

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: 12/31/2020

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>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> TPF-5(319)		Transportation Pooled Fund Program - Report Period: <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)	
Project Title: Transportation Management Center Pooled Fund Study			
Name of Project Manager(s): Jon Obenberger	Phone Number: 202-493-3265	E-Mail jon.obenberger@dot.gov	
Lead Agency Project ID: DTFH61-06-D-0004-T-11008	Other Project ID (i.e., contract #):	Project Start Date: Feb. 1, 2000	
Original Project End Date: Sept. 30, 2010	Current Project End Date: Apr. 16, 2022	Number of Extensions: 3	

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
\$ 5,748,774	\$ 3,733,141	65

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$ 55,580	\$ 55,580	

Project Description:

The Transportation Management Center (TMC) Pooled Fund Study (PFS) serves as a forum to identify and address issues that are common among agencies that manage and operate TMCs and provides an opportunity for agencies to collectively take on those key issues and challenges. The TMC PFS also provides an opportunity to facilitate the interaction, sharing of information and successful practices with a broader audience to advance and improve upon the current state-of-the-practice related to the management, operation, and performance of TMCs.

The goal of the TMC PFS is to assemble regional, state, and local transportation management agencies and the Federal Highway Administration (FHWA) to:

- Identify human-centered and operational issues;
- Suggest approaches to addressing identified issues;
- Initiate and monitor projects intended to address identified issues;
- Provide guidance and recommendations and disseminate results;
- Provide leadership and coordinate with others with TMC interests; and
- Promote and facilitate technology transfer related to TMC issues nationally.

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

Usage of Color Changeable Message Signs: The report summarizing the current practice and research on the use of color changeable message signs has been completed. The laboratory and field data collection to support a human factors study analyzing the effects of using colors Changeable Message Signs was completed. The Human Factors Study Report on the limited testing conducted on the Use of Color Changeable Message Signs was completed. Both reports are being reviewed to ensure they comply with FHWA publication requirements.

Use of Performance Dashboards for Communicating the Benefits of Traffic Operations: The final report was submitted, reviewed, and accepted. This report is being reviewed to ensure it complies with FHWA publication requirements. The results of the project were highlighted during a webinar co-hosted by the TMC PFS, FHWA, and National Operations Center of Excellence on July 21, 2020 with the presentation and webinar recording available at: <https://transportationops.org/ondemand-learning/transportation-management-center-performance-dashboards>.

Performance Measures and Health Index of ITS Assets: The final report was submitted, reviewed, and accepted. This report is being reviewed to ensure it complies with FHWA publication requirements. The results of the project were highlighted during a webinar co-hosted by the TMC PFS, FHWA, and National Operations Center of Excellence on September 10, 2020 with the presentations and webinar recording available at: <https://transportationops.org/ondemand-learning/performance-measures-and-health-index-its-assets-webinar>.

Information and Analysis of TMC Staff and Staffing Contracts: A letter report for the literature research was submitted and approved by the project review team. The annotated outline was reviewed and accepted by the project review team. The draft report is expected in March of 2021.

A quarterly conference call was conducted on December 2, 2020. As there was no in-person TMC PFS annual meeting in 2020, one half of the members provided updates during this meeting on the key accomplishments and planned TMC related activities of their agency to continue the sharing of practices and information among agencies. Updates members provided will be posted on the TMC Portal located on the National Operations Center of Excellence webpage at: <https://transportationops.org/traffic-management-systems-and-centers/tmc-pooled-fund-study-and-projects>.

As there was no in-person annual meeting to select new projects, the members initiated the process to identify and provide feedback on new topics to consider as possible new projects to advance in 2021 in-between quarterly meetings. This process culminated with two virtual meetings in November and December where members reviewed, provided feedback, identified changes to consider, and prioritized new projects to advance in 2021 based on funds members will provide to the TMC PFS in 2021. The five new projects to pursue in 2021 if funding is made available are: 1) Sharing Information and Practices on TMS Emerging Topics, 2) Integrating and Using New Data Sources in TMSs, 3) Options for TMSs to Receive and Share Data from Multiple Sources, 4) Developing Multi-year Plans to Guide TMSs' Strategic Direction and Future Investments, and 5) Using Data from Social Media to Improve TMS Management and Operation.

Anticipated work next quarter:

TMC PFS Meetings: The TMC PFS quarterly meeting was conducted on December 2, 2020. The next TMC PFS quarterly meeting is scheduled for March 3, 2021 with the focus of the meeting allowing half of the members to provide updates on the key accomplishments and planned TMC related activities of their agency to continue the sharing of practices and information among agencies. Updates members provided will be posted on the TMC Portal located on the National Operations Center of Excellence webpage at: <https://transportationops.org/traffic-management-systems-and-centers/tmc-pooled-fund-study-and-projects>.

Capability and Usage Guidelines for Color Changeable Message Signs: The Task 3 Current Practices and Research report is complete. The Task 4 Research Report is completed. The report is expected to be approved by the FHWA Publication Process in March of 2021.

Use of Performance Dashboards for Communicating the Benefits of Traffic Operations: The final project report is completed. The report is expected to be approved by the FHWA Publication Process in March of 2021.

Performance Measures and Health Index of ITS Assets: The final project report is completed. A webinar to highlight the results of the project was conducted on September 10, 2020. The report is expected to be approved by the FHWA Publication Process in March of 2021.

Information and Analysis of TMC Staff and Staffing Contracts: The project review team submitted comments and approved the final draft of the annotated outline submitted for the project report. The initial draft report is expected to be submitted for review in March of 2021.

Applying Predictive Analytics into the real-time management and operation of traffic management systems (TMSs):

- Synthesis Literature Review Report: Draft submitted February, 2021 and final expected in March.
- Annotated Outline of Technical Report: Draft submitted in February, 2021 and updated outline expected in March.

Traffic Management System (TMS) Asset Management Planning and Life Cycle Cost Analysis:

- Final Synthesis Literature Review Report: Submitted January on 30, 2021 and accepted in February.
- Final Annotated Outline of Technical Report: Draft annotated outline expected in March and final in May.

Inventorying, Documenting, Configuring, and Assessing Traffic Management Systems (TMSs):

- Final Synthesis of Literature Review: Planned for March 2021 (draft submitted Jan. 2021)
- Final Annotated Outline: Planned for June 2021 (initial draft submitted in Feb. 2021)

TMS Pooled Fund Study Technical Support. The contractor initiated providing technical and administrative support in November of 2020 to the TMC PFS projects and activities via the project FHWA is funding.

Significant Results:

Final project reports for the *Capability and Usage Guidelines for Color Changeable Message Signs*, *TMC Dashboards*, and *Performance Measures and Health Index of ITS Assets* projects were submitted into the FHWA publication review and approval process. The results for the *TMC Dashboards*, and *Performance Measures and Health Index of ITS Assets* projects were highlighted in webinar hosted by the National Operations Center of Operations Excellence.

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 issues have been identified or encountered to date.

Potential Implementation:

The next quarterly meeting of the TMC PFS is scheduled for March 3, 2021. The scope of work and procurement documents will be developed in the second quarter to initiate the 5 new projects selected to be advanced in 2021