

**Supporting Statement for Fuel Economy, GHG, Other  
Emissions, and Alternative Fuels Education Program  
Quantitative Materials Testing Research Plan**

**Section A**

**August 5, 2015**

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## A. Justification

The Energy Independence and Security Act of 2007 (EISA) added a requirement to develop Consumer Information and Consumer Education programs to raise consumer awareness about certain aspects of vehicle fuel economy and alternative fuel use (*see* 49 U.S.C. § 32908<sup>1</sup>). Under EISA, the National Highway Traffic Safety Administration (NHTSA), in consultation with the Department of Energy (DOE) and the Environmental Protection Agency (EPA), is required to develop and implement by rule a consumer education program to improve consumer understanding of automobile performance in terms of fuel economy, greenhouse gas (GHG) emissions, and other emissions, and also to inform consumers of the benefits of using alternative fuels in automobiles and the location of stations with alternative fuel capacity. Separately, EISA also requires NHTSA to establish a consumer education campaign about the fuel savings that would be recognized from the purchase of vehicles equipped with “thermal management technologies,” including energy efficient air conditioning systems and glass.

In 2011 and 2012, NHTSA conducted consumer research in support of developing a CIP as defined in EISA on the topics of fuel economy, GHGs and other emissions, thermal management technologies and alternative fuels. NHTSA first conducted qualitative research to explore what consumers know, what they need to know in order to make informed purchase and behavior change decisions, and what issues they care most about when reviewing content about fuel economy, alternative fuels, GHGs and other emissions, and thermal management technologies.

In a follow-up quantitative study, NHTSA tested consumer comprehension of related information that already exists on various online government sources, including the impact of various driving and vehicle maintenance behaviors on a vehicle’s fuel economy and the benefits and drawbacks for select alternative fuels.

To test understanding of the impact behaviors have on a vehicle’s fuel economy, respondents were presented with certain actions, such as “maintaining a constant speed,” “driving with a full trunk or truck bed,” etc., and asked to rate the impact each behavior has on a vehicle’s fuel economy using a one to seven scale where one meant that the item has a very negative impact on fuel economy (fewer miles per gallon), four meant the item has no impact on fuel economy and seven meant the item has a very positive impact on fuel economy (more miles per gallon). To test comprehension of the benefits and drawbacks of certain alternative fuels, respondents were asked their level of agreement with statements such as “a vehicle that runs on alternative fuels helps improve the air quality in my town or city” and “a vehicle that runs on alternative fuels helps support economic development in the U.S.” All statements used in the study were obtained from government sources.

In addition to assessing consumer knowledge, NHTSA also used this survey to test potential advertising concepts on their ability to incite interest in the topics covered and to encourage visits to SaferCar.gov. Respondents viewed animated advertisements in a random order and evaluated each on believability, relevance, uniqueness and likelihood to visit SaferCar.gov after viewing.

Specifically, five advertisements were tested covering the following topics:

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<sup>1</sup> A full text copy of this code is included with this package as Appendix A. Also, included as a separate appendix is a copy of the relevant section of 49 U.S.C. § 32908 as Appendix B for easy reference.

- Sudden starts and stops waste fuel
- Regular vehicle maintenance can save money and reduce CO2 emissions
- Energy efficient glass can make your vehicle more fuel efficient
- Alternative fuel powered-vehicles often use renewable fuel sources that can be produced in the U.S.
- Every gallon of fuel burned produces GHG emissions

#### *Findings from Previous Message Testing Research*

Through the qualitative research, NHTSA found that consumers have a general sense of the behaviors that impact fuel economy, but are often misinformed or under-informed on the actions they can take to improve their fuel economy. Much of the information they have gathered about fuel economy has come from word-of-mouth sources, such as family members or their mechanic. And, while consumers understand the importance of saving fuel, there are barriers to actual behavior change: personal driving habits, regional differences and perceptions of potential cost savings. Consumers are interested in learning more about the things they can do to improve their fuel economy, but are more likely to act if the cost savings are significant.

The results of the quantitative study confirmed much of what was found through qualitative discussions with consumers. Eighty percent of consumers surveyed agreed that the way they drive impacts their vehicle's fuel economy and most are able to correctly identify which behaviors improve fuel economy and which decrease fuel economy; however, there are some misconceptions. For example, 29 percent of respondents believe using the recommended motor oil in a vehicle has no impact on fuel economy, while according to the EPA, you can improve your fuel economy by one to two percent by using the manufacturer's recommended grade of motor oil.

