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## Fatalities in the Ornamental Shrub and Tree Services Industry



by William J. Wiatrowski  
Bureau of Labor Statistics

As the U.S. economy continues to evolve, industry classifications evolve as well. In the past few decades, there have been declines in particular industries while new ones have arisen. To keep up with these changes, the classification system used to categorize industries was revised in the mid-1990s; the former system, the Standard Industrial Classification (SIC) system, was replaced with the North American Industry Classification System (NAICS), which not only identifies and categorizes emerging industries but was designed to provide consistent classification between the U.S., Mexico and Canada.

And while NAICS has modernized the classification of industries, some smaller industries have been subsumed into broader categories that might not distinguish their unique character. The following data are from one such industry—ornamental shrub and tree services. This unique industry, classified separately under the SIC system (SIC 0783), is now part of the larger industry known as landscaping services under NAICS (NAICS 561730).

The ornamental shrub and tree services industry was defined under the SIC system to include such activities as arborist services; ornamental tree and bush planting, pruning, bracing, spraying, removal, and surgery; and utility line tree trimming services.

Under the new NAICS classification, organizations in the landscaping services industry comprise those providing landscape care and maintenance services and/or installing trees, shrubs, plants, lawns, or gardens; and those providing these services along with the design of landscape plans and/or the construction/installation of walkways, retaining walls, decks, fences, ponds, and similar structures. The addition of those involved in lawn and garden work and those involved in design and installation work, both previously in separate categories, results in the NAICS landscape services industry employing just over 1 million workers in 2003.

### Demographic details

There were 70 fatal occupational injuries in the ornamental shrub and tree services industry in 2002, the last year that such data are available. In the 11 years (1992-2002) for which data are available from the BLS "Census of Fatal Occupational Injuries" (CFOI), there were 637 fatalities in the industry—an average of about 58 fatalities per year. Beginning in 2003, CFOI began reporting fatalities for the larger NAICS-classified landscaping services industry. There were 156 fatal occupational injuries in that

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industry in 2003. The fatality rate for this industry was 14.1 fatalities per 100,000 employed workers, compared with the overall rate of 4.0 for all workers.

The CFOI provides a glimpse into the demographics of the workers killed on the job and a categorization of the circumstances surrounding the incident. In the ornamental shrub and tree services industry, all 70 deaths in 2002 were men. Of the 637 fatalities in this industry over 11 years, only 5 were female. About two-thirds of the fatalities occurred among wage and salary workers—those employed by a firm in the shrub and tree service industry. The remaining one-third were self-employed individuals. While the NAICS landscaping services industry in 2003 employed more people and suffered more fatalities, the same patterns held true—most of the deaths were men, and about two-thirds were wage and salary workers.

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*The Bottom Line* is published bimonthly by the American Nursery & Landscape Association as a service to its grower, landscape specialist, garden center retailer, landscape distribution and supplier members. Readers are welcome to send comments, questions and copy for publication consideration to: [anlabottomline@yahoo.com](mailto:anlabottomline@yahoo.com) and address changes to [newsletters@anla.org](mailto:newsletters@anla.org). Phone 202.789.2900; fax 202.789.1893. Copy is accepted continuously, with absolute deadlines for particular issues. Publishing of *The Bottom Line* is partially underwritten by support from Hortica, insurance specialists for the horticultural industry.

While the age of the fatally injured shrub and tree industry workers ranged from mid-teens to 65 and older, the majority were ages 25 to 54.

The number and proportion of fatally injured employees in this industry who were identified as Hispanic has risen in recent years. In the first year of the Census, 1992, there were 4 deaths identified as Hispanic among the 36 fatalities in the industry, or about 11 percent. In 1997, 6 Hispanics were killed among a total of 67, or about 9 percent. However, in 2001, 12 of the 75 fatalities (16 percent) were Hispanic and in 2002, 17 of 70 fatalities (24 percent) were Hispanic. This is consistent with the overall rise in fatalities among Hispanics in all industries. Looking at 2003 data for the larger landscaping services industry under NAICS, Hispanics represented about 28 percent of the total fatalities.

