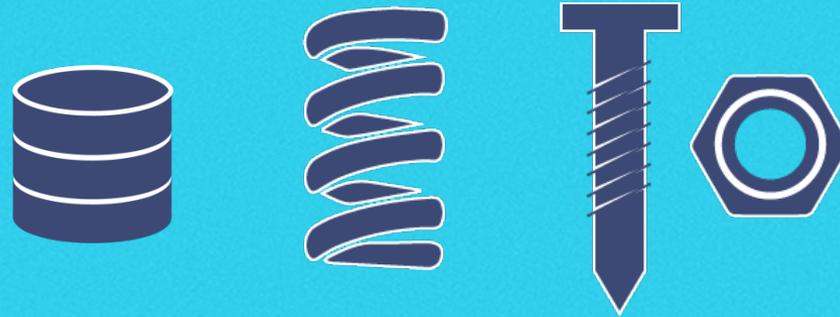


IMPROVING INJURY AND ILLNESS RECORDKEEPING IN FABRICATED METAL PRODUCT MANUFACTURING



Introduction

Fabricated metals manufacturing (NAICS 332) is a manufacturing subsector of establishments involved in forging, stamping, bending, forming and machining to shape metal pieces, as well as welding and assembling to join together metal parts. Minnesota's largest industry groups in this subsector are: machine shops, turned product and screw, nut and bolt manufacturers (44 percent of facilities); and architectural and structural metals manufacturers (18 percent of facilities).

In 2014, Minnesota's 1,600 fabricated metal product manufacturing facilities employed 42,500 workers and accounted for 14 percent of Minnesota's manufacturing employment; its 2,500 recorded injury and illness cases represented 19 percent of the OSHA recordable injury and illness cases in manufacturing.

The OSHA log recordkeeping system is a nationally standardized tool for understanding a workplace's injury and illness experience, for comparing it with state and national statistics and for tracking trends. OSHA log recordkeepers in metals fabrication facilities are responsible for keeping accurate OSHA logs to provide critical information to evaluate and guide their workplace safety programs.

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The need for accurate OSHA log recordkeeping



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fabrication facilities are
hazardous workplaces*

*Injury and illness
information from the
OSHA log*

*Are injury and illness rates
decreasing?*

*How common are OSHA
log errors?*

*Case classification: A
common error*

*How are OSHA logs
completed?*



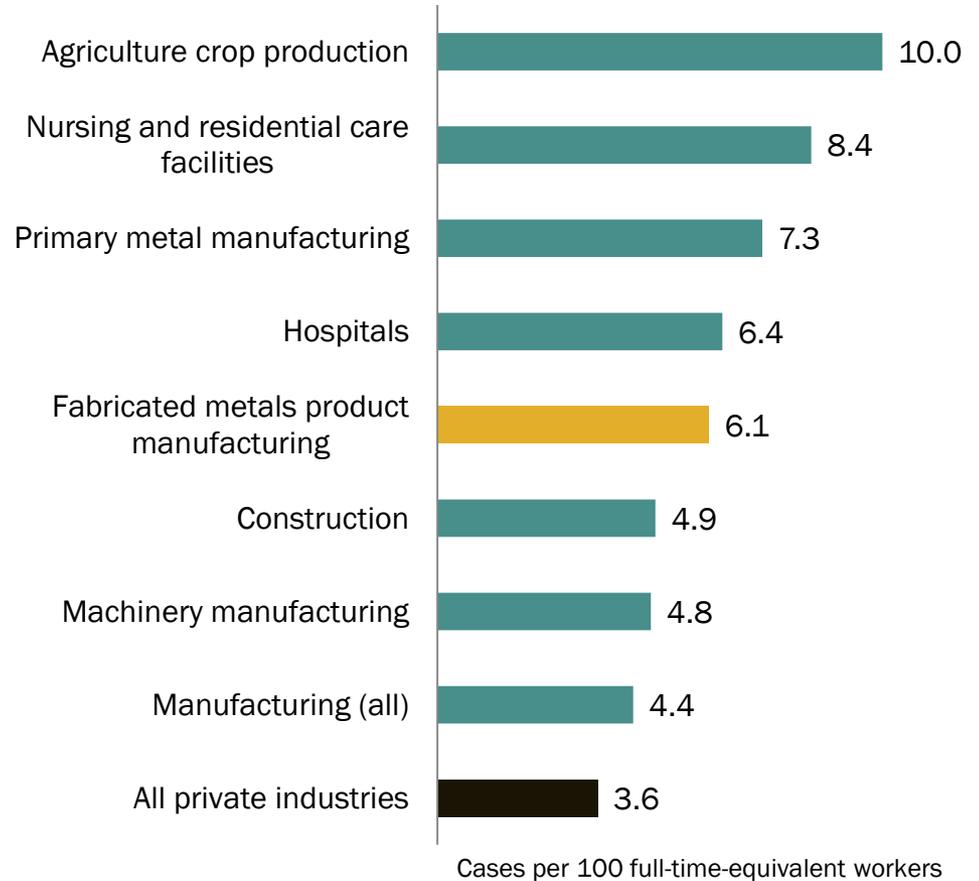
Minnesota's metals fabrication facilities are hazardous workplaces

Fabricated metal manufacturers had a 69 percent higher injury and illness case rate when compared to all Minnesota private industries.

