

A Review of Logging Fatalities Investigated  
by the Occupational Safety and Health  
Administration in FY 1996 and FY 1997

Part 1 of 2

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FY 1996 and FY 1997

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Part 1 of 2

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**Background.** In calendar year (CY) 1996, logging was the second most dangerous occupation in the United States based on fatality rates published by the Bureau of Labor Statistics (BLS), U. S. Department of Labor. In CY 1997, logging was the most dangerous occupation, surpassing commercial fishing. In fiscal year (FY) 1997, OSHA targeted logging for special attention to reduce the incidence of injuries in the industry.

I. INTRODUCTION ❖ ❖

Section 8 of the Occupational Safety and Health Act (the Act) requires employers to maintain records of work-related deaths and gives the Secretary of Labor authority to regulate reporting. In 29 CFR (Code of Federal Regulation), Part 1904.8, the Occupational Safety and Health Administration (OSHA) provides specific instructions governing when and where reports shall be made.<sup>1</sup> This regulation provides that within eight (8) hours after the death of an employee from a work-related incident, the employer of the affected employee(s) shall orally report the fatality to the nearest OSHA Area Office. Each report shall relate the establishment name, location of the incident, time of the incident, number of fatalities and a brief description of the incident.

This report is a review of information OSHA collected during its investigations of fatalities at logging facilities classified under the Standard Industrial Classification (SIC) 2411 in FY 1996 and FY 1997. This two-year review is limited to data in OSHA's Integrated Management Information System (IMIS) related to each OSHA logging fatality

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<sup>1</sup> 29 CFR Part 1904.8 as revised April 1, 1994.

investigation (e.g., number of fatalities, date of fatal incidents, age of victims, number of violations identified, dollar amounts of assessed penalties, etc.). A review of the more subjective information in each investigative file (e.g., the employee's work location at the time of death, the victim's activity at the time of the fatal action, the type of fatal incident, etc.) will be addressed in Part 2 of this report. The relationship of the results of this review to OSHA program policy, standards, and other related procedures and requirements are addressed, as appropriate.

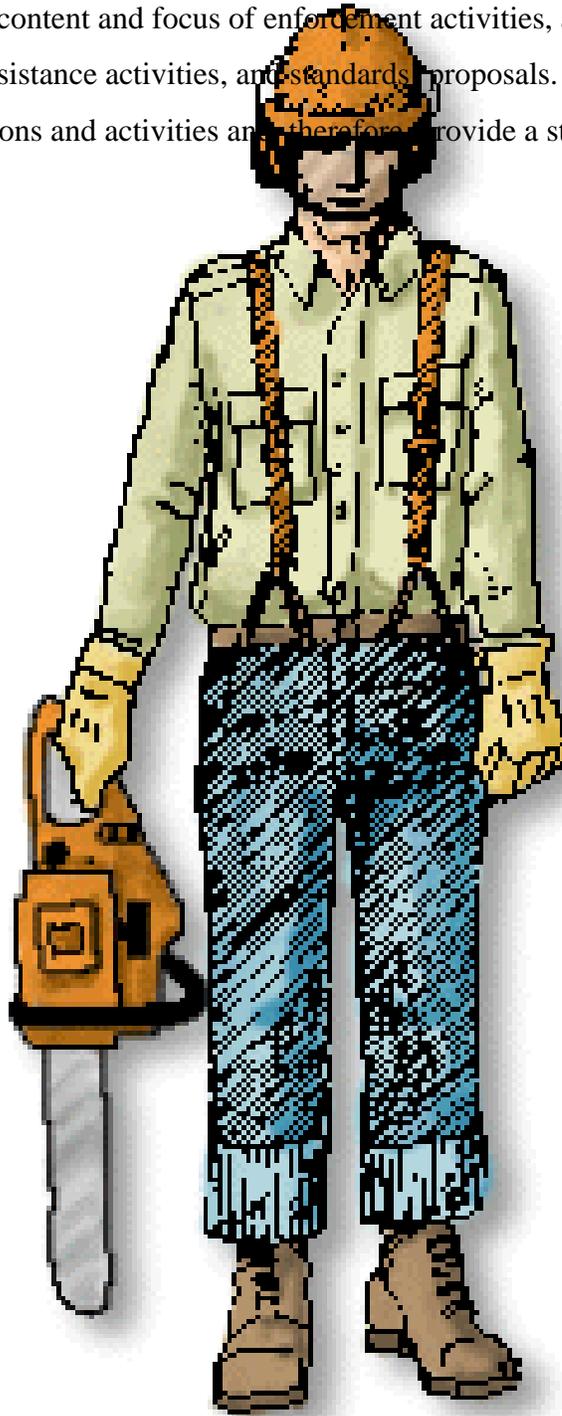
Of the 107 logging fatality investigations covered in this report, 51 of the investigations were conducted by states operating comprehensive OSHA-approved safety and health programs, and 56 were conducted by OSHA in states under Federal jurisdiction. Throughout this report, the acronym OSHA is used to collectively refer to activities of the 21 State Plan States with comprehensive State Plans and the activities of OSHA in 29 Federal jurisdiction states.

The 107 logging fatality cases of this review (FY 1996 and FY 1997) represent 15% of the 696 logging deaths investigated by OSHA over the past 10 years (FY 1988 - FY 1997).

This review is a continuation of the OSHA fatality reports produced by the Office of Statistics from 1976-1995. The focus and format have been modified to improve the report's utility and benefit to OSHA field staff and other users, and to support the Agency's goal to produce more user-friendly documents. Previous reviews reflected select fatality investigations covering 7-10 years of OSHA activity.

The purpose of this 2-year review is to provide OSHA and other users with updated information that may be useful in evaluating the nature and extent of more recent fatal occupational logging injuries at facilities classified as SIC 2411. OSHA National and

Regional Offices may find this information useful in monitoring industry changes and evaluating the content and focus of enforcement activities, as well as, onsite and offsite training and assistance activities, and standards proposals. These data reflect typical industry situations and activities and therefore provide a standard for future reference.



A logger.  
Photo Credit: OSHA SLC Lab

## II. HIGHLIGHTS ❖❖

This section highlights the results of the review of 107 case files of logging fatalities investigated by OSHA in FY 1996 and FY 1997. The complete review is provided in section VI, Logging Report, pages 12-47, the Appendix and the Addendum. The summary statements that follow reflect the results of the review of seven groups of data or information: (1) the number of OSHA-investigated fatalities, (2) the location of the fatalities, (3) the time frames of the fatal incidents, (4) the age of the victims, (5) the number and classification of identified violations, (6) the assessed penalty amounts, and (7) the size of the establishments of the fatal incidents and the rate of fatalities.

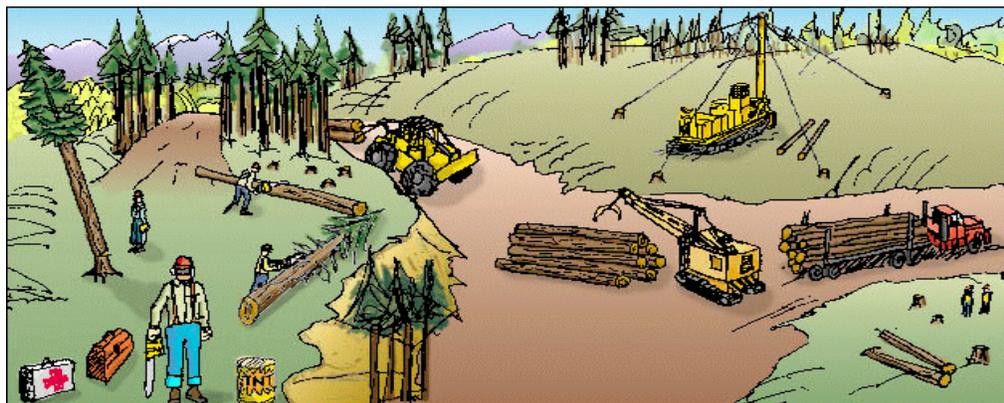
- A. The number of onsite logging fatalities investigated by OSHA declined from FY 1996 to FY 1997, the scope of this review. This decline (22%), from 66 fatalities in FY 1996 to 51 fatalities in FY 1997, was the same when looking at investigations over a 10-year period (FY 1988 - FY 1997).<sup>2</sup> See page 12.
  
- B. The number of fatal occupational logging injuries reported by the Bureau of Labor Statistics (BLS) also declined, from 156 fatal incidents in CY 1996 to 136 in CY 1997, a 13% change. Overall industry employment also declined, going from 85,892 employees in CY 1996, to 83,473 employees in CY 1997, a 3 percent change. See page 13.
  
- C. Based on data represented in an American Pulpwood Association report, the number of fatal logging incidents in the United States increased 2 percent from CY 1996 (126 deaths) to CY 1997 (129 deaths). See page 13.

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<sup>2</sup> Only 107 of the 117 fatalities investigated by OSHA in FY 1996 and FY 1997 are reviewed in this report. Ten (10) case files were eliminated because of incompleteness, misclassification or jurisdictional issues.

- D. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, 72% were in three (3) of the 10 Federal regions -- Regions III, IV and X. These three regions also accounted for 62% of all logging establishments, and 68% of all logging employees. See page 15.
- E. Almost half of the 50 States (48%) reported no logging fatality investigations in FY 1996 or FY 1997, although all states, except North Dakota, experienced some level of logging activity over this two-year period. These 24 states represented 11% of all logging establishments, and 9% of all logging employees. See page 16.
- F. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, 52% were in Federal states and represented 53% of the establishments and 53% of the employees, and 48% were in State Plan states and represented 46% of the establishments and 47% of the employees. Of these 26 states with fatalities, 10 were implementing Local Emphasis Programs on logging in one or both years. See page 16.
- G. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, almost half (49%) were in one of the eight Forest Regions, the southern region. This region also accounted for 45% of the logging establishments and 49% of the logging employees. See page 18.
- H. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, more than half (59%) occurred over five months -- October, December, April, July and August. See page 19.
- I. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, where the time of day of the fatal incidents was indicated (33 case files), 73% of the victims died between the hours of 7:30 a.m. and 12:00 p.m. See page 19.

- J. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, the average age of those employees killed was 40. The youngest victim was 18 and the oldest 68. See page 20.
- K. Of the 107 OSHA logging fatality investigations in FY 1996 and FY 1997, 80 resulted in citations for 221 serious/willful/repeat violations and 78 other-than-serious violations. See page 21.
- L. Of the 80 OSHA logging fatality investigations in FY 1996 and FY 1997 that resulted in violations, 76 also resulted in a total penalty assessment of \$320,710. The average penalty for those assessed a penalty was \$4,220. See page 24.
- M. Of the 107 logging establishments with fatalities investigated by OSHA in FY 1996 and FY 1997, 90% employed fewer than 50 employees. See page 25.
- N. For FY 1996 and FY 1997, the rate of logging fatalities to logging establishments was one (1) fatality per 132 establishments. For FY 1996, there was one (1) death per 227 establishments, and for FY 1997, one (1) death per 320 establishments. See page 26



A logging operation.

Photo credit: OSHA SLC Lab

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### III. OBSERVATIONS ❖❖

- A. Of the 50 states with logging activity in FY 1996 and FY 1997, almost half (24 states or 48% of all states) reported no OSHA-investigated logging fatalities. These 24 states represented 11% of all logging establishments, and 9% of all logging employees.<sup>3</sup> Of these 24 states, four (4) had significant numbers of logging establishments, between 111 and 418. Two (2) states (Maine and Wisconsin) had a significant number of logging establishments, 497 and 450 respectively, and only one (1) fatality each. See **Table 1**, page 29

Observation. Could the number of fatal logging incidents in the United States be influenced by identifying and promoting, nationwide, practices, regulations and procedures that have worked in those states with significant logging activity but no fatalities or a low number of fatalities?

- B. Of the 26 states with OSHA-investigated logging fatalities in FY 1996 and FY 1997, almost half (11 states or 42%) accounted for more than three fourths of all fatalities (80 or 75%). The rate of logging fatalities among the states was also noteworthy. While Utah reported one (1) fatality investigation for every nine (9) establishments, Maine and Wisconsin reported one (1) for every 497 and 450 establishments, respectively. See **Tables 1 and 12**, pages 29 and 44.

Observation. Could the number of logging fatalities in the United States be influenced by focusing efforts more strategically in those states that accounted for most of the deaths in FY 1996 and FY 1997? Special attention could also be

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<sup>3</sup> The number of logging fatalities investigated by OSHA was totaled for FY 1996 and FY 1997. Source: OSHA's Integrated Management Information System (IMIS). The number of logging establishments was averaged for CY 1996 and CY 1997. Source: County Business Pattern reports.

given to those states with the highest rate of OSHA-investigated fatalities, e.g., Utah, Illinois, Virginia, Vermont, West Virginia and New York. See **Tables 1 and 12**, pages 29 and 44.

- C. Of the 107 logging employees killed at OSHA-investigated sites in FY 1996 and FY 1997, 5 percent were 18 and 19 years old, 22% were 20-29 years old, 23% each were 30-39 and 40-49 years old, 20% were 50-59 years old and 7 percent were 60 years old or older. See **Table 6**, page 36.

Observation. Generally, older workers are thought to be more knowledgeable and experienced in their occupation and, therefore, suffer fewer on-the-job injuries. Such an inference, however, cannot be proven without establishing the age distribution in the industry. Nonetheless, when looking at age alone for those killed in fatal logging incidents investigated by OSHA in FY 1996 and FY 1997, the older workers suffered about the same number of fatal injuries as the younger workers.

Could the rate of logging deaths in all age groups be influenced by reevaluating the impact that experience and training has had on injuries, illnesses and fatalities in the industry, and, as appropriate, providing additional training and information to employers and employees in accident and injury prevention?



A logger.  
Photo Credit: OSHA SLC Lab

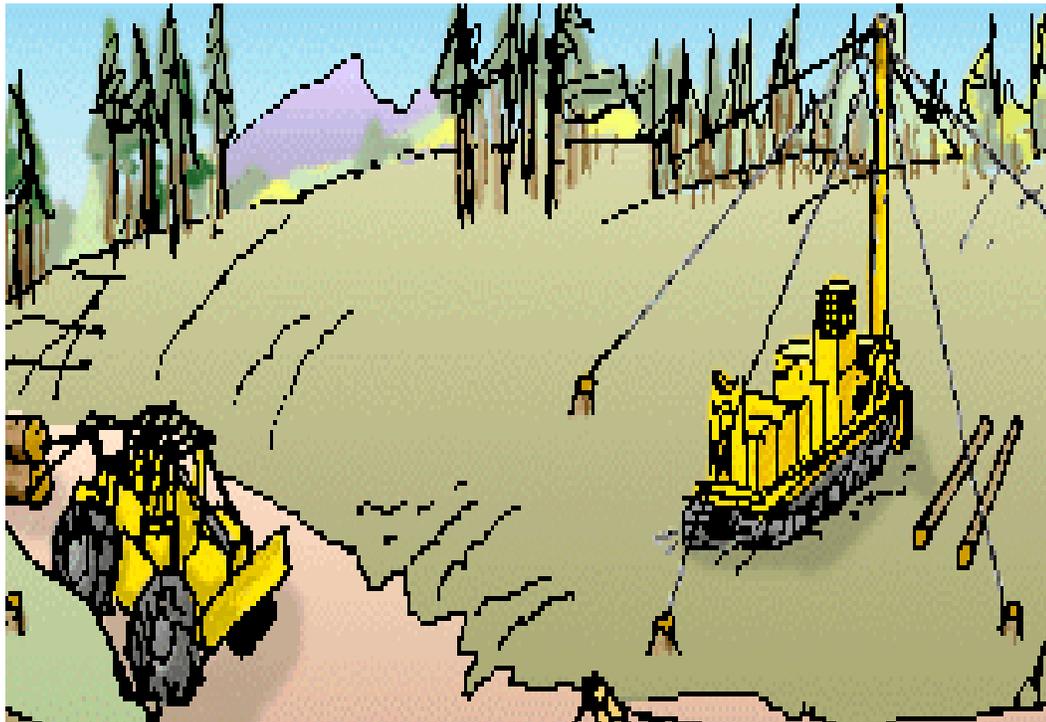
#### IV. DATA ISSUES ❖❖

- A. Of the 107 OSHA logging fatality case files reviewed for this report, 63 were for FY 1996 and 44 for FY 1997. Ten (10) case files were eliminated from this review because they were incomplete, represented fatalities that occurred away from the logging site (e.g., on the highway en route to or from the logging site), were sole proprietorships, or the facilities were misclassified as SIC 2411 (logging). Three (3) of the 10 eliminated cases were in FY 1996 and seven (7) were in FY 1997. Only OSHA-investigated logging fatalities are included in this review.
- B. The logging fatality case files reviewed for this report were obtained from the OSHA Internet Web site (April - June 1998). No effort was made to validate the accuracy of the translation of these data from OSHA's Integrated Management Information System (IMIS) nor to establish the accuracy of the data that resides in the IMIS.
- C. Except as noted, the number of OSHA-investigated logging fatalities was totaled for FY 1996 and FY 1997 to add more value and meaning to the findings. Information from County Business Pattern (CBP) reports (i.e., number of logging establishments and the number of logging employees) was used to add perspective to the findings for the logging industry as a whole and to increase confidence in the inferences drawn. These data were averaged for CY 1996 and CY 1997, except where noted. The number of logging fatalities reported by the Bureau of Labor Statistics is compared to the number of logging fatalities investigated by OSHA. Data are also referenced from an American Pulpwood Association (APA) report. The APA is now known as the Forest Resources Association, Inc.

