



Connecticut's Work-Related Fatalities, 1992-2014

By Erin C. Wilkins, Associate Research Analyst, Connecticut Department of Labor

“Throughout our history, the American worker has labored not only to erect buildings and cities, but also to raise the standards of our Nation’s workplaces. Through protests and picket lines, by organizing and raising their voices together, workers have won small and large victories that have pushed our country closer to ensuring safer and healthier jobs for all.

Across the United States, as dedicated Americans clock in at factories, walk onto construction sites, put on their hospital uniforms, and report to do the daily work that drives our Nation’s progress, they give meaning to the simple yet profound belief that if you work hard and take responsibility, you can get ahead. However, each year millions of people have their shifts cut short by work-related injuries and illnesses, and on average, 12 Americans lose their lives on the job every day.”

President Barack Obama

In 2014, America lost 4,679 people to work-related deaths. Thirty-three of those deaths were in Connecticut. Connecticut’s “low” number is primarily due to low employment in high-risk industries. However, it cannot be stressed enough that what is statistically unremarkable has a devastating impact on loved ones. One work-related death is one too many.

Connecticut averages 39 work-related fatalities annually with a high of 57 in 1998. Nine states recorded numbers lower than Connecticut, with the lowest number of 8 in Vermont. Nationally, four states accounted for 27 percent of deaths: Texas with 524, California 334, Florida 221, and New York with 203.

State Rates

The national rate of fatal work injuries per 100,000 full time employees was 3.3 for both 2013 and 2014. State rates for 2014 will not be available until spring 2016. In 2013, Connecticut’s rate was 1.8 per 100,000 full-time equivalent workers.

Nationally, the mining industry had a rate of 12.3 for 2013. North Dakota had a rate of 84.7 in mining with an overall rate of 14.9. The 2013 national rate for the agriculture sector was 22.2; Alaska’s agricultural rate was 147.0 and West Virginia’s was 130.7.

By Industry

Connecticut’s construction sector and the transportation and warehousing sector each had 7 deaths for a combined 42 percent of 2014 deaths (Table 2). There were 3 deaths in the government sector; in the past four years this sector accounted for 16 percent of deaths. Notable industry data for the United States include:

- The largest number of deaths (874) was seen in the construction industry, for a rate of 9.5

- The second largest number of 735 deaths was in the transportation and warehousing sector with a rate of 13.5
- The highest rate of 24.9 deaths per 100,000 full time workers was in the agriculture, forestry, fishing and hunting sector (568 deaths)
- The second highest rate of 14.1 was seen in the mining, quarrying, and oil and gas extraction sector (181 deaths)
- In construction, falls, slips and trips accounted for the most deaths – 39 percent. For all other sectors listed above, transportation incidents were the primary event

By Occupation

Construction and extraction occupations accounted for 27 percent of Connecticut’s 2014 deaths, followed by transportation and material moving occupations with 24 percent. Over the past four years, 47 percent of construction occupation deaths were the result of falls, slips, and trips. For transportation and material moving occupations, 62 percent were the result of transportation events.

Notable national data by occupational group:

- The transportation and material moving occupational group had the highest number of deaths at 1,289, accounting for 28 percent of deaths
- The construction and extraction group had 885 deaths, accounting for 19 percent of national deaths
- Logging workers, with a rate of 109.5 deaths per 100,000 full time workers, had the highest rate of any occupational group (77 deaths)
- Fishers and related fishing workers had the second highest rate of 80.8 (22 deaths)

By Event

Year after year, transportation incidents claim the most lives in the United States. Homicides and falls consistently follow, trading second and third place. While Connecticut’s annual figures do not always follow this pattern, analysis of more than one year does.

From 2011 to 2014, Connecticut had 135 work-related deaths. Thirty-two percent were transportation incidents. Twenty were roadway incidents, fourteen were pedestrians struck by a vehicle, and seven non-roadway incidents. Non-roadway incidents include accidents in parking lots and workers struck by forklifts in motion.

Falls, slips, and trips claimed the lives of eight Connecticut work-

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ers in 2014. Over the past four years, this category claimed 29 lives (21 percent). Seventy six percent were falls to a lower level (other categories include falls on the same level and jumps). While Connecticut data is not publishable by height of fall, national data is available. Of the cases where the height of the fall was known, two out of three were twenty feet or less. Eleven percent were less than six feet.

