

Validation of an Occupational Safety and Health Questionnaire

Supporting Statement Part A

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

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A. Justification

1. Circumstance Making the Collection of Information Necessary

The Information Collection Request for *Validation of an occupational safety and health questionnaire* 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 will administer a questionnaire designed to assess differences in approaches to and perspectives of workplace safety between American-born and Latino immigrant workers.

The rapid growth of Latino immigrant population in the United States has increased the demand for Spanish-language occupational safety and health training materials. Typically, this need has been met by translating existing, English-language training materials into Spanish rather than developing new materials specifically designed for Latino immigrants. Critics suggest that such efforts frequently fall short of the mark because of poor translations and a failure to address the cultural, legal, educational and socio-economic realities that differentiate Latino immigrant workers from the American-born workers for whom the training materials were originally developed. The failure of current occupational safety and health training approaches with Latino immigrants is highlighted by data from Bureau of Labor Statistics indicating that significant

occupational health disparities exist between Latino immigrant workers and American-born workers.

A major obstacle to assessing the impact of occupational safety and health training interventions with Latino immigrants is the lack of a rigorously validated questionnaire addressing the issues believed to be contributing to the occupational health disparities experienced by this group. In order to better understand some of the factors that may be contributing to the persistent occupational health disparities between Latino immigrant and American-born workers, NIOSH is developing a questionnaire that focuses on important occupational safety and health issues such as risk perception, risk acceptance and workplace coping strategies. The questionnaire content was driven by theory, the existing literature base, and input from research partners (See Attachment J). The item phrasing and vignettes were guided largely by data collected from focus groups conducted with both Latino immigrants and American-born workers. Item phrasing was also reviewed by experts in the field of occupational health. The questionnaire was fully developed in Spanish first and then a conceptually equivalent English-language version was translated. This was accomplished through an iterative process of cognitive testing of items to insure that both Spanish- and English-speakers understood the item similarly. Due to its length, the survey was split into 4 parts for the cognitive testing process so as not to place undue burden on any participants. All cognitive testing occurred with groups of 9 or less.

This study addresses the NORA research priority area of *Occupational Health Disparities*. In addition, it also involves the NIOSH industry sector area of *Construction*.

This project addresses *Healthy People 2020* goals in the focus areas of *Social Determinants of Health* and the *Occupational Safety and Health*.

The results of this project will benefit Latino immigrant workers by validating a method for increasing the effectiveness of their occupational safety and health training. The results of this project could be used by the Occupational Safety and Health Agency (OSHA) to determine guidelines for the development of culturally appropriate training materials for Latino workers. Although beyond the scope of this study, it is expected that improved training will lower rates of injuries and fatalities 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).

Privacy Impact Assessment

Overview of the Data Collection System - For validation purposes, this questionnaire will be administered to a sample of *approximately 600 workers employed in a broad range of industries*. In order to account for differences in level of acculturation, 200 of the workers will be Latino immigrants who have been in the United States less than 2 years and 200 of the workers will be Latino immigrants who have been in the United States more than 5 years. An additional 200 American-born workers will be given the questionnaire so that their responses may be contrasted with those of the Latino immigrants. Half of the workers will be male and the other half female. In order to account for potential regional differences, 300 of the workers will be from New Mexico, a state that has historically always had a large Latino population and 300

workers will be from Ohio, a state that has only recently experienced a large increase in its Latino population. The sample sizes are not based upon power analyses comparing expected group differences. Rather, the sample sizes are based upon recommendations related to validation of questionnaires, both on the basis of individual items and the analysis of the underlying structural elements.

Participants for this data collection will be recruited with the assistance of contractors who have successfully performed similar tasks for NIOSH in the past. In both cities the contractors (Coalition for the Dignity and Rights of Immigrants in Cincinnati and Somos Un Pueblo Unido in Santa Fe) are local, grass roots, not-for-profit organizations in the immigrant community. The Latino immigrants will be assessed first so that an American-born worker sample can be recruited that can be matched in terms of occupation and industry. Depending upon literacy level and/or individual preferences, the questionnaire will be administered verbally or in “paper and pencil” format to participants in either English or Spanish.

