



# SMACNA Safety Profile

## SMACNA Safety Excellence Awards Program

2016

Prepared by  
The Construction Labor Research Council



## Introduction

Each year SMACNA conducts a Safety Excellence Awards Program (SSEAP) 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 program provides a rich database for evaluating sheet metal and HVAC industry safety performance. Findings are summarized in this report. In addition, contractors participating in the awards program 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 Excellence 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 refers to data collected for hours worked in calendar year 2015.

In 2016, SMACNA implemented the first Canadian Safety Excellence Awards Program (SSEAP-C). Information and data from that program will be compiled into a separate SMACNA Safety Profile – Canada as it becomes available.

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## I. Overview

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The average experience modification rate (EMR) was 0.78, slightly lower than last year and the lowest rate in the past decade.

The average OSHA incident rate fell to 2.41 in 2016 (data from 2015), the lowest rate in at least 15 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 7 percent, from 69 to 74, 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.

The number of reported hours of work was 37.3 million, a decline of 42 percent from last year. This is due to the lower than expected number of surveys submitted this year.

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.

**Exhibit 1.1 – Summary Statistics**

Class	Hours	Reports	Total Hours	Number of Incidents	Incidence Rate
1	1-25,000	34	384,690	14	7.28
2	25,001-50,000	21	742,872	21	5.65
3	50,001-100,000	20	1,383,965	32	4.62
4	100,001-200,000	19	3,105,696	42	2.70
5	200,001-300,000	8	2,085,832	27	2.59
6	300,001-400,000	8	2,782,566	34	2.44
7	400,001-500,000	9	3,912,307	39	1.99
8	Over 500,000	20	22,918,129	241	2.10
<b>Grand Total</b>		<b>139</b>	<b>37,316,056</b>	<b>450</b>	<b>2.41</b>

As shown in **Exhibit 1.1**, there were 139 participants in the 2016 SMACNA Safety Excellence Awards Program Survey (data reflect 2015) compared to 222 last year. These companies worked over 37 million hours in 2015. As was the case last year, a plurality of respondents, 34 (24 percent), was from small contractors who work 25,000 hours or less (class size 1). Generally speaking, with the exception of the largest class, as the class size increased the number of reporting firms decreased. However, although the largest class—companies reporting over 500,000 hours—represented 14 percent of the respondents (20 companies), they represented 61 percent of the hours.

**Exhibit 1.2** contains an overview of key statistics tracked by the SMACNA Safety Profile from 2006-2016.

## Exhibit 1.2 – Safety Trends

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Number of Companies</b>	298	243	212	304	377	350	247	214	254	222	139
<b>Reported Hours (millions)</b>	56.0	57.9	47.8	80.3	87.8	68.9	58.7	71.6	72.4	64.1	37.3
<b>Incidents</b>	1,446	1,339	1,210	1,724	1,687	1,192	912	902	973	795	450
<b>Incidence Rate</b>	5.21	4.62	5.06	4.29	3.84	3.46	3.11	2.52	2.69	2.48	2.41
<b>Lost Workdays</b>	24,371	20,547	19,467	30,712	25,785	22,311	15,316	11,545	14,945	15,310	10,246
<b>Average Lost Workdays</b>	82	84	92	101	70	63	61	53	58	69	74
<b>Lost Workday Cases</b>	-	-	-	-	-	-	-	533	543	201	183
<b>Average Lost Workday Cases</b>	-	-	-	-	-	-	-	2.49	2.14	0.91	1.32
<b>Safety &amp; Health Program</b>	96%	98%	95%	95%	96%	98%	98%	99%	96%	98%	97%
<b>Designated Safety Coord.</b>	97%	96%	95%	94%	97%	93%	93%	93%	87%	89%	87%
<b>Use SMACNA Products</b>	84%	87%	87%	86%	88%	87%	88%	89%	87%	88%	90%
<b>Use SMOHIT Safety Products</b>	37%	45%	51%	55%	67%	68%	54%	60%	54%	59%	55%
<b>EMR</b>	0.85	0.83	0.79	0.84	0.83	0.82	0.82	0.81	0.81	0.81	0.78
<b>Drug Program</b>	78%	84%	82%	87%	88%	94%	82%	78%	80%	83%	77%

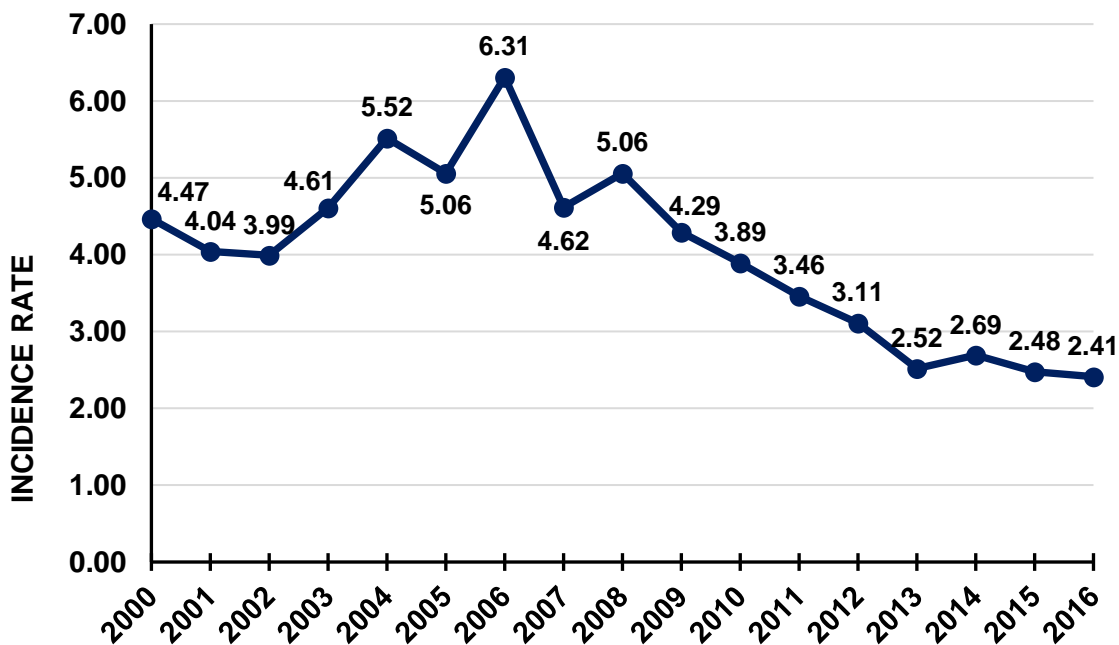
## II. Incidence and EMR Rates

### Incidence Rate

As shown in **Exhibit 2.1**, the average OSHA incidence rate fell by 0.07 to 2.41 for the 2016 report. 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.

