CHARACTERISTICS OF EMPLOYEE-INITIATED COMPLAINT INSPECTIONS OCCURRING IN WISCONSIN

by
Michael Nicks

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Thesis Chair: Dr. Hong Wang

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The University of Wisconsin-Whitewater

Thesis Approved

Michael Nicks

Date: _____

Committee Members: _____
Hong Wang, Ph.D.
Thesis Committee Chair

_____
Alvaro Taveira, Ph.D.
Thesis Committee Member

_____
Vay Rodman, Ph.D.
Thesis Committee Member

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November 14, 2008

Dr. Hong Wang, Thesis Chair

The University of Wisconsin-Whitewater

Characteristics of Employee-Initiated Complaint Inspections Occurring in Wisconsin

To ensure that U.S. employers protect employees from occupational hazards, OSHA is authorized to conduct workplace inspections. Employees have the legal right to initiate an OSHA inspection predicated on occupational hazards.

The study employed a survey research design utilizing data from OSHA's IMIS. The sample consisted of 304 programmed inspections and 285 employee-initiated complaint inspections in the state of Wisconsin for the period of June 23, 2006 to June 23, 2007, inclusive. Five independent variables were examined: 1) type of inspection, 2) establishment union status, 3) establishment size, 4) type of complaint inspection, and 5) the establishment SIC code. Six dependent variables were examined: 1) mean number of violations per inspection, 2) mean monetary penalty per violation, 3) mean monetary penalty per inspection, 4) mean number of hours spent on inspection activities, 5) mean percent monetary penalty reduction, and 6) mean percent informal conference participation. It was hypothesized that there would be significant differences between each level of each independent variable with reference to each dependent variable.

It was found that the mean informal conference participation percentage was significantly higher for programmed inspections (87.8%) than for employee-initiated complaint inspections (80.8%). It was found that the mean number of hours spent on inspection activities was significantly higher at unionized establishments (39.3 hours) than non-unionized establishments (29.4 hours). It was found that small establishments (less than 100 employees) had a significantly higher mean number of violations per inspection (6.5 violations) and significantly lower mean monetary penalties per violation

($302.53) than medium-sized establishments (between 100 and 500 employees) [2.7 violations and $578.59, respectively] and large establishments (more than 500 employees) [2.0 violations and $527.13, respectively] and that large establishments had significantly lower mean percent monetary penalty reductions (47.3%) than small establishments (34.8%). It was found that the mean number of violations per inspection was significantly higher for employee-initiated health-complaint inspections (4.8 violations) than for employee-initiated safety-complaint inspections (3.5 violations), that the mean monetary penalty per violation was significantly higher for employee-initiated safety-complaint inspections ($568.64) than for employee-initiated health-complaint inspections ($278.23), and that the mean number of hours spent on inspection activities was significantly higher for employee-initiated health-complaint inspections (37.5 hours) than for employee-initiated safety-complaint inspections (27.8 hours). It was found that manufacturing establishments had significantly lower mean percent monetary penalty reductions (35.2%) than transportation, communications, electric, gas, and sanitary services establishments (63.9%) and that retail trade establishments had significantly lower mean percent monetary penalty reductions (35.1%) than transportation, communications, electric, gas, and sanitary services establishments (63.9%).

A qualitative comparison was utilized to construct possible strategies to prevent or mitigate employee-initiated complaints for the three independent variables that can easily be influenced by an employer: type of inspection, union status, and type of employee-initiated complaint inspection.

CHAPTER I

Introduction

To ensure that U.S. employers protect their employees from occupational hazards, the Occupational Safety and Health Administration (OSHA) is authorized to conduct workplace inspections (Occupational Safety and Health Act [OSH Act] of 1970). Inspections are categorized as either programmed or unprogrammed (OSHA, 1994a). Programmed inspections are scheduled inspections predicated on selection criteria, whereas unprogrammed inspections are unscheduled inspections in response to hazardous occupational conditions such as imminent dangers, fatalities, catastrophes, complaints, or referrals (OSHA, 1994a). Section 8(f)(1) of the OSH Act of 1970 provides employees or a representative of employees with a mechanism to initiate an OSHA inspection. Thus, if an employee or a representative of employees believes that a violation of a safety or health standard exists, which may produce physical harm, an inspection may be initiated by notifying the Secretary of Labor or a representative (i.e., OSHA) of the hazard [29 C.F.R. §1903.11 is the OSHA standard that outlines the general regulatory complaint procedures that are mandated by the OSH Act of 1970 (Labor, 2006a)] (OSH Act of 1970). For purposes of internal agency data encoding, complaints are further bifurcated into safety complaints (predominantly safety-related) and health complaints [predominantly health-related] (OSHA, 1994b). Appendix A contains the OSH Act of 1970 sections that pertain to employee rights to file complaints with OSHA.

CHAPTER II

History of Complaint Policies and Procedures

Excluding the most current complaint policy and procedures, there are at least 11 previous complaint policies and procedures that spanned from November 1971 to June 1996. However, a Freedom of Information Act request to the OSHA Directorate of Enforcement programs produced only eight of the 11 complaint policies and procedures (the Field Information Memorandum #76-9 of March 5, 1976, the Field Information Memorandum #76-20, and the various revisions of the Field Operations Manual (FOM) were not located, so these will not be summarized). The major deviations of each of the previous eight complaint policies and procedures with the present complaint policy and procedures are delineated below.

Compliance Operations Manual-November 15, 1971.

The major deviation of the Compliance Operations Manual is that if time and resources permit, the inspection must be comprehensive; however, if time and resources do not permit, the inspection must cover complaint items unless it is believed that similar conditions exist in other areas of the establishment (OSHA, 1971).

OSHA Instruction CPL 2.12-December 1, 1977.

The major deviations of OSHA Instruction CPL 2.12 are delineated below:

1) Regardless of the source or method of receipt, all complaints must be reviewed and evaluated by the Area Director for safety and health repercussions, for classification as imminent danger, serious, or other-than-serious, and for scheduling of an inspection (OSHA, 1977).

2) All complaints classified as serious must be scheduled for inspection after imminent danger and fatality/catastrophe inspections, must be inspected within three working days (otherwise delay justification must be noted), and must encompass the entire establishment (time and resources, permitted), unless there was a recent inspection and similar complaint items do not exist in other areas of the establishment (OSHA, 1977).

3) All complaints classified as other-than-serious must be classified as formal or nonformal complaints (OSHA, 1977).

4) Formal complaints must be scheduled for inspection after fatality/catastrophe and serious-complaint inspections and must be inspected within 20 working days (OSHA, 1977). Nonformal complaints must be scheduled for inspection within 20 working days (if 30 working days have lapsed, an employer participation letter may be sent to the employer) and must be limited to the complaint items (OSHA, 1977).

5) Nonformal complaints that are not investigated within 40 working days must be reevaluated to determine whether the complaint item still exists and must consider the industry's incident rate (OSHA, 1977).

OSHA Instruction CPL 2.12A-September 1, 1979.

The major deviations of OSHA Instruction CPL 2.12A are delineated below:

1) A letter must be sent to the complainant informing the complainant of the letter sent to the employer and instructions informing the complainant to notify OSHA if corrective action has not been taken within 30 calendar days or if an adverse action has been made against the complainant (OSHA, 1979). If an employer fails to respond or responds with an inadequate action within the specified period or if the complainant informs OSHA that

corrective action has not been taken within 30 calendar days, an inspection must be scheduled per Chapters VIII and XI of the FOM (OSHA, 1979).

2) For every tenth employer abatement letter, the Area Director must schedule an inspection within 30 calendar days limited to the complaint items (OSHA, 1979).

3) For nonformal complaints that involve imminent danger or an extremely serious working condition, an inspection must be conducted within 24 hours (OSHA, 1979).

4) Predicated on agency experience and efficient agency resource utilization, complaint inspections in high-hazard industries must be comprehensive (OSHA, 1979).

5) Prior to an inspection of a complaint that is more than 20 working days old, the complainant must be contacted to ascertain the status of the hazard; if the hazard has been abated, a letter must be sent to the complainant informing the complainant that an inspection will not be conducted (OSHA, 1979).

OSHA Instruction CPL 2.12B-February 1, 1982.

The major deviations of OSHA Instruction CPL 2.12B are delineated below:

1) Complaints classified as serious must be inspected within 5 working days (OSHA, 1982).

2) Complaints classified as other-than-serious must be inspected within 30 working days (OSHA, 1982).

3) If a complaint does not establish that threatening physical harm or an imminent danger exists, an inspection will not be conducted (OSHA, 1982).

OSHA Instruction CPL 2.12C-July 25, 1983.

OSHA Instruction CPL 2.12C is identical to OSHA Instruction CPL 2.12B and is incorporated into Chapter IX of OSHA Instruction CPL 2.45A [the revised FOM] (OSHA, 1983). Thus, the aforementioned major deviations of OSHA Instruction CPL 2.12B are identical to the major deviations of OSHA Instruction CPL 2.12C.

OSHA Instruction CPL 2.45B-June 15, 1989.

The major deviations of OSHA Instruction CPL 2.45B are delineated below:

1) If the signed OSHA-7 form or letter is not returned within 10 working days, the complaint will be changed to a nonformal complaint (OSHA, 1989). If the signed OSHA-7 form or letter arrives after 10 working days and the employer has not been contacted, the complaint will be classified as a formal complaint (OSHA, 1989).

2) Serious, formal complaints must be investigated within 30 working days of the receipt of the complaint, and other-than-serious, formal complaints must be investigated within 120 working days of the receipt of the complaint;

3) If resources do not allow investigations per the aforementioned timeframes, a letter must be sent to the complainant explaining the delay and indicating when an inspection may occur (OSHA, 1989).

OSHA Instruction CPL 2.103-September 26, 1994.

OSHA Instruction CPL 2.103 is identical to OSHA Instruction CPL 2.45B and is incorporated into Chapter I, Subsection C of the present OSHA Instruction (OSHA, 1994). Thus, the aforementioned major deviations of OSHA Instruction CPL 2.45B are identical to the major deviations of OSHA Instruction CPL 2.103.

OSHA Instruction CPL 2.115-June 14, 1996.

The major deviations of OSHA Instruction CPL 2.115 are delineated below:

1) The terms "formal complaints" and "nonformal complaints" are not used; instead, the terms "complaint inspections" and "complaint investigations" are used (OSHA, 1996).

2) A complaint investigation is conducted for complaints that do not meet the specified complaint inspection criteria (OSHA, 1996). A complaint investigation consists of OSHA informing the employer about the alleged hazards via telephone or fax or by letter and requires a written response within five working days (OSHA, 1996).

OSHA Instruction CPL 02-00-140-June 23, 2006.

The major provisions of the current complaint policies and procedures are delineated below.

Pertinent changes to the current complaint policy and procedures include the revised definition of the term complaint and the reinstatement of the delineation between non-formal and formal complaints (OSHA, 2006a). The term complaint is defined as "notice of an alleged safety or health hazard (over which OSHA has jurisdiction), or a violation of the Act, submitted by a past or present employee or representative of employees" (OSHA, 2006a, ¶ VII). A non-formal complaint is defined as "Any complaint alleging safety or health violations that does not meet all of the requirements of a formal complaint identified above and does not come from one of the sources identified under *Referral* in VII.H. below" (OSHA, 2006a, ¶ VII). A formal complaint is defined as a

> Complaint made by a current employee or a representative of employees that meets all of the following requirements:
>
> 1. Asserts that an imminent danger, a violation of the Act, or violation of an OSHA standards [sic] exposing employees to physical harm exists in the workplace;
>
> 2. Is reduced to writing or submitted on an OSHA-7 form; and
>
> 3. Is signed by at least one current employee or employee representative. (OSHA, 2006a, ¶ VII)

For an inspection to commence, predicated on a complaint, at least one of the following criteria must be met:

1) a valid, formal complaint must be submitted,

2) an alleged disabling injury or illness has occurred because of the hazard, and it is believed that the hazard still exists,

3) an imminent danger condition exists,

4) the establishment and alleged hazard are covered by a local, regional, or national emphasis program, the Site Specific Targeting Plan, or OSHA's current strategic plan,

5) the employer does not provide an adequate response to an OSHA inquiry, or the complainant provides evidence that the employer's response is insufficient or false

6) the establishment has a history of egregious, willful, failure-to-abate, or repeat citations within the past three years,

7) an inspection is requested by an 11(c) investigator in response to employee discrimination predicated upon safety or health condition complaints,

8) an inspection is scheduled or has commenced at the establishment and the area office receives a non-formal complaint, and the information pertaining to the non-formal complaint may be incorporated into the scheduled or ongoing inspection,

9) it is reasonable to believe that an employee under 18 years of age is exposed to a serious safety or health hazard, or

10) a written, signed complaint from a current employee or employee representative alleging a recordkeeping deficiency, which may signify a serious safety or health hazard (OSHA, 2006a).

A complaint that does not meet one of the aforementioned criteria to warrant an inspection is handled via an inquiry (OSHA, 2006a). An inquiry consists of OSHA informing the employer about the alleged hazards via telephone or fax or by letter and requires a written response within five working days (OSHA, 2006a). If the employer does not provide a written response or the written response is insufficient, an inspection may be scheduled (OSHA, 2006a). Refer to the Appendix B for OSHA Instruction CPL 02-00-140.

CHAPTER III

Why Study Employee-Initiated Complaints?

There are two reasons to study employee-initiated complaints: the magnitude of the issue is enormous and the issue has not been studied extensively.

The following statistics were obtained via the Integrated Management Information System (IMIS), which is OSHA's database that contains data pertaining to over 2.5 million inspections that have been conducted since 1972 in Federal OSHA and state plan states (OSHA, 2006b; OSHA, 1994b).

From June 23, 1996 to June 23, 2006, there were 60,382 employee-initiated complaints, resulting in 172,340 violations and $128,324,952 in monetary penalties. During this same time period, the mean number of violations per employee-initiated complaint inspection was 4.2, the mean monetary penalty per violation resulting from an employee-initiated complaint was $744.60, and the mean monetary penalty per inspection resulting from an employee-initiated complaint was $2,125.22. The aforementioned statistics indicate that employee-initiated complaint inspections are an enormous issue, particularly regarding monetary penalties.

Weil and Pyles (2006) conducted a study to determine the reason(s) employees file complaints with OSHA. Weil and Pyles (2006) examined 80,413 employee-initiated complaints nationwide from 2001 to 2004 and found that OSHA violations were positively correlated with employee-initiated complaints. However, OSHA violations only accounted for 25 to 29% of the variability in OSHA complaint rates [i.e., there are other variables besides OSHA violations that account for the remaining 71 to 75% of

variability in OSHA complaint rates] (Weil & Pyles, 2006). Thus, 71 to 75% of the variability in OSHA complaint rates was unaccounted for.

Similarly, the U.S. General Accounting Office [GAO] (2004) conducted a study to determine, among other issues, to what degree employee-initiated complaints resulting in inspections led to identification of serious hazards. The GAO (2004) found that approximately one-half of inspections initiated via employee complaints, resulted in serious violations. Correspondingly, the GAO (2004) found a positive, albeit, weak correlation between injury and illness rates per 100 full-time workers and complaint inspections per 100 full-time workers.

The Weil and Pyles (2006) study and the GAO (2004) report indicate that further study is needed in this field of occupational safety since only 25 to 50% of employee-initiated complaint variability was accounted for.

The Present Study's Rationale

The general statistics pertaining to employee-initiated complaint inspections, the Weil and Pyles (2006) study, and the GAO (2004) report demonstrate the need to study employee-initiated complaints that result in inspections in general industry. However, to fully uncover the remaining variability (i.e., reasons) for employee-initiated complaints to OSHA, the differences among and between employee-initiated complaint inspections must be investigated. Only then can the underlying reasons driving employee-initiated complaints be investigated. Thus, the present study will focus on identifying differences among and between employee-initiated complaint inspections and not the underlying reasons driving employee-initiated complaints. The broad goals of the study are: 1) to

lay the foundation for future research to identify more differences among and between employee-initiated complaint inspections and 2) to provide employers with valuable information to qualify and quantify approximate employee-initiated complaint inspection ramifications and identify and develop customized strategies to the prevent or mitigate the concomitant ramifications.

CHAPTER IV

Literature Review

A scant number of studies (i.e., five) have been conducted to ascertain the characteristics of employee-initiated complaint inspections. Thus, the literature review will focus on the five studies that examined employee-initiated complaint inspections.

As previously mentioned, Weil and Pyles (2006) conducted a study to determine the reason(s) employees file complaints with OSHA and if there were substantial differences between specific industries for the following dependent variables: 1) employee complaint rate per 100,000 employees, 2) injury/illness rate per 100,000 employees, and 3) the number of injuries/illnesses per complaint case conducted. Weil and Pyles (2006) found that OSHA violations were positively correlated with employee-initiated complaints. The correlations between OSHA violations and employee-initiated complaints ranged from 0.50 to 0.54 (Weil & Pyles, 2006). Thus, OSHA violations accounted for 25 to 29% of the variability in OSHA complaint rates, as mentioned previously (Weil & Pyles, 2006). Additionally, Weil and Pyles (2006) found substantial differences between specific industries for all dependent variables. Table 1 displays the employee complaint rates per 100,000 employees and injury/illness rates per 100,000 employees, and Table 2 displays the number of injuries/illnesses per complaint case conducted for the examined industries. It must be noted, however, that Weil and Pyles (2006) did not conduct statistical tests to determine if the differences were statistically significant. Thus, it is difficult to ascertain whether the differences were due to chance or a significant difference.

Scherer and Owen (1995) conducted a study to determine if there were significant differences between programmed inspections and employee-initiated complaint inspections for the following dependent variables: 1) lost workday injury rate, 2) whether an employee walkaround was conducted, 3) union status, 4) number of inspection hours, 5) number of employees, 6) number of violations, 7) informal settlement percentage, 8) penalty reduction, and 9) penalty remitted. Scherer and Owen (1995) examined 3,000 programmed inspections and 3,000 employee-initiated complaint inspections nationwide from 1972 to 1991 and found significant differences between programmed inspections and complaint inspections for all nine of the dependent variables. Table 3 displays the results pertaining to lost workday injury rate, number of inspection hours, number of employees, number of violations, informal settlement percentage, penalty reduction, and penalty remitted between programmed inspections and employee-initiated complaint inspections. Additionally, Scherer and Owen (1995) found that the probability of having union status and whether employee walkarounds were conducted was significantly higher for employee-initiated complaint inspections than for programmed inspections.

