VARIABILITY IN THE COMPUTATION OF OSHA RECORDABLE INJURY RATES

By

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To the safety of construction workers all over the world

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LIST OF ABBREVIATIONS

OSHA	Occupational Safety and Health Administration
BLS	Bureau of Labor Statistics
CFOI	Census of Fatal Injuries
RIR	Recordable Injury Rate
OSH	Occupational Safety and Health
EMR	Experience Modification Rate
CM	Construction Manager

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The reporting of construction safety performance in the United States is a requirement imposed by the Occupational Safety and Health Administration (OSHA) as well as many insurance companies. The collection and analysis of such data can be helpful in determining the trends of individual projects, of construction firms and also the construction industry. One common means of measuring a construction firm's safety performance is the OSHA Recordable Injury Rate hereafter referred to as RIR. RIR's are a standard of measurement based on the number of OSHA recordable injuries that are sustained per 200,000 hours of worker exposure. While the RIR is intended to produce an accurate benchmark for measuring a firm's overall safety performance, it can be argued that there is much room for improvement in the arena of accurately measuring a firm's overall safety performance. This study was conducted to determine the nature of the variability of the computation of the RIR.

A survey was conducted in which 31 construction safety professionals participated. These participants represented a sample from the top 100 construction firms in the United States. The results of this study indicate that there is little

consistency in the computation of the RIR as it is used in the construction industry. The majority of firms do not isolate the recorded hours for field personnel from office personnel, and thus couldn't distinguish between field office hours and home office hours. Results indicate that there is a growing consortium of unintelligible data being collected and presented as an RIR to various interested parties. This study concludes that the RIR should be collected and computed in a manner similar to other scientific data. This should be done through a bonafide procedure that can be replicated throughout the entire construction industry.

CHAPTER 1
INTRODUCTION

Background

During the past four decades, construction safety has become a subject of ever increasing importance to all parties involved in the construction process. This increased level of concern for construction safety is rooted in humanitarian concerns for human safety and also in several very compelling economic advantages. Measures of past safety performance are primarily used by insurance companies and the Occupational Safety and Health Administration (OSHA), but they are also used by facility owners when selecting and evaluating contractors. Given the inherent importance of construction safety, it is crucial that the metrics for defining safety provide an accurate indication of a firm's past safety performance. This study aims to explore the extent of the variability in the practice of calculating the OSHA recordable injury rate (RIR) and determine if there are any steps that can be taken to improve the integrity of RIR computations.

Statement of Purpose

This research sought to explore the construction industry's practices for computing OSHA Recordable Injury Rates. Recordable Injury Rates (RIR) are essentially a measure of safety performance expressed as a function of the number of recordable injuries that occur per 200,000 hours worked. This is often considered to be the same as the number of field hours worked, but this may not be the case. This study sought to explore the composition of the 'hours worked' portion of the RIR calculation. For example, how do companies compute the number of hours to include in the calculation? To date, there is no industry standard method or definition of exactly which hours can

be included in the RIR calculation. This poses a major potential for variability for the construction industry because the inclusion of white collar office personnel hours could be included in the computation and this could skew the RIR values and produce a misleading measure of safety performance.

Research Objectives

The objective of this study is to determine the level of consistency being used in the computation of the ‘total hours worked’ when calculating RIR. If variability is noted in these computations, suggestions could be devised whereby greater consistency can be assured.

CHAPTER 2
LITERATURE REVIEW

Safety in the United States

Construction in the United States is an $800 billion a year industry and accounts for nearly 13% of the nation's Gross National Product (Hoonakker et al. 2005). In addition to being a very large industry in the financial sense, construction employs approximately 7% of America's labor force, which is a significant industry in the U.S. economy. The construction industry has a dismal safety record and accounts for nearly 17% of the nation's workers' compensation costs (Hoonakker et al. 2005). Construction also posts the "highest lost-time injury rate of any major industry and accounts for nearly 20% of the occupational fatalities, according to the National Safety Council" (Nwaelele 1996). It is estimated that the construction industry claims the lives of approximately five workers every working day. Despite all of the advancements and attention to safety in the past decades, the mortality rate of the construction industry has remained relatively steady. "The construction industry continues to lose between 1,100 and 1,300 workers per year because of work related traumatic fatalities" (Broderick and Murphy 2001).

These statistics indicate a huge over-representation of the construction industry in the grand scheme of job-related injuries. This could possibly be due to the fact that construction is an industry where the work conditions are constantly changing as the facility being constructed evolves. Regardless of the explanation, the paradigm has shifted from an acceptance of injuries and fatalities to zero-tolerance policies and accident-free corporate cultures. As an industry, there is a responsibility to constantly improve and strive for safer work environments; this includes an accurate and consistent means of measuring and recording safety performance.

Why is Safety a Concern?

Since the passage of the Occupational Safety and Health Act in 1970, construction safety has become an increasingly important subject in the US construction industry. Injuries were once an accepted part of constructing projects, but this view is changing. In the past it was accepted that injuries and even fatalities were bound to occur on construction projects. The construction industry has entered a new era of safety awareness and accident prevention. Zero accident policies and an overall culture of safety awareness and attention are commonplace in many corporate philosophies. Besides the obvious humanitarian reasons for increased corporate emphasis on safety precautions, there are several other reasons for this paradigm shift. In a society controlled by insurance companies, law suits and liability concerns, the construction industry can no longer afford to be unsafe. “Contractors committed to safety recognize the financial liabilities associated with an unsafe workplace: high insurance premiums, loss of skilled personnel, low employee morale, regulatory problems, etc”. (Nwaelele 1996). Perhaps even more significant than the direct costs listed above are the indirect costs associated with poor safety performance. These indirect costs include such items as “reduced productivity, delays in project schedules, administrative time, and damage to equipment and the facility” (Business Roundtable 1982). These indirect costs can be difficult to identify and quantify, but are definitely a major factor when considering the overall cost of poor safety performance. Other indirect accident costs as outlined in Business Roundtable Report A-3 include:

- Administrative time for investigations, reports and paperwork
- Training and replacement of personnel
- Wages paid to injured workers who cannot perform their jobs
- Clean up and repair of accidents

- Negative publicity
- Third-party liability claims against the owner
- Equipment damage
- Low morale

There are various organizations that dedicate themselves to tracking and recording the occurrence of work related injuries. The Bureau of Labor Statistics (BLS) and The Occupational Safety and Health Administration (OSHA) are the major organizations that collect statistics on injuries and fatalities in the construction industry.

Bureau of Labor Statistics

The Bureau of Labor Statistics was established in 1884 by the Bureau of Labor Act to collect information about employment and labor (BLS). The BLS annually obtains data from more than 150,000 establishments (Courtney and Webster 2002). In the past, the BLS statistics only described injuries or illnesses by a single characteristic (Courtney and Webster 2002). “In 1982, BLS introduced an expanded survey that collects more detailed data on cases with days away from work” (Courtney and Webster 2002). Users could find information on “counts and rates, but not nature, severity, and contributing events and exposures” (Courtney and Webster 2002). This lack of detail made it difficult for users to perform in-depth analyses of injuries and illnesses because there was insufficient data available to analyze. In 1992 the Bureau of Labor Statistics Census of Fatal Occupational Injuries (CFOI) began providing details on “body part, nature of injury, extent and certain antecedents of these cases” (Courtney and Webster 2002).

Occupational Safety and Health Administration

OSHA was created in 1970 through the passage of the Occupational Safety and Health Act (OSH Act). OSHA’s primary mission is to “prevent work-related injuries,

illnesses, and deaths" (OSHA 2009) "Since the Administration was created in 1971, occupational death rates have been cut by 62% and injury rates have declined by 42%" (OSHA 2009).

OSHA has an annual budget of over $480 million and employs over 2000 employees, of which approximately 1000 are compliance inspectors (OSHA 2009). For 2006 and 2007 OSHA inspected approximately 38,000 work places each year. An additional 58,000 inspections were performed by states running their own OSHA programs (OSHA 2009). When it comes to inspections: "Top priority are reports of imminent dangers-accidents about to happen; second are fatalities or accidents serious enough to send three or more employees to the hospital. Third are employee complaints. Referrals from other government agencies are fourth. Fifth are targeted inspections-such as the Site Specific Targeting Program, which focuses on employers that report high injury and illness rates, and special emphasis programs that zero in on hazardous work such as trenching or equipment such as mechanical power presses. Follow-up inspections are the final priority" (OSHA 2009). Aside from inspections, OSHA also plays a significant role in recordkeeping. "OSHA keeps extensive, publicly accessible records on fatalities that are searchable by cause of injury. However, to conduct detailed analyses on nonfatal injuries, researchers frequently must turn to medical and/or workers' compensation claim records that are often categorized by type of injury area of the body" (Hinze et al. 2006). The OSH Act requires employers to record accident information in Form number 300.

Information found in OSHA form number 300 includes:

- Number of fatalities
- Number of injuries and illnesses involving lost workdays

- Number of injuries and illnesses involving restricted workdays
- Number of days away from work
- Number of days of restricted work activity
- Number of injuries and illnesses without lost workdays

Information found in OSHA form number 301 includes:

- Date of injury
- Job title of injured worker
- Description of injury
- Classification of injury (most serious outcome)
- Number of days away from work

According to a recent study, “construction workers sustain approximately half a million OSHA recordable injuries each year” (Hinze et al. 2006). This statistic represents an improvement in safety performance, but “although injury rates have fallen, the fatality rates remain flat” (Broderick and Murphy 2001).

Safety Measures

There are several measures of safety that are commonly used in the construction industry to describe a contractor’s past safety performance. Most notably, the experience modification rate (EMR) and OSHA recordable injury rate (RIR) are the two primary measures used to gauge performance. There are various other statistics and figures collected by the Occupational Safety and Health Administration (OSHA) and reported annually by the Bureau of Labor Statistics (BLS). The EMR is basically “a rate used by insurance companies to calculate the company’s workers’ compensation insurance rates” (Hoonakker et al. 2005). RIR, is equal to the sum of the number of recordable injuries and illnesses (as defined by OSHA) times 200,000 (the assumed hours worked per year by 100 employees) divided by the number of hours worked.

Experience Modification Rate

The EMR "is a safety measure used to modify the premium paid for workers' compensation insurance" (Hinze et al. 1995). The EMR is a complex numerical value based on the company's safety records from the past three years, excluding the immediately preceding year (Hoonakker et al. 2005). According to Hoonakker, "the purpose of the EMR is to help improve prediction of future losses based on past experience. Employers with bad safety outcomes pay more for workers' compensation insurance premiums than employers with good safety outcomes. Therefore, the EMR is designed to provide an incentive to the employer to improve its safety outcomes" (Hoonakker et al. 2005). The EMR is based on a series of complex calculations and variables. It is designed so that the occurrence of one major accident will not severely alter it, but the occurrence of many minor accidents will. The thought behind this convention is that the occurrence of many minor injuries will eventually lead to a major one (Hoonakker et al. 2005). "The computation of EMR values shows that injury frequency is counted more heavily than severity" (Hinze et al. 1995). This gives contractors a major incentive to keep minor injuries to a minimum. In a study performed by Hinze, it was determined that the use of the EMR has two major shortcomings. First, the results of the study showed that "firms paying higher wages have lower EMR values even though their safety performance may be identical to firms paying lower wages" (Hinze et al. 1995). Second, the study also found that "smaller firms have minimum attainable values of EMR that are much higher than those of the larger firms" (Hinze et al. 1995).

OSHA Recordable Injury Rate (RIR)

As stated previously, the RIR is equal to the sum of the number of recordable injuries and illnesses multiplied by 200,000 and divided by the number of hours worked. “In calculating the OSHA recordable injury rate, the number of injuries in the formula are the total of the numbers of fatalities, injuries and illnesses involving lost and restricted workdays, and injuries and illness without lost workdays where the workers were treated by a physician. The Bureau of Labor Statistics compiles construction industry incidence-rate averages each year for 14 separate classifications of construction work and various employee size groupings” (Business Roundtable 1982). OSHA requires companies with 11 or more employees to record all recordable injuries in the OSHA 300 log at the time of occurrence (Hoonakker et al. 2005). One major disadvantage of this method of measuring safety performance is that “it is impossible to verify whether a company has indeed reported an accident or injury, even if reporting is mandatory” (Hoonakker et al. 2005). Another disadvantage of this method is that the ‘hours worked’ component of the calculation is very loosely defined. This can lead to a variety of problems. The main problem being that companies can include the hours of various employees who have billable hours, but have no jobsite exposure to injury. An example of this would be a construction management firm where only 10% of its workforce is made up of field workers and the other 90% are office personnel who never work in the field. It is only logical that this company would have a very low recordable injury rate, even if their field employees are frequently injured on the job. This scenario is a fundamental problem with the RIR computation, and has yet to be addressed in any of the literature reviewed in the course of this study.

The EMR and RIR are both considered lagging indicators of safety performance, meaning that they only change after the occurrence of an accident. There are a few industry professionals and companies who are pushing for the use of more leading indicators. Currently, "numbers are driving the actions, rather than actions driving the numbers" (Prevette 2006). "The OSH profession is increasingly advocating, seeking and using leading indicators (such as behavior based safety and near miss analysis) to better manage workplace safety" (Courtney and Webster 2002).

Safety Practices and Conventions

Studies over the years have addressed various safety practices and policies that are employed by companies to promote safer work places. The current consensus in the field is that safety should be an integral part of the corporate culture and that companies should strive for zero incidents. "Typically a company looks at numbers such as injury rates by comparing this month to last month, or by comparing this month to a numerical goal. This is a simple yet damaging approach" (Prevette 2006). In an effort to combat this old school style of thinking, several safety initiatives have been proposed over the years: safety policies, safety committees, safety training and safety meetings are all examples (Hoonakker et al. 2005).

The consensus in the field is that there are several safety measures that should be incorporated into every company's safety plan. In a 2001 study, the following practices were determined to provide a framework for any company's safety program (Broderick and Murphy 2001).

- **Pre-job planning** – "a thorough analysis of the potential health or physical hazards that may be encountered during the work cycle. Appropriate engineering and/or administrative controls should be implemented to obviate these prospective hazards. Where hazards still exist, appropriate protective systems and equipment

must be used and all employees trained in the use and limitations of such protective equipment" (Broderick and Murphy 2001).

