

# **SMACNA SAFETY PROFILE 2011**

## **Performance and Characteristics**

**July 2011**

## Introduction

Each year SMACNA conducts a Safety Awards Program to recognize SMACNA members with the lowest accident/illness rates in the prior calendar year. Awards are presented to participating contractors with the lowest accident/illness incidence rate (as computed using the OSHA lost workday incident rate formula). There are various award categories based upon a contractor's hours worked.

Information submitted for the contest provides a rich database for evaluating sheet metal industry safety performance. Findings are summarized in this report. In addition, contractors participating in the awards contest are provided with information to permit them to compare their own safety performance with other similar size contractors and those performing similar types of work.

The Safety Awards Program also profiles many aspects of SMACNA members safety efforts. Information has been gathered on the prevalence and characteristics of safety programs and training and their impact on contractor safety performance. Some trend data are included. Particular attention is given to drug and alcohol abuse programs.

## Summary of Findings

### **Safety performance data for SMACNA contractors was the best of the past decade:**

- o The OSHA incident rate was the lowest in at least the past 10 years at 3.46.
- o The average lost workdays per incident was the lowest since at least 2002, 63 days.
- o Prevalence of drug programs reached a new high, 94 percent.
- o Uses of SMOHIT safety products reached a new high, 68 percent.
- o Number of participating companies was 350, the second highest number since 2002.
- o Number of reported hours of work was nearly 69 million.

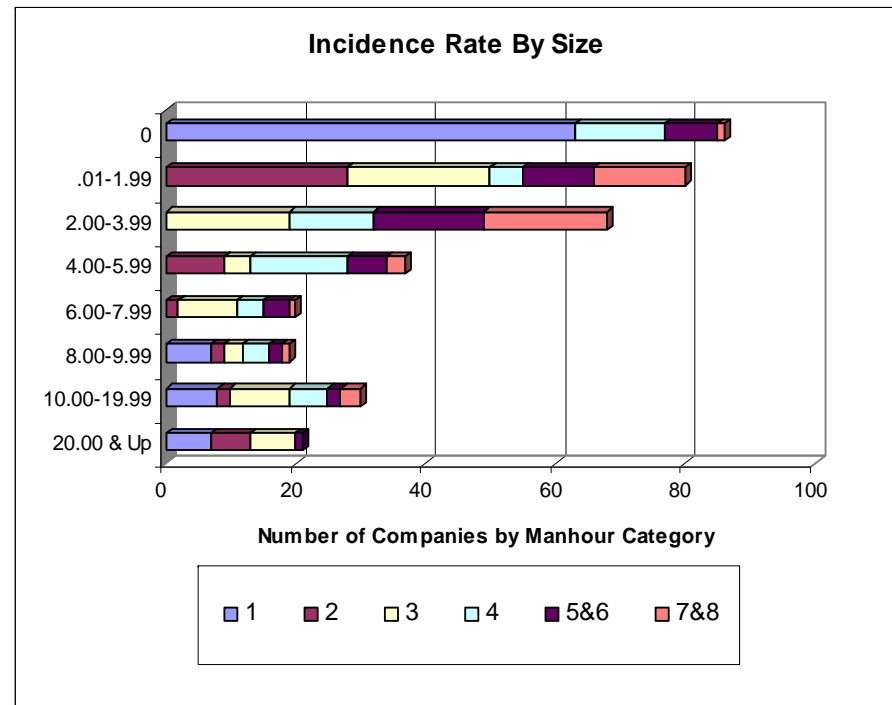
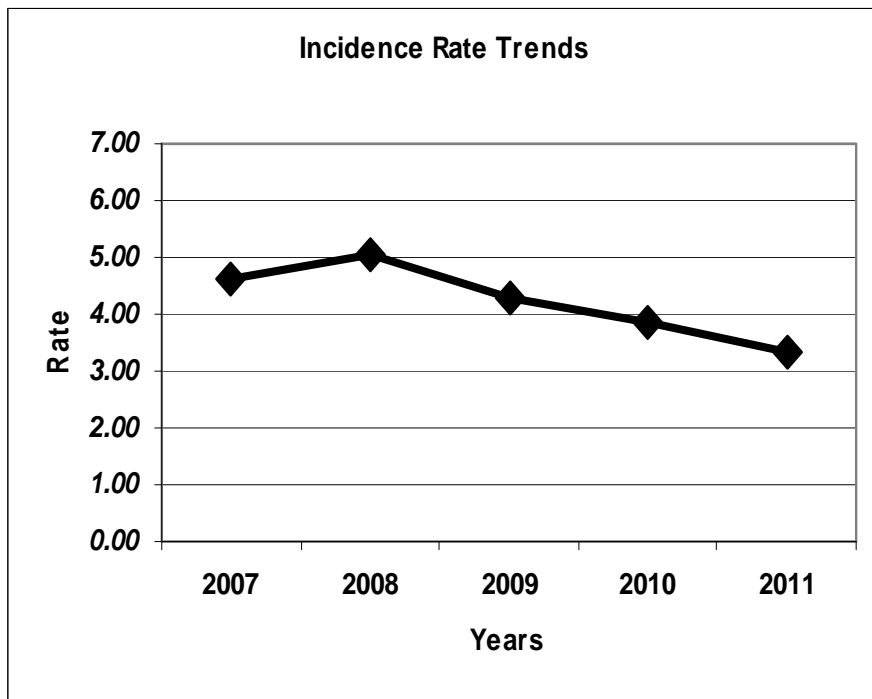
### **Other highlights include:**

- o The OSHA incident rate generally declined as hours worked increased.
- o The average EMR was .82.
- o SMACNA contractors have:
  - o a company safety policy
  - o a designated competent safety coordinator
  - o regularly scheduled training courses
  - o utilize a variety of safety training materials from SMACNA and other sources

### SMACNA Safety Summary

Class Size	Reports	Hours	Number of Incidents	Incidence Rate
1	85	1,236,851	34	5.50
2	49	1,840,664	47	5.11
3	66	4,868,872	110	4.52
4	61	8,648,747	190	4.39
5	29	7,166,751	113	3.15
6	23	8,014,837	212	5.29
7	8	3,732,744	60	3.21
8	29	33,486,740	426	2.54
<b>Grand Total</b>	<b>350</b>	<b>68,996,206</b>	<b>1,192</b>	<b>3.46</b>

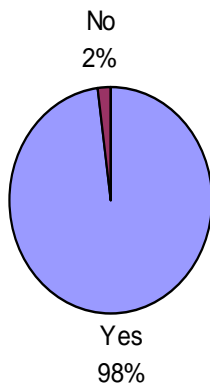
<p>Class Size</p> <p>1 1-25,000 hours</p> <p>2 25,001-50,000 hrs.</p> <p>3 50,001-100,000 hrs.</p> <p>4 100,001-200,000 hrs.</p> <p>5 200,001 - 300,000 hrs.</p> <p>6 300,001-400,000 hrs.</p> <p>7 400,001-500,000 hrs.</p> <p>8 Over 500,000 hrs.</p>	<p>This year there were 350 participating contractors in the SMACNA Safety Awards Program. These companies worked about 69 million hours. Nearly half the total hours were reported by companies working over 500,000 hours in the year. Over one-third of respondents reported no occupational injuries or illness with lost workdays. The average lost workday incidence rate was 3.46, down from 3.84 a year earlier.</p> <p>Responding contractors reported over 22,000 lost workdays. There were 136 contractors or 39 percent with no lost workdays, a significant drop from last year's 206 or 55%. For those contractors who reported lost workdays because of occupational injury or illness, the average number of days was 63.</p>
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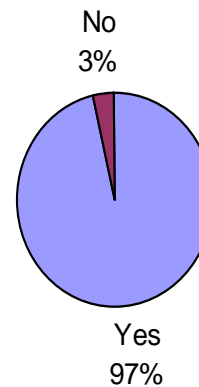
The average OSHA incidence rate declined in the past year to 3.46 its lowest level in over a decade. Since 2002, the incidence rate increased over the previous year four times and decreased five times. As a reminder, OSHA incidence rate is a measure of frequency and does not necessarily reflect the severity of the cases (i.e., days away from work or restricted duty). There were 336 lost workday cases. Lost workday cases are a better measure of severity.