Weil (1991) conducted a study to determine if there were significant differences between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments for the following dependent variables: 1) whether an employee walkaround was conducted, 2) inspection duration (hour/employee), 3) violations per employee, 4) monetary penalty per violation, and 5) type of inspection (physical inspection or no physical inspection). Weil (1991) examined an unspecified number of manufacturing

establishments nationwide for 1986 and found substantial or significant differences between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments for all dependent variables. Tables 4, 5, 6, 7, and 8 display the results pertaining to whether an employee walkaround was conducted, inspection duration (hour/employee), violations per employee, monetary penalty per violation, and type of inspection (physical inspection or no physical inspection), respectively. It must be noted, however, that Weil (1991) did not conduct tests to determine if the differences between whether an employee walkaround was conducted and the type of inspection (physical inspection or no physical inspection) were statistically significant. Thus, it is difficult to ascertain whether the differences were due to chance or a significant difference.

Scherer, Kaufman, and Ainina (1993a) conducted a study to determine if there were significant differences between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments for the following dependent variables: 1) number of inspection hours, 2) violations per covered employee, 3) whether an employee walkaround was conducted, 4) lost workday injury rate, 5) penalty reduction, 6) investigation length, and 7) whether an informal settlement occurred. Scherer et al. (1993a) examined 5,304 unionized manufacturing establishments and 9,992 non-unionized manufacturing establishments nationwide from 1972 to 1990 and found significant differences between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-

unionized establishments for all seven of the dependent variables. Table 9 displays the results pertaining to the number of inspection hours, violations per covered employee, lost workday injury rate, penalty reduction, and investigation length between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments. Additionally, Scherer et al. (1993a) found that the probability of employee walkarounds and informal settlements was significantly higher for employee-initiated complaint inspections occurring at unionized establishments than for employee-initiated complaint inspections occurring at non-unionized establishments.

Scherer, Kaufman, and Ainina (1993b) conducted a study to determine if there were significant differences between employee-initiated complaint inspections occurring at small establishments (fewer than 100 employees) and employee-initiated complaint inspections occurring at large establishments (more than 500 employees) for the following dependent variables: 1) number of inspection hours, 2) violations per covered employee, 3) whether an employee walkaround was conducted, 4) lost workday injury rate, 5) penalty reduction, 6) investigation length, and 7) whether an informal settlement occurred. Scherer et al. (1993b) examined 7,442 small manufacturing establishments and 4,226 large manufacturing establishments nationwide from 1972 to 1990 and found significant differences between employee-initiated complaint inspections occurring at small establishments and employee-initiated complaint inspections occurring at large establishments for all dependent variables except investigation length. Table 10 displays the results pertaining to the number of inspection hours, violations per covered employee,

lost workday injury rate, penalty reduction, and investigation length between employee-initiated complaint inspections occurring at small establishments and employee-initiated complaint inspections occurring at large establishments. Additionally, Scherer et al. (1993b) found that the probability of employee walkarounds was significantly higher for employee-initiate complaint inspections at large establishments than for employee-initiated complaint inspections occurring at small establishments, and the probability of informal settlements was significantly higher for employee-initiated complaint inspections occurring at small establishments than for employee-initiated complaint inspections occurring at large establishments.

The aforementioned studies contained several limitations apiece, which are summarized below:

1) outdated employee-initiated complaint inspections were examined (Weil, 1991; Weil & Pyles, 2006; Scherer & Owen, 1995; Scherer, et al., 1993a; Scherer, et al., 1993b).

2) employee-initiated complaint inspections occurring during the previous OSHA complaint policy and procedures directive(s) were examined [i.e., results may be outdated and difficult to interpret] (Weil, 1991; Weil & Pyles, 2006; Scherer & Owen, 1995; Scherer et al.,1993a; Scherer et al., 1993b).

3) specific Standard Industrial Classification (SIC) codes were not examined [i.e., only generic industries were examined] (Weil & Pyles, 2006).

4) overwhelmingly manufacturing establishments were examined (Weil, 1991; Scherer & Owen, 1995; Scherer et al., 1993a; Scherer et al., 1993b).

4) key outcome variables were not examined [i.e., mean number of violations per inspection, mean monetary penalty per violation, mean monetary penalty per inspection, mean number of hours spent on inspection activities, mean percent monetary penalty reduction, and mean percent informal conference participation] (Weil & Pyles, 2006) [i.e., mean monetary penalty per violation and mean monetary penalty per inspection] (Weil, 1991; Scherer & Owen, 1995; Scherer et al.,1993a; Scherer et al., 1993b).

Currently, studies that investigate the different characteristics between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections or the different characteristics between SIC codes do not exist. Given that only five studies have been conducted examining the characteristics of employee-initiated complaint inspections and given the aforesaid information, it is imperative that more studies be conducted to ascertain the characteristics of employee-initiated complaint inspections. Specifically, the different characteristics between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections and the different characteristics between SIC codes necessitate investigation. More in-depth investigation is crucial because if there are real-world and statistically significant differential characteristics between the subcategories of the forthcoming independent variables, employers may utilize this information to identify and develop customized strategies to mitigate employee-initiated complaints to OSHA and/or be capable of handling OSHA inspections predicated on employee complaints more efficiently.

CHAPTER V

Background Statistics

The following statistics were obtained via the IMIS.

From June 23, 1996 to June 23, 2006, inclusive, there were 3,183 general industry employee-initiated complaint inspections in Wisconsin. During the same time period, there were 3,994 programmed and unprogrammed (excluding employee-initiated complaint inspections) general industry inspections. This comparison portrays the near parity of employee-initiated complaint inspection totals compared to all other inspection totals combined.

Programmed Inspections versus Employee-Initiated Complaint Inspections

Table 11 displays the statistics pertaining to programmed inspections and employee-initiated complaint inspections that occurred in general industry in Wisconsin from June 23, 1996 to June 23, 2006, inclusive. As Table 11 demonstrates there were slight to moderate differences between programmed inspections and employee-initiated complaint inspections. However, significant differences were not calculated since the underlying data were not obtained.

Employee-initiated complaint inspections occurring at Unionized Establishments versus Employee-initiated complaint inspections occurring at Non-Unionized Establishments

Table 12 displays the statistics pertaining to employee-initiated complaint inspections conducted at unionized establishments and employee-initiated complaint inspections conducted at non-unionized establishments that occurred in general industry in Wisconsin from June 23, 1996 to June 23, 2006, inclusive. As Table 12 demonstrates,

there were slight to substantial differences between employee-initiated complaint inspections conducted at unionized establishments and employee-initiated complaint inspections conducted at non-unionized establishments. However, significant differences were not calculated since the underlying data were not obtained.

Employee-initiated complaint inspections occurring at Small Establishments versus Employee-initiated complaint inspections occurring at Medium-Sized Establishments versus Employee-initiated complaint inspections occurring at Large Establishments

Table 13 displays the statistics pertaining to employee-initiated complaint inspections conducted at small establishments (fewer than 100 employees), employee-initiated complaint inspections conducted at medium-sized establishments (between 100 and 500 employees), and employee-initiated complaint inspections conducted at large establishments (greater than 500 employees) that occurred in general industry in Wisconsin from June 23, 1996 to June 23, 2006, inclusive. As Table 13 demonstrates, there were slight to substantial differences between employee-initiated complaint inspections conducted at small establishments, employee-initiated complaint inspections conducted at medium-sized establishments, and employee-initiated complaint inspections conducted at large establishments. However, significant differences were not calculated since the underlying data were not obtained.

Employee-Initiated Safety-Complaint Inspections versus Employee-Initiated Health-Complaint Inspections

Table 14 displays the statistics pertaining to employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections that occurred in general

industry in Wisconsin from June 23, 1996 to June 23, 2006, inclusive. As Table 14 demonstrates, there were slight to substantial differences between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections. However, significant differences were not calculated since the underlying data were not obtained.

Employee-initiated complaint inspections occurring at Different SIC Coded Establishments

Table 15 displays the statistics pertaining to employee-initiated complaint inspections occurring at the six different SIC coded establishment types (i.e., manufacturing; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance insurance, and real estate; and services). The SIC codes 1011 to 1499 and 9111 to 9999 (i.e., mining and public administration and nonclassifiable establishments, respectively) were not examined because OSHA does not have jurisdiction over these industries. The SIC codes 0111 to 0971 and 1521 to 1799 (i.e., construction and agriculture, forestry, and fishing, respectively) were not examined because the scope of this study only includes general industry establishments. As Table 15 demonstrates, there were slight to substantial differences between employee-initiated complaint inspections occurring at the six different SIC coded establishment types. However, significant differences were not calculated since the underlying data were not obtained.

CHAPTER VI

Research Objectives

There are three main objectives of this study: 1) to modify the earlier studies by ameliorating the aforementioned limitations (i.e., examining a more representative proportion of manufacturing establishments, examining current programmed inspections and employee-initiated complaint inspections, and including employee-initiated complaint inspections occurring at medium-sized establishments in the examination of establishment size), 2) to ascertain the outcome differences between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections, and 3) to ascertain the outcome differences between the six different SIC coded establishment types.

To accomplish objective number one, a combination of manufacturing and other types of establishment will be examined, current programmed inspections and employee-initiated complaint inspections will be examined, employee-initiated complaint inspections occurring at medium-sized establishments will be examined, and two new dependent variables will be examined: 1) mean monetary penalty per violation and 2) mean monetary penalty per inspection. Dependent variables pertaining to injury/illness rates and lost workday injury rates were not included in the present study because these data may be entered into the IMIS sporadically. The dependent variable pertaining to whether an employee walkaround was conducted was not included in the present study since nearly all employees utilize this right.

To accomplish objective number two, one new independent variable will be examined: type of employee-initiated complaint inspection (i.e., employee-initiated safety-complaint inspection or employee-initiated health-complaint inspection).

To accomplish objective number three, one new independent variable will be examined: SIC coded establishment type (i.e., manufacturing; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance insurance, and real estate; and services).

CHAPTER VII

Method

Research Design

The study will utilize a survey research design. The rationale for using a survey research design is that the study will attempt to gather data about employee-initiated complaint inspection characteristics. The survey will be semi-longitudinal since changes will be tracked over a one-year period of time.

Sample

The sample will consist of all employee initiated complaints resulting in inspections in the state of Wisconsin for the period of June 23, 2006 to June 23, 2007, inclusive. All data pertaining to the sample will be obtained via the IMIS.

Procedure

To be included in the study, an employee of a general industry establishment must initiate a formal complaint resulting in an OSHA inspection. Since OSHA's current complaint policies and procedures (OSHA Instruction CPL 02-00-140) are effective June 23, 2006, sample data will be collected for the period of June 23, 2006 to June 23, 2007, inclusive, for all employee-initiated complaints inspections in Wisconsin to obtain the most representative and reliable data. However, to ensure that informal settlement data are obtained for the sample, data collection (exclusively for informal settlement data of included employee-initiated complaint inspections occurring between June 23, 2006 and June 23, 2007, inclusive) will conclude 15 working days after June 23, 2007, inclusive, (i.e., until July, 16, 2007, inclusive) predicated on OSHA contest notification procedures

(Labor, 2006b). As previously mentioned, five independent variables will be examined: 1) type of inspection (programmed or complaint), 2) establishment union status (unionized or non-unionized), 3) establishment size (small, medium-sized, or large), 4) type of complaint inspection (safety or health), and 5) the SIC coded establishment types. Six dependent variables for each of the independent variables will be examined: 1) mean number of violations per inspection, 2) mean monetary penalty per violation, 3) mean monetary penalty per inspection, 4) mean number of hours spent on inspection activities, 5) mean percent monetary penalty reduction, and 6) mean percent informal conference participation.

Hypotheses

Since the amount of research pertaining to employee-initiated complaint inspections in general industry is sparse to nonexistent, specific hypotheses could not be formulated. Thus, more generalized hypotheses will be formulated, specifically that there will be significant differences between the different levels of each independent variable in relation to each dependent variable. The generalized hypotheses are listed below:

It is hypothesized that there will be significant differences between programmed inspections and employee-initiated complaint inspections with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

It is hypothesized that there will be significant differences between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

It is hypothesized that there will be significant differences between employee-initiated complaint inspections occurring at small establishments, employee-initiated complaint inspections occurring at medium-sized establishments, and employee-initiated complaint inspections occurring at large establishments with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

It is hypothesized that there will be significant differences between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

It is hypothesized that there will be significant differences between employee-initiated complaint inspections occurring at manufacturing establishments, employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments, employee-initiated complaint inspections occurring at wholesale trade establishments, employee-initiated complaint inspections occurring at retail trade establishments, employee-initiated complaint inspections occurring at finance, insurance, and real estate establishments, and employee-initiated complaint inspections occurring at services establishments with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

Possible Limitations of the Present Study

It is expected that the present study will possess at least nine limitations, which are listed below:

The first limitation of the present study is that the duration will only encompass one year. The short duration of the present study may preclude a representative sample of the total inspection population.

The second limitation of the present study is that only a limited number of establishments will be examined for programmed inspections versus employee-initiated complaint inspections, and an even more limited number of establishments will be examined for employee-initiated complaint inspections. The limited sample size of the present study may preclude a representative sample of the total inspection population.

The third limitation in the present study is that the geographical area of the present study will only include Wisconsin. The limited geographical area of the present study may preclude a representative sample of the total inspection population.

The fourth limitation in the present study is that only general industry establishments will be examined. The lack of examining industries other than general industry in the present study may preclude a representative sample of the total OSHA inspection population.

The fifth limitation of the present study is that only private sector establishments will be examined. The lack of examining public sector establishments in the present study may preclude a representative sample of the total OSHA inspection population.

The sixth limitation of the present study is that only Federal OSHA establishments will be examined (i.e., state-plan state establishments will be excluded). The lack of examining state-plan state establishments in addition to Federal OSHA establishments may preclude a representative sample of the total inspection population.

The seventh limitation of the present study is that independent and dependent variable interactions will not be accounted for. The lack of accounting for independent and dependent variable interactions in the present study may simplify and dismiss many of the complex relationships in the data.

The eighth limitation of the present study is that independent and dependent variables will not be weighted to reflect their concomitant contributions to the results. The lack of weighting of independent and dependent variables may also simplify and dismiss many of the complex relationships in the data.

The ninth limitation of the present study is that some data are missing from the IMIS. The lack some data may preclude an accurate and precise statistical analysis.

CHAPTER VIII

Results

As previously stated, there are three main objectives of this study: 1) to modify the earlier studies by ameliorating the aforementioned limitations, 2) to ascertain the outcome differences between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections, and 3) to ascertain the outcome differences between the six different SIC coded establishment types.

Descriptive Statistics

Programmed plus employee-initiated complaint inspections. From June 23, 2006 to June 23, 2007, inclusive, the total number of programmed plus employee-initiated complaint inspections in general industry in Wisconsin was 589. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for programmed plus employee-initiated complaint inspections in general industry in Wisconsin was 2,396. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for programmed plus employee-initiated complaint inspections in general industry in Wisconsin was $1,152,968.57. Table 16 displays the statistics pertaining to all programmed plus employee-initiated complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 16 corresponds to each dependent variable examined with respect to all programmed plus employee-initiated complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Programmed inspections. From June 23, 2006 to June 23, 2007, inclusive, the total number of programmed inspections in general industry in Wisconsin was 304. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for programmed inspections in general industry in Wisconsin was 1,233. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for programmed inspections in general industry in Wisconsin was $649,158.20. Table 17 displays the statistics pertaining to programmed inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 17 corresponds to each dependent variable examined with respect to programmed inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections in general industry in Wisconsin was 285. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections in general industry in Wisconsin was 1,163. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections in general industry in Wisconsin was $503,810.37. Table 18 displays the statistics pertaining to employee-initiated complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 18 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections in general

industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at unionized establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at unionized establishments in general industry in Wisconsin was 74. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at unionized establishments in general industry in Wisconsin was 242. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at unionized establishments in general industry in Wisconsin was $159,243.37. Table 19 displays the statistics pertaining to employee-initiated complaint inspections occurring at unionized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 19 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at unionized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at non-unionized establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at non-unionized establishments in general industry in Wisconsin was 211. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at

non-unionized establishments in general industry in Wisconsin was 242. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at non-unionized establishments in general industry in Wisconsin was $344,567.00. Table 20 displays the statistics pertaining to employee-initiated complaint inspections occurring at non-unionized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 20 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at non-unionized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at small establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at small establishments in general industry in Wisconsin was 123. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at small establishments in general industry in Wisconsin was 803. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at small establishments in general industry in Wisconsin was $233,076.87. Table 21 displays the statistics pertaining to employee-initiated complaint inspections occurring at small establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 21 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at small

establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at medium-sized establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at medium-sized establishments in general industry in Wisconsin was 61. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at medium-sized establishments in general industry in Wisconsin was 162. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at medium-sized establishments in general industry in Wisconsin was $100,855.50. Table 22 displays the statistics pertaining to employee-initiated complaint inspections occurring at medium-sized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 22 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at medium-sized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at large establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at large establishments in general industry in Wisconsin was 101. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at large establishments in general

industry in Wisconsin was 198. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at large establishments in general industry in Wisconsin was $169,878.00. Table 23 displays the statistics pertaining to employee-initiated complaint inspections occurring at large establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 23 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at large establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated safety-complaint inspections. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated safety-complaint inspections in general industry in Wisconsin was 160. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated safety-complaint inspections in general industry in Wisconsin was 559. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated safety-complaint inspections in general industry in Wisconsin was $316,241.00. Table 24 displays the statistics pertaining to employee-initiated safety-complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 24 corresponds to each dependent variable examined with respect to employee-initiated safety-complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated health-complaint inspections. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated health-complaint inspections in general industry in Wisconsin was 125. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated health-complaint inspections in general industry in Wisconsin was 604. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated health-complaint inspections occurring at unionized establishments in general industry in Wisconsin was $187,569.37. Table 25 displays the statistics pertaining to employee-initiated health-complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 25 corresponds to each dependent variable examined with respect to employee-initiated health-complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at manufacturing establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at manufacturing establishments in Wisconsin was 197. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at manufacturing establishments in Wisconsin was 890. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at manufacturing establishments in Wisconsin was $395,914.37. Table 26 displays the statistics pertaining to employee-initiated complaint inspections occurring at

manufacturing establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 26 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at manufacturing establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments in Wisconsin was 26. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments in Wisconsin was 61. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at in Wisconsin was $30,930.50. Table 27 displays the statistics pertaining to employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 27 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at wholesale trade establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at wholesale trade establishments in Wisconsin was 16. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at wholesale trade establishments in Wisconsin was 45. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at wholesale trade establishments in general industry in Wisconsin was $14,897.50. Table 28 displays the statistics pertaining to employee-initiated complaint inspections occurring at wholesale trade establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 28 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at wholesale trade establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at retail trade establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at retail trade establishments in Wisconsin was 19. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at retail trade establishments in general industry in Wisconsin was 67. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at wholesale trade establishments in Wisconsin was $24,775.00. Table 29

displays the statistics pertaining to employee-initiated complaint inspections occurring at retail trade establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 29 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at retail trade establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive and is divided into arbitrary numerical or non-numerical categories.

