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**OCCUPATIONAL SAFETY AND
HEALTH ADMINISTRATION**



OSHA'S SITE SPECIFIC TARGETING PROGRAM HAS LIMITATIONS ON TARGETING AND INSPECTING HIGH-RISK WORKSITES

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BRIEFLY...

Highlights of Report Number 02-12-202-10-105, issued to the Deputy Assistant Secretary for Occupational Safety and Health.

WHY READ THE REPORT

The Office of Inspector General (OIG) conducted a performance audit of the Site-Specific Targeting (SST) program of the Occupational Safety and Health Administration (OSHA). In 1999, OSHA initiated the SST program – an enforcement plan intended to target general industry worksites reporting the highest injury and illness rates. The SST program selects worksites based on injury and illness rates calculated from employer responses to the annual OSHA Data Initiative (ODI) survey. From August 2010 through September 2011, 13,827 worksites met the SST program targeting criteria of which 2,146 (16 percent) were inspected.

WHY OIG CONDUCTED THE AUDIT

Our audit objectives were to answer the following:

1. To what extent did the SST program focus enforcement resources and inspections on the highest risk industries and worksites?
2. What was known about the effectiveness of OSHA's program?

We examined the SST program for the period August 2010 through September 2011 which was developed from rates using 2008 injury and illness data.

READ THE FULL REPORT

To view the report, including the scope, methodology, and full agency response, go to:

<http://www.oig.dol.gov/public/reports/oa/2012/02-12-202-10-105.pdf>

September 2012

OSHA'S SITE-SPECIFIC TARGETING PROGRAM HAS LIMITATIONS ON TARGETING AND INSPECTING HIGH-RISK WORKSITES

WHAT OIG FOUND

The SST program, to a limited extent, focused enforcement resources and targeted inspections on the highest risk industries and worksites. SST inspections excluded some of the highest risk industries and worksites where the most serious injuries and illnesses occurred because certain high-risk worksites were outside the scope of the SST program and targeted worksites were not always inspected.

Specifically, we found that 26 percent of worksites with reported severe injuries and illnesses were outside the program's scope based on their number of employees, location and/or industry. Additionally, 84 percent of targeted worksites were not inspected due to limited resources and competing local priorities and other targeting strategies. OSHA conducted SST inspections at 21 percent of SST targeted worksites. State plan states conducted SST inspections at 6 percent of worksites that met the Federal targeting criteria. As a result, the program targeted inspections to only a small portion of high-risk worksites nationwide.

Currently, the SST program is undergoing a study which is intended to evaluate the program's impact on employee safety. Meanwhile, information on program results is limited to primarily output measures such as inspections completed and citations issued.

WHAT OIG RECOMMENDED

The OIG made three recommendations to the Deputy Assistant Secretary for Occupational Safety and Health to: (1) include the highest risk worksites in the ODI survey and the SST program targeting; (2) prioritize and complete inspections of the highest risk worksites to ensure effective and efficient use of resources; and (3) complete the evaluation of the SST program, and implement a monitoring system to evaluate efficiency and effectiveness on an on-going basis.

In his response to the draft report, the Deputy Assistant Secretary partially agreed with our recommendations, but indicated some would require major policy changes with evaluation and supportive evidence.

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U.S. Department of Labor

Office of Inspector General
Washington, D.C. 20210



September 28, 2012

Assistant Inspector General's Report

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In 1999, the Occupational Safety and Health Administration (OSHA) initiated the Site-Specific Targeting (SST) program – an enforcement plan intended to target general industry (non-construction) worksites reporting the highest injury and illness rates. In addition to SST, OSHA has national and local emphasis inspection programs to target high-risk hazards and industries. The SST program selects worksites based on injury and illness rates calculated from employer responses to the annual OSHA Data Initiative (ODI) survey. From August 2010 through September 2011, 13,827 worksites met the SST program targeting criteria of which 2,146 (16 percent) were inspected.

Our objectives were to answer the questions:

- To what extent did the SST program focus enforcement resources and inspections on the highest risk industries and worksites?
- What was known about the effectiveness of OSHA's program?

The SST program for August 2010 through September 2011 was developed from rates using 2008 injury and illness data. While Federal programs, ODI and SST were not universally applied throughout the 56 states and territories (referred to as "states"). For 22 states, private industry was under the jurisdiction of local occupational safety and health programs operating in accordance with OSHA-approved state plans.¹ States with OSHA-approved state plans (hereafter referred to as "state plan states") were not compelled to participate in the SST program and could elect to operate comparable programs that target high hazard general industry worksites. See Exhibit 1 for summary of state participation in ODI and SST.

For the audit, we assessed internal controls over the ODI survey and SST program. We reviewed OSHA policies and procedures, and internal monitoring reports. We

¹ OSHA approved state plans for 27 states, but 5 of the 27 plans covered public employers only.

interviewed officials from OSHA national, regional, and area offices. We examined data reliability and information controls for ODI, SST, and OSHA information systems through analytical procedures and verification with SST inspection documents at six area offices. We used unaudited but publicly available information from the Bureau of Labor Statistics (BLS) and OSHA fatality and catastrophic injury reports to illustrate the impact of ODI and SST limitations on the universe of high-risk worksites and industries.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

RESULTS IN BRIEF

To a limited extent, the SST program focused enforcement resources and targeted inspections on the highest risk industries and worksites. Currently, the SST program is undergoing a study (final report expected in 2014) which is intended to evaluate the program's impact on employee safety. Meanwhile, information on program results is limited to primarily program outputs such as number of inspections and citations issued.

1. To what extent did the SST program focus enforcement resources and inspections on the highest risk industries and worksites?

The SST program, to a limited extent, focused enforcement resources and targeted inspections on the highest risk industries and worksites. From August 2010 through September 2011, the program targeted 13,827 worksites of which 2,146 (16 percent) received SST inspections. However, 26 percent of worksites with reported severe injuries and illnesses for 2008² were outside the scope of the SST program because: ODI data on worksites with 11 to 19 employees was for restricted use; the ODI sampling frame omitted 12 states of which 8 were state plan states that elected not to participate in the data collection; and industries such as amusement parks were not surveyed in ODI based on program decisions using outdated information from BLS.

Furthermore, SST targeted worksites were not always inspected due to competing local priorities and other targeting strategies.³ OSHA conducted SST inspections at 21 percent of the 8,655 SST targeted worksites. State plan states conducted SST inspection at 6 percent of the 5,172 worksites that met the Federal targeting criteria. While the SST program is a national program, neither OSHA area offices nor state plan states were required to conduct SST inspections.

² OSHA and state plan state inspections conducted in 2008 with severe injuries and illnesses reported.

³ In addition to the SST program, OSHA implemented both national and local "emphasis" inspection programs to target high-risk hazards and industries.

2. What was known about the effectiveness of OSHA's program?

Currently, the SST program is undergoing a study (final report due in 2014) which is intended to evaluate the program's impact on employee safety. Meanwhile, OSHA officials stated the SST program had an impact as it provided the sole justification for performing comprehensive inspections at certain high-risk worksites, and resulted in more citations per inspection (4.7 average) than other targeting programs (2.8 average) from October 2010 through September 2011. However, because little is known about program results except for inspections completed and citations issued, OSHA could not be sure the SST program operated effectively. As we cited in a prior audit report,⁴ OSHA does not have outcomes-based performance metrics to measure effectiveness and demonstrate the causal effect of their programs on the safety and health of workers. While output measures such as inspection counts, citations issued, penalty amounts, injury and illness rates, and fatality rates may be appropriate for monitoring program activities, they do not measure the effect of these actions on improving safety and health.

We made three recommendations to the Assistant Secretary for Occupational Safety and Health to: (1) include the highest risk worksites in the ODI survey and the SST program targeting; (2) prioritize and complete inspections of the highest risk worksites to ensure effective and efficient use of resources; and (3) complete the evaluation of the SST program, and implement a monitoring system to evaluate efficiency and effectiveness on an on-going basis.

OSHA COMMENTS

In response to the draft report, the Assistant Secretary for Occupational Safety and Health partially agreed to the report recommendations and provided technical comments. For recommendation 1 on including the highest risk worksites, the Assistant Secretary agreed with regards to encouraging states' participation and revising the list of industries. However, including worksites with 11 to 19 employees would require major policy changes with evaluation and supportive evidence, and the Bureau of Labor Statistics injury and illness rates are historically lower for small worksites than for mid-size worksites. For recommendation 2 on prioritizing and completing inspections, the Assistant Secretary indicated that the SST directive allows Regional Offices to consider whether to pursue carryover inspections and that OSHA does not have evidence that targeting would improve by using additional data. The Assistant Secretary agreed with recommendation 3. The Assistant Secretary's response and technical comments are included in Appendix D in their entirety.

OIG CONCLUSION

With regards to recommendation 1, we believe OSHA should evaluate inclusion of worksites with 11 to 19 employees as these worksites had higher average injury and

⁴ OSHA Has Not Determined If State OSH Programs Are At Least As Effective In Improving Workplace Safety And Health As Federal OSHA's Programs (OIG Report No. 02-11-201-10-105, March 31, 2011).

illness rates than larger worksites according to ODI data. For recommendation 2, OSHA should evaluate whether that policy is being enforced since several carryover inspections were conducted at worksites with low injury and illness rates based on current ODI data, and there was evidence that additional data would improve targeting. Based on the technical comments, we corrected a typographical error in Table 10.

RESULTS AND FINDINGS

Objective 1 — To what extent did the SST program focus enforcement resources and inspections on the highest risk industries and worksites?

Highest risk industries and worksites were not always targeted and inspected.

The SST program, to a limited extent, focused enforcement resources and targeted inspections on the highest risk industries and worksites. From August 2010 through September 2011, the program targeted 13,827 worksites of which 2,146 (16 percent) received SST inspections due to resource limitations and local enforcement priorities. While we acknowledge that additional resources may not be found and local enforcement priorities may take precedence over the SST program, we found that resources could be used more efficiently and effectively. SST inspections excluded some of the highest risk industries and worksites where the most serious injuries and illnesses occurred because certain high-risk worksites were outside the scope of the SST program and targeted worksites were not always inspected. Specifically, 26 percent of worksites with severe injuries and illnesses in 2008 were not covered by the SST program based on their number of employees, location and/or industry. Additionally, 84 percent of targeted worksites were not inspected due to limited resources and competing local priorities and other targeting strategies. As a result, the program targeted inspections to only a small portion of high-risk worksites nationwide.

Finding 1 — Certain high-risk industries and worksites were outside the scope of the ODI and/or SST programs

The SST program omitted certain high-risk worksites based on their number of employees, location, and/or industry. OSHA defined risk for the SST program in terms of two injury and illness rates: *Days Away, Restricted or Transferred* (DART) and *Days Away from Work Injury and Illness* (DAFWII) that were developed through employer-provided responses to the ODI survey.⁵ However, 10 percent of high-risk worksites with 11 to 19 employees were not covered by the SST program because the use of ODI data for enforcement purposes had not been approved by OMB for that range of worksite sizes. Additionally, 10 percent of high-risk worksites in 12 states were not in the ODI survey because 8 state plan states did not voluntarily participate in ODI and 4 U.S. territories were outside the survey frame. Moreover, 8 percent of high-risk worksites

⁵ DART and DAFWII are incidence rates that can be used to show the relative level of injuries and illnesses among different industries, firms, or operations within a single firm. Using a common base (200,000 hours worked for 100 full-time equivalent employees) and a specific period of time (calendar year), the rates can be used to determine both problem areas and progress in preventing work-related injuries and illnesses over several periods.

were in 53 industries such as amusement parks that were not identified as high-risk because the industries surveyed under ODI were basically static since 2003. As a result, SST inspections were not always targeted at the highest risk worksites where the most severe injuries and illnesses occurred.

