

OHIO DEPARTMENT OF TRANSPORTATION  
QUARTERLY RESEARCH REPORT



For Quarter Ending: September 30, 2003  
Date Submitted: October 30, 2003

Project Title: Upper Midwest Freight Corridor Study

Research Agency: University of Wisconsin-Madison

Principal Investigator(s): Dr. Teresa M. Adams

State Job No.: 134138  
Agreement No.: 20252  
Pooled Fund Study No. (if applicable): TPF-5 (078)

Project Start Date: August 19, 2003 Contract Funds Approved: \$360,003.80  
Project Completion Date: Oct. 19, 2004 Spent To Date: \$4158.99  
% Funds Expended: 1.16% Work Done: 14.16% Time Expired: 10.1%  
List the Technical Liaisons and other individuals who should receive copies of this report: Suzann Rhodes (ODOT), Stew Sonnenberg (FHWA)

### **SUMMARY OF PROGRESS FOR QUARTER:**

Attach a progress schedule consisting of graphical information depicting (1) a schedule of research activities tied to the tasks defined in the proposal, (2) a comparative status of actual versus estimated expenditures, and (3) a percentage completion of the research.

### **ACCOMPLISHMENTS**

#### **Task 1**

- In the administrative issues literature review: compiled information from FHWA studies, AASHTO reports, and government regulations.
- Assembly of all available capacity data for highways and railroads has begun and is continuing.
- The team developed a “wish list” of data to be obtained from agencies in the region and on the federal level.

- Contacted several state DOTs (WI, IL, MI, IA, OH) and provinces of Manitoba and Ontario for data availability and in some cases obtained data.
- Also made progress in the acquisition of Waybill Sample data by coordinating with the Surface Transportation Board and drafting the data request template.
- Examined data obtained to date, and developed a catalogue that was distributed to the research team. The catalogue is used to coordinate data collection efforts and also to identify data gaps.
- UIC collaborated with the U of Toledo team to finalize the format of the catalogue and to provide them copies of acquired data.
- From the June 3 workshop and subsequent efforts, a list of freight performance measures that are relevant to the industry and describe the significant outcomes for them was assembled and revised.
- Work has begun to contact participants in other corridors to understand their practices relative to performance measures.

### **Task 2**

- The design of the capacity database is nearing completion; the database contents and design are documented on the Toledo Site Web Page at <http://www.midwestfreight.utoledo.edu>.
- The GIS database has been completed for highways, railroads, ports and airports. Intermodal connectors and intermodal sites are nearly completed. These data currently reside at the Toledo Site.
- Documentation of the contents of the database has begun and will continue until all data has been collected.
- Began development of an internet-based system to report and display capacities within the corridor using map, graphic, and text formats.

### **Task 3**

- Completed the definition of necessary variables for highway and railroad capacity computations and included them in the data documentation page on the Toledo Project Web Site.

### **Task 5**

- Public Sector survey was distributed and tabulated.
- Agencies targeted for further review have been identified. Some contacts have been made.
- Private Sector survey is awaiting approval for distribution from oversight committee at UW-Madison. The survey has been developed and reviewed.
- Contact list of over 500 organizations has been compiled.

### **Task 6**

- A design firm has been selected and work has begun on content and design.

### **Task 7**

- Stakeholder Interviews - Name, Date, and Topic
  - a) Tom Howells, 6/11/03, Inconsistencies in Trucking Regulations
  - b) Chuck Teasdale, 7/8/03, Hazardous Materials Regulations
  - c) Pat Hulbert, 8/13/03, Trucking Firm Regulatory Requirements
  - d) John Varda, 9/11/03, Rail Industry History and Regulations

### **Task 8**

- Began development of computation procedures for highway and railroad capacity.

## **Task 9**

- MRUTC Project Assistant Bowen Dwelle researched various web-based database programs for use in the synthesis. Search was based on organization seen in websites such as the National Transportation Library (<http://ntl.bts.gov/index.cfm>) and TRB's Research in Progress database (<http://rip.trb.org/>).
- Testing has begun on a web-based database program. The site of the test can be found at [www.mrutc.org/doclib](http://www.mrutc.org/doclib). The loading speed of the records still needs work.

## **Final Report**

- Work has begun on the reporting of the performance measures area of the study.

## DEFINITIONS OF ALL TASKS (updated from proposal are highlighted)

Task 1: Collect data from public and private agencies/Literature review for performance measures and administrative issues.

Task 2: Design and implement database of freight information for optimal organization and easy access.

Task 3: Define, organize and layout the highway and rail networks that will be part of the study.

Task 4: Identify and map the significant airports, seaports and intermodal facilities in the study area.

Task 5: Release survey for planning agencies across the country, compile results of performance measure questions and administrative issues questