

**Underreporting of Occupational Injuries and Illnesses by Workers: A NEISS-Work  
Telephone Interview Survey**

**Request for Office of Management and Budget Review and  
Approval for Federally Sponsored Data Collection**

**Section A**

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## **A. Justification**

### **A.1. Circumstances Making the Collection of Information Necessary**

#### **Background**

This is a new Information Collection Request (ICR) from the National Institute for Occupational Safety and Health (NIOSH) Centers for Disease Control and Prevention. We are requesting two years of OMB approval. Data collection will occur over 12 months. However, a two-year approval is needed to account for interviewer training and other potential start-up delays.

There is presently a crisis of confidence in the representativeness of U.S. nonfatal occupational injury and illness data. Current surveillance systems estimate that each year about 4 million private industry workers report a nonfatal occupational injury or illness and approximately 3.4 million workers, including both public and private industry employees, are treated in U.S. hospital emergency departments (EDs) for job-related health problems (CDC, 2011). Despite these large numbers, there is continuing evidence that U.S. nonfatal occupational surveillance systems significantly underreport workplace injuries and illnesses. As a result, though it appears that the number of nonfatal injuries and illnesses has decreased over time, it is not clear if this is due to an actual change in the number of occupational injuries and illnesses, or a change in reporting behaviors over time.

The current presumed undercount of occupational injuries and illnesses potentially decreases health and safety funding because of a false sense of improvement while increasing the misdirection of scarce safety and health resources due to an inability to appropriately assess hazardous workplaces and target and evaluate intervention efforts. Our proposed research addresses two facets of the underreporting problem—first, that we must thoroughly understand the reporting behaviors of workers with respect to both the employer and the emergency department (ED) and, second, that we use this knowledge to assess and improve our surveillance activities. Agencies responsible for occupational injury and illness surveillance, the National Institute for Occupational Safety and Health (NIOSH) in particular, will benefit from the better understanding of reporting behaviors obtained through the proposed project.

It is a widely recognized basic need for reliable and comprehensive occupational injury and illness surveillance that led to the 1987 National Academy of Science report, “Counting Injuries and Illnesses in the Workplace—Proposals for a Better System” (Pollack & Keimig, 1987). In 2008, the Congressional Committee on Education and Labor released the report, “Hidden Tragedy: Underreporting of Workplace Injuries and Illnesses,” indicating, “that work-related injuries and illnesses in the United States are chronically and even grossly underreported.” This report focused on employer-based reporting of occupational injuries and illnesses. Based in part on the report’s results, Congress allocated funds for “NIOSH to undertake follow-up studies on the National Hospital Ambulatory Medical Care Survey on the underreporting of worker injury data, particularly focusing on the self-employed population. As NIOSH develops research

agendas, NIOSH should consider the disproportionate attention paid to acute injuries and illnesses over chronic injuries and illnesses contracted at work places in America.”<sup>1</sup>

The appropriation language specified that NIOSH conduct follow-up studies using the National Center for Health Statistics (NCHS) National Hospital Ambulatory Medical Care Survey (NHAMCS). However, use of NHAMCS for this project is not possible because NCHS does not collect any personally identifiable data and the data collected, once accepted by the NCHS, are not linked to individual records maintained by the participating hospitals. This lack of contact information prohibits conducting follow-up studies with NHAMCS.

Rather, NIOSH has elected to conduct the telephone follow-up study using the occupational supplement to the National Electronic Injury Surveillance System (NEISS-Work).<sup>2</sup> This study will illuminate underreporting of worker injuries. Specifically, we will follow up on individuals treated for an occupational injury or illness in an ED in this nationally representative sample of U.S. hospitals. The characteristics and reporting behavior of self-employed individuals treated in this hospital sample along with workers treated for an occupational illness will receive particular focus to help meet the Congressional request. To understand the implications of reporting behaviors identified through this survey, we will collect sufficient information to allow us to characterize potential differences among respondents based on demographics; occupation; employment arrangement; characteristics of the treated injury/illness; existing health problems related to the specific ED visit or existing work-related conditions that may have significantly influenced the worker’s reporting behavior; and medical payer.

To fulfill this request, we will use NEISS-Work hospitals, a statistically valid subset of the NEISS hospital sample, which is itself a nationally representative probability-based sample. The NEISS-Work hospitals routinely abstract from ED medical records basic injury, illness, and patient information on individuals with a work-related injury or illness presenting to the ED. To gain the additional information needed to meet the Congressional request we will conduct telephone interviews of individual workers by using a statistically valid sample protocol to select workers treated for an occupational injury or illness in the NEISS-Work hospital subsample. The questionnaire will ask for additional details on the employment and personal characteristics of the individuals treated in the ED for an occupational injury or illness, their occupational injury/illness reporting behavior, and factors that may have influenced their reporting behavior.

In fulfilling the request from Congress, NIOSH will be acting under P.L. 91-596 Section 20 (Appendix C). This law tasks NIOSH with conducting research involving innovative methods, techniques, and approaches for dealing with occupational safety and health problems. Under this law, this project will use a routine surveillance system with a statistically sound sampling methodology to obtain a sample of individuals. These individuals will have a known probability

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<sup>1</sup> See Appendix A: Excerpt from Division F—Labor, Health, and Human Services, and Education, and Related Agencies Appropriations explanatory statements accompanying the H.R. 1105, FY 2009 Omnibus Appropriations Act

<sup>2</sup> After identifying the inability to use NHAMCS and presenting the advantages of using NEISS-Work to CDC and Congress, the use of NEISS-Work, instead of NHAMCS, for this study was approved.

of selection from this surveillance system. Telephone interviews will be completed with the identified individuals. As noted in the Report to Congress (Appendix D), NEISS-Work is one of only a few surveillance systems capable of collecting this information, and it is the only surveillance system receiving funding in order to implement such an effort.

The mission of NIOSH is to “generate new knowledge in the field of occupational safety and health and to transfer that knowledge into practice for the betterment of workers” [<http://www.cdc.gov/niosh/about.html>]. Surveillance is an important tool in monitoring and improving worker safety and health. This project will provide needed information for addressing this goal by elucidating the individual, injury or illness, and employment characteristics associated with reporting, or failing to report, an occupational injury or illness. The availability of this information will allow for the development and refinement of surveillance activities and initiatives to promote reporting of occupational injuries and illnesses.

