**Request for Proposals:** Do Smartphone-Based Apps Designed to Encourage Safe Driving Effectively Change Behavior?

**Topic Area:** Driver Behavior & Performance

**Deadline:** Tuesday, April 26, 2022, 5 PM EDT

**Background**

Previous research has investigated the feasibility of reducing risky driving behavior among special populations such as teens or fleet drivers through programs that involve some form of driver monitoring in conjunction with feedback/coaching, incentives for good performance, and/or penalties for bad performance. Credible independent studies have found that programs involving in-vehicle cameras have reduced rates of risky driving and crashes among teens and commercial drivers; however, such programs have not become widespread among the general public, largely due to the high cost and intrusiveness of in-vehicle cameras.

In recent years, numerous smartphone apps designed to encourage safe driving have entered the marketplace. Some are offered by insurance companies as part of a program that can yield a discount for demonstrated safe driving or in some cases simply for using the app, others are deployed by employers to promote or monitor safe driving by employees, and others are marketed directly to end users as a tool to help drivers improve their driving habits.

While some research by app developers themselves claims that they improve driver behavior and traffic safety, little, if any, independent research has examined the impact of such safe driving apps on driver behavior and traffic safety. This research would examine whether safe driving apps can change driving behaviors in the general driving population, such as speeding, hard acceleration and braking, and other measurable behaviors known to be associated with safety.

**Objectives**

This project seeks to answer questions such as:

- To what extent do users of the apps reduce various unsafe driving behaviors or increase/improve safe driving behaviors?
- Does the effectiveness vary by the type of feedback (e.g., incentives, penalties, coaching, real-time or post-trip, etc.)?
- Are there demographic or psychosocial factors that affect the acceptance, use, and effectiveness of the app and associated feedback?
- To what extent do reductions in unsafe behavior and/or improvements in safe behavior endure if the user ceases to use the app? Does this vary based on the type of feedback utilized?
**Methods**

The AAA Foundation for Traffic Safety envisions that the objectives of this research proposal be met primarily through field testing with controlled experiments using one or more smartphone apps and examining objective driving safety outcomes, including but not limited to rapid deceleration, acceleration, speeding, driver distraction, etc. Supplemental tasks such as surveys, interviews, and/or focus groups could be utilized to support the findings. The proposed project should include review of literature sufficient to ensure that other project tasks build on rather than duplicate established knowledge; however, the proposed project must include original research beyond review of literature.

**Suggestions for Proposal Content**

Each year, AAA Foundation for Traffic Safety solicits proposals on traffic safety topics related to one or more of its four focus areas (Emerging Technologies; Vulnerable Road User; Driver Behavior & Performance; and Roadway Systems & Drivers). Proposals will be evaluated based on criteria described below. Funding for selected proposals will be available beginning in October 2022. The body of your proposal should be no longer than five (5) pages (not including title page, CVs, appendices, or any budget information) and should contain the sections listed below. Failure to follow these instructions may result in the proposal being disqualified.

1. Title page:
   - Title of the proposal.
   - Names and affiliations of all investigators.
   - Address, telephone number, and email of the primary investigator and/or the individual to whom correspondence regarding the proposal is to be addressed.
   - An abstract, not exceeding 300 words.

2. Objectives

3. Approach:

   Proposals should provide detailed description of the proposed project methods, the expected results, and potential limitations. When applicable, proposals must describe how subjects or respondents will be identified and recruited.

4. Timeline and supporting environment:

   Describe the project timeline, where the activities/program(s) will take place, and what facilities and resources will be used (if applicable). Please present all timelines in terms of calendar year and month. For planning purposes, assume an October 1, 2022 start date and an end date of September 30, 2023 (or whatever appropriate end date, in cases of longer, multi-year project proposals). Note that actual dates will be determined at the contract agreement stage.

5. Evaluation of project process and deliverables:

   Describe how specific objectives and project outcomes will be measured and evaluated.

   Describe anticipated deliverables including final report(s), key meetings, etc. Note the final deliverable must include a complete report that fully describes the research effort and results, intended for publication on AAA Foundation for Traffic Safety’s website.

6. Project budget request and indirect costs rates:
The AAA Foundation has an annual budget of a few million dollars to fund all projects. Only proposals of high quality and significance will be awarded.

Please include a detailed budget including indirect costs. Your proposal may provide multiple options for study designs that differ in scale and budget.

Please note that, for awarded contracts, invoices should be based on actual expenses linked to project deliverables. Progress reports will be required. All travel request line items should be documented and justified. Conference travel may or may not be justifiable depending on the purpose and scope of work.

The AAA Foundation is a charitable entity and is not committed to matching the indirect cost rates of the U.S. government or other entities. However, since the AAA Foundation has an important relationship with many universities and organizations to perform valuable projects, including (but not limited to) discovery research and intervention development/evaluation, universities and organizations can request a limited amount of indirect costs. Current allowable rates are:

- 0% rate for government agencies, other private foundations, and for-profit organizations;
- Up to a 20% rate for U.S. universities, U.S. colleges; and
- Up to a 25% rate for non-governmental organizations (NGOs).

