

## Supporting Statement

### **A. Justification**

The National Highway Traffic Safety Administration (NHTSA) was established by the Highway Safety Act of 1970 to carry out safety programs previously administered by the National Highway Safety Bureau. Specifically, the agency directs the highway safety and consumer programs established by the National Traffic and Motor Vehicle Safety Act of 1966, the Highway Safety Act of 1966, the 1972 Motor Vehicle Information and Cost Savings Act, and succeeding amendments to these laws. Dedicated to achieving the highest standards of excellence in motor vehicle and highway safety, NHTSA works daily to help prevent crashes and their attendant costs, both human and financial.

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

##### ***a. Circumstances making the collection necessary***

Recent research has provided new information regarding relative risks, common mistakes, as well as low compliance rates for a variety of child restraint systems and best practice recommendations. Thus, this is an ideal time to examine NHTSA's child passenger safety (CPS) recommendations and evaluate various methods of framing the information, as well as the scope of the information provided. Age-appropriate child restraints and rear seating dramatically reduce injury in vehicle crashes. Yet, at every step of the CPS recommendations, advocates continue to struggle to convince parents to keep their children maximally protected for the longest time possible. NHTSA is proposing a research study to better understand parents' and caregivers' preferences (e.g., style, communication modes, etc.) for obtaining child passenger safety (CPS) information, and the impact of the various types of CPS information on parents'/caregivers' knowledge, attitudes, and behavioral intentions related to proper use of child restraints.

While NHTSA, other government agencies, non-profit organizations, and advocates continue to promote child passenger safety through various media, there is a constant struggle to reach many parents/caregivers with the optimum messages relating to keeping children maximally protected for the longest time possible. Research shows that the primary reasons for injuries to children who are restrained at the time of motor vehicle crashes relate to prematurely turning a child forward, premature graduation from harnessed safety seats to booster seats, premature graduation from booster seats to adult seat belts, misuse of safety restraints and seat belts, and children seated in the front seat of the vehicle. In fact, annual observation studies show that many children even continue to travel unrestrained. These children are more than 3 times more likely to sustain injury in a crash than restrained children.

Because parents and caregivers continue to make mistakes (or simply do not comply) with all stages of the child passenger safety recommendations, and because new research has emerged

regarding crash injury risks for various seat configurations, it is important for NHTSA to empirically examine the national message and the materials it disseminates. There continues to be a need for NHTSA to collect information from parents and caregivers of children under 13 years of age about their knowledge, behavior, and perceptions of various child passenger safety messages. The findings of this research are likely to inform the development of ways to frame and position messages for child passenger safety

The purpose of this research is to assess various methods of framing NHTSA's CPS recommendations, as well as the scope of the information provided. This project will conduct two experimental studies. In the first study, participants (N= 300) will be randomized into one of five groups to examine relative effectiveness of and parent preferences for different methods of framing CPS recommendations. That is, the goal of the first study is to determine *how* to best communicate the recommendations to parents (e.g., should we include information regarding risk-reduction/rationale, should we emphasize the "hardest sell" for advocates over all other information?, etc.). In the second study, participants (N= 240) will be randomized into one of four groups to examine the relative effectiveness of CPS recommendations delivered in combination with other types of information. That is, the goal of the second study is to determine the type and amount of *extra* information to include in the recommendations without losing the clarity and power of the key recommendations (e.g., how much installation information should be included, should normative information be communicated, etc.). Thus, in addition to examining how to frame the NHTSA CPS recommendations, this research provides an important opportunity to empirically examine the relative benefits or detriments of additional information provided with the recommendations. The collection supports the Department's strategic goal of safety.

### ***b. Statute authorizing the collection of information***

Title 23, United States Code, Chapter 4, Section 403 (attached as Appendix A) gives the Secretary of Transportation authorization to use funds appropriated to carry out this section to conduct research on all phases of highway safety and traffic conditions; conduct ongoing research into driver behavior and its effect on traffic safety; and conduct research on, and evaluate the effectiveness of, traffic safety countermeasures, including best practices for child restraint system use. See 23 U.S.C. 403(a)(1), 23 U.S.C. 403 (a)(2) and 23 U.S.C. 403 (a)(5).

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

This study is a new collection of information. This study will develop and test communication modes and child passenger safety (CPS) messages that aim to increase parents'/caregivers' understanding, perceptions, and behavior in using the best restraint practices in transporting their young children. Based on the outcomes of the two proposed studies, NHTSA will be better able to frame and position the CPS recommendations. .

The newly recommended CPS message content and delivery schemes will be used by NHTSA, State Highway Safety Offices, and other agencies, organizations, and advocates in their public information and education material and through various media (e.g., brochures, pamphlets, websites, billboards, radio and television) in an effort to reach parents/caregivers, child care and health care providers, and other community outreach groups; and provide them with potentially the most influential CPS messages.