## **Privacy Impact Assessment**

### **Overview of the Data Collection System**

The sampling frame for this study involves cases routinely collected through NEISS-Work. Data collection for both NEISS-Work and the proposed telephone interview follow-up study will be completed by the Consumer Product Safety Commission (CPSC). The NEISS-Work data are collected in an ongoing, supplemental effort of the core National Electronic Injury Surveillance System (NEISS). CPSC uses the core NEISS to capture and report product-related injuries. Although the hospital samples overlap, the data captured for NEISS and NEISS-Work are mutually exclusive. The telephone interviews will be a new data collection effort, enhancing the information available through NEISS-Work.

### **Background on NEISS and NEISS-Work**

In 1972, as authorized by statute (the Consumer Product Safety Act Sec. 5. [15 U.S.C. § 2054]), CPSC initiated the collection of consumer product-related injury and illness information through a surveillance system that uses a national probability-based sample of hospital emergency departments—the National Electronic Injury and Illness System (NEISS). Although the CPSC maintains a Privacy Act System of Records CPSC-1 (<http://www.ofr.gov/privacy/2009/cpsc.aspx#cpsc1>) for its Injury Investigation Files, the NEISS records are not retrievable by personal identifiers and hence are excluded from the CPSC system of records. These records may be provided to another Federal, State, or local agency or authority engaged in activities relating to health, safety, or consumer protection in accordance with section 29(e) of the Consumer Product Safety Act. The NEISS data are abstractions of existing information from ED medical records as collected by contract hospitals and paid records abstractors. Informed consent of the injured or ill patient is not required and data sharing by the hospital with CPSC and other federal agencies is allowed under the Health Insurance Portability and Accountability Act of 1996. With OMB approval for both the initial

data collection and follow-up studies (OMB Control No: 3041-0029), CPSC regularly uses information attained through NEISS to conduct in depth follow-up investigations; information collection extension requests are submitted every three years (e.g., Federal Register: Vol. 75, No. 65; Tuesday, April 6, 2010; 17391-17393).

Beginning in 1981, NIOSH began conducting research using NEISS data as authorized by the Occupational Safety and Health Act, Section 20, "Research and Related Activities" and Section 22(d), "Authority of Director, National Institute for Occupational Safety and Health" (29 U.S.C. 669, 671 (d)). The work-related injury data attained by NIOSH from CPSC through what is now referred as NEISS-Work do not contain direct personal identifiers such as name, social security number, or contact information. Similarly, this information will not be provided to NIOSH in the proposed study, but will be obtained from the participating hospitals and retained by CPSC only for the purposes of conducting the intended follow-up interviews.

NIOSH used NEISS in 1981-1987 and again in 1991 through the present. In the 1990's NIOSH conducted several follow-up telephone interview studies in collaboration with CPSC under their approval to collect information. OMB was regularly informed of such. Beginning in approximately 2002, CPSC requested that all federal agencies using NEISS for follow-up investigations seek their own OMB approval for the specific follow-up study (as is being done herein).

#### NEISS-Work

Routinely collected NEISS-Work data are captured from a national stratified probability sample of 67 of the approximately 5,400 rural and urban hospitals in the U.S. and its territories. At each of these hospitals, a coder employed by CPSC abstracts standardized information from the ED record. For NEISS-Work, this information is captured for all persons identified as having a work-related injury or illness and meeting the following criteria:

- (1) First visit for an injury or illness treated in an emergency department;
- (2) Civilian, non-institutionalized worker; and
- (3) Performing an activity for pay or other compensation, or volunteering for an organized group such as an EMS squad or fire department.

Worker ED records are abstracted without restriction by age, type of employer or industry, or employer size. Work-relatedness is determined by the hospital abstractor based on the information provided in the ED chart at the time of treatment. Indication or filing of a Workers' Compensation claim is not required. NEISS-Work guidelines for defining a work-related injury or illness generally follow the Occupational Safety and Health Administration's (OSHA) requirements for recordable injuries and illnesses. OSHA defines work-relatedness in its recordkeeping regulations 29 CFR: 1904.5 as:

**Basic requirement.** You must consider an injury or illness to be work-related if an event or exposure in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing injury or illness. Work-relatedness

is presumed for injuries and illnesses resulting from events or exposures occurring in the work environment, unless an exception in § 1904.5(b)(2) specifically applies.

In addition, injuries and illnesses are captured regardless of product involvement and regardless of intent as long as they occurred while working. Incidents resulting in a loss of consciousness are included as are heart attacks that occur at work, similar to the OSHA requirements. Common illnesses are not reportable within NEISS-Work unless a causal link to work activities can be established (e.g., tuberculosis exposure at work). Typical non-work-related illnesses, diseases, and chronic conditions include: cancer, diabetes, arthritis, kidney stones, epilepsy, infections, flu, sore throat, colds, urinary tract infections, and sexually transmitted diseases. Routine visits for either screening or treatment referral for drug or alcohol use are also not reportable within NEISS-Work.

The NEISS-Work data are the property of NIOSH and are used for a variety of projects. They are maintained on password-protected computers and in secure files in locked NIOSH offices. They are archived on a secure network drive accessible only by those persons who have completed required annual confidentiality training. The archived NEISS-Work files will be maintained for a minimum of 20 years after the study is completed or becomes inactive in accordance with the CDC Records Control Schedule.

#### Telephone interview survey

CPSC has previously used telephone interview survey methods to collect data related to injury incidents, including occupational injury incidents. CPSC maintains OMB approval “for a collection of information obtained from persons who have been involved in or have witnessed incidents associated with consumer products” (OMB control number 3041-0029). While the cases in the proposed Underreporting study are mutually exclusive of the product-related cases captured by CPSC, the proposed study practices will follow those used by CPSC in their follow-up activities for consumer product-related activities. Additionally, NIOSH has received past OMB approval (OMB Control No.: 0920-0834, expiration 12/31/2012) for a separate study of emergency medical services (EMS) workers based on the same study practices.

In order to complete interviews in a telephone interview study, CPSC will attempt to obtain contact information for every sampled NEISS-Work case from the treating hospital that was between the ages of 20 and 64 at the time of treatment. While hospitals are generally cooperative in releasing this information, a few hospitals decline to participate owing to individual hospital privacy rules or require that a letter be sent to the patient providing them the option of having their contact information withheld. Usually in the latter instance, if no response is received from the patient within approximately 10 days, the hospital releases the information to CPSC. There are also instances where the contact information released by the hospital is incorrect or out-of-date.