To illustrate the impact of the ODI and SST scope limitations for targeting high-risk worksites, we used 2008 OSHA and state plan state inspections with severe injuries and illnesses reported.⁶ These inspections occurred in the same time frame as the injuries and illnesses recorded for the 2009 ODI data collection and were high priority investigations into worksite hazards by OSHA or state plan states. With the limitations imposed based on size, location, and industry, a total of 26 percent of worksites with severe injuries and illnesses in 2008 were not covered by the SST program. The following table presents worksites inspected in 2008 with reported severe injuries and illnesses and the number of injuries and illnesses in total; for the scope limitations size, location and industry; and combined worksites outside the scope of the SST program.

Table 1: Worksites Inspected in 2008 with Reported Severe Injuries and Illnesses			
Description	Worksites Inspected	Percent of Worksites	Injuries and Illnesses
Total Worksites	2,291	100%	2,518
Worksites Outside Scope of SST	604	26%	670
Worksites by Scope Limitation			
11 to 19 Employees	235	10%	260
12 States (8 state plan states)	229	10%	262
53 Industries	181	8%	200

While overall 26 percent of worksites were omitted from SST program targeting, these worksites were concentrated more in state plan states than in states under OSHA jurisdiction. Therefore, 30 percent of worksites in state plan states and 17 percent of worksites in OSHA states were omitted from SST program targeting.

Worksites with 11 to 19 employees were outside the scope of SST targeting

High-risk worksites with 11 to 19 employees were excluded from SST targeting due to the limitations on the use of ODI data for that size range. According to the SST program directives, the program targeted worksites with 40 or more employees from August 2010 through September 2011, and then was extended to worksites with 20 or more employees. With that scope change, OSHA expanded the coverage of the SST program from 50 percent to 62 percent of worksites based on 2008 inspections with reported severe injuries and illnesses. However, some safety and health officials stated that this change does not go far enough to reach the highest risk worksites. As a result, 10 percent of the worksites with 2008 reported severe injuries and illnesses were not covered by the SST program. See the following table for a breakout of 2008 inspections with reported severe injuries and illnesses in total for all worksites and by size for worksites with less than 40 employees.

⁶ OSHA provided data files of 2008 inspections from its Integrated Management Information System (IMIS) records.

Table 2: Worksites with 2008 Reported Severe Injuries and Illnesses in Total and for Worksites with less than 40 employees			
Employees	Worksites Inspected	Percent of Worksites	Injuries and Illnesses
All Worksites	2,291	100%	2,518
Worksites Less than 40			
20 to 39	281	12%	317
11 to 19	235	10%	260
10 or Less	637	28%	682
Less than 40	1,153	50%	1,259

Worksites with 11 to 19 employees represented 87 of 722 (12 percent) of OSHA inspections with reported severe injuries and illnesses, and 148 of 1,569 (9 percent) of state plan state inspections.

Regarding the size of worksites, there are several applicable criteria and limitations.

- Federal regulations (29 CFR 1904.1) exempt worksites with 10 or fewer employees from keeping OSHA injury and illness records unless the company is notified in writing by OSHA or BLS.
- In approving the 2009 ODI survey, OMB stipulated that data collected from worksites with less than 40 employees would not be used for enforcement purposes. In 2010, OSHA received approval from OMB to use data from worksites with 20 or more employees for enforcement purposes.
- The SST program directive effective in August 2010 stated that the program was limited to worksites with 40 or more employees. In September 2011, SST program directive extended the program to worksites with 20 or more employees.

Although the SST program targeted worksites with 40 or more employees, the ODI program collected data on smaller worksites for performance measurement purposes. ODI collected data on 16,611 worksites that met targeting criteria for industry, and injury and illness rates. However, worksites with the highest rates were not included in the SST program due to regulatory exemptions or data use restrictions. Worksites with 10 or fewer employees had the highest average DART and DAFWII rates, but were exempt under 29 CFR 1904.1. Worksites with 11 to 19 employees had the next highest rates, but OSHA has not been approved to use their data for enforcement purposes. The table below shows the ODI data for the number of worksites, and average DART and DAFWII by worksite size.

Table 3: ODI Worksites Meeting Industry and Injury and Illness Rates Targeting Criteria⁷				
Employees	Worksites	DART	DAFWII	Notes
200 or more	2,168	9.51	3.91	Included
100 – 199	4,399	10.36	4.60	Included
60 – 99	3,973	10.10	5.47	Included
40 – 59	3,288	10.11	6.36	Included
20 to 39	2,241	10.07	7.18	Added to scope 9/2011
11 to 19	445	11.49	9.84	Data Use Restricted
10 or Less	97	20.43	19.63	Exempted
All Employers	16,611	10.19	5.64	

While discussing the SST program, officials in one regional office stated that 70 percent of fatalities in their jurisdiction were from worksites with 10 or less employees. They explained that generally these small employers do not belong to associations that provide guidance on safety and health topics, nor seek help from OSHA. Furthermore, these small companies have not been targeted by other OSHA inspection programs. The regional office officials stated that while the SST program has been expanded to include employers with 20 or more employees, it does not go far enough to reach this at-risk group. When asked about the 20 or more employee threshold, other regional and area office officials opinions varied on whether that was the appropriate threshold.

Worksites in 12 states (8 state plan states) were outside the scope of the ODI survey

The ODI survey, the basis for the SST program, did not include worksites in 12 states from the sampling frame. Four states were U.S. territories and not surveyed based on a program decision. The other 8 states were state plan states that decided not to participate in ODI and opted to maintain comparable programs. Under OSHA directives, state plan states were given the option to participate in the ODI and SST programs, or maintain comparable programs. While OSHA cannot compel states to participate in national programs such as ODI and SST, it also lacks sufficient information to evaluate the effectiveness of states’ targeting programs. As a result, high-risk worksites may not be targeted and inspected by the states’ programs.

While the exact number of high-risk worksites is unknown, the 12 states represented approximately 10 percent of worksites with severe injuries and illnesses reported in 2008 and 2010. According to BLS reported data, these states account for approximately 10 percent of worksites (non-construction, 40 or more employees) and 5 of the state plan states had higher than average statewide DART rates.⁸ The following table summarizes BLS reported DART, DAFWII, worksites and employees for the states omitted from ODI and nationwide averages/totals. The 5 states with higher than average DART and DAFWII rates are highlighted in the table below.

⁷ Average DART and DAFWII excludes data identified by OSHA as unreliable or questionable.

⁸ DART and DAFWII were statewide averages from the *Survey of Occupational Injuries and Illnesses*. Worksites and employees were calculated estimates for worksites with 40 or more employees from *Quarterly Census of Employment and Wages* quartile data which presented the data for 20-49; 50-99, 100-249, 250-499, 500-999, and 1000 or more employees. No data available for Guam, Trust Territory of the Pacific Islands, or American Samoa.

Table 4: BLS Reported DART, DAFWII, Worksites and Employees Data to Compare Averages/Totals Nationwide to States Omitted from ODI

Description		DART	DAFWII	Worksites	Employees
Nationwide		1.8	1.1	545,359	63,110,012
States Omitted from ODI					
Alaska	SP ⁹	2.1	1.7	1,123	120,610
Arizona	SP	1.7	1.0	9,498	1,301,131
Oregon	SP	2.3	1.4	6,773	677,317
Puerto Rico	SP	2.9	2.8	3,135	411,188
South Carolina	SP	1.7	0.9	7,473	821,208
Virgin Islands		1.1	1.1	158	12,540
Virginia	SP	1.5	0.9	14,943	1,643,640
Washington	SP	2.5	1.7	11,206	1,269,529
Wyoming	SP	2.0	1.4	1,013	85,995
States Omitted		2.0	1.3	55,322	6,343,158

State plan states were not compelled to participate in national programs such as ODI and SST even though those programs are recommended by OSHA. The SST program directive, section VII-C, requires states to notify OSHA of the states’ intent to adopt SST policies and procedures or different ones for targeting of general industry inspections. The states’ targeting system may be based on available state data; BLS injury and illness rate data; or ODI DART and DAFWII data. The states that did not participate in ODI used various ways to identify and target historically high-risk industries and employers for inspections. For example, Arizona, Oregon, and Washington used worker compensation data, while other states used locally developed data. While many state workers’ compensation programs voluntarily provide data to OSHA, others do not. Also, due to differences in laws and administrative systems, state data varies significantly in content, format and accessibility.

OSHA lacks sufficient information to evaluate the comparability of the states’ programs in identifying, targeting and inspecting the highest risk worksites. In the OIG report, *OSHA Has Not Determined If State OSH Programs Are At Least As Effective In Improving Workplace Safety And Health As Federal OSHA’s Programs*; Report No. 02-11-201-10-105, March 31, 2011), we stated:

... OSHA has not yet designed a method to examine the impact of State programs on workplace safety and health to ensure they are effective, and to fully evaluate the merits of any program changes.... As a result, OSHA lacks critical information on performance, which may impact its decisions on policies, enforcement priorities, and funding.

As a result, high-risk worksites may not be appropriately targeted and inspected by states’ programs. While the exact number of high-risk worksites is unknown, these 12 states accounted for 10 percent (229 of 2,291) of worksites inspected in 2008 with

⁹ State has an OSHA-approved state plan that covers private industry.

severe injuries and illnesses reported,¹⁰ and 11 percent (111 of 996) of OSHA fatality and catastrophic injury reports in 2010.

53 industries with higher than average DART were outside the scope of the ODI survey

ODI excluded some industries with high DART rates and included others with low rates because OSHA primarily used outdated information in selecting industries for the data collection. The SST program directive states that ODI survey data collected is from 80,000 worksites in historically high-risk industries. To identify high-risk industries, OSHA generally used BLS injury and illness rate data. However, the list of industries included in ODI has been relatively static since 2003 when BLS completed a required nationwide change in industry classification systems. OSHA has not completed that required change due to delays in pending recordkeeping regulations and has not updated its list of selected industries based on more recent injury and illness rates from BLS. As a result, 8,745 worksites in 124 low-hazard industries¹¹ were surveyed, while worksites in 53 industries with high injury and illness rates were not. See Exhibit 2 for the 124 low-hazard and 53 high injury and illness rate industries.

The ODI Procedures Manual exempted 56 industries from data collection because the industries' employers are not required to keep OSHA injury and illness records. All other industries (such as the 53 identified on Exhibit 2) are in the scope of ODI and, except for construction, in the scope of the SST program. The SST program directive, section VIII-B, states:

By applying industry and establishment-size criteria, OSHA focuses its data collection towards establishments [worksites] that are most likely to be experiencing elevated rates and numbers of occupational injuries and illnesses. Specifically, OSHA collects injury and illness data through the Data Initiative [ODI] survey from 80,000 larger establishments (40 or more employees) in historically high-rate [high-risk] industries.

OSHA lacks sufficient data to ensure it included industries with the highest injury and illness rates in the ODI and SST programs. OSHA generally used historical BLS data to identify high-risk industries by Standard Industrial Classification (SIC) codes, but this information was last available by SIC code in 2002. Since 2003, BLS has reported injury and illness data using the North American Industry Classification System (NAICS) – the standard used by Federal statistical agencies in classifying business establishments, while OSHA has continued to use the SIC code system that NAICS replaced. OSHA's ODI survey is based on data recorded under OSHA's injury and illness recordkeeping rule (29 CFR Part 1904) which defined industries by SIC. In 2001, OSHA announced the intent to convert to NAICS codes, but cannot complete the transition until the recordkeeping rule is amended. This rulemaking is still pending on OSHA's regulatory

¹⁰ Only one worksite was inspected by OSHA. The 8 state plan states accounted for 15 percent (228 of 1,569) of worksites inspected in 2008 with reported severe injuries and illnesses.

