

U.S. Department of Labor

Office of Inspector General—Office of Audit

**BUREAU OF LABOR
STATISTICS**



**STRENGTHENING FORMAL WRITTEN PROCEDURES MAY
DECREASE THE POSSIBILITY OF INCONSISTENCIES
OCCURRING IN SURVEY OF OCCUPATIONAL INJURIES
AND ILLNESSES DATA RELEASES**

**Date Issued: March 31, 2009
Report Number: 02-09-201-11-001**

**U.S. Department of Labor
Office of Inspector General
Office of Audit**

BRIEFLY...

Highlights of Report Number 02-09-201-11-001 to the Commissioner, Bureau of Labor Statistics.

WHY READ THE REPORT

The Bureau of Labor Statistics (BLS) is responsible for collecting and compiling accurate statistics on the extent of occupational injuries and illnesses in the United States. To meet this responsibility, BLS conducts the Survey of Occupational Injuries and Illnesses (SOII) annually, under authority from the Occupational Safety and Health (OSH) Act of 1970.

During September 2006, the Office of Management and Budget (OMB) issued government-wide policy and procedural guidance for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by Federal statistical agencies. OMB published 20 standards that document professional principles and practices Federal agencies are required to adhere to, and the level of quality and effort expected in all statistical activities disseminated by the Federal government. The 20 standards are divided among 7 elements or topics in OMB's 2006 Standards and Guidelines for Statistical Surveys.

We audited BLS for compliance with OMB's Standards and Guidelines for Statistical Surveys, limited to the survey development and data collection standards. The survey development and data collection standards affect the earlier stages of the SOII process and provide the foundation for the other OMB standards which affect processing, editing, estimating, analyzing, reviewing, and disseminating data.

WHY OIG CONDUCTED THE AUDIT

The audit objective was to determine if BLS complied with OMB standards for SOII development and data collection.

READ THE FULL REPORT

To view the report, including the scope, methodology, and full agency response, go to:

<http://www.oig.dol.gov/public/reports/oa/2009/02-09-201-11-001.pdf>

March 2009

STRENGTHENING FORMAL WRITTEN PROCEDURES MAY DECREASE THE POSSIBILITY OF INCONSISTENCIES OCCURRING IN SURVEY OF OCCUPATIONAL INJURIES AND ILLNESSES DATA RELEASES

WHAT OIG FOUND

While BLS implemented OMB's 2006 Standards and Guidelines for Statistical Surveys related to SOII development and data collection, its formal written policies and procedures did not fully incorporate all of the OMB requirements.

OMB Standards for Federal statistical programs serve both the interests of the public and the needs of the government by helping to ensure information disseminated by Federal statistical agencies is useful, accurate, reliable, and unbiased. Strengthening formal written policies and procedures to incorporate the requirements prescribed in the OMB standards can help decrease the possibility of inconsistencies occurring in SOII data releases, especially when employees with institutional knowledge of SOII leave the agency.

WHAT OIG RECOMMENDED

The OIG recommended the Commissioner, Bureau of Labor Statistics ensure that formal written policies and procedures for SOII fully incorporate the seven standards for survey development and data collection contained in OMB's 2006 Standards and Guidelines for Statistical Surveys.

BLS acknowledged the report's finding, accepted the recommendation, and plans to enhance SOII's formal documentation to fully incorporate the OMB standards.

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U.S. Department of Labor

Office of Inspector General
Washington, DC 20210



March 31, 2009

Assistant Inspector General's Report

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The Office of Inspector General (OIG), Office of Audit, performed an audit of the Survey of Occupational Injuries and Illnesses (SOII) conducted by the Bureau of Labor Statistics (BLS). BLS is responsible for collecting and compiling accurate statistics on the extent of occupational injuries and illnesses in the United States. To meet this responsibility, BLS conducts the SOII annually, under authority from the Occupational Safety and Health (OSH) Act of 1970.