- **Orientation** – "Data clearly show that new workers to a company are at greater risk. Even long-term employees with the same company are at higher risk for injury when they move from one project to the next" (Broderick and Murphy 2001). All employees should receive comprehensive orientation.

- **Pre-work meetings** – "Toolbox talks have become standard industry practice. Do they relate to the work at hand, or are they simply pre-printed forms sent from the company headquarters to all job sites?" (Broderick and Murphy 2001). Toolbox talks should relate to the hazards that the worker will face that day.

- **Huddles** –"Construction work is very fast paced, situations are constantly changing. Workers should be encouraged to 'huddle' any time a new task is being undertaken to address all safety concerns and 'what if' scenarios" (Broderick and Murphy 2001).

- **Planning** – "Supervisors should be equipped with modern planning tools, such as day planners, electronic planners, and any other aids often reserved for project managers and engineers" (Broderick and Murphy 2001).

A related study conducted in 2003 yielded similar results. "Better safety performances were noted when the GC or CM provided a full-time project safety director, discussed safety at coordination meetings and pre-job conferences, monitored project safety performance, insisted on full compliance with the safety regulations, and had top management involvement in project safety" (Hinze and Gambatese 2003). Similarly, it was found that on large projects, "subcontractor safety was influenced by the quality of the scheduling and coordination effort of the general contractor or CM, and the degree of emphasis placed on safety by the GC or CM" (Hinze and Gambatese 2003). These findings seem to suggest that even projected attitudes about safety can influence safety performance on a project. These suggestions can provide the foundation for a well-rounded safety program, but should not be the only precautions taken.

Owner's Role in Safety

The majority of the research findings in the field of construction safety agree on the importance of owner education and involvement when it comes to selecting a safe contractor. Aside from the humanitarian reasons, there are a multitude of economic benefits and reasons for an owner to be concerned with safety. "There is ample economic incentive, in addition to humanitarian concerns, for owners to play an important role in construction safety" (Business Roundtable 1982). Suffice it to say that the high cost of construction accidents gives owners a compelling reason to review the past safety performances of the contractors they hire.

Perhaps the most compelling reason of all is the limitation of liability for jobsite accidents. "Much has been written about the need for owners to evaluate the past safety performances of construction firms. While this is based to some extent on the humanitarian concerns to minimize human suffering, the primary thrust for the safety evaluations is to reduce the potential exposure of owners to liability suits" (Hinze et al. 1995). It is not the contractor's sole responsibility to be concerned with jobsite safety. In fact the owner can often be ultimately held accountable in certain situations. "The party who funds projects and awards the contract may actually have ultimate control; if so, that party should also have absolute responsibility for site safety" (Nwaelele 1996). Construction owners have a legal duty to exercise "reasonable care to correct or warn against non-apparent site hazards which may be faced by the construction contractor in the course of his performance" (Business Roundtable 1982). In certain cases, owners can face third-party lawsuits brought by contractor's employees for injuries resulting from the owner's failure to exercise the above mentioned duty. "The owner's duty often extends to unsafe activities by contractors which create dangers for others on the site.

Thus, the owner could be liable for injuries to persons on the site caused by apparent unsafe practices of the construction contractor" (Business Roundtable 1982). In addition to correcting and warning others of site hazards, the owner also has the duty to make sure that contractors understand their contractual responsibility to perform safely (Business Roundtable 1982).

In recent years, it has become common for private owners to include a review of past safety performance in their selection criteria (Hinze et al. 1995). "Progress has certainly been made in educating 'owners', or purchasers of construction services, to look at contractors safety performance as a significant indicator of their ability to manage safety, as well as all other aspects of successful projects" (Broderick and Murphy 2001). "A prospective contractor with a history of good safety performance is more likely to perform safely in the future than a contractor with a poor, or less-than-average, safety record" (Business Roundtable 1982).

When selecting a contractor, owners must remember that the lowest bid is not always the best choice. "Prudent contractors usually include the cost of supplying safety equipment and employee training in their bids. Consequently, their bids may be higher, causing owners to look elsewhere" (Nwaelele 1996).

Many owners attempt to shift liability by including 'hold harmless clauses' in their construction contracts. This approach seemed to work for a number of years, but in recent decisions the courts have realized the tremendous advantage that a loose interpretation of these clauses gives owners and are no longer supporting such broad interpretations (Nwaelele 1996).

CHAPTER 3
METHODOLOGY

Overview

This study was designed to explore current industry practices of the calculation of the OSHA recordable injury rate (RIR). OSHA has clearly defined the process for calculating the RIR in their literature which can be obtained from the U.S. Department of Labor, and is also attached in appendix C of this paper. Despite the fact that there are published instructions for how to calculate the RIR, there is still some room for interpretation and variation. Additionally, firms seeking to provide a more accurate measure of past safety performance might have alternate methods for calculating the RIR that only include the injury rates of employees who are exposed to hazards on the job. The intent of this research was to examine the variability in the computation of project RIR's of companies due to the use of hours from varying parties associated with the project.

The goal of this study was to determine exactly how construction companies are compiling the 'hours worked' portion of their RIR calculations. This study also aimed to shed light on the fact that there is much room for improvement on the RIR as an accurate measure of safety performance.

This research is meant to provide information for safety professionals and policy makers who are seeking a better way to measure and quantify safety performance. This research is also meant to serve as a guide for construction owners who may routinely evaluate contractors and make decisions based on the best information available.

Development of Survey

The fundamental question this survey sought to answer is: How are contractors computing their RIR? To acquire data on this question, a survey was developed to obtain information on the current practices of calculating the RIR in the U.S. construction industry. It was the intent of this researcher to develop a survey that would not require a large investment of time or work on behalf of the respondent. Keeping that fundamental premise in mind, the survey was developed over a series of approximately nine review cycles between this researcher and the thesis chair. These revisions encompassed anything from grammatical corrections to the addition and deletion of entire lines of questioning.

To date there are no documented studies on the calculation of the RIR. Furthermore, there does not appear to be any study that addresses the accuracy of the RIR as a safety measure.

The direction and scope of this study were defined by the fundamental question that this research seeks to answer, ‘what hours are contractors including in the RIR calculation?’ Once this fundamental question was addressed in this survey additional information was requested about varying aspects of the reporting firms.

Explanation of Survey

The survey was designed to be short and simple. It was the goal of this researcher to design a survey that would not be a burden for respondents to fill out. The survey was designed with the basic parameters of being approximately 10 to 15 questions in length that could be answered in no more than 10 minutes. The final survey contained 16 questions and could be completed in the time frame initially established. The survey began by soliciting some basic background information about the responding firm.

Respondents were asked to indicate which type of contractor they were and to estimate their approximate annual volume of construction work put in place. These two questions provided a solid basis for understanding the type and size of firms that were responding.

Next, the respondents were asked to provide their overall OSHA Recordable Injury Rate, and to indicate whether or not their RIR included both the hours of field workers and office personnel. The next line of questioning involved a series of questions that basically asked the respondent to provide the separate RIR's for field workers and office personnel. These questions were intended to obtain information on the RIR of field workers and to obtain a separate RIR measure for office personnel. The next question in the survey asked the respondent to select among the listed parameters which were regularly included in RIR calculations. The intent of this question was to determine exactly which hours were regularly being included in RIR calculations. For example, contractors were asked to indicate whether or not they included the hours of company personnel assigned to the project, but not working at the project site. They were also asked whether or not they included the work hours of subcontractors on the project. Finally, the survey asked respondents to indicate the frequency (based on a percentage) that owners asked that reported RIR's isolate field hours from office hours. The intent of this question was to determine if owners varied in their procedures of requesting information about the types of hours included in the computation of the RIR.

Reaching the Target Response Group

The target response group for this research was corporate safety directors and safety managers of large construction firms in the United States. Because of the relatively technical and detailed nature of the survey, it was determined that a corporate safety director or manager would be the best party to respond to the survey. Contacts

were made with the top 100 firms on the ENR list of the TOP 400 contractors based on 2008 revenue. An initial contact was made through a phone call to the corporate headquarters of the firm; this researcher requested either the e-mail address or voice mail of the safety director or safety manager. Since the main method of distribution of the survey was through an on-line website, it was critical to obtain the e-mail address of the party being contacted. This method had varying results, some companies were happy to divulge their e-mail addresses while others would not give such information. In cases where the receptionist either did not know the e-mail address or felt uncomfortable giving it out, this researcher would ask to be transferred to voice mail. At this stage in the process, this researcher would leave a brief message describing the intent of the research and asking the contacted party to return the phone call if interested in participating in the research. This method had a low success rate. This is probably because it required the participant to perform a series of tasks in order to take the survey.

Another notable strategy at obtaining the proper contact information from unwilling firms was to ask to be transferred to voice mail, take note of the person's name, then call back a few days later and ask the receptionist for the person's e-mail address making reference to their name. This method had a higher success rate, probably due to the fact that the receptionist assumes the person is known to the caller when reference is made to them by name.

Finally, a list of e-mail addresses of members of various safety organizations was obtained from Dr. Jimmie Hinze. This list included various safety professionals across the industry and from various disciplines. Only members from the list who were

determined to be in the construction industry were contacted and asked to participate. This list yielded approximately 40 valid relevant addresses. This list of Dr. Hinze's personal contacts yielded a very high response rate, perhaps as high as 50%. All in all, over 100 construction safety professionals were asked to participate in this survey.

After obtaining the email addresses of various safety professionals, this researcher would send a personalized e-mail message requesting that the person participate in the research. This e-mail contained a brief introduction and description of the research. It also requested that the person forward the survey on to any other parties who might be interested.

Distribution of Survey

The primary means of distribution for this survey was through electronic mailing. The survey was hosted on a third-party website dedicated to collecting and recording data for this particular survey. Participants had assurance of anonymity. Potential participants were sent a brief e-mail message with a description of the research and an invitation to participate in the survey. An embedded hyperlink was included in the e-mail and interested participants could click and take the survey.

Data Collection and Recording

The primary method of data collection and recording was through a third-party website. Survey results were recorded and stored in real time on the Internet. At the completion of the survey period, the results were downloaded and coded in Microsoft Excel. This Excel file was uploaded into Statistical Package for the Social Sciences (SPSS) for further analysis.

Summary

The survey was developed with the intent of determining exactly how contractors are calculating the ‘hours worked’ portion of the OSHA Recordable Injury Rate. Another objective was to determine whether or not construction owners were requesting contractors to report RIR values representing exclusively the hours worked by field employees. This survey was developed based on the premise that it would be electronically distributed to construction safety professionals. Since this survey was being answered on an anonymous basis by professionals who have no incentive to participate, convenience and simplicity were key concepts when designing the survey. Results and data were stored on the Internet and downloaded at a later date for further analysis and processing.

CHAPTER 4
RESULTS AND ANALYSIS

General Description of Respondents

This research is based on 31 survey responses. Of 27 respondents providing the information, the aggregate total annual volume of construction work put in place was $48 billion. If this average is extrapolated to all participants, the overall annual volume of construction work put in place by all respondents is estimated to be approximately $50 million dollars.

Approximately half of the companies surveyed had an annual revenue of over a billion dollars. The mean RIR for the companies surveyed was 1.47 with a median RIR of 1.18 with 94% of the respondents indicating that this RIR included both office hours and field hours.

Eleven respondents were able to isolate their field workers and office personnel when computing their RIR values. Of these respondents, the mean RIR was 1.62 with a median of 1.72. Their average field RIR (injuries representing only field workers) was 2.35 with a median of 1.3. The average office RIR (injuries representing only office personnel) was 0.09 with a median of 0.02. The office RIR's ranged from 0 to 0.65. When asked to indicate the number of direct hire field employees, the responses ranged from companies whose workforce was made up of no field workers to 97.9% field workers. It was also found that the firms with higher percentages of field hours worked had higher RIR values.

Research Results

All (31) responding firms provided information about characteristics to describe their construction firms (Figure 4-1). This question asked firms to select all

characteristics that applied. There were 12 distinct answer choice combinations received. The most frequent single response was General Contractor. Note that the figure shows Construction Manager as having more responses than General Contractor; this is because Construction Manager was chosen frequently in combination with other choices. The second most frequent response was firms that classified themselves as a General Contractor and a Construction Manager. Four firms classified themselves as specialty contractors, and four firms classified themselves as operating as a General Contractor, Design-Build firm, Construction Manager and a Construction Engineering firm.

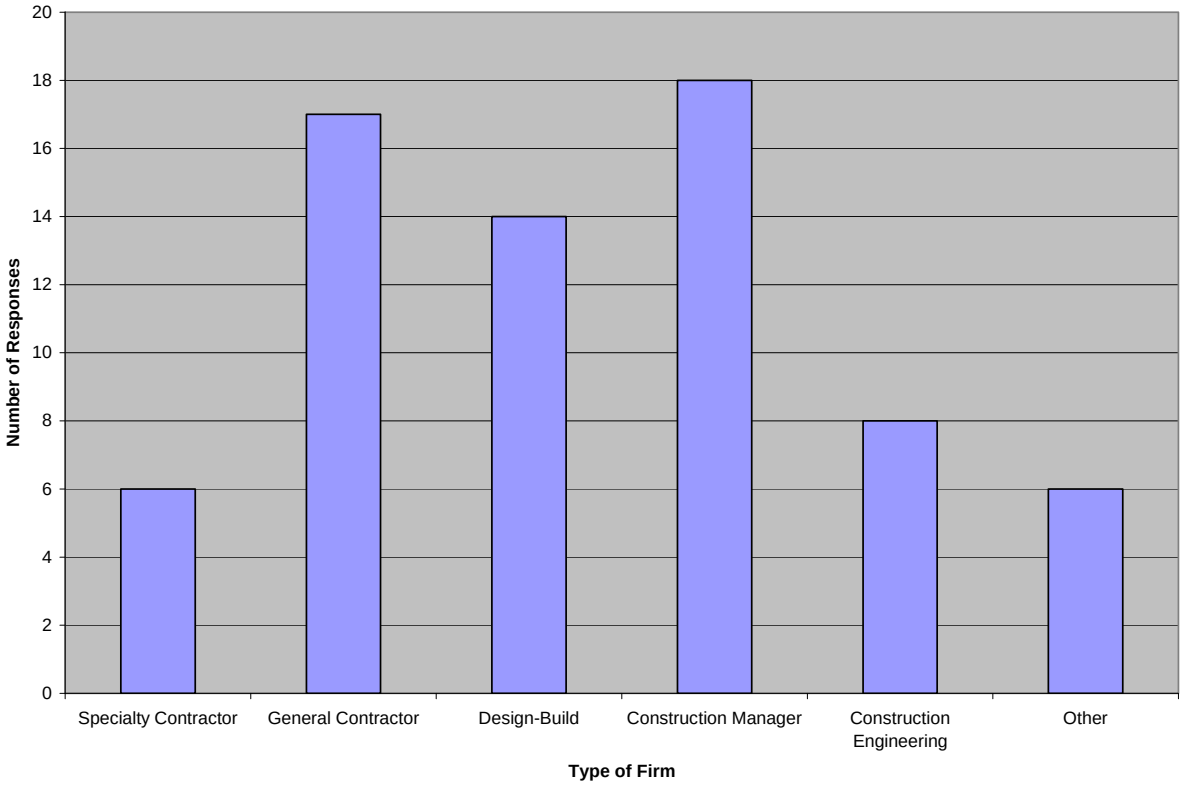


Figure 4-1. Type of responding company (31 replies)

Twenty-seven firms provided information on their approximate annual volume of construction work put in place (Figure 4-2). The responses to this question ranged from

$800,000 to $6 billion. Eight firms reported an annual volume of three billion dollars or more while 46% (9 respondents) of the responding firms had an annual volume of over 1 billion dollars. The average annual volume of construction work put in 2008 was $1.78 billion dollars and the median was $0.9 billion. The aggregate volume of construction work put in place in 2008 by all of the reporting firms was 48 billion dollars. Assuming that the approximate value of the construction work put in place for the entire industry was approximately 800 billion dollars, these survey respondents represent 6% of the industry.

