



## Evaluating workplace injury and illness records; testing a procedure

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The Occupational Safety and Health Act of 1970 requires many private sector employers to keep records of work-related injuries and illnesses. The Bureau of Labor Statistics establishes recordkeeping guidelines (definitions) and collects data through a survey of these employers to produce national measures of the occurrence of occupational injuries and illnesses.

The results of the BLS survey are used by the Occupational Safety and Health Administration (OSHA) to identify and target industries for inspection. OSHA and other safety and health specialists, researchers, and government organizations also use the survey data in other efforts to improve worker safety and health. Finally, national and State data from the BLS survey also supply policymakers, as well as the general public, with information on workplace developments in the safety and health field.

Both BLS and OSHA are keenly aware of the need for—and the difficulties in securing—accurate information on injuries and illnesses in the workplace. First, the identification of occupational illness has been a longstanding problem. Occupational illness often develops over a long period of time, and the causal relationship to the workplace is frequently very difficult to establish. Second, problems can occur in recording injuries in the workplace. The fact that employers and workers do not fully understand the recordkeeping definitions or fail to record injuries for some other reason may result in underrecording of job-related injuries and fatalities.

For some time, BLS and OSHA have been investigating methods for evaluating the quality of the occupational safety and health data and for improving these data where necessary. This article reports on one of these initiatives: a pilot project to test the feasibility of a case-by-case comparison of the employer's OSHA recordkeeping log with medical records, workers' compensation reports, and other material at the business establishment.

## Description of the project

The pilot project involved a visit by OSHA inspectors to evaluate recordkeeping in a random sample of approximately 200 manufacturing establishments with more than 10 employees—half of the establishments were in Massachusetts and half in Missouri. BLS selected the sample of establishments, developed the test procedures, and provided some training to OSHA staff in the procedures to be used in record checking. OSHA compliance officers, who have the legal authority to inspect medical records, conducted the onsite record checks. BLS reviewed and evaluated the test results.

Each onsite check at the sampled establishment consisted of four parts:

- Interviews with the recordkeeper regarding practices for recording work injuries and illnesses (forms used, etc.) and the manner in which the process took place.
- Questioning of recordkeepers about the definitions and concepts associated with the recordkeeping requirements.
- Reconstruction of the establishment's *OSHA Log and Summary of Occupational Injuries and Illnesses* from other records when available, and comparison with the original log.
- Interviews with employees to (1) determine worker awareness of the injury and illness records, and (2) obtain additional information about injuries and illnesses at the establishment.

The project was intended to test a procedure and to determine the cost in inspectors' time; it was *not* designed to provide statistical results that could be generalized to the economy as a whole. Only a small number of establishments (nearly 200) were visited and about 4,000 injury and illness recordings were examined. The discussion that follows reflects only the experience of the establishments in the test; no conclusions can be drawn from them about the accuracy of all employer records.

## Record review results

Many private sector employers, including the 192 establishments in this test, must complete two OSHA records when an occupational injury or illness occurs. The first is a one-line entry on the log (OSHA Form No. 200), which also has to be included in the log's yearend summary total. A more detailed supplementary record (OSHA Form No. 101) provides worker characteristics and a description of the inci-

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dent, with additional information on the nature of the injury or illness. State workers' compensation forms may be substituted for the OSHA 101 and frequently are.

Nearly 90 percent of the 192 establishments visited kept the OSHA log; virtually every one of them had supplementary records for the injuries and illnesses on the log. Twelve employers who had no recordable cases kept no log. Nine other employers, most of whom had fewer than 10 recordable cases, did not keep a log.

In most instances (about 80 percent), the recordkeepers interviewed said that they had entered recordable cases on the log within the 6 working days requirement. About 70 percent of the establishments reported that they posted the yearend summary at the workplace as required during the month of February.

Decisions on the recordability of cases were made by management in slightly more than two-fifths of the establishments, and by other business professionals at about three-tenths of the workplaces. Decisions were made less often by clerical employees (one-sixth) and by medical professionals (less than one-tenth).

In the test, OSHA compliance officers found that they were able to question the person who actually kept the records about the definitions used. A special effort at more intensive questioning would be required to test the recordkeeper's understanding of the guidelines, however, and this was outside the scope of the pilot project.

### Procedures for evaluating the log

The main purpose of the pilot effort was to test methods for evaluating the employer's log. Reviewers were instructed to access the OSHA Supplementary Record, workers' compensation reports, daily reports of injuries and illnesses, employee medical records, company accident reports, and other insurance records. From these sources, the reviewer was to independently "reconstruct" the log for 1986 and then compare the reconstructed log with the original kept by the employer. The reviewer was to discuss any differences with the employer to obtain additional information to assist in understanding any discrepancies that might be found.

In the 192 establishments visited, employers recorded nearly 4,000 cases on their logs for 1986. OSHA reviewers found *overrecording* in 15 percent of these cases, that is, the employer recorded cases that, under the BLS Recordkeeping Guidelines for Occupational Injuries and Illnesses,<sup>1</sup> were not supposed to be recorded. On the other hand, *underrecording*, that is, recordable cases that were not entered on the logs, were found in about one-fifth of the total recordable cases in these companies. Virtually all of the overrecording involved cases with no lost worktime, whereas the undercounted injuries and illnesses were about equally split between those with no lost worktime and those involving lost workdays. Overall, lost workday cases were underrecorded by about one-fourth in these establishments. Some

of this underrecording was due to employers entering lost workday cases on their logs as no-lost-time cases. Conversely, injuries and illnesses without lost workdays were overrecorded by nearly one-fifth.

