

Increased productivity  
43%

BUSINESS SUCCESSES  
WITH EFFECTIVE  
SAFETY PROGRAMS . . . . . 1



A GLIMPSE AT THE  
BURDEN, NEED, &  
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# NORA Sector Council Bulletin Wholesale & Retail *Trade*

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

## Business Successes with Effective Workplace Safety Programs

Prevention is a powerful concept when applied to workplace safety and health. Most successful programs for injury and illness prevention include elements that focus on finding all hazards in the workplace and developing a plan for preventing and controlling those hazards.

In 2012, the American National Standards Institute (ANSI) updated the Occupational Health and Safety Management Systems Standard (OHSMS) ANSI-Z-10.<sup>1</sup> This is a consensus standard for continual improvement of safety and health programs. This standard lays out the blueprint for improving health and safety performance in your organization while increasing productivity, financial performance and quality. Sections include Leadership and Employee Participation; Planning, Implementation and Operation; Evaluation and Corrective Action; and Management Review.

Employees who are exposed to this proactive process soon realize that safety and health are not just the buzzwords of management programs. They begin to understand that workplace safety is the product of a successful business and vice versa. The benefits continue as long as employers and others remain proactive in eliminating workplace hazards before they cause injuries or worse.

The studies also highlight important characteristics of effective programs, including management commitment and leadership, effective employee participation, integration of

health and safety with business planning, and continuous program evaluation. Prevention programs without these features are not as effective.

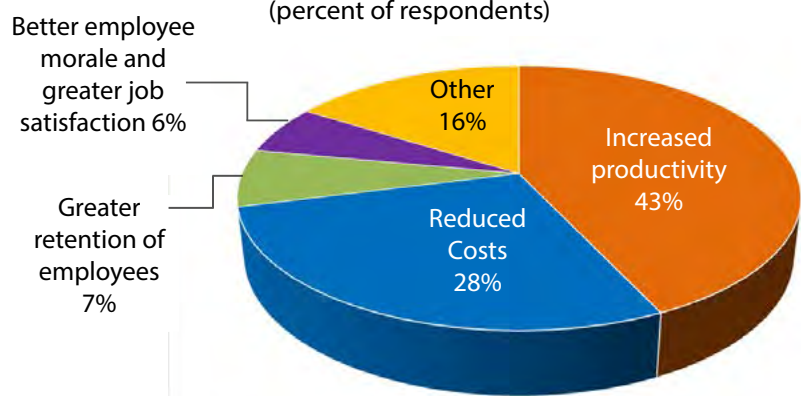
The literature on injury and illness prevention programs also includes numerous studies that attempt to identify the critical success features associated with superior health and safety

Workplace safety leads to higher productivity, better quality, reduced turnover, reduced costs, and greater employee satisfaction.

performance. Liu et al. [2010] examined the effectiveness of Pennsylvania's voluntary program that provides workers' compensation premium discounts to employers that establish joint labor-management safety committees.<sup>2</sup>

Gallagher et al. [2001] and Anderson et al. [2010] also concluded that management commitment and employee involvement are the keys to the program's success.<sup>3,4</sup> All managers and employees are responsible for maintaining a safe and healthy workplace. Everyone works cooperatively, shows ownership for the program, and is committed to preventing injuries, illnesses, and fatalities.<sup>5</sup> Figure 1 shows the top benefits of workplace safety programs, as cited by financial decision makers.<sup>6</sup>

**Figure 1. Top Benefits of Workplace Safety Programs Cited by Financial Decisionmakers**  
(percent of respondents)



Source: Huang et al., 2009. Data based on responses from 231 U.S. companies with 100 or more employees.

<sup>1</sup> ANSI [2012]. ANSI-Z-10-2012. American National Standards Institute, Z-10, Occupational Health and Safety Management Systems Standard.

<sup>2</sup> Liu H, Burns RM, Schaefer AG, Ruder T, Nelson C, Haviland AM, Gray WB, Mendeloff J [2010]. The Pennsylvania certified safety committee program: an evaluation of participation and effects on work injury rates. *American Journal of Industrial Medicine* 53(8):780–791.

<sup>3</sup> Gallagher C, Underhill E, Rimmer M [2003]. Occupational safety and health management systems in Australia: barriers to success. *Policy and Practice in Health and Safety* 1(2):67–81.

<sup>4</sup> Anderson VP, Chen H [2014]. Workplace hazards and prevention options from a nonrandom sample of retail trade businesses. *International Journal of Occupational Safety and Health* 20(1):3–17.

<sup>5</sup> Makrides L, Heath S, Farquharson J, Veinot PL [2007]. Perceptions of workplace health: building community partnerships. *Clinical Governance: An International Journal* 12(3):178–187.