Employee-initiated complaint inspections occurring at finance, insurance, and real estate establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at finance, insurance, and real estate establishments in Wisconsin equaled one. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations per inspection, total penalty per violation, and total monetary penalty per inspection for the employee-initiated complaint inspection occurring at finance, insurance, and real estate establishments in Wisconsin equaled zero. From June 23, 2006 to June 23, 2007, inclusive, the total number of hours per inspection for the employee-initiated complaint inspection occurring at finance, insurance, and real estate establishments in Wisconsin equaled 26. From June 23, 2006 to June 23, 2007, the mean percent monetary penalty reduction for the employee-initiated complaint inspection occurring at finance, insurance, and real estate establishments in Wisconsin was not calculated since a total monetary penalty was not assessed for this inspection. From June 23, 2006 to June 23, 2007, the mean informal conference participation percentage for the employee-initiated complaint inspections occurring at finance, insurance, and real estate establishments in Wisconsin was not calculated since an informal conference was not

conducted. It should be noted that since there was only one employee-initiated complaint inspection occurring at finance, insurance, and real estate establishments in Wisconsin, a table was not created to display the data.

Employee-initiated complaint inspections occurring at services establishments. From June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated complaint inspections occurring at services establishments in Wisconsin was 26. From June 23, 2006 to June 23, 2007, inclusive, the total number of violations for employee-initiated complaint inspections occurring at services establishments in Wisconsin was 100. From June 23, 2006 to June 23, 2007, inclusive, the total monetary penalty for employee-initiated complaint inspections occurring at services establishments in Wisconsin was $37,293.00. Table 30 displays the statistics pertaining to employee-initiated complaint inspections occurring at services establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. Each column in Table 30 corresponds to each dependent variable examined with respect to employee-initiated complaint inspections occurring at services establishments in Wisconsin from June 23, 2006 to June 23, 2007, inclusive and is divided into arbitrary numerical or non-numerical categories.

Inferential Statistics

Programmed inspections versus employee-initiated complaint inspections. It was hypothesized that there would be significant differences between programmed inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and employee-initiated complaint inspections in general industry in Wisconsin

from June 23, 2006 to June 23, 2007, inclusive. For programmed inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, versus employee-initiated complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, only one dependent variable was significantly different between the two types of inspections: mean informal conference participation percentage. A chi-square test of independence revealed that mean informal conference participation percentage was significantly different (i.e., higher for programmed inspections than for employee-initiated complaint inspections) between the two inspection types, χ^2 (1) = 3.876, p = 0.049. Table 31 displays the results pertaining to all dependent variables for programmed inspections versus employee-initiated complaint inspections. Table 32 displays the results pertaining to the chi-square test of independence for programmed inspections versus employee-initiated complaint inspections.

Employee-initiated complaint inspections occurring at unionized establishments versus employee-initiated complaint inspections occurring at non-unionized establishments. It was hypothesized that there would be significant differences between employee-initiated complaint inspections occurring at unionized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and employee-initiated complaint inspections occurring at non-unionized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. For employee-initiated complaint inspections occurring at unionized establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, versus employee-initiated complaint inspections occurring at non-unionized

establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, only one dependent variable was significantly different between the two types establishments: mean number of hours spent on inspection activities. A univariate analysis of variance (ANOVA) revealed that the mean number of hours spent on inspection activities was significantly higher for employee-initiated complaint inspections occurring at unionized establishments than for employee-initiated complaint inspections occurring at non-unionized establishments, $F(1, 278) = 7.439$, $p < 0.01$. Table 33 displays the results pertaining to all dependent variables for employee-initiated complaint inspections occurring at occurring unionized establishments versus employee-initiated complaint inspections occurring at non-unionized establishments. Table 34 displays the results pertaining to the chi-square test of independence for employee-initiated complaint inspections occurring at unionized establishments versus employee-initiated complaint inspections occurring at non-unionized establishments.

Employee-initiated complaint inspections occurring at small establishments versus employee-initiated complaint inspections occurring at medium-sized establishments versus employee-initiated complaint inspections occurring at large establishments. It was hypothesized that there would be significant differences between employee-initiated complaint inspections occurring at the three different sizes of establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. For employee-initiated complaint inspections occurring at the three different sizes of establishments in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, three dependent variables were significantly different between the three

different sizes of establishments: mean number of violations per inspection, mean monetary penalty per violation, and mean percent monetary penalty reduction. A univariate ANOVA revealed that the mean number of violations per inspection was significantly different between employee-initiated complaint inspections occurring at the three different sizes of establishments, $F(2, 285) = 28.91$, $p < 0.000$. A Tukey Honestly Significant Difference (HSD) post-hoc test revealed that employee-initiated complaint inspections occurring at small establishments had a significantly higher mean number of violations per inspection than employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections occurring at large establishments ($p < 0.000$ and $p < 0.000$, respectively). However, the Tukey HSD post-hoc test revealed that there were not significant differences in the mean number of violations per inspection between employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections occurring at large establishments. A univariate ANOVA revealed that the mean monetary penalty per violation was significantly different between employee-initiated complaint inspections occurring at the three different sizes of establishments, $F(2, 285) = 4.25$, $p < 0.05$. A Tukey HSD post-hoc test revealed that employee-initiated complaint inspections occurring at small establishments had significantly lower mean monetary penalties per violation than employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections occurring at large establishments ($p < 0.05$ and $p < 0.05$, respectively). However, the Tukey HSD post-hoc test revealed that there were not significant differences in the mean monetary penalty per

violation between employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections occurring at large establishments. A univariate ANOVA revealed that the mean percent monetary penalty reduction was significantly different between employee-initiated complaint inspections occurring at the three different sizes of establishments, $F(2, 197) = 3.80$, $p < 0.05$. A Tukey HSD post-hoc test revealed that employee-initiated complaint inspections occurring at large establishments had significantly lower mean percent monetary penalty reductions than employee-initiated complaint inspections occurring at small establishments. However, the Tukey HSD post-hoc test revealed that there were not significant differences in the mean percent monetary penalty reduction between employee-initiated complaint inspections occurring at small establishments and employee-initiated complaint inspections occurring at medium-sized establishments and between employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections occurring at large establishments. Tables 35 through 41 display the statistics pertaining to all dependent variables for employee-initiated complaint inspections occurring at the three different sizes of establishments.

Employee-initiated safety-complaint inspections versus employee-initiated health-complaint inspections. It was hypothesized that there would be significant differences between employee-initiated safety-complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, and employee-initiated health-complaint inspections in general industry in Wisconsin from June 23, 2006 to June

23, 2007, inclusive. For employee-initiated safety-complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, versus employee-initiated health-complaint inspections in general industry in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, three dependent variables were significantly different between the two types of inspections: mean number of violations per inspection, mean monetary penalty per violation, and mean number of hours spent on inspection activities. A univariate ANOVA revealed that the mean number of violations per inspection was significantly higher for employee-initiated health-complaint inspections than for employee-initiated safety-complaint inspections, $F(1, 285) = 4.68$, $p < 0.05$. A univariate ANOVA revealed that the mean monetary penalty per inspection was significantly higher for employee-initiated safety-complaint inspections than for employee-initiated health-complaint inspections, $F(1, 285) = 11.96$, $p < 0.01$. A univariate ANOVA revealed that the mean number of hours spent on inspection activities was significantly higher for employee-initiated health-complaint inspections than for employee-initiated safety-complaint inspections, $F(1, 278) = 9.25$, $p < 0.01$. Table 42 displays the results pertaining to all dependent variables for employee-initiated safety-complaint inspections versus employee-initiated health-complaint inspections. Table 43 displays the results pertaining to the chi-square test of independence for employee-initiated safety-complaint inspections versus employee-initiated health-complaint inspections.

Employee-initiated complaint inspections occurring at different SIC coded establishments. It was hypothesized that there would be significant differences between

employee-initiated complaint inspections occurring at the six different SIC coded establishment types in Wisconsin from June 23, 2006 to June 23, 2007, inclusive. For employee-initiated complaint inspections occurring at the six different SIC coded establishment types in Wisconsin from June 23, 2006 to June 23, 2007, inclusive, only one dependent variable was significantly different between the six different SIC coded establishment types: the mean percent monetary penalty reduction. A univariate ANOVA revealed that the mean percent monetary penalty percent reduction was significantly different between employee-initiated complaint inspections occurring at the six different SIC coded establishment types, $F(4, 197) = 5.10$, $p < 0.01$. A Tukey HSD post-hoc test revealed that employee-initiated complaint inspections occurring at manufacturing establishments had significantly lower mean percent monetary penalty reductions than employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments ($p < 0.01$). A Tukey HSD post-hoc test revealed that employee-initiated complaint inspections occurring at retail trade establishments had significantly lower mean percent monetary penalty reductions than employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments ($p < 0.05$). However, the Tukey HSD post-hoc test revealed that there were not significant differences in the mean percent monetary penalty reduction between employee-initiated complaint inspections occurring at the other SIC coded establishment types. Tables 44 through 46 display the statistics pertaining to all dependent variables. It must be noted that from June 23, 2006 to June 23, 2007, inclusive, the total number of employee-initiated

complaint inspections occurring at finance, insurance, and real estate establishments in Wisconsin was one (with two dependent variable data points missing). Thus, Tukey HSD post-hoc tests were not performed between employee-initiated complaint inspections occurring at finance, insurance and real establishments and the other SIC coded establishment types for the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, and the mean number of hours spent on inspection activities.

CHAPTER IX

Discussion

Interpretations of Findings

Programmed inspections versus employee-initiated complaint inspections. It was hypothesized that there would be significant differences between programmed inspections and employee-initiated complaint inspections with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

For comparable dependent variables with the present study, the Scherer and Owen (1995) study, as previously mentioned in the literature review, found that there were significant differences between programmed inspections and employee-initiated complaint inspections with reference to the number of inspection hours, number of violations, informal settlement percentage, penalty reduction, and penalty remitted.

As revealed in the results section of the present study, programmed inspections were at near parity (i.e., not significantly dissimilar) with employee-initiated complaint inspections on nearly all examined dependent variables (i.e., five of six dependent variables). Programmed inspections and employee-initiated complaint inspections were at near parity with reference to the following dependent variables: mean number of violations per inspection, mean monetary penalty per violation, mean monetary penalty per inspection, mean number of hours spent on inspection activities, and mean percent

monetary penalty reduction. Programmed inspections and employee-initiated complaint inspections were significantly dissimilar with reference to the dependent variable of informal conference participation percentage. Table 47 displays the means for each dependent variable for programmed inspections and for employee-initiated complaint inspections.

The discrepancy between the Scherer and Owen (1995) study and the present study with reference to all comparable dependent variables (except for informal conference participation percentage) may be attributed to the number of establishments in the sample, the geographical area examined, the types of establishments examined, the time-frame examined, and the OSHA complaint policies and procedures directive(s) in force. An interesting discrepancy, however, is that the informal conference participation percentage is higher for programmed inspections than for employee-initiated complaint inspections in the present study than in the Scherer and Owen (1995) study. The Scherer and Owen (1995) study examined 3,000 establishments, whereas the present study examined 589 establishments. The Scherer and Owen (1995) study examined establishments located in all Federal OSHA states, whereas the present study examined establishments located in Wisconsin. The Scherer and Owen (1995) study examined overwhelmingly manufacturing establishments (97.2%), whereas the present study examined predominantly manufacturing establishments (63.2%). The Scherer and Owen (1995) study examined programmed inspections and employee-initiated complaint inspections occurring from 1972 to 1991, whereas the present study examined programmed inspection and employee-initiated complaint inspections occurring from

June 23, 2006 to June 23, 2007, inclusive. Similarly, the present study may have examined a more representative sample of the current inspection population since the present study exclusively examined programmed inspections and employee-initiated complaint inspections that occurred since the inception of the present OSHA complaint policies and procedures directive (OSHA Instruction CPL 02-00-140) compared to the Scherer and Owen (1995) study, which examined programmed inspections and employee-initiated complaint inspections that spanned 10 OSHA complaint policy procedures directives. Since there are numerous methodological differences between the Scherer and Owen (1995) study and the present study, it is not unreasonable that discrepancies exist.

For the present study, a plausible explanation of the significantly higher informal conference participation percentage for programmed inspections than for employee-initiated complaint inspections is that these establishments have had past programmed inspections, are in industries with higher injury/illness rates, or are in industries that are targeted by OSHA special emphasis programs, all of which increase the probability of a programmed inspection. Thus, these establishments may be more conversant with OSHA procedures pertaining to informal settlement conferences since there is presumed knowledge that a programmed inspection may occur. Moreover, establishments that are more conversant with OSHA procedures and possess this presumed knowledge may be better prepared and in a more advantageous position to participate in an informal conference as opposed to an expedited informal settlement agreement (EISA) [if eligible].

Since discrepancies exist between the Scherer and Owen (1995) study and the present study and questions still exist in the present study, it is imperative that more research is undertaken to reconcile the differences. Future research needs will be detailed in a forthcoming subsection of the discussion.

Employee-initiated complaint inspections occurring at unionized establishments versus employee-initiated complaint inspections occurring at non-unionized establishments. It was hypothesized that there would be significant differences between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

For comparable dependent variables with the present study, the Scherer et al. (1993a) and the Weil (1991) studies, as previously mentioned in the literature review, found that there were significant or substantial differences between employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments with reference to the number of inspection hours, number of violations per covered employee, penalty reduction, whether an informal settlement occurred; and whether an employee walkaround was conducted, inspection duration (hour/employee), violations per

employee, monetary penalty per violation, and type of inspection (physical inspection or no physical inspection), respectively.

As revealed in the results section, employee-initiated complaint inspections occurring at unionized establishments were at near parity (i.e., not significantly dissimilar) with employee-initiated complaint inspections occurring at non-unionized establishment on nearly all examined dependent variables (i.e., five of six dependent variables). Employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments were at near parity with reference to the following dependent variables: mean number of violations per inspection, mean monetary penalty per violation, mean monetary penalty per inspection, mean percent monetary penalty reduction, and informal conference participation percentage. Employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments were significantly dissimilar with reference to the dependent variable of mean number of hours spent on inspection activities. Table 48 displays the means for each dependent variable for employee-initiated complaint inspections occurring at unionized establishments and for employee-initiated complaint inspections occurring at non-unionized establishments.

The discrepancy between the Weil (1991) and Scherer et al. (1993a) studies and the present study with reference to all comparable dependent variables (except for the mean number of hours spent on inspection activities) may be attributed to the number of establishments in the sample, the geographical area examined, the types of establishments

examined, the time-frame examined, and the OSHA complaint policies and procedures directive(s) in force. The Weil (1991) study examined an unspecified number of manufacturing establishments (presumably numbering in the thousands), and the Scherer et al. (1993a) study examined 15,296 establishments, whereas the present study examined 285 establishments. The Weil (1991) and Scherer et al. (1993a) studies examined establishments located in all Federal OSHA states, whereas the present study examined establishments located in Wisconsin. The Weil (1991) study examined an unspecified percentage of manufacturing establishments (presumably over 50%) and the Scherer et al. (1993a) study examined overwhelmingly manufacturing establishments (94.39%), whereas the present study examined predominantly manufacturing establishments (63.2%). The Weil (1991) study examined employee-initiated complaint inspection at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments occurring in 1986; the Scherer et al. (1993a) study examined employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments occurring from 1972 to 1990, whereas the present study examined employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments occurring from June 23, 2006 to June 23, 2007, inclusive. Similarly, the present study may have examined a more representative sample of the current inspection population since the present study exclusively examined employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized

establishments that occurred since the inception of the present OSHA complaint policies and procedures directive (OSHA Instruction CPL 02-00-140) compared to the Weil (1991) and Scherer et al. (1993a) studies, which examined employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments that spanned an outdated OSHA complaint policy and procedures directive and 10 OSHA complaint policy and procedures directives, respectively. Since there are numerous methodological differences between the Weil (1991) and Scherer et al. (1993a) studies and the present study, it is not unreasonable that discrepancies exist.

For the present study, a plausible explanation of the significantly higher mean number of hours spent on inspection activities for employee-initiated complaint inspections occurring at unionized establishments than for employee-initiated complaint inspections occurring at non-unionized establishments is that unions may encourage more employee participation during OSHA inspections than their non-existent counterparts at non-unionized establishments. Thus, all or most employees at unionized establishments may show potential safety or health hazards (irrelevant of hazard severity) to OSHA inspectors, which has the potential to prolong the inspection. Moreover, unions may encourage more employees to call the pertinent OSHA area office to provide further information or to provide further safety or health hazards, which has the potential to increase the number of hours spent on inspection activities.

Since discrepancies exist between the Weil (1991) and Scherer et al. (1993a) studies and the present study and questions still exist in the present study, it is imperative

that more research is undertaken to reconcile the differences. Future research needs will be detailed in a forthcoming subsection of the discussion.

Employee-initiated complaint inspections occurring at small establishments versus employee-initiated complaint inspections occurring at medium-sized establishments versus employee-initiated complaint inspections occurring at large establishments. It was hypothesized that there would be significant differences between employee-initiated complaint inspections occurring at small establishments, employee-initiated complaint inspections occurring at medium-sized establishments, and employee-initiated complaint inspections occurring at large establishments with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

For comparable dependent variables with the present study, the Scherer et al. (1993b) study, as previously mentioned in the literature review, found that there were significant differences between employee-initiated complaint inspections occurring at small establishments and employee-initiated complaint inspections occurring at large establishments with reference to the number of inspection hours, number of violations per covered employee, penalty reduction, and whether an informal settlement occurred.

