sold to other wholesalers or retailers), (2) capital or durable nonconsumer goods, and (3) raw and intermediate materials and supplies used in production. Wholesalers sell merchandise to other businesses and normally operate from a warehouse or office.

The retail trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise; retailers are therefore organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and nonstore retailers.

Wholesale and retail trades make up a large part of the nation's employment and business establishments. In the overall U.S. economy, wholesale trade represents about 4.4% of all employment and 7.1% of all establishments whereas retail trade represents about 11.6% of all employment and 12.4% of all establishments. When combined, the WRT sector accounts for 16% of all employment and 19.5% of all establishments.

Current employment statistics estimate that annual average employment in wholesale trade during 1995−2005 ranged from 5.4 million in 1995 to 5.9 million in 2000. During 2005, wholesale trade employment averaged 5.7 million. In retail trade during the same period, employment ranged from 13.9 million in 1995 to 15.3 million in 2005. Over the last 10 years, the average hourly earnings of nonsupervisory workers in the wholesale sector averaged 12% more per hour than the average earnings in all private industry, whereas the average retail worker made 27% less than the average production and nonsupervisory workers. The impact lower earnings has on safety and health in the workplace has not been investigated; however, lower earnings have been associated with a poorer quality of healthcare. What implications poorer overall health has on a person's safety and health at work is also a topic for further research.

In general, workers in the WRT combined sector are at a relatively low risk of occupational injury and death as compared with workers in the mining and agriculture industries. Yet, because workers in the WRT sector outnumber those workers in small industry sectors, such as mining and agriculture sectors, the actual number of injuries/illnesses and deaths is substantial. However, at the 4- and 5-digit NAICS WRT industry level, there is a broad range of work activities and physical hazards that may pose a considerable risk for thousands of WRT workers.

The purpose of the WRT Chartbook is to provide sufficient data in the forms of charts and figures to allow users to assess the occupational fatality, injury and illness burden in the WRT and to identify high-risk subsectors and industries within WRT where intervention efforts may be targeted.

In reviewing the data presented in the WRT Chartbook, the reader should be aware that a number of researchers have found evidence that BLS data are, in general, underreported. Economic disincentives may be the major influencing factors that result in employees and employers choosing not to report or record work-related injuries and illnesses (Azaroff et al. 2002; Leigh et al. 2004; GAO 2009). For employers, higher numbers and rates of injuries and illnesses may lead to increased workers’ compensation premiums, the threat of OSHA inspection, and possible denial for those seeking government contracts (Leigh et al. 2004; GAO 2009). For employees, reporting injuries and illnesses may lead to denied promotions, layoffs, or decreased likelihood of being hired into new jobs (Leigh et al. 2004). Azaroff et al. (2002) suggest that potential “adverse consequences” are associated with each step of the reporting and recording process.

Other disincentives, particularly associated with smaller or new enterprises, include unfamiliarity with reporting requirements, the larger relative paperwork burden, and the general lack of penalties levied against smaller businesses [Leigh, et al. 2004; GAO 2009]. Illnesses are more likely to be underreported than injuries, since associations between illness outcomes and causal events or exposures may be more difficult to establish [Azaroff et al. 2002; GAO 2009].
Summary of Findings

Fatal Injuries

- Worker fatalities recorded in 2005 for the WRT sector reached 609. The WRT had the fourth highest number of fatalities among major industry sectors, following construction (1,192); transportation, warehousing (885); and agriculture, forestry, fishing and hunting (669).

- The 609 fatalities represented nearly 12% of the 5214 worker fatalities in U.S. private industry; 400 of the 609 fatalities occurred in retail trade, with 209 fatalities in wholesale trade.

- Of the 400 retail fatalities in 2005, 50% resulted from assaults and violent acts; whereas, in wholesale trade, transportation incidents were the leading cause or event associated with fatalities in 2005 accounting for 105 fatalities (51%).

- Among 4-digit wholesale trade industries, miscellaneous durable-goods (NAICS 4239) had the highest number of fatal work injuries at 29, largely as a result of 20 fatalities in the recyclable material (NAICS 42393) industry.

- Among 4-digit retail trade industries, grocery stores (NAICS 4451) experienced 84 traumatic worker fatalities (46 fatalities in convenience stores and 38 fatalities in supermarkets and other non-convenience grocery stores), followed by gasoline stations (NAICS 4471) with 58 fatalities, automobile dealers (NAICS 4411) with 43, and building material and supplies dealers (NAICS 4441) with 39 fatalities.

- Fatalities in 2005 from assaults and violent acts for two industries; namely, convenience stores (NAICS 44512) and gasoline stations-with-convenience stores (NAICS 44711), recorded 79 fatalities. By comparison over the same year, the state and local police from the public safety sector (NAICS 92212) had 60 fatalities.

- In wholesale trade the occupational groups in 2005 with the highest number of fatal injuries at 44 were truck drivers in the occupation listed as heavy/tractor-trailer, followed by laborers, freight, stock, and manual material movers with 27 fatalities, and 24 fatalities among nonretail sales supervisors.

- In retail trade, sales supervisors and managers in 2005 accounted for the highest number of fatal injuries at 99, followed by cashiers, except gaming with 61 fatalities; and retail salespersons with 38 fatalities. Retail trade truck drivers operating heavy/tractor trailers and the retail drivers operating light/delivery service accounted for 29 and 20 fatalities, respectively.

Nonfatal Injuries/Illnesses

- WRT workers experienced more nonfatal injuries/illnesses at 849,700 in 2005 than any major industry sector with the exception of manufacturing with 895,900 injuries/illnesses. In terms of days away from work (DAW), a measure of severity, the WRT sector had 256,100 cases requiring one or more days away from work, whereas the manufacturing sector had 209,100, had cases during the same period. In terms of DAW for 2005, the WRT sector had 256,100 injuries/illnesses, which exceeded the 209,100 DAW reported for the manufacturing sector over the same period. The significance of injuries/illnesses requiring more DAW than found in other sectors is an indication of the severity of the injuries/illnesses, as measured by recovery time needed.

- The leading events or exposures that contributed to the nonfatal injuries/illnesses involving DAW in WRT were as follows: contact with object/equipment, resulting in 28.6% of DAW injuries; overexertion, accounting for 26.9% of DAW injuries/illnesses; and falls to same level, which contributed 13.9% of all DAW injuries/illnesses.

- Sprains and strains, accounting for well over 111,000 injuries in 2005, is the leading category used to describe the nature of injury/illness within WRT.

- Both the wholesale and the retail trade sectors for 2005 experienced higher rates of injury/illness than the overall private industry as it pertains to body parts that are at high risk for pain and discomfort. The most frequently identified body parts include the shoulders, back, and regions about the lower back. Other body parts identified as locations for discomfort and malfunction include the knee, the foot/toe, and other lower extremities.

- The retail sector experienced higher rates, whereas the wholesale sector had lower rates as compared against the private industry for injuries/illnesses to the finger, hand, and wrist. Private industry, however, had higher injury rates than either wholesale or retail trade for the eyes, body systems, and multiple body parts.
Contact with containers, followed by injuries from floor surfaces, walkways, or ground surfaces, are the main sources associated with the onset of injuries/illnesses as reported by employers in the WRT. In addition, worker motion or position; vehicles; and parts and materials were also associated with WRT injury/illness.

In 2005, there were 14 subsectors and industries that recorded 100,000 or more nonfatal occupational injuries and illnesses. Four of the subsectors were WRT businesses: general merchandise stores (NAICS 452); merchant wholesalers, durable goods (NAICS 423); merchant wholesalers, nondurable goods (NAICS 424); and grocery stores (NAICS 44511).

The wholesale trade business—namely, the beer, wine, and distilled-alcohol beverage merchants (NAICS 4248)—is a BLS industry, as defined by the four-digit NAICS code, having the highest injury/illness case rates with DAW, at 6.6 cases per 10,000 workers.

Beer, wine, and distilled alcoholic beverage merchant wholesalers (NAICS 4248) had the highest total nonfattal injury/illness incidence rate at 9.6 of all wholesale industries, followed by grocery and related product (NAICS 4244) at 7.7, metal and mineral (except petroleum) (NAICS 4235) at 7.5, lumber and other construction materials (NAICS 4233) at 6.8, farm product raw material (NAICS 4245) at 6.1, and motor vehicle-motor vehicle parts and supplies (NAICS 4231) at 6.0.

Among 5-digit retail trade industries, the highest total injury/illness incidence rates were recorded for 2005 from the following: home centers (NAICS 44411) with 9.2 incidence rates (IR), warehouse clubs and superstores (45219) with 7.3 IR, other building material dealers (44419) with 7.0 IR, tire dealers (NAICS 44132) with 6.6 IR, supermarkets and other grocery (except convenience) stores (NAICS 44511) with 6.4 IR, and hobby, toy, and game stores (45112) with 6.4 IR.

Retail sales employees in 2005 accounted for 30,600 injuries/illnesses requiring DAW. Other detailed occupational groups suffering a high number of injuries/illnesses with DAW in retail work included laborers and freight, stock, material movers, hand with 21,120 injury/illness cases; retail sales supervisors with 15,140 cases; and stock clerks/order fillers with 15,010 cases.

In wholesale trade, laborers and freight, stock, and material movers, hand, accounted for 20,170 injuries/illnesses cases requiring DAW, followed by truck drivers, heavy/tractor-trailer with 9,060, and lastly truck drivers, light or delivery services with 7,430 cases of injury/illness requiring DAW.

In summary, working in a warehouse or in a retail store is generally perceived as relatively safe work. Moreover, this perception is supported to some extent when BLS incidence rates from the WRT sector are compared as a whole with the rates from other sectors. However, this perception breaks down when you drill down to the third, fourth and even fifth coded level within the WRT sector. At these levels, there are a number of businesses within various WRT subsectors, industry groups, and/or industries that have risk levels which put them at risk for costly injuries and fatalities that could easily bankrupt them. Regardless of all the rates and comparisons that are presented, what is clear year after year is that approximately three-quarters of a million wholesale and retail workers suffer injury or illness at work each year. For those workers who become one of the numbers that contribute to the annual three-quarters of a million work injuries and for those employers who record the event, such injuries should be treated as an opportunity to investigate and implement appropriate interventions before the long term consequences of such injuries negatively impact the worker and the employer.
References


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Chapter 1

Characteristics of Wholesale & Retail Trade Workers
Table 1.1. Number of establishments and employment (ages 16 years and older) in U.S. private industry, in wholesale and retail trade sectors, and in wholesale and retail trade combined, 2003–2007.

<table>
<thead>
<tr>
<th>Year</th>
<th>Establishments</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Industry</td>
<td>7,963,340</td>
<td>107,065,553</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>588,865</td>
<td>5,589,032</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>1,036,967</td>
<td>14,930,765</td>
</tr>
<tr>
<td>WRT</td>
<td>1,625,832</td>
<td>20,519,797</td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Industry</td>
<td>8,093,142</td>
<td>108,490,066</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>593,052</td>
<td>5,642,537</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>1,038,585</td>
<td>15,256,340</td>
</tr>
<tr>
<td>WRT</td>
<td>1,627,633</td>
<td>20,703,223</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Industry</td>
<td>8,294,662</td>
<td>110,611,016</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>601,625</td>
<td>5,752,802</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>1,045,491</td>
<td>15,370,040</td>
</tr>
<tr>
<td>WRT</td>
<td>1,640,210</td>
<td>21,009,142</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Industry</td>
<td>8,505,496</td>
<td>112,718,858</td>
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<tr>
<td>Wholesale Trade</td>
<td>614,754</td>
<td>5,885,194</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>1,050,642</td>
<td>15,509,017</td>
</tr>
<tr>
<td>WRT</td>
<td>1,660,245</td>
<td>21,255,234</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Industry</td>
<td>8,681,001</td>
<td>114,012,221</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>626,680</td>
<td>5,987,206</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>1,050,642</td>
<td>15,509,017</td>
</tr>
<tr>
<td>WRT</td>
<td>1,677,322</td>
<td>21,496,223</td>
</tr>
</tbody>
</table>

Table 1.2. Employment in wholesale and retail trade sectors, and wholesale and retail trade overall, 2008 and 2018 (projection).

<table>
<thead>
<tr>
<th>Industry sector</th>
<th>2008</th>
<th>2018</th>
<th>% Increase</th>
<th># Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale trade</td>
<td>5,963,900</td>
<td>6,219,800</td>
<td>4.29%</td>
<td>255,900</td>
</tr>
<tr>
<td>Retail trade</td>
<td>15,356,400</td>
<td>16,010,400</td>
<td>4.26%</td>
<td>654,000</td>
</tr>
<tr>
<td>WRT Overall</td>
<td>21,320,300</td>
<td>22,230,200</td>
<td>4.27%</td>
<td>909,900</td>
</tr>
</tbody>
</table>

Employment in Wholesale and Retail Trade

According to BLS data, more than 110 million workers ages 16 years or older were employed in U.S. private industry in 2005 at about 8.3 million establishments. Over 21 million of these (19.0%) were employed in over 1.6 million establishments (19.8%) in the WRT sector—15.3 million workers in over 1 million establishments in retail trade, and 5.8 million workers in over 600,000 establishments in wholesale trade (Table 1.1). BLS projects that by 2018, WRT will have more than 22 million employed workers.

Retail and wholesale employment combined is projected to increase by about 4.3% from 2008–2018, an increase of over 900,000 workers (Table 1.2).
The wholesale and retail trade sectors exhibit different employment trends. The BLS Current Employment Statistics survey shows that although employment in both sectors increased from January 2005 through November 2007, retail employment experienced sharper seasonal fluctuations than wholesale employment. The fluctuations are likely in part due to increased hiring to meet demands during consumer-oriented holidays. From December 2007 through November 2008, both sectors showed steadily decreasing employment.

Employment for wholesale in January 2005 was at 5,702,600, increased steadily, and peaked at 6,075,000 in November 2007. Thereafter, wholesale employment declined to 5,890,300 in November 2008. Over the entire period, employment in wholesale trade grew by 3.3%.

During the same period, retail employment increased from 15,153,900 in January 2005, peaked at 15,590,000 in November 2007, and also began to decline, dropping to 15,126,000 by November 2008, a net decrease of 0.2%.
Fastest Growing Occupational Groups in Wholesale and Retail Trade (among those adding at least 5,000 jobs between 2008 and 2018) (Figures 1.2 and 1.3)

The BLS National Employment Matrix predicts that the fastest growing occupational groups in wholesale trade by 2018 will be bill and account collectors (24.9% increase from 2008), driver/sales workers (18.4%), sales managers (17.7%), industrial machinery mechanics (17.7%), and customer service representatives (15.8%). Vehicle and mobile equipment technicians and mechanics, sales representatives, stock clerks, accountants and auditors, and retail sales workers are also projected to increase between 8% and 10% by 2018.

For retail trade, the fastest growing occupations will include pharmacy technicians (32.7%), miscellaneous entertainment attendants* (22.9%), pharmacists (18.6%), and customer service representatives (15.9%). Protective service, food preparation, and retail sales occupations are also expected to grow in number between 5% and 10% by 2018.

* Miscellaneous entertainment attendants and related workers (39-3090) is the only broad occupation category included. It has been included because employment projections have not been published for all of the detailed occupations comprising this category, and therefore it is not possible to determine which detailed occupation(s) accounts for this projection. BLS points out that employment projections may be withheld from publication for quality, confidentiality, or other purposes. (See www.bls.gov/oes/oes_ques.htm#Ques35.)
According to the BLS National Employment Matrix, the occupational group in wholesale trade with the largest projected increase in the number of workers will be sales representatives for wholesale companies selling other than scientific and technical products (90,300 workers), followed by customer service representatives (29,900), sales representatives for companies selling scientific and technical products (22,900), driver/sales workers (20,400), and stock clerks and order fillers (18,700). Other occupations expected to add more than 10,000 workers by 2018 include sales managers, heavy and tractor-trailer truck drivers, and office clerks.

For retail trade, the occupational groups with the largest projected increase will be retail sales (314,400), cashiers (other than gaming) (94,200), stock clerks and order fillers (84,700), and pharmacy technicians (78,000). Other occupations expected to add more than 30,000 workers by 2018 include retail sales supervisors, customer service representatives, and pharmacists.

* See the footnote on the previous page.
<table>
<thead>
<tr>
<th>Sector, Subsector, or Industry</th>
<th>NAICS Code</th>
<th>Employment (thousands)</th>
<th>Gender</th>
<th>Distribution (%)</th>
<th>Race</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery stores</td>
<td>4451</td>
<td>2,670</td>
<td>54.8%</td>
<td>42.8%</td>
<td>83.8%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Department stores and discount stores</td>
<td>4521</td>
<td>2,434</td>
<td>36.5%</td>
<td>63.5%</td>
<td>79.5%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Automobile dealers</td>
<td>4411</td>
<td>1,337</td>
<td>80.2%</td>
<td>19.8%</td>
<td>89.1%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Building material and supplies dealers</td>
<td>4441</td>
<td>1,088</td>
<td>71.5%</td>
<td>28.5%</td>
<td>89.0%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Clothing and accessories, except shoe, stores</td>
<td>4481</td>
<td>890</td>
<td>26.3%</td>
<td>73.7%</td>
<td>78.4%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Groceries and related products wholesalers</td>
<td>4244</td>
<td>887</td>
<td>73.6%</td>
<td>26.4%</td>
<td>84.8%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Pharmacies and drug stores</td>
<td>44611</td>
<td>834</td>
<td>36.9%</td>
<td>63.1%</td>
<td>81.8%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Furniture and home furnishings stores</td>
<td>442</td>
<td>715</td>
<td>57.6%</td>
<td>42.4%</td>
<td>85.2%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Radio, TV, and computer stores</td>
<td>4431</td>
<td>652</td>
<td>69.9%</td>
<td>30.1%</td>
<td>78.4%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Auto parts, accessories, and tire stores</td>
<td>4413</td>
<td>526</td>
<td>84.5%</td>
<td>15.1%</td>
<td>89.7%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Machinery, equipment, and supplies wholesalers</td>
<td>4238</td>
<td>523</td>
<td>76.3%</td>
<td>23.7%</td>
<td>91.0%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Gasoline stations</td>
<td>4471</td>
<td>520</td>
<td>52.2%</td>
<td>47.8%</td>
<td>78.3%</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

Table 1.3. Wholesale and retail trade subsectors and industries with highest employment, by gender and race/ethnicity, 2005.

The Current Population Survey (CPS) estimated that industries in WRT that had the highest employment in 2005 were grocery stores, department and discount stores, automobile dealers, building material and supplies stores, and clothing and accessories (except shoe) stores. Grocery stores employed roughly an equal number of male and female workers, whereas males made up nearly three quarters of workers at grocery and related products and machinery, equipment, and supplies wholesalers, the two wholesale industries that ranked among the 12 largest WRT employers. Department and discount stores employed almost twice as many females as males. Automobile dealers and building materials and supplies stores both have a disproportionate ratio of male to female workers—eight of ten workers in automobile dealers and seven of ten in building materials and supplies stores are male. Nearly three quarters of employees at clothing and accessories (except shoe) stores in 2005 were female. See Chapter 4 for more detail on the occupational injury/illness and fatality experience in selected high-risk WRT industries.

Table 1.3, and also Figures 1.8 and 1.9 on page 11, are derived directly from BLS CPS data, which are limited to the three primary race/ethnicity categories presented above—Black or African American, Asian, and Hispanic or Latino. These data indicate that higher proportions of Black workers are employed in department and clothing stores; whereas, a low proportion are employed by machinery, equipment, and supplies wholesalers; automobile dealers; and auto parts/tires stores. A higher proportion of Asian workers are employed in radio, TV, and computer stores and gasoline stations; whereas, lower proportions are employed in building materials and supplies wholesalers, auto parts/tires stores, and automobile dealers. For Hispanic or Latino workers, a high proportion (21.1%) are employed by groceries and related products wholesalers; while smaller proportions of Hispanics are employed by radio, TV, and computer stores; machinery, equipment, and supplies wholesalers; and gasoline stations.
Table 1.4. Wholesale and retail trade industries (4-digit NAICS) with the largest projected employment growth from 2008 to 2018, ranked by percent change.

<table>
<thead>
<tr>
<th>Industry</th>
<th>NAICS</th>
<th>2008 Employment</th>
<th>2018 Employment</th>
<th>Numeric change</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other general merchandise stores</td>
<td>4529</td>
<td>1,490,100</td>
<td>2,096,800</td>
<td>606,700</td>
<td>40.7</td>
</tr>
<tr>
<td>Wholesale electronic markets and agents and brokers</td>
<td>4251</td>
<td>850,100</td>
<td>1,075,900</td>
<td>225,800</td>
<td>26.6</td>
</tr>
<tr>
<td>Beer, wine, and distilled alcoholic beverage merchant wholesalers</td>
<td>4248</td>
<td>160,600</td>
<td>192,800</td>
<td>32,200</td>
<td>20.1</td>
</tr>
<tr>
<td>Drugs and druggists’ sundries merchant wholesalers</td>
<td>4242</td>
<td>208,100</td>
<td>247,700</td>
<td>39,600</td>
<td>19.0</td>
</tr>
<tr>
<td>Used merchandise stores</td>
<td>4533</td>
<td>118,900</td>
<td>139,800</td>
<td>20,900</td>
<td>17.6</td>
</tr>
<tr>
<td>Health and personal care stores</td>
<td>4461</td>
<td>1,002,400</td>
<td>1,163,200</td>
<td>160,800</td>
<td>16.0</td>
</tr>
<tr>
<td>Sporting goods, hobby, and musical instrument stores</td>
<td>4511</td>
<td>472,000</td>
<td>529,200</td>
<td>57,200</td>
<td>12.1</td>
</tr>
<tr>
<td>Grocery and related product merchant wholesalers</td>
<td>4244</td>
<td>730,600</td>
<td>816,600</td>
<td>86,000</td>
<td>11.8</td>
</tr>
<tr>
<td>Other motor vehicle dealers</td>
<td>4412</td>
<td>165,300</td>
<td>181,700</td>
<td>16,400</td>
<td>9.9</td>
</tr>
<tr>
<td>Electronic shopping and mail-order houses</td>
<td>4541</td>
<td>250,800</td>
<td>274,600</td>
<td>23,800</td>
<td>9.5</td>
</tr>
<tr>
<td>Miscellaneous durable goods merchant wholesalers</td>
<td>4239</td>
<td>297,300</td>
<td>319,700</td>
<td>22,400</td>
<td>7.5</td>
</tr>
<tr>
<td>Hardware, and plumbing and heating equipment and supplies merchant wholesalers</td>
<td>4237</td>
<td>253,000</td>
<td>272,000</td>
<td>19,000</td>
<td>7.5</td>
</tr>
<tr>
<td>Other miscellaneous store retailers</td>
<td>4539</td>
<td>289,700</td>
<td>309,500</td>
<td>19,800</td>
<td>6.8</td>
</tr>
<tr>
<td>Building material and supplies dealers</td>
<td>4441</td>
<td>1,114,600</td>
<td>1,178,200</td>
<td>63,600</td>
<td>5.7</td>
</tr>
<tr>
<td>Clothing stores</td>
<td>4481</td>
<td>1,133,700</td>
<td>1,198,100</td>
<td>64,400</td>
<td>5.7</td>
</tr>
<tr>
<td>Home furnishings stores</td>
<td>4422</td>
<td>275,300</td>
<td>289,600</td>
<td>14,300</td>
<td>5.2</td>
</tr>
<tr>
<td>Lawn and garden equipment and supplies stores</td>
<td>4442</td>
<td>138,600</td>
<td>145,800</td>
<td>7,200</td>
<td>5.2</td>
</tr>
<tr>
<td>Furniture stores</td>
<td>4421</td>
<td>267,400</td>
<td>280,600</td>
<td>13,200</td>
<td>4.9</td>
</tr>
<tr>
<td>Vending machine operators</td>
<td>4542</td>
<td>45,900</td>
<td>48,100</td>
<td>2,200</td>
<td>4.8</td>
</tr>
<tr>
<td>Shoe stores</td>
<td>4482</td>
<td>192,000</td>
<td>199,700</td>
<td>7,700</td>
<td>4.0</td>
</tr>
<tr>
<td>Electronics and appliance stores</td>
<td>4431</td>
<td>549,600</td>
<td>569,100</td>
<td>19,500</td>
<td>3.6</td>
</tr>
<tr>
<td>Lumber and other construction materials merchant wholesalers</td>
<td>4233</td>
<td>236,300</td>
<td>244,100</td>
<td>7,800</td>
<td>3.3</td>
</tr>
<tr>
<td>Machinery, equipment, and supplies merchant wholesalers</td>
<td>4238</td>
<td>684,900</td>
<td>701,400</td>
<td>16,500</td>
<td>2.4</td>
</tr>
<tr>
<td>Beer, wine, and liquor stores</td>
<td>4453</td>
<td>138,100</td>
<td>138,800</td>
<td>700</td>
<td>0.5</td>
</tr>
<tr>
<td>Grocery stores</td>
<td>4451</td>
<td>2,497,300</td>
<td>2,509,000</td>
<td>11,700</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Employment Trends by Wholesale and Retail Trade Industries**

**Increasing Employment (Table 1.4)**

BLS projects that the majority of 4-digit (NAICS) industries in WRT will experience an increase in employment by 2018. Among the fast growing retail industries are other general merchandise stores (40.7%); used merchandise stores (17.6%); health and personal care stores (16.0%); and sporting goods, hobby, and musical instrument stores (12.1%). Wholesale sectors that are projected to undergo growth include wholesale electronic markets and agents and brokers (26.6%); beer, wine, and distilled alcoholic beverage merchant wholesalers (20.1%); drugs and druggists’ sundries merchant wholesalers (19.0%), and grocery and related product merchant wholesalers (11.8%).
Table 1.5. Wholesale and retail trade industries (4-digit NAICS) with the largest projected employment decline from 2008 to 2018, ranked by negative percent change.