Once contact information is obtained by CPSC, potential respondents will be sent a letter describing the study, informing them of their rights as a participant, and giving them the opportunity to opt out of the study by calling a toll-free number (Appendix E). The contact

information is then given to telephone interviewers under contract with CPSC to complete the interviews. The telephone interviewers are required to make at least ten attempts to contact each potential respondent. These attempts are made at varying, but reasonable, hours of the day and on varying days of the week. When no personal contact is made after a number of attempts, the interview is set aside and contact attempts are made at a later date as time permits to maximize the response rate while minimizing recall bias issues. Interviewers are trained to be considerate of respondents and their families, leaving a minimal number of messages or speaking with the respondent or another individual of the residence to arrange a convenient interview time. Messages include a toll-free response number so that the respondent may call at their convenience. When no personal contact is made, no message system is available, or there is no indicator of an incorrect number, the interviewer typically spreads their call attempts over a longer time period and commonly makes more than 10 contact attempts over the initial contact attempt period and the subsequent missed interview follow-ups. The interviewers comply with CPSC contract requirements as approved by OMB. If contact is made with a potential respondent, they are offered the options to participate in the survey at the time of contact, participate in the survey at a later time, or refuse participation. The current response rate for CPSC telephone interviews is approximately 40-45%. We anticipate that the response rate for this project will be similar.

Because of the inherent cost of the telephone interview data and their intrinsic value to researchers, upon completion of the proposed research, the data will be maintained by the NIOSH Division of Safety Research as “active” files for a period of up to five years. Subsequently, the data will be maintained as archived protected data files for a period of up to 20 years in accordance with the CDC Records Control Schedule.

## **Items of Information to be Collected**

### NEISS-Work

Routine NEISS-Work data collection includes: demographics (age, sex, race/ethnicity, job title, business type, and employer name); medical characteristics (treatment date, diagnosis, body part affected, and disposition (e.g., treated and released or hospitalized)), and incident characteristics (locale, fire or motor vehicle involvement, and a brief narrative description). NIOSH staff review all cases for work-relatedness, recode selected variables, and add standardized Occupational Injury and Illness Classification System codes for the event or exposure and the source and secondary source of injury. The job title, business type, and employer name variables are collected as free form literal text. Currently, NIOSH is in the process of recoding these variables to standardized industry or occupation classification systems. However, NIOSH does use the information to identify and subset selected worker populations such as EMS workers for special studies.

### Telephone interview survey

The data collected via the telephone interviews (Appendices F and G) will capture valuable, detailed information to supplement the routine data collected in NEISS-Work. The interview will be about 30 minutes or less in length, including the introductory materials. It will begin with an explanation of the study purpose and provide the information needed for informed consent. The subsequent questionnaire will begin with an opportunity for the respondent to give a free form narrative statement of the recent injury or illness event, followed by a series of qualifying questions. The remainder of the questionnaire will consist of separate modules that address specific worker or incident characteristics; issues related to reporting the injury or illness; and the medical payer. The specific modules included are: (1) initial introduction and screening questions; (2) classification of current injury or illness as acute or chronic; (3) current injury or illness characteristics; (4) type of employment; (5) employment characteristics; (6) ED reporting of the current injury or illness; (7) work reporting; (8) medical coverage and return to work; (9) identification of pre-existing work-related health problems; (10) demographic information; and (11) post-interview questions for the interviewer. No information that could be used to directly identify an individual will be collected. However, it is possible that the combination of injury narrative and other job-related and demographic indicators collected by the interview may be used to indirectly identify individuals. As a result, strict policies, as detailed above, will be followed to ensure that this information remains secure.

The initial draft questionnaire was developed by Westat, Rockville, MD, under contract to NIOSH. NIOSH staff revised the questionnaire extensively and harmonized the questionnaire with another underreporting survey being conducted by NIOSH. Review comments were received from members of the NIOSH Division of Safety Research (DSR); the NIOSH Division of Surveillance, Hazard Evaluations, and Field Studies (DSHEFS); and the NIOSH Division of Respiratory Disease Studies (DRDS). Revisions were made to the instrument based on the

comments that we received. The revised questionnaire was pilot tested on a small number of employees at the NIOSH Morgantown branch who used constructed scenarios in order to test the skip pattern, flow, understandability, and comprehensiveness of the questions and their answer choices. Again, revisions were made based on identified problems. Subsequently, survey experts from Research Triangle Institute (RTI), an independent, nonprofit research institution with more than 45 years of experience in survey methodology, reviewed and commented on the questionnaire and conducted cognitive interviews on nine participants. Finally, NIOSH staff worked with RTI staff to revise the questionnaire (Appendix F) based on the results of cognitive testing.

The final English-language questionnaire was translated to Spanish (Appendix G). The Spanish questionnaire was simplified in selected areas to minimize language, cultural, and conceptual differences among English-speaking and Spanish-speaking workers. The Spanish questionnaire version was tested using back translation, but did not undergo formal cognitive testing. Because the questionnaire changed somewhat when translated due to language and cultural differences, data from the Spanish-language interviews will be analyzed separately.

#### Identification of Website(s) and Website Content directed at Children Under 13 Years of Age

The proposed project does not involve any web-based data collection methods nor is it associated with any websites with content directed at children under 13 years of age.

### **A.2. Purpose and Use of Information Collection**

The data for this project are being collected to provide information on: (1) a national estimate of the number of ED-treated injuries and illnesses by the worker's employment status; (2) the reporting behaviors of injured or ill workers who were treated in a NEISS-Work hospital; and (3) factors that may have influenced the worker's injury/illness reporting behavior.

There are several reasons the data collected for this project fulfill a positive need:

1. Congress allocated funds in FY2009 for NIOSH to undertake a follow-up study using NEISS-Work on the underreporting of worker injury data, particularly focusing on the self-employed population. NIOSH was further instructed to pay specific attention to work-related chronic injuries and illnesses. Data obtained through this study will aid NIOSH and the Bureau of Labor Statistics (BLS) in improving the statistics that inform Federal enforcement and compliance efforts related to workplace safety and prevention of injuries and illnesses.
2. There is continuing evidence that, despite improvements, significant underreporting of workplace injuries and illnesses still exists. This project will provide important information on the individual, job, and injury/illness characteristics that are associated with underreporting. This information can be used to better target programs whose objective is to increase reporting of occupational injuries and illnesses.

