

Advanced Crash Technologies Qualitative Research

Supporting Statement

March 10, 2014

Section A

A. Justification

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.

As part of NHTSA's mission to save lives, prevent injuries and reduce traffic-related health care and other economic costs, the Crash Avoidance Research Program was created to facilitate the development, deployment, and evaluation of safety products and systems. Among other things, this involves research into the science of crash avoidance to enable the development of safety-enhancing products.

As these new technologies roll out, NHTSA will establish the safety goals for crash avoidance technologies, develop performance guidelines and specifications for these systems, evaluate the safety performance of such systems, and work with industry to demonstrate the most promising ones and to facilitate their deployment in the marketplace. To aid this effort NHTSA is seeking approval to conduct exploratory qualitative consumer research to help ensure the systems that we are promoting are important and usable to consumers, and the information we provide leads to consumer understanding of the benefits of these technologies so that they may make informed decisions.

Specifically, this research program is guided by the following objectives of this research:

- 1) Explore consumer familiarity with and understanding of crash avoidance technologies;
- 2) Explore potential nomenclature and methods through which NHTSA can communicate information about crash avoidance technologies;
- 3) Guide considerations for design modifications of current NCAP label to include information about crash avoidance technologies;
- 4) Guide the development of a consumer information program to improve awareness and understanding of crash avoidance technologies.

***Crash Avoidance Technologies
to Include in Research***

- Lane Departure Warning (LDW)
- Forward Collision Warning (FCW)
- Rearview Video Systems (Backup Camera)

As NCAP is responsible for providing consumers with important safety information that will assist them in their vehicle purchase decisions, this qualitative research will be a first step in gathering consumer data

to help the agency communicate vehicle safety and the related new technologies to consumers. The findings of this research, along with the findings from previously conducted qualitative research on the Monroney label, will be used to inform a quantitative study to provide reliable data on which to base communication strategies and design decisions for the NCAP section for the Monroney label.

For this phase of the research, NHTSA is proposing to conduct three (3) consumer focus groups each in three (3) cities across the country (New York City metro area, San Francisco, Houston):

1. Two groups will comprise general consumers who are recent new vehicle purchasers and those who are intended purchasers (i.e., plan to purchase in the next 12 months), with one male group and one female group per city. The screening criteria for this study is identical to that of the focus groups NHTSA conducted to explore the Monroney Label and potential changes to the NCAP section. These previous groups included a brief exploration of crash avoidance technologies and maintaining consistent screening criteria will allow us to build upon this research, without unnecessary duplication.
2. One group per city will comprise parents of tweens and teens who are recent or intended new vehicle purchasers. These consumers may have a unique perspective regarding vehicle safety and crash avoidance technologies as their children prepare to become or have just become licensed drivers. They are a key target consumer for many of these technologies as they seek vehicles that are safe for their children to drive. As discussions with this group will explore these technologies with regard to respondents as well as their teenage drivers, this group will include both mothers and fathers.

The screener for these focus groups is included in this ICR package as Appendix A.

In addition to conducting research with consumers in these markets, NHTSA is also looking to conduct two 30-minute in-depth interviews per city with new vehicle dealers. We will also conduct two local dealer in-depth interviews in the Washington, D.C. metro area, for a total of eight interviews. Dealers are the front line of communications with consumers when it comes to the safety of new vehicles. They have inside knowledge of communicating vehicle safety information to consumers and can provide a unique perspective on the language and channels we use to promote these technologies. Holding interviews with this audience will also provide NHTSA the opportunity to qualitatively test among key sources of vehicle information ideas for how this information can be conveyed or displayed to enhance consumer knowledge.

The discussion guide for this research is included in Appendix B and a sample workbook for use in the focus groups is included in Appendix C. The same discussion guide will be used for all focus groups and interviews and specifies which questions are applicable for dealers, consumers or both.

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

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. The full text is included in this package as Appendix D.