<table>
<thead>
<tr>
<th>Industry</th>
<th>NAICS</th>
<th>2008 Employment</th>
<th>2018 Employment</th>
<th>Numeric change</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct selling establishments</td>
<td>4543</td>
<td>139,600</td>
<td>114,800</td>
<td>-24,800</td>
<td>-17.8</td>
</tr>
<tr>
<td>Specialty food stores</td>
<td>4452</td>
<td>223,000</td>
<td>184,700</td>
<td>-38,300</td>
<td>-17.2</td>
</tr>
<tr>
<td>Petroleum and petroleum products merchant wholesalers</td>
<td>4247</td>
<td>100,700</td>
<td>85,300</td>
<td>-15,400</td>
<td>-15.3</td>
</tr>
<tr>
<td>Book, periodical, and music stores</td>
<td>4512</td>
<td>174,800</td>
<td>149,800</td>
<td>-25,000</td>
<td>-14.3</td>
</tr>
<tr>
<td>Office supplies, stationery, and gift stores</td>
<td>4532</td>
<td>351,800</td>
<td>309,500</td>
<td>-42,300</td>
<td>-12.0</td>
</tr>
<tr>
<td>Apparel, piece goods, and notions merchant wholesalers</td>
<td>4243</td>
<td>149,000</td>
<td>131,900</td>
<td>-17,100</td>
<td>-11.5</td>
</tr>
<tr>
<td>Jewelry, luggage, and leather goods stores</td>
<td>4483</td>
<td>158,500</td>
<td>141,800</td>
<td>-16,700</td>
<td>-10.5</td>
</tr>
<tr>
<td>Department stores</td>
<td>4521</td>
<td>1,557,000</td>
<td>1,397,800</td>
<td>-159,200</td>
<td>-10.2</td>
</tr>
<tr>
<td>Chemical and allied products merchant wholesalers</td>
<td>4246</td>
<td>130,100</td>
<td>117,700</td>
<td>-12,400</td>
<td>-9.5</td>
</tr>
<tr>
<td>Farm product raw material merchant wholesalers</td>
<td>4245</td>
<td>76,200</td>
<td>69,000</td>
<td>-7,200</td>
<td>-9.5</td>
</tr>
<tr>
<td>Paper and paper product merchant wholesalers</td>
<td>4241</td>
<td>139,900</td>
<td>126,900</td>
<td>-13,000</td>
<td>-9.3</td>
</tr>
<tr>
<td>Gasoline stations</td>
<td>4471</td>
<td>843,400</td>
<td>768,800</td>
<td>-74,600</td>
<td>-8.9</td>
</tr>
<tr>
<td>Miscellaneous nondurable goods merchant wholesalers</td>
<td>4249</td>
<td>357,900</td>
<td>326,800</td>
<td>-31,100</td>
<td>-8.7</td>
</tr>
<tr>
<td>Florists</td>
<td>4531</td>
<td>87,400</td>
<td>79,900</td>
<td>-7,500</td>
<td>-8.6</td>
</tr>
<tr>
<td>Professional and commercial equipment and supplies merchant wholesalers</td>
<td>4234</td>
<td>654,800</td>
<td>598,800</td>
<td>-56,000</td>
<td>-8.6</td>
</tr>
<tr>
<td>Furniture and home furnishing merchant wholesalers</td>
<td>4232</td>
<td>111,300</td>
<td>105,600</td>
<td>-5,700</td>
<td>-5.1</td>
</tr>
<tr>
<td>Electrical and electronic goods merchant wholesalers</td>
<td>4236</td>
<td>351,000</td>
<td>334,900</td>
<td>-16,100</td>
<td>-4.6</td>
</tr>
<tr>
<td>Motor vehicle and motor vehicle parts and supplies merchant wholesalers</td>
<td>4231</td>
<td>338,800</td>
<td>324,800</td>
<td>-14,000</td>
<td>-4.1</td>
</tr>
<tr>
<td>Metal and mineral (except petroleum) merchant wholesalers</td>
<td>4235</td>
<td>133,300</td>
<td>127,900</td>
<td>-5,400</td>
<td>-4.1</td>
</tr>
</tbody>
</table>

**Decreasing Employment** *(Table 1.5)*

Retail industries which face declining employment include direct selling establishments (-17.8%); specialty food stores (-17.2%); book, periodical, and music stores (-14.3%); office supplies, stationery, and gift stores (-12.0%); jewelry, luggage, and leather goods stores (-10.5%); and department stores (-10.2%). Wholesale industries expected to shrink substantially by 2018 include petroleum and petroleum products merchant wholesalers (-15.3%); and apparel, piece goods, and notions merchant wholesalers (11.5%).
Table 1.6. Employment distribution by age (ages 16 years and older) in wholesale and retail trade sectors, and U.S. private industry, 2005.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>U.S. Private Industry (thousands)</th>
<th>Wholesale Trade (thousands)</th>
<th>Retail Trade (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-19</td>
<td>5,978</td>
<td>74</td>
<td>1.6</td>
</tr>
<tr>
<td>20-24</td>
<td>13,792</td>
<td>288</td>
<td>2.1</td>
</tr>
<tr>
<td>25-34</td>
<td>30,680</td>
<td>1,016</td>
<td>3.3</td>
</tr>
<tr>
<td>35-44</td>
<td>34,630</td>
<td>1,257</td>
<td>3.6</td>
</tr>
<tr>
<td>45-54</td>
<td>33,207</td>
<td>1,157</td>
<td>3.5</td>
</tr>
<tr>
<td>55-64</td>
<td>18,349</td>
<td>630</td>
<td>3.4</td>
</tr>
<tr>
<td>65 and older</td>
<td>5,094</td>
<td>157</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td>141,730</td>
<td>4,579</td>
<td>16,826</td>
</tr>
</tbody>
</table>

The distribution of workers by age in wholesale trade is comparable with the age distribution across all private industry sectors. Workers under the age of 25 are underrepresented in the wholesale trade workforce, and workers ages 25–64 are slightly overrepresented relative to the age distribution across all private industry.

Workers within the retail trade sector, however, are more evenly distributed across age groups than either wholesale trade or all of private industry. Many more younger workers (16–24 years of age) and older workers (65 years and older) work in retail than in any other sector. In fact, more than one fourth of all workers 16 to 19 years old work in retail jobs. Further, about 15 percent of all U.S. private industry workers who are 65 years of age and older, and about 11 percent of all those who are 55 and older, are employed in the retail trade sector.

Figure 1.6. Age distribution in U.S. private industry and in the wholesale and retail trade sectors, 2005.
Gender (Figure 1.7)

Across all private industries, male workers represented 53.6% of the U.S. workforce compared with 46.4% for female workers in 2005.* In 2005 the gender distribution of the WRT workforce was comparable, with males making up 55.6% and females 44.4%. When considered separately, however, wholesale trade and retail trade exhibit very different gender distributions. Retail trade employs proportionately more women than either wholesale trade or private industry overall. In fact, the distribution ratio is nearly 50:50 in retail trade. Wholesale trade, by contrast has a disproportionate gender distribution with males dominating employment by approximately 70:30.

Race/Ethnicity (Figures 1.8 and 1.9)

BLS estimated the racial distribution of the 21.4 million wholesale and retail trade workers in 2005 as 84.4% white, 9.1% black or African American, and 4.3% Asian, leaving less than half a million workers in other race categories.* As shown in Figures 1.8 and 1.9, a slightly higher proportion of workers reporting Hispanic or Latino ethnicity worked in wholesale trade (13.7%) than retail trade (12.4%) in 2005. Retail trade had a higher proportion of workers who were black or African American (about 10% each year) than wholesale trade (about 7% each year). Asian workers represented the same proportion of the total workforce (4.3%) in both the wholesale and retail trade sectors in 2005. For the 3-year period represented in the figures, the only slight trend noted is an increase in the proportion of workers reporting Hispanic or Latino ethnicity in wholesale trade (from 13.0% in 2003 to 13.7% in 2005).

Economic Factors in Wholesale and Retail Trade

Compensation/Benefits (Figures 1.10 and 1.11)

In 2005 the average compensation cost paid by wholesale employers to their employees was $27.73 per hour worked per employee. The average compensation cost for retail employers was $15.67 per hour worked per employee. Of the average compensations, $19.55 in wholesale and $11.88 in retail are wages and salaries. The remainder, $8.19 in wholesale and $3.79 in retail, are total benefit costs. On average, wages and salaries represented 70.5%, and the cost for benefits represented 29.5% of total compensation for each wholesale trade employee. For retail employees, wages and salaries represented 75.8%, and cost for benefits represented 24.2% of total compensation. Components of the total cost for benefits are shown in Figure 1.11. Legally required benefits include Social Security, Medicare, unemployment insurance, and workers’ compensation insurance.

Figure 1.10. Employer costs per hour worked by employee in wholesale and retail trade, September 2006.

Figure 1.11. Breakdown of benefit costs per hour worked by employee in wholesale and retail trade, September 2006.
Chapter 1 References


3. BLS [2009]. Current Employment Statistics—(CES National) Survey. Comparison of All Employees, Seasonally Adjusted. Online at: http://www.bls.gov/ces/data.htm. From the query table, click on the “Top Picks” button for Employment, Hours, and Earnings—National (Current Employment Statistics—CES): check the boxes for “Wholesale Trade Employment” and “Retail Trade Employment.” Then scroll to the bottom of the screen, and click on the “Retrieve Data” button. (Figure 1.1)

4. BLS [2010]. Employment Projections—Industry employment by occupation. Table 1.8 2008-18 National Employment Matrix, industry employment by occupation. Employment by industry, occupation, and percent distribution, 2008 and projected 2018. 42000 Wholesale trade. Online at: ftp://ftp.bls.gov/pub/special.requests/ep/ind-occ.matrix/ind_pdf/ind_420000.pdf. (Figure 1.2 and Figure 1.4)

5. BLS [2010]. Employment Projections—Industry employment by occupation. Table 1.8 2008-18 National Employment Matrix, industry employment by occupation. National Employment Matrix. Employment by industry, occupation, and percent distribution, 2008 and projected 2018. 44000-45000 Retail Trade. Online at: ftp://ftp.bls.gov/pub/special.requests/ep/ind-occ.matrix/ind_pdf/ind_440000-450000.pdf. (Figure 1.3 and Figure 1.5)


9. BLS [2008]. Unpublished data table from the Bureau of Labor Statistics. Communicated by personal correspondence from Karen Kosanovich, BLS to Herb Linn, URS, Inc., December 22, 2008. Filename: Bas20_2005.pdf. (Table 1.6, Figure 1.6)


Chapter 2

Fatal Injuries Among Wholesale & Retail Trade Workers
Number of Fatal Injuries in Wholesale and Retail Trade (Figure 2.1 and Table 2.1)

In 2005, 609 workers in the WRT sector died as a result of traumatic injuries suffered at work. WRT ranked fourth among major industry sectors in worker fatalities behind construction (1,192 fatalities); transportation/warehousing (885); and agriculture, forestry, fishing and hunting (715). WRT had more worker fatalities than administration and support and waste management and remediation (398)—a sector that includes high-risk activities such as landscaping, waste management, and building services—and other traditionally high-risk sectors such as manufacturing (393), other services (210), and mining (159).

The 609 WRT fatalities represented nearly 12% of all worker deaths from traumatic injury in private industry. Of these 609 deaths, 400 occurred in retail trade and 209 occurred in wholesale trade. (Table 2.1).

Note: This Chartbook does not total either the fatalities or the nonfatal injury/illness cases for all the service-oriented sectors organized as the NORA services sector, which includes private 2-digit NAICS sectors 51-56, 61, 71, 72, and 81, and most of public 2-digit sector 92 (excepting the justice, public order, and safety activities subsector). If NORA services sector was represented as a unit, and all fatalities and nonfatal injury/illness cases were totalled, the result (over 750 fatal injuries and 1 million nonfatal injuries/illnesses) would exceed the numbers for the combined wholesale and retail trade sectors.
presented herein. However, all of these service-oriented sectors are quite distinct one from another in terms of workforce demographics, tasks, processes, equipment, and therefore risks (e.g., educational services versus accommodation and food services) and so much larger in terms of aggregated population (totalling nearly 46.5 million), that such an aggregation of data for comparison purposes does not appear to be useful. This Chartbook also does not treat the NORA transportation, warehousing, and utilities sector as a unit for comparison purposes. For further clarification, see the entry sector, subsector, and industry in the Glossary on page VIII.]

Fatality Trend in Wholesale and Retail Trade
(Figure 2.2)

BLS data for 2003–2005 indicate that fatal workplace injuries were on the rise in both wholesale and retail trades. From 2003–2005, fatalities resulting from traumatic injuries increased by 16.3% in retail trade, and 9.4% in wholesale trade.

Rate of Fatal Injuries in Wholesale and Retail Trade
(Table 2.2)

The fatality rate (deaths per 100,000 workers) in 2005 for WRT combined was 2.9. The rate for wholesalers was nearly double that of retailers (4.6 and 2.4, respectively).
Events/Exposures Associated with Fatal Injuries in Retail Trade  *(Figure 2.3)*

Of the 400 fatalities among retail workers, over half resulted from assaults and violent acts, another 30% resulted from transportation incidents; 9% from falls; 7% from contact with objects/equipment; 3% from exposure to harmful substances/environments; and 1% from fires/explosions.

Events/Exposures Associated with Fatal Injuries in Wholesale Trade  *(Figure 2.4)*

Assaults and violent acts are far less prevalent in wholesale trade, causing about 6% of the 209 workplace deaths among wholesalers in 2005. The leading cause or event associated with fatalities in wholesale trade in 2005 was transportation incidents (51%). Contact with objects/equipment contributed to 23% of the deaths, and falls, exposure to harmful substances/environments, and fires/explosions accounted for 9%, 7%, and 4% of the deaths, respectively.
Distribution of Fatal Injuries by State in Wholesale and Retail Trade (Figure 2.5)

Of all the United States, California (54), Florida (49), and Texas (42) had the highest number of worker deaths in WRT in 2005, followed by Pennsylvania (33), New York (30), Indiana (23) and Illinois (23). Twenty-three states had 10 or more worker deaths resulting from traumatic injury in the WRT sector. Fourteen states (shown in white on the map) had no worker deaths from traumatic injury in the WRT sector.

Distribution of Fatal Injuries by Occupation in Wholesale and Retail Trade (Table 2.3)

Sales and sales-related occupations experienced the highest number of fatal occupational injuries (259) in the trade sector, with transportation and material moving occupations suffering the next highest number of deaths (199). Traumatic fatalities occurred progressively less frequently among installation, maintenance, and repair; office and administrative support; production; and construction and extraction occupations.

Table 2.3. Occupations with the highest number of fatal work injuries in wholesale and retail trade, 2005.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Retail</th>
<th>Wholesale</th>
<th>Total WRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales and Related Occupations</td>
<td>214</td>
<td>45</td>
<td>259</td>
</tr>
<tr>
<td>Transportation and Material Moving Occupations</td>
<td>99</td>
<td>100</td>
<td>199</td>
</tr>
<tr>
<td>Installation, Maintenance, and Repair Occupations</td>
<td>26</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>Office and Administrative Support Occupations</td>
<td>26</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Production Occupations</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Construction and Extraction Occupations</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Arts, Design, Entertainment, Sports, and Media Occupations</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Farming, Fishing, and Forestry Occupations</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Protective Service Occupations</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
Fatal Injuries by Detailed Occupation in Wholesale Trade (Table 2.4)

Among the detailed occupational groups working within the wholesale trade sector, truck drivers, heavy and tractor-trailer, accounted for the highest number of fatal injuries (44), followed by laborers and freight, stock, and material movers, hand (27), and first-line supervisors of nonretail sales workers (24). Other truck drivers, including those who drove light and delivery trucks, and who combined driving with sales work, accounted for 11 and 6 fatal injuries, respectively.

In addition to sales supervisors, wholesale sales representatives involved with nontechnical and nonscientific products accounted for a relatively high number of deaths (15). Other occupational groups at risk in wholesale trade include heavy mobile equipment and industrial machine mechanics; and installation, maintenance, and repair workers.

Fatal Injuries by Detailed Occupation in Retail Trade (Table 2.5)

Sales occupations, particularly first-line supervisors/managers of retail sales workers (99), cashiers, other than gaming (61), retail sales persons (38), and door-to-door, news and street vendors, and related workers (6), combined to account for the highest number of fatal injuries in retail trade. Transport and material moving workers—especially truck drivers, heavy and tractor-trailer (29); truck drivers, light and delivery (20); laborers, and freight, stock,
and material movers, hand (19); drivers/sales workers (9); motor vehicle operators, all other (6); and service station attendants (6)—also accounted for many fatal injuries in retail trade.

Other detailed occupational groups at risk for fatal injuries in retail included stock clerks and order fillers, and automobile mechanics.

**Distribution of Fatal Injuries by Industries in Retail Trade (Table 2.6)**

WRT comprises 146 distinct types of business. Generally, trade activities are perceived to be less hazardous for workers than activities in industries such as agriculture, forestry, fishing and hunting; construction; transportation/warehousing, manufacturing, and mining. Retail trade industries that experience the highest number of fatalities include grocery stores, gasoline stations, automobile dealers, and building materials and supplies dealers. Chapter 4 contains more detailed data related to risks in WRT industries.

**Distribution of Fatal Injuries by Industries in Wholesale Trade (Table 2.7)**

Wholesale trade industries that experience the highest number of worker deaths from traumatic injuries include miscellaneous durable goods; machinery, equipment, and supplies; and grocery and related products.

### Table 2.6. Number of fatalities by 4-digit retail trade industry, 2005.

<table>
<thead>
<tr>
<th>4-digit Industry</th>
<th>NAICS</th>
<th>Number of Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery Stores</td>
<td>4451</td>
<td>84</td>
</tr>
<tr>
<td>Gasoline Stations</td>
<td>4471</td>
<td>58</td>
</tr>
<tr>
<td>Automobile Dealers</td>
<td>4411</td>
<td>43</td>
</tr>
<tr>
<td>Building Materials and Supplies Dealers</td>
<td>4441</td>
<td>39</td>
</tr>
<tr>
<td>Direct Selling Establishments</td>
<td>4543</td>
<td>21</td>
</tr>
<tr>
<td>Automotive Parts, Accessories, and tire Stores</td>
<td>4413</td>
<td>20</td>
</tr>
<tr>
<td>Other Miscellaneous Store Retailers</td>
<td>4539</td>
<td>15</td>
</tr>
<tr>
<td>Specialty Food Stores</td>
<td>4452</td>
<td>13</td>
</tr>
<tr>
<td>Other General Merchandise Stores</td>
<td>4529</td>
<td>11</td>
</tr>
<tr>
<td>Other Motor Vehicle Dealers</td>
<td>4412</td>
<td>10</td>
</tr>
</tbody>
</table>

### Table 2.7. Number of fatalities by 4-digit wholesale trade industry, 2005.

<table>
<thead>
<tr>
<th>4-digit Industry</th>
<th>NAICS</th>
<th>Number of Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous Durable Goods</td>
<td>4239</td>
<td>29</td>
</tr>
<tr>
<td>Machinery, Equipment, and Supplies</td>
<td>4238</td>
<td>26</td>
</tr>
<tr>
<td>Grocery and Related Products</td>
<td>4244</td>
<td>26</td>
</tr>
<tr>
<td>Petroleum and Petroleum Products</td>
<td>4247</td>
<td>19</td>
</tr>
<tr>
<td>Miscellaneous Non-durable Goods</td>
<td>4249</td>
<td>15</td>
</tr>
<tr>
<td>Farm Products and Raw Materials</td>
<td>4245</td>
<td>14</td>
</tr>
<tr>
<td>Professional and Commercial Equipment, Supplies</td>
<td>4234</td>
<td>12</td>
</tr>
<tr>
<td>Chemical and Allied Products</td>
<td>4246</td>
<td>8</td>
</tr>
<tr>
<td>Wholesale Electronic Markets, Agents, Brokers</td>
<td>4251</td>
<td>7</td>
</tr>
</tbody>
</table>
Distribution of Fatal Injuries by Gender in Wholesale Trade and Retail Trade (Figure 2.6)

In both wholesale and retail trades, fatal injuries to male workers appeared to be trending upward from 2003–2005. In wholesale trade, the proportion of male deaths increased from 92.7% in 2003 to 96.2% in 2005, yet the proportion of male deaths in retail showed more fluctuation (ranging from 86.9% in 2003, to 88.3% in 2004, then falling to 86.0% in 2005).