*How workers were killed*

There were four types of events that led to most of the fatalities among workers in the shrub and tree services industry—struck by an object (typically a tree); fall to a lower level (typically out of a tree); contact with electric current (such as when a limb hits a live electrical wire); and a transportation incident (either a collision between vehicles or a worker struck by a vehicle).

While these categories provide an overall view of the events leading to the fatality, some anecdotal evidence provides more details about the fatal events.

- Those workers who were struck by a tree included cases where a tree they were cutting fell forward onto them. There were also instances where the tree that struck the person was being cut down by a co-worker.
- There were a number of cases where those cutting down trees were attempting

to move from the path of a falling tree when they slipped or tripped and could not get out of the way in time.

- In several instances, fatally injured workers were described as wearing protective clothing or using protective equipment.
- Those who fell to their death included falls from ladders, roofs and trees. In some cases, the incident occurred when the worker cut through a safety line.
- Electrocutions occurred when workers (or a branch, tool or other piece of equipment that the worker was touching) came in contact with high voltage lines or electric transformers.
- Some transportation incidents involved vehicles that were being used during a landscaping operation, such as a tractor being used to remove stumps overturning onto the driver.
- Other transportation incidents involved vehicles operated by others hitting the landscape worker, such as workers on the side of a road being struck by a vehicle.

The data presented here are examples of the variety of information available from the CFOI program, even for very small industries. While the change in industry classification system has resulted in the elimination of data for some smaller industries, such as ornamental shrub and tree services, it provides new data for other industries. Beginning with the 2003 census, all future CFOI data will be presented under the new NAICS classifications, with data available for as many unique industries as possible.

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# Common Sense Tips for Ladder Safety



by Shannon DeCamp  
TechneTrain, Inc.

Ladders are part of numerous fall landscaping activities, such as pruning and cleaning gutters. Unfortunately, ladders can also be a source of injuries when not used properly. Many minor accidents involve cuts, bumps, and bruises; but major mishaps can result in broken bones, paralysis, and even death. Common problems include poorly maintained ladders, unsafe usage, and incorrect positioning. Fortunately, most ladder hazards can be avoided by taking common sense precautions that are also required by federal OSHA regulations. Heed these tips for safe ladder use this autumn.

## Ladder Construction

Ensure ladders conform to OSHA requirements, and use the correct ladder for the job. OSHA has specific standards for different ladder types pertaining to: minimum load-bearing capacity, maximum length, overlap on extension ladders, etc. Be sure all parts are free from sharp edges, splinters, or burrs, and that the ladder is sound and free from shake, wane, compression failure, decay, or other irregularities. Metal rungs and steps must be corrugated, knurled, dimpled, and coated with skid-resistant material (or treated to minimize slipping).

## Safe Use

OSHA has also published safe work practices for ladders. Specifically, the top of the ladder should extend at least 3 feet above the roof, parapet, gutter or platform. A device must be provided to assist workers in mounting and dismounting the ladder. Each worker must keep at least one hand on the ladder when using it. Tools or equipment should be carried in a tool belt

or raised in a bucket. Only one person should be on the ladder at a time. Ladders should have nonconductive side rails if used where the worker or the ladder could contact energized electrical equipment. Proper non-slip footwear should be worn. Ladders may not be used as scaffolding or walkways and must not be loaded

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*“Be sure all ladder parts are free from sharp edges and splinters. Wear non-slip footwear. Continue to educate workers on ladder safety to help prevent a fall this season.”*

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beyond their maximum load rating.

## Safe Positioning

Single or extension ladders must be set at a four-to-one ratio. For a quick check, stand with your feet at the base of the ladder and extend your arms straight out. If the ratio is correct, your fingers should just touch the ladder rung. The top of the two rails should be supported equally. Ladders must only be used on stable level surfaces, unless secured, to prevent accidental movement. Slip-resistant feet must not be used as a substitute for the placing, lashing, or holding of a ladder on slippery surfaces. Ladders placed in areas where they can be knocked over, such as near doorways or aisles, must be secured to prevent accidental movement. Also use a barricade to keep traffic or activities away from the ladder. Do not move, shift or extend a ladder while standing on it.