The 2014 Minnesota incidence rate for all OSHA recordable cases was 6.1 cases per 100 full-time-equivalent (FTE) workers in fabricated metal product manufacturing, compared to a rate 4.4 cases per 100 FTE workers in all manufacturing and a rate of 3.6 cases per 100 FTE workers for all privately owned establishments.

The total case incidence rates varied widely among the different industry groups within fabricated metal product manufacturing. The rates ranged from a high of 8.6 cases per 100 FTE workers in architectural and structural metals manufacturing to a low rate of 3.9 cases per 100 FTE workers in coating, engraving, heat treating and allied activities manufacturing.

Injury and illness total case rates, Minnesota 2014



Injury and illness information from the OSHA log



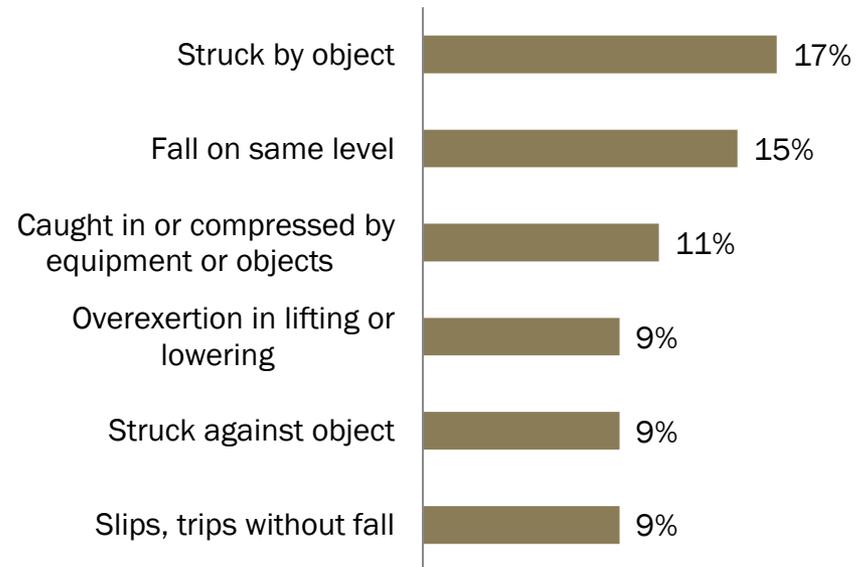
The U.S. Bureau of Labor and Statistics (BLS) annually conducts the Survey of Occupational Injuries and Illnesses (SOII). Each year, the SOII compiles OSHA log summary data and detailed case characteristics from about 5,000 Minnesota establishments to estimate incidence rates and describe the injured workers and their injuries and illnesses.

The data collected through the SOII is used to create a variety of statistics manufacturers can use to:

- benchmark their own injury and illness rates;
- learn about common injuries to their workers; and
- learn about trends in case characteristics.

This information helps metal fabrication manufacturers to focus resources to improve worker safety. This page, the preceding page and the following page show examples of some available statistics. Additional Minnesota statistics are available at www.dli.mn.gov/RS/StatWSH.asp.

Events and exposures leading to one or more days away from work, fabricated metal product manufacturing, 2014



Accurate reporting of injuries and illnesses through the SOII depends on each recordkeeper's understanding of the OSHA log recordkeeping requirements.

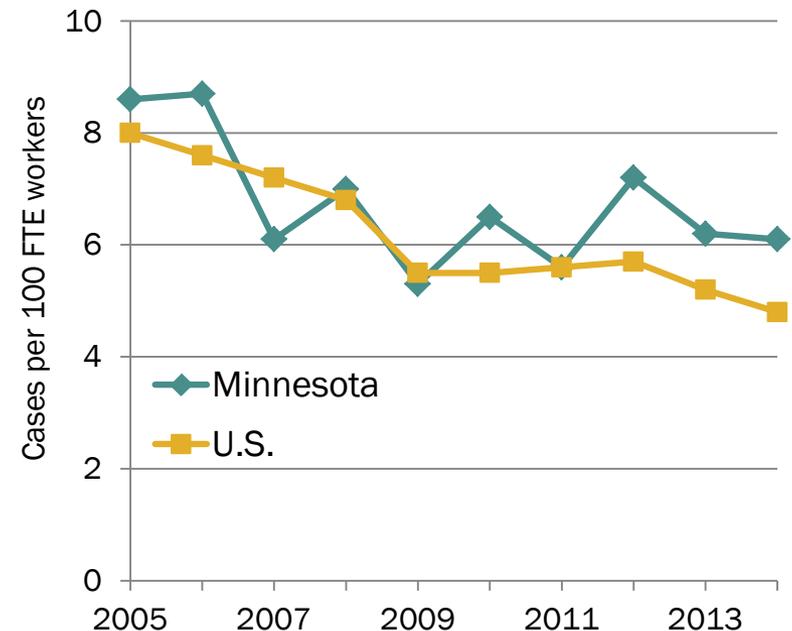
Are injury and illness rates decreasing?



As an industry, fabricated metal products manufacturers saw their injury and illness rates decrease from more than 8 cases per 100 FTE workers in 2005 and 2006 to about 6 cases per 100 FTE workers in recent years. Some incidence rate changes may be the result of variations in reporting and data quality and not changes in workplace safety. A decrease in injury and illness rates may be due to one or more of these reasons.