- D. For the 107 OSHA logging fatality cases reviewed, each represents one fatality and a single establishment, with one exception. In FY 1997, one employer in Utah experienced two (2) fatalities investigated by OSHA. However, to minimize confusion in the presentation of information, these two fatalities are represented as occurring at different establishments.
- E. In the discussion of violations, no distinction is made between alleged violations and final violations. In representing penalty amounts, “current” penalties are used.
- F. The number of employees controlled at each establishment where an OSHA fatality inspection occurred was based on information obtained from the employer. The number of employees controlled may be the employer’s best estimate at the time and, therefore, less accurate than other information provided to OSHA, e.g., the number of employees at the employer’s immediate work site.
- G. States with logging fatality investigations in FY 1996 and/or FY 1997 and Local Emphasis Programs (LEP’s) on logging in place, are noted. No conclusions are drawn as to the impact of these programs in reducing the incidence of fatal injuries. LEP’s are OSHA Regional plans that focus attention and resources in industries, establishments or specific geographic areas with unique safety and/or health problems (e.g., high injury/illness/ fatality rates) at the local level. Generally, the impacts of these programs start during the planning phase and continue years after completion.
- H. All numbers represent data available at the time. Where numbers are rounded, the calculation results may equal more or less than 100%.

## V. DATA REVIEW ❖❖

Seven groups of data or information in OSHA's logging fatality case files were reviewed for this report -- (1) the number of logging fatalities investigated, (2) the location of the fatalities (federal region, forest region, state), (3) the age of the victims, (4) the time frames of the fatal incidents (a.m., p.m., month, year), (5) the number and classification of identified violations, (6) the assessed penalty amounts, and (7) the size of the establishments where the fatal incidents occurred and the rate of fatalities per establishment. The data and information were viewed from a number of perspectives to maximize their usefulness for a variety of applications. The findings are described, graphically illustrated, and presented in table format (below), as appropriate, to appeal to the needs of a broad audience.



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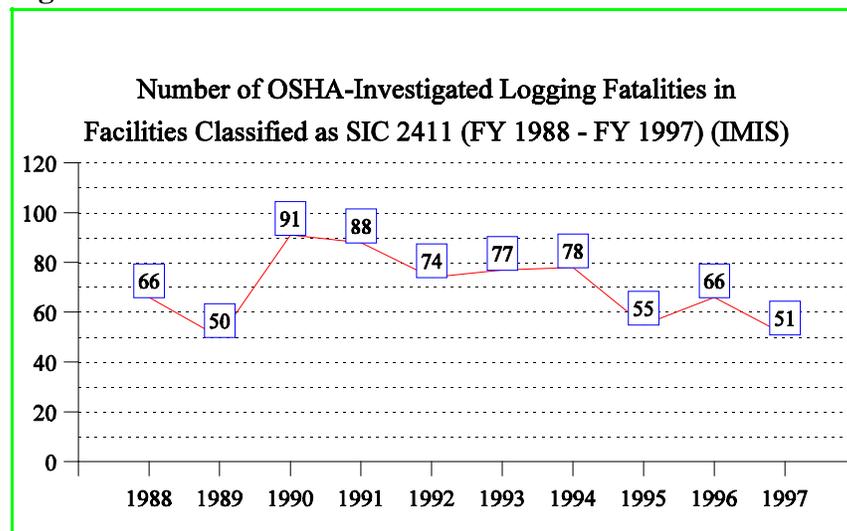
Photo credit: OSHA SLC Lab

## VI. LOGGING REPORT ❖❖

### Logging Fatality Trends ❖❖

- A. When looking at different sources of data, the trend of logging fatalities was mixed.
1. The number of onsite logging fatalities investigated by OSHA declined from FY 1996 to FY 1997, the scope of this review.<sup>4</sup> This decline, from 66 to 51 fatalities (-15 fatalities or a 22% change), was part of a decrease from 91 to 51 fatalities (-15 fatalities or a 22% change), was part of a decrease from 91 to 51 fatalities over an 8-year period (FY 1990 to FY 1997).<sup>5</sup> Figure 1 shows the downward trend in fatalities over the past 10 years. In 1988 and 1989, not all State Plan states contributed data to OSHA's Integrated Management Information System (IMIS). See **Figure 1**, page 12.

**Figure 1**



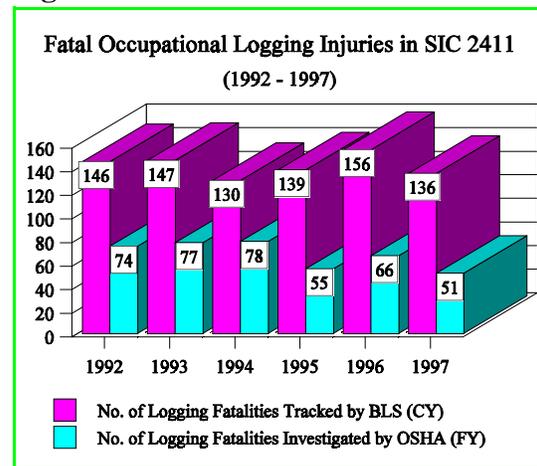
<sup>4</sup> The number of fatalities represents a count of the number of OSHA fatality inspections in establishments classified as SIC 2411.

<sup>5</sup> Ten (10) case files were eliminated from this review because of incompleteness, misclassification or jurisdictional issues, three (3) in FY 1996 and seven (7) in FY 1997.

2. The number of fatal occupational logging injuries (SIC 2411) reported by the Bureau of Labor Statistics, also declined (-13%) from CY 1996 (156 fatal injuries) to CY 1997 (136 fatal injuries). Over the same period of time, logging industry employment decreased by 3 percent, from 85,892 employees in CY 1996 to 83,473 employees in CY 1997. When looking at a six-year period (CY 1992 - CY 1997), BLS reports showed minimal change in the number of logging fatalities occurring in the United States.<sup>6</sup> See **Figure 2**, page 13.

3. According to information published by the American Pulpwood Association, now known as the Forest Resources Association, Inc. (FRA), in the “Summary Report, National Logging and Wood Fiber Transportation Fatalities for 1996-1998,” the number of logging fatalities, nationwide, increased

**Figure 2**



from 1996 (126 fatalities) to 1997 (129 fatalities), a 2 percent change. Unlike the BLS report, the FRA report provides a breakout of data by state. Of the five states with the highest number of fatalities (Alabama 29, North Carolina 20, Virginia 20, Kentucky 17 and Mississippi 17), all, except Kentucky, reported fatality investigation data to OSHA’s IMIS. See **Appendix A**.

<sup>6</sup> In 1992, the Bureau of Labor Statistics (BLS), U.S. Department of Labor, began collecting data on fatal occupational injuries. The results are published annually in the Bureau of Labor Statistics’ Census of Fatal Occupational Injuries (CFOI).

4. When comparing the number of logging fatalities reported by the BLS to those investigated by OSHA over a similar period of time (CY 1996 and CY 1997 to FY 1996 and FY 1997), the differences range from 54 to 88 more fatalities reported by the BLS than investigated by OSHA. A number of factors may account for these differences.
  - a. Some logging fatalities tracked by the BLS do not fall within OSHA's jurisdiction (e.g., the self-employed, which accounted for, on average, 30% of the BLS annual report of logging fatalities, and deaths resulting from health-related diseases, such as, heart attacks and strokes). Of the 156 and 136 logging-related deaths reported by the BLS for CY 1996 and CY 1997, 30 and 55 respectively, of those fatally injured were identified as self-employed.
  - b. The time frames of the BLS and OSHA data and the manner in which these data are defined may also account for some differences in the numbers. The BLS reports data by calendar year (January - December), and represents fatalities based on the date of death, while OSHA reports information by Federal fiscal year (October - September), and tracks fatalities based on the date of injury. Examples include fatality cases where the employee's injury and subsequent death occur in different calendar years, and cases where death occurred several weeks or months after injury. The latter cases are less likely to be investigated by OSHA because of the difficulty in reconstructing the scene. In the former example, BLS would record the injury and death in different calendar years, OSHA would record both injury and death in the same fiscal year.

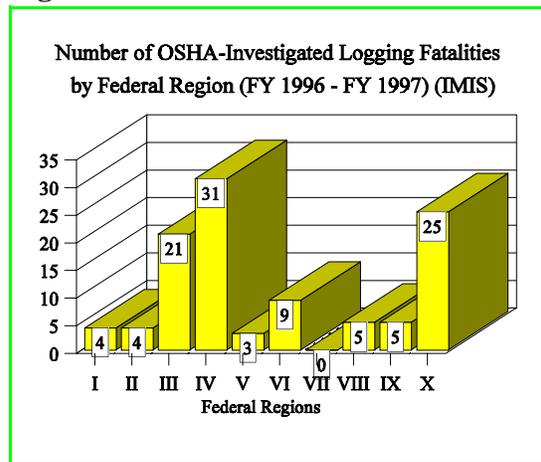
- c. Additionally, the widening gap between the number of logging fatalities reported by the BLS and the number of logging fatalities investigated by the Agency suggest that OSHA intervention, e.g., enforcement inspections, consultation visits, training, safety and health standards, etc., may be having a positive impact on workplace hazards that cause fatal injuries in those establishments covered by OSHA. This needs further study.

**Logging Fatalities Investigated by Federal Region and State** ❖ ❖

B. Almost three fourths of the logging Fatalities in FY 1996 and FY 1997 (107 fatal incidents), were focused in three areas.

- 1. Of the 10 Federal Regions, three (3) Regions (Regions IV, X and III) accounted for 72% (77) of the 107 OSHA-investigated logging fatalities in FY 1996 and FY 1997. Over a similar period of time (CY 1996 and CY 1997), these same regions accounted for 62% (8,781) of all logging establishments in the United States, and 68% (57,559) of all logging employees. Region IV had the highest number of deaths, 31 fatalities or 29% of all fatal incidents, followed by Region X with 25 deaths or 23% of all fatalities, and Region III with 21 fatalities or 20% of all fatal incidents. See **Figures 3**

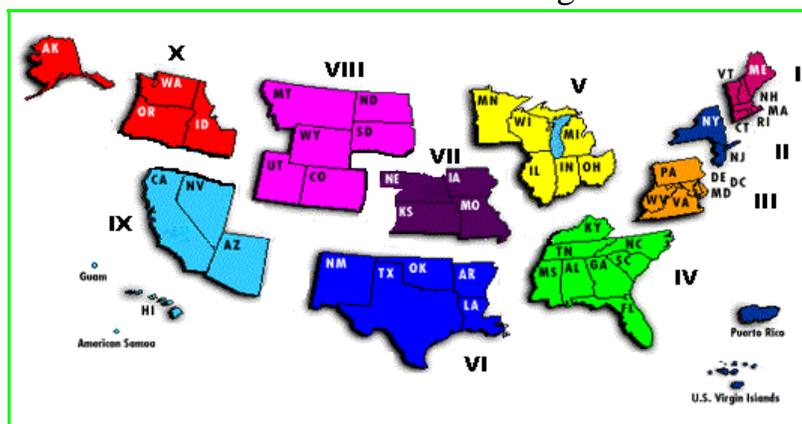
**Figure 3**



**and 4**, pages 15 and 16, and **Table 1**, page 29.

**Figure 4**

United States Federal Regions



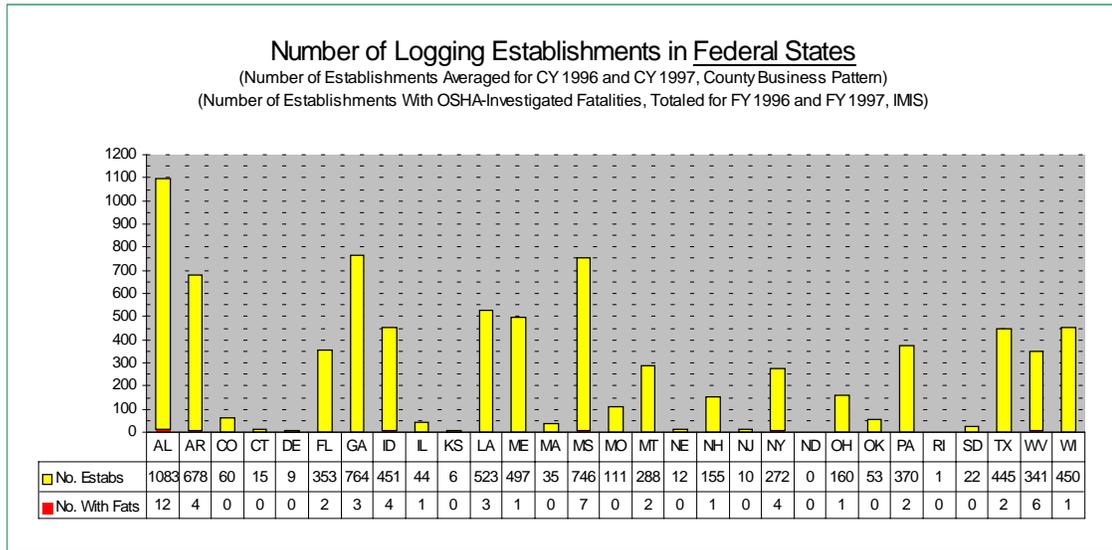
2. While Regions III, VI, VIII and IX experienced an increase in logging fatality investigations from FY 1996 to FY 1997, Regions I, II, IV, V and X experienced decreases. Region III had the greatest increase, going from nine (9) fatality investigations in FY 1996 to twelve (12) in FY 1997. See **Table 1**, page 29.
  
