

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
HIGHWAY SAFETY CONCEPT PAPER
Concept Paper Summary

Applicant Information

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| Applicant Agency: | University of Florida |
| Implementing Agency: | University of Florida |
| Concept Paper Title: | Pedestrian and Bicycle Safety Outreach and Support |
| Priority Area for Concept Paper: | Pedestrian and Bicycle Safety |
| Amount Requested: | \$553,864.00 |
| Type of Project: | Statewide |
| Type of Request: | Continuation - 2022 |
| Previous Year's Project Number (if Continuation): | PS-2022-00276 |

Head of Agency

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|-------------------|--------------------------|-------------------|----------------|
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Project Contact

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Statement of the Problem:

Florida experiences year-round ideal climate for outdoor activities. As a result, walking and biking are more popular which leads to higher risk exposure. Given the vulnerability of a pedestrian or bicyclist, these activities can result in death and serious injury when they come into conflict with a motor vehicle. Several factors contribute to these deaths. Approximately two-thirds of pedestrian and bicyclist-related fatal crashes occur outside of a market crosswalk or bicycle lane [1]. Many of these crashes involve failure to yield the right-of-way on the part of motorists, pedestrians, and bicyclists [1]. Almost half of the bicyclist fatalities are due to traumatic brain injury that may have been prevented by wearing a helmet or wearing one properly [1]. According to NHSTA, pedestrian fatalities occur overwhelmingly after dark (76 percent), when many pedestrians had some alcohol in their systems (38 percent), and were not at intersections (74 percent; i.e., crossing in the middle of a street or road). One-half of all bicyclist fatalities occur after dark [2].

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NHTSA reports that 3,185 people lost their lives in traffic crashes on Florida's roadways in 2019 with bicyclists accounting for 5.1% and pedestrians accounting for 22.4% of these fatalities [3]. FARS data shows Florida ranks third highest in pedestrian fatalities in the nation with a 3.32 fatality rate per 100,000 population [3]. Between 2016 and 2020, a total of 4,272 pedestrian and bicyclist were killed on Florida roadways [4]. Trends show that pedestrian and bicyclist crashes and fatalities have increased slightly over the last five years, with occasional downward fluctuations [4]. Serious injuries to people walking and biking have remained consistent and increased slightly between 2016-2020. During this period, pedestrian deaths have increased by 8.2%, from 668 to 723, while bicyclist deaths have increased by 20.3%, from 143 to 172. Fatal and serious injuries to people walking and biking in Florida were estimated to have societal cost over 55 billion dollars [5].

2016 2017 2018 2019 2020 Total

Pedestrian Crashes 10148 10510 10548 11225 9408 51839

Pedestrian Fatalities 668 667 716 735 723 3509

Bicyclist Crashes 7875 7940 7798 7915 6996 38524

Bicyclist Fatalities 143 132 160 156 172 763

Pedestrian and bicyclist safety is a focused initiative of the Florida Department of Transportation (FDOT) and Florida's Strategic Highway Safety Plan (SHSP) establishes performance measures and goals to reduce pedestrian and bicyclist fatalities to zero. Trends indicate that a continued investment is necessary for Florida to work toward this target.

Florida's Pedestrian and Bicycle Strategic Safety Plan (PBSSP) outlines a comprehensive strategy of specific actions to fulfill the SHSP's fatality reduction goals and states this as one of its goals - "Eliminate pedestrian and bicyclist fatalities and serious injuries resulting from traffic crashes on public roads by decreasing the number of non-motorized fatalities and non-motorized serious injuries based on the five year rolling average as established in the State Highway Safety Improvement Plan and Strategic Highway Safety Plan.[5]" Florida's Pedestrian and Bicycle Safety Coalition and Leadership Team are charged with implementation of the PBSSP. Emphasis is placed on Engineering, Enforcement, Education, and Emergency Response countermeasures.

This project supports the implementation of outreach and educational strategies outlined in the plan which includes "to develop and implement clear, consistent, and context-sensitive targeted outreach, education and communication elements that support engineering and enforcement efforts, increases awareness, improves compliance with traffic laws and calls communities to action." [5]

Since 2009, the University of Florida (UF) Transportation Technology Transfer Center (T2) has operated the Pedestrian and Bicycling Safety Resource Center (PedBike SRC) which promotes safe pedestrian and bicycling activities for citizens and visitors of all ages by providing educational materials and information across the state. The Center also provides critical safety equipment to bicyclists through its coordination of the statewide bicycle helmet distribution program. Helmets are distributed to areas with the highest representation of crashes resulting in serious and fatal injuries by trained individuals who receive free helmet fitter training

provided by the Center [6].

Bicycle helmets will be distributed under the Florida Traffic Safety Resource Center . This project addresses the educational and outreach component to address the many causes of pedestrian and bicycle crashes, injuries, and fatalities by providing resources and participating in events in support of the Alert Today Florida focused initiative and administering the bicycle helmet fitter certification training program.