- Workers actually experienced fewer injuries and illnesses than the previous year.
- Workers are reporting fewer injuries and illnesses.
- Fewer reports of injuries and illnesses are reaching the log recordkeeper.
- Temporary workers are used and there is inconsistent reporting of injuries and hours worked.
- A new recordkeeper is recording injuries and illnesses differently than the previous recordkeeper.
- The recordkeeper is using workers' compensation claims data for the OSHA log and the insurer is denying more claims.

Total recordable case rates, fabricated metal products manufacturing, Minnesota and United States



Tracking progress in reducing work-related injuries and illnesses requires accurate OSHA log records.

How common are OSHA log errors?



Recent research shows many injuries and illnesses that should be included on OSHA logs, in SOII reports and in workers' compensation claims databases are missing. Estimates of the undercount in the cases used in the SOII range from 20 to 70 percent, depending on the research method and state studied. Some OSHA-recordable cases are reported in workers' compensation claims databases but are not included in the OSHA log or the SOII report. Some injuries and illnesses are not reported at all.

A recent Minnesota Department of Labor and Industry (DLI) review of OSHA logs found that nearly one-third had errors. Among the common errors were:

- mistakes in addition;
- errors transcribing information from the log to the log summary;
- misclassification of days-away-from-work cases as job-transfer-or-restriction cases; and
- miscounting the number of cases.

This is not just a Minnesota problem. In Washington state, researchers found that half of the log recordkeepers they interviewed were not using the OSHA case definition to determine which injuries and illnesses to include on the log. These recordkeepers were using all workers' compensation claims, all cases with medical visits or all reported injuries. They also found one in five recordkeepers misunderstood the case classification criteria (see the next page).

When an OSHA log is missing cases or has inaccurate or outdated information, it provides an incomplete picture of the conditions leading to workplace injuries. This results in missed safety improvement opportunities.

Case classification: A common error



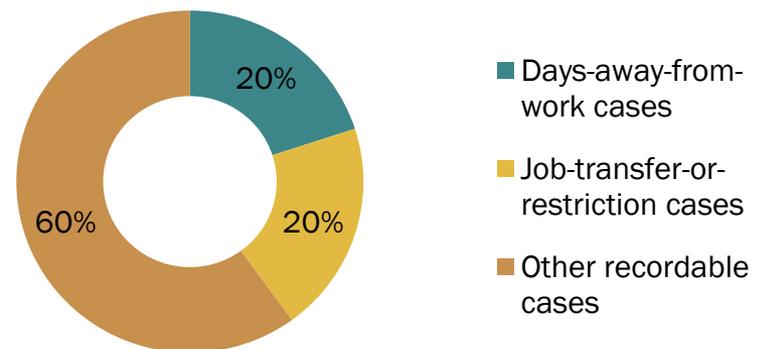
The OSHA log directions specify cases be classified according to their most serious outcome.

The columns of the form are arranged from the most serious – death (column G) – to the least serious – other recordable cases (column J). A case with both one or more days away from work and one or more days of job transfer or work restriction should be classified as a days-away-from-work case (column H). A day of partial work is considered a day of job transfer or restriction (column I).

Many recordkeepers mistakenly classify cases according to the outcome with the largest number of days or they check the boxes for multiple outcomes. The enlarged part of the OSHA log at right shows examples of correct case classifications.

Classify the case					
CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:	
Death	Days away from work	Remained at work		Away From Work (days)	On job transfer or restriction (days)
(G)	(H)	Job transfer or restriction (I)	Other recordable cases (J)		
	x			5	
	x			3	12
		x			5
			x		

Fabricated metal product manufacturing case types, 2014





How are OSHA logs completed?

Federal law directs OSHA and the Bureau of Labor Statistics to produce **accurate** workplace injury and illness statistics.

It is difficult to create accurate statistics when recordkeepers do not follow the OSHA recordkeeping requirements. OSHA log recordkeeping errors distort the incidence rates of workplaces and they affect the injury and illness incidence rate estimates at the state and national levels when OSHA log data is collected for the SOII.

While the OSHA recordkeeping requirements detail what injury and illness cases are recordable and how they should be recorded, the process of collecting injury and illness information, recording cases and maintaining OSHA logs may result in recordkeeping errors. Some recordkeepers may be unaware of certain recordkeeping requirements.

Do all employees know how to report an injury?

Do I know if an injured worker received medical treatment?

Have I included injuries to temporary workers?

Does the total number of hours worked exclude vacations, sick leave and holidays?

Are my logs from the past five years up to date?

Including cases in the log that are not recordable leads to incidence rates that are higher than they should be. Failing to include cases that are recordable leads to incidence rates that are lower than they should be.

