

Older Novice Driver Naturalistic Driving Study

ACTIVE

Contract Opportunity

Notice ID

693JJ923RQ000179

Related Notice

Department/Ind. Agency

TRANSPORTATION, DEPARTMENT OF

Sub-tier

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Office

693JJ9 NHTSA OFFICE OF ACQUISITION

Looking for contract opportunity help?



[\(opens in new window\)](#)

Procurement Technical Assistance Centers (PTACs) are an official government contracting resource for small businesses. [Find your local PTAC \(opens in new window\)](#) for free government expertise related to contract opportunities.

General Information

- **Contract Opportunity Type:** Sources Sought (Original)
- **All Dates/Times are:** (UTC-05:00) EASTERN STANDARD TIME, NEW YORK, USA
- **Original Published Date:** Dec 19, 2022 12:49 pm EST
- **Original Response Date:** Dec 28, 2022 10:00 am EST
- **Inactive Policy:** 15 days after response date
- **Original Inactive Date:**
- **Initiative:**
 - None

Classification

- **Original Set Aside:**
- **Product Service Code:** R410 - SUPPORT- PROFESSIONAL: PROGRAM EVALUATION/REVIEW/DEVELOPMENT
- **NAICS Code:**

- 541720 - Research and Development in the Social Sciences and Humanities
- **Place of Performance:**

Washington , DC 20590

USA

Description

Action Code: Sources Sought

Classification Code: AS12, TRANSPORTATION R&D SERVICES; SURFACE TRANSPORTATION, PUBLIC TRANSIT, AND RAIL; APPLIED RESEARCH

Solicitation: 693JJ923RQ000179

Agency/Office: National Highway Traffic Safety Administration (NHTSA)

Location: National Highway Traffic Safety Administration HQ

NAICS Code: 541720, Research and Development in the Social Sciences and Humanities, \$24.5M.

Point of Contract: Vincent Lynch, Contracting Officer, ph(202) 366-9568

Title: Older Novice Driver Naturalistic Driving Study

Description(s):

The National Highway Traffic Safety Administration (NHTSA) is issuing this Sources Sought Notice to identify potential qualified Small Business (SB), Small Disadvantaged Business (SDB), 8(a) Certified SDB, HUBZone SB, SDVOSB, or WOSB concerns that may be interested in and capable of performing the work described herein to perform a research study in which naturalistic driving data will be collected for a period of twelve (12) months from 500 younger (age 15.5 – 16.5) and 500 older (age 18 – 20) novice drivers to study the first period of independent driving.

NHTSA welcomes all qualified Small Business concerns, with the appropriate NAICS Code and past experience to submit their Corporate Capability Statements that demonstrate their ability to successfully accomplish the goals of the project as listed below. NHTSA does not intend to award a contract on the basis of responses to this notice or otherwise pay for the preparation of any information submitted. Acknowledgement of receipt of responses will not be made; no formal evaluation of the information received will be conducted by NHTSA. NHTSA may; however later on issue a Request for Proposals (RFP). However, should such a

requirement fail to materialize, no basis for claims against NHTSA shall arise as a result of a response to this notice. No confirmation of receipt will be provided.

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.

In 2020, drivers ages 15 to 20—many of whom were novices—represented 8.5% of drivers involved in fatal crashes but only 5.1% of all licensed drivers.[1] While young novice drivers' crash rates have declined since States began implementing Graduated Driver Licensing (GDL) programs in the 1990s,[2] motor vehicle crashes remain a leading cause of death among young people.[3]

While an increasing proportion of young people are delaying licensure until age 18 or older, few States currently apply the full GDL program to novices ages 18 to 20. Licensure delays are more likely among Latino, Black, and lower socioeconomic status (SES) young people,[4] raising the possibility of inequities in which novices receive the benefits of GDL. However, because little is known about the safety and driving habits of newly-licensed drivers 18 and older, questions remain about whether and how to develop GDL provisions for older novices that reduce exposure to risk while still ensuring mobility.

