



SMACNA Safety Profile

SMACNA Safety Excellence Awards Program

2017

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 incidence 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 2016.

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

The average experience modification rate (EMR) was 0.81, slightly higher than last year.

The average OSHA incidence rate fell to 2.22 in 2017 (data from 2016), continuing the decade-long trend of decreasing incidence rates.

In addition to the reduced incidence rate, the average number of lost workdays decreased by 5 percent, from 74 to 70.

Nearly all contractors have a safety and health program (99%), conduct safety inspections (96%), and use toolbox talks/videos (94%).

Books continue to be the primary training material used, while computer-based training became the second most common training material used. In addition, VHS videos fell from 23 percent last year to 10 percent this year.

The number of reported hours of work was 58.7 million, an increase of 57 percent from last year. This is due in large part to the lower than expected number of surveys submitted last year. This year, the number of surveys submitted returned nearly to the typical level.

The OSHA incidence rate generally declined as contractor hours worked increased. In other words, the larger the company, the lower the incidence rate. The same was true for EMR.

Exhibit 1.1 – Summary Statistics

Class	Hours	Reports	Total Hours	Number of Incidents	Incidence Rate	Average EMR
1	1-25,000	40	541,099	22	8.13	0.96
2	25,001-50,000	23	931,649	21	4.51	0.89
3	50,001-100,000	24	1,666,148	22	2.64	0.87
4	100,001-200,000	28	4,318,676	72	3.33	0.77
5	200,001-300,000	19	4,709,245	56	2.38	0.78
6	300,001-400,000	10	3,460,660	46	2.66	0.71
7	400,001-500,000	10	4,407,926	49	2.22	0.77
8	Over 500,000	31	38,651,657	362	1.87	0.65
All-Class Total		185	58,687,059	650	2.22	0.81

As shown in **Exhibit 1.1**, there were 185 participants in the 2017 SMACNA Safety Excellence Awards Program Survey (data reflect 2016) compared to 139 last year. These companies worked over 58 million hours in 2016. As was the case last year, a plurality of respondents, 40 (22 percent), was from small contractors who work 25,000 hours or less (class size 1). The largest class—companies reporting over 500,000 hours—represented 17 percent (second most) of the respondents (31 companies), while they represented 66 percent of the hours.

Exhibit 1.2 contains an overview of key statistics tracked by the SMACNA Safety Profile from 2007-2017.

Exhibit 1.2 – Safety Trends

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of Companies	243	212	304	377	350	247	214	254	222	139	185
Reported Hours (millions)	57.9	47.8	80.3	87.8	68.9	58.7	71.6	72.4	64.1	37.3	58.7
Incidents	1,339	1,210	1,724	1,687	1,192	912	902	973	795	450	650
Incidence Rate	4.62	5.06	4.29	3.84	3.46	3.11	2.52	2.69	2.48	2.41	2.22
Lost Workdays	20,547	19,467	30,712	25,785	22,311	15,316	11,545	14,945	15,310	10,246	12,905
Average Lost Workdays	84	92	101	70	63	61	53	58	69	74	70
Lost Workday Cases	-	-	-	-	-	-	533	543	201	183	187
Average Lost Workday Cases	-	-	-	-	-	-	2.49	2.14	0.91	1.32	1.01
Safety & Health Program	98%	95%	95%	96%	98%	98%	99%	96%	98%	97%	99%
Designated Safety Coord.	96%	95%	94%	97%	93%	93%	93%	87%	89%	87%	92%
Use SMACNA Products	87%	87%	86%	88%	87%	88%	89%	87%	88%	90%	87%
Use SMOHIT Safety Products	45%	51%	55%	67%	68%	54%	60%	54%	59%	55%	57%
EMR	0.83	0.79	0.84	0.83	0.82	0.82	0.81	0.81	0.81	0.78	0.81
Drug Program	84%	82%	87%	88%	94%	82%	78%	80%	83%	77%	85%

II. Incidence and EMR Rates

Incidence Rate

As shown in **Exhibit 2.1**, the average OSHA incidence rate fell by 0.19 to 2.22 for the 2017 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-seven percent of the reporting contractors had a zero incidence rate, which was consistent with past years. The remaining incidence rates were spread throughout the range of reported values.

Exhibit 2.1 – Incidence Rate Trend

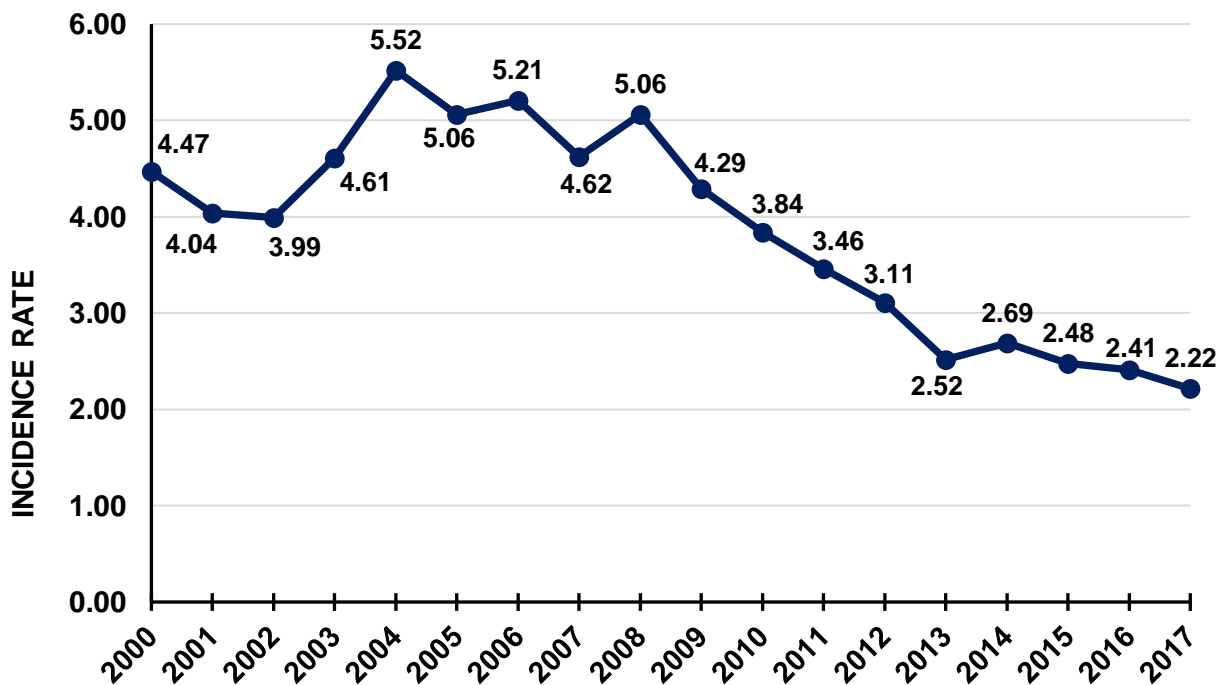
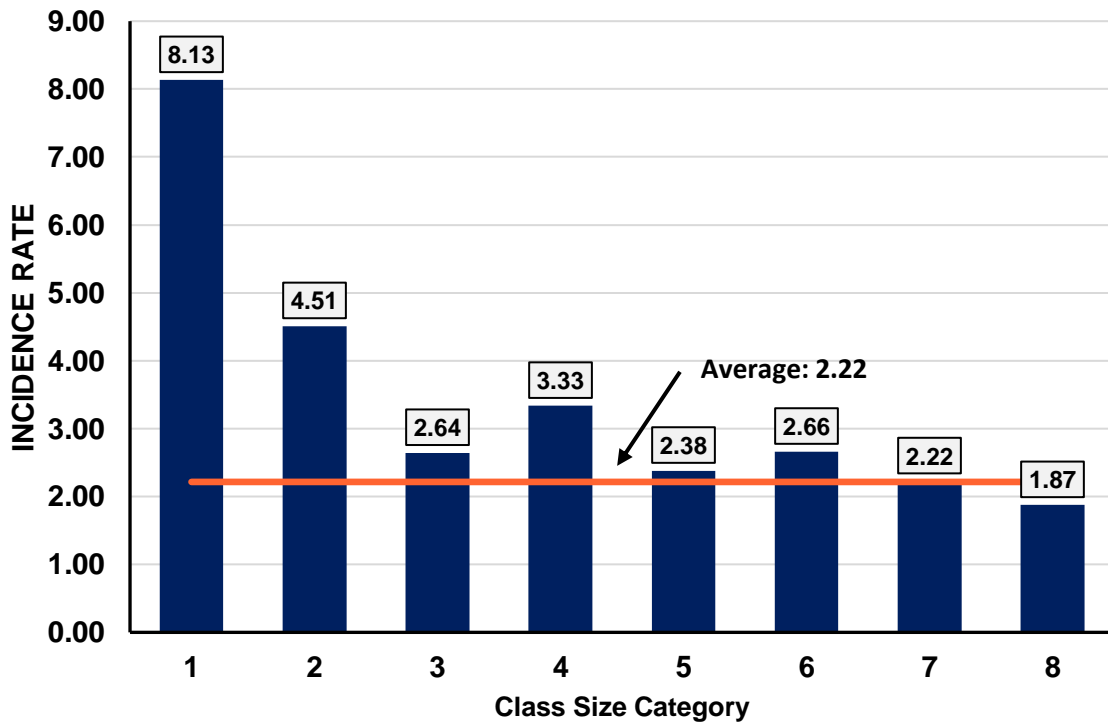