3. The proposed project will contribute to an assessment of the validity of NEISS-Work cases, capturing whether or not the injury or illness was truly work-related as reported by the worker. The project will also allow us to assess the quality of the data obtained through record abstraction. More specifically, NEISS-Work national estimates are dependent on the work relationship of an injury being identified by the patient or provider, recorded in the medical record, and captured by the records abstractors. The interviews will allow us to confirm the work-relationship and other details of cases based on the respondents' self-declaration. This information will be used to explore ways that the specificity of the abstraction process to identify work-related cases at NEISS-Work hospital ED's can be improved.
4. The proposed project will ask respondents whether they were asked by ED staff if their injury or illness was work-related. This will give us information on the ability of record abstraction to pick up work-related cases that were not spontaneously self-reported in the ED.
5. Over time, the study results will be incorporated into new abstractor training, data processes, and routine NEISS-Work data reports such that a diverse dissemination of results occurs. More importantly, we will specifically disseminate the findings from the proposed research through four primary communications channels: traditional scientific journal publications; a NIOSH summary document; surveillance focused meetings such as the Council of State and Territorial Epidemiologists (CSTE) annual meeting; and a final project closeout underreporting workshop. NIOSH will not publicly release micro-data from this study because of privacy requirements.

This project has much practical utility in that it will produce and disseminate products that alert workers and others vested in worker health and safety about the factors associated with underreporting. Consequently, it will provide information to develop campaigns that will effectively target those workers who are least likely to report their occupational illnesses and injuries. It will also provide information on the quality of the NEISS-Work data (at least insofar as estimating the number of false occupational cases that it captures) and issues that should be addressed in future abstractor trainings. Without this information, surveillance systems may continue to greatly undercount the number of occupational injuries and illnesses that occur to US workers.

Collecting detailed data that will lead to improved surveillance of occupational injuries and illnesses has direct benefit to NIOSH, addressing one of the Institute's primary objectives to "conduct research to reduce work-related illnesses and injuries." Specifically, this project will contribute to the surveillance program at NIOSH, helping to bridge existing data gaps. Surveillance activities have been an integral part of NIOSH's work since it was created by the Occupational Safety and Health Act in 1970. Furthermore, this project addresses several of NIOSH's surveillance strategic goals to (1) increase the utility of surveillance information for prevention of occupational illnesses, injuries, and hazards; (2) promote successful occupational

safety and health surveillance conducted by employers, unions, and other non-governmental organizations; and (3) increase research to improve surveillance.

Whereas this project will collect data from a national sample of hospital EDs, and provide weighted estimates and confidence intervals representative of national numbers of those admitted to EDs, the resulting sample will not be representative of the national workforce nor all worker injuries for the workers covered in the catchment areas of the ERs in the sample. Of particular note, the sample is limited in that it only provides numbers based on ED-treated injuries and illnesses. Consequently, the injuries and illnesses captured are those that need immediate medical care. These injuries and illnesses do not frequently result in hospitalization. However, at the present time, this surveillance system offers the best potential for capturing details regarding occupational injuries and illnesses from a national perspective and from a source that is inclusive of workers from all sectors as well as individuals working without pay on a family farm or business. All products from this project will explicitly acknowledge that the scope is limited to ED-treated injuries and illnesses. Furthermore, we will clarify in all reports that although the data are not nationally representative of the workforce, they will give an important picture of the potential extent of the under-reporting of work-related injuries and illnesses. Prior research has indicated that about one third of all medically treated occupational injuries and illnesses are treated in an ED (Jackson, 2001).

Funds for this project are primarily provided by the United States Congress and cover questionnaire development and data collection. Supplemental funding will come from DSR, NIOSH, as DSR consistently funds routine collection of NEISS-Work data.

### **Privacy Impact Assessment Information**

#### **Reason for collection of the information**

The Underreporting project objectives include use of the National Institute for Occupational Safety and Health's (NIOSH) occupational supplement to the National Electronic Injury Surveillance System (NEISS-Work) as the basis for telephone interview surveys to (1) assess the reporting behavior of injured or ill workers; and (2) worker/employment characteristics that may influence reporting behaviors. Particular attention will be paid to self-employed workers and workers with occupational illnesses. Results will be provided to Congress in a report. Results will also be disseminated in multiple other forms to reach a variety of occupational health and safety stakeholders.

#### **Intended use of the information**

The study results will be presented to Congress in a report. They will also be incorporated into new abstractor training, data processes, and routine NEISS-Work data reports such that a diverse dissemination of results occurs. We will specifically disseminate findings from the proposed research through four primary communications channels: traditional scientific journal publications; a NIOSH summary document; surveillance focused meetings such as the CSTE annual meeting; and a final project closeout underreporting workshop.

### Information in Identifiable Form (IIF)

The name, phone number, and address of potential telephone interview respondents will be collected by CPSC-contracted medical records coders and given to CPSC-contracted telephone interviewers. This information will be destroyed upon completion of the telephone interview or a declaration by the telephone interviewer that the potential respondent is not reachable, does not meet the case criteria defined within this study, or has refused participation. This information will never be released to NIOSH.

The data collected for this study will capture basic demographic information, such as age, education level, and race/ethnicity. It also will include details about the respondent's employment at the time of the injury or illness, including the name of their employer and the state in which they work. This information will only be used to determine the industry in which the respondent was working. Additional employment status information collected from each respondent will include: (1) job title and duties; (2) the type of job held (e.g., self-employed or temporary, contract, or permanent employee); (3) employer size; (4) number of hours worked in an average week; (5) number of years or months working for that employer; (6) labor union status; (7) workers' comp coverage; and (8) reporting policies of both the employer and, where applicable, the employee's union. Collecting this additional information is necessary to better understand factors associated with underreporting. In turn, understanding these factors will improve programs aimed at increasing workplace reporting. This information will be accessible to NIOSH staff and will be disseminated to Congress, stakeholders, and the general public in aggregate form only, following NIOSH DSR reporting requirements that were established to ensure protection of respondents' identities and the reporting of stable estimates.

CPSC and NIOSH both have extensive safeguards to protect against release of individual level data. Aggregated data are required to be screened by NIOSH DSR staff intimately familiar with NEISS-Work data. This adherence to data reporting requirements prior to release prevents a recipient of the data results from being able to tease apart identifiable individual level data from aggregate results. The largest potential for an adverse event would be related to a breach in privacy from either NIOSH project staff or CPSC contracted telephone interviewers. The NIOSH project staff will notify CPSC immediately upon: (1) discovering any breach or suspected breach of security; (2) discovering any unauthorized disclosure of project data; or (3) receipt of any legal, investigatory, or other demand for access to project data in any form. Should any of these issues occur, project progress will be halted until approval is received from CPSC to resume project activities. In addition, the NIOSH Human Subjects Review Board will be informally notified of any potential breach of privacy within two working days of an incident and formally notified within two weeks of an incident. Proven violation of security procedures related to or obtained from the data is cause for immediate termination of access to any data. The violation will be examined and additional safeguarding procedures implemented to decrease the likelihood of a similar incident happening during the remainder of the project.