As revealed in the results section, employee-initiated complaint inspections occurring at small establishments were at near parity (i.e., not significantly dissimilar) with employee-initiated complaint inspections occurring at medium-sized establishments

and large establishments on half of examined dependent variables. Employee-initiated complaint inspections occurring at small establishments, medium-sized establishments, and large establishments were at near parity with reference to the following dependent variables: mean monetary penalty per inspection, mean number of hours spent on inspection activities, and informal conference participation percentage. Employee-initiated complaint inspections occurring at small establishments, medium-sized establishments, and large establishments were significantly dissimilar with reference to the dependent variables of mean number of violations per inspection, monetary penalty per violation, and mean percent monetary penalty reduction. Employee-initiated complaint inspections occurring at small establishments were significantly dissimilar to employee-initiated complaint inspections occurring at medium-sized establishments and large establishments with reference to the aforementioned dependent variable. However, employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections occurring at large establishments were at near parity with reference to the aforementioned dependent variable. Employee-initiated complaint inspections occurring at large establishments were significantly dissimilar to employee-initiated complaint inspections occurring at small establishments with reference to the aforementioned dependent variable. However, employee-initiated complaint inspections occurring at small establishments and employee-initiated complaint inspections occurring at medium-sized establishments were at near parity with reference to the aforementioned variable, and employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections

occurring at large establishments were at near parity with reference to the aforementioned dependent variable. Table 49 displays the means for each dependent variable for employee-initiated complaint inspections occurring at small establishments, medium-sized establishments, and large establishments.

The discrepancy between the Scherer et al (1993b) study and the present study with reference to all common dependent variables may be attributed to the number of establishments in the sample, the geographical area examined, the types of establishments examined, the time-frame examined, and the OSHA complaint policies and procedures directive(s) in force. The Scherer et al. (1993b) study examined 11,668 establishments, whereas the present study examined 285 establishments. The Scherer et al. (1993b) study examined establishments located in all Federal OSHA states, whereas the present study examined establishments located in Wisconsin. The Scherer et al. (1993b) study examined overwhelmingly manufacturing establishments (no percentage was given), whereas the present study examined predominantly manufacturing establishments (i.e., 63.2%). The Scherer et al. (1993b) study examined inspections occurring from 1972 to 1990, whereas the present study examined inspections occurring from June 23, 2006 to June 23, 2007, inclusive. Similarly, the present study may have examined a more representative sample of the current inspection population since the present study exclusively examined employee-initiated complaint inspections occurring at small establishments versus employee-initiated complaint inspections occurring at medium-sized establishments versus employee-initiated complaint inspections occurring at large establishments that occurred since the inception of the present OSHA complaint policies

and procedures directive (OSHA Instruction CPL 02-00-140) compared to the Scherer et al. (1993b) study, which examined programmed inspections and employee-initiated complaint inspections that spanned 10 OSHA complaint policy procedures directives. Since there are numerous methodological differences between the Scherer et al. (1993b) study and the present study, it is not unreasonable that discrepancies exist.

For the present study, a plausible explanation of the significantly lower mean number of violations per inspection for employee-initiated complaint inspections occurring at large establishments and medium-sized establishments than for employee-initiated complaint inspections occurring at small establishments is that large and medium-sized establishments may possess the resources necessary to prevent safety and health violations (i.e., a safety manager, a safety budget, etc.). Additionally, large and medium-sized establishments may possess the resources necessary to negotiate the removal of violations. In contrast small establishment may not possess the resources necessary to prevent safety and health violations and to negotiate the removal of violations.

For the present study, a plausible explanation of the significantly lower mean monetary penalty per violation for employee-initiated complaint inspections occurring at small establishments than for employee-initiated complaint inspections occurring at large establishments and medium-sized establishments is that small establishments are typically given a 60% discount for monetary penalties per inspection, which large and medium-sized establishments are not given.

For the present study, a plausible explanation of the significantly higher mean percent penalty reduction for employee-initiated complaint inspections occurring at large establishments than for employee-initiated complaint inspections occurring at small establishments and medium-sized establishments is that large establishments may possess the resources necessary to negotiate the reduction in monetary penalties (i.e., safety manager, lawyers, etc.). Moreover, large establishments may possess the resources necessary to participate in an informal conference as opposed to an EISA, which potentially increases the reduction in monetary penalties. In contrast small and medium-sized establishments may not possess the resources necessary to negotiate the reduction in monetary penalties.

Since discrepancies exist between the Scherer et al. (1993b) study and the present study and questions still exist in the present study, it is imperative that more research is undertaken to reconcile the differences. Future research needs will be detailed in a forthcoming subsection of the discussion.

Employee-initiated safety-complaint inspections versus employee-initiated health-complaint inspections. It was hypothesized that there would be significant differences between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

As previously mentioned in the literature review, there are not any studies that investigate the different characteristics between employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections, so a comparison between past studies and the present study cannot be made.

As revealed in the results section, employee-initiated safety-complaint inspections were at near parity (i.e., not significantly dissimilar) with employee-initiated health-complaint inspections on half of all examined dependent variables. Employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections were at near parity with reference to the following dependent variables: mean monetary penalty per inspection, mean percent monetary penalty reduction, and mean informal conference participation percentage. Employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections were significantly dissimilar with reference to the following dependent variables: mean number of violations per inspection, mean monetary penalty per violation, and mean number of hours spent on inspection activities. Table 50 displays the means for each dependent variable for employee-initiated safety-complaint inspections and employee-initiated health-complaint inspections.

A plausible explanation of the significantly lower mean number of violations per inspection for employee-initiated safety-complaint inspections than for employee-initiated health-complaint inspections is that OSHA inspectors may investigate health-related hazards in more depth than safety-related hazards. Moreover, it is possible that OSHA inspectors focus more resources investigating health-related hazards than safety-related hazards. Both of these explanations may be correlated with the significantly

higher mean number of hours spent on inspection activities for employee-initiated health-complaint inspections compared to employee-initiated safety-complaint inspections. Thus, employee-initiated safety-complaint inspections typically result in lower mean number of violations per inspection than employee-initiated health-complaint inspections.

A plausible explanation of the significantly lower mean monetary penalty per violation for employee-initiated health-complaint inspections than for employee-initiated safety-complaint inspections is that health-related hazards may be less severe, on average, than safety-related hazards, so the concomitant monetary penalty is appropriately commensurate. This explanation may be correlated with the higher (albeit not significantly higher) mean monetary penalty per inspection for employee-initiated safety-complaint inspections compared to employee-initiated health-complaint inspections. Thus, employee-initiated health-complaint inspections typically result in lower mean monetary penalties per violation than employee-initiated safety-complaint inspections.

A plausible explanation of the significantly lower mean number of hours spent on inspection activities for employee-initiated safety-complaint inspections than for employee-initiated health-complaint inspections is that health-related hazards typically require sampling and other sophisticated methods to gather data compared to safety-related hazards, which typically do not require either. Thus, employee-initiated health-complaint inspections typically result in lower mean number of hours spent on inspection activities than employee-initiated safety-complaint inspections.

Since questions still exist in the present study, it is imperative that more research is undertaken to reconcile the differences. Future research needs will be detailed in a forthcoming subsection of the discussion.

Employee-initiated complaint inspections occurring at different SIC coded establishments. It was hypothesized that there would be significant differences between employee-initiated complaint inspections occurring at manufacturing establishments, employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments, employee-initiated complaint inspections occurring at wholesale trade establishments, employee-initiated complaint inspections occurring at retail trade establishments, employee-initiated complaint inspections occurring at finance, insurance, and real estate establishments, and employee-initiated complaint inspections occurring at services establishments with reference to the mean number of violations per inspection, the mean monetary penalty per violation, the mean monetary penalty per inspection, the mean number of hours spent on inspection activities, the mean percent monetary penalty reduction, and the mean percent informal conference participation.

As previously mentioned in the literature review, there are not any studies that investigate the different characteristics between SIC code establishment types pertaining to employee-initiated complaint inspections, so a comparison between past studies and the present study cannot be made.

As revealed in the results section, employee-initiated complaint inspections occurring at the six different SIC code establishment types were at near parity (i.e., not

significantly dissimilar) on all examined dependent variables except one. Employee-initiated complaint inspections occurring at the six different SIC code establishment types were at near parity with reference to the following dependent variables: mean number of violations per inspection, mean monetary penalty per violation, mean monetary penalty per inspection, mean number of hours spent on inspection activities, mean percent monetary penalty reduction, and mean informal conference participation percentage. Employee-initiated complaint inspections occurring at the six different SIC code establishment types were significantly dissimilar with reference to the following dependent variable: mean percent monetary penalty reduction. Table 51 displays the means for each dependent variable for employee-initiated inspections occurring at the six different SIC code establishment types.

A plausible explanation of the significantly lower percent monetary penalty reduction for employee-initiated complaint inspections occurring at transportation, communications, electric, gas, and sanitary services establishments than for employee-initiated complaint inspections occurring at manufacturing establishments and retail trade establishments is that transportation, communications, electric, gas, and sanitary services establishments may be more conversant with occupational safety regulations because these establishments may be regulated by various regulatory agencies (i.e., OSHA, EPA, etc.) compared to one or only a few regulatory agencies for the two other establishment types.

Another plausible explanation of the significantly lower percent monetary penalty reduction for employee-initiated complaint inspections occurring at transportation,

communications, electric, gas, and sanitary services establishments than for employee-initiated complaint inspections occurring at manufacturing establishments and retail trade establishments is that the hazards of the two types of SIC coded establishments may differ markedly.

It should be noted that there has not been a lot of research to accurately characterize modern employee-initiated complaint inspections, so the aforementioned discrepancies are not unexpected.

CHAPTER X

Discussion Continued

Qualitative Comparison of Each Independent Variable with Reference to Each Dependent Variable

As Tables 47 through 51 demonstrate, the means for each of the dependent variables may not be significantly dissimilar, but that does not diminish the real-world impacts of the differences. An example is the difference between the mean monetary penalty per inspection for employee-initiated complaint inspections occurring at manufacturing establishments and for wholesale trade establishments. The mean monetary penalty per inspection for employee-initiated complaint inspections occurring at manufacturing establishments was $2,009.72, whereas the mean monetary penalty per inspection for employee-initiated complaint inspections occurring at wholesale trade establishments is $939.09 (refer to Table 51). Even though the mean monetary penalty per inspection was $1,070.63, the difference is not significant. Any competent business that wants to remain profitable would rather be fined $939.09 as opposed to $2,009.72. Thus, to demonstrate the real-world impacts, which may be dismissed by statistical tests, between each independent variable with reference to each dependent variable, a qualitative comparison will be constructed.

As previously mentioned, not attaining statistical significance does not necessarily imply that a particular result possesses less real-world impact than a result that achieves statistical significance at an arbitrary level. Thus, qualitative comparisons between each level of each independent variable with reference to all examined

dependent variables were constructed. For each qualitative comparison, each dependent variable result was compared with all other levels of each independent variable. The level of the independent variable with the lower number (i.e., mean number of violations per inspection, mean monetary penalty per violation, mean monetary penalty per inspection, and mean number of hours spent on inspection activities) for each dependent variable was indicated with an "X." The level of the independent variable with the higher number (i.e., mean percent penalty reduction and mean informal conference participation percentage) for each dependent variable was indicated with an "X." The level of the independent variable with a higher number of "Xs" may be considered more "advantageous" notwithstanding statistical significance (e.g. programmed inspections). Since the independent variables of size of establishment and different SIC code establishment types possess multiple levels, a "best case" and a "worst case" were determined. For the "best case," the level of the independent variable with the lowest number (i.e., mean number of violations per inspection, mean monetary penalty per violation, mean monetary penalty per inspection, and mean number of hours spent on inspection activities) for each dependent variable was indicated with an "X," and the level of the independent variable with the highest number (i.e., mean percent penalty reduction and mean informal conference participation percentage) for each dependent variable was indicated with an "X." For the "worst case," the level of the independent variable with the highest number (i.e., mean number of violations per inspection, mean monetary penalty per violation, mean monetary penalty per inspection, and mean number of hours spent on inspection activities) for each dependent variable was indicated with an

"X," and the level independent variable with the lowest number (i.e., mean percent penalty reduction and mean informal conference participation percentage) for each dependent variable was indicated with an "X." The level of the independent variable with the highest ratio of "Xs" in the "best case" to "Xs" in the "worst case" may be considered the most "advantageous" notwithstanding statistical significance (e.g., employee-initiated complaint inspections occurring at medium-sized establishments and employee-initiated complaint inspections occurring at wholesale trade establishments). Tables 52 through 56 display the qualitative comparison of each independent variable with reference to each dependent variable.

CHAPTER XI

Discussion Continued

Study Limitations and Further Research Needs

The present study possesses at least nine limitations that require amelioration to further investigation in this area of occupational safety. The first limitation of the present study is that the duration was only one year. The short duration of the present study may preclude a representative sample of the total inspection population. However, as previously noted, OSHA recently updated its complaint policies and procedures directive, so a longer study utilizing data from the updated complaint directive for the present study was unfeasible. The second limitation of the present study is that only 589 establishments were examined for programmed inspections versus employee-initiated complaint inspections and only 285 establishments were examined for employee-initiated complaint inspections. The limited sample size of the present study may preclude a representative sample of the total inspection population. The third limitation of the present study is that the geographical area only included Wisconsin. The limited geographical area of the present study may preclude a representative sample of the total inspection population. The fourth limitation of the present study is that only general industry establishments were examined. The lack of examining industries other than general industry in the present study may preclude a representative sample of the total OSHA inspection population. The fifth limitation of the present study is that only private sector establishments were examined. The lack of examining public sector establishments in the present study may preclude a representative sample of the total

OSHA inspection population. However, it must be noted that Federal OSHA's jurisdiction does not extend to public sector establishments. The sixth limitation of the present study is that only Federal OSHA establishments were examined (i.e., state-plan state establishments were excluded). The lack of examining state-plan state establishments in addition to Federal OSHA establishments may preclude a representative sample of the total inspection population. The seventh limitation of the present study is that independent and dependent variable interactions were not accounted for. The lack of accounting for independent and dependent variable interactions in the present study may simplify and dismiss many of the complex relationships in the data. The eighth limitation of the present study is that independent and dependent variables were not weighted to reflect their concomitant contributions to results. The lack of weighting of independent and dependent variables may also simplify and dismiss many of the complex relationships in the data. The ninth limitation of the present study is that some data were missing from the IMIS. The lack some data may preclude an accurate and precise statistical analysis. It is apparent from the results of the present study that valuable insights into the various characteristics of employee-initiated complaint inspections were garnered. However evident the aforementioned limitations of the present study are, they should serve as a guide for future research needs.

To further the investigation into this area of occupational safety, the aforementioned limitations need to be ameliorated and additional independent and dependent variables need to be included in future studies. To ameliorate the aforementioned limitations, future studies in this area of occupational safety need to

encompass a longer study duration, encompass all Federal and State OSHA inspections, encompass all industries within OSHA's jurisdiction (i.e., general industry, construction, maritime, and longshoring), encompass the private and public sectors (where available), independent and dependent variable interactions and weighting need to be accounted for (e.g., utilizing a multivariate analysis of variance, a univariate analysis of covariance, or other equivalent statistical test), and OSHA compliance officers need to be encouraged to gather all pertinent inspection data. Additional independent variables such as type of inspection (e.g., partial versus comprehensive inspections), time of year (e.g., summer versus winter), and state versus state or region versus region (e.g., Colorado versus Florida or Region I versus Region X) should be included in future studies to further investigation in this area of occupational safety. Additional dependent variables such as mean number of different violation types (e.g., serious, other-than-serious, egregious, willful, etc.), mean number of violations removed at the informal conference, mean percentage of inspections where an EISA was offered but rejected and resulted in an informal conference, mean number of inspections resulting in formal litigation, and the mean employer costs (direct and indirect) of inspections should be included in future studies to further investigation in this area of occupational safety.

CHAPTER XII

Discussion Concluded

Possible Strategies to Attempt to Prevent or Mitigate Employee-Initiated Complaints

It must be noted that of the five independent variables examined, only the following three can be easily influenced by an employer: type of inspection, union status, and type of employee-initiated complaint inspections. The other two variables, establishment size and SIC code establishment type, are difficult for an employer to influence unless a radical change occurs in the underlying business. Thus, the following abbreviated strategies to attempt prevent or mitigate employee-initiated complaints to OSHA will focus on the type of inspection, union status, and the type of employee-initiated complaint inspections.

Although the aforementioned Weil and Pyles (2006) study found that OSHA violations only accounted for 25% to 29% of the variability in OSHA complaint rates, the results may still be useful to employers that want to prevent or mitigate employee-initiated complaints to OSHA. The results may be useful because the 25% to 29% variability in OSHA complaint rates accounted for by OSHA violations denotes that a successful occupational safety program may be able to partially prevent or mitigate employee-initiated complaints to OSHA. As the present study demonstrates, from June 23, 2006 to June 23, 2007, inclusive, approximately 48% of inspections (i.e., 285 out of 589 inspections) were employee-initiated complaint inspections. Furthermore, the present study demonstrates that programmed inspections and employee-initiated complaint inspections were at near parity (i.e., not significantly dissimilar) on nearly all

examined dependent variables (i.e., five of six dependent variables), so were nearly statistically identical. Thus, an employer's first strategy should be to attempt to prevent employee-initiated complaints to OSHA.

Prevention of employee-initiated complaint inspections. The following are two studies that provide a general framework to attempt to prevent employee-initiated complaints to OSHA.

A meta-analysis by Cohen (1977) attempted to ascertain factors in a successful occupational safety program. Cohen (1977) determined that there were nine general factors that contributed to a successful occupational safety program: 1) management commitment, 2) hazard control, 3) safety training, 4) safety motivation, 5) employee support, 6) inspection and communications, 7) accident investigations and recordkeeping, 8) workforce make-up, and 9) safety committees and safety rules. It must be noted that deliberately altering the workforce make-up may not be a legal method of developing a successful safety program, so this general factor will not be considered. Table 57 displays the individual characteristics that compose the aforementioned general factors of a successful occupational safety program.

A similar study by Smith, Cohen, Cohen, and Cleveland (1978) attempted to replicate the previous study to ascertain more factors in a successful occupational safety program. Smith et al. (1978) determined that there were five general company and four safety program characteristics that were related to successful occupational safety programs. General company characteristics included: 1) management commitment to safety (e.g., safety policy statement, safety rules, etc.); 2) highly efficient management

and plant solvency; 3) amenable industrial and human relations (e.g., promotion and advancement opportunities, level of pay, etc.); 4) amenable workforce characteristics (e.g., less turnover, less absenteeism, etc.); and 5) amenable plant physical characteristics [e.g.,housekeeping, plant layout, etc.] (Smith et al., 1978). Safety program characteristics included: 1) safety training conducted by lead employees; 2) frequent, formal safety inspections; 3) required use of personal protective equipment; and 4) high overall impression of the safety program (Smith et al., 1978).