Zero was, by far, the most common incidence rate reported, consistent with past years. Remaining companies incidence rates were spread throughout the range of reported figures.

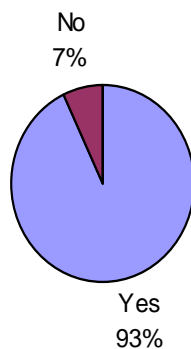
### Safety and Health Program



### Conduct Safety Inspections

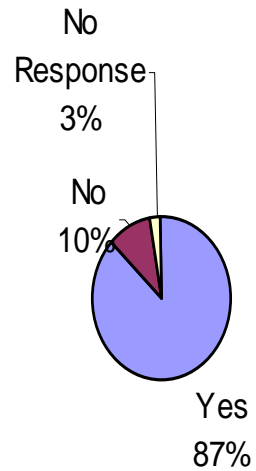


### Designated Safety Coordinator

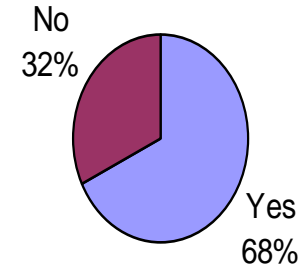


Written safety and health programs, including a designated competent safety coordinator and regular safety inspections have become almost universal. The safety coordinator is usually a full time employee, especially in larger companies.

### Use Safety Products & Services from SMACNA

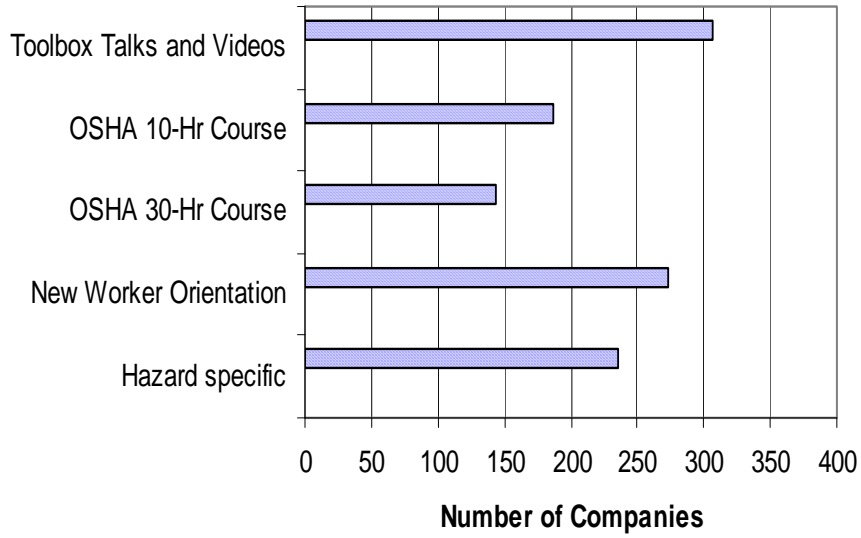


### Use SMOHIT Safety Products

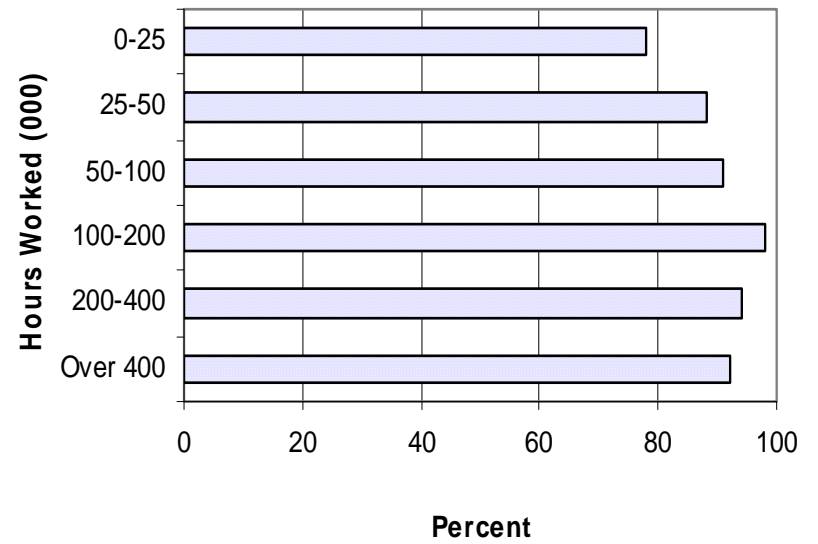


Most contractors use SMACNA safety products and services. As reported each year, a somewhat lower portion utilize SMOHIT safety products, but this percentage continues to move upward slowly.