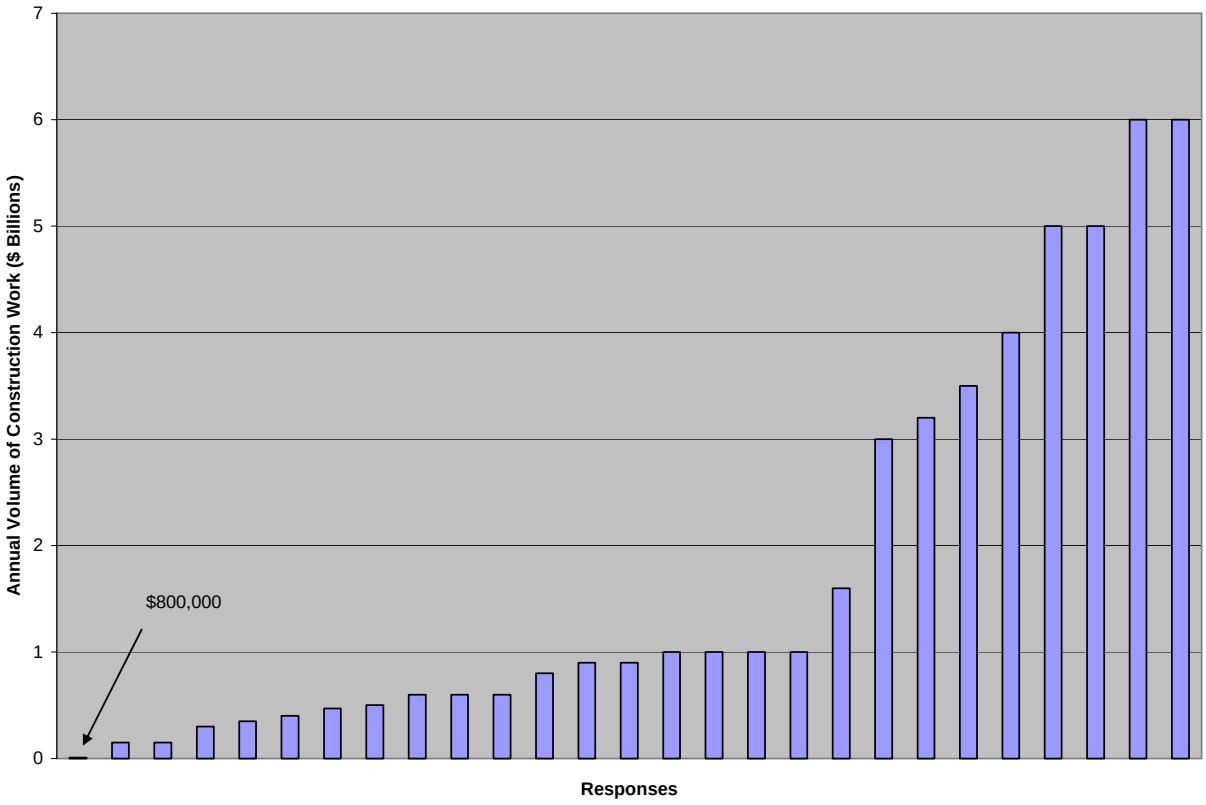


Figure 4-2. Annual volume of construction work put in place (27 replies)

Thirty firms provided data on the total number of hours worked in 2008. These data include both the hours of field workers and office personnel. The data range from

40,000 hours to 150 million hours (Figure 4-3). The average number of hours worked per firm was 17.3 million with a median of 5.7 million hours. The aggregate number of hours worked in 2008 by all responding firms is 519 million hours. One-third of the firms that responded worked 10 million or more hours in 2008, including one not shown on the figure that worked 150 million hours.

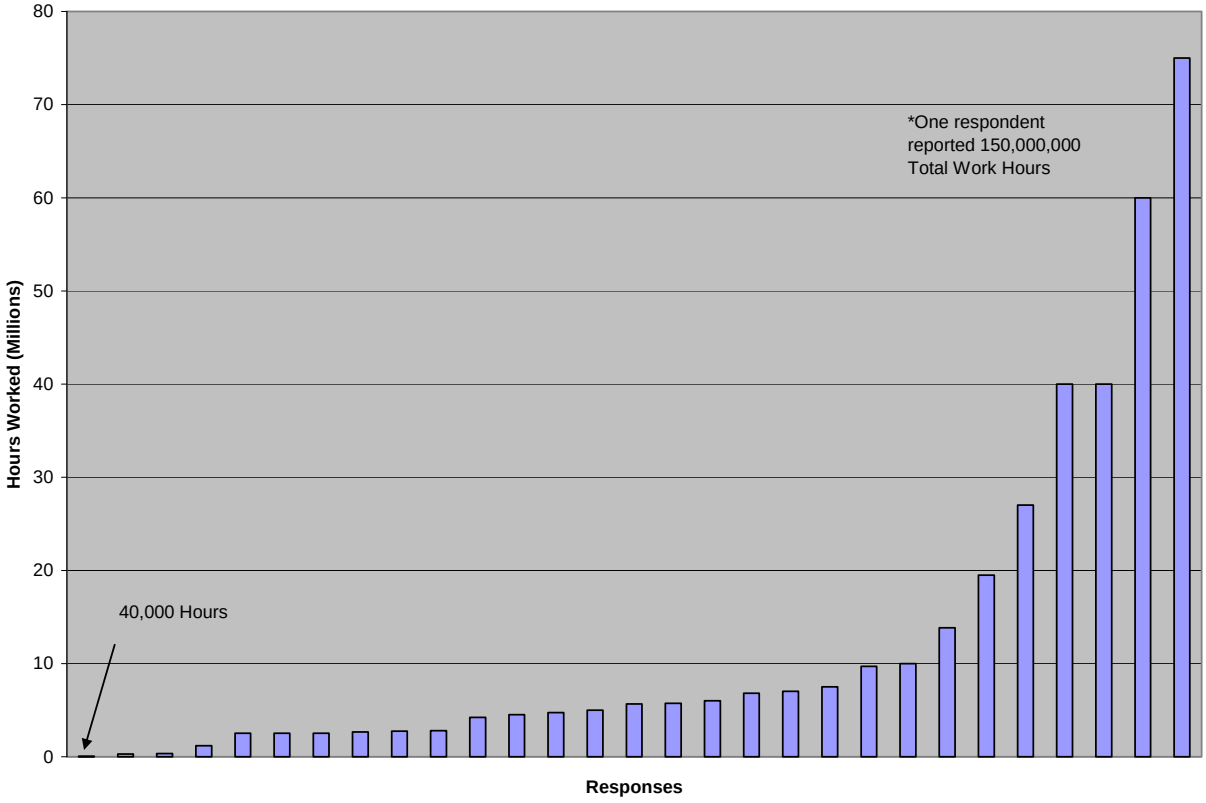


Figure 4-3. Total number of hours worked in 2008 (30 replies)

Twenty-eight firms provided information on their overall RIR. These RIR values ranged from 0.14 to 5.71 (Figure 4-4). Of these firms, 46% reported an overall RIR of less than 1.0, 29% reported an overall RIR between 1.0 and 2.0, and 25% reported an overall RIR above 2.0. The average overall RIR was 1.49, with a median overall RIR of 1.2.

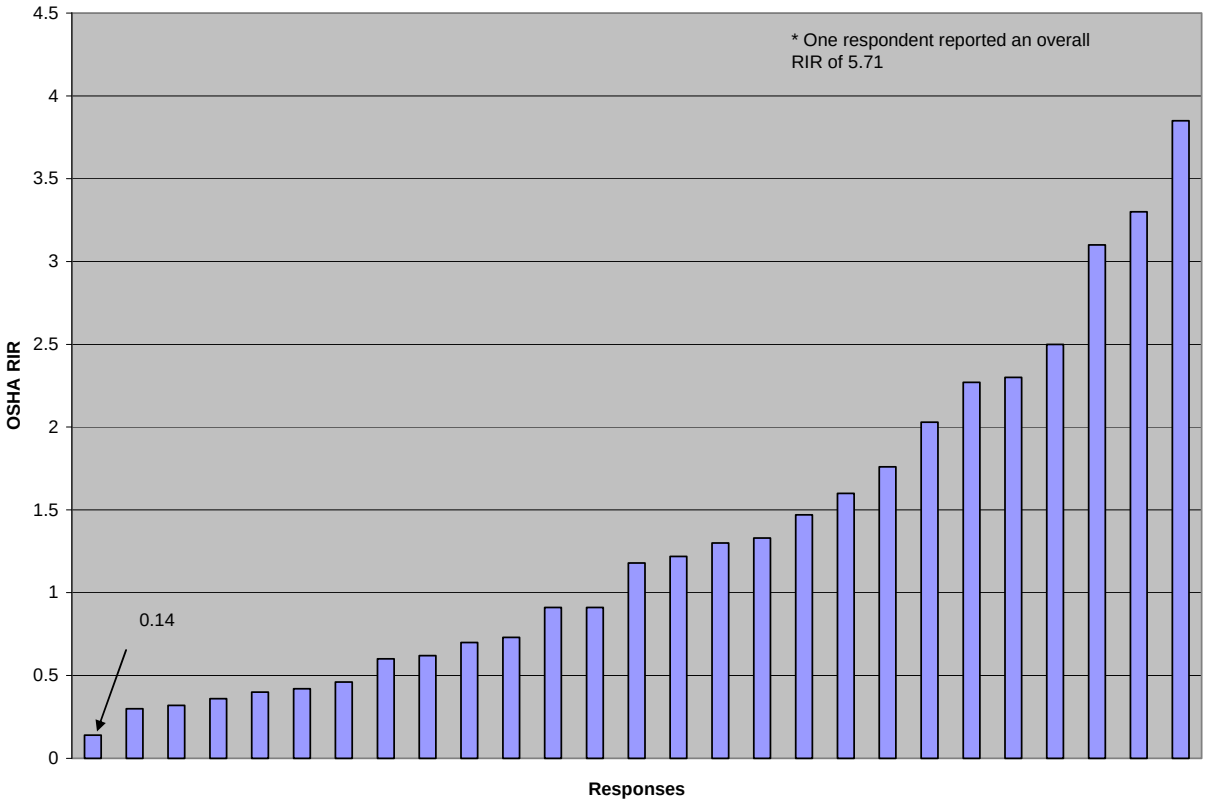


Figure 4-4. Overall RIR (28 replies)

Thirty firms provided information on the composition of the hours included in their RIR calculation. Of these, 94% of the firms reported that their RIR computations included both the hours of field workers and office personnel, 3% reported that their computation did not include both types of hours, and 3% reported that they did not know what type of hours were included in the RIR calculations (Figure 4-5). It should be noted that the respondent that reported that the computation did not include both types of hours represented a firm that did not have any direct hire field workers.