If an employer is able to achieve all or nearly all of the aforementioned general factors and characteristics of a successful safety program delineated by the Cohen (1977) and Smith et al. (1978) studies, it is conceivable that occupational safety and health would improve, which may reduce employee-initiated complaints to OSHA. However, it must be noted that the Cohen (1977) and Smith et al. (1978) studies may be outdated, so may not be as applicable today. Additionally, opinion polls of safety managers, as utilized by the Cohen (1977) and Smith et al. (1978) may be unrepresentative and unreliable. Lastly, Cohen (1977) and Smith et al. (1978) only examined accident rates and not other indicators such as monetary penalties, violations, etc. Thus, an employer may want to research the issue further before attempting to implement the aforementioned general factors and characteristics wholesale.

Employee-initiated safety-complaint inspections versus employee-initiated health-complaint inspections. If the first strategy of preventing employee-initiated complaints to OSHA fails, the second strategy should be to prevent or mitigate employee-initiated complaints to OSHA by prioritizing safety-related hazards over health-related

hazards. Although Table 55 demonstrates that employee-initiated safety-complaint inspections and employee-initiated health complaint inspections are qualitatively similar, notwithstanding statistical significance, employee-initiated safety complaint inspections result in approximately 51% higher mean monetary penalties per violation, approximately 24% higher mean monetary penalties per inspection, and approximately 6% lower mean percent monetary penalty reduction than employee-initiated health-complaint inspections. Thus, employers should concentrate primarily on safety-related hazards such as machinery and machine guarding, personal protective equipment, materials handling and storage, etc. as opposed to health-related hazards such as occupational health and environmental control, toxic and hazardous substances, etc.

Employee-initiated complaint inspections at unionized establishments versus employee-initiated complaint inspections at non-unionized establishments. If the first strategy of preventing employee-initiated complaints to OSHA or the fails and the second strategy of preventing or mitigating employee-initiated complaints to OSHA by prioritizing safety-related hazards over health-related hazards fails or produces less than desirable results, the third strategy should be to attempt to prevent a union from forming or convince employees to abolish the union at the establishment (both by legal means). Although Table 53 demonstrates that employee-initiated complaint inspections occurring at unionized establishments and employee-initiated complaint inspections occurring at non-unionized establishments are qualitatively similar, notwithstanding statistical significance, employee-initiated complaint inspections occurring at unionized establishments result in approximately 8% higher mean monetary penalties per violation,

approximately 24% higher mean monetary penalties per inspection, and approximately 25% higher mean number of hours spent on inspection activities than employee-initiated complaint inspections occurring at non-unionized establishments. Thus, employers should concentrate primarily on attempting to prevent a union from forming or convincing employees to abolish the union at the establishment (both by legal means). The following are two articles that provide a general and rudimentary framework for strategies to attempt to prevent a union from forming or convincing employees to abolish the union at the establishment (both by legal means).

Lawson (1998) reports that an employee handbook may be utilized as a tool to communicate what employees can expect from an employer and what the employer expects from the employer. Thus, misunderstandings and misinterpretations between employees and the employer can be avoided with an employee handbook (Lawson, 1998). The following are pertinent advantages of an employee handbook: 1) understanding of employer personnel policies are promoted (it provides information about discipline, performance standards, etc.); 2) consistency and management credibility are promoted (it provides consistent and fair management of employees); 3) employment practices and law compliance are documented (it provides commitment to fair employment practices and equal employment opportunities for employees); and 4) "union avoidance" may be achieved (Lawson,1998).

Taldone (1984) reports that creating a successful employee-relations program will lessen the likelihood that a union will form or will increase the likelihood of convincing employees to abolish the union at the establishment. Taldone (1984) reports that a

successful employee-relations program is composed of seven principles: 1) treating employees with respect; 2) consistently paying salaries that are competitive; 3) administering fair and uniform discipline; 4) applying a written equal employment opportunity policy; 5) discovering job-related problems by improving communication; 6) communicating policies via a company handbook; and 7) educating supervisory personnel in employment law.

If an employer creates an employee handbook as outlined by Lawson (1998) and creates a successful employee-relations program outlined by Taldone (1984), it is conceivable that the employer may be able to prevent a union from forming or convincing employees to abolish the union at the establishment. For more in-depth instructions pertaining to the creation of an employee handbook or to the creation of a successful employee-relations program, refer to Lawson (1998) and Taldone (1984), respectively.

It should be noted that the aforementioned strategies are only speculative until research is undertaken to determine their efficacy. Additionally, the aforementioned strategies are rudimentary and presumably not inclusive of all possible effective strategies, so employers should attempt to develop and test any reasonable strategies to prevent or mitigate employee-initiated complaints to OSHA, to prevent or mitigate employee-initiated complaints to OSHA by prioritizing safety-related hazards over health-related hazards, and/or to prevent a union from forming or convince employees to abolish the union at the establishment (both by legal means).

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Table 1. Complaint Rates and Violation Rates by Industry.

Industries with Highest Complaint Rates	Complaints per 100,000 Employees	Industries with Highest Violation Rates	Injuries/Illnesses per 100,000 Employees
Miscellaneous Fabricated Metal Products	122	Meat Products	10,410
Sawmills, Millwork, and Miscellaneous Wood Products	88	Air Transportation	10,250
Iron and Steel Foundries, and Primary and Other Aluminum Industries	73	Sawmills, Millwork, and Miscellaneous Wood Products	7,357
Fabricated Structural Metal Products	66	Miscellaneous Fabricated Metal Products	6,941
Construction	61	Nursing and Personal Care Facilities	6,368
Plastics and Miscellaneous Rubber Products	60	Residential Care Facilities Without Nursing	6,029
Automotive Repair and Related Services	47	Groceries and Related Products	5,912
Blast Furnaces, Steelworks, Rolling and Finishing Mills	43	Motor Vehicles and Motor Vehicle Equipment	5,877
Miscellaneous Paper and Pulp Products	42	Plastics and Miscellaneous Rubber Products	5,667
Farm Machinery and Metalworking Machinery	42	Furniture and Fixtures, and Wood Buildings	5,495
Industries with Lowest Complaint Rates	-	Industries with Lowest Violation Rates	-
Insurance	2.7	Accounting, Auditing, and Bookkeeping Services	367
Computer and Data Processing Services	2.3	Banking	365
Credit Agencies	2.1	Credit Agencies, Not Elsewhere Classified	353
Banking	1.9	Colleges and Universities	313
Accounting, Auditing, and Bookkeeping Services	1.8	Security, Commodity Brokerage, and Investment Companies	312
Security, Commodity Brokerage, and Investment Companies	1.7	Legal Services	284
Legal Services	1.5	Beauty and Barber Shops	267
Child Day Care, Family Child Care Homes	1.4	Offices of Dentists and Optometrists	173
Savings Institutions, Including Credit Unions	1.3	Religious Organizations	133
Religious Organizations	1.0	Elementary and Secondary Schools	84
From Weil and Pyles (2006), pp. 75 and 76.			

Table 2. Injuries/Illnesses to Complaint Ratio by Industry.

Industries with Highest Injuries/Illnesses to Complaint Ratio	# of Injuries/Illnesses per Complaint Case	Industries with Lowest Injuries/Illnesses to Complaint Ratio	# of Injuries/Illnesses per Complaint Case
Average Across All Industries	119	-	
Nursing and Personal Care Facilities	661	Construction	51
Child Day Care and Family Child Care Homes	573	Beauty and Barber Shops	41
Air Transportation	559	Industrial and Miscellaneous Chemicals Manufacturing	40
Savings Institutions, Including Credit Unions	529	Automotive Repair and Related Services	33
Department Stores	499	Elementary and Secondary Schools	16
From Weil and Pyles (2006), p. 78.			

Table 3. Univariate ANOVAs and Means between Programmed Inspections and Employee-Initiated Complaint Inspections.

			Means	
Dependent Variable	F	p	Programmed	Complaint
Lost Workday Injury Rate	62.78	<0.01	8.66	7.13
Inspection Hours	284.86	<0.01	263.18	143.65
Number of Employees	158.53	<0.01	351.26	107.10
Violations	103.85	<0.01	5.43	3.80
Informal Settlements	209.64	<0.01	21.13%	9.79%
Penalty Reduction	92.11	<0.01	14.09%	7.51%
Penalty Remitted	191.09	<0.01	$851.45	$331.61
From Scherer and Owen (1995), p. 251.				

Table 4. Percentage of Employee Walkaround Rights Utilized by Establishment Size.

Establishment Size	% of Inspections with Employee Walkaround			
		Union	Non-union	
1 to 99		47.8	2.7	
100 to 249		59.3	2.6	
250 to 499		63.7	2.6	
500+		69.8	3.7	
From Weil (1991), p. 29.				

Table 5. Coefficients for Inspection Duration (hour/employee) by Establishment Size.

Establishment Size	Inspection Duration
1 to 99	0.262*
100 to 249	0.720*
250 to 499	1.000*
500+	1.690*
* Significant at the 0.01 level	
From Weil (1991), p. 29.	

Table 6. Coefficients for Violations per Employee by Establishment Size.

Establishment Size	Violations per Employee
1 to 99	-0.005*
100 to 249	0.014*
250 to 499	0.025*
500+	0.053*
* Significant at the 0.01 level	
From Weil (1991), p. 29.	

Table 7. Coefficients for Monetary Penalty per Violation by Establishment Size.

Establishment Size	Violations per Employee
1 to 99	-5.250
100 to 249	18.050*
250 to 499	32.210*
500+	67.480*
* Significant at the 0.01 level	
From Weil (1991), p. 29.	

Table 8. Type of Inspection (Physical Inspection or No Physical Inspection) by Establishment Size.

		% of Inspections	
Physical Inspection		Union	Non-Union
Establishment Size			
1 to 99		66.5	53.0
100 to 249		79.9	72.5
250 to 499		84.4	75.6
500+		90.4	80.9
No Physical Inspection			
Establishment Size			
1 to 99		33.5	47.0
100 to 249		20.1	27.5
250 to 499		15.6	24.4
500+		9.6	19.1
From Weil (1991), p. 30.			

Table 9. Univariate ANOVAs and Means between Employee-Initiated Complaint Inspections Occurring at Unionized Establishments and Employee-Initiated Complaint Inspections Occurring at Non-Unionized Establishments.

			Means	
Dependent Variable	F	p	Union	Nonunion
Inspection Time On-Site	338.13	0.00	141.39	76.56
Violations per Covered Employee	5.71	0.02	1.43	1.00
Lost Workday Injury Rate	355.94	0.00	5.11	2.91
Penalty Reduction	97.72	0.00	0.04	0.02
Length of Investigation	47.45	0.00	176.20	154.98
From Scherer et al. (1993a), p. 59.				

Table 10. Univariate ANOVAs and Means between Employee-Initiated Complaint Inspections Occurring at Small Establishments and Employee-Initiated Complaint Inspections Occurring at Large Establishments.

			Means	
Dependent Variable	F	p	Small	Large
Inspection Time On-Site	338.13	0.00	70.26 hrs	147.16 hrs
Violations per Covered Employee	5.71	0.02	0.84 hrs	1.70
Lost Workday Injury Rate	355.94	0.00	2.58 hrs	4.47
Penalty Reduction	97.72	0.00	1.97%	4.46%
Length of Investigation	47.45	0.06	161.54 days	168.17 days
From Scherer et al. (1993b), p. 78.				

Table 11. Descriptive Statistics for Programmed Inspections vs. Employee-Initiated Complaint Inspections (June 23, 1996 to June 23, 2006).

	Programmed Inspections	Complaint Inspections
Total # of Inspections	2,728	3,183
Total # of Violations	8,844	8,771
Mean # of Violations/Inspection	3.2	2.8
Mean Penalty/Violation	$459.03	$638.90
Mean Penalty/Inspection	$1,488.13	$1,760.53
Mean Hours/Inspection	9.1	7.6
Mean Percent Penalty Reduction	46.4%	47.0%
Mean Percent Informal Conference Participation	54.0%	55.6%

Table 12. Descriptive Statistics for Employee-Initiated Complaint Inspections Occurring at Unionized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Non-Unionized Establishments (June 23, 1996 to June 23, 2006).

	Unionized Establishments	Non-Unionized Establishments
Total # of Inspections	854	2,329
Total # of Violations	1,696	7,075
Mean # of Violations/Inspection	2.0	3.0
Mean Penalty/Violation	$1,024.27	$546.52
Mean Penalty/Inspection	$2,034.15	$1,660.20
Mean Hours/Inspection	8.9	7.1
Mean Percent Penalty Reduction	46.4%	47.1%
Mean Percent Informal Conference Participation	55.0%	55.8%

Table 13. Descriptive Statistics for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 1996 to June 23, 2006).

	Small Establishments	Medium-Sized Establishments	Large Establishments
Total # of Inspections	1,866	993	324
Total # of Violations	6,234	2,103	434
Mean # of Violations/Inspection	3.3	2.1	1.3
Mean Penalty/Violation	$489.55	$1,040.01	$851.97
Mean Penalty/Inspection	$1,635.52	$2,202.55	$1,141.22
Mean Hours/Inspection	6.6	8.3	10.7
Mean Percent Penalty Reduction	48.3%	44.9%	52.4%
Mean Percent Informal Conference Participation	45.2%	41.9%	30.2%

Table 14. Descriptive Statistics for Employee-Initiated Safety-Complaint Inspections vs. Employee-Initiated Health-Complaint Inspections (June 23, 1996 to June 23, 2006).

	Safety-Complaint Inspections	Health-Complaint Inspections
Total # of Inspections	1,670	1,513
Total # of Violations	4,746	4,025
Mean # of Violations/Inspection	2.8	2.7
Mean Penalty/Violation	$743.86	$515.13
Mean Penalty/Inspection	$2,114.00	$1,370.39
Mean Hours/Inspection	5.9	9.4
Mean Percent Penalty Reduction	48.2%	44.8%
Mean Percent Informal Conference Participation	58.0%	52.6%

Table 15. Descriptive Statistics for Employee-Initiated Complaint Inspections at Different SIC Coded Establishments (June 23, 1996 to June 23, 2006).

	Manufacturing	Transportation, etc.	Wholesale Trade	Finance, etc.	Services
Total # of Inspections	2,124	251	236	38	399
Total # of Violations	6,548	387	405	57	979
Mean # of Violations/Inspection	3.1	1.5	1.7	1.5	2.5
Mean Penalty/Violation	$687.28	$662.97	$546.02	$774.26	$370.54
Mean Penalty/Inspection	$2,118.79	$1,022.19	$937.02	$1,161.39	$909.17
Mean Hours/Inspection	8.1	6.7	6.0	7.0	6.7
Mean Percent Penalty Reduction	47.2%	42.4%	43.8%	35.6%	50.7%
Mean Percent Informal Conference Participation	59.1%	45.5%	44.7%	38.1%	49.0%

Table 16. Frequencies for Programmed Inspections Plus Employee-Initiated Complaint Inspections (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
127 Inspections	196 Inspections	196 Inspections	385 Inspections	57 Inspections	354 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 hours	Over 0% to 33%	No
310 Inspections	375 Inspections	255 Inspections	139 Inspections	184 Inspections	65 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
97 Inspections	14 Inspections	90 Inspections	51 Inspections	119 Inspections	170 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to below 100%	
55 Inspections	4 Inspections	34 Inspections	14 Inspections	33 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	14 Inspections	2 Hours	23 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
44 Violations	$6,968.19	$0	243 Hours	173 Inspections	
		Maximum		Minimum	
		$76,650.00		0%	
				Maximum	
				100%	

Table 17. Frequencies for Programmed Inspections (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
60 Inspections	92 Inspections	92 Inspections	209 Inspections	26 Inspections	194 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
165 Inspections	203 Inspections	147 Inspections	66 Inspections	102 Inspections	27 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
51 Inspections	7 Inspections	41 Inspections	22 Inspections	66 Inspections	83 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to below 100%	
28 Inspections	2 Inspections	14 Inspections	7 Inspections	19 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
7 Inspections	$0	10 Inspections	2 Hours	6 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
32 Inspections	$6,968.19	$0	243 Hours	85 Inspections	
		Maximum		Minimum	
		$76,650.00		0%	
				Maximum	
				100%	

Table 18. Frequencies for Employee-Initiated Complaint Inspections (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
67 Inspections	104 Inspections	104 Inspections	209 Inspections	57 Inspections	194 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 hours	0.5% to 33%	No
164 Inspections	190 Inspections	127 Inspections	66 Inspections	184 Inspections	27 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
46 Inspections	8 Inspections	49 Inspections	22 Inspections	119 Inspections	83 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to below 100%	
27 Inspections	2 Inspections	20 Inspections	7 Inspections	33 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	4 Inspections	2 Hours	23 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
44 Violations	$5,600.00	$0	243 Hours	173 Inspections	
		Maximum		Minimum	
		$28,000.00		0%	
				Maximum	
				100%	

Table 19. Frequencies for Employee-Initiated Complaint Inspections Occurring at Unionized Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
25 Inspections	40 Inspections	40 Inspections	29 Inspections	4	32
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
38 Inspections	29 Inspections	17 Inspections	20 Inspections	17	7
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
6 Inspections	4 Inspections	7 Inspections	13 Inspections	10	35
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
5 Inspections	1 Inspection	6 Inspections	2 Inspections	3	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	4 Inspections	6.5 Hours	5	
Maximum	Maximum	Minimum	Maximum	Missing	
44 Violations	$5,600.00	$0	222 Hours	35	
		Maximum		Minimum	
		$28,000.00		0%	
				Maximum	
				100%	

Table 20. Frequencies for Employee-Initiated Complaint Inspections Occurring at Non-Unionized Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
42 Inspections	64 Inspections	64 Inspections	137 Inspections	27 Inspections	128 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
107 Inspections	140 Inspections	84 Inspections	53 Inspections	66 Inspections	31 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
40 Inspections	6 Inspections	49 Inspections	16 Inspections	42 Inspections	52 Inspections
Over 10 Violations	Over $4000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
22 Inspections	1 Inspection	14 Inspections	5 Inspections	11 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	0 Inspections	3 Hours	12 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
28 Violations	$5,000.00	$0	167 Hours	53 Inspections	
		Maximum		Minimum	
		$7,500.00		0%	
				Maximum	
				100%	