Recordkeeping survey results



Conducting the recordkeeper survey

Recordkeeper occupation and training

Counting days away from work

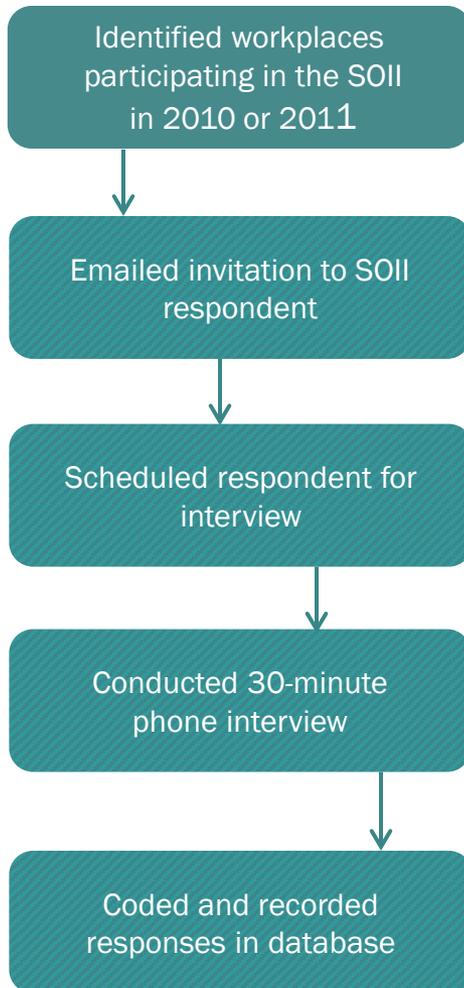
Updating year-end cases

Workers' compensation confusion

Four recordability scenarios

Training makes a difference

Conducting the recordkeeper survey



As part of its broader research program to address injury and illness undercount issues, BLS and DLI conducted a phone survey of SOII respondents for fabricated metal products manufacturers to gather information about:

- injury and illness recordkeeping activities;
- OSHA recordkeeper experience and formal recordkeeping training such as classes, seminars or online courses;
- the frequency of various recordkeeping errors; and
- workplace and recordkeeper characteristics that may affect OSHA log accuracy.

Working with BLS, DLI researchers emailed a survey invitation to 156 participants responsible for completing the Survey of Occupational Injuries and Illnesses for 2010 or 2011. Four establishments were out of business and 100 SOII respondents completed the survey, a 66 percent response rate. Some of the recordkeepers maintained logs for more than one worksite.

Among the establishments that provided interview responses: 26 percent had 20 or fewer workers; 24 percent had between 21 and 50 workers; 26 percent had between 51 and 100 workers; and 24 percent had more than 100 workers.

The survey results provide OSHA, BLS and DLI with information about how to train recordkeepers to improve the accuracy of their OSHA logs and to estimate the effect of recordkeeping errors on injury and illness statistics. DLI's general industry undercount report for Minnesota has additional details about the survey, including the survey text, at www.bls.gov/iif/mn_interviews.pdf.

Recordkeeper occupation and training

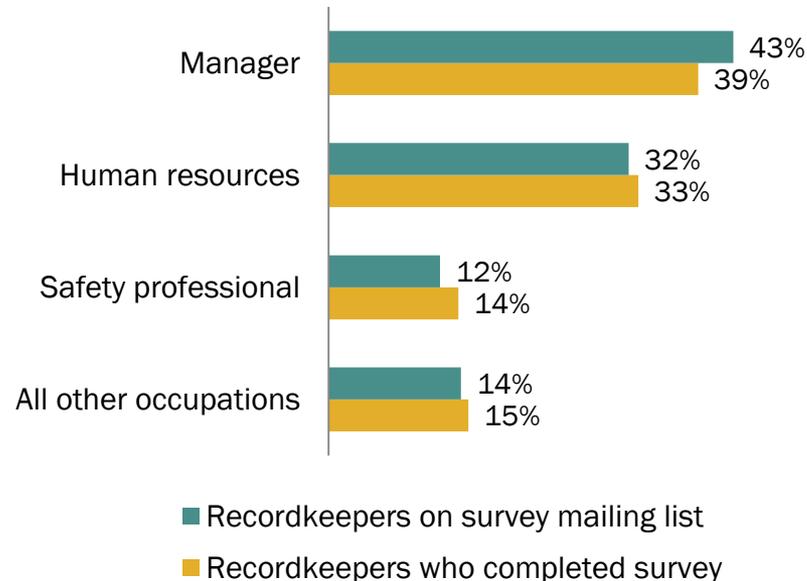
Recordkeeper occupation and training are the major determinants of OSHA log data quality.

The metals fabrication facility recordkeepers who responded to the survey had three main occupation types: managers, human resources specialists and safety professionals. With some overlap, managers tended to be the recordkeepers for worksites of up to 100 workers, human resource specialists were recordkeepers for worksites of 51 or more workers, and safety professionals were focused in sites of more than 100 workers. The majority of safety professionals had 10 or fewer years of recordkeeping experience, while the majority of managers and human resources specialists had more than 10 years of recordkeeping experience.

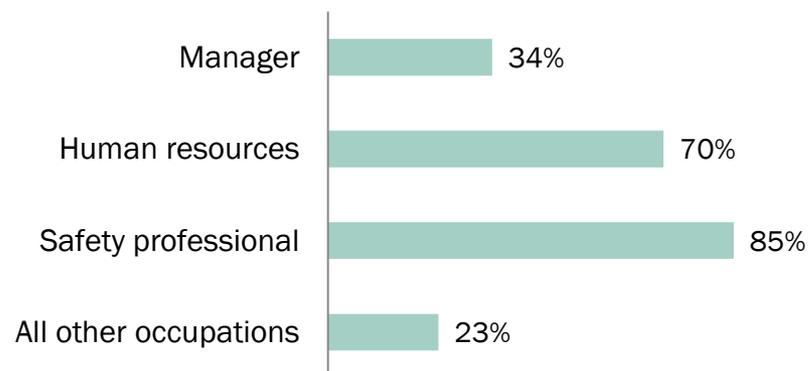
Only 53 percent of the respondents said they had received formal OSHA log recordkeeping training. The most common training sources were state and federal OSHA and private contractors. While most of the safety professionals and human resources specialists had training, only about a third of the managers were trained.