Supporting Data:

[1]

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/safety/3-grants/hsp-annual-reports/fl-fy2020-hsp.pdf?sfvrsn=4c08b319_4

[2] <https://www.nhtsa.gov/press-releases/nhtsa-releases-2019-crash-fatality-data> - 2019 Data on pedestrian fatalities

[3] <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813079> and <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813197>

[4] Signal Four Analytics System: www.signal4analytics.com

[5]

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/safety/2a-programs/bike-ped/2021_pbssp.pdf?sfvrsn=5737a595_2

[6]

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/safety/3-grants/hsp-annual-reports/fl-fy2020-hsp.pdf?sfvrsn=4c08b319_4

Proposed Solution:

The purpose of this project is to provide state and community level education and resources to promote a reduction in pedestrian and bicyclist fatalities resulting from traffic crashes . The key focus will be on education and outreach in counties and cities ranked in the top 25% of each of the three population group's classified by the department with the highest representation of fatal pedestrian and bicyclist crashes.

The University of Florida's Transportation Technology Transfer Center (T2) will promote, participate and distribute bicycle and pedestrian safety education, information, training, and materials at events that support Florida's Alert Today Florida focused initiative to improve pedestrian and bicyclist safety to encourage a downward trend in the large number of fatalities experienced each year.

T2 will provide education and outreach previously delivered under the PedBike SRC grants through statewide participation in events with the goal of increasing awareness, education and outreach through public interactions and marketing of FDOT's Alert Today Alive Tomorrow and Alert Tonight Alive Tomorrow pedestrian and bicycle safety campaigns.

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T2 will administer the bicycle helmet fitter certification training program and improve bicycle helmet fitter training opportunities throughout the state. T2 will maintain and update regional trainer lists and provide education and support to regional helmet fitting trainers. This support provides regional helmet trainers with tools to download and email training certificates to the helmet fitters they train throughout Florida. In addition, T2 staff, who is a regional helmet fitter, is available to participate and support events to increase the number of training opportunities across the state.

T2 will distribute bicycle helmets to regional trainers and approved community partners based on the specific needs of each area.

This effort both directly, as well as indirectly, addresses a number of proven National Highway Traffic Safety Administration (NHTSA) countermeasures. Specifically, the PedBike SRC provides educational material for both pedestrians and bicyclists (sections 8(2)(2.1) and 9(1)(1.3), 9(2)(2.2)) that cuts across all demographic groups, as well as safety items that improve conspicuity and safety (sections 8(4)(4.3) and 9(3)(3.1), 9(3)(3.2).

Sustainability:

Pedestrian and bicyclist safety is a focused initiative of the FDOT and funding of this project directly supports the FDOT's strategic highway safety plan and Florida's pedestrian and bicycle strategic safety plan to eliminate pedestrian and bicyclist fatalities and serious injuries resulting from traffic crashes on Florida roadways. Florida ranks third highest in pedestrian fatality rate and number one in cyclist deaths in the nation and continued investment is necessary for Florida to reach the goal of eliminating pedestrian and bicyclist injuries and fatalities. For the success and continuation of this project, this effort requires the financial support of the state and the federal agencies, the state pedestrian and bicyclist safety coalition and FDOT strategic highway safety plan, and participation of safety partners.

Project Objectives:

- a. Facilitate and participate in outreach events to increase awareness of safety issues, traffic laws, and traffic control devices related to bicyclists and pedestrians.
- b. Train support staff and coalition partners on outreach event delivery including setting up and taking down the exhibit, public education, pledge completion and how to administer public opinion surveys.
- c. Facilitate and participate in outreach events to promote helmet use and the use of personal protective gear to bicyclists.
- d. Conduct bicycle helmet fitting training and train the trainer programs to support helmet distribution in Florida.
- e. Distribute bicycle helmets to qualified community partners to improve the safety of bicyclists focusing primarily on areas that have been determined "focus counties" in Florida.

Evaluation:

1. Increase awareness of safety issues related to pedestrians and bicyclists by promoting and distributing timely, relevant, and culturally appropriate safety education, information, training, and materials through

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participation in outreach events in support of Alert Today Florida and approved by the FDOT Program Manager.

2. Increase awareness of traffic laws pertaining to pedestrians and bicyclists by promoting and distributing timely, relevant, and culturally appropriate safety education and information through participation in outreach events in support of Alert Today Florida and approved by the FDOT Program Manager .

3. Increase awareness of pedestrian and bicycle related signs, signals, and pavement markings by promoting and distributing timely, relevant, and culturally appropriate safety education, and information through participation in outreach events in support of the Alert Today Florida and approved by the FDOT Program Manager. These efforts will be evaluated using a summative evaluation to determine the effectiveness of program delivery in reaching target audiences.