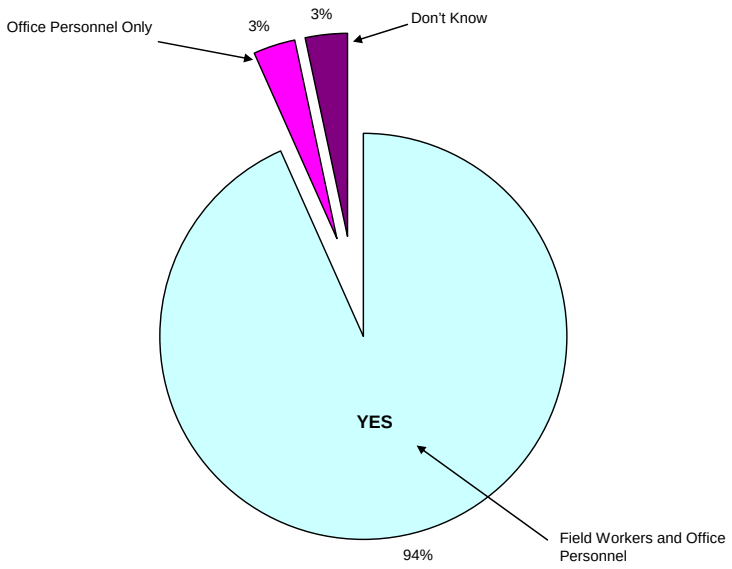


Figure 4-5. Does RIR include hours of both field workers and office personnel? (30 replies)

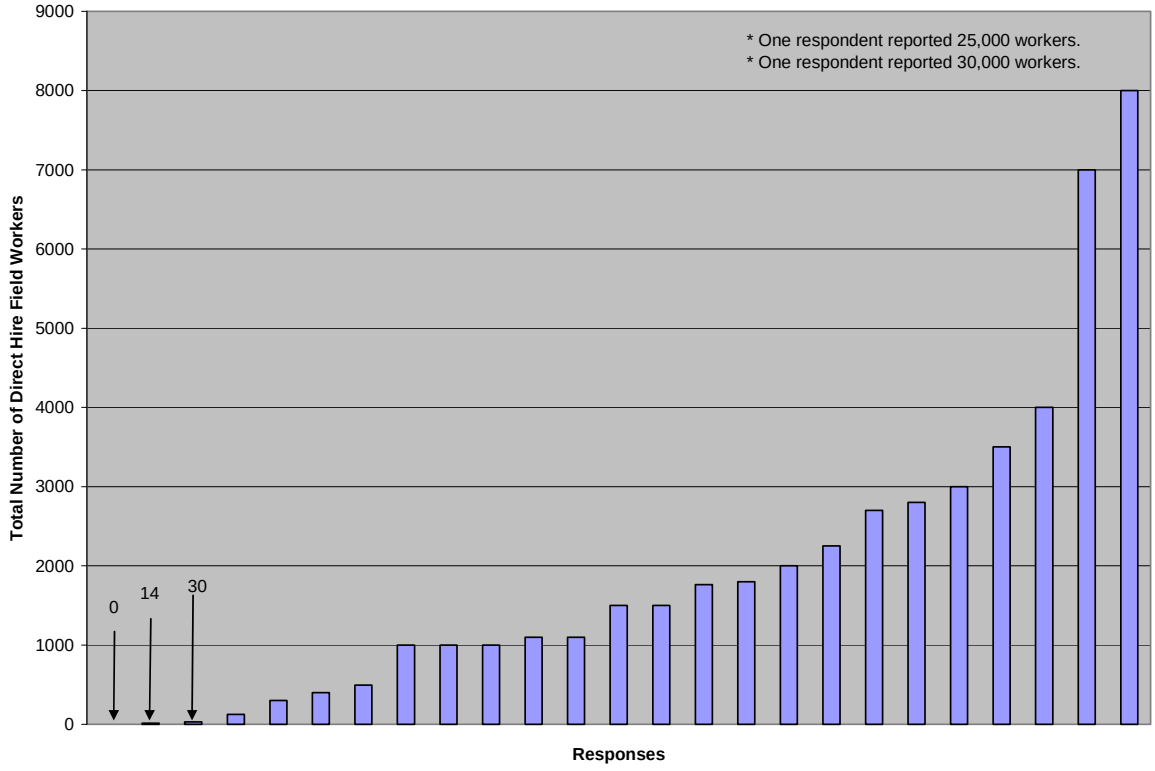


Figure 4-6. Total number of direct hire field employees (27 replies)

Twenty-seven firms provided data on the number of direct hire field workers they employed. These numbers ranged from no field employees to 30,000 field employees (Figure 4-6). The average number of direct hire field workers was 3,828, with a median of 1,500 field employees.

Twenty-three firms provided data on the total number of field hours worked in 2008. The responses ranged from 0 to 55,000 hours (Figure 4-7). The average number of field hours worked was 9.2 million, with a median number of 2.5 million field hours worked.

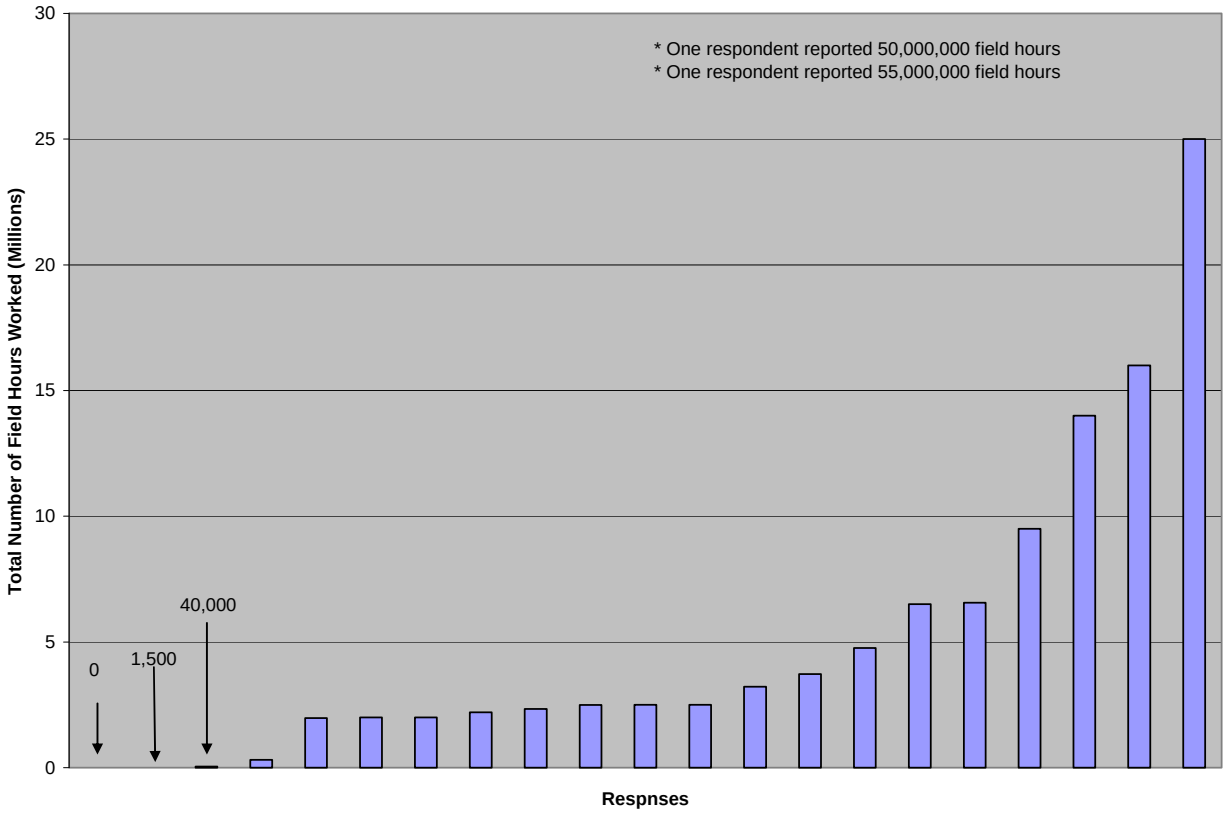


Figure 4-7. Total number of field hours worked (23 replies)

Sixteen firms provided data on the RIR of their direct hire field workers. That is, the RIR was specifically restricted to the OSHA recordable injury rate of the direct hire field employees. The values ranged from 0.16 to 9.71 (Figure 4-8). The average field RIR was 1.97, with a median field RIR of 1.18. Note that one of the 16 respondents had an RIR that was greater than the national construction average of 5.4 for 2007 (BLS 2009).

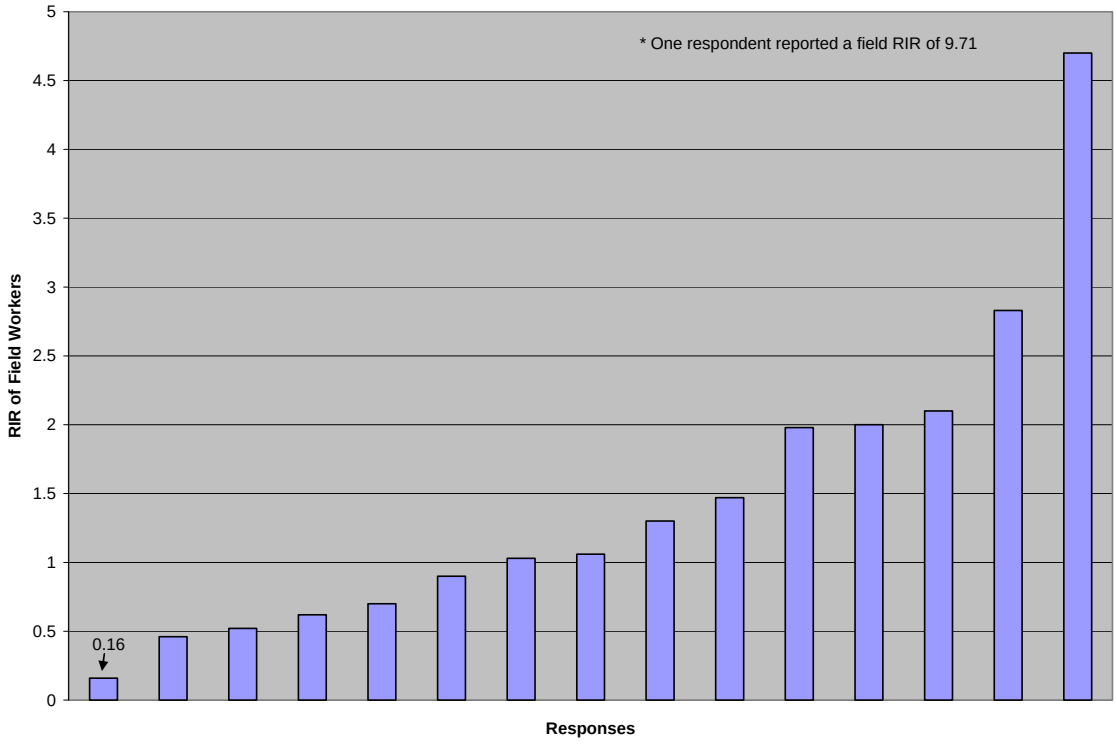


Figure 4-8. RIR of direct hire field workers (16 replies)

Twenty-eight firms provided information on their total number of office personnel. The responses ranged from 14 to 56,000 office personnel (Figure 4-9). The average number of office personnel for this survey was 4783 people with a median number of 450.

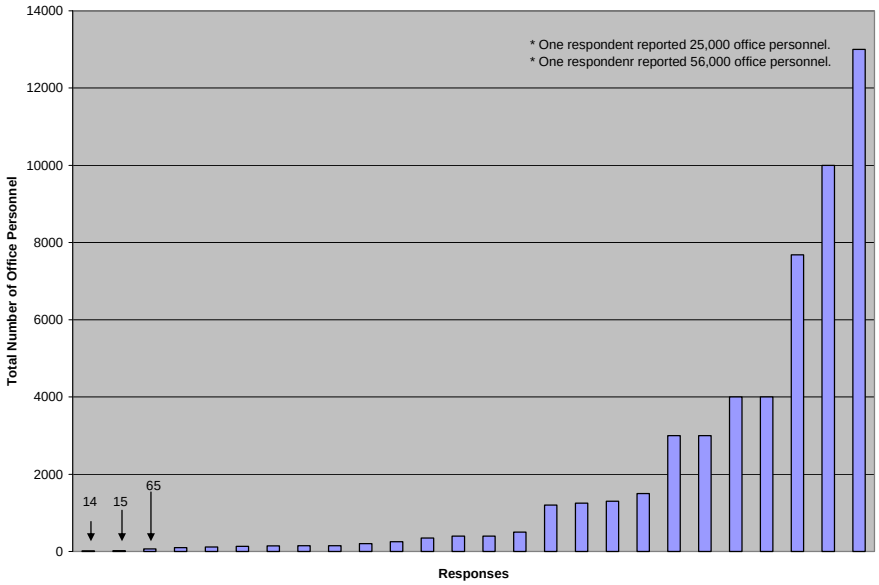


Figure 4-9. Total number of office personnel (28 replies)

Seventeen firms provided data on the total number of office hours worked in 2008. The responses ranged from 76,000 hours to 100 million hours (Figure 4-10). The average number of office hours worked per year was 9.17 million hours with a median of 865,000 office hours worked.

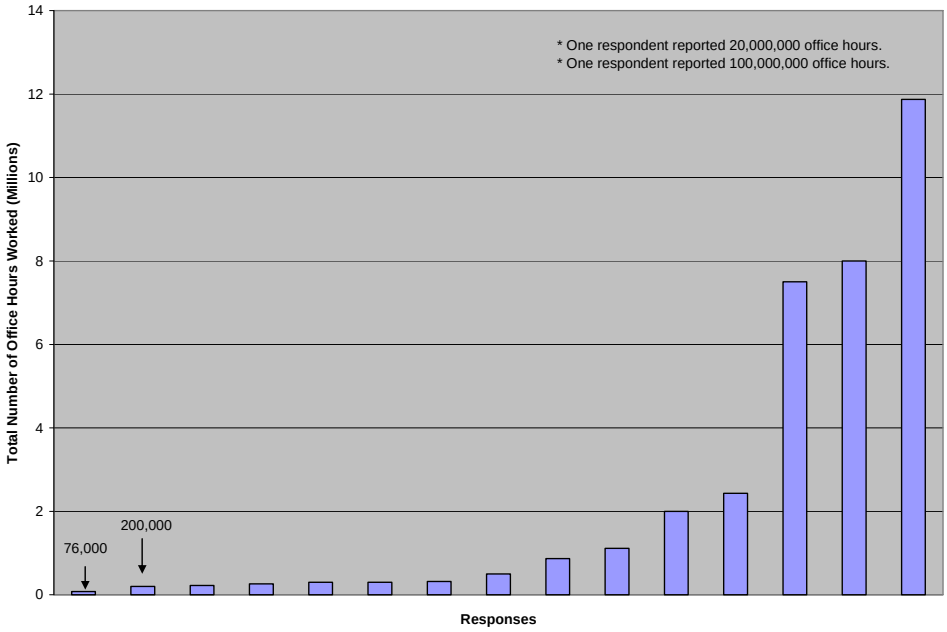


Figure 4-10. Total number of office hours worked (17 replies)

Fourteen firms provided information on their office RIR. The office RIR consists of the number of OSHA recordable injuries sustained by office personnel per 200,000 hours of office work. The responses ranged from 0 to 0.65 (Figure 4-11). Eight respondents indicated that their office RIR was 0. The average office RIR reported was 0.07 with a median office RIR of 0.