Exhibit 2.2 illustrates the incidence rate by company size (see Exhibit 1.1 for a description of the company size categories). There was a clear trend between company size and incidence rate—the larger the company, the lower the incidence rate.

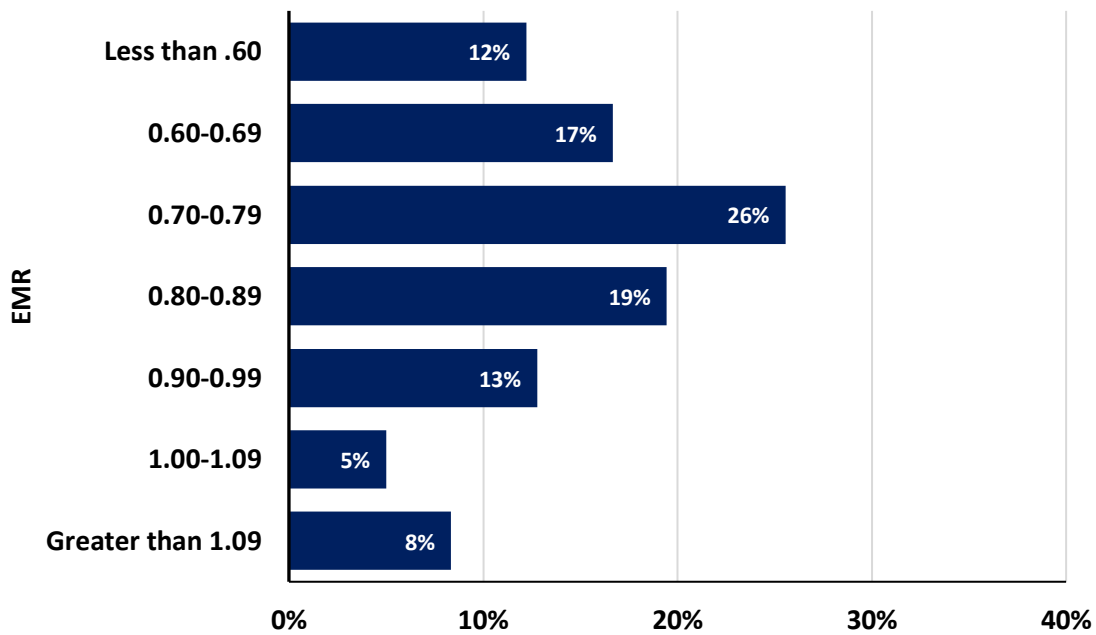
Exhibit 2.2 – Incidence Rate by Company Size



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 87 percent, down from 92 percent last year. Similar to last year, a plurality of respondents had an EMR the fell 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**.

Of the companies that have a safety coordinator, approximately 77 percent are full-time.

Exhibit 3.1 – Safety and Health Program

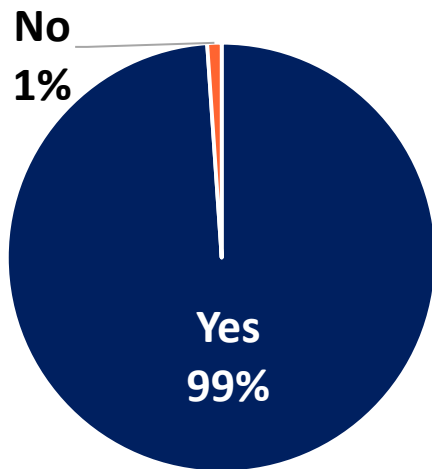


Exhibit 3.2 – Designated Safety Coordinator

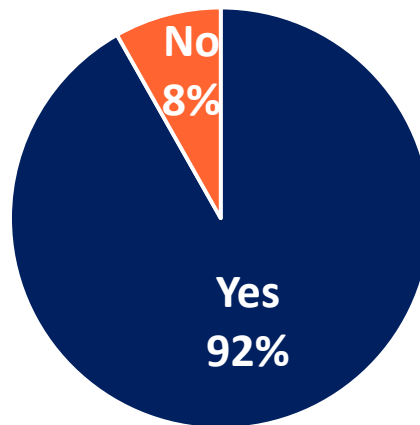
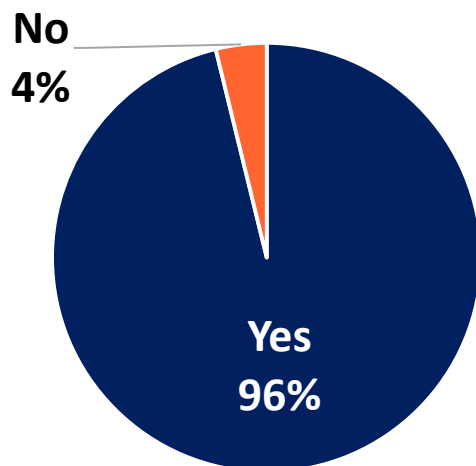


Exhibit 3.3 – Conduct Safety Inspections



As displayed in **Exhibit 3.4**, a strong majority of contractors—87 percent—use SMACNA’s safety products and services, down three percent from last year. The percent of contractors who use SMOHIT safety products was 57 percent, up two percent from last year (**Exhibit 3.5**).