During September 2006, the Office of Management and Budget (OMB) issued government-wide policy and procedural guidance for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by Federal statistical agencies. OMB published 20 standards that document professional principles and practices Federal agencies are required to adhere to, and the level of quality and effort expected in all statistical activities disseminated by the Federal Government. The 20 standards are divided among 7 elements or topics in OMB's 2006 Standards and Guidelines for Statistical Surveys.

The audit objective was to determine if BLS complied with OMB standards for SOII development and data collection.

The audit covered current BLS practices, policies and procedures at the time of audit fieldwork. We audited BLS for compliance with OMB's Standards and Guidelines for Statistical Surveys, limited to the survey development and data collection standards. These 7 standards affect the earlier stages of the SOII process and provide the foundation for the other 13 OMB standards which affect processing, editing, estimating, analyzing, reviewing and disseminating data.

We conducted this audit in accordance with Generally Accepted Government Auditing Standards for performance audits. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objective. We believe that the evidence

obtained provides a reasonable basis for our findings and conclusions based on the audit objective. Our objective, scope, methodology, and criteria are detailed in Appendix B.

RESULTS IN BRIEF

While BLS implemented OMB's 2006 Standards and Guidelines for Statistical Surveys related to SOII development and data collection, its formal written policies and procedures did not fully incorporate all of the OMB requirements. Strengthening its written procedures will mitigate the risk of inconsistencies occurring in SOII data releases, particularly when experienced employees leave the agency.

In response to the report, BLS acknowledged this report's finding. It plans to develop a centralized source of information for SOII and enhance the survey's formal documentation to fully incorporate the OMB requirements as well as the rationale, methodology, and historical basis of the survey. The BLS response is included in its entirety in Appendix D.

BLS' response and proposed actions are consistent with our finding and recommendation to ensure that its formal written policies and procedures for SOII fully incorporate OMB's seven standards for survey development and data collection.

RESULTS AND FINDINGS

Objective – Did BLS comply with OMB standards for SOII development and data collection?

While BLS implemented OMB’s 2006 Standards and Guidelines for Statistical Surveys related to SOII development and data collection, its formal written policies and procedures did not fully incorporate all of the OMB requirements. BLS should strengthen its written policies and procedures for SOII as shown in the chart below.

Standards	Enhanced Policy Needed	Details
Section 1 – Development of Concepts, Methods, and Design		
OMB 1.1 - Survey Planning	√	Enhance policies and procedures to define a “major revision” to a survey and address the development of a written plan in the event of a major revision to SOII.
OMB 1.2 - Survey Design	√	Enhance policies and procedures to address updating the survey design when changes occur.
OMB 1.3 - Survey Response Rate	√	Enhance policies and procedures by documenting rationale as to how SOII procedures were designed to achieve the highest practical rates of response.
OMB 1.4 - Pretesting Survey Systems		BLS had previously completed the survey process.
Section 2 – Collection of Data		
OMB 2.1 - Developing Sampling Frames	√	Enhance policies and procedures to provide detailed descriptions on how specific activities are used in the SOII process.
OMB 2.2- Required Notifications	√	Enhance policies and procedures to ensure the required information is included on its survey form.
OMB 2.3 - Data Collection Methodology	√	Enhance policies and procedures to document its rationale for the SOII data collection methodology.

Details of how BLS implemented the OMB Standards, and where policies and procedures can be improved, are shown below.

Standards related to survey development:

Survey Planning

OMB Standards and Guidelines for Statistical Surveys, Section 1.1 states:

Agencies initiating a new survey or major revision of an existing survey must develop a written plan that sets forth a justification, including goals

and objectives, potential users, the decisions the survey is designed to inform, key survey estimates, the precision required of the estimates ...

BLS officials stated that SOII had no major revisions to its forms or survey processes since the OMB Standards were issued in September 2006. However, neither OMB nor BLS defined what constitutes a major revision to a statistical survey. In addition, BLS does not have policies and procedures that address the development of a written plan in the event of a major revision. BLS should define a “major revision” and develop appropriate policies and procedures to decrease the risk of future non-compliance with the OMB standards.