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 research is to obtain critical information that will allow NHTSA and NCAP to fulfill a congressional mandate to improve highway traffic safety. Specifically, the data from this collection will be used to guide communications that enhance consumer understanding of advanced crash avoidance technologies and the development of materials that will help consumers as they factor these technologies into their purchase decision. The findings from this proposed research will assist NHTSA in ensuring that the information developed by NCAP is comprehended by consumers and provides them with useful information. This research, along with previously conducted qualitative research, will also help to inform a quantitative survey that will explore potential redesigns for the NCAP section of the Monroney label.

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 qualitative data collection will be completed face-to-face, in a group setting. A face-to-face setting is the best approach for this exploratory phase of research as it will facilitate a deep conversation about each of the research objectives. The discussion will be helpful in gaining an understanding of consumer familiarity with and understanding of crash avoidance technologies and their perceptions, opinions, and beliefs regarding relevant communications efforts. Video and audio recordings of these discussions will be available to assist in transcription and report writing, but no other automated technologies will be used in this phase. Group participants will be informed of all technologies in use prior to the discussion.

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 reviewed a 2007 study that sought to explore consumer preferences as it relates to displays designed to rate these technologies. In addition to testing new technologies other than those covered in the 2007 study (e.g., rearview video systems) NHTSA is using this new collection to go beyond exploring preferences and identify the most effective methods for enhancing consumer understanding and helping consumers make informed purchase decisions. Reports from the 2007 study are included as Appendix E of this submission.

In addition, every effort has been taken to use the findings from the 2012 Monroney Label Research Study, conducted by NHTSA, in developing this research package. As these two related studies will both

help to inform potential design changes to the NCAP section of the Monroney label, we have reviewed the previous discussion guide so as not to unnecessarily duplicate lines of questioning.

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.

This item does not apply to the qualitative research plan.

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.

As an agency responsible for updating the standards upon which vehicle safety is communicated, NHTSA is relying on consumer data to develop communications and educational and informative messages that are comprehended by consumers, are useful to their purchase decisions, and help make the highways safer by encouraging consumers to purchase safer vehicles. Without timely, accurate information on consumer familiarity with and understanding of crash avoidance technologies available on today's vehicles, it will be impossible to identify the most effective methods for communicating this safety information to vehicle-buying consumers.

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.

NHTSA published the notice requesting public comment on the proposed collection of information to the Federal Register on January 11, 2013. One comment was received from Agero, Inc, which expressed support for this research plan. Specifically, Agero requested NHTSA explore technologies such as advanced automatic crash notification (already included in this plan) and other technologies to determine how best to provide consumers with meaningful, useful information. They have also requested exploring standard nomenclature, communication channels and the potential impact that including technologies on the Monroney Label has on a consumer's likelihood to seek more information – all of which are goals for the focus group research. Additional comments pertaining to an exploration of the entire Monroney Label will be considered for a future quantitative study on this topic, which is to be informed by this research and a previous research program.

Previous to this collection, NHTSA submitted an information collection request for a research plan exploring the Monroney label and, specifically, potential changes to the NCAP section of the label. When sent for public comment, NHTSA received two comments in support of this information collection request – one each from Motor & Equipment Manufacturers Association (MEMA) and Robert Bosch, LLC (Bosch).

In these comments, both parties expressed particular interest in additional research surrounding crash avoidance technologies. Bosch has advocated for the creation of 5-star ratings for crash avoidance technologies and for the placement of this information on the Monroney label. They suggested NHTSA explore consumer interest in a 5-star rating versus a check mark, consumer reactions to various placements on the Monroney label and consumer’s confidence in technologies if they are included as part of the NCAP section of the Monroney label.

Like Bosch, MEMA has recommended NHTSA explore the impact of where crash avoidance technologies information is included on the Monroney label as well as the use of universal nomenclature to describe these technologies.

All the recommendations provided in these comments were considered during the development of the focus group discussion guide.

