

# **SMACNA SAFETY PROFILE 2015**

Performance and Characteristics

## INTRODUCTION

Each year SMACNA conducts a Safety Awards Program to recognize SMACNA members with the lowest injury/illness rates during the prior calendar year. Awards are presented to participating contractors with the lowest injury/illness incidence rate (as computed using the OSHA 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.

This report, titled the *SMACNA Safety Profile 2015*, refers to data collected for the calendar year 2014.

## SUMMARY OF FINDINGS

The average experience modification rate (EMR) was 0.81, the same as last year and still one of the lowest rates in the past decade.

The average OSHA incident rate fell to 2.48 in 2014, the lowest rate in at least 10 years. To illustrate the improvement in the incidence rate, note that from 2006-2009 the average incident rate was above 4.0, from 2010-2012 the rate fell to the 3.0-3.9 range and since 2012 it has been below 3.0.

Although the incidence rate fell, the average number of lost workdays increased by 19 percent, from 58 to 69, the highest it has been since 2010.

Nearly all contractors have a safety and health program, conduct safety inspections, and use toolbox talks/videos.

Books continue to be the primary training material used, although various other training materials such as posters and pamphlets were used extensively as well.

Only one sector had an incident rate above 4.0, Residential HVAC. All other sectors had an incidence rate below 3.0.

The number of reported hours of work was 64.1 million, a decline of 9.9 percent from last year.

The prevalence of formal drug and alcohol abuse programs increased again, to 83 percent.

Although not a perfect correlation, the OSHA incident rate generally declined as contractor hours worked increased. In other words, the larger the company, the lower the incidence rate.

## SMACNA Safety Summary

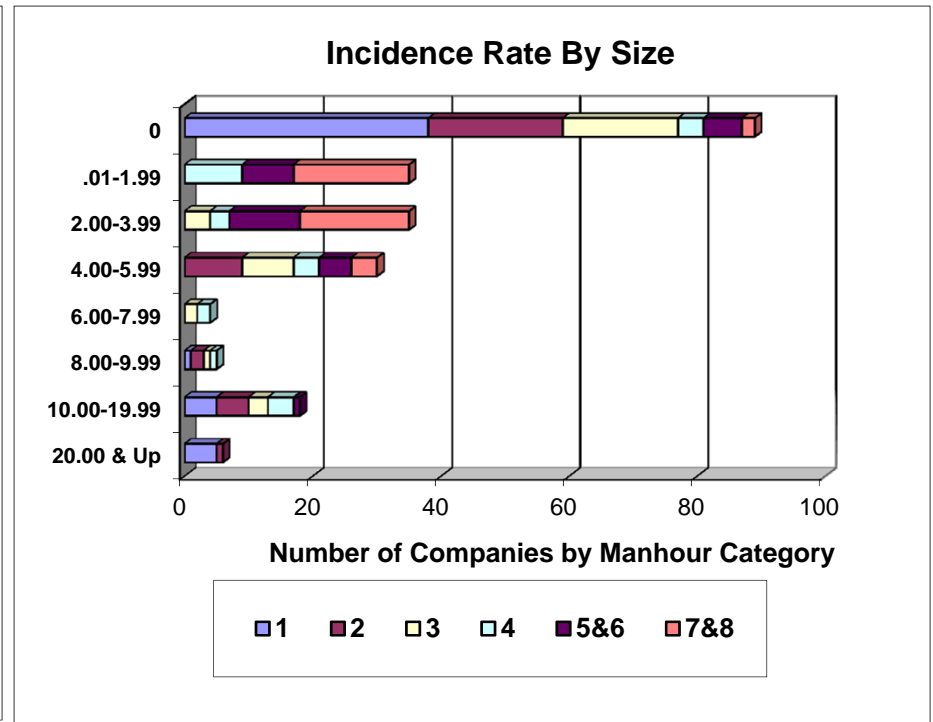
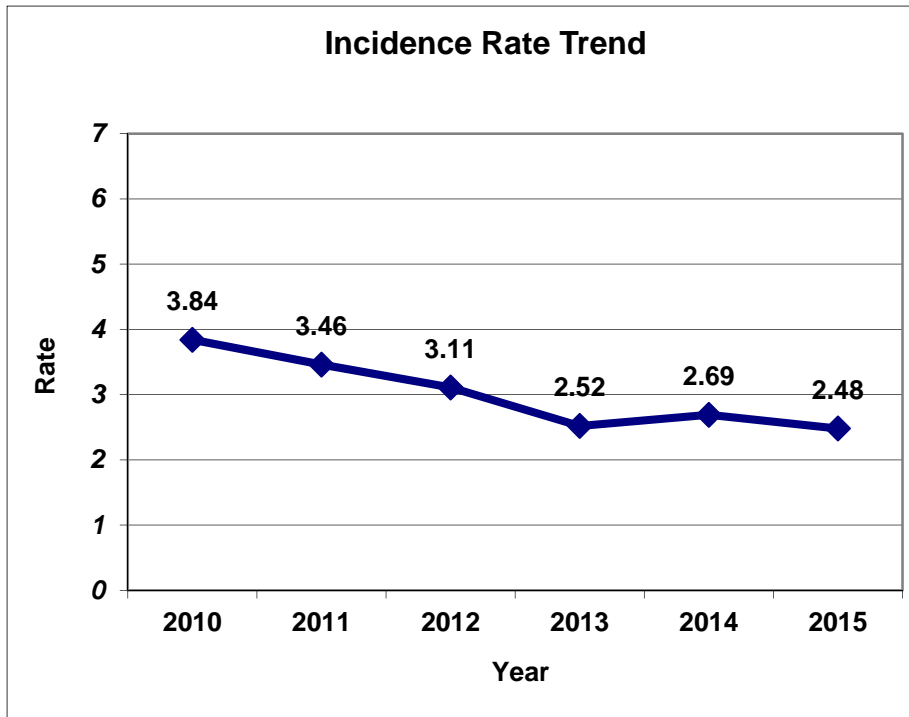
Class Size	Reports	Hours	Number of Incidents	Incidence Rate
1	50	608,028	20	6.58
2	38	1,434,003	26	3.63
3	36	2,631,602	42	3.19
4	27	3,921,978	81	4.13
5	16	3,826,449	41	2.14
6	14	5,242,598	76	2.90
7	11	5,022,684	55	2.19
8	30	41,425,844	454	2.19
<b>Grand Total</b>	<b>222</b>	<b>64,113,186</b>	<b>795</b>	<b>2.48</b>

### Class Size

- 1 1-25,000 hours
- 2 25,001-50,000 hrs.
- 3 50,001-100,000 hrs.
- 4 100,001-200,000 hrs.
- 5 200,001 - 300,000 hrs.
- 6 300,001-400,000 hrs.
- 7 400,001-500,000 hrs.
- 8 Over 500,000 hrs.

There were 222 participants in the 2015 SMACNA Safety Excellence Awards Program Survey. These companies worked over 64 million hours in 2014, a decline of 8,311,277 hours (11 percent) from last year (2013). As was the case last year, a plurality of respondents, 50 (23 percent), was from small contractors who work 25,000 hours or less (class size 1). With the exception of the largest class, as the class size increased the number of reporting firms decreased. The largest class, companies reporting over 500,000 hours, represented 13.5 percent of the respondents.

Last year, for the first time since 2008, the incidence rate increased. Fortunately, the rate decreased this year, from 2.69 to 2.48

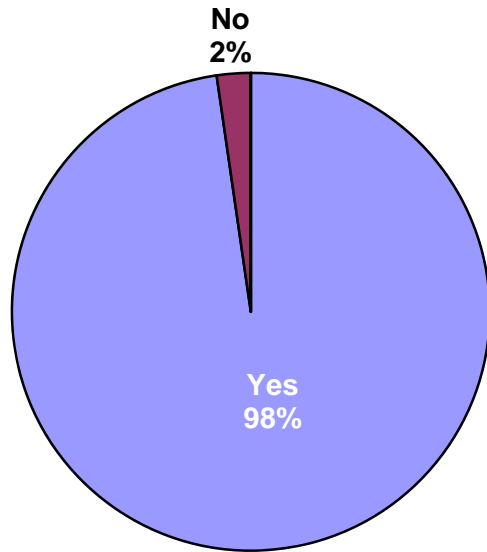


As shown in the chart on the left, the average OSHA incidence fell by 0.21 to 2.48 for the 2015 profile report (based on 2014). The OSHA incidence rate is a measure of frequency and does not necessarily reflect the severity of the cases (i.e., days away from work or restricted duty). Lost workday cases are a better measure of severity.