Table 21. Frequencies for Employee-Initiated Complaint Inspections Occurring at Small Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
14 Inspections	24	24 Inspections	79 Inspections	21 Inspections	82 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
53 Inspections	99 Inspections	69 Inspections	29 Inspections	41 Inspections	21 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
32 Inspections	0 Inspections	20 Inspections	12 Inspections	30 Inspections	20 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
24 Inspections	0 Inspections	9 Inspections	3	7 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	1 Inspection	3 Hours	4 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
44 Violations	$2,000.00	$0	129 Hours	20 Inspections	
		Maximum		Min	
		$27,000.00		0%	
				Max	
				100%	

Table 22. Frequencies for Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
12	22 Inspections	22 Inspections	41 Inspections	2 Inspections	38 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
40	37 Inspections	41 Inspections	16 Inspections	27 Inspections	4 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
8	2 Inspections	17 Inspections	4 Inspections	7 Inspections	19 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
1	0 Inspections	3 Inspections	0 Inspections	3 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	0 Inspections	6 Hours	3 Inspections	
Max	Maximum	Minimum	Maximum	Missing	
11 Violations	$3,500.00	$0	139 Hours	19 Inspections	
		Maximum		Minimum	
		$7,245.00		0%	
				Maximum	
				100%	

Table 23. Frequencies for Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
41 Inspections	58 Inspections	58 Inspections	56 Inspections	8 Inspections	40 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
52 Inspections	35 Inspections	19 Inspections	28 Inspections	15 Inspections	13 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
6 Inspections	6 Inspections	12 Inspections	14 Inspections	15 Inspections	48 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
2 Inspections	2 Inspections	9 Inspections	4 Inspections	4 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	3 Inspections	3 Hours	10 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
17 Violations	$5,600.00	$0	222 Hours	49 Inspections	
		Maximum		Min	
		$28,000.00		0%	
				Max	
				100%	

Table 24. Frequencies for Employee-Initiated Safety-Complaint Inspections (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
40 Inspections	59 Inspections	59 Inspections	115 Inspections	19 Inspections	90 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
90 Inspections	90 Inspections	56 Inspections	32 Inspections	48 Inspections	21 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500 to $5,000	Over 60 Hours	33.5% to 66%	Missing
19 Inspections	9 Inspections	30 Inspections	12 Inspections	28 Inspections	49 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
11 Inspections	2 Inspections	11 Inspections	1 Inspection	6 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	4 Inspections	3 Hours	10 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
44 Violations	$5,600.00	$0	222 Hours	49 Inspections	
		Maximum		Minimum	
		$28,000.00		0%	
				Maximum	
				100%	

Table 25. Frequencies for Employee-Initiated Health-Complaint Inspections (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
27 Inspections	45 Inspections	45 Inspections	62 Inspections	12 Inspections	70 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
55 Violations	80 Inspections	50 Inspections	40 Inspections	35 Inspections	17 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
27 Violations	0 Inspections	21 Inspections	17 Inspections	24 Inspections	38 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
16 Inspections	0 Inspections	9 Inspections	6 Inspections	8 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	0 Inspections	3 Hours	7 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
28 Violations	$2,000.00	$0	167 Hours	39 Inspections	
		Maximum		Minimum	
		$7,500.00		0%	
				Maximum	
				100%	

Table 26. Frequencies for Employee-Initiated Complaint Inspections Occurring at Manufacturing Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
44 Inspections	64 Inspections	64 Inspections	117 Inspections	24 Inspections	111 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
100 Inspections	126 Inspections	78 Inspections	55 Inspections	61 Inspections	28 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
32 Inspections	5 Inspections	37 Inspections	23 Inspections	39 Inspections	58 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
21 Inspections	2 Inspections	14 Inspections	2 Inspections	8 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	4 Inspections	3 Hours	6 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
44 Violations	$5,600.00	$0	222 Hours	59 Inspections	
		Maximum		Minimum	
		$28,000.00		0%	
				Maximum	
				100%	

Table 27. Frequencies for Employee-Initiated Complaint Inspections Occurring at Transportation, Communication, Electric, Gas, and Sanitary Services Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
11 Inspections	16 Inspections	16 Inspections	14 Inspections	1 Inspection	11 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
9 Inspections	9 Inspections	5 Inspections	6 Inspections	3 Inspections	4 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
5 Inspections	1 Inspection	2 Inspections	4 Inspections	3 Inspections	11 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
1 Inspection	0 Inspections	3 Inspections	2 Inspections	3 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	0 Inspections	8.5 Hours	5 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
11 Violations	$3,500.00	$0	118.5 Hours	11 Inspections	
		Maximum		Minimum	
		$7,000.00		0%	
				Maximum	
				100%	

Table 28. Frequencies for Employee-Initiated Complaint Inspections Occurring at Wholesale Trade Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
6 Inspections	8 Inspections	8 Inspections	12 Inspections	1 Inspection	8 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
6 Inspections	7 Inspections	7 Inspections	3 Inspections	4 Inspections	1 Inspection
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
3 Inspections	1 Inspection	1 Inspections	1 Inspection	3 Inspections	7 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
1 Inspection	0 Inspections	0 Inspections	0 Inspections	0 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	0 Inspections	6 Hours	1 Inspection	
Maximum	Maximum	Minimum	Maximum	Missing	
12 Violations	$2,100.00	$0	93 Hours	7 Inspections	
		Maximum		Minimum	
		$4,850.00		0%	
				Maximum	
				100%	

Table 29. Frequencies for Employee-Initiated Complaint Inspections Occurring at Retail Trade Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
2 Inspections	5 Inspections	5 Inspections	14 Inspections	3 Inspections	12 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
12 Inspections	14 Inspections	10 Inspections	2 Inspections	7 Inspections	3 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
4 Inspections	0 Inspections	2 Inspections	0 Inspections	3 Inspections	4 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
1 Inspection	0 Inspections	2 Inspections	3 Inspections	1 Inspection	
Minimum	Min	Over $7,500	Minimum	100%	
0 Violations	$0	0 Inspections	12 Hours	1 Inspection	
Maximum	Max	Minimum	Maximum	Missing	
11 Violations	$1,284.38	$0	56.5 Hours	4 Inspections	
		Maximum		Minimum	
		$5,610.00		0%	
				Maximum	
				100%	

Table 30. Frequencies for Employee-Initiated Complaint Inspections Occurring at Services Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
0 Violations	$0	$0	0 to 30 Hours	0%	Yes
3 Inspections	10 Inspections	10 Inspections	17 Inspections	2 Inspections	18 Inspections
1 to 5 Violations	$0.01 to $2,000	$0.01 to $2,500	30.5 to 60 Hours	Over 0% to 33%	No
17 Inspections	15 Inspections	8 Inspections	8 Inspections	8 Inspections	2 Inspections
6 to 10 Violations	$2,000.01 to $4,000	$2,500.01 to $5,000	Over 60 Hours	33.5% to 66%	Missing
3 Inspections	1 Inspections	7 Inspections	1 Inspection	4 Inspections	6 Inspections
Over 10 Violations	Over $4,000	$5,000.01 to $7,500	Missing	66.5% to Below 100%	
3 Inspections	0 Inspections	1 Inspections	0 Inspections	2 Inspections	
Minimum	Minimum	Over $7,500	Minimum	100%	
0 Violations	$0	0 Inspections	7.5 Hours	4 Inspections	
Maximum	Maximum	Minimum	Maximum	Missing	
11 Violations	$2,475.00	$0	81 Hours	6 Inspections	
		Maximum		Minimum	
		$5,775.00		0%	
				Maximum	
				100%	

Table 31. Inferential Statistics for Programmed Inspections vs. Employee-Initiated Complaint Inspections (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
$F(1,589) = 0.004$, $p = 0.952$	$F(1,589) = 0.367$, $p = 0.545$	$F(1,589) = 0.891$, $p = 0.346$	$F(1,575) = 1.449$, $p = 0.229$	$F = (1,416) = 0.206$, $p = 0.650$	$\chi 2\ (1) = 3.876$, $p = 0.049$

Table 32. Chi-Square for Mean Percent Informal Conference Participation between Programmed and Employee-Initiated Complaint Inspections (June 23, 2006 to June 23, 2007).

				Informal Conference		Total
				Yes	No	
	Inspection Type	Complaint	Count	160.0	38.0	198.0
			Expected Count	167.3	30.7	198.0
		Programmed	Count	194.0	27.0	221.0
			Expected Count	186.7	34.3	221.0
		Total	Count	354.0	65.0	419.0
			Expected Count	354.0	65.0	419.0

Table 33. Inferential Statistics for Employee-Initiated Complaint Inspections Occurring at Unionized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Non-Unionized Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
$F(1,285) = 2.425$, $p = 0.121$	$F(1,285) = 0.148$, $p = 0.701$	$F(1,285) = 1.724$, $p = 0.190$	$F(1,278) = 7.439$, $p = 0.007$	$F = (1, 197) = 1.394$, $p = 0.239$	$\chi^2(1) = 0.048$, $p = 0.826$

Table 34. Chi-Square for Mean Percent Informal Conference Participation between Employee-Initiated Complaint Inspections at Unionized Establishments vs. Employee-Initiated Complaint Inspections at Non-Union Establishments (June 23, 2006 to June 23, 2007).

				Informal Conference		Total
				Yes	No	
	Union Status	Union	Count	32.0	7.0	39.0
			Expected Count	31.5	7.5	39.0
		Non-Union	Count	128.0	31.0	159.0
			Expected Count	128.5	30.5	159.0
		Total	Count	160.0	38.0	198.0
			Expected Count	160.0	38.0	198.0

Table 35. Inferential Statistics for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

Mean # of Violations/Inspection	Mean Penalty/Violation	Mean Penalty/Inspection	Mean Hours/Inspection	Mean Percent Penalty Reduction	Informal Conference Participation
$F(2,285) = 28.913$, $p = 0.000$	$F(2,285) = 4.254$, $p = 0.015$	$F(2, 285) = 0.205$, $p = 0.815$	$F(2,278) = 1.997$, $p = 0.138$	$F = (2,197) = 3.803$, $p = 0.024$	$\chi^2(2) = 3.600$, $p = 0.165$

Table 36. Tukey HSD for Mean Number of Violations per Inspection for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

		1	2	Mean Difference (1 minus 2)	Significance
	Size	Small	Medium	3.8727	0.000
			Large	4.5681	0.000
		Medium	Small	-3.8727	0.000
			Large	0.6953	0.641
		Large	Small	-4.5681	0.000
			Medium	-0.6953	0.641

Table 37. Tukey HSD for Mean Monetary Penalty per Violation for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

		1	2	Mean Difference (1 minus 2)	Significance
	Size	Small	Medium	-276.0642	0.036
			Large	-224.6060	0.049
		Medium	Small	276.0642	0.036
			Large	51.4582	0.895
		Large	Small	224.6060	0.049
			Medium	-51.4582	0.895

Table 38. Tukey HSD for Mean Monetary Penalty per Inspection for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

		1	2	Mean Difference (1 minus 2)	Significance
	Size	Small	Medium	241.5650	0.086
			Large	212.9735	0.852
		Medium	Small	-241.5650	0.859
			Large	-28.5915	0.998
		Large	Small	-212.9735	0.852
			Medium	28.5915	0.998

Table 39. Tukey HSD for Mean Number of Hours Spent on Inspection Activities per Inspection for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

		1	2	Mean Difference (1 minus 2)	Significance
	Size	Small	Medium	2.7985	0.782
			Large	-5.3587	0.304
		Medium	Small	-2.7985	0.782
			Large	-8.1572	0.147
		Large	Small	5.3587	0.304
			Medium	8.1572	0.147

Table 40. Tukey HSD for Mean Percent Penalty Reduction for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

		1	2	Mean Difference (1 minus 2)	Significance
	Size	Small	Medium	-4.6281	0.607
			Large	-12.4214	0.018
		Medium	Small	4.6810	0.607
			Large	-7.7933	0.334
		Large	Small	12.4214	0.018
			Medium	7.7933	0.334

Table 41. Chi-Square for Mean Percent Informal Conference Participation between Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

				Informal Conference		Total
				Yes	No	
	Size	Small	Count	82.0	21.0	103.0
			Expected Count	83.2	19.8	103.0
		Medium	Count	38.0	4.0	42.0
			Expected Count	33.9	8.1	42.0
		Large	Count	40.0	13.0	53.0
			Expected Count	42.8	10.2	53.0
		Total	Count	160.0	38.0	198.0
			Expected Count	160.0	38.0	198.0

Table 42. Inferential Statistics for Employee-Initiated Safety-Complaint Inspections vs. Employee-Initiated Health-Complaint Inspections (June 23, 2006 to June 23, 2007).

Total # of Violations/Inspection	Total Penalty/Violation	Total Penalty/Inspection	Total Hours/Inspection	Total Percent Penalty Reduction	Informal Conference Participation
$F(1,285) = 4.679$, $p = 0.031$	$F(1,285) = 11.963$, $p = 0.001$	$F(1,285) = 1.859$, $p = 0.174$	$F(1,278) = 9.248$, $p = 0.003$	$F(1,197) = 0.459$, $p = 0.499$	$\chi^2(1) = 0.12$, $p = 0.912$

Table 43. Chi-Square for Mean Percent Informal Conference Participation between Employee-Initiated Safety-Complaint Inspections and Employee-Initiated Health-Complaint Inspections (June 23, 2006 to June 23, 2007).

				Informal Conference		Total
				Yes	No	
	Complaint Type	Safety	Count	90.0	21.0	111.0
			Expected Count	89.7	21.3	111.0
		Health	Count	70.0	17.0	87.0
			Expected Count	70.3	16.7	87.0
		Total	Count	160.0	38.0	198.0
			Expected Count	160.0	38.0	198.0

Table 44. Inferential Statistics for Employee-Initiated Complaint Inspections Occurring at Different SIC Coded Establishments (June 23, 2006 to June 23, 2007).

Total # of Violations/Inspection	Total Penalty/Violation	Total Penalty/Inspection	Total Hours/Inspection	Total Percent Penalty Reduction	Informal Conference Participation
F (5,285 = 33.102, p = 0.299	F (5,285) = 0.571, p = 0.722	F (5,285) = 0.968, p = 0.438	F (5,278) = 1.401, p = 0.224	F (4,197) = 5.095, p =0.001	$\chi 2$ (4) = 2.096, p = 0.718

Table 45. Tukey HSD for Mean Percent Penalty Reduction for Employee-Initiated Complaint Inspections Occurring at Different SIC Coded Establishments (June 23, 2006 to June 23, 2007).

		1	2	Mean Difference (1 minus 2)	Significance
	SIC	Manufacturing	Transportation, etc.	-28.7068	0.001
			Wholesale Trade	-7.5379	0.915
			Retail Trade	0.1265	1.000
			Services	-13.6101	0.183
		Transportation, etc.	Manufacturing	28.7068	0.001
			Wholesale Trade	21.1689	0.297
			Retail Trade	28.8333	0.021
			Services	15.0967	0.429
		Wholesale Trade	Manufacturing	7.5379	0.915
			Transportation, etc.	-21.1689	0.297
			Retail Trade	7.6644	0.955
			Services	-6.0722	0.977
		Retail Trade	Manufacturing	-0.1265	1.000
			Transportation, etc.	-28.8333	0.021
			Wholesale Trade	-7.6644	0.955
			Services	-13.7367	0.526
		Services	Manufacturing	13.6101	0.183
			Transportation, etc.	-15.0967	0.429
			Wholesale Trade	6.0722	0.977
			Retail Trade	13.7367	0.526

Table 46. Chi-Square for Mean Percent Informal Conference Participation for Employee-Initiated Complaint Inspections Occurring at Different SIC Coded Establishments (June 23, 2006 to June 23, 2007).

				Informal Conference		Total
				Yes	No	
	SIC	Manufacturing	Count	111.0	28.0	139.0
			Expected Count	112.3	26.7	139.0
		Transportation, etc.	Count	11.0	4.0	15.0
			Expected Count	12.1	2.9	15.0
		Wholesale Trade	Count	8.0	1.0	9.0
			Expected Count	7.3	1.7	9.0
		Retail Trade	Count	12.0	4.0	15.0
			Expected Count	12.1	2.9	15.0
		Services	Count	18.0	2.0	20.0
			Expected Count	16.2	3.8	20.0
		Total	Count	160.0	38.0	198.0
			Expected Count	160.0	38.0	198.0

Table 47. Means for Programmed Inspections vs. Employee-Initiated Complaint Inspections (June 23, 2006 to June 23, 2007).

	Programmed	Complaint	Total
Number of Violations/Inspection	4.1	4.1	4.1
Penalty/Violation	$406.88	$441.21	$423.89
Penalty/Inspection	$2,135.39	$1,767.76	$1,957.50
Hours/Inspection	29	32.9	30.4
Percent Penalty Reduction	38.1	39.1	38.6
Percentage Informal Conference (Yes; No)*	87.8; 12.2	80.8; 19.2	84.5; 15.5
*Signifies that differences are statistically significant.			

Table 48. Means for Employee-Initiated Complaint Inspections Occurring at Unionized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Non-Unionized Establishments (June 23, 2006 to June 23, 2007).

	Union	Non-Union	Total
Number of Violations/Inspection	3.3	4.4	4.1
Penalty/Violation	$468.79	$431.54	$441.21
Penalty/Inspection	$2,151.94	$1,633.02	$1,767.76
Hours/Inspection*	39.3	29.4	32
Percent Penalty Reduction	43.7	38	39.1
Percentage Informal Conference (Yes; No)	82.1; 17.9	80.5; 19.5	80.1; 19.9
*Signifies that differences are statistically significant.			

Table 49. Means for Employee-Initiated Complaint Inspections Occurring at Small Establishments vs. Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments vs. Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

	Small	Medium	Large	Total
Number of Violations/Inspection*	6.5	2.7	2.0	4.1
Penalty/Violation*	$302.53	$578.59	$527.13	$441.21
Penalty/Inspection	$1,894.93	$1,653.37	$1,681.96	$1,767.76
Hours/Inspection	30.7	27.9	36.1	32
Percent Penalty Reduction*	34.8	39.5	47.3	39.1
Percentage Informal Conference (Yes; No)	79.6; 20.4	90.5; 9.5	75.5; 24.5	80.8; 19.2
*Signifies that differences are statistically significant.				

Table 50. Means for Employee-Initiated Safety-Complaint Inspections vs. Employee-Initiated Health-Complaint Inspections (June 23, 2006 to June 23, 2007).