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

Research participants are provided a cash honorarium as compensation for their time. This honorarium is provided as an incentive for participants to take the time to travel to the focus group facility and participate in the discussion (therefore minimizing participant out-of-pocket expenses), as well as a sign of appreciation for their thoughts and opinions. The amount necessary for the honorarium varies by market, level of screening criteria and difficulty of obtaining participation from certain target participants. Given the general consumer nature of these groups and required participants, recommended honorariums can be as high as \$150 for their time depending on the market.

With these considerations in mind, NHTSA will work with local facilities and the new vehicle dealers to accommodate the \$75 incentive limit.

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

For this qualitative research, any personal information, such as name and telephone number will strictly be used for the purposes of recruitment or conducting interviews. Participants will be face-to-face with the moderator, and NHTSA team members will observe the focus groups, but privacy will be protected to the extent of the law.

Prior to the start of the discussion, the moderator will assure participants that their responses are kept private to the fullest extent of the law and that they will not be personally identified in the report or documentation resulting from the research. Throughout the discussion, participants will only be identified by first name and any video or audio recordings of the focus groups or interviews will be in the sole possession of NHTSA.

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.

For the focus group phase of this collection, NHTSA plans to conduct a total of 9 focus groups, each lasting approximately two hours. In each group, 8 participants will be seated. Therefore, a total of 72 people will participate in the group sessions. For recruiting of these participants, however, a total of 108 potential participants (12 per group) will be recruited via telephone screening calls, which are estimated to take 10 minutes per call. Based on experience, it is prudent to recruit up to 12 people per group in order to ensure at least 8 will actually appear at the focus group facility at the appointed time.

Thus, the total burden per person actually participating in this research is estimated to be 130 minutes (10 minutes for the screening/recruiting telephone call plus 120 minutes in the focus group discussion session). Additionally, the total burden per person recruited (but not participating in the discussions) is 10 minutes.

Therefore, the total annual estimated burden imposed by this portion of the collection is approximately 162 hours.

Focus Groups	No. of Participants	Hours per Person	Total Participant Hours
Focus Group Recruiting	108	1/6 Hour (10 minutes)	18
Focus Groups in 3 Cities	72	2	144
Total	180		162

NHTSA also plans to conduct eight 30-minute dealer interviews. Accounting for recruiting and interviewing time, the total annual estimated burden imposed by this portion of the collection is approximately 8 hours.

Dealer Interviews	No. of Participants	Hours per Person	Total Participant Hours
Interview Recruiting	24	1/6 Hour (10 minutes)	4
Interviews 3 Cities	8	1/2 Hour (30 minutes)	4
Total	32		8

In total, the annual estimated burden imposed by this collection of information is approximately 170 hours. The maximum total input cost, if all respondents were interviewed on the job, is estimated as follows:

$$\text{\$16.71 per hour}^1 \quad \times 170 \quad \text{\$2,840.70}$$

Focus Groups and Dealer Interviews	Total No. of Participants	Total Participant Hours
Recruiting, focus groups, dealer interviews	132	170

¹ From Bureau of Labor and Statistics' median hourly wage (all occupations) in the May 2012 National Occupational Employment and Wage Estimates, Last Modified November 2013

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

The only cost burden consumer respondents will experience are the costs related to travel to and from focus group facilities. These costs are minimal and will ultimately be offset as focus group participants will be provided a cash honorarium (detailed in items A9 and A14). In terms of cost burden for dealer respondents, we must also factor in the time spent away from work, particularly since these individuals work on commission. For this reason, we recommend offering a higher incentive for this “expert” group.

Assuming respondents travel a maximum of 60 miles round-trip to and from the facility, the total maximum travel costs would be:

City	Maximum Participants Per Group	Maximum Total Participants	Maximum Miles Traveled	IRS Standard Mileage Rate²	Total Mileage Costs
Focus Groups in 3 Cities	12	108	60	\$0.56/mile	\$3,628.80

Focus group participants generally travel far less than 30 miles one-way to participate and ultimately travel costs vary per person. This serves as an estimate of the maximum costs that respondents could be expected to incur.

