

**INFORMATION COLLECTION REQUEST (ICR):**  
**OMB supporting statement and privacy impact assessment for:**  
**Survey on Usage and Functionality of Smoke Alarms and Carbon Monoxide Alarms**  
**(SCOA) in US Households.**

A. JUSTIFICATION

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

This is a request for the implementation of a national in-home survey to estimate usage, user hazard perception, and functionality of the smoke and carbon monoxide (CO) alarms in US households. This would be accomplished through the administration of the Survey on Usage and Functionality of Smoke Alarms and Carbon Monoxide Alarms in US Household, hereby referred as the SCOA survey. This data collection effort will provide an updated national estimate of operability of smoke alarms and carbon monoxide alarms based on direct observation. This data will allow for better targeting of policy, messaging, and interventions to improve the operability rate of smoke and CO alarms, as well as inform the Consumer Product Safety Commission (CPSC) of recommendations to state/local jurisdictions related to codes, standards, and/or regulations of smoke and CO alarms.

In 1992, the Consumer Product Safety Commission (CPSC) sponsored a national in-home survey to collect information on the number of residential smoke alarms in actual use in homes and to evaluate the operability of the sampled alarms. The results were published in the 1994 report, Consumer Product Safety Commission Smoke Detector Operability Survey Report On Findings<sup>1</sup>, which turned 25 years old in 2017. Although the survey results were instrumental for many years in developing codes and standards related to smoke alarms, subsequent changes in technology, installation codes, and state/local ordinances have rendered the information outdated and less effective, and therefore less applicable. Given the changes in technology and state/local regulations, the increased use of CO alarms, and the value of the past study, CPSC seeks to collect new data related to smoke and CO alarm use and operability.

Two organizations, National Fire Protection Association (NFPA) and Vision 20/20, have expressed the need and benefits of repeating the CPSC 1992 survey. The NFPA publishes a periodical report, Smoke Alarms in U.S. Homes Fires<sup>2</sup>, which provides the latest information about smoke alarms in home fires. The report recognizes the importance of the 1992 study. The report states, “This study is the gold standard for smoke alarm research. The most complete study of smoke alarm presence and operational status in the general population was done by the U.S. Consumer Product Safety Commission’s (CPSC’s) National Smoke Detector Project in 1992.” The report points out the key aspect between the CPSC study and other recent studies - “This [CPSC] project surveyed the general population, not just high-risk groups or people who had fires.” More recent studies by other groups have usually been combined with smoke alarm installation programs and typically target high-risk groups, rather than the general population. The NFPA still sees the importance of the survey even though the information may be outdated.

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<sup>1</sup> Charles L. Smith, [Smoke Detector Operability Survey – Report on Findings](#), (Bethesda, MD: U.S. CPSC, November 1993).

<sup>2</sup> Marty Ahrens, [Smoke Alarms in U.S. Home Fires, Quincy](#), (MA: NFPA, September 2015).

The Institution of Fire Engineers US Branch has established a steering committee, Vision 20/20, comprised of noted fire service and related agency leaders to guide a national strategic planning process for the fire loss prevention that results in a national plan that will coordinate activities and fire prevention efforts. In March 2015, Vision 20/20 hosted a one-day Smoke Alarm Summit at Johns Hopkins Bloomberg School of Public Health that included representatives from different stakeholder groups such as the fire service, academia, government, non-profit, and private sector organizations convened on the summit to develop consensus recommendations on:

1. Evidence-based and evidence-informed policy and practice interventions that will increase the installation and maintenance of smoke alarms in all homes in the United States
2. High priority research gaps that need to be addressed
3. Next steps to ensure that the findings from this meeting inform policy and practice

The findings from the report, *Evidence Informing Action: Consensus Priorities to Increase the use of Smoke Alarms in U.S. Homes*,<sup>3</sup> identified the next steps and priorities for a national effort to increase the installation and maintenance of smoke alarms that were obtained from experts who presented at the Summit and respondents who provided feedback during and after the Summit. The number one priority was, “1. Conduct a national census (or representative sample in-home survey) on the prevalence and characteristics of smoke alarms.” The experts at the summit all agreed that an updated national survey needs to be conducted to develop a national effort to increase the installation and maintenance of smoke alarms in the US.