Paper copies of the surveys 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 locked cabinet in offices with locked doors. Only the investigators will have access to the data. It is anticipated the data will be kept for no more than 5 years after it has been collected.

Items of information to be Collected – The data will be responses to a self-report questionnaire concerning occupational safety and health issues such as safety climate,

risk acceptance and variables associated with problem solving at work. No individually identifiable information is being collected.

Identification of Website and Website Content Directed a Children under 13 Years of Age

The Information Collection does not involve web-based data collection nor will participants be referred to any websites. All participants will be 18 years of age or older.

2. Purpose and Use of information Collection

A major obstacle to designing and assessing the impact of occupational safety and health training interventions with Latino immigrants is the lack of a rigorously validated questionnaire addressing the issues believed to be contributing to the occupational health disparities experienced by this group. In order to better understand some of the factors that may be contributing to the persistent occupational health disparities between Latino immigrant and American-born workers, NIOSH is developing a questionnaire that focuses on important occupational safety and health issues such as safety climate, risk acceptance and variables associated with problem solving at work. The data from this questionnaire will inform the later development of culturally tailored safety training for Latino immigrant workers. In addition, it will inform NIOSH's ongoing efforts to create occupational safety and health interventions targeting Latino immigrant workers.

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 to determine guidelines for the development of culturally appropriate training materials for Latino workers. The results of this project will benefit

Latino immigrant workers by validating a method for increasing the effectiveness of their occupational safety and health training. Although beyond the scope of this study, it is expected that improved training should ultimately result in lower rates of injuries and fatalities.

If the research team did not have the information from this survey it would lack any empirical basis for creating and assessing the impact of culturally tailored interventions for Latino immigrant workers called for in the subsequent phase of the project. In addition, the lack of data would prevent NIOSH from more effectively focusing its efforts to reduce occupational health disparities.

This data collection has been fully funded through internal NIOSH funds related to the National Occupational Research Agenda. Contracts for the data collection have been let to the Coalition for the Dignity and Rights of Immigrants in Cincinnati and Somos Un Pueblo Unido in Santa Fe.

Privacy Impact Assessment Information

No Information in Identifiable Form (IIF) is being collected.

3. Use of Improved Information Technology and Burden Reduction

Interviews will be conducted in the participant's native language (Spanish or English) by NIOSH contractors in settings familiar to the participants such as local non-profit organizations, churches, and apartment complexes. Depending upon literacy level and/or individual preferences, the questionnaire will be administered verbally or in "paper and pencil" format to participants in either English or Spanish. The data

collection will not use electronic respondent reporting for several reasons. First, according to recent studies, Latino immigrant workers are less likely to own a computer, have internet access, or know how to use a computer than their American-born counterparts. 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. The average level of formal education for Latino immigrant workers is 6th grade education or less; subsequently they often have very low literacy abilities. This will require the interviewer to read the items to many of the respondents and record their answers. 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 questionnaire the NIOSH researchers have conducted literature searches, consulted experts in the field and attended professional conferences addressing relevant topics. To date no survey instrument on occupational safety and health for Latino immigrant workers has been found. At best the literature provides some examples of qualitative studies that suggest possible reasons for the occupational health disparities for Latino immigrant workers. The survey instrument reflects these speculations, however no one has developed a quantitative instrument

address this problem. The validation of this instrument will provide NIOSH with information essential to the development of the culturally tailored occupational safety and health intervention called for in subsequent phases of the study. It will also fill a hole in the professional literature by contributing quantitative data to a problem that has largely been addressed through qualitative methods. Finally, the item pool for this questionnaire has undergone rigorous cognitive testing to insure conceptual rather than linguistic equivalence of the translation. The need for such an approach has repeatedly been recommended by expert panels for the development surveys in multiple languages, particularly when one or more of the intended study groups have low literacy levels. However, very few research groups are willing to make the considerable commitments of both time and personnel that proper cognitive testing can require. This alone serves to make this proposed data collection effort unique.