3. Not all Regions and states reported logging fatality investigations in FY 1996 and FY 1997. Region VII reported no investigations over these two years. When looking at the states, only 26 of the 50 states reported logging fatality investigations. This means that almost half (24 states or 48%) reported no logging fatality investigations in FY 1996 and FY 1997, representing 11% (1,581) of all logging establishments, and 9% (7,551) of all logging employees. These 24 states had no fatalities even though all, except North Dakota, had some level of logging activity, i.e., the presence of logging establishments in FY 1996 and FY 1997. In fact, four (4) of these states had more than 100 logging establishments -- Michigan, Minnesota, Kentucky and Missouri.<sup>7</sup> See **Tables 1 and 2**, pages 29, and 32, and the **Addendum**, pages 2-4.

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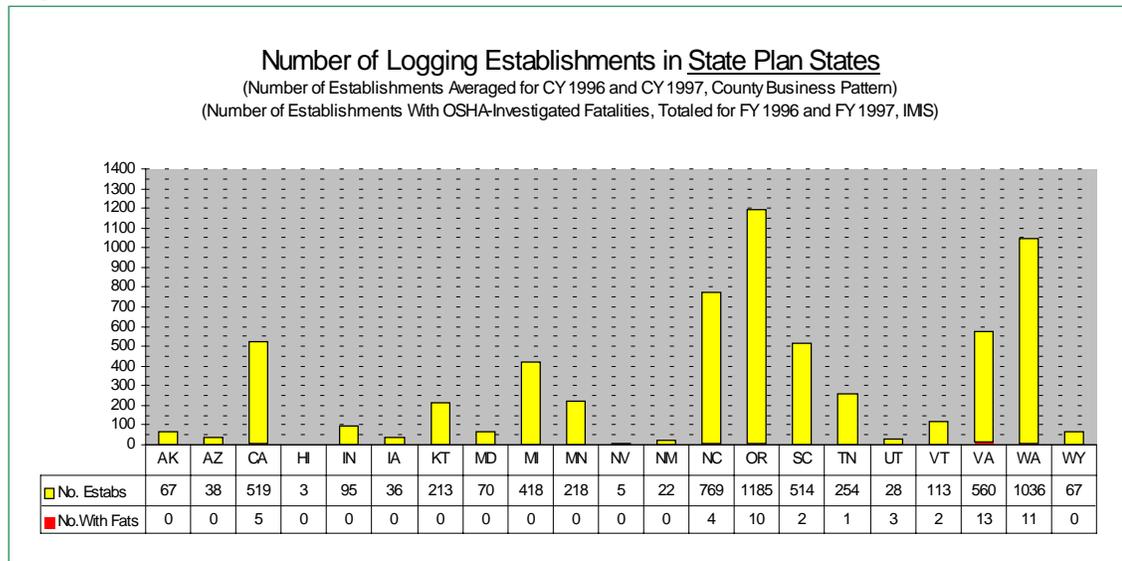
<sup>7</sup> Logging establishments, County Business Pattern reports, CY 1996 and CY 1997.

4. Virginia, Alabama, Washington and Oregon led all States with double digit fatality investigations for the 24-month period covered by this report (FY 1996 and FY 1997), 13, 12, 11 and 10 fatal incidents, respectively. Virginia, Alabama and Washington had logging LEP's during both fiscal years (FY 1996 and FY 1997). Oregon had a logging LEP in FY 1996. See **Figures 5 and 6**, page 17, **Table 2**, page 32, and the **Addendum**, pages 2-4.

**Figure 5**



**Figure 6**

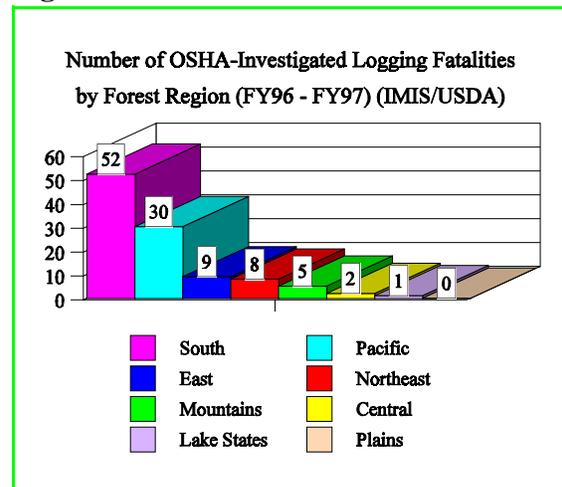


5. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, 56 (52%) were in Federal states and represented 53% (7,706) of the logging establishments and 53% (44,910) of the employees. Fifty-one (51 or 48%) were in State Plan states and represented 46% (6,511) of all logging establishments and 47% (39,879) of all logging employees. Ten (10) of the states with fatalities were implementing logging LEP's during one or both years, five (5) each in Federal and State Plan states. See **Tables 1 or 2**, pages 29 and 32.
  
6. Of the 21 State Plan states with logging activity in FY 1996 and FY 1997, 57% (12) reported **no** fatality investigations, compared to 41% (12) of the 29 Federal states. These 24 Federal and State Plan states with no fatality investigations represented almost half of the 50 states, 11% of all logging establishments and 9% of logging employees. See **Table 2**, page 32.

## Logging Fatalities Investigated by Forest Region ❖ ❖

C. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, almost half (49% or 52) were in one Forest Region, the South, which included 10 states (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas and Virginia). These southern states represented 45% of all logging establishments and 49% of all logging employees. Almost 30% of the logging fatalities were in the Pacific Region (30). See **Figure 7**, page 18 and **Table 3**, page 35.

**Figure 7**



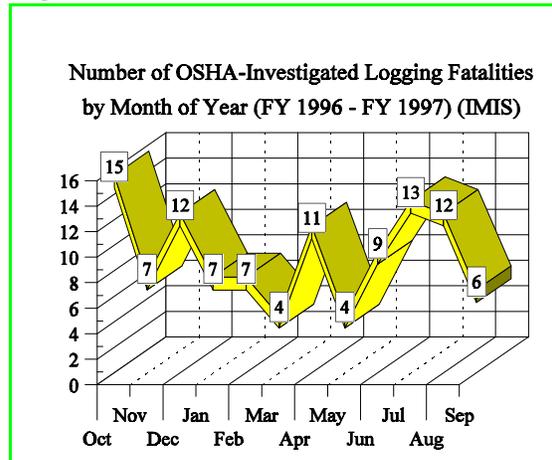
## Logging Fatalities Investigated by Month of Year ❖ ❖

D. Almost 60% of the logging fatalities occurred during four (4) of the twelve (12) months.

1. Of the 107 OSHA-investigated logging fatalities in FY 1996 and FY 1997, 14% occurred in the month of October (15), followed by 12% in July (13), 11% each in December (12) and August (12), and 10% in April (11). See **Figure 8**, page 19, **Table 4**, page 35, and the **Addendum**, pages 2-3.

2. Of the 107 OSHA-investigated logging fatalities in FY 1996 and FY 1997, 32% occurred during the first Federal quarter (34), followed by 29% during the fourth quarter (31), and 22% and 17% during the third and second quarters (24 and 18 respectively).<sup>8</sup> See **Table 4**, page 35.

**Figure 8**



## Logging Fatalities Investigated by Time of Death ❖ ❖

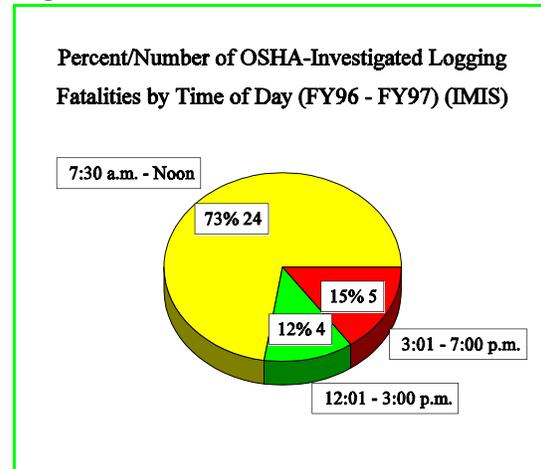
E. Almost 75% of the logging fatalities occurred during the morning hours.

<sup>8</sup> Federal Quarters. Quarter One: October, November and December; Quarter Two: January, February and March; Quarter Three: April, May and June; and, Quarter Four: July, August and September.

1. Of the 107 logging fatalities investigated by OSHA in FY 1996 and FY 1997, the time of day of the fatal incidents was indicated in 33 of the case files reviewed. Of these 33 cases, 24 of the fatal incidents (73%) occurred between the hours of 7:30 a.m. and 12:00 p.m., compared to four (4 or 12%) between 12:01 p.m. and 3:00 p.m., and five (5 or 15%) between 3:01 p.m. and 7:00 p.m. It is not known

whether the 7:30 a.m. to 7:00 p.m. time frame represents one or two work shifts. Many logging employee work schedules are longer than eight (8) hours. See **Figure 9**, page 20.

**Figure 9**



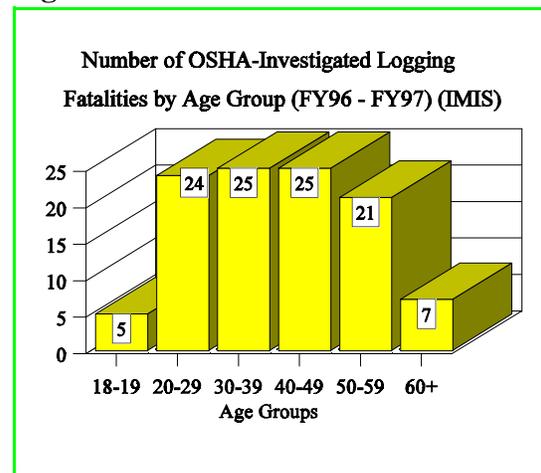
2. In FY 1996, for those 22 case files where time was indicated, 18 fatalities (82%) occurred between 7:30 a.m. and 12:00 p.m., compared to six (6 or 55%) of the 11 killed in FY 1997. See **Table 5**, page 36.

## Logging Fatalities Investigated by Age of Victims ❖ ❖

- F. Older workers suffered fatal logging injuries at about the same rate as younger workers.
  1. For the 107 logging employees killed in FY 1996 and FY 1997, the average age was 40 (39 in FY 1996, 41 in FY 1997). In FY 1996 and FY 1997, the youngest victims were 18 and 19, and the oldest, 62 and 68, respectively. See **Table 6**, page 36, and the **Addendum**, pages 5 and 6.

2. The average age of those killed in October, December, February, June, July and August, was over 40. For FY 1996 and FY 1997, Region I had the highest average age, 50. The average age of victims in New Hampshire, Vermont and Mississippi was also over 50. See **Table 7**, page 37, and the **Addendum** pages 5-6.
3. The number of employees killed that were 50 years old or older (28), was almost the same as the number killed that were 18-29 years old (29). See **Figure 10**, page 21 and **Tables 6 and 7**, pages 36 and 37.

**Figure 10**



4. While New York, California, Georgia, Ohio and Texas had the youngest victims, less than 20 years of age, Alabama, Mississippi, Louisiana, Georgia and Washington reported victims sixty years old or older. See the **Addendum**, pages 5-7.

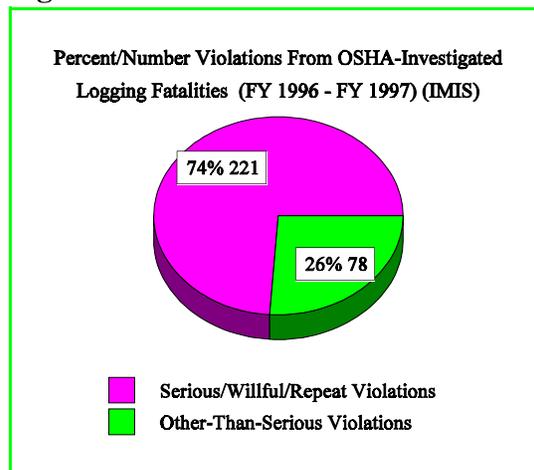
## Logging Fatalities Investigated and Identified Violations ❖ ❖

- G. Most OSHA-investigated logging fatalities resulted in the identification of violations of agency standards and regulations.
  1. Of the 107 logging fatalities investigated in FY 1996 and FY 1997, 80 resulted in violations. Of the 299 violations resulting from the 80 investigations, 221 were serious violations, including one (1) willful and three (3) repeat violations, and 78

were other-than-serious violations.<sup>9</sup> See **Figure 11**, page 22 and **Table 8**, page 38. For the 80 investigations, the average number of violations was four (4). The average number of serious violations was three (3).

2. Of the 63 logging fatality investigations in FY 1996, 49 investigations (78%) resulted in violations, compared to 32 or 73% of the 44 investigations in FY 1997. Of the 49 fatality investigations that resulted in 196 violations in FY 1996, the average number of serious violations was three (3), and for other-than-

**Figure 11**



serious, one (1). Of the 32 fatality investigations that resulted in 103 violations in FY 1997, the average number of serious violations was two (2), and for other-than-serious, less than one (1).

3. In FY 1996, the highest number of serious violations for a single establishment was issued by North Carolina (17), Virginia (11 and 8), Mississippi (8), and New York (7). In FY 1997, New York and Mississippi led all states in issuing seven (7) serious violations each for a single establishment, followed by Montana with six (6) and Virginia with six (6) and five (5), respectively. For both years, three (3) repeat violations were issued, all in Virginia. See the **Addendum**, pages 8-10.

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<sup>9</sup> All types of violations, i.e., serious, including willful and repeat, and other-than-serious violations, are represented together except as otherwise noted. No distinction is made between alleged violations and final violations.

4. Some OSHA logging fatality investigations found employers in compliance. Of the 63 fatalities investigated in FY 1996, 14 (22%) resulted in no violations of OSHA standards or regulations, and 18 resulted in no serious violations (29%). In FY 1997, 12 of the 44 investigations (27%) resulted in no violations, and 15 resulted in no serious violations (34%). See **Table 8**, page 38.
5. Ten (10) states identified no violations during their investigation of one or more logging establishments with a fatality in FY 1996 -- Arkansas, North Carolina, Texas, West Virginia, Idaho, New Hampshire, Oregon, South Carolina, Utah and Washington. All of Arkansas' investigations in FY 1996 (2), found employers in compliance. In FY 1997, the picture was similar. Nine (9) States found no violations during their investigation of one or more logging fatalities -- California, Idaho, North Carolina, Oregon, Pennsylvania, Utah, Virginia, Vermont and West Virginia. Of the 10 investigations conducted by Oregon in FY 1996 and FY 1997, six (6) employers were found to be in compliance. See **Table 8**, page 38.
6. The scope of an investigation, partial or complete, could impact the number and classification of violations identified. Of the 80 logging fatality investigations that resulted in the identification of violations of OSHA standards and regulations, 72 were partial inspections of the work site, e.g., inspections limited to the immediate area of the fatal incident, and 35 were inspections of the entire work site. The average number of violations for partial inspections was two (2), compared to four (4) for complete inspections. See **Table 9**, page 40. Part 2 of the logging report discusses the relationship of these violations to the fatal incidents.

## Logging Fatalities Investigated and Assessed Penalties ❖❖

- H. Almost all of the logging fatality investigations that resulted in citations for violations of OSHA standards and regulations, also resulted in the assessment of penalty.
1. Of the 80 logging fatalities investigated in FY 1996 and FY 1997 that resulted in violations, the average penalty for those assessed a penalty was \$4,220 (\$4,830 in FY 1996 and \$2,777 in FY 1997). The total penalty assessments were \$231,845 (FY 1996), \$88,865 (FY 1997) and \$320,710 for both years. See **Table 8**, page 38.
  2. The highest penalty amount for a single establishment in FY 1996 was assessed by North Carolina (\$35,025), Oregon (\$30,000, \$6,350 and \$5,000), Virginia (\$15,900 and \$7,750), Alabama (\$9,500), Texas (\$8,400), and Maine, New York and Vermont (\$7,625, \$7,630, and \$7,600, respectively).<sup>10</sup> The highest penalty amount for a single establishment in FY 1997 was assessed by Virginia (\$16,250 and \$12,100), Montana and West Virginia (\$6,000 each) and Florida and California (\$5,000 and \$5,715, respectively). When comparing the states with the largest penalty amounts for a single establishment to those with the greatest number of violations for a single establishment, those with the highest number of violations did not always issue the largest total penalty amounts. See page 21 above and the **Addendum**, pages 11-13.

