WORKPLACE VIOLENCE: A COMPREHENSIVE LOOK AT OSHA RECORDKEEPING

By

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April, 2017

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Workplace violence is a major issue in many occupations. Acts of workplace violence can cost companies millions of dollars. Using a workplace violence prevention programs to control workplace violence, could be vital in saving a company money and possibly saving someone's life. There are four types of workplace violence that could occur: criminal intent, customer/client, employee on employee, and personal relations.

The purpose of this study was to describe and explore workplace violence incidents and describe their contents utilizing the United States Occupational Safety and Health Administration's Integrated Management Information System (IMIS) database in order to investigate the adequacy of the OSHA IMIS database to provide sufficient information in support of developing workplace violence prevention programs. OSHA is responsible for inspecting and describing catastrophic and fatal acts of workplace violence. Inspection data was reviewed and analyzed for the purpose of this study.

The data showed that OSHA inspected fatalities with much more urgency than they inspected injuries and nonfatalities. Forty-four out of the fifty workplace violence fatalities that were analyzed were inspected by OSHA within seven days of the fatality occurring, or 88 percent. Twenty-three out of fifty workplace violence nonfatalities and injuries were inspected within nine days of the incident occurring, only 46 percent. This leads to the conclusion that OSHA

takes workplace violence fatalities much more seriously and there is not as much of a sense of urgency when it comes to workplace violence nonfatalities and injuries.

A person being shot with a gun was the number one cause of workplace violence fatalities among the 100 incidents investigated. This accounted for sixty-eight percent of all workplace violence fatalities included in this research. Security measures should be implemented in high-risk occupations, such as bulletproof screens protecting the employees or providing security officers to protect the employees. These high-risk occupations include taxi drivers and late-night convenience store workers.

The data collected for the purpose of this research identified many inconsistencies and missing data within the 100 workplace violence event descriptions found on the IMIS database. This makes describing the data fully and drawing conclusions very difficult. OSHA inspectors should consider a more uniform approach when collecting variables at a particular scene, which would lend to a deeper understanding of workplace violence and potentially a more robust workplace violence program. This lack of information was a limitation in the research conducted.

Workplace violence is a serious issue that countless employers and employees must deal with every day. There must be programs set in place, such as the one California has implemented and is having so much success with, in order to bring awareness to employees and employers about how to handle workplace violence and to teach them what to do in situations that could otherwise be harmful to them. OSHA must do a better job in describing the scenarios that they encounter in order to set up policies and procedures that are more comprehensive, which could be beneficial to the next company that may face workplace violence in setting up a workplace violence program.

# A Thesis

# Presented To the Faculty of the Department of Technology Systems East Carolina University

In Partial Fulfillment of the Requirements for the Degree

Masters of Science in Occupational Safety

By

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April, 2017



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#### **ACKNOWLEDEMENTS**

First, I would like to thank God for all that I have. I would like to thank Dr. Michael Behm for guiding and encouraging me on this journey that is graduate school. I hope I can be as humble and ethical as he is! Thank you to my husband, Steven, for believing in me and pushing me to complete this task. Thank you to my parents- Mom, Dad, and Mary Alice- who have been a guiding light for me and ever encouraging. Lastly, I would like to thank my friends who have also been amazingly supportive. I am beyond blessed to be surrounded by such amazing people!

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# Introduction

Significance of Problem

Workplace violence is a major problem in the United States. Every year nearly two million workers become a victim of violence in the workplace ("Census of Fatal Occupational Injuries Summary, 2014," 2015). Out of all the violent crimes committed within the United States, nearly one in five, 18 percent, were committed in the workplace (NIOSH, 2006). In 2014, the Bureau of Labor Statistics stated that there were 4,679 fatal workplace injuries and of those fatalities, 403 were workplace homicides ("OSHA Training and Reference Materials Library - OSHA Recommendations for Workplace Violence Prevention Program in Late Night Retail Establishments," 2010). These statistics are especially pertinent to women, as violence in the workplace accounts for 29 percent of fatalities in the workplace for women (NCVRW RESOURCE GUIDE, 2013). This is an issue that must be given attention and solutions must be found for the problem.

The Federal Bureau of Investigation looked at the number of workplace violent crimes between 1993 and 1999 and found that, on average, there were 1,744,300 cases of workplace violence. Figure 1, below, shows a breakdown of the workplace violence-related crimes that were committed between 1993 and 1999 (Rugala, ed., n.d.).

Table 1: Average annual number, rate, and percent of workplace victimization by type of crime, 1993-1999.

Crime Category	Average annual workplace victimization	Rate per 1,000 persons in the workforce	Percent of workplace victimization
All Violent Crimes	1,744,300	12.5	100%
Homicide	900	0.01	0.1
Rape/Sexual Assault	36,500	0.3	2.1
Robbery	70,100	0.5	4.0
Aggravated Assault	325,000	2.3	18.6
Simple Assault	1,311,700	9.4	75.2

In 2002, a U.S. House of Representatives subcommittee found that 18,000 assaults at the workplace caused a half a million employees to lose 1,751,000 days of work, which yielded a loss of \$55 million in wages (OSHA, 2015). This shocking statistic leads to an employer cost of billions of dollars per year in productivity loss, legal expenses, damage to their property, hurt reputation, and security costs; this does not include jury awards that could run up into the millions of dollars ("Workplace Violence Prevention - Health Care and Social Service Workers," n.d.). It is imperative that companies implement a workplace violence prevention program in order to mitigate costs associated with workplace violence and, most importantly, to keep our workers safe in an environment that discourages hostility. As shown in Table 1, 1 in 3 companies were adversely affected by workplace violence through direct and indirect costs the effect workplace violence can have on a company. Absenteeism, turnover, and productivity loss can cost businesses millions of dollars per year as a result of workplace violence if these issues are not addressed (Bureau of Labor Statistics, n.d.). Figure 1, below, shows the effects on employees when they experience workplace violence (Bureau of Labor Statistics, n.d.).

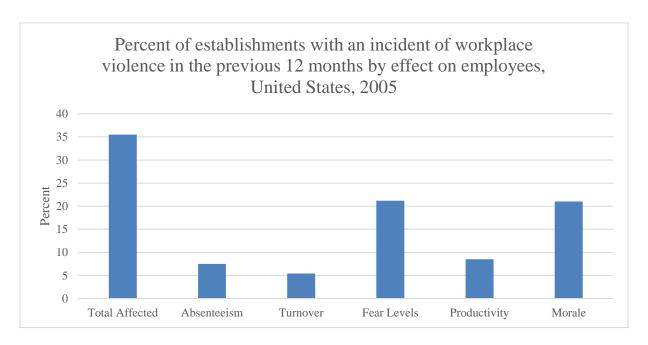


Figure 1: Workplace violence effects on employees.

## Defining Workplace Violence

A workplace is defined as a place, being permanent or temporary, where an employee conducts any work-required responsibility ("Workplace Violence Prevention," n.d.). These locations can include buildings and its surroundings, parking lots, homes of clients, locations in the field, and travel. Workplace violence has a wide array of definitions. Aggressive behavior and violent acts are both associated with workplace violence. The National Institute of Occupational Safety and Health (NIOSH) defines workplace violence as:

"violent acts, including physical assaults and threats of assault, directed toward persons at work or on duty ("Violence in the Workplace," 2014)."

The Occupational Safety and Health Administration (OSHA) defines workplace violence as:

"Workplace violence is violence or the threat of violence against workers. It can occur at or outside the workplace and can range from threats and verbal abuse to physical assaults and homicide, one of the leading causes of job-related deaths" (Workplace Violence Prevention - Health Care and Social Service Workers, n.d.).

Workplace violence can also encompass:

- threatening behavior
- harassment
- intimidation
- verbal abuse
- verbal or written threats
  - o "expression of intent to inflict harm ("OSH Answers Fact Sheets," 2012)"
  - The Federal Bureau of Investigation defines a threat as "an inappropriate behavior, verbal or nonverbal communication, or expression that would lead to the reasonable belief that an act has occurred or may occur which may lead to physical and/or psychological harm to the threatener, to others, or to property" (Rugala, ed., n.d.)
- physical attacks ("OSHA Training and Reference Materials Library OSHA
   Recommendations for Workplace Violence Prevention Program in Late Night Retail
   Establishments," 2010; "OSH Answers Fact Sheets," 2012).

Generally, workplace violence can present itself in a wide array of forms, including:

- Beatings
- Stabbings
- Suicides
- Shootings
- Near-suicides

- Psychological Trauma
- Threats
- Throwing things
- Destruction of property
- Demeaning words

- Punching
- Kicking
- Hitting
- Shoving
- Condescension
- Insults
- Bullying

- Humiliation
- Obscene phone calls
- Intimidation
- Harassment of any nature
- · Being followed
- Being sworn at
- Being shouted at

("OSHA Training and Reference Materials Library - OSHA Recommendations for Workplace Violence Prevention Program in Late Night Retail Establishments," 2010; "OSH Answers Fact Sheets," 2012)

There are four types of hostile acts that are committed at the workplace:

- Type one. Criminal intent: committed by persons without connection to the business
- Type two. Customer/Client: committed by persons with a connection to the business
- Type three. Employee on Employee: committed by employees at the business
- Type four. Personal Relations: committed by persons acquainted with the employees (NIOSH, 2006).

The Bureau of Labor Statistics (BLS) did a study on workplace violence in 2005 and analyzed how the four types of violent acts were broken down by industry (private sector, state government, and local government) and by the four types of violence, similar to those types listed above (Bureau of Labor Statistics, n.d.). Figure 2, below, shows what the Bureau of Labor Statistics found. State government has a higher percentage of workplace violence due to violence against law enforcement officers and other security officers. Around 56% of these state

government violence acts from 2002 until 2011 were as a result of an officer being attacked in some way (Harrell, 2013).

