



Accident Survey Results: 2008-09 Operations

Summary

What is the most dangerous job in tree care? It isn't the climber or ground worker or line-clearance tree trimmer. The most dangerous job is to be an employee working for a tree care company that doesn't take professionalism or safety seriously.

The results of TCIA's latest Accident Survey are in and the conclusions are clear. Employees working for TCIA member companies are less likely to be injured on the job. And employees who work for TCI Member companies that are accredited and have a Certified Treecare Safety Professional on staff are safer still.

With a strong survey response from over 300 companies, yielding 5.2 million production hour's worth of data, the TCIA Accident Survey for 2008-09 operations showed the effect that proactive companies can have upon accident reduction, even in a down economy. Of growing significance is the Accredited companies' ability to retain a larger workforce while keeping production hours relatively high, as compared to non-Accredited members and non-members.

Our Methodology

TCIA's Accident Survey focuses strictly on tree care operations among TCI Magazine readers and TCIA members. Data was compiled from a "reader response card" survey with TCI magazine, with completed surveys either mailed or faxed back; as well as a "Zoomerang" survey to members, publicized in the member newsletter and on TCIA's web site.

This year for the first time, the survey asked whether responding companies were "part-time" or "full-time" operations. The survey question defined "full-time" as *employing one or more persons for 1,000 or more hours of employment in a year.*

In previous years, an estimated 10 percent or less of the survey returns indicated less than 1,000 hours of tree care activity for the year and were simply not counted. Again for this year, accident data is only reported for the "full-time" companies, although a count of part-time vs. full-time companies is provided.

Two widely used "lagging indicator" accident statistics were measured:

Incident Rate (IR, or Recordable Case Rate) – The number of recordable accidents per 100 workers in a year. A recordable accident is defined as one that requires medical attention beyond treatment in the field. The formula used is:

$$IR = (A \times 200,000) / HW$$

A = no. of recordable incidents; HW = hours worked

Days Away from work, Restricted work activities, job Transfer (DART) Rate – The incidence of illnesses/injuries resulting in lost time, restricted activities in one's given



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job, or transfer to another job. Lost time is defined as time missed beyond the initial date of injury. DART uses the same formula as IR except that DART incidents are substituted for recordable incidents.

Weighted averages were calculated for “number of hours worked per employee” as well as for the IR and DART accident statistics.

The calculation of both IR and DART relies on the actual or estimated hours worked. When actual hours worked isn’t known but the total number of full time production employees is known, the convention is to use 2,000 hours per employee to estimate hours worked. However, since tree work doesn’t typically follow the 40-hour-a-week, 50-week-a-year convention of many businesses, we calculate an “hours worked per employee” figure for each distinct group in our survey. To do this, we look at the responses that provided both and “hours worked” and “number of employees” data.

Results

Data from this survey is summarized in Table 1, below.

Table 1: Company Size, Hours Worked per Employee & Accident Rate Comparisons

Tree Care Company Classification	#	Avg. hrs. worked/empl.		Median no. of employees		Incident Rate (IR)		DART Rate (DART)	
		2008	2009	2008	2009	2008	2009	2008	2009
Accredited/CTSP Members	36	2033	1995	9	8	9.4	9.2	5.6	6.1
Members	39	1836	1928	4	3	9.6	9.8	5.7	6.1
Non-Members with CTSP	26	1384	1137	3	3	6.1	6.8	6.1	5.1
Non-Members	105	1477	1412	3	2	18.7	16.4	13.4	11.6

TCIA has never found data from other sources that is comparable to ours. OSHA’s “ODI” data, made available on the OSHA web site for the first time this year, is worth studying. The “OSHA Data Initiative” is an annual program that asks employers with more than 40 employees to report statistics from their OSHA 300 Forms for the previous calendar year. Ninety-nine companies in SIC 0783 provided data for calendar year 2007. Since OSHA does not report the actual number of employees in each company, a weighted average cannot be calculated. Furthermore, the data are from the year before the TCIA data. Therefore an apples-to-apples comparison to TCIA survey statistics isn’t valid. The ODI simple averages, separated between TCIA members and non-members, are as follows:

<u>ODI Statistic</u>	<u>IR</u>	<u>DART</u>
TCIA Members	7.0	3.9
Non-members	10.0	6.6



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Table 2: Accident Rate Comparisons between TCIA members and non-members

Tree Care Company Classification	Incident Rate (IR)		DART Rate (DART)	
	2008	2009	2008	2009
TCIA Members	9.5	9.6	5.7	6.1
Non-Members	16.2	14.6	12.0	10.4

When the data from all members is combined and compared to the data from all non-members, accident rates are again significantly higher among non-member firms (see Table 2, above).

As we previously mentioned, in previous survey years we informally estimated that less than 10 percent of survey respondents were managing part-time businesses. This year we decided to benchmark the number of part-time businesses, and the percentage increased dramatically:

Full-time businesses	205 (64%)
Part-time businesses	97 (30%)
Invalid responses	18 (6%)
Total	320 (100%)

Conclusions

For the third straight year, the survey data continue to support the assertion that TCIA member companies are safer than their non-member counterparts. This is borne out in our survey's numbers as well as in the statistics from the OSHA Data Initiative.

Once again, Accredited companies have demonstrated the ability to manage more crews working more hours, while maintaining relatively high levels of safety. In other words, they are clearly better prepared to prosper in lean economic times.

One interesting statistic from the survey is that the companies with the absolute lowest accident and incidents rates are non-members who have a CTSP. TCIA's Peter Gerstenberger, senior advisor for safety, standards and compliance, explains why he thinks the numbers came out this way:

“If you look at the non-member companies that have a CTSP, you will see that they are very small. For both years they average only three employees, which is typically one or at most two crews. That means the owner - who is probably the CTSP - takes safety very seriously. He or she probably also leads that crew. There is hardly a more effective safety measure than a safety-conscious crew leader who is on the job with employees every day.”



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Companies that are growing to two, three, or four crews really need to invest in safety. One accountable person will not be able to supervise every job site. The company will have to rely on well-trained employees who can be trusted to promote the safety culture, or risk losing control.

Owners have been able to track the high costs of accidents for years – both in terms of medical costs and lost productivity. Now, with TCIA's Accident Survey, arborists have a clear picture of the types of employers they want to work for. Readers are encouraged to study the data and draw their own conclusions on where they would prefer to work ...the company that values professionalism and safety highly or the company with other priorities.