5. Impact on Small Businesses or Other Small Entities

No small business will be directly involved in this data collection

6. Consequences of Collecting the Information Less Frequently

The proposed project requires the data from the questionnaire in order to inform the creation of the culturally tailored occupational safety and health intervention.

Without the data it would be no empirical basis to guide content development for interventions or for evaluating their impact.

The data will be collected from the respondents one time only. 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 July 12, 2011, vol. 76, No. 133, pp. 40918-40920 (see Attachment B). No comments were received.

B. The following individuals have been repeatedly consulted regarding various aspects of questionnaire design and content in 2009 and 2010.

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9. Explanation of Any Payment of Gift to Respondents

Contracts for subject recruitment and data collection for this study were awarded to two advocacy groups serving the Latino immigrant community (Coalition for the Dignity and Rights of Immigrants in Cincinnati and Somos Un Pueblo Unido in Santa Fe). Based upon consultation with the contractors, the participants will receive \$25 for their involvement in the study. This amount is consistent with the researchers' past experiences conducting data collection with this target demographic. The reimbursement amount was approved by the Institutional Review Board of CDC.

10. Assurance of Confidentiality Provided to Respondents

This study has been approved by the Institutional Review Board of CDC (HSRB 11-EID-03XP; see Attachment C). No information in identifiable form will be collected from respondents. Respondents will be asked to provide general demographic information such as age (but not birth date), education and country of origin (but not documentation status), and occupation (but not employer) at the beginning of the survey. The body of the survey consists exclusively of multiple choice items related to the general job experiences which do not permit the respondent to reveal the name of their employer or details of specific events on or off their job (see Attachment D). The survey will be administered only once to each respondent and therefore there will be no need to collect contact information for follow-up. The survey will be administered by contractors

(Coalition for the Dignity and Rights of Immigrants in Cincinnati and Somos Un Pueblo Unido in Santa Fe). All data will be recorded on standard forms and belongs exclusively to NIOSH. The contractors will send the completed forms to NIOSH every two weeks. There is no distinction between the data collected and that data the NIOSH will receive.

Privacy Impact Assessment Information

No IIF is being collected

11. Justification for Sensitive Questions

No sensitive questions will be asked.

12. Estimates of Annualized Burden Hours and Costs

A. Cognitive testing was conducted in English and Spanish as part of the development of the questionnaire. Based on this data it is estimated that the survey will take 75 minutes to compete.

Estimated Annualized Burden Hours

Respondents	No. of Respondents	No. of Responses per Respondent	Average Burden per Response (in hours)	Total Burden (in hours)
	600	1	1.25	750
Total				750

B. Respondents will be employed in a broad range of industries and therefore the average hourly rate for all employees on private non-farm payrolls for January 2011 was used. According to the Bureau of Labor Statistics website the average hourly wage in January 2011 was \$22.86. We have rounded this up to \$23 to simplify calculations (BLS, 2011).

Estimated Annualized Burden Costs

Type of Respondents	No. of Respondents	No. Responses per Respondent	Avg. Burden per Response (in hours)	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
	600	1	1.25	1.25	\$23.00	\$29.00
Total				\$17,250	\$29.00	

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

A. There is no capital or start up costs for collection information in this project.

B. 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
Donald Eggerth Team Leader	141,373	40%	$141,373 \times .40 = \$56,549$
Michael Flynn Public Health Advisor	91,462	20%	$91,462 \times 20 = \$18,292$
			Total Salary Cost = \$74,841

2011

Contractor for Data Collection	\$70,000
Annualized salary and benefits (see above)	\$74,841
Travel to data collection site	\$ 5,000
Total annualized cost to government	\$149,841

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
Survey Instrument provided to contractors	0-1 months after OMB approval
Complete Data collection	3 months after OMB approval
Analyses	6 - 18 months after OMB approval
Publication	18 - 24 months after OMB approval

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

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

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.