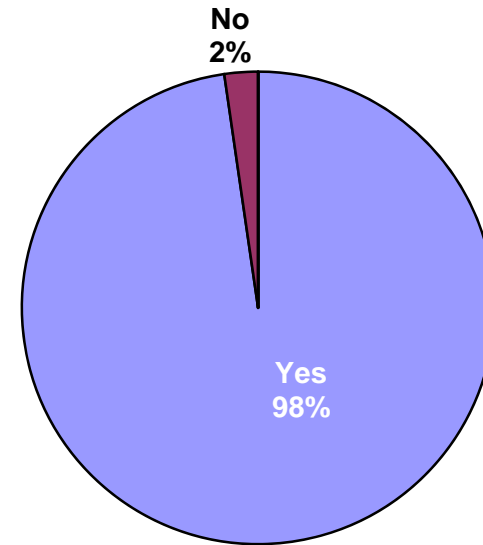
There was a significant decline in the number of lost workday cases. There were 201 lost workday cases this year compared to 543 last year. A portion of this improvement may be due to the fewer number of companies in this year's study, but the largest reason has to be improved performance.

Forty percent of the reporting contractors had a zero incidence rate, as the chart on the right conveys, which was the most common rate reported by far, consistent with past years. The remaining incidence rates were spread throughout the range of reported values.

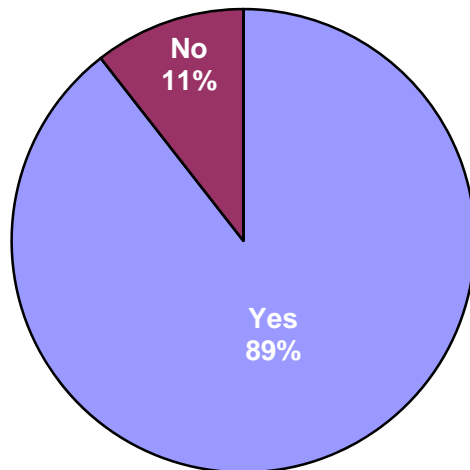
### Safety and Health Program



### Conduct Safety Inspections



### Designated Safety Coordinator

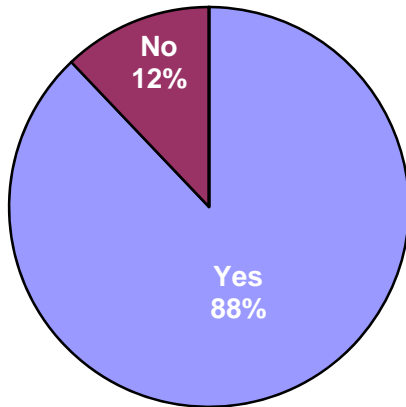


Nearly all companies have a written safety and health program, conduct safety inspections and have a designated safety coordinator. Those who do not have these safety program features typically are smaller companies. For those contractors with a designated safety coordinator, the position is full time for 70 percent of the companies participating in the survey, down insignificantly from 71 percent last year.

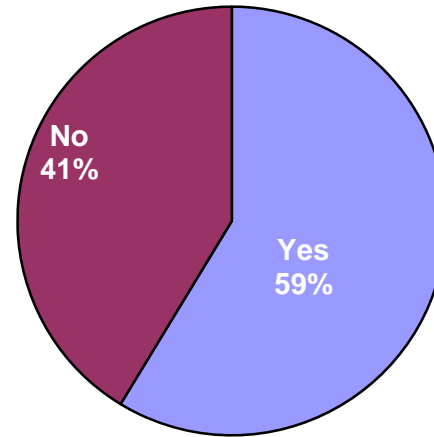
The percent of companies who do not have a designated safety coordinator has increased from 7 percent two years ago to 13 percent last year to 16 percent this year.

Four percent utilize a third party for their safety program.

### Use Safety Products & Services from SMACNA



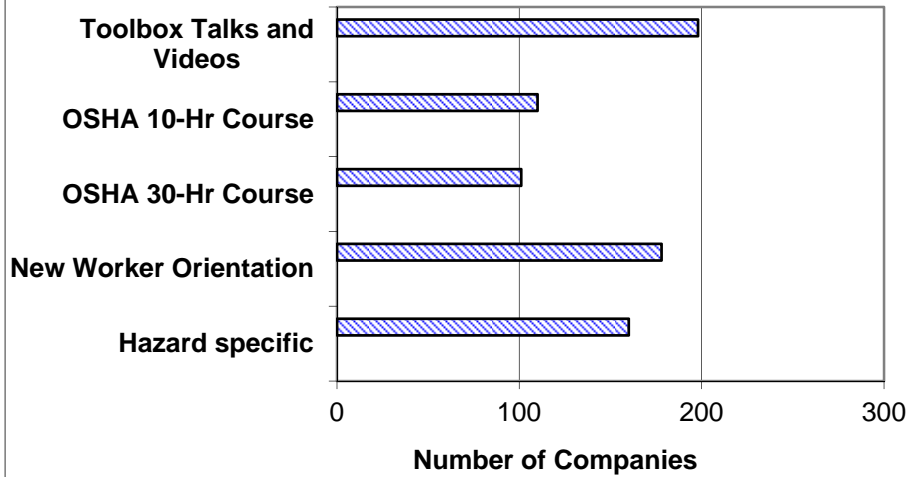
### Use SMOHIT Safety Products



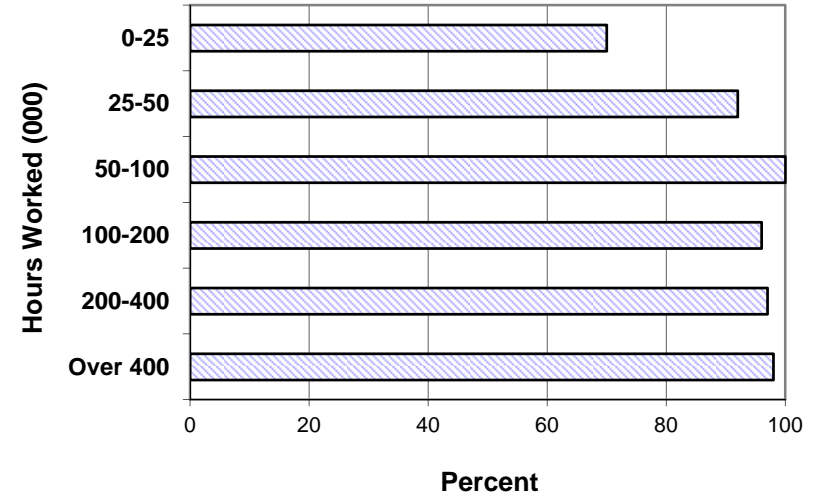
A strong majority of contractors—88 percent—use SMACNA’s safety products and services. The percent of contractors who use SMOHIT safety products was 59 percent, up five percent from last year and about the same as two years ago at 60 percent.

Like many results published in this report, these changes may be due to an actual change in the percent of contractors using SMOHIT safety products or due to changes in the composition of the survey sample.