Distribution of Fatal Injuries by Gender in Private Industry (Figure 2.7)

Across all private industry, the distribution of fatal injuries by gender remained fairly static, with deaths of males representing from 92.5% (2003) to 93.5% (2004) of the total, before dropping to 93.4% in 2005.
Figure 2.8. Distribution of fatal occupational injuries in the U.S. private industry, wholesale trade, and retail trade by gender, 2005.

In 2005 across all private industry, workplace fatalities were split about 93% to 7% among male and female workers, respectively. The distributions in wholesale (96% to 4%) and retail (86% to 14%) differed from the private industry average.
Distribution and Trend in Fatal Injuries by Age in Wholesale Trade (Figure 2.9)

The distribution of fatal injuries by age group was similar to the distribution across all private industry, with far fewer deaths occurring among very young and very old workers. A shift is apparent from 2003–2005 in the number of deaths among workers in the middle age groups, with the highest number in the 35–44 years group in 2003, shifting to the 45–54 years group in 2004 and 2005.

Distribution and Trend in Fatal Injuries by Age in Retail Trade (Figure 2.10)

In retail trade, there were many more deaths, proportionately, in the 65 and older age group than in wholesale trade or across all private industry. In 2004 the 65 deaths among workers age 65 and older was second (along with the 65 deaths among 35–44 year-olds) only to the 90 deaths among workers ages 45–54.
Distribution of Fatal Injuries by Age in U.S. Private Industry, Wholesale Trade, and Retail Trade

(Figure 2.11)

The distribution by age of fatally injured workers in 2005 differed for wholesale trade, retail trade, and private industry overall. Nearly one-quarter of all workers who were fatally injured in retail work in 2005 were below 25 years of age (12.6%), or above 65 years of age (11.1%), percentages which exceeded the respective percentages for those age groups in both wholesale trade and private industry in general. Over half (50.5%) of wholesale trade workers fatally injured in 2005 were between 45 and 64 years of age, with another fifth (19.1%) were between the ages of 25 to 34 years of age; whereas, the percentages in retail for these middle age groups were lower than both wholesale trade and private industry in general.
Distribution and Trend in Fatal Injuries by Race/Ethnicity in Wholesale Trade (Figure 2.12)

Fatally injured workers in wholesale trade were predominantly white (159 deaths in 2005), followed by Hispanics or Latinos (35 deaths in 2005), and blacks or African Americans (11 deaths in 2005).

Distribution and Trend in Fatal Injuries by Race/Ethnicity in Retail Trade (Figure 2.13)

In the retail sector, excluding the 249 deaths of white workers in 2005, fatal, work-related injuries were more evenly distributed across other racial/ethnic groups, with 56 blacks or African Americans, 45 Asians, and 42 Hispanics or Latinos dying of workplace trauma. Four workers classified as American Indian or Alaskan Native were fatally injured in retail trade in 2003. These 4 deaths were added to the 12 deaths coded by BLS as “Other or Not Reported” for 2003. Except for the addition of the 4 cases for 2003, “Other or Not Reported” in BLS race/ethnicity data usually refers to cases that either were not coded for race/ethnicity or the entry did not match the following categories: White; Black or African American; Asian; American Indian or Alaskan Native; Native Hawaiian or Pacific Islander; or Hispanic or Latino.
In 2005, a higher percentage of black or African American (14.1%) and Asian (11.3%) workers and a lower percentage of Hispanic (10.6%) and white (62.6%) workers were fatally injured on the job in retail trade than in either wholesale trade or private industry in general. In contrast, a higher percentage of white workers (77.6%) and a lower percentage of black or African American (5.4%) and Asian (2.8%) workers were fatally injured on the job in wholesale trade than in either retail trade or private industry in general. These data indicate that Asian workers may face higher risks of fatal injury at work in retail trade than in wholesale trade, since the percentage of total employment represented by Asians within these sectors is roughly the same (see Figures 1.8 and 1.9 on page 10). On the other hand, Hispanic workers may face higher risks of fatal injury at work in wholesale trade than in retail trade, since the percentage of total employment represented by Hispanics within these sectors is also roughly the same.
Chapter 2 References

1. BLS [2005]. Census of Fatal Occupational Injuries (Revised Data). Table A-1. Fatal occupational injuries by industry and event or exposure, All United States, 2005. Online at: www.bls.gov/iif/oshwc/cfoi/cftb0205.pdf. (Figure 2.1, Table 2.1, Figure 2.3, Figure 2.4, Table 2.6, Table 2.7)


4. BLS [2005]. Census of Fatal Occupational Injuries. State Occupational Injuries, Illnesses, and Fatalities. Online at: www.bls.gov/iif/oshstate.htm (Data compiled from each individual state's Profile of occupational fatalities, which are linked to this page.) (Figure 2.5)

5. BLS [2009]. Injuries, Illnesses, and Fatalities. Multi-Screen Data Search. Access data query table at http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Census of Fatal Occupational Injuries (2003 forward)” database. Search on parameters: Area = “N00 all U.S.”; Case type = “1 Fatal injuries by detailed private industry”; Category = (select all occupational categories); Industry = “SP2RET Retail trade” and “SP2WHT Wholesale trade”; Click on “Retrieve Data” button; Year: 2005. (Table 2.3)

6. BLS [2009]. Injuries, Illnesses, and Fatalities. Multi-Screen Data Search. Access data query table at http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Census of Fatal Occupational Injuries (2003 forward)” database. Search on parameters: Area = “N00 all U.S.”; Case type = “P Fatalities by detailed private occupation”; Category = (select “RET Private Industry--Retail Trade,” and “WHT Private Industry-Wholesale Trade,” Occupation: select all detailed (six-digit) occupations, excluding all that end with a “0” (zero) or an “X”; Click on “Retrieve Data” button; Year: 2005. (Table 2.4, Table 2.5)

7. BLS [2009]. Injuries, Illnesses, and Fatalities. Multi-Screen Data Search. Access data query table at http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Census of Fatal Occupational Injuries (2003 forward)” database. Search on parameters: Area = “N00 all U.S.”; Case type = “1 Fatal injury by detailed private industry”; Category = 50X “Ownership—Private Industry”; Age group = “16–17”, “18–19”, “20–24”, “25–34”, “35–44”, “45–54”, “55–64”, “65 and older”; Industry = “SP2RET Retail trade” and “SP2WHT Wholesale trade”; Click on “Retrieve Data” button; Year: 2005. (Figure 2.6, Figure 2.7, Figure 2.8)

8. BLS [2009]. Injuries, Illnesses, and Fatalities. Multi-Screen Data Search. Access data query table at: http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Census of Fatal Occupational Injuries (2003 forward)” database. Search on parameters: Area = “N00 all U.S.”; Case type = “1 Fatal injury by detailed private industry”; Category = “Gender-- Male”, “Gender-- Female”; Industry = “SP2RET Retail trade” and “SP2WHT Wholesale trade”; Click on “Retrieve Data” button; Year: 2005. (Figure 2.9, Figure 2.10)


(Figure 2.12, Figure 2.13, Figure 2.14)
Chapter 3

Nonfatal Injuries/Illnesses Among Wholesale & Retail Trade Workers
Table 3.1. Nonfatal injury/illness cases by 2-digit NAICS, total cases, and days away from work cases, 2005.

<table>
<thead>
<tr>
<th>Industry</th>
<th>NAICS Code</th>
<th>Total Recordable Cases</th>
<th>Cases with Days Away from Work (DAW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>31-33</td>
<td>895,900</td>
<td>209,100</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>42, 44, 45</td>
<td>849,700</td>
<td>256,100</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>62</td>
<td>668,900</td>
<td>175,900</td>
</tr>
<tr>
<td>Construction</td>
<td>23</td>
<td>414,900</td>
<td>157,100</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>72</td>
<td>326,400</td>
<td>75,700</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>48, 49</td>
<td>280,500</td>
<td>117,400</td>
</tr>
<tr>
<td>Administrative and support and waste management and remediation services</td>
<td>56</td>
<td>165,400</td>
<td>57,300</td>
</tr>
<tr>
<td>Other services, except public administration</td>
<td>81</td>
<td>94,800</td>
<td>28,800</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>54</td>
<td>87,700</td>
<td>24,800</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>71</td>
<td>72,120</td>
<td>18,200</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>53</td>
<td>66,400</td>
<td>24,200</td>
</tr>
<tr>
<td>Information</td>
<td>51</td>
<td>58,900</td>
<td>20,700</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>11</td>
<td>54,600</td>
<td>18,900</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>52</td>
<td>54,200</td>
<td>14,100</td>
</tr>
</tbody>
</table>

Number of Nonfatal Injuries/Illnesses in Wholesale and Retail Trade (Table 3.1)

In 2005 the combined WRT sector had more nonfatal injuries/illnesses (849,700) than any major industry sector except manufacturing (895,900), and more injuries/illnesses experienced in WRT were severe enough to result in days away from work (DAW) (256,100) than those in any other sector, including manufacturing (209,100). The toll in WRT exceeded that of industry sectors traditionally viewed as high-risk, including construction (414,900); transportation/warehousing (280,500); agriculture, forestry, fishing and hunting (54,600); and various service sectors, most notably health care and social assistance services (668,900), and accommodation and food services (326,400).

Events/Exposures Associated with Nonfatal Injuries/Illnesses in Wholesale and Retail Trade (Figure 3.1)

The leading events/exposures resulting in nonfatal injuries/illnesses with DAW in the WRT sector were contact with objects/equipment (73,170 injuries, representing 28.6% of all DAW injuries in the sector) and overexertion (68,750; 26.8%). Falls on the same level accounted for 13.9% of all DAW injuries/illnesses in WRT, followed by falls to lower level (5.7%) and transportation incidents (4.6%). See Figures 3.2 and 3.3 for distribution of events/exposures associated with nonfatal injuries and illnesses in the wholesale trade and retail trade sectors individually.
Events/Exposures Associated with Nonfatal Injuries/Ilnesses in Wholesale Trade (Figure 3.2)

The leading event producing nonfatal injuries/illnesses in wholesale trade was overexertion (22,930 cases), followed by contact with object/equipment (21,450), fall on same level (8,580), and transportation incidents (6,390).

Events/Exposures Associated with Nonfatal Injuries/Ilnesses in Retail Trade (Figure 3.3)

The distribution differed between wholesale and retail in the following ways: (1) contact with object/equipment was the leading cause of nonfatal injuries/illnesses within retail trade (51,720), ahead of overexertion (45,820). Although like wholesale, fall on the same level was the third leading exposure causing injuries/illnesses (26,920), unlike wholesale, fall to lower level cases (9,890) exceeded those caused by transportation incidents (5,480).
Rates of Nonfatal Injuries/Illnesses in Wholesale and Retail Trade (Table 3.2)

The incidence rates for nonfatal injuries/illnesses (number of cases per 10,000 full-time workers) in the WRT sector were not among the highest in 2005. Transportation/warehousing (7.0 cases per 10,000 full-time workers) had the highest rate among 2-digit NAICS sectors, followed by manufacturing (6.3); construction (6.3); arts, entertainment, and recreation (6.1); and agriculture, forestry, fishing and hunting (6.1). Both retail trade and wholesale trade experienced total case rates (5.0 and 4.5, respectively) nearly equal to the rate experienced by private industry overall (4.6). A similar pattern was seen in rates of injuries and illnesses that resulted in days away from work in 2005, with sectors such as transportation, construction, and agriculture showing higher rates (2.9, 2.4, and 2.1, respectively), and wholesale trade and retail trade with rates (1.5 each) closer to the private industry average.

Rates of Nonfatal Injuries/Illnesses by Selected Events/Exposures in U.S. Private Industry, Wholesale Trade, and Retail Trade (Figure 3.4)

Although overall rates of nonfatal injuries/illnesses are similar among wholesale trade, retail trade, and private industry, differences are noted when rates are calculated for the events or exposures that lead to injuries and illnesses. Both wholesale and retail operations had higher rates of injury and illness from overexertion and contact with object/equipment than private industry.

---

Table 3.2. Nonfatal injury/illness case rates (per 10,000 workers) by 2-digit NAICS, total case rates, and days away from work case rates, 2005.

<table>
<thead>
<tr>
<th>Industry</th>
<th>NAICS Code</th>
<th>Total Recordable Case Rate</th>
<th>Case Rates with Days Away from Work (DAW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and warehousing</td>
<td>48, 49</td>
<td>7.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>31–33</td>
<td>6.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Construction</td>
<td>23</td>
<td>6.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>71</td>
<td>6.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing and hunting</td>
<td>11</td>
<td>6.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>62</td>
<td>5.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Retail trade</td>
<td>44, 45</td>
<td>5.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Utilities</td>
<td>22</td>
<td>4.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>72</td>
<td>4.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>42</td>
<td>4.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Administrative and support and waste management and remediation services</td>
<td>56</td>
<td>3.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>53</td>
<td>3.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Mining</td>
<td>21</td>
<td>3.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Other services, except public administration</td>
<td>81</td>
<td>3.2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

---

Figure 3.4. Incidence rates (per 10,000 workers) for nonfatal occupational injuries/illnesses involving days away from work by events/exposures, U.S. private industry, wholesale trade, and retail trade, 2005.
Numbers and rates of nonfatal injuries/illnesses by events/exposures in wholesale and retail trade (Figures 3.5 and 3.6)

In wholesale trade, rates of injury/illness from overexertion (41.7 cases per 10,000 workers) and contact with object/equipment (39.0) were similar to the rates in retail trade (38.1 and 43.0, respectively), although the numbers of injuries/illnesses resulting from these events were more than doubled in retail. Rates showed much wider differences for transportation incidents (11.6 in wholesale; 4.6 in retail), and falls on same level (22.4 in retail; 15.6 in wholesale).
Sprains and strains were by far the leading nature of injury/illness experienced by all U.S. workers across private industry in 2005. Rates of days away from work for sprain/strain injuries among WRT workers were well above the private industry average in 2005.
Although sprains/strains were the predominant type of nonfatal injury/illness for both retail and wholesale tradeworkers, wholesale workers experienced a higher rate of fractures than retail workers. Rates among retail workers exceeded those for wholesale workers for cuts, punctures (15.4 and 11.6, respectively) and bruises (14.7 and 11.7, respectively).

Rates of all other natures of injury/illness were similar in the two major trade sectors.
Rates of Injuries/Illnesses by Source of Injury/Illness, Private Industry, Wholesale Trade, and Retail Trade (Figures 3.11 and 3.12)

Wholesale and retail trade operations are centered upon the movement and storage of products. It is no surprise that containers was the source of injury/illness category most often associated with nonfatal injuries/illnesses. Rates of injury/illness in both the wholesale and retail sectors where the source of injury/illness was container was nearly double the private industry rate. The rate of injury/illness for which vehicles was the source of injury/illness was much higher in wholesale trade than in retail trade or in the overall private industry. Floors and other ground surfaces, and furniture/fixtures were source of injury/illness categories associated with higher rates of injury/illness in retail trade than in either wholesale trade or the U.S. private industry.
Numbers and Rates of Injuries/Illnesses by Source of Injury/Illness in Wholesale Trade and Retail Trade
(Figures 3.13 and 3.14)

Wholesale Trade
In wholesale trade, five source of injury/illness categories represented a top tier of injury/illness concerns in 2005. As previously mentioned, containers was the leading source of injury/illness in both wholesale trade and retail trade, accounting for more than 51,000 reported injuries/illnesses that resulted in days away from work and a rate of nearly 30 injury/illness cases per 10,000 workers. Other source of injury/illness categories causing elevated numbers and rates of nonfatal injuries/illnesses in wholesale trade included vehicles (12,350 injuries/illnesses; and a rate of 22.5/10,000 workers); floors, walkways, or ground surfaces (12,090; 22.0); worker motion or position (11,410; 20.8); and parts and materials (10,330; 18.8).

Retail Trade
In retail trade, although vehicles and parts and materials account for slightly more injuries/illnesses than in wholesale trade, the rates for these sources of injury/illness were substantially lower in retail trade as a result of the much larger working population. On the other hand, the retail trade sector had higher rates for floors, walkways, or ground surfaces as a source of injury/illness, which is consistent with the higher number and rate of injuries from falls to same level (see Figures 3.5 and 3.6).

Figure 3.13. Numbers and rates (per 10,000 workers) of nonfatal injury/illness cases by source of injury, wholesale trade sector, 2005.

Figure 3.14. Numbers and rates (per 10,000 workers) of nonfatal injury/illness cases by source of injury, retail trade sector, 2005.
Rates and Percentages of Injuries/Illnesses by Detailed Body Part Injured in Private Industry, Wholesale Trade, and Retail Trade (Figures 3.15 and 3.16)

Workers in both the wholesale and retail trade sectors experienced higher rates of injury than those in private industry in general for the back, the shoulder, and other parts of the trunk; the knee, the foot/toe, and other lower extremities; the head other than eyes; the upper extremities other than the finger, wrist, and hand; and the neck. The retail sector experienced higher rates and the wholesale sector lower rates than private industry for injuries to the finger, hand, and wrist. Private industry in general had higher injury rates than either wholesale or retail trade for the eyes, body systems, and multiple body parts.

Back injuries accounted for between 20 and 25% of all injuries/illnesses in wholesale trade, retail trade, and private industry in general, followed by injuries to the lower extremities (other than knee or foot/toe), fingers, knees and multiple parts, each of which represented nearly 10% of all injuries in each sector. Injuries to the trunk (other than back), the shoulder, and upper extremities (other than the finger, hand, and wrist) each accounted for greater than 5% of injuries/illnesses in each sector.
The prevalence of sprain/strain injuries noted earlier (see Figures 3.7–3.10) coupled with the high numbers and rates of back, trunk (other than back), knee, finger, and other extremity injuries, is consistent with the WRT sector’s focus on moving and storing products. Manual and mechanical methods of handling products both produce inherent risks of acute traumatic injuries and musculoskeletal disorders related to overexertion, repeated trauma, and awkward body positions and movement during product-handling tasks.
Nonfatal Injuries/Illnesses by Gender in Wholesale Trade, Retail Trade and U.S. Private Industry

(Figures 3.19 and 3.20)

As noted in Chapter 1, male and female workers in retail trade are nearly equally distributed. However, about 70% of workers in wholesale trade are male (Figure 1.7). Not surprisingly, the injuries and illnesses by gender for the period 2003–2005 reflect this difference in gender distribution. Males experienced from 85%–88% of the nonfatal injuries/illnesses resulting in DAW in wholesale trade and about 60% in retail trade within the same time frame.

In private industry overall, males experienced about 65%–66% of injuries/illnesses. If data from wholesale and retail are combined, the resultant distribution of injuries/illnesses experienced by males ranges from about 67%–69%, a figure that more closely lines up with the private industry distribution.

Two additional findings of note are that (1) males were overrepresented among injury/illness cases in both wholesale and retail trade, as they were in private industry in general, and (2) injuries/illnesses for both males and females in private industry and retail trade appeared to trend downward from 2003 to 2005; in wholesale trade, no trend was apparent.
Gender Distribution of Nonfatal Injuries/Illnesses Involving Days Away from Work in U.S. Private Industry, Wholesale Trade, and Retail Trade (Figure 3.21)

Figure 3.21 is comparable with Figure 2.8 in Chapter 2 of this Chartbook. Figure 2.8 shows the distribution of fatal injuries by gender for the two major sectors within WRT and private industry. The distribution of nonfatal injuries/illnesses by gender is similar to the distribution of fatal injuries by gender when differences are noted among wholesale, retail, and overall private industry populations. However, the nonfatal injury/illness by gender experience is much different when the relative proportion of females is considered. Female workers experience a much larger share of nonfatal injuries/illnesses than of fatal injuries. As seen above (for the year 2005), females experienced between about 14%–40% of nonfatal injuries/illnesses with DAW. On the other hand, female workers experienced only 4%–14% of the fatal injuries experienced in 2005 within wholesale trade, retail trade, and private industry overall.

* Gender was not reported in 4,540 cases for U.S. Private Industry, nor in 380 cases for Retail Trade.
Nonfatal Injuries/Illnesses by Age in Wholesale Trade (Figure 3.22)

As with the distribution of injuries/illnesses by gender, the distribution by age group reflects differences (noted in Chapter 1, Figure 1.5) in the distribution of the workforce by age between wholesale trade and retail trade. The distribution of workers by age in wholesale trade, as well as the distribution of nonfatal injury/illness by age, is similar to the distributions seen in private industry overall (not shown in figure). Wholesale trade has proportionately fewer younger and older workers than retail trade, and proportionately fewer nonfatal injuries and illnesses among younger and older workers, as well.

Nonfatal Injuries/Illnesses by Age in Retail Trade (Figure 3.23)

The nonfatal injuries/illnesses experienced in the retail trade sector are somewhat more evenly distributed across age groups than those in wholesale trade. The only potential trend that might be noted in Figures 3.22 and 3.23 is that injuries/illnesses appear to be decreasing slightly in the age groups representing workers 20–44 years of age, while increasing slightly for the 16–19-year-olds and groups age 55 and older. The effect is a more evenly distributed injury/illness pattern across age groups.
In 2005 workers younger than 25 represented 11.6% of all nonfatal injuries/illnesses in wholesale trade and nearly 20% in retail trade. Workers age 25–54 years suffered 75% of the nonfatal injuries/illnesses in wholesale trade, but just 64.6% in retail. The distribution of injuries/illnesses by age in the private industry was more closely aligned with the wholesale trade sector. For example, in private industry, the percentage of nonfatal injury/illness cases involving workers younger than 25 years of age was 14.2%, and the percentage of cases involving workers age 25-54 years was 71.6%.

A large proportion of the nonfatal injuries/illnesses experienced in retail trade involved two major occupational groups: sales and related occupations and transportation and material moving occupations. In wholesale, the transportation and material moving occupations suffered the majority of the injuries/illnesses. In WRT combined, transportation and material moving workers had the most injuries, followed by sales and related occupations. Other major occupational groups that incurred injuries/illnesses in WRT include office and administrative support; installation, maintenance, repair; production; and food preparation and service.
Nonfatal Injuries/Illnesses Involving Days Away from Work by Detailed Occupation in Wholesale Trade (Table 3.3)

Workers in one detailed occupational group—laborers and freight, stock, and material movers, hand—suffered 20,170 reported injuries/illnesses with DAW in 2005, more than double the injuries/illnesses with DAW suffered by truck drivers, heavy and tractor-trailer (9,060). Other detailed occupational groups accounting for high numbers of injuries/illnesses included truck drivers, light and delivery services (7,430); driver/sales workers (3,910); shipping, receiving, and traffic clerks (3,270). Production workers, sales representatives, and mechanics were among other detailed occupations incurring a high number of injuries/illnesses in wholesale trade.

