

# **Total Worker Health for Small Business**

Supporting Statement Part A

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

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## **Table of Contents**

### **A. Justification**

1. Circumstances Marking the Collection of Information Necessary
2. Purpose and Use of Information Collection
3. Use of Improved Information Technology and Burden
4. Efforts to Identify Duplication and Use of Similar Information
5. Impact on Small Businesses or Other Entities
6. Consequence of Collecting the Information Less Frequently
7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5
8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency
9. Explanation of Any Payments or Gifts to Respondents
10. Assurance for Confidentiality Provided to Respondents
11. Justification for Sensitive Questions
12. Estimates of Annualized Burden Hours and Costs
13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers
14. Annualized Cost to the Government
15. Explanation for Program Changes or Adjustments
16. Plans for Tabulation and Publication and Project Time Schedule
17. Reason(s) Display of OMB Expiration is Inappropriate
18. Exceptions to Certification for Paperwork Reduction Act Submission

Attachments

Attachment A -- Authorization for the study

Attachment B -- 60 Day Federal Register Notice

Attachment C -- Interview Recruitment Script

Attachment D -- Interview Opening Statement (Secure and Consent)

Attachment E -- Interview Probes

Attachment F -- CDC Institutional Review Board Approval

## **A. Justification**

### **1. Circumstance Making the Collection of Information Necessary**

The Information Collection Request for Total Worker Health for Small Business is classified as **New**.

#### Background

The mission of the National Institute for Occupational Safety and Health (NIOSH) is to promote safety and health at work for all people through research and prevention. In this capacity, NIOSH is requesting a 3 year approval to administer in-depth interviews designed to assess perceptions and opinions among small business owners in the Cincinnati/Northern Kentucky area regarding the Total Worker Health concept. This information will guide the development of a model for diffusion of the Total Worker Health approach among small businesses by community organizations.

*Total Worker Health for Small Business* is a four-year field study whose overall goal is to identify the perceived costs and benefits of offering integrated occupational safety and health (OSH) and workplace wellness services to employees among small businesses (SBs), and to develop methods that will successfully diffuse the use of a Total Worker Health approach among small businesses and the community organizations that serve them. The identification of perceived costs and benefits is likely to be a better indicator of intentions to engage in workplace wellness and OSH activities among SBs because most of these businesses are not likely to have knowledge of actual cost and savings data related to wellness and OSH, and these perceptions likely influence intentions to engage in such activities. The data gathered in this study regarding small businesses' specific training needs, motivational factors, and preferred information

sources will be of significant practical value when designing and implementing future interventions.

The National Institute for Occupational Safety and Health's Total Worker Health (TWH) Program considers the fact that both work-related factors and factors beyond the workplace contribute to the health of workers and their families. The Program conducts intra- and extramural research on the effects of combining narrower, traditional approaches to worker health – occupational safety and health (work-related factors – OSH) and workplace health promotion (lifestyle factors – WHP) at the worksite with the objectives of increasing their effectiveness and efficiency.

Achieving the adoption of something new like TWH is a common challenge for innovating individuals and organizations, a challenge that has not yet been addressed by research or practice in the TWH arena. Nevertheless, there is a substantial body of relevant research and practice from marketing, persuasion, communications, psychology, and sociology that may guide the diffusion of the TWH idea to employers.

The *diffusion of innovations* stream of research is one of those perspectives, and it is well-suited to this enterprise. First articulated in the early 1960s, this general model has been the basis for hundreds of studies about how and why ideas are adopted (or not adopted) by social systems and how to increase adoption rates.[1] It has been applied to innovations in medicine, agriculture, education, public health, public safety, economic development, business practices, and other areas. However, it has been rarely used for workplace health protection or promotion programs. The adoption of new and safer hypodermic injection devices by healthcare workers is one such case.[2]

The stream of research on organizational adoption behavior is particularly relevant to the TWH strategic goal and to this project which seeks to understand how smaller organizations react to TWH ideas and how those ideas can best be diffused to those organizations. This kind of knowledge can currently be best-described as in its infancy.