**A.3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical or other technological collection techniques or other information technology. Also describe any consideration of using information technology to reduce burden.**

Participants will be asked to arrive at a designated computer lab/center (university lab or commercial learning center) at their appointment time to participate in each of two separate studies. (See Appendix D for a description of the study protocol.) Each study will use a secure web-based study protocol in which participants will view a series of user-friendly screens that will automatically lead them through the informed consent document (detailing the logistics of the study, the study's duration, their rights as a participant, and remuneration for their participation), pretest measures, study materials specific to condition assignment, and post-test measures at the participant's pace. (Appendices D through L detail this information.)

A study assistant will be present at the computer center to assign participants to a computer station, help participants log into each study's website using a secure code, orient them to the process of completing study materials, and answer any questions as they arise. Participants will complete study materials individually, but we are expecting to be able to run as many as 25 subjects simultaneously at different computers in the computer lab/center.

As participants respond to survey questions (detailed in Appendix H), they will simply check off their desired response(s) in the same manner as they would on paper. Manipulation checks (e.g., page and survey view times) will be electronically embedded to ensure that participants attend to the messages and read questions versus randomly choosing answer choices. The data collected from all participants will be anonymous, and no person's name or other personal identifier will be stored with the data (a coding process will be used to link pre-post data that does not identify the participant). The software package used to collect the web-based survey data (e.g., Inquisite) will automatically send the survey responses to a securely housed and password-protected statistical database (with individual cases for participants and separate variables for each data element) for later analysis with SPSS statistical software. The test messages and survey instruments will be developed on a Windows 2008 Server. The user interface will be designed to provide ease of use and data integrity. Coding will be done in ASP.Net and Java Script. The data will be stored securely on a Microsoft SQL database. Biweekly quality controls will be conducted to ensure that data are being collected and coded appropriately. Once all data have been collected, the Eastern Virginia Medical School (EVMS) research team will perform data analysis and archival tasks.

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

As part of this study, a comprehensive literature review task activity was performed. The results of the review found no evidence that this study would be duplicating another study that tested similar CPS messages among a set of parents/caregivers.

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

This study does not involve small businesses or other small entities, hence there will be not impact on these entities.

**A.6. Describe the consequences to Federal Program or policy activities if the collection is not collected or collected less frequently.**

CPS messages that have been scientifically tested for improving knowledge, attitude, and behavior among parents/caregivers are essential to the effective and efficient use of budgeted funds and programmatic activities. Current CPS messages may be improved by explaining the safety rationale behind the advice. Parental understanding of the reasons for each recommendation is central to communicating the vulnerabilities of children and the additional risk exposure that comes with inappropriate restraint use. Perceptions of risk and recognition of personal (or familial) vulnerability are key determinants of behavior change. Since current levels of child restraint use and proper use have not significantly improved over the past few years, it is critical for NHTSA to identify new ways to position and convey CPS messages in order to have the greatest potential to improve the levels of child restraint use and proper use in the nation.

**A.7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with the guidelines set forth in 5 CFR 1320.6.**

No special circumstances require the collection to be conducted in a manner inconsistent with the guidelines in 5 CFR 1320.6.

**A.8. Provide a copy of the FEDERAL REGISTER document soliciting comments on the study, a summary of all public comments responding to the notice, and a description of the agency's actions in response to the comments. Describe efforts to consult with persons outside the agency to obtain their views.**

FEDERAL REGISTER NOTICE: A copy of the Federal Register Notice (Vol. 76, No. 242, Pages 78334-78335) which announced NHTSA's intention to collect this information is provided in Appendix B. No comments were received in response to the Notice. A copy of a second Federal Register Notice (Vol. 77, No. 125, Pages 38710-38711), which announced that this information collection request will be forwarded to OMB, is provided in Appendix C.

**A.9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

Enrolled participants will receive compensation in the form of a \$50 retail store gift card following participation in the study, which is expected to take approximately 60 to 75 minutes. This modest monetary incentive has been used in past research and found to be effective with the target population. The research team has compensated participants in the same manner on previous research projects and found the amount and nature of the compensation appropriate and effective for participants; there were no reported negative issues with this arrangement.

**A.10. Describe any assurance of confidentiality provided to respondents**

During recruitment, the informed consent process, and during active participation, participants will be informed that their name will not be identified on the secure web-based software being used for the study. All data collection and analysis will be computerized and the security of the database will be maintained by password-only access. The test messages and survey instruments will be developed on a secure Windows 2008 Server, and the data will be stored securely on a Microsoft SQL database. No names or other identifiers will be entered with the data; rather a computer-generated code will link pre and post survey data. Only the research team will have access to the password-protected data files. The project director will perform comparative checks to verify accuracy and maintain adherence to the protocol. All data collected will be kept strictly anonymous in accordance with the study protocol and protected within the limits of the law. Non-personal information learned from the study may be used in reports, presentations, and publications but no subject will be personally identified.