Dealer interviews will take place at the dealership and thus no additional costs will be incurred by respondents.

There will be no record keeping or reporting costs to respondents.

² From Internal Revenue Services’ 2014 Standard Mileage Rate for business miles driven.

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

The costs associated with the qualitative phase of this research include direct costs such as facility rental, technology use (i.e., audio and video recordings), participant incentives, and staff travel.

Focus Group Facility Rental & Technology

Expense	Unit Cost	Total Units	Total Cost
Facility Rental	\$550 (per group)	9	\$4,950
Video & Audio Recordings	\$200 (per group)	9	\$1,800
Transcription	\$200 (per group)	9	\$1,800
Additional Facility Expenses (For incidentals like food, copies, shipping costs, etc.)	\$400 (per group)	9	\$3,600
Total Facility Costs			\$12,150

Research Incentives & Recruitment Costs

City	Estimated Unit Cost	Participants Per Group	Total Groups	Total Participants	Total Costs
Consumer Recruitment Costs (All Cities)	\$125	12	9	108	\$13,500
Dealer Recruitment Costs (All Cities)	\$150	1	8	8	\$1,200
Respondent Incentives (Consumer Research)	\$75	8	9	72	\$5,400
Respondent Incentives (Dealer Research)	\$75	1	8	8	\$600
Total Recruitment and Incentive Costs					\$20,700

Staff Travel

For a 3-city focus group plan, we estimate the costs of staff travel to be approximately \$3,000 per person. This figure includes airfare, hotel room, ground transportation, and other incidental expenses.

All staff travel will be billed to this project at cost and utilize government travel guidelines. Actual costs may vary and are dependent on dates of travel and research schedule.

Partner Hours

Staff time for our research partners is calculated using per hour billing rates. The hours estimated here are based on hours needed for past qualitative projects of a similar scope. These hours include time needed for screener and discussion guide finalization, group moderating, data analysis and reporting, as well as meetings and conference calls with the NHTSA team.

Level	Labor Hour Rate	Estimated Hours	Total Costs
Senior Vice President	225	120	\$27,000
Research Director (Senior Account Supervisor)	155	160	\$24,800
Research Assistant (Assistant Account Executive)	100	150	\$15,000
Total Partner Staff Time			\$66,800

NHTSA estimates the total cost of this focus group research to be **\$99,650**, which does not include NHTSA staff travel cost. The final cost will be dependent on actual direct costs, the number of NHTSA and partner staff that will be required to travel to each focus group location, and actual staff hours required.

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 research project resulting in adding an additional 170 burden hours to NHTSA’s overall total.

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

NHTSA expects to receive interim reports from our research partners following the first focus group city, with a follow-up report delivered one week after focus group completion. A final focus group report will be delivered two weeks after all focus groups are completed. Additionally, NHTSA will plan to meet with research partners between focus groups to discuss key findings, evaluate the success of the groups, and make any necessary adjustments to the discussion guide.

Below is the anticipated timeline for data collection. Final dates of deliverables will be dependent on the date of OMB approval.

Date	Research Activity
Week 1	<ul style="list-style-type: none"> • ICR package approval received • Focus group facilities contracted • Recruitment begins
Week 2	<ul style="list-style-type: none"> • Recruiting continues • Focus groups held in first city • Dealer interviews begin
Week 3	<ul style="list-style-type: none"> • Focus groups held in final cities • Dealer interviews continue
Week 4	<ul style="list-style-type: none"> • Dealer interviews continue • Focus groups and interviews transcribed • Analysis begins
Week 5	<ul style="list-style-type: none"> • Analysis continues
Week 6	<ul style="list-style-type: none"> • Final qualitative report delivered, including transcripts, video files and any other materials collected or created

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.