¹¹ Low-hazard industries are defined as industries with average DART rates at or below 75 percent of the national average DART (Recordkeeping Policies and Procedures Manual; CPL 02-00-135).

agenda as of August 2012. Until OSHA completes the transition, industry-specific injury and illness data between OSHA and BLS is not comparable. OSHA officials stated the industries selected for ODI have basically been static since 2002, but a few industries were added when an emphasis program is planned.

In 2009, GAO reported the inconsistency between OSHA and BLS data systems in *Workforce Safety and Health: Enhancing OSHA’s Records Audit Process Could Improve the Accuracy of Worker Injury and Illness Data* (Report No. GAO-10-10, October 15, 2009). In the report, GAO identified eight high hazard industries that were excluded from OSHA targeting between 2003 and 2007. For our audit, we found four of the eight industries had DART rates above the national average of 1.8 in 2009 and were still not covered in the SST program.

Table 5: BLS Reported 2009 DART Rates for 4 Industries Identified by GAO as Excluded from OSHA Targeting

Industry Description	DART
Amusement Parks and Arcades	3.9
General Rental Centers	3.5
Coastal and Great Lakes Freight Transportation	2.8
Automotive Equipment Rental And Leasing	2.2

As a result, some low-hazard industries were included in ODI while other industries with high injury and illness rates were not. This is contrary to the objective of the ODI collection initiative which was to compile injury and illness information from worksites in selected high-hazard industries. While the exact number of high-risk worksites in the 53 high rate industries is unknown, some worksites reported severe injuries and illnesses:

- 181 of 2,291 (8 percent) worksites inspected in 2008 with reported severe injuries and illnesses.¹² For example, Amusement Parks and Arcades (SIC 7996) had 9 inspections at 7 worksites with 9 injuries reported in 2008.
- 200 of 996 (20 percent) fatality and catastrophic injury reports were submitted to OSHA in 2010. For example, the Grain and Field Beans (SIC 5153) industry had 10 worksites with severe injuries reported in 2010 -- 6 injuries related to workers engulfment in grain storage bins. In August 2010, OSHA issued a hazard alert letter to Grain Storage Facility Operators due to fatalities in the industry from grain entrapment. The letter stated 38 grain entrapments were documented in 2009 and generally occurred because of “...*employer negligence, non-compliance with OSHA standards, and/or poor safety and health practices.*”

¹² OSHA inspected 5 percent (35 of 722) of worksites in these industries, while state plan states inspected 9 percent (146 of 1,569).

Finding 2 — Selected worksites were not always inspected due to competing local priorities and other targeting strategies

SST targeted worksites were not always inspected due to competing local priorities and other targeting strategies. OSHA selected 8,655 SST worksites but conducted inspections at 21 percent of them. Another 5,172 worksites met Federal OSHA criteria for SST targeting, but these worksites were located in state plan states and only 6 percent received SST inspections. In addition to the SST program, OSHA implemented both national and local “emphasis” inspection programs to target high-risk hazards and industries. While the SST program is a national program, neither OSHA area offices nor state plan states were required to conduct SST inspections. As a result, selected worksites were not always inspected.

Targeted worksites were distributed throughout 43 states and the District of Columbia¹³ while inspections were conducted in 35 states. The following maps and Exhibit 3 illustrate the distribution of worksites and DART rates for targeting and inspections (indexed and grouped in four categories for presentation purposes).¹⁴ As the first map shows, California had the highest concentration of targeted worksites at 1,491 and average DART rate of 12.1. On the second map, Pennsylvania had the highest concentration of inspected worksites at 219 and 11.1 average DART rate.

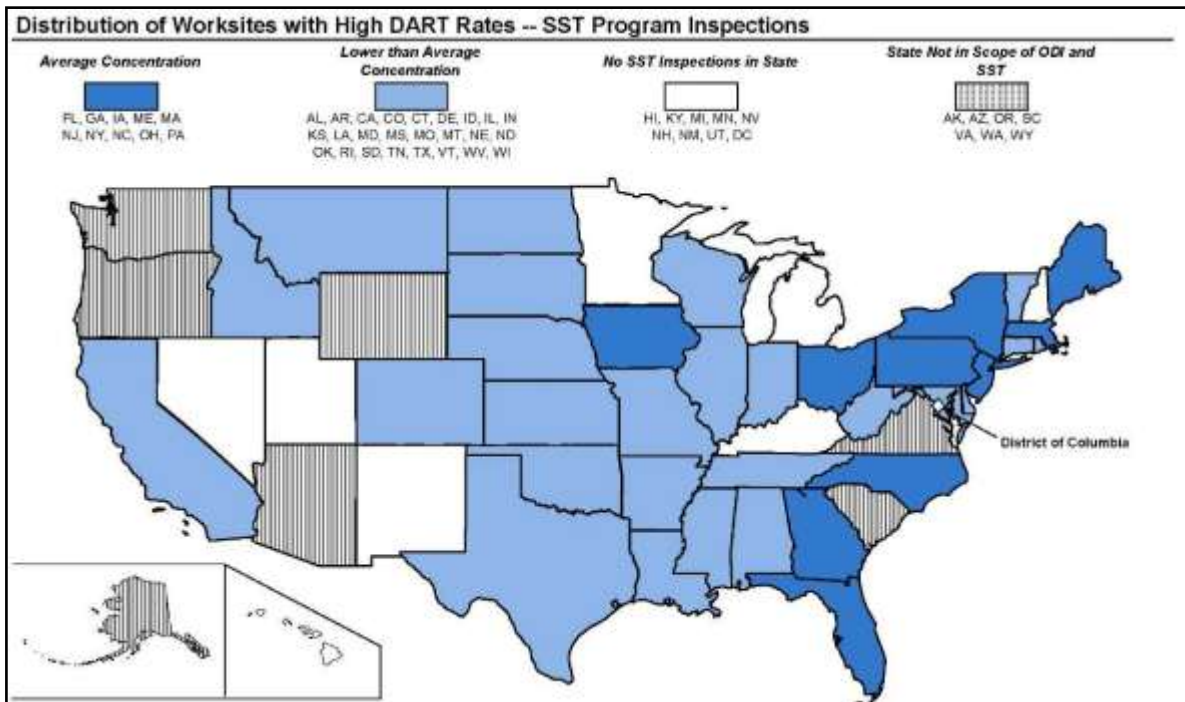
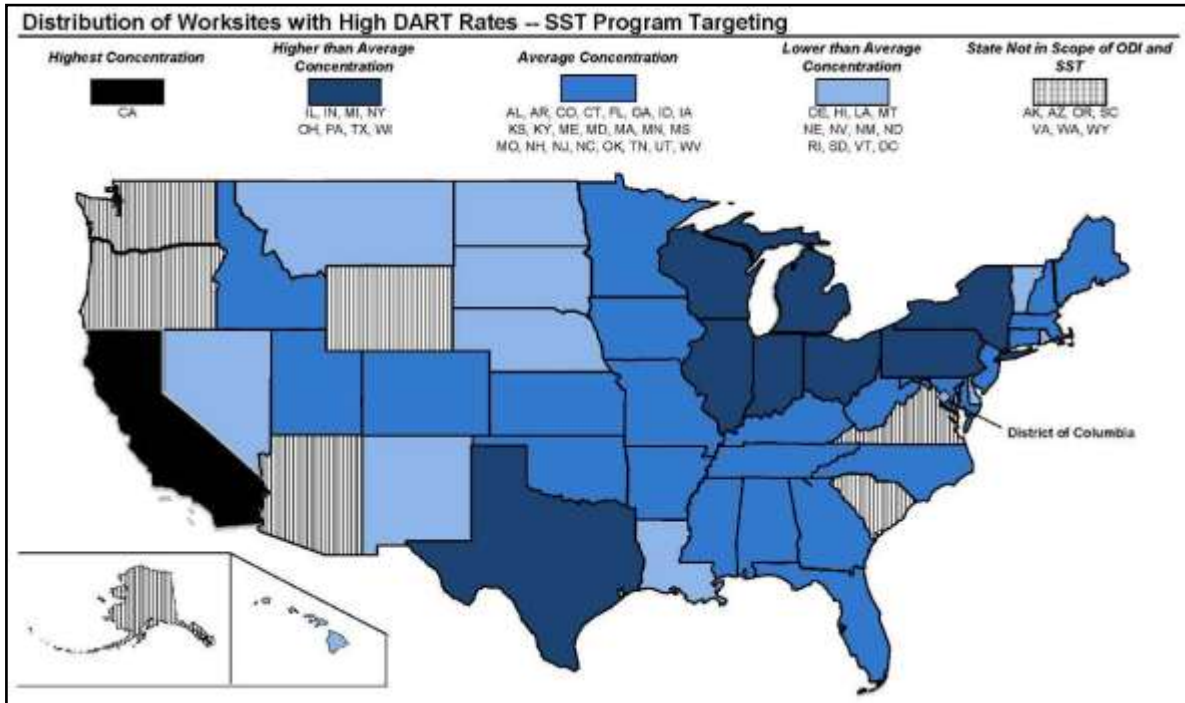
Using the maps in conjunction with Exhibit 3 presents the bigger picture of how well the SST program addresses the highest risk worksites. For example, Texas had a higher than average concentration (index of 8,141) of worksites targeted with 810 worksites and average DART rate of 10.05. Texas had a lower than average concentration (index of 735) of worksites inspected with 63 worksites and average DART rate of 11.66. Using the index amounts, 9 percent of the highest risk worksites in Texas were targeted and inspected –significantly lower than the nationwide average of 17 percent.

The maps and Exhibit 3 also highlight the importance of targeting precision in addressing the highest risk worksites. The 8 states with higher than average concentration (index range of 5,000 to 9,999) address 12 percent of the highest risk worksites. Whereas, the 23 states with an average concentration (index range of 1,000 to 4,999) and the 12 states with lower than average concentration (index under 1,000) addressed 26 percent and 20 percent, respectively, of the highest risk worksites.

¹³ See Finding 1 for a discussion of the 7 states and 5 U.S. territories outside the scope of ODI and SST.

¹⁴ Number of worksites were combined with DART rates (worksites x average DART) and indexed. Categories were: Highest (over 10,000); Higher than Average (5,000 to 9,999); Average (1,000 to 4,999) and Lower than Average (under 1,000). The same categories and index ranges were used for both maps.

Distribution of Worksites Targeted and Inspected



OSHA inspected 21 percent of targeted worksites

OSHA inspected 1,813 of the 8,655 targeted SST worksites; however, these inspections were not always of worksites with the highest DART rates. This occurred because local

priorities, limited inspection resources, and sampling design impacted the number and average DART rates for worksites inspected. According to the SST directive, the area office determines the number of worksites inspected and selects the specific worksites by random sample. As a result, inspections conducted were not always at worksites with highest DART rates.