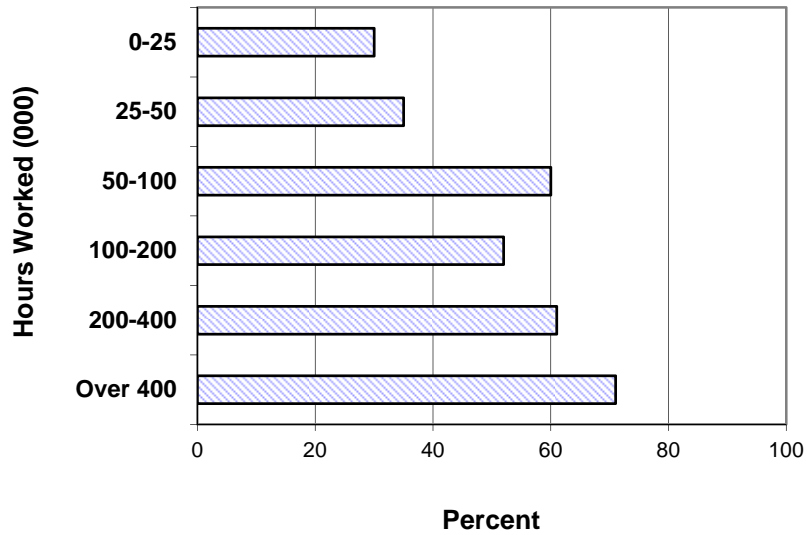
### Type of Safety Training



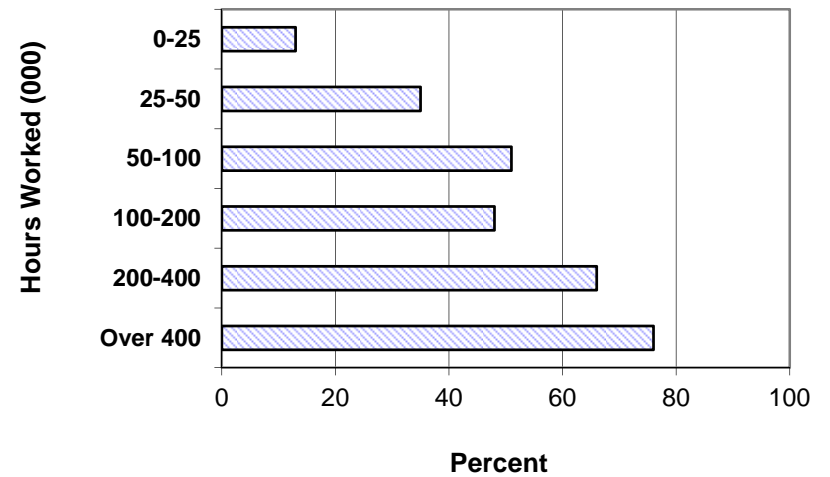
### Toolbox Talks and Videos



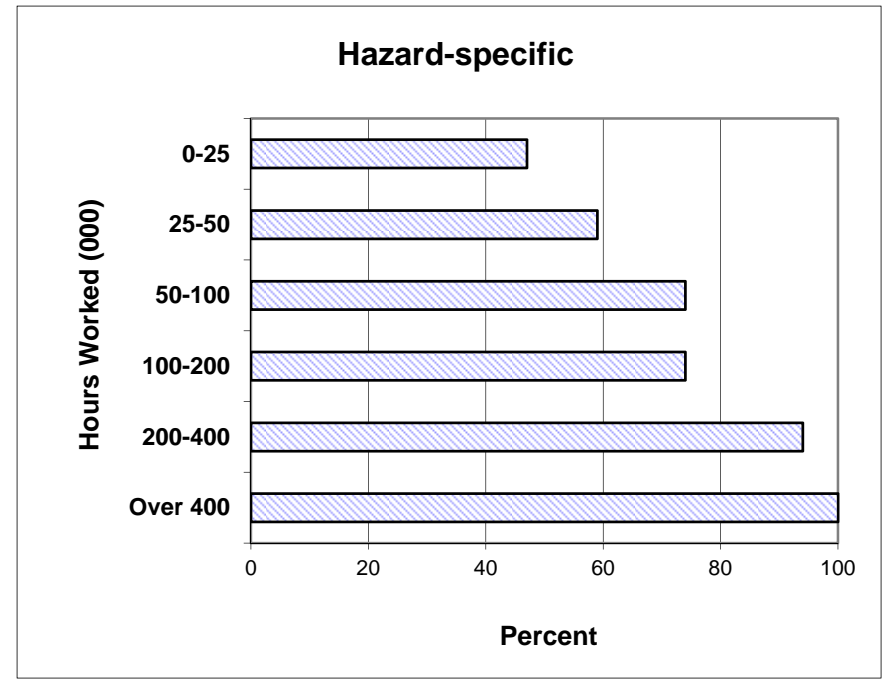
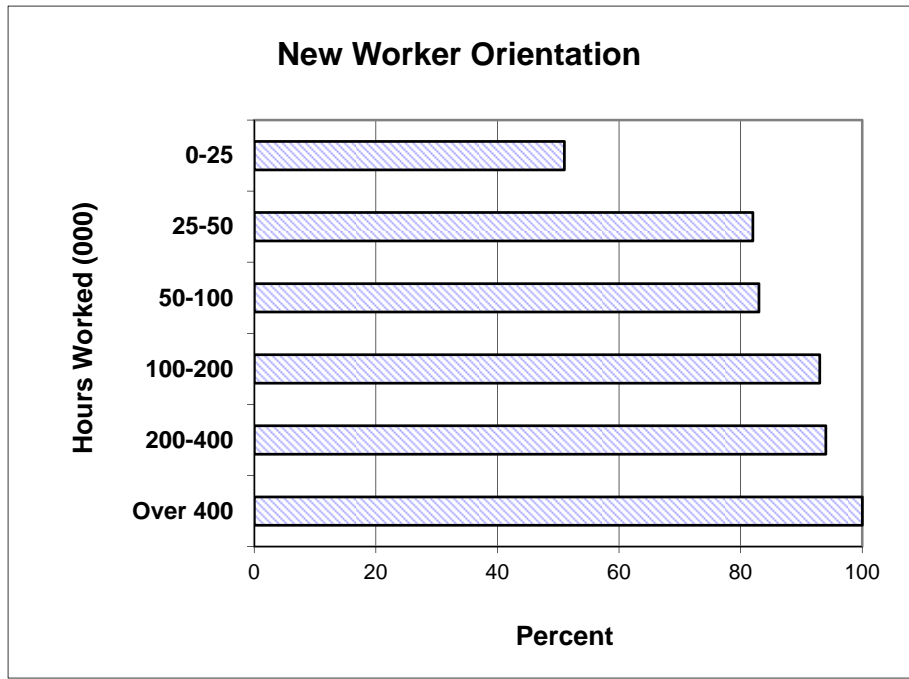
### OSHA 10-Hour Course



