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NORA Sector Council Bulletin

Wholesale & Retail Trade

ADDRESSING THE NEEDS OF WHOLESALE AND RETAIL TRADE FOR A SAFE FUTURE

NORA WRT Sector Council Discussions

The NORA Wholesale and Retail Trade (WRT) leadership met online recently with its Sector Council to identify research topics for the *National Occupational Research Agenda for WRT*. The topics focused on changes in both wholesale and retail jobs, changes in workforce demographics, and organizational and stress-related issues. In addition, they talked about ways of improving outreach. Below are suggestions that arose from the discussion.

How are jobs changing in the wholesale and retail trade sector?

- ✦ Cardboard boxes are being replaced by cardboard slats covered in plastic, affecting the stability of the load. Unstable loads can change the lifting dynamics, requiring stockers to take more corrective actions to avoid dropping the contents of the load. This increases the risk of back and shoulder injuries.
- ✦ The accelerated growth in non-store retailers is increasing the demand for new workers who are able to perform manual lifting on a near-continuous basis throughout their shift. These workers need specialized training in manual lifting techniques and use of appropriate work–rest intervals.
- ✦ New processes with online ordering and curbside pickup at supermarkets are increasing the number of manual-handling jobs. The new processes are transforming jobs from checkout clerks to product handlers for onsite packing, bagging, and curbside delivery to customers.

How are worker demographics changing the wholesale and retail trade workforce?

- ✦ The workforce is aging; people work longer before they retire or work part-time after retirement. This may pose a challenge for ensuring the safety and health of older workers, as their physical capacities often vary significantly.
- ✦ Many retail workplaces employ workers from three to four generations. To ensure all employees remain free from workplace injuries and illnesses, employers must develop generation-specific approaches to such issues as motivation, collaboration, learning styles, and safety training.
- ✦ The temporary workforce is growing and employing vulnerable workers whose occupational injuries have been linked with lack of sufficient job training, lack of information on job hazards, and lack of supervision.

What are some of the organizational stress-related issues?

- ✦ It can be difficult to identify employees under stress. However, there is a need to identify such workers and find ways to assist those under stress to ensure their safety and well-being in the retail and wholesale workforce.
- ✦ Customer demand for quick deliveries can place additional stress on delivery drivers. Such stress can cause various health problems and distract them while driving, which can result in vehicle crashes.
- ✦ Productivity standards in distribution centers create stress for employees. They must work quickly to keep up or they risk losing their jobs. Research must find solutions that address stress and fear of job loss among these employees.

What are some methods to improve outreach?

- ✦ Case studies can be an effective method for demonstrating what employers are doing to reduce injuries and reduce the overall cost of doing business. Sharing success stories is especially effective if the described solutions are applicable from one type of retail workplace to another.
- ✦ To improve outreach to executives, owners, and employers, more information is needed on those factors that influence their decisions to commit to safety as a priority.
- ✦ As we identify research gaps that retail and wholesale employers are concerned with and excited about, we must take into account today's economy and changing workforce. A major concern is to find ways to collaborate with employers on projects of mutual interest.
- ✦ Another priority is to develop innovative solutions that focus on the psychology of safety, new behavioral safety models, human error reduction, culture, and use of analytics to predict the next injury.



NIOSH plans to host another WRT Sector Council meeting in the near future. If you would like to join in this discussion, please contact Vern Anderson at vanderson@cdc.gov or 513-533-8319. Learn more about the NORA WRT Sector Council at <https://www.cdc.gov/niosh/nora/councils/wrt/default.html>.



Risk Factors and Injury Prevention in Grocery Stores

NORA SECTOR COUNCIL BULLETIN
WHOLESALE & RETAIL TRADE

Grocery stores are a major source of employment in the United States. These stores number over 85,500 and have about 2.6 million employees, filling jobs that include cashiers, stock clerks/order fillers, and food preparers [U.S. Census 2017]. Grocery stores in 2015 had 85,200 recorded cases of injury or illness, for an incident rate of 4.5 for every 100 full-time workers [BLS 2015a; BLS 2015b]. Additional information about this subsector and workforce is available from [Industries at a Glance](#) [BLS 2012].

OSHA Guidelines for Retail Grocery Stores: Risk Factors and Prevention

Grocery work can be physically demanding. Many grocery store workers handle thousands of items each day to stock shelves, check groceries, and prepare bakery items and meat products. These tasks involve several ergonomic risk factors: force, repetition, awkward postures, and static postures [FMI 1995].