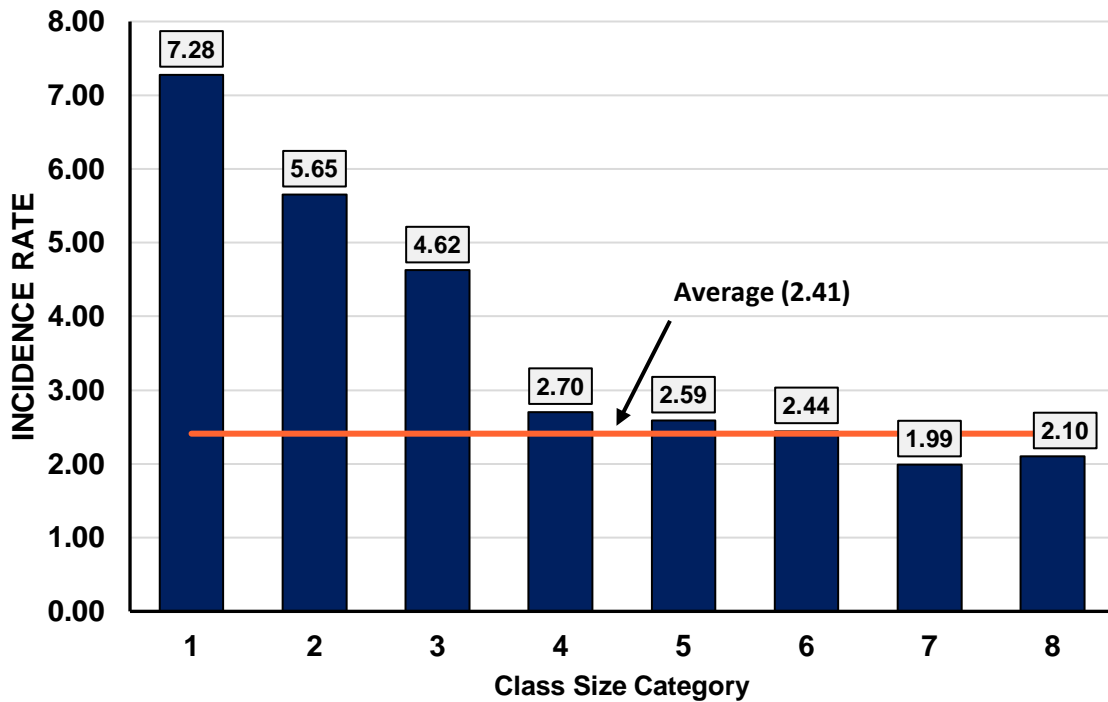
Thirty-six percent of the reporting contractors had a zero incidence rate, which was the most common rate reported by far, consistent with past years. The remaining incidence rates were spread throughout the range of reported values.

**Exhibit 2.1 – Incidence Rate Trend**



**Exhibit 2.2** illustrates the incidence rate by company size (see **Exhibit 1.1** for a description of the company size categories). There was a clear trend between company size and incidence rate—the larger the company, the lower the incidence rate.

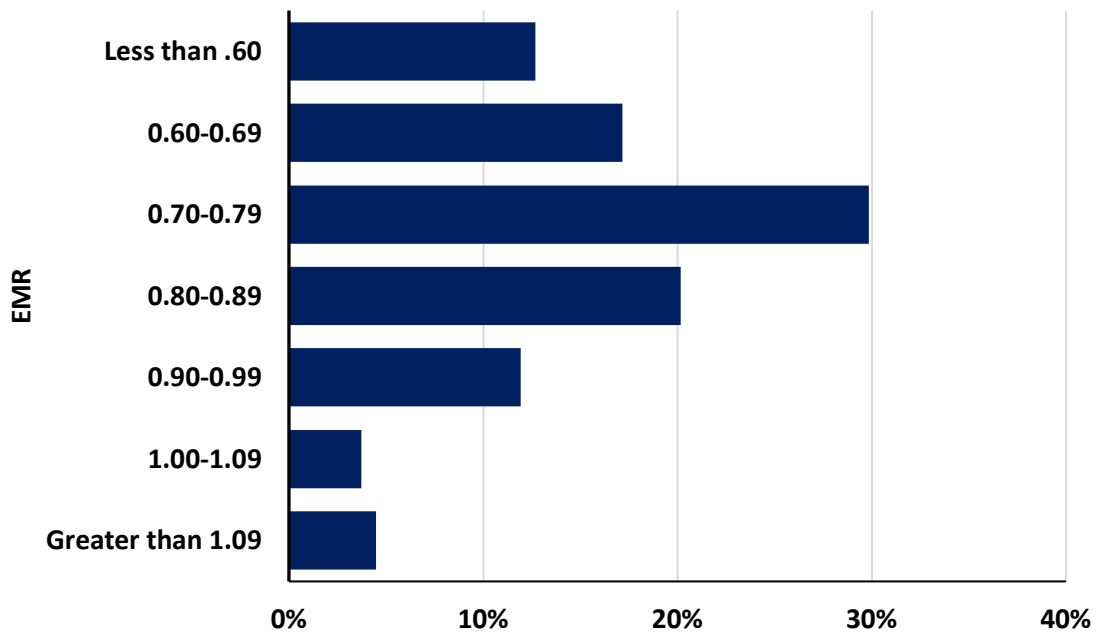
**Exhibit 2.2 – Incidence Rate by Company Size**



**EMR**

**Exhibit 2.2** displays the percent of respondents by EMR rate. The percent of contractors who had an EMR less than 1.0 was 92 percent, up from 87 percent last year. A large plurality of respondents had an EMR in the 0.70-0.79 range.

**Exhibit 2.2 – EMR**



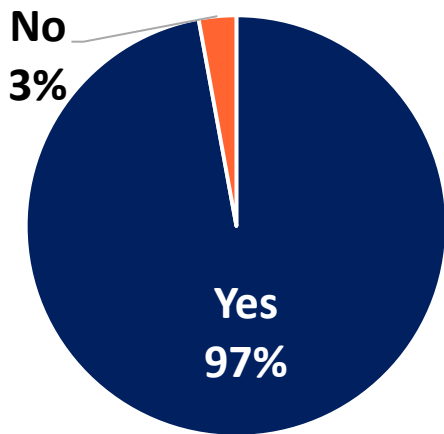


**III. Safety**

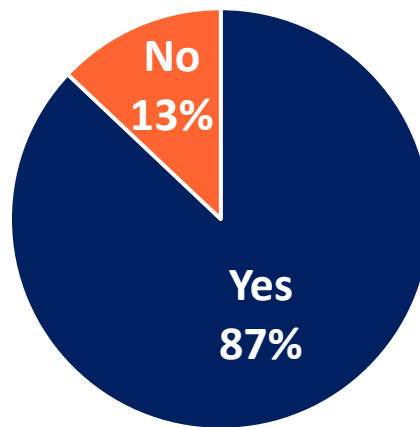
Nearly all companies had a written safety and health program, a designated safety coordinator, and conducted safety inspections. Those who did not have these features typically were smaller contractors. See **Exhibits 3.1-3.3**

The incidence rate was noticeably lower for those companies answering yes than it was for those that did not engage in these safety related activities.