### OSHA 30-Hour Course

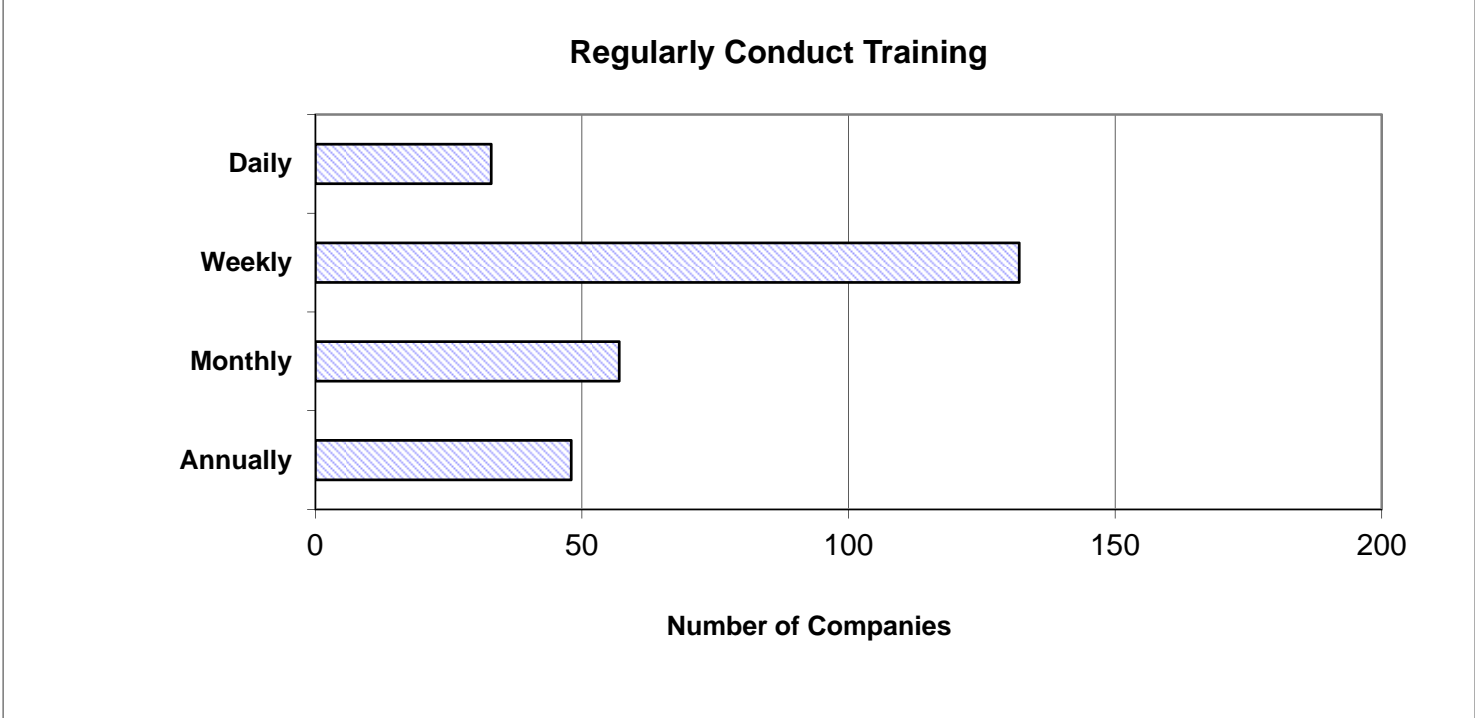






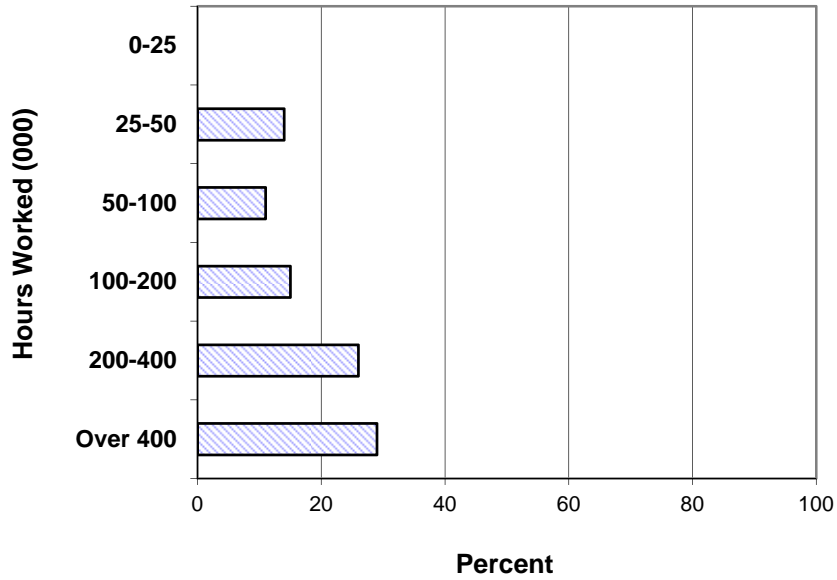
Contractors used a variety of training methods. Toolbox talks and videos and the OSHA 30-hour course continued to grow in popularity, especially among the largest contractors. Nearly all of the larger contractors (50,000 or more hours) used toolbox talks and videos and a majority of those with 200,000 or more hours employed the OSHA-30 hour course in their safety training.

The pattern of usage has been similar for many years. As contractors get larger, the percent of them that use the various training methods increases. To illustrate, 30 percent of the smallest companies (25,000 hours or less) utilized the OSHA-10 hour course while 71 percent of the largest contractors (400,000 hours or more) reported using the course.

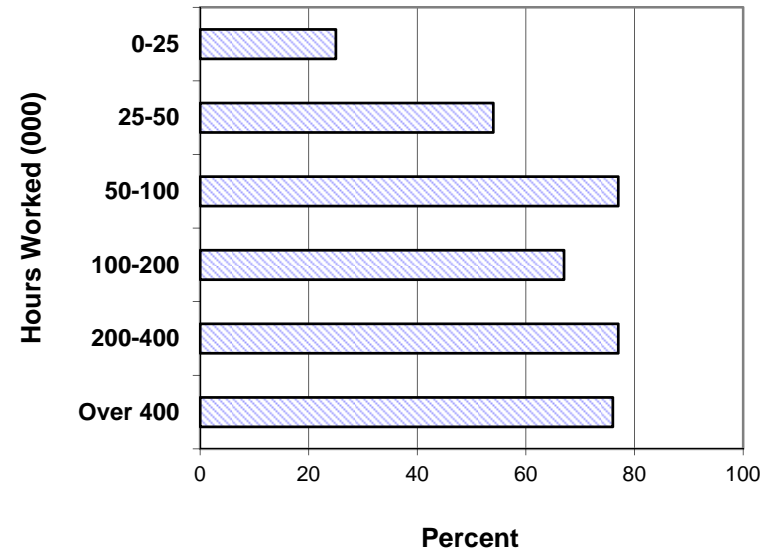


The percent of companies conducting weekly safety training was 61 percent, up from 52 percent last year. The percent of contractors conducting daily training was 15 percent, which was a decrease from the 20 percent mark last year.