<sup>6</sup> Huang Y-H, Leamon TB, Courtney TK, DeArmond S, Chen PY, Blair MF [2009]. Financial decision makers' views on safety. *Professional Safety* 54(4):36–41.



# A Glimpse at the Burden, Need, and Impact Approach Toward MSDs

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More than 20 million workers in the wholesale and retail trade (WRT) sector are at risk for fatal and nonfatal injuries. In 2014, approximately 650,000 workers were injured while performing their jobs,<sup>1</sup> and 463 fatalities occurred in the WRT sector.<sup>2</sup> Approximately 60% of injuries were severe enough to require days away from work, job transfer, or work restriction. The overall number of injuries and fatalities may be attributed to certain types of high-risk workplaces: general merchandise stores, food and beverage stores, motor vehicle and parts dealers, and stores for building/gardening materials and supplies. Many of the fatalities occurred in retail gas stations and convenience stores, which often employ young and inexperienced workers. To provide a baseline to judge future prevention efforts, the WRT Program leadership produced the [Chartbook: Injuries, Illnesses, and Fatalities in Wholesale and Retail Trade in 2005](#).

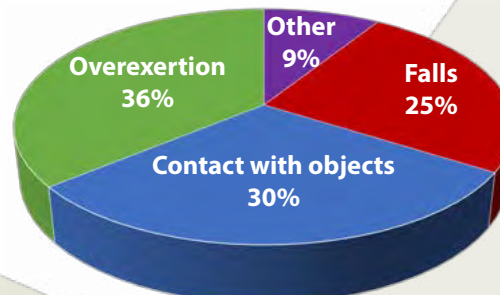
<sup>1</sup> BLS [2015]. Occupational Injuries and Illnesses. News release, [http://www.bls.gov/news.release/archives/osh\\_10292015.htm](http://www.bls.gov/news.release/archives/osh_10292015.htm).

<sup>2</sup> BLS [2015]. Census of Fatal Occupational Injuries (CFOI): current and revised data, <http://stats.bls.gov/iif/oshcfoi1.htm>.

Below is a summary of the burden, need, and impact associated with musculoskeletal disorders (MSDs), which affect many WRT workers.

Figure 2 (<https://www.bls.gov/iif/oshwc/osh/case/ostb4868.pdf>) shows the four main causes of work-related nonfatal injuries or illnesses in 2015 responsible for one or more missed work days by nearly 200,000 WRT sector employees, according to the Bureau of Labor Statistics (BLS). The “Other” category includes transportation, chemical exposures, violence, and fires. As part of NIOSH’s efforts to maximize its impact in workplace safety and health, we use what we refer to as the **Burden, Need, and Impact (BNI)** method. This method is used to identify evidence-based research priorities, to protect workers, and invest limited resources in a clear and transparent manner.

**Figure 2. Causes of WRT Injuries/Illnesses by Percent, 2015**



Source: Table R116. Percent distribution of nonfatal occupational injuries and illnesses involving days away from work by industry and selected events or exposure leading to injury or illness. <https://www.bls.gov/iif/oshwc/osh/case/ostb4868.pdf>

## The Impact of MSDs

NIOSH is the leading U.S. federal entity investigating the causes of MSDs and back injury. Its tradition of cutting-edge research and publishing is valued by both public and private professional organizations and underlies the evidence-based approach to subsequent interventions designed to prevent MSDs.

## The Burden of MSDs

MSD injuries are costly. A recent study estimated the average cost per case from all MSD cases in all NORA sectors at \$7,775 in 2004 dollars.<sup>3</sup> Adjusted to 2014 dollars, the average cost of MSDs in the WRT sector is estimated at \$9,743 per case. Using the BLS estimate of approximately 63,000 reported cases of MSDs in 2014 yields a total cost of \$596 million in the WRT sector. MSDs have a large economic impact on society, including the cost of treatment and the related indirect costs of productivity losses. Workers, their families, employers, and tax payers share this burden.


<sup>3</sup> Bhattacharya A [2014]. Costs of occupational musculoskeletal disorders (MSDs) in the United States. *International Journal of Industrial Ergonomics* 44:448–454.

## The Needs Related to MSDs

Until the NIOSH WRT Program was created in 2006, there was little published information on hazards, risks, and morbidity and mortality in the WRT sector. There still is a need for continuing assessment, as well as organized efforts to intervene in and address the greatest hazards and risks. NIOSH is uniquely positioned to make a difference in the health and safety of workers in WRT because of the partnerships it has developed.

Visit the [NIOSH WRT Program website](https://www.cdc.gov/niosh/programs/wrt/bni.html) to learn more about burden, need, and impact in other priority program areas, such as slips, trips, and falls; work-related violence; and motor vehicle-related injuries (<https://www.cdc.gov/niosh/programs/wrt/bni.html>).

To find previous editions, go to <https://www.cdc.gov/niosh/programs/wrt/resources/bulletins.html>.

  
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