4. Promote helmet use and the use of personal protective gear to bicyclists through participation in outreach events in support of the Alert Today Florida and approved by the FDOT Program Manager . These efforts will be evaluated using an outcome evaluation to determine if the percentage of cyclists fatally injured due to a traumatic brain injury is reduced from year to year.

5. Administer the bicycle helmet fitter certification training and helmet distribution programs and provide resources, support, and online training updates to approved community partners and trained helmet fitters conducting local helmet fitting events. These efforts will be evaluated using an outcome evaluation to determine the accuracy and effectiveness of the trainers.

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| BUDGET CATEGORY | NARRATIVE: | FEDERAL FUNDS | MATCH | TOTAL | INDIRECT ELIGIBILITY |
|--|---|---------------|-------|----------|----------------------|
| A. Personnel Services | | | | | |
| Research Coordinator III (64416407) | Salary and Benefits to include overtime, FICA, Old Age, Survival and Disability Insurance (OASDI), health insurance, retirement, clinical disability insurance, workers compensation, unemployment compensation, family leave, vacation and sick leave cash outs, and sick leave pool payments. | \$4,870 | \$0 | \$4,870 | ✓ |
| Research Coordinator I (6960821) | Salary and Benefits to include overtime, FICA, Old Age, Survival and Disability Insurance (OASDI), health insurance, retirement, clinical disability insurance, workers compensation, unemployment compensation, family leave, vacation and sick leave cash outs, and sick leave pool payments. | \$61,257 | \$0 | \$61,257 | ✓ |
| Research Coordinator I (73406340) | Salary and Benefits to include overtime, FICA, Old Age, Survival and Disability Insurance (OASDI), health insurance, retirement, clinical disability insurance, workers compensation, unemployment compensation, family leave, vacation and sick leave cash outs, and sick leave pool payments. | \$22,143 | \$0 | \$22,143 | ✓ |
| Research Coordinator I (TBD) | Salary and Benefits to include overtime, FICA, Old Age, Survival and Disability Insurance (OASDI), health insurance, retirement, clinical disability insurance, workers compensation, unemployment compensation, family leave, vacation and sick leave cash outs, and sick leave pool payments. | \$2,267 | \$0 | \$2,267 | ✓ |

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|--------------------------------|---|------------------|------------|------------------|---|
| Administrative Assistant (TBD) | Salary and Benefits to include overtime, FICA, Old Age, Survival and Disability Insurance (OASDI), health insurance, retirement, clinical disability insurance, workers compensation, unemployment compensation, family leave, vacation and sick leave cash outs, and sick leave pool payments. | \$15,149 | \$0 | \$15,149 | ✓ |
| Student Intern (TBD) | Salary and Benefits to include overtime, FICA, Old Age, Survival and Disability Insurance (OASDI), health insurance, retirement, clinical disability insurance, workers compensation, unemployment compensation, family leave, vacation and sick leave cash outs, and sick leave pool payments. | \$3,867 | \$0 | \$3,867 | ✓ |
| Subtotal | | \$109,553 | \$0 | \$109,553 | |

B. Contractual Services

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|-----------------|------------|------------|------------|--|
| Subtotal | \$0 | \$0 | \$0 | |
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C. Expenses - Any purchase with a per item unit cost of \$200 or more from any line item within this Category, excluding software, must have FDOT State Safety Office written approval, prior to purchase.

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|--|--|----------|-----|----------|---|
| Public Information and Education Items | For the purchase of outreach materials to be distributed to the public for program implementation and outreach. Includes banners, yard signs, or any other publicly distributed printed program material to include shipping and handling charges. Materials must have written approval from the FDOT State Safety Office prior to purchasing. | \$4,868 | \$0 | \$4,868 | ✓ |
| Display Materials | For the purchase of display materials that are not distributed | \$15,650 | \$0 | \$15,650 | ✓ |

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to the general public for program implementation and outreach. Materials must have written approval from the FDOT State Safety Office prior to purchasing.

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|---|---|------------------|------------|------------------|---|
| Travel- Program Related | Costs for program implementation and outreach by employees whose salaries are paid on this subgrant (see Part V for prerequisite approvals). | \$22,855 | \$0 | \$22,855 | ✓ |
| Office Supplies | Non-computer related office supplies to include paper, ink cartridges, toner, and general desk supplies necessary for program implementation and outreach, excluding furniture. | \$587 | \$0 | \$587 | ✓ |
| Bicycle Helmets | For the purchase of bicycle helmets to include applicable shipping and handling charges | \$350,000 | \$0 | \$350,000 | ✓ |
| Subtotal | | \$393,960 | \$0 | \$393,960 | |
| D. Equipment Costing \$5,000 or More | | | | | |
| Subtotal | | \$0 | \$0 | \$0 | |
| E. Indirect Cost | | | | | |
| 10% | | \$50,351 | | \$50,351 | |
| Subtotal | | \$50,351 | | \$50,351 | |
| Total Cost of Project | | \$553,864 | \$0 | \$553,864 | |