

SUPPORTING STATEMENT FOR Survey of Respirator Use and Practices

OMB CONTROL NO. 1220-0171

This ICR seeks clearance for the reinstatement, with change, of the Survey of Respirator Use and Practices. This collection will expand upon the previous survey conducted in 2001, to better understand the current state of respirator use in the industry. The National Institute for Occupational Safety and Health (NIOSH) has a need for this data to evaluate the respirator certification and research program. The information obtained by BLS for this survey will be used to help NIOSH assure that workers are properly protected when wearing respirators and that they are provided with correct and needed products.

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

The National Institute for Occupational Safety and Health (NIOSH) and the Bureau of Labor Statistics (BLS), U.S. Department of Labor (DOL) have agreed to conduct a survey of U.S. employers regarding respiratory use and practices. According to data from the BLS, from 2011 to 2019 an estimated 52,910 workers experienced injuries or illnesses requiring days away from work and 423 fatal injuries due to inhalation of harmful substances. This results in significant cost to workers, their families, employers, and the U.S. economy as a whole.

In 2001, NIOSH partnered with BLS to conduct the first voluntary [Survey of Respirator Use and Practices](#). This survey revealed important insights into respiratory use and hazards in the U.S. used by researchers, policy advisors, and regulators to further the mission of protecting U.S. workers from airborne hazards. Since then, there have been major shifts in the U.S. economy representing the potential for a drastic change in how respirators are used and the workers who may be at risk for occupational respiratory disease across a vast array of industrial settings. This calls for a contemporary understanding of the types of establishments, industries, and occupations that use respirators, why they use them, and how they manage them.

In a 2007 [assessment of the survey conducted by the National Academies of Sciences, Engineering, and Medicine](#) (NASEM), both NIOSH and BLS were applauded “for undertaking this pioneering data collection in order to improve understanding of respirator use in industry.” The NASEM assessment further suggested that the survey fulfilled a necessary function of NIOSH’s surveillance efforts. The committee recommended that NIOSH continue to address data needs to evaluate and improve NIOSH’s respirator approval program by periodically

updating the data to ensure that a current understanding of respirator use in the U.S. is maintained to inform accurate decision making in this area. This survey thereby follows the National Academies' research committee recommendations to provide a current understanding of respirator use in industry.

The authority for the BLS to perform special work or services on a cost basis is [31 United States Code §§ 1535/FAR 17.5 of the Economy Act](#).

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

The goal of the 2001 Survey of Respirator Use and Practices was to: estimate the numbers of U.S. establishments using respirators, estimate the numbers of U.S. employees using respirators, determine why respirators are being used, and how U.S. employers manage respirator use. The results of this effort were jointly published by the BLS and by NIOSH in 2003 ([BLS and NIOSH, 2003](#)) and revealed critically important insights into respiratory hazards and respirator use in the U.S.

NIOSH has a continuing need for more in-depth usage data to evaluate the approval of respiratory protective devices under [42 CFR 84 CFR](#) to pinpoint areas of non-conformance and where education and training efforts are needed. The data collected from the survey of Respirator use and Practices will be used by NIOSH to (1) establish prevalence of exposure to hazardous atmospheres, (2) determine the prevalence of respirator use, (3) determine the type of respirators being used (4) determine how respirators are used in the workplace, (5) whether employers optimally manage use for maximum worker protection, and (6) determine opportunities for more guidance and resources to assist with the challenges of carrying out a respiratory protection program. The survey also has the additional, newly added objective of determining the impact of the COVID-19 pandemic on respirator use in the workplace.

Using data collected from 40,002 U.S. establishments, the 2001 survey estimated that approximately 281,776 establishments required 3,303,414 U.S. workers to rely on respirators for protection from injuries and illnesses due to respiratory hazards ([BLS and NIOSH, 2003](#)). The survey revealed: (1) among all establishments requiring respirator use, 95 percent used air-purifying respirators and 17 percent used air supplied respirators; (2) manufacturing, mining, construction, and agriculture/forestry/fishing had the highest rates of respirator use; (3) respirators were most frequently used to protect against dusts/mists, paint vapors, and solvents; (4) signs of inadequate management of respiratory protection among a large portion of the establishments requiring their use (91% provided responses pointing toward inadequate respirator programs); and (5) many establishments did not follow NIOSH recommendations and the Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration (MSHA) requirements for the selection and use of respirators in the workplace ([Doney et al., 2005](#)). The results of the 2001 survey were and continue to be used by researchers, policy advisors, and regulators to further the mission of protecting U.S. workers from airborne

hazards, prompted both OSHA and MSHA to release two hazard alerts related to the compatibility of supplied-air respirator couplings with hazardous gas sources ([OSHA, 2004](#)), and led to dozens of peer-reviewed publications and a range of international efforts to conduct similar surveys ([Han and Kang, 2009](#)).