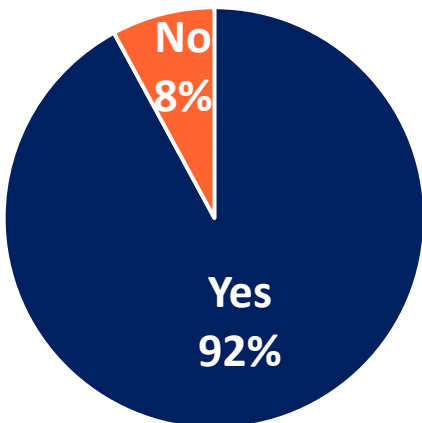
**Exhibit 3.1 – Safety and Health Program**



**Exhibit 3.2 – Designated Safety Coordinator**

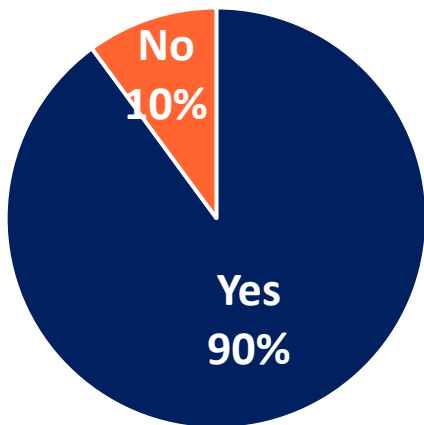


**Exhibit 3.3 – Conduct Safety Inspections**

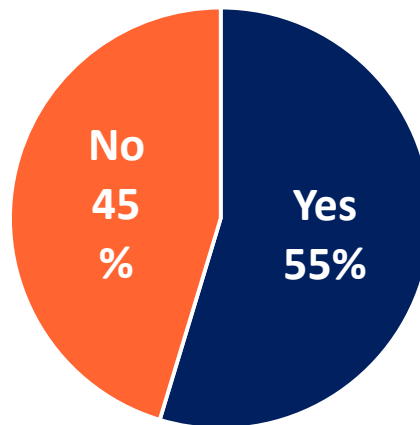


As displayed in **Exhibit 3.4**, a strong majority of contractors—90 percent—use SMACNA’s safety products and services, up two percent from last year. The percent of contractors who use SMOHIT safety products was 55 percent, down four percent from last year (**Exhibit 3.5**).

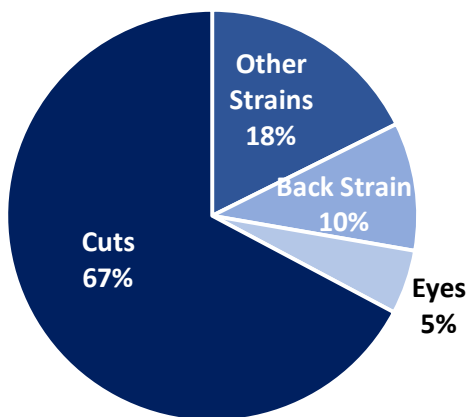
**Exhibit 3.4 – Use Safety Products & Services from SMACNA**



**Exhibit 3.5 – Use SMOHIT Safety Products**



**Exhibit 3.6 – Most Common Types of Injuries**

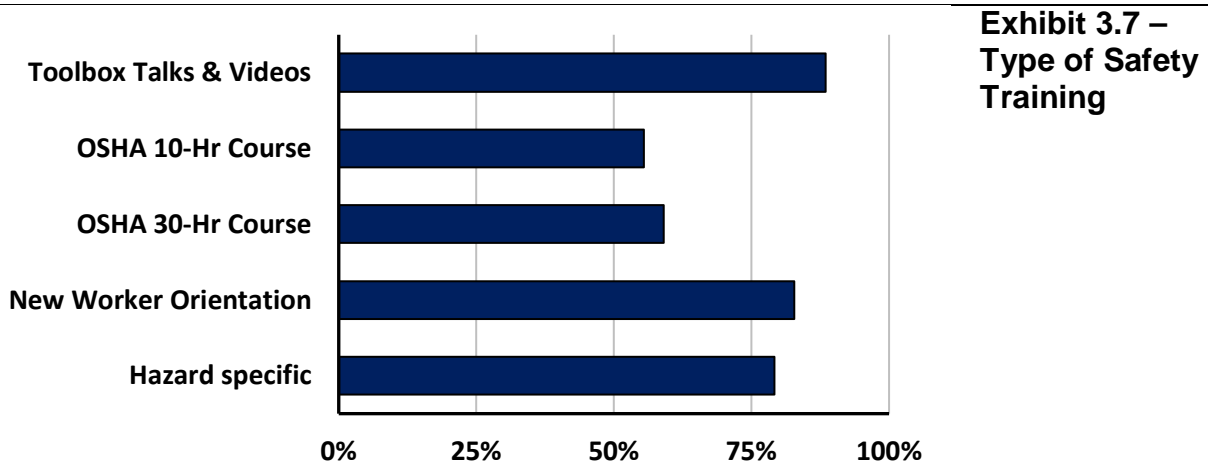


**Exhibit 3.6** shows the prevalence of four different types of injuries. Cuts are the most common by far at 67 percent of all injuries reported.

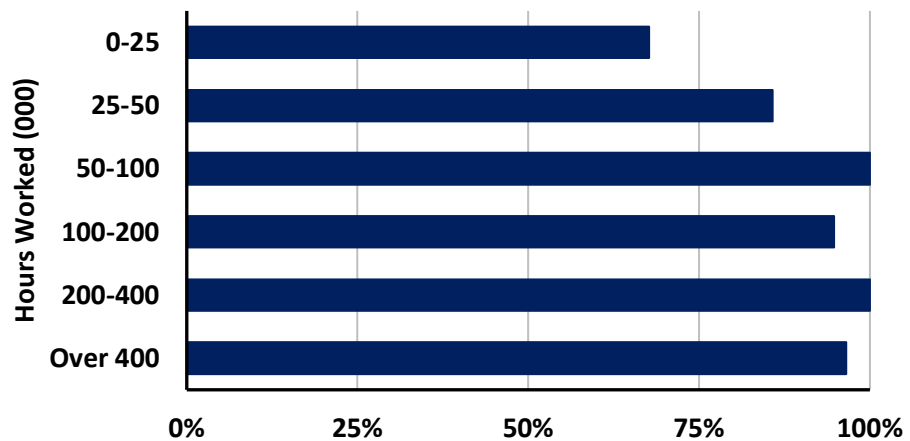
## Safety Training Methods

**Exhibit 3.7** shows the frequency of usage for various types of safety training methods. The most common type of safety training was Toolbox Talks & Videos, used by 88 percent of the respondents. The OSHA 10-Hour Course was the least popular method at 55 percent. However, medium to large companies' use of the OSHA 30-hour course has increased significantly since 2011.