Exhibit 3.4 – Use Safety Products & Services from SMACNA

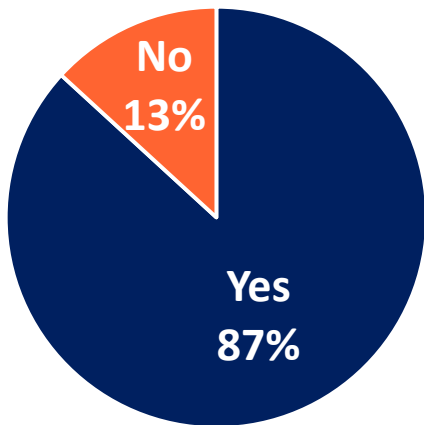


Exhibit 3.5 – Use SMOHIT Safety Products

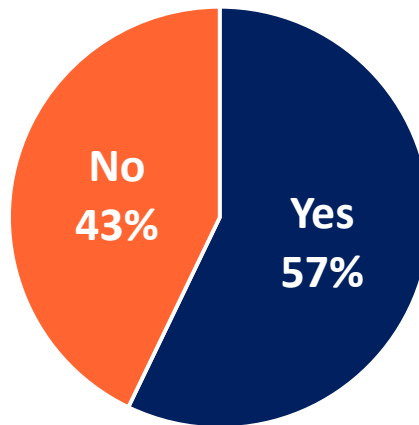


Exhibit 3.6 – Most Common Types of Injuries

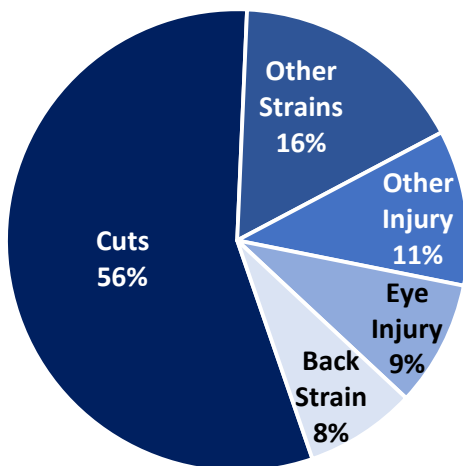


Exhibit 3.6 shows the prevalence of different types of injuries. Cuts are the most common by far at 56 percent of all injuries reported.

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 once again Toolbox Talks & Videos, used by 94 percent of the respondents. The OSHA 10 and 30-Hour Courses were the least popular methods at 52 percent each.

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. The bars show the percent of respondents using each method.

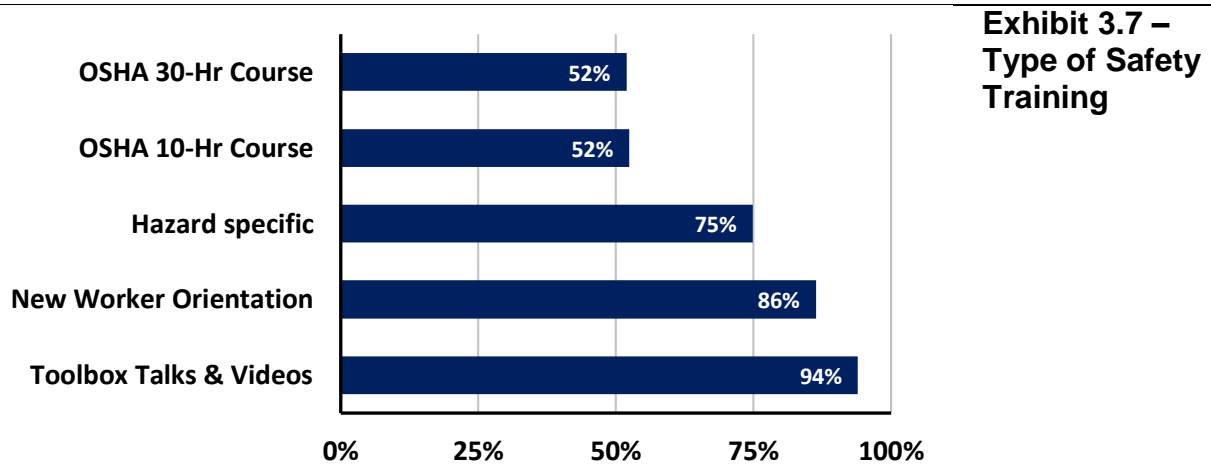
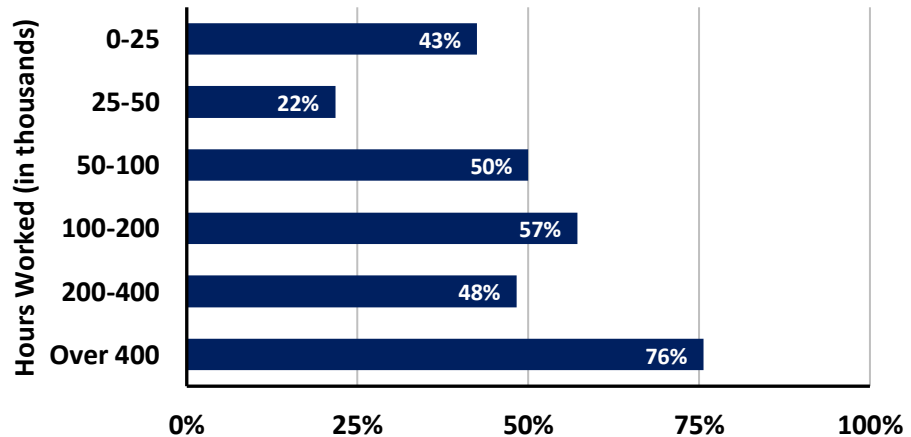
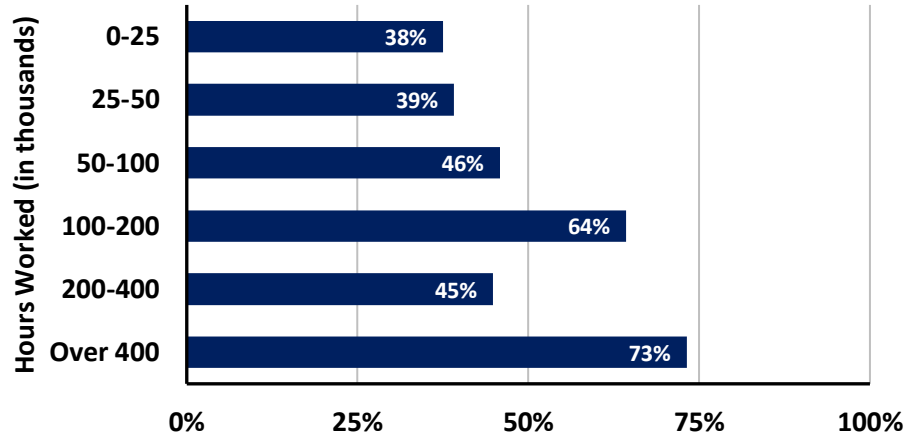