Safety professionals were also more likely to use other recordkeeping resources, such as contacting state or federal OSHA and using the OSHA recordkeeping website. Managers were the least likely to use these resources.

Percentage of recordkeepers in occupation



Recordkeeper training by occupation



Counting days away from work

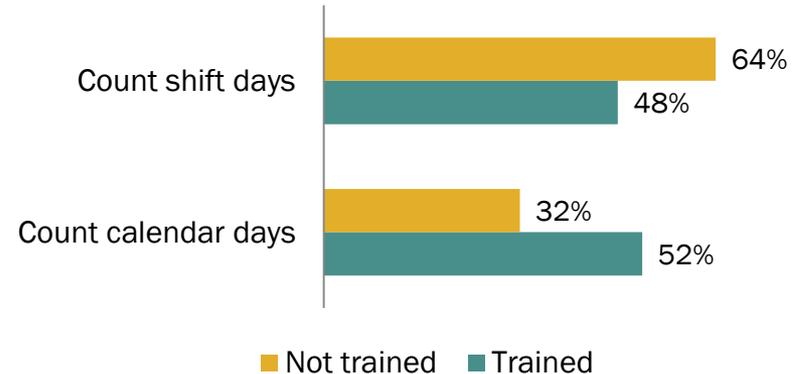


Cases are considered days-away-from-work cases when the worker physically misses a day of work after the day the injury occurred or the illness began, or the worker is unable to work but is not scheduled to work. Days away from work are counted as the number of calendar days the worker was unable to work due to the work-related injury or illness regardless of the work schedule.

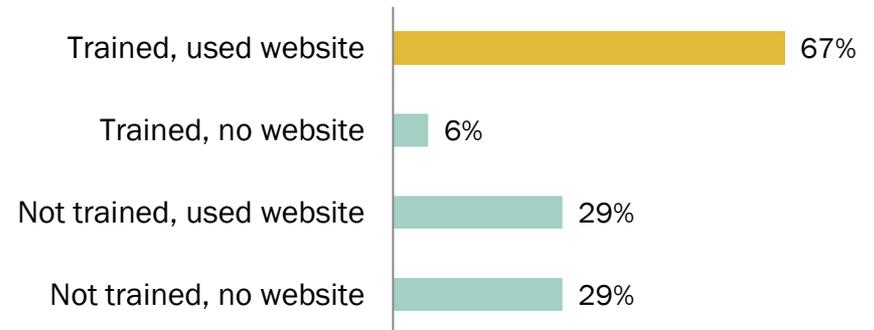
Overall, only 42 percent of the recordkeepers counted calendar days, 56 percent counted shift days and 2 percent did not know. The majority of recordkeepers without formal training counted scheduled shift days and the majority of trained recordkeepers counted calendar days.

Nearly all the recordkeepers who are safety professionals counted calendar days, but the majority of all other recordkeepers counted shift days. However, non-safety-professional recordkeepers who had training and used the OSHA recordkeeping website were much more likely than other non-safety-professional recordkeepers to count calendar days. Apparently, training alone is not enough, recordkeepers need to use other available resources to maintain their log recordkeeping skills.

How recordkeepers count days away from work



Percentage of non-safety-professional recordkeepers counting calendar days by training and OSHA recordkeeping website use



Updating year-end cases

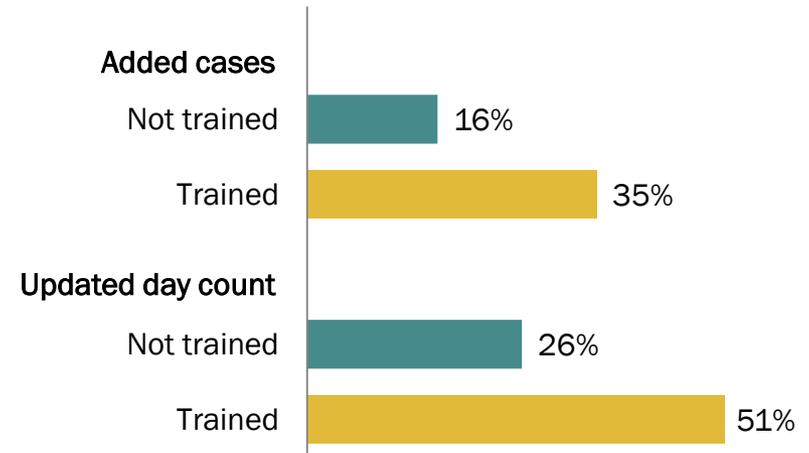


Sometimes an injury that occurs in late December is not reported until January. The log entry for such an injury needs to be added to the log for the previous year. In other cases, a worker injured in one year is still away from work or is working under job restrictions during the next year. For such cases, it is necessary to estimate the number of days away from work or job transfer or restriction on the OSHA log summary for the injury year. The OSHA log needs to be updated when the type and extent of the time loss is known.