According to regional and area office officials, area offices have inspection goals that are established based on professional judgment, experience with employers in the area, and inspection priorities. If SST inspections are part of the goals, the area offices will select a random sample of worksites and can complete the inspections in any order. The SST directive part XI.A states:

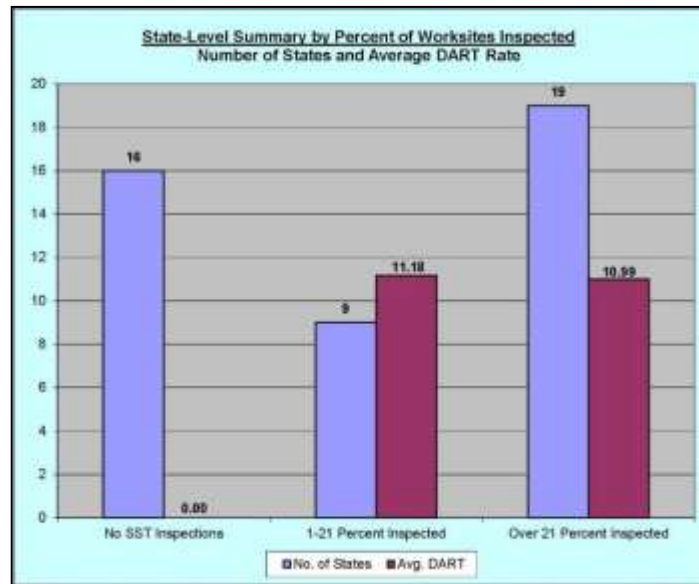
Area Offices will base their determination of cycle [sample] size (i.e., 5 to 50 establishments [worksites]) on consideration of available resources and geographic range of the office. Larger cycle sizes will allow greater flexibility and efficiency of scheduling, but once begun, the cycle must be completed.

Samples are selected from two lists of SST targeted worksites – the “Primary” and “Secondary” lists. The Primary list contains the targeted worksites with the highest ranges of DART and DAFWII rates, while the Secondary list contains targeted worksites with lower rates. The ranges of DART and DAFWII rates for the Primary and Secondary lists also factor in the type of industry: manufacturing, nursing and personal care facilities, and non-manufacturing. Worksites must meet at least one of the minimum values for DART or DAFWII to be included on the lists.

Table 6: Minimum DART and DAFWII rates for Primary and Secondary Lists of SST targeted worksites (by group)				
Group	Primary List		Secondary List	
	DART	DAFWII	DART	DAFWII
Manufacturing	7.0	5.0	5.0	4.0
Nursing and Personal Care Facilities	16.0	13.0	13.0	11.0
Non-manufacturing	15.0	14.0	7.0	5.0

Nationwide, OSHA targeted 8,655 worksites¹⁵ in 44 states and conducted SST inspections at 1,813 worksites (21 percent) in 28 states. The inspected worksites had DART rates that averaged 11.0. Note that as the percentage of worksites inspected increases, the average DART rate decreases because samples are first taken from the higher-rate Primary list and then the lower-rate Secondary list. For the worksites inspected, 73 percent were targeted on the Primary list (average DART rate of 12.1) and 27 percent were targeted on the Secondary list (average DART rate of 8.2). While overall worksites inspected were 21 percent of worksites targeted, 33 percent of worksites on the Primary list were inspected and 11 percent of worksites on the Secondary list were inspected. The following chart presents a state-level summary of SST worksites inspected.

¹⁵ Includes some worksites in state plan states where OSHA has jurisdiction, such as U.S. Post Offices.

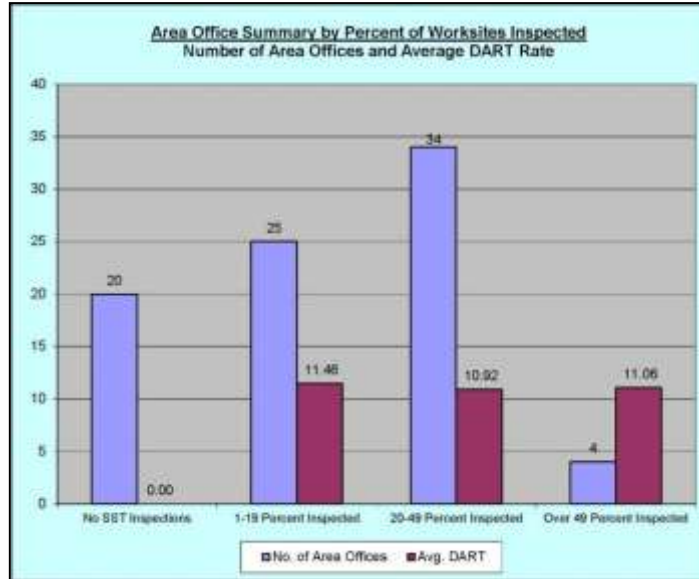


One factor that impacted the number of inspections completed was the availability of area office resources to conduct SST inspections. OSHA regional and area office resources were allocated with the highest priority on inspections initiated in response to fatality investigations, formal complaints, referrals, and other situations that pose a risk to the safety and health of workers. Lower priority was given to programmed inspections such as SST and national, regional, and local emphasis programs. The impact of high priority inspections on inspection resources varied based on the characteristics of industries, employers and workers in local areas.

Another factor is the uneven distribution of the targeted worksites due to the industries in the areas and the worksites' reported DART rates. The number of targeted worksites by area office ranged from 6 to 109.¹⁶ To compound these variances, some area office with high numbers of targeted worksites also had a backlog of SST inspections from prior year targeting plans. For instance, 84 percent of SST inspections for the audit period were targeted in 2010 while the remaining was targeted as far back as 2002. In total, 51 inspected worksites were targeted for the SST programs in 2002 through 2007 and some of these worksites were not high-risk in 2010. By comparing ODI survey responses and inspection statistics, the 51 carryover worksites had lower DART rates (averaging 9.58 versus 10.98) and resulted in less citations per worksite (averaging 4.4 versus 5.7) than worksites targeted for the SST program in 2010. While the directive required area offices to complete a sample once its drawn, periodic assessments of open cases would allow OSHA to determine the benefit of completing the inspections. For example, Toledo Area Office closed an inspection in 2010 for a worksite sampled in 2002. Records indicated no inspection was complete as the company was out of business.

¹⁶ OSHA's SST sampling plan required area offices to select a minimum of 5 targeted worksites for inspections. Therefore, only area offices with 5 or more targeted worksites were considered.

Because of these two factors, there is an uneven workflow. For the 83 area offices with targeted worksites, 4 area offices inspected over 50 percent of their targeted worksites while 20 area offices conducted no SST inspections. The following chart presents an area office level summary.¹⁷



For example, Augusta Area Office in Maine completed 98 SST inspections. Augusta officials explained that workers in the area generally do not file complaints. Therefore, Augusta used OSHA targeting programs such as SST to select worksites to inspect. As a result, Augusta inspected 96 of 115 (83 percent) of worksites targeted in 2010 plus 2 carryover inspections from 2009. In contrast, Houston South completed two SST inspections because other programs were considered higher priority. As a result, Houston South completed 1 of 56 (2 percent) of worksites targeted in 2010 plus 1 carryover inspection from 2008.

As a result the SST program is unevenly applied as the higher-risk worksites were not always inspected on a nationwide basis. For the 16 states and 20 area offices with no SST inspections, the targeted worksites had average DART rates of 9.42 and 9.66, respectively. For example, OSHA targeted eight worksites with DART rates between 5.29 and 12.84. These worksites were not inspected and reported work-related fatalities or catastrophes during the audit period. Meanwhile, OSHA inspected 186 targeted worksites with DART rates less than 5.29 ; and resulted in less citations per inspection (average 4.1) than were generally issued for the SST program (average of 4.7).

While we acknowledge that additional resources may not be found and local enforcement priorities may take precedence over the SST program, resources could be used more efficiently and effectively through improved targeting precision. For example, using DART and DAFWII for targeting resulted in inspections with lesser gravity hazards – 69 percent of the citations were for serious hazards, of which only 6 of the 69 percent

¹⁷ The chart includes only those area offices (83) that had targeted worksites for the 2010 program.

were for high-gravity hazards (likely to result in serious injury or death). As suggested by some OSHA officials, targeting could be improved with information on injury types and severity of injuries and illnesses. In addition to the information needed to calculate the DART and DAFWII rates, ODI collected minimal information on the days away from work or transferred, and the numbers of injuries, skin disorders, respiratory conditions, poisonings, hearing loss, and occupational illnesses. However, that information was not used for SST targeting.

For example, while the Primary targeting list had higher DART and DAFWII rates than the Secondary targeting list, it does not take into consideration the length of time workers were out of work or transferred to another job while they recuperate. By calculating the case averages for number of days away and number of days transferred, we observed that the worksites on the Primary list had lower case averages than worksites on the Secondary list. Although worksites on the Primary list have higher frequency of injuries and illnesses (higher DART and DAFWII rates), the worksites on the Secondary list have injuries and illnesses that take longer to recuperate (higher case averages). See the following table for a summary of worksites targeted and inspected with statistics for DART, DAFWII, case average days away and case averages days transferred.

Table 7: Worksites Targeted and Inspected – Overall and for Primary and Secondary Lists with Statistics for DART and DAFWII, and Case Average Days Away and Case Average Days Transferred¹⁸

	DART	DAFWII	Case Average Days Away	Case Average Days Transferred
Worksites Targeted				
Overall Average	9.8	4.9	29	31
Primary List	11.9	5.9	27	27
Secondary List	8.0	4.0	30	34
Worksites Inspected				
Overall Average	11.0	5.5	27	27
Primary List	12.1	6.0	25	24
Secondary List	8.2	4.0	33	35

The following are examples of employers with targeted worksites that were not inspected, and where there was a work-related fatality or catastrophe reported in 2011.

- Arcelor Mittal had two worksites targeted for SST that were not inspected, and had fatal injuries after August 2010. One area office completed 17 percent of its targeted SST inspections while the other area office completed none. While the two worksites had DART rates of 5.35 and 5.29, the case averages for days away and days transferred were higher than the averages for the Primary list. One site averaged 41 days away and 44 days transferred per case. The other site averaged 33 days away and 32 days transferred.

¹⁸ DART, DAFWII and per case averages were calculated from ODI data excluding data considered unreliable or questionable. Per Case Average Days Away = total days away / number of cases with days away. Per Case Averaged Days Transferred = total days transferred / number of cases transferred.

- Tyson Foods had a catastrophic release of chlorine gas that exposed 173 employees. News reports indicated that at least five employees were put in intensive care units for respiratory issues. The worksite was targeted under the SST program but the area office did not complete any SST inspections. This worksite had average DART and DAFWII rates of 6.0 and 1.8. However, the case average days away were 14 and days transferred were 57.

State plan states inspected 6 percent of worksites meeting targeting criteria

Of the 22 state plan states, 6 states adopted the Federal SST program and conducted SST inspections at 6 percent of worksites meeting the targeting criteria. According to the SST directive, these states are not required to participate in SST, collect ODI data or use ODI data in targeting worksites. Because of this flexibility, 8 states did not participate in either the ODI or SST programs (Finding 1); while another 8 states participated in ODI but did not conduct SST inspections. As a result, hazardous worksites at 16 states were not addressed through the SST program and few high-risk worksites in 6 states were inspected.

The SST program directive, part VII-c required states to notify OSHA whether they intend to adopt policies and procedures identical to SST to target the higher risk worksites. Otherwise, for general industry inspections, states can adopt or maintain different policies and procedures to target worksites based on available state data; BLS injury and illness rate data, or ODI DART and DAFWII data.

While 6 states participated in the SST program and inspected 430 worksites, there was some variety in the states’ programs as 331 worksites (77 percent) met OSHA’s criteria for targeting. For example, construction worksites were not a part of the Federal SST program but represented 18 percent of states’ SST inspections with the majority of those worksites in Maryland. The following table demonstrates the DART, DAFWII, worksites inspected and the percent the states’ SST inspections were consistent with OSHA’s SST targeting criteria.