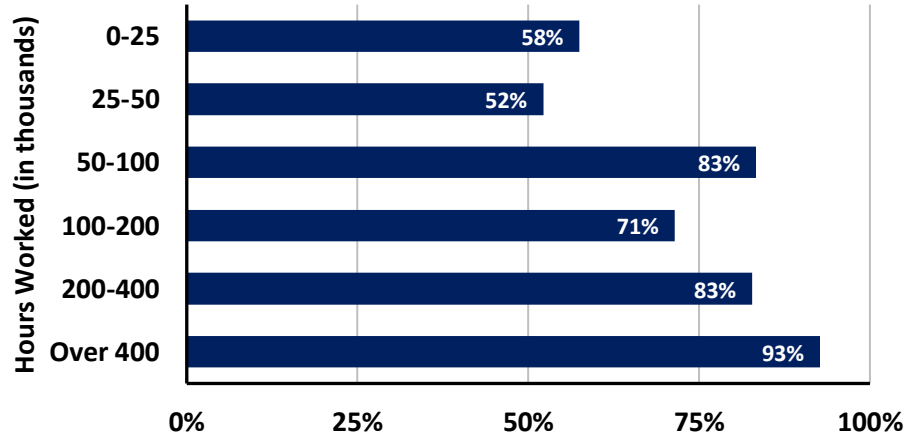
Exhibit 3.8 – OSHA 30-Hour Course



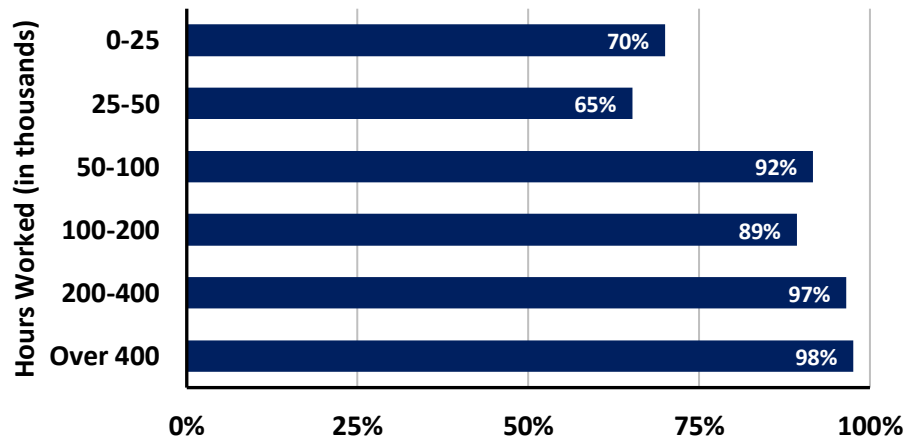
**Exhibit 3.9 –
OSHA 10-Hour
Course**



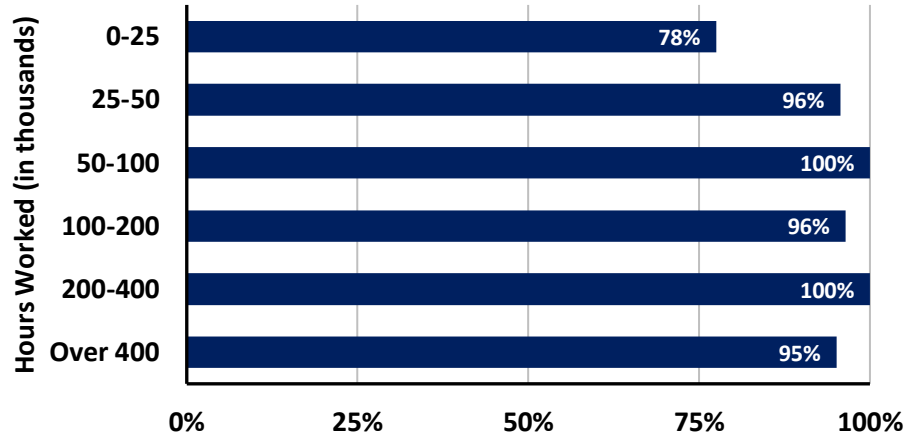
**Exhibit 3.10 –
Hazard Specific**



**Exhibit 3.11 –
New Worker
Orientation**



**Exhibit 3.12 –
Toolbox Talks
and Videos**

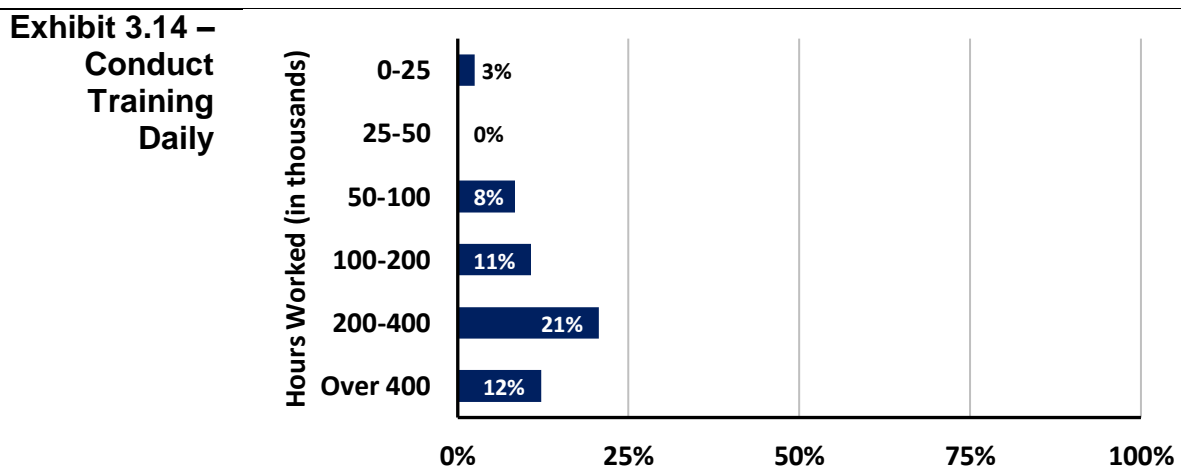
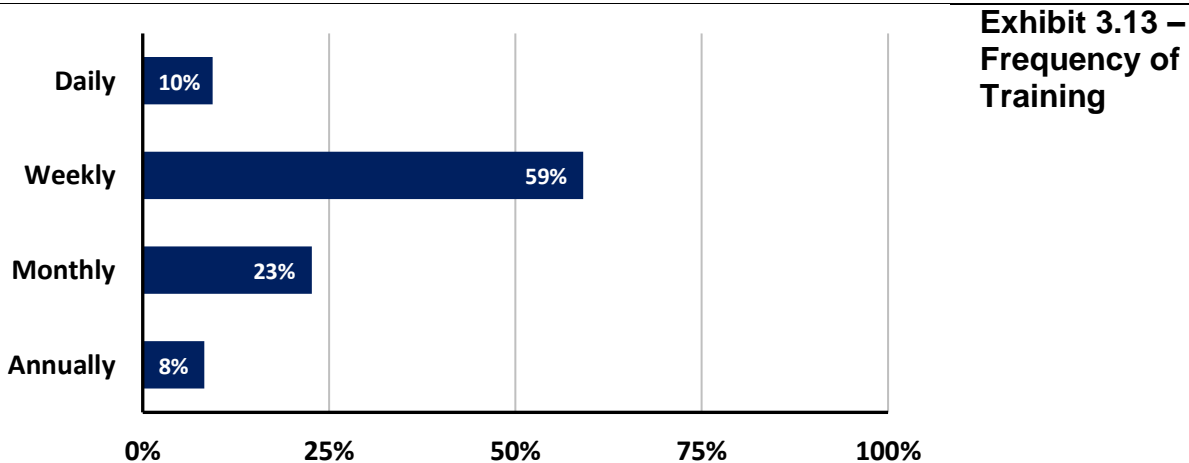


Safety Training Frequency

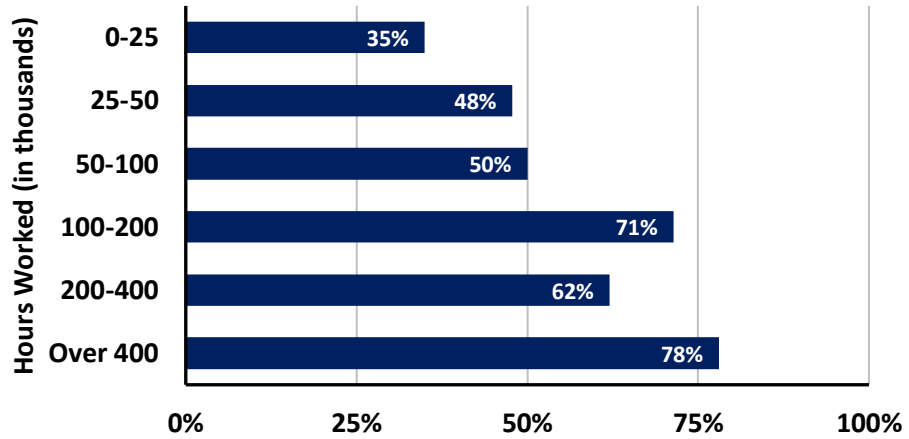
As shown in **Exhibit 3.13**, the majority (59 percent) of companies conduct safety training on a weekly basis. The percent of contractors training in each category was nearly identical to last year's marks.

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

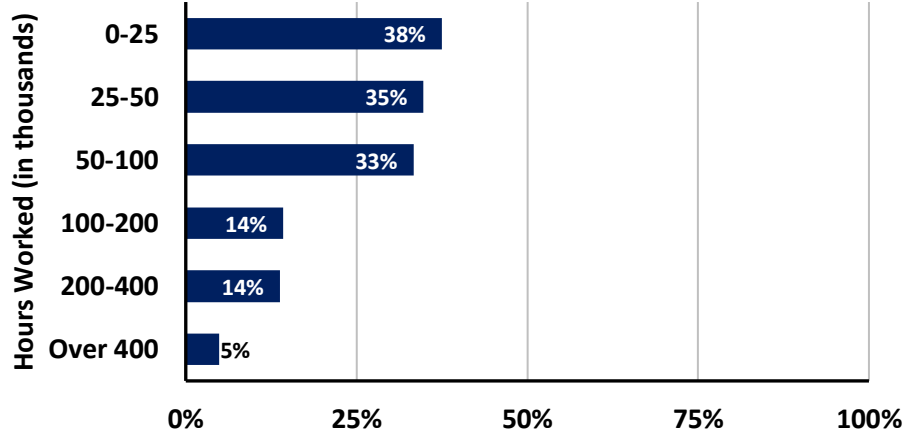
