

# RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation  
DT1241 4/2010

**INSTRUCTIONS:**

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

<b>WisDOT research program category:</b> <input type="checkbox"/> Policy research <input type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Other <input checked="" type="checkbox"/> Pooled fund TPF# 5(156)		Report period year: 2010 <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input checked="" type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: <a href="#">Transportation Profiles for MVFC Commodities</a>		
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WisDOT project ID: <a href="#">TRJ 3450830</a>	Other project ID: <a href="#">MVFC 10</a>	Project start date: <a href="#">1/1/2009</a>
Original end date: <a href="#">9/30/2011</a>	Current end date: <a href="#">9/30/2011</a>	Number of extensions: <a href="#">0</a>

**Project schedule status:**

On schedule                     
  On revised schedule                     
  Ahead of schedule                     
  Behind schedule

**Project budget status:**

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
<a href="#">\$173,521.00</a>	<a href="#">\$32,342.00</a>	<a href="#">\$113,339.00</a>	<a href="#">65%</a>	<a href="#">90%</a>

**Project description:**

This project will use alternative methods to develop information on the flow of commodities through the region. Part one will develop two commodities in depth with narratives and illustrations to demonstrate the importance of efficient transportation to the industry along with some of the issues that influence the decisions made by shippers and carriers as they move product. Part two will use the approach of disaggregating Freight Analysis Framework information and assigning the commodities to routes. Part three will develop a micro-simulations of commodities based on freight volume, economic activity and probabilities. Since this application will take it to new levels, only four commodities will be analyzed under this project. With successful demonstration, the technique might be expanded in future work.

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

The original project starting date in the contract was 1/1/2009 and the contract was not signed until 11/16/2009. So the project starting date was 11/17/2009.

New FAF3 was released recently. We plan to update our database accordingly.

Work Plan Status as of September 30, 2010:

- 1) Current data validation (in progress)
- 2) Online data viewer (in progress)
- 3) Compilation and Integration of Data (in progress)

- a. Integration of FAF database
  - b. Missing Data Imputation for CBP and ES202 employment and payroll data
  - c. Comparison between FAF2 and FAF3 databases
- 4) Update National County Level Commodity Outbound and Inbound Data (to be performed)
    - a. Update proportional weighting to obtain outbound data
    - b. Update simultaneous equation model to obtain inbound data
  - 5) Update National 2-digit SCTG County Level Origin-Destination Matrix (to be performed)
  - 6) Update national 3-digit SCTG County Level Origin-Destination Matrix for five commodities specified in the project work scope (to be performed)

Conference Presentations:

- 1) Presentation of "National County-level Commodity Flow Data Generation and Analysis" in the Midcontinent Research Forum on August 19, 2010, Madison, WI
- 2) Session chair on "Freight Transportation and Air Quality" at TRB summer conference on environmental and energy research, Raleigh, NC, June 6-9, 2010
- 3) Presentation of "Modeling Commercial Vehicle Daily Tour Chaining", SHRP2 Innovations in Freight Modeling and Data Collection, Sep 13-15, 2010

**Anticipated work next quarter:**

Compile draft final report based on project team summaries

From the UIC perspective, the team will continue the following:

- 1) Update National County Level Commodity Outbound and Inbound Data
  - a. Update proportional weighting to obtain outbound data
  - b. Update simultaneous equation model to obtain inbound data
- 2) Update National 2-digit SCTG County Level Origin-Destination Matrix
- 3) Update national 3-digit SCTG County Level Origin-Destination Matrix for five commodities specified in the project work scope

**Circumstances affecting project or budget:**

Significant encumbrances are still on the books. The budget appears to be about right.

**Attach / insert Gantt chart and other project documentation**

FOR WISDOT USE ONLY

Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved:

## Gantt Chart

Task List	Quarter 1			Quarter 2			Quarter 3			Quarter 4		
Month (2010)	1	2	3	4	5	6	7	8	9	10	11	12
Task 1: compilation and integration of Data												
Task 2 : county level in/outbound commodity flow generation and validation												
Task 3: 2-digit SCTG county O-D tables generation and validation												
Task 4: 3-digit SCTG county O-D tables generation and validation												
Task 5: Online data viewer												
<b>New Tasks:</b>												
Task 6: compilation and integration of new FAF3 data												
Task 7 : Update and validate county level in/outbound commodity flows												

Task List	Quarter 1			Quarter 2			Quarter 3		
Month (2011)	1	2	3	4	5	6	7	8	9
Task 7 : Update and validate county level in/outbound commodity flows									
Task 8: Update and validate 2-digit SCTG county O-D tables									
Task 9: Update and validate 3-digit SCTG county O-D tables									
Task 10: Update online data viewer									
Task 11: Final report									

Task yet to be completed  
  
 Task completed