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

The purpose of the SCOA survey is to collect data that will assist CPSC with better estimation of the number and types of smoke and CO alarms installed in US households, the proportion of working smoke and CO alarms, the characteristics of residences and residents where the smoke and CO alarms are not operational, perceptions of residents related to the cause of “false” alarms or causes of faulty alarms, consumer hazard awareness, and consumer behavior related to alarm use and smoke and CO hazards.

The information collected from this survey will allow CPSC to provide an updated national estimate of operability of smoke alarms and CO alarms based on direct observation. It will also allow us to create a demographic profile of groups that do not have operable smoke alarms and/or CO alarms. This includes measures from the perspective of household members lacking operable alarms as to why they lack functional alarms. This will allow for better targeting of policy, messaging and interventions to improve the operability rate of these alarms. It will also provide insights as to the kinds of alarms that are present to determine whether one variety or another is more likely to be inoperable as well as provide some measure as to the age of alarms in households. Results of the survey will inform CPSC of recommendations to state/local jurisdictions related to codes, standards, and/or regulations of smoke and CO alarms. The information can help improve the voluntary standard for carbon monoxide alarm, UL 2034<sup>4</sup>, and guide state and local jurisdictions for the use and installation of CO alarms. While the installation

<sup>3</sup> Johns Hopkins Center for Injury Research and Policy, [Evidence Informing Action: Consensus Priorities to Increase the use of Smoke Alarms in U.S. Homes](#) (Warrenton, VA: National Smoke Alarm Summit, 2015).

<sup>4</sup> Underwriter Laboratories, “Standard for Single and Multiple Station Carbon Monoxide Alarms,” Standard 2034, Edition 4, March 31, 2017. <https://www.shopulstandards.com/ProductDetail.aspx?UniqueKey=32610>

codes for the two products, especially as required by states or local jurisdictions, are different, it was determined that the information collection regarding these two products could be combined in one survey as a means of optimizing resources and reducing burden.

#### A.2.1. *Description of Survey*

The SCOA survey seeks to collect information from 1,185 households within the United States, with an initial group of 50 households that will first be processed and analyzed to identify any issues with regards to the survey instrument and data collection procedures. The survey will use a mixed-mode, multi-stage approach to data collection. The data will be collected through two modes: face-to-face in-home interviews and telephone surveys. Since previous research showed that self-reporting surveys on use and functionality of smoke alarms provided overestimated results of smoke alarms operability, CPSC identified the need to conduct in-home direct testing and examination of smoke alarms, in addition to conducting data collection through traditional survey questions. During the screening process, if the respondent indicates they have a smoke alarm that is not connected to a central or security alarm, and thus allows a direct testing of the alarms, the respondents will be scheduled for an in-home interview. However, if the smoke alarm cannot be tested, because the household does not have an alarm installed, or if the alarms are connected to a central alarm system that will notify the police or fire department, the respondent is not eligible for the in-home survey. Therefore, instead of being given the full survey, these households would be provided with a subset of survey questions about safety attitudes and demographics that would be collected over the telephone. CPSC's Contractor—EurekaFacts, a market and social sciences research company—will conduct all the tasks related to designing, administration, fielding, analysis and reporting of the survey.

This survey will allow CPSC to better assess the next steps and priorities to increase installation and maintenance of smoke and CO alarms for the general population by understanding their level of awareness, perceptions, and demographics. The survey items will also help inform CPSC of recommendations to provide state/local jurisdictions related to codes and standards.

