SUPPORTING STATEMENT
U.S. Department of Commerce
National Institute of Standards and Technology (NIST)
Allocation of Resources for Fire Service and Emergency Medical Service
OMB CONTROL NO. 0693-0047

A. JUSTIFICATION

This is a request to extend the Office of Management and Budget approval of this information collection.

1. <u>Explain the circumstances that make the collection of information necessary.</u>

This information collection is a part of the "Multi-phase Study on Firefighter Safety and the Deployment of Resources" project funded by the Department of Homeland Security's Fire Prevention and Safety grants program. This information collection is required in order to generate a statistically representative analysis of the fire service response data.

Many departments across the U.S. are being challenged by budget crises, rising call volume, personnel and equipment shortages, security issues and the overall expectation to do more with less. These and other factors, often have responding crews facing increasing line of duty risk of injury and death as they continue to work to reduce civilian injury and property loss. Even with the technological advances of the last decades, there has not yet been able to scientifically quantify our experiences to determine what staffing levels, asset configurations and response time frames are best when responding to various levels of fire or EMS events so that we minimize risk to the firefighters, paramedics and the public.

If a department is selected into the study, the chief of the fire station will receive a letter of invitation notifying them of the selection. Associated local union presidents will also received notification of the department's selection. If you do not receive these letters by July 15, then your department has not been selected into the study.

<u>Summary of changes to survey instrument</u>:

This submission is a refinement of the previous submission. Based on feedback from industry experts and four (4) pilot tests conducted, the questions were modified to minimize input burden to the respondents.

a) Background questions about the details of the property were eliminated, including Occupancy Type, Square Footage, Number of Stories, Sides of Access, Fuel Characteristics, Alarm, Building Value, Compartmentation, Age, and Built-in Fire Protection Systems based upon respondent feedback that the effort to collect this information was too burdensome. These questions were transformed into new questions which summarized the community characteristics, rather than individual buildings, including typical building height, structure types, and size of response area.

b) The Reported (Census) Education of Civilians question was eliminated based upon respondent feedback that the effort to collect this information was too burdensome.

c) Questions regarding the community significance of building types, including building or instrument of governance, such as city hall, courts, fire or police station, Building, monument, or property of cultural significance, building, business, or property of substantial economic significance, public infrastructure, such as roads, bridges, tunnels, water supply, etc., and building or property which is part of the community health infrastructure, such as a hospital due to a determination by the research team that the subject was out of the scope of the project.

d) The response parameters, such as traffic, natural barriers, precipitation, temperature, time of day, and traffic control devices were aggregated into a singular variable of response time in order to minimize respondent burden.

e) Special hazards were eliminated in order to focus the data collection on working structural fires and ALS emergency medical calls.

f) Questions which address quantity and type of training were added based upon respondent feedback that training is a deployment variable which requires significant investment and for which the effectiveness is not fully quantified relative to other deployment variables.

g) Experience for responding personnel was eliminated as a question due to respondent feedback that the effort to collect this information was too burdensome.

h) Some questions in the “apparatus and equipment” section were eliminated due to refinement of the project scope, including communications, supplies, and personal protective equipment.

i) The hazmat and technical rescue questions in the Intervention section were eliminated due to refinement of the project scope.

j) The question on indirect losses in the “community risk” section was eliminated due to respondent feedback that the effort to collect this information was too burdensome.

k) Questions regarding the type of dispatch system were added based upon respondent feedback that dispatch is a deployment variable which requires significant investment and for which the effectiveness is not fully quantified relative to other deployment variables.

l) On-scene assessment and final assessment (fire spread or patient vitals) were added to compare dispatch scenario to scenario observed upon arrival.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

The information collection will be used to identify resource allocation strategies which most effectively mitigate community fire and health risks. The data will be collected in a format suitable for advanced regression analysis. The information collection will be used during the course of the grant exclusively by NIST employees and other grantee principal investigators, including the Center for Public Safety Excellence (CPSE), the International Association of Firefighters (IAFF), the International Association of Fire Chiefs (IAFC), and Worcester Polytechnic Institute (WPI). This project will provide fire and emergency medical response authorities with quantitative and validated tools to assess policy and resource changes in the context of community economics and life safety. This information collection and dissemination will comply with the NIST CIO Information Quality Guidelines and Standards.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

All respondents will utilize a password-protected, web-based data entry program to assist with data entry. This will enhance the speed and quality of the data collection. Interval data will be entered numerically (with appropriate error checking), while ordinal data will have choices from drop-down boxes. The web address http://www.firereporting.org has been reserved for this project.

4. Describe efforts to identify duplication.

Presently, there is no collection of community hazards and fire service mitigation strategies which is generalizeable to the majority of communities across the United States. The National Fire Incident Reporting System (NFIRS) does collect a subset of data related to this study, but lacks the breadth of variables as well as the statistical representativeness which will be addressed with this information collection.

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

Not Applicable.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

The consequence of not conducting this information collection would be significant to the emergency response community. There is not a validated, quantitative basis for allocating community resources at the municipal level, thus, judgment and trial-and-error are currently utilized to determine response strategies. A validated quantitative resource allocation model will enable communities to make efficient, well informed decisions which provide adequate assurance of public safety levels and efficient expenditure of public resources. Without such a model, optimal safety levels may not be achieved or inefficient resource allocation will result in public services being cut elsewhere.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

Not Applicable.

8. Provide a copy of the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the 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.

A Federal Register Notice soliciting public comments was published on Wednesday, March 4, 2009 (Volume 74, No. 41, page 9387). One unsubstantial comment was received (in ROCIS).

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

Not Applicable.

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

No assurance of confidentially is given.

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.

Not Applicable.

12. Provide an estimate in hours of the burden of the collection of information.

For the approximately 400 responding departments, we estimate of need of 4,427 hours. This is based upon an estimate of the amount of time required to document a singular incident (eight minutes) and the number of incidents required (approximately 33,200) in order to ensure statistical power (0.80) and significance (0.05).

33,200 responses x 8 min. per response = **4,427 hours**

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in #12 above).

Total annual cost burden is anticipated to be $0.

14. Provide estimates of annualized cost to the Federal government.

The one-time cost to the government to collect this information collection is approximately $100,000. This cost is based upon estimates of labor hours related to database design, testing, maintenance, and archiving. This cost is based upon an estimate of two persons working 500 labor hours each for database design, testing, maintenance, and archiving, plus approximately $25,000 in supplies and travel expenses.

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB 83-I.

This submission is a refinement of the previous submission, is based on feedback from industry experts and four (4) pilot tests conducted, the questions were modified or deleted to minimize input burden to respondents. The number of respondents was decreased, and a slight increase of burden hours is requested due acknowledgement of the level of effort required to report some responses to the modified questions.

16. <u>For collections whose results will be published, outline the plans for tabulation and publication</u>.

The results of this information collection will be reported in summary form. Each data element will be discussed with ordinary statistics, including mean, median, standard deviation, skew, treatment of outliers, sample weights to address under-represented samples, etc. The data will be analyzed using advanced regression modeling techniques to generate understanding of which resources effectively mitigate community hazards and risks. In addition, the regression coefficients and variable transformations will be published. Finally, the findings, assumptions, and limitations will be published in professional, archival literature. The information collection will commence in 2008 and continue for approximately one and a half years. The final report will be issued in 2009.

The fire departments that responded will be provided with a complimentary copy of the finished model.

17. <u>If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate</u>.

Not Applicable.

18. <u>Explain each exception to the certification statement</u>.

Not Applicable.