**A.11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private.**

The questionnaire requests basic information related to child passenger safety, including common demographics such as age, race, ethnicity, income and education. None of the items are considered sensitive.

**A.12. Provide estimates of the hour burden of the collection of information on the respondents.**

Data collection will involve 540 respondents who will participate in a computer-based testing session (300 for Study 1 and 240 for Study 2). Each respondent will participate once.

NHTSA estimates that the computer-based testing sessions will require an average of 75 minutes (1.25 hours) per 540 participants for a total of 675 hours. The total estimated burden is shown in Table 1.

**TABLE 1  
ESTIMATED BURDEN HOURS**

	<b>Study 1</b>	<b>Study 2</b>	<b>TOTAL</b>
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Respondents	300	240	540
Minutes	75	75	75
Burden Hours	375	300	675

The total number of estimated reporting burden hours a year on the general public would be 675 for the proposed survey. At \$21.74\* per hour, the total annual estimated cost associated with the burden hours is: \$21.74 x 675 hours for a total of \$14,674.50 (see Table 2). Respondents would not incur any other reporting cost from the information collection. In fact, participants will receive a \$50.00 retail store gift card as compensation for their mileage and time.

**TABLE 2.  
COST BURDEN ON RESPONDENTS**

<b>Population</b>	<b>N</b>	<b>Cost per Hour</b>	<b>Length (mins)</b>	<b>Total Cost</b>
Study 1	300	\$21.74	75	\$8152.50
Study 2	240	\$21.74	75	\$6522.00
<b>TOTAL</b>	<b>540</b>	<b>\$21.74</b>	<b>75</b>	<b>\$14,674.50</b>

\*From [http://www.bls.gov/oes/current/oes\\_nat.htm#b00-0000](http://www.bls.gov/oes/current/oes_nat.htm#b00-0000), All occupations, Mean Hourly Wage Estimate; viewed June 26, 2012.

**A.13. Provide an estimate of the total annual cost to the participants resulting from the collection of information.**

Each participant will only be involved once in the program, and will not incur any costs. There is no preparation necessary for the participants in advance of the testing. Participants do not incur any costs relating to the testing operation as a result of participating in the survey.

Each of the approximately 540 participant testing sessions (300 for Study 1 and 240 for Study 2) will last an average of 75 minutes (1.25 hours) including the initial introduction and instruction. Therefore, the annual burden for each participant is 1.25 hours. The estimated annual burden for all participants across the two studies is 675 hours total. The participants would not incur any reporting cost from the information collection; nor any record keeping burden or record keeping cost from the information collection.

**A.14. Provide estimates of the annualized cost to the Federal Government.**

Data collection costs to the Federal Government are based on the contractor’s costs to collect the data using appropriate participant sample sizes to scientifically deduce findings and interpretation of results; as well as complete all other pre-survey (e.g., experimental design plan) and post-survey (data analysis and report writing) tasks necessary to produce a final report publishable by the National Highway Traffic Safety Administration. The contractual amount is \$324,578 for this two year study period. The annualized cost to the Federal Government would be \$162,289.

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

This is a new information collection. As such, it requires a program change to add the estimated 675 hours for the new information collection to the existing burden.

**A.16. For collection of information whose results will be published, outline plans for tabulation and publication.**

Participant responses will be entered into a secure web-based data collection system. Analyses will determine which CPS message(s) produces the maximum desired outcome (e.g., correct CPS restraint selection, increased knowledge of restraints, increased perceptions of efficacy and risk). The data will initially be checked for missing data and outliers and to ensure normality and linearity of all dependent variables. Inferential and descriptive statistical analyses will be performed, including MANOVA or ANOVA (with appropriate post-hoc tests and simple effects analyses), and multiple regression. The results of such analyses will be depicted in graph and table format to effectively communicate the findings. Tabular summaries will also be created to describe the sample and demonstrate frequencies of responses to questions by study condition. (See Appendix D for details)

A report will be prepared and include a description of background, objectives, research methodology, analysis (statistical and descriptive summary methodology), findings, and conclusions (interpretation of findings), and recommendations. An executive summary will also be prepared for the final report. Report findings will be disseminated through internal briefings to NHTSA managers who must make strategic planning decisions regarding program activities and resources, as well as through printed technical reports distributed to traffic safety officials and other interested persons at the national, State and local levels.

In addition, a paper will be submitted to a peer-reviewed journal such as Accident Analysis and Prevention, or Journal of Safety Research, which includes behavioral science research in the field of highway safety.

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

NHTSA will display the expiration date for OMB approval.

**A.18. Explain each exception to the certification statement identified in Item 19, “Certification for Paperwork Reduction Act Submissions” of the OMB Form 83-I.**

No exceptions to the certification are made.