The SCOA survey will provide the only source of data available to answer the following research questions:

- What proportion and number of households have smoke and/or carbon monoxide (CO) alarms installed in their home? Of these households with alarms, what proportion and number have an operational alarm?
- What proportion and number of respondents perceive their home as safe? Does the availability of smoke or CO alarms influence their sense of safety? For what reasons do respondents not have alarms installed?
- Does the characteristics of a respondent's residence affect the availability or operability of smoke or CO alarms? Does the characteristics of residency characteristics affect fire and CO risks?
- What proportion and number of respondents are aware of how to maintain and test their fire and/or CO alarms? Of these respondents, what methods, if any, do they use to maintain and test their alarms?
- Are there behaviors or activities, if any that impact respondents either having alarms in their home and/or having functioning alarms in their home?

- What proportion of respondents seek out information about fire and CO safety? Of these respondents, what resources do they use to seek out information about fire and CO safety?
- What, if any, demographics demonstrate a relationship between respondents’ possession of fire or CO alarms and their risk of fire and/or CO incidents?

The table below shows how survey items will aid in answering the research questions and what type of information it will provide.<sup>5</sup>

<b>Research Question</b>	<b>Corresponding Survey Item(s)</b>	<b>Purpose of Collected Information</b>
<p>What proportion and number of respondents have smoke and/or carbon monoxide (CO) alarms installed in their home?</p> <p>Of these respondents with alarms, what proportion and number have an operational alarm?</p>	4a-4c, 5a-5c, 11a-11d, 14a-14d, 15a, 15b, 19a-19d, 20, 22a-22b, 25, 26-1a-26-1aa, 30, 32	The results will provide insight into the prevalence of alarms in respondents’ homes, identify the types of alarms installed, and determine how many, if any, alarms are operational. Conversely, these items will also aid in revealing the proportion of the residents who do not have alarms in their home and help uncover the reasons why.
<p>What proportion and number of respondents perceive their home as safe? Does the availability of smoke or CO alarms influence their sense of safety? For what reasons do respondents not have alarms installed?</p>	4d, 5d, 20, 29, 30, 31, 32	This information will help understand how respondents personally define “safety” and how this perception influences whether or not they have alarms installed within their homes.
<p>Do the characteristics of a respondent’s residence affect the availability or operability of smoke or CO alarms? Do the characteristics of residency affect fire and CO risks?</p>	1a, 4a – 4c, 5a – 5c, 6, 7, 8, 9a – 9c, 25, 27, 28	The results will provide insight into if the resident owns or rents the home, duration of residency, and the age of the household. These items will shed light on if there is a relationship between the characteristics of a respondent’s home and their status of having

<sup>5</sup> The terminology “smoke alarms” and “CO alarms” is used in technical codes and standards to describe devices that incorporate a sensing component (detector) and an audible component (alarm). It was determined through cognitive testing that “smoke detector” and “CO detector” has a higher consumer understandability for smoke alarms and CO alarms. The instrument incorporates the terminology “smoke detector” and “CO detector” but in this document the terminology smoke alarm, CO alarm, or alarms (both units) will be used.

		alarms such as having an attached garage unit if they live in a single family detached house.
<p>What proportion and number of respondents are aware of how to maintain and test their smoke and/or CO alarms? Of these respondents, what methods, if any, do they use to maintain and test their alarms?</p>	10a – 10c, 11a – 11d, 12, 13, 18a – 18b, 19a – 19d, 21, 23	<p>These questions help understand whether or not people have the knowledge and ability to test and maintain their smoke and/or CO alarms and the types of methods used. This can inform CPSC of the type of information that needs to be dispersed.</p>
<p>Are there behaviors or activities, if any that impact respondents either having alarms in their home and/or having functioning alarms in their home?</p>	33a – 33d, 35	<p>This information is important as it will help understand the relationship between how respondents behave and what activities they engage in that may influence the likelihood of having alarms in their home such as their cooking behaviors of using a stove or oven.</p>
<p>What proportion of respondents seek out information about fire and CO safety? Of these respondents, what resources do they use to seek out information about fire and CO safety?</p>	34a – 34c	<p>This information will assist CPSC with addressing the best types of resources to disperse information about fire and CO safety.</p>
<p>What, if any, demographics demonstrate a relationship between respondents’ possession of fire or CO alarms and their risk of fire and/or CO incidents?</p>	36 - 44	<p>This will help provide insight into the relationship between respondent demographics and their risk of fire or CO incidents. This will also shed light as to their status of whether or not they have a smoke or CO alarm(s).</p>