### **A.3. Use of Improved Information Technology and Burden Reduction**

### NEISS and NEISS-Work

Routine NEISS data are collected by coders in approximately 100 hospitals via abstraction of the information found in ED records. Respondents to NEISS include hospitals that directly report information to NEISS and hospitals that allow access to a CPSC contractor who collects the data. In FY2008, there were 157 NEISS respondents (total hospitals and CPSC contractors). These NEISS respondents reviewed approximately 3.4 million emergency department records and abstracted over 350,000 consumer product-related injuries. Thus, based on FY2008 data, the total burden hours to respondents are estimated to be 41,497 hours. Per hospital, the average number of burden hours is 415. In actuality, the total burden hour per hospital varies by the size and location of the hospital. Estimated burden hours per hospital range from 100 to 1,300.

The total costs to NEISS respondents based on FY2008 data are approximately \$1.5 million per year. NEISS respondents are compensated for these costs by CPSC. The average cost per respondent is estimated to be about \$15,000; the estimated cost per burden hour is estimated to be \$36 per hour (including wages and overhead) (Bureau of Labor Statistics, June 2009, Total Compensation Civilian workers, Hospitals). The actual cost to each respondent varies due to type of respondent (hospital versus CPSC contractor), size of hospital, and regional differences in wages and overhead. The cost per respondent is estimated to vary from \$2,600 at a small rural hospital to \$75,000 at a large metropolitan hospital.

The collection of NEISS-Work supplemental program data occurs at a 67-hospital subset of the 100 NEISS hospitals used by CPSC for product-related injury data (described above). Because CPSC reviews all ED records as a part of the basic NEISS injury data collection, the burden associated with NEISS-Work is the respondent burden associated with the abstraction of the additional occupational information for cases already collected by CPSC. Respondent hospitals abstract this additional information for approximately 41,000 occupational injuries and illnesses and account for an estimated 5,400 hours of the total supplemental hours and \$0.26 million of the program costs paid to respondent hospitals. As noted above for CPSC, the actual cost per respondent hospital varies considerably based on the hospital size and other hospital specific factors.

### Telephone Interview Survey

All follow-up studies performed by CPSC, collecting data directly from the injured person, are done via telephone interview surveys. The data collection process will be guided by and entered into a Computer Assisted Telephone Interview (CATI) system. This CATI system is used by CPSC for other follow-up studies and required for new follow-up studies. Use of the CATI will facilitate administration of the questionnaire as skip patterns will be automated, lessening the time the respondent will need to wait for the interviewer to find the correct question and eliminating concerns with inaccuracy due to incorrectly following skip patterns.

To ensure that the data collected will meet reporting requirements and provide an accurate national picture, NIOSH contracted with Westat, a research services company that provides services to the United States government, among other entities, to design the sampling

procedures. Westat has extensive experience in all aspects of survey design and analysis and its staff includes internationally recognized experts in research methodology, sample design, and estimation. The sample design for selecting interview participants takes into account the underlying stratified hospital sample design for the NEISS-Work surveillance. It maintains the nationally representative aspects of the hospital sample design while maximizing NIOSH's ability to detect significant differences among the study population (e.g., minimize variance issues). Finally, the sample design lends itself to a robust data analysis plan.

#### **A.4. Efforts to Identify Duplication and Use of Similar Information**

The project was developed based on a report written in 2008 by the Congressional Committee on Education and Labor titled *Hidden Tragedy: Underreporting of Workplace Injuries and Illnesses*, which found that "work-related injuries and illnesses in the United States are chronically and even grossly underreported." Based in part on this report, Congress allocated funds NIOSH to conduct a follow-up study using NIOSH's NEISS-Work. NEISS-Work is unique from other surveillance systems in that it has the option to collect data directly from the worker using telephone interviews, providing greater detail and insight than can be obtained from abstracting data from written records (e.g., medical records or worker's compensation records) alone. Consequently, much of the data proposed for collection is available only via NEISS-Work. In addition, NEISS-Work captures cases from multiple industries and job types without the employment restrictions inherent in other national occupational injury and illness data systems.

As directed by Congress, the proposed project emphasizes reporting of occupational injuries by self-employed individuals that have historically been difficult to enumerate. Self-employed individuals are generally not required to carry worker's compensation insurance or maintain Occupational Safety and Health Administration (OSHA) logs if they employ less than eleven people. Consequently, understanding reporting behaviors will identify if ED surveillance can effectively contribute to the enumeration of work-related injuries and illnesses for the self-employed. Additionally, this project will obtain information on pre-existing health problems self-identified by the respondent population as caused or made worse by work. Identification and characterization of these conditions will provide the opportunity to examine the potential influence of these conditions on reporting behaviors. Occupational health problems that are reported by workers may result in lost work time that can be ill afforded by the workers, not to mention having medical benefits denied, or result in other adverse impacts to the worker (Azaroff et al. 2002). Workers with existing work-related health problems may have reporting behaviors strongly influenced by their awareness of the obstacles or their own experiences. Evaluation of reporting biases related to these health conditions will provide important new information, not available elsewhere.

NIOSH is currently working on a second underreporting project using NEISS-Work and the NEISS All Injury Program Supplement (NEISS-AIP) to obtain data on the characteristics of individuals who were treated in the ED for an apparent work-related injury (NEISS-Work) and

individuals who were treated for an apparent non-work-related injury but who were employed at the time they were injured (NEISS-AIP). This second project is referred to as the Barriers project (OMB 0920-11JY). These studies are different in several important ways. First, this project, the Underreporting project, focuses on reporting behaviors and the existence of work-related health problems that may have an influence on reporting, while the Barriers project is primarily concerned with the barriers and incentives to reporting work-related injuries. The sample for the Underreporting survey will be different from the Barriers as well as much larger (n=~3,000). The Barriers survey is only targeting work-related injuries and is being conducted as a pilot study with a small sample (n=600). Specific differences in sampling populations are as follows:

- 1) The Underreporting survey will oversample self-employed workers and will include all other workers with work-related injuries and illnesses from NEISS-Work. This survey will also include Spanish-speaking workers. A Spanish version of this questionnaire is included in Appendix G.
- 2) The Barriers survey on the other hand will not include illnesses, self-employed workers, farm workers, or Spanish speaking workers. As stated above, this project incorporates individuals treated in the ED for both work-related and non-work-related injuries, which will allow researchers to explore if the barriers and incentives to reporting work-related injuries differ based on ED visit type.