To address these questions, a naturalistic driving study (NDS) with younger (age 15.5 – 16.5) and older (age 18 – 20) novice drivers is proposed to study the first period of independent driving. This study will employ a 'hybrid' approach to data collection, in which most participants will have NDS data collected via an app on their personal smartphones, while the vehicles of a smaller subgroup will additionally be outfitted with the kinds of in-vehicle data acquisition systems (DAS) traditionally used in NDS. The study design and analyses shall be based on materials developed for this study under a prior project (<https://rip.trb.org/View/1747331>).

Objective:

The objective of this contract is to conduct an NDS with younger (age 15.5 – 16.5) and older (age 18 – 20) novice drivers in the first 12 months of independent driving to answer a set of research questions about the driving performance, exposure, and characteristics of younger vs. older novice drivers, and novices with higher vs. lower trajectories of risky driving. The study design and analyses shall be based on materials

developed for this study under a prior project (<https://rip.trb.org/View/1747331>); these will be shared with the Contractor at award.

Capabilities:

The corporate capability statement must address the capabilities necessary to provide specific services to accomplish tasks identified under the Statement of Work (SOW). (see attached)

The study developed under the prior project has the following characteristics:

- NDS data will be collected for a period of twelve (12) months from 500 novices age 15.5 – 16.5 (depending on the minimum licensing age of the State in which the study is conducted) and 500 novices age 18 – 20.
- All participants will have naturalistic driving data collected using a smartphone-based DAS (smartphone app) capable of collecting data necessary to answer the research questions in Section C.2. A subset of 84 younger and 84 older novices (168 total) will also have naturalistic driving data collected using vehicle-based DAS (i.e., with camera, accelerometer, gyroscope, GPS, etc.).
- Naturalistic driving data collection will begin when participants receive the first license that allows them to drive unsupervised.
- Potential participants will be quota sampled to ensure that the study sample aligns with what is known about the sociodemographic characteristics of novice drivers in the U.S. (e.g., 4). Currently, the sampling plan includes considering sex, race and ethnicity, and socioeconomic characteristics (e.g., family affluence) when recruiting novice drivers.
- The study will be conducted in a State that does not currently apply GDL provisions to novices 18 and older; the State should also have a minimum age for unsupervised driving between 15.5 and 16.5 (i.e., the minimum age in the majority of States).
- To recruit participants for the study, the research team will need to partner with a State licensing agency. The State licensing agency should have sufficient numbers of younger and older novices applying for licensure to reach recruitment targets.
- Potential participants will be identified using information available in the State licensing agency records (e.g., age, sex, race and ethnicity, licensure status). Potential participants will additionally be administered screening questions to further determine eligibility (e.g., ownership of an Android or iOS smartphone, information about vehicle access necessary to determine eligibility for the in-vehicle DAS subgroup) at the time they schedule their on-road exams.
- Based in part on the experience of Thomas et al., 2016,[5] the current study plan estimates that a high-volume State licensing agency could yield 3 to 18 participants (including 1 to 6 older novices) per day. Assuming this rate, if 3 individual licensing

agency offices participated in the study, it would take a maximum of 167 office days (approximately 8 mos.) to complete recruitment. With 6 offices participating, it would take a maximum of 84 office days (approximately 4 mos.) to complete recruitment.

- The current study plan estimates compensation for novices in the “smartphone only” data collection group to be \$475 by the end of the study. The plan estimates the “smartphone plus in-vehicle DAS” data collection group will be compensated \$675 by the end of the study.

- Participants will complete three web-based, self-administered questionnaires at the beginning, middle, and end of the study that do not take more than 30 minutes to complete. The baseline questionnaire will contain questions about sociodemographic information and other information that prior studies suggest will predict driving performance and/or exposure, including but not limited to: measures of personality, sensation-seeking, attitudes about traffic safety, self-reported driving behavior, parental involvement, experience with driving and driver education, vehicle access. Follow-up questionnaires will be shorter and only include measures that may change over time and/or with driving experience, e.g., attitudes about traffic safety, vehicle access.