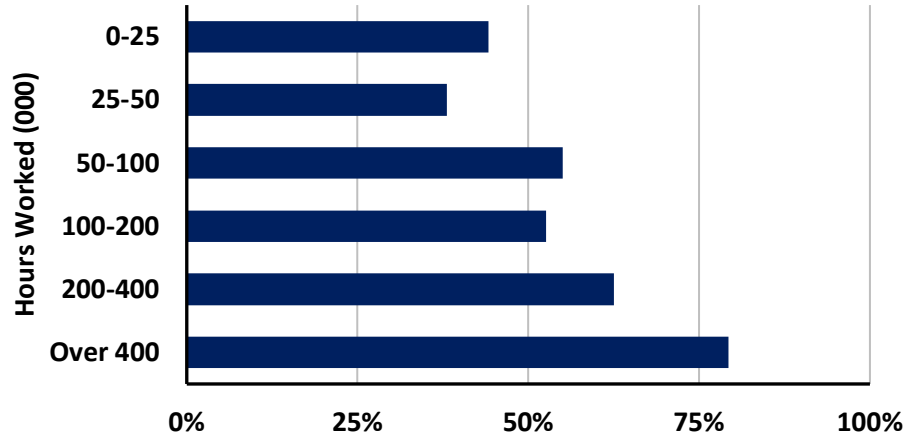
**Exhibits 3.8-3.12** build on **Exhibit 3.7** by conveying the usage for each of the five different types of training methods by hours worked.



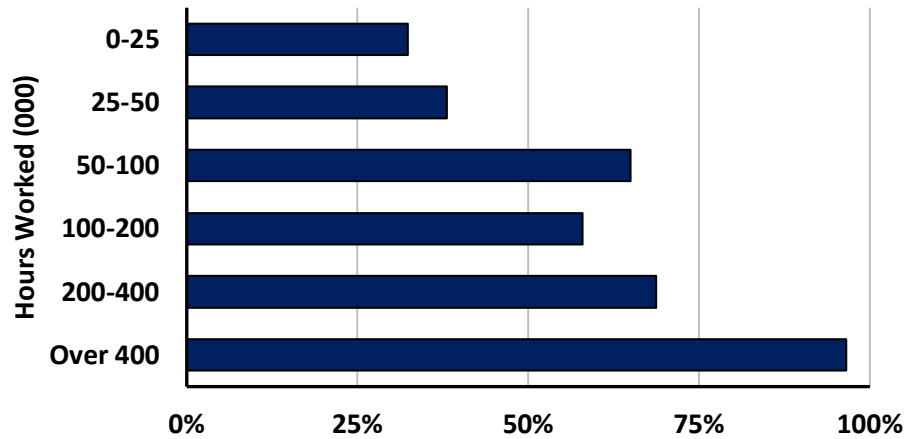
**Exhibit 3.8 – Toolbox Talks and Videos**



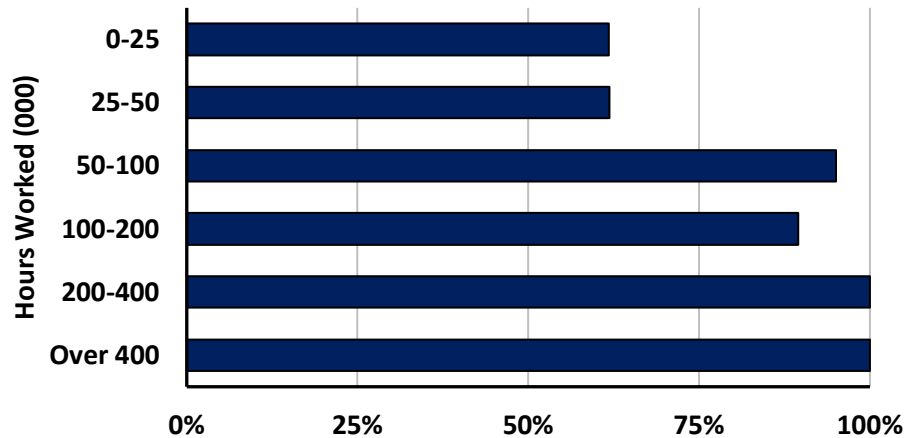
**Exhibit 3.9 –  
OSHA 10-Hour  
Course**



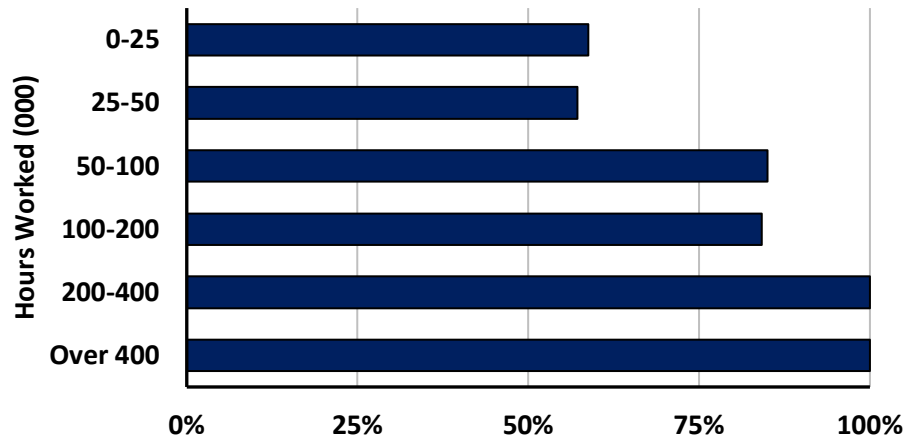
**Exhibit 3.10 –  
OSHA 30-Hour  
Course**