While we acknowledge that there are some redundancies in the questionnaires, there are also significant differences in the questionnaires based on the goals of the individual surveys.

#### **A.5. Impact on Small Businesses or Other Small Entities**

No small businesses will be involved in this data collection.

#### **A.6. Consequences of Collecting the Information Less Frequently**

Without collection of these data, NIOSH will not be able to meet Congress' request for follow-up studies on "the underreporting of worker injury data, particularly focusing on the self-employed population." Consequently, the probable undercounting of workplace injuries and illnesses will persist and programs to increase reporting of workplace injuries and illnesses will continue to lack the data needed to appropriately target program activities. Each respondent will be asked to complete the questionnaire one time for a designated ED-treated injury. There are no legal obstacles to reduce the burden.

#### **A.7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5**

Having reviewed all specific circumstances related to the guidelines of 5 CFR 1320.5, we believe that this request fully complies with the regulation 5 CFR 1320.5.

There is a very small possibility that a worker could be sampled twice because they incurred two or more work-related injuries and illnesses that were treated in a NEISS-Work-associated ED hospital on multiple dates within one year. Should this happen, they would be offered the chance to complete the telephone interview for each of the separate injuries, but they would not be required to do so as the respondent will always maintain the right to refuse participation. We suspect that the likelihood of a respondent participating twice is very small given that NEISS-Work does not capture cases seen in the ED that are deemed to be follow-up related to the original injury.

## **A.8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency**

### **60-Day Federal Register Notice Information**

A 60-Day Federal Register Notice is included in this application packet (Appendix B).

### **Consultation with Persons Outside the Agency**

The telephone interview survey instrument has been reviewed and/or tested by several persons outside the agency. The initial draft questionnaire was developed in 2010 by Westat, Rockville, MD, under contract to NIOSH. NIOSH staff revised the questionnaire and incorporated comments from members of the NIOSH Division of Safety Research (DSR); the NIOSH Division of Surveillance, Hazard Evaluations, and Field Studies (DSHEFS); and the NIOSH Division of Respiratory Disease Studies (DRDS). The revised questionnaire was then given in 2010 to survey experts from Research Triangle Institute (RTI), an independent, nonprofit research institution with more than 45 years of experience in survey methodology, for review and comment. Under contract to NIOSH, RTI also conducted cognitive testing in early 2011 of the questionnaire to increase its reliability and validity. Revisions based on the cognitive testing resulted in the final questionnaire for interviewer administration.

While questionnaire development was still underway, the study protocol was given in December 2010 to three external peer reviewers who are knowledgeable in the area of occupational injuries and illnesses. The comments of the external reviewers and our responses to those comments can be found in Appendix H. The external peer reviewers were:

- Kenneth D. Rosenman, M.D., Professor of Medicine and Chief of the Division of Occupational and Environmental Medicine, Michigan State University; Phone: (517) 353-1846; E-mail: [Ken.Rosenman@hc.msu.edu](mailto:Ken.Rosenman@hc.msu.edu)
- Katharine Newman, Economist and Division Chief, Occupational Safety and Health Statistics, US Bureau of Labor Statistics; Phone: (202) 691-6162; E-mail: [newman.kate@bls.gov](mailto:newman.kate@bls.gov)

- Santosh K. Verma, Sc.D., M.D., M.P.H., Research Scientist, Center for Injury Epidemiology, Liberty Mutual Research Institute for Safety; Phone: (508) 497-0213; E-mail: [Santosh.Verma@LibertyMutual.com](mailto:Santosh.Verma@LibertyMutual.com)

Once OMB approval is received, NIOSH will have the opportunity to explain this study and provide training to the telephone interviewers participating in the project. Collection of the telephone interview data will be monitored by both CPSC and NIOSH. If any concerns arise during the data collection process, CPSC can address the issues with the telephone interviewers. CPSC maintains regular contact with the medical records coders that abstract NEISS-Work surveillance data from medical records and with the contracted telephone interviewers. In turn, NIOSH maintains regular contact with the CPSC staff responsible for these activities. This includes, but is not limited to, attendance at annual coding meetings hosted by CPSC and periodic face-to-face meetings with CPSC staff.

## **A.9. Explanation of Any Payment or Gift to Respondents**

This study does not provide a payment or gift to the respondents.

## **A.10. Assurance of Confidentiality Provided to Respondents**

In order to contact respondents for participation in the telephone interview survey, the names, addresses, and telephone numbers of cases identified in the NEISS-Work data will be collected from their medical records by the CPSC-supervised hospital coders who abstract routine NEISS-Work data. CPSC will attempt to obtain contact information for every sampled NEISS-Work case from the treating hospital. While hospitals are generally cooperative in releasing this information, a few hospitals decline to participate owing to individual hospital privacy rules or require that a letter be sent to the patient providing them the option of having their contact information withheld. Usually in the latter instance, if no response is received from the patient within approximately 10 days, the hospital releases the information to CPSC. Once contact information is obtained by CPSC, the contact information is then given to telephone interviewers under contract to CPSC to complete the interviews.

At least five business days prior to calling a case identified in the NEISS-Work data, the worker will be sent a letter describing the study and the measures that will be taken to protect their privacy should they choose to participate in the study (Appendix E). The letter being mailed to potential participants has been written to provide them with the information required in an informed consent. A waiver of written informed consent has been granted by the NIOSH IRB (see Appendix I for the notification of IRB approval), as collecting written informed consent would likely be detrimental to the response rate of the study. It would also increase the study cost and the time lapse between the treatment date and interview date.

The letter being sent prior to the interview and the script read at the beginning of the telephone interview (included in Appendices F and G) both emphasize that participation is voluntary and explain the privacy protections that will apply should the individual choose to participate. The letter provides the potential respondents an option to opt out of the telephone interview study by calling a toll-free number. If they do not opt out, the telephone script confirms their willingness to participate by asking, "Would you please help us by answering some questions?" A positive response to this question will be deemed to be the subject's verbal consent to participate.

Completion of contact with a subject will be determined by a potential respondent declining to participate, inability to contact a potential respondent, a decision that the potential respondent does not meet the study eligibility criteria, or a respondent completing the telephone interview survey. Once contact is completed, the subject's name, phone, and address information will be stripped from the database. CPSC completes quality assurance checks on all data submitted and takes precautions to insure that this information is never transmitted to NIOSH. Contact information will be destroyed following a case's removal from the database, as there is no need to maintain this information.