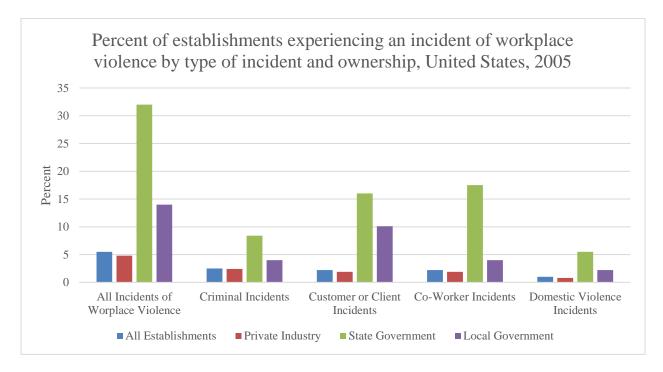


Figure 2: Bureau of Labor Statistics findings of workplace violence incidents by type and by ownership (Bureau of Labor Statistics).

#### Workplace Violence by Type

Type One, Criminal intent workplace violence crimes are typically violent in nature (NIOSH, 2006). The crimes include stealing, terrorism, robbery, and trespassing (Rugala, ed., n.d.). Out of all workplace homicides, 85 percent of them are committed in this category (Haynes, 2013). Retail businesses that are open late-night are most affected by criminal intent-type workplace violence acts. These retailers can include convenient stores, liquor stores, and gasoline stations ("OSHA Training and Reference Materials Library - OSHA Recommendations for Workplace Violence Prevention Program in Late Night Retail Establishments," 2010). An example of criminal intent workplace violence is as follows: Timothy Moore robbed the Fast Food Mart in

Durham, N.C. He shot and killed the employee working at the Fast Food Mart, Nafez Jalal- a married father of six children. He also shot a second employee, Hassan Joalale, in the leg. Timothy Moore was arrested and charged with murder, felony conspiracy, two counts of robbery with a dangerous weapon, and assault with a deadly weapon (McDonald, 2016).

Type Two, Customer/client workplace violence occurs when the criminal has a valid relationship with the business and becomes aggressive and violence ensues while using services provided by the business (NIOSH, 2006). Examples of people who would be considered clients are customers, patients, inmates, students, and other groups that a business could provide service to (Rugala, ed., n.d.). A vast majority of customer/client workplace violence altercations occur in the medical and health care field. Areas such as mental health facilities and elder care see a high number of patients inflicting violence on their caregiver (OSHA 2015). Other occupational areas that are at higher risk of exposure to this type of workplace violence are police officers, flight attendants, prison employees, and teachers (NIOSH 2006).

Customer/client workplace violence is responsible for about 3% of workplace homicides (NIOSH 2006). The type of workplace environment that this type of violence is more likely to occur in would include a nurse and patient relationship or a lawyer and client relationship. An example of customer/client workplace violence is as follows: Angel Ortiz was shot in the head by Felix Valentin while working as a bouncer at a bar and grill. At the time that Angel Ortiz was shot, which was roughly 11:45 at night, he was attempting to break up a fight that had ensued between patrons at the bar. It was then that Felix Valentin shot Angel Ortiz (Wilusz & Brown, 2016).

Type Three, Employee-on-employee workplace violence occurs when an employee, past or present, of the business threatens or attacks a fellow current employee or past employee. The

violent act must take place at the business or workplace ("Violence in the Workplace," 2014). Employee-on-employee fatalities are responsible for 7% of all workplace murders. There are some warning signs to look out for when dealing with employee-on-employee violence, and they include:

- When criticized, they overreact
- Resist changes to procedures
- Anger toward fellow workers or the company
- Obsession with fellow workers or business's policies
- Bullying coworkers and threatening supervisors
- Foreboding and specific threats
- Obsession with weapons
- Extremely disorganized
- Homicidal/suicidal comments or threats (NIOSH, 2006; Rugala, ed., n.d.).

An example of employee-on-employee violence is the classic example of "going postal." Patrick Sherrill sought out and shot twenty of his coworkers on August 20, 1986. He killed fourteen of the twenty victims before turning the gun on himself, ending his life. Some speculate that he committed this horrific act of violence because he had been reprimanded for his behavior the day prior to the shooting and he was anxious that he may lose his job ("Patrick Henry Sherrill Murderpedia, the Encyclopedia of Murderers," n.d.).

Type Four, Personal Relations workplace violence crimes are typically carried out by persons who have no connection to the business itself, but rather the intended victim has a connection to the business (Haynes, 2013). These crimes encompass domestic violence, including threats and assaults, while at work (Rugala, ed., n.d.). This type of workplace violence crime accounts for

around 5% of workplace homicides (NIOSH, 2006). An example of relational workplace violence is as follows: Tania Adams, a mother of three boys, was separated from her husband. She was at work with a male coworker when her estranged husband came to her job and, in a jealous rage, shot and killed Ms. Adams and also shot the male coworker, who lived. Ms. Adam's killer then turned the gun on himself and died ("Man Shot Estranged Wife in Homestead Triple Shooting: Family," 2016).

#### Assessing Risk of Workplace Violence

Certain risk factors can make different jobs and employees more susceptible to becoming a victim of workplace violence. These risk factors include:

- Conducting money exchanges with the public
- Working in environments with erratic or unstable people
- Solitary work places or in isolation
- Service providers and caretakers
- Environments where alcohol is served
- Irregular hours, such as working late into the night or very early morning
- Working in areas that are unsafe and have high crime rates
- Poor lighting in the work environment, including inside the workplace and the parking lot
- Insufficient training in the recognition and management of increasingly hostile and
  aggressive behaviors ("OSHA Training and Reference Materials Library OSHA
  Recommendations for Workplace Violence Prevention Program in Late Night Retail
  Establishments," 2010; "Workplace Violence Prevention Health Care and Social
  Service Workers," n.d.).

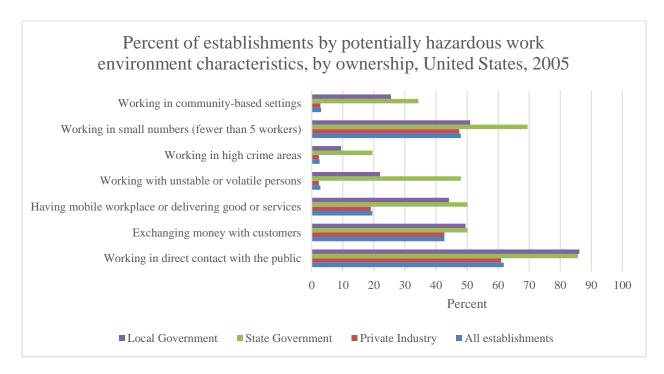


Figure 3: Hazardous work environment characteristics (Bureau of Labor Statistics).

Workplace violence affects a wide range of occupations and does not discriminate based on a person's level of education, socioeconomic status, or whether they work for the private or public sector. As shown in Figure 3, above, a comparison of the private sector versus the public sector's likelihood of hazardous situations as it relates to workplace violence is shown. The occupations that are most likely to fall victim to workplace violence are:

- Retail businesses that are open late at night, including:
  - Convenient stores
  - Liquor stores
  - Gasoline stations
- Delivery drivers
- Healthcare professionals

- Public servants
- Customer service representatives
- Law enforcement ("Workplace Violence and Disruptive Behavior in Washington Psychiatric Settings," n.d.).

#### Regulatory Issues

Given this staggering data, one would think or assume that there would be a law or standard procedure for preventing workplace violence. However, this is not the case. Federally, there is no specific regulation. Generally, OSHA will cite the General Duty Clause when dealing with workplace violence issues. The General Duty Clause states:

#### "(a) Each employer—

- (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees
- (2) shall comply with occupational safety and health standards promulgated under this Act.
- (b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to the Act which are applicable to his own actions and conduct (United States Department of Labor, n.d.)."

At a state level, workplace violence is beginning to be looked at more closely. Some states have put legislation and regulations in place that are directed toward certain industries and that hope to reduce workplace violence within these industries. For example, California and Washington are spearheading initiatives in reducing Type Two client/employee violence within

the healthcare industry. California and Washington are also enforcing regulations that require all-inclusive safety programs in every workplace, including prevention of employee assaults ("Mistreatment Prevention and Resolution - The Big Picture," 2015). In Florida, Virginia, and Washington, there are laws or regulations aimed at preventing criminal intent homicides within retail businesses that are open late at night, such as gasoline stations. Florida has recognized that it is best to close late at night, between the hours of 11 p.m. and 5 a.m., to prevent criminal activity at these businesses (The University of Iowa, n.d.).

At a local level, legislation is being pursued for specific industries. Specifically, taxi drivers, who are most at risk for fatalities from violence than any other occupation. Regulations have been put into place in many U.S. cities, including Oakland, Boston, Albany, New York City, Baltimore, Chicago, and Los Angeles. These regulations include the requirement of a bullet-proof shield between the taxi driver and the person being driven within all taxi cabs to minimize the risk being taken on by the drivers (The University of Iowa, n.d.).

## Developing Prevention Programs

Workplace violence prevention should be an important component of any business. It is imperative to keep employees safe and mitigate any risks. There are three key areas to focus on when to prevent workplace violence:

- Environmental
- Behavioral/Interpersonal
- Organizational/Administrative (Calvin, 2013)

Environment factors can be easily controlled and adapted to help ensure the safety of employees. These factors include:

- making lighting adjustments so that employees can better visualize their surroundings
- making entrances and exits more secure, including the installation of a buzzer system or locking the doors later into the evenings
- security enhancements, such as video surveillance or automatic lighting systems (The University Of Iowa, n.d.).

Introducing behavior and interpersonal changes also help in the mitigation and de-escalation of workplace violence. Training employees on how to be prepared, how to recognize and how to respond to a possible violent scenario can lower the probability of a situation escalating out of control (Calvin, 2013). Learning to anticipate various scenarios can give employees critical tools in how to minimize risky situations with volatile people (The University Of Iowa, n.d.).