The survey included two questions to estimate the frequency of these situations and how it might affect case estimation, either in type or severity. These questions were whether the recordkeeper had ever updated a log by adding cases or by changing the number of days away from work or days of work restriction or job transfer after the end of the reference calendar year.

Only 46 percent of the metals fabrication recordkeepers responded they had performed one of these updating activities. However, 59 percent of the trained recordkeepers had updated a log, compared with only 31 percent of the untrained recordkeepers. Also, 85 percent of the safety professionals and 52 percent of the human resources specialists had updated an OSHA log.

Percentage of recordkeepers updating the OSHA log after the end of the recording year



Information about cases that occur late in the calendar year needs to be recorded only on the log for the year in which the injury took place.

Workers' compensation confusion



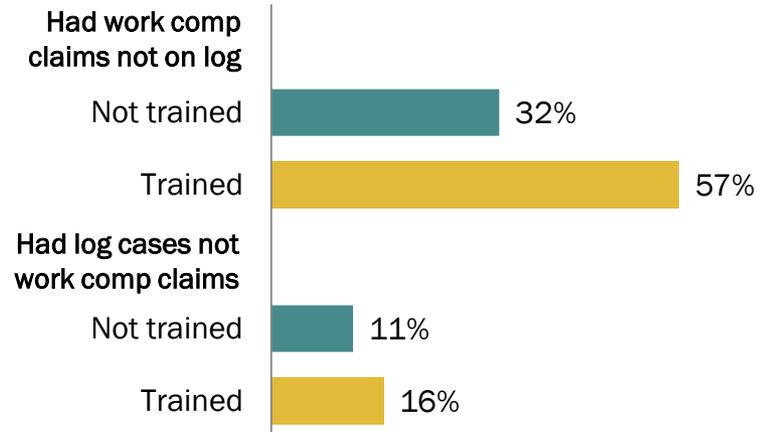
Recording injuries and illnesses on an OSHA log and preparing workers' compensation claims seem like similar activities. The ready availability of workers' compensation claims information makes it tempting to transcribe the workers' compensation cases onto the OSHA log.

However, claims that may be paid under Minnesota's workers' compensation laws may not meet the requirements for an OSHA recordable case and vice versa.

Survey responses show that many recordkeepers in the fabricated metal products industry rely on workers' compensation claims to populate their OSHA logs: 52 percent never had an OSHA log case that wasn't also a workers' compensation claim; and 79 percent never had an accepted workers' compensation claim that was not also included on their OSHA log.

Training also made a difference in the separation of OSHA log and workers' compensation claim decision-making: 60 percent of the trained recordkeepers had separate OSHA log and workers' compensation cases compared to only 40 percent among the untrained recordkeepers.

Training helps recordkeepers separate the OSHA log from workers' compensation



Federal OSHA recordkeeping requirements determine the recordability of work-related injuries and illnesses. The federal requirements are not related to Minnesota's workers' compensation laws.

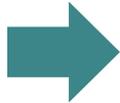
Four recordability scenarios



The OSHA log recordkeeping requirements specify what types of injuries are to be included on the log. The requirements include a comprehensive list of the factors that determine recordability. In the survey, the respondents were asked to determine OSHA log recordability for each of four workplace injury scenarios.

Scenario 1

An employee injured his ribs at work and went to have an X-ray. The rib was not broken and he had no further medical care. Is this an OSHA-recordable injury?

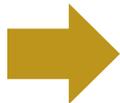


Answer: No, X-rays are diagnostic and are not medical treatment for OSHA recordability purposes. If the injured worker did not miss time away from work after the day of injury and did not have any job restrictions, the injury is not recordable.

Sixty-five percent of responding recordkeepers would incorrectly include this case on their OSHA log. This question was the most difficult for recordkeepers.

Scenario 2

A worker was engaged in horseplay at work while stacking some boxes and fell, resulting in days away from work. Is this an OSHA-recordable injury?



Answer: Yes, injuries resulting from horseplay are recordable. An injury that occurs at the workplace is presumed to be work-related and is recordable.

Seventy-seven percent of recordkeepers correctly responded this is a recordable case.

Four recordability scenarios



Scenario 3

An employee cut his arm at work on Friday. His doctor recommended he take two days off from work. He was not scheduled to work the weekend and he returned to work on Monday. Is this an OSHA-recordable injury?



Answer: Yes, the injured worker was unable to work for two days. Scheduled shifts do not affect work status. This case is a days-away-from-work case with two days recorded as days away. The physician's recommendation of time off work is the determining factor here.

Ninety-one percent of recordkeepers answered this question correctly.

Scenario 4

A worker cut her thumb and had stitches, but did not miss any time away from work. Is this an OSHA-recordable injury?



Answer: Yes, stitches are considered medical treatment. The recordkeeping requirements include a list of 14 treatments that are considered first aid. Only those treatments on the list are first aid.

Ninety-four percent of recordkeepers correctly answered this question.

Only 18 percent of the fabricated metal products manufacturing recordkeepers gave the correct response to all four scenarios.

Training makes a difference



Correct understanding of the recordability of the four injury scenarios depended, in large part, on whether the recordkeeper had formal OSHA recordkeeping training.