Rates and limitations would be applied to both the primary applicant and any sub-grantees and subcontractors. Each respective organization may receive indirect costs up to the rate applicable to their organization. If a U.S. university is the primary contractor and includes an NGO as a subcontractor, the university can receive up to a 20% rate, while the NGO can receive up to a 25% rate for indirect costs. The rates provided above are the maximum rates allowed under the AAA Foundation’s policy. A contractor with an actual indirect cost rate lower than the maximum rate provided above should not increase the funding request to the maximum allowed.

**Evaluation Criteria**

Proposals are assessed based on three criteria: (1) innovation, (2) approach, and (3) team experience and supporting research environment. Each criterion will be weighted (a proposal can be scored a maximum of 100 points). The following briefly describes some of the assessment questions posed for each criterion and the respective weight.

**Criterion 1: Innovation (weight 1-20 points):**

Does the applicant propose novel theoretical concepts, methods, instrumentation, or interventions? Is the proposed work expected to have impact on progress in the relevant fields and/or enhance programmatic initiatives?

**Criterion 2: Approach (weight 1-60 points):**

Does the application clearly respond to the RFP request (i.e., provide a concise background of the problem or area to be studied, clearly state the objective(s), etc.)? Are the overall strategy, methodology, and analyses well reasoned, technically sound, and appropriate to accomplish the objective(s) of the project? Have the investigators presented strategies to ensure an unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? Is there appropriate discussion of the possible/potential
results, what they may mean and how they will affect further work? Is the estimated work duration adequate to complete the work scope?

Criterion 3: Team Experience and Supporting Environment (weight 1-20 points):

Are the Principal Investigators (PIs) and proposed personnel well suited to the project? If the project is collaborative, do they have complementary and integrated expertise? Does the team have the necessarily skills and experience? Has the applicant demonstrated an ongoing record of accomplishments that have advanced the field? Are the institutional support, equipment, and other physical resources available to project personnel adequate for the project proposed?

Project budget requests will be assessed to determine whether they are appropriate for the work proposed. As noted above, a proposal may include multiple options for study designs that differ in scale and budget.

Proposal Format

Your proposal must meet the following formatting requirements:

- Use standard letter-sized page (8.5 x 11 inch), with at least one-inch margins on all sides.
- All text should be single-spaced and aligned to the left, in 12-point Arial font.
- Do not use any headers or footers, with the exception of page numbers.
- Do not use footnotes or endnotes.
- The body of the proposal (excluding title page, CVs, charts, appendices, and budget material) must not exceed five (5) pages.
- Please submit the proposal as a PDF.

Proposal Submission

Deadline: Tuesday, April 26, 2022, 5:00 PM EDT.

No proposals will be accepted after the date and time stated above.

Submit your proposal electronically to RFP@aaafoundation.org

Please fill the subject line with “2022 Spring RFP Proposal.”

When sending your proposal to the AAA Foundation, please give your electronic files names that can help identify them. File names that include the last name of the principal investigator and a shortened title are preferred, such as:

  Smith-NoviceDriverSupervisedPracticeHours.pdf
  Smith-Appendix.pdf

Please do not use generic file names such as Proposal.pdf or AAAFTS_Proposal.pdf.

Other Suggestions

The body of the proposal should be self-contained; it should be able to be understood by a reviewer without any supporting appendices.

Those who will be reviewing your proposal are knowledgeable about most major traffic safety topics. It is important that you demonstrate awareness and understanding of literature and ongoing research most relevant to your proposal; however, it is not necessary to provide an exhaustive review or cite
statistics to convince reviewers that traffic safety (in general) is important. It is far more important for you to describe in detail what questions your proposal seeks to answer, how your project will accomplish tasks in a timely manner, what methods you will use, and how the results of your study will be used to achieve real-world improvements in traffic safety.

**Questions**

An FAQ document is available at this [link](#), which includes common questions from previous years. If you have other questions, please email them to [RFP@aaafoundation.org](mailto:RFP@aaafoundation.org) and fill the subject line “Questions.” AAA Foundation will accept questions until 5:00 PM EDT, March 22, 2022. Answers to these questions will be posted on the AAA Foundation website no later than 5:00 PM EDT March 29, 2022.

**About the Sponsor**

Established in 1947 by the American Automobile Association, the AAA Foundation for Traffic Safety is an independent, publicly funded 501(c)(3) charitable research and education organization dedicated to saving lives by preventing traffic crashes and reducing injuries. The Foundation's mission is to prevent traffic deaths and injuries by conducting research into their causes and by educating the public about strategies to prevent crashes and reduce injuries when they occur. Additional information about the AAA Foundation for Traffic Safety can be found at [www.aaafoundation.org](http://www.aaafoundation.org).