These exhibits display an evident trend between company size and frequency of training. As company size increases, the likelihood of daily or weekly training increases, while the likelihood of monthly or annual training decreases.



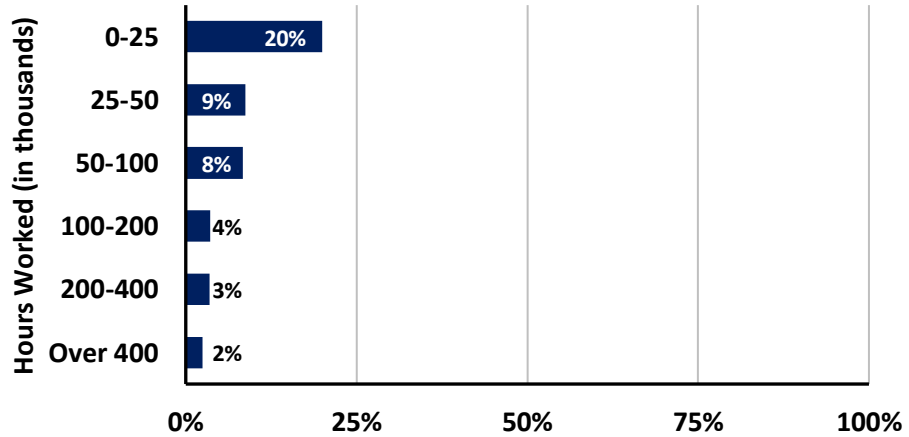
**Exhibit 3.15 –
Conduct
Training
Weekly**



**Exhibit 3.16 –
Conduct
Training
Monthly**



**Exhibit 3.17 –
Conduct
Training
Annually**



Safety Training Materials

Exhibit 3.18 illustrates the 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. Computer-based training became the second most popular material this year. VHS videos were, by far, the least common type of training material used. VHS videos recessed further from 23 percent last year to 10 percent this year. Computer based training has increased from 39 percent in 2012 to 61 percent in 2017.