The organization and administrators as a whole have a responsibility to assist their employees in protecting themselves and keeping themselves safe. It is their job to put parameters and guidelines in place which direct their staff to use best practices in instances of workplace violence. These parameters include the development of programs, implementing policies, and initiating work practices that aim at the maintenance of a safe workplace ("OSHA Training and Reference Materials Library - OSHA Recommendations for Workplace Violence Prevention Program in Late Night Retail Establishments," 2010). In 2005, the Bureau of Labor Statistics found that 4.8 percent (or 346,420 establishments) of private industry establishments experienced workplace violence incidents. Of those 346,420 businesses that experienced workplace violence, 34.4 percent (or 119,168) of these incidences negatively impacted their employees, but only 10.8 percent (or 37,413) of businesses actually changed a workplace violence program or policy after the incident. 8.8 percent (or 30,485) of businesses with workplace violence incidences did not have a workplace violence program or policy in place and

a staggering 79.9 percent (or 276,790) of these establishments did not make a change to their program or policy (Bureau of Labor Statistics, n.d.). Figure 4, below, shows what the Bureau of Labor Statistics found.

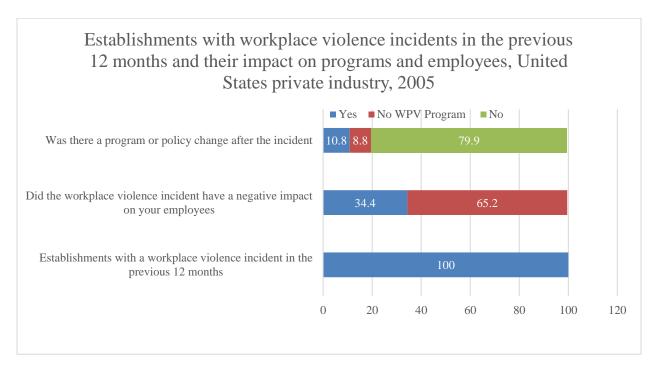


Figure 4: Bureau of Labor Statistics findings on workplace violence incidents and their impact on programs and employees, 2005.

Managers have a crucial job in the prevention of workplace violence. They must be committed to safety in all areas of the company. A no tolerance policy for aggressive behaviors should be implemented for the safety of the company. Managers must also take employee concerns seriously when they reach out for help and guidance in matters such as workplace violence and those concerns must be investigated in order to mitigate any possible threat to one of their employees. Having an open door policy in place will encourage employees to speak freely about any concerns they may have.

Management also has the responsibility to rally their employees and encourage them to participate in the safety of their workplace. One way to accomplish this is through the creation of voluntary safety committees. Safety committees can assist in the reduction of risk within a working environment as it relates to injury and illness. The employees on the committee can additionally help with compliance to laws as well as adherence to company policies (Maurer, 2013).

Workplace violence is a major problem in the world today and OSHA provides guidelines that presumably are meant to keep Americans safe. The data that OSHA collects should be able to be used as a means to find better, safer, and more efficient solutions to safety problems, such as workplace violence. Utilizing the OSHA IMIS database ought to provide enough information so that patterns are found that are statistically significant. This is why the OSHA IMIS database was analyzed within this report.

# **Literature Review**

What is Workplace Violence?

Workplace violence is a serious safety concern that impacts many companies and businesses all over the world. It is an issue that needs to be taken seriously and should be given the same concern as any other safety problem occurring in the workplace today. This subject is so serious in fact, that the Center for Disease Control made the decision in 1992 to contend that homicide in work environments is a serious health risk to the public (Mount, 2003).

In order to understand what workplace violence is, one must first understand what a workplace is. A workplace is defined as:

"any permanent or temporary location where employees perform work-related duties" (Bruce and Nowlin, 2011).

Workplace violence has many definitions. The two that are cited most frequently are from the International Labor Organization and the World Health Organization. The International Labor Organization defines workplace violence in its Code of Practice on workplace violence within the service area as:

"Any action, incident or behavior that departs from reasonable conduct in which a person is assaulted, threatened, harmed, injured in the course of, or as a direct result of, his or her work. Internal workplace violence is that which takes place between workers, including managers and supervisors. External workplace violence is that which takes place between works (and managers and supervisors) and any other person present at the workplace" (Wing Lo et al., 2012)

The World Health Organization defines workplace violence as:

"Incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being or health" (Jackson and Ashley, 2005).

There are four categories of workplace violence that help compartmentalize and define the different varieties of workplace violence that businesses face. The four categories of workplace violence are:

#### • Criminal Intent

Oriminal intent workplace violence is also called Type I workplace violence. A person committing a Type I crime has no connection to the business or anyone working there. An example of this crime is a robbery of a gas station or bank and rarely occurs in a professional setting or a manufacturing setting. These crimes are typically random (Bruce and Nowlin, 2011).

#### • Customer/Client

Customer/Client workplace violence is also known as Type II workplace violence. This type of violence occurs when an individual has a legitimate connection to the business and is utilizing the business's services. An example of Type II workplace violence is when a patient attacks a doctor or nurse while in a hospital, nursing home, or doctor's office or when a client attacks his or her lawyer at a law office or in court (Bruce and Nowlin, 2011).

#### • Worker-on-Worker

 Worker-on-Worker workplace violence is also known as Type III workplace violence. This type of violence can occur between previous employees or current employees. The employee/former employee begins to attack or threaten a previous employee or current employee in the working environment. These acts can occur between employees or between management and their employees. This is the most common type of workplace violence. For example, this type of violence can be triggered from an employee getting fire and coming back angry and wanting to hurt the person who fired them (Bruce and Nowlin, 2011).

#### Personal Relationship

o Personal relationship workplace violence is also known as Type IV workplace violence. This type of violence can occur when the assailant does not have a direct relationship with the place of business but does have a relationship with an employee at the business and that employee is being targeted by the assailant. This type of violence can stem from a domestic dispute between a married couple that spills over from the home to a place of business. (Bruce and Nowlin, 2011). When looking at violence against women alone, Type IV workplace violence cost companies \$5.8 billion in 1995 (Lindquist et al., 2010)

#### Workplace Violence Predictors and Consequences

In 1999, the United States Postal Commission released a report stating: "that five percent of American workers were physically assaulted" (Bruce and Nowlin, 2011). This is a significant number, considering that in 2015 there were over 121-million full time workers and over 25-million part time workers in the United States alone. If the United States Postal Commission's number of five percent holds true, this means that over six-million full time workers and over one-million part time workers are physically assaulted (Bureau of Labor Statistics, 2016).

Workplace violence is an all-encompassing issue that reaches many different sectors of the labor force in a variety of ways (Dillon, 2010). Physical, financial, and emotional impacts of workplace violence can be extensive (Dillon, 2010). Many factors play a role in workplace violence, both internally, such as emotionally, and externally, such as financially. The primary causes and reasons that lead to workplace violence are:

- socioeconomic status,
- alcoholism and drug addiction,
- employees being fired,
- workplaces which have power-obsessed and stringent management,
- insecurity about keeping a job, and
- domestic issues (Bruce and Nowlin, 2011).

The greatest toll that workplace violence takes on a company is the cost associated with human resource attrition and problems as a result of aggressive behaviors while at work, such as harassment and bullying (Dillon, 2010). The problems that employees face when dealing with workplace violence and aggression include both mental and physical issues, such as:

- sleep deprivation,
- alcohol abuse,
- elevated blood pressure,
- depression,
- gastrointestinal problems,
- feelings of insecurity,
- uncontrollable crying,
- weight loss, and

• in extreme circumstances suicide (Dillon, 2010).

Stress, anxiety, and post-traumatic stress disorder are also possible repercussions of workplace violence (Bowman, Bhamjee, Eagle, and Crafford, 2009). In 2007, private industries in the United States experienced more than ten worker deaths per week on average as a result of workplace violence (Dillon, 2010). Employees may quit following an act of workplace violence, even if they were not directly involved in the incidence, out of fear of seeing the same thing happen again or if management did not have proper barriers to prevent the incident or a proper response to the incident (Bruce and Nowlin, 2011). These violent events, including harassment, physically violent acts, and bullying, have an impact on all of those involved in the act and those who witnessed the act (Dillon, 2010).

# Financial Impacts of Workplace Violence

Financially, employers can be greatly impacted when faced with workplace violence costs. In George Mount's article on workplace violence, he found that the estimated average cost of each severe incidence of workplace violence was \$250,000 (Mount, 2003). A workplace violence incident can cause an organization to close or shift hours due to possible investigation or policy changes following an act of violence which can lead to loss of both productivity and profit (Bruce and Nowlin, 2011). The Equal Employment Opportunity Commission found that in 1999 sexual harassment alone cost Fortune 500 companies \$6.7 million annually (Dillon, 2010). Workplace violence can be of particular concern to companies when it comes to litigation costs. Harassment in any form, bullying, physical assaults, and homicide can add up in cost and any negligent behavior on the part of the employer due to the lack of a safe work space can cost the company some serious money (Dillon, 2010). Bruce and Nowlin (2011) found a

Texas A & M University study that "estimated that each violent incident costs an employer an average of \$5 million in lost productivity and subsequent lawsuits." With financial losses this high, a company can go bankrupt quickly with a single incident of workplace violence, putting both employees and employers out of work. Bruce and Nowlin (2011) gave specific examples of awards received by workplace violence victims:

"\$5.2 million was awarded to a supervisor permanently disabled by a gunshot from a disgruntled fired employee, a \$5.49 million judgment was provided to a client after that employee fatally stabbed a worker at the client-company against a temporary employment agency that failed to screen adequately an employee, and \$4.25 million was the judgment against the United States Postal Service as a result of a shooting at a post office. The Workplace Violence Research Institute reported an average out-of-court settlement of \$500,000 and an average \$3 million jury award."

