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[www.lni.wa.gov/Safety/Research/FACE/default.asp](http://www.lni.wa.gov/Safety/Research/FACE/default.asp)

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## Useful Links

Tree Care Industry Association (TCIA)  
Training and Certification

<http://www.treecareindustry.org/index.aspx>

American national standard for arboricultural operations - pruning, repairing, maintaining, and removing trees, and cutting brush - safety requirements. ANSI Z 133.1

Fatal Injuries Among Landscape Service Workers

[www.cdc.gov/niosh/docs/2008-144/pdfs/2008-144.pdf](http://www.cdc.gov/niosh/docs/2008-144/pdfs/2008-144.pdf)

National Institute for Occupational Safety and Health (NIOSH) Face Program

[www.cdc.gov/niosh/face/](http://www.cdc.gov/niosh/face/)

Preventing Falls and Electrocutions During Tree

Trimming [www.cdc.gov/niosh/92-106.html](http://www.cdc.gov/niosh/92-106.html)

CROETweb.com Landscaping Fact Sheet and Tips

[www.croetweb.com/links.cfm?subtopicID=547](http://www.croetweb.com/links.cfm?subtopicID=547)

Electrocution Hazards Working Near Overhead Power Lines

[www.lni.wa.gov/safety/research/face/files/powerlineelectrocutions.pdf](http://www.lni.wa.gov/safety/research/face/files/powerlineelectrocutions.pdf)

Tree Maintenance and Removal

[www.elcosh.org/record/document/92/SECTION31-V2-final.pdf](http://www.elcosh.org/record/document/92/SECTION31-V2-final.pdf)



## Preventing Injuries and Fatalities Among Landscape Service Workers in Washington State



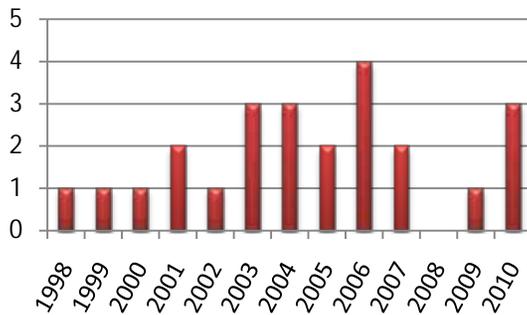
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## Landscape service workers face many on the job hazards that make their work dangerous.

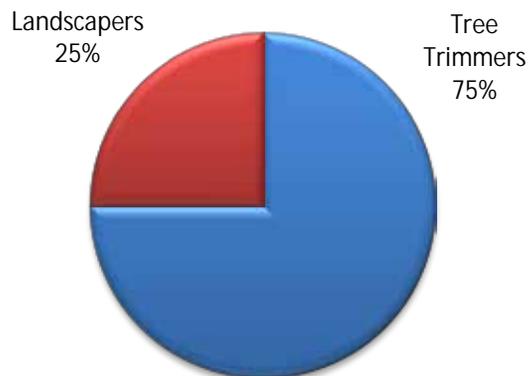
- Nationally, landscape service workers make up less than 1% of the workforce but constitute 3.5% of all workplace fatalities.
- 24 Washington landscape service workers were killed from 1998 to 2010.
- 75% of all fatalities were related to tree removal or tree trimming.
- These types of fatalities are preventable.

### Landscape Service Worker Fatalities in Washington State 1998-2010



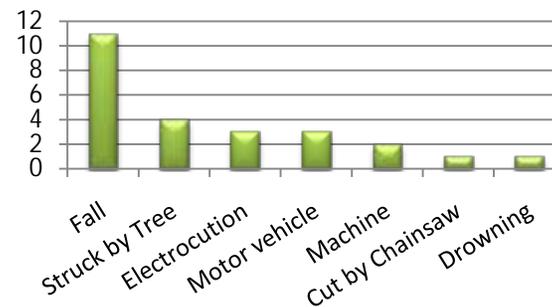
## What are the most common occupations for landscape service workers killed on the job?

Tree trimmers represent the highest percentage of fatalities and outnumber landscapers 3 to 1.



## What are the most common types of incidents among landscape service workers?

### Fatalities by Cause among Washington State Landscape Service Workers 1998-2010



### Among landscape service workers:

- 11 deaths were from falls.
- 4 fatalities occurred when workers were struck by falling tree sections.
- 3 workers were electrocuted by power lines.
- 3 workers died in motor vehicles crashes.
- 2 fatalities were related to machines.
- 1 worker was cut by a chain saw and 1 worker drowned.

### What types of falls occurred?

- 7 workers fell while limbing or topping trees .
  - 4 of these falls were caused by improper use or failure of equipment.
- 2 workers fell from ladders.
- 1 worker fell from a residential roof and 1 fell from an aerial lift.
- Fall height ranged from 12 to 69 feet.

### What were workers struck by?

- 4 workers were struck from above by falling tree sections cut by themselves or others.

### How were workers electrocuted?

- 3 workers were electrocuted when they contacted overhead power lines, energized trees, or energized vehicles.

## What can employers do to improve safety?

Employers need to:

- Develop safety programs and practices with input from workers and ensure compliance on a regular basis.
- Train workers to identify and avoid hazards.
- Conduct daily jobsite surveys to identify hazards.
- Develop job-specific fall protection plans, systems and training.
- Monitor workers for signs of heat-related illness or exhaustion.

## What can workers do to improve their safety?

Workers need to:

- Properly use climbing belts, harnesses, and saddles, and inspect and maintain them regularly.
- Establish a safe zone to avoid working under trees being trimmed or removed or during windy conditions.
- Identify and avoid power lines and energized objects.
- Know the capabilities and the limitations of your equipment and machinery.
- Recognize the signs of heat-related illness like heavy sweating, dizziness or weakness and remember to drink plenty of water.
- Always be aware that hazards exist no matter how skilled or experienced you are.