Survey Design

OMB Standards and Guidelines for Statistical Surveys, Section 1.2 states:

Agencies must develop a survey design, including defining the target population, designing the sampling plan, specifying the data collection instrument and methods, developing a realistic timetable and cost estimate, and selecting samples using generally accepted statistical methods.

BLS developed the survey design of SOII in accordance with the OMB standard. The *BLS Handbook of Methods, Chapter 9* and its *OMB Supporting Statement Parts A and B* contained the specific items required to be developed within a survey design. However, BLS should develop policies and procedures for updating its survey design when changes occur to ensure the survey design remains current.

Survey Response Rate

OMB Standards and Guidelines for Statistical Surveys, Section 1.3 states:

Agencies must design the survey to achieve the highest practical rates of response, commensurate with the importance of survey uses, respondent burden, and data collection costs, to ensure that survey results are representative of the target population so that they can be used with confidence to inform decisions.

BLS used a number of practices, including non-response mailings and telephone follow-up, to help maximize survey response. These practices resulted in a usable response rate of 92 percent. However, BLS did not document its rationale as to how these procedures were designed to achieve the highest practical rates of response. The lack of this rationale could result in a situation where changes to the procedures introduce bias into SOII estimates.

Pretesting Survey Systems

OMB Standards and Guidelines for Statistical Surveys, Section 1.4 states:

Agencies must ensure that all components of a survey function as intended when implemented in the full-scale survey, and that measurement error is controlled by conducting a pretest of the survey components or by having successfully fielded the survey components on a previous occasion.

BLS had conducted SOII since 1972 and was aware that the survey components were functioning as intended.

Standards related to data collection:

Developing Sampling Frames

OMB Standards and Guidelines for Statistical Surveys, Section 2.1 requires agencies to “ensure that the frames for the planned sample survey or census are appropriate for the study design and are evaluated against the target population for quality.”

The BLS Sample Refinement System (SRS) manual documented that the sampling frame was appropriate for SOII and the system was capable of performing activities to assist in evaluating the survey frame. However, the SRS manual lacked detailed procedures on how the activities were used in the SOII process. BLS should strengthen its policies and procedures by including detailed procedures on how the activities were used in the SOII process.

Required Notifications

OMB Standards and Guidelines for Statistical Surveys, Section 2.2 states:

Agencies must ensure that each collection of information instrument clearly states the reasons the information is planned to be collected; the way such information is planned to be used to further the proper performance of the functions of the agency; whether responses to the collection of information are voluntary or mandatory (citing authority); the nature and extent of confidentiality to be provided, if any, citing authority; an estimate of the average respondent burden together with a request that the public direct to the agency any comments concerning the accuracy of this burden estimate and any suggestions for reducing this burden; the OMB control number; and a statement that an agency may not conduct and a person is not required to respond to an information collection request unless it displays a currently valid OMB control number.

BLS included all the required information with its survey form. However, it did not have procedures that required all the specific items be included with its survey form.

Data Collection Methodology

OMB Standards and Guidelines for Statistical Surveys, Section 2.3 requires agencies to “design and administer their data collection instruments and methods in a manner that achieves the best balance between maximizing data quality and controlling measurement error while minimizing respondent burden and cost.”

In addition, the Confidential Information Protection and Statistical Efficiency Act of 2002 states that protecting “information provided under a pledge of confidentiality for statistical purposes . . . is essential in continuing public cooperation in statistical programs.”

BLS requested that SOII respondents track illness and injury data throughout the survey year using Occupational Safety and Health Administration (OSHA) logs and supplementary forms, and ultimately submitting that data via the BLS survey form. Although this practice appears burdensome, BLS did this to preserve confidentiality while maximizing data quality. If employers did not maintain a running log of illnesses and injuries throughout the year, the quality of data would be degraded when employers submitted the BLS survey form at year-end. At the same time, if BLS were to request employers track their illness and injury data throughout the year on a BLS survey form, respondent confidentiality could be violated if the forms were uncovered during an OSHA inspection.