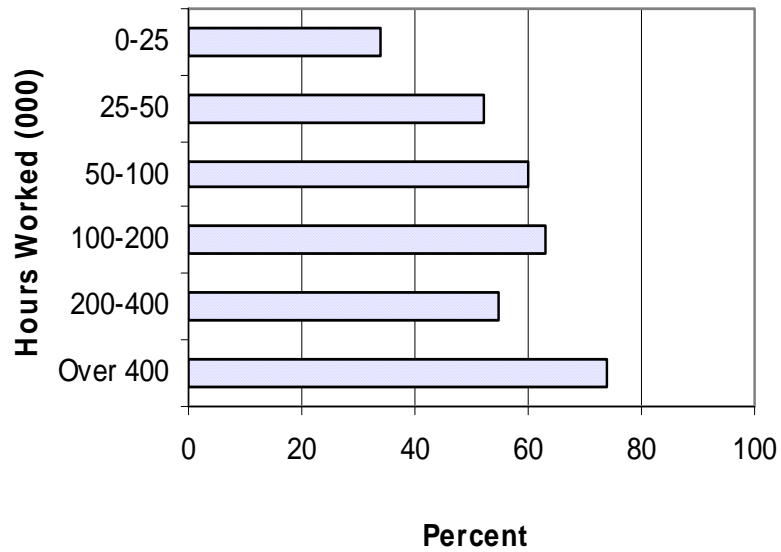
**Type of Safety Training**



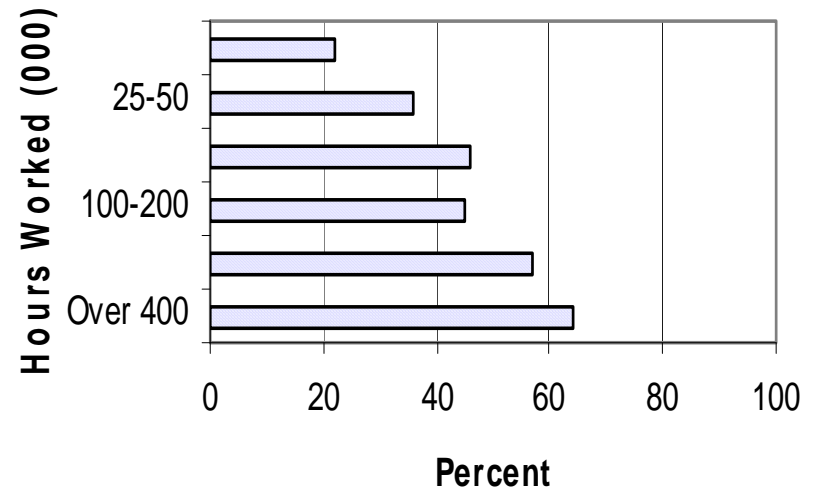
**Toolbox Talks and Videos**



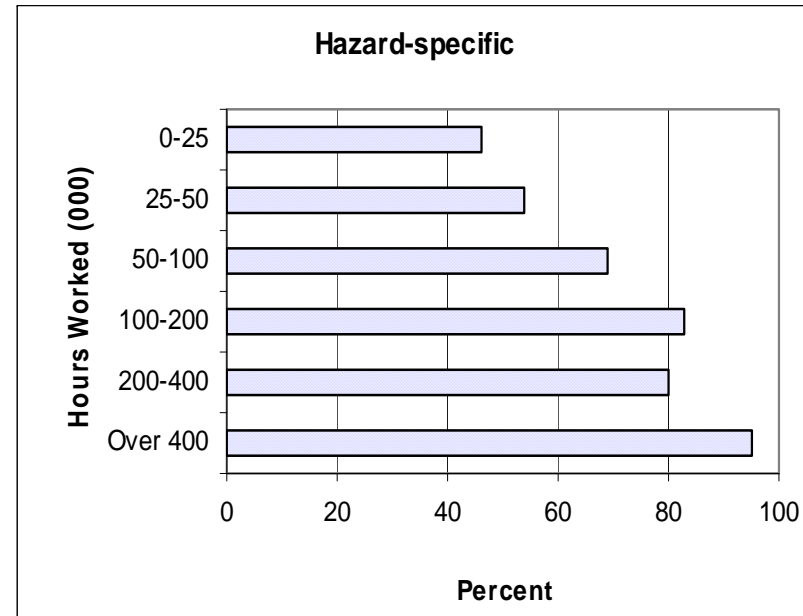
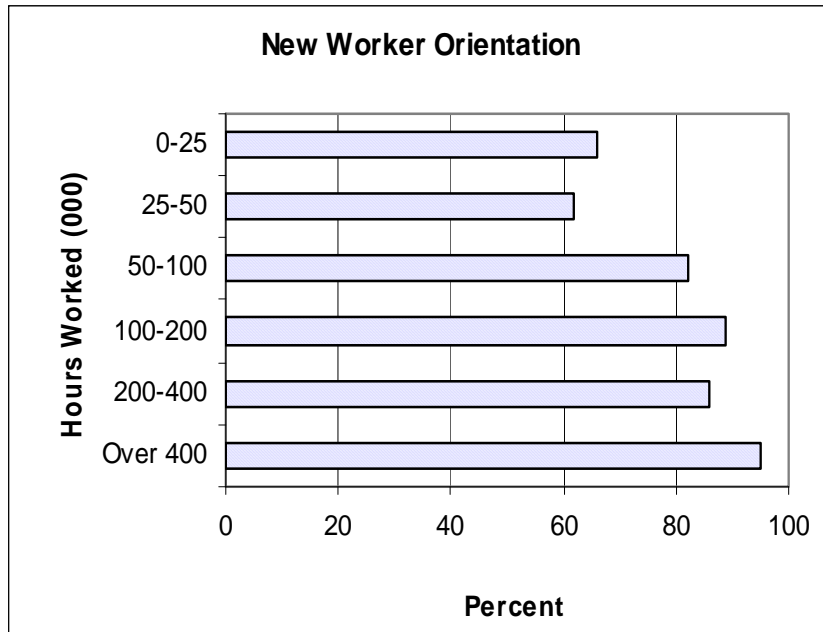
**OSHA 10-Hour Course**