Nonfatal Injuries/Illnesses Involving Days Away from Work by Detailed Occupation in Retail Trade (Table 3.4)

Retail salespersons suffered the highest number (30,600) of injuries/illnesses with DAW in retail trade in 2005, followed by laborers and freight, stock, material movers, hand (21,120); First-line supervisors/managers of retail sales workers (15,140); and stock clerks and order fillers (15,010). Cashiers, except gaming (12,440) and automotive service technicians and mechanics (9,520) also accounted for high numbers of injuries/illnesses with DAW.
Nonfatal Injuries/Illnesses by Race/Ethnicity in Wholesale Trade and Retail Trade (Figures 3.26 and 3.27)

In 2005, 66.6% of the nonfatal occupational injuries/illnesses resulting in DAW were suffered by white workers. Hispanic or Latino workers accounted for 21.3% of the nonfatal injuries/illnesses, and blacks or African Americans incurred 10.0%. The only potential trends evident in the 2003–2005 data indicate a decrease in the number of injuries/illnesses incurred by white workers, and an increase in the number of injuries/illnesses incurred by Hispanic or Latino workers.

In retail trade in 2005, 75.8% of all nonfatal occupational injuries/illnesses resulting in DAW were suffered by white workers, and Hispanic or Latino and black or African American workers accounted for 12.6% and 9.6% of all such injuries/illnesses, respectively. Trends indicate an overall decline in nonfatal injuries/illnesses involving DAW in retail trade.

The distribution of nonfatal injuries/illnesses with DAW among race/ethnicity categories was similar for wholesale trade and private industry overall. The distribution in retail trade differed slightly, as a greater percentage of white workers were reported with injuries/illnesses involving DAW (75.2% of all injuries/illnesses with DAW) than for either wholesale trade (66.6%) or all private industry (66.8%). Correspondingly, for retail trade, there was a smaller percentage of cases reported for blacks or African Americans (9.2%) and Hispanics or Latinos (12.9%) than reported for wholesale trade (11.1% and 19.3%, respectively) or all private industry (11.8% and 18.3%, respectively). In a very high percentage...
of cases of nonfatal injury/illness with DAW, race/ethnicity was not reported. The percentage of cases without race/ethnicity data ranged from 24.6% in wholesale trade to 30.2% in all private industry and 37.9% in retail trade. (Data for private industry not shown in Figures 3.26 and 3.27.)

**Numbers of Nonfatal Injuries/Illnesses by State in Wholesale Trade (Figure 3.28)**

California reported the highest number of nonfatal injuries/illnesses in wholesale trade in 2005 (27,600), followed by Texas (17,500), Florida (13,200), Illinois (11,400), New Jersey (9,800), and New York (9,800). Among the states for which data were provided, Alaska (400 cases), Delaware (400), Vermont (600), Wyoming (600), Hawaii (800), Montana (900), and Rhode Island (900) reported the lowest number of wholesale trade injuries/illnesses.

**Numbers of Nonfatal Injuries/Illnesses by State in Retail Trade (Figure 3.29)**

The states with the highest numbers of nonfatal injury/illness cases in retail trade in 2005 were California (73,700), Florida (48,800), and Texas (40,500). Among the next tier of states with high numbers of nonfatal injuries/illnesses were New York (25,400) and Illinois (22,500). Among the states for which data were provided, those reporting the fewest injuries/illnesses were Washington (100), District of Columbia (400), Wyoming (1,200), Alaska (1,700), and Vermont (1,900).
Rates of Nonfatal Injuries/Illnesses by State in Wholesale Trade (Figure 3.30)

High rates for the wholesale trade sector were found in Maine (7.8), Wyoming (7.3), Iowa (7.2), Wisconsin (7.1), and Vermont (6.8). Lowest rates were experienced in Alabama (2.3), New York (3.0), Delaware (3.1), Louisiana (3.7), North Carolina (3.8), and Texas (3.8).

Rates of Nonfatal Injuries/Illnesses by State in Retail Trade (Figure 3.31)

The states with the highest rates of nonfatal injuries/illnesses in retail trade in 2005 were Maine (7.3) and Rhode Island (6.9), followed by Connecticut, Montana, Utah, and Vermont (all with rates of 5.9). The lowest rate where data were available was found in Washington (1.4). Other low-rate states were New York (3.9) and Texas (4.3), as well as Nebraska, New Jersey, and Tennessee (all 4.4).
Injuries, Illnesses, and Nonclassifiable Injury/Illness Cases with DAW in U.S. Private Industry, Wholesale Trade, and Retail Trade (Table 3.5)

In 2005, injuries with DAW accounted for about 93% of all injury/illness cases with DAW; whereas, illnesses with DAW accounted for less than 7% of all cases reported (about 0.5% were nonclassifiable).

2-, 3-, and 4-digit Nature of Illness Categories Reported in U.S. Private Industry, Wholesale Trade, and Retail Trade (Table 3.6)

Of the illnesses reported in wholesale and retail trade in 2005, the highest percentage were digestive system diseases and disorders (42.8% in wholesale, 30.1% in retail). All of these digestive system illnesses were hernias, with the vast majority reported as inguinal or unspecified hernias. Inguinal hernias are often caused by the lifting of heavy objects, a common task performed by workers in wholesale and retail trade businesses. Nervous system and sense organ diseases also occurred frequently in wholesale and retail trade and private industry in general, particularly carpal tunnel syndrome, which accounted for 20% of the illness cases in private industry, 18.5% of the cases in wholesale trade, and 16.8% of the cases in retail trade. Musculoskeletal system and connective tissue diseases and disorders were the third most frequent illnesses, representing 17.3% of private industry cases, 14.4% of wholesale trade cases, and 17.6% of retail trade cases.

Table 3.5. Injury, illness, and nonclassifiable cases involving days away from work in U.S. private industry, wholesale trade, and retail trade, 2005.

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>All Traumatic Injuries w/ DAW</th>
<th>% of Total</th>
<th>All Illnesses w/ DAW</th>
<th>% of Total</th>
<th>Nonclassifiable</th>
<th>% of Total</th>
<th>Total Injuries/ Illnesses w/ DAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>All U.S. Private Industry</td>
<td>1,145,900</td>
<td>92.8%</td>
<td>82,480</td>
<td>6.7%</td>
<td>6,290</td>
<td>0.5%</td>
<td>1,234,670</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>74,910</td>
<td>93.4%</td>
<td>5,000</td>
<td>6.2%</td>
<td>260</td>
<td>0.3%</td>
<td>80,170</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>163,620</td>
<td>93.0%</td>
<td>11,410</td>
<td>6.5%</td>
<td>840</td>
<td>0.5%</td>
<td>175,870</td>
</tr>
<tr>
<td>Total WRT</td>
<td>238,530</td>
<td>93.2%</td>
<td>16,410</td>
<td>6.4%</td>
<td>1,100</td>
<td>0.4%</td>
<td>256,040</td>
</tr>
</tbody>
</table>

Note: The acronym “oiics,” column one refers to the Occupational Injury and Illnesses Classification System, see http://wwwn.cdc.gov/oiics/.

Table 3.6. Distribution (%) of illnesses involving days away from work by nature of illness categories reported in U.S. private industry, wholesale trade, and retail trade, 2005.

<table>
<thead>
<tr>
<th>2-, 3-, and 4-digit Nature of Illness categories</th>
<th>% of All U.S. Private Industry w/ DAW</th>
<th>% of All Wholesale Trade w/ DAW</th>
<th>% of All Retail Trade w/ DAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>12xxxx Nervous system and sense organ diseases</td>
<td>26.7%</td>
<td>22.4%</td>
<td>21.6%</td>
</tr>
<tr>
<td>124xxx Disorders of the Peripheral Nervous System</td>
<td>20.8%</td>
<td>20.8%</td>
<td>17.3%</td>
</tr>
<tr>
<td>1241xx Carpal Tunnel Syndrome</td>
<td>20.0%</td>
<td>18.6%</td>
<td>16.8%</td>
</tr>
<tr>
<td>15xxxx Digestive system diseases and disorders</td>
<td>24.8%</td>
<td>42.8%</td>
<td>30.1%</td>
</tr>
<tr>
<td>153xxx Hernia, unspecified</td>
<td>11.3%</td>
<td>19.4%</td>
<td>14.1%</td>
</tr>
<tr>
<td>1531xx Hernia, inguinal</td>
<td>9.5%</td>
<td>19.8%</td>
<td>12.4%</td>
</tr>
<tr>
<td>17xxxx Musculoskeletal system and connective tissue diseases and disorders</td>
<td>17.3%</td>
<td>14.4%</td>
<td>17.6%</td>
</tr>
<tr>
<td>173xxx Rheumatism, except back</td>
<td>15.0%</td>
<td>12.0%</td>
<td>15.4%</td>
</tr>
<tr>
<td>1733xx Tendonitis</td>
<td>6.9%</td>
<td>5.4%</td>
<td>6.5%</td>
</tr>
<tr>
<td>1739xx Rheumatism, except back, n.e.c.</td>
<td>4.2%</td>
<td>3.4%</td>
<td>3.0%</td>
</tr>
<tr>
<td>18xxxx Disorders of the skin and subcutaneous tissue</td>
<td>6.1%</td>
<td>2.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>182xxx Dermatitis</td>
<td>3.8%</td>
<td>2.0%</td>
<td>1.6%</td>
</tr>
<tr>
<td>1823xx Allergic Dermatitis</td>
<td>1.2%</td>
<td>0.8%</td>
<td>1.2%</td>
</tr>
<tr>
<td>1824xx Irritant Dermatitis</td>
<td>0.9%</td>
<td>1.0%</td>
<td>...</td>
</tr>
<tr>
<td>52xxxx Mental disorders or syndromes</td>
<td>3.3%</td>
<td>0.8%</td>
<td>2.4%</td>
</tr>
<tr>
<td>521xxx Anxiety, stress, neurotic disorders</td>
<td>3.1%</td>
<td>0.5%</td>
<td>2.2%</td>
</tr>
<tr>
<td>14xxxx Respiratory system diseases</td>
<td>2.2%</td>
<td>0.6%</td>
<td>3.6%</td>
</tr>
<tr>
<td>144xxx COPD and allied conditions</td>
<td>1.2%</td>
<td>...</td>
<td>2.7%</td>
</tr>
<tr>
<td>1443xx Extrinsic Asthma</td>
<td>0.7%</td>
<td>...</td>
<td>0.5%</td>
</tr>
<tr>
<td>1444xx Extrinsic Allergic Alveolitis and pneumonitis</td>
<td>0.4%</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>
4-digit Nature of Illness Categories Reported in U.S. Private Industry, Wholesale Trade, and Retail Trade

(Figure 3.32)

Hernias (combining the categories hernia, inguinal and hernia, unspecified) accounted for nearly 40% of all the illnesses reported in wholesale trade, over 26% of those reported in retail trade, and nearly 21% of those reported in private industry in general in 2005. Carpal tunnel syndrome was the next most frequently reported illness, accounting for 20% of all private industry cases, 18.6% of wholesale trade cases, and 16.8% of retail trade cases. Musculoskeletal disorders tendonitis and rheumatism (except back) were less frequently reported.
Chapter 3 References


2. BLS [2005]. Injuries, Illnesses, and Fatalities. Case and Demographic characteristics for Work-related Injuries and Illnesses Involving Days Away from Work. Online at: www.bls.gov/iif/oshcdnew.htm. Resource Tables for 2005. Table R4. Number of nonfatal occupational injuries and illnesses involving days away from work by industry and selected events or exposures leading to injury or illness, 2005. Online at: www.bls.gov/iif/oshwc/osh/case/ostb1660.pdf. (Figure 3.1, Figure 3.2, Figure 3.3, Figure 3.5, Figure 3.6)


4. BLS [2005]. Injuries, Illnesses, and Fatalities. Case and Demographic characteristics for Work-related Injuries and Illnesses Involving Days Away from Work. Online at: www.bls.gov/iif/oshcdnew.htm. Resource Tables for 2005. Table R8. Incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 10,000 full-time workers by industry and selected natures of injury or illness, 2005. Online at: www.bls.gov/iif/oshwc/osh/case/ostb1657.pdf. (Figure 3.8, Figure 3.9, Figure 3.10)

5. BLS [2005]. Injuries, Illnesses, and Fatalities. Case and Demographic characteristics for Work-related Injuries and Illnesses Involving Days Away from Work. Online at: www.bls.gov/iif/oshcdnew.htm Resource Tables for 2005. Table R7. Incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 10,000 full-time workers by industry and selected sources of injury or illness, 2005. Online at: http://www.bls.gov/iif/oshwc/osh/case/ostb1659.pdf. (Figure 3.11, Figure 3.12, Figure 3.13, Figure 3.14)

6. BLS [2005]. Injuries, Illnesses, and Fatalities. Case and Demographic characteristics for Work-related Injuries and Illnesses Involving Days Away from Work. Online at: www.bls.gov/iif/oshcdnew.htm Resource Tables for 2005. Table R6. Incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 10,000 full-time workers by industry and selected parts of body affected by injury or illness, 2005. Online at: http://www.bls.gov/iif/oshwc/osh/case/ostb1662.pdf. (Figure 3.15, Figure 3.17, Figure 3.18)

7. BLS [2005]. Injuries, Illnesses, and Fatalities. Case and Demographic characteristics for Work-related Injuries and Illnesses Involving Days Away from Work. Online at: www.bls.gov/iif/oshcdnew.htm. Resource Tables for 2005. Table R3. Number of nonfatal occupational injuries and illnesses involving days away from work by industry and selected sources of injury or illness, 2005. Online at: http://www.bls.gov/iif/oshwc/osh/case/ostb1655.pdf. (Figure 3.16, Figure 3.17, Figure 3.18)


12. BLS [2009]. Injuries, Illnesses, and Fatalities. Multi-Screen Data Search. Access data query table at: http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Nonfatal cases involving days away from work: selected characteristics (2003 forward)” database. Search on parameters: Area=“00 All U.S.”; Ownership=“1 Private Industry”; Data Type=“6 Injury and Illness Cases”; Case Type=“O Industry division or selected characteristic by detailed occupation”; Category=select “RET Industry--Retail Trade” and “WHT Industry--Wholesale Trade”; Occupation=select all detailed occupations (six-digit), excluding those that end in a “0” (zero) or an “X.” Click on “Retrieve Data” button; Year: 2005. (Table 3.3, Table 3.4)

13. BLS [2009]. Injuries, Illnesses, and Fatalities. Multi-Screen Data Search. Access data query table at: http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Census of Fatal Occupational Injuries (2003 forward)” database. Search on parameters: Area=“00 All U.S.”; Ownership=“1 Private Industry”; Data Type=“6 Injury and Illness Cases”; Case Type=“O Industry division or selected characteristic by detailed occupation”; Category=“00X All industry”, “RET Industry-Retail Trade”, and “WHT Industry-Wholesale Trade”; Nature=“0XXXXX Traumatic Injuries and Disorders”, “1XXXXX Systemic Diseases and Disorders”, “2XXXXX Infectious and Parasitic Diseases”, “3XXXXX Neoplasms, Tumors, and Cancer”, “4XXXXX Symptoms, Signs, and Ill-defined Conditions”, “5XXXXX Other Diseases, Conditions, and Disorders”, “8XXXXX Multiple diseases, conditions, and disorders”, “9999xx Nonclassifyable”; Click on the “Retrieve Data” button; Year: 2005. (Table 3.5)

14. BLS [2009]. Injuries, Illnesses, and Fatalities. Case and Demographic characteristics for Work-related Injuries and Illnesses Involving Days Away from Work. Online at: www.bls.gov/iif/oshcdnew.htm. Resource Tables for 2005. Table R38. Number of nonfatal occupational injuries and illnesses involving days away from work by industry and race or ethnic origin of worker, 2005. Online at: www.bls.gov/iif/oshwc/osh/case/ostb1694.pdf. (Figure 3.26, Figure 3.27)

15. BLS [2005]. Injuries, Illnesses, and Fatalities. State Occupational Injuries, Illnesses, and Fatalities. Online at: www.bls.gov/iif/oshstate.htm. (Data compiled from each individual state’s Survey of Occupational Injuries and Illnesses (SOII) data, which are linked to this page. Data are not available for all states.) (Figure 3.28, Figure 3.29, Figure 3.30, Figure 3.31)

16. BLS [2009]. Injuries, Illnesses, and Fatalities. Multi-Screen Data Search. Access data query table at: http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Census of Fatal Occupational Injuries (2003 forward)” database. Search on parameters: Area=“00 All U.S.”; Ownership=“1 Private Industry”; Data Type=“6 Injury and Illness Cases”; Case Type=“O Industry division or selected characteristic by detailed occupation”; Category=“00X All industry”, “RET Industry-Retail Trade”, and “WHT Industry-Wholesale Trade”; Nature=“0XXXXX Traumatic Injuries and Disorders”, “1XXXXX Systemic Diseases and Disorders”, “2XXXXX Infectious and Parasitic Diseases”, “3XXXXX Neoplasms, Tumors, and Cancer”, “4XXXXX Symptoms, Signs, and Ill-defined Conditions”, “5XXXXX Other Diseases, Conditions, and Disorders”, “8XXXXX Multiple diseases, conditions, and disorders”, “9999xx Nonclassifiable”; Click on the “Retrieve Data” button; Year: 2005. (Table 3.5)
table at: http://www.bls.gov/iif/data.htm. Click on “Multi-Screen Data Search” button for “Census of Fatal Occupational Injuries (2003 forward)” database. Search on parameters: Area="00 All U.S."; Ownership="1 Private Industry"; Data Type="6 Injury and Illness Cases"; Case Type="N Industry division or selected characteristic by detailed nature of condition"; Category="00X All industry”, “RET Industry-Retail Trade”, and “WHT Industry-Wholesale Trade”; Nature=Select all nature categories by clicking on the first, then Shift-clicking on the last; Click on the “Retrieve Data” button; Year-2005. (Table 3.6, Figure 3.32)
Chapter 4

High-Risk Subsectors and Industries in Wholesale & Retail Trade
Introduction

The WRT sector is made up of 146 distinct types of business, as categorized in the NAICS. Of these, 71 are wholesale businesses and 75 are retail businesses. When the occupational injury, illness, and fatality data are compiled for the overall WRT sector, the resulting counts and rates, though useful for making general comparisons between major industry sectors (2-digit NAICS), mask the reality that certain industries within the sectors exhibit much higher counts and rates than others. The purpose of this chapter is to examine data specific to the industries within WRT in order to (1) identify those that experience higher rates and counts of occupational injuries, illnesses, and fatalities and (2) examine characteristics of the workforce and the injury, illness, and fatality outcomes for higher-risk industries. Such examination may identify factors that appear to contribute to risk and cause in the high-risk subsectors, which, in turn, may suggest prevention opportunities. BLS has identified that certain WRT industries are among the leading U.S. private sector industries for injury/illness counts (see Figure 4.1), and injury/illness rates (see Table 4.1).

High Nonfatal Injury/Illness Counts in U.S. Private Industry

(Figure 4.1)

Of the 14 U.S. subsectors and industries with at least 100,000 nonfatal occupational injuries and illnesses in 2005, 4 are WRT subsectors and industries—general merchandise stores (NAICS 452), merchant wholesalers, durable goods (NAICS 423), supermarkets and other grocery stores (NAICS 44511), and merchant wholesalers, nondurable goods (NAICS 424).
Table 4.1. Private sector industries with highest injury/illness case rates (per 10,000 workers) with days away from work, 2005.

<table>
<thead>
<tr>
<th>Industry</th>
<th>NAICS Code</th>
<th>Annual Average Employment</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beet sugar manufacturing</td>
<td>311313</td>
<td>6,300</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
<td>Light truck and utility vehicle</td>
<td>336112</td>
<td>72,600</td>
<td>10.4</td>
<td>10.4</td>
</tr>
<tr>
<td>Animal (except poultry) slaughtering</td>
<td>311611</td>
<td>148,400</td>
<td>8.4</td>
<td>8.8</td>
</tr>
<tr>
<td>Flat glass manufacturing</td>
<td>327113</td>
<td>13,100</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Couriers</td>
<td>4921</td>
<td>512,900</td>
<td>9.2</td>
<td>8.6</td>
</tr>
<tr>
<td>Prefabricated wood building manufacturing</td>
<td>321992</td>
<td>26,700</td>
<td>6.8</td>
<td>6.3</td>
</tr>
<tr>
<td>Truss manufacturing</td>
<td>321214</td>
<td>49,300</td>
<td>6.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Scheduled air transportation</td>
<td>4811</td>
<td>460,900</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Hog and pig farming</td>
<td>1122</td>
<td>17,100</td>
<td>10.6</td>
<td>7.7</td>
</tr>
<tr>
<td>Framing contractors</td>
<td>7213</td>
<td>10,800</td>
<td>10.1</td>
<td>7.7</td>
</tr>
<tr>
<td>Soft drink manufacturing</td>
<td>321112</td>
<td>77,000</td>
<td>7.9</td>
<td>7.3</td>
</tr>
<tr>
<td>Clay refractory manufacturing</td>
<td>327124</td>
<td>5,700</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Truck trailer manufacturing</td>
<td>336212</td>
<td>35,700</td>
<td>7.2</td>
<td></td>
</tr>
<tr>
<td>Fluid milk manufacturing</td>
<td>321111</td>
<td>54,900</td>
<td>6.7</td>
<td>7.0</td>
</tr>
<tr>
<td>Cheese manufacturing</td>
<td>311513</td>
<td>37,800</td>
<td>5.5</td>
<td>7.0</td>
</tr>
<tr>
<td>Bottled water manufacturing</td>
<td>311211</td>
<td>15,500</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>Iron and steel forging</td>
<td>332111</td>
<td>25,800</td>
<td>6.8</td>
<td>6.8</td>
</tr>
<tr>
<td>Overhead traveling crane, hoist, and monorail system manufacturing</td>
<td>333923</td>
<td>13,900</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>Manufactured home (mobile home)</td>
<td>321991</td>
<td>46,500</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Boat building</td>
<td>336612</td>
<td>60,600</td>
<td>5.9</td>
<td>6.6</td>
</tr>
<tr>
<td>Beer, wine, and distilled alcoholic beverage merchant wholesalers</td>
<td>4248</td>
<td>144,300</td>
<td>7.0</td>
<td>6.6</td>
</tr>
<tr>
<td>All Private industry</td>
<td>109,127,000</td>
<td>2.5</td>
<td>2.4</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2. Nonfatal occupational injury/illness rates (per 10,000 workers) by 4-digit NAICS industries, wholesale trade, 2005.