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burden.

The survey will be administered through an internet-based questionnaire using BLS' Internet Data Collection Facility (IDCF) allowing electronic submission of responses. Follow-up contacts will include computer assisted telephone interviewing where necessary.

The survey will use respondents from the most recent Survey of Occupational Injuries and Illnesses because of the availability of contact names to facilitate data collection. The survey's sample selection process will employ stratified random sampling to reduce the burden on private sector establishments. Improved information technology, such as cognitive research, will be used in efforts to reduce employer burden.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item A.2 above.

The information collected in the Survey of Respirator Use and Practices is not available from other sources. Currently, there are no reliable estimates of respirator usage.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The BLS minimizes the burden upon small employers by using a highly efficient stratified random sampling plan. Under this sampling plan, the smaller employment units within an industry have a lower probability of selection than larger employment units.

6. Describe the consequence to federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

Although small scale research studies, case studies, and health hazard evaluations provide information to support these objectives, they are limited in scope in terms of their

generalizability to specific industries, geographic regions, or to single establishments and/or organizations. A large gap exists in our understanding of respirator use in private U.S. establishments across and within the vast array of industrial settings that comprise the U.S. economy.

In addition, the U.S. economy has seen significant changes since 2001, when the original survey was administered. In 2017, the healthcare and social assistance industry sector employed more U.S. workers than the manufacturing sector ([Thompson, 2018](#)). This is in stark contrast to 2000, where there were 7 million more workers in the manufacturing sector and 2.4 million more in the retail sector than in healthcare ([Thompson, 2018](#)). These major shifts in the U.S. economy since the previous survey represent the potential for a drastic change in how respirators are used and the workers who may be at risk for occupational respiratory disease.

Twenty years after the initial survey, NIOSH again is collaborating with BLS to administer a voluntary Survey of Respirator Use and Practices, thereby following the National Academies' research committee recommendations to provide a current understanding of respirator use in industry. By establishing the current state of practice, high yield endeavors designed to reduce fatalities, injuries and illnesses related to occupational respiratory hazards in the U.S. may be targeted for policy, funding, outreach, and education by NIOSH's respirator approval program, the programs of occupational safety and health regulatory bodies within the U.S. (OSHA and MSHA), U.S. employers, and respiratory protection research and development.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- **requiring respondents to report information to the agency more often than quarterly;**
- **requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- **requiring respondents to submit more than an original and two copies of any document;**
- **requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;**
- **in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **requiring the use of statistical data classification that has not been reviewed and approved by OMB;**
- **that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**

- **requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentially to the extent permitted by law.**

There are no special circumstances for this collection.

8. If applicable, provide a copy and identify the date and page number of publication in the *Federal Register* of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years -- even if the collection-of-information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

No public comments were received on the Federal Register notice published in 86 FR 13914 on March 11, 2021.

Representatives from BLS and NIOSH developed the Survey of Respirator Use and Practices. The names of the representatives are available upon request.

9. Explain any decision to provide any payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts are provided to the respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

The Confidential Information Protection and Statistical Efficiency Act (CIPSEA) safeguards the confidentiality of individually identifiable information acquired under a pledge of confidentiality for exclusively statistical purposes by controlling access to, and uses made of, such information. CIPSEA includes fines and penalties for any knowing and willful disclosure of

individually identifiable information by an officer, employee, or agent of the BLS.

Based on this law, the BLS provides all non-government respondents with the following confidentiality pledge/informed consent statement:

The Bureau of Labor Statistics, its employees, agents, and partner statistical agencies, will use the information you provide for statistical purposes only and will hold the information in confidence to the full extent permitted by law. In accordance with the Confidential Information Protection and Statistical Efficiency Act (44 U.S.C. 3572) and other applicable Federal laws, your responses will not be disclosed in identifiable form without your informed consent. Per the Federal Cybersecurity Enhancement Act of 2015, Federal information systems are protected from malicious activities through cybersecurity screening of transmitted data.

BLS policy on the confidential nature of respondent identifiable information (RII) states, “RII acquired or maintained by the BLS for exclusively statistical purposes and under a pledge of confidentiality shall be treated in a manner that ensures the information will be used only for statistical purposes and will be accessible only to authorized individuals with a need-to-know.”

BLS shall release only that information which BLS has determined will not disclose identifiable information about its respondents. BLS shall not disclose confidential information including, but not limited to, survey materials, universe lists, survey sample composition information, names and addresses of respondents, and individual establishment data. If NIOSH determines they have a need for access to confidential information for a statistical purpose, then they must submit a written request to BLS detailing their need for confidential information and the statistical purposes for which it is needed. Upon BLS approval of the written request, BLS will then coordinate with NIOSH in finalizing a separate data access agreement to authorize access to the confidential information.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

The Survey of Respirator Use and Practices will not collect information of a sensitive nature.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so,**

agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. General, estimates should not include burden hours for customary and usual business practices.