Such “risk factors increase the potential for injuries and illnesses” among workers in the grocery store industry. According to the Occupational Safety and Health Administration (OSHA) [Guidelines for Retail Grocery Stores](#) [OSHA 2004], the term *musculoskeletal disorders* refers to a variety of injuries and illnesses, including these:

- ✦ Muscle strains and back injuries from repeated use or overexertion
- ✦ Tendinitis
- ✦ Carpal tunnel syndrome
- ✦ Rotator cuff (shoulder) injury
- ✦ Epicondylitis (elbow problem)
- ✦ Trigger finger (from repeated use of a single finger)

Liberty Mutual Insurance Company’s Workplace Safety Index shows the importance of ergonomic issues and the costs related to injuries associated with such issues. The top three causes of injuries, which collectively represent almost half of the cost of the 10 leading injuries, are overexertion (\$13.8 billion; 23% of all injuries), falls on the same level (\$10.6 billion; 17.7% of all injuries), and falls to a lower level (\$5.5 billion; 9.2% of all injuries) [Liberty Mutual 2017].

Grocery stores that have implemented injury prevention efforts focusing on MSDs and ergonomic improvements have reported reductions in work-related injuries and workers’ compensation costs. The occurrence of fewer injuries can also improve morale, reduce employee turnover, encourage employees to stay in a job longer, and discourage senior employees from retiring early. Changes in the workplace that are based on ergonomic principles may lead to increased productivity by eliminating unneeded movements or motions, reducing fatigue, and increasing worker efficiency. Healthier

workers, better morale, and higher productivity can also contribute to better customer service [OSHA 2004].

The OSHA Guidelines for Retail Grocery Stores provide detailed information for protecting workers. The guidelines include checklists for identifying potential ergonomic risk factors by work task or activity, job-specific ergonomic concerns, training, and measuring progress. The guidance also provides information on solutions to implement storewide and in the following departments:

- ✦ Front end (checkout, bagging, and carryout)
- ✦ Stocking
- ✦ Bakery
- ✦ Meat and Deli
- ✦ Produce

The optimal time for a retailer to implement ergonomic interventions is while developing a new store or redesigning an existing store, when it is usually easier and less expensive to incorporate such elements [Reese 2008].

For additional information and ideas on injury prevention, consult the complete document: [OSHA Guidelines for Retail Grocery Stores, OSHA 3192-05N, 2004](#).

References

- BLS [2012]. Industry at a glance: food and beverage stores. NAICS 445. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, <https://www.bls.gov/iag/tgs/iag445.htm>.
- BLS [2015a]. Table 2. Number of nonfatal occupational injuries/illnesses by industry and case types. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, <https://www.bls.gov/iif/oshwc/osh/os/ostb4734.pdf>.
- BLS [2015b]. Table 1. Incidence rates of nonfatal occupational injuries and illnesses by industry and case types. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, <https://www.bls.gov/iif/oshwc/osh/os/ostb4732.pdf>.
- FMI [1995]. Working smart in the retail environment: ergonomics guide. Washington, D.C.: Food Marketing Institute.
- Liberty Mutual [2017]. Top 10 causes in direct costs of the most disabling U.S. workplace injuries. [2017 Liberty Mutual Workplace Safety Index](#) and [news release](#). Boston: Liberty Mutual Insurance Company.
- OSHA [2004]. Guidelines for retail grocery stores: ergonomics for the prevention of musculoskeletal disorders. U.S. Department of Labor, Occupational Safety and Health Administration. Publication OSHA 3192-06N, <https://www.osha.gov/ergonomics/guidelines/retailgrocery/retailgrocery.html>.
- Reese CD [2008]. Industrial safety and health for people-oriented services. Chapter 13: Preventing musculoskeletal disorders. 13.2.4 Implement Solutions. Orlando: CRC Press.
- U.S. Census [2017]. Number of establishments with corresponding employment change by employment size of the enterprise in the United States, Industries (4-digit NAICS): 2013-2014. SUSB Employment change tables released February 2, 2017. Washington, DC: U.S. Department of Labor, U.S. Census Bureau, https://www2.census.gov/programs-surveys/susb/tables/2014/us_4digitnaics_emplchange_2013-2014.xlsx.



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