*A.2.2. Survey Administration Procedures*

The sampled households will be contacted in advance with a pre-notification letter, those then will be screened to determine their eligibility for either an in-home or telephone interview and scheduled for a relevant type of administration mode. The in-home survey will include a two-member team consisting of a fire inspector or firefighter from a local fire department and a survey professional. The survey team will include a fire inspector or firefighter in order to, first, reassure the potential respondents of the legitimacy of the team's presence and gain cooperation, as well as ensure accurate results of alarms inspections and testing. The team will carry with them a letter printed on official letterhead with endorsements from the local fire department and CPSC, should they be needed. If the home is in an apartment building or condominium, prior permission will be obtained from the property manager to proceed with the in-home survey administration. A consent form will be provided to the participant to explain the purpose, the statement of confidentiality, and the benefits and potential risks of the study.

Following the entrance, the survey professional will begin to administer the questions based on the respondent's residence type, and smoke and CO alarms availability and functionality. Once the survey professional finishes asking questions about the smoke and CO alarms, the survey team will move on to examine the smoke and CO alarms in the residence. The fire alarm inspector will then identify, test, and examine the alarms to determine different variables such as their operability, energy source, their type, and age. After examining each alarm, the survey team, and resident, will proceed to the next alarm on that floor and repeat the procedure above. After all the alarms have been inspected on that floor, the survey team will move on to the next floor, until all alarms have been inspected.

If the alarm or alarms are found to be faulty, the resident will have the option of either receiving a new alarm, receiving new batteries, or having no action taken at all if the respondent chooses not to have the alarm fixed or replaced. In all cases, respondents will sign a waiver indicating whether they refuse, or any other course of action taken during the in-home administration.

Once the administration is complete and the final set of demographic questions is administered, the survey professional will offer the resident the monetary incentive for their completion of the survey.

### *A.2.3 Audiences of Data and Results*

The designated CPSC Contracting Officer's Representative (COR) and assigned CPSC staff will be the primary audience of the data and results. A summary report of aggregated results will be presented that encompasses all phases and methods employed in the study and will present a comprehensive description to help inform the agency of the number and types of smoke alarms and CO alarms installed in households, the characteristics of residences and residents where the smoke and CO alarms are not working, perceptions related to the cause of "false" alarms or causes of faulty alarms, and resident alarm maintenance habits. In addition to the summary report, a PowerPoint presentation, raw data, a table of univariate results, and various data analysis documentation will also be delivered electronically to the primary audience identified above.

#### *A.2.4 Methods of Dissemination*

The contractor's final report will be made available to the public after the draft report has been reviewed and approved by the CPSC's COR and assigned CPSC staff.

The final report will be released by the Commission by disseminating the report on the agency's website and presentations at meetings and conferences related to the subject matter. The procedures to disseminate the information by the Commission, its staff, agents and representatives will be accordance with the law and Commission policy to ensure the information is accurate and not misleading.

In order to encourage dissemination of the findings, the report will be freely accessible on [cpsc.gov](http://cpsc.gov). The work was prepared in the course of the author's official contracting duties with CPSC, thus Title 17 U.S.C. Section 105 provides that there can be no copyright in a United States government publication.

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

In order to minimize respondent burden, the respondents that do not have smoke alarm installed or have a central alarm system, and thus are not eligible for an in-home alarm inspection and testing, will participate in the shorter telephone survey and answer only a portion of questions. The data from the in-home interview will be collected by using a tablet.

The survey instrument will be programmed on Vovici software and will be administered via either in-home interviews using a Computer Assisted Personal Interview (CAPI) format or telephone, using a Computer Assisted Telephone Interview (CATI) format. The CAPI and CATI system will have a question skipping pattern to ensure that interviewers only ask each respondent survey items appropriate for the respondent's residence type, and smoke and CO alarms availability and functionality.