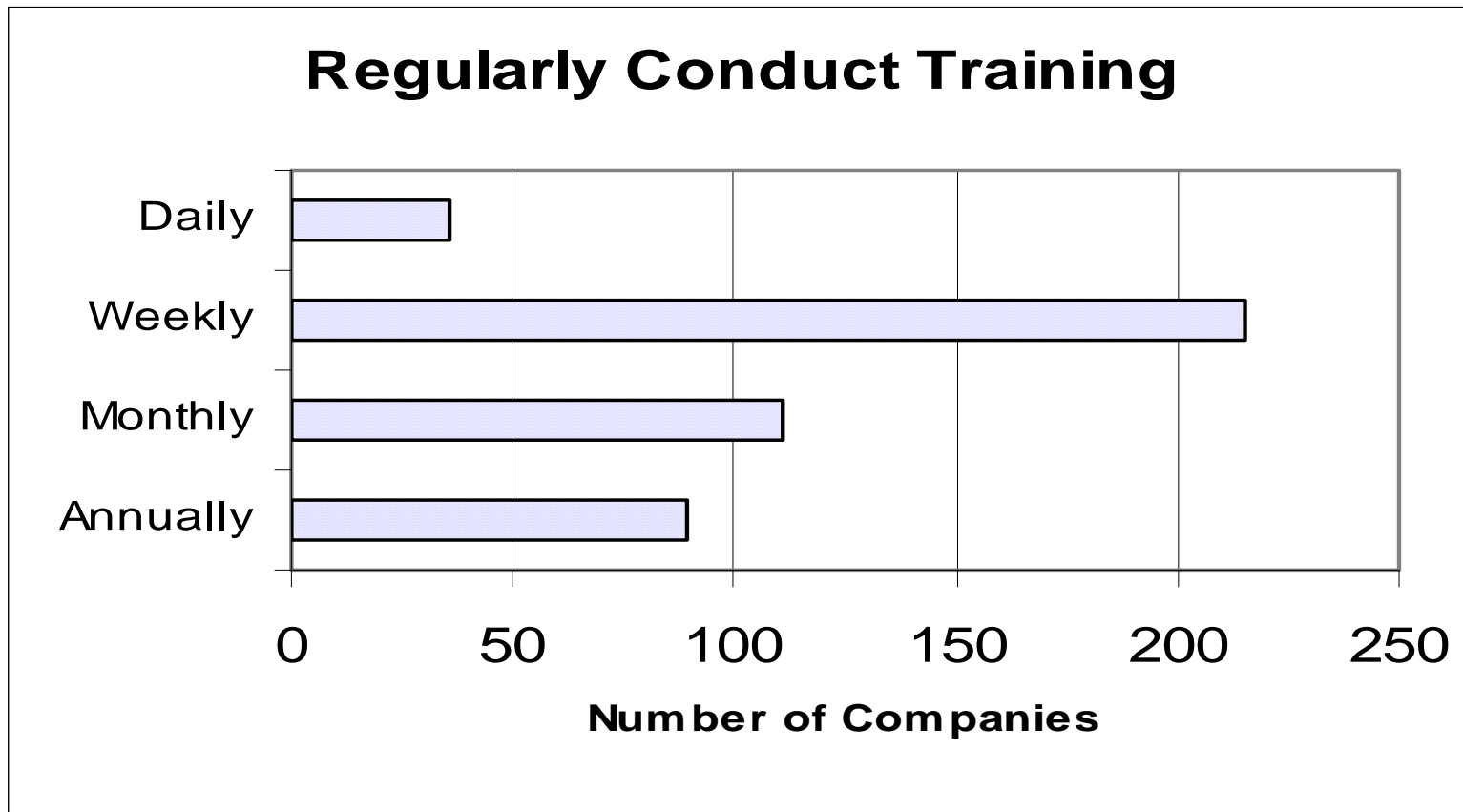
**OSHA 30-Hour Course**



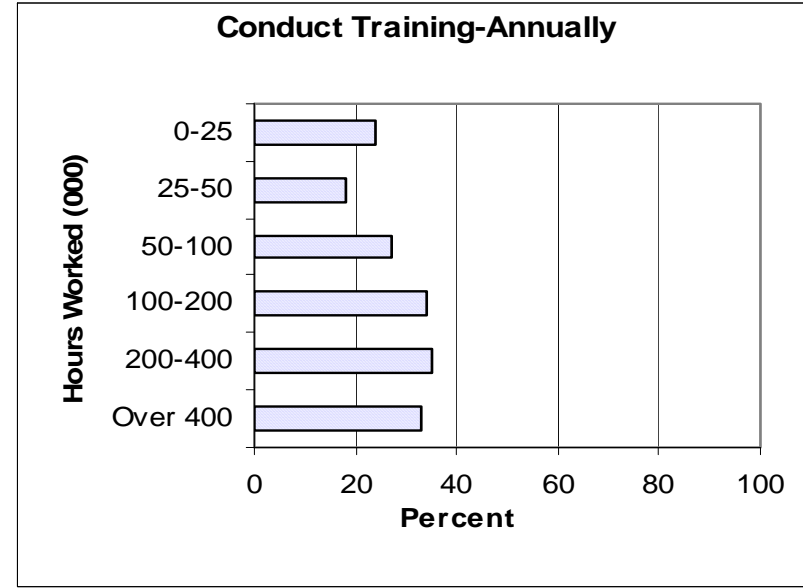
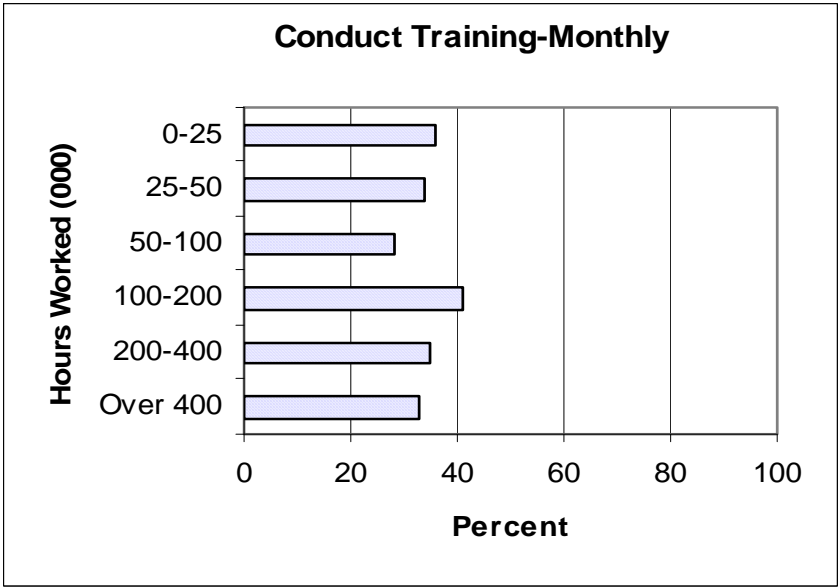
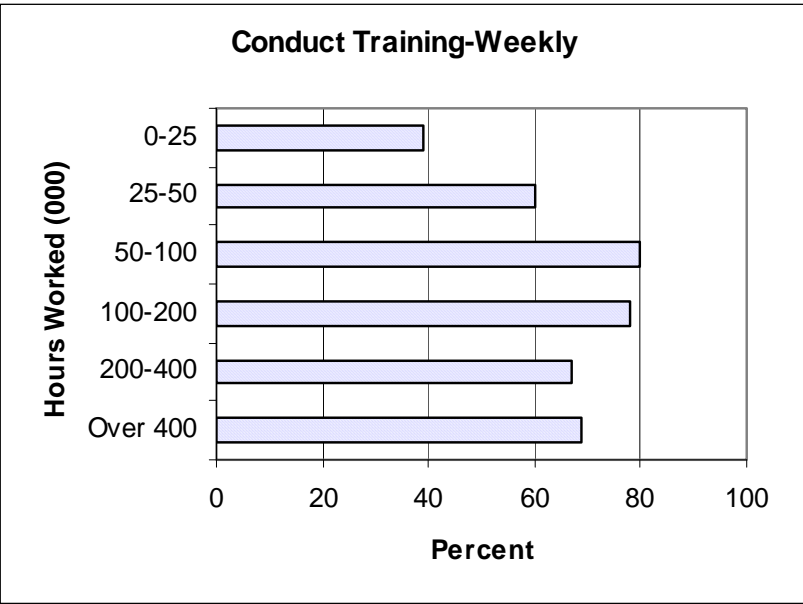
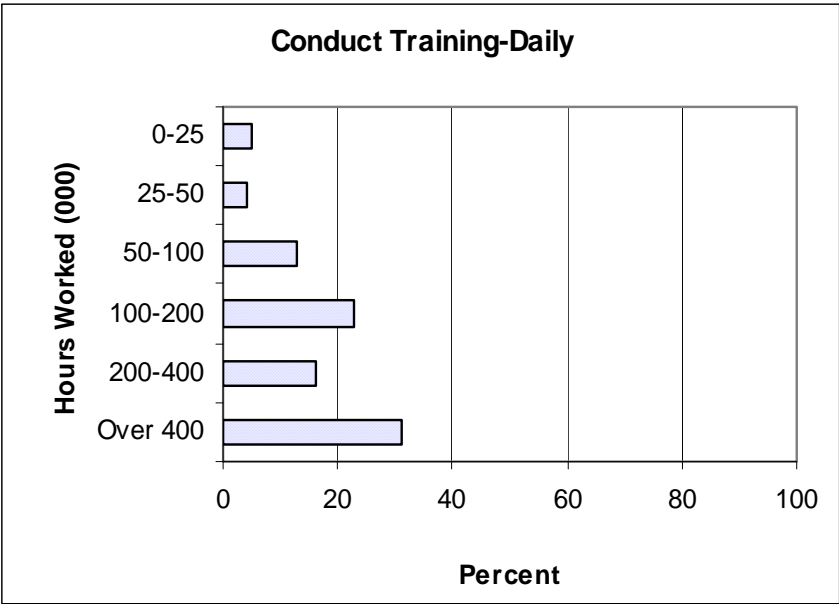




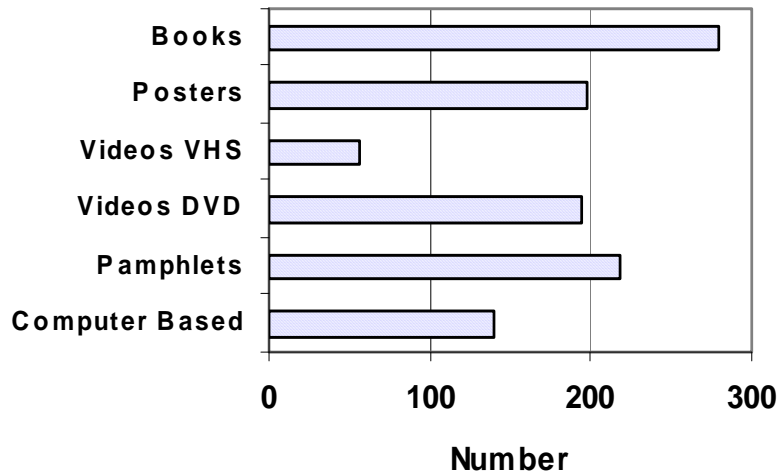
Contractors used a variety of training methods. This year an additional response option, the OSHA 30-Hour Course, was added to the question. This course was conducted by 144 respondents, just modestly fewer than the number of companies using the 10-Hour Course. Hazard specific training continued to decline. Whereas toolbox talks and videos were used about evenly by all sized companies, OSHA training, new worker orientation, and hazard specific training were used more often by larger companies.