Table 8: State Plan States with Worksites Inspected --DART, DAFWII, Worksites Inspected, and Consistency with OSHA SST Criteria

State	DART	DAFWII	Worksites Inspected	Consistency with OSHA SST Criteria
Indiana	8.3	3.8	59	56%
Iowa	12.4	4.8	113	83%
Maryland	12.8	4.5	40	38%
North Carolina	9.1	3.7	188	89%
Tennessee	9.8	3.5	21	86%
Vermont	7.7	5.5	9	33%
State Totals	10.1	4.1	430	77%

Eight states participated in ODI survey collection, but did not conduct any SST inspections. According to the directive, these states were to maintain their own program to target high-risk industries. While the states’ targeting programs were outside the

scope of this audit, these 8 states account for 3,202 of 5,172 or 62 percent of targeted worksites using OSHA SST targeting criteria.

Table 9: Targeted Worksites for State Plan States in ODI but With No SST Inspections (DART, DAFWII, Worksites, and Employees per ODI)

States	DART	DAFWII	Worksites	Employees
All state plan states	10.6	4.5	5,172	806,808
With No SST Inspections				
California	12.1	4.5	1,471	228,411
Hawaii	9.4	8.2	59	11,731
Kentucky	10.5	5.0	329	57,999
Michigan	9.9	4.2	704	107,728
Minnesota	10.5	4.6	401	61,517
Nevada	10.4	4.7	65	10,323
New Mexico	12.8	5.9	54	6,014
Utah	10.4	3.2	119	17,710
State Totals	10.8	4.5	3,202	501,433

As mentioned in Finding 1, OSHA lacks sufficient information to evaluate the comparability of the states’ programs in identifying, targeting and inspecting the highest risk worksites. For example, California State Plan (Cal/OSHA) participated in ODI with over 8,000 worksites surveyed, but did not conduct SST inspections. Cal/OSHA’s targeting system uses workers’ compensation data. Letters are sent to employers with high workers’ compensation losses requesting a written plan to reduce injuries and illnesses. Based on their responses, employers may be placed on a secondary inspection list for random selection or on a primary list for inspections conducted by a special High Hazard Inspection Unit. The state’s Enhanced Federal Annual Monitoring and Evaluation Report for the period October 2010 through September 2011 contained some limited information on high hazard inspections. The report indicated Cal/OSHA exceeded their goal with 557 inspections in high hazard industries, but fatalities increased and DART rates were unchanged from the prior years. The report concluded that Cal/OSHA may need to concentrate more efforts towards high hazard worksites. For example, an employer in California reported a fatal accident in February 2011 at a worksite that would have been targeted for SST if located in a state under Federal jurisdiction. A sanitation worker at Central Valley Meat was killed when his neck was broken in a meat blender accident. He was cleaning the meat blender when another employee turned it on, thinking that the machine was empty. Cal-OSHA investigated the accident and found the company did not ensure the machine was de-electrified and locked out so workers could not accidentally turn on the machine.

Objective 2 — What was known about the effectiveness of OSHA’s program?

OSHA lacked measures to evaluate effectiveness

Currently, the SST program is undergoing a study (final report expected in 2014) which is intended to evaluate the program’s impact on employee safety. Meanwhile, OSHA officials stated the SST program had an impact as it provided the sole justification for

performing comprehensive inspections at certain high-risk worksites, and resulted in more citations per inspection (4.7 average) than other targeting programs (2.8 average) from October 2010 through September 2011. However, OSHA is not able to ensure the SST program operated effectively because information on program results is limited. As we cited in a prior audit report,¹⁹ OSHA does not have outcomes-based performance metrics to measure effectiveness and demonstrate the causal effect of their programs on the safety and health of workers. While output measures (inspection counts, citations issued, and penalty amounts), injury and illness rates, and fatality rates may be appropriate for monitoring program activities, they do not measure the effect of these actions on improving safety and health at high-risk worksites.

Finding 3 — Information on the results of the SST program was limited

While the SST program is proactive and can have great impact on future improvement of safety and health and efficient resource management, information on the results of the SST program is limited. According to the SST directive, OSHA established the SST program to assist in reducing the amount of injuries and illnesses in the workplace. However, OSHA has not assessed the SST program and output measures are not sufficient to conclude on program efficiency and effectiveness. As a result, OSHA may not be readily able to demonstrate the program's impact on the safety and health of workers.

The SST Directive does not require an assessment to detect risk that the program is not reducing the number of injuries and illnesses. OMB Circular A-123 states:

Periodic assessments should be integrated as part of management's continuous monitoring of internal control, which should be ingrained in the agency's operations. If an effective continuous monitoring program is in place, it can level the resources needed to maintain effective internal controls throughout the year.

OSHA's current study of the SST program is designed to assess the program's impact on employer compliance. Specifically, the study was designed to determine the impact of SST program inspections, employer characteristics that are strong indicators of future compliance, and best practices and measures to reduce future occupational injuries and illnesses among employers. The study included three test groups in which employers would either (1) not receive a warning letter, (2) only be sent a letter, or (3) both receive a letter and an inspection. Employers, excluding those under jurisdiction of state plan states, were selected using a stratified random sample.

Meanwhile, information on program impact is limited to primarily output measures. For example, OSHA and state plan states inspected 2,146 SST worksites and issued 9,660 citations of which 6,574 were serious, willful or repeat violations. The following table

¹⁹ OSHA Has Not Determined If State OSH Programs Are At Least As Effective In Improving Workplace Safety And Health As Federal OSHA's Programs (OIG Report No. 02-11-201-10-105, March 31, 2011).

summarizes worksite statistics in total and for the three target industry groups (Manufacturing, Non-Manufacturing, and Nursing).

Table 10: Selected Worksite Statistics for SST Inspections				
Description of Selected Statistics	Total	Manu.	Non-Manu.	Nursing
Worksite Type	100%	67%	24%	9%
Average DART rate	10.86	9.45	12.17	17.88
Scope – Comprehensive	83%	81%	88%	81%
Average Penalty per Worksite	\$5,043	\$6,179	\$2,983	\$2,138
Average Citations per Worksite	4.0	4.8	2.5	2.6
High Gravity Citations	6%	7%	5%	1%
Low Gravity Citations	56%	53%	63%	69%

In addition, regional and area office officials provided the following comments regarding the program’s successfulness.

- OSHA sends out letters to approximately 15,000 employers with the highest DART rates to encourage them to seek advice on how to reduce their injury rates. These “high-rate” letters lead to an increase in consultation requests from employers and keep employers focused on safety.
- Significant SST inspections (over \$100,000 in penalties) create public awareness and have a deterrent effect.
- SST inspections increase the visible presence of OSHA in the worksites.
- SST inspections are used to educate small employers.

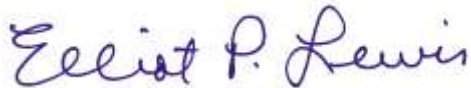
RECOMMENDATIONS

We recommend that the Assistant Secretary for Occupational Safety and Health:

1. Include the highest risk worksites in the ODI survey and SST program targeting by:
 - a. Expanding coverage of ODI through negotiations on the use of data from worksites with 11 to 19 employees for enforcement purposes.
 - b. Encouraging more state plan states to consider participation in the ODI survey and SST inspections through outreach efforts on the merits of the programs.
 - c. Revising the list of industries included in the ODI survey based on current BLS injury and illness data.

2. Prioritize and complete programmed inspections of the highest risk worksites to ensure effective and efficient use of resources. In prioritizing inspections, OSHA should
 - a. Evaluate whether to pursue target worksites that carryover for two or more years. In addressing this recommendation, OSHA should consider the worksite's DART and DAFWII for the current year.
 - b. Use additional data to improve targeting precision such as the average number of days away and average number of days transferred, and/or other information collected in ODI.
3. Complete the evaluation of the SST program, and implement a monitoring system to evaluate efficiency and effectiveness on an on-going basis.

We appreciate the cooperation and courtesies that OSHA personnel extended to the Office of Inspector General during this audit. OIG personnel who made major contributions to this report are listed in Appendix E.



Elliot P. Lewis
Assistant Inspector General
for Audit

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Exhibits

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Exhibit 1

States' Participation in DART, ODI and SST

- A. **OSHA Jurisdiction for Private Industry Employers** (including five state plan states where the state has jurisdiction for public employers only). "X" indicates worksites in the state were surveyed for the 2009 ODI program and inspected under the 2010 SST program.

Table 1-A: States under Federal OSHA Jurisdiction Participation in the ODI Survey and SST Inspections Programs		
State	ODI	SST
1 Alabama	X	X
2 Arkansas	X	X
3 Colorado	X	X
4 Connecticut	X	X
5 Delaware	X	X
6 Florida	X	X
7 Georgia	X	X
8 Idaho	X	X
9 Illinois	X	X
10 Kansas	X	X
11 Louisiana	X	X
12 Maine	X	X
13 Massachusetts	X	X
14 Mississippi	X	X
15 Missouri	X	X
16 Montana	X	X
17 Nebraska	X	X
18 New Hampshire	X	
19 New Jersey	X	X
20 New York	X	X
21 North Dakota	X	X
22 Ohio	X	X
23 Oklahoma	X	X
24 Pennsylvania	X	X
25 Rhode Island	X	X
26 South Dakota	X	X
27 Texas	X	X
28 West Virginia	X	X
29 Wisconsin	X	X
30 American Samoa		
31 District of Columbia	X	
32 Guam		
33 Trusted Territory of the Pacific Islands		
34 Virgin Islands		
Counts	30	28

B. State Plan States with Jurisdiction for Private Industry Employers (excluding five state plan states where the state has jurisdiction for public employers only). “X” indicates worksites in the state were surveyed for the 2009 ODI program and inspected under the 2010 SST program.

Table 1-B: State Plan States Participation in the ODI Survey and SST Inspections Programs		
State	ODI	SST
1 Alaska		
2 Arizona		
3 California	X	
4 Hawaii	X	
5 Indiana	X	X
6 Iowa	X	X
7 Kentucky	X	
8 Maryland	X	X
9 Michigan	X	
10 Minnesota	X	
11 Nevada	X	
12 New Mexico	X	
13 North Carolina	X	X
14 Oregon		
15 South Carolina		
16 Tennessee	X	X
17 Utah	X	
18 Vermont	X	X
19 Virginia		
20 Washington		
21 Wyoming		
22 Puerto Rico		
Counts	14	6

Exhibit 2

Industries Included and Excluded from ODI

A. 124 Low-Hazard Industries Included in ODI – Low-hazard industries are defined as industries with average DART rates at or below 75 percent of the national average DART (Recordkeeping Policies and Procedures Manual; CPL 02-00-135).