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<sup>10</sup> Penalty amounts are totaled or averaged for FY 1996 and FY 1997, except where otherwise noted. "Current" penalty amounts are used.

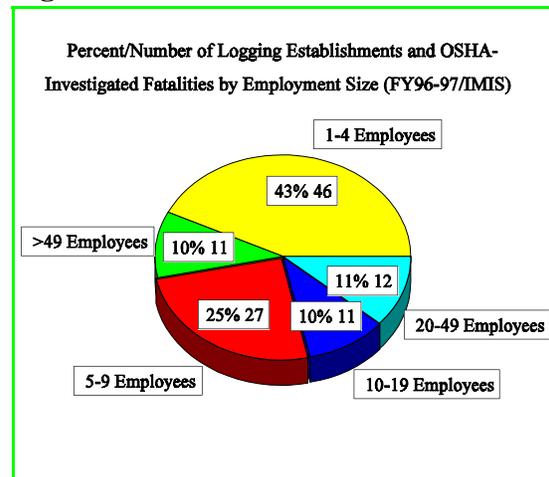
## Logging Fatalities Investigated and Establishment Size ❖ ❖

I. With few exceptions, the fatal logging incidents investigated by OSHA in FY 1996 and FY 1997 occurred in small establishments.

1. Of the 107 logging establishments with OSHA-investigated fatalities in FY 1996 and FY 1997, 43% employed between one and four employees, 25% employed 5-9 employees, 10%, 10-19 employees, 11%, 20-49 employees, and 10%, 50 or more employees. See **Figure 12**, page 25, and **Table 10**, page 42.<sup>11</sup>

2. When reviewing data for all logging establishments in the United States, 61% of the 14,172 logging establishments identified in County Business Pattern (CBP) report, employed between one and four employees, 23% employed 5-9 employees, 12% employed 10-19 employees, 4 percent employed 20-49 employees, and less than 1 percent employed 50 or more employees.<sup>12</sup> See **Table 11**, page 44.

**Figure 12**



<sup>11</sup> The size of the establishments with fatalities is based on the number of employees the employer indicated that he or she had control over. This number is often the employer's best estimate and may be less accurate than other information provided by the employer, e.g., the number of employees at the work site.

<sup>12</sup> The number of logging establishments was averaged for CY 1996 and CY 1997. Source: County Business Patterns. The number of fatalities investigated by OSHA was totaled for FY 1996 and FY 1997. Source: OSHA's Integrated Management Information System (IMIS).

3. When relating the number of logging establishments with fatalities by employment size, to all logging establishments in the United States by employment size, 10% of the logging establishments with OSHA-investigated fatalities and 50 or more employees, represented less than 1 percent (<1%) of all logging establishments in the United States with 50 or more employees. Eleven percent (11%) of the logging establishments with OSHA-investigated fatalities and 20-49 employees, represented about 4% of all logging establishments in this employment size group as reported by the CBP. See **Table 11**, page 44.

### Rate of Logging Fatalities Investigated ❖ ❖

- J. The logging fatalities investigated in FY 1996 and FY 1997 affected less than 1 percent (1%) of the logging establishments in the United States.
  1. When looking at the number of logging fatalities investigated by OSHA (107) and the number of logging establishments in the United States (14,172), the rate of fatalities per establishment was one fatality for every 132 logging establishments (1 per 227 in FY 1996 and 1 per 320 in FY 1997). Almost half of the 50 states (24 states or 48% of all states) reported no logging fatality investigations in FY 1996 and FY 1997, even though all states, except North Dakota, had some level of logging activity, i.e., the presence of logging establishments. See **Table 12**, page 45.
  2. Of the 26 states with logging establishments and logging fatality investigations, Utah had the highest rate of fatality investigations per establishment, one fatality investigation for every nine (9) establishments, and Maine had the lowest, one investigation for every 497 establishments. Virginia, with the highest number of deaths (13), reported one fatality investigation for every 43 establishments, while Oregon, with the greatest number of establishments (1,185), reported one fatality investigation for every 118 establishments. See **Table 12**, page 45.

## VII. Data Tables

A Review of Logging Fatalities Investigated  
by the Occupational Safety and Health Administration  
in FY 1996 and FY 1997

Part 1 of 2

**List of Data Tables**

- Table 1: Number of OSHA-Investigated Logging Fatalities and Number of Logging Establishments by Federal Region (FY 1996 and FY 1997)
- Table 2: Number of OSHA-Investigated Logging Fatalities and Number of Logging Establishments by State (FY 1996 and FY 1997)
- Table 3: Number of OSHA-Investigated Logging Fatalities by Forest Region (FY 1996 and FY 1997)
- Table 4: Number of OSHA Investigated Logging Fatalities by Month of Year and Federal Quarter (FY 1996 and FY 1997)
- Table 5: Number of OSHA-Investigated Logging Fatalities by Time of Day (FY 1996 and FY 1997)
- Table 6: Number of OSHA-Investigated Logging Fatalities by Age of Victim (FY 1996 and FY 1997)
- Table 7: Average Age of Victims of OSHA-Investigated Logging Fatalities by Region (FY 1996 and FY 1997)
- Table 8: Number of Violations and Penalty Amounts Resulting From OSHA-Investigated Logging Fatalities by Federal Region (FY 1996 and FY 1997)
- Table 9: Number of OSHA-Investigated Logging Fatalities by Scope of Inspection by Federal Region (FY 1996 and FY 1997)
- Table 10: Number of OSHA-Investigated Logging Fatalities by Employment Size and Federal Region (FY 1996 and FY 1997)
- Table 11: Number of Logging Establishments With OSHA-Investigated Fatalities and With No OSHA-Investigated Fatalities by Employment Size (FY 1996 and FY 1997)
- Table 12: Rate of OSHA-Investigated Logging Fatalities Per Establishments by State (FY 1996 and FY 1997)

**Table 1**

**Number of OSHA-Investigated Logging Fatalities  
and Number of Logging Establishments by Federal Region\***  
(FY 1996 - FY 1997) (Data Source: IMIS)

Federal Regions and States (In order by Region) (States with LEPs Indicated)	Total Number Logging Fatalities			Average Number Logging Establishments (CY 1996 and CY 1997)
	FY96	FY97	Total	
<b>Region I (Total)</b>	3	1	4	815
1. Connecticut	0	0	0	15
2. Maine (LEP '96)	1	0	1	497
3. Massachusetts	0	0	0	35
4. New Hampshire	1	0	1	155
5. Rhode Island	0	0	0	1
6. Vermont**	1	1	2	113
<b>Region II (Total)</b>	3	1	4	282
7. New Jersey	0	0	0	10
8. New York	3	1	4	272
<b>Region III (Total)</b>	9	12	21	1349
9. Delaware	0	0	0	9
10. Maryland**	0	0	0	70
11. Pennsylvania	1	1	2	370
12. Virginia** (LEP '96 +'97)	5	8	13	560
13. West Virginia (LEP '97)	3	3	6	341
<b>Region IV (Total)</b>	20	11	31	4694
14. Alabama (LEP '96 +'97)	8	4	12	1083
15. Florida	1	1	2	353
16. Georgia	2	1	3	764

Federal Regions and States (In order by Region) (States with LEPs Indicated)	Total Number Logging Fatalities			Average Number Logging Establishments (CY 1996 and CY 1997)
	FY96	FY97	Total	
17. Kentucky**	0	0	0	213
18. Mississippi (LEP '96 +'97)	4	3	7	746
19. North Carolina** (LEP '96 +'97)	2	2	4	769
20. South Carolina** (LEP '96+'97)	2	0	2	514
21. Tennessee**	1	0	1	254
<b>Region V (Total)</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>1383</b>
22. Indiana**	0	0	0	95
23. Illinois	1	0	1	44
24. Michigan**	0	0	0	418
25. Minnesota**	0	0	0	218
26. Ohio	1	0	1	160
27. Wisconsin	0	1	1	450
<b>Region VI (Total)</b>	<b>4</b>	<b>5</b>	<b>9</b>	<b>1719</b>
28. Arkansas	2	2	4	678
29. Louisiana	0	3	3	523
30. New Mexico**	0	0	0	22
31. Oklahoma	0	0	0	53
32. Texas	2	0	2	445
<b>Region VII (Total)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>164</b>
33. Iowa**	0	0	0	36
34. Kansas	0	0	0	6
35. Missouri	0	0	0	111
36. Nebraska	0	0	0	12
<b>Region VIII (Total)</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>464</b>

Federal Regions and States (In order by Region) (States with LEPs Indicated)	Total Number Logging Fatalities			Average Number Logging Establishments (CY 1996 and CY 1997)
	FY96	FY97	Total	
37. Colorado	0	0	0	60
38. Montana (LEP '97)	1	1	2	288
39. North Dakota	0	0	0	0
40. South Dakota	0	0	0	22
41. Utah**	1	2	3	28
42. Wyoming**	0	0	0	67
<b>Region IX (Total)</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>565</b>
43. Arizona**	0	0	0	38
44. California**	2	3	5	519
45. Hawaii**	0	0	0	3
46. Nevada**	0	0	0	5
<b>Region X (Total)</b>	<b>18</b>	<b>7</b>	<b>25</b>	<b>2738</b>
47. Alaska**	0	0	0	67
48. Idaho (LEP '96 +'97)	3	1	4	451
49. Oregon**	8	2	10	1185
50. Washington** (LEP '96 +'97)	7	4	11	1036
<b>TOTAL</b> (Regions Only)	<b>63</b>	<b>44</b>	<b>107</b>	<b>14,172</b>

\* The number of OSHA-investigated logging fatalities was totaled for FY 1996 and FY 1997. Source: OSHA's Integrated Management Information System (IMIS). The number of logging establishments was averaged for CY 1996 and CY 1997. Source: County Business Pattern reports.

\*\* State Plan states.

Note: Local Emphasis Programs (LEP's) are OSHA Regional plans that focus attention and resources in industries, establishments or specific geographic areas with unique safety and/or health problems, e.g., high injury, illness or fatality rates, at the local level. States with logging LEP's were determined from information provided in one or more logging fatality case file.

**Table 2**

**Number of OSHA-Investigated Logging Fatalities  
and Number of Logging Establishments by State\***

(FY 1996 - FY 1997) (Data Source: IMIS)

States (In order by number of fatalities) (Bold Italic = States with LEPs, FY96 and/or FY97)	Total Number Logging Fatalities			Average Number Logging Establishments (CY 1996 and CY 1997)
	FY96	FY97	Total	
1. <i>Virginia</i> **	5	8	13	560
2. <i>Alabama</i>	8	4	12	1083
3. <i>Washington</i> **	7	4	11	1036
4. <i>Oregon</i> **	8	2	10	1185
5. <i>Mississippi</i>	4	3	7	746
6. <i>West Virginia</i>	3	3	6	341
7. California**	2	3	5	519
8. <i>North Carolina</i> **	2	2	4	769
9. <i>Idaho</i>	3	1	4	451
10. Arkansas	2	2	4	678
11. New York	3	1	4	272
12. Louisiana	0	3	3	523
13. Utah**	1	2	3	28
14. Georgia	2	1	3	764
15. Florida	1	1	2	353
16. Pennsylvania	1	1	2	370
17. Vermont**	1	1	2	113
18. Texas	2	0	2	445
19. <i>Montana</i>	1	1	2	288
20. <i>South Carolina</i> **	2	0	2	514
21. <i>Maine</i>	1	0	1	497

States (In order by number of fatalities) (Bold Italic = States with LEPs, FY96 and/or FY97)	Total Number Logging Fatalities			Average Number Logging Establishments (CY 1996 and CY 1997)
	FY96	FY97	Total	
22. Wisconsin	0	1	1	450
23. Tennessee**	1	0	1	254
24. Ohio	1	0	1	160
25. New Hampshire	1	0	1	155
26. Illinois	1	0	1	44
27. Michigan**	0	0	0	418
28. Minnesota**	0	0	0	218
29. Kentucky**	0	0	0	213
30. Missouri	0	0	0	111
31. Indiana**	0	0	0	95
32. Maryland**	0	0	0	70
33. Alaska**	0	0	0	67
34. Wyoming**	0	0	0	67
35. Colorado	0	0	0	60
36. Oklahoma	0	0	0	53
37. Arizona**	0	0	0	38
38. Iowa**	0	0	0	36
39. Massachusetts	0	0	0	35
40. South Dakota	0	0	0	22
41. New Mexico**	0	0	0	22
42. Connecticut	0	0	0	15
43. Nebraska	0	0	0	12
44. New Jersey	0	0	0	10
45. Delaware	0	0	0	9
46. Kansas	0	0	0	6
47. Nevada**	0	0	0	5

States (In order by number of fatalities) (Bold Italic = States with LEPs, FY96 and/or FY97)	Total Number Logging Fatalities			Average Number Logging Establishments (CY 1996 and CY 1997)
	FY96	FY97	Total	
48. <b>Hawaii**</b>	0	0	0	3
49. Rhode Island	0	0	0	1
50. North Dakota	0	0	0	0
<b>TOTAL</b>	63	44	107	14,172

\* The number of OSHA-investigated logging fatalities was totaled for FY 1996 and FY 1997. Source: OSHA's Integrated Management Information System (IMIS). The number of logging establishments was averaged for CY 1996 and CY 1997. Source: County Business Pattern reports.

\*\* State Plan states.

Note: Local Emphasis Programs (LEP's) are OSHA Regional plans that focus attention and resources in industries, establishments or specific geographic areas with unique safety and/or health problems, e.g., high injury, illness or fatality rates, the local level. States with logging LEP's were determined from information provided in one or more logging fatality case file.

**Table 3**

**Number of OSHA-Investigated Logging Fatalities by Forest Region**  
(FY 1996 - FY 1997)

<b>Forest Regions</b>	<b>Number Logging Fatalities*</b> (FY 1996 and FY 1997)	<b>States in Forest Regions**</b>
South	52	Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, Virginia
Pacific	30	California, Idaho, Oregon, Washington, Wyoming
East	9	Delaware, Kentucky, Maryland, New Jersey, Pennsylvania, Tennessee, West Virginia
Northeast	8	Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont
Mountains	5	Alaska, Arizona, Colorado, Montana, Nevada, New Mexico, Utah
Central	2	Illinois, Indiana, Missouri, Ohio
Lake States	1	Michigan, Minnesota, Wisconsin
Plains	0	Iowa, Kansas, Nebraska, North Dakota, Oklahoma, South Dakota

\* The number of OSHA-investigated logging fatalities was totaled for FY 1996 and FY 1997. Source: OSHA's Integrated Management Information System (IMIS).

\*\* Hawaii was not assigned to a Forest Region. Source: U. S. Department of Agriculture.