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

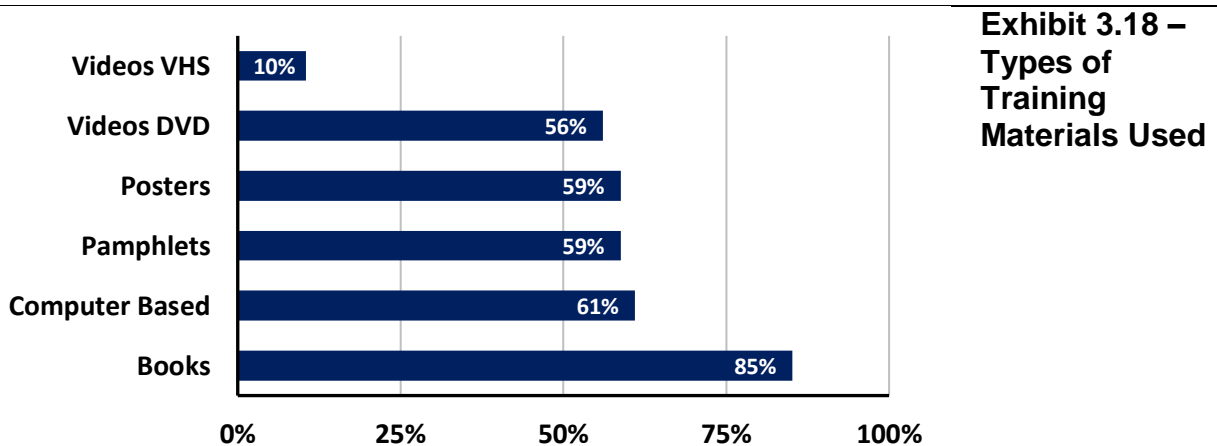
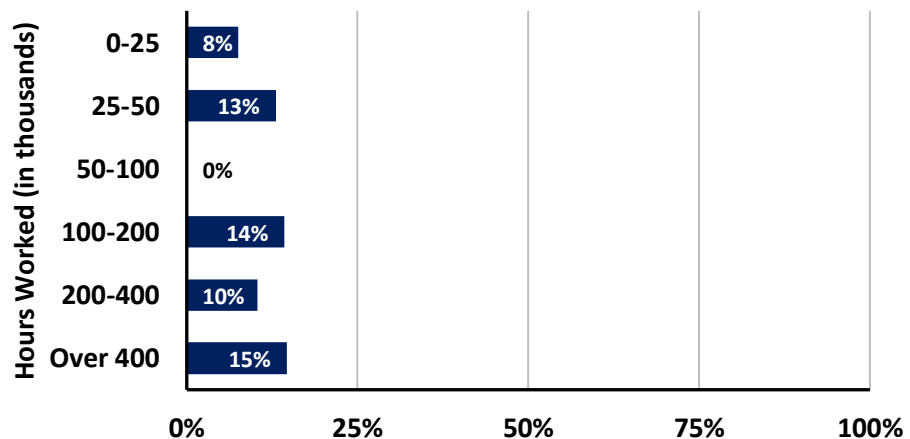
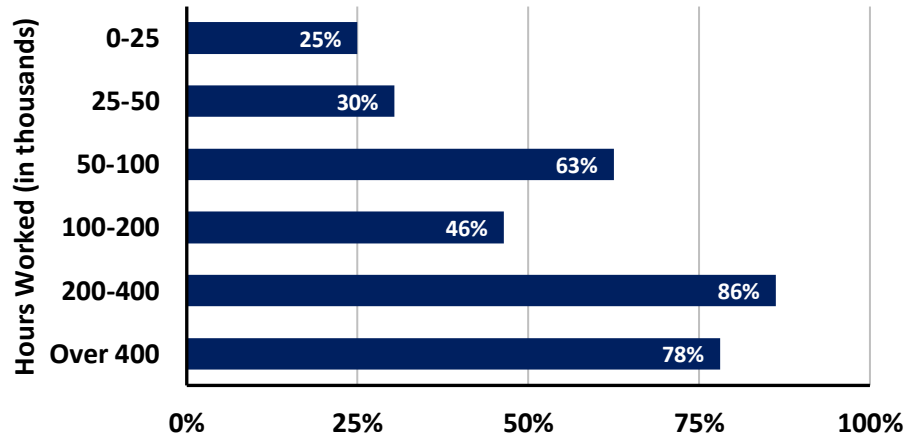