The instrument was first pre-tested through in-depth cognitive interviews with a sample of 18 respondents (OMB Control Number 3041-0136) to certify that the survey items are clear and easy to understand when the survey is administered on a wider scale, reducing any potential burden for respondents. Dependent on the OMB clearance but during full-field interviewing, EurekaFacts will conduct the survey fielding and administration procedures and pause after a sample of 50 respondents to conduct a data quality evaluation to identify any issues with the instrument or data collection procedures. After the initial 50 respondents, we will evaluate the overall process of data collection including initially contacting the respondent, scheduling the interview, survey administration, evaluating the alarms, and concluding the interview. If any resultant issues are found, a revised plan will be implemented with CPSC's approval to further minimize respondent burden. If any changes to the survey are needed due to the results of the initial 50 respondents, CPSC will make the changes and submit a non-substantive change request to OMB.

The information will be summarized into a final report, which will be electronically submitted to the CPSC Contracting Officer's Representative (COR).

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

The intent of this data collection is to obtain information that is not readily available elsewhere. The last time this type of data was collected occurred 25 years ago by CPSC. Other recent studies were focused on targeting high-risk groups or people who had fires; however, the estimates for a general population are not available, thus, CPSC specifically selected to focus this survey on the general population. This data collection will help CPSC develop a national effort to increase installation and maintenance of smoke alarms in the U.S.

The need for the proposed data collection and the design of this national survey was based on several consultative efforts with and feedback from experts, stakeholder groups such as the fire service agencies, academia, government, non-profit and private sector organizations<sup>6 7</sup>. The collected input from experts and stakeholders ensured that the present survey does not duplicate the information available elsewhere.

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

The information will not be collected from small businesses or other small entities.

#### *A.6. Consequences to Federal program or policy activities if collection is not conducted or is conducted less frequently*

The 1992 national in-home survey, sponsored by CPSC, helped collect information on the number of residential smoke alarms in actual use in homes and evaluated the operability of the sampled alarms. The 1992 CPSC survey had the most impact to the installation code, NFPA 72<sup>8</sup>, for smoke alarms. The 1992 CPSC survey set the foundation for many installation and give-away programs to target specific groups that do not have smoke alarms, thus increasing the presences of smoke alarms in US households. The presence of smoke alarm in the household considerably increases the chances of the occupants escaping a home fire.

However, this survey will be 25 years old as of 2017. In order to ensure that the collected information being referenced remains current and that changes in technology and installation codes are upheld, the collection of information must be conducted again. By implementing the new nation-wide SCOA survey, the codes and standards will be current so that fire prevention organizations and agencies will have all the up-to-date information needed to efficiently and effectively target the areas for improving life safety and saving lives.

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

There are no special circumstances. This information collection is consistent with the guidelines prescribed in 5 CFR 1320.5.

#### *A.8. Agency's Federal Register (FR) Notice and related information*

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<sup>6</sup>. Johns Hopkins Center for Injury Research and Policy, [Evidence Informing Action: Consensus Priorities to Increase the use of Smoke Alarms in U.S. Homes](#).

<sup>7</sup>. Amanda Kimball, P.E., [Workshop for Survey on Usage and Functionality of Smoke Alarms and CO Alarms in Households](#). (Quincy, MA: NFPA, 2017).

<sup>8</sup>. NFPA 72 – National Fire Alarm and Signaling Code, (Quincy, MA: NFPA, 2016).



A Federal Register Notice was published on March 20, 2018. CPSC received three comments in response to the notice. Two commenters did not address the survey or any issues related to the survey. These commenters raised concerns about climate change. One commenter, the International Code Council (ICC) supported the information collection. The ICC states that it promulgates residential and commercial building safety codes and having reliable data to analyze the scope of use and effectiveness of the detection devices will improve public safety.