**Table 4**

**Number of OSHA-Investigated Logging Fatalities by Month and Federal Quarter**  
(FY 1996 and FY 1997) (Data Source: IMIS)

Year	Number of Fatalities																Total (All)
	Quarter 1				Quarter 2				Quarter 3				Quarter 4				
	October	November	December	Total	January	February	March	Total	April	May	June	Total	July	August	September	Total	
FY 1996	6	4	6	16	4	4	4	12	7	3	4	14	10	8	3	21	63
FY 1997	9	3	6	18	3	3	0	6	4	1	5	10	3	4	3	10	44
Total	15	7	12	34	7	7	4	18	11	4	9	24	13	12	6	31	107

**Table 5**

**Number of OSHA-Investigated Logging Fatalities by Time of Day\***  
(FY 1996 - FY 1997) (Data Source: IMIS)

Time of Day	Number of Fatalities		
	FY 1996	FY 1997	Total (%)
7:30 a.m. - 12:00 p.m.	18	6	24 (73%)
12:01 p.m. - 3:00 p.m.	3	1	4 (12%)
3:01 p.m. - 7:00 p.m.	1	4	5 (15%)

\* This table reflects only fatality investigations where the time of the fatal incident was indicated in the case file. Source: IMIS.

**Table 6**

**Number of OSHA-Investigated Logging Fatalities by Age of Victim**  
(FY 1996 and FY 1997) (Data Source: IMIS)

Age Groups	Number of Victims			Percent of Fatalities by Age Group*
	FY 1996	FY 1997	Total	
18-19	4	1	5	5%
20-29	13	11	24	22%
30-39	18	7	25	23%
40-49	12	13	25	23%
50-59	12	9	21	20%
60+	4	3	7	7%

\* Due to rounding, the total may not equal 100%. Data source: IMIS.

**Table 7**  
**Average Age of Victims of OSHA-Investigated**  
**Logging Fatalities by Region**  
(FY 1996 and FY 1997) (Data Source: IMIS)

Federal Region	Number of Victims	Average Age of Victims		
		FY 1996	FY 1997	FY 1996 - FY 1997
Region I	4	50	57	52
Region II	4	43	18	37
Region III	21	41	40	41
Region IV	31	43	43	43
Region V	3	27	44	32
Region VI	9	41	32	36
Region VII	0	0	0	0
Region VIII	5	28	39	34
Region IX	5	23	31	28
Region X	25	36	50	40
<b>Total/Average</b>	107	39	41	40

**Table 8**

**Number of Violations and Penalty Amounts Resulting  
From OSHA-Investigated Logging Fatalities by Federal Region**  
(FY 1996 - FY 1997) (Data Source: IMIS)

Federal Regions and States (State Plan States)*	Investigations (FY 1996 and FY 1997)			No. Violations** (FY 1996 and FY 1997)			Total Penalty Amount (\$) ***	Average Penalty Amount (\$) ***
	Total No.	No. With		S/W/R	O-T-S	Total		
		Violat's	Penalty					
<b>Region I (Total)</b>	4	2	2	8	0	8	15225.00	7613.00
1. Maine	1	1	1	2	0	2	7625.00	7625.00
2. New Hampshire	1	0	0	0	0	0	0	0
3. Vermont*	2	1	1	6	0	6	7600.00	7600.00
<b>Region II (Total)</b>	4	4	3	19	4	23	16580.00	5526.00
4. New York	4	4	3	19	4	23	16580.00	5526.00
<b>Region III (Total)</b>	21	15	15	60	28	88	98605.00	6574.00
5. Pennsylvania	2	1	1	1	0	1	1575.00	1575.00
6. Virginia*	13	11	11	52	21	73	87430.00	7948.00
7. West Virginia	6	3	3	7	7	14	9600.00	3200.00
<b>Region IV (Total)</b>	31	28	27	80	25	105	91775.00	3399.00
8. Alabama	12	12	12	21	10	31	24875.00	2073.00
9. Florida	2	2	2	5	0	5	9800.00	4900.00
10. Georgia	3	3	2	3	4	7	7500.00	3750.00
11. Mississippi	7	7	7	31	2	33	13100.00	1871.00
12. North Carolina*	4	2	2	18	7	25	35725.00	17863.00
13. South Carolina*	2	1	1	1	2	3	375.00	375.00
14. Tennessee*	1	1	1	1	0	1	400.00	400.00
<b>Region V (Total)</b>	3	3	2	5	7	12	3050.00	1525.00

Federal Regions and States (State Plan States)*	Investigations (FY 1996 and FY 1997)			No. Violations** (FY 1996 and FY 1997)			Total Penalty Amount (\$)***	Average Penalty Amount (\$)***
	Total No.	No. With		S/W/R	O-T-S	Total		
		Violat's	Penalty					
15. Illinois	1	1	1	1	3	4	300.00	300.00
16. Ohio	1	1	0	0	2	2	0	0
17. Wisconsin	1	1	1	4	2	6	2750.00	2750.00
<b>Region VI (Total)</b>	9	6	5	8	4	12	16275.00	3255.00
18. Arkansas	4	2	1	1	2	3	375.00	375.00
19. Louisiana	3	3	3	3	2	5	7500.00	2500.00
20. Texas	2	1	1	4	0	4	8400.00	8400.00
<b>Region VII (Total)</b>	0	--	--	--	--	--	--	--
<b>Region VIII (Total)</b>	5	3	3	12	1	13	10825.00	3608.00
21. Montana	2	2	2	11	1	12	9700.00	4850.00
22. Utah*	3	1	1	1	0	1	1125.00	1125.00
<b>Region IX (Total)</b>	5	4	4	5	4	9	10255.00	2564.00
23. California*	5	4	4	5	4	9	10255.00	2564.00
<b>Region X (Total)</b>	25	15	15	24	5	29	58120.00	3875.00
24. Idaho	4	2	2	2	0	2	3500.00	1750.00
25. Oregon*	10	4	4	8	0	8	44200.00	11050.00
26. Washington*	11	9	9	14	5	19	10420.00	1158.00
<b>TOTAL (Regions Only)</b>	107	80	76	221	78	299	320710.00	4220.00

\* State Plan states.

\*\* S/W/R = Serious/ Willful/Repeat violations. O-T-S = Other-Than-Serious violations.

\*\*\* "Current" penalty amounts are used. The average penalty amounts reflect only those fatality investigations that resulted in a penalty.

**Table 9**  
**Number of OSHA-Investigated Logging Fatalities**  
**by the Scope of the Inspection and Federal Region\***

(FY 1996 and FY 1997) (Data Source: IMIS)

Federal Region	Number of Inspections/ Investigations by Scope				Average Number Violations by Scope of Inspection/Investigation (FY 1996 and FY 1997)					
	FY 1996**		FY 1997**		Number Complete Investigations	Tot./Avg. Number Violations		Number Partial Investigations	Tot./Avg. Number Violations	
	C- Insp.	P- Insp.	C- Insp.	P- Insp.						
Region I	1	2	1	0	2	6	3	2	2	1
Region II	0	3	1	0	1	7	7	3	16	5
Region III	4	5	5	7	9	37	4	12	51	4
Region IV	7	13	5	6	12	63	5	19	33	2
Region V	1	1	1	0	2	10	5	1	2	2
Region VI	0	4	2	3	2	3	2	7	9	1
Region VII	-	-	-	-	-	-	-	-	-	-
Region VIII	1	1	1	2	2	12	6	3	1	0
Region IX	2	0	0	3	2	4	2	3	5	2
Region X	2	16	1	6	3	2	0	22	27	1
<b>Total/Avg.</b>	18	45	17	27	35	144	4	72	146	2

\* Partial OSHA inspections or investigations are usually limited to a particular work area or process of an employer's establishment. Complete OSHA inspections or investigations usually cover all work areas of an employer's establishment.

\*\* C = Complete Inspections/Investigations; P = Partial Inspections/Investigations.

**Table 10**

**Number of OSHA-Investigated Logging Fatalities  
by Employment Size and Federal Region**

(FY 1996 - FY 1997) (Data Source: IMIS)

Federal Regions and States (State Plan States)**	Number of Logging Fatalities by Employment Size*					
	1 - 4 Employees	5 - 9 Employees	10 - 19 Employees	20 - 49 Employees	> 50 Employees	Total Fatalities (FY96-FY97)
<b>Region I</b> (Total)	2	1	0	0	1	4
1. Maine	0	0	0	0	1 (0)	1
2. New Hampshire	1 (0)	0	0	0	0	1
3. Vermont**	1 (0)	0 (1)	0	0	0	2
<b>Region II</b> (Total)	0	1	1	1	1	4
4. New York	0	0 (1)	1 (0)	1 (0)	1 (0)	4
<b>Region III</b> (Total)	12	7	0	1	1	21
5. Pennsylvania	1 (1)	0	0	0	0	2
6. Virginia**	2 (6)	3 (1)	0	0 (1)	0	13
7. West Virginia	1 (1)	2 (1)	0	0	0 (1)	6
<b>Region IV</b> (Total)	10	11	4	5	1	31
8. Alabama	4 (2)	2 (1)	2 (0)	0 (1)	0	12
9. Florida	0	1 (0)	0	0	0 (1)	2
10. Georgia	0	0	0	2 (1)	0	3
11. Mississippi	0 (1)	4 (1)	0 (1)	0	0	7
12. North Carolina**	1 (0)	1 (0)	0 (1)	0 (1)	0	4
13. South Carolina**	1 (0)	1 (0)	0	0	0	2
14. Tennessee**	1 (0)	0	0	0	0	1
<b>Region V</b> (Total)	2	1	0	0	0	3
15. Illinois	1 (0)	0	0	0	0	1

Federal Regions and States (State Plan States)**	Number of Logging Fatalities by Employment Size*					
	(Size of Establishment = number employees controlled by the employer, IMIS) (States: Numbers with no parentheses = FY96, numbers with parentheses = FY97) (Regions: Numbers = totals for FY96 and FY97)					
	1 - 4 Employees	5 - 9 Employees	10 - 19 Employees	20 - 49 Employees	> 50 Employees	Total Fatalities (FY96-FY97)
16. Ohio	1 (0)	0	0	0	0	1
17. Wisconsin	0	0 (1)	0	0	0	1
<b>Region VI (Total)</b>	8	0	1	0	0	9
18. Arkansas	2 (2)	0	0	0	0	4
19. Louisiana	0 (2)	0	0 (1)	0	0	3
20. Texas	0	0	1 (0)	1 (0)	0	2
<b>Region VII (Total)</b>	--	--	--	--	--	--
<b>Region VIII (Total)</b>	1	2	1	1	0	5
21. Montana	0 (1)	0	1 (0)	0	0	2
22. Utah**	0	0 (2)	0	1 (0)	0	3
<b>Region IX (Total)</b>	1	1	1	1	1	5
23. California**	1 (0)	1 (0)	0 (1)	0 (1)	0 (1)	5
<b>Region X (Total)</b>	12	3	2	2	6	25
24. Idaho	2 (1)	0	1 (0)	0	0	4
25. Oregon**	3 (2)	1 (0)	0	0	4 (0)	10
26. Washington**	3 (1)	2 (0)	1 (0)	0 (2)	1 (1)	11
<b>TOTAL (Regions Only)</b>	48	27	10	11	11	107

\* The number of logging fatalities was totaled for FY 1996 and FY 1997. Source: OSHA's Integrated Management Information System (IMIS).

\*\* State Plan states.

**Table 11**

**Number of Logging Establishments With OSHA-Investigated Fatalities and With No OSHA-Investigated Fatalities by Employment Size**

(FY 1996 - FY 1997)

(Data Sources: All logging establishments, County Business Pattern Reports; establishments with fatalities, IMIS)

Categories	FY 1996					
	Employment Size Groups					Total
	1-4	5-9	10-19	20-49	>49	
Number and (Percent) of All Logging Establishments by Employment Size	8640 (61%)	3247 (23%)	1700 (12%)	569 (4%)	117 (< 1%)	14273 (100%)
Number and (Percent) of Logging Establishments With OSHA-Investigated Fatalities by Employment Size *	26 (42%)	18 (29%)	7 (11%)	4 (8%)	7 (11%)	63 (100%)

Categories	FY 1997					
	Employment Size Groups					Total
	1-4	5-9	10-19	20-49	>49	
Number and (Percent) of All Logging Establishments by Employment Size	8610 (61%)	3132 (22%)	1685 (12%)	542 (4%)	101 (< 1%)	14070 (100%)
Number and (Percent) of Logging Establishments With OSHA-Investigated Fatalities by Employment Size *	20 (45%)	9 (20%)	4 (9%)	7 (16%)	4 (9%)	44 (100%)

Categories	FY 1996 and FY 1997					
	Employment Size Groups					Number
	1-4	5-9	10-19	20-49	>49	
Average Number of Logging Establishments by Employment Size	8625 (61%)	3190 (23%)	1693 (12%)	556 (4%)	109 (< 1%)	14172 (100%)
Total Number of Logging Establishments With OSHA-Investigated Fatalities by Employment Size *	46 (43%)	27 (25%)	11 (10%)	12 (11%)	11 (10%)	107 (100%)

\* The size of the establishment represents the number of employees the employer indicated that he or she had control over at the time of the OSHA investigation.

**Table 12**

**Rate of OSHA-Investigated Logging Fatalities  
Per Logging Establishments by State\***  
(FY 1996 - FY 1997)

<b>States</b> (States in order by rate) (State Plan States)**	<b>Number of Fatalities</b> (FY 1996 and FY 1997)	<b>Average Number of Establishments</b> (CY 1996 and CY 1997)	<b>Rate of Fatalities Per Establishments</b>
1. Virginia**	13	560	1 per 43
2. Alabama	12	1083	1 per 90
4. Washington**	11	1036	1 per 94
3. Oregon**	10	1185	1 per 118
5. Mississippi	7	746	1 per 106
6. West Virginia	6	341	1 per 56
7. California**	5	519	1 per 103
8. North Carolina**	4	769	1 per 192
9. Idaho	4	451	1 per 112
10. Arkansas	4	678	1 per 169
11. New York	4	272	1 per 68
12. Louisiana	3	523	1 per 174
13. Utah**	3	28	1 per 9
14. Georgia	3	764	1 per 254
15. Florida	2	353	1 per 176
16. Pennsylvania	2	370	1 per 185
17. Vermont**	2	113	1 per 56
18. Texas	2	445	1 per 222
19. Montana	2	288	1 per 144
20. South Carolina**	2	514	1 per 257
21. Maine	1	497	1 per 497
22. Wisconsin	1	450	1 per 450

<b>States</b> (States in order by rate) (State Plan States)**	<b>Number of Fatalities</b> (FY 1996 and FY 1997)	<b>Average Number of Establishments</b> (CY 1996 and CY 1997)	<b>Rate of Fatalities Per Establishments</b>
23. Tennessee**	1	254	1 per 254
24. Ohio	1	160	1 per 160
25. New Hampshire	1	155	1 per 155
26. Illinois	1	44	1 per 44
27. Michigan**	0	418	--
28. Minnesota**	0	218	--
29. Kentucky**	0	213	--
30. Missouri	0	111	--
31. Indiana**	0	95	--
32. Maryland**	0	70	--
33. Alaska**	0	67	--
34. Wyoming**	0	67	--
35. Colorado	0	60	--
36. Oklahoma	0	53	--
37. Arizona**	0	38	--
38. Iowa**	0	36	--
39. Massachusetts	0	35	--
40. South Dakota	0	22	--
41. New Mexico**	0	22	--
42. Connecticut	0	15	--
43. Nebraska	0	12	--
44. New Jersey	0	10	--
45. Delaware	0	9	--
46. Kansas	0	6	--
47. Nevada**	0	5	--
48. Hawaii**	0	3	--

<b>States</b> (States in order by rate) (State Plan States)**	<b>Number of Fatalities</b> (FY 1996 and FY 1997)	<b>Average Number of Establishments</b> (CY 1996 and CY 1997)	<b>Rate of Fatalities Per Establishments</b>
49. Rhode Island	0	1	--
50. North Dakota	0	0	--
<b>TOTAL</b>	107	14172	1 per 132

\* The number of OSHA-investigated logging fatalities was totaled for FY 1996 and FY 1997. Source: OSHA's Integrated Management Information System (IMIS). The number of logging establishments was averaged for CY 1994 and CY 1995. Source: County Business Pattern.