	Safety	Health	Total
Number of Violations/Inspection*	3.5	4.8	4.1
Penalty/Violation*	$568.64	$278.23	$441.21
Penalty/Inspection	$1,976.51	$1,500.56	$1,767.76
Hours/Inspection*	27.8	37.5	32
Percent Penalty Reduction	38	40.6	39.1
Percentage Informal Conference (Yes; No)	81.1; 18.9	80.5; 19.5	80.8; 19.2
*Signifies that differences are statistically			
significant.			

Table 51. Means for Employee-Initiated Complaint Inspections Occurring at Different SIC Coded Establishments (June 23, 2006 to June 23, 2007).

	Manufacturing	Transportation, etc.	Wholesale Trade	Retail Trade	Finance, etc.**	Services	Total
Number of Violations/Inspection	4.5	2.3	2.8	3.5	0	3.8	4.1
Penalty/Violation	$483.26	$293.33	$325.20	$355.45	$0.00	$421.56	$441.21
Penalty/Inspection	$2,009.72	$1,189.63	$939.09	$1,303.95	$0.00	$1,434.35	$1,767.76
Hours/Inspection	33.7	36.8	22.8	21.9	26	26.4	32
Percent Penalty Reduction*	35.2*	63.9*	42.8	35.1*	-	48.9	39.1
Percentage Informal Conference (Yes; No)	80; 20	73.3; 26.7	88.9; 11.1	80; 20	-	90; 10	80.8; 19.2

*Signifies that differences are statistically significant.

**Excluded because only one case is included in the present study.

Table 52. Qualitative Comparison between Programmed Inspections and Employee-Initiated Complaint Inspections (June 23, 2006 to June 23, 2007).

	Programmed	Complaint	Total		Programmed	Complaint
Number of Violations/Inspection	4.1	4.1	4.1		-	-
Penalty/Violation	$406.88	$441.21	$423.89		X	-
Penalty/Inspection	$2,135.39	$1,767.76	$1,957.50		-	X
Hours/Inspection	29	32.9	30.4		X	-
Percent Penalty Reduction	38.1	39.1	38.6		-	X
Percentage Informal Conference (Yes; No)*	87.8; 12.2	80.8; 19.2	84.5; 15.5		X	-
Number of Xs					3	2
*Signifies that differences are statistically significant.						

Table 53. Qualitative Comparison between Employee-Initiated Complaint Inspections Occurring at Unionized Establishments and Employee-Initiated Complaint Inspections Occurring at Non-Unionized Establishments (June 23, 2006 to June 23, 2007).

	Union	Non-Union	Total		Union	Non-Union
Number of Violations/Inspection	3.3	4.4	4.1		X	-
Penalty/Violation	$468.79	$431.54	$441.21		-	X
Penalty/Inspection	$2,151.94	$1,633.02	$1,767.76		-	X
Hours/Inspection*	39.3	29.4	32		-	X
Percent Penalty Reduction	43.7	38	39.1		X	-
Percentage Informal Conference (Yes; No)	82.1; 17.9	80.5; 19.5	80.1; 19.9		X	-
Number of Xs					3	3
*Signifies that differences are statistically						
significant.						

Table 54. Qualitative Differences between Employee-Initiated Complaint Inspections Occurring at Small Establishments, Employee-Initiated Complaint Inspections Occurring at Medium-Sized Establishments, and Employee-Initiated Complaint Inspections Occurring at Large Establishments (June 23, 2006 to June 23, 2007).

						Best		
	Small	Medium	Large	Total		Small	Medium	Large
Number of Violations/Inspection*	6.5	2.7	2	4.1		-	-	X
Penalty/Violation*	$302.53	$578.59	$527.13	$441.21		X	-	-
Penalty/Inspection	$1,894.93	$1,653.37	$1,681.96	$1,767.76		-	X	-
Hours/Inspection	30.7	27.9	36.1	32		-	X	-
Percent Penalty Reduction*	34.8	39.5	47.3	39.1		-	-	X
Percentage Informal Conference (Yes; No)	79.6; 20.4	90.5; 9.5	75.5; 24.5	80.8; 19.2		-	X	-
Number of Xs						1	3	2
*Signifies that differences are statistically significant.								

Table 54. Cont.

						Worst		
	Small	Medium	Large	Total		Small	Medium	Large
Number of Violations/Inspection*	6.5	2.7	2	4.1		X	-	-
Penalty/Violation*	$302.53	$578.59	$527.13	$441.21		-	X	-
Penalty/Inspection	$1,894.93	$1,653.37	$1,681.96	$1,767.76		X	-	-
Hours/Inspection	30.7	27.9	36.1	32		-	-	X
Percent Penalty Reduction*	34.8	39.5	47.3	39.1		X	-	-
Percentage Informal Conference (Yes; No)	79.6; 20.4	90.5; 9.5	75.5; 24.5	80.8; 19.2		-	-	X
Number of Xs						3	1	2
*Signifies that differences are statistically significant.								

Table 55. Qualitative Comparison between Employee-Initiated Safety-Complaint Inspections and Employee-Initiated Health-Complaint Inspections (June 23, 2006 to June 23, 2007).

	Safety	Health	Total		Safety	Health
Number of Violations/Inspection*	3.5	4.8	4.1		X	-
Penalty/Violation*	$568.64	$278.23	$441.21		-	X
Penalty/Inspection	$1,976.51	$1,500.56	$1,767.76		-	X
Hours/Inspection*	27.8	37.5	32		X	-
Percent Penalty Reduction	38	40.6	39.1		-	X
Percentage Informal Conference (Yes; No)	81.1; 18.9	80.5; 19.5	80.8; 19.2		X	-
Number of Xs					3	3
*Signifies that differences are statistically						
significant.						

Table 56. Qualitative Comparison between Employee-Initiated Complaint Inspections Occurring at Different SIC Coded Establishments (June 23, 2006 to June 23, 2007).

	Manufacturing	Transportation, etc.	Wholesale Trade	Retail Trade	Finance, etc.**	Services	Total
Number of Violations/Inspection	4.5	2.3	2.8	3.5	0	3.8	4.1
Penalty/Violation	$483.26	$293.33	$325.20	$355.45	$0.00	$421.56	$441.21
Penalty/Inspection	$2,009.72	$1,189.63	$939.09	$1,303.95	$0.00	$1,434.35	$1,767.76
Hours/Inspection	33.7	36.8	22.8	21.9	26	26.4	32
Percent Penalty Reduction*	35.2*	63.9*	42.8	35.1*	-	48.9	39.1
Percentage Informal Conference (Yes; No)	80; 20	73.3; 26.7	88.9; 11.1	80; 20	-	90; 10	80.8; 19.2

Number of Xs

*Signifies that differences are statistically significant.

**Excluded because only one case is included in the present study.

Table 56. Cont.

		Best				
		Manufacturing	Transportation, etc.	Wholesale Trade	Retail Trade	Services
		-	X	-	-	-
		-	X	-	-	-
		-	-	X	-	-
		-	-	X	-	-
		-	X	-	-	-
		-	-	-	-	X
		0	3	2	0	1

Table 56. Cont.

		Worst				
		Manufacturing	Transportation, etc.	Wholesale Trade	Retail Trade	Services
		X	-	-	-	-
		X	-	-	-	-
		X	-	-	-	-
		-	X	-	-	-
		-	-	-	X	-
		-	X	-	-	-
		3	2	0	1	0

Table 57. Characteristics of Successful Safety Program Factors.

Management Commitment Characteristics
The safety officer holds a high rank
Top-management officials are involved personally in safety-related actions
Safety is given high priority in meetings and operations
Management sets unambiguous safety policies and objectives
Hazard Control Characteristics
A high level housekeeping activities exists
A logical layout of work processes exists
Adequate environmental controls exist
A large number and diversity of safeguards on machinery exist
Safety Training Characteristics
New employee orientation incorporates safety topics
Employees are given initial and refresher safety training
Supervisors are given specialized safety training
A diversity of training techniques are utilized
Safety Motivation Characteristics
A humanistic approach is utilized to correct safety violations
Employee families are included in safety-related promotions,
Specifically designed safety displays are utilized for hazard recognition
Individual praise is given for safe employee behavior
Employee Support Characteristics
Job placement and advancement processes are established
Employee counseling services exist
Employee recreational facilities exist
Inspection and Communications Characteristics
Daily contact between the employee and supervisor pertaining to safety exists
Formal inspections at regular and frequent intervals are conducted
A smaller span of supervisory control exists
Frequent informal contacts between employees and top-management exists
Accident Investigations and Recordkeeping Characteristics
Lost-time and non lost-time injuries are investigated and recorded
Property accidents and near misses are investigated
Frequent use of investigative results to initiate hazard control exists
Safety Committees and Safety Rules Characteristics
Safety committees hold regular and frequent meetings
Regular review and revision of safety rules exist
Evidence of employee compliance with safety rules exists
From Cohen (1977), from p. 173.

Appendix A. OSH Act of 1970 sections that pertain to employee rights to file complaints with OSHA.

(f) (1) Any employees or representative of employees who believe that a violation of a safety or health standard exists that threatens physical harm, or that an imminent danger exists, may request an inspection by giving notice to the Secretary or his authorized representative of such violation or danger. Any such notice shall be reduced to writing, shall set forth with reasonable particularity the grounds for the notice, and shall be signed by the employees or representative of employees, and a copy shall be provided the employer or his agent no later than at the time of inspection, except that, upon the request of the person giving such notice, his name and the names of individual employees referred to therein shall not appear in such copy or on any record published, released, or made available pursuant to subsection (g) of this section. If upon receipt of such notification the Secretary determines there are reasonable grounds to believe that such violation or danger exists, he shall make a special inspection in accordance with the provisions of this section as soon as practicable, to determine if such violation or danger exists. If the Secretary determines there are no reasonable grounds to believe that a violation or danger exists he shall notify the employees or representative of the employees in writing of such determination.

(2) Prior to or during any inspection of a workplace, any employees or representative of employees employed in such workplace may notify the Secretary or any representative of the Secretary responsible for conducting the inspection, in writing, of any violation of

this Act which they have reason to believe exists in such workplace. The Secretary shall, by regulation, establish procedures for informal review of any refusal by a representative of the Secretary to issue a citation with respect to any such alleged violation and shall furnish the employees or representative of employees requesting such review a written statement of the reasons for the Secretary's final disposition of the case.

From OSH Act of 1970 §8.

Appendix B. OSHA Instruction CPL 02-00-140.

DIRECTIVE NUMBER: CPL 02-00-140	**EFFECTIVE DATE:** 6/23/2006
SUBJECT: Complaint Policies and Procedures	

ABSTRACT

Purpose:	This instruction revises complaint policies and procedures, and includes instructions for handling complaints received electronically from OSHA's public webpage.
Scope:	This instruction applies OSHA-wide.
References:	See paragraph III.
Cancellation:	OSHA Instruction CPL 02-00-103 (2.103), Chapter 1, paragraph C1 through C4, C6 through C8 and C10; Memorandum dated July 13, 1999 from Deputy Assistant Secretary R. Davis Layne to the Regional Administrators and State Plan Designees entitled Child Labor: Responding to Complaints Alleging Hazards to Workers Under 18Years of Age.
State Plan Impact:	State intent required; see paragraph V. [State Adoption Summary]
Action Office:	National, Regional Area Offices and State Plan Offices.
Originating Office:	Directorate of Enforcement Programs.
Contact:	Directorate of Enforcement Programs 200 Constitution Avenue, N.W., Room N3119 Washington, DC 20210 (202) 693-2100

By and Under the Authority of

Edwin G. Foulke, Jr.
Assistant Secretary

Executive Summary

This instruction provides comprehensive guidance for handling complaints relating to workplace safety and health conditions. It defines critical terms relevant to the complaint process, including complaint, formal complaint, and referral, and outlines the conditions a complaint or referral must meet in order to warrant an on-site inspection. This instruction discusses protocol for dealing with electronic complaints, which are becoming a more common method of filing complaints with the Agency, and introduces an electronic code to facilitate tracking of these complaints. Procedures for receiving information via telephone, as well as for handling complaints filed in multiple area offices, are addressed. Additionally, detailed procedures for conducting both on-site inspections and phone/fax inquiries are delineated.

Significant Changes

- The distinction between formal and non-formal complaints has been reestablished.
- The terms *complaint* and *referral* have been redefined so as to be mutually exclusive of one another.
- The term *investigation* has been replaced with *inquiry*.
- The policy has been revised to clarify that classifying information received as a "complaint" or a "referral" does not in itself determine whether an inspection will be conducted as a result. Rather, an inspection is triggered based on the gravity and likelihood of the potential workplace hazard.
- Procedures for handling complaints submitted via OSHA's public website are outlined.
- A provision has been added to establish that receipt of information giving reasonable grounds to believe that a worker under 18 years of age is exposed to a serious violation of a safety or health standard or a serious hazard will result in an inspection if the information relates to construction, manufacturing, or agriculture, or other industries as determined by the Area Director.

TABLE OF CONTENTS

I. **Purpose**. This instruction revises policies and procedures for handling complaints relating to workplace safety and health conditions, and includes procedures for handling complaints received electronically from the OSHA public website.

II. **Scope**. This instruction applies OSHA-wide. States with OSHA-approved State Plans are encouraged to adopt similar policies but may choose to experiment with other alternatives. See paragraph V., below.

III. **References**.

A. OSHA Instruction 03-06 (IRT 01) (03-06 (ADM 01)), The IMIS Enforcement Data Processing Manual: Table of Contents and Chapters 1 through 7.

B. OSHA Instruction IRT 01-00-007 (ADM 1-1.31), IMIS Enforcement Data Processing Manual for Use with the NCR Computer System.

C. OSHA Instruction CPL 02-00-051 (2-0.51J), Enforcement Exemptions and Limitations under the Appropriations Act.

D. OSHA Instruction CPL 02-00-103 (2.103), Field Inspection Reference Manual (FIRM).

E. OSHA Instruction FAP 01-00-003 (1.3), Federal Agency Safety and Health Programs.

F. OSHA Instruction STP 01-00-002 (2.22A), State Plan Policies and Procedures Manual.

G. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees, *Federal Register*, February 26, 1980 (45 FR 12769).

H. Elements for Federal Employee Occupational Safety and Health Programs, 29 CFR1960.

I. Memorandum dated October 1, 1998 to Regional Administrators and State Plan Designees from Deputy Assistant Secretary Emzell Blanton, Jr. regarding Referrals in Exempt SIC Codes.

IV. **Cancellations**.

A. OSHA Instruction CPL 02-00-115 (2.115), Complaint Policies and Procedures.

B. OSHA Instruction CPL 02-00-103 (2.103), Field Inspection Reference Manual (FIRM), Chapter 1, paragraphs C1 through C4, C6 through C8, and C10.

C. Memorandum dated July 13, 1999 from Deputy Assistant Secretary R. Davis Layne to the Regional Administrators and State Plan Designees entitled Child Labor: Responding to Complaints Alleging Hazards to Workers Under 18 Years of Age.

V. **State Plan Impact**. This instruction describes a Federal program change. States are expected to have enforcement policies and procedures in place which are at least as effective as those in this instruction. These inspection policies must be accessible to all interested parties on the State Plan's website or submitted to OSHA in electronic format for posting to OSHA's website. If posted on a State Plan's website, the link to the specific policy must be submitted to OSHA for posting to OSHA's website as well.

In addition, because of the significant nature of the policy changes contained in this instruction, notice of intent (to maintain the State's current procedures or adopt identical or revised procedures in response to this Instruction) is required.

With regard to complaints received electronically through OSHA's public webpage and referred to the State for response, States must continue to coordinate with their Regions to assure timely acceptance of such complaints and appropriate response.

VI. **Background**. In 1996, OSHA revised its policy on complaints. The reworked policy eliminated the distinction between "formal" and "non-formal" complaints, and instead classified complaints as those that result in on-site inspections and those that result in investigations using telephone, fax, and similar means. However, this reclassification blurred the distinction between a complaint and a referral, leading to confusion as to how to handle various scenarios that may arise. This revision of the 1996 directive reestablishes the formal and non-formal complaint distinction, while further clarifying the difference between a complaint and a referral. The definitions of each are now mutually exclusive, and the steps that should be taken in response to each are clearly outlined.

Additionally, on July 13, 1999, OSHA issued a memorandum to provide more effective protection for minor workers (under 18 years of age), who are especially vulnerable to workplace hazards. The guidance provided in this memorandum is now incorporated in this instruction; see Paragraph VIII.A.9.

Furthermore, advances in technology now allow employees to review the rights, protections and opportunities available to them under the Occupational Safety and Health Act of 1970 (the Act) on the Internet. Complaints about safety and health hazards at the workplace can also be filed by workers via the Internet. This webpage for employees can be viewed at http://www.osha.gov/as/opa/worker/index.html, or is available through OSHA's public website at www.osha.gov. This instruction includes information for Federal offices and State Plan offices on how to handle these complaints received electronically.

These procedures continue to provide for quick resolution of complaints, speed hazard abatement and enable OSHA to focus its inspection resources on the workplaces where they are most needed. The policy continues to protect the right of current employees and their representatives to file complaints about workplace safety and health hazards.

VII. **Definitions**.

A. *Complaint*. Notice of an alleged safety or health hazard (over which OSHA has jurisdiction), or a violation of the Act, submitted by a past or present employee or representative of employees.

B. *Formal Complaint*. Complaint made by a current employee or a representative of employees that meets **all** of the following requirements:

1. Asserts that an imminent danger, a violation of the Act, or violation of an OSHA standards exposing employees to physical harm exists in the workplace;

2. Is reduced to writing or submitted on an OSHA-7 form; and

3. Is signed by at least one current employee or employee representative.

C. *Non-formal Complaint*. Any complaint alleging safety or health violations that does not meet all of the requirements of a formal complaint identified above and does not come from one of the sources identified under *Referral* in VII.H. below.

D. *Inspection.* An on-site examination of an employer's worksite conducted by an OSHA compliance officer, initiated as the result of a complaint or referral, and meeting **at least one** of the criteria identified in VIII.A (below).

E. *Inquiry*. A process conducted in response to a complaint or a referral that does not meet one of the identified inspection criteria. It does not involve an on-site inspection of the workplace, but rather OSHA advises the employer of the alleged hazard(s) or violations by telephone, fax, e-mail, or by letter if necessary. The employer is required to provide a response, and the Agency will notify the complainant of that response via appropriate means.

F. *Electronic Complaint*. A complaint submitted via OSHA's public webpage. All complaints submitted via OSHA's public webpage are considered non-formal.

G. *Permanently Disabling Injury or Illness*. An injury or illness that has resulted in permanent disability or an illness that is chronic or irreversible. Permanently disabling injuries or illnesses include, but are not limited to: amputation, blindness, a standard threshold shift in hearing, lead or mercury poisoning, paralysis or third-degree burns.