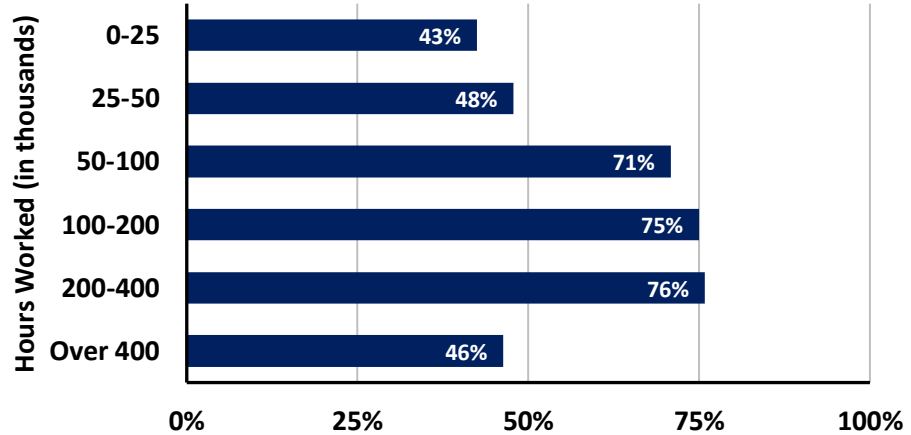
Exhibit 3.19 – Videos VHS



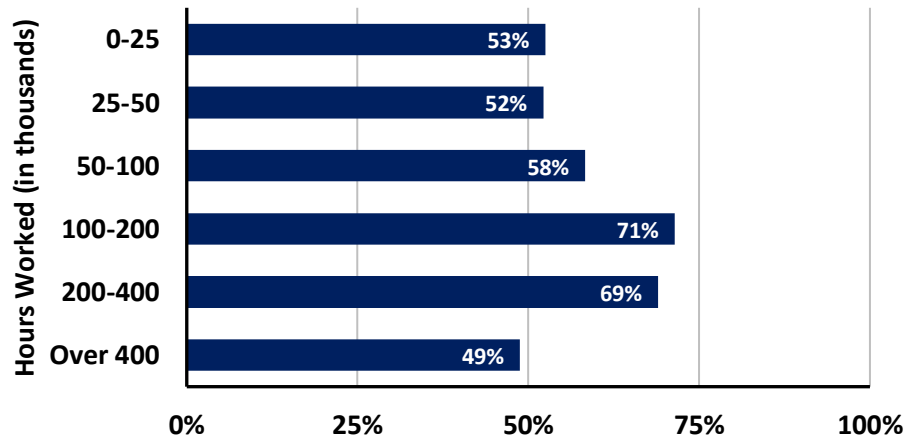
**Exhibit 3.20 –
Videos DVD**



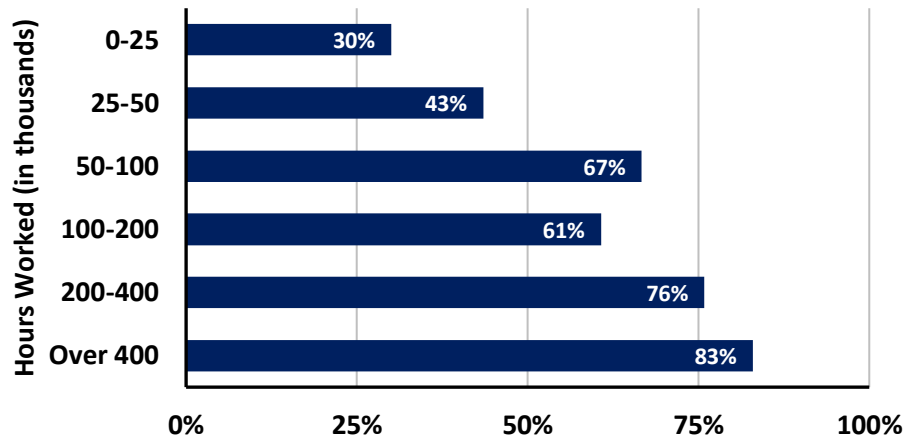
**Exhibit 3.21 –
Posters**



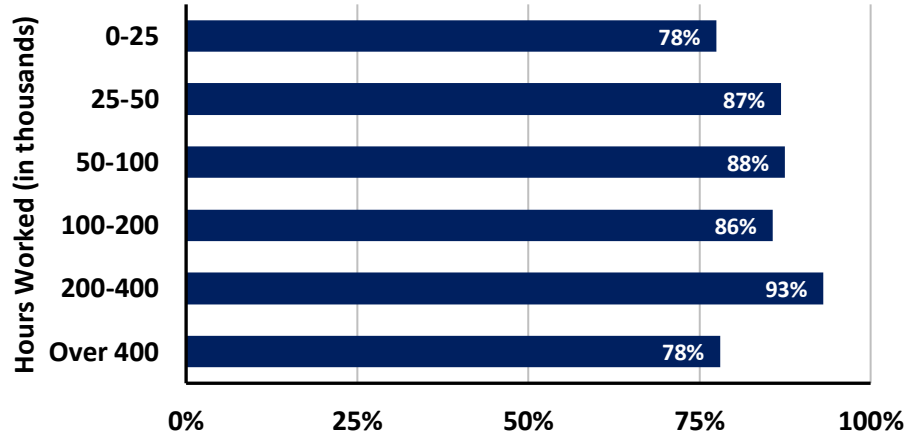
**Exhibit 3.22 –
Pamphlets**



**Exhibit 3.23 –
Computer
Based
Training**



**Exhibit 3.24 –
Books/
Manuals**



IV. Drug and Alcohol

Exhibit 4.1 shows that a strong majority (85 percent) of contractors had a formal drug and alcohol program in 2016. This is an increase from last year (77 percent).

Exhibit 4.2 shows how the policy is communicated to employees, with orientation being the most popular method at 52 percent.

As shown in **Exhibit 4.3**, those contractors with no drug policy had a noticeably higher incidence rate (3.19) than those with a policy (2.16).

Exhibit 4.1 – Formal Program for Drug and Alcohol Abuse

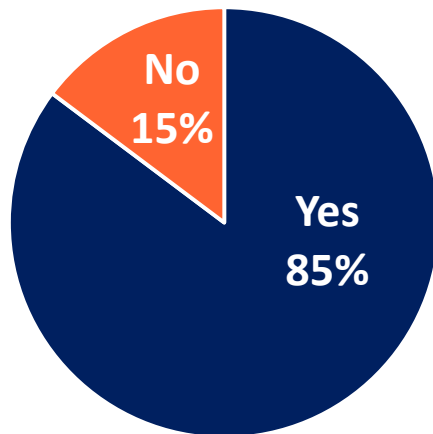


Exhibit 4.2 – Method of Informing Employees

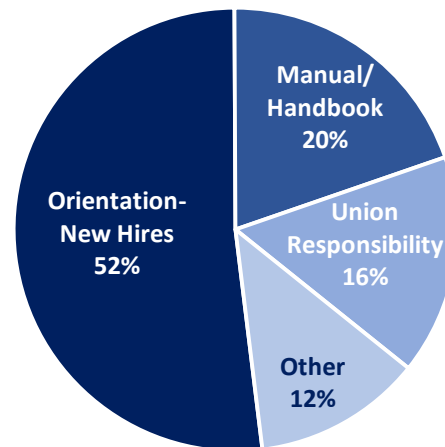
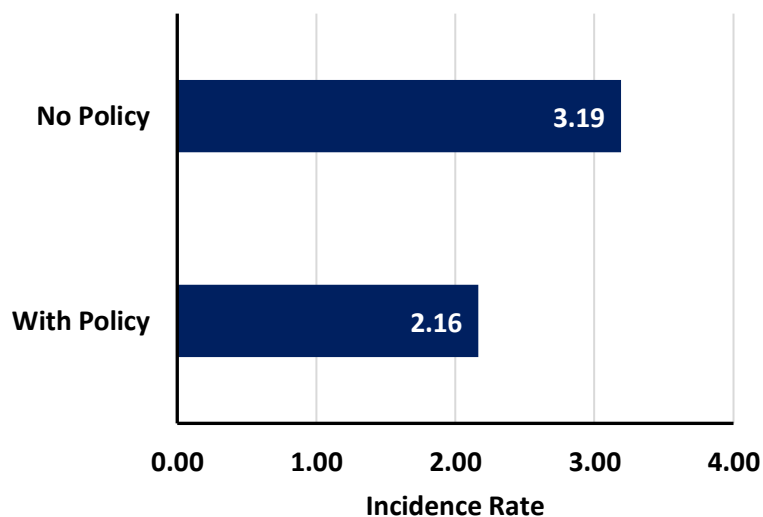
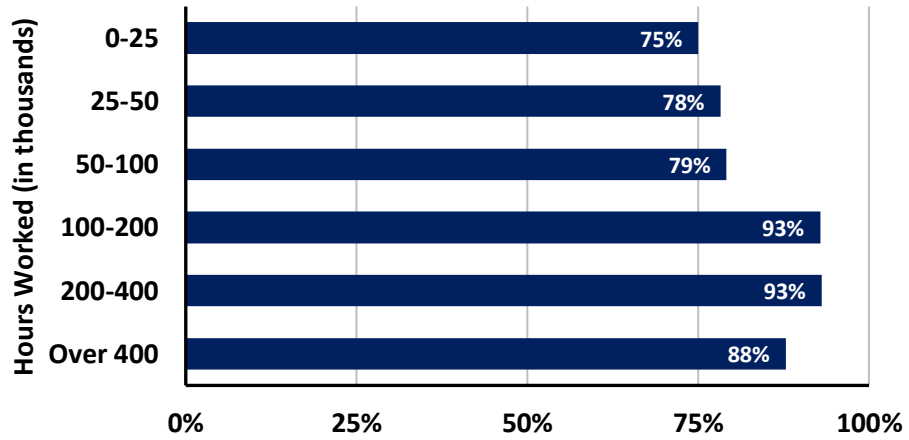


