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.

Transportation Pooled Fund Program Project # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-05(317)	**Transportation Pooled Fund Program - Report Period:** ☐Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☐Quarter 3 (July 1 – September 30) ☐Quarter 4 (October 1 – December 31)

TPF Study Number and Title: TPF-05(317) The Evaluations of Low-Cost Safety Improvements Pooled Fund Study (ELCSI-PFS)		
Lead Agency Contact: Woon Kim, FHWA	**Lead Agency Phone Number:** (202) 493-3383	**Lead Agency E-Mail** Woon.Kim@dot.gov
Lead Agency Project ID: TPF-05(317)	**Other Project ID (i.e., contract #):** N/A	**Project Start Date:** 08/2022
Original Project Start Date: 05/2005	**Original Project End Date:** 05/2010	**If Extension has been requested, updated project End Date:** 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: 5 CMFS

RRFB

- Continued statistical analysis.
- Developed a quarterly progress report and presented the progress summary at the quarterly progress review meeting.
- Began developing a technical memo for completion of data analysis summarizing process, accomplishments, issues, opportunities, and recommendation.

LTL

- Developed a quarterly progress report and presented the progress summary at the quarterly progress review meeting.
- Completed review of the California and Texas databases to identify incomplete/missing data and abnormal data values.
- Obtained ADT values for Texas sites where ADT data were missing from database.
- Obtained and reviewed Texas crash data, assigned crashes to study sites, and marked crashes to drop based on date/location/construction.
- Continued joining ADT data to the California study sites.
- Continued reviewing crash data for California study sites.
- Explored feasibility of obtaining estimated turning percentages.

CED

- Completed and submitted a technical memorandum about final work plan and recommended strategies.
- Developed a quarterly progress report and presented the progress summary at the quarterly progress review meeting.
- Acquired 2022-2023 crash data for Pennsylvania sites to increase “after” data sample size.
- Completed preliminary exploratory analysis and high-level data checks for consistency.

ARS

- Conducted preliminary analyses of the databases as described in the submitted technical memorandum for selected statistical methodologies and requirements.
- Developed a quarterly progress report and presented the progress summary at the quarterly progress review meeting.
- Submitted a technical memorandum for final work plan and recommended strategies for evaluations.

FOD

- Worked to refine the Pennsylvania database and resolve some inconsistencies observed when conducting quality control and confirming FOD presence and location.
- Continued development of the Texas database to use for comparison purposes.
- Developed a quarterly progress report and presented the progress summary at the quarterly progress review meeting.
- Completed and submitted the following deliverables:
    - Technical memorandum for feasibility study and data collection plan.

- Technical memorandum for data collection completion and identified issues and opportunities with recommendation.

TECHNICAL ADVISORY COMMITTEE (TAC) MEETING

- Continued developing the meeting agenda.
- Continued identifying potential speakers and confirming speakers in conjunction with that agenda.
- Continued making arrangements for the 2024 meeting logistics.
- Continued preparing the event website to provide meeting information and registration.
- Conducted the 2024 ELCSI-PFS TAC meeting on June 12 in Oklahoma City.
- Prepared the post-meeting input form on Qualtrics and distributed the link to the TAC members and other meeting attendees for completion.
- Posted the presentation files on the event website.
- Began preparing meeting notes.

PUBLICATIONS

The following items were published:

Technical Report for Developing Crash Modification Factors for Wrong-Way-Driving Countermeasures

TechBrief for Developing Crash Modification Factors for Wrong-Way-Driving Countermeasures

Compendium of Wrong-Way-Driving Treatments and Countermeasures

Anticipated work next quarter:

- Continue analysis of the RRFB databases.
- Complete reviewing crash data and joining ADT data to the California study sites and begin data analysis for LTL study.
- Complete data analysis, document analysis results, and assemble analysis results briefing material for CED study.
- Obtain cost information for the economic analysis and meet with FHWA to review the analysis results for ARS study.
- Begin joining crashes to the corridors for Pennsylvania and Texas for FOD study.
- Continue preparing meeting notes for 2024 TAC meeting and begin processing feedback from the post-meeting input form for inclusion in the meeting notes.

Significant Results:

- Made progress on data analysis for most studies.
- Successfully completed the 2024 TAC meeting.

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).

LTL: Acquiring left-turning vehicle volumes is a challenging activity.
FOD: Identifying sites for studying FODs continues to be an ongoing and challenging activity.

Potential Implementation:
N/A