Aggressive behavior can be directed towards the company itself and can be a financial nightmare. Employees who are frustrated and furious can have a tendency to interfere with company goals on purpose. This can be done by reduction of quality and productivity, damage to equipment, and theft of goods owned by the company (Dillon, 2010). Studies have shown that stealing by employees is carried out by two-thirds of all workers at some time, and dissatisfied employees are much more likely to steal than happier employees (Dillon, 2010). A University of North Carolina study found that 53 percent of employees interviewed were targets for minor aggressive behavior. Of the 53 percent, 37 percent became less engaged in their job and 22 percent reduced their effort while at work (Dillon, 2010).

## Perpetrators of Workplace Violence

Workplace acts of violence can occur as a result of many different factors, which can include:

- Uncontrollable emotions
- Stressful job
- Negative affect
- Anger
- Managers who abuse their power
- Poor leadership (Dillon, 2010).

According to Dillon (2010) and contrary to popular belief, workplace acts of violence are rarely associated with mental illness. However, other research contradicts this belief and found that risk of violence increases when a person is diagnosed with a mental disorder, such as bipolar, or a personality disorder, such as borderline personality or antisocial personality disorder (Sharp, 2015).

Research on workplace violence found that there are certain correlations to violence. George Mount discovered that violent behavior tended to be gender specific and that men were ten times more likely to be physically violent than women (Mount, 2003). Two sets of ages were found to be more violent than others. These ages were between late teenage years and early twenties and, in healthcare settings, the ages that are most likely to act out violently were older than 66 (Sharp, 2015). There was a correlation with likelihood of violence and below-average intelligence as well. Individuals who are incapable of learning appropriate coping mechanisms and have poor conflict resolution skills are more likely to act out violently (Mount, 2003). Additionally, when a person feels insecure in their job, they are more at risk of acting out aggressively (Sharp, 2015).

If a business is laying off employees or downsizing the company, workers at the company may have increased level of fear and anxiety which can lead to a number of emotional and psychological issues and, eventually, lead a person to potentially snap and use violence instead of a higher level coping mechanism (Mount, 2003). The strongest indicator of a person being potentially violent is a past history of violence (Sharp, 2015). There are also behavioral cues that can indicate when a person may become violent. The mnemonic STAMP can be helpful when trying to recall what the behavioral cues are:

- Staring
  - Extreme eye contact
- Tone and volume of voice
  - Use of sarcasm, degrading tone, loud, scathing tone
- Anxiety
  - Quick speech, dilated pupils, hyperventilating
- Mumbling
  - o Slurring, repetitive questions, talking under their breath
- Pacing
  - o Restlessness, pacing (Sharp, 2015)

#### Workplace Violence Mitigation

When considering how to best mitigate risk of workplace violence, it is important to have a solid plan in place. The Risk Management Approach to workplace violence provides a three stage plan that should be considered:

• Pre-incident strategy

- Pre-incident/management strategy
- Post incident strategy (Bruce and Nowlin, 2011).

Workplace violence prevention begins in the pre-incident stage with a work environment that promotes a "zero tolerance" policy toward any violence (Bruce and Nowlin, 2011). If aggressive behaviors do occur, the individuals who are affected by the behavior or who witnessed the behavior should let management know immediately (Bruce and Nowlin, 2011). Employees who are victims of workplace violence are more likely to have had a prior experience with a verbal, as opposed to physical, aggressive act (Barling, Dupré, Kelloway, 2009). Suitable action should then be taken to rectify the problem, whether it be termination or some other form of discipline. This action would show as a reminder where the company's position is on violence and that they are committed to discouraging violent acts (Bruce and Nowlin, 2011).

Underreporting is a big problem in many work places and can be attributed to a lack of support from management (Parker, 2016). For example, there are an abundant number of nurses who believe that workplace violence is simply apart of the job, as aggressive patients attacking nurses in one of the most common occurrences of workplace violence within a clinical setting, such as nursing homes, emergency departments, and inpatient psychiatric facilities (Marinez, A. 2016). When employees see management reacting to violent behavior in a positive and action-filled manner, it serves as a reinforcement that they are safe to go to management with workplace violence claims. They should also be directly encouraged to let management know when there is an incident of workplace violence that they are aware of and open communication should also be encouraged. If management does receive a complaint about workplace violence occurring, the incident should be investigated quickly (Bruce and Nowlin, 2011). Others factors for

underreporting include the kind of injury sustained as a result of workplace violence, the time in which the violent act occurred, and the kind of workplace (Parker, 2016).

Further, the pre-incident plan must begin upon first meeting potential employees in order to mitigate potential violence in the workplace. Conducting histories and background checks, including criminal, driving, military, academic, and work, can give employers a glimpse into a potential employee's life that may help weed out possible instigators of workplace violence (Mount, 2003). In order to minimize workplace violence and/or bullying, educating the workforce must begin on day one at employee orientation in order to help mitigate potential problems from happening or to teach employees how to stop workplace violence or a bullying problem if they should arise (Longton, 2014). This can be accomplished by training on the red flags to look for when a situation begins to escalate and how to involve one's self in the beginning stage of angst or exasperation (Longton, 2014). Finally, installation of surveillance cameras, obtaining security personnel, utilizing electronic entry points, and screening at entrances and exits can also assist in the mitigation of potential violent outbursts (Bruce and Nowlin, 2011).

In order for a favorable working environment to come to fruition, actions must be taken. These actions include developing policies and standard operating procedures, communicating effectively, the training of employees, and continued improvement and evaluation of how the policies and procedures are being implemented (Dillon, 2010). If a violent or potentially violent situation arises, a call for assistance or quickly leaving the area can be a great tool to minimize risk of harm (Sharp, 2015). The training provided to the employees should include the following:

• Early warning sign detection of potentially violent people or situations

- The understanding of risk factors that give rise to violence
- Violence prevention strategies and how to diffuse violent situations
- Interpersonal communication skills
- Techniques about conflict resolution
- Hostage survival skills (Bruce and Nowlin, 2011).

Employees and management must treat one another with respect in order for a culture of positivity to develop. The recognition of hard work is important to maintaining a positive workspace. Finally, quick and effective conflict resolution is key to a sustainable enthusiastic workplace culture (Dillon, 2010). The mnemonic LEAP is helpful when attempting to deescalate a potentially violent situation. LEAP stands for:

- Listen
- Empathize
- Agree
- Partner (Sharp, 2015).

The Risk Management Approach can yield positive outcomes for a company's workplace violence program. In addition to risk mitigation, the Risk Management Approach can also lessen the financial burden associated with violence in workplace. For example, the four primary reasons that judges and/or juries awarded a large amount of money to a plaintiff in a workplace violence lawsuit are:

- Not properly screening an employee and making the uneducated decision to hire a
  person with a violent history and/or a history of criminal activity
- Failing to remove an employee once knowledge comes to light of a violent or criminal history

- Not providing any type of monitoring to provide assurance that employees are performing their job duties correctly
- Lack of security or surveillance (Bruce and Nowlin, 2011).

Nurses have a high rate of Type Two (Customer/client) workplace violence incidences (Martinez, 2016). With this in mind, in 2015, Dilman described a workplace violence prevention program that utilizes the code green response team (Dilman, 2015). The code green response team is a prevention program that was used at a Pennsylvania hospital in 2013. Primarily, the code green response team is to use de-escalation verbal skills and they utilize medications in order to restrict and limit violent or accelerating situations (Dilman, 2015). The code green response team uses a group approach, as is made evident with the name of the program. The team at this particular hospital is made up of a charge nurse, security officers, and the doctor or nurse who is handling the escalating situation (Martinez, 2016). The use of a code green response team was very successful in resolving 85 percent of violent scenarios by using deescalating verbal responses and medications (Dilman, 2015). The implementation of code green response team yielded a result of a reduced use of restraining systems for the patients.

Interventions have been implemented within healthcare settings that have produced positive results. Hill, Lind, Tucker, Nelly and Daraiseh (2015) found that implementing a set of universal precautions. The universal precautions were posted visibly within the unit that Hill et al. was observing (2015). The unit that was observed was a psychiatric hospital that treated young children and adolescents who suffer from cognitive disabilities and mental disorders (Hill et al., 2015). The universal precautions that were posted included:

"Be aware that patients have the potential to strike-out; wear appropriate clothing; rearrange environments in the setting to minimize the risk of injury with objects during

crisis; maintain appropriate positioning when approaching patients; keep a safe distance; sustain the proper stance (i.e. show one third of the body when working with patients); use protective personal equipment, such as gloves and forearm and knee pads; and learn and use de-escalation techniques and active listening" (Martinez, 2016).

The Plan, Do, Study, Act method also utilized group discussions to bring awareness to patients who may have a higher risk for behaving violently and create a plan for how to handle these patients; fully disclosing information about patients behaviors and moods from the outgoing shift to the incoming shift (Martinez, 2016). The implementation of the Plan, Do, Study, Act method yielded a result of staff members having 65 percent fewer injuries, beginning at 2.2 injuries per week and lessening to 0.77 injuries per week over a one year intervention study. The study found that before the intervention was implemented, there was an OSHA-recordable injury every 26.5 days and after the intervention was implemented, there was an OSHA-recordable injury every 124 days (Hill et al., 2015).

For Type One (Criminal Intent) workplace violence a three-year study was conducted at several different high risk, low risk, and medium risk-for-crime workplaces. The model utilized was the Crime Prevention Through Environmental Design (Casteel et al., 2008) The program was security based and included:

"keeping a minimum amount of cash in the register (eg, reducing available cash to fifty dollars for businesses with lower customer volumes, keeping a drop safe in the cash counter area), maintaining good visibility into and outside of the business (eg, removing signs, merchandise displays and advertisements that obstruct views), maintaining good interior and exterior lighting (eg, balancing lighting so people can see in and employees can see out), controlling access into and within the business (eg, locking noncustomer entrances,

minimizing escape routes), training employees in crime control and injury prevention (eg, knowing what to do to prevent robbery by maintaining the physical environment, and if a robbery occurs, complying with robber demands to reduce the likelihood of injury), and posting security decals that indicate low cash availability and no employee access to safe" (Casteel et al., 2008).