About 90% of U.S. employer organizations have fewer than 20 employees, and 62% have less than five. Eighteen percent of all U.S. employees work for businesses that have less than 20 employees. Workers in smaller organizations endure a disproportionate share of the burden of occupational injuries, illnesses, and fatalities compared to their larger counterparts.[2-5]

There is no data available on the prevalence of TWH programs in smaller organizations. What is known about smaller organizations is divided into information about health protection and health promotion activities. Smaller organizations engage in fewer safety activities than larger organizations. A national survey of U.S. businesses with fewer than 250 employees found that 87% of the businesses did not have a safety committee, 39% did not include safety awareness information in new employee orientation, 45% did not have written safety rules or policies, and 87% had not used a safety consultant in the past 5 years.[6] The smallest businesses (< 10 employees) reported being engaged in safety activities less than somewhat larger businesses (10–19 employees), which reported less engagement than even larger businesses (20–249 employees).

Such organization size-based differences extend to engagement in WHP activities as well. The 2004 National Workplace Health Promotion Survey found that every type of

WHP activity measured (25 total) was offered more often in larger businesses than smaller ones and that firm size was the best predictor of involvement with WHP.[7] The reasons for this are not clear, but sometimes public health promotion efforts targeting smaller businesses slip their focus to include larger, easier-to-work-with businesses.[8]

Another reason for these differences by size is that smaller organizations have limitations that larger ones do not have. In smaller organizations, there are greater overall demands on management staff time that limit time available for nonproduction-related activities such as employee health. Financial resources are similarly limited, making the use of contract services for employee health less likely. Similarly, smaller organizations are unlikely to employ OSH and WHP specialists. Managers of smaller organizations tend to be more isolated from peer networks through which employee health and other good business practices are diffused.[9] In addition, the social systems in which smaller organizations function are often ill-suited to assist them.[10] Taken together, these factors represent a substantial challenge to the public health objective of ensuring the well-being of all workers.

### ***Study Plan Specific Aims***

- a) Provide sample TWH services to small businesses for a one-year period and evaluate the impact on owner/operators', managers' and employees' perceptions of TWH. Participating intermediary organizations will receive minimal support from NIOSH (approximately \$750 per respondent – estimated value of TWH services) for this purpose. The investigators expect that the intermediary organizations will add to that support through donated services and information. For example, the local health department will likely donate smoking cessation services to participating businesses,

and local health care providers will likely donate informational print resources to participating businesses.

- a1) At the beginning and end of a similar one-year period (lagging by a few months) collect and analyze data on perceived costs/benefits of TWH activities from owner/operators, managers and employees of recruited small businesses in the Ohio/Kentucky area using the community organizations to engage them. This is to contribute to a profile on such organizations that can be used by public health and other types of organizations to increase TWH diffusion activities at the state and regional level.
- b) Using the above analyses, devise a model for community-based diffusion of TWH to small businesses.

### ***Preliminary Studies and Activities***

Over the last three years, the principal investigators built relationships with Cincinnati and Northern Kentucky organizations that provide goods and services to local small businesses. They did so to create a community-level laboratory for research. Evidence shows such “intermediary” organizations are a realistic way to affect OSH awareness and activities in small businesses. This project will make use of that community laboratory to develop a TWH diffusion model and promote it with influential national, regional, state, and local organizations.

The proposed in-depth interviews described here for which Office of Management and Budget review and approval is being requested are a critical step toward the development of this survey. Phase 1 of this project included interview development and revision. This work in Phase 1 included data collection with 7 individuals from



community organizations. The primary goal of Phase 2 of this project is to gather key-informant perceptions and opinions among the target audience, small business owners in the Cincinnati/Northern Kentucky area. Data gathered from in-depth interviews will guide the development of efforts to diffuse the Total Worker Health approach among small businesses and the community organizations which serve them.

This study addresses the National Occupational Research Agenda (NORA) research priority areas of *Total Worker Health* and *Small Business Assistance and Outreach*.

The overall goal of this project is to improve the understanding of small business perceived costs and benefits related to a Total Worker Health, as well as to develop recommendations for overcoming the barriers that have compromised the effectiveness of occupational health and safety and workplace wellness programs among the smallest of businesses (less than 50 employees). Although beyond the scope of this study, it is expected that improved use of occupational health and safety and workplace wellness programs will lower rates of injuries and fatalities and improve personal health for workers.

Public Law 91-596, 91st Congress, S.2193, December 29, 1970, Section 20 (a)(1) of the Occupational Safety and Health Act (29 U.S.C. 669), enables CDC/NIOSH to carry out research relevant to the safety and health of workers (see Attachment A).