<table>
<thead>
<tr>
<th>Wholesale Trade Industry (4-digit NAICS)</th>
<th>NAICS</th>
<th>Population</th>
<th>Incidence Rate</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer, wine, and distilled alcoholic beverage</td>
<td>4248</td>
<td>144,300</td>
<td>9.6</td>
<td>13,400</td>
</tr>
<tr>
<td>Grocery and related product</td>
<td>4244</td>
<td>692,800</td>
<td>7.7</td>
<td>53,000</td>
</tr>
<tr>
<td>Metal and mineral (except petroleum)</td>
<td>4235</td>
<td>122,600</td>
<td>7.5</td>
<td>9,300</td>
</tr>
<tr>
<td>Lumber and other construction materials</td>
<td>4233</td>
<td>250,900</td>
<td>6.8</td>
<td>17,000</td>
</tr>
<tr>
<td>Farm product raw material</td>
<td>4245</td>
<td>72,900</td>
<td>6.1</td>
<td>3,700</td>
</tr>
<tr>
<td>Motor vehicle and motor vehicle parts and supplies</td>
<td>4231</td>
<td>342,200</td>
<td>6.0</td>
<td>19,100</td>
</tr>
<tr>
<td>Machinery, equipment, and supplies</td>
<td>4238</td>
<td>657,300</td>
<td>4.3</td>
<td>28,000</td>
</tr>
<tr>
<td>Miscellaneous nondurable goods</td>
<td>4249</td>
<td>359,200</td>
<td>4.3</td>
<td>14,100</td>
</tr>
<tr>
<td>Hardware, and plumbing and heating equipment and supplies</td>
<td>4237</td>
<td>241,500</td>
<td>4.1</td>
<td>9,700</td>
</tr>
<tr>
<td>Petroleum and petroleum products</td>
<td>4247</td>
<td>100,500</td>
<td>4.1</td>
<td>4,100</td>
</tr>
<tr>
<td>Furniture and home furnishing</td>
<td>4232</td>
<td>112,300</td>
<td>3.9</td>
<td>4,200</td>
</tr>
<tr>
<td>Paper and paper product</td>
<td>4241</td>
<td>151,500</td>
<td>3.9</td>
<td>5,300</td>
</tr>
<tr>
<td>Miscellaneous durable goods</td>
<td>4239</td>
<td>277,900</td>
<td>3.7</td>
<td>9,800</td>
</tr>
<tr>
<td>Apparel, piece goods, and notions</td>
<td>4243</td>
<td>145,700</td>
<td>3.6</td>
<td>4,800</td>
</tr>
<tr>
<td>Chemical and allied products</td>
<td>4246</td>
<td>130,000</td>
<td>3.1</td>
<td>4,000</td>
</tr>
<tr>
<td>Wholesale electronic markets and brokers</td>
<td>4251</td>
<td>731,300</td>
<td>2.5</td>
<td>16,600</td>
</tr>
<tr>
<td>Drugs and druggists’ sundries</td>
<td>4242</td>
<td>215,600</td>
<td>2.3</td>
<td>4,700</td>
</tr>
<tr>
<td>Electrical goods</td>
<td>4236</td>
<td>340,100</td>
<td>2.2</td>
<td>7,200</td>
</tr>
<tr>
<td>Professional and commercial equipment and supplies</td>
<td>4234</td>
<td>636,200</td>
<td>1.9</td>
<td>11,900</td>
</tr>
</tbody>
</table>

High Nonfatal Injury/Illness Rates in U.S. Private Industry (Table 4.1)

In a BLS ranking of U.S. private sector industries by rates of injury/illness cases that involved days away from work, the wholesale industry beer, wine, and distilled alcoholic beverage merchant wholesalers (NAICS 4248) was included along with the traditionally high-risk manufacturing, construction, and farming industries. The rate in this wholesale industry in 2005 (6.6 injuries/illnesses per 10,000 workers) was more than 2.5 times the rate for all private industry (2.4).

Nonfatal Occupational Injury/Illness Rates in Wholesale Trade (Table 4.2)

Among all wholesale trade industries, the beer, wine, and distilled alcoholic beverage merchant wholesalers industry ranked first, with an overall injury/illness case rate of 9.6 injuries/illnesses per 10,000 workers, followed by grocery and related product (7.7), metal and mineral (except petroleum) (7.5), lumber and other construction materials (6.8), farm product raw material (6.1), and motor vehicle and motor vehicle parts and supplies (6.0).
**Fatal Injury Counts in Wholesale Trade**

*(Tables 4.3 and 4.4)*

Among wholesale trade industries, those with the highest number of fatal work injuries in 2005 included miscellaneous durable goods (NAICS 4239), with 29 worker deaths and, with 26 deaths each machinery, equipment and supplies (NAICS 4238) and grocery and related product (NAICS 4244). Other wholesale industries that experienced more than 10 fatalities in 2005 were petroleum and petroleum products (NAICS 4247), motor vehicle and motor vehicle parts and supplies (NAICS 4231), farm product raw material (NAICS 4245), and professional and commercial equipment and supplies (NAICS 4234) with 19, 16, 14, and 12 deaths, respectively.

Often, a high count or rate attributed at the 4-digit NAICS level results from a high count or rate at the 5- or 6-digit NAICS level. For example, of the 29 fatal work injuries incurred in the miscellaneous durable goods industry, 20 happened in wholesale companies that sell recyclable material (NAICS 42393). Similarly, most of the work injury deaths experienced by farm product raw material wholesalers, occurred in companies dealing with grain and field bean (NAICS 42451) produce.

### Table 4.3. Fatalities by 4-digit NAICS industries, wholesale trade, 2005.

<table>
<thead>
<tr>
<th>Wholesale Trade Industry (4-digit NAICS)</th>
<th>NAICS Code</th>
<th>Total Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous durable goods</td>
<td>4239</td>
<td>29</td>
</tr>
<tr>
<td>Machinery, equipment, and supplies</td>
<td>4238</td>
<td>26</td>
</tr>
<tr>
<td>Grocery and related product</td>
<td>4244</td>
<td>26</td>
</tr>
<tr>
<td>Petroleum and petroleum products</td>
<td>4247</td>
<td>19</td>
</tr>
<tr>
<td>Motor vehicle and motor vehicle parts and supplies</td>
<td>4231</td>
<td>16</td>
</tr>
<tr>
<td>Farm product raw material</td>
<td>4245</td>
<td>14</td>
</tr>
<tr>
<td>Professional and commercial equipment and supplies</td>
<td>4234</td>
<td>12</td>
</tr>
<tr>
<td>Lumber and other construction materials</td>
<td>4233</td>
<td>9</td>
</tr>
<tr>
<td>Chemical and allied products</td>
<td>4246</td>
<td>8</td>
</tr>
<tr>
<td>Metal and mineral (except petroleum)</td>
<td>4235</td>
<td>6</td>
</tr>
<tr>
<td>Drugs and druggists’ sundries</td>
<td>4242</td>
<td>5</td>
</tr>
<tr>
<td>Furniture and home furnishing</td>
<td>4232</td>
<td>4</td>
</tr>
<tr>
<td>Electrical goods</td>
<td>4236</td>
<td>3</td>
</tr>
<tr>
<td>Hardware, and plumbing and heating equipment and supplies</td>
<td>4237</td>
<td>3</td>
</tr>
<tr>
<td>Paper and paper product merchant wholesalers</td>
<td>4241</td>
<td>3</td>
</tr>
<tr>
<td>Apparel, piece goods, and notions</td>
<td>4243</td>
<td>3</td>
</tr>
</tbody>
</table>

### Table 4.4. Fatalities by 5-digit NAICS industries, wholesale trade, 2005.

<table>
<thead>
<tr>
<th>Wholesale Trade Industry (5-digit NAICS)</th>
<th>NAICS Code</th>
<th>Total Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recyclable material</td>
<td>42393</td>
<td>20</td>
</tr>
<tr>
<td>Industrial machinery and equipment</td>
<td>42383</td>
<td>11</td>
</tr>
<tr>
<td>Grain and field bean</td>
<td>42451</td>
<td>11</td>
</tr>
<tr>
<td>Motor vehicle parts (used)</td>
<td>42314</td>
<td>10</td>
</tr>
<tr>
<td>General line grocery</td>
<td>42441</td>
<td>8</td>
</tr>
<tr>
<td>Metal service centers and offices</td>
<td>42351</td>
<td>6</td>
</tr>
<tr>
<td>Fresh fruit and vegetable</td>
<td>42448</td>
<td>6</td>
</tr>
<tr>
<td>Other grocery and related products</td>
<td>42449</td>
<td>6</td>
</tr>
<tr>
<td>Other chemical and allied products</td>
<td>42469</td>
<td>6</td>
</tr>
<tr>
<td>Medical, dental, and hospital equipment and supplies</td>
<td>42345</td>
<td>5</td>
</tr>
<tr>
<td>Construction and mining (except oil well) machinery, equipment</td>
<td>42381</td>
<td>5</td>
</tr>
<tr>
<td>Drugs and druggists’ sundries</td>
<td>42421</td>
<td>5</td>
</tr>
<tr>
<td>Petroleum bulk stations and terminals</td>
<td>42471</td>
<td>5</td>
</tr>
<tr>
<td>Automobile and other motor vehicle</td>
<td>42311</td>
<td>4</td>
</tr>
<tr>
<td>Farm and garden machinery and equipment</td>
<td>42382</td>
<td>4</td>
</tr>
<tr>
<td>Sporting and recreational goods and supplies</td>
<td>42391</td>
<td>4</td>
</tr>
<tr>
<td>Furniture</td>
<td>42321</td>
<td>3</td>
</tr>
<tr>
<td>Lumber, plywood, millwork, and wood panel</td>
<td>42331</td>
<td>3</td>
</tr>
<tr>
<td>Brick, stone, and related construction material</td>
<td>42332</td>
<td>3</td>
</tr>
<tr>
<td>Roofing, siding, and insulation material</td>
<td>42333</td>
<td>3</td>
</tr>
<tr>
<td>Electrical apparatus/equipment, wiring supplies, construction material</td>
<td>42361</td>
<td>3</td>
</tr>
<tr>
<td>Service establishment equipment and supplies</td>
<td>42385</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 4.5. Nonfatal occupational injury/illness rates (per 10,000 workers) by 5-digit NAICS industry, retail trade, 2005.

<table>
<thead>
<tr>
<th>Retail Trade Industry (5-digit NAICS)</th>
<th>NAICS</th>
<th>Population</th>
<th>Incidence Rate</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home centers</td>
<td>44411</td>
<td>622,600</td>
<td>9.2</td>
<td>54,200</td>
</tr>
<tr>
<td>Warehouse clubs and superstores</td>
<td>45291</td>
<td>984,000</td>
<td>7.3</td>
<td>58,800</td>
</tr>
<tr>
<td>Other building material dealers</td>
<td>44419</td>
<td>291,900</td>
<td>7.0</td>
<td>19,900</td>
</tr>
<tr>
<td>Tire dealers</td>
<td>44132</td>
<td>162,000</td>
<td>6.6</td>
<td>10,400</td>
</tr>
<tr>
<td>Supermarkets and other grocery (except convenience) stores</td>
<td>44511</td>
<td>2,290,500</td>
<td>6.4</td>
<td>108,200</td>
</tr>
<tr>
<td>Hobby, toy, and game stores</td>
<td>45112</td>
<td>137,000</td>
<td>6.4</td>
<td>5,400</td>
</tr>
<tr>
<td>Department stores</td>
<td>45211</td>
<td>1,611,300</td>
<td>6.0</td>
<td>69,100</td>
</tr>
<tr>
<td>All other general merchandise stores</td>
<td>45299</td>
<td>323,600</td>
<td>5.8</td>
<td>14,100</td>
</tr>
<tr>
<td>Fuel dealers</td>
<td>45431</td>
<td>94,800</td>
<td>5.6</td>
<td>4,900</td>
</tr>
<tr>
<td>Other direct selling establishments</td>
<td>45439</td>
<td>50,300</td>
<td>5.5</td>
<td>2,200</td>
</tr>
<tr>
<td>Pet and pet supplies stores</td>
<td>45391</td>
<td>87,700</td>
<td>5.2</td>
<td>3,300</td>
</tr>
<tr>
<td>Other home furnishings stores</td>
<td>44229</td>
<td>175,000</td>
<td>5.1</td>
<td>6,300</td>
</tr>
<tr>
<td>Recreational vehicle dealers</td>
<td>44121</td>
<td>41,000</td>
<td>5.0</td>
<td>1,900</td>
</tr>
<tr>
<td>New car dealers</td>
<td>44111</td>
<td>1,135,700</td>
<td>4.9</td>
<td>53,800</td>
</tr>
<tr>
<td>Hardware stores</td>
<td>44413</td>
<td>164,000</td>
<td>4.5</td>
<td>5,700</td>
</tr>
<tr>
<td>Floor covering stores</td>
<td>44221</td>
<td>101,100</td>
<td>4.4</td>
<td>4,000</td>
</tr>
<tr>
<td>Nursery and garden centers</td>
<td>44422</td>
<td>114,000</td>
<td>4.4</td>
<td>4,200</td>
</tr>
<tr>
<td>Other specialty food stores</td>
<td>44529</td>
<td>132,200</td>
<td>4.4</td>
<td>4,500</td>
</tr>
<tr>
<td>Paint and wallpaper stores</td>
<td>44412</td>
<td>41,100</td>
<td>4.2</td>
<td>1,400</td>
</tr>
<tr>
<td>Family clothing stores</td>
<td>44814</td>
<td>94,800</td>
<td>4.2</td>
<td>5,500</td>
</tr>
<tr>
<td>Office supplies and stationery stores</td>
<td>45321</td>
<td>178,300</td>
<td>4.2</td>
<td>8,000</td>
</tr>
<tr>
<td>Automotive parts and accessories stores</td>
<td>44131</td>
<td>326,100</td>
<td>4.1</td>
<td>12,100</td>
</tr>
<tr>
<td>Motorcycle, boat, and other motor vehicle dealers</td>
<td>44122</td>
<td>124,700</td>
<td>3.6</td>
<td>4,000</td>
</tr>
<tr>
<td>Meat markets</td>
<td>44521</td>
<td>49,800</td>
<td>3.6</td>
<td>1,400</td>
</tr>
<tr>
<td>Gasoline stations with convenience stores</td>
<td>44711</td>
<td>745,600</td>
<td>3.5</td>
<td>21,300</td>
</tr>
<tr>
<td>Sewing, needlework, and piece goods stores</td>
<td>45113</td>
<td>55,300</td>
<td>3.4</td>
<td>1,100</td>
</tr>
<tr>
<td>Fruit and vegetable markets</td>
<td>44523</td>
<td>44,000</td>
<td>3.0</td>
<td>1,200</td>
</tr>
<tr>
<td>All other miscellaneous stores</td>
<td>44399</td>
<td>139,800</td>
<td>3.0</td>
<td>3,700</td>
</tr>
<tr>
<td>Other gasoline stations</td>
<td>44719</td>
<td>120,900</td>
<td>2.9</td>
<td>3,000</td>
</tr>
<tr>
<td>Sporting goods stores</td>
<td>45111</td>
<td>217,600</td>
<td>2.9</td>
<td>4,400</td>
</tr>
<tr>
<td>Appliance, television, and other electronics stores</td>
<td>44311</td>
<td>364,700</td>
<td>2.8</td>
<td>8,400</td>
</tr>
<tr>
<td>Manufactured (mobile) home dealers</td>
<td>45393</td>
<td>25,800</td>
<td>2.7</td>
<td>660</td>
</tr>
<tr>
<td>Gift, novelty, and souvenir stores</td>
<td>45322</td>
<td>217,900</td>
<td>2.6</td>
<td>3,400</td>
</tr>
<tr>
<td>Pharmacies and drug stores</td>
<td>44611</td>
<td>690,400</td>
<td>2.5</td>
<td>13,300</td>
</tr>
<tr>
<td>Used car dealers</td>
<td>44122</td>
<td>122,400</td>
<td>2.4</td>
<td>2,700</td>
</tr>
<tr>
<td>Other health and personal care stores</td>
<td>44619</td>
<td>93,900</td>
<td>2.4</td>
<td>1,800</td>
</tr>
<tr>
<td>Women's clothing stores</td>
<td>44812</td>
<td>261,900</td>
<td>2.4</td>
<td>3,700</td>
</tr>
<tr>
<td>Outdoor power equipment stores</td>
<td>44421</td>
<td>32,300</td>
<td>2.3</td>
<td>700</td>
</tr>
<tr>
<td>Book stores and news dealers</td>
<td>45121</td>
<td>153,600</td>
<td>2.1</td>
<td>2,200</td>
</tr>
<tr>
<td>Cosmetics, beauty supplies, and perfume stores</td>
<td>44612</td>
<td>97,800</td>
<td>1.7</td>
<td>1,100</td>
</tr>
<tr>
<td>Clothing accessories stores</td>
<td>44815</td>
<td>43,200</td>
<td>1.7</td>
<td>500</td>
</tr>
<tr>
<td>Musical instrument and supplies stores</td>
<td>45114</td>
<td>35,400</td>
<td>1.7</td>
<td>400</td>
</tr>
<tr>
<td>Computer and software stores</td>
<td>44312</td>
<td>148,500</td>
<td>1.6</td>
<td>2,100</td>
</tr>
<tr>
<td>Camera and photographic supplies stores</td>
<td>44313</td>
<td>17,800</td>
<td>1.3</td>
<td>200</td>
</tr>
<tr>
<td>Men's clothing stores</td>
<td>44811</td>
<td>76,000</td>
<td>1.0</td>
<td>500</td>
</tr>
<tr>
<td>Other clothing stores</td>
<td>44819</td>
<td>118,300</td>
<td>1.0</td>
<td>800</td>
</tr>
<tr>
<td>Prerecorded tape, compact disc, and record stores</td>
<td>45122</td>
<td>50,200</td>
<td>1.0</td>
<td>300</td>
</tr>
<tr>
<td>Optical goods stores</td>
<td>44613</td>
<td>63,900</td>
<td>0.9</td>
<td>500</td>
</tr>
<tr>
<td>Art dealers</td>
<td>45392</td>
<td>23,900</td>
<td>0.8</td>
<td>100</td>
</tr>
<tr>
<td>Jewelry stores</td>
<td>44831</td>
<td>155,600</td>
<td>0.6</td>
<td>700</td>
</tr>
</tbody>
</table>
Fatal Injury Counts in Retail Trade

(Tables 4.6 and 4.7)

The highest count of work-related fatal injuries in 2005—84 deaths—occurred in the grocery stores industry. These 84 deaths were nearly evenly split between convenience stores (46 deaths) and supermarkets and other grocery (except convenience) stores (38 deaths). Other 4-digit NAICS retail trade industries with high fatality counts included gasoline stations (58 deaths), automobile dealers (43 deaths), and building material and supplies dealers (39 deaths).

At the 5-digit NAICS level, the 46 deaths attributed to convenience stores, was the highest among retail industries. Interestingly, the second highest number of deaths in retail were found in gasoline stations with convenience stores, which accounted for 44 of the 58 deaths in the 4-digit gasoline stations industry. Other retail industries exhibiting high counts of fatal injuries included supermarkets and other grocery (except convenience) stores (38 deaths), other building material dealers (19 deaths), new car dealers (17 deaths), used car dealers (15 deaths), other direct selling establishments (15 deaths), and home centers (13 deaths).

<table>
<thead>
<tr>
<th>Retail Trade Industry</th>
<th>NAICS Code</th>
<th>Total Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery stores</td>
<td>4451</td>
<td>84</td>
</tr>
<tr>
<td>Gasoline stations</td>
<td>4471</td>
<td>58</td>
</tr>
<tr>
<td>Automobile dealers</td>
<td>4411</td>
<td>43</td>
</tr>
<tr>
<td>Building material and supplies dealers</td>
<td>4441</td>
<td>39</td>
</tr>
<tr>
<td>Direct selling establishments</td>
<td>4543</td>
<td>21</td>
</tr>
<tr>
<td>Automotive parts, accessories, and tire stores</td>
<td>4413</td>
<td>20</td>
</tr>
<tr>
<td>Other miscellaneous store retailers</td>
<td>4539</td>
<td>15</td>
</tr>
<tr>
<td>Specialty food stores</td>
<td>4452</td>
<td>13</td>
</tr>
<tr>
<td>Other general merchandise stores</td>
<td>4529</td>
<td>11</td>
</tr>
<tr>
<td>Other motor vehicle dealers</td>
<td>4412</td>
<td>10</td>
</tr>
<tr>
<td>Beer, wine, and liquor stores</td>
<td>4453</td>
<td>9</td>
</tr>
<tr>
<td>Furniture stores</td>
<td>4421</td>
<td>8</td>
</tr>
<tr>
<td>Lawn and garden equipment and supplies stores</td>
<td>4442</td>
<td>8</td>
</tr>
<tr>
<td>Department stores</td>
<td>4521</td>
<td>8</td>
</tr>
<tr>
<td>Electronics and appliance stores</td>
<td>4431</td>
<td>7</td>
</tr>
<tr>
<td>Clothing stores</td>
<td>4481</td>
<td>7</td>
</tr>
<tr>
<td>Sporting goods, hobby, and musical instrument stores</td>
<td>4511</td>
<td>7</td>
</tr>
<tr>
<td>Jewelry, luggage, and leather goods stores</td>
<td>4483</td>
<td>5</td>
</tr>
<tr>
<td>Florists</td>
<td>4531</td>
<td>5</td>
</tr>
<tr>
<td>Office supplies, stationery, and gift stores</td>
<td>4532</td>
<td>4</td>
</tr>
<tr>
<td>Used merchandise stores</td>
<td>4533</td>
<td>4</td>
</tr>
<tr>
<td>Shoe stores</td>
<td>4482</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4.6. Fatalities by 4-digit NAICS industries, retail trade, 2005.