The implementation of the Crime Prevention Through Environmental Design program showed a median result of 45 percent less robberies occurring at the particular business.

# **Methods**

The purpose of this study was to describe and explore workplace violence incidents and describe their contents utilizing the United States Occupational Safety and Health Administration's Integrated Management Information System (IMIS) database in order to investigate the adequacy of the OSHA IMIS database to provide sufficient information in support of developing workplace violence prevention programs. OSHA is responsible for inspecting and describing catastrophic and fatal acts of workplace violence. Inspection data was reviewed and analyzed for the purpose of this study.

# Compilation of the research database

The United States Occupational Safety and Health Administration is responsible for conducting inspections after fatalities or catastrophes occur at a workplace. OSHA defines a catastrophe as "an incident that resulted in the overnight hospitalization for treatment of three or more employees." These inspections are what lead to the development of a Fatality and Catastrophe Investigation Summary known as an OSHA 170 form. For the purpose of this research, publicly available data collected from the OSHA website, http://www.osha.gov, was utilized. From there, Data & Statistics was selected at the top of the page on the OSHA website and from that menu, "Data and Statistics" was chosen, which provides inspection data. This page can be found at http://www.osha.gov/oshstats/index.html. This page shows "Inspection Data" and under inspection data, "Fatality and Catastrophe Investigation Search" was selected. Inspection and summary details are used to provide descriptions of incidences and can be found at https://www.osha.gove/pls/imis/accidentsearch.html. This website was accessed for data collection between March 1, 2016 and July 25, 2016. A keyword search for "workplace

violence" was performed with the intention of building a database of fatalities and catastrophic injuries that occurred at a workplace as a result of workplace violence. The scope of this research was limited to the first fifty fatalities and the first fifty catastrophic injuries/non-fatalities identified from the OSHA 170 form (IMIS report). These hundred reported incidences comprise the research database.

It should be noted that the Fatality and Catastrophe Investigation search included dates ranging from July 12, 2009 to November 4, 2013 for the fifty workplace violence-related fatality data, and the dates September 19, 1997 to April 19, 2013 for the workplace violence-related injury/non-fatality data. This discrepancy in the amount of reported workplace violence-related fatalities and injuries over a period of time suggests that perhaps that there are not many catastrophic events (i.e. three or more employees being hospitalized after a workplace violence incident) that occur as a result of workplace violence. It would be beneficial to know the amount of non-fatal incidents that occur as a result of workplace violence when dealing with less than three employees for the purpose of establishing a workplace violence program.

The data collected were analyzed by sorting the incidents into the following five groups with subgroups:

### • Time descriptor

- The date the event occurred
- The month the fatality or injury/non-fatality took place
- Season in which the event occurred
- Day of the week the event occurred
- Whether or not the event occurred during a full moon (with a plus or minus two days window)

# • OSHA administrative response

- The date that OSHA inspected the incident
- o The number of days it took for OSHA to inspect the event
- o The state the incident occurred
- o Fines accrued by the business from OSHA as a result of the incident
- Standards OSHA cited when citations were distributed

#### Workplace Characteristic

- The Standard Industrial Classification Code
- Whether it was a union workplace or not
- o Type of workplace the incident occurred at

#### Nature of Violence

- o Nature of the injury or fatality (i.e., stabbing, shooting, amputation, etc.)
- o Type of Workplace Violence (I, II, III, IV)

#### • Gender of the victim

The Standard Industrial Classification codes are a system for classifying industries using a four digit system to classify the industry. The Standard Industrial Classification codes were broken down to look at the first two numbers of the codes, or their major groups, for generalization purposes. However, this created multiple categories and it was difficult to draw any conclusions. Therefore, the Standard Industrial Classification codes were then further broken down to look at the Divisions in order to get a more generalized picture of where workplace violence is more likely to occur. This allowed an opportunity for better analysis of the data. The Standard Industrial Classification codes were found on the OSHA website at the following address: https://www.osha.gov/pls/imis/sic\_manual.html.

# Means of Data Analysis

In order to view and analyze the data in a meaningful way, the data that was collected was inputted into the Statistical Package for the Social Sciences, SPSS. Data was then compared using chi-square tests of independence and independent t-tests when appropriate.

Additionally, means were explored and analyzed for the purpose of analyzing the data.

Excel and SPSS were also used to explore and describe the data that was collected. Graphs and charts were created for a more comprehensive look at the data.

Data was also collected by performing internet searches when the data was not included in the OSHA description. Specifically, the gender and workplace violence type were not always within the OSHA description and outside news sources were utilized in the collection of this data. Not all data was found through the use of search engines, which has led to missing gender and workplace violence type data points within the database.

Other data was collected as well to gather a more comprehensive look at workplace violence incidences. The day of the week that the incident occurred was obtained by looking at a calendar using a search engine. This method of using search engines was also utilized to determine the season in which the incidences occurred. Additionally, search engines were used to see whether or not the incident fell on the day of a full moon. The full moon data was to the plus or minus two days.

# **Results**

# Location of Incidents

The frequency of fatalities and catastrophes are graphed by state in Figure 5 (fatalities) and Figure 6 (injuries/non-fatal incidents) (shown below). Only eighteen of the fifty states are represented in the workplace violence-related fatalities graph and eight states are represented in the workplace violence-related injuries and non-fatal incidents graph. This could be due to underreporting in some states or a misclassification of an incident. Workplace violence does not always occur at a place of business. It can occur while on the way to work or running an errand for the company. Understanding the parameters of workplace violence better could yield more data for the IMIS database. The State of Washington represents the location where twenty percent of workplace violence-related fatalities occurred and were documented by OSHA in the United States between July 12, 2009 and November 4, 2013. California represents the state where 76 percent of all workplace violence-related non-fatal incidents and injuries occurred and were documented by OSHA between September 19, 1997 and April 19, 2013.

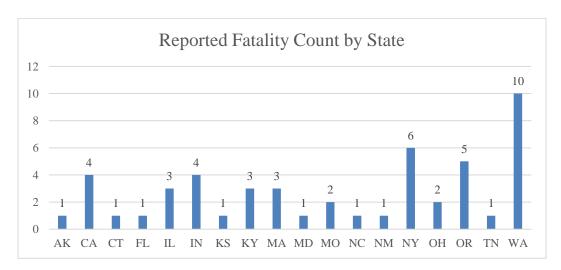


Figure 5: Fatalities reported by state between July 12, 2009 and November 4, 2013.

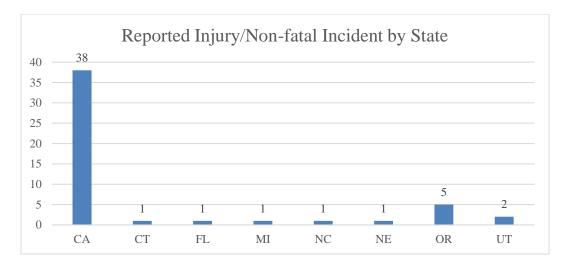


Figure 6: Catastrophic Injuries/Non-fatalities reported by state between September 19, 1997 and April 19, 2013.

Interestingly, the state of California accounted for 42 out of the 100 OSHA inspections observed. The state of Washington was responsible for another ten. This shows that 52 percent of all the data collected came from two out of the fifty states represented in the United States. This suggests that Washington state and California have implemented procedures that encourage more reporting of workplace violence and these procedures have been successful. Based on the review of literature, California has the most comprehensive workplace violence program in America. Table 2, below, shows this information.

Table 2: This shows whether California was represented in a data point or not.

	• 6	•		TAT 4
Ca	เารก	rnia	$\mathbf{or}$	Not

				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	California	42	41.6	42.0	42.0
	Other State	48	47.5	48.0	90.0
	Washington	10	9.9	10.0	100.0
	Total	100	99.0	100.0	
Missing	System	1	1.0		
Total		101	100.0		

OSHA Administrative Procedures: Elapsed Time between Incident and OSHA Inspection

As observed in Figure 7 and Figure 8, below, OSHA inspectors inspected fatal workplace violence-related incidences anywhere from the day the incident occurred to 36 days after the incident occurred, and the OSHA inspectors inspected non-fatal workplace violence-related incidences anywhere from the day the incident occurred to 101 days after the incident occurred. The mean amount of days for an OSHA inspection to occur following a fatal workplace violence-related incident was 3.96 days, and the mean amount of days for an OSHA inspection to occur following a catastrophic non-fatal workplace violence-related incident was 19.76 days. This suggests that OSHA places a higher priority in regards to fatal workplace violence incident.

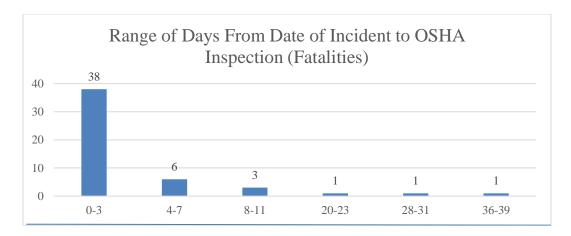


Figure 7: Days it took OSHA to inspect a workplace violence-related fatal incident.

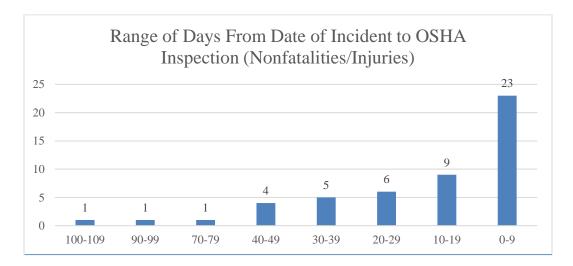


Figure 8: Days it took OSHA to inspect a workplace violence-related non-fatal incident/injury.