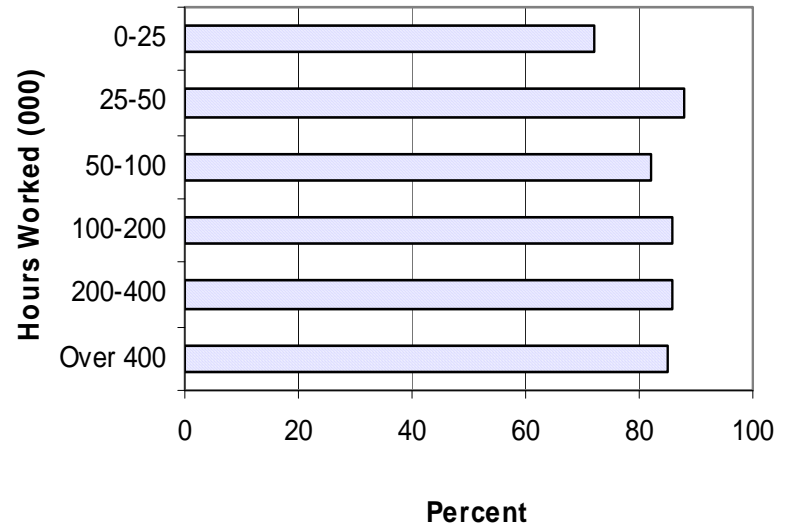
Most often contractors included weekly training as a part of their training schedule. Larger companies tended to utilize daily and/or weekly training more than smaller ones.



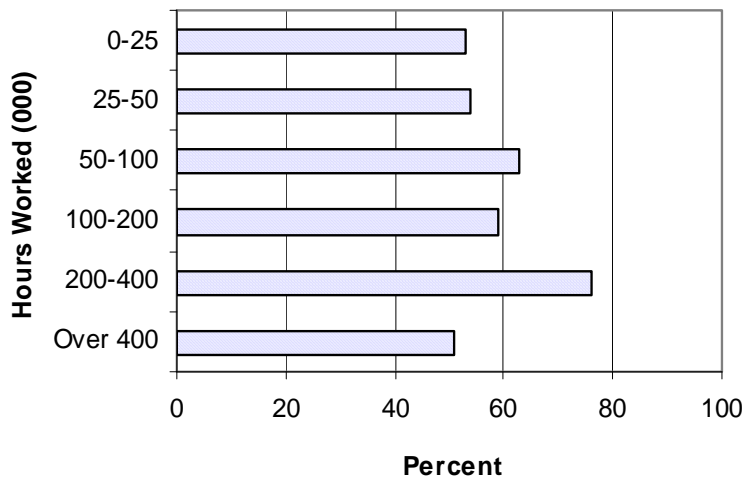
### Types of Training Materials Used



### Safety Training Materials-Books/Manuals

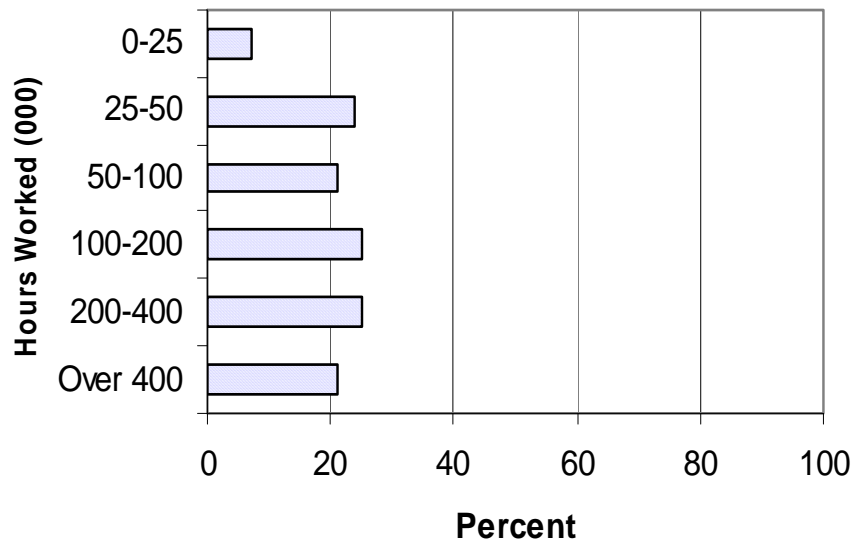


### Safety Training Materials-Posters

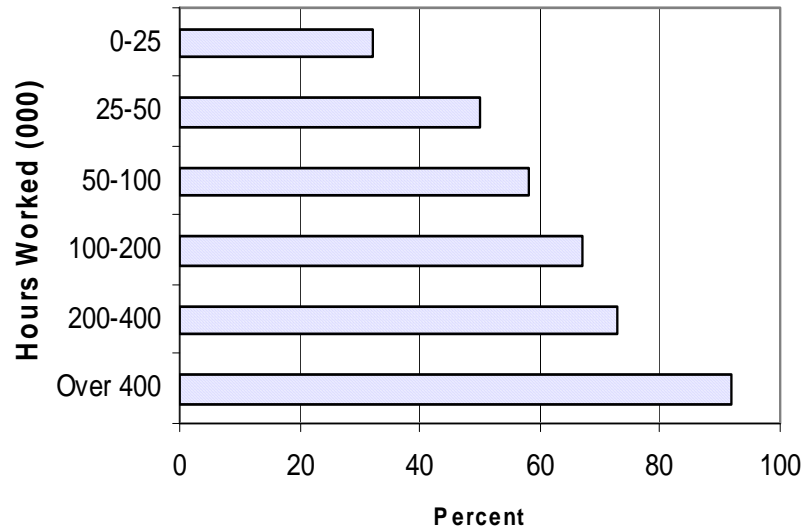


Contractors employed various types of materials in their safety programs. Books and pamphlets were the most common types of materials. VHS videos continued to be used by a decreasing number of companies, with DVD's remaining much more popular, especially among larger contractors. Computer based training increased over last year, also more prominently with larger companies.