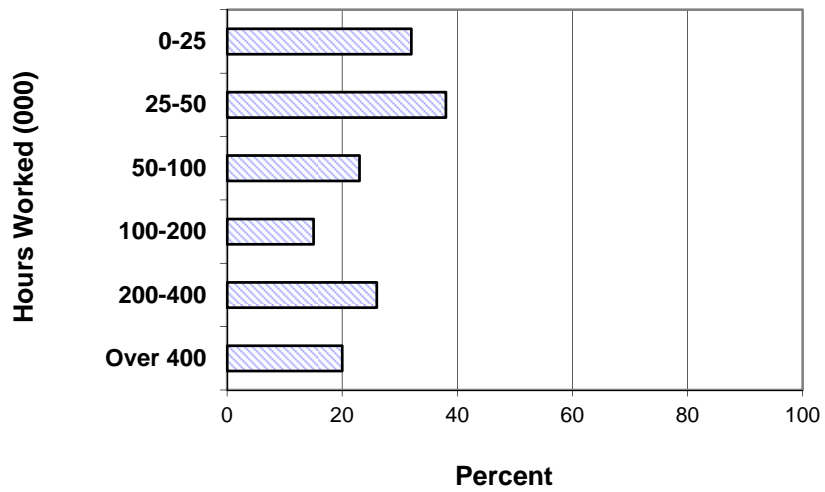
### Conduct Training-Daily



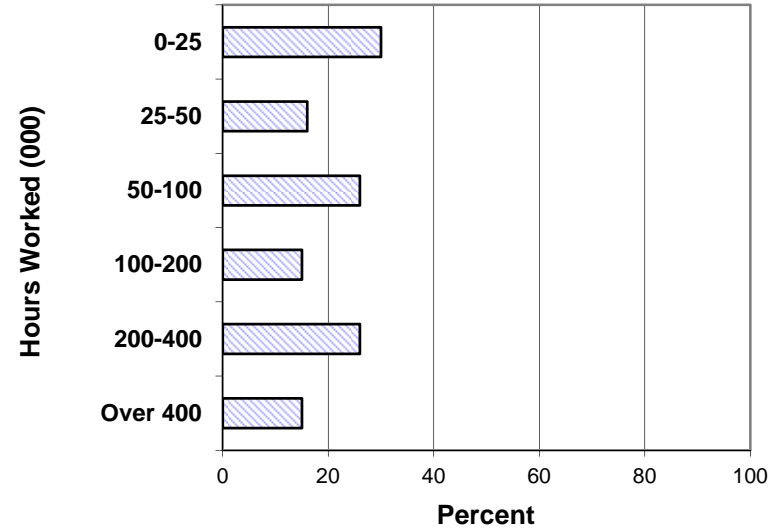
### Conduct Training-Weekly



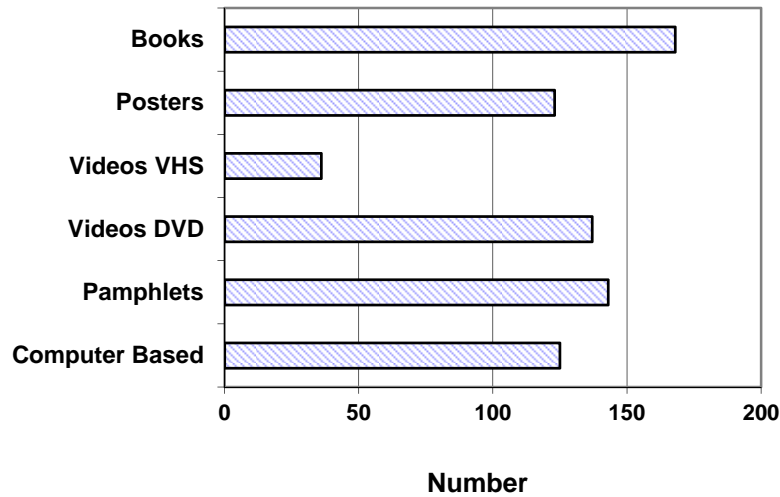
### Conduct Training-Monthly



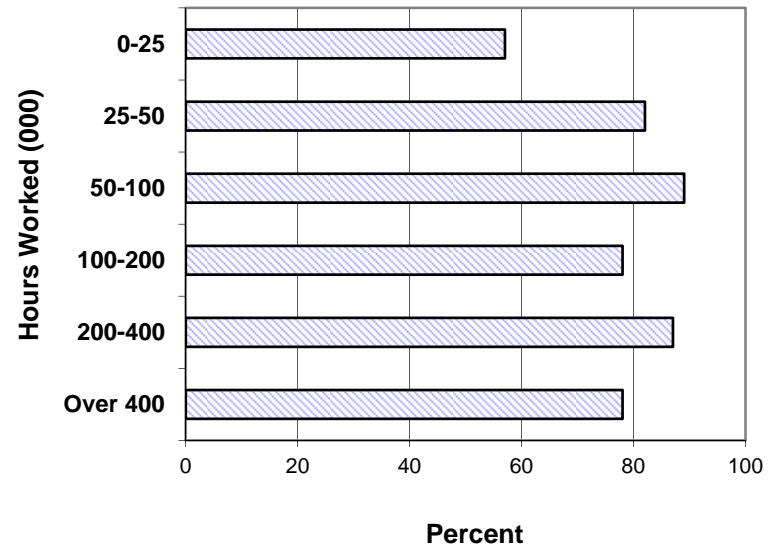
### Conduct Training-Annually



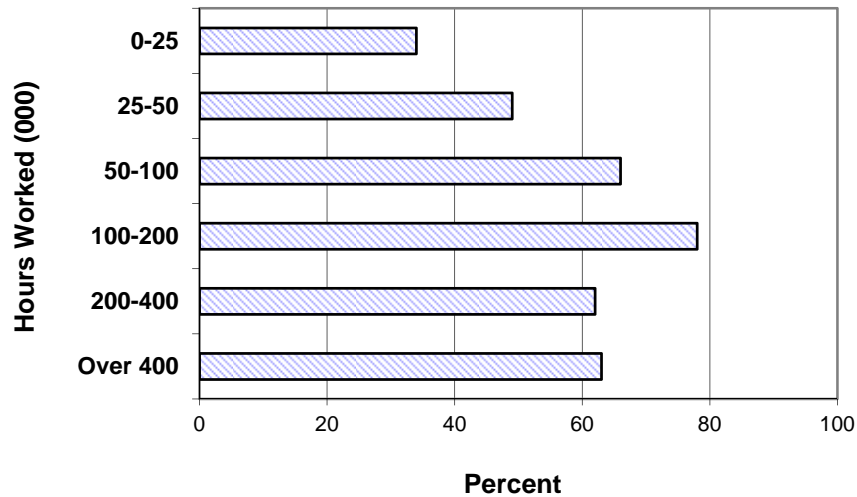
**Types of Training Materials Used**



**Safety Training Materials-Books/Manuals**



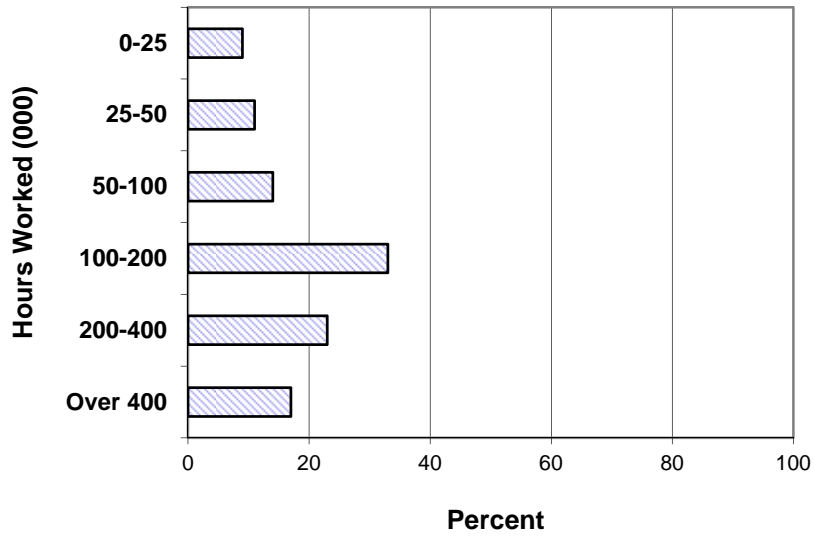
**Safety Training Materials-Posters**



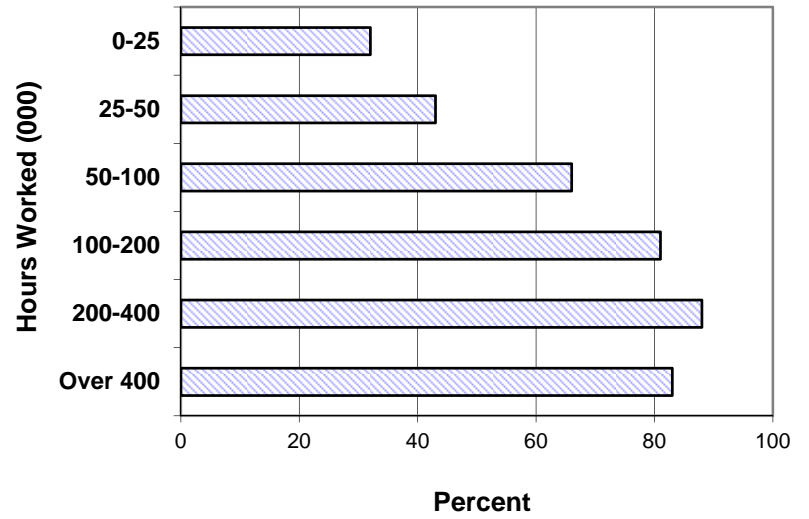
As was the case last year, books continued to be the most common type of training material, followed by pamphlets and DVD's. VHS videos were, by far, the least common type of training material used.

Small contractors (25,000 hours or less) lagged in every category compared to larger ones. For example, as shown on the next page, 80 percent of the largest companies used computer based training but just 19 percent of small contractors utilized this method of safety training.