The elapsed time between the incident occurring and the OSHA was compared to the type of workplace violence committed, shown in Table 3, below. Type One (Criminal Intent) events required a mean OSHA inspection duration of 9.6 days with 22 incidences reported. Type Two (Client/Customer) workplace violence required a mean OSHA inspection duration of 16.7 day with 37 incidents reported. Type Three (Employee on Employee) workplace violence required a mean OSHA inspection duration of 6.3 days with 22 incidences. Type Four (Relational) workplace violence required a mean OSHA inspection duration of 1.2 days with 5

#### incidences.

Table 3: Elapsed Time between the incident and the OSHA Inspection (both fatalities and non-fatalities) compared with Type of workplace violence.

Time To Inspect by Type

Type of Violence	Elapsed Time before Inspection (Mean)	N	Std. Deviation
Type 1	9.6364	22	11.44155
Type 2	16.6486	37	20.14974
Type 3	6.3182	22	11.40337
Type 4	1.4000	5	2.07364
Total	11.3256	86	16.18601

When looking solely at fatalities and the elapsed time between the incident and the OSHA investigation, the numbers were much lowered when comparing the fatalities and non-fatalities group, as seen in Table 4, below. When dealing with Type One (Criminal Intent) fatalities, OSHA took an average of 5.3 days to show up and inspect an incident. There were twelve total incidences reported that fell into the Type One fatalities category. OSHA inspected Type Two (Customer/Client) fatalities an average of 5.7 days after the incident occurred with 10 incidences reported. OSHA inspected Type Three (Employee on Employee) fatalities an average of 3.1 days after an incident occurred with 14 incidences reported. Type Four (Relational) fatalities remained the same at 1.2 days with five incidents.

Table 4: Elapsed Time OSHA took to inspect an incident (fatalities only) compared with Type of workplace violence.

Elapsed Time For OSHA To Inspect (fatalities only) by Type

omy) by Ty	r ·		
Type of Violence	Mean Elapsed Time before Inspection	N	Std. Deviation
Type 1	5.3333	12	6.21338
Type 2	5.7000	10	10.89393
Type 3	3.1429	14	8.06566
Type 4	1.4000	5	2.07364
Total	4.1951	41	7.82374

When comparing the elapsed time between incident and OSHA inspection and the gender of the victim, the data showed that the mean time for a male victim was 13.1 days with the number of incidences at 50 and the mean time for a female victim was 9.9 days with the number of incidences at 26.

# Nature of Violent Incidents

Figure 9, shown below, shows the different causes of workplace violence-related fatalities. Sixty-eight percent of the workplace violence-related fatalities reviewed occurred because the perpetrator shot the victim with a gun.

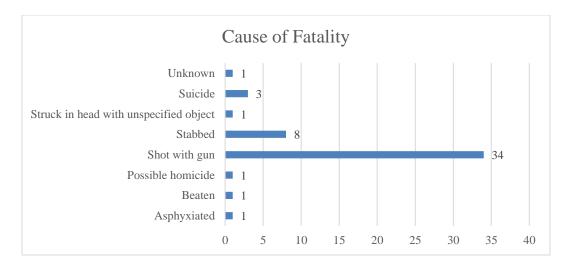


Figure 9: Causes of workplace violence-related fatalities.

Figure 10, shown below, shows the different injuries that resulted from workplace violence-related non-fatalities and injuries.

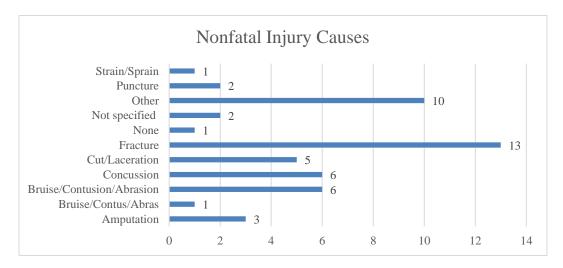


Figure 10: Causes of workplace violence-related non-fatalities and injuries.

#### Gender

Using SPSS, it was found that the relationship between gender and workplace violence type was significant (p=0.001 using chi-squared), specifically when looking at females being victimized by Type Four, or Relational, workplace violence. The expected count was 1.6

females and the actual count was five. However, since the expected count is below five, this does violate the assumptions of the test. It is also noteworthy that men did not experience any instances of Relational (Type Four) workplace violence. This is significant because women are more at risk to be in a dangerous situation at the hands of someone they know. Businesses should take this seriously and provide training to look for signs of abusive relationships and learn how to protect their employees from harm. Table 5, below, shows the cross tabulation of gender by workplace violence category. It should be noted that the gender of the victim could not always be found. When data was lacking from the OSHA report, search engines were used to fill in missing data, however, the search engines did not always produce answers or results that were needed to complete a comprehensive look at the data. This is the reason there are only 67 total data points instead of 100.

Table 5: Gender of the victim compared with the type of workplace violence.

Gender By Type Cross Tabulation

_		Gender By	VI:				
				Type of Violence			
			Type 1	Type 2	Type 3	Type 4	Total
Gender	Male	Count	12	19	14	0	45
		Expected Count	9.4	21.5	10.7	3.4	45.0
	Female	Count	2	13	2	5	22
		Expected Count	4.6	10.5	5.3	1.6 p=0.001*	22.0
Total		Count	14	32	16	5	67
		Expected Count	14.0	32.0	16.0	5.0	67.0

When looking at the relationship between gender and whether a person is more likely to be killed at work or receive a non-fatal injury, there was no relationship found. Males and females have an equal likelihood of being killed in a workplace violence incident.

# Work Place Classification

The Standard Industrial Classification codes were first observed by looking at their Industry Group, which is the four-digit code that OSHA records on their reports. In looking that data points this specifically, it was difficult to compare the data with each other as there were 29 groups represented in the data. It is noteworthy that out of the 100 data points (both fatality and non-fatality), Health Services represented 18 and Justice, Public Order, and Safety represented eleven. The Industry Group Food Stores and the Industry Group Eating and Drinking places represented 9 and 6 data points, respectively. This means that four out of 29 groups represented 44 of the incidents that OSHA recorded and that were observed for the purpose of this study.

Standard Industrial Classification codes were further broken down for a more generalized view of the groups, specifically looking at the Major Groups, and were compared to workplace violence types and although there were not any significant findings, there were some noteworthy findings. The groups "Health Services" and "Justice, Public Order, and Safety" were responsible for 23 out of the 37 incidents of Type Two (Customer/client) workplace violence. This is 62 percent of those instances. It is also noteworthy that "Food Stores" had eight out of 22 instances (or 36.4 percent) of Type One (Criminal Intent) workplace violence.

When the Standard Industrial Classification codes were further broken down to their Division for a more generalized view of both fatalities and non-fatalities, there were not any significant findings, but, again, there were noteworthy findings. Division G: Retail Trade, Division I: Services, and Division J: Public Administration had 71 out of 86 incidences recorded in their groups. This shows that 82.5 percent of all workplace violence incidences recorded by

OSHA were in three out of ten groups. While looking at this comparison, it should be noted that 37 incidences were Type Two (Client/Customer) workplace violence and 34 out of 37, or 91.9 percent, of these incidences occurred in Division I: Services and Division J: Public Administration. Type Four (Relational) workplace violence only accounted for five of 86 incidences, however, of those five, four were within Division I: Services. Division H: Finances, Insurance, and Real Estate had zero incidences found.

#### Time Factors of Incidents

The days of the week were taken into account and observed to see whether there was a higher rate of incidences occurring on a particular day for both fatalities and non-fatalities. It was noted that Tuesday, Wednesday, and Thursday accounted for 59 out of one hundred incidences, where Tuesday had the greatest number of incidences occurring at 21. The gender of the victim was also taken into account and compared with the day of the week an incident, either fatal or non-fatal, occurred on and there was no significant finding, although men were most likely to be faced with a workplace violence act on a Tuesday with a count of eleven and woman were most likely to be faced with a workplace violence act on a Wednesday with a count of seven, as shown in Table 6. When a fatality was involved, however, people were most likely to be killed due to workplace violence on a Tuesday with a count of 12, as seen in Table 7.

Table 6: Days of the Week Compared to Gender (fatalities and non-fatalities).

**Day of Week Compared with Gender** 

	Day of v	week Compared with	Gender		
			Ge	nder	
			Male	Female	Total
Day of Week	Monday	Count	6	3	9
		Expected Count	5.9	3.1	9.0
	Tuesday	Count	11	4	15
		Expected Count	9.9	5.1	15.0
	Wednesday	Count	6	7	13
		Expected Count	8.6	4.4	13.0
	Thursday	Count	9	6	15
		Expected Count	9.9	5.1	15.0
	Friday	Count	4	1	5
		Expected Count	3.3	1.7	5.0
	Saturday	Count	7	3	10
		Expected Count	6.6	3.4	10.0
	Sunday	Count	7	2	9
		Expected Count	5.9	3.1	9.0
Total		Count	50	26	76
		Expected Count	50.0	26.0	76.0

Table 7: Days of the Week compared with Fatality.

**Day of Week Compared with Fatality** 

			Fatality		
			No	Yes	Total
Day of Week	Monday	Count	6	4	10
		Expected Count	5.0	5.0	10.0
	Tuesday	Count	9	12	21
		Expected Count	10.5	10.5	21.0
	Wednesday	Count	11	9	20
		Expected Count	10.0	10.0	20.0
	Thursday	Count	9	9	18

	•	Expected Count	9.0	9.0	18.0
	Friday	Count	5	1	6
		Expected Count	3.0	3.0	6.0
	Saturday	Count	6	6	12
		Expected Count	6.0	6.0	12.0
	Sunday	Count	4	9	13
		Expected Count	6.5	6.5	13.0
Total		Count	50	50	100
		Expected Count	50.0	50.0	100.0

Fines accrued in workplace violence scenarios were very sporadic. Only 31 of the OSHA 100 recorded incidents, both fatalities and non-fatalities, had a fine associated with the incident. The fines were compared to the type of workplace violence and the findings are shown in the Table 8, below. Type Two (Client/Customer) workplace violence has a much higher Initial Penalty mean than any other type at \$8,339.33. This type also has a higher rate of penalization at 15 times. Type Four (Relational) workplace violence was never initially penalized. Although Type One (Criminal Intent) workplace violence was penalized 10 times, the mean penalization is significantly lower than Type Two at \$1,206.00. Type Three (Employee on Employee) workplace violence has a fairly low rate of penalization but a higher mean than Type One workplace violence at \$2,700.00.