#### *A.9. Explanation of any Payment or Gift*

Contractor will provide a monetary incentive to respondents through the form of a gift card from a major credit card company. Based on their eligibility, as determined through the screening process, respondents will receive one of two incentive amounts at the completion of the survey. If respondents qualify for the in-home survey administration, respondents will receive a \$25 gift card from a major credit card company in appreciation for their completion of the survey. However, if respondents qualify for the shorter telephone survey administration, at the completion of the survey, respondents will receive a \$10 gift card from a major credit card company. The variation of monetary value is due to the amount of time and effort involved in the in-home survey administration compared to the shorter telephone survey administration.

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

Participation in the survey is voluntary and respondents will be so informed before the screening and at the beginning the survey. Subjects are informed of the measures taken to protect their confidentiality in the introductory language read to sampled persons. Information collected from respondents will be kept confidential and only used for research purposes.

Survey respondents will have assigned a Random ID number not linked to any personal identifying information. Respondents' contact information (name, address, phone number, e-mail address) along with the Random ID number will be maintained in one secure database ("Database 1"). The survey responses and respondents/household demographic information will be maintained in a second secure database ("Database 2") where potential survey participants are identified by Random ID Number only. Database 2 will not contain participants' names, addresses, phone numbers, e-mail addresses, or other personally identifying information (PII). Temporary collection of PII is essential to this study. This information serves as confirmation during fielding of the survey to correctly identify the head of household and the address of the occupied residence where the survey will take place. It is also fundamental information for data reliability, allowing us to connect the two core units of measure: (1) the household where alarms will be tested and (2) the participant who is screened and interviewed for the survey.

Analysis will be conducted on data sets that include only respondent ID numbers and will not contain any identifying data. All data will be securely stored in locked file cabinets or password-protected computers, accessible only to project staff.

Access to the physical call center location, research analysts, facilities, CATI network, and server where data will be stored is restricted only to authorized individuals. Access restrictions are defined for each individual based on his/her role. Access to data requires the entry of a valid account username and password. Project staff receive data security training and sign an assurance of confidentiality of survey data. All project staff complete required annual privacy and security training and sign a document pledging confidentiality and maintaining privacy according to Health Insurance Portability and Accountability Act (HIPAA). The training

includes information and data security factors, using information sources responsibly, employee responsibilities, and how to report instances where violation of data security is suspected.

Any administrative and PII collected, non-electronic and electronic from respondents will be sanitized and/or destroyed within 60 days after the data has been thoroughly analyzed and the resolution of errors or discrepancies in the data has been completed. However, to ensure the possibility for potential replication of the study in the future, any non-administrative data may be kept by CPSC indefinitely. The National Institute of Standards and Technology (NIST) publication 800-88, *Guidelines for Media Sanitization*, will be used as a guide to properly sanitize any administrative and PII data.

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

A majority of questions asked in the survey are not typically considered sensitive in nature. Potentially sensitive questions include the demographic questions that ask about the respondent's ethnicity/race, ages of those living in the household, disabilities, and combined annual household income. Both the trained interviewer and the communication materials will reassure that participation is voluntary, that they may choose not to answer some questions, and that responses are confidential. The instructions presented in the survey is designed to make respondents feel as comfortable as possible in answering these questions.

In addition, each respondent will be informed that a unique ID will be assigned to them that does not link to any personal identifying information. Data analysis will be conducted on data sets that include only respondent ID numbers; they will not contain any identifying data.

A.12. *Estimate of hour burden to respondents*

Below is a discussion of the burden hours.

<b>Instrument</b>	<b>Hrs per respondent</b>	<b>Total number of participants</b>	<b>Response rate</b>	<b>Number of respondents</b>	<b>Total hrs</b>
<b>Invitation</b>					
Invitation for Survey	0.05	6114	30%	1834	92
<b>Screeners</b>					
Invitation for Survey	0.15	1834	80%	1467	220
<b>Survey</b>					
In-home Survey	1	1356	80%	1085	1085
Telephone Survey	0.25	111	90%	100	25
				1185	1422

Total Burden Hours: **1422** hours

A.13. *Estimate of total annual cost burden to respondents*

There are no costs to respondents and no respondent recordkeeping requirements associated with the SCOA survey. There are no operating, maintenance, or capital costs associated with the collection.

