

Older Driver Research Feasibility Study

ACTIVE

Contract Opportunity

Notice ID

693JJ922R000005

Related Notice

693JJ922R000005

Department/Ind. Agency

TRANSPORTATION, DEPARTMENT OF

Sub-tier

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Office

693JJ9 NHTSA OFFICE OF ACQUISITION

General Information View Changes

- **Contract Opportunity Type:** Solicitation (Updated)
- **All Dates/Times are:** (UTC-05:00) EASTERN STANDARD TIME, NEW YORK, USA
- **Updated Published Date:** Dec 20, 2021 09:14 am EST
- **Original Published Date:** Dec 06, 2021 07:10 pm EST
- **Updated Date Offers Due:** Jan 21, 2022 02:00 am EST
- **Original Date Offers Due:** Jan 07, 2022
- **Inactive Policy:** Manual
- **Updated Inactive Date:** Dec 12, 2022
- **Original Inactive Date:** Dec 12, 2022
- **Initiative:**
 - None

Classification

- **Original Set Aside:**
-
- **Product Service Code:** R410 - SUPPORT- PROFESSIONAL: PROGRAM EVALUATION/REVIEW/DEVELOPMENT
- **NAICS Code:** 541611 - Administrative Management and General Management Consulting Services
- **Place of Performance:**

Washington , DC 20590

USA

DescriptionView Changes

AMENDMENT 0002 DATED 12/20/2021, amends F.3.1 Milestones/Deliverables Schedule, F.4 Place of Delivery and L.3 Proposal Submission. Additionally, amendment 0002 provides questions and NHTSA's responses.

L.3 Proposal Submission

3. When/Where/How Many To Submit: It is preferred that Offerors submit the technical and business proposals via e-mail to: NHTSAOAM@dot.gov and David.Larson@dot.gov to the attention of David Larson, Contract Specialist, and reference the Solicitation Number 693JJ922R000005 in the subject line. NHTSA cannot receive email messages containing a ZIP attachment. The file will be removed, as all ZIP files are blocked. Other file types (e.g.Word, PowerPoint, PDF, etc.) can be received. The Business Cost Proposal spreadsheets should be interactive so that the Contract Specialist can verify the calculations used to obtain the final cost. **The Proposals are due no later than 2:00 PM ET January 21, 2022.**

BACKGROUND

The National Highway Traffic Safety Administration (NHTSA) is an agency of the U.S. Department of Transportation (DOT). NHTSA's mission is to save lives, prevent injuries, and reduce traffic-related health care and other economic costs. The agency develops, promotes, and implements educational, engineering, and enforcement programs with the goal of preventing tragedies and reducing economic costs associated with vehicle use and highway travel.

NHTSA has been directed by Congress to explore the efficacy of smart phone apps as an intervention for older drivers. Congressional staff expressed a particular interest in Road Coach, a smart phone app originally developed to reduce risky driving in teens, based on findings from *Older Driver Support System Field Operational Test* (Libby, D., Morris, N. L., & Craig, C. M., 2019)[1] that tested effects of the app on a sample of 28 participants with an average age of 69.5. Libby and colleagues reported that RoadCoach use resulted in reduced hard braking events and stop sign violations. Participants' attitudes toward RoadCoach were generally positive, but some noted that the app's setting for hard braking and stop sign running were too sensitive. While RoadCoach may prove beneficial to older drivers, NHTSA is concerned that an app that provides in-vehicle assistance could pose a distraction to the oldest drivers and that the behaviors the app addresses are not well matched to the behaviors that contribute to crashes among the oldest drivers.