Table 8: Initial Penalty Accrued compared to Type of workplace violence.

**Initial Penalty Amounts** 

Type of Violence	Mean	N	Std. Deviation
Type 1	\$1206.00	10	\$1497.19
Type 2	\$8339.33	15	\$10208.0
Type 3	\$2700.00	4	\$3037.26
Type 4	\$0.00	2	\$0.000
Total	\$4772.58	31	\$7931.95

Seasons were analyzed and compared with the types of workplace violence. The data showed that the seasons were fairly evenly distributed and the findings were not significant. Winter had 21 incidences; Spring had 20 incidences; Summer had 18 incidences; and Fall had 27 incidences. A Type One (Criminal Intent) workplace violence crime was most likely to occur in either Summer or Fall with a count of seven; a Type Two (Customer/Client) workplace violence crime was most likely to occur in Fall with a count of 13; a Type Three (Employee on Employee) workplace violence crime was most likely to occur in Winter with a count of seven; and a Type Four (Relational) workplace violence crime was most likely to occur in either Spring or Fall with a count of two.

A number of the OSHA inspections were lacking in information and, when this was the case, outside sources were needed in order to gain a comprehensive look at the data. News articles were used in order to complete the data. Out of 100 data points collected, 50 were incomplete and needed more information.

Whether or not an incident fell on a full moon (plus or minus two days) was observed and there was nothing significant about this relationship. The observation of a full moon on or around an instance of workplace violence and the gender of a victim was also analyzed and found to be insignificant. Finally, a full moon and the type of workplace violence were analyzed and nothing was significant in this relationship.

# **Conclusions & Recommendations**

Workplace violence is a very broad topic with many different variables to consider. A robust investigation should involve many variables, but unfortunately much of the data of interest is not readily extracted from the IMIS database and general website. The review of 100 OSHA event descriptions found in the OSHA 170 form for workplace violence incidents identified many inconsistencies and missing data within these reports. This makes describing the data fully and drawing conclusions very difficult. The OSHA inspectors who have investigated and written event descriptions for workplace violence incidents should consider a more uniform approach and consider collecting additional variables when conducting investigations. Examples of the variables that were missing were the gender of the victim and the time of day the incident occurred. Additional variables that should be part of the event descriptions include the type of workplace violence that occurred (i.e. type one, two, three, four). If the data is collected thoroughly and properly with greater detail, then it could assist in truly understanding the extent and magnitude of the problem. Understanding the problem better would then aid in the development of standards, guidelines, and the creation of more comprehensive workplace violence prevention programs. However, there is not a one-size-fits-all workplace violence program because there are four categories of workplace violence and it was found that these four categories were inconsistently described in the IMIS reports: Type One (criminal intent), Type Two (customer/client), Type Three (employee-on-employee), and Type Four (personal relations). Appendix One shows an example of a workplace violence prevention program that is tailored for a Type One event. This would not be a very effective tool to prevent Type Two, Three, or Four crimes. If the OSHA inspectors were more specific with their incident investigations, then the process of distinguishing which type is most commonly committed,

which gender is most commonly a victim, etc. then there could be specific programs created to help combat the issues.

There were limitations in conducting this research. The limitations centered on the aforementioned OSHA event descriptions being inconsistent in their descriptions within each individual incident report. Some incident reports were very thorough and detailed, while a large majority of them were not. The incident reports that contained little information seemed rushed and incomplete. Table 9, below, are two examples of incident descriptions that OSHA has on their fatalities and catastrophes website. The first example is a very clear and descriptive incident description and the second example is lacking in information and leaves much to be desired as far as information is concerned (i.e. it does not mention the gender of the victim, the time of day, or what type of workplace violence occurred).

Table 9: Examples of OSHA's incident descriptions.

Detailed Incident Report	At approximately 8:00 a.m. on September 29, 2013,
Summary:	Employee # 1, a 31-year-old female with FB
	Hospitality LLC., was shot in the head during a
	robbery while working at the reception desk.
	Emergency Medical Services was summoned and
	Employee # 1 was taken to a local hospital, where
	she was pronounced dead on Monday, September
	30, 2013.
Incomplete Incident Report	On September 24, 2009, an employee was fatally
Summary:	shot by a man outside a barn. The man then shot
	him.

A recommendation for OSHA would be to have four different kinds of incident report sheets for workplace violence that the OSHA inspectors can utilize for the four kinds of workplace violence that have been described in the report. There should be specific incident description guidelines for every type of workplace violence crime committed (Type One, Two, Three, and Four). The standard information should include the victim's gender, the way in which the victim was killed or injured (i.e. stabbed, shot, cut, punched, etc.), the time of day the incident occurred, and where the incident took place (i.e. in a hospital room, in the parking lot, etc.). This would be helpful in evaluating workplace violence and in the creation of workplace violence prevention programs. Without this information, questions such as those shown below become very difficult to answer:

- who is most likely affected by workplace violence,
- when is a workplace violence scenario likely to occur,
- what type of workplace violence is likely to occur in a particular setting?

Having these questions answered can give valuable information to a company trying to keep their employees safe. If the questions are answered, workplace violence can be better understood and, therefore, better controlled.

If OSHA inspectors are unable to provide more detailed summaries of incidences within their standardized reports, then, in the future, news articles, search engines, and alternate sources ought to be used instead of OSHA incident reports in order to have a deeper and richer qualitative analysis. It was found that news articles and news sources provided a much more comprehensive view of the workplace violence incidents than OSHA reported and filled in many holes which OSHA inspectors left out of their reports. For example, Table 10 shows the difference in the OSHA incident description and what was found using a search engine to fill in

the questions that OSHA left unanswered. Although it did provide the gender of the victim (male) and the cause of death (stabbing), the OSHA incident description does not provide the time that the event occurred nor does it make clear the type of workplace violence that was committed. Through the news article, the time that the event occurred is provided and it is learned that the incident involved a robbery, which is a Type One workplace violence crime. Foregoing the use of the OSHA fatalities and catastrophes website and using search engines and news sources instead may lead to better information to base conclusions on.

Table 10: Comparison of OSHA Incident Descriptions and News Articles of the Event.

OSHA Incident Description	On September 1, 2010, Employee #1, a pizza
	delivery man, was lured to an abandoned
	house after being given a false address for
	delivery. He was stabbed and killed
News Article of The Event	Police are looking for three suspects who are
	accused of killing a Domino's pizza delivery
	driver in Boston's Hyde Park neighborhood
	Wednesday night.
	According to authorities, the unidentified
	driver was stabbed to death inside a vacant
	home shortly before midnight.
	The suspects, described as two black men and
	one black woman, fled the scene in the
	delivery driver's car, which was found around
	8:30 a.m. on Thursday.
	Police say it was found parked in a church
	parking lot a few miles away from the crime
	scene.
	"What we do know is an innocent individual
	who was doing his job who, for a couple of
	dollars, suffered a heinous assault," Boston

Police Supt. Dan Linskey told CBS affiliate
WBZ. "His life was taken away tragically."
The victim is only being described as a man in
his 50s. Police believe the victim did not
know the suspects and that the primary motive
of the stabbing was robbery.

The fact that only eighteen out of fifty states were represented for fatalities and only eight states were represented for non-fatalities and injuries leads to the conclusion that there is a high degree of underreporting occurring. However, such information, similar to near miss data, is not currently reported to OSHA. Such information would be helpful in the development of a more robust workplace violence program and in the mitigation of workplace violence. This also concludes that perhaps certain states do not encourage their employees to speak up when instances of workplace violence occur. Some careers may not report because they assume it is just part of their job to suffer from some instances of workplace violence, such as nursing or police officers.

A more comprehensive view of workplace violence could be ascertained if more people reported and were encouraged to report their encounters with workplace violence. If a more comprehensive view was gathered, then workplace violence programs could be more easily created in order to keep people safe while at work. California, for example, accounted for 42 out of 100 of all OSHA descriptions. This is because California has a comprehensive workplace violence program and encourages its employees to speak up when they face instances of workplace violence. California offers a free consultative assistance program for employers in which they offer:

"assistance in developing workplace security hazard assessment, assault investigation and hazard correction procedures for inclusion into their existing IIP Program, or need help in providing workplace security training to their employees"

Although not perfect, if more states followed California's lead of addressing workplace violence and attempting to give employers some guidelines as to how to control workplace violence, workplace violence could be better understood and, therefore, better controlled. The scope of the California workplace violence program, which was found at http://www.dir.ca.gov/dosh/dosh\_publications/worksecurity.html, is as follows:

"The scope of the workplace violence problem can be defined in a number of different ways depending on the nature of the injury. One important distinction involves those workplace assaults which result in fatal injury and those which result in non-fatal injury. The scope of the workplace violence problem also includes the threat of injury, i.e., an expression of an intention to do physical harm."

California's workplace violence program has done a thorough job in describing Types One (Criminal Intent), Two (Customer/Client), and Three (Employee/Employee) workplace violence and pointing out the highest risk occupations (taxicab drivers, self-employed, liquor stores, and women) and the scenarios that put an employee at higher risk (working with money, working alone, working with volatile patients), however, California has notably neglected to include Type Four (Personal Relations) workplace violence in its scope altogether. An example of a guideline California has issued to mitigate Type One, Two, or Three workplace violence crime is:

"A system for ensuring that employees comply with safe and healthy work practices, including ensuring that all employees, including supervisors and managers, comply with

work practices designed to make the workplace more secure and do not engage in threats or physical actions which create a security hazard to other employees, supervisors or managers in the workplace, ------ 3203(a)(2)." (found at http://www.dir.ca.gov/dosh/dosh\_publications/worksecurity.html)

California has also prescribed to its OSHA officers exactly what questions to answers when they are conducting an inspection. There are six questions that shall be answered, according to California state law (found at http://www.dir.ca.gov/dosh/dosh\_publications/worksecurity.html). This takes the guessing game out of the inspection process. California makes it very clear what is expected out of their OSHA compliance officers. If this was done in every state, the information could be utilized to gain a better picture of workplace violence. The questions that should be answered while conducting an inspection according to the state of California are shown below.