\*\* State Plan states.

A Review of Logging Fatalities Investigated  
by the Occupational Safety and Health Administration  
in FY 1996 and FY 1997

Part 1 of 2

APPENDIX

## Appendix A

(The following is an excerpt from the American Pulpwood Association Summary Report,  
National Logging and Wood Fiber Transportation Fatalities for 1996 and 1997.)

### Logging-Related Fatality Statistics by State

<u>State</u>	<u>1996</u>	<u>1997</u>	<u>Total</u>	<u>State</u>	<u>1996</u>	<u>1997</u>	<u>Total</u>
AK	4	3	7	MT	2	2	4
AL	16	13	29	NC	9	11	20
AR	0	6	6	ND	0	0	0
AZ	0	0	0	NE	0	0	0
CA	4	4	8	NH	0	1	1
CO	1	1	2	NJ	0	0	0
CT	0	0	0	NM	1	1	2
DE	0	0	0	NV	0	0	0
FL	4	1	5	NY	0	0	0 <sup>2</sup>
GA	0	0	0 <sup>1</sup>	OH	1	0	1 <sup>4</sup>
HI	0	0	0	OK	0	0	0
IA	1	1	2	OR	8	1	9
ID	5	9	14	PA	9	6	15
IL	0	0	0 <sup>2</sup>	RI	0	0	0
IN	1	1	2	SC	0	3	3 <sup>2</sup>
KA	0	0	0	SD	0	0	0
KY	8	9	17	TN	2 <sup>3</sup>	4	6
LA	4 <sup>3</sup>	3	7	TX	5	2	7
MA	1	0	1 <sup>2</sup>	UT	0	3	3
MD	0	0	0 <sup>2</sup>	VA	9	11	20
ME	2	3	5	VT	1	1	2 <sup>4</sup>
MI	2	4	6	WA	7	7	14

MN	0	0	0	WI	2	3	5	
MO	5	2	7	WV	3	5	8	
MS	9	8	17	WY	0	0	0	
<hr/>					<u>Totals</u>	126	129	255

<sup>1</sup> Fatality totals for Georgia were unable to be extrapolated from the state Census of fatal Occupational Injuries reports.

<sup>2</sup> Data are incomplete for a variety of reasons, generally due to the inability of state agencies to release information.

<sup>3</sup> Data reflect the greatest possible number of fatalities, according to information provided by the appropriate state government agency.

<sup>4</sup> Data do not include loggers who are not employees (i.e. owner-operators) or self-insured loggers.

A Review of Logging Fatalities Investigated  
by the Occupational Safety and Health Administration in  
FY 1996 and FY 1997

Part 1 of 2

ADDENDUM

This Addendum contains additional tables and graphics. The source of data was OSHA's Integrated Management Information System (IMIS)

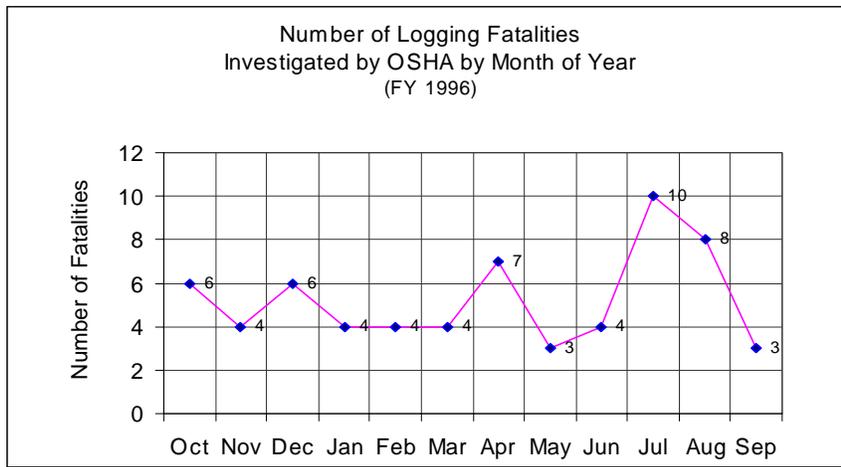
The tables on pages 5, 6, 8, 9, 11, 12, 14 and 15 represent facts about each fatality investigated by OSHA in FY 1996 and FY 1997. For those states with more than one investigation a month, the data are represented in separate columns. For example, on page 5, to show the ages separately for two victims in October for Oregon and Washington, two columns are provided for October. One column is labeled 'Oct' and the other 'Oc2.'

For the table on page 14, the number of employees controlled (10,000 employees) at one establishment inspected by Washington in July 1996, is not represented because it skews the average number of employees controlled for all establishments.

# Addendum

Number of Logging Fatalities Investigated by OSHA in FY 1996 (SIC 2411)  
(State and Month)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
AL		1	1	1		1		1	1	1	2		8
AR							1				1		2
CA							1			1			2
FL						1							1
GA										1		1	2
ID								1	1		1		3
IL										1			1
LA													0
ME	1												1
MS		1				1			1			1	4
MT							1						1
NC							1				1		2
NH				1									1
NY		1	1								1		3
OH				1									1
OR	2			1		1	2			1	1		8
PA					1								1
SC					1					1			2
TN				1									1
TX	1		1										2
UT												1	1
VA				1	1					1	2		5
VT					1								1
WA	2	1							1	2	1		7
WV			1				1	1					3
Tot	6	4	6	4	4	4	7	3	4	10	8	3	63

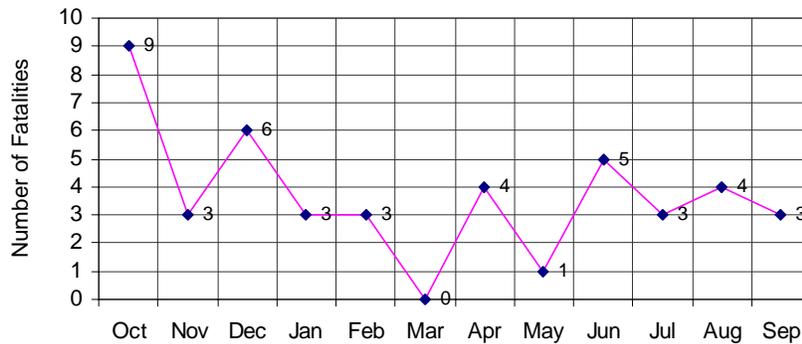


## Addendum

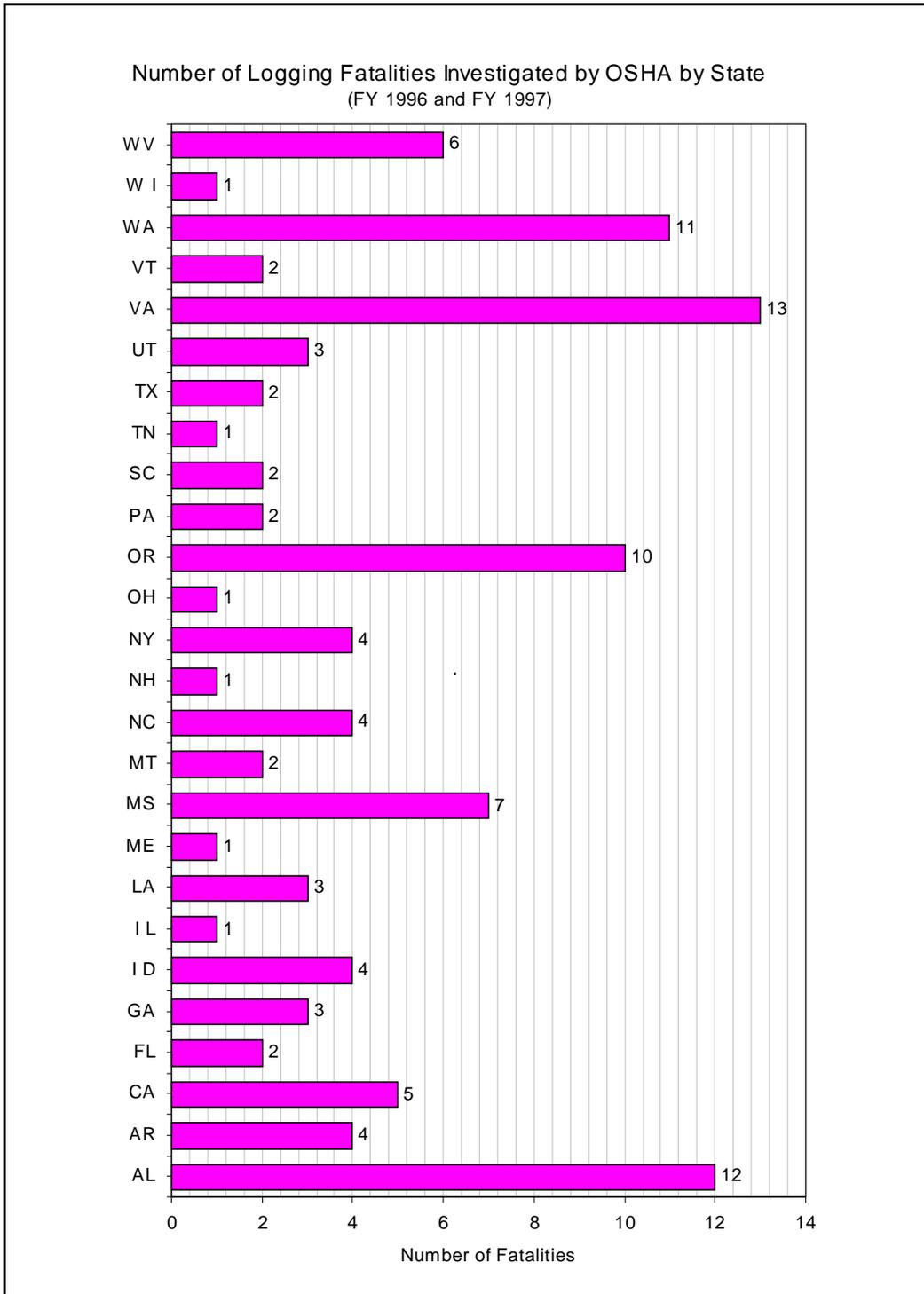
Number of Logging Fatalities Investigated by OSHA in FY 1997 (SIC 2411)  
(State and Month)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
AL			3						1				4
AR			1								1		2
AZ													0
CA	1						1					1	3
FL								1					1
GA	1												1
ID									1				1
LA	1										1	1	3
MS	2						1						3
MT			1										1
NC					1						1		2
NY									1				1
OR	1									1			2
PA							1						1
UT		1										1	2
VA	1	2		2			1		1		1		8
VT				1									1
WA	1				1				1	1			4
WI			1										1
WV	1				1					1			3
	9	3	6	3	3	0	4	1	5	3	4	3	44

Number of Logging Fatalities Investigated by OSHA in FY 1997



# Addendum

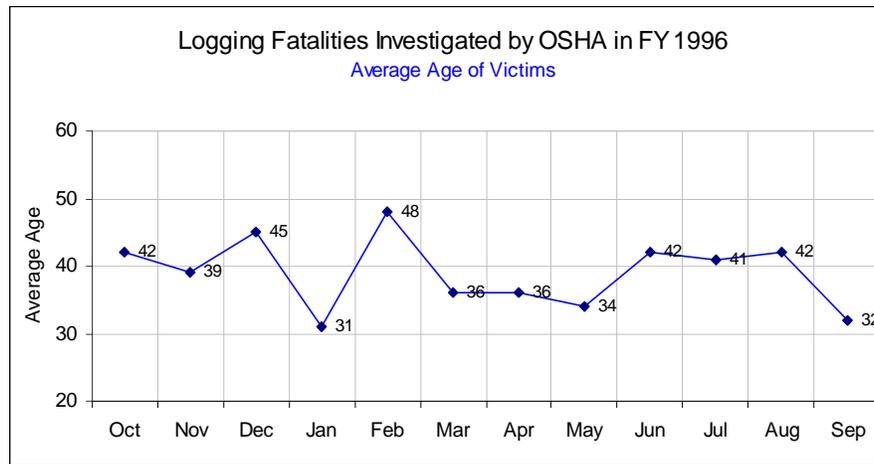


# Addendum

## Logging Fatalities Investigated by OSHA in FY 1996 (SIC 2411)

Average Age of Victims by State and Month

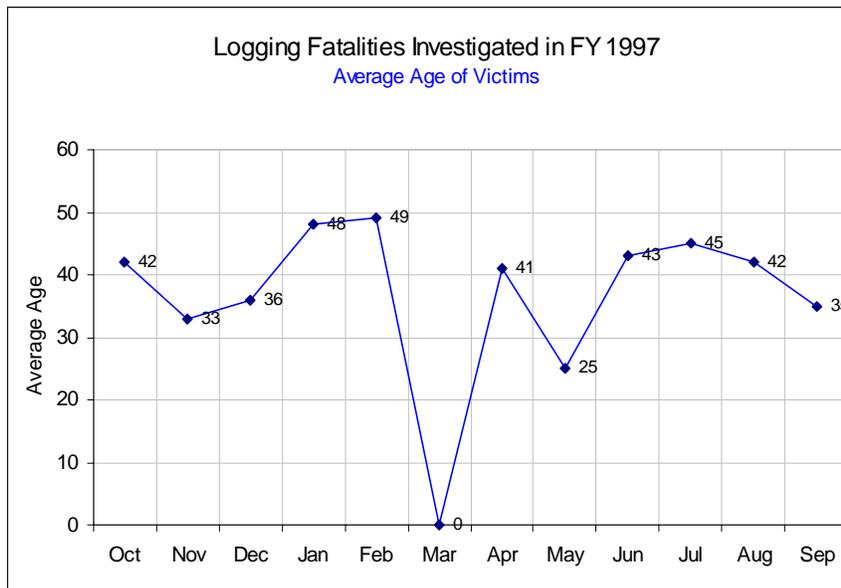
	Oct	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Apr	May	Jun	Jul	Jul	Aug	Aug	Sep	Avg.
AL			38	62	32		27			54	25	48	44				41
AR								40						57			49
CA								27				18					23
FL							37										37
GA												31				18	25
ID										24	32			35			30
IL												35					35
ME	41																41
MS			54				55				66					53	57
MT								31									31
NC								38						52			45
NH				58													58
NY			29	59										42			43
OH					18												18
OR	37	38			26		23	27	24			46		31			32
PA						41											41
SC						39						54					47
TN				39													39
TX	46			19													33
UT																24	24
VA					48	59						45		34	39		45
VT						52											52
WA	20	68	34								46	26	65	46			44
WV				32				52		25							36
Avg		42	39	45	31	48	36	36		34	42		41		42	32	39