Routinely collected NEISS-Work surveillance data include indirectly identifiable information involving demographic data (not including birth date), employment status data, and a short narrative describing the injury incident. Analyses of these data will be used to provide a general overview of injuries and illnesses to workers in the surveillance system and to compare telephone interview respondents with non-respondents to determine any potential response biases. Using CPSC's unique case identification number, the routine surveillance data will be linked to the individual case data captured via telephone interviews for purposes of validating the information received.

Items proposed for collection during the telephone interview survey (Appendices F and G) include employment and demographics data (e.g., sex and race/ethnicity). This information is necessary to define the target population of greatest need when targeting programs that encourage reporting of occupational injuries and illnesses. All data collected for this project will only be presented in aggregate form. Even in aggregate form, the data will need to meet NIOSH NEISS-Work reporting requirements that are designed to insure data stability and to help protect worker privacy, prior to release. NIOSH has three criteria for determining reportability of NEISS-Work data results:

1. Number of cases treated within the hospital sample must exceed a specified value;
2. The extrapolated national estimates must exceed a specified value; and
3. The coefficient of variation must be less than or equal to 33%.

Because of security restrictions, NIOSH does not publicly release the minimum sample size or national estimate requirements. Variance requirements are released.

The protocol for this study has been submitted for review and approval by the NIOSH IRB under an expedited review. [See Appendix I for a copy of the IRB approval.] CPSC does not have its own Institutional Review Board and will instead link an organizational Federalwide Assurance (FWA) to NIOSH to enable them to defer to the NIOSH IRB. Data that result from the proposed project will be owned by NIOSH.

## **Privacy Impact Assessment**

### **Subject to the Privacy Act**

This submission has been reviewed by Information Collection Request Office (ICRO), who determined that the Privacy Act does apply. The applicable Systems of Records Notice is 09-20-0136, "Epidemiologic Studies of Surveillance of Disease Problems." The data are also protected by the Consumer Product Safety Act.

## Securing information

Unless otherwise specified, the information on access controls described below applies to both collaborating agencies—NIOSH and CPSC.

**Technical Controls:** CPSC telephone interview contractors will use individual access and firewall protected laptop computers. For added safety, the laptops are also encrypted and password protected. The contractors will adhere to the privacy protections prescribed in the CPSC interview contracts. Personal identifiers are provided to the interviewers to complete the interviews. Once the interview is completed the personal identifiers are removed from the data by CPSC and only de-identified data will be provided to NIOSH.

Once collected, all data are stored on access-controlled agency computers. User authentication and robust passwords are required for data access within the agency firewalls. Data access from outside the firewall or offsite locations is not permitted. Within the firewall on agency servers, data files are located in access-controlled directories so that only individuals specifically authorized to access the project data may have read and/or write privileges.

**Physical Controls:** Each agency maintains a secure, guarded facility requiring employee identification badges and individual key cards. Visitors are restricted and require on-site escort. Security monitoring including closed circuit TV is in use.

**Administrative Controls:** CPSC has standard security protocols for acquiring the personal identifiers and providing the identifiers to the contract telephone interviewers. Similarly, NIOSH has in place standard processes for securing NEISS-Work confidential data. Thus, no project-specific data security plan is required. All project data users will have confidential data training; sign data use agreements; and have role-based data access as described below.

The routine NEISS-Work surveillance data and the interview data are protected under the U.S. Consumer Product Safety Act and the Privacy Act. Once the personal identifiers are removed by CPSC prior to NIOSH receiving the data, the data are considered low to moderate sensitivity. NIOSH maintains an interagency agreement with CPSC ensuring protection of the NEISS-Work data per applicable law with additional stipulations to enhance the overall data protection. In addition, NIOSH requires that all NIOSH staff and/or contractors sign NEISS-Work data use agreements, comply with specific confidential data practices, and take annual confidential data stewardship training. NIOSH requires that all contracts led by NIOSH staff that involve access to NEISS-Work data include security provisions in the contract language, including the requirements for individual data use agreements, training, and so on. Quarterly, NIOSH reviews individual data access needs. On an as needed basis, NIOSH removes access and conducts a data clearance process for departing employees and/or contractors or individuals who no longer have a demonstrated need for data access.

As the primary data steward for the NEISS-Work data including interview results, NIOSH follows CDC-wide backup protocols and maintains these data on a protected server that is backed up nightly. For this project the NIOSH staff directly involved in the data collection and analyses will have full data access. All other NIOSH staff will have access to aggregated data only in a review capacity. NIOSH will maintain the files for a minimum of 20 years to allow for re-analyses and comparison with potential future surveys. In compliance with Federal Records

Retention regulations, at the end of the retention period all individual interview data files will be destroyed. Because of the remote possibility for indirect identification of an individual respondent, no individual records will be transmitted to the National Archives.

#### Obtaining respondent consent

Prior to receiving a telephone call, respondents will be sent a letter inviting them to participate in the study (Appendix E). This letter will explain the study to them and cover the required items found in an informed consent, including the purpose of the project and the protection of their individual responses during the release of the information. In addition to the letter, a written script will be read to potential respondents when they are called for the telephone interview. This script also explains the purpose of the study and the privacy protections that will be taken. Following these verbal explanations, the potential respondent is asked whether they are willing to participate. A positive response to this question will be deemed to be the verbal consent of the respondent. The written script is included as part of Appendices F and G.

#### Informing respondents of the voluntary nature of the survey

The introductory letter sent to respondents, and the script read prior to initiation of the telephone call, inform respondents that participation in this study is voluntary. Potential respondents are given the option to not participate by calling a toll-free number printed on the introductory letter prior to the telephone interview or by verbally declining participation at the time of the phone call.

### **A.11 Justification for Sensitive Questions**

The telephone interview survey will ask for the respondent's primary diagnosis from their ED visit as well as a narrative account of the injury or illness and how it occurred. This information is necessary for understanding the nature of the injury or illness that was treated in the ED. The telephone interview survey also asks for the name and location of the company for which respondents were working at the time that they were injured or became ill. This information is needed in order to help classify the industry of the company that employed the respondent. If respondents hesitate or ask, they are informed of the reason for collection of this information and assured that their employer will not be contacted for any reason. Other questions that may be considered sensitive by the respondent are demographic in nature (e.g., educational attainment and family income). This information is needed in order to better understand the characteristics of individuals who do, or do not, report their injuries or illnesses to their employer and/or the hospital where they are treated. As the survey is voluntary, respondents may refuse to answer any questions. Respondents are informed of their right to refuse participation and their right to refuse to answer individual questions in the introductory letter (Appendix E) and in the script that is read to them at the beginning of the telephone interview (Appendices F and G). The verbal consent of the respondent is obtained at the time of

telephone interview. Consent for completion of the telephone interview survey will be described in the introductory letter and then confirmed in the written script at the beginning of the telephone interview.