When asked which of the five topics (i.e. driving behavior tips, vehicle maintenance tips, alternative fuel information, thermal management technology information and information about GHGs and other emissions) are most interesting, consumers surveyed were most likely to select driving behavior or vehicle maintenance tips. They are interested to learn things they can employ to effectively save fuel. Furthermore, the survey results suggest that tangible, personal benefits such as saving money and reducing trips to the pump motivate consumers to seek out additional information or potentially change their behaviors.

This previous research was used to inform the development of a strategic plan for the consumer information program.

### *Qualitative Materials Testing Focus Groups*

As NHTSA develops content and materials related to the consumer information program, it is important to test these materials to ensure they are effective at providing the statutorily-required, important information about fuel economy, GHG emissions, other emissions, and alternative fuels. The previous research provided some data helpful in informing draft development of these materials, such as by identifying relevant knowledge gaps among consumers and which topics they might find most interesting and compelling. To continue to inform campaign development, NHTSA began a new round of research in 2014 to identify any refinements needed prior to finalizing the proposed campaign direction and NPRM content. The purpose of this research was to ensure that NHTSA's communication efforts utilize materials that are interesting, appealing, and easy to comprehend, while meeting the statutory objectives.

Specifically, NHTSA began this phase of research by conducting qualitative focus group research guided by the following objectives:

1. Explore consumer knowledge of fuel economy, GHG emissions and other emissions, and alternative fuels information and perceptions of information currently available.
2. Test materials and content developed to assess consumer comprehension and likelihood to encourage behavior change.

The materials that were tested in this research included the following:

- Fact Sheet
- Interactive infographic blueprint
- Driving video game user experience brief
- Video storyboard with script
- Campaign taglines

Through the feedback gathered in this focus group research, NHTSA was able to identify three material types with which to move forward: online fact sheets, interactive infographic and video content. The agency also obtained guidance on refinements to the draft materials that were tested.

The final reports from previous consumer research conducted on behalf of this program are included with this package as Appendix C.

### *Proposed Research*

As we are working to finalize the campaign, NHTSA is seeking approval to conduct one final round of testing for the final or near-final materials in support of this consumer education program. The goal of this research is to confirm that the elements of the campaign are as effective as possible at educating consumers on these important topics.

Specifically, the objectives guiding this research are as follows:

1. Gather updated data on consumer knowledge of and opinions related to fuel economy, GHG emissions and other emissions, and alternative fuels information and perceptions of information currently available.
2. Develop an understanding of the current channels drivers are using to obtain information on vehicles, fuel economy to inform communications planning.
3. Test materials and content developed to assess consumer comprehension and perceived usefulness.
4. Use quantitative data cuts to guide communications planning and targeting of materials.

We recommend conducting an online survey with 2,000 respondents. For the purposes of this study, it is sufficient that the sample be a convenience sample utilizing quotas as long as it is diverse in terms of drivers' gender, age and region. We will not seek to generalize results to the broader population.

To ensure we are collecting data from a relevant audience, survey respondents will be screened based on the following criteria:

- Respondents must be 18 years or older.
- Respondents must currently possess a valid driver's license.
- Respondents must be the primary or a shared decision maker for vehicle purchases and/or vehicle maintenance in their household.

We recommend providing the survey in English only as the materials that will be evaluated are only available in one language. By providing the survey in additional languages, we risk having materials evaluated by consumers who do not understand the language presented. A draft of this survey instrument is provided in this package as Appendix D.

The following sections describe the justification for this proposed consumer research plan in detail.

**A1. 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.**

*Consumer Information, Consumer Education, 49 U.S.C. § 32908 (g)(2):*

EISA requires NHTSA to develop and implement through rulemaking a consumer education program to provide information about fuel economy, GHG emissions, other emissions, alternative fuels, and thermal management technologies.

The specific objectives of the education program, as stated in EISA, are to:

- Improve understanding of automobile performance on the basis of fuel economy and greenhouse gas emissions and other pollutant emissions over the useful life of the vehicle;
- Inform consumers of the benefit of using alternative fuel in automobiles;
- Inform consumers about locations of stations with alternative fuel capacity; and,
- Educate consumers about fuel savings that would be recognized by purchasing a vehicle equipped with thermal management technologies (*e.g.*, energy-efficient air conditioning systems and glass).

In order to effectively achieve the objectives of the consumer education program and fulfill its statutory obligations, NHTSA is requesting to conduct quantitative research with consumers to ensure the materials being developed on behalf of this program are relevant, understandable, and compelling to consumers. The research will allow NHTSA to ensure consumer-facing communications are useful and comprehensible so as to finalize a communications plan for this consumer information program.