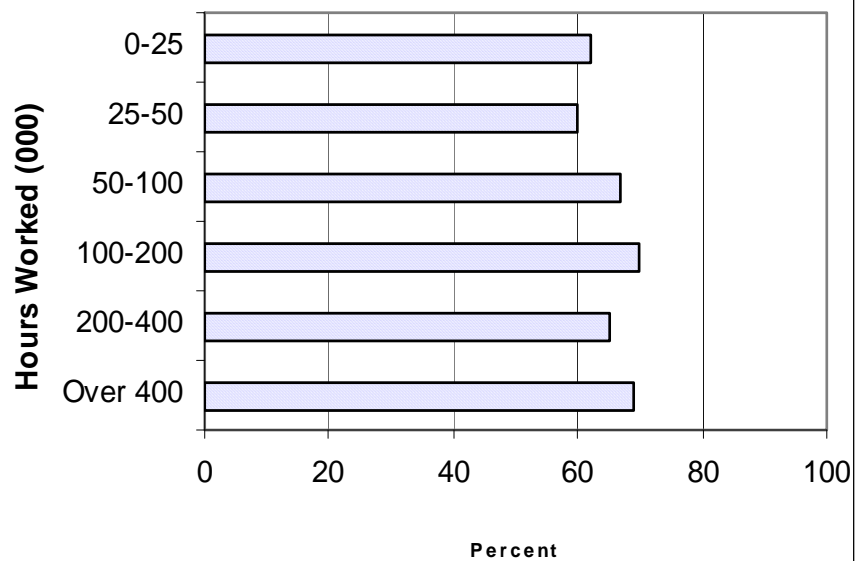
### Safety Training Materials- Videos VHS



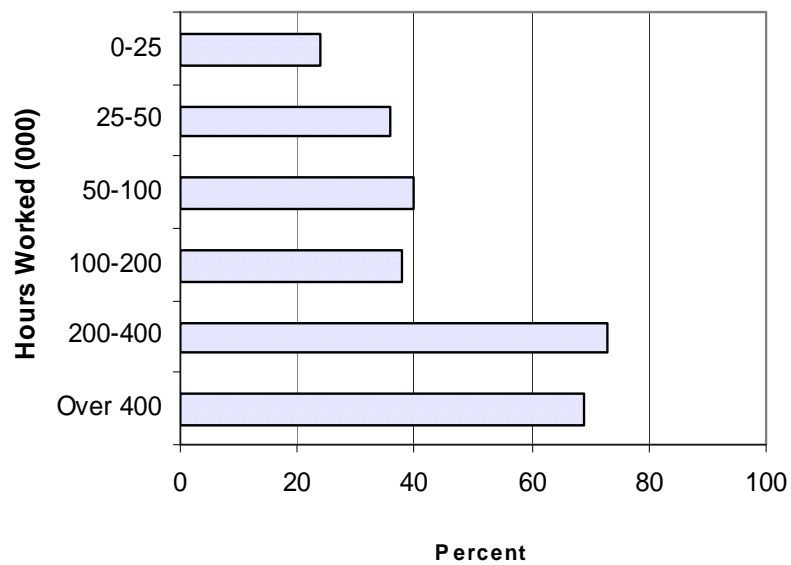
### Safety Training Materials-Videos DVD

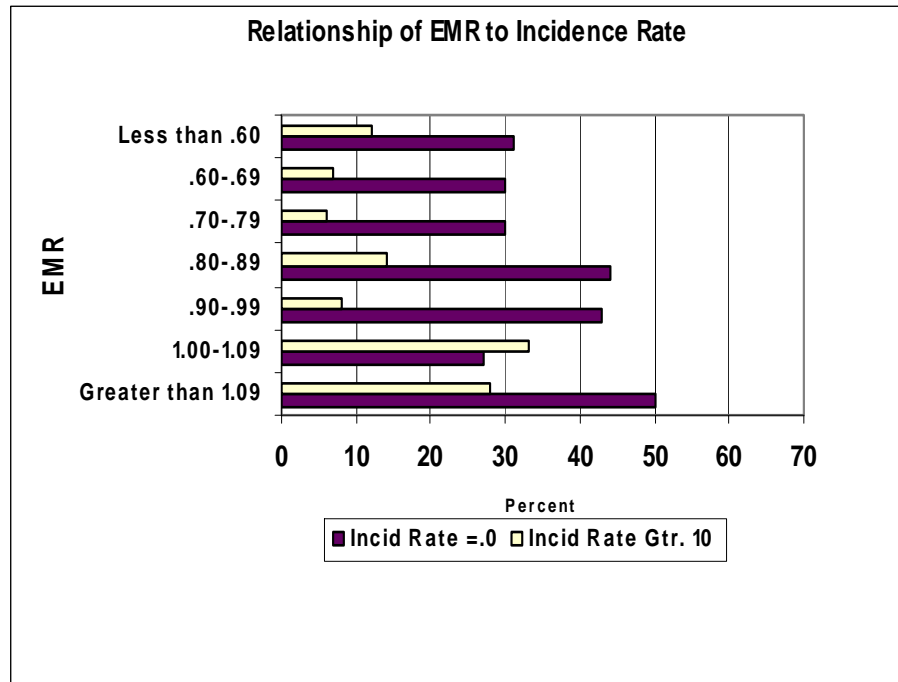
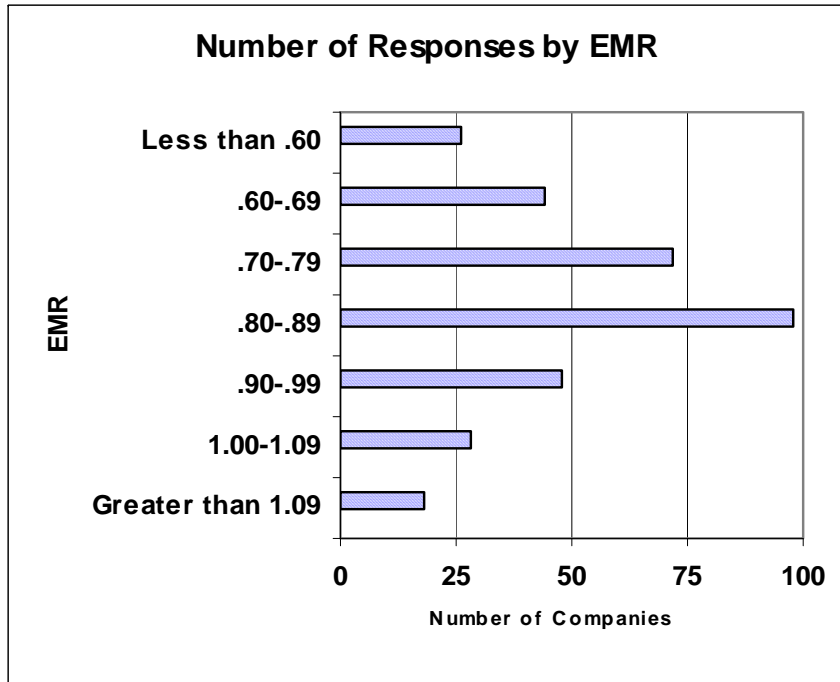


### Safety Training Materials-Pamphlets



### Safety Training Materials-Computer Based Training





Similar to last year, nearly 90 percent of the companies reported an experience modification rate (EMR) of less than 1.0. An EMR in the 0.80 – 0.89 range was most common. There was little if any correlation between the EMR and lost workday incident rates. As shown in the Relationship of EMR to Incidence Rate chart for the 1.00 – 1.09 category, there was a higher percent of companies with an incidence rate greater than 10 than companies with a 0 incidence rate.

