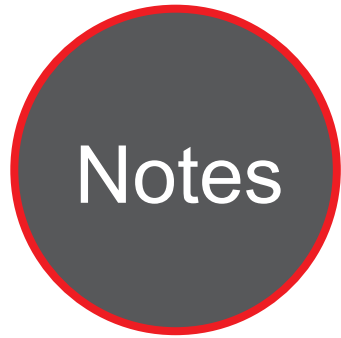




Caltrans Division of Research,
Innovation and System Information

Research



Transportation
Safety & Mobility

MAY 2020

Project Title:
Evaluation of Low Cost Safety
Improvements TPF-5(099)

Task Number: 2913

Start Date: March 1, 2005

Completion Date: Open Ended

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Evaluation of Low Cost Safety Improvement TPF-5(317)

Develop reliable estimates of the safety effectiveness of safety improvements identified as strategies in the National Cooperative Highway Research Program (NCHRP) Report 500 Guidebooks

WHAT IS THE NEED?

The goal of the proposed research is to develop reliable estimates of the safety effectiveness of safety improvements identified as strategies in the NCHRP Report 500 Guidebooks through scientifically rigorous "Before"- "After" (B/A) evaluations of sites within the U.S. where these strategies are being implemented.

In order to achieve a national goal shared by the US Department of Transportation (USDOT), American Association of State Highway Transportation Officials (AASHTO), and Governor's Highway Safety Association (GHSA) to reduce the fatality rate and save lives annually, the safety improvement strategies will need to be appropriately implemented.

WHAT ARE WE DOING?

The scope of the Evaluations of Low Cost Safety Improvements Pooled Fund Study (ELCSI-PFS) is to conduct a research project of the priority strategies in the NCHRP Report 500 Guidebooks. Originally, a target of 20 strategies totaling \$4.38 million over 5 years was planned for ELCSI-PFS studies in four phases. Currently, this study has outperformed its original goals, and has added many extra goals. To provide much needed reliable measures for effectiveness of various low-cost safety improvements, this study's performance period has been extended beyond 2019.

WHAT IS OUR GOAL?

The goal of this research is to develop reliable estimates of the effectiveness of the safety improvements that are identified



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knowledge that improves
California's transportation system

as strategies in the NCHRP Report 500 Guides. These estimates are determined by conducting scientifically rigorous before-and-after evaluations at sites in the United States where these strategies are being implemented.

WHAT IS THE BENEFIT?

The California Department of Transportation (Caltrans) can potentially benefit from the outcome of this research by implementing the resulting recommendations and potential solutions from the transportation pooled fund (TPF) study, TPF-5(317).

The public may benefit from the implementation of the results of this research which have the potential to improve the effectiveness in reducing the number and severity of crashes.

WHAT IS THE PROGRESS TO DATE?

The lead agency, the Federal Highway Administration (FHWA), converted the pooled fund study TPF-5(099) to continue under the "new" pooled fund procedures and under a new pooled fund study, TPF-5(317). Funds under the old pooled fund study TPF-5(099) were closed out and all new contributions now go into TPF-5(317).

TPF-5(317) has contributed over 700 Crash Modification Factors (CMFs) to the CMF Clearinghouse, and this effort is on-going.

The next steps are for FHWA to manage the above two new research projects executed for Phase XII. FHWA and all stakeholders that are a part of TPF-5(317) need to continue to meet and determine which new high occupancy vehicle (HOV) areas need to be researched.

Significant Results for the Quarter:

- Managed ELCSI-PFS' on-going and Phase XI studies for:
 - Safety Evaluation of Mini-Roundabouts

- Safety Evaluation of Bike Lane Configurations at Intersections
- Safety Evaluation of Wrong Way Driving (WWD) Low Cost Safety Improvements
- Conducting a one-day workshop for effective WWD countermeasures (in-person, and for 50 State DOTs)
- Managed ELCSI-PFS, Phase XII studies for:
 - Safety Evaluation of Innovative Pedestrian Countermeasures at Intersections
 - Safety Evaluation of Innovative Bicycle Countermeasures at Intersection

The next steps are for FHWA to manage the above two new research projects executed for Phase XII. FHWA and all stakeholders that are a part of TPF-5(317) need to continue to meet and determine which new high occupancy vehicle (HOV) areas need to be researched.