# Addendum

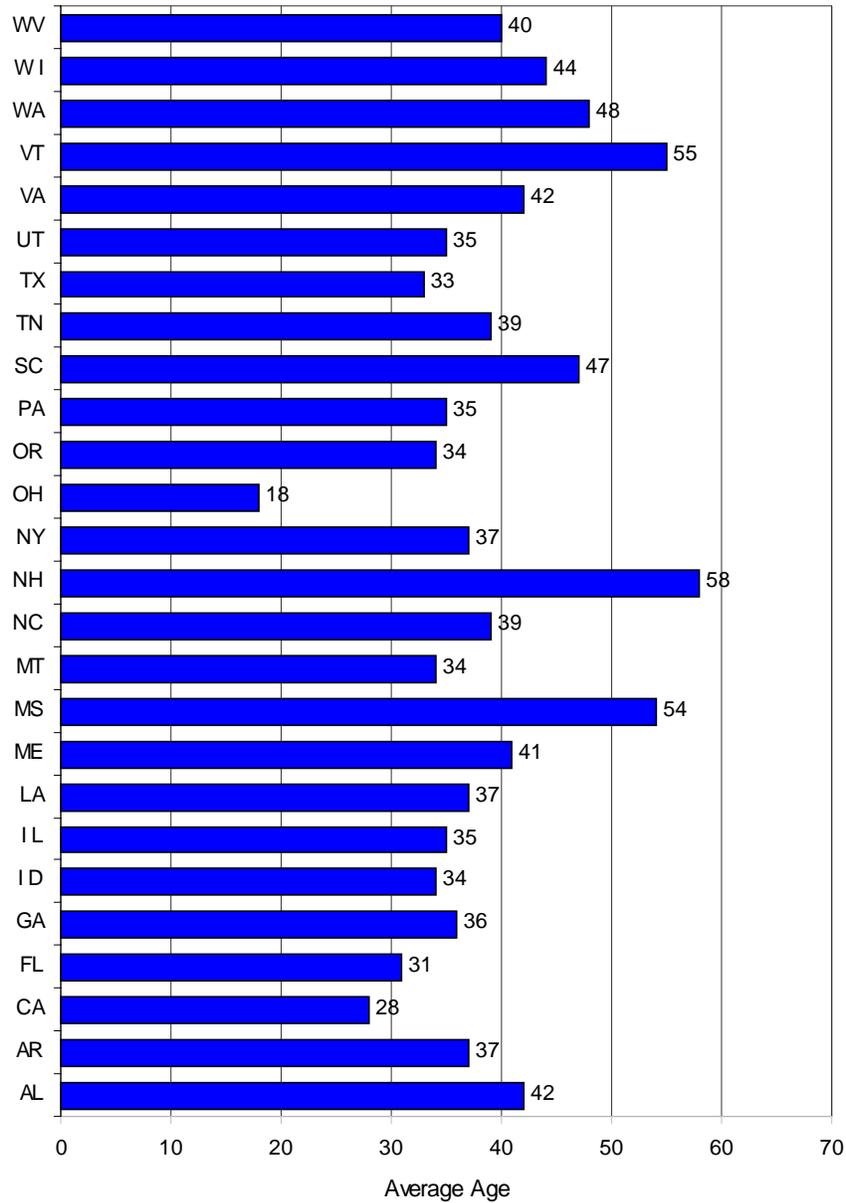
Logging Fatalities Investigated by OSHA in FY 1997 (SIC 2411)  
Average Age of Victims by State and Month

	Oct	Oc2	Nov	No2	Dec	De2	De3	Jan	Ja2	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
AL					52	24	39							55				43
AR					22											30		26
CA	24											43					27	31
FL													25					25
GA	60																	60
ID														43				43
LA	22															60	28	37
MS	44	44										62						50
MT					37													37
NC										42						24		33
NY														18				18
OR	42														45			44
PA												29						29
UT			31														49	40
VA	43		33	36				57	29			28		41		55		40
VT								57										57
WA	56									49				58	56			55
WI					44													44
WV	42									56					33			44
Avg	42		33		36			48		49	0	41	25	43	45	42	35	41



## Addendum

Logging Fatalities Investigated by OSHA in FY 1996 and FY 1997  
Average Age of Victims

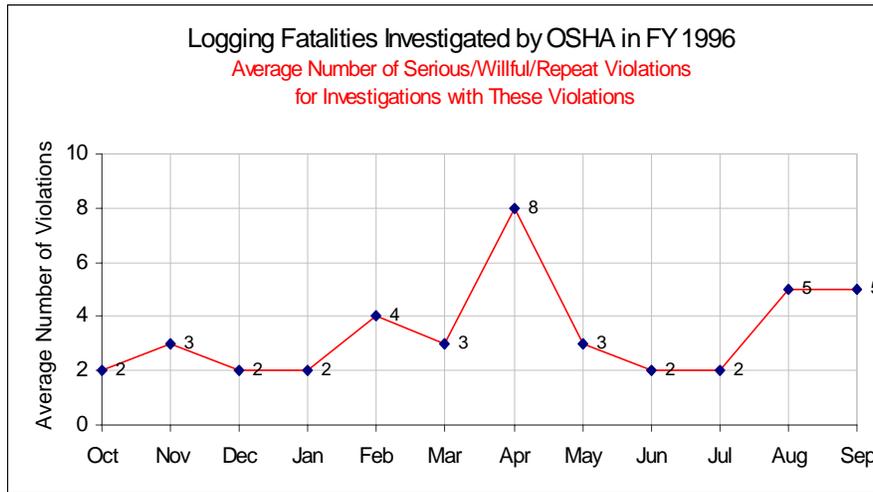


# Addendum

## Logging Fatalities Investigated by OSHA in FY 1996 (SIC 2411)

Average Number of Serious/Willful/Repeat Violations for Investigations with These Violations (by State and Month)

	Oct	Oct2	Nov	Dec	Jan	Feb	Mar	Apr	Apr2	May	Jun	Jul	Jul2	Aug	Aug2	Sep	Avg.
AL			1	1	3		1			5	1	1	1				2
CA												2					2
FL							3										3
GA												2				1	2
ID										1	1						1
IL												1					1
ME	2																2
MS			4				5				3					8	5
MT								5									5
NC								17									17
NY			7	2										3			4
OR					1		2	2	2								2
PA						1											1
SC												1					1
TN				1													1
TX				4													4
VA					3	6						8		11	2		6
VT						6											6
WA	3	1	1									1	2				2
WV				1						3							2
Avg.	2	2	3	2	2	4	3	8		3	2		2		5	5	3



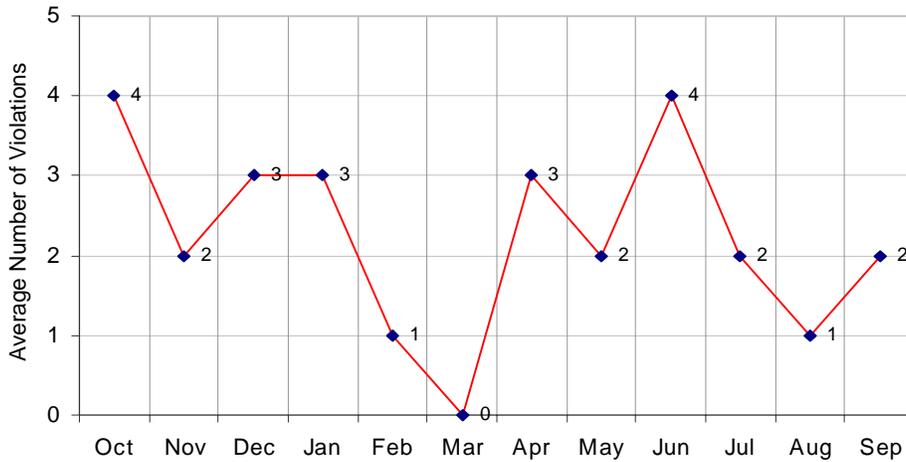
**Logging Fatalities Investigated by OSHA in FY 1997 (SIC 2411)**

Average Number Serious/Willful/Repeat Violations for Investigations with These Violations (by State and Month)

	Oct	Oc2	Nov	Dec	De2	De3	Jan	Ja2	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
AL				1	4	1							1				2
AR															1		1
CA																3	3
FL												2					2
LA	1														1	1	1
MS	7	3									1						4
MT				6													6
NC									1								1
NY													7				7
UT			1														1
VA	4		2				5	1			4		6				4
WA	3								1				1	1			2
WI				4													4
WV														3			3
Avg.	4		2	3			3		1	0	3	2	4	2	1	2	3

**Logging Fatalities Investigated by OSHA in FY 1997**

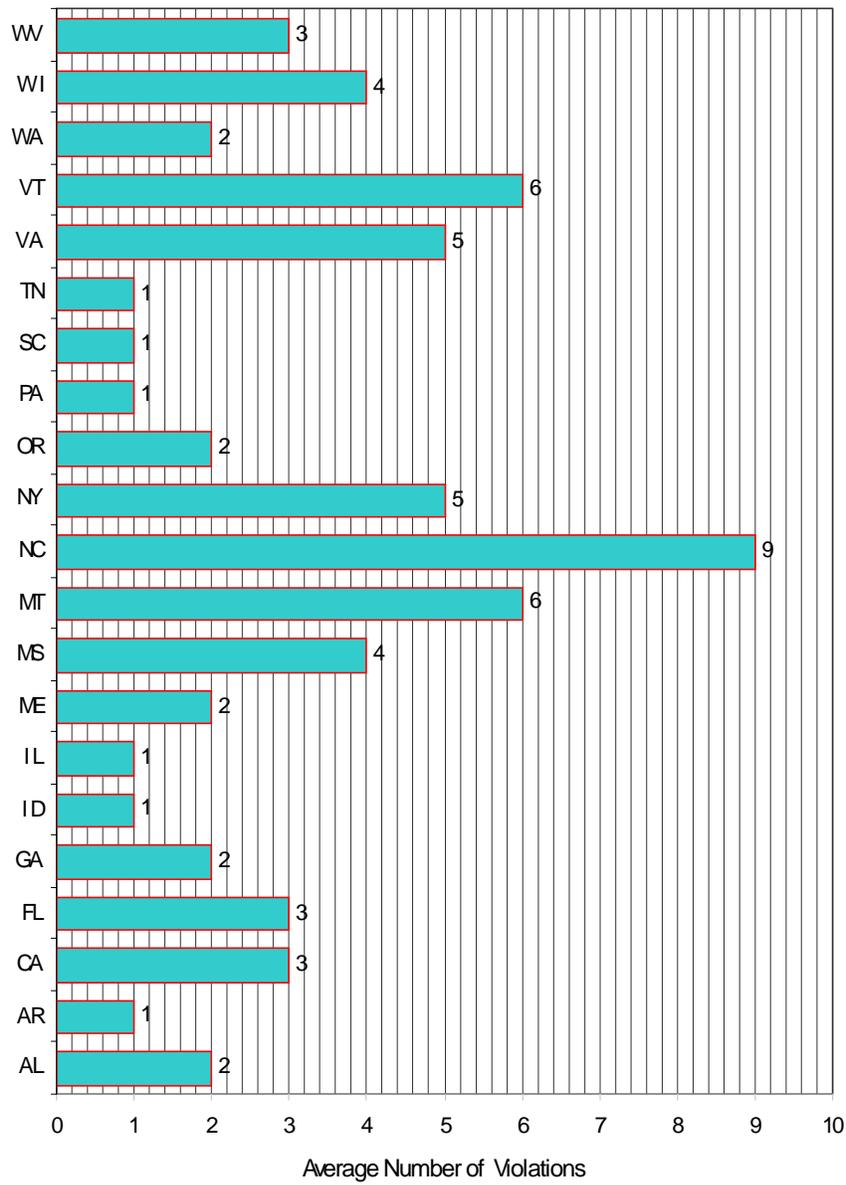
Average Number Serious/Willful/Repeat (S/W/R) Violations for Investigations with These Violations



## Addendum

### Logging Fatalities Investigated by OSHA in FY 1996 and FY 1997

Average Number of Serious/Willful/Repeat Violations  
for Investigations with These Violations

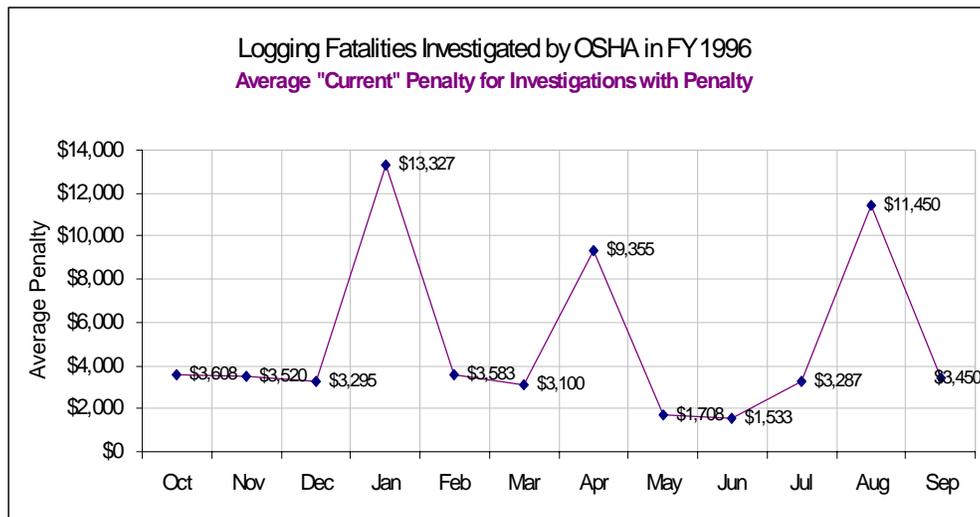


## Addendum

### Logging Fatalities Investigated by OSHA in FY 1996 (SIC 2411)

Average "Current" Penalty for Investigations with Penalty, by State and Month

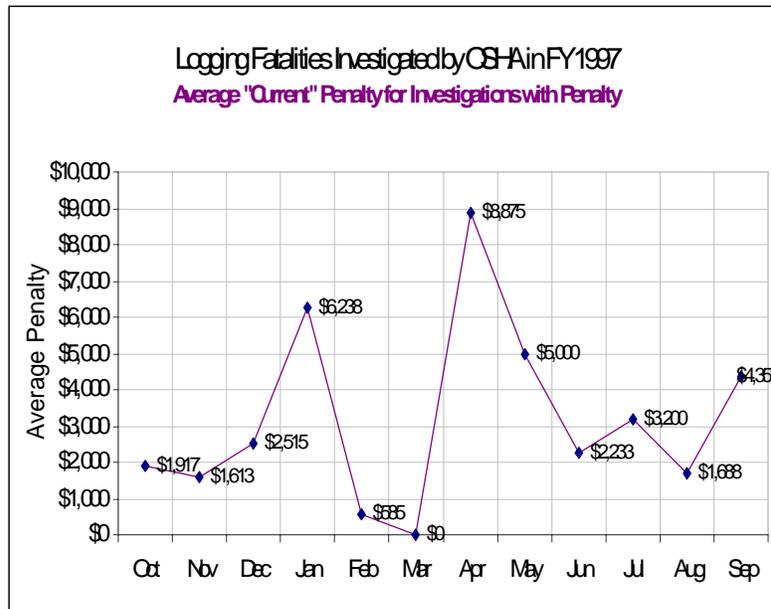
	Oct	Oct2	Nov	Dec	Jan	Feb	Mar	Apr	Apr2	May	Jun	Jul	Ju2	Aug	Au2	Sep	Avg.
AL			\$3,000	\$525	\$9,500		\$300			\$1,725	\$1,500	\$1,500	\$1,500				\$2,444
CA								\$200				\$3,740					\$1,970
FL							\$4,800										\$4,800
GA												\$3,300				\$4,200	\$3,750
ID										\$1,000	\$2,500						\$1,750
IL												\$300					\$300
ME	\$7,625																\$7,625
MS			\$3,000				\$950				\$600					\$2,700	\$1,813
MT								\$3,700									\$3,700
NC								\$35,025									\$35,025
NY			\$7,630	\$5,950										\$3,000			\$5,527
OR					\$30,000		\$6,350	\$2,850	\$5,000								\$11,050
PA						\$1,575											\$1,575
SC												\$375					\$375
TN				\$400													\$400
TX				\$8,400													\$8,400
VA					\$480	\$1,575						\$15,900		\$23,600	\$7,750		\$9,861
VT						\$7,600											\$7,600
WA	\$3,000	\$200	\$450									\$2,400	\$570				\$1,324
WV				\$1,200						\$2,400							\$1,800
Avg	\$3,608		\$3,520	\$3,295	\$13,327	\$3,583	\$3,100	\$9,355		\$1,708	\$1,533	\$3,287		\$11,450		\$3,450	\$4,933