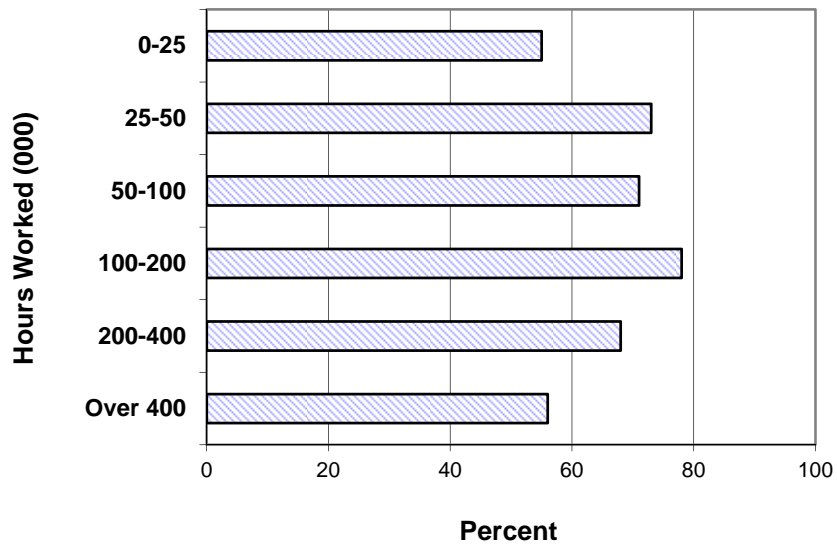
### Safety Training Materials-VHS



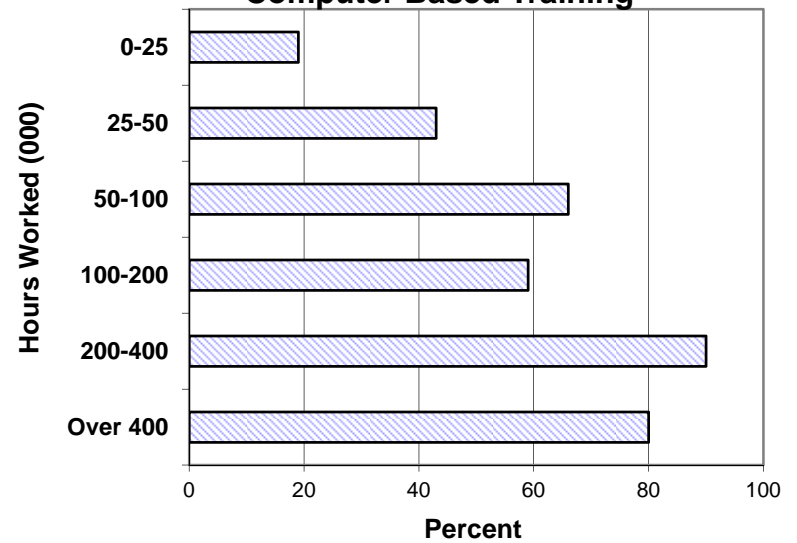
### Safety Training Materials-Videos DVD

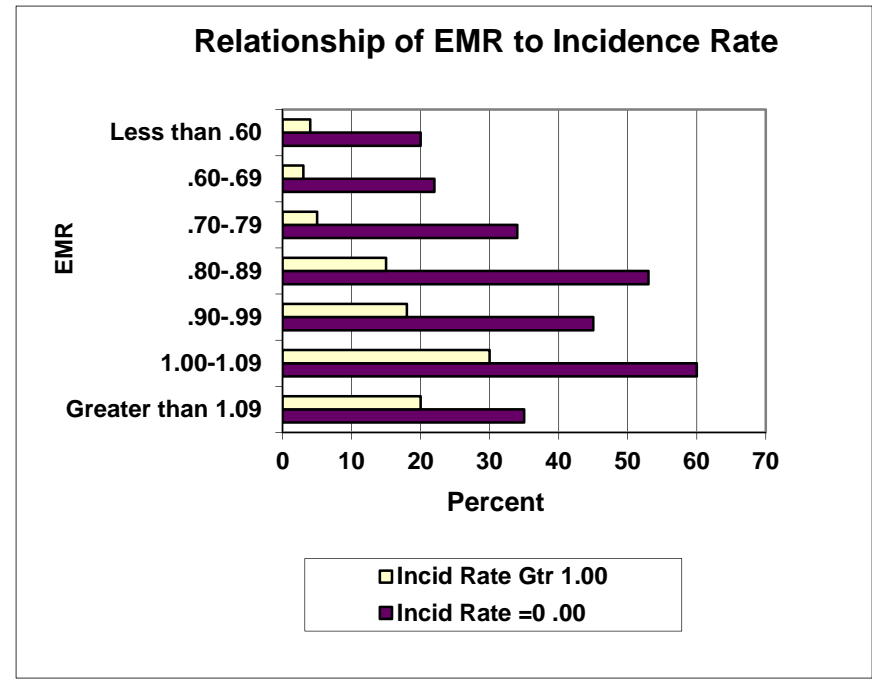
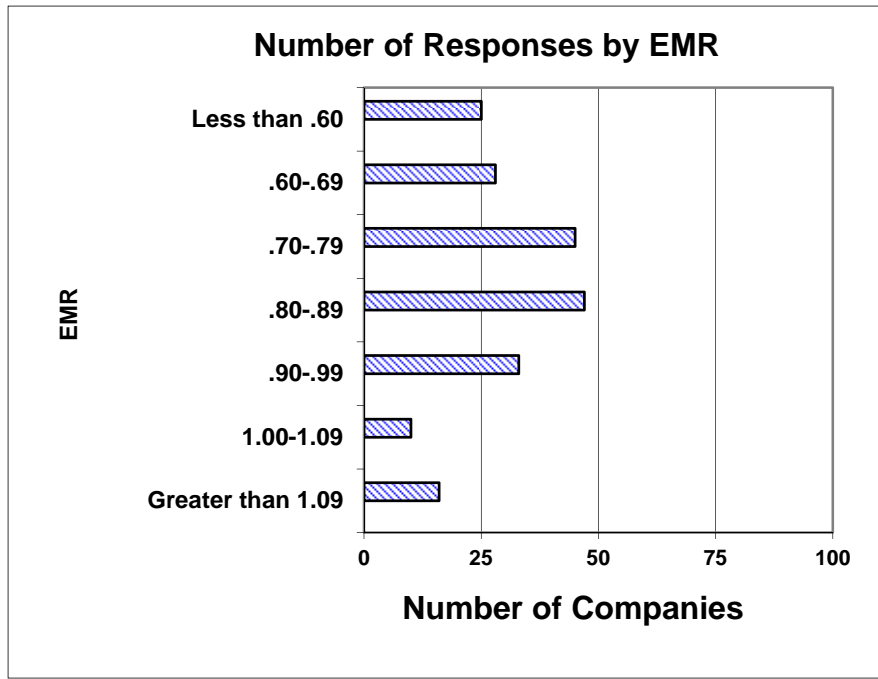


### Safety Training Materials-Pamphlets



### Safety Training Materials-Computer Based Training





The percent of contractors who had an EMR less than 1.0 was 87 percent, as illustrated in the chart on the left titled, “Number of Responses by EMR.” Last year this value was a little higher, 89 percent. Nearly half (45 percent) of the EMRs were in the 0.70-0.79 and 0.80-0.89 ranges.

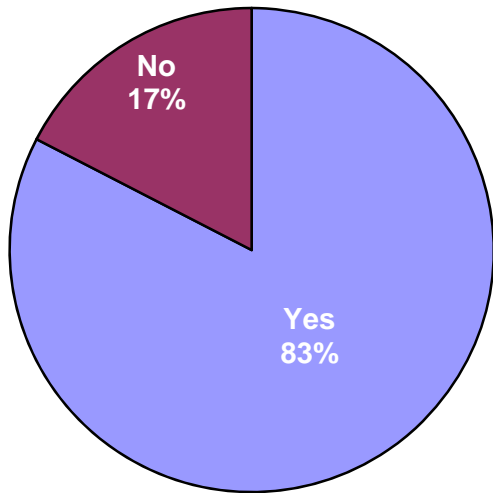
As shown in the “Relationship of EMR to Incidence Rate” chart on the right, the percent of contractors with a 0.00 incidence rate was much higher for all EMR scores than the percent of contractors with an incidence rate greater than 1.0. In other words, a zero incidence rate is much more common than a high incident rate, regardless of the EMR score.