<table>
<thead>
<tr>
<th>Retail Trade Industry</th>
<th>NAICS Code</th>
<th>Total Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience stores</td>
<td>44512</td>
<td>46</td>
</tr>
<tr>
<td>Gasoline stations with convenience stores</td>
<td>44711</td>
<td>44</td>
</tr>
<tr>
<td>Supermarkets and other grocery (except convenience) stores</td>
<td>44511</td>
<td>38</td>
</tr>
<tr>
<td>Other building material dealers</td>
<td>44411</td>
<td>19</td>
</tr>
<tr>
<td>New car dealers</td>
<td>44111</td>
<td>17</td>
</tr>
<tr>
<td>Used car dealers</td>
<td>44112</td>
<td>15</td>
</tr>
<tr>
<td>Other direct selling establishments</td>
<td>45439</td>
<td>15</td>
</tr>
<tr>
<td>Home centers</td>
<td>44411</td>
<td>13</td>
</tr>
<tr>
<td>All other miscellaneous store retailers</td>
<td>45399</td>
<td>11</td>
</tr>
<tr>
<td>Automotive parts and accessories stores</td>
<td>44131</td>
<td>10</td>
</tr>
<tr>
<td>Tire dealers</td>
<td>44132</td>
<td>10</td>
</tr>
<tr>
<td>Motorcycle, boat, and other motor vehicle dealers</td>
<td>44122</td>
<td>9</td>
</tr>
<tr>
<td>Beer, wine, and liquor stores</td>
<td>44531</td>
<td>9</td>
</tr>
<tr>
<td>Furniture stores</td>
<td>44211</td>
<td>8</td>
</tr>
<tr>
<td>Nursery and garden centers</td>
<td>44422</td>
<td>8</td>
</tr>
<tr>
<td>Other gasoline stations</td>
<td>44719</td>
<td>8</td>
</tr>
<tr>
<td>Department stores</td>
<td>45211</td>
<td>8</td>
</tr>
<tr>
<td>Appliance, television, and other electronics stores</td>
<td>44311</td>
<td>7</td>
</tr>
<tr>
<td>Sporting goods stores</td>
<td>45111</td>
<td>6</td>
</tr>
<tr>
<td>Warehouse clubs and superstores</td>
<td>45291</td>
<td>6</td>
</tr>
<tr>
<td>Fuel dealers</td>
<td>45431</td>
<td>6</td>
</tr>
<tr>
<td>Hardware stores</td>
<td>44413</td>
<td>5</td>
</tr>
<tr>
<td>Meat markets</td>
<td>44521</td>
<td>5</td>
</tr>
<tr>
<td>Jewelry stores</td>
<td>44831</td>
<td>5</td>
</tr>
<tr>
<td>All other general merchandise stores</td>
<td>45299</td>
<td>5</td>
</tr>
<tr>
<td>Florists</td>
<td>45311</td>
<td>5</td>
</tr>
<tr>
<td>Other specialty food stores</td>
<td>44529</td>
<td>4</td>
</tr>
<tr>
<td>Used merchandise stores</td>
<td>45331</td>
<td>4</td>
</tr>
<tr>
<td>Manufactured (mobile) home dealers</td>
<td>45393</td>
<td>4</td>
</tr>
<tr>
<td>Family clothing stores</td>
<td>44814</td>
<td>3</td>
</tr>
<tr>
<td>Shoe stores</td>
<td>44821</td>
<td>3</td>
</tr>
<tr>
<td>Gift, novelty, and souvenir stores</td>
<td>45322</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4.7. Fatalities by 5-digit NAICS industries, retail trade, 2005.
A high percentage of deaths in the convenience stores and gasoline stations with convenience stores industries resulted from assaults and violent acts. This high percentage points to a well-documented problem: violence (resulting in homicide) stemming from robberies in retail establishments, particularly convenience stores.

As shown in Chapter 2 of this Chartbook, occupational assaults and violent acts represent the leading cause of fatal work injury in the retail trade sector overall, resulting in 202 deaths, or slightly more than half of the 400 fatal work injuries in retail trade in 2005.

Table 4.8 shows that the total number of fatalities caused by assaults and violent acts for both convenience stores (NAICS 44512) and gasoline stations with convenience stores (NAICS 44711) was 79. That is 19 more fatal injuries than experienced during the same year by the public sector state and local police protection (NAICS 92212), and nearly three times the number experienced by cattle ranching and farming (NAICS 1121), limited service eating places (NAICS 7222), taxi and limousine service (NAICS 4853), and drinking places (alcoholic beverages) (NAICS 7224). Among WRT industries, retail automobile dealers also experienced a high number of fatalities.
Fatal Injuries in Selected High-Risk Wholesale Trade Industries

- Miscellaneous durable goods (NAICS 4239)
- Recyclable product (NAICS 42393)
- Grocery and related product (NAICS 4244)
- Petroleum and petroleum product (NAICS 4247)
- Machinery, equipment, and supplies (NAICS 4238)
Fatal Injuries by Event/Exposure for Selected Wholesale Trade Industries (Figures 4.2 through 4.6)

In 2005 the leading event/exposure contributing to fatal injuries in the wholesale trade sector was transportation incidents (106 deaths). However, in miscellaneous durable goods, the 4-digit NAICS wholesale industry that experienced the highest number of fatal injuries in 2005, there were an equal number of deaths resulting from transportation incidents and contact with objects and equipment (10 each). All 10 deaths attributed to contact with objects and equipment occurred in the recyclable material industry (NAICS 42393).

For other selected wholesale industries with high fatal injury counts (grocery and related product-NIACS 4244; petroleum and petroleum products-NAICS 4247; and machinery, equipment and supplies-NAICS 4238), the leading contributing event/exposure was transportation incidents.

Figure 4.4. Fatal injuries by event/exposure, grocery and related product, NAICS 4244, 2005.

Figure 4.5. Fatal injuries by event/exposure, petroleum and petroleum products, NAICS 4247, 2005.

Figure 4.6. Fatal injuries by event/exposure, machinery, equipment and supplies, NAICS 4238, 2005.
Fatal Injuries in Selected High-Risk Retail Trade Industries

- Grocery stores (NAICS 4451)
  - Supermarkets and other grocery [except convenience] stores (NAICS 44511)
  - Convenience stores (NAICS 44512)
- Gasoline stations (NAICS 4471)
  - Gasoline stations with convenience stores (NAICS 44711)
- Building materials and supplies dealers (NAICS 4441)
  - Home centers (NAICS 44411)
  - Other building materials dealers (NAICS 44419)
- Automobile dealers (NAICS 4411)
  - New car dealers (NAICS 44111)
  - Used car dealers (NAICS 44112)
- Direct selling establishments (NAICS 4543)
**Fatal Injuries by Event/Exposure for Selected Retail Trade Industries (Figures 4.7 through 4.18)**

The leading contributing event/exposure to fatal injuries in retail was assaults and violent acts, which resulted in 202 deaths in 2005. These violence-related deaths were prevalent in grocery stores (NAICS 4451-64 deaths), particularly in convenience stores (NAICS 44512-44 deaths) and supermarkets and other grocery (except convenience) stores (NAICS 44511-20 deaths); and in gasoline stations (NAICS 4471-42 deaths), particularly in gasoline stations with convenience stores (NAICS 44711-35 deaths).

Other events/exposures contributing to a high number of deaths among retail workers were transportation incidents and contact with objects and equipment, both of which were more numerous than assaults and violent acts in building material and supply dealers (NAICS 4441).

Automobile dealers (NAICS 4411) experienced a nearly equal number of deaths from transportation incidents (16 deaths) and assaults and violent acts (15 deaths) in 2005, but a closer look at industries reveals that transportation incidents were the leading event/exposure associated with deaths among new car dealers (NAICS 44111), and assaults and violent acts led all events/exposures associated with deaths among used car dealers (NAICS 44112).

In direct selling establishments (NAICS 4543) and home centers (NAICS 44411), transportation incidents accounted for more deaths than any other event/exposure.

BLS data providing insight into circumstances leading to fatal injuries are more limited than data on nonfatal injuries. However, these breakouts by event/exposure provide one way to focus research and prevention resources.

![Figure 4.7. Fatal injuries by event/exposure, grocery stores, NAICS 4451, 2005.](image)
Figure 4.8. Fatal injuries by event/exposure, supermarkets and other grocery, NAICS 44511, 2005.

Figure 4.9. Fatal injuries by event/exposure, convenience stores, NAICS 44512, 2005.

Figure 4.10. Fatal injuries by event/exposure, gasoline stations, NAICS 4471, 2005.

Figure 4.11. Fatal injuries by event/exposure, gasoline stations with convenience stores, NAICS 44711, 2005.
Figure 4.12. Fatal injuries by event/exposure, building material and supplies dealers, NAICS 4441, 2005.

Figure 4.13. Fatal injuries by event/exposure, other building material dealers, NAICS 44419, 2005.

Figure 4.14. Fatal injuries by event/exposure, automobile dealers, NAICS 4411, 2005.

Figure 4.15. Fatal injuries by event/exposure, new car dealers, NAICS 44111, 2005.
Figure 4.16. Fatal injuries by event/exposure, used car dealers, NAICS 44112, 2005.

- Assaults and violent acts: 8
- Contact with objects and equipment: 3
- Other: 4

Figure 4.17. Fatal injuries by event/exposure, direct selling establishments, NAICS 4543, 2005.

- Transportation incidents: 15
- Assaults and violent acts: 3
- Falls: 3
- Other: 2

Figure 4.18. Fatal injuries by event/exposure, home centers, NAICS 44411, 2005.

- Transportation incidents: 8
- Falls: 3
- Other: 2
- Other: 4
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Nonfatal Injuries/Illnesses in Selected High-Risk Wholesale Trade Industries

Beer, wine and distilled alcoholic beverage wholesale merchants (NAICS 4248)
Grocery and related product merchant wholesalers (NAICS 4244)
Metal and mineral [except petroleum] merchant wholesalers (NAICS 4235)
Lumber and other construction materials merchant wholesalers (NAICS 4233)
Farm product raw material merchant wholesalers (NAICS 4245)
Motor vehicles and motor vehicle parts and supplies merchant wholesalers (NAICS 4231)
Nonfatal Injuries/Illnesses in Selected Wholesale Trade Industries

Wholesale Component: Overview of Contents
This section presents key injury/illness data for the six wholesale industries-listed below. Each of the six industries is identified with a 4-digit NAICS code. The six were chosen from the set of 71 wholesale industries because they had high rates and numbers of injuries and illnesses. To gain a better understanding of the reasons for the elevated levels of injury and illness, additional analyses of the BLS datasets were undertaken. The analyses focused on (1) identifying the demographic features of the workforce, as well as on (2) identifying the characteristics of the workers’ injuries/illnesses. The analyses were performed to provide further insight into the risk factors responsible for the level and extent of injuries and illnesses in the wholesale trade sector. This information can also be used to identify priorities for further analysis, research, and prevention. All data presented are for the baseline year of 2005, unless otherwise noted.

Beer, wine and distilled alcoholic beverage wholesale merchants (NAICS 4248)
Grocery and related product merchant wholesalers (NAICS 4244)
Metal and mineral [except petroleum] merchant wholesalers (NAICS 4235)
Lumber and other construction materials merchant wholesalers (NAICS 4233)
Farm product raw material merchant wholesalers (NAICS 4245)
Motor vehicles and motor vehicle parts and supplies merchant wholesalers (NAICS 4231)

Demographic Factors
(Figures 4.19 through 4.66)

For each of the six wholesale industries, the following set of data and associated figures provide injury/illness information on what is known about the demographic factors extracted from the incident reports: namely, age, gender, race/ethnicity, and occupation.

Worker age
Injuries/illnesses occurred more frequently among younger workers in the high-risk wholesale trade industries than was generally found when compared with older age groups working in the same industry. The youngest age group, namely, 25 to 34-year old workers, experienced more injuries/illnesses as compared to their older counterparts in the following three industries: the beer, wine, and distilled alcoholic beverage merchant wholesalers (NAICS 4248), the grocery and related product merchant wholesalers (NAICS 4244), and the lumber and other construction materials wholesalers (NAICS 4233). Workers under 20 years of age and workers 65 years of age or older incurred a smaller percentage of the injuries/illnesses across industry groups. Percentages ranged from zero injuries/illnesses to 3% of all injuries/illnesses for the 16 to 19-year-old age group; similarly, for the 65 and older age group, percentages ranged from zero injuries/illnesses to 2% of all industry injuries/illnesses. An exception was found in the motor vehicles and motor vehicle parts and supplies industry (NAICS 4231) where 12% of all workers suffering injuries or illnesses were 65 years or older.
Worker gender

Males are frequently at greater risk for serious injury/illness than are females, particularly in workplaces involving heavy material handling jobs. Similar findings were found with respect to the existing set of six wholesale industries, examined here. In four of these six wholesale industries, nearly 90% of the injuries/illnesses were to males. Males experienced the highest percentage of injuries (~95%) in the beer, wine, and distilled alcoholic beverage industry—NAICS 4548; however, the injury rates were somewhat higher for females in the motor vehicles and motor-vehicle parts and supplies industry (NAICS 4231), and in the raw material merchant wholesalers industry (NAICS 4245), in which the ratio of injuries of males to females was greater than four to one.

Worker race/ethnicity

This analysis of worker injury/illness data organized by race/ethnicity was the most difficult of the analyses to evaluate because of the amount of missing data. There appears to be some reluctance to provide such information. For example, in the grocery and related product merchant wholesalers industry (NAICS 4244), information on race/ethnicity was missing in 41% or in (nearly 7,500) of the 18,000-plus injuries/illnesses cases. With respect to the other five wholesale industries, the percentage of “not reported” cases ranged from 14% to 34%. In the only industry in which race/ethnicity was fully identified, namely: the farm product raw material merchant wholesalers industry (NAICS 4245), 18% of the injured cases identified as Hispanic or Latino, the remaining were white only.

Worker occupation

Workers in the “transportation and material moving” occupations experienced a majority of the injuries/illnesses in the high-risk wholesale industries. For example, transportation and material moving workers sustained more than 84% of the injuries/illnesses in the beer, wine, and distilled alcoholic beverage merchant wholesalers industry (NAICS 4248). In addition, workers from the transportation and material moving occupation incurred nearly 75% of the injuries/illnesses that were reported in the grocery and related product merchant wholesalers (NAICS 4244) industry. Other occupational categories that experienced substantial numbers of injuries/illnesses included: installation, maintenance, and repair occupations that were employed in the industry motor vehicle and motor vehicle parts and supplies merchant wholesalers industry (NAICS 4231). The “production occupations” also had high rates of injuries in both the grocery and related product merchant wholesalers industry (NAICS 4244) and in the metal and mineral (except petroleum) merchant wholesalers industry (NAICS 4235).

1 In this chapter, for purposes of consistency, the generic term “industry” will be used in referring to both the 3-digit and 4-digit NAICS terms, i.e., subsector and industry group, respectively. The NAICS terms will be used, however, when needed to distinguish differences in the data that are associated with the hierarchical structure of NAICS. More detailed information on the structure and coding of the industries is found in the Glossary under Sector, Subsector.

2 Due to rounding and data exclusion of non-classifiable responses, the sum or totals on select charts and figures may not be fully accounted for, such as summing to 100%. The case of missing data, according to BLS, is to maintain privacy for select reporting entities.
Injury/Illness Characteristics for the Wholesale Sector
(Figures 4.19 through 4.66)

For each of the six wholesale industries that are presented in this chapter, the following set of data and associated figures provide key injury/illness information on what is known about the four main features that characterize an injury/illness: namely, the nature of the injury/illness, the source of the injury/illness, the event or exposure, and the part of the body injured. Such information, extracted from the incident reports, is particularly useful in developing appropriate controls and interventions. All data presented are for the baseline year of 2005, unless otherwise noted.

Overview

In the wholesale trade sector, sprains and strains were the most frequently reported “nature of injury/illness” condition, followed by reports of fractures, cuts/lacerations, punctures, and bruises. The leading “source” of injury/illness was containers; followed by vehicles; floor, ground surfaces; and parts and materials. Overexertion was the leading event/exposure accounted for 28% of injuries/illnesses, contact with objects accounted for 28% of the injuries/illnesses, followed by fall on the same level at 11%, and transportation incidents accounting for 8%. The trunk was the most frequently reported injured body part.

This snapshot of the wholesale trade sector suggests that the prevalent mode of injury/illness is the handling and movement of products. Specifically, overexertion injuries impacting the trunk (primarily the back) can arise from physically demanding, manual materials handling jobs. Similarly, traumatic injuries can arise from an event/exposure defined as contact with objects, which also is the result of the handling of packaged or unpackaged products, parts, or materials. Both of these scenarios are common to all six wholesale industries presented here.

Nature of injury/illness

For the six wholesale industries in this analysis, the condition known as “sprains and strains” accounted for either half or nearly half of all of the conditions that constitute the “nature of injury/illness” category. Cuts/punctures and bruises were identified as either the second or third most commonly identified condition in the nature of injury/illness category. Specifically, sprains and strains were the most prevalent condition in the current set of wholesale industries: the beer, wine, and distilled alcoholic beverage merchant wholesalers industry at 55% (NAICS 4248) and the grocery and related product merchant wholesalers industry also at 55% (NAICS 4244). Multiple traumatic-injuries- and-disorders was the condition identified as the second leading nature of injury/illness, with the exception of the farm product raw material merchant wholesalers industry, in which sprains and strains followed by bruises were the most prevalent condition.

Source of injury/illness

In two industries—beer, wine, and distilled alcoholic beverage merchant wholesalers (NAICS 4248) and grocery and related product merchant wholesalers (NAICS 4244)—containers were the primary source of injury/illness. Parts and materials were the primary source of injury/illness in the metal and mineral (except petroleum) merchant wholesalers industry (NAICS 4235), the lumber and other construction materials merchant wholesalers industry (NAICS 4233), and the motor vehicles and motor vehicle parts and supplies merchant wholesalers industry (NAICS 4231), representing, 30%, 24%, and 31%, respectively, of the injuries/illnesses in those industries. Floors, walkways, or ground-surfaces was the primary source of injury/illness in farm product raw material merchant wholesalers industry (NAICS 4245), representing 37% of all nonfatal injuries/illnesses.

Event/exposure

Overexertion, followed by contact with objects, were the two most frequently identified events/exposures that characterized nearly all of the 71 industries, comprising the wholesale sector. There were some notable differences, however, with respect to the six high-risk wholesale industries, discussed here. For example, the analysis of metal and mineral (except petroleum) merchant wholesalers industry (NAICS 4235) revealed that contact with objects was the leading contributor to injury/illness with 47% of the cases, whereas overexertion accounted for 18% of the injured cases. Contact with objects was also the most frequent event/exposure contributing to injury/illness in the motor vehicle and motor vehicle parts and supplies merchant wholesalers industry (NAICS 4231) as well as in the lumber and other construction materials merchant wholesalers industry (NAICS 4233). Overexertion was the most frequent event/exposure contributing to nonfatal injury/illness in three of the six (currently analyzed) following industries: the beer, wine and distilled alcoholic beverage merchant wholesalers (NAICS 4248), the grocery and related product merchant...
wholesalers (NAICS 4244), and the motor vehicle and motor vehicle parts and supplies merchant wholesalers (NAICS 4231). Contact with objects was the second most frequently identified event/exposure in each of these three industries.

Part of body
The trunk, followed by lower extremities and upper extremities, was the body part most often injured in these six high-risk wholesale industries. The exception was the farm product raw material industry (NAICS 4245) in which the lower extremities were identified as the primary body part injured in 45% of the cases, whereas the trunk was injured in 30% of the cases.

Some Concluding Thoughts Regarding the Wholesale Sector
Numerous charts and figures were presented to highlight the patterns of injuries/illnesses found in the above set of wholesale industries. Demographic data as well as information related to the event, exposure, nature, and source of occupational injuries and illnesses were presented. Improved data systems, however, are still needed to track the health and safety of workers. If available, company or facility-level data are an invaluable component to supplement BLS data for understanding the injury/illness risks, as well as identify opportunities for prevention.

One of the first steps toward prevention is to establish company-wide systems for early detection of complaints or reports such as local muscle fatigue, loss of motion, and even loss of sensations; these symptoms and others can serve as important sentinel events. Companies that seek out this information and follow-up to identify the job activities that may be responsible will often find the underlying cause and be able to intervene long before the symptom turns into a reportable injury or illnesses.

There is a need to educate the public and policymakers, and industry leaders in the wholesale sector regarding the economic benefits of early detection and prevention of injuries such as overexertion, sprains and strains. Many of these symptoms can develop into chronic and costly musculoskeletal disorders. It is clear from the analyses of the wholesale sector that manual material handling and moving tasks offer the greatest opportunity for injuries, and therefore offer the greatest benefit for developing interventions. Contacts with objects and equipment were other examples of events associated with injuries to workers who performed stock and material moving jobs. Engineering solutions are needed. The most effective engineering solutions are those that incorporate ergonomic principles. The key to improving work efficiency and occupational safety and health is the design/selection of appropriate manual material handling equipment that is scaled to the workplace and jobs.

Evaluation research is also needed for those wholesale industries that are at high risk for chronic injuries and illnesses. These companies need to determine those aspects of policies and programs in the wholesale sector to find which are, or are not, effective in achieving strategic goals of occupational health and safety. They also need to develop techniques to estimate the economic burden of the fatalities, injuries, and illnesses. Finally, they need to consider working with their loss control, insurance suppliers, and

Beer, wine, and distilled alcoholic beverage merchant wholesalers (NAICS 4248)

**Figure 4.19.** Nonfatal injuries/illnesses by age, NAICS 4248, 2005.

**Figure 4.20.** Nonfatal injuries/illnesses by gender, NAICS 4248, 2005.

**Figure 4.21.** Nonfatal injuries/illnesses by race/ethnicity, NAICS 4248, 2005.

**Figure 4.22.** Nonfatal injuries/illnesses by occupation, NAICS 4248, 2005.
Beer, wine, and distilled alcoholic beverage merchant wholesalers (NAICS 4248)

Figure 4.23. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 4248, 2005.

- Sprains, strains: 1,920
- Fractures: 1,170
- Cuts, punctures: 660
- Bruises: 300
- Multiple traumatic injuries and disorders: 300
- Back pain and pain, except back: 290
- All other natures: 100

Figure 4.24. Nonfatal injuries/illnesses by source of injury/illness, NAICS 4248, 2005.

- Containers: 2,470
- Furniture and fixtures: 1,430
- Machinery: 660
- Parts and materials: 350
- Worker motion or position: 170
- Floors, walkways, or ground surfaces: 70
- Handtools: 70
- Vehicles: 70
- All other sources: 20

Figure 4.25. Nonfatal injuries/illnesses by event/exposure, NAICS 4248, 2005.

- Contact with objects: 2,060
- Fall to lower level: 1,060
- Fall on same level: 660
- Slips or trips without fall: 40
- Overexertion: 30
- Repetitive motion: 20
- Exposure to harmful substance or environment: 10
- Transportation accidents: 20
- All other events: 10

Figure 4.26. Nonfatal injuries/illnesses by part of body involved, NAICS 4248, 2005.

- Head: 2,470
- Neck: 1,430
- Trunk: 660
- Upper extremities: 350
- Lower extremities: 170
- Multiple body parts: 70
- All other events: 20
Figure 4.27. Nonfatal injuries/illnesses by age, NAICS 4244, 2005.

Figure 4.28. Nonfatal injuries/illnesses by gender, NAICS 4244, 2005.

Figure 4.29. Nonfatal injuries/illnesses by race/ethnicity, NAICS 4244, 2005.

Figure 4.30. Nonfatal injuries/illnesses by occupation, NAICS 4244, 2005.
Figure 4.31. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 4244, 2005.

Figure 4.32. Nonfatal injuries/illnesses by source of injury/illness, NAICS 4244, 2005.

Figure 4.33. Nonfatal injuries/illnesses by event/exposure, NAICS 4244, 2005.

Figure 4.34. Nonfatal injuries/illnesses by part of body involved, NAICS 4244, 2005.

Grocery and related product merchant wholesalers (NAICS 4244)
Metal and mineral [except petroleum] merchant wholesalers (NAICS 4235)

Figure 4.35. Nonfatal injuries/illnesses by age, NAICS 4235, 2005.

Figure 4.36. Nonfatal injuries/illnesses by gender, NAICS 4235, 2005.

Figure 4.37. Nonfatal injuries/illnesses by race/ethnicity, NAICS 4235, 2005.

Figure 4.38. Nonfatal injuries/illnesses by occupation, NAICS 4235, 2005.
Metal and mineral [except petroleum] merchant wholesalers (NAICS 4235)

Figure 4.39. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 4235, 2005.

Figure 4.40. Nonfatal injuries/illnesses by source of injury/illness, NAICS 4235, 2005.