**Table 2-A: 124 Low-Hazard Industries Included in ODI
2009 DART Rate from BLS²⁰ and Total Worksites and Average DART Rate from the 2009 ODI Survey²¹**

NAICS Code	Industry Description ²²	BLS DART	ODI Survey	
			Worksites	DART
211111	Crude petroleum and natural gas extraction	0.9	11	3.3
212313	Crushed and broken granite mining and quarrying	0.9	1	3.0
213112	Support activities for oil and gas operations	1.0	43	2.9
221111	Hydroelectric power generation	0.8	1	0.0
221113	Nuclear electric power generation	0.3	1	0.0
221119	Other electric power generation	1.3	27	3.7
237120	Oil and gas pipeline and related structures construction	1.0	134	2.0
311221	Wet corn milling	1.0	23	2.2
311811	Retail bakeries	0.9	2	0.9
311930	Flavoring syrup and concentrate manufacturing	1.1	37	3.8
313241	Weft knit fabric mills	0.9	8	3.4
313249	Other knit fabric and lace mills	0.9	16	2.0
314911	Textile bag mills	0.6	22	2.2
315111	Sheer hosiery mills	1.0	27	1.3
315191	Outerwear knitting mills	1.1	54	1.5
315192	Underwear and nightwear knitting mills	1.2	12	1.7
321213	Engineered wood member (except truss) manufacturing	1.3	13	2.7
322110	Pulp mills	1.2	26	2.4
322213	Setup paperboard box manufacturing	1.0	35	3.0
322214	Fiber can, tube, drum, and similar products manufacturing	0.5	47	1.6
323111	Commercial gravure printing	1.0	38	2.9
323114	Quick printing	1.0	2	4.8
323115	Digital printing	0.6	2	8.6
323122	Prepress services	0.5	100	1.3
324110	Petroleum refineries	0.5	130	0.7
324199	All other petroleum and coal products manufacturing	0.9	20	2.8
325110	Petrochemical manufacturing	0.3	19	2.0
325181	Alkalies and chlorine manufacturing	1.3	24	1.2
325188	All other basic inorganic chemical manufacturing	0.8	201	1.4
325199	All other basic organic chemical manufacturing	0.9	248	1.6
325221	Cellulosic organic fiber manufacturing	0.8	8	9.9
325222	Noncellulosic organic fiber manufacturing	1.3	25	1.4
325311	Nitrogenous fertilizer manufacturing	0.9	20	0.5
325312	Phosphatic fertilizer manufacturing	1.1	8	2.7
325411	Medicinal and botanical manufacturing	1.3	55	1.8
325412	Pharmaceutical preparation manufacturing	1.1	517	2.0
325413	In-vitro diagnostic substance manufacturing	1.3	26	1.2
325414	Biological product (except diagnostic) manufacturing	1.1	85	1.8
325611	Soap and other detergent manufacturing	1.3	56	2.4
325910	Printing ink manufacturing	0.7	37	2.1
325992	Photographic film, paper, plate, and chemical manufacturing	1.3	34	3.5
325998	All other miscellaneous chemical product and preparation manufacturing	1.2	180	2.0
327420	Gypsum product manufacturing	0.9	81	1.6
331315	Aluminum sheet, plate, and foil manufacturing	1.1	42	2.7

²⁰ DART rates are from the BLS publication “Table 1: Incidence rates of nonfatal occupational injuries and illnesses by industry and case types, 2009.”

²¹ ODI survey data obtained from OSHA on June 13, 2011.

²² Industry descriptions are from 2007 NAICS search tool on U.S. Census webpage.

Table 2-A: 124 Low-Hazard Industries Included in ODI 2009 DART Rate from BLS²⁰ and Total Worksites and Average DART Rate from the 2009 ODI Survey²¹

NAICS Code	Industry Description ²²	BLS DART	ODI Survey	
			Worksites	DART
332993	Ammunition (except small arms) manufacturing	0.9	21	2.6
332995	Other ordnance and accessories manufacturing	0.7	14	2.6
333220	Plastics and rubber industry machinery manufacturing	1.2	28	4.7
333293	Printing machinery and equipment manufacturing	1.1	49	1.7
333295	Semiconductor machinery manufacturing	0.7	32	1.4
333313	Office machinery manufacturing	1.0	26	1.9
333314	Optical instrument and lens manufacturing	1.3	137	1.3
333516	Rolling mill machinery and equipment manufacturing	1.3	17	4.1
333611	Turbine and turbine generator set units manufacturing	1.2	36	2.8
333618	Other engine equipment manufacturing	1.3	44	3.2
333993	Packaging machinery manufacturing	1.2	78	2.0
333996	Fluid power pump and motor manufacturing	1.2	23	2.3
334111	Electronic computer manufacturing	0.3	144	0.9
334112	Computer storage device manufacturing	0.5	79	0.3
334113	Computer terminal manufacturing	0.1	36	0.8
334119	Other computer peripheral equipment manufacturing	0.5	227	0.9
334210	Telephone apparatus manufacturing	0.5	193	0.6
334220	Radio and television broadcasting and wireless communications equip. mfg.	0.8	390	1.4
334290	Other communications equipment manufacturing	1.2	170	2.0
334411	Electron tube manufacturing	1.3	26	1.4
334413	Semiconductor and related device manufacturing	0.4	473	0.8
334418	Printed circuit assembly (electronic assembly) manufacturing	0.7	297	1.2
334510	Electromedical, and electrotherapeutic apparatus manufacturing	0.6	195	1.1
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument mfg.	0.6	274	0.7
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use	1.0	97	1.6
334513	Inst. and related products mfg. for measuring, displaying, and controlling ind. process variables	1.0	277	1.3
334515	Inst. mfg. for measuring and testing electricity and electrical signals	0.6	192	0.8
334516	Analytical laboratory instrument manufacturing	1.0	169	1.0
334517	Irradiation apparatus manufacturing	0.6	42	0.8
334613	Magnetic and optical recording media manufacturing	1.2	63	1.2
335222	Household refrigerator and home freezer manufacturing	1.1	18	2.5
335314	Relay and industrial control manufacturing	0.7	268	1.8
335999	All other miscellaneous electrical equipment and component mfg.	1.1	338	1.7
336414	Guided missile and space vehicle manufacturing	0.6	30	0.8
336415	Guided missile and space vehicle propulsion unit and parts mfg.	0.8	17	0.8
336419	Other guided missile and space vehicle parts and auxiliary equipment mfg.	0.7	19	2.0
339112	Surgical and medical instrument manufacturing	1.1	498	1.5
339116	Dental laboratories	0.4	1	1.1
339911	Jewelry (except costume) manufacturing	1.3	118	0.8
339932	Game, toy, and children's vehicle manufacturing	1.0	79	1.8
441120	Used car dealers	1.1	2	0.8
442210	Floor covering stores	0.9	2	0.0
443120	Computer and software stores	0.5	2	0.0
444210	Outdoor power equipment stores	0.5	1	3.7
446110	Pharmacies and drug stores	1.0	2	1.8
448150	Clothing accessories stores	0.7	1	0.0
454111	Electronic shopping	1.0	3	1.6
454113	Mail-order houses	1.3	15	2.2
481112	Scheduled freight air transportation	1.0	26	4.7
483114	Coastal and great lakes passenger transportation	0.8	1	4.7
511120	Periodical publishers	0.2	405	0.6
511130	Book publishers	0.5	268	1.0
511140	Directory and mailing list publishers	0.5	100	0.4
511190	Other publishers	0.8	1	----

Table 2-A: 124 Low-Hazard Industries Included in ODI 2009 DART Rate from BLS²⁰ and Total Worksites and Average DART Rate from the 2009 ODI Survey²¹				
NAICS Code	Industry Description²²	BLS DART	ODI Survey	
			Worksites	DART
512110	Motion picture and video production	0.6	3	0.5
515120	Television broadcasting	0.7	11	2.9
519130	Internet publishing and broadcasting and web search portals	0.1	1	----
522220	Sales financing	0.2	3	0.0
522320	Financial transactions processing, reserve, and clearinghouse activities	0.3	1	0.0
523930	Investment advice	0.1	1	0.0
541330	Engineering services	0.5	45	0.2
541510	Computer systems design and related services	0.2	1	----
541511	Custom computer programming services	0.1	9	0.0
541512	Computer systems design services	0.2	12	0.1
541513	Computer facilities management services	0.4	2	0.0
541519	Other computer related services	0.2	3	0.3
541620	Environmental consulting services	0.3	3	3.3
541690	Other scientific and technical consulting services	0.1	3	0.0
541910	Marketing research and public opinion polling	0.3	1	0.0
541990	All other professional, scientific, and technical services	0.3	7	1.8
561310	Employment placement agencies and executive search services	0.4	3	2.8
561320	Temporary help services	1.0	11	1.5
561410	Document preparation services	0.1	1	0.0
561510	Travel agencies	0.2	2	20.8
621111	Offices of physicians (except mental health specialists)	0.3	4	0.0
713930	Marinas	1.2	40	4.0
713940	Fitness and recreational sports centers	1.2	9	1.5
722211	Limited-service restaurants	1.2	2	0.0
812930	Parking lots and garages	1.2	3	5.8
812990	All other personal services	0.4	2	1.3
Total Worksites Surveyed in ODI from Low-Hazard Industries			8,745	

B. 53 Industries with Higher than Average DART rates and not included in SST program –
 Excludes industries with less than 20 employees at worksites

Table 2-B Industries with higher than Average DART rates²³ -- not included in the 2010 SST program and had 2008 inspections at worksites with 20 or more employees and reported severe injuries and illnesses²⁴

NAICS Code	Industry Description ²⁵	BLS DART	Worksites Inspected	Injuries and Illnesses
111140	Wheat farming	3.7	1	1
111219	Other vegetable (except potato) and melon farming	3.2	14	14
111320	Citrus (except orange) groves	2.6	1	1
111331	Apple orchards	2.6	2	2
111332	Grape vineyards	2.6	7	7
111333	Strawberry farming	2.6	1	1
111335	Tree nut farming	2.6	1	1
111336	Fruit and tree nut combination farming	2.6	2	2
111339	Other noncitrus fruit farming	2.6	3	3
111421	Nursery and tree production	2.7	1	1
111910	Tobacco farming	2.2	1	1
111920	Cotton farming	2.2	0	1
111992	Peanut farming	2.2	1	1
111998	All other miscellaneous crop farming	2.2	6	6
115111	Cotton ginning	2.8	2	2
115113	Crop harvesting, primarily by machine	2.8	7	7
115114	Postharvest crop activities (except cotton ginning)	3.5	12	14
115115	Farm labor contractors and crew leaders	2.4	26	29
115116	Farm management services	2.8	4	4
115210	Support activities for animal production	2.7	2	2
115310	Support activities for forestry	2.0	1	11
212319	Other crushed and broken stone mining and quarrying	2.2	2	2
221121	Electric bulk power transmission and control	2.0	1	1
221122	Electric power distribution	2.0	15	15
221210	Natural gas distribution	2.5	3	4
424510	Grain and field bean merchant wholesalers	2.2	1	1
424930	Flower, nursery stock, and florists supplies merchant wholesalers	2.1	1	1
441310	Automotive parts and accessories stores	2.3	1	1
441320	Tire dealers	2.7	3	3
442110	Furniture stores	2.5	1	1
442299	All other home furnishing stores	2.9	1	1
444220	Nursery, garden center, and farm supply stores	2.9	2	2
452910	Warehouse clubs and supercenters	3.8	6	6
452990	All other general merchandise stores	2.8	5	5
453310	Used merchandise stores	2.7	2	2
454311	Heating oil dealers	3.0	1	1
454312	Liquefied petroleum gas (bottled gas) dealers	3.0	2	2
483211	Inland water freight transportation	2.4	1	1
488210	Support activities for rail transportation	2.9	4	4
488410	Motor vehicle towing	2.2	1	1
488999	All other support activities for transportation	3.7	2	2
532310	General rental centers	3.5	3	3
532490	Other commercial and industrial machinery and equipment rental/leasing	2.2	2	2
541320	Landscape architectural services	2.2	2	2
541940	Veterinary services	3.4	1	1
561710	Exterminating and pest control services	2.4	3	3
562998	All other miscellaneous waste management services	2.7	2	2
624310	Vocational rehabilitation services	3.2	2	2
712130	Zoos and botanical gardens	2.4	2	2

²³ DART rates are from the closest matching NAICS codes included in the BLS publication “Table 1: Incidence rates of nonfatal occupational injuries and illnesses by industry and case types, 2009.”

²⁴ OSHA provided data files of 2008 inspections from its Integrated Management Information System (IMIS) records.