A.14. *Estimate of annualized costs to the Federal government*

The contracts to design and conduct the Survey on Usage and Functionality of Smoke Alarms and Carbon Monoxide Alarms in Households were issued to Eureka Facts LLC under contract numbers F-16-0091 and F-17-0088 for \$487,725 (this figure does not include the cognitive testing phase that was approved through OMB Control Number 3041-0136). Salary and benefits costs for government personnel assigned to this study are estimated at \$234,048 based on 10 staff months in 2017 at an average level of GS-13 step 5 ( $(\$107,435/.676) \times 10$  staff months), and 7.5 staff months in 2018 at an average level of GS-13 step 5 ( $(\$109,900/.676) \times 7.5$  staff months) and a 67.6 percent ratio of wages and salary to total compensation from Table 1 of the September 2017 Employer Costs for Employee Compensation, published by the Bureau of Labor Statistics. Therefore, the estimated cost to the government is \$487,725 plus \$234,048 in government labor costs for a total of \$721,773.

#### A.15. *Program changes or adjustments*

This is not applicable. This is a new request for information collection.

#### A.16. *Plans for tabulation and publication*

##### A.16.1 *Analysis Plan*

Prior to data analysis, EurekaFacts will complete data cleaning and a non-response analysis. The data cleaning process will include: identification and removal or re-coding of inconsistent responses and subsequent inclusion in the final data file and elimination of or recoding of respondents' choices when outside the ranges specified in the response categories. A non-response analysis will follow the data cleaning. The objective is to identify differences between respondents and non-respondents based on their demographics and other measurable characteristics to assess the representativeness of our sample necessary to allow statistical inferences of the survey results. Weights will be applied to correct an over or under-representativeness of categories of the target audience in the final survey data.

The analysis will provide estimates of operability of smoke alarms and CO alarms, estimates of percentages of households as well as subgroups with installed of smoke alarms and CO alarms, estimates of the proportions of respondents demonstrating hazard awareness, and relevant behavior related to alarm use and smoke and CO hazards. Analysis will include evaluation of factors leading to inoperable alarms, types of housing relative to alarm operability conditions. Analysis will identify demographic groups that do not have operable smoke alarms and/or CO alarms, as well as demographic characteristics affecting alarms operability conditions.

The data analysis will include a tabulation of all survey questions, graphs, frequency distributions, and two-or-three way cross-tabulations of meaningful parameters to show similarities or differences among respondents. Analysis will be conducted using case-appropriate statistical, data-mining, and database modeling procedures. Analysis deliverables will include a final technical report describing the SCOA methodology and summarizing the results, findings, and conclusions. The report will include American Association for Public Opinion Research (AAPOR) indices for survey response rates, descriptive statistics on the demographic data, summary lists of open responses, and frequency distributions. A table of survey interviews and non-responses, in accordance with nationally recognized guidelines such as APPOR, will also be delivered.

##### A.16.2 *Publication Plan*

The Contractor will develop a technical report that will present a description of study design, research methods, summary of results, finding and conclusions.

The final technical report will be released by the Commission by disseminating the report on the agency's website and presentations at meetings and conferences related to the subject matter. The procedures to disseminate the information by the Commission, its staff, agents and representatives will be accordance with the law and Commission policy to ensure the information is accurate and not misleading. The agency will disseminate the findings when appropriate, strictly following the agency's "Guidelines for Ensuring the Quality of Information Disseminated to the Public".

In order to encourage dissemination of the findings, the report will be freely accessible on [cpsc.gov](http://cpsc.gov). The work was prepared in the course of the author's official contracting duties with CPSC, thus Title 17 U.S.C. Section 105 provides that there can be no copyright in a United States government publication.

*A.17. Rationale for not displaying the expiration date for OMB approval*

No such exception is sought. The OMB survey number and expiration date will be displayed on the initial screener and informed consent forms to be used as a reference if needed.

*A.18. Exception to the certification statement*

No such exception is sought. These activities comply with the requirements in 5 *CFR* 1320.9.