The chart shows a much higher percentage of fabricated metal product manufacturing recordkeepers with formal OSHA log training correctly answered all four scenarios than did untrained recordkeepers. The comparison held for all three of the major recordkeeper occupation groups.

OSHA log recordkeeping experience did not help recordkeepers correctly answer the scenarios. Among the 43 surveyed recordkeepers who were not safety professionals but who had more than 10 years of OSHA log recordkeeping experience, only one person correctly answered all four scenarios. The highest percentages with correct answers were among recordkeepers with two to 10 years of recordkeeping experience.

Percentage of recordkeepers with four correct scenario answers



OSHA log recordkeeping tips and resources



Why we use the OSHA log

What makes a good OSHA log?

Counting days away from work

Using your OSHA log

Eight questions about your OSHA log

Different ways to measure safety

Improving your OSHA recordkeeping skills

Why we use the OSHA log



Why was the OSHA log created?

- Standardization: The log is the official record of an injury or illness. Federal law requires the use of the OSHA log.
- National measure: The log is used in every state. Workers' compensation forms are state-specific.
- Consistency: Recordkeeping requirements mean everyone, everywhere is following the same set of rules.

When the recordkeeping requirements are followed, the log recordkeeping system provides:

- the number and rate of recordable cases;
- the types of cases;
- the characteristics of the injured workers; and
- the characteristics of their injuries and illnesses.

This establishment-specific data can be compared with the industry benchmarks tabulated from OSHA log data collected by BLS through the Survey of Occupational Injuries and Illnesses.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year _____
U.S. Department of Labor
 Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment name _____
 City _____ State _____

Classify the case

CHECK ONLY ONE box for each case based on the most serious outcome for that case:

Death	Days away from work	Remained at work		Away From Work (days)	On job transfer or restriction (days)	(M) Check the "injury" column or choose one type of illness:					
		Job transfer or restriction	Other recordable cases			Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss	All other illnesses
(G)	(H)	(I)	(J)	(K)	(L)	(1)	(2)	(3)	(4)	(5)	(6)

Page 1 of 1

The OSHA log is not an intuitive form. OSHA log recordkeeping requires special skills. Recordkeepers need to learn about the recordkeeping requirements.

What makes a good OSHA log?



Columns C through F on the OSHA log are used to describe the worker's injury or illness. This information is critical to improving workplace safety.

- Column C: The **job title** of who got injured. Use generic job titles like machine operator, welder, helper and maintenance worker.
- Column D: The **date of injury or onset of illness**. Only include cases that are first recordable during the year of the log record.
- Column E: **Where the event occurred**. Don't use building-specific descriptions like G-4; use descriptions like shop floor, loading dock or storage area.
- Column F: **Describe how** the worker got injured, **what** object or substance was involved, **what** body part was injured and **what** the injury was. Examples: strained shoulder while lifting casting; struck by forklift, fractured finger.

Describe the case			
(C)	(D)	(E)	(F)
Job title (e.g., welder)	Date of injury or onset of illness (mo./day)	Where the event occurred (e.g., loading dock north end)	Describe injury or illness, parts of body affected and object/substance that directly injured or made person ill (e.g., second-degree burns on right forearm from acetylene torch)

Write the OSHA log entries as if you were describing the accident as a news story. Take as much space as you need. Someone who knows nothing about your company should be able to understand what occurred.

Counting days away from work



Any work-related injury or illness that results in the worker physically missing a day of work after the day the injury occurred or the illness began is a days-away-from-work case.

A days-away-from-work case must also be counted when the employer receives information from a health care provider that the worker should not work on a day the worker was not scheduled to work. If a health care provider recommends the injured worker take a day away from work and the worker decides to work that day, that is still a days-away-from-work case.

How to count days away from work

- Begin counting days on the day after the injury occurred or the illness began.
- Count the number of calendar days, not just scheduled workdays.
- Weekends, holidays, vacation days and other days off are all included in the day count.
- A day of partial work is counted as a day of job transfer or restriction. It is not counted if it is the day of the injury or the day the illness began.

For example, see the chart at right. If a worker is injured mid-shift on a Tuesday, is then away from work until returning mid-shift on Thursday of the following week and normally is off on Saturday and Sunday, eight days away from work and one day of job transfer or restriction would be reported.

Example of counting days away from work

Day	Work schedule	Event	Log day count
Tuesday	Workday	Injury mid-shift	Not counted
Wednesday	Workday	Away from work	Count day away 1
Thursday	Workday	Away from work	Count day away 2
Friday	Workday	Away from work	Count day away 3
Saturday	Day off	Away from work	Count day away 4
Sunday	Day off	Away from work	Count day away 5
Monday	Workday	Away from work	Count day away 6
Tuesday	Workday	Away from work	Count day away 7
Wednesday	Workday	Away from work	Count day away 8
Thursday	Workday	Return mid-shift	Count job-restriction day

Using your OSHA log



The OSHA log is not just a form, it is part of a system to help manage worker safety.

To keep an accurate OSHA log you need to:

- communicate to employees the need to report all injuries and illnesses and provide a way to make those reports;
- have a trained person gather the information and enter it into the log;
- create the log summary, certify it and post it from Feb. 1 through April 30 of the following year; and
- maintain the log and update cases for five years after the initial recording year.