- Is the inspected establishment one which is considered to be at significant risk of a Type
   I, II or III workplace violence event?
- 2. What are the physical characteristics and the work practices of the establishment that affect the security of the employees who work in the establishment?
- 3. Have assaults occurred in the establishment in the past? If so, how often have these assaults occurred and what was their severity?
- 4. What measures were taken by the employer to investigate the cause(s) of assault(s) and what corrective measures were taken by the employer to prevent other assaults?
- 5. What, if any, are the specific workplace security issues the employer's IIP Program should address?

6. If the employer is required to address workplace security issues through the IIP Program, how effective is the employer's IIP Program in identifying and correcting workplace security hazards and in investigating workplace assaults? Does the IIP Program result in effective communication, hazard assessment, hazard correction and supervisory and employee training. (found at

http://www.dir.ca.gov/dosh/dosh\_publications/worksecurity.html)

OSHA inspected fatalities with much more urgency than they inspected injuries and nonfatalities. Forty-four out of the fifty workplace violence fatalities that were analyzed were inspected by OSHA within seven days of the fatality occurring, or 88 percent. Twenty-three out of fifty workplace violence nonfatalities and injuries were inspected within nine days of the incident occurring, only 46 percent. This leads to the conclusion that OSHA takes workplace violence fatalities much more seriously and there is not as much of a sense of urgency when it comes to workplace violence nonfatalities and injuries.

A person being shot with a gun was the number one cause of workplace violence fatalities among the 100 incidents investigated. This accounted for sixty-eight percent of all workplace violence fatalities included in this research. Security measures should be implemented in high-risk occupations, such as bulletproof screens protecting the employees or providing security officers to protect the employees. These high-risk occupations include taxi drivers and late-night convenience store workers.

The gender of a workplace violence victim was not found to be statistically significant in the overall data. One area where there was statistical significance was when looking at women being victimized in the category of Type Four (personal relations) workplace violence. The

expected count was 1.6 and the actual count was five. This shows that women are victimized in Type Four workplace violence incidents at a statistically significant rate and employers should address this and have a plan in place. It is recommended that employers should provide workplace violence training to their employees. The training should include abusive relationship indicators so that these signs can be detected before a major catastrophe occurs.

The two groups most affected by workplace violence are Health Services and Justice,
Public Order, and Safety. These groups should be focused on and plans and procedures put into
place to keep these groups safe. The Plan, Do, Study, Act and the code green response team
methods mentioned in the literature review could be utilized in the Health Services and Justice,
Public Order, and Safety groups in order to help mitigate potentially violent episodes from
occurring in the workplace.

Workplace violence is a serious issue that countless employers and employees must deal with every day. There must be programs set in place, such as the one California has implemented and is having so much success with, in order to bring awareness to employees and employers about how to handle workplace violence and to teach them what to do in situations that could otherwise be harmful to them. OSHA must do a better job in describing the scenarios that they encounter in order to set up policies and procedures that are more comprehensive, which could be beneficial to the next company that may face workplace violence in setting up a workplace violence program. OSHA can provide its inspectors with a more comprehensive guide to follow when inspecting workplace violence incidents. This could include more specific questions that they should answer every time an event occurs.

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# **Appendix 1:** Example of a Workplace Violence Prevention Program



# Safety Standards for **Late-Night Retail Worker Crime Prevention**

Chapter 296-832 WAC

July 2014 Edition



Division of Occupational Safety and Health





1-800-423-7233

F414-112-000

# Chapter 296-832 WAC Late-Night Retail Worker Crime Prevention (Form Number 414-112-000)

#### LAST UPDATED 07/01/2014

This book contains rules for Safety Standards for late night retail worker crime prevention, as adopted under the Washington Industrial Safety and Health Act of 1973 (Chapter 49.17 RCW).

DATE: The new issue date of this book is July 2014. A brief promulgation history, set within brackets at the end of each section, gives statutory authority, administrative order of promulgation, and date of adoption of filing.

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- WISHA Interim Operations and Interpretive Memoranda (WIIM)
- Memoranda of Understanding (MOU)

# Chapter 296-832 WAC SAFETY STANDARDS FOR LATE-NIGHT RETAIL WORKER **CRIME PREVENTION**

# LAST UPDATED 07/01/2014

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# WAC 296-832-100 Scope.

This rule applies to all retail businesses operating between the hours of 11:00 p.m. and 6:00 a.m.

#### EXEMPTION:

This chapter does not apply to restaurants, hotels, taverns, and lodging facilities.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.060. 14-09-095 (Order 13-10) § 296-832-100, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .060. 02-16-087 (Order 02-01), § 296-832-100, filed 08/07/02, effective 10/01/02.]

# WAC 296-832-200 Training.

#### Summary

Your responsibility: To make sure all employees receive crime prevention training as part of your accident prevention program.

You must meet the requirements	in this section:
Provide crime prevention training to your employees	WAC 296-832-20005
Provide crime prevention retraining to your employees annually	WAC 296-832-20010

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.060. 14-09-095 (Order 13-10) § 296-832-200, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .060. 02-16-087 (Order 02-01), § 296-832-200, filed 08/07/02, effective 10/01/02.]

#### WAC 296-832-20005 Provide crime prevention training to your employees.

Note: These training requirements apply only to employees working any time during the hours of 11:00 p.m. to 6:00 a.m. This training must be conducted prior to the employee working this time period.

- (1) You must provide crime prevention training as part of your accident prevention program. Make sure you have instructed your employees on the purpose and function of robbery and violence prevention to provide them with the knowledge and skills required to maintain their personal safety.
- (2) You must provide training and training materials that outline your company's:
  - (a) Security policies;
  - (b) Safety and security procedures;
  - (c) Personal safety and crime prevention techniques.
- (3) You must provide formal instruction about crime prevention through a training seminar or training video presentation that includes these topics:
  - (a) How keeping the store clean, neat, and uncluttered discourages potential robbers;
  - (b) Why the cash register should be kept in plain view from outside the store, if your store layout allows;
  - (c) Reasons for operating your business with only a minimum number of cash registers at night;

- (d) Reasons for keeping cash register funds to a minimum;
- How to take extra precautions after dark such as ways to keep alert, making sure appropriate lights are on, inspecting dark corners, and identifying possible hiding places for robbers;
- (f) Violence prevention procedures in case of a robbery.

Note: A short information video on this topic, "Is it Worth Your Life?" has been produced by the Department of Labor & Industries and is available to you. For information on how you can get a copy, please call the L&I Video Library at 1-800-574-9881, or visit the website at <a href="http://www.lni.wa.gov/safety">http://www.lni.wa.gov/safety</a>

- (4) You must have employees sign a statement indicating the date, time, and place they received their crime prevention training.
- (5) You must keep a record of this information readily available for review when requested by the Department of Labor and Industries.

Note: Employers may keep electronic records of employee training and verification.

(6) You must have a videotape or other materials about crime prevention available to all employees at their request.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.060. 14-09-095 (Order 13-10) § 296-832-20005, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .060. 02-16-087 (Order 02-01), § 296-832-20005, filed 08/07/02, effective 10/01/02.]

# WAC 296-832-20010 Provide crime prevention retraining to your employees annually.

You must provide a refresher course in crime prevention training annually. [Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.060. 14-09-095 (Order 13-10) § 298-832-20010, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .080. 02-18-087 (Order 02-01), § 298-832-20010, filed 08/07/02, effective 10/01/02.]

# WAC 296-832-300 Store safety.

### Summary

Your responsibility: To take certain safety measures to discourage crime in your store.

You must meet the requirements	in this section:
Have a safe in your store	WAC 296-832-30005
Post a notice about your store's safe and cash register	WAC 296-832-30010
Provide outside lighting	WAC 296-832-30015

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.060. 14-09-095 (Order 13-10) § 296-832-300, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .060. 02-16-087 (Order 02-01), § 296-832-300, filed 08/07/02, effective 10/01/02.1

# WAC 296-832-30005 Have a safe in your store.

You must have a drop safe, limited-access safe, or comparable device in your store. [Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.080. 14-09-095 (Order 13-10) § 296-832-30005, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .080. 02-16-087 (Order 02-01), § 296-832-30005, filed 08/07/02, effective 10/01/02.]

# WAC 296-832-30010 Post a notice about your store's safe and cash register.

You must post a notice in an obvious place on a window or door stating:

- There is a safe in the store.
- Employees have no access to the safe.
- (3) The cash register contains only enough cash to do business.

#### Notes:

- You will not be cited by DOSH for having money in the cash register over the minimal amount needed to do business.
- All displays and other materials posted in the window(s) or door(s) should be arranged to provide an unobstructed view of the cash register if it is visible from the street.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.060. 14-09-095 (Order 13-10) § 296-832-30010, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .060. 02-16-087 (Order 02-01), § 296-832-30010, filed 08/07/02, effective 10/01/02.]

#### WAC 296-832-30015 Provide outside lighting.

You must light the store's approach area and parking lot during all night hours your business is open.

Note: You can do this by:

- Providing surveillance lighting to observe pedestrian and vehicle entrances.
- Providing lighting of a minimum of 1 foot candle to comply with ANSI/IES RP7-1983. Lighting levels can be measured with a light meter; for comparison purposes 1 foot candle = 1 lumen incident per square foot = 10.76 lux.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050 and 49.17.060. 14-09-095 (Order 13-10) § 296-832-30015, filed 04/22/14, effective 07/01/14. Statutory Authority: RCW 49.17.010, .040, .050, .060. 02-16-087 (Order 02-01), § 296-832-30015, filed 08/07/02, effective 10/01/02.]