Over the past four years, thirty percent (40 deaths) were attributed to acts of violence, half of which were homicides. Included in the violence category are accidental "friendly fire" incidents. Also included are animal and insect-related deaths such as attacks by livestock and allergic reactions to insect stings. Connecticut sees few deaths in this category; no data were publishable for the past four years. In 2014, there were 39 such deaths in the nation. Half of them occurred on farms.

By Gender

The workforce is almost evenly divided between men and women. However, men have a disproportionate number of deaths – 91 percent of Connecticut's 2014 deaths. National data reveals a notable disparity in two events: homicides and contact with objects and equipment. Homicides accounted for 19 percent of women's deaths but eight percent of men's. Contact with objects and equipment accounted for seven percent of women's deaths but 16 percent of men's.

Identifying Work-Related Deaths

The media is often the first notice of a work-related death. Other resources include death certificates, coast guard reports, the NHTSA (National Highway and Traffic Safety Administration), and OSHA (Occupational Safety and Health Administration). The CFOI (Census of Fatal Occupational Injuries) program requires a minimum of two sources to verify a work-related death.

While every attempt is made to capture every work-related death, some are not documented in the census. Especially hard to capture are deaths that occur months or years after the incident. Some resources, such as police reports, are not released until the case is closed. This can be months after the incident. The BLS (Bureau of Labor Statistics) wants to provide both timely data and accurate data. In order to serve both goals, the CFOI program has two press release dates. Preliminary 2014 data was first published in September 2015 and final data will be published in the spring of 2016. On average, 173 cases are added during this time period.

Note: the Bureau of Labor Statistics holds all information on companies and the deceased in strict confidence. Information is never shared for compliance measures. OSHA requires all employers to report workplace fatalities within eight hours. Included are small establishments and industries that are normally exempt from OSHA jurisdiction. Natural deaths, such as heart attacks, must also be reported. However, many employers are unaware of this requirement. Additionally, OSHA does not require employers to report all fatalities. Employers are not required to report:

- Street and transportation deaths unless they occur in a construction work zone
- Deaths on commercial or public transportation systems (airplane, subway, bus, train, etc.)
- Deaths occurring more than 30 days after the incident

OSHA does not investigate every work-related death. Homicides and most transportation incidents fall outside OSHA's jurisdiction. However, OSHA is beginning to investigate these deaths and develop training programs. Homicides may be prevented with changes in security cameras and enforcing safety rules. Transportation deaths can be prevented with training programs on distracted driving, sleep deprivation, and developing safe driving techniques.

History of the Program

When President Nixon signed the Occupational Safety and Health Act of 1970 (OSHA) into law, a census of work place fatalities did not exist. It was estimated that approximately 14,000 workers were killed on the job annually. While OSHA immediately began investigating workplace deaths, the U.S. Department of Labor did not have a comprehensive statistical program dedicated to documenting workplace deaths.

In 1992, the Bureau of Labor Statistics' Census of Fatal Occupational Injuries (CFOI) was established to track all work-related deaths and collect the much needed data. That first year, 6,217 deaths were documented nationally, 42 of which were in Connecticut. Since then, national numbers have dropped by 25 percent to a preliminary count of 4,679 deaths in 2014.

Since 1992, the CFOI program has seen several changes. Prior to 2006, rates were calculated per 100,000 workers. Now the rates take into account the number of hours spent in the workplace, resulting in rates per 100,000 full-time equivalent workers. Changes in occupation and industry coding occurred as the Standard Occupational Classification replaced the Dictionary of Occupational Titles and the North American Industry Classification replaced the Standard Industry Classification. The coding structure for nature, part, event, and sources was changed in 2011. Recently, the program began tracking contractor status, the use of drugs or alcohol, seat belt use, and more. The program continues to develop to meet needs of researchers. Hopefully the data will continue to be used to create engineering solutions, regulations, and education programs to minimize workplace deaths.