### **1.1 Privacy Impact Assessment**

*Overview of the Data Collection System* - For purposes of reaching population *response saturation*, which means enough responses are gathered that no new response themes are generated, this interview will be administered to a convenience sample of

*approximately 60 owners of small businesses with 5 to 50 employees from the Cincinnati/Northern Kentucky area.* The sample sizes are not based upon power analyses comparing expected group differences. Rather, the sample size is based upon recommendations related to qualitative interview methods, on the basis of the number of respondents needed to acquire *response saturation*, or no new response themes. This location was selected for convenience purposes. Thus, a convenience sample will be used. For purposes of reaching population response saturation, this interview will be administered to a sample of approximately 60 owners of small businesses with 5 to 50 employees from the Cincinnati/Northern Kentucky area (approximately 30 each in both Ohio and Kentucky). Participants will be selected through a combination of convenience sampling from chamber of commerce contact lists and referrals, as well as calls to businesses that fit the participation criteria (5 to 50 employees in the Greater Cincinnati Statistical Area) from the Dunn and Bradstreet Hoover's database. Recommendations in the behavioral science literature as well as the experience of the research team suggest 60 respondents will be the maximum number required to achieve response saturation. Thus, a sample size of 60 should be more than adequate.

Participants for this data collection will be recruited with the assistance of contractors who have successfully performed similar tasks for NIOSH in the past. Participants will be provided with information about the purpose of the interview. They will also be told that whatever information they share will be kept private to the extent permitted by law (see Attachments C and D). In addition, they will be informed that they will be offered a token of appreciation for their time and interest. Any contractor(s) used for recruitment will be registered with the Federal-wide Assurance (FWA) and the

Request to Allow an Outside Institution to rely on NIOSH Human Subjects Research Board (HSRB) will be filed. The interview survey will be administered verbally to participants in English.

Paper copies and audio recordings of the interviews will be kept by the NIOSH research team in a locked cabinet in offices with locked doors. The responses will also be entered into a computer program which will be kept on a password protected computer and/or on CD's that will be stored in a locked cabinet in offices with locked doors. Only the investigators will have access to the data.

*Items of information to be Collected* – The data will be responses to a self-report interview concerning workforce health issues such as primary hazards of concern, current OSH and wellness activities, perceived benefits and barriers to OSH and wellness activities, and preferred sources of information (see Attachment E). No individually identifiable information is being collected.

## **2. Purpose and Use of information Collection**

A major obstacle to designing and assessing the impact of Total Worker Health interventions with small businesses is the lack of an understanding of the perceived costs and benefits of using a Total Worker Health approach. In order to better understand some of the factors that may be contributing to the persistent occupational health disparities between smaller and larger business workers, NIOSH is working with community organizations to gather information from small business that focuses on important workforce health issues such as primary hazards of concern, current OSH and wellness activities, perceived benefits and barriers to OSH and wellness activities, and preferred sources of information. The data from these interviews will inform the later development

of a model for diffusion of the Total Worker Health approach among small businesses and the community organizations that serve them. In addition, it will inform NIOSH's ongoing efforts to create OSH interventions targeting small business workers.

This data collection has been fully funded through internal NIOSH funds related to the National Occupational Research Agenda. Contracts for the data collection and recruitment were awarded to two contractors in FY2013, which are two local health departments among the community organizations referred to above. Data will be collected via two in-person interviews, once at the beginning of the project and once again approximately 11-12 months later.

The results of this study will also be disseminated through peer reviewed journal articles and at academic and industry conferences. The information gathered by this project could be used by OSHA, business health organizations, and public health departments to develop appropriate training materials for small businesses. The results of this project will be the development of recommendations for increasing the effectiveness of integrated occupational safety and health and workplace wellness outreach methods specifically targeted to small businesses.

If the research team did not have the information from this data collection it would lack any empirical basis for the development of a model for the diffusion of the Total Worker Health approach among small businesses and the community organizations which serve them. In addition, the lack of data would prevent NIOSH from more effectively focusing its efforts to reduce the burden of occupational injuries and illnesses.

## **2.1 Privacy Impact Assessment Information**

The data gathered in this project will be shared among the research team including NIOSH staff and the contractors conducting the data collection for purposes of analysis and summary reporting. The only Information in Identifiable Form (IIF) that is being collected is the respondents' name, business address, phone number, and email address. This IIF will only be retained by the research team for the purpose of contacting respondents to gather time 2 interview data. The proposed collection will have no impact on the respondent's privacy other than their identity being known among the research team members. Recordings of the interviews will be delivered to the NIOSH researchers electronically, and the recording will be transcribed by NIOSH staff. All identifying information will be redacted from transcripts, and electronic copies will be stored in secure folders on NIOSH servers.