While BLS had considered respondent burden, data quality, and confidentiality in designing and administering its data collection instrument and methods, it did not document its rationale for this data collection methodology in its policies and procedures. Without a documented rationale, both data quality and confidentiality could become compromised should changes be made to the SOII data collection instrument or methods in the future. This risk is increased when experienced staff leave the agency.

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OMB Standards for Federal statistical programs serve both the interests of the public and the needs of the government by helping to ensure information disseminated by Federal statistical agencies is useful, accurate, reliable, and unbiased. Strengthening formal written policies and procedures to incorporate the requirements prescribed in the OMB standards can decrease the possibility of inconsistencies occurring in SOII data releases, especially when employees with institutional knowledge of SOII leave the agency.

Recommendation

We recommend the Commissioner, Bureau of Labor Statistics ensure that formal written policies and procedures for SOII fully incorporate the seven standards for survey

development and data collection contained in OMB's 2006 Standards and Guidelines for Statistical Surveys.



Elliot P. Lewis

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Appendices

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Background

In September 2006, OMB issued government-wide policy and procedural guidance for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by Federal statistical agencies. OMB published 20 standards that document professional principles and practices Federal agencies are required to adhere to, and the level of quality and effort expected in all statistical activities disseminated by the Federal Government. The framework for these standards includes:

- Development of concepts, methods, and design
- Collection of data
- Processing and editing of data
- Production of estimates and projections
- Data analysis
- Review procedures
- Dissemination of information products

BLS conducts SOII annually, in cooperation with participating state governments and under authority from the OSH Act of 1970. BLS is responsible for collecting and compiling accurate statistics on the extent of occupational injuries and illnesses in the United States.

SOII data are used by national and state policymakers to make policy decisions involving occupational safety and health problems; OSHA to target industries that need to improve safety programs and to measure the effectiveness of the OSH Act in reducing work-related injuries and illnesses; labor and management to evaluate their own safety programs; and others involved with job safety and health. The survey collects information on the characteristics of the most serious of its nonfatal cases—those involving lost worktime—and the traits of workers sustaining such injuries and illnesses.

The survey sample selected by BLS consists of approximately 250,000 establishments from private industry as well as state and local governments. A Federal cooperative agreement permits participating state agencies to collect and process data using standardized procedures established by BLS to ensure uniformity and consistency. Each year, BLS publishes a comprehensive bulletin covering national results. Selected national data are also published in two news releases.

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Objectives, Scope, Methodology, and Criteria

OBJECTIVE

The objective was to determine if BLS complied with OMB standards for SOII development and data collection.

SCOPE

We conducted this audit in accordance with Generally Accepted Government Auditing Standards for performance audits. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on the audit objective. Fieldwork was conducted at BLS' headquarters office located in Washington, D.C.

A performance audit includes an understanding of internal controls considered significant to the audit objectives and testing compliance with significant laws, regulations, and other compliance requirements. In order to plan this performance audit, we considered whether internal controls significant to the audit were properly designed and placed in operation. However, we did not assess overall internal controls.

The audit covered current BLS practices, policies and procedures at the time of audit fieldwork. We audited BLS for compliance with OMB's Standards and Guidelines for Statistical Surveys, limited to the survey development and data collection standards. These 7 standards affect the earlier stages of the SOII process and provide the foundation for the other 13 OMB standards which affect processing, editing, estimating, analyzing, reviewing and disseminating data.

METHODOLOGY

To determine if BLS complied with the OMB standards for SOII development and data collection, we obtained an understanding of the SOII process by reviewing BLS policies and procedures, survey collection forms, clearance package supporting statements provided to OMB, and other internal BLS documents. We also interviewed BLS management and staff responsible for conducting SOII.

We then analyzed the policies and procedures for compliance with each of the OMB standards for survey development and data collection.