### Industry Segment Safety

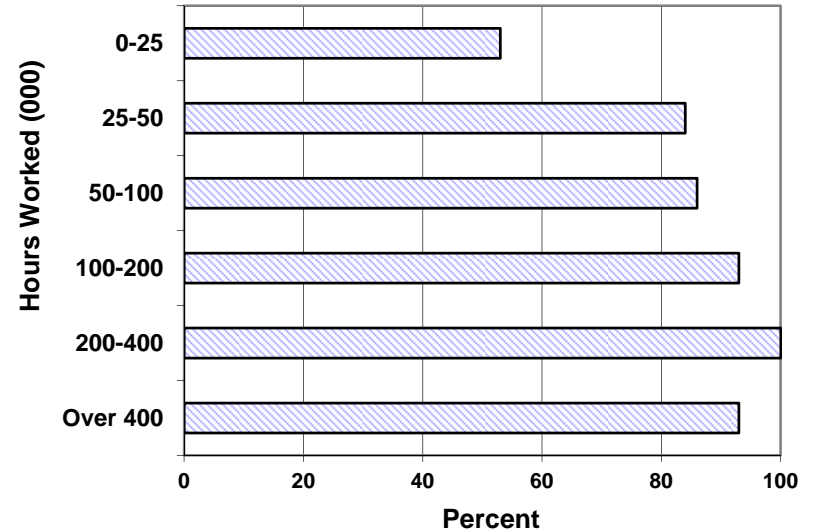
	Number	Hours	Incidents	Incident Rate
<b>Commercial HVAC</b>	80	17,932,936	236	2.64
<b>Residential HVAC</b>	21	467,910	10	4.65
<b>Architectural Sheet Metal</b>	28	723,918	10	2.76
<b>Industrial Sheet Metal</b>	64	7,324,388	85	2.33
<b>Kitchen Equipment/Food Svcs.</b>	11	158,546	2	2.21
<b>Manufacturing</b>	25	690,933	9	2.67
<b>Testing and Balancing</b>	28	504,552	7	2.66
<b>Siding and Decking</b>	7	216,980	3	2.35

The table above displays the number of contractors in each industry segment, along with the hours, number of incidents and incident rate. Commercial HVAC was again the largest category for hours worked and Kitchen Equipment/Food Services was the smallest. Like last year, Residential HVAC had the highest incident rate (4.65). This rate was much higher than the incidence rate for all other industry segments. The lowest incident rate this year was for Kitchen Equipment and Food Services (2.21). The lowest category last year was Siding and Decking (1.55). Excluding Residential HVAC, all rates fell within the tight range of 2.21-2.76.

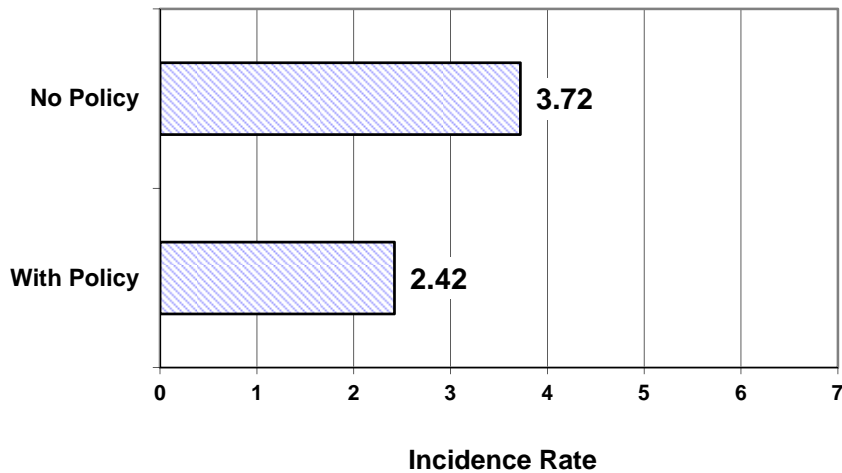
**Formal Program for Drug and Alcohol Abuse**



**Formal Program for Drug and Alcohol Abuse**



**Incidence Rate by Drug Policy**



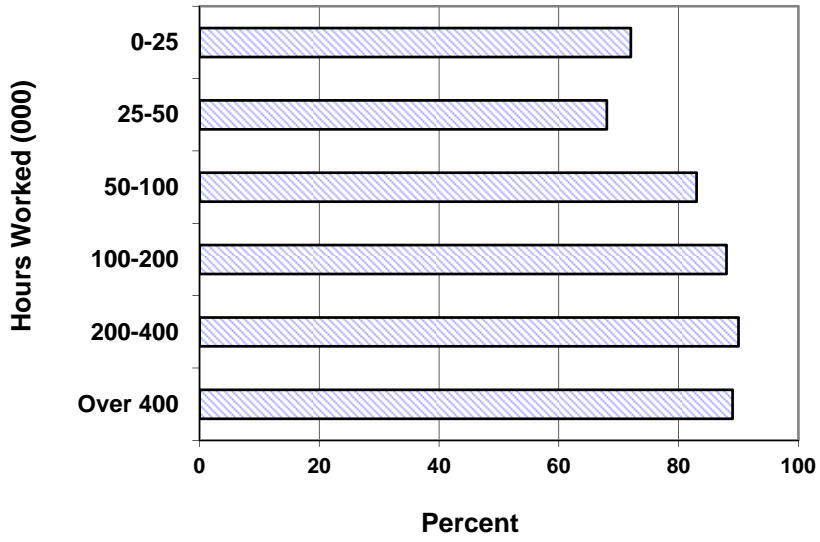
The percent of contractors with a formal drug and alcohol program was 83 percent, a modest increase from 80 percent last year.

The size of the contractor was correlated with program prevalence. In the chart above, generally speaking, the larger the contractor the more likely they were to have a formal drug and alcohol abuse program.

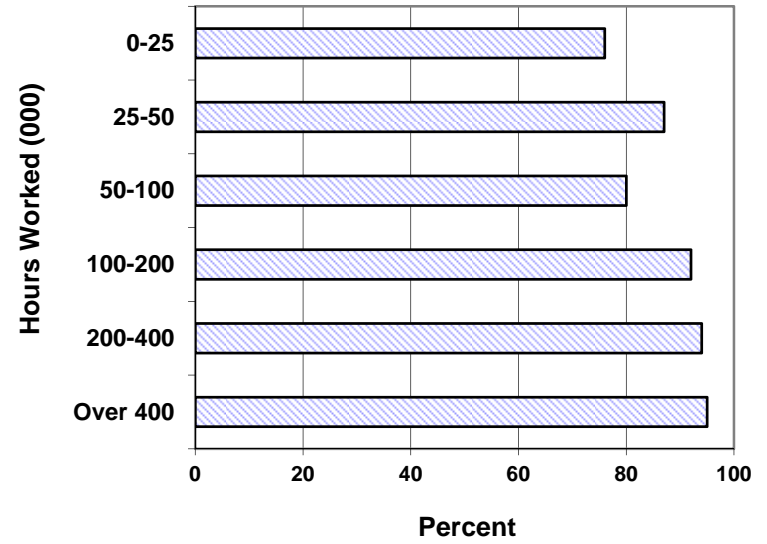
As shown in the chart to the left, those contractors with no drug policy had a substantially higher incidence rate (3.72) than those without a policy (2.42).