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

Interviews will be conducted by the two contractors noted above in settings familiar to the participants (small business owners) such as their local job site or office location. The interview instrument will be administered verbally to participants in English. The data collection will not use electronic respondent reporting for several reasons. Attempting to collect the data using a computer would only increase the response time and add an additional level of discomfort for the majority of the respondents. This will require the interviewer to read the items to many of the respondents and record their answers. Additionally, open-response format does not lend itself to computer administration. Finally, it has been the experience of the researchers that survey administrators are much more successful if they go out into the community to collect data rather than having respondents come to them. Entering data via computer

would require the data collectors to carry laptops with them which would present many logistical challenges related to data security. For these reasons it was determined that electronic responding would increase rather than decrease the burden for the vast majority of respondents.

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

In the process of creating the current interview instrument, the NIOSH researchers conducted literature searches, consulted experts in the field and attended professional conferences addressing relevant topics. To date no interview instrument on the perceived costs and benefits of using a Total Worker Health approach among small business owners has been found. At best the literature provides some examples of qualitative studies that suggest possible reasons for the occupational health disparities for small businesses. The interview instrument reflects these speculations however no one has developed a qualitative or quantitative instrument to address this problem. The use of this interview instrument will provide NIOSH with information essential to the development of a model for the diffusion of a Total Worker Health approach among small businesses and the community organizations that serve them. It will also fill a hole in the professional literature by contributing qualitative data to a problem that has largely overlooked.

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

Small businesses will be directly involved in this data collection as small business owners are the targeted participants. The questions have been held to the absolute minimum required for the intended use of the data.

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

The proposed project requires the data to inform the development of a model for the diffusion of a Total Worker Health approach among small businesses and the community organizations that serve them. Without the data there would be no empirical basis to guide diffusion model development and subsequent recommendations for interventions.

The data will be collected from the respondents on two timeline captures. This frequency of data collection is necessary to evaluate for any shifts in perception regarding TWH approaches to managing workforce health issues among the respondents following a period of trial TWH services. There are no legal obstacles to reduce the burden.

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

This request complies with the regulation 5 CFR 1320.5

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

A. A 60-day Federal Register Notice was published in the *Federal Register* on 01/22/2014, vol. 79, No. 14, pp. 3595-3596 (see Attachment B). No comments were received.

B. The following individuals have been repeatedly consulted regarding various aspects of interview instrument design and content in 2012 and 2013.

Review #1:

Lili Tenney, MPH  
Co-director, Health Links Colorado  
Center for Worker Health and Environment  
Colorado School of Public Health  
13199 E. Montview Ave. Suite 200  
Aurora, CO 80045

Review #2:

Robin Dewey, MPH  
Program Coordinator

Labor Occupational Health Program  
University of California, Berkeley

Review #3:

Nico Pronk, PhD  
Human Development and Health  
Harvard School of Public Health  
[Nico.P.Pronk@HealthPartners.com](mailto:Nico.P.Pronk@HealthPartners.com)

Review #4:

Dave DeJoy  
Professor Emeritus  
Workplace Health Group  
Department of Health Promotion & Behavior  
College of Public Health  
University of Georgia

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

Contracts for subject recruitment and data collection for this study have been awarded to contractors with experience in recruiting small business owners. Based upon the government-wide agreed upon rate for 60-90 min cognitive interviews (an interaction similar to this type of structured interview), and previous experience of the investigators in interviewing small business owners, we will offer participants \$50 as a token of appreciation for their involvement in the study for each interview they complete. Thus, a participant could receive a total of \$100 for completing both time 1 and time 2 interviews. An investigation of small business research recruitment strategies, which was part of a NIOSH-funded study, found a significant incentive (a 10% premium worker's compensation premium discount) was necessary for soliciting participation of small business owner-operators in the state of Kentucky for a similar time commitment, and these researchers also noted this particular target population is rather difficult to recruit given the extreme time pressures they experience (Kidd, Parshall, Wojcik, & Sruttman, 2004). Given that the target population of small business owners are the sole



managers of their businesses, this token of appreciation amount seems warranted for the current study. Approval for the token of appreciation amount has been granted by the Institutional Review Board of CDC.