**Exhibit 3.11 –  
New Worker  
Orientation**



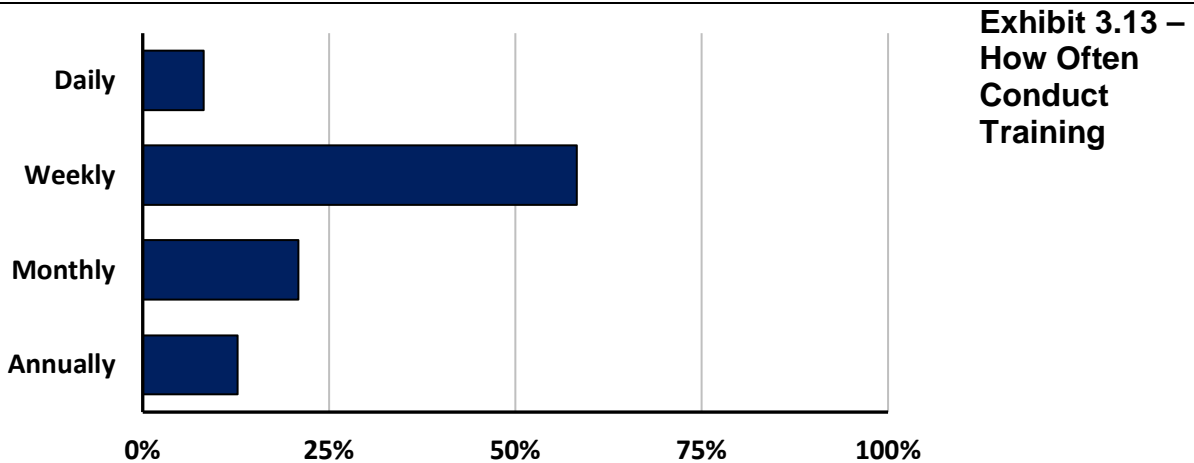
**Exhibit 3.12 –  
Hazard  
Specific**



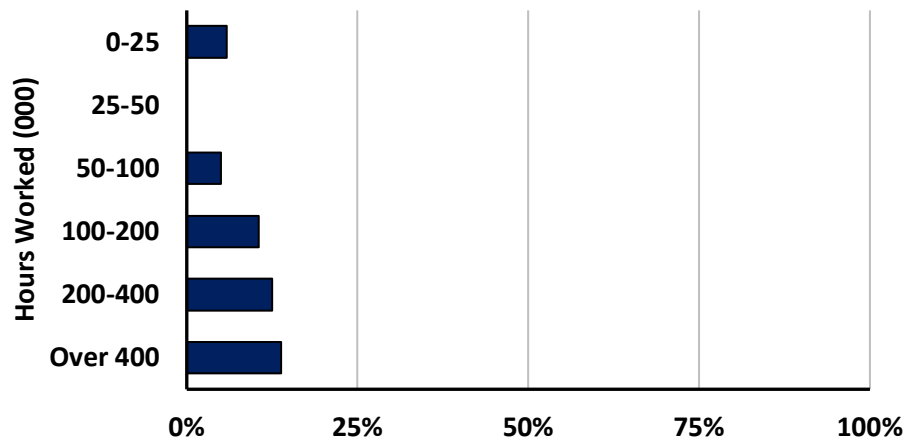
## Safety Training Frequency

As shown in **Exhibit 3.13**, the majority (58 percent) of companies conduct safety training on a weekly basis. The percent of contractors conducting daily training was 8 percent, which was a decrease from the 15 percent mark last year.

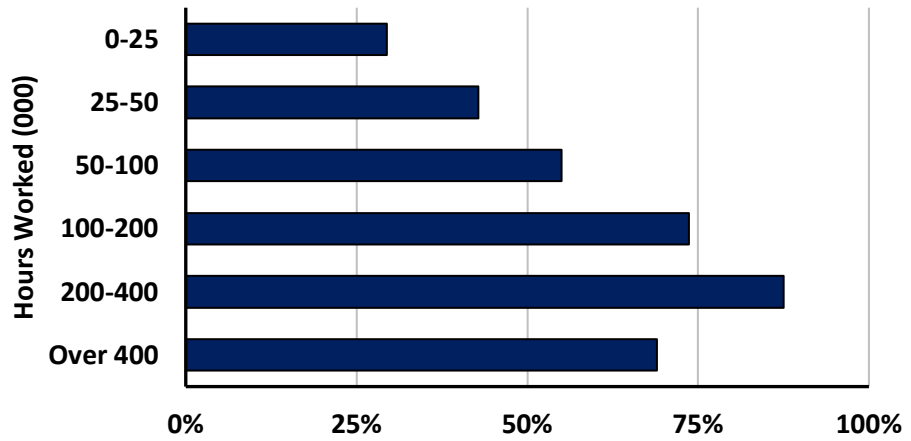
**Exhibits 3.14-3.17** show the results by hours worked for daily, weekly, monthly and annual training.



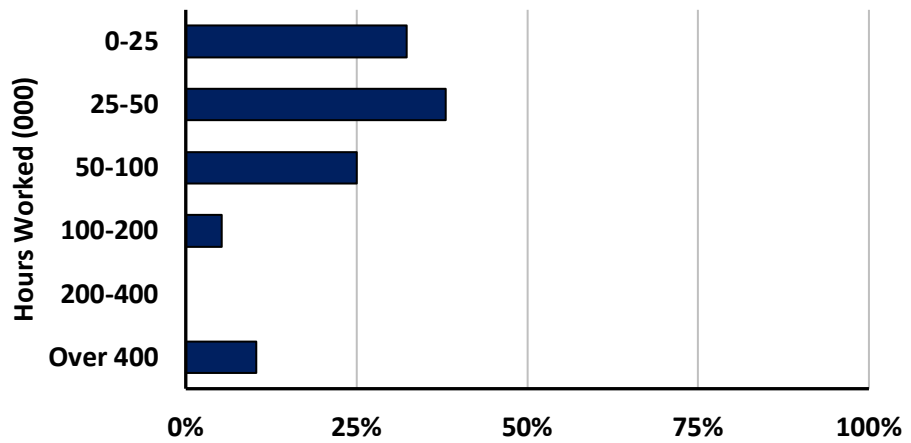
**Exhibit 3.14 – Conduct Training Daily**



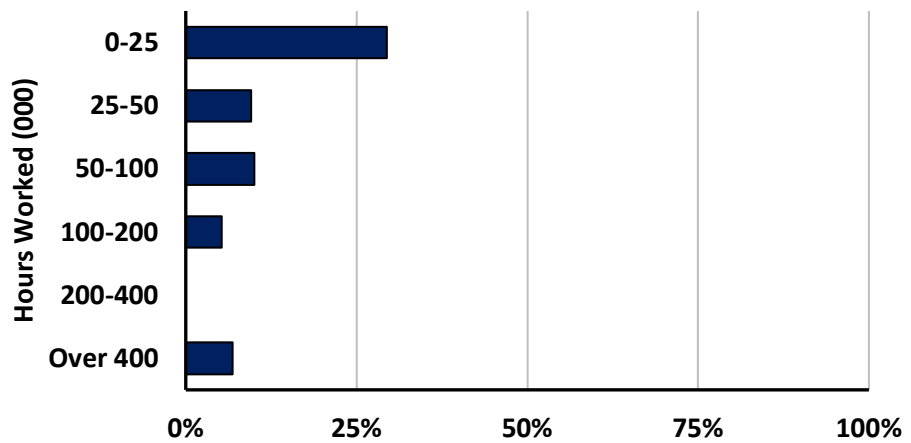
**Exhibit 3.15 –  
Conduct  
Training  
Weekly**