This contract will document the way that the RoadCoach system used by Libby et al., as well as similar smart phone apps, provide support to drivers, including how they determine when to alert the driver to a potentially risky behavior, the information provided to the driver, and the way the information is provided (e.g., visual, auditory). The project will also involve conducting a literature review that explores the kinds of errors most likely to result in crashes among two groups of drivers: those 18-25 (young adult) and those 75 older (older adult). The literature review will be accompanied by an analysis of NHTSA's Crash Report Sampling System (CRSS) data to determine specific driving errors associated with crash contribution among young adult and older adult drivers. These activities will inform a final report that maps RoadCoach's and the other apps' features on to the errors associated with crashes among young adult and older adult drivers.

OBJECTIVE

The objective of this contract is to provide a thorough description of the RoadCoach app's functions, specifically how the system detects and alerts drivers to risky behaviors, identify and describe other driver support smart phone apps, conduct a literature review and crash data analysis to identify driving behaviors commonly associated with crashes among young adult, and older adults drivers, and report the findings in a report that discusses the likelihood that each identified system would be effective in reducing risky driving behaviors among these cohorts of drivers. Because the app was initially developed to reduce risk for teen drivers, the study will also include similar research on teen and young adult drivers.

GENERAL REQUIREMENTS

The Contractor shall:

1. Document RoadCoach's functions through describing specific conditions that trigger the sensors, the information the system provides to the driver, and how the system provides this information in terms of feedback timing and modality. This description shall include the relationship between the conditions that trigger RoadCoach and the behaviors RoadCoach is designed to reduce.
2. Conduct a scan to identify other smart phone apps like RoadCoach that claim to improve driver safety. Describe these other smart phone apps, including their functionality and the behaviors they aim to change, and compare and contrast these apps with RoadCoach.
3. Conduct a systematic literature review to explore the kinds of driving errors associated with crashes, particularly crash contribution, among young adult and older adult drivers. Also explore issues related to driver feedback effectiveness based on timing and modality for young adult and older adult drivers. Highlight research literature that explicitly includes studies that sampled participants of different races and ethnicities and

socioeconomic status to explore opportunities to increase safety of historically excluded groups.

4. Conduct a crash data analysis of the kinds of driving errors associated with crashes among young adult and older adult drivers.
5. Produce a final report describing findings from the smart phone app scan and review, the literature review, and the crash data analysis. This report shall discuss the extent to which RoadCoach's and other apps' designs, including feedback timing and modality, are optimal for each driver age group, and how they could be expected to change drivers' behavior under conditions associated with elevated crash risk for each age group. This report shall explain whether RoadCoach could be expected to reduce crash risk for young adult and older adult drivers and whether any of the other apps could be expected to reduce crash risk for these two groups.

Attachments/Links

Download All Attachments/Links

Attachments

Document	File Size	Access	Updated Date
RFP 693JJ922R000005 Questions and Responses.pdf (opens in new window)	221 KB	Public	Dec 20, 2021
RFP 693JJ922R000005 Amend 0002.pdf (opens in new window)	271 KB	Public	Dec 20, 2021
693JJ922R000005 Amendment 0001.pdf (opens in new window)	232 KB	Public	Dec 07, 2021
693JJ922R000005 Older Driver Research Feasibility Study.pdf (opens in new window)	778 KB	Public	Dec 06, 2021
J.3 SFLLL_1_2-V1.2.pdf (opens in new window)	109 KB	Public	Dec 06, 2021
J.2 Cost Proposal Template CPFF.xlsx (opens in new window)	16 KB	Public	Dec 06, 2021
J.1 PAST PERFORMANCE QUESTIONNAIRE.docx (opens in new window)	25 KB	Public	Dec 06, 2021
J.6 SUBCONTRACTING CHECKLIST.docx (opens in new window)	19 KB	Public	Dec 06, 2021

Document	File Size	Access	Updated Date
J.4 Travel Cost Breakdown Spreadsheet.xlsx (opens in new window)	13 KB	Public	Dec 06, 2021
J.5 Other Direct Cost Breakdown Spreadsheet.xlsx (opens in new window)	12 KB	Public	Dec 06, 2021

Contact Information

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