## Industry Segment Safety

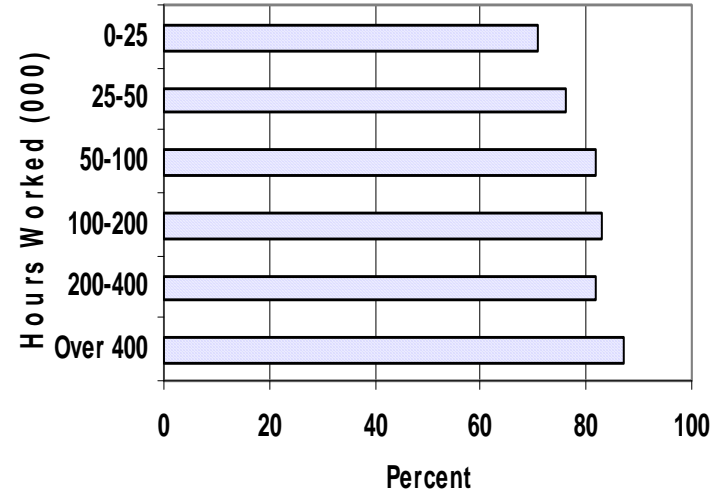
	Number	Hours	Incidents	Incident Rate
<b>Commercial HVAC</b>	136	18,119,347	293	3.23
<b>Residential HVAC</b>	40	677,069	4	1.18
<b>Architectural Sheet Metal</b>	59	1,599,978	33	4.08
<b>Industrial Sheet Metal</b>	111	6,779,309	106	3.13
<b>Kitchen Equipment/Food Svcs.</b>	28	264,927	4	3.24
<b>Manufacturing</b>	43	869,291	15	3.37
<b>Testing and Balancing</b>	48	551,406	9	3.22
<b>Siding and Decking</b>	21	650,144	10	3.01

This table shows the hours, number of incidents and incident rate by industry segment. Commercial HVAC was easily the largest category for hours worked and kitchen equipment/food services was the smallest. The highest incident rate was for architectural sheet metal. Residential HVAC had the lowest rate this year, but last year it had the highest incident rate.

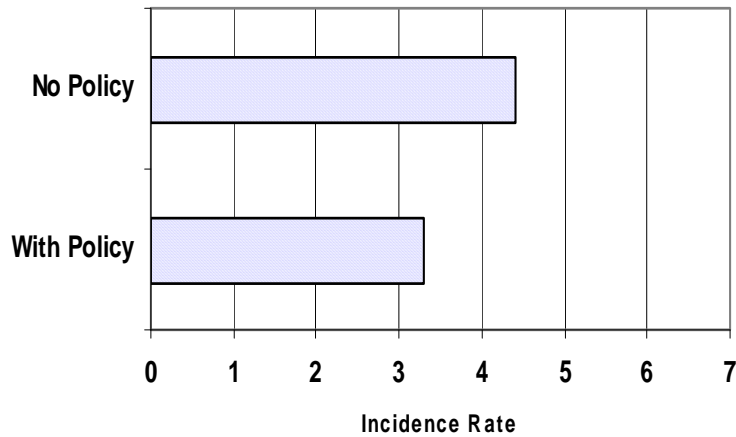
### Formal Program for Drug and Alcohol Abuse



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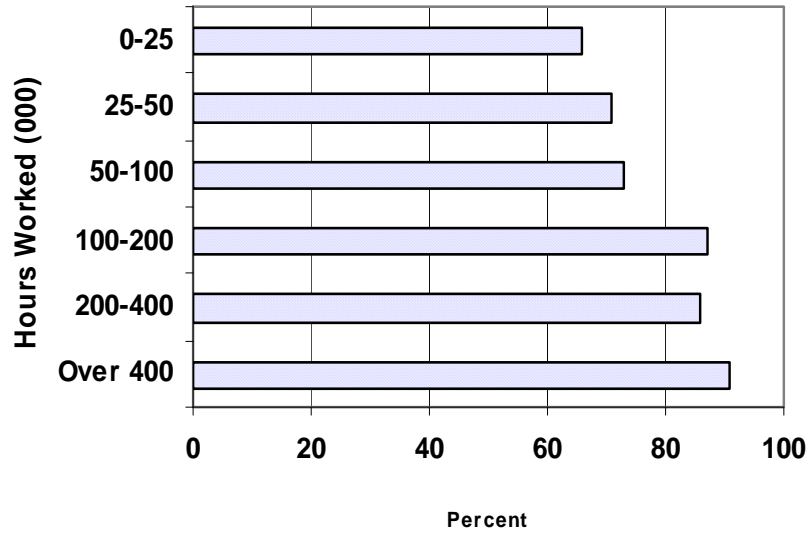
### Incidence Rate by Drug Policy



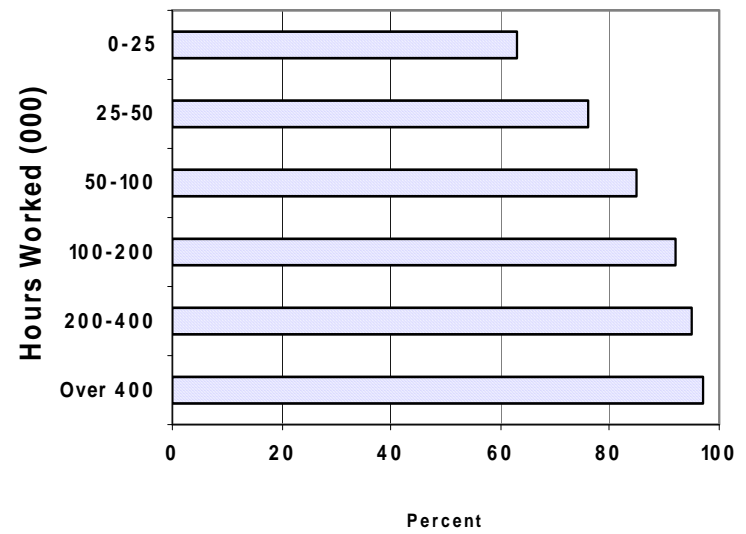
Nearly all respondents had a formal drug and alcohol abuse program. In fact, the 94 percent rate this year is a 6 percent increase from last year's results. Those with a drug policy have a significantly lower incidence rate than those without such a policy. For most of the components of drug programs, there was a positive correlation between company size and percent usage, as shown in the accompanying charts.



