

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): \_\_\_\_\_ FHWA \_\_\_\_\_

### INSTRUCTIONS:

Lead Agency contacts should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

<b>Transportation Pooled Fund Program Project #</b> <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i>  <p style="text-align: center;">TPF-05(317)</p>		<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input checked="" type="checkbox"/> Quarter 4 (October 1 – December 31)	
<b>TPF Study Number and Title:</b> TPF-05(317) The Evaluation of Low Cost Safety Improvements Pooled Fund Study (ELCSI-PFS)			
<b>Lead Agency Contact:</b> Woon Kim, FHWA	<b>Lead Agency Phone Number:</b> (202) 493-3383	<b>Lead Agency E-Mail:</b> Woon.Kim@dot.gov	
<b>Lead Agency Project ID:</b> TPF-05(317)	<b>Other Project ID (i.e., contract #):</b> N/A	<b>Project Start Date:</b> 08/2022	
<b>Original Project Start Date:</b> 05/2005	<b>Original Project End Date:</b> 05/2010	<b>If Extension has been requested, updated project End Date:</b> N/A continuing effort	

Project schedule status:

On schedule    
  On revised schedule    
  Ahead of schedule    
  Behind schedule

Overall Project Statistics:

Total Project Budget	Total Funds Expended This Quarter	Percentage of Work Completed to Date
Ongoing project (N/A)	Ongoing project (N/A)	Ongoing project (N/A)

### Project Description:

The primary goal of the Evaluation of Low-Cost Safety Improvement Pool Fund Study (ELCSI-PFS) was to save lives and reduce traffic crash injuries by identifying effective safety strategies for national implementation. The ELCSI-PFS conducted research to quantify the safety effectiveness of selected strategies — so-called crash modification factors (CMFs) — that may address priority safety concerns but had not been proven. This study also provided benefit-cost (B/C) ratios to estimate the resulting relationship between the relative monetary value of benefits and costs of a selected strategy. Transportation agencies utilized estimated CMFs and B/C ratios to select, plan, fund, and install a specific safety strategy on a targeted site to improve its outstanding safety issue. The secondary goal of this study is to improve and advance the statistical tools to conduct more reliable, rigorous research. For this effort, this study collaborated with the American Statistical Association (ASA) and identified new statistical methodologies to advance the current practices

used in the development of CMFs. This study initiated in 2005 but continued adding years for additional studies. Currently this study is running Phase XIII (so-called 5 CMFs) to evaluate the safety effectiveness of the following countermeasures:

- Rectangular Rapid Flashing Beacons (RRFBs)
- Left-Turn Lanes Improvements (LTL)
- Curve Enhanced Delineation (CED)
- Alternative Rumble Strips (ARS)
- Fixed Object Delineation (FOD)

**Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**

ELCSI-PFS PHASE XIII

RRFB

- Reviewed findings from the RRFB survey distributed among the pooled fund study members
- Gathered geometric data (e.g., number of legs, number of lanes, posted speed limit, etc.) for the identified treated sites in five states: California, North Carolina, Oregon, Pennsylvania, and Texas.
- Began finding control sites (marked pedestrian crossings that do not have RRFBs) that are similar in site characteristics as the treated sites.
- Scheduled the panel meeting with the pooled fund study members and began developing presentation for the meeting
- Developed gap analysis and needs document for the panel

LTL

- Reviewed responses to the list of LTL-related questions that FHWA distributed to transportation agencies, asking about potential intersection locations and followed up with select transportation agencies to learn more about intersection locations in their jurisdiction where LTLs were installed
- Prepared for gap analysis panel meeting

CED

- Identified installation sites for curve enhanced delineation treatments.
- Completed investigation of the CED installation types and safety issues
- Completed a feasibility study for the safety analysis and developed a data collection plan

ARS

- Searched online/web portals to identify potential treatment sites with ARS
- Reviewed responses of the ARS questions that FHWA distributed to transportation agencies and follow up with select agencies as necessary
- Completed feasibility study and data collection plan for the ARS evaluation

FOD

- Reviewed findings from the FOD survey distributed among the pooled fund study members
- Completed literature review and began contacting prospective agencies that may have data for the FOD evaluation

PUBLICATIONS

Publications for Phase XI are in progress regarding the following topics:

- Mini-roundabouts
- Bike lane configuration at intersections

- Wrong way driving low cost safety improvements

**Anticipated work next quarter:**

- Continue gathering information to identify treated and control sites
- Hold a panel meeting to collect inputs from the pooled fund study members about gap analysis and needs

**Significant Results:**

For RRFB, LTL, CED, ARS, and FOD, deliverables related to feasibility study, gap analysis, and data collection plan were received

**Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).**

The research team for the FOD topic is running behind schedule due to challenges with identifying correct contact for the prospective agencies with data. The team scheduled a risk assessment call with FHWA for 1/5/23 to discuss this issue.

**Potential Implementation:**

N/A