H. *Referral*. Information received from one of the sources listed below alleging a hazard or a violation of the Act believed to exist in a workplace.

1. **CSHO referral** - information based on the direct observation of a CSHO. (Code 14A as *A. CSHO (Within Office)*.)

2. **Safety and health agency referral** – from sources including, but not limited to: NIOSH, state programs, consultation, state or local health departments, local police and fire departments, medical doctors, as well as safety and/or health professionals in other Federal agencies. (As appropriate, code 14A as *B. Federal OSHA; C. State OSH; F. Consultation; G. State/Local Government;* or *I. Other*.)

3. **11(c) complaint referral** - made by an 11(c) discrimination investigator when an employee alleges that he or she was discriminated against for complaining about safety or health conditions in the workplace or for refusing to do an allegedly imminently dangerous job or task. (Code 14A as D. *Discrimination*.)

4. **Other government agency referral** – made by other Federal, State, or local government agencies or their employees. (As appropriate, code 14A as *E. Other Federal Agency*, or *G. State/Local Government*.)

5. **Media report** - either news items reported in the media or information reported directly to OSHA by a media source. (Code 14A as H. *Media*.)

6. **Employer report** – of accidents other than fatalities and catastrophes. (Code 14A as *I. Other*.)

I. *Representative of Employees*. Any of the following:

1. An authorized representative of the employee bargaining unit, such as a certified or recognized labor organization.

2. An attorney acting for an employee.

3. Any other person acting in a bona fide representative capacity, including members of the clergy, social workers, spouses and other family members, and government officials or nonprofit groups and organizations acting upon specific complaints and injuries from individuals who are employees.

- The representational capacity of the person filing complaints on behalf of another should be ascertained unless it is already clear. In general, the affected employee should have requested, or at least approved of, the filing of the complaint on his or her behalf.

VIII. **Criteria Warranting an Inspection**.

A. Whether the information received is classified as a complaint or a referral, an inspection of a workplace is normally warranted if at **least one** of the conditions below is met (*but see* XII.A.2):

1. A valid formal complaint is submitted. Specifically, the complaint must be reduced to writing or submitted on an OSHA-7 form, be signed by a current employee or representative of employees, and state the reason for the inspection request with reasonable particularity. Additionally, there must be reasonable grounds to believe either that a violation of the Act or OSHA standard that exposes employees to physical harm exists, or that an imminent

danger of death or serious injury exists, as provided in Section 8(f)(1) of the Act.

2. The information alleges that a disabling injury or illness (as defined in VII.F., above) has occurred as a result of the complained of hazard(s), and there is reason to believe that the hazard or related hazards still exist.

3. The information alleges that an imminent danger situation exists (see CPL 02-00-103 (2-0.103), the Field Inspection Reference Manual, for additional procedures to be followed).

4. The information concerns an establishment and an alleged hazard covered by a local, regional, or national emphasis program, the Site Specific Targeting Plan, or the Agency's current strategic plan.

5. The employer fails to provide an adequate response to an inquiry, or the individual who provided the original information provides further evidence that the employer's response is false or does not adequately address the hazard(s).

6. The establishment that is the subject of the information has a history of egregious, willful, failure-to-abate, or repeat citations within the Area Office's jurisdiction during the past three years, or is an establishment or related establishment in the Enhanced Enforcement Program. However, if the employer has previously submitted adequate abatement documentation for these violations demonstrating that they have been corrected and that programs have been implemented to prevent a recurrence of hazards, the Area Director will normally determine that an inspection is not necessary.

7. An 11(c) discrimination investigator or Regional Supervisory Investigator requests that an inspection be conducted in response to an employee's allegation that the employee was discriminated against for complaining about safety or health conditions in the workplace or for refusing to perform an allegedly imminently dangerous job or task.

8. If an inspection is scheduled or has begun at an establishment and a complaint or referral that would normally be handled via inquiry is received, that complaint or referral may, at the Area Director's discretion, be incorporated into the scheduled or ongoing inspection. If such a complaint is formal, the complainant must still receive a written response addressing the complaint items.

9. If the information gives reasonable grounds to believe that a worker under 18 years of age is exposed to a serious violation of a safety or health standard or a serious hazard, an on-site inspection will be initiated if the information relates to construction, manufacturing, agriculture, or other industries as determined by the Area Director. (Limitations placed on OSHA's activities in agriculture by Appropriations Act provisions will be observed. See OSHA Instruction CPL 02-00-051 (2-0.51J)).

   NOTE: The information does not need to allege that a child labor law has been violated.

10. The information received is a signed, written complaint from a current employee or employee representative that alleges a recordkeeping deficiency that indicates the existence of a serious safety or health violation.

B. In order to schedule an inspection of an employer in an exempt industry classification as specified by Appropriations Act provisions (see OSHA Instruction CPL 02-00-051 (2-051J)):

   1. The information must come directly from a current employee; OR

   2. It must be determined and documented in the case file that the information came from a representative of the employee (*see* VII.I.) with the employee's knowledge of the representative's intended action.

IX. **Electronic Complaints Received via the OSHA Public Website**.

A. Electronic complaints submitted via the OSHA public website are automatically forwarded via e-mail to a designated Area Office in the appropriate state. That Office then forwards the electronic complaints to the appropriate Area Office in the state.

B. Each Area Office manages a "Complaints" mailbox and processes electronic complaints according to internal complaint processing procedures. The complaints mailbox is monitored daily and every incoming complaint is reviewed for jurisdiction.

   1. If the complaint falls within the jurisdiction of the Area Office, the complaint is entered into IMIS and processed as usual.

   2. If the complaint falls within the jurisdiction of another Area Office, the complaint is forwarded appropriately.

C. Area Offices will coordinate with State Plan states to establish how electronic complaints will be processed. After reaching agreement on the procedures for receiving electronic complaints, the State establishes its own internal procedures for responding to such complaints. These procedures may be the State's usual procedures for handling unsigned complaints or they may include some further coordination with the complainant prior to action. See also section V, above. In State Plan states, the Federal Monitoring office will screen the complaints unless other arrangements have been made. If the complaint falls within the individual State Plan's jurisdiction, the Screening Office will follow the procedures developed with the State Plan for processing the complaint.

D. Complete an OSHA-7 form for all complaint information received. In order to facilitate the tracking of electronic complaints, enter the following code in the Optional Information field:

N-11-LOGXXXXXX

- Where N-11 indicates that the complaint was filed electronically;
- The digits following *LOG* are the unique compliant ID/log numbers assigned to the electronic complaint when processed by the Salt Lake Technical Center. The log number may vary and does not have to be exactly six digits. In entering the code, there is no space between the word LOG and the digits that follow.

E. Information received electronically from a current employee is considered a non-formal complaint until that individual provides a signed copy of the information. The employee can send or fax a signed copy of the information, request that an OSHA-7 form be sent, or sign the information in person at the Area Office.

Normally a complainant is given five working days to formalize an electronic complaint. The Area Office must actively follow up on information received electronically in order to provide the employee with the opportunity to make the complaint formal.

F. All complaint related material received electronically should be printed and date stamped with the date the material was submitted and received. When these dates are not the same, the Area Director will determine the appropriate date for the incoming material.

X. **Information Received by Telephone**.

A. During the course of telephone contact with the caller, OSHA will attempt to obtain the following information:

0. Whether the caller is a current employee or an employee representative.

1. The exact nature of the alleged hazard(s) and the basis of the caller's knowledge, as the individual receiving the information must determine, to the extent possible, whether the information received describes an apparent violation of OSHA standards or the OSH Act.

2. The employer's name, address, telephone and fax numbers, as well as the name of a contact person at the worksite.

3. The name, address, telephone number, and e-mail address of any union and/or employee representative at the worksite.

B. As appropriate, OSHA will provide the caller with the following information:

0. Describe the complaint process, and if appropriate, the concepts of "inquiry" and "inspection," as well as the relative advantages of each.

1. If the caller is a current employee or a representative of employees, explain the distinction between a formal complaint and a non-formal complaint, and the rights and protections that accompany filing a formal complaint. These rights and protections include:

- The right to request an on-site inspection.

- Notification in writing if an inspection is deemed unnecessary because there are no reasonable grounds to believe that a violation or danger exists.

- The right to obtain review of a decision not to inspect by submitting a request for review in writing.

2. If appropriate, inform the complainant of rights to confidentiality in accordance with Section 8(f)(1) of the Act for private sector employees, and Executive Order 12196 dated February 26, 1980 for Federal employees, and ask whether the complainant wishes to

exercise this right. When confidentiality is requested, the identity of the complainant is protected regardless of the formality of the complaint.

3. Explain Section 11(c) rights to private sector employees and employees of the U.S. Postal Service, or reprisal and discrimination protection provided by Executive Order 12196, 29 CFR § 1960.46 and the Whistleblowers Protection Act of 1989 to Federal employees. (See OSHA Instruction FAP 01-00-003 for reports of reprisal or discrimination from Federal employees.)

XI. **Procedures for Handling Complaints Filed in Multiple Area Offices or Regions**.

A. When a Regional Office determines that multiple offices within the Region have received the same complaint from an employee or an employee representative regarding a hazardous condition or a deficiency in an employer's safety and health program, or, if the Regional Office suspects the same complaint has been filed in multiple Regions, the Regional Office should contact the Director or Deputy Director of the Directorate of Enforcement Programs (DEP).

B. DEP will query all 10 Regions and coordinate with the Directorate of Cooperative and State Programs to query the State Plan States in order to determine whether similar complaints have been filed in multiple offices.

0. If multiple Regions have received the same complaint, the National Office will address the complaint with the employer.

1. Area Offices should indicate in IMIS that these complaints have been transferred to the National Office. In field **45a.**, select *A. Federal OSHA*; in field **45b.**, select *00 – National Office*. The complaint should then be closed using field **48**.

XII. **Procedures for an Inspection**.

A. Upon receipt of a complaint or referral, the Area Director (or his or her designee) will evaluate all available information and exercise professional judgment as to whether there are reasonable grounds to believe that a violation or hazard exists.

0. If necessary, reasonable attempts will be made to contact the individual who provided the information in order to obtain additional details or to clarify issues raised in the complaint or referral. See Appendix B.

1. The Area Director may determine not to inspect a facility if he or she has a substantial reason to believe that the condition complained of is being abated.

B. Where a complaint has been submitted but, in the professional judgment of the Area Director, there are no reasonable grounds to believe that a violation or hazard exists, no inspection or inquiry will be conducted.

0. Where a formal complaint has been submitted, the complainant will be notified in writing of OSHA's intent not to conduct an inspection, the reasoning behind the determination, and the appeal rights provided under 29 CFR 1903.12. The justification for not inspecting will be noted in the case file.

1. Where a non-formal complaint or referral has been submitted, if possible, the individual providing the information will be notified by appropriate means of OSHA's intent not to conduct an inquiry or inspection. The justification for not inspecting will be noted in the case file.

C. If the information contained in the complaint or referral meets at least one of the inspection criteria listed in VIII.A. above, and there are reasonable grounds to believe that a violation or hazard exists, the Area Office is authorized to conduct an inspection.

0. If appropriate, the Area Office will inform the individual providing the information that an inspection will be scheduled and that he or she will be advised of the results.

1. After the inspection, the Area Office will send the individual a letter addressing each information item, with reference to the citation(s) or a sufficiently detailed explanation for why a citation was not issued.

D. If an inspection is warranted, it will be initiated as soon as resources permit. Inspections resulting from formal complaints of serious hazards will normally be initiated within five working days.

XIII. **Procedures for an Inquiry.**

A. If the complaint or referral does not meet the criteria for initiating an on-site inspection, an inquiry will be conducted. OSHA will promptly contact the employer to notify it of the complaint or referral and its allegation(s).

B. If a non-formal complaint is submitted that does not meet any of the inspection criteria, the complainant may be given five (5) working days to make the complaint formal.

0. The complainant may come into the Area Office and sign the complaint, or mail or fax a signed complaint letter to OSHA. Additionally, an OSHA-7 form can be mailed or faxed to the complainant, if appropriate.

1. If the complaint is not made formal after five (5) working days, OSHA will proceed with the inquiry process.

C. The employer will be advised of what information is needed to answer the inquiry and encouraged to respond by fax or e-mail. Employers are requested to do the following (for differing Federal Agency procedures, refer to FAP 01-00-003, Federal Agency Safety and Health Programs):

0. Immediately investigate and determine whether the complaint or referral information is valid and make any necessary corrections or modifications.

1. Advise the Area Director either in writing or via e-mail within five (5) working days of the results of the investigation into the alleged complaint or referral information. Although the employer is requested to respond within the above time frame, the employer may not be able to complete abatement action during that time, but is encouraged to do so.

2. Provide the Area Director with supporting documentation of the findings, including any applicable measurements or monitoring results, and photographs and/or videos that the employer believes would be helpful, as well as a description of any corrective action the employer has taken or is in the process of taking.

3. Post a copy of the letter from OSHA where it is readily accessible for review by all employees.

4. Return a copy of the signed Certificate of Posting to the Area Office.

5. If there is a recognized employee union or safety and health committee in the facility, provide it with a copy of OSHA's letter and the employer's response.

D. As soon as possible after contacting the employer, the notification letter will be faxed to the employer, or mailed where no fax is available. Sample letters to complainants and employers are provided on the NCR. Note that some of these letters are for private sector use and some are for Federal Agency use. If e-mail is an acceptable means of responding, this should be indicated in the notification letter and the proper e-mail address should be provided.

E. If no employer response or an inadequate employer response is received after the allotted five working days, additional contact with the employer may be made before an inspection is scheduled. Ultimately, if the employer provides no response or an inadequate response, or if OSHA determines from other information that the condition has not been or is not being corrected, an inspection will be scheduled.

F. The complainant will be advised of the employer's response, as well as his or her right to dispute that response, and of the right to request an inspection if the alleged hazard persists.

0. When OSHA receives an adequate response from the employer and the complainant does not dispute or object to the response, an on-site inspection normally will not be conducted.

1. If the complainant is a current employee or a representative of employees and wishes to dispute the employer's response, the disagreement must be submitted in writing and signed, thereby making the complaint formal.

- If the employee disagreement takes the form of a written and signed formal complaint, refer to procedures at XII, above.

- If the employee disagreement does not take the form of a written and signed formal complaint, some discretion is allowed in situations where, in the professional judgment of the Area Director, the information does not warrant an on-site inspection. In such situations, the complainant will be notified of OSHA's intent not to conduct an inspection and the reasoning behind the determination. This decision should be sufficiently documented in the case file.

G. If a signed complaint is received after the complaint inquiry process has begun, the Area Director will determine whether the alleged hazard is still likely to exist based on the employer's response and by contacting the complainant. The complainant will be informed that the inquiry has begun

and that the complainant still retains the right to request an on-site inspection if he or she disputes the results and believes the hazard still exists.

H. The complaint must not be closed until OSHA confirms that the hazard has been abated and eliminated.

XIV. **Complainant Protection**.

A. *Identity of the complainant*. Upon request of the complainant, his or her identity will be withheld from the employer in accordance with Section 8(f)(1) of the Act. No information will be given to the employer that would allow the employer to identify the complainant.

B. *Discrimination Protection*.

0. Section 11(c) of the Act provides protection for employees who believe that they have been the subject of an adverse employment action in retaliation for engaging in activities related to workplace safety and health. Any employee who believes that he or she has been discharged or otherwise discriminated against by any person as a result of engaging in such activities may file a discrimination complaint. Such a complaint must be filed within 30 days of the discharge or other discrimination.

1. Complainants should always be advised of their 11(c) rights and protections upon initial contact with OSHA and whenever appropriate in subsequent communications.

XV. **Recording in IMIS**. Information about complaint inspections or inquiries must be recorded in IMIS following current instructions given in the IMIS manual. Refer to OSHA Instruction 03-06 (IRT 01) (03-06 (ADM 01)), The IMIS Enforcement Data Processing Manual: Table of Contents and Chapters 1 through 7.

APPENDIX A

PDF [26KB]

APPENDIX B
Complaint Questionnaire

Obtain information from the caller by asking the following questions, where relevant.

For All Complaints:

1. What is the hazard?

_____

2. How are workers exposed to this hazard? Describe the unsafe or unhealthful working conditions; identify the location.

_____

3. What work is done in the unsafe/unhealthful area? Identify, as well as possible, the type and condition of equipment in use, the materials (e.g., chemicals) being used, the process/operation involved, and the kinds of work being done near the hazardous area. Have there been any recent chemical spills, releases, or accidents?

_____

4. With what frequency are workers doing the task that leads to the exposure? Continuously? Every day? Every week? Rarely? For how long at one time? How long has the condition existed (so far as can be determined)? Has it been brought to the

employer's attention? Have any attempts been made to correct the condition, and, if so, who took these actions? What were the results?

_____

5. How many shifts are there? What time do they start? On which shift does the hazardous condition exist?

_____

6. What personal protective equipment (e.g., hearing protection, gloves or respirators) is required by the employer relevant to the alleged exposure? Is it used by employees? Include all PPE and describe it as specifically as possible. Include the manufacturer's name and any identifying numbers.

_____

7. How many people work in the establishment? How many are exposed to the hazardous conditions? How near do they get to the hazard?

_____

8. Is there an employee representative or a union in the establishment? Include the name, address, and telephone number of the union and/or the employee representative(s).

_____

For Health Hazards

9. Has the employer administered any tests to determine employee exposure levels to the hazardous conditions or substance? Describe these tests. Can the employees get the

results (as required by the standard)? What were the results?

_____

10. What engineering controls are in place in the area(s) in which the exposed employees work? For instance, are there any fans or acoustical insulation in the area which may reduce exposure to the hazard?

_____

11. What administrative or work practice controls has the employer put in place?

_____

12. Do any employees have any symptoms that may have been caused by exposure to hazardous substances? Have any employees ever been treated by a physician for a work-related disease or condition? What was it?

_____

13. Have there been any "near-miss" incidents?

_____

14. Are respirators worn to protect against health hazards? If so, what kind? What exposures are they protecting against?

_____

15. If the complaint is related to noise, what, if any, hearing protection is provided to and worn by the employees?

_____

16. Do employees receive audiograms on a regular basis?

_____

For Safety Hazards:

17. Under what adverse or hazardous conditions are employees required to work? This should include conditions contributing to stress and "other" probability factors.

_____

18. Have any employees been injured as a result of this hazardous condition? Have there been any "near miss" incidents?

_____

From Occupational Safety and Health Administration (2006a).