## Ladder Maintenance

Ladders must be inspected before each use for visible defects. Defective ladders must be marked “**Dangerous – Do Not Use**” and

not used until properly repaired. The connection between steps and side rails must be tight, all hardware securely attached, and movable parts such as safety feet must operate freely. Lubricate metal bearings on locks, wheels or pulleys. Replace worn rope. Keep ladders maintained and free of oil, grease, and other

slipping hazards.

## Ladder Storage

Store ladders away from the elements but where there is good ventilation. Do not store in areas subjected to excessive heat or dampness. Proper storage will help prevent sagging.

## Training Requirements

OSHA requires employers to be sure each employee understands these basic requirements and to train employees using ladders so they can recognize ladder hazards and use proper procedures. By using the right ladder, properly maintaining them, and training your employees on these common sense safety guidelines, you will reduce your risk of ladder injuries and falls substantially.

*Shannon DeCamp is Client Services Manager for TechneTrain, Inc., This is only an overview of ladder safety. Visit [www.technetrainonline.com](http://www.technetrainonline.com) for a full line of training programs and reference manuals with detailed information on these and other OSHA compliance requirements for the landscape industry, or contact TechneTrain, Inc. at (800) 852-8314.*

# How to Prevent Jobsite Equipment Theft

by Andrew J. Mauschbaugh,  
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For many of our businesses, heavy equipment plays a critical role in day-to-day operations. In recent years, however, criminals across the nation have increasingly targeted heavy machinery, taking advantage of a remarkable number of vulnerabilities. In fact, according to estimates, heavy equipment theft currently costs owners and insurers more than \$1 billion every year. To make matters worse, the recovery rate of stolen equipment is a mere 10 percent—an abysmal record compared to the 65 percent recovery rate for automobiles.

What makes heavy equipment the ideal target for enterprising thieves? All too often heavy equipment is left in remote locations where it can be easily moved—often going unnoticed for several days. In addition, there is no uniform ID system for heavy machinery similar to VIN numbers for cars. To complicate matters, the ID numbers are typically located in a variety of places, many of which are hard to find.

Fortunately, there are a number of simple steps that have proven effective in

discouraging thieves and tips for ensuring security:

- **Identify Your Equipment**--Keep a log of the ID number for all of your heavy equipment using the name of the manufacturer, not a generic name like "skid steer." You may also want to engrave your ID on the frame and on the engine or attach a prominent corporate logo. Photographic documentation taken from all sides will help identify equipment if stolen.

- **Site Security**--Don't leave equipment in remote locations. If possible, park the equipment in open, well-lit areas within sight of heavily traveled roadways. More importantly, make sure all keys are removed and stored at a secured location with a sign-out sheet noting who has the keys.

- **Equipment Security**--Anchor equipment with chains or cables. Lower the blade or bucket to make the machine difficult to move. Install hitch protection on towed equipment.

- **Anti-Theft Devices**--Special locking equipment similar to the automobile "Club" is available for heavy machinery.

- **Reporting Services**--There are several services that register the PIN number of a piece of equipment and report it to police agencies in the event it is stolen. The fee is typically minimal, and the services can contact a wide variety of agencies in a short period of time.

- **High-Tech Devices**--Contact your local dealer regarding anti-theft modules available. Generally, these devices do one of two things: prevent the machine from starting without a password or special device, or transmit the location of the equipment if the machine is stolen.

- **Transport**--To safeguard equipment on parked trailers, chain and lock equipment to the trailer using a trailer hitch or kingpin lock. Keep only a minimal amount of fuel in the tank of the equipment being transported.

- **Reporting a Theft**--Report a theft as soon as possible to the police and then to your insurance company and include all details. The sooner a theft is reported, the more likely the equipment will be recovered.

For more info, call Hortica at 800-851-7740  
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