"Every worker has a right to a safe and healthy workplace — and a right to speak up when they believe something is unsafe. Every employer has a responsibility to ensure the safety of their workers, and forward-looking businesses know that compromising the safety of workers to improve the bottom line is a false choice." Secretary of Labor Thomas E. Perez

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Final Compliance Date for GHS – June 1, 2016

In 2012, OSHA updated 29 CFR 1910.1200, the Hazard Communication standard. This standard is now aligned with the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals which was intended to provide a common global approach to classifying chemicals and communicating hazard information on labels and safety data sheets.

Under the new GHS, employers were mandated to train their employees by December 1, 2013 on the new label elements and the new Safety Data Sheet (SDS) format. By June 1, 2015 chemical manufacturers, importers, and distributors were to have updated their products SDS's and labels and were to begin sending this information to their customers. Employer's in-house container labeling systems were also to be changed to reflect the requirements in the updated Hazard-Communication (Haz-Com) standard.

Now the final deadline of June 1, 2016, is almost here. The standard requires that by this date employers will have finished updating their Hazard Communication program to reflect all the revisions and changes spelled out in the revised Haz-Com standard. Specifically, the sections in their existing written program that address container labeling, Safety Data Sheets, and employee training will have been re-written.

CONN-OSHA has a Hazard Communication/GHS Employer Training Materials and Resources [web page](#) to assist em-

ployers with this change. This resource page provides a template for an updated written Haz-Com program, training resources, links to OSHA Quick Cards, and numerous other aids to assist employers during this transition period. The [sample written program](#) is a Word document that you can download, save, and then modify to make it specific to your company or organization leaving you with an up-to-date, compliant, and site-specific written Haz-Com program.

Don't forget that if you are an organization with multiple fixed sites (such as a manufacturer or construction company with several locations), each site must have a site-specific written plan. Nothing is more embarrassing than providing a generic program to a compliance officer that has not been reviewed and completed. There should also be a written inventory of all hazardous materials present at each site, this is imperative. The sample program makes reference to this list; this sets the tone for how complex the training, etc. will be at this location to manage the hazards. The standard does not make reference to an annual review, but such a review will ensure that if there is a change at your site; new chemicals, new responsible personnel, etc., your written program will reflect those changes and match current conditions.

If you feel you need assistance with this or other safety & health issues, contact CONN-OSHA, our [Consultation Program](#) is available to help you.

OSHA's Final Rule to Protect Workers from Exposure to Respirable Crystalline Silica ***Rule requires engineering controls to keep workers from breathing silica dust***

The Occupational Safety and Health Administration (OSHA) has issued a final rule to curb lung cancer, silicosis, chronic obstructive pulmonary disease and kidney disease in America's workers by limiting their exposure to respirable crystalline silica. The rule is comprised of two standards, one for Construction and one for General Industry and Maritime.

OSHA estimates that the rule will save over 600 lives and prevent more than 900 new cases of silicosis each year, once its effects are fully realized.

About 2.3 million workers are exposed to respirable crystalline silica in their workplaces, including 2 million construction workers who drill, cut, crush, or grind silica-containing materials such as concrete and stone, and 300,000 workers in general industry operations such as brick manufacturing, foundries, and hydraulic fracturing, also known as fracking. Responsible employers have been protecting workers from harmful exposure to respirable crystalline silica for years, using widely-available equipment that controls dust with water or a vacuum system.

Key Provisions

- Reduces the permissible exposure limit (PEL) for respirable crystalline silica to 50 micrograms per cubic meter of air, averaged over an 8-hour shift.
- Requires employers to: use engineering controls (such as water or ventilation) to limit worker exposure to the PEL; provide respirators when engineering controls cannot adequately limit exposure; limit worker access to high exposure areas; develop a written exposure control plan, offer medical exams to highly exposed workers, and train workers on silica risks and how to limit exposures.
- Provides medical exams to monitor highly exposed workers and gives them information about their lung health.
- Provides flexibility to help employers — especially small businesses — protect workers from silica exposure.

The current compliance schedule varies with industry. For additional information visit www.osha.gov.

Fatality & Casualty Reporting

State & Town: CONN-OSHA (860) 263-6946 (local) or 1-866-241-4060 (toll-free)
Private Employers: Report to Federal OSHA at 1-800-321-OSHA(6742)

Hazard Corner....By Scott Adams, Occupational Safety Officer

It is that time of year again when the Department of Transportation, Municipal Highway Departments, Buildings and Grounds Departments, Parks and Recreation Departments, etc. start to ramp up the use of tractors with boom arm mowers, shredders, cutters and other accessories.

