# TRANSPORTATION POOLED FUND PROGRAM
# QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): FHWA

**INSTRUCTIONS:**
*Project Managers and/or research project investigators 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(099) | **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) | |
|---|---|---|
| **Project Title:** The Evaluation of Low Cost Safety Improvements Pooled Fund Study (ELCSI-PFS) | | |
| **Name of Project Manager(s):** Roya Amjadi | **Phone Number:** 202-493-3383 | **E-Mail** roya.amjadi@dot.gov |
| **Lead Agency Project ID:** TPF-05(099) | **Other Project ID (i.e., contract #):** N/A | **Project Start Date:** 05/2005 |
| **Original Project End Date:** 05/2010 | **Current Project End Date:** 2017 | **Number of Extensions:** none |

Project schedule status:

☐ On schedule ☐ On revised schedule ☑ Ahead of schedule ☐ Behind schedule

Overall Project Statistics:

| Total Project Budget | Total Cost to Date for Project | Percentage of Work Completed to Date |
|---|---|---|
| $4,380,000 | $2,888,221.94 | 130% |

***Quarterly*** Project Statistics:

| Total Project Expenses and Percentage This Quarter | Total Amount of Funds Expended This Quarter | Total Percentage of Time Used to Date |
|---|---|---|
| $36,585.94 | N/A | N/A |

**Project Description**:

FHWA has initiated the Low Cost Safety Improvements Pooled Funds Study to encompass safety-effectiveness evaluations of priority strategies from the NCHRP Report 500. 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. The data for the study will be gathered from those states that implement the strategies throughout the US. The methodology utilized will typically be an Empirical Bayes evaluation or other appropriate method, using B/A data to help determine their effectiveness in reducing the number and severity of crashes. The data will be collected, and evaluation studies performed, as the strategies are implemented over the course of several years.

Phase I- The first phase (retro-respective) of evaluations is completed and published for;
1. Safety Evaluation of Increasing Retroreflectivity of STOP Signs
2. Safety Evaluation of Flashing Beacons at STOP-Controlled Intersections
3. Safety Evaluation of STOP AHEAD Pavement Markings
4. Safety Evaluation of Installing Center Two-Way Left-Turn Lanes on Two-Lane Roads

Phase II- The second phase (retro-respective) of evaluations is completed and published for;
1. Safety Evaluation of Improved Curve Delineation
2. Safety Evaluation of Offset Improvements for Left-Turn Lanes
3. Safety Evaluation of Lane and Shoulder Width Combinations on Rural, Two-Lane, Undivided Roads
4. Safety Evaluation of Advance Street Name Signs

Phase III, Part 1- The third phase (part-one, strategy implementation) of evaluations is completed. This phase is a

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

1- Phase V risk assessment quarterly call was conducted in December 2011.
2- Phase VI is active for the "Evaluation of Low Cost Pavement Safety Improvements", and its kick off meeting was conducted in November 2011.
3- Phase VI technical work plan was reviewed and modified in December 2011.
4- Phase VII Statement of Work was initiated, and four following strategies were selected from the 2011 Technical Activity Committee (TAC) balloting results.

I. Driver Feedback Signs (including at un-signalized locations and transition areas)
II. Pedestrian signals, signing, and marking
III. Active intersection warning systems/dynamic signing
IV. Pavement markings for: LED, Raised, Snow plow-able, Wet-night, Retroreflectivity (details need to be determined)

5- FHWA and the contractor started work and planning for the TAC annual meeting in May 2012.
6- To benefit TAC members, a preliminary national Work zone Safety Performance was conducted inhouse, and it was presented to FHWA stakeholders in Offices of Safety R&D, Infrastructure R&D, and Asset Management. This product will be presented in the 2012 annual TAC meeting for low cost (NCHRP 500 reports) future research. Data was acquired from FARS, and OSHA and managed for this study.
7- Conduct in-hose research for pavement safety performance is on-going
8- Managed Phase V.
9- Managed Phase VI.

**Anticipated work next quarter**:

1- Complete SOW for Phase VII.
2- Draft and submit Acquisition Planing for the Phase VII.
3- Generate Procurement Request (PR) for Phase VII.
4- Manage Phase V.
5- Manage Phase VI.
6- Continue in-hose research for pavement safety performance
7- Submit the ELCSI-PFS abstract to the American Statistical Association meeting in July 2012 for presentation. The goal of this presentation is to share the ELCSI-PFS accomplishments with statistical professionals and benefit from their technical feedbacks to improve the ELCSI-PFS statistical methodology.

**Significant Results:**

1- Phase VI is active for the Evaluation of Low Cost Pavement Safety Improvements, its kick off meeting was conducted in November 2011.
2- Phase VI technical work plan was reviewed and modified in December 2011.
3- Phase VII Statement of Work was initiated, and four following strategies were selected from the 2011 balloting results.
   I. Driver Feedback Signs (including at un-signalized locations and transition areas)
   II. Pedestrian signals, signing, and marking
   III. Active intersection warning systems/dynamic signing
   IV. Pavement markings for: LED, Raised, Snow plow-able, Wet-night, Retroreflectivity (details need to be determined)
4- To benefit TAC members, a preliminary national Work zone Safety Performance was conducted inhouse, and it was presented to FHWA stakeholders in Offices of Safety R&D, Infrastructure R&D, and Asset Management. This product will be presented in the 2012 annual TAC meeting for low cost (NCHRP 500 reports) future research.

**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).**

No risk has been identified for phases V and VI success, and there is no concern at present.

**Potential Implementation:**

Phase VII will be active in late summer or early fall 2012.
Possible Phase VIII will be identified in May 2012.
Technology Transfer from American Statistical Association for low cost safety evaluation to benefit State DOT and Transportation agencies.