²⁵ Industry descriptions are from 2007 NAICS search tool on U.S. Census webpage.

Table 2-B Industries with higher than Average DART rates²³ -- not included in the 2010 SST program and had 2008 inspections at worksites with 20 or more employees and reported severe injuries and illnesses²⁴

NAICS Code	Industry Description ²⁵	BLS DART	Worksites Inspected	Injuries and Illnesses
713110	Amusement and theme parks	4.4	7	9
713910	Golf courses and country clubs	2.0	5	5
722310	Food service contractors	2.1	1	1
812331	Linen supply	2.5	1	1
53 Industries – Total Worksites and Injuries/Illnesses			181	200

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Exhibit 3

Summary by State of Worksites Targeted and Inspected

Number of worksites were combined with DART rates (worksites x average DART) and indexed.²⁶ Categories were: Highest (over 10,000); Higher than Average (5,000 to 9,999); Average (1,000 to 4,999) and Lower than Average (under 1,000). The same categories and index ranges were used for both maps.

Summary by State of Worksites Targeted²⁷ and Inspected²⁸							
State	Worksites Targeted	Avg. DART	Index	Worksites Inspected	Avg. DART	Index	Index Percent²⁹
Alabama	261	9.32	2,433	64	11.02	705	29%
Alaska							X-ODI
Arizona				1	18.09	18	X-ODI
Arkansas	139	8.84	1,229	1	5.08	5	0%
California	1,491	12.07	17,996	2	9.29	19	0%
Colorado	225	10.81	2,432	74	12.81	948	39%
Connecticut	329	11.05	3,635	47	13.00	611	17%
Delaware	31	10.72	332	16	10.07	161	48%
Florida	441	9.78	4,313	206	10.37	2,136	50%
Georgia	316	9.65	3,049	106	11.21	1,188	39%
Hawaii	59	9.44	557				0%
Idaho	104	10.51	1,093	35	11.66	408	37%
Illinois	693	9.24	6,403	1	17.56	18	0%
Indiana	565	9.80	5,537	33	8.27	273	5%
Iowa	309	11.28	3,486	94	12.38	1,164	33%
Kansas	178	8.97	1,597	59	9.70	572	36%
Kentucky	333	10.45	3,480				0%
Louisiana	104	8.96	932	23	12.64	291	31%
Maine	157	12.29	1,930	95	12.68	1,205	62%
Maryland	189	9.66	1,826	15	12.79	192	11%
Massachusetts	377	9.58	3,612	120	9.97	1,196	33%
Michigan	707	9.88	6,985				0%
Minnesota	404	10.45	4,222				0%
Mississippi	162	8.48	1,374	33	9.62	317	23%
Missouri	293	9.46	2,772	88	11.19	985	36%
Montana	63	11.01	694	16	13.69	219	32%
Nebraska	106	9.42	999	28	11.16	312	31%
Nevada	65	10.39	675				0%
New Hampshire	110	10.39	1,143				0%
New Jersey	357	9.54	3,406	128	9.83	1,258	37%
New Mexico	54	12.80	691				0%
New York	608	9.28	5,642	139	10.18	1,415	25%
North Carolina	502	9.09	4,563	168	9.12	1,532	34%
North Dakota	38	10.53	400	5	13.22	66	17%
Ohio	663	9.19	6,093	103	10.77	1,109	18%
Oklahoma	193	10.31	1,990	6	8.65	52	3%
Oregon	1						X-ODI
Pennsylvania	973	10.20	9,925	219	11.14	2,440	25%
Rhode Island	97	9.70	941	25	11.86	297	32%
South Carolina							X-ODI
South Dakota	58	9.83	570	16	11.40	182	32%

²⁶ Index = Number of Worksites times the Average DART per worksite.

²⁷ Worksites targeted with average DART rates were calculated from OSHA lists of primary and secondary worksites selected for the SST program, plus worksites in state plan states that met OSHA's criteria for SST targeting.

²⁸ Worksites inspected were determined by reconciling SST inspections as of September 2011 to the OSHA primary and secondary targeting lists and worksites in state plan states that met Federal criteria for the SST program.

²⁹ X-ODI = State not included in ODI survey frame.

Summary by State of Worksites Targeted²⁷ and Inspected²⁸							
State	Worksites Targeted	Avg. DART	Index	Worksites Inspected	Avg. DART	Index	Index Percent²⁹
Tennessee	355	9.25	3,284	18	9.78	176	5%
Texas	810	10.05	8,141	63	11.66	735	9%
Utah	119	10.35	1,232				0
Vermont	65	11.57	752	3	7.72	23	3%
Virginia							X-ODI
Washington	1						X-ODI
West Virginia	136	11.24	1,529	48	12.59	604	40%
Wisconsin	577	9.52	5,493	46	11.05	508	9%
Wyoming	1						X-ODI
District of Columbia	8	10.66	85				0%
Totals	13,827	10.09	139,470	2,144	10.87	23,315	17%

Appendices

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Appendix A

Background

With the Occupational Safety and Health (OSH) Act of 1970, Congress created the Occupational Safety and Health Administration (OSHA) to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance. The OSH Act covers employers and their employees either directly through OSHA or through a state safety and health program operating under an OSHA-approved state plan.

In 1995, OSHA began collecting information from approximately 80,000 worksites annually under the OSHA Data Initiative (ODI). The purpose of the data collection is to compile occupational injury and illness data from employers within specific industries and size categories. This gives OSHA the capability of focusing on worksites with serious safety and health programs. ODI data originates from the OSHA Form 300A Summary of Work-Related Injuries and Illnesses, which most employers with more than 10 employees are required to maintain.

In 1999, OSHA initiated the Site-Specific Targeting (SST) program which is OSHA's main programmed inspection plan for non-construction workplaces that have 40 or more employees. The SST program was created to help OSHA achieve its goal of reducing the number of injuries and illnesses that occur at individual workplaces by directing enforcement resources to those workplaces where the highest rate of injuries and illness have occurred. The SST program targets worksites based on injury and illness rates calculated from employer responses to the annual ODI survey. OSHA used the following two rates:

1. Days Away, Restricted, or Transferred (DART) rate includes cases involving days away from work, restricted work activity, and transfers to another job. It is calculated $(N1 \times 200,000) / EH$ where N1 is the number of cases involving days away and/or restricted work activity, and/or job transfer; EH is the total number of hours worked by all employees during the calendar year; and 200,000 is the base number of hours worked for 100 full-time equivalent employees.
2. Days Away from Work Injury and Illness (DAFWII) case rate: The DAFWII case rate is the number of cases that involve days away from work per 100 full-time equivalent employees. Cases that involve only temporary transfers to another job or restricted work are not included. It is calculated $(N2 \times 200,000) / EH$ where N2 is the number of cases involving days away from work; EH is the total number of hours worked by all employees during the calendar year; and 200,000 is the base number of hours worked for 100 full-time equivalent employees.

The SST targeting plan for August 2010 through September 2011 initially selected for inspection all worksites with the following DART rates and DAFWII case rate:

- Manufacturing worksites with a DART rate at or above 7.0, or a DAFWII case rate at or above 5.0.
- Non-manufacturing worksites (except for Nursing and Personal Care Facilities) with a DART rate at or above 15.0, or a DAFWII case rate at or above 14.0.
- Nursing and Personal Care Facilities with a DART rate at or above 16.0, or a DAFWII case rate at or above 13.0.

To target high-risk hazards and industries, OSHA implemented both national and local “emphasis” inspection programs. OSHA has 13 National Emphasis Programs (NEPs) focusing on combustible dust; Federal agencies; flavoring chemicals/diacetyl; hazardous machinery; hexavalent chromium; lead; nursing and residential care facilities; primary metals industries; process safety management; recordkeeping; shipbreaking; silica; and trenching and excavation. OSHA also has approximately 140 Regional and Local Emphasis Programs (REPs/LEPs).

Appendix B

Objectives, Scope, Methodology, and Criteria

Objectives

1. To what extent did the SST program focus enforcement resources and targeted inspections on the highest risk industries and worksites?
2. What was known about the effectiveness of OSHA's program?

Scope

The audit examined the SST program for the period August 2010 through September 2011 which was developed from rates using 2008 injury and illness data. We performed fieldwork at OSHA headquarters in Washington, DC, and at six area offices in Fort Lauderdale, FL; Tampa, FL; Augusta, ME; Kansas City, MO; Concord, NH; and Harrisburg, PA.

Methodology

In performing the audit, we reviewed OSHA's policies and procedures, and prior GAO and OIG reports to gain an understanding of internal controls considered significant to the audit objectives and testing compliance with Federal standards. In planning and performing our audit, we considered if internal controls significant to the audit objectives were properly designed and placed in operation. This included reviewing OSHA's policies and procedures for selecting and inspecting worksites. We confirmed our understanding of these controls and procedures through conducting interviews and reviewing documentation.

We assessed the reliability of ODI data on worksite injury and illness rates, SST primary and secondary targeting lists, and related inspection information from the Integrated Information Management System (IMIS), and OSHA Information System (OIS) data to ensure they were appropriate for testing. We tested: ODI by verifying that the data quality error checks were working effectively; SST by duplicating queries used to develop the primary and secondary target lists; IMIS and OIS data through review of judgmentally sampled inspection files from six area offices. Unaudited but publicly available data from the Bureau of Labor Statistics (BLS) was used for data reliability tests and report illustrations. Unaudited, publicly available information from OSHA fatality and catastrophic injury reports were also used for report illustrations.

For the 22 states with OSHA-approved state plans, we did not evaluate the individual state programs. Instead, we reviewed data in ODI and inspection information in IMIS. We applied the SST program targeting criteria to the ODI data for worksites in those states to develop targeting lists similar to the SST primary and secondary lists. We compared these lists to SST inspections performed by the states to determine consistency with the Federal program. We obtained testimonial and documentary

evidence from OSHA on the states' programs to target high-hazard industries and worksites.

To determine whether SST targeted the highest risk industries and worksites, we first considered the completeness of the ODI survey data and SST targeting plan by examining the states and industries included in ODI's sampling frame and the size of worksites covered by the SST program. To illustrate the impact of the ODI and SST scope limitations for targeting high-risk worksites, we used 2008 inspections with severe injuries and illnesses reported, and summarized the number of worksites and injuries and illnesses in aggregate and for each scope limitation: worksites with 11 to 19 employees, worksites in 12 states, and worksites in 53 industries.

- We identified worksites in the ODI survey data that met the SST targeting criteria for DART and DAFWII by industry (see Appendix A for the specific targeting criteria) and summarized them by size ranges. We obtained testimonial and documentary evidence from OSHA and documentary evidence from OMB's website on regulatory exemptions and data-use restrictions based on worksite size. We considered the SST program scope before and after the change in September 2011 to expand to worksites with 20 or more employees.
- We identified 12 states that were not included in the ODI survey. For 9 states, we used BLS' *Quarterly Census of Employment and Wages* quartile data by worksite size (10-49; 50-249, 250-999, and 1000 or more employees) to estimate the number of non-construction worksites with 40 or more employees, and presented that along with statewide average DART and DAFWII rates for private industry. BLS' quartile data did not have information for 3 states (Guam, Trust Territory of the Pacific Islands, and American Samoa) and we were unable to locate comparable data from another source.
- We identified industries not included in the ODI survey data which (1) had higher than average BLS DART and DAFWII rates in 2009, (2) had no SST inspections conducted between August 2010 and September 2011, and (3) had 2008 inspections at worksites with at least 20 employees and reported severe injuries and illnesses.