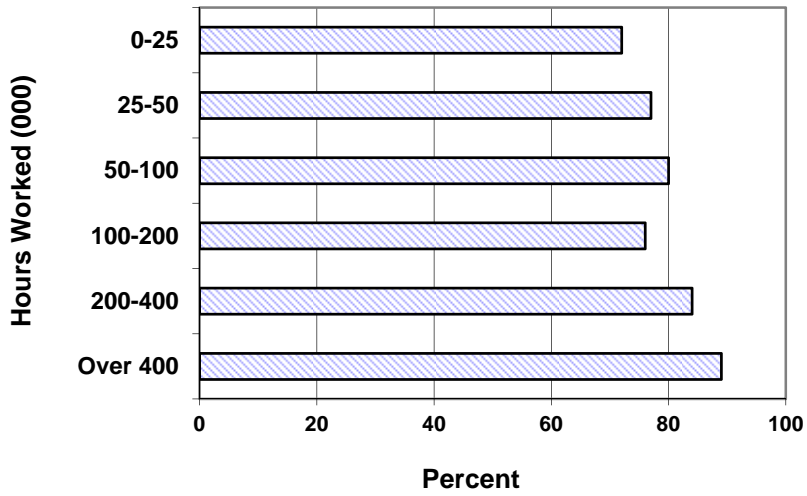
**Pre-Hire Testing Conducted**



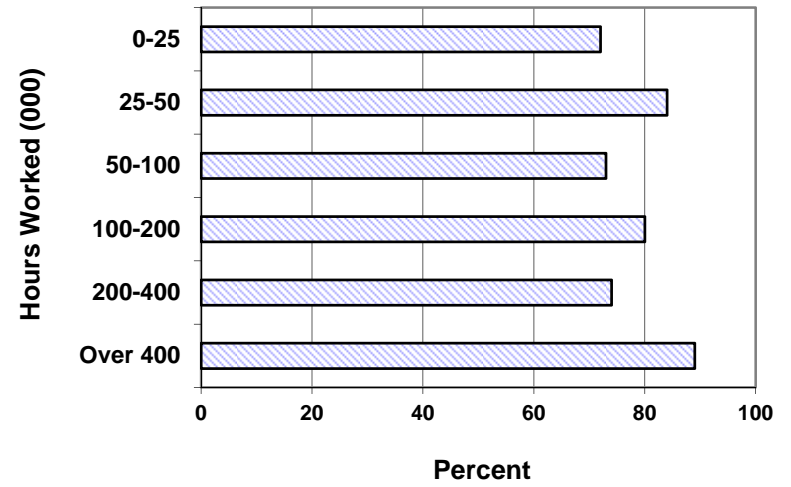
**Post Accident Testing Conducted**

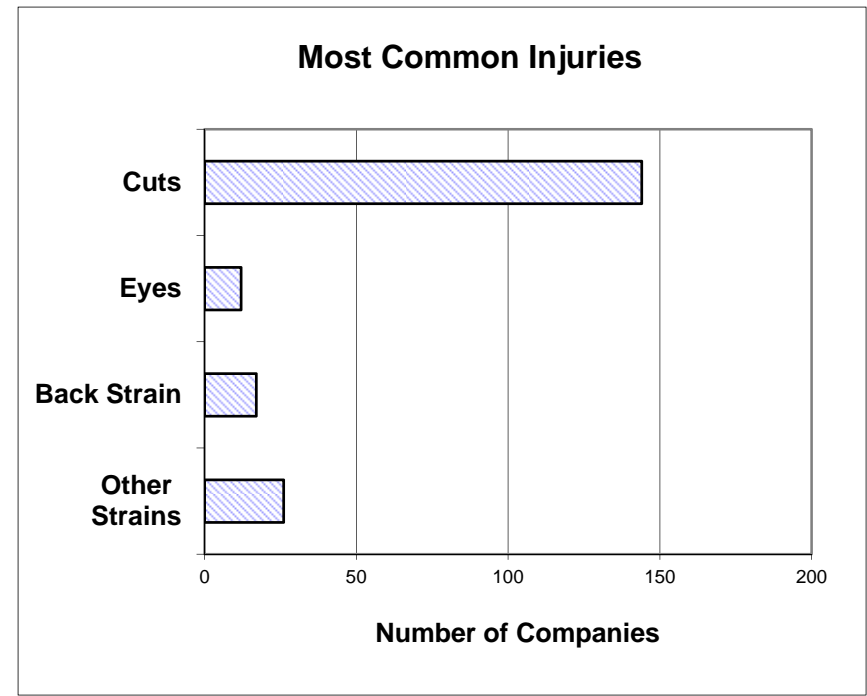
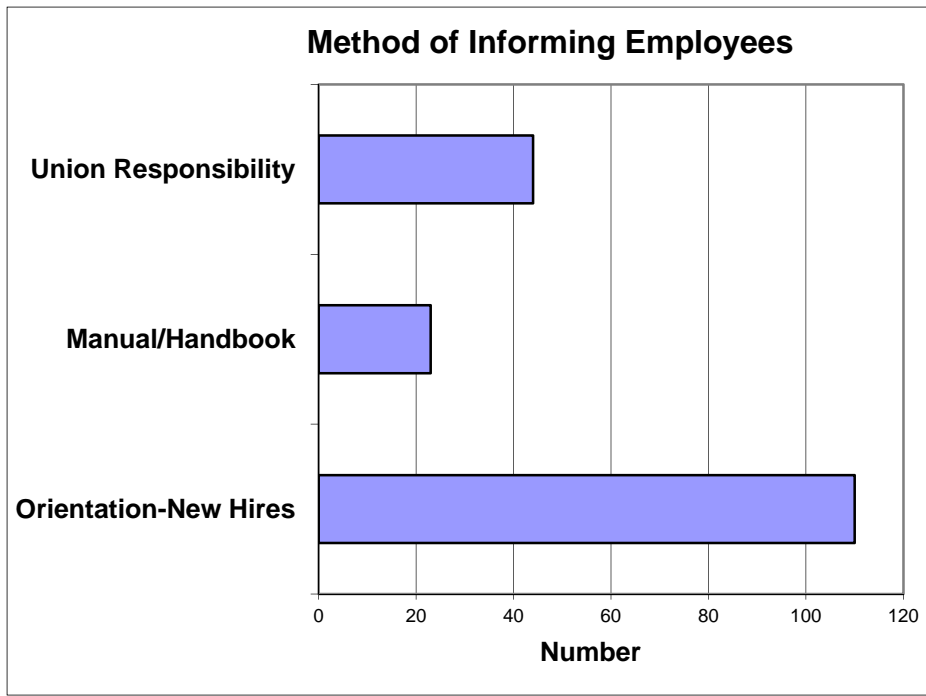


**Random Testing Conducted**



**Penalties**





Similar to last year, the chart on the left shows that contractors primarily used three methods of informing their employees about their drug and alcohol abuse policies: the union, manuals/handbooks and new hire orientation. New hire orientation was the most common method, by far.

The chart on the right displays the finding that the most common injury again for 2014 was cuts. Other strains was the second most common type of injury, followed closely by back strain and injuries to the eyes.

## SMACNA Safety Trends

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Incidents	1,446	1,339	1,210	1,724	1,687	1,192	912	902	973	795
Incidence Rate	5.21	4.62	5.06	4.29	3.84	3.46	3.11	2.52	2.69	2.48
Lost Workdays	24,371	20,547	19,467	30,712	25,785	22,311	15,316	11,545	14,945	15,310
Average Lost Workdays	82	84	92	101	70	63	61	53	58	69
Lost Workday Cases	-	-	-	-	-	-	-	533	543	201
Reported Hours (millions)	56.0	57.9	47.8	80.3	87.8	68.9	58.7	71.6	72.4	64.1
Safety & Health Program	96%	98%	95%	95%	96%	98%	98%	99%	96%	98%
Designated Safety Coord.	97%	96%	95%	94%	97%	93%	93%	93%	87%	89%
SMACNA Products	84%	87%	87%	86%	88%	87%	88%	89%	87%	88%
SMOHIT Safety Products	37%	45%	51%	55%	67%	68%	54%	60%	54%	59%
EMR	0.85	0.83	0.79	0.84	0.83	0.82	0.82	0.81	0.81	0.81
Drug Program	78%	84%	82%	87%	88%	94%	82%	78%	80%	83%
Number of Companies	298	243	212	304	377	350	247	214	254	222

## SMACNA Safety Performance

### Selected Issues

	<u>2015</u>		<u>2014</u>	
	<u>All</u> <u>Respondents</u>	<u>Superior</u> <u>Performers</u>	<u>All</u> <u>Respondents</u>	<u>Superior</u> <u>Performers</u>
Use SMACNA Safety Products	59%	87%	87%	87%
Have a Formal Drug Policy	83%	98%	80%	83%
Provide New Worker Orientation	82%	98%	78%	91%
Utilize OSHA 10 Hr. Training	50%	73%	51%	62%
Utilize OSHA 30 Hr. Training	46%	71%	52%	64%
Utilize Computer Based Training	57%	80%	51%	64%
Average EMR	0.81	0.68	0.81	0.75
Average Incidence Rate	2.48	1.03	2.69	0.97

This table compares superior performers to the total sample for this year's survey (i.e., this 2015 profile based on data representing 2014) and last year's survey. For the purposes of this table, a superior performing contractor is one who worked over 100,000 hours and achieved an OSHA incidence rate below 2.00.

Those contractors who met the criteria for superior performers exhibited better performance in all of the categories listed, such as using SMACNA safety products and having a formal drug policy. Moreover, those companies that put the greatest effort into safety promotion saw the best safety results with lower EMR scores and incidence rates.