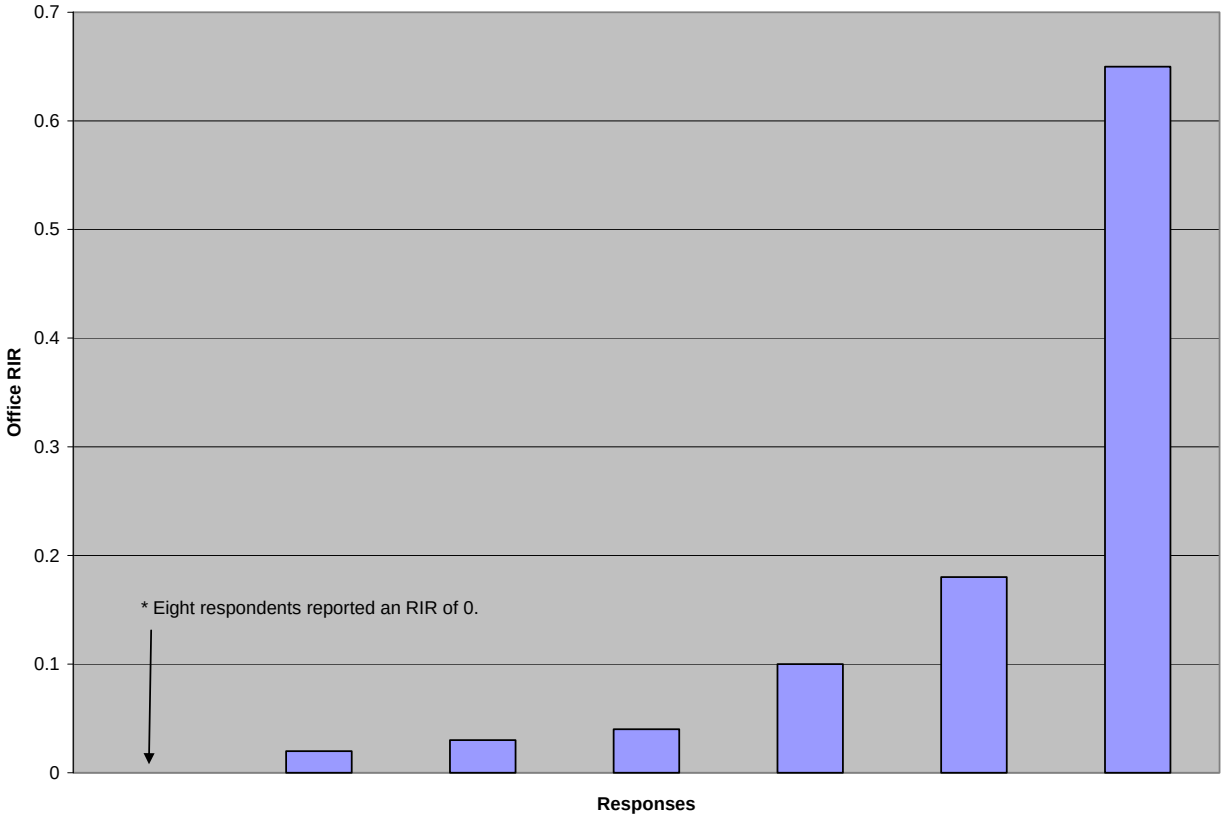


Figure 4-11. RIR of office personnel (14 replies)

Twenty-seven firms provided information on the type of hours they regularly included in their RIR calculations. There were 12 distinct answer choice combinations received for this question. The most frequent combination (21 responses) was direct hire field workers and office personnel both on-site and off-site. The next most common combination consisted of all company personnel and subcontractors. This was followed

by companies that included all on-site company personnel and subcontractors. These combinations both received the same frequency of responses. It should be noted that figure 4-12 shows the number of times that each response was selected, but does not illustrate the frequency of response combinations.

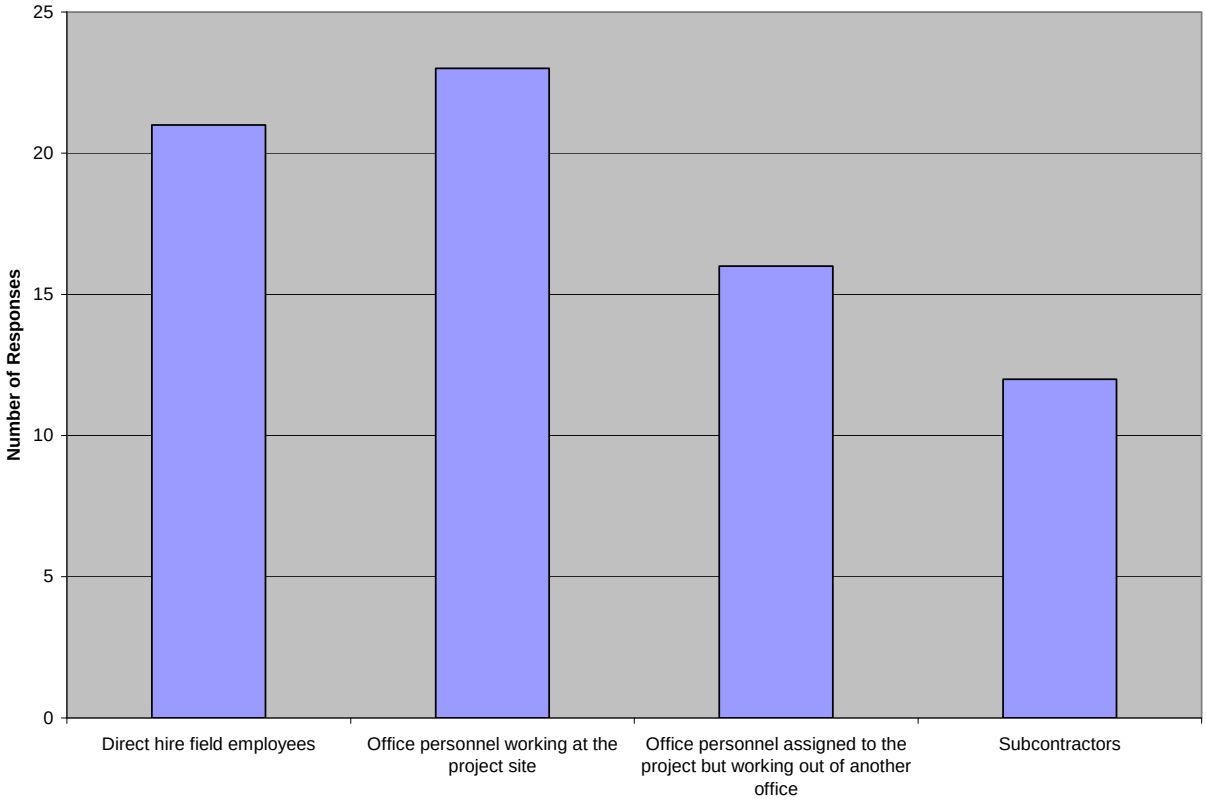


Figure 4-12. Which groups are included in RIR calculations? (27 replies)

Thirty-one firms provided data on the frequency that facility owners request that RIR data isolate the hours of field workers. Note that 65% of the respondents reported that 1 to 20% of the owners requested that field hours be isolated on projects to be undertaken (Figure 4-13). Ten percent of the respondents reported that owners requested field hours to be isolated on 21-40% of the projects undertaken. Six percent of the respondents reported that owners requested that field hours be isolated on 41-60% of projects undertaken. Six percent of the respondents reported that owners

requested that field hours be isolated on 61-80% of the projects undertaken. Thirteen percent of respondents reported that owners requested that field hours be isolated on 81-100% of the projects undertaken.

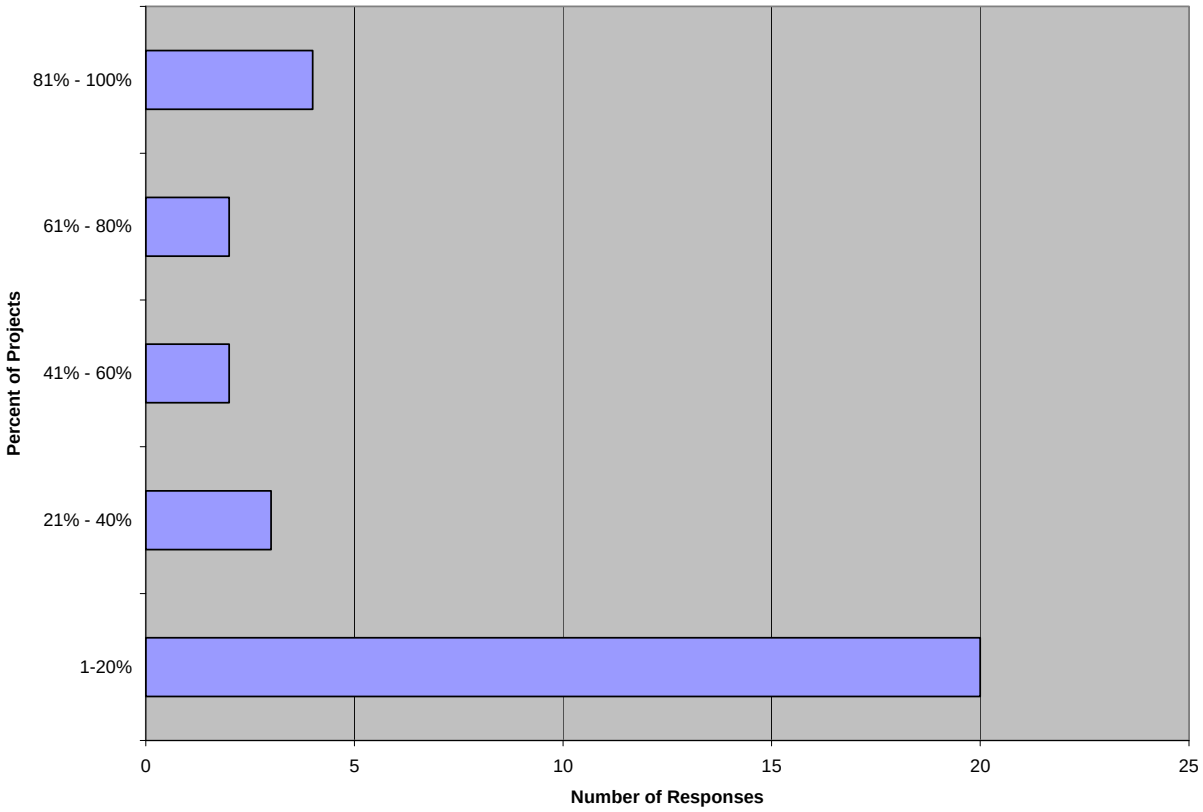


Figure 4-13. How often do owners request information on RIR's that isolate field workers from office personnel? (31 replies)

Additional Analysis

Additional analysis was conducted on the survey responses to identify any relationships that existed between company characteristics / practices and the resultant RIR values. When comparing companies that had less than 50% field hours (over 50% were office personnel) with companies who had over 90% field hours, some interesting results were obtained. The companies with less than 50% field hours had an average RIR of 0.96 with a median RIR of 0.57. On the other hand, the companies with more than 90% field hours in their calculations reported an average RIR of 2.53 with a median

of 1.33. While the median RIR of 1.33 seems respectable, it is considerably higher than the median RIR of 0.57.

The safety performances of the respondents were examined in terms of the sizes of the firms. Table 4-1 shows the median values of the data reported. The respondents who reported an annual volume of construction work put in place of over a billion dollars had an overall average RIR of 1.20 with a median of 0.91. The average number of hours worked was 35.6 million with a median of 18.5 million hours. Of those, the median number of field hours was 6.56 million and the median number of office hours was 7.25 million. These companies reported a median field RIR of 0.80 and a median office RIR of 0.02. Approximately 54% of these respondents reported that owners asked that the reported RIR isolate field hours on less than 20% of projects undertaken.

Table 4-1. Characteristics of firms with annual volume greater than $1 billion

Median hours worked	Median RIR	Median field hours	Median field RIR	Median office hours	Median office RIR
18.5 Million	0.91	6.56 Million	0.80	7.25 Million	0.02

The respondents who reported an annual volume of construction work put in place of less than a billion dollars had an average RIR of 1.99 with a median of 1.6, table 4-2 shows the median values of the data reported. The average number of hours worked was 3.8 million with a median of 3.5 million. Of those hours, the median number of field hours was 3.15 million and the median number of office hours was 300,000. These companies reported a median field RIR of 1.72 and a median office RIR of 0.03. Approximately 77% of these respondents reported that owners asked that the reported RIR isolate field hours on less than 20% of projects undertaken.

Table 4-2. Characteristics of firms with annual volume less than $1 billion

Median hours worked	Median RIR	Median field hours	Median field RIR	Median office hours	Median office RIR
3.5 Million	1.6	3.15 Million	1.72	300,000	0.03

The average number of hours worked per worker in this study was 2307 hours per year. The median was 2135 hours worked per year per worker. This was computed by dividing the number of field hours worked by the number of field workers employed. It is recognized that this results in approximate values. When examining the survey results that reported that the hours worked per year was between 2000 and 3000 hours, the mean overall RIR was 3.04 and the mean field RIR was found to be 4.02. Conversely, when the hours worked per worker per year were less than 2000 the mean overall RIR was 1.25 and the mean field RIR was computed to be 0.98.

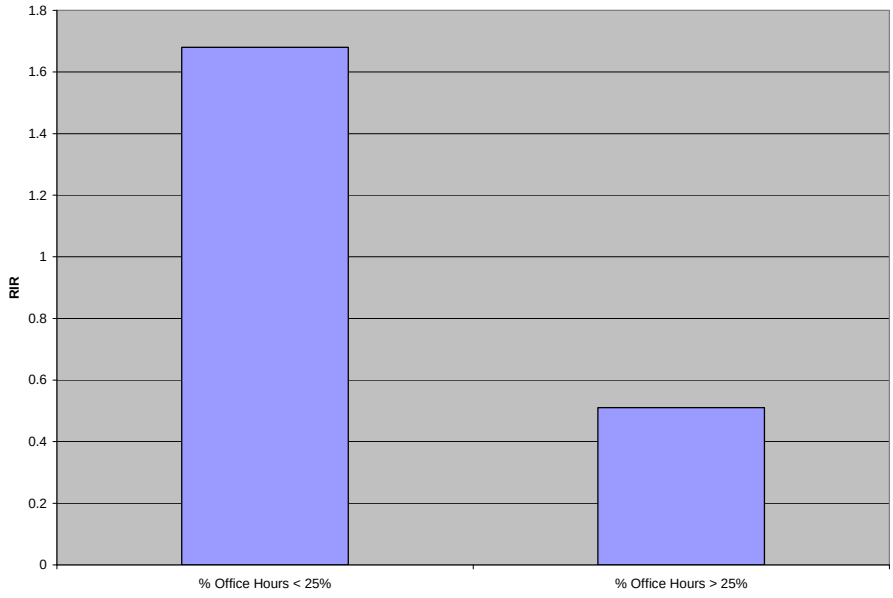


Figure 4-15. RIR based on percentage of office hours

Further analysis on these RIR data indicated that as the percentage of office hours increases, the overall RIR decreases. This had a Pearson correlation of -0.32 and was

significant at the 0.04 level. Of 16 companies reporting RIR data, there were eight cases where the percentage of office hours worked was less than 25%. The median RIR for these companies was 1.68 (Figure 4-15). There were eight cases where the percentage of office hours was greater then 25%. These companies reported a median office RIR of 0.51.