Additionally, we considered the completeness and efficiency of the SST inspections conducted in relation to the SST targeting lists. We reconciled worksites from the SST inspections to the 2010 SST targeting lists, and then to the ODI survey data for worksites not on the lists. We obtained testimonial evidence through management and staff interviews and documentary evidence through internet research.

- For states and OSHA area offices with no SST inspections, we used the SST targeting lists to identify the number of worksites with average DART and DAFWII rates (excluding data identified by OSHA as questionable or unreliable).

- For inspected worksites with DART rates of 50 or more, and where OSHA identified the ODI data as questionable or unreliable, we searched the online ODI database for revised DART rates and summarized the number of citations per inspection.
- For carryover inspections of worksites targeted in 2002 through 2008, we searched the 2009 ODI survey data and online ODI database for updated DART rates and summarized inspection statistics (number of citations and hours to complete inspection).

To determine what is known about the effectiveness of the SST program, we obtained testimonial and documentary evidence (through management and staff interviews, policy and procedure reviews, audit report testing and review of ODI, IMIS and OIS data) to support our results and conclusions.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Criteria

- Occupational Safety and Health Act of 1970
- OMB Circular A-123, Management's Responsibility for Internal Control
- OSHA Directive 10-06 (CPL 02), Site-Specific Targeting 2010

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Appendix C

Acronyms and Abbreviations

BLS	Bureau of Labor Statistics
Cal/OSHA	California State Plan, Division of Occupational Safety and Health
DART	Days Away, Restricted, or Transferred
DAFWII	Days Away from Work Injury and Illness
IMIS	Integrated Management Information System
NAICS	North American Industry Classification System
ODI	OSHA Data Initiative
OIS	OSHA Information System
OMB	Office of Management and Budget
OSH Act	Occupational Safety and Health Act of 1970
OSHA	Occupational Safety and Health Administration
OSHA Form 300A	Summary of Work-Related Injuries and Illnesses
SIC	Standard Industrial Classification System
SST	Site-Specific Targeting Program
State plan states	25 states and 2 U.S. territories authorized to operate their own safety and health program under OSHA-approved state plans
States	50 states and 6 U.S. territories covered under the OSH Act

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OSHA Response to Draft Report


U.S. Department of Labor

Assistant Secretary for
Occupational Safety and Health
Washington, D.C. 20210



SEP 28 2012

MEMORANDUM FOR: ELLIOT P. LEWIS
Assistant Inspector General for Audit

FROM: 
DAVID MICHAELIS, PhD, MPH

SUBJECT: Response to OIG's Draft Audit Report No.02-12-202-10-105
"OSHA's Site-Specific Targeting Program Has Limitations on
Targeting and Inspecting High-Risk Worksites"

This memorandum is in response to your September 19, 2012, transmittal of the Office of Inspector General (OIG) Audit Report No.02-12-202-10-105, *OSHA's Site-Specific Targeting Program Has Limitations on Targeting and Inspecting High-Risk Work-Sites*. Thank you for the opportunity to comment on your draft report. Additionally, we appreciate that the OIG was responsive to some of the Agency's concerns with earlier characterizations of the Site-Specific Targeting (SST) Program. However, while we appreciate the comprehensive scope of your audit, the evaluation focuses heavily on numerous policy issues outside the Agency's authority or jurisdictional control. As such, we believe the OIG's depiction of the operation of the SST Program and the Agency's commitment and efforts to protect workers at high-risk worksites is not completely accurate. In fact, several audit recommendations support the need for major policy changes with regulatory implications and go well beyond internal operational changes to improve program effectiveness.

In response to the draft report, please find attached a document containing a few technical comments to audit report findings and below are OSHA's comments to the recommendations:

1. **Include the highest risk worksites in the ODI survey and SST program targeting by:**
 - a. **Expanding coverage of ODI through negotiations on the use of data from worksites with 11 to 19 employees for enforcement purposes.**

OSHA Response: This is a major policy change that requires evaluation and supportive evidence/data for the Agency to pursue the necessary negotiations for modifications to ODI coverage. OSHA agrees that slight modifications to the ODI data collection can be made to broaden the scope of the survey to gather data on high-rate worksites. However, OSHA believes it is necessary to state for the record that the major modifications suggested by the OIG can potentially result in a decrease of useable data to the Agency. Currently, the ODI surveys 1 percent of non-construction

establishments in the United States and captures 22 percent of non-construction DART cases. While small establishments account for a disproportionate amount of fatalities, the Bureau of Labor Statistics (BLS) injury and illness data historically shows the converse. Small establishments have lower rates of injuries and illnesses than mid-size establishments. A reallocation of the survey sample from mid-size establishments to small establishments will potentially decrease the portion of injuries and illnesses captured by the ODI.

Additionally, OSHA uses other enforcement strategies and interventions to target employers with 11 -19 employees. For example, during the relevant time period (August 2010 through September 2011), OSHA conducted numerous National Emphasis Programs (focusing on hazards related to amputations, lead, crystalline silica, shipbreaking, trenching/excavations, petroleum refinery process safety management, and combustible dust) concurrently and approximately 140 Regional and Local Emphasis Programs. Along with the SST Program, these enforcement strategies complement each other in covering different types of employers and workplace hazards.

b. Encouraging more State Plan States to consider participation in the ODI survey and SST inspections through outreach efforts on the merits of the programs.

OSHA response: OSHA will encourage States that express interest to consider participation in the ODI and SST Program and will provide the requisite information. OSHA already works with a number of States that currently participate in the program. However, OSHA cannot mandate State Plan participation and there are factors that inhibit the States' interest in participating. For example, while additional funding is available to States that participate in the ODI it does not offset the costs associated with creating the infrastructure to collect the data. Making additional funding available might entice some State Plans to participate. Additionally, many State Plans have established targeting strategies tailored specifically to the needs of their State and believe that these strategies suit their needs better than the ODI and SST, which are designed for broader applicability.

Additionally, increasing the number of State Plan States that participate in the ODI would result in a reallocation of the survey sampled from the Federal jurisdiction to the newly entered State Plans. OSHA believes this would be a misallocation of resources unless evidence shows the States' current targeting programs are less efficient than Federal OSHA's and that the States commit to using the ODI data prior to the reallocation of the sample.

c. Revising the list of industries included in the ODI survey based on current BLS injury and illness data.

OSHA response: We agree with this recommendation. OSHA is proposing to update Appendix A to Subpart B of its Injury and Illness Recording and Reporting regulation, 29 CFR 1904. Appendix A contains a list of industries that are partially exempt from

maintaining records of occupational injuries and illnesses, generally due to their relatively low rates of occupational injury and illness. The current list of industries is based on the Standard Industrial Classification (SIC) system. In 1997, the North American Industry Classification System (NAICS) was introduced to classify establishments by industry. The proposed rule would update Appendix A by replacing it with a list of industries based on NAICS and more recent injury and illness data. This new recordkeeping rule will address this recommendation.

2. Prioritize and complete programmed inspections of the highest risk worksites to ensure effective and efficient use of resources. In prioritizing inspections, OSHA should:

a. Evaluate whether to pursue target worksites that carryover for two or more years. In addressing this recommendation, OSHA should consider the worksite's DART and DAFWII for the current year.

OSHA response: The SST directive allows for the Regional Offices to evaluate whether to inspect target worksites that carryover. Further, regarding the use of the current year's DART and DAFWII, it is difficult to implement due to the two-year lag in the collection of the ODI data. However, in accordance with the SST directive, Compliance Officers are required to calculate the establishment's current and the previous three years of DART and DAFWII rates from the OSHA 300 Logs.

b. Use additional data to improve targeting precision such as the average number of days away and average number of days transferred, and/or other information collected in ODI.

OSHA response: At this time, the Agency does not have evidence to indicate that value will be added to our targeting by separating the metrics as the OIG suggested.

3. Complete the evaluation of the SST program, and implement a monitoring system to evaluate efficiency and effectiveness on an on-going basis.

OSHA response: OSHA agrees that the current evaluation of the SST Program should be completed. OSHA believes subsequent evaluation of the program should be done on a periodic rather than on-going basis. The SST has been in place for more than a decade and the basic function of the program changes little from year to year. OSHA believes evaluation resources can be better utilized by rotating evaluations among the Agency's various programs, and periodically returning to its core programs.

ATTACHMENT 1

**OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
TECHNICAL COMMENTS TO OIG DRAFT AUDIT REPORT ON THE SITE-
SPECIFIC TARGETING PROGRAM**

**OIG FINDING: RESULTS IN BRIEF, WHAT WAS KNOWN ABOUT THE EFFECTIVENESS OF
OSHA'S PROGRAM**

"...OSHA is using output measures to monitor program activities, e.g., inspections counts, citations issued, penalty amounts, and does not measure the effect of these actions on improving safety and health – "outcome based performance metrics."

OSHA RESPONSE: Universities and other entities are conducting these evaluations—see Science 18 May 2012: Vol. 336 no. 6083 pp. 907-911, *Randomized Government Safety Inspections Reduce Worker Injuries with no Detectable Job Loss*. Further, we reference BLS data, as well as OSHA's inspection data, when considering the success of our programs; and whether some of these programs should be continued. For example, in the last 10 years the rate of amputations across the industry has generally decreased; we believe the Amputations National Emphasis Program has had a positive impact in general industry.

OIG FINDING: OBJECTIVE 1, RESULTS AND FINDINGS, FINDING 1 --

"... the SST program has been expanded to include employers with 20 or more employees; it does not go far enough to reach this at-risk group."

OSHA RESPONSE: OSHA can inspect employers with 11-19 employees through various National, Regional and Local Emphasis Programs and other types of interventions. Please see OSHA's response to Recommendation 1(a).

"... a result some low-hazard industries were included in ODI while other industries with high injury rates were excluded...For example, another excluded industry, *Grain and Field Beans* SIC 5153 had 10 worksites with 8 fatalities and 2 injuries reported in 2010. ..In August of 2010, OSHA issued a hazard alert letter to Grain Storage Facility Operators due to fatalities in the industry from grain entrapment. The letter stated 38 grain entrapments..."

OSHA RESPONSE: SIC 5153 is covered by Regional and Local Emphasis Programs. Our Severe Violators Enforcement Program (SVEP) also captures this SIC by including the Grain Handling Rule as a high emphasis hazard; OSHA would inspect this sector through the Regional and Local Emphasis Programs, in addition to conducting mandatory follow-ups inspection under SVEP.

OIG FINDING: OBJECTIVE 1, RESULTS AND FINDINGS, FINDING 2 --

“... While the SST is a national program, neither OSHA area offices nor state plan states were required to conduct SST inspections.”

OSHA RESPONSE: Under Federal OSHA’s SST-10 (in effect during the relevant time period of the OIG Report), Area Directors were responsible for maintaining documentation necessary to demonstrate that the SST inspection lists and cycles had been properly utilized in accordance with SST policy/procedures, including adequate documentation of all establishment deletions, deferrals, or other modifications (such as the rationale to expand inspections to cover health hazards based either (a) prior inspection history of the establishment, or (b) current knowledge concerning the industry in which an establishment is classified).

OIG FINDING: OBJECTIVE 2, RESULTS AND FINDINGS, FINDING 4 –

Error noted on calculations provided on *Table 10. Selected Worksite Statistics for SST Inspections*

OSHA RESPONSE: The data in the table appears to be in error. The average penalty per worksite is listed as \$504,311 under the “Total” column. OSHA would like an explanation on how this data was calculated.

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Appendix E

Acknowledgements

Key contributors to this report were Mark Schwartz, Rebecca Bowen, Danielle Brown-Buzan, Sean Ally, Renata Hobbs, Nadeem Afzal, Badara Kamara, and Mary Louise Casazza.

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