## **A.12 Estimates of Annualized Burden Hours and Costs**

### **Estimates of Annualized Burden Hours**

For this survey we are using a statistical sampling method designed by Westat, under contract to NIOSH. Approximately 1,500 to 3,000 completed interviews are anticipated pending funding limitations and other operational constraints in place at the time of interview. For the purposes of developing the sample design, 2,000 completed interviews were assumed. The sampling frame excludes patients who are day laborers or volunteers. It consists of all work-related injury or illness ED patient records for individuals aged 20 to 64 years treated at the NEISS-Work sample hospitals (excluding five Children’s hospitals) over the course of the year. For sample design purposes, the prevalence of specific groups was estimated using NEISS-Work 2009 second and third quarter data with the hospital weights. Given the importance of the self-employed and farm workers for this study and their very low prevalence in the sampling frame, all such persons will be taken into the sample with certainty to provide enough cases for producing estimates that meet the NIOSH precision requirement.

The sampling rate for the remaining eligible patients at each hospital ED were calculated to produce 2,000 completed interviews per year. Sampling will occur throughout the entire 12 month data collection period to avoid seasonal effects bias. Every eligible case will be given one (and only one) chance of selection. Sampling rates also assume an overall completion rate of 40 percent for sampled ED patients based on NEISS-Work 2009 second and third quarter data. These completion rates account for non-response, loss-to-follow-up, and refusals. The rates for each hospital may be adjusted periodically to keep the sample yields on target should the response rate and contact assumptions prove to be inaccurate.

The telephone interview survey is a one-time response survey, with each telephone interview taking approximately 30 minutes to complete, resulting in a one-year burden estimate of between 750 and 1,500 hours (approximately 94 to 188 person-days). The data collection phase of this project is expected to last only one year. However, a two year OMB approval is being requested to account for start-up time needed to train interviewers, select the sample, and manage other potential project needs prior to initiating interviews.

### **Estimated Annualized Burden Hours**

<b>Type of Respondent</b>	<b>No. of Respondents</b>	<b>Average Burden per Response (in hours)</b>	<b>Total Burden Hours</b>
<b>US workers</b>	<b>1,500</b>	<b>30/60 hours</b>	<b>750</b>

### **Estimates of Annualized Burden Costs**

Based on the U.S. Bureau of Labor Statistics, the average hourly earnings of all US employees in 2010 was approximately \$22.61. Because NEISS-Work does not collect household income, the average hourly earnings rate is used for determining the annualized burden costs.

**Estimated Annualized Burden Hours**

Type of Respondent	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
US workers	750 hrs	\$22.61	\$16,957.50

**A.13 Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers**

There are no additional cost burdens for respondents. All record keepers are contractors of the federal government. Thus, estimated cost burden to them is included in section A.14 describing the annualized cost to the government.

**A.14 Annualized Cost to the Government**

The annualized cost to the government for this project is estimated to be \$90,150 - \$108,900. This range is based on the number of potential completed interviews ranging from 1500 to 3000. The table below summarizes a breakdown of the estimated costs. To arrive at this estimate, the project costs for each year were estimated in a detailed budget and then totaled and divided by the four year life of the project. Labor costs were computed based on staff salary, benefit costs, and promotions. Cost of contracts include all money given to a statistical consulting firm that drafted an initial version of the questionnaire and is directing us on sample design and a research consultant who conducted the cognitive testing. Cost of interviews includes all money given to CPSC to hire contracted telephone interviewers who will perform the telephone interviews, input responses, and submit the data to CPSC.

The annualized cost includes the cost of capturing the telephone interview data, the costs of analyzing NEISS-Work data and the telephone interview data, and the cost of producing both peer reviewed and non-peer reviewed products. The cost of collecting NEISS-Work data is not included as those data are not collected exclusively for this project, although the basic data collection burden hours are described in Section A3. They are historically collected and maintained under their own project allocation within NIOSH.

**Budget for One Year of Data Collection**

<b>Budget Category</b>	<b>Annual Cost</b>
<b>Labor</b>	\$68,600
<b>Travel</b>	
<b>Contracts</b>	
<b>Interviews</b>	\$18,750 - \$37,500
<b>Miscellaneous</b>	\$2,800
<b>Total Annual Cost</b>	\$108,900

**A.15 Explanation for Program Changes or Adjustments**

This is a new data collection.

**A.16 Plans for Tabulation and Publication and Project Time Schedule**

We plan to publish project results in both peer reviewed and non-peer reviewed journals. It is estimated that one year of data collection will be needed to produce large enough numbers to allow detailed reporting of results. Our projected timeline for the project is detailed in the table below.

**Project Time Schedule**

<b>Activity</b>	<b>Time Schedule</b>
Telephone interviewer training	1-2 months after OMB approval
Begin data collection	2-3 months after OMB approval
Begin regular monitoring/quality assurance of incoming data	4-5 months after OMB approval
Finalize dataset	14-18 months after OMB approval
Analyses	16-19 months after OMB approval
Provide project update to Congress, with results.	20-21 months after OMB approval
Publication ready for submission to peer-review journal	22-23 months after OMB approval
Product ready for dissemination to occupational health and safety organizations	22-24 months after OMB approval

**A.17 Reason(s) Display of OMB Expiration Date is Inappropriate**

The OMB expiration date will be displayed.

**A.18 Exceptions to Certification for Paperwork Reduction Act Submissions**

There are no exceptions to the certification.

### Selected Citations

- Azaroff, L.S., Levenstein, C & Wegman D.H. "Occupational Injury and Illness Surveillance: Conceptual Filters Explain Underreporting." *Am J Public Health* 92 (2002):1421-1429.
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- Committee on Education and Labor, US House of Representatives. *Hidden tragedy: Underreporting of workplace injuries and illnesses*. Washington, DC, June 2011, 2008.
- Jackson, L.L. "Non-fatal occupational injuries and illnesses treated in hospital emergency departments in the United States." *Injury Prevention* 7, Suppl I (2001):i21-26.
- National Center for Chronic Disease Prevention and Health Promotion. "The power of prevention: Chronic disease...the public health challenge of the 21st century." (2009).
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