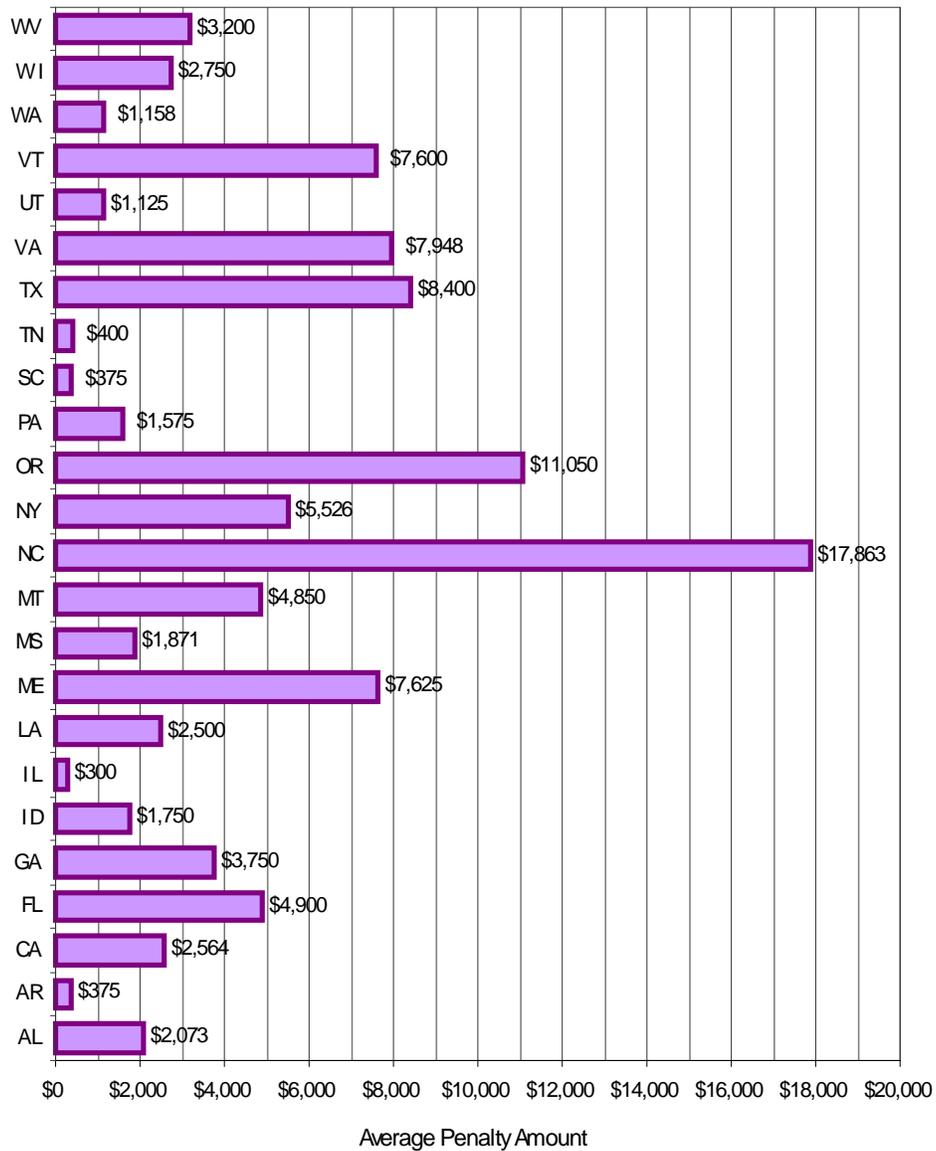
Logging Fatalities Investigated by OSHA in FY1997 (SC2411)

Average "Current" Penalty for Investigations with Penalty, by State and Month

	Oct	Q2	Nov	Dec	De2	De3	Jan	Ja2	Feb	Mar	Apr	May	Jun	JJ	Aug	Sep	Ag
AL				\$1,500	\$1,950	\$375							\$1,500				\$1,331
AR															\$375		\$375
CA	\$800															\$5,715	\$3,158
FL												\$5,000					\$5,000
LA	\$1,500														\$3,000	\$3,000	\$2,500
MS	\$2,400	\$1,950									\$1,500						\$1,950
MT				\$6,000													\$6,000
NC									\$700								\$700
UT			\$1,125														\$1,125
VA	\$4,200	\$2,100				\$12,100	\$375			\$16,250		\$3,100					\$6,354
WA	\$850								\$450				\$2,100	\$400			\$950
WI				\$2,750													\$2,750
WV													\$6,000				\$6,000
Ag	\$1,917		\$1,613	\$2,515			\$6,238		\$575	\$0	\$8,875	\$5,000	\$2,233	\$3,200	\$1,688	\$4,358	\$3,064



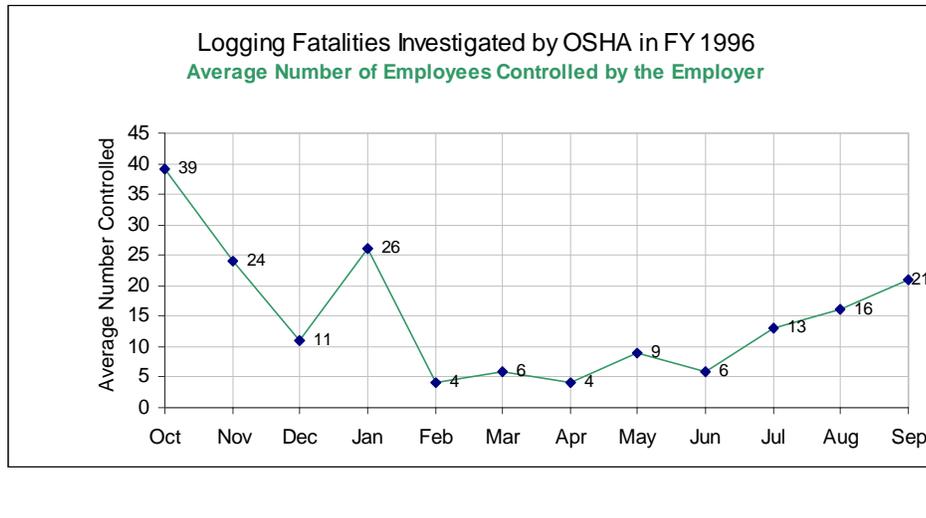
Logging Fatalities Investigated by OSHA in FY 1996 and FY 1997  
**Average "Current" Penalty for Investigations with Penalty**



## Addendum

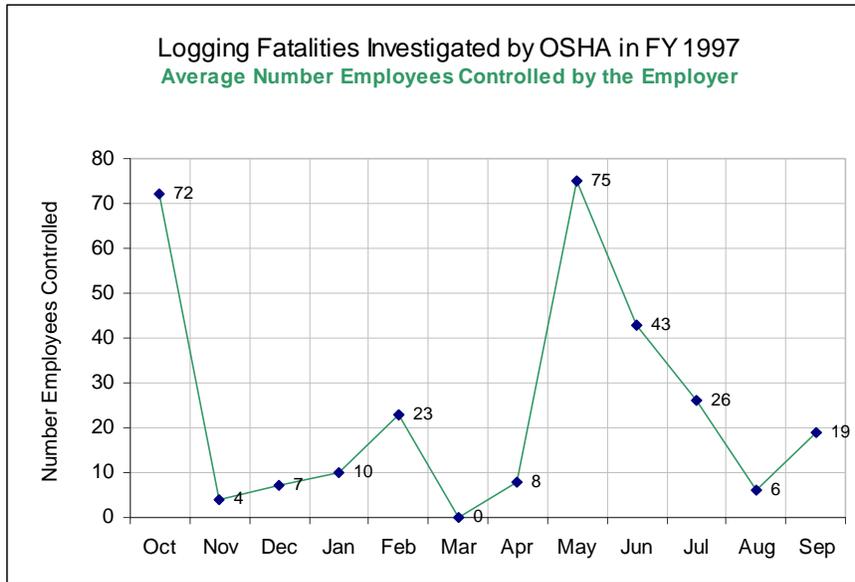
Logging Fatalities Investigated by OSHA in FY 1996 (SIC 2411)  
Average Number of Employees Controlled by the Employer by State and Month

	Oct	Oc2	Nov	Dec	Jan	Feb	Mar	Apr	Ap2	May	Jun	Jul	Ju2	Aug	Au2	Sep	Avg.
AL			10	4	4		4			17	8	2	6				7
AR								1						1			1
CA								5				2					4
FL							7										7
GA												25				31	28
ID									3	3				19			8
IL												4					4
ME	61																61
MS			5				7			7						5	6
MT								12									12
NC								4						5			5
NH				1													1
NY			75	38										10			41
OH					1												1
OR	120	2			89		6	4	2			60		76			45
PA						4											4
SC						6						3					5
TN				4													4
TX	30			12													21
UT																28	28
VA					8	4						7		6	4		6
VT						1											1
WA	19	3	4								6		8	3			7
WV				7				3		6							5
Avg.		39	24	11	26	4	6	4		9	6		13		16	21	15



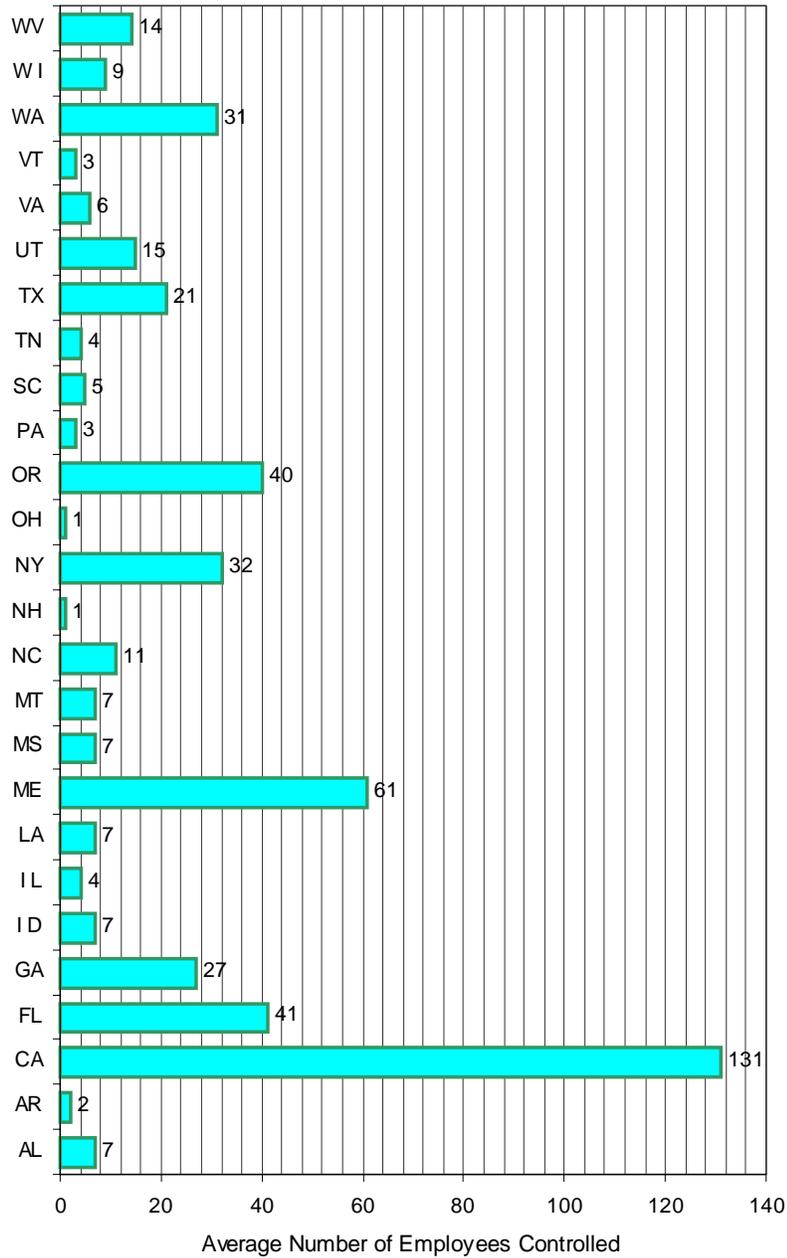
Logging Fatalities Investigated by OSHA in FY 1997 (SIC 2411)  
Average Number of Employees Controlled by the Employer by State and Month

	Oct	Oc2	Nov	No2	Dec	De2	De3	Jan	Ja2	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
AL					20	4	4							5				8
AR					2											4		3
CA	600											13					35	216
FL													75					75
GA	25																	25
ID														4				4
LA	4															4	13	7
NY														5				5
MS	4	5											14					8
MT					2													2
NC										24						12		18
OR	1														1			1
PA												2						2
UT			8														8	8
VA	4		2	3				5	20			4		2		3		5
VT								5										5
WA	1									43				200	20			66
WI					9													9
WV	7									2					56			22
Avg	72		4		7			10		23	0	8	75	43	26	6	19	29



## Addendum

Logging Fatalities Investigated by OSHA in FY 1996 & FY 1997  
Average Number of Employees Controlled by the Employer



# REPORT EVALUATION FORM

A Review of Logging Fatalities Investigated by the  
Occupational Safety and Health Administration in FY 1996 and FY 1997

Part 1 of 2

★ ★ Report Evaluation Form

This logging report (Part 1 of 2) is a continuation of fatality reports produced by the Occupational Safety and Health Administration (OSHA) from 1976 - 1995. The format has been modified to make the material more user-friendly, and to direct the focus of the material more toward compliance activities. This report represents one of a number of reports that are being proposed using information in OSHA's Integrated Management Information System (IMIS). The overall goal is to develop more reports that are useful to you and to make them available in a more timely fashion.

The fatality reports are intended to be reference documents. For each Standard Industrial Classification (SIC), the initial base report, with some exceptions, will cover multiple years of compliance information, and will be considered for updates every 3-10 years. As we formalize this modified report format and process, we would appreciate your comments, because your input is important to us. Please take a few minutes to respond to the following questions. (For additional space, use the last page.)

1. Is the report format user-friendly?

a. Yes: \_\_\_\_ No: \_\_\_\_ (Please check one answer.)

b. If your answer is no, please describe below how we can improve the user-friendly format.

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2. Logging (SIC 2411) was chosen for this report because it represents one of the Agency's 5-year Strategic Plan targets, and because, rate of fatal incidents in this industry continues to be higher than most industry sectors or SIC's. While the number of fatalities occurring nationwide will continue to be one yard stick for determining which SIC's to report on, we would like to know other criteria you believe should be applied and your suggestions of other SIC's that should be reported on.

a. Describe below your suggested criteria for determining which SIC's to report on?

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b. Applying your suggested criteria, identify below SIC's that you recommend be reported on, in order of priority?

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3. In developing this logging report (Part 1 of 2), the broadest range of issues was addressed, e.g., month and year of the fatality, geographical location of the fatality, age of the victim, etc. Did we miss any significant issues? Did we address issues of limited value? Let us know below.

a. Does the report adequately address the significant issues?

Yes: \_\_\_ No: \_\_\_ (Please check one answer.)

b. If the answer is no, please describe below the significant issues you believe should be addressed in future reports, and state why?

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c. Please describe below issues addressed in this report that you believe have limited value, and state why?

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d. Please describe below issues whose value could be significantly improved on if represented differently, e.g., current penalty amounts represented as an average rather than a total, the weekday of the fatality rather than the time of day, etc., and state why?

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4. Overall, how would you score the reports usefulness as a reference document?

a. Excellent: \_\_\_ b. Very Good: \_\_\_ c. Good: \_\_\_  
d. Fair: \_\_\_ e. Poor: \_\_\_