While this type of equipment is invaluable for their versatile uses, they are dangerous pieces of equipment and if safety precautions are overlooked the outcome may not only cause serious injuries to bystanders within 300 feet of your operation or to the operator themselves, death can be a shattering result.

In this article I am only going to focus on one of the many safety precautions that need to be adhered to while operating this type of equipment. Let's take a look at one accident where the operator was fortunate their injuries were only minor. Inches one way or another could have had devastating results.

An operator was assigned to cut back brush along a secondary roadway. The operator was operating a John Deere tractor equipped with an Alamo Industrial boom arm flail axe 48 brush cutting head. While operating the brush cutting head, the cutting head kicked up an object which shattered the right hand door glass, striking the operator about the face and head area with glass fragments. The thrown object was never located. This type and similar types of equipment can throw projectiles with great velocity and for distances up to 300 feet.

So how did this accident occur? Upon investigation by the Connecticut Department of Labor, Division of Occupational Safety and Health (CONN-OSHA), The Safety Compliance Officer determined that the tractor had been fitted with a Lexan Protective barrier. The operator's manual requires on these cab type tractors either an operator safety screen on the right-hand side or a shatter proof safety window which the Lexan provided. So all is good right? Upon further investigation it was determined that after a period of time exposed to sunlight, Lexan can become a milky

color which can inhibit the operators view. This department experienced this condition with their Lexan on this tractor, so they removed the Lexan Barrier. The issue arises when they never replaced the barrier and placed the equipment back into service. The department was issued a serious violation under 31-370(a) the General Duty Clause for failing to follow the manufacturer's instructions.

These same conditions have been found in other municipalities and now CONN-OSHA Compliance Officers are looking for this condition. Please take a moment to ensure that if your agency or municipality operates similar type equipment that it is in full compliance with the manufacturer's instructions.

Some of you may also operate non-cab tractors with similar equipment. These are required to be equipped with a roll-over protective system (ROPS) and operator protective safety cage that provides protection to the operators right-side and above the operator seat. Do not remove a ROPS system to install a safety cage. If you're unsure of your equipment's requirements, refer to the equipment operator's manual and read the safety manual published by The Association of Equipment Manufacturers for Industrial/Agricultural mowers.

As stated previously I have only covered one of the many safety components that need to be in place in order to operate this type of equipment safely. As an owner/operator you have a responsibility to yourself as well as those around you to operate in a safe manner. Your decisions could mean life or death.



CONN-OSHA~ Training Update...

Confined Space Safety **June 8, 2016 from 10:00 a.m. to noon** This workshop discusses the basic requirements and procedures involved with permit-required confined spaces as detailed in 29 CFR 1910.146 and 1926.1200 – Subpart AA

OSHA Recordkeeping **July 7, 2016 from 10:00 a.m. to noon** At this workshop, you will learn how to fill out the OSHA 300 Log of Work-Related Injuries and Illnesses accurately and correctly.

Powered Industrial Trucks **July 13, 2016 from 10:00 a.m. to noon** This workshop includes the basic requirements of the OSHA 29 CFR 1910.178 Powered Industrial Truck Standard which affects both General Industry and Construction material handling operations.

Safe Driving – Get There Safely EVERY Time **August 3, 2016 from 10:00 a.m. to noon** Work-related vehicle crashes are the leading cause of occupational fatalities according to the U.S. Dept. of Labor. The goal of this session is to increase awareness of the need for, and the benefits of safe driving.

Breakfast Roundtable This discussion group meets the third Tuesday of every month from 8:15 am to 9:45 am. Pre-registration is required. Visit our web page for more information: <http://www.ctdol.state.ct.us/osha/Breakfast/index.htm> To be placed on the e-mail distribution list, contact John Able at John.able@ct.gov

Classes are free and are held at 200 Folly Brook Boulevard, Wethersfield, CT in Conference Room A/B (unless otherwise noted). To register, contact Catherine Zinsser at catherine.zinsser@ct.gov Pre-registration is required. A Photo I.D. is also required to allow entry into a public building. For more training information, visit the CONN-OSHA web site www.ConnOsha.com