Exhibit 4.3 – Incidence Rate by Drug Policy

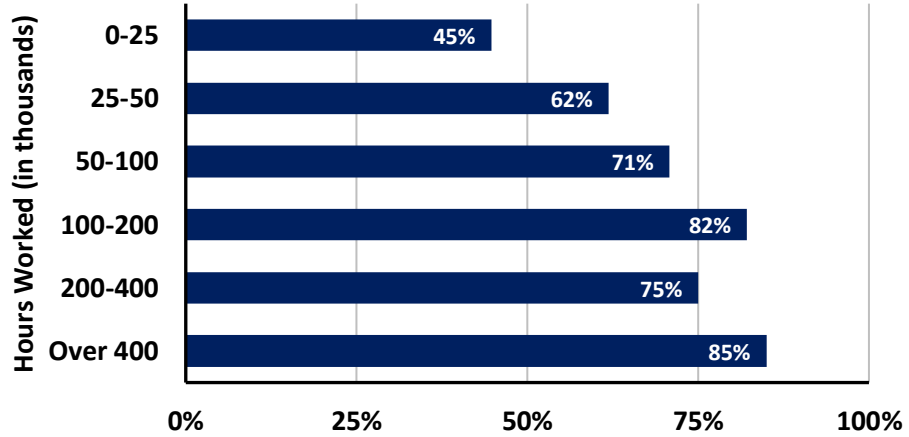


Exhibits 4.4-4.8 break out the results from Exhibit 4.1 by hours worked.

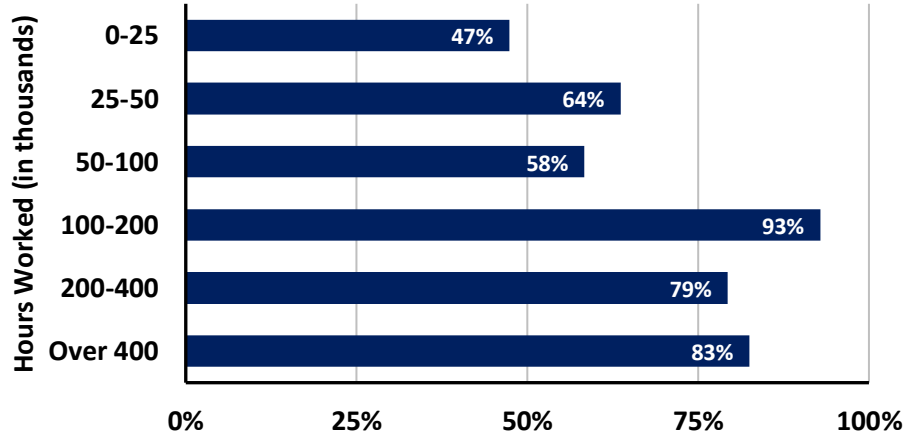
**Exhibit 4.4 –
Have a Formal
Program for
Drug and
Alcohol Abuse**



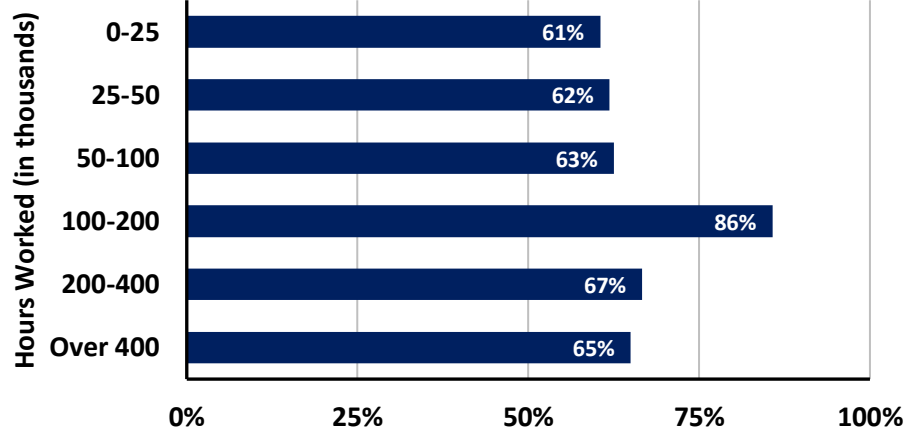
**Exhibit 4.5 –
Conduct
Pre-hire
Testing**



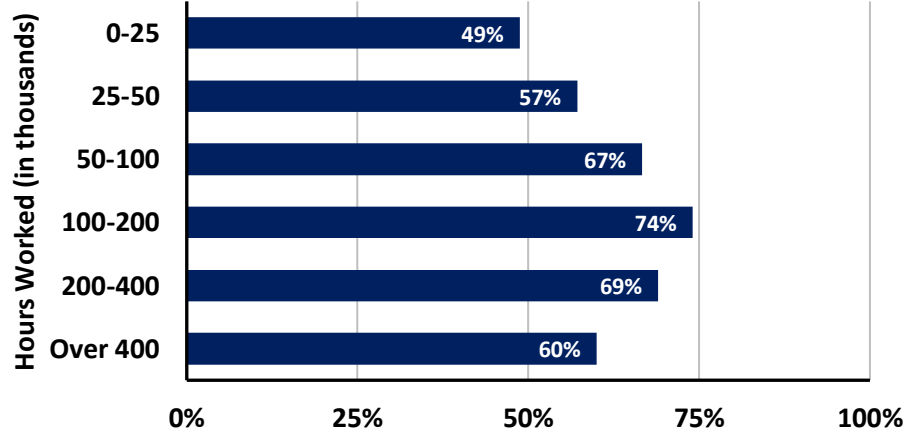
**Exhibit 4.6 –
Conduct Post
Accident
Testing**



**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 2017 profile based on data representing 2016) 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 most of the categories listed, such as having a formal drug policy and safety training at new worker orientation. 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

	2017		2016	
	All Respondents	Superior Performers	All Respondents	Superior Performers
Use SMACNA Safety Products	87%	83%	90%	94%
Have a Formal Drug Policy	85%	95%	77%	97%
New Worker Orientation Safety Training	86%	95%	83%	100%
Utilize OSHA 10 Hr. Training	52%	67%	55%	66%
Utilize OSHA 30 Hr. Training	52%	71%	59%	75%
Utilize Computer Based Training	61%	78%	63%	88%
Average EMR	0.81	0.70	0.78	0.68
Average Incidence Rate	2.22	1.11	2.41	1.04

Contact

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