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

Approval of this study by the Institutional Review Board of CDC was received March 24, 2014 (see Attachment F). This submission has been reviewed by the Information Collection Review Office (ICRO) who determined that the Privacy Act does not apply. The data collection will involve collecting the respondents' name, business address, phone number, and email address. All collected data will be transmitted to NIOSH and will be retrieved within our database only by a subject number. Data will be treated in a secure manner and will not be disclosed, unless otherwise compelled by law. Individuals will be informed that their participation is voluntary, and they will have the opportunity to consent to their information being included in the results of the research at the beginning of the interview. Respondents will be asked to provide general demographic information such as age (but not birth date), number of employees, and business specialty at the beginning of the interview (see Attachment E). The interview will be administered only once to each respondent, and there will be a follow up on time 2 in this study to collect additional perceptions after the intervention phase and a 11-12 month period. Basic contact information, such as name, email and work phone number will be needed for this follow-up. This information will be secured in a locked cabinet in the researcher's locked office. The interview will be administered by local contracted interviewers experienced in working with small business owners. All data will be

recorded on standard forms and belongs exclusively to NIOSH. There is no distinction between the data collected and that data the NIOSH will retain.

#### Privacy Impact Assessment Information

The Information in Identifiable Form (IIF) that is being collected is the respondents' name, business address, phone number, and email address. This IIF will only be retained by the research team for the purpose of contacting respondents to gather time 2 interview data. The data will be retrieved within our database by a subject number. All personal information will be maintained in password protected computer files on contractor computers and on secure NIOSH servers. Personal information will only be retained for the duration of the project. Recordings of the interviews will be delivered to the NIOSH researchers electronically, and the recording will be transcribed by NIOSH staff. All identifying information will be redacted from transcripts, and electronic copies will be stored in secure folders on NIOSH servers.

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

No sensitive questions will be asked.

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

- A. Respondents will include 60 small business owner/operators. Each respondent will provide 2 responses in a 11-12 month period with an annual burden of 3 hours total per respondent. Reviews and trial administrations with representative members of the target audience were conducted in English as part of the development of the interview instrument. Based on this data it is estimated that the interview will take 90 minutes to complete. Two responses per individual

estimated at 90 minutes each, for 60 respondents results in an estimated annual burden of 180 hours.

Estimated Annualized Burden Hours

Type of Respondents	No. of Respondents	No. of Responses per Respondent	Average Burden per Response (in hours)	Total Burden (in hours)
Small Business Owners	60	2	1.5	180
Total			180	

B. Respondents will be employed in a broad range of small business industries in some form of owner/management role and therefore the average hourly rate for all managers on private non-farm payrolls for May 2012 was used. According to the Bureau of Labor Statistics website the hourly mean wage in May 2012 was \$67.87. We have rounded this to \$68.00 to simplify calculations (BLS, 2012). (source: <http://www.bls.gov/oes/current/oes111021.htm>; retrieved 11/27/2013)

Type of Respondent	No. Of Respondents	No. Responses per Respondent	Avg. Burden per Response (in hours)	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
Small Business Owners	60	2	1.5	180	\$68.00	\$12,240.00
Total						\$12,240.00

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

There is no capital or start up costs for collection information in this project. There is no cost to respondents for operation or maintenance in this project. Respondents are not asked or expected to purchase any services.

**14. Annualized Cost to the Government**

RESEARCHER	Base and Benefits	Time on project	Cost for one year
Thomas Cunningham	\$112,251.00	25%	112,251 x .25 = \$28,062.75
			Total Salary Cost = \$28,062.75

2014

Contracts for Data Collection Recruitment	\$38,000
Annualized salary and benefits (see above)	\$28,063
Travel to data collection sites	\$5,000
Total annualized cost to government	\$71,063

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

This is a new data collection

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

**A.16 - 1 Project Time Schedule**

Activity	Time Schedule
Recruitment materials provided to contractors	0 - 1 months after OMB approval
Complete Data collection	3 - 6 months after OMB approval
Analyses	6 - 18 months after OMB approval
Publication	24 - 30 months after OMB approval

## Data Analysis

This interview survey instrument will be administered to a sample of approximately 60 owners of businesses with less than 50 employees from the Cincinnati/Northern Kentucky area. The sample size is not driven by power analyses aimed at identifying between group differences. Rather, the sample size is based primarily upon recommendations in the literature and prior experience with similar qualitative data collection efforts. The results of these interviews will be analyzed to identify common sets of responses.

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

The OMB approval number and expiration will be displayed on all materials given to the contractor.

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

There are no exceptions to the certification.

## References

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