Overall, the lost workdays associated with lost workday cases were undercounted by almost one-fourth. Nearly half of the undercounted days were found in 55 long-term cases. In addition, about one-half of the lost workdays undercount involved days of restricted work activity. Restricted work activity is the inability to perform normal job duties during a work shift rather than actual absence from work.

Only one case resulting in a fatality was found during the review, and it was accurately recorded on the log.

### Employee interviews

The employee interview portion of the project had two purposes: (1) to test a method for obtaining information from employees concerning their awareness of and participation in the recording process, and (2) to learn if employees knew of any cases that should have been on the log but had not been recorded.

About 1,250 employees were interviewed—about 4 in every 100 employed in the 192 establishments. Although 70 percent of the establishments reported that a summary of the log had been posted as required in the workplace, only about 2 out of 5 of the interviewed workers recalled having seen it. A few employees reported having seen the log on other occasions, such as during safety meetings. Although employees have the right to see the log upon request, only one of those interviewed had initiated such a request.

Virtually all of the employees contacted who had experienced work-related injuries or illnesses told OSHA interviewers that they had reported them to their employer, but it was not possible in many cases to determine whether some of the injuries, especially those with no lost workdays, were recordable. The employees did, however, identify 221 lost-time injuries and illnesses that reviewers confirmed to be recordable. All but 29 of these had been listed on the log, although not always as lost-time cases.

There were several instances in which a 1985 event was reported by an employee as having occurred in 1986, indicating a telescoping of time in the recall process. In addition, some employees were unable to identify all of their 1986 injuries and illnesses.

### Summary and evaluation

The major objective of the test was achieved in that the reviewers were generally able to access medical records and other supplementary information to permit an evaluation of the logs. A second objective was to determine the cost in resource time to carry out the plan. As indicated, nearly 200 establishments were visited, and about 1,250 workers were interviewed. Although the procedures had been carefully designed to minimize use of resources, the process proved to consume considerable resources. The establishment

records check—the record reviews, interviews, related compliance activities, and followup work outside the establishment—took OSHA compliance officers an average of 40 hours (5 workdays) per establishment to complete. The reconstruction of the employer log was the most time-consuming part of the process.

The lack of employee listings, absenteeism, and different work shifts made it difficult at times to select or contact employees. In some situations, employees who were injured or ill in 1986 were intentionally selected for interview to provide more information on their 1986 cases. Experience with these employee interviews and those with people responsible for keeping the employer log, while useful, suggests the need for further research on ways to expand the detail requested and to ensure full understanding of the questions asked.

— FOOTNOTE —

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<sup>1</sup> The BLS guidelines provide interpretation of the recordkeeping requirements of the Occupational Safety and Health Act of 1970 and Title 29, Pt. 1904, of the Code of Federal Regulations.

## A movable beast: changing patterns of regional unemployment

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At yearend 1987, the current expansion reached 61 months, the longest peacetime expansion on record. From the recession trough in November 1987, employment rose by about 14.6 million, the number of jobless fell by almost 5 million, and the unemployment rate dropped from 10.8 percent to 5.8 percent.

As in other years, there were wide differences in the incidence of unemployment among the State and regional labor markets in 1987. New Hampshire had the lowest average rate of unemployment for the year—2.6 percent—while Louisiana, West Virginia, Alaska, and Mississippi had unemployment rates in double digits. On a regional basis, New England reported the lowest unemployment rate—3.4 percent. In contrast, the West South Central division, which

includes Louisiana, saw 8.9 percent of its labor force jobless.

Over the last decade or so, the relative situations of the regions have shifted considerably. In the mid-1970's, higher-than-average unemployment rates were basically a bicoastal phenomenon. In 1976, the Northeast census region—which includes New England—and the West Coast States—especially California and Washington—had much more severe unemployment problems than the geographic center of the country.<sup>1</sup> (See table 1.) Much was made at the time of intractable structural economic problems: “the frost-belt,” the presumed obsolescence of the Northeastern industrial base, the changing demographics of the West Coast's growing labor force, and the migration of manufacturing employment to the expanding South and Southwest.

Following the recessions of the early 1980's, however, a significantly different regional pattern of unemployment began to emerge. In 1983, relatively high unemployment rates<sup>2</sup> were concentrated in a broad band of Eastern and Central States. (See chart 1.) Structural decline was still evident in the labor markets of the traditionally industrial East North Central division, but the effect of recession on manufacturing jobs also took a toll on the more newly industrialized East South Central States of Alabama, Kentucky, Mississippi, and Tennessee. Louisiana also experienced high unemployment, as oil prices declined and high-cost exploration and production ventures in the Gulf of Mexico were curtailed.

In 1986, the fourth year of recovery, another pattern of regional unemployment rates started to become apparent. The New England States had all moved to the low-unemployment group, and several of the East North Central States had unemployment rates fairly close to the improving national average.

By 1987, the new pattern was more clearly developed. The geographic axis of relatively high unemployment had shifted from North-South to basically East-West. (See chart 1.) The northeastern States, by now including New York, a beneficiary of a rapid buildup in financial services, and New Jersey, well-positioned as a transportation services and regional retailing center, had jobless rates well below the national level. The coastal States in the northern tier of the South Atlantic division were also in good shape. State unemployment rates 20 percent or more above the national average of 6.2 percent started in West Virginia and Kentucky and broadened through the West South Central division, before sweeping out to Washington State by way of Colorado, Wyoming, and Idaho. High unemployment thus was largely concentrated in States whose economies were most dependent on energy production. California, in contrast to its position a decade before, was now among the States with near-average unemployment.

Over the current 5-year expansion, the relative dispersion of State unemployment rates has increased, which, on the surface suggests a trend toward polarization of State

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