The National Traffic and Motor Vehicle Safety Act of 1966, Title 15 United States Code 1395, Section 106 (b), gives the Secretary authorization to conduct research, testing, development, and training as authorized to be carried out by subsections for this title. The Vehicle Safety Act was subsequently re-codified under Title 49 of the U.S. Code in Chapter 301, Motor Vehicle Safety. Section 30168 of Title 49, Chapter 301, gives the Secretary authorization to conduct research, testing, development, and training to carry out this chapter.

**A2. 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.**

The purpose of this consumer research is to gather critical information that will allow NHTSA to fulfill its role in educating consumers about fuel economy, GHG emissions, other emissions, alternative fuels, and thermal management technologies pursuant to EISA. The findings from this proposed research will assist NHTSA in ensuring that the materials used in this campaign contain the relevant content that is easily comprehended by consumers so that they are aware of the behaviors that affect a vehicle's fuel economy and the alternative fuels and technologies that are available that may improve their vehicles' fuel economy and lower emissions.



The research will be used to inform the finalization of campaign materials aimed at increasing awareness and improving comprehension about vehicle fuel economy, GHG emissions and other vehicle emissions, as well as alternative fuels. This research plan leverages the findings from the previous formative research NHTSA conducted. NHTSA will take appropriate steps to avoid unnecessary duplication.

The findings from this quantitative research will be used by the Office of Communications and Consumer Information (OCCI) to inform the final campaign as well as content decisions for relevant web-based communications.

**A3. Describe whether, and to what extent the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting the electronic submission of responses, and the basis for the decisions for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.**

This data collection will be completed using an online survey in order to facilitate the evaluation of graphical and video storyboard content developed for this communications campaign. This functionality is not possible through a random digit dial telephone survey. As a result of this need to use an online survey methodology, this data collection will use a convenience sample: self-selected U.S. licensed drivers who have some responsibility for vehicle-related decisions in their household. For the purposes of this study, it is sufficient that the sample be a convenience sample as long as it is diverse in terms of drivers' gender, age, and region; quotas will be implemented to ensure this diversity.

Because the study is not a probability-based sample, there is no statistical basis to derive unbiased estimates representative of the target population, U.S. passenger vehicle drivers, or to estimate sampling error. However, NHTSA believes that the benefits offered by an online survey, including the ability to present respondents with actual examples of campaign content, outweigh the disadvantage of potential respondent bias that arises from using a convenience sample.

Details on the recruitment of respondents for this online survey are available in Section B of this information collection request.

**A4. 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.**

NHTSA researchers have extensively reviewed recent studies pertaining to the Fuel Economy program. NHTSA has leveraged the findings of previously conducted research in order to guide the development of the consumer education campaign materials. This new collection will provide insights into the usefulness of materials being developed for this education campaign and how well the information is comprehended by consumers. NHTSA is mindful of the information that has already been collected from consumers through our own and EPA's efforts and has worked with parties within NHTSA and other agencies and third-party partners to ensure all questioning is relevant, useful and puts no undue burden on respondents.

**A5. If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83-I), describe any methods used to minimize burden.**

The collection of information will not impact small businesses.

**A6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

EISA includes a requirement to develop Consumer Information and Consumer Education programs to raise consumer awareness about certain aspects of vehicle fuel economy and alternative fuel use. This exploration will help confirm the usefulness and effectiveness of the content that has been developed for this campaign so that NHTSA can make final decisions on material refinements and communications placements in order to fulfill this requirement.

Without exploring these themes with consumers, NHTSA risks developing a consumer education program that is neither relevant nor effective, which would seem to obviate Congress' purpose in requiring one.

**A7. Explain any special circumstances that would cause an information collection to be conducted in a manner that is not consistent with the guidelines 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.

**A8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments.**

NHTSA published a notice for public comment for this information collection to the Federal Register on January 2, 2015 (80 Fed. Reg. 99). No comments were received during this time. NHTSA published a 30-day notice for public comment for this information collection to the Federal Register on July 30, 2015 (80 Fed. Reg. 45577). No comments have been received to date.

**A9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

Respondents for this study will not be offered cash incentives provided directly by NHTSA. Online research panel members are provided with non-monetary benefits, such as points to be used within the panel, access to forums, and other panel-sponsored discussion opportunities as a thank you for participating in various studies. This incentive management is included as one part of the cost per response figure noted in item A14. We would estimate the monetary equivalent of the points received for this particular study would be about 10-15% of the cost per response, or approximately \$.60 per response.

**A10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation or agency policy.**

For the purposes of this collection, respondents will only be identified by a unique ID number, which assures there will be no duplicate responses. NHTSA will not collect any personal information, such as name, address or telephone number. An assurance of confidentiality will be provided to respondents through the introduction to the survey. This text will appear prior to the respondents answering any survey questions. The introductory text for this study will read as follows:

Thank you for agreeing to participate in this online study. The survey will take about 20 minutes to complete.