**Exhibit 3.16 –  
Conduct  
Training  
Monthly**



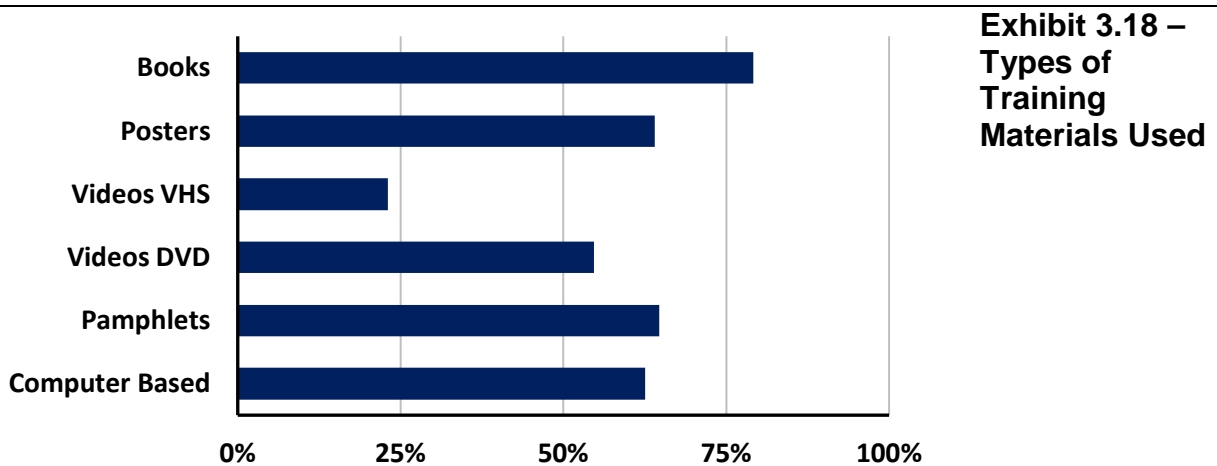
**Exhibit 3.17 –  
Conduct  
Training  
Annually**



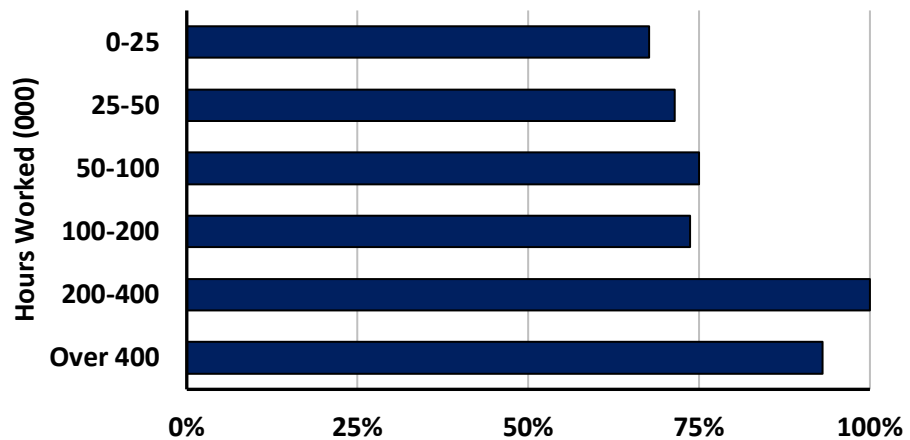
## Safety Training Materials

**Exhibit 3.18** illustrates the frequency of use for various types of safety training materials. As was the case last year, books continued to be the most common type of training material, followed by pamphlets and posters. VHS videos were, by far, the least common type of training material used.

In **Exhibits 3.19-3.24**, the prevalence of each type of material is outlined by hours worked by the participating contractors.

