

Request for Research Funding for FY 2025-2026

Project Number (Research Center Use Only): SFTY-26-04			
Requesting Office	Safety Office	Priority	4 of 11
Proposed Title	Quantifying lives saved due to driver or pedestrian behaviors		
Justification	<p>Traffic safety initiatives often focus on preventing crashes, injuries, and fatalities, yet a critical component of these successes—safe driver and pedestrian behaviors—remains difficult to quantify. Understanding how daily actions such as obeying speed limits, using crosswalks, and avoiding distractions contribute to lives saved is essential for reinforcing the value of safety-focused behaviors and guiding future interventions. This project seeks to establish a framework for quantifying lives saved through a combination of modeling and data analysis, potentially leveraging behavioral data, crash statistics, or advanced simulation techniques. By identifying the relationship between proactive safety behaviors and crash avoidance, this study would support FDOT’s Safety and Communities goals, fostering a culture of accountability and shared responsibility among road users.</p> <p>This research could also advance FDOT’s Technology component by using innovative data collection and analysis methods, such as telematics, connected vehicle data, and video analytics, to measure the real-world impact of safe behaviors. The ability to quantify lives saved offers a powerful metric for evaluating public awareness campaigns, enforcement strategies, and infrastructure improvements, aligning with FDOT’s mission to achieve Target Zero fatalities and serious injuries.</p> <p>The need to isolate the causal link between behaviors and crash reduction/avoidance/better safety outcomes is crucial, as confounding factors like legislative or economic changes could influence broader safety outcomes.</p>		
Impact	<p>The findings of this project will provide a tangible measure of how daily safe behaviors could contribute to traffic safety, enabling FDOT to design more effective campaigns and policies that encourage/incentivize compliance. Quantifying lives saved offers a compelling narrative to promote safety culture among road users, leading to long-term reductions in crashes, injuries, and fatalities.</p> <p>Without this research, the safety benefits of individual and collective behavior may remain undervalued, limiting public and policymaker engagement. This project empowers FDOT to make data-driven decisions, enhancing its ability to meet its safety and community objectives while inspiring a statewide commitment to safer roads.</p>		
Affected Offices/Districts	State Safety Office.		
Existing Work	<p>Some related work:</p> <ol style="list-style-type: none"> 1. Development of a virtual reality pedestrian street-crossing task: The examination of hazard perception and gap acceptance 2. Examining the effectiveness of an education-based road safety intervention and the design and delivery mechanisms that promote road safety in young people 		
Keywords Used In Existing Work Search (Cannot leave blank)	traffic safety, safe behavior, framework, data-driven analysis, user behavior, target zero		
Related Contracts (Give contract numbers)			
Funding Request	\$300,000	Anticipated Duration	24 months
Project Manager	Loreen Bobo	Contracting Method	RFP to all registered vendors

Equipment	N/A	Comments* (understanding leases are preferred, include the proposed use of the equipment, whether lease options are feasible, whether work to be done with equipment could instead be procured through service expenditure, etc.)
Urgency	1	Understanding and quantifying the impact of daily safe behaviors is critical to achieving traffic safety goals and reducing fatalities and injuries. With increasing emphasis on behavioral safety and public awareness campaigns, there is an urgent need to establish tangible metrics that demonstrate the value of safe driving and walking practices.
Implementability	2	This project leverages readily available data sources, such as crash statistics, behavioral surveys, connected vehicle data, and video analytics, which can be integrated into a quantification framework. Proven methods, including statistical modeling, simulation tools, and telematics, provide a strong foundation for measuring the impact of safe behaviors. Establishing correlation vs causation might be a harder challenge to implement.

Project Benefits (Succinct, complete explanation)

This project will quantify the life-saving impact of safe driver and pedestrian behaviors, providing actionable metrics to enhance traffic safety initiatives. It supports data-driven decision-making for FDOT campaigns, reinforces public awareness of safety practices, and aligns with **Target Zero** goals. The findings will also guide resource allocation, refine policies, and promote a culture of accountability among road users, ultimately reducing crashes, fatalities, and injuries statewide.

Project Benefits (Select all that apply and explain)	Quantifiable Benefits (units, dollars, etc...if applicable)	Methodology or Data Sources Used to Determine Quantifiable Benefits. If not applicable, please give justification of project benefits
○ Materials Enhancement		
○ Financial Impact	Benefit-cost assessments which include value of behavior	Each fatal crash avoided, or each injury prevented has significant financial impacts. Understanding where enforcement needs to be focused (from the survey and the citation-crash analyses) brings financial benefits to streamline targeted opportunities.
○ Time Savings		Reducing crashes leads to overall improvements in travel times to be realized across FL roads.
○ Lives Saved/Injuries Prevented		Avoiding crashes as well as fatalities/serious injuries due to our understanding of the effectiveness of the safe behavior directly influences campaigns like “Put it Down” or similar efforts, which may lead to long term behavioral change.
○ Other (Explain)		