This study is being conducted on behalf of the National Highway Traffic Safety Administration (NHTSA). This collection of information is voluntary and will be used for Fuel Economy, GHG, Other Emissions, and Alternative Fuels Education Program Quantitative Materials Testing Research. We will not collect any personal information that would allow anyone to identify you. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2127-XXXX.

Public reporting for this collection of information is estimated to be approximately 20 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590.

**A11. 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.**

This research will not include any questions of a sensitive or private nature.

**A12. Provide estimates of the hour burden of the collection of information.**

The online survey will take approximately 20 minutes for respondents to complete and will require 2,000 participants. NHTSA plans to administer this study one time.

Therefore, the total annual estimated burden imposed by this collection of information is approximately 666.67 interviewing hours.

**Table 1. Hour Burden Summary**

	<u>Total Respondents</u>	<u>Minutes Per Person</u>	<u>Total Hours</u>
<b>Online Survey</b> (Online Survey Completes)	2,000	x 20	= 666.67

The maximum total input cost, if all respondents were interviewed on the job, is estimated as follows:

$$\$16.87 \text{ per hour}^2 \quad \times \quad 666.67 \text{ interviewing hours} \quad = \quad \$11,246.67$$

**A13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information.**

There are no record keeping or reporting costs to respondents. Respondents who are members of an online panel of U.S. consumers will be contacted and asked to participate in the study. All responses are provided spontaneously. Each respondent only participates once in the data collection. Thus there is no preparation of data required or expected of respondents. Respondents do not incur: (a) capital and startup costs, or (b) operation, maintenance, and purchase costs as a result of participating in the survey.

**A14. Provide estimates of annualized costs to the Federal government.**

*Direct Costs*

The following costs are associated with conducting an online survey as described in this justification document:

**Table 2. Direct Costs**

<b>Item</b>	<b>Unit Rate</b>	<b>Units</b>	<b>Total</b>
Online Survey Cost per Interview	\$6.00	2,000	\$12,000
Programming & Hosting	\$3,500	1	\$3,500
Data Processing	\$4,000	1	\$4,000
<b>Total</b>			<b>\$19,500</b>

<sup>2</sup> From Bureau of Labor and Statistics' median hourly wage (all occupations) in the May 2013 National Occupational Employment and Wage Estimates, Last Modified April 2014

*Research Partner Hours*

Staff time for our research partners is calculated using negotiated per hour billing rates. The hours estimated here are based on hours needed for past quantitative projects of a similar scope. These hours include time needed for survey preparation and execution, data analysis, and reporting.

**Table 3. Partner Hours**

<b>Level</b>	<b>Labor Hour Rate</b>	<b>Estimated Hours</b>	<b>Estimated Total Costs</b>
Vice President	\$210	55	\$11,550
Account Supervisor (Senior Project Manager)	\$155	100	\$15,500
Senior Account Executive (Project Manager)	\$125	50	\$6,250
Assistant Account Executive (Research Assistant)	\$100	100	\$10,000
<b>Total Partner Staff Time</b>			<b>\$43,300</b>

The total estimated cost for this quantitative research program is **\$62,800**.

**A15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I.**

This is a new information collection for testing fuel economy communications materials, resulting in a program change of adding 667.67 burden hours to NHTSA’s overall total.

**A16. For collections of information whose results will be published, outline plans for tabulation and publication.**

Through data processing, we will analyze the total data gathered from the sample of respondents. We will also use cross tabulations to analyze summary statistics and coded open-ended responses across demographic groups to explore any apparent differences; this analysis will provide NHTSA with the ability to make informed decisions about communications relevant to this initiative.

In addition to cross-tabulations, data processing will include the development of click-frequency heatmaps for graphical evaluations.

NHTSA expects to receive an interim report from the research contractor within one week of the completion of survey fielding. This will provide top line results of the survey along with findings gathered from an initial look at the data. After a more detailed analysis, a final report will be delivered two weeks after the survey has completed fielding.

The results of this research study are to be used for internal planning purposes as well as support for any recommendation changes to the final consumer education campaign that will be rolled out by NHTSA. At this time, there are no plans for further publication of the research results.

While the actual dates for this collection will be dependent on the date of OMB approval, we can expect the following timeline for this research:

Week 1	Research Approved Survey Programming & Quality Assurance
Week 2	Survey Launches
Week 3	Survey Fielding Completes
Week 4	Data Processing Data Analysis and Reporting
Week 5	Final Report Completed

**A17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

We do not seek approval to not display the expiration date for OMB approval for this research plan.

**A18. Explain each exception to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submissions," of OMB Form 83-I.**

No exceptions to the certification are required for this research plan.