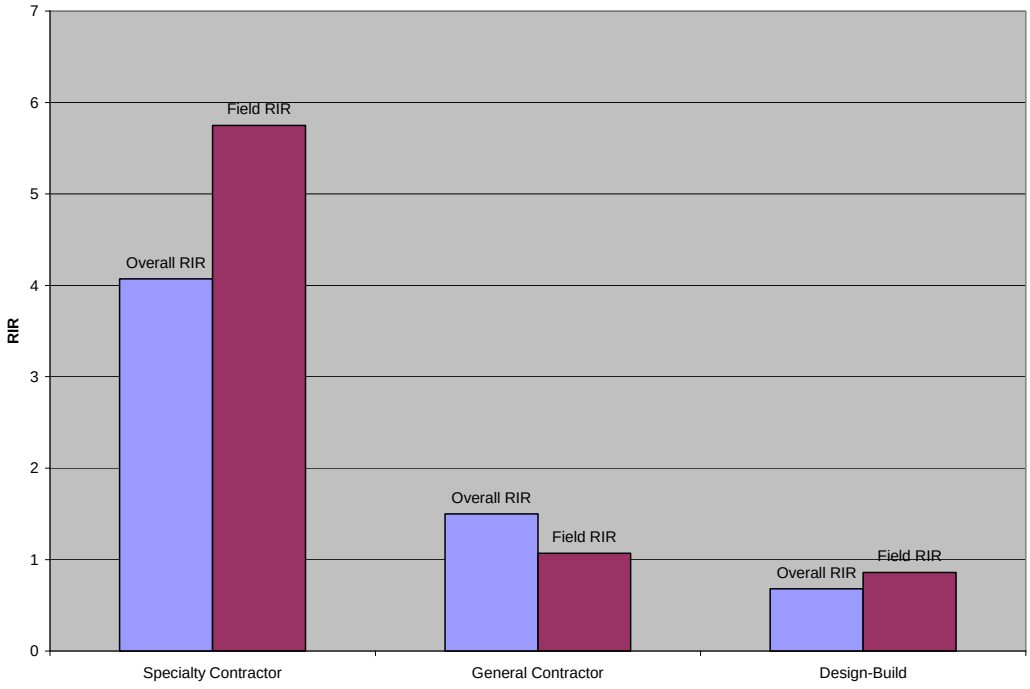


Figure 4-16. RIRs of various contractor types

Additional analysis was performed on the safety performance of the responding companies based on the type of contractor (Figure 4-16). It was found that contractors who classified themselves as specialty contractors had the highest average RIR's of all of the categories. The average overall RIR for specialty contractors was 4.07. The average field RIR for specialty contractors was 5.75. Respondents who classified their firms as a general contractor had an overall RIR of 1.5. General contractors had an average field RIR of 1.07. Respondents who classified their firms as Design-Build had

the lowest average RIR of all three groups analyzed. The average RIR for design-build firms was 0.68. The average field RIR was 0.86.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

There is considerable variability in the computation of the OSHA RIR. This is a significant factor in the measurement and reporting of previous safety performances. This variability creates an inaccurate measure of safety performance when comparing firms based on their recordable injury rates. This is because there is not consistent and uniform method of determining exactly which hours are to be included in the calculation. The OSHA guidelines for determining the number of hours worked are stated as follows "include hours worked by salaried, hourly, part-time and seasonal workers, as well as hours worked by other workers subject to day to day supervision by your establishment" (OSHA 2009). This loose definition lends itself to variability in the computation of the RIR. Firms may be complying with the OSHA guidelines for computing the RIR, but misleading values of the RIR are generated.

For example, as a construction manager who manages a jobsite where various subcontractors are performing work, there is no documented criteria for determining if the hours of subcontractors should be included in the CM's (construction manager) RIR. Furthermore, the results of this study have shown that contractors that employ a greater percentage of field workers are at a disadvantage when compared to contractors who employ few or no field workers. This is because less field workers employed results in less exposure to jobsite hazards and thus a lower recordable injury rate.

The percentage of field workers employed by companies participating in the survey ranged from a low of 0% to a high of 97%. Comparing these companies based on their computed RIR values could lead to a misleading assumption that one company is safer than the other. The results of analyzing companies that employed less than

50% field workers compared to companies that employed greater than 90% field workers clearly illustrated this point. Companies with less than 50% field workers had a median RIR of 0.57 while companies with greater than 90% field employees had a median RIR of 1.33. The criteria for comparing companies based on the RIR would be more valid if the RIR calculation was based on field hours only. This would provide a more accurate indication of a contractors' safety performance in the field without including the hours of personnel who are never exposed to jobsite hazards. It would also 'even the playing field' when evaluating contractors who employ a large percentage of field workers.

One of the objectives of this research was to examine the amount of variability in the calculation of the OSHA RIR. The research findings show that owners generally ask that RIR's isolate field hours from office hours on less than 20% of the projects undertaken by contractors. This finding represents a clear indication that facility owners are uneducated about the current practices of the calculation of the OSHA RIR. It also indicates that facility owners are unaware that the isolation of field hours would produce a more accurate measure of safety performance as well as allow for the comparison of competing contractors on an equal basis.

Analysis of this research also yielded some additional unexpected findings. When analyzing the data for the number of hours worked per worker compared to the reported overall RIR, it was found that the RIR was significantly lower when fewer hours were worked. This shows that safety performance is impacted by the amount of overtime that is worked. There were significantly higher injury rates among those firms that reported

more overtime being worked by their field employees. Furthermore, when these data were analyzed to isolate field hours, the results were even more polarized.

Research Recommendations

This research has revealed several interesting findings in the area of calculating the OSHA RIR. These findings are believed to be representative of a large segment of the construction industry. In future research, the use of a larger sample size is recommended to create a more thorough and accurate indication of the current practices in the field. Furthermore, this survey could be re-developed to target specific industry segments and contractor types. For example, a study of how general contractors and construction managers compute their RIR with a focus on the criteria for the inclusion of subcontractor hours would probably yield interesting results. Another area of study might be a survey of owner's perceptions and practices on collecting safety performance data and in making comparisons between contractors.

Industry Recommendations

The construction industry has advanced in the collection and reporting of safety performance data. These data are used for a variety of purposes, including the calculation of insurance premiums by insurance companies and the selection of contractors by facilities owners. This research has the most potential benefit to both facilities owners and contractors who are seeking to use the most accurate data available to measure past safety performance. Facilities owners are encouraged to understand and question the RIR's that contractors are reporting to them. Furthermore, facilities owners are also encouraged to request that contractors isolate field hours from office hours when reporting RIR values. This produces a more accurate measure of safety performance. Contractors are also encouraged to voluntarily report their field

recordable injury rates. Reporting an RIR value that represents the safety performance of field personnel only presents a strategic advantage to contractors who employ higher percentages of field personnel.

APPENDIX A
SURVEY COVER LETTER

Statement to be Read to Participants

To: Potential Study Participants

Subject: RIR Computation Survey

We, the M.E. Rinker, Sr. School of Building Construction at the University of Florida, are conducting a study in the United States concerning RIR calculation. The focus of the study is to examine current practices compiling the 'hours worked' portion of a firm's RIR.

To conduct this study, a variety of questions will be asked about your firm's practices related to calculating RIR. There are no risks associated with participating in this study and the survey can be completed in about five minutes. A copy of the results summary can be provided at your request to any interested participants. Please send requests to the contact information listed below. Naturally, you are asked to answer only those questions that you feel comfortable in answering.

Your individual responses will be kept strictly confidential to the extent provided by law. Research data will be summarized so that the identity of individual participants will be concealed. No compensation will be provided for your participation. You have our sincere thanks for participating in the valuable study.

Sincerely,

Thomas Cobb
Building Construction Graduate Student
Phone: (786) 385-9232 Fax: (352) 392-4537 Email: Thomas.W.Cobb@gmail.com

Dr. Jimmie Hinze
Professor, Director of the Center for Construction Safety and Loss Control
M.E. Rinker, Sr. School of Building Construction
University of Florida
Phone: (352) 273-1167 Fax: (352) 392-4537 Email: hinze@ufl.edu

P.S. For information about participant rights, please contact the University of Florida Institutional Review Board at (352) 392-0433 or Email: IRB2@ufl.edu.

APPENDIX B
RIR COMPUTATION SURVEY

RIR Computation

1.

You must be at least 18 years old to participate in this survey.

Which of the following best describes your firm: (select all that apply)

- [ ] Specialty Contractor
- [ ] Construction Managment
- [ ] General Contractor
- [ ] Construction Engineering
- [ ] Design Build
- [ ] Other (please specify)

Approximate annual volume of construction work put in place: $(MIL)

What is the overall RIR of the firm (across the US)?

Does this RIR include the Hours of both field workers and office personnel?

- ◯ Yes
- ◯ No
- ◯ Dont Know

Approximate TOTAL hours worked last year:

- ◯ Dont Know

Hours:

Approximate number of direct hire FIELD workers:

Approximate number of direct hire FIELD hours worked last year? (HRS)

- ◯ Dont Know
- ◯ Hours:

RIR of direct hire FIELD workers:

- ◯ Dont know

RIR:

RIR Computation

Approximate number of Engineering / Office personnel:

Approximate number of Engineering / Office hours worked last year? (HRS)

- ◯ Dont know

Hours:

RIR of Engineering / Office personnel:

- ◯ Dont know

Hours:

Which of the following are regularly included in PROJECT RIR computations? (Select all that apply)

- ☐ RIR computations are not made for specific projects
- ☐ Company direct hire field employees
- ☐ Company office personnel working at the project site
- ☐ Company office personnel assigned to the project but working out of another office
- ☐ Subcontractors

How often do owners request information on RIR's that isolate field workers from office personnel?

- ◯ 1-20% of projects undertaken
- ◯ 21-40% of projects undertaken
- ◯ 41-60% of projects undertaken
- ◯ 61-80% of projects undertaken
- ◯ 81-100% of projects undertaken

APPENDIX C
OSHA FORMS FOR RECORDING WORK-RELATED INJURIES AND ILLNESSES

OSHA
Forms for Recording
Work-Related Injuries and Illnesses

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

Dear Employer:

This booklet includes the forms needed for maintaining occupational injury and illness records for 2004. These new forms have changed in several important ways from the 2003 recordkeeping forms.

In the December 17, 2002 Federal Register (67 FR 77165-77170), OSHA announced its decision to add an occupational hearing loss column to OSHA's Form 300, Log of Work-Related Injuries and Illnesses. This forms package contains modified Forms 300 and 300A which incorporate the additional column M(5) Hearing Loss. Employers required to complete the injury and illness forms must begin to use these forms on January 1, 2004.

In response to public suggestions, OSHA also has made several changes to the forms package to make the recordkeeping materials clearer and easier to use:

- On Form 300, we've switched the positions of the day count columns. The days "away from work" column now comes before the days "on job transfer or restriction."
- We've clarified the formulas for calculating incidence rates.
- We've added new recording criteria for occupational hearing loss to the "Overview" section.
- On Form 300, we've made the column heading "Classify the Case" more prominent to make it clear that employers should mark only one selection among the four columns offered.

The Occupational Safety and Health Administration shares with you the goal of preventing injuries and illnesses in our nation's workplaces. Accurate injury and illness records will help us achieve that goal.

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

What's Inside...

In this package, you'll find everything you need to complete OSHA's *Log* and the *Summary of Work-Related Injuries and Illnesses* for the next several years. On the following pages, you'll find:

- ***An Overview: Recording Work-Related Injuries and Illnesses*** — General instructions for filling out the forms in this package and definitions of terms you should use when you classify your cases as injuries or illnesses.
- ***How to Fill Out the Log*** — An example to guide you in filling out the *Log* properly.
- ***Log of Work-Related Injuries and Illnesses*** — Several pages of the *Log* (but you may make as many copies of the *Log* as you need.) Notice that the *Log* is separate from the *Summary*.

- ***Summary of Work-Related Injuries and Illnesses*** — Removable *Summary* pages for easy posting at the end of the year. Note that you post the *Summary* only, not the *Log*.

- ***Worksheet to Help You Fill Out the Summary*** — A worksheet for figuring the average number of employees who worked for your establishment and the total number of hours worked.
- ***OSHA's 301: Injury and Illness Incident Report*** — A copy of the OSHA 301 to provide details about the incident. You may make as many copies as you need or use an equivalent form.

Take a few minutes to review this package. If you have any questions, ***visit us online at www.osha.gov*** **or** ***call your local OSHA office.*** We'll be happy to help you.

An Overview: Recording Work-Related Injuries and Illnesses

The Occupational Safety and Health (OSH) Act of 1970 requires certain employers to prepare and maintain records of work-related injuries and illnesses. Use these definitions when you classify cases on the Log. OSHA's recordkeeping regulation (see 29 CFR Part 1904) provides more information about the definitions below.

The *Log of Work-Related Injuries and Illnesses* (Form 300) is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened. The *Summary* — a separate form (Form 300A) — shows the totals for the year in each category. At the end of the year, post the *Summary* in a visible location so that your employees are aware of the injuries and illnesses occurring in their workplace.

Employers must keep a *Log* for each establishment or site. If you have more than one establishment, you must keep a separate *Log* and *Summary* for each physical location that is expected to be in operation for one year or longer.

Note that your employees have the right to review your injury and illness records. For more information, see 29 Code of Federal Regulations Part 1904.35, *Employee Involvement*.