Figure 4.41. Nonfatal injuries/illnesses by event/exposure, NAICS 4235, 2005.

Figure 4.42. Nonfatal injuries/illnesses by part of body involved, NAICS 4235, 2005.
Lumber and other construction materials merchant wholesalers (NAICS 4233)

Figure 4.43. Nonfatal injuries/illnesses by age, NAICS 4233, 2005.

Figure 4.44. Nonfatal injuries/illnesses by gender, NAICS 4233, 2005.

Figure 4.45. Nonfatal injuries/illnesses by race/ethnicity, NAICS 4233, 2005.

Figure 4.46. Nonfatal injuries/illnesses by occupation, NAICS 4233, 2005.
Lumber and other construction materials merchant wholesalers (NAICS 4233)

Figure 4.47. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 4233, 2005.

Figure 4.48. Nonfatal injuries/illnesses by source of injury/illness, NAICS 4233, 2005.

Figure 4.49. Nonfatal injuries/illnesses by event/exposure, NAICS 4233, 2005.

Figure 4.50. Nonfatal injuries/illnesses by part of body involved, NAICS 4233, 2005.
Farm product raw material merchant wholesalers (NAICS 4245)

Figure 4.51. Nonfatal injuries/illnesses by age, NAICS 4245, 2005.

Figure 4.52. Nonfatal injuries/illnesses by gender, NAICS 4245, 2005.

Figure 4.53. Nonfatal injuries/illnesses by race/ethnicity, NAICS 4245, 2005.

Figure 4.54. Nonfatal injuries/illnesses by occupation, NAICS 4245, 2005.
Farm product raw material merchant wholesalers (NAICS 4245)

Figure 4.55. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 4245, 2005.

- Sprains, strains
- Fractures
- Cuts, punctures
- Bruises
- Amputations
- Multiple traumatic injuries and disorders
- Back pain and pain, except back
- All other natures

Figure 4.56. Nonfatal injuries/illnesses by source of injury/illness, NAICS 4245, 2005.

- Containers
- Machinery
- Parts and materials
- Worker motion or position
- Floors, walkways, or ground surfaces
- Handtools
- Vehicles
- All other sources

Figure 4.57. Nonfatal injuries/illnesses by event/exposure, NAICS 4245, 2005.

- Contact with objects
- Fall to lower level
- Fall on same level
- Overexertion
- Assaults and violent acts
- All other events

Figure 4.58. Nonfatal injuries/illnesses by part of body involved, NAICS 4245, 2005.

- Head
- Trunk
- Upper extremities
- Lower extremities
- Multiple body parts
Motor vehicles and motor vehicle parts and supplies merchant wholesalers (NAICS 4231)

Figure 4.63. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 4231, 2005.

- Sprains, strains
- Fractures
- Cuts, punctures
- Bruises
- Carpal tunnel syndrome
- Multiple traumatic injuries and disorders
- Back pain and pain, except back
- All other natures

Figure 4.64. Nonfatal injuries/illnesses by source of injury/illness, NAICS 4231, 2005.

- Chemicals and chemical products
- Containers
- Furniture and fixtures
- Machinery
- Parts and materials
- Worker motion or position
- Floors, walkways, or ground surfaces
- Handtools
- Vehicles
- All other sources

Figure 4.65. Nonfatal injuries/illnesses by event/exposure, NAICS 4231, 2005.

- Contact with objects
- Fall to lower level
- Fall on same level
- Slips or trips without fall
- Overexertion
- Repetitive motion
- Exposure to harmful substance or environment
- Transportation accidents
- All other events

Figure 4.66. Nonfatal injuries/illnesses by part of body involved, NAICS 4231, 2005.

- Head
- Neck
- Trunk
- Upper extremities
- Lower extremities
- Body systems
- Multiple body parts
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Nonfatal Injuries/Illnesses in Selected High-Risk Retail Trade Industries

Home centers (NAICS 44411)
Warehouse clubs and superstores (NAICS 45291)
Other building material dealers (NAICS 44419)
Tire dealers (NAICS 44132)
Supermarkets and other grocery [except convenience stores] (NAICS 44511)
Hobby, toy, and game stores (NAICS 45112)
New car dealers (NAICS 44111)
Department stores (NAICS 4521)
Nonfatal Injuries/Illnesses in Selected Retail Trade Industries

Retail Component: Overview of Contents
This section presents key injury/illness data for the eight retail industries—listed below. Each of the eight industries is identified with a 5-digit NAICS code. The eight were chosen from the set of 75 industries that comprise the retail sector because their injury/illness rates were higher than average, and in the case of the industry identified as the new car dealers industry (NAICS 44111), the number of injury/illness cases also was considered high. To gain a better understanding of the reasons for the elevated levels of injury and illness, additional analyses of the BLS datasets were undertaken and reported here. The analyses focused on (1) identifying the demographic features of the workforce, as well as on (2) identifying the characteristics of the workers’ injuries/illnesses. The analyses were performed to provide further insight into the risk factors responsible for the level and extent of injuries and illnesses in the retail trade sector. This information can also be used to identify priorities for further analysis, research, and prevention. All data presented are for the baseline year of 2005, unless otherwise noted.

Home centers (NAICS 44411)
Warehouse clubs and superstores (NAICS 45291)
Other building material dealers (NAICS 44419)
Tire dealers (NAICS 44132)
Supermarkets and other grocery [except convenience stores] (NAICS 44511)
Hobby, toy, and game stores (NAICS 45112)
New car dealers (NAICS 44111)
Department stores (NAICS 4521)

Demographic Factors
(Figures 4.67 through 4.130)

For each of the eight retail industries, the following set of data and associated figures provide injury/illness information on what is known about the demographic factors extracted from the incident reports: namely, age, gender, race/ethnicity, and occupation.

Worker age
Injuries/illnesses occurred more frequently among younger workers than older workers in the high-risk retail trade industries. As expected, the number of injuries and illnesses reported for the youngest age group (16–19) was greater in those industries in which younger workers are most often employed: the supermarket and other grocery industry (NAICS 44511), the department stores industry (NAICS 4521), the warehouse clubs and superstores industry (NAICS 45291), and the home centers industry (NAICS 44411). Although the actual injury/illness rates were moderately low, employees in the peak earning years from ages 25 through 54 had more injuries/illnesses than workers both younger and older. The severity of those middle-aged workers’ injuries/illnesses, however, was usually less than that for older workers, as measured in terms of DAW. Four industries, namely, the supermarkets and other grocery [except convenience stores] industry (NAICS 44511), the hobby, toy, and game stores industry (NAICS 45112), the new car dealers industry (NAICS 44111), and the department stores industry (NAICS 4521), all had a higher-average-aged workforce up and though the mid-50’s. Those industries with an
older workforce experienced proportionally more injuries/illnesses in those same age ranges. An interesting observation about the hobby, toy, and game stores industry (NAICS 45112), was that their injury/illness numbers were flat across the age ranges of 25 through 54, suggesting age, at least during that those years, did not have much of an impact on the overall number of injury/illnesses cases to any extent. In general, the age of the workers seems to have a greater impact on the distribution of injuries and illnesses found with the retail sector than was found in the previous analysis of the wholesale sector. Moreover, the injury/illness rate for workers both younger than 20 and for workers older than 65 was higher for the retail industries than for the wholesale industries.

Worker gender

The percentage of cases in which females as compared to males had injuries/illness ranged from a low of 3% (the tire dealers industry, NAICS 44132) to 68% (the hobby, toy and game stores industry, NAICS 45112). Other industries in which females had a high percentage of injuries/illnesses included the department stores industry (NAICS 4521; 68%), the warehouse clubs and superstores industry (NAICS 45291; 57%), and the supermarkets and other grocery (except convenience) stores industry (NAICS 44511; 49%). In general, the injury/illness rates for male and female workers in the retail industries were proportionally more even than what was found with the wholesale industries, in which males were at a higher risk.

Worker Race/ethnicity

A noticeable amount of race/ethnicity information was missing in the current analysis of injuries/illnesses data for the retail industries, as was observed with the wholesale industries. Measures of “not reported” ranged from 17% to 60%. For the cases for which race/ethnicity data were reported, the majority of workers were white, followed by Hispanic/Latino, black or African American, and Asian workers. In terms of injuries/illnesses that were reported, the tire dealers industry (NAICS 44132) had injury/illness cases in which black or African American workers were identified, and as such, had the second highest number of injuries/illnesses cases, which was small, in comparisons with the number of injuries/illnesses cases in the white only category. In the hobby, toy, and game stores industry (NAICS 45112), Asian workers had the third highest number of injuries/illnesses, following white only, and Hispanic or Latino.

Worker occupation

The occupation known as “sales and related occupations” is either the first or second most common occupation in the retail trade sector. Other common occupations in this sector include: transportation and material moving occupations, installation, maintenance and repair, as well as office and administrative support functions. Sales and related occupations was the leading occupation in terms of the number of cases of injuries/illnesses in the following industries: warehouse clubs and superstores (NAICS 45291), supermarket and other grocery (except convenience) stores (NAICS 44511), and department stores (NAICS 4521). Transportation and material handling occupations had more injuries/illnesses in the home centers industry (NAICS 44411) and in the other building material dealers industry (NAICS 44419). Installation, maintenance, and repair occupations had greater number of injuries/illnesses in the tire dealers industry (NAICS 44132) and in the new car dealers industry (NAICS 44111. In the hobby, toy, and game stores industry (NAICS 45112), office and administrative support occupations had highest number of injuries/illnesses cases, followed closely by sales and related occupations.

1 More detailed information on the structure and coding of the industries based on the NAICS is found in the Glossary under Sector, Subsector.
Injury/Illness Characteristics for the Retail Sector
(Figures 4.67 through 4.130)

For each of the eight retail industries that are presented in this chapter, the following set of data and associated figures provide key injury/illness information on what is known about the four main features that characterize an injury/illness: namely, the nature of the injury/illness, the source of injury/illness, the event or exposure, and the body part affected. Such information, extracted from the incident reports, is particularly useful in developing appropriate controls and interventions. All data presented are for the baseline year of 2005, unless otherwise noted.

Overview
In the retail trade, as was found in the analysis of the wholesale sector, sprains and strains were the most frequently reported “nature of injury/illness” condition, followed by cuts/lacerations, punctures, bruises, contusion and fractures. The leading “source” of injury/illness was containers; followed by floor, ground surfaces. A number of events/exposures contribute to the cases of injuries/illnesses reported. They included: contact with objects, overexertion, followed by fall-on-the-same-level. The trunk was the most frequently reported injured body part.

This snapshot of the retail sector, as was found in the preceding analysis of the wholesale sector, suggests that the prevalent mode of injury/illness faced in most retail industries is associated with the handling and movement of products. The task of handling and moving products can lead to sprains and strains which often impact the trunk (primarily the back). In jobs or task such as manually moving materials, the most frequently identified “exposure or event” is characterized as overexertion. The handling and movement of products can also lead to an acute or traumatic injury. In this case the exposure or event is not an overexertion, but a contact-with-object condition.

Nature of injury/illness
As was found with the wholesale sector, the condition known as “sprains and strains” was the most frequently identified condition for all eight of the current set of high-risk retail industries. Sprains/strains is one of many conditions that is included in the BLS definitions used to characterize the injuries/illnesses cases for the BLS definition of “nature”. The percentages of sprain/strain injuries ranged from as small as 25% of all the injuries/illnesses incurred by workers in the hobby, toy, and the game stores industry (NAICS 45112) to slightly more than half at 53% of the injuries/illnesses incurred by workers in the home centers industry (NAICS 44411). In the other six high-risk industries, sprains/strains represented a remarkably consistent proportion of total injuries/illnesses, ranging from 38% to 45% of all injuries/illnesses reported. Various combinations of cuts/punctures and bruises were second or third on the list of most commonly reported nature of injury/illness conditions listed.

Source of injury/illness
The most frequently identified “sources” of injury/illness among the eight high-risk retail industries were containers, parts/material, and floors, walkways, or ground surfaces. Containers were the leading source of injury/illness in the warehouse clubs and superstores industry (NAICS 45291); in the supermarket and grocery (except convenience) stores industry (NAICS 44511); in the hobby, toy, and game stores industry (NAICS 45112); and in the department stores industry (NAICS 4521). Parts and materials were the leading source of injury/illness in the tire dealers industry (NAICS 44132), in the home centers industry (NAICS 44411), and in the other building material dealers industry (NAICS 44419). Although floors, walkways, or ground surfaces were not the most frequently identified source for injury/illness; it was with the exception of the new car dealer industry (NAICS 44111), the second or third most prevalent source of identified injury/illness. Finally, the source of injury/illness known as worker motion or position was identified often enough in the current list of eight high-risk retail industries to be listed in the third or fourth position as a common source of injury illness.

Event/exposure
Contact-with-objects was identified as the primary event/exposure in six of the eight retail industries in the current analysis. Those six retail industries included: the new car dealers industry (NAICS 44111), the tire dealers industry (44132), the other building material dealers industry (NAICS 44419), the supermarket and other grocery (except convenience) stores industry (NAICS 44511), the hobby, toy, and game stores industry (NAICS 45112), and the department stores industry (NAICS 4521). Again, in six of the eight retail industries, the event/exposure known as overexertion accounted for the second highest number of injuries/illnesses. For example, in the industry labeled- other building material dealers (NAICS 44419), contact with objects.
accounted for 32% of the cases, and overexertion accounted for 30%. Overexertion was the leading event/exposure contributing to injuries/illnesses in the home centers industry (NAICS 44411) and in the warehouse clubs and superstores industry (NAICS 45291). Another important event/exposure contributing to injury/illness was the event/exposure described as a fall on the same level. This event/exposure was the third most frequently identified event/exposure in this present collection of high-risk retail industries that are being examined here.

Part of body
Again, as was found with the previously presented wholesale industries, the trunk (including back) was the body part most often injured, followed by either the lower extremities or upper extremities. An exception was the hobby, toy, and game stores industry (NAICS 45112), in which the head was the leading body part involved in 30% of all injuries), followed by the trunk at 22%.

Some Concluding Thoughts about the Retail Sector
The retail sector is important because it is large and pervasive. The sector itself is a growth sector; as a result, even a relatively small increase in injury rates and accompanying days away from work will have significant impact on working families and society. A review of the tabular data presented in this report highlights numerous high-risk retail industries. Although it is generally accepted that preventing occupational injuries/illnesses can reduce labor costs to employers, limited data are available to estimate the costs of occupational illnesses/diseases, and many of those costs are borne outside workers’ compensation programs. Information on the costs of fatal injuries for both the wholesale and retail trades, however, is somewhat easier to estimate and is currently (2008) at $6.5 billion. Although, the overall incidence rates in the WRT sector are low, the cumulative burden is great, and the sector merits further research and intervention.

A note about industry-level analyses—it is important that employers, and safety and health professionals, understand the nature and characteristics of the work environments that exist in this vast wholesale and retail trade sector. The present analysis provides one model for investigating the demographics and characteristics of fatality, injury, and illness data. It is based on examining BLS data for a small sample of 14 wholesale/retail industries for the base-line year of 2005. If available, company or facility-level data are an invaluable component to supplement BLS data for understanding the injury/illness risks, as well as identify opportunities for prevention.

A recent report by Anderson et al. (2010) provides additional information on fatal and nonfatal occupational injuries and illnesses in the wholesale and retail trade sector.

Figure 4.67. Nonfatal injuries/illnesses by age, NAICS 44411, 2005.

Figure 4.68. Nonfatal injuries/illnesses by gender, NAICS 44411, 2005.

Figure 4.69. Nonfatal injuries/illnesses by race/ethnicity, NAICS 44411, 2005.

Figure 4.70. Nonfatal injuries/illnesses by occupation, NAICS 44411, 2005.
Figure 4.71. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 44411, 2005.

- Sprains, strains
- Fractures
- Cuts, punctures
- Bruises
- Multiple traumatic injuries and disorders
- Back pain and pain, except back
- All other natures

Figure 4.72. Nonfatal injuries/illnesses by source of injury/illness, NAICS 44411, 2005.

- Chemicals and chemical products
- Containers
- Furniture and fixtures
- Machinery
- Parts and materials
- Worker motion or position
- Floors, walkways, or ground surfaces
- Handtools
- Vehicles
- All other sources

Figure 4.73. Nonfatal injuries/illnesses by event/exposure, NAICS 44411, 2005.

- Contact with objects
- Fall to lower level
- Fall on same level
- Slips or trips without fall
- Overexertion
- Repetitive motion
- Exposure to harmful substance or environment
- Transportation accidents
- Assaults and violent acts
- All other events

Figure 4.74. Nonfatal injuries/illnesses by part of body involved, NAICS 44411, 2005.

- Head
- Neck
- Trunk
- Upper extremities
- Lower extremities
- Body systems
- Multiple body parts
- All other body parts
Warehouse clubs and superstores (NAICS 45291)

Figure 4.75. Nonfatal injuries/illnesses by age, NAICS 45291, 2005.

Figure 4.76. Nonfatal injuries/illnesses by gender, NAICS 45291, 2005.

Figure 4.77. Nonfatal injuries/illnesses by race/ethnicity, NAICS 45291, 2005.

Figure 4.78. Nonfatal injuries/illnesses by occupation, NAICS 45291, 2005.
Warehouse clubs and superstores (NAICS 45291)

Figure 4.79. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 45291, 2005.

Sprains, strains 1,860
Fractures 1,530
Cuts, punctures 1,070
Bruises 980
Heat burns 490
Multiple traumatic injuries and disorders 150
Back pain and pain, except back 940
All other natures 1,070

Figure 4.80. Nonfatal injuries/illnesses by source of injury/illness, NAICS 45291, 2005.

Chemicals and chemical products 4,200
Containers 590
Furniture and fixtures 1,130
Machinery 1,590
Parts and materials 940
Worker motion or position 520
Floors, walkways, or ground surfaces 940
Handtools 1,040
Vehicles 430
All other sources 170

Figure 4.81. Nonfatal injuries/illnesses by event/exposure, NAICS 45291, 2005.

Contact with objects 4,780
Fall to lower level 2,590
Fall on same level 170
Slips or trips without fall 1,150
Overexertion 880
Repetitive motion 110
Exposure to harmful substance or environment 110
Transportation accidents 2,930
Assaults and violent acts 110
All other events 4,010

Figure 4.82. Nonfatal injuries/illnesses by part of body involved, NAICS 45291, 2005.

Head 4,780
Neck 110
Trunk 110
Upper extremities 1,150
Lower extremities 880
Multiple body parts 2,590
All other body parts 2,930
Other building material dealers (NAICS 44419)

**Figure 4.83.** Nonfatal injuries/illnesses by age, NAICS 44419, 2005.

**Figure 4.84.** Nonfatal injuries/illnesses by gender, NAICS 44419, 2005.

**Figure 4.85.** Nonfatal injuries/illnesses by race/ethnicity, NAICS 44419, 2005.

**Figure 4.86.** Nonfatal injuries/illnesses by occupation, NAICS 44419, 2005.
Other building material dealers (NAICS 44419)

Figure 4.87. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 44419, 2005.

- Sprains, strains: 3,040
- Fractures: 580
- Cuts, punctures: 450
- Bruises: 740
- Multiple traumatic injuries and disorders: 490
- Back pain and pain, except back: 1040
- All other natures: 490

Figure 4.88. Nonfatal injuries/illnesses by source of injury/illness, NAICS 44419, 2005.

- Containers: 690
- Furniture and fixtures: 180
- Machinery: 290
- Parts and materials: 1,630
- Worker motion or position: 1,120
- Floors, walkways, or ground surfaces: 640
- Handtools: 220
- Vehicles: 820
- All other sources: 1,120

Figure 4.89. Nonfatal injuries/illnesses by event/exposure, NAICS 44419, 2005.

- Contact with objects: 2,140
- Fall to lower level: 1,550
- Fall on same level: 550
- Slips or trips without fall: 680
- Overexertion: 180
- Repetitive motion: 520
- Exposure to harmful substance or environment: 190
- Transportation accidents: 680
- All other events: 110

Figure 4.90. Nonfatal injuries/illnesses by part of body involved, NAICS 44419, 2005.

- Head: 2,610
- Neck: 50
- Trunk: 660
- Upper extremities: 370
- Lower extremities: 170
- Body systems: 1,320
- Multiple body parts: 1,550
**Figure 4.91.** Nonfatal injuries/illnesses by age, NAICS 44132, 2005.

**Figure 4.92.** Nonfatal injuries/illnesses by gender, NAICS 44132, 2005.

**Figure 4.93.** Nonfatal injuries/illnesses by race/ethnicity, NAICS 44132, 2005.

**Figure 4.94.** Nonfatal injuries/illnesses by occupation, NAICS 44132, 2005.
Figure 4.95. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 44132, 2005.

- Sprains, strains: 1,400
- Fractures: 350
- Cuts, punctures: 650
- Bruises: 140
- Carpal tunnel syndrome: 200
- Multiple traumatic injuries and disorders: 360
- All other natures: 530

Figure 4.96. Nonfatal injuries/illnesses by source of injury/illness, NAICS 44132, 2005.

- Furniture and fixtures: 1,370
- Machinery: 300
- Parts and materials: 520
- Worker motion or position: 280
- Floors, walkways, or ground surfaces: 150
- Handtools: 80
- Vehicles: 30
- All other sources: 10

Figure 4.97. Nonfatal injuries/illnesses by event/exposure, NAICS 44132, 2005.

- Contact with objects: 1,440
- Fall to lower level: 880
- Fall on same level: 160
- Slips or trips without fall: 50
- Overexertion: 350
- Repetitive motion: 120
- Exposure to harmful substance or environment: 10
- Fires and explosions: 10
- All other events: 10

Figure 4.98. Nonfatal injuries/illnesses by part of body involved, NAICS 44132, 2005.

- Head: 970
- Neck: 50
- Trunk: 410
- Upper extremities: 50
- Lower extremities: 490
- Multiple body parts: 1,570
Supermarket and other grocery [except convenience] stores (NAICS 44511)

Figure 4.99. Nonfatal injuries/illnesses by age, NAICS 44511, 2005.

Figure 4.100. Nonfatal injuries/illnesses by gender, NAICS 44511, 2005.

Figure 4.101. Nonfatal injuries/illnesses by race/ethnicity, NAICS 44511, 2005.

Figure 4.102. Nonfatal injuries/illnesses by occupation, NAICS 44511, 2005.
Supermarket and other grocery [except convenience] stores (NAICS 44511)

Figure 4.103. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 44511, 2005.
- Sprains, strains
- Fractures
- Cuts, punctures
- Bruises
- Heat burns
- Chemical burns
- Amputations
- Carpal tunnel syndrome
- Tendonitis
- Multiple traumatic injuries and disorders
- Back pain and pain, except back
- All other natures

Figure 4.104. Nonfatal injuries/illnesses by source of injury/illness, NAICS 44511, 2005.
- Chemicals and chemical products
- Containers
- Furniture and fixtures
- Machinery
- Parts and materials
- Worker motion or position
- Floors, walkways, or ground surfaces
- Handtools
- Vehicles
- All other sources

Figure 4.105. Nonfatal injuries/illnesses by event/exposure, NAICS 44511, 2005.
- Contact with objects
- Fall to lower level
- Fall on same level
- Slips or trips without fall
- Overexertion
- Repetitive motion
- Exposure to harmful substance or environment
- Transportation accidents
- Assaults and violent acts
- All other events

Figure 4.106. Nonfatal injuries/illnesses by part of body involved, NAICS 44511, 2005.
- Head
- Neck
- Trunk
- Upper extremities
- Lower extremities
- Body systems
- Multiple body parts
- All other body parts
Hobby, toy, and game stores (NAICS 45112)

Figure 4.107. Nonfatal injuries/illnesses by age, NAICS 45112, 2005.