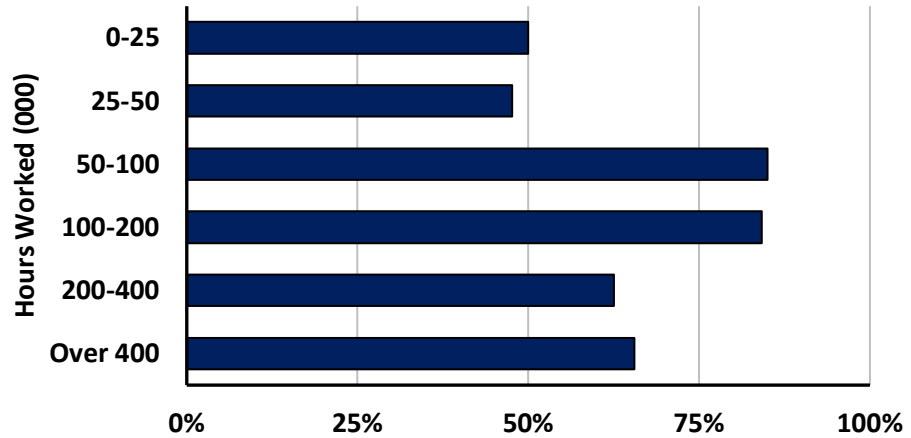


**Exhibit 3.19 – Books/Manuals**

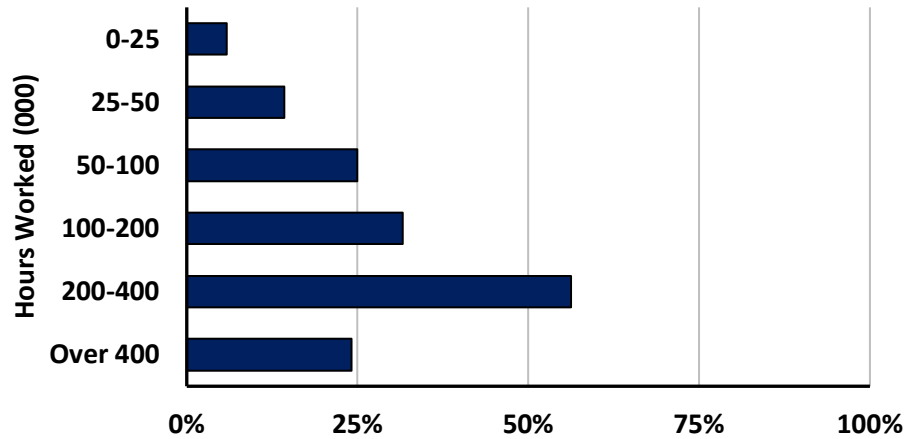




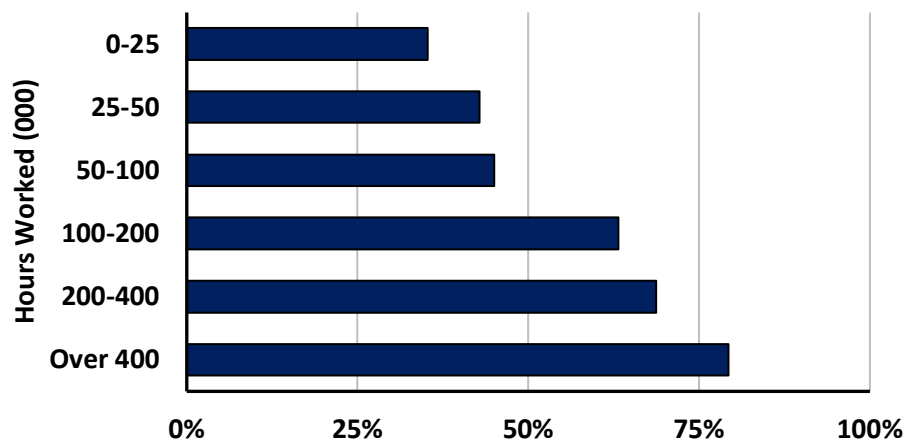
**Exhibit 3.20 –  
Posters**



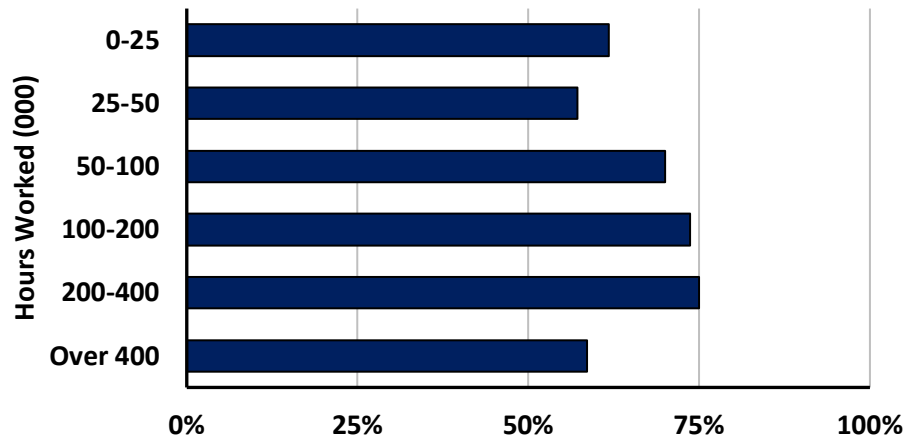
**Exhibit 3.21 –  
Videos VHS**



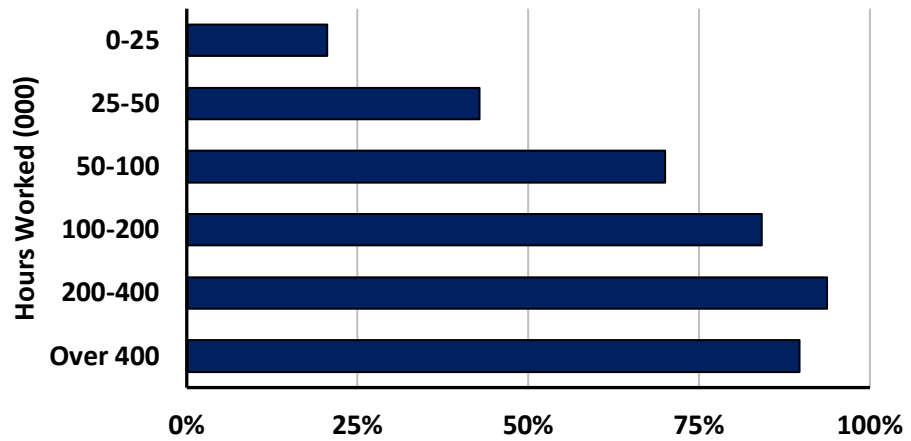
**Exhibit 3.22 –  
Videos DVD**



**Exhibit 3.23 – Pamphlets**



**Exhibit 3.24 – Computer Based Training**



The use of computer based training for medium and large companies has more than doubled since 2006.

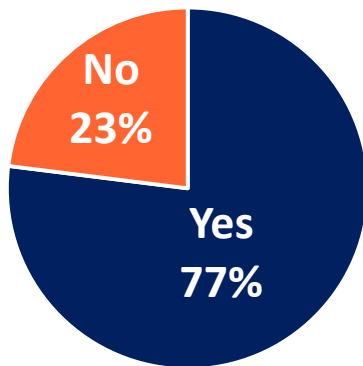
## IV. Drug and Alcohol

**Exhibit 4.1** shows that a strong majority (77 percent) of contractors had a formal drug and alcohol program in 2015. However, this is lower than last year (83 percent).

**Exhibit 4.2** shows how the policy is communicated to employees, with orientation being the most popular method at 50 percent.

As shown in **Exhibit 4.3**, those contractors with no drug policy had a higher incidence rate (3.32) than those without a policy (2.94).

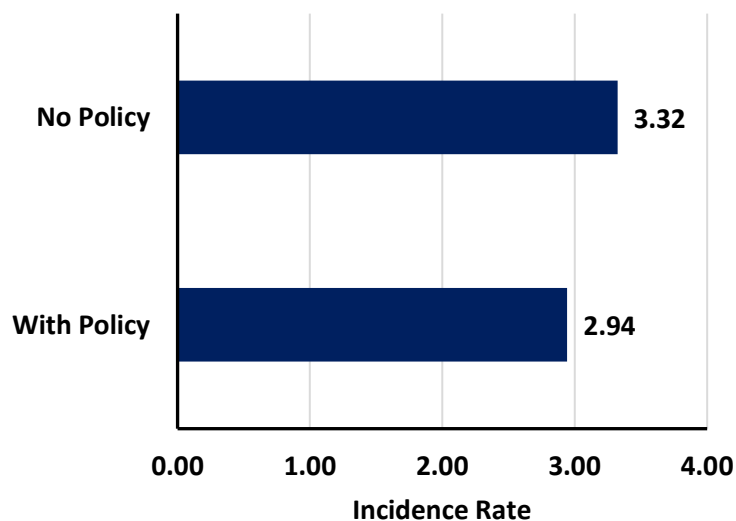
**Exhibit 4.1 – Formal Program for Drug and Alcohol Abuse**