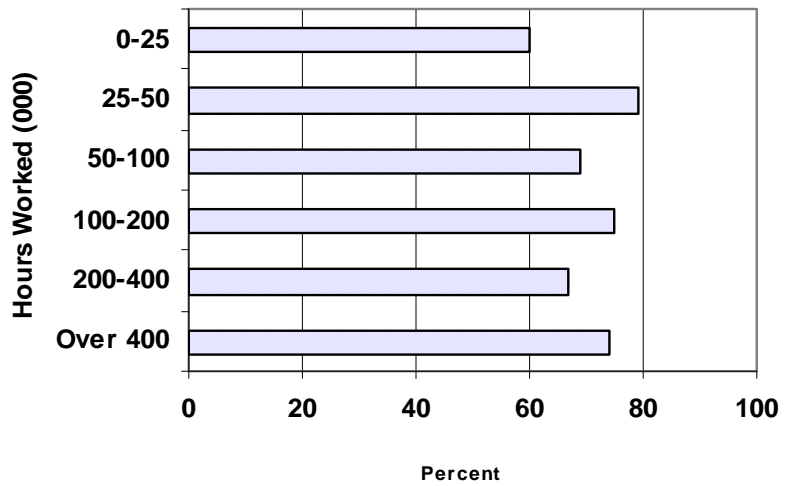
### Pre-Hire Testing Conducted



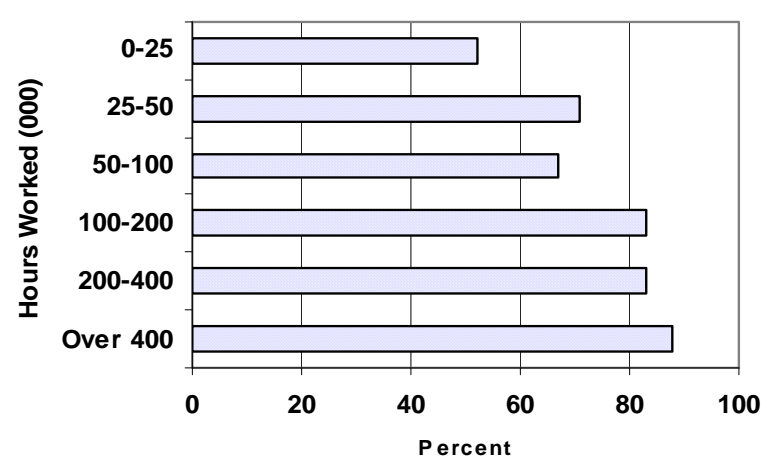
### Post Accident Testing Conducted

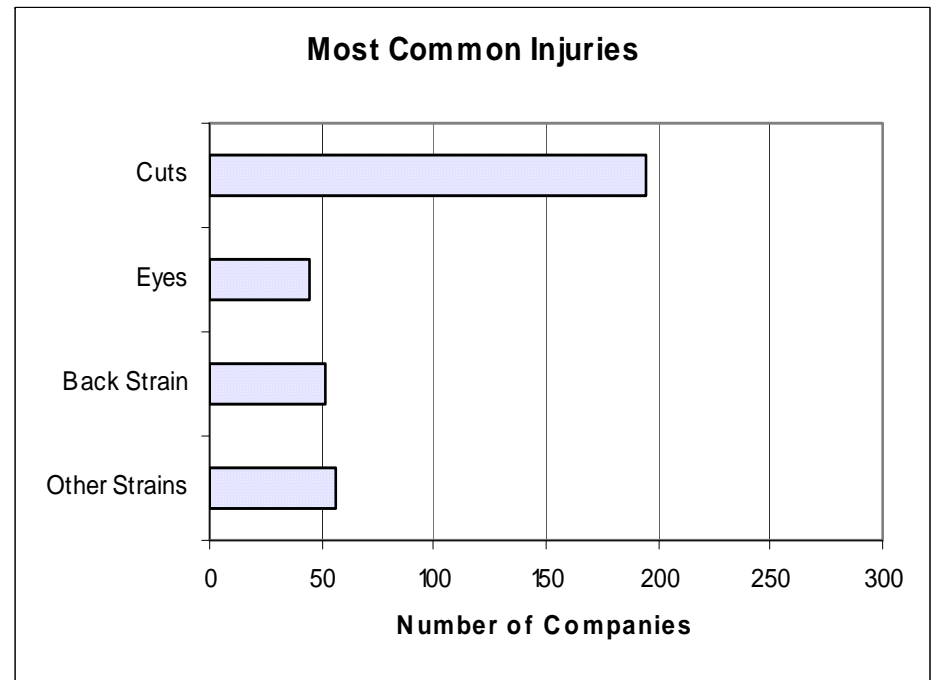
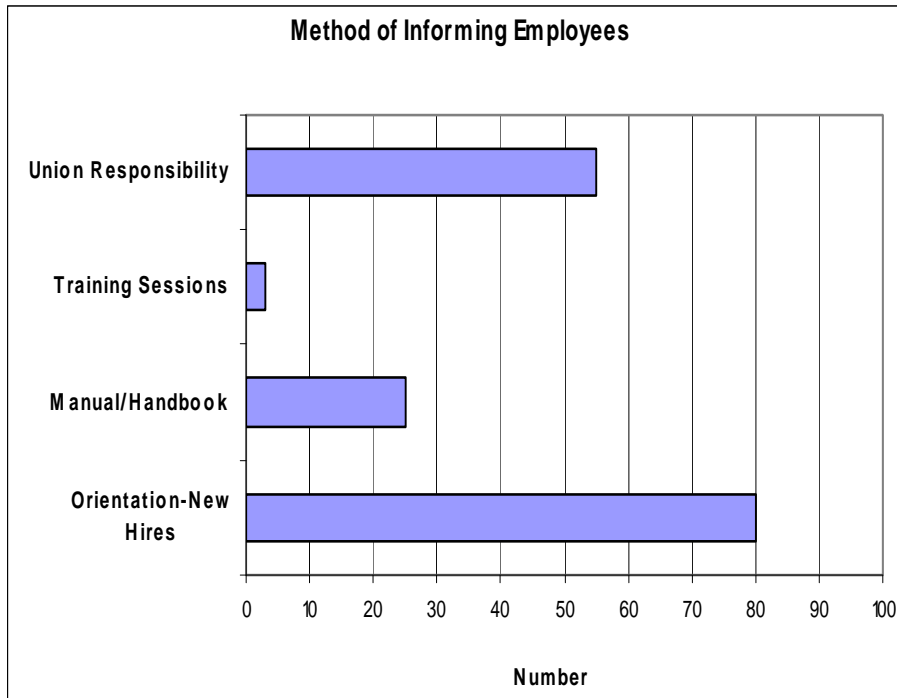


### Random Testing Conducted



### Penalties





Contractors utilize a number of methods to inform their employees about their drug and alcohol abuse policies, including new hire orientation, manuals, and unions. Similar to last year, cuts continued to be the most common type of injury. Injuries involving the eyes, back strain and other strains were about equal in their prevalence.

### SMACNA Safety Trends

	<u>2002</u>	<u>2003</u>	<u>2004 1/</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Incidents	1,326	1,197	1,429	1,494	1,446	1,339	1,210	1,724	1,687	1,192
Incidence Rate	3.99	4.61	5.52	5.06	5.21	4.62	5.06	4.29	3.84	3.46
Lost Workdays	15,617	25,591	26,086	27,605	24,371	20,547	19,467	30,712	25,785	22,311
Average Lost Workdays	87	145	168	160	82	84	92	101	70	63
Reported Hours (millions)	66.4	52.0	51.8	59.0	56.0	57.9	47.8	80.3	87.8	68.9
Safety & Health Program	94%	92%	93%	93%	96%	98%	95%	95%	96%	98%
Designated Safety Coord.	94%	91%	87%	93%	97%	96%	95%	94%	97%	93%
SMACNA Products	88%	88%	83%	82%	84%	87%	87%	86%	88%	87%
SMOHIT Safety Products				28%	37%	45%	51%	55%	67%	68%
EMR	0.84	0.86	0.85	0.85	0.85	0.83	0.79	0.84	0.83	0.82
Drug Program	64%	67%	76%	74%	78%	84%	82%	87%	88%	94%
Number of Companies	322	296	252	283	298	243	212	304	377	350

1/ Data beginning in 2004 are not totally comparable to previous years due to significant changes in OSHA record keeping.

SMACNA Safety Performance  
Selected Issues

	<u>2011</u>	Superior	<u>2010</u>	Superior
	All <u>Respondents</u>	<u>Performers</u>	All <u>Respondents</u>	<u>Performers</u>
Use SMACNA Safety Products	87%	81%	88%	76%
Have a Formal Drug Policy	94%	81%	88%	86%
Provide New Worker Orientation	80%	88%	76%	90%
Utilize OSHA 10 Hr. Training	73%	62%	51%	59%
Utilize Computer Based Training	40%	42%	29%	45%
Average EMR	0.82	0.67	0.83	0.70
Average Incidence Rate	3.46	0.86	3.84	1.20

Contractors with a higher level of safety commitment often experience better safety performance results than those with more basic safety programs. Their safety programs are more often processes that are a part of a larger, corporate “safety culture”. For definition purposes for this exhibit, a superior performing contractor is one who worked over 100,000 hours and achieved a lost workday incidence rate of below 2.00.