Standards related to survey development include:

- 1.1 - Survey Planning
- 1.2 - Survey Design
- 1.3 - Survey Response Rates

- 1.4 - Pretesting Survey Systems

Standards related to data collection include:

- 2.1 - Developing Sampling Frames
- 2.2 - Required Notifications to Potential Survey Respondents
- 2.3 - Data Collection Methodology

We also obtained an understanding of the different information systems BLS used to collect and process SOII data. We interviewed staff responsible for these systems, reviewed the systems' operating manuals and related procedures, and observed the systems in operation. In addition, we performed data reliability tests on 2006 SOII data from each system to obtain reasonable assurance that information system controls were operating as intended.

CRITERIA

We used the following Federal laws and regulations to perform this audit:

- OMB Standards and Guidelines for Statistical Surveys, September 2006
- OMB Circular A-123-Management's Responsibility for Internal Control, December 2004
- OSH Act of 1970
- Department of Labor Manual Series 1-300 (Information Collection Management Program), March 2001
- Confidential Information Protection and Statistical Efficiency Act of 2002

Appendix C

Acronyms and Abbreviations

BLS	Bureau of Labor Statistics
DOL	U.S. Department of Labor
OIG	Office of Inspector General
OMB	Office of Management and Budget
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
SOII	Survey of Occupational Injuries and Illnesses
SRS	Sample Refinement System

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Appendix D

BLS Response to Draft Report

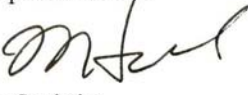
U.S. Department of Labor

Commissioner
Bureau of Labor Statistics
Washington, D.C. 20212



MAR 27 2009

MEMORANDUM FOR: ELLIOT LEWIS
Assistant Inspector General for Audit
Office of the Inspector General

FROM : KEITH HALL 
Commissioner
Bureau of Labor Statistics

SUBJECT : BLS Response to the Office of Inspector General Report
Regarding Strengthening Formal Written Procedures May
Decrease the Possibility of Inconsistencies Occurring in Survey
of Occupational Injuries and Illnesses Data Releases
Draft Audit Report No. 02-09-201-11-001

Thank you for providing the Bureau of Labor Statistics (BLS) with the Office of Inspector General (OIG) Draft Report, *Strengthening Formal Written Procedures May Decrease the Possibility of Inconsistencies Occurring in Survey of Occupational Injuries and Illnesses Data Releases* for the Occupational Safety and Health Statistics program of the BLS. We appreciate the opportunity to provide comments at this time.

As the principal fact-finding agency for the Federal Government in the broad field of labor economics and statistics, the BLS is committed to the integrity and objectivity of our data. The BLS produces impartial, timely, and accurate data relevant to the needs of our users on the social and economic conditions of our Nation, its workers, and their families. As such, the BLS strives to operate effectively and to comply with all Federal regulations and standards. As a leading statistical agency, the BLS is dedicated to implementing the Standards and Guidelines for Statistical Surveys issued by the Office of Management and Budget (OMB).

The Survey of Occupational Injuries and Illnesses (SOII) is a comprehensive statistical program covering work-related injuries and illnesses in private industry, and state and local government. This survey information is unique and of great value to the safety and health community in allocating prevention resources among many diverse industries and occupations, across which workers' risks of injury and illness vary widely. It also provides details on the most severe injuries and illnesses that are critical to designing prevention strategies to protect workers.

By all standards, the SOII program is well managed and produces sound and reliable estimates. Its staff is extremely dedicated and committed to the program and to the BLS. The BLS considers this report to be a confirmation of the sound management practices and survey procedures of the SOII, as there are no findings of lack of compliance with the

Memorandum for Elliot Lewis--2

OMB standards, lack of written operating procedures, or warning of impending operational problems. The day-to-day survey operations are well documented and carefully executed to ensure accurate and consistent processing of the data from sampling through estimation and dissemination.

Given these sound practices, the BLS acknowledges the findings in this report, which are based on the fact that the documentation on the historical and theoretical basis of the survey are not gathered into a formal central document repository, and we accept the recommendation. The SOII program will enhance formal documentation and develop a centralized source of information. This documentation will fully incorporate the requirements prescribed by the OMB standards and explain, to the extent practicable, the rationale, methodology, and historical basis of the survey.

I would like to thank you and the audit team for your work and commitment to helping to further us in our mission.

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