- **If this request for approval covers more than one form, provide separate hour burden estimates for each form**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 14.**

The burden was calculated using Personal Protective Equipment (PPE) usage data from the Occupational Requirements Survey and adjusted for oversampling of establishments with expected respirator use. The estimated percentage of respondents with respirator use is approximately 30 percent. The estimated respondent burden for employees with respirator usage is one hour to complete. The survey is currently undergoing development testing. The one hour completion time is a preliminary estimate and may change as a result of pre-testing. For establishments that do not have respirator usage or respirator use is infrequent, completion time will be greatly reduced. The estimated respondent burden for establishments that do not use respirators is 15 minutes.

Based on an upper limit of 90,000 the total burden is 42,750 hours.

90,000 x 30% = 27,000 use respirators (estimated)

27,000 x 1 hour = 27,000 hours

90,000 x 70% = 63,000 do not use respirators (estimated) 63,000 x 15 minutes = 15,750 hours

Total: 42,750 hours

The frequency of response is one-time.

The respondent cost is estimated at \$1,078,583 based on a wage of \$25.23 an hour. The wage estimate is based on the average hourly wages for all workers in the private sector reported in the Employer Cost for Employee Compensation survey by BLS for September 2020.

Estimated Annualized Respondent Cost and Hour Burden

Activity	No. of Respondents	No. of Responses	Total Responses	Average Burden	Total Burden	Hourly Wage	Total Burden
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		per Respondent		(Hours)	(Hours)	Rate	Cost
Estimated Respondents that use Respirators	90,000 * 30%	1	27,000	1	27,000	\$25.23	\$681,210
Estimated Respondents that do not use Respirators	90,000 * 70%	1	63,000	0.25	15,750	\$25.23	\$397,373
Total Informed Consent and Data Collection*	90,000	1	90,000	0.475	42,750	\$25.23	\$1,078,583

*Burden estimates include any necessary quality review follow-up for clarification questions.

13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and 14).

- **The cost estimate should be split into two components: (a) a total capital and start up cost component (annualized over its expected useful life); and (b) a total operation and maintenance and purchase of service component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**
- **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.**
- **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

There are no capital and start-up costs or operation and maintenance and purchase of services

costs resulting from the collection of this information. Respondents are provided all materials needed to complete the survey. The costs of generating, maintaining, and disclosing the information requested are direct burden hours as specified in item 12. The record keeping practices require only manual recording of information. Employers who have chosen to keep records electronically need only access them for survey purposes.

14. Provide estimates of the annualized cost to the Federal Government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), any other expense that would not have been incurred without this collection of information. Agencies also may aggregate cost estimates from Items 12, 13, and 14 into a single table.

The Survey of Respirator Use and Practice is funded by NIOSH through Interagency agreements with BLS. The estimated cost to the Federal Government is \$3 million.

15. Explain the reasons for any program changes or adjustments.

The burden for the 2001 survey on respirators was a total of 30,000 respondents (75% response rate on the 40,000 sample size) and an estimated total burden hours of 20,000 hours. BLS could not publish as many estimates as desired due to the number of respondents. In this survey, the estimated number of respondents has roughly tripled along with an increase in total burden hours. This increase in sample size is intended to allow BLS to publish more robust information on respirator use and practices.

Also note the change in the time to complete the survey for those respondents that have respirator use. In 2001, the time to complete the survey was 90 minutes. The expectation for total time for the respondents for this survey is only 60 minutes given the change in collection method and using IDCF this time.

16. For collections of information whose results will be published, outline plans for tabulations, and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

BLS will publish a News Release of the results from the Survey of Respirator Use and Practices along with a series of short BLS publications highlighting data within the survey. A joint report by BLS and NIOSH will also be published. Special tabulations will be provided to NIOSH.

Listed below is a summary timetable, which identifies the major collection phases. Note: if there is a significant time lapse in securing funding in fiscal year 2022, these time frames will need to be revised.

Survey of Respirator Use and Practices
OMB Control Number 1220-0171
OMB Expiration Date: TBD

Questionnaire design, testing, online survey systems development: July 2020 – September 2021
Initial survey deployment: January/February 2022
Respondent non-response follow-up: March/April 2022
Data processing, tabulation, and analysis: May 2022 – September 2022
News Release: September 2022

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

The BLS does not request an exemption from the display of the expiration date.

18. Explain each exception to the certification statement.

No exceptions to the certification statement are requested.