Use the log information to calculate your manufacturing facility's case incidence rates (see box below). Use the rates to compare with the state and national industry rates and to track how your rates change. Use the log information, along with workers' compensation reports and other leading and lagging indicators (see page 25), to evaluate your site's safety performance and programs, and to identify areas where more intensive work is needed.

Workplace safety is an employer's responsibility and OSHA designed the log recordkeeping requirements to give employers an active role in tracking and measuring injuries and illnesses.

Calculating incidence rates

You can compute incidence rates for the total number of cases, for each case type and for cases with any time away from work. The rate is the number of relevant OSHA recordable cases per 100 full-time-equivalent employees.

The rate is calculated by dividing the number of recordable injury and illness cases by the total hours worked by all workers (to get the number of cases per hour worked) and multiplying the result by 200,000 (the number of hours representing 100 full-time-equivalent workers).

Eight questions about your OSHA log



These questions should be asked by the recordkeeper and the person certifying the log summary each year.

- 1** If your company has multiple facilities, did you keep a separate log for each location or can separate logs be created from one electronic file?
- 2** Did you record the proper cases? Recordable cases with no time away from work require medical treatment, not just first aid.
- 3** Did you classify the cases correctly? Each case can only be a days-away-from-work case, job-transfer-or-restriction case or other recordable case based on the most serious outcome.
- 4** Did you count all calendar days for days away from work and days of job transfer or restriction?
- 5** Did you remove the names of workers with injuries and illnesses from log entries qualifying as privacy cases?
- 6** Are the records up to date and are they kept up to date for the full five years they are maintained?
- 7** Do you have accurate counts of the annual average number of workers and total hours worked for each metals fabrication facility?
- 8** Can you provide an accurate log to workers and their representatives?



Leading indicators

Leading indicators focus on workplace policies, programs and safety practices. Some common leading indicators are:

- employee training records;
- hazard identification and mitigation;
- charting near-misses;
- equipment and machinery maintenance;
- safety committee participation;
- measures of employee safety engagement; and
- employee surveys about working conditions.

Lagging indicators

Lagging indicators record events occurring to workers and to the work environment. Some common lagging indicators are:

- number and rate of workers' compensation claims;
- workers' compensation claims costs;
- OSHA log case numbers and rates;
- days away from work and absenteeism;
- production lost due to injuries and illnesses; and
- employee turnover rates.

Safety directors should use both leading and lagging indicators to fully understand and manage workplace safety in fabricated metal product manufacturing facilities.

Improving your OSHA recordkeeping skills



The Minnesota Department of Labor and Industry and the U.S. Department of Labor have OSHA recordkeeping information, resources and training material available at no cost.

DLI recordkeeping resources available at www.dli.mn.gov/OSHA/Recordkeeping.asp include Recordkeeping 101 and 201 articles that address many of the decisions recordkeepers need to make.

DLI presents in-person seminars and webinars about OSHA recordkeeping. These are announced in the *Safety Lines* newsletter and on the DLI recordkeeping web page.

DLI's Minnesota OSHA Compliance, MNOSHA Workplace Safety Consultation and SOII work group are all available via email to help recordkeepers with their questions.

- MNOSHA Compliance: osha.compliance@state.mn.us
- MNOSHA Workplace Safety Consultation: osha.consultation@state.mn.us
- SOII work group: dli.research@state.mn.us

Tables and charts presenting Minnesota estimates produced through the SOII are available at www.dli.mn.gov/RS/StatWSH.asp. Email the SOII work group for access to other Minnesota statistics.

Federal recordkeeping assistance is available at www.osha.gov/recordkeeping.

A recordkeeping tutorial is available at www.osha.gov/recordkeeping/tutorial.html. The tutorial covers what types of operations come under the recordkeeping rule, what types of injury and illness incidents must be recorded and what information is to be included on each of the OSHA forms.

The “Detailed Guidance for OSHA’s Injury and Illness Recordkeeping Rule,” which includes the text of the requirements, explanatory material and responses to frequently asked questions, is online at www.osha.gov/recordkeeping/entryfaq.html.

OSHA also has an online recordkeeping advisor, to help recordkeepers determine whether a case is recordable, at www.dol.gov/elaws/OSHARecordkeeping.htm.

The Bureau of Labor Statistics has an online incidence rate calculator, at data.bls.gov/irc/. This tool also provides the benchmark state and national rates.

State and national injury and illness statistics based on the SOII are available at the BLS injuries, illnesses and fatalities web page at www.bls.gov/iif.

Acknowledgements

The Minnesota OSHA log recordkeeper survey was funded through a grant from the U.S. Bureau of Labor Statistics to the Minnesota Department of Labor and Industry. DLI researchers worked with researchers from BLS and from state agencies in New York, Oregon and Washington to create the survey and analyze the results. Minnesota's full report, *SOII Undercount Project: Minnesota interviews with SOII respondents* is online at www.bls.gov/iif/mn_interview.pdf.

In Minnesota, the Survey of Occupational Injuries and Illnesses is conducted under a cooperative agreement with BLS. Minnesota SOII statistics are online at www.dli.mn.gov/RS/StatWSH.asp.

Other research about OSHA log quality in health care establishments mentioned in this report was conducted by DLI.

Questions about the content of this report or requests for additional information should be directed to the DLI Research and Statistics unit (dli.research@state.mn.us).