Figure 4.108. Nonfatal injuries/illnesses by gender, NAICS 45112, 2005.

Figure 4.109. Nonfatal injuries/illnesses by race/ethnicity, NAICS 45112, 2005.

Figure 4.110. Nonfatal injuries/illnesses by occupation, NAICS 45112, 2005.
Hobby, toy, and game stores (NAICS 45112)

Figure 4.111. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 45112, 2005.

Figure 4.112. Nonfatal injuries/illnesses by source of injury/illness, NAICS 45112, 2005.

Figure 4.113. Nonfatal injuries/illnesses by event/exposure, NAICS 45112, 2005.

Figure 4.114. Nonfatal injuries/illnesses by part of body involved, NAICS 45112, 2005.
New car dealers (NAICS 44111)

Figure 4.115. Nonfatal injuries/illnesses by age, NAICS 44111, 2005.

Figure 4.116. Nonfatal injuries/illnesses by gender, NAICS 44111, 2005.

Figure 4.117. Nonfatal injuries/illnesses by race/ethnicity, NAICS 44111, 2005.

Figure 4.118. Nonfatal injuries/illnesses by occupation, NAICS 44111, 2005.
**New car dealers (NAICS 44111)**

**Figure 4.119.** Nonfatal injuries/illnesses by nature of injury/illness, NAICS 44111, 2005.

- Sprains, strains: 3,200
- Fractures: 6,000
- Cuts, punctures: 890
- Bruises: 1,410
- Heat burns: 160
- Chemical burns: 250
- Carpal tunnel syndrome: 190
- Multiple traumatic injuries and disorders: 450
- Back pain and pain, except back: 1,450
- All other natures: 3,200

**Figure 4.120.** Nonfatal injuries/illnesses by source of injury/illness, NAICS 44111, 2005.

- Chemicals and chemical products: 500
- Containers: 560
- Furniture and fixtures: 320
- Machinery: 280
- Parts and materials: 3,020
- Worker motion or position: 2,470
- Floors, walkways, or ground surfaces: 1,170
- Handtools: 2,470
- Vehicles: 1,680
- All other sources: 3,390

**Figure 4.121.** Nonfatal injuries/illnesses by event/exposure, NAICS 44111, 2005.

- Contact with objects: 5,140
- Fall to lower level: 90
- Fall on same level: 70
- Slips or trips without fall: 2,110
- Overexertion: 2,850
- Repetitive motion: 3,900
- Exposure to harmful substance or environment: 620
- Transportation accidents: 5,140
- Fires and explosions: 2,660
- Assaults and violent acts: 2,660
- All other events: 340

**Figure 4.122.** Nonfatal injuries/illnesses by part of body involved, NAICS 44111, 2005.

- Head: 4,980
- Neck: 240
- Trunk: 3,210
- Upper extremities: 3,740
- Lower extremities: 1,910
- Body systems: 80
- Multiple body parts: 1,640
- All other body parts: 110
Figure 4.123. Nonfatal injuries/illnesses by age, NAICS 45211, 2005.

Figure 4.124. Nonfatal injuries/illnesses by gender, NAICS 45211, 2005.

Figure 4.125. Nonfatal injuries/illnesses by race/ethnicity, NAICS 45211, 2005.

Figure 4.126. Nonfatal injuries/illnesses by occupation, NAICS 45211, 2005.
Department stores (NAICS 45211)

Figure 4.127. Nonfatal injuries/illnesses by nature of injury/illness, NAICS 45211, 2005.

- Sprains, strains: 8,730
- Fractures: 1,700
- Cuts, punctures: 2,730
- Bruises: 1,470
- Heat burns: 1,210
- Chemical burns: 1,220
- Multiple traumatic injuries and disorders: 1,100
- Back pain and pain, except back: 1,000
- All other natures: 750

Figure 4.128. Nonfatal injuries/illnesses by source of injury/illness, NAICS 45211, 2005.

- Chemicals and chemical products: 1,950
- Containers: 1,360
- Furniture and fixtures: 1,000
- Machinery: 1,390
- Parts and materials: 580
- Worker motion or position: 500
- Floors, walkways, or ground surfaces: 940
- Handtools: 330
- Vehicles: 940
- All other sources: 1,950

Figure 4.129. Nonfatal injuries/illnesses by event/exposure, NAICS 45211, 2005.

- Contact with objects: 5,410
- Fall to lower level: 5,370
- Fall on same level: 600
- Slips or trips without fall: 440
- Overexertion: 2,630
- Repetitive motion: 1,360
- Exposure to harmful substance or environment: 1,220
- Transportation accidents: 1,170
- Assaults and violent acts: 180
- All other events: 580

Figure 4.130. Nonfatal injuries/illnesses by part of body involved, NAICS 45211, 2005.

- Head: 6,870
- Neck: 3,510
- Trunk: 3,160
- Upper extremities: 5,500
- Lower extremities: 1,390
- Body systems: 1,950
- Multiple body parts: 230
- Multiple body parts: 680
- All other body parts: 320

Chapter 4
Chapter 4 References


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Appendix

Wholesale and Retail Trade Sectors, Subsectors, and Industries by NAICS Code
Appendix: Wholesale and Retail Trade Sectors, Subsectors, and Industries by NAICS Code

42 Wholesale Trade

423 Merchant Wholesalers, Durable Goods

4231 Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers

42311 Automobile and Other Motor Vehicle Merchant Wholesalers

423110 Automobile and Other Motor Vehicle Merchant Wholesalers

42312 Motor Vehicle Supplies and New Parts Merchant Wholesalers

423120 Motor Vehicle Supplies and New Parts Merchant Wholesalers

42313 Tire and Tube Merchant Wholesalers

423130 Tire and Tube Merchant Wholesalers

42314 Motor Vehicle Parts (Used) Merchant Wholesalers

423140 Motor Vehicle Parts (Used) Merchant Wholesalers

4232 Furniture and Home Furnishing Merchant Wholesalers

42321 Furniture Merchant Wholesalers

423210 Furniture Merchant Wholesalers

42322 Home Furnishing Merchant Wholesalers

423220 Home Furnishing Merchant Wholesalers

4233 Lumber and Other Construction Materials Merchant Wholesalers

42331 Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers

423310 Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers

42332 Brick, Stone, and Related Construction Material Merchant Wholesalers

423320 Brick, Stone, and Related Construction Material Merchant Wholesalers

42333 Roofing, Siding, and Insulation Material Merchant Wholesalers

423330 Roofing, Siding, and Insulation Material Merchant Wholesalers

42339 Other Construction Material Merchant Wholesalers

423390 Other Construction Material Merchant Wholesalers

4234 Professional and Commercial Equipment and Supplies Merchant Wholesalers

42341 Photographic Equipment and Supplies Merchant Wholesalers

423410 Photographic Equipment and Supplies Merchant Wholesalers

42342 Office Equipment Merchant Wholesalers

423420 Office Equipment Merchant Wholesalers

42343 Computer and Computer Peripheral Equipment and Software Merchant Wholesalers

423430 Computer and Computer Peripheral Equipment and Software Merchant Wholesalers

42344 Other Commercial Equipment Merchant Wholesalers

423440 Other Commercial Equipment Merchant Wholesalers

42345 Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers

423450 Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers

42346 Ophthalmic Goods Merchant Wholesalers

423460 Ophthalmic Goods Merchant Wholesalers

42349 Other Professional Equipment and Supplies Merchant Wholesalers

423490 Other Professional Equipment and Supplies Merchant Wholesalers
4235  Metal and Mineral (Except Petroleum) Merchant Wholesalers
  42351  Metal Service Centers and Other Metal Merchant Wholesalers
  423510  Metal Service Centers and Other Metal Merchant Wholesalers
  42352  Coal and Other Mineral and Ore Merchant Wholesalers
  423520  Coal and Other Mineral and Ore Merchant Wholesalers

4236  Electrical and Electronic Goods Merchant Wholesalers
  42361  Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers
    423610  Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers
  42362  Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers
    423620  Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers
  42369  Other Electronic Parts and Equipment Merchant Wholesalers
    423690  Other Electronic Parts and Equipment Merchant Wholesalers

4237  Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
  42371  Hardware Merchant Wholesalers
    423710  Hardware Merchant Wholesalers
  42372  Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers
    423720  Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers
  42373  Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers
    423730  Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers
  42374  Refrigeration Equipment and Supplies Merchant Wholesalers
    423740  Refrigeration Equipment and Supplies Merchant Wholesalers

4238  Machinery, Equipment, and Supplies Merchant Wholesalers
  42381  Construction and Mining (Except Oil Well) Machinery and Equipment Merchant Wholesalers
    423810  Construction and Mining (Except Oil Well) Machinery and Equipment Merchant Wholesalers

4239  Miscellaneous Durable Goods Merchant Wholesalers
  42391  Sporting and Recreational Goods and Supplies Merchant Wholesalers

42382  Farm and Garden Machinery and Equipment Merchant Wholesalers
    423820  Farm and Garden Machinery and Equipment Merchant Wholesalers
  42383  Industrial Machinery and Equipment Merchant Wholesalers
    423830  Industrial Machinery and Equipment Merchant Wholesalers
  42384  Industrial Supplies Merchant Wholesalers
    423840  Industrial Supplies Merchant Wholesalers
  42385  Service Establishment Equipment and Supplies Merchant Wholesalers
    423850  Service Establishment Equipment and Supplies Merchant Wholesalers
  42386  Transportation Equipment and Supplies (Except Motor Vehicle) Merchant Wholesalers
    423860  Transportation Equipment and Supplies (Except Motor Vehicle) Merchant Wholesalers
423910  Sporting and Recreational Goods and Supplies Merchant Wholesalers
423920  Toy and Hobby Goods and Supplies Merchant Wholesalers
423930  Recyclable Material Merchant Wholesalers
423940  Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
423990  Other Miscellaneous Durable Goods Merchant Wholesalers

4241  Paper and Paper Product Merchant Wholesalers
424110  Printing and Writing Paper Merchant Wholesalers

42412  Stationery and Office Supplies Merchant Wholesalers
424120  Stationery and Office Supplies Merchant Wholesalers

42413  Industrial and Personal Service Paper Merchant Wholesalers
424130  Industrial and Personal Service Paper Merchant Wholesalers

4242  Drugs and Druggists Sundries Merchant Wholesalers
42421  Drugs and Druggists Sundries Merchant Wholesalers
424210  Drugs and Druggists Sundries Merchant Wholesalers

42423  Apparel, Piece Goods, and Notions Merchant Wholesalers
42431  Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers
424310  Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers

42432  Mens' and Boys' Clothing and Furnishings Merchant Wholesalers
424320  Mens' and Boys' Clothing and Furnishings Merchant Wholesalers

42433  Womens', Children's, and Infants' Clothing and Accessories Merchant Wholesalers
42434  Footwear Merchant Wholesalers
42435  Confectionery Merchant Wholesalers

424330  Womens', Children's, and Infants' Clothing and Accessories Merchant Wholesalers
424340  Footwear Merchant Wholesalers

4244  Grocery and Related Product Merchant Wholesalers
42441  General Line Grocery Merchant Wholesalers
424410  General Line Grocery Merchant Wholesalers
42442  Packaged Frozen Food Merchant Wholesalers
424420  Packaged Frozen Food Merchant Wholesalers

42443  Dairy Product (Except Dried or Canned) Merchant Wholesalers
424430  Dairy Product (Except Dried or Canned) Merchant Wholesalers

42444  Poultry and Poultry Product Merchant Wholesalers
424440  Poultry and Poultry Product Merchant Wholesalers

42445  Confectionery Merchant Wholesalers
42446 Fish and Seafood Merchant Wholesalers

424460 Fish and Seafood Merchant Wholesalers

42447 Meat and Meat Product Merchant Wholesalers

424470 Meat and Meat Product Merchant Wholesalers

42448 Fresh Fruit and Vegetable Merchant Wholesalers

424480 Fresh Fruit and Vegetable Merchant Wholesalers

42449 Other Grocery and Related Products Merchant Wholesalers

424490 Other Grocery and Related Products Merchant Wholesalers

4245 Farm Product Raw Material Merchant Wholesalers

42451 Grain and Field Bean Merchant Wholesalers

424510 Grain and Field Bean Merchant Wholesalers

42452 Livestock Merchant Wholesalers

424520 Livestock Merchant Wholesalers

42459 Other Farm Product Raw Material Merchant Wholesalers

424590 Other Farm Product Raw Material Merchant Wholesalers

4246 Chemical and Allied Products Merchant Wholesalers

42461 Plastics Materials and Basic Forms and Shapes Merchant Wholesalers

424610 Plastics Materials and Basic Forms and Shapes Merchant Wholesalers

42469 Other Chemical and Allied Products Merchant Wholesalers

424690 Other Chemical and Allied Products Merchant Wholesalers

424699 Other Farm Product Raw Material Merchant Wholesalers

4247 Petroleum and Petroleum Products Merchant Wholesalers

42471 Petroleum Bulk Stations and Terminals

424710 Petroleum Bulk Stations and Terminals

42472 Petroleum and Petroleum Products Merchant Wholesalers (Except Bulk Stations and Terminals)

424720 Petroleum and Petroleum Products Merchant Wholesalers (Except Bulk Stations and Terminals)

4248 Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers

42481 Beer and Ale Merchant Wholesalers

424810 Beer and Ale Merchant Wholesalers

42482 Wine and Distilled Alcoholic Beverage Merchant Wholesalers

424820 Wine and Distilled Alcoholic Beverage Merchant Wholesalers

4249 Miscellaneous Nondurable Goods Merchant Wholesalers

42491 Farm Supplies Merchant Wholesalers

424910 Farm Supplies Merchant Wholesalers

42492 Book, Periodical, and Newspaper Merchant Wholesalers

424920 Book, Periodical, and Newspaper Merchant Wholesalers

42493 Flower, Nursery Stock, and Florists Supplies Merchant Wholesalers

424930 Flower, Nursery Stock, and Florists Supplies Merchant Wholesalers

42494 Tobacco and Tobacco Product Merchant Wholesalers

424940 Tobacco and Tobacco Product Merchant Wholesalers

42495 Paint, Varnish, and Supplies Merchant Wholesalers

424950 Paint, Varnish, and Supplies Merchant Wholesalers

42499 Other Miscellaneous Nondurable Goods Merchant Wholesalers
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<th>Code</th>
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<tbody>
<tr>
<td>424990</td>
<td>Other Miscellaneous Nondurable Goods Merchant Wholesalers</td>
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<tr>
<td>425</td>
<td>Wholesale Electronic Markets and Agents and Brokers</td>
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<td>4251</td>
<td>Wholesale Electronic Markets and Agents and Brokers</td>
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<td>42511</td>
<td>Business to Business Electronic Markets</td>
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<tr>
<td>42512</td>
<td>Wholesale Trade Agents and Brokers</td>
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<td>44</td>
<td>Retail Trade</td>
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<tr>
<td>441</td>
<td>Motor Vehicle and Parts Dealers</td>
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<tr>
<td>4411</td>
<td>Automobile Dealers</td>
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<tr>
<td>44111</td>
<td>New Car Dealers</td>
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<tr>
<td>44112</td>
<td>Used Car Dealers</td>
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<tr>
<td>4412</td>
<td>Other Motor Vehicle Dealers</td>
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<tr>
<td>44121</td>
<td>Recreational Vehicle Dealers</td>
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<tr>
<td>44122</td>
<td>Motorcycle, Boat, and Other Motor Vehicle Dealers</td>
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<tr>
<td>441221</td>
<td>Motorcycle, ATV, and Personal Watercraft Dealers</td>
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<tr>
<td>441222</td>
<td>Boat Dealers</td>
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<tr>
<td>441229</td>
<td>All Other Motor Vehicle Dealers</td>
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<tr>
<td>4413</td>
<td>Automotive Parts, Accessories, and Tire Stores</td>
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<td>Automotive Parts and Accessories Stores</td>
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<td>44132</td>
<td>Tire Dealers</td>
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<td>Tire Dealers</td>
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<td>442</td>
<td>Furniture and Home Furnishings Stores</td>
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<td>4421</td>
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<td>44221</td>
<td>Floor Covering Stores</td>
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<td>44229</td>
<td>Other Home Furnishings Stores</td>
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<td>442291</td>
<td>Window Treatment Stores</td>
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<td>442299</td>
<td>All Other Home Furnishings Stores</td>
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<td>Electronics and Appliance Stores</td>
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<td>Appliance, Television, and Other Electronics Stores</td>
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<td>Household Appliance Stores</td>
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<td>44312</td>
<td>Computer and Software Stores</td>
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<td>Camera and Photographic Supplies Stores</td>
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<td>444</td>
<td>Building Material and Garden Equipment and Supplies Dealers</td>
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<td>4441</td>
<td>Building Material and Supplies Dealers</td>
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<td>44411</td>
<td>Home Centers</td>
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<td>Home Centers</td>
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<td>44412</td>
<td>Paint and Wallpaper Stores</td>
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<td>44413</td>
<td>Hardware Stores</td>
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<td>Hardware Stores</td>
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<td>44419</td>
<td>Other Building Material Dealers</td>
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<td>Other Building Material Dealers</td>
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</tbody>
</table>
4442  Lawn and Garden Equipment and Supplies Stores
   44421  Outdoor Power Equipment Stores
   444210  Outdoor Power Equipment Stores
   44422  Nursery, Garden Center, and Farm Supply Stores
   444220  Nursery, Garden Center, and Farm Supply Stores

445  Food and Beverage Stores

4451  Grocery Stores
   44511  Supermarkets and Other Grocery (Except Convenience) Stores
   445110  Supermarkets and Other Grocery (Except Convenience) Stores
   44512  Convenience Stores
   445120  Convenience Stores

4452  Specialty Food Stores
   44521  Meat Markets
   445210  Meat Markets
   44522  Fish and Seafood Markets
   445220  Fish and Seafood Markets
   44523  Fruit and Vegetable Markets
   445230  Fruit and Vegetable Markets

44529  Other Specialty Food Stores
   445291  Baked Goods Stores
   445292  Confectionery and Nut Stores
   445299  All Other Specialty Food Stores

4453  Beer, Wine, and Liquor Stores
   44531  Beer, Wine, and Liquor Stores
   445310  Beer, Wine, and Liquor Stores

4457  Gasoline Stations

447  Gasoline Stations
   4471  Gasoline Stations with Convenience Stores
   44711  Gasoline Stations with Convenience Stores
   44719  Other Gasoline Stations
   447190  Other Gasoline Stations

448  Clothing and Clothing Accessories Stores

4481  Clothing Stores
   44811  Mens’ Clothing Stores
   448110  Mens’ Clothing Stores
   44812  Womens’ Clothing Stores
   448120  Womens’ Clothing Stores
   44813  Children’s and Infants’ Clothing Stores
   448130  Children’s and Infants’ Clothing Stores
   44814  Family Clothing Stores
   448140  Family Clothing Stores
   44815  Clothing Accessories Stores
   448150  Clothing Accessories Stores
   44819  Other Clothing Stores
   448190  Other Clothing Stores
| 4482 | Shoe Stores |
| 44821 | Shoe Stores |
| 448210 | Shoe Stores |

| 4483 | Jewelry, Luggage, and Leather Goods Stores |
| 44831 | Jewelry Stores |
| 448310 | Jewelry Stores |
| 44832 | Luggage and Leather Goods Stores |
| 448320 | Luggage and Leather Goods Stores |

| 451 | Sporting Goods, Hobby, Book, and Music Stores |
| 4511 | Sporting Goods, Hobby, and Musical Instrument Stores |
| 45111 | Sporting Goods Stores |
| 451110 | Sporting Goods Stores |
| 45112 | Hobby, Toy, and Game Stores |
| 451120 | Hobby, Toy, and Game Stores |
| 45113 | Sewing, Needlework, and Piece Goods Stores |
| 451130 | Sewing, Needlework, and Piece Goods Stores |
| 45114 | Musical Instrument and Supplies Stores |
| 451140 | Musical Instrument and Supplies Stores |

| 4512 | Book, Periodical, and Music Stores |
| 45121 | Book Stores and News Dealers |
| 451211 | Book Stores |

| 45122 | Prerecorded Tape, Compact Disc, and Record Stores |
| 451220 | Prerecorded Tape, Compact Disc, and Record Stores |

| 452 | General Merchandise Stores |
| 4521 | Department Stores |
| 45211 | Department Stores |
| 452111 | Department Stores (Except Discount Department Stores) |
| 452112 | Discount Department Stores |

| 4529 | Other General Merchandise Stores |
| 45291 | Warehouse Clubs and Supercenters |
| 452910 | Warehouse Clubs and Supercenters |
| 45299 | All Other General Merchandise Stores |
| 452990 | All Other General Merchandise Stores |

| 453 | Miscellaneous Store Retailers |
| 4531 | Florists |
| 45311 | Florists |
| 453110 | Florists |

| 4532 | Office Supplies, Stationery, and Gift Stores |
| 45321 | Office Supplies and Stationery Stores |
| 453210 | Office Supplies and Stationery Stores |
| 45322 | Gift, Novelty, and Souvenir Stores |
| 453220 | Gift, Novelty, and Souvenir Stores |

| 4533 | Used Merchandise Stores |
| 45331 | Used Merchandise Stores |
| 453310 | Used Merchandise Stores |

| 4539 | Other Miscellaneous Store Retailers |
| 45391 | Pet and Pet Supplies Stores |
| 453910 | Pet and Pet Supplies Stores |
| 45392 | Art Dealers |
| 453920 | Art Dealers |
| 45393 | Manufactured (Mobile) Home Dealers |
| 453930 | Manufactured (Mobile) Home Dealers |
| 45399 | All Other Miscellaneous Store Retailers |
| 453991 | Tobacco Stores |
453998  All Other Miscellaneous Store Retailers (Except Tobacco Stores)

454  Nonstore Retailers

4541  Electronic Shopping and Mail-Order Houses

45411  Electronic Shopping and Mail-Order Houses

454111  Electronic Shopping
454112  Electronic Auctions
454113  Mail-Order Houses

4542  Vending Machine Operators

45421  Vending Machine Operators

454210  Vending Machine Operators

4543  Direct Selling Establishments

45431  Fuel Dealers

454311  Heating Oil Dealers
454312  Liquefied Petroleum Gas (Bottled Gas) Dealers
454319  Other Fuel Dealers

45439  Other Direct Selling Establishments

454390  Other Direct Selling Establishments
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