**Exhibit 4.2 – Method of Informing Employees**

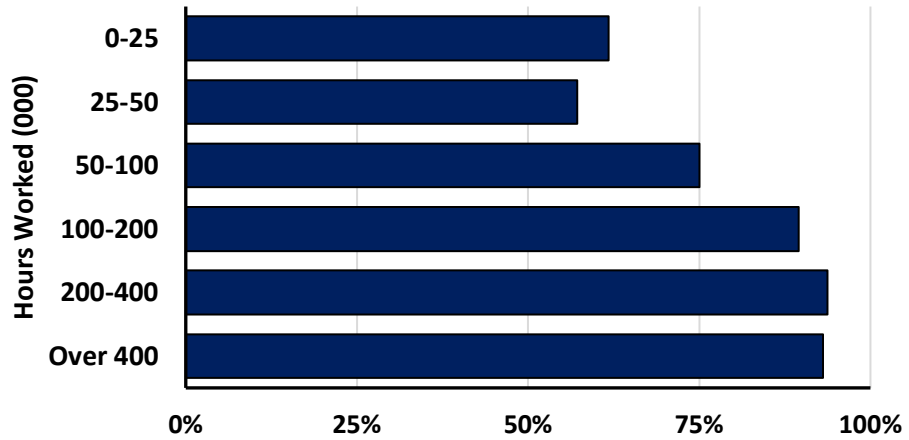


**Exhibit 4.3 – Incidence rate by Drug Policy**

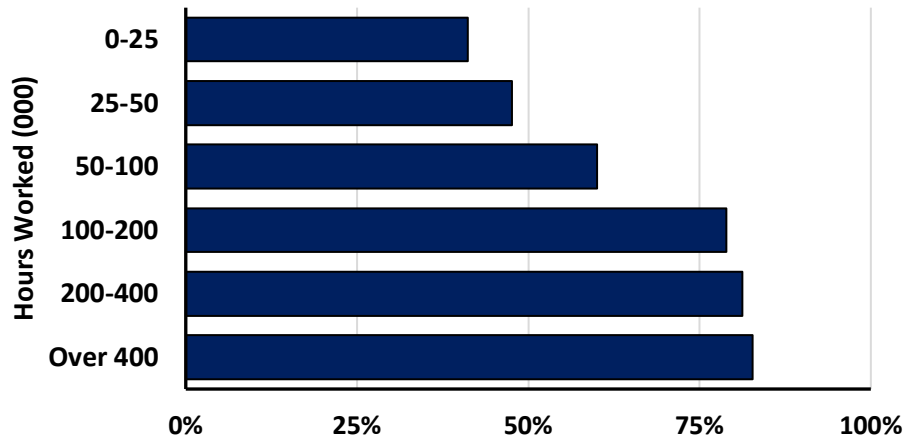


Exhibits 4.4-4.8 break out the results from Exhibit 4.1 by hours worked.

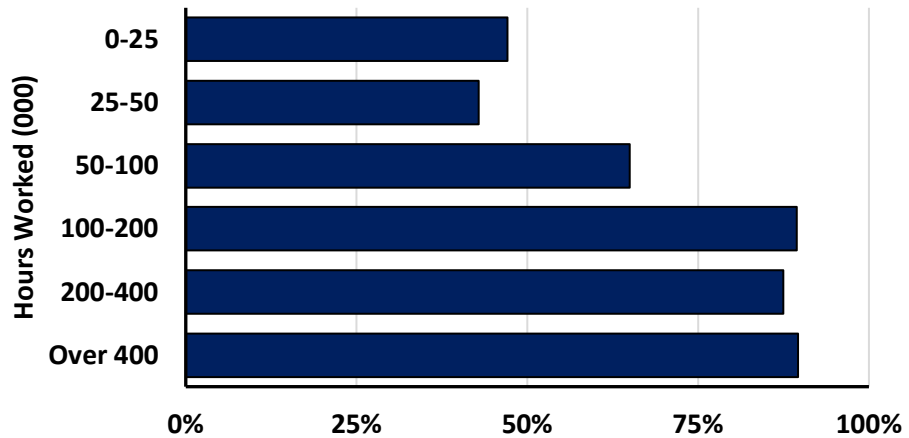
**Exhibit 4.4 –  
Have a Formal  
Program for  
Drug and  
Alcohol Abuse**



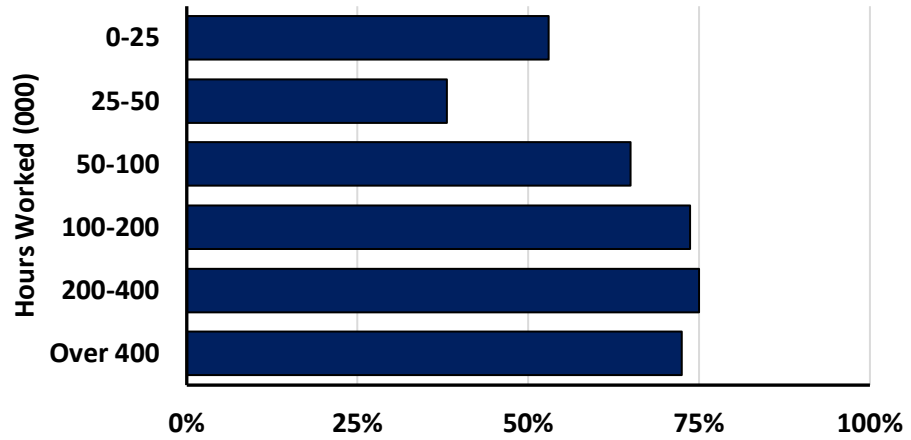
**Exhibit 4.5 –  
Conduct  
Pre-hire  
Testing**



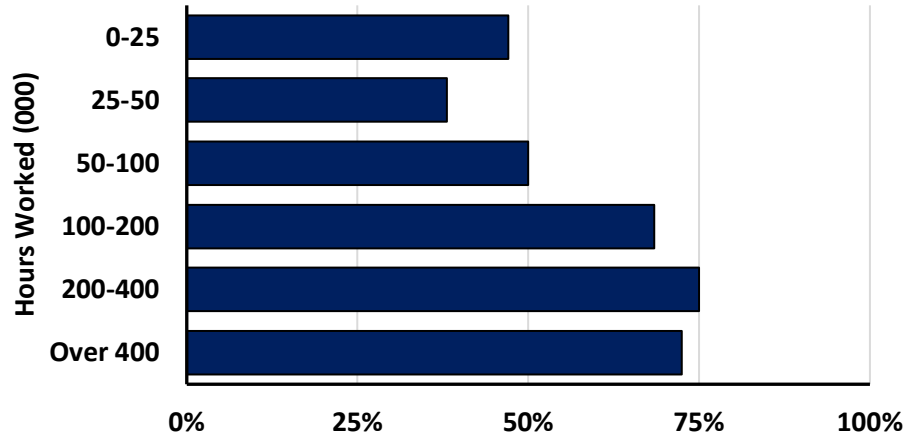
**Exhibit 4.6 –  
Conduct Post  
Accident  
Testing**



**Exhibit 4.7 –  
Conduct  
Random  
Testing**



**Exhibit 4.8 –  
Penalties**



## V. Select Issues

The table in **Exhibit 5.1** compares superior performers to the total sample for this year's survey (i.e., this 2016 profile based on data representing 2015) 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.

**Exhibit 5.1 – Superior Performers Compared to All Respondents**

	2016		2015	
	All Respondents	Superior Performers	All Respondents	Superior Performers
Use SMACNA Safety Products	90%	94%	59%	87%
Have a Formal Drug Policy	77%	97%	83%	98%
Provide New Worker Orientation	83%	100%	82%	98%
Utilize OSHA 10 Hr. Training	55%	66%	50%	73%
Utilize OSHA 30 Hr. Training	59%	75%	46%	71%
Utilize Computer Based Training	63%	88%	57%	80%
Average EMR	0.78	0.68	0.81	0.68
Average Incidence Rate	2.41	1.04	2.48	1.03

### Contact

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