- Naturalistic driving and questionnaire responses will be used to derive variables necessary to answer the research questions in Section C.2, including outcome variables like crashes or near-crashes and kinematic risky driving (i.e., elevated g-force) events. Other variables will include information about the amount and type of exposure (e.g., road type, trip duration, trip time of day, weather, posted speed limit, route familiarity, complexity of driving environment), information about risky behaviors (e.g., speeding, cell phone use), and information from the questionnaires.

- The current plan includes a variety of statistical techniques for data analysis, including approaches that discover groups of participants with similar trajectories of risky driving over the study period (e.g., group-based trajectory models, latent class growth analysis using growth mixture modeling), as well as approaches that allow group-based comparisons between younger and older novices, or higher- and lower-risk novices (e.g., mixed-effects generalized linear models).

- Potential challenges for conducting the study include: finding a State licensing agency willing to participate and maintain its commitment during the approval process, recruiting a sample representative of the younger (15.5 – 16.5) and older (18 – 20) novice driver populations; recruiting the desired number of participants within the specified amount of time; and obtaining accurate measures of performance and exposure from the smartphone app (e.g., distinguishing travel modes; distinguishing passenger from driver).

Format of Corporate Capabilities Statement:

Any interested qualified Small Business firms, Small Disadvantaged Business (SDB), 8(a) Certified SDB, HUBZone SB, SDVOSB, or WOSB concerns should submit their Corporate Capability Statement, which demonstrates the firm's ability and past experience in no more than 10 pages to perform the key requirements described above to the identified NHTSA point of contact listed herein.

Any proprietary information should be marked as such. All respondents are asked to certify the type and size of their business organization is in-line with the requirements of this Sources Sought Notice, and must be received no later than the closing date of this notice. No confirmation of receipt will be sent!

[1] National Center for Statistics and Analysis. (2022, June). *Young drivers: 2020 data* (Traffic Safety Facts. Report No. DOT HS 813 313). National Highway Traffic Safety Administration.

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813313>

[2] McCartt, A. T., & Teoh, E. R. (2015). Tracking progress in teenage driver crash risk in the United States since the advent of graduated driver licensing programs. *Journal of Safety Research*, 53, 1-9.

[3] Webb, C. N. (2018, February). *Motor vehicle traffic crashes as a leading cause of death in the United States, 2015* (Traffic Safety Facts Crash Stats. Report No. DOT HS 812 499). National Highway Traffic Safety Administration.

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812499>

[4] Vaca, F. E., Li, K., Tewahade, S., Fell, J. C., Haynie, D. L., Simons-Morton, B. G., & Romano, E. (2021a). Factors contributing to delay in driving licensure among U.S. high school students and young adults. *Journal of Adolescent Health*, 68(1), 191 – 198.

[5] Thomas, F. D., Rilea, S. L., Blomberg, R. D., Peck, R. C., & Korbela, K. T. (2016, January). *Evaluation of the safety benefits of the risk awareness and perception training program for novice teen drivers* (Report No. DOT HS 812 235). National Highway Traffic Safety Administration

Attachments/Links

Download All Attachments/Links
Attachments

| Document | File Size | Access | Updated Date |
|--|-----------|--------|--------------|
| Sources Sought Notice (693JJ923RQ000179) Older Nvice Driver Naturalistic Driving Study.pdf (opens in new window) | 167 KB | Public | Dec 19, 2022 |
| Draft SOW 308 OlderNoviceNDS (693JJ923RQ000179).pdf (opens in new window) | 312 KB | Public | Dec 19, 2022 |

Contact Information

Contracting Office Address

- OFFICE OF ACQUISITION MANAGEMENT 1200 NEW JERSEY AVE SE, ROOM W51-30
- WASHINGTON , DC 20590
- USA

Primary Point of Contact

- **Vincent Lynch**
- Vincent.Lynch@dot.gov
- Phone Number 2023669568