Cases listed on the *Log of Work-Related Injuries and Illnesses* are not necessarily eligible for workers' compensation or other insurance benefits. Listing a case on the *Log* does not mean that the employer or worker was at fault or that an OSHA standard was violated.

When is an injury or illness considered work-related?

An injury or illness is considered work-related if an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a preexisting condition. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the workplace, unless an exception specifically applies. See 29 CFR Part 1904.5(b)(2) for the exceptions. The work environment includes the establishment and other locations where one or more employees are working or are present as a condition of their employment. See 29 CFR Part 1904.5(b)(1).

Which work-related injuries and illnesses should you record?

Record those work-related injuries and illnesses that result in:

- death,
- loss of consciousness,
- days away from work,
- restricted work activity or job transfer, or
- medical treatment beyond first aid.

You must also record work-related injuries and illnesses that are significant (as defined below) or meet any of the additional criteria listed below.

You must record any significant work-related injury or illness that is diagnosed by a physician or other licensed health care professional. You must record any work-related case involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum. See 29 CFR 1904.7.

What are the additional criteria?

You must record the following conditions when they are work-related:

- any needlestick injury or cut from a sharp object that is contaminated with another person's blood or other potentially infectious material;
- any case requiring an employee to be medically removed under the requirements of an OSHA health standard;
- tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis.
- an employee's hearing test (audiogram) reveals 1) that the employee has experienced a Standard Threshold Shift (STS) in hearing in one or both ears (averaged at 2000, 3000, and 4000 Hz) and 2) the employee's total hearing level is 25 decibels (dB) or more above audiometric zero (also averaged at 2000, 3000, and 4000 Hz) in the same ear(s) as the STS.

What is medical treatment?

Medical treatment includes managing and caring for a patient for the purpose of combating disease or disorder. The following are not considered medical treatments and are NOT recordable:

- visits to a doctor or health care professional solely for observation or counseling;

What do you need to do?

1. Within 7 calendar days after you receive information about a case, decide if the case is recordable under the OSHA recordkeeping requirements.
2. Determine whether the incident is a new case or a recurrence of an existing one.
3. Establish whether the case was work-related.
4. If the case is recordable, decide which form you will fill out as the injury and illness incident report.

   You may use *OSHA's 301: Injury and Illness Incident Report* or an equivalent form. Some state workers compensation, insurance, or other reports may be acceptable substitutes, as long as they provide the same information as the OSHA 301.

How to work with the Log

1. Identify the employee involved unless it is a privacy concern case as described below.
2. Identify when and where the case occurred.
3. Describe the case, as specifically as you can.
4. Classify the seriousness of the case by recording the **most serious outcome** associated with the case, with column G (Death) being the most serious and column J (Other recordable cases) being the least serious.
5. Identify whether the case is an injury or illness. If the case is an injury, check the injury category. If the case is an illness, check the appropriate illness category.

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

- diagnostic procedures, including administering prescription medications that are used solely for diagnostic purposes; and
- any procedure that can be labeled first aid. (*See below for more information about first aid.*)

What is first aid?

If the incident required only the following types of treatment, consider it first aid. Do NOT record the case if it involves only:

- using non-prescription medications at non-prescription strength;
- administering tetanus immunizations;
- cleaning, flushing, or soaking wounds on the skin surface;
- using wound coverings, such as bandages, BandAids™, gauze pads, etc., or using SteriStrips™ or butterfly bandages.
- using hot or cold therapy;
- using any totally non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.;
- using temporary immobilization devices while transporting an accident victim (splints, slings, neck collars, or back boards).
- drilling a fingernail or toenail to relieve pressure, or draining fluids from blisters;
- using eye patches;
- using simple irrigation or a cotton swab to remove foreign bodies not embedded in or adhered to the eye;
- using irrigation, tweezers, cotton swab or other simple means to remove splinters or foreign material from areas other than the eye;
- using finger guards;
- using massages;
- drinking fluids to relieve heat stress

How do you decide if the case involved restricted work?

Restricted work activity occurs when, as the result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

How do you count the number of days of restricted work activity or the number of days away from work?

Count the number of calendar days the employee was on restricted work activity or was away from work as a result of the recordable injury or illness. Do not count the day on which the injury or illness occurred in this number. Begin counting days from the day after the incident occurs. If a single injury or illness involved both days away from work and days of restricted work activity, enter the total number of days for each. You may stop counting days of restricted work activity or days away from work once the total of either or the combination of both reaches 180 days.

Under what circumstances should you NOT enter the employee's name on the OSHA Form 300?

You must consider the following types of injuries or illnesses to be privacy concern cases:

- an injury or illness to an intimate body part or to the reproductive system,
- an injury or illness resulting from a sexual assault,
- a mental illness,
- a case of HIV infection, hepatitis, or tuberculosis,
- a needlestick injury or cut from a sharp object that is contaminated with blood or other potentially infectious material (see 29 CFR Part 1904.8 for definition), and
- other illnesses, if the employee independently and voluntarily requests that his or her name not be entered on the log.

You must not enter the employee's name on the OSHA 300 *Log* for these cases. Instead, enter "privacy case" in the space normally used for the employee's name. You must keep a separate, confidential list of the case numbers and employee names for the establishment's privacy concern cases so that you can update the cases and provide information to the government if asked to do so.

If you have a reasonable basis to believe that information describing the privacy concern case may be personally identifiable even though the employee's name has been omitted, you may use discretion in describing the injury or illness on both the OSHA 300 and 301 forms. You must enter enough information to identify the cause of the incident and the general severity of the injury or illness, but you do not need to include details of an intimate or private nature.

What if the outcome changes after you record the case?

If the outcome or extent of an injury or illness changes after you have recorded the case, simply draw a line through the original entry or, if you wish, delete or white-out the original entry. Then write the new entry where it belongs. Remember, you need to record the most serious outcome for each case.

Classifying injuries

An injury is any wound or damage to the body resulting from an event in the work environment.

Examples: Cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipped tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical, or radiation burn. Sprain and strain injuries to muscles, joints, and connective tissues are classified as injuries when they result from a slip, trip, fall or other similar accidents.

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

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

Classifying illnesses

Skin diseases or disorders

Skin diseases or disorders are illnesses involving the worker's skin that are caused by work exposure to chemicals, plants, or other substances.

Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; friction blisters, chrome ulcers; inflammation of the skin.

Respiratory conditions

Respiratory conditions are illnesses associated with breathing hazardous biological agents, chemicals, dust, gases, vapors, or fumes at work.

Examples: Silicosis, asbestosis, pneumonitis, pharyngitis, rhinitis or acute congestion; farmer's lung, beryllium disease, tuberculosis, occupational asthma, reactive airways dysfunction syndrome (RADS), chronic obstructive pulmonary disease (COPD), hypersensitivity pneumonitis, toxic inhalation injury, such as metal fume fever, chronic obstructive bronchitis, and other pneumoconioses.

Poisoning

Poisoning includes disorders evidenced by abnormal concentrations of toxic substances in blood, other tissues, other bodily fluids, or the breath that are caused by the ingestion or absorption of toxic substances into the body.

Examples: Poisoning by lead, mercury, cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzene, benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays, such as parathion or lead arsenate; poisoning by other chemicals, such as formaldehyde.

Hearing Loss

Noise-induced hearing loss is defined for recordkeeping purposes as a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more in either ear at 2000, 3000 and 4000 hertz, and the employee's total hearing level is 25 decibels (dB) or more above audiometric zero (also averaged at 2000, 3000, and 4000 hertz) in the same ear(s).

All other illnesses

All other occupational illnesses.

Examples: Heatstroke, sunstroke, heat exhaustion, heat stress and other effects of environmental heat; freezing, frostbite, and other effects of exposure to low temperatures; decompression sickness; effects of ionizing radiation (isotopes, x-rays, radium); effects of nonionizing radiation (welding flash, ultra-violet rays, lasers); anthrax; bloodborne pathogenic diseases, such as AIDS, HIV, hepatitis B or hepatitis C; brucellosis; malignant or benign tumors; histoplasmosis; coccidioidomycosis.

When must you post the Summary?

You must post the *Summary* only — not the *Log* — by February 1 of the year following the year covered by the form and keep it posted until April 30 of that year.

How long must you keep the Log and Summary on file?

You must keep the *Log* and *Summary* for 5 years following the year to which they pertain.

Do you have to send these forms to OSHA at the end of the year?

No. You do not have to send the completed forms to OSHA unless specifically asked to do so.

How can we help you?

If you have a question about how to fill out the *Log*,

- ❑ ***visit us online at www.osha.gov*** or
- ❑ ***call your local OSHA office.***

Optional

Calculating Injury and Illness Incidence Rates

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

What is an incidence rate?

An incidence rate is the number of recordable injuries and illnesses occurring among a given number of full-time workers (usually 100 full-time workers) over a given period of time (usually one year). To evaluate your firm's injury and illness experience over time or to compare your firm's experience with that of your industry as a whole, you need to compute your incidence rate. Because a specific number of workers and a specific period of time are involved, these rates can help you identify problems in your workplace and/or progress you may have made in preventing work-related injuries and illnesses.

How do you calculate an incidence rate?

You can compute an occupational injury and illness incidence rate for all recordable cases or for cases that involved days away from work for your firm quickly and easily. The formula requires that you follow instructions in paragraph (a) below for the total recordable cases or those in paragraph (b) for cases that involved days away from work, *and* for both rates the instructions in paragraph (c).

(a) *To find out the total number of recordable injuries and illnesses that occurred during the year,* count the number of line entries on your OSHA Form 300, or refer to the OSHA Form 300A and sum the entries for columns (G), (H), (I), and (J).

(b) *To find out the number of injuries and illnesses that involved days away from work,* count the number of line entries on your OSHA Form 300 that received a check mark in column (H), or refer to the entry for column (H) on the OSHA Form 300A.

(c) *The number of hours all employees actually worked during the year*. Refer to OSHA Form 300A and optional worksheet to calculate this number.

You can compute the incidence rate for all recordable cases of injuries and illnesses using the following formula:

Total number of injuries and illnesses x *200,000* ÷ *Number of hours worked by all employees* = *Total recordable case rate*

(The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rates.)

You can compute the incidence rate for recordable cases involving days away from work, days of restricted work activity or job transfer (DART) using the following formula:

(Number of entries in column H + Number of entries in column I) x *200,000* ÷ *Number of hours worked by all employees* = *DART incidence rate*

You can use the same formula to calculate incidence rates for other variables such as cases involving restricted work activity (column (I) on Form 300A), cases involving skin disorders (column (M-2) on Form 300A), etc. Just substitute the appropriate total for these cases, from Form 300A, into the formula in place of the total number of injuries and illnesses.

What can I compare my incidence rate to?

The Bureau of Labor Statistics (BLS) conducts a survey of occupational injuries and illnesses each year and publishes incidence rate data by various classifications (e.g., by industry, by employer size, etc.). You can obtain these published data at www.bls.gov/iif or by calling a BLS Regional Office.

Worksheet

Total number of injuries and illnesses			Number of hours worked by all employees		Total recordable case rate
[ ]	X 200,000	÷	[ ]	=	[ ]

Number of entries in Column H + Column I			Number of hours worked by all employees		DART incidence rate
[ ]	X 200,000	÷	[ ]	=	[ ]

How to Fill Out the Log

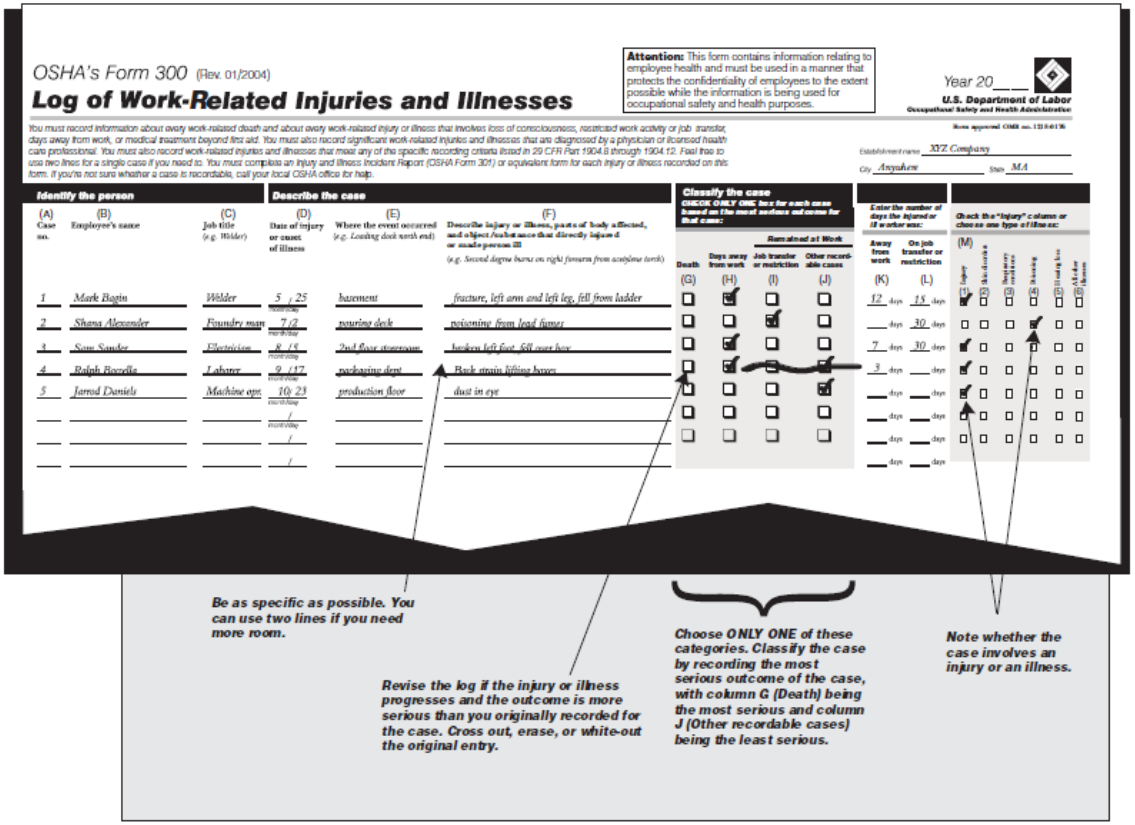
The *Log of Work-Related Injuries and Illnesses* is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened.

If your company has more than one establishment or site, you must keep separate records for each physical location that is expected to remain in operation for one year or longer.

We have given you several copies of the *Log* in this package. If you need more than we provided, you may photocopy and use as many as you need.

The *Summary* — a separate form — shows the work-related injury and illness totals for the year in each category. At the end of the year, count the number of incidents in each category and transfer the totals from the *Log* to the *Summary*. Then post the *Summary* in a visible location so that your employees are aware of injuries and illnesses occurring in their workplace.

You don't post the Log. You post only the Summary at the end of the year.



OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related 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 20___

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

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name 30Z Company
City Anywhere State MA

Identify the person			Describe the case			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:		Check the "Injury" column or choose one type of illness:						
(A) Case no.	(B) Employee's name	(C) Job title (e.g. Welder)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g. Loading dock north end)	(F) 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)	Death (G)	Days away from work (H)	Remained at Work: Job transfer or restriction (I)	Remained at Work: Other recordable cases (J)	Away from work (K)	On job transfer or restriction (L)	(M) (1) Injury	(2) Skin disorder	(3) Respiratory condition	(4) Poisoning	(5) Hearing loss	(6) All other illnesses
1	Mark Bagin	Welder	5/25	basement	fracture, left arm and left leg, fell from ladder	☐	☑	☐	☐	12 days	15 days	☑	☐	☐	☐	☐	☐
2	Shana Alexander	Foundry man	7/2	pouring deck	poisoning from lead fumes	☐	☐	☑	☐	___ days	30 days	☐	☐	☐	☑	☐	☐
3	Sam Sander	Electrician	8/15	2nd floor storeroom	broken left foot, fell over box	☐	☑	☐	☐	7 days	30 days	☑	☐	☐	☐	☐	☐
4	Ralph Beardle	Laborer	9/17	packaging dept	Back strain lifting boxes	☐	☑	☐	☑	3 days	___ days	☑	☐	☐	☐	☐	☐
5	Jarrod Daniels	Machine opr.	10/23	production floor	dust in eye	☐	☐	☐	☑	___ days	___ days	☑	☐	☐	☐	☐	☐
			/			☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
			/			☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
			/			☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐

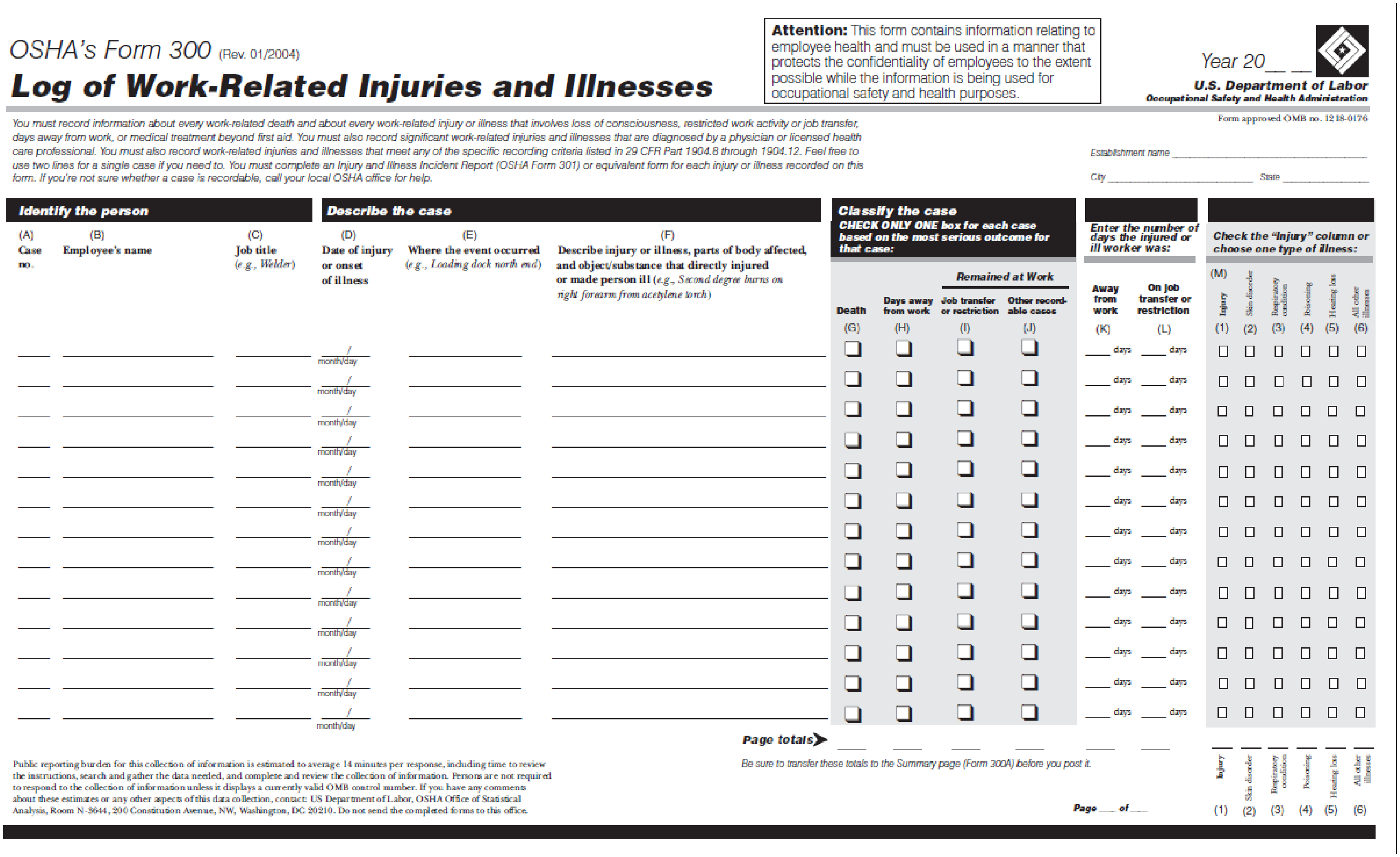
Be as specific as possible. You can use two lines if you need more room.

Revise the log if the injury or illness progresses and the outcome is more serious than you originally recorded for the case. Cross out, erase, or white-out the original entry.

Choose ONLY ONE of these categories. Classify the case by recording the most serious outcome of the case, with column G (Death) being the most serious and column J (Other recordable cases) being the least serious.

Note whether the case involves an injury or an illness.

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



OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related 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 20__ __

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

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name ______________________

City ______________________ State ______________

Identify the person			Describe the case			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:		Check the "Injury" column or choose one type of illness:					
								Remained at Work				(M)					
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g., Loading dock north end)	(F) 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)	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other record-able cases (J)	Away from work (K)	On job transfer or restriction (L)	Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
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___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
___	___	___	___/___ month/day	___	___	☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
					Page totals➤	___	___	___	___	___	___	___	___	___	___	___	___
												Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Page ___ **of** ___

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 20__ __

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

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
_____	_____	_____	_____
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
_____	_____
(K)	(L)

Injury and Illness Types

Total number of . . .
(M)

(1) Injuries _____
(2) Skin disorders _____
(3) Respiratory conditions _____
(4) Poisonings _____
(5) Hearing loss _____
(6) All other illnesses _____

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name _____

Street _____

City _____ State _____ ZIP _____

Industry description (*e.g., Manufacture of motor truck trailers*)

_____

Standard Industrial Classification (SIC), if known (*e.g., 3715*)

___ ___ ___ ___

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)

___ ___ ___ ___ ___ ___

Employment information *(If you don't have these figures, see the Worksheet on the back of this page to estimate.)*

Annual average number of employees _____

Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive _____ Title _____

( ) - Phone _____ / / Date _____

Optional

Worksheet to Help You Fill Out the Summary

At the end of the year, OSHA requires you to enter the average number of employees and the total hours worked by your employees on the summary. If you don't have these figures, you can use the information on this page to estimate the numbers you will need to enter on the Summary page at the end of the year.

How to figure the average number of employees who worked for your establishment during the year:

❶ ***Add*** the total number of employees your establishment paid in all pay periods during the year. Include all employees: full-time, part-time, temporary, seasonal, salaried, and hourly.

The number of employees paid in all pay periods = ❶ _____

❷ ***Count*** the number of pay periods your establishment had during the year. Be sure to include any pay periods when you had no employees.

The number of pay periods during the year = ❷ _____

❸ ***Divide*** the number of employees by the number of pay periods.

$\frac{❶}{❷}$ _____ = ❸ _____

❹ ***Round the answer*** to the next highest whole number. Write the rounded number in the blank marked *Annual average number of employees*.

The number rounded = ❹ _____

For example, Acme Construction figured its average employment this way:

For pay period...	Acme paid this number of employees...
1	10
2	0
3	15
4	30
5	40
▼	▼
24	20
25	15
26	+10
	830

Number of employees paid = 830 ❶

Number of pay periods = 26 ❷

$\frac{830}{26}$ = 31.92 ❸

31.92 rounds to 32 ❹

32 is the annual average number of employees

How to figure the total hours worked by all employees:

Include hours worked by salaried, hourly, part-time and seasonal workers, as well as hours worked by other workers subject to day to day supervision by your establishment (e.g., temporary help services workers).

Do not include vacation, sick leave, holidays, or any other non-work time, even if employees were paid for it. If your establishment keeps records of only the hours paid or if you have employees who are not paid by the hour, please estimate the hours that the employees actually worked.

If this number isn't available, you can use this optional worksheet to estimate it.

Optional Worksheet

_____ ***Find*** the number of full-time employees in your establishment for the year.

X _____ ***Multiply*** by the number of work hours for a full-time employee in a year.

_____ This is the number of full-time hours worked.

+ _____ ***Add*** the number of any overtime hours as well as the hours worked by other employees (part-time, temporary, seasonal)

_____ ***Round*** the answer to the next highest whole number. Write the rounded number in the blank marked *Total hours worked by all employees last year.*

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

OSHA's Form 301
Injury and Illness Incident Report

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.

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

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by _____

Title _____

Phone (_____)_____–_____ **Date** ____/ ____ / ____

Information about the employee

1) **Full name** _____

2) **Street** _____

City _____ **State** _____ **ZIP** _____

3) **Date of birth** _____ / _____ / _____

4) **Date hired** _____ / _____ / _____

5) ❒ **Male**
❒ **Female**

Information about the physician or other health care professional

6) **Name of physician or other health care professional** _____

_____

7) **If treatment was given away from the worksite, where was it given?**

Facility _____

Street _____

City _____ **State** _____ **ZIP** _____

8) **Was employee treated in an emergency room?**
❒ **Yes**
❒ **No**

9) **Was employee hospitalized overnight as an in-patient?**
❒ **Yes**
❒ **No**

Information about the case

10) **Case number from the *Log*** _____ *(Transfer the case number from the Log after you record the case.)*

11) **Date of injury or illness** _____ / _____ / _____

12) **Time employee began work** _____ **AM / PM**

13) **Time of event** _____ **AM / PM** ❒ **Check if time cannot be determined**

14) ***What was the employee doing just before the incident occurred?*** **Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific.** ***Examples:*** **"climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."**

15) ***What happened?*** **Tell us how the injury occurred.** ***Examples:*** **"When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."**

16) ***What was the injury or illness?*** **Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or sore."** ***Examples:*** **"strained back"; "chemical burn, hand"; "carpal tunnel syndrome."**

17) ***What object or substance directly harmed the employee?*** ***Examples:*** **"concrete floor"; "chlorine"; "radial arm saw."** ***If this question does not apply to the incident, leave it blank.***

18) ***If the employee died, when did death occur?*** **Date of death** _____ / _____ / _____

If You Need Help...

If you need help deciding whether a case is recordable, or if you have questions about the information in this package, feel free to contact us. We'll gladly answer any questions you have.

- **Visit us online at www.osha.gov**
- **Call your OSHA Regional office and ask for the recordkeeping coordinator**

  or
- **Call your State Plan office**

Federal Jurisdiction

Region 1 - 617 / 565-9860
Connecticut; Massachusetts; Maine; New Hampshire; Rhode Island

Region 2 - 212 / 337-2378
New York; New Jersey

Region 3 - 215 / 861-4900
DC; Delaware; Pennsylvania; West Virginia

Region 4 - 404 / 562-2300
Alabama; Florida; Georgia; Mississippi

Region 5 - 312 / 353-2220
Illinois; Ohio; Wisconsin

Region 6 - 214 / 767-4731
Arkansas; Louisiana; Oklahoma; Texas

Region 7 - 816 / 426-5861
Kansas; Missouri; Nebraska

Region 8 - 303 / 844-1600
Colorado; Montana; North Dakota; South Dakota

Region 9 - 415 / 975-4310

Region 10 - 206 / 553-5930
Idaho

State Plan States

Alaska - 907 / 269-4957

Arizona - 602 / 542-5795

California - 415 / 703-5100

*Connecticut - 860 / 566-4380

Hawaii - 808 / 586-9100

Indiana - 317 / 232-2688

Iowa - 515 / 281-3661

Kentucky - 502 / 564-3070

Maryland - 410 / 767-2371

Michigan - 517 / 322-1848

Minnesota - 651 / 284-5050

Nevada - 702 / 486-9020

*New Jersey - 609 / 984-1389

New Mexico - 505 / 827-4230

*New York - 518 / 457-2574

North Carolina - 919 / 807-2875

Oregon - 503 / 378-3272

Puerto Rico - 787 / 754-2172

South Carolina - 803 / 734-9669

Tennessee - 615 / 741-2793

Utah - 801 / 530-6901

Vermont - 802 / 828-2765

Virginia - 804 / 786-6613

Virgin Islands - 340 / 772-1315

Washington - 360 / 902-5601

Wyoming - 307 / 777-7786

*Public Sector only

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

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BIOGRAPHICAL SKETCH

Thomas Cobb was born in Miami, Florida in 1985. He graduated from Coral Gables High School in 2003 and began attending the University of Florida in the Fall of 2003. Thomas earned his bachelor's degree in criminology in 2007 and began attending the M.E. Rinker, Sr. School of Building Construction in 2008. Thomas has worked as an assistant superintendent for Austin Commercial and as an intern for Suffolk Construction.

Upon receiving his master's degree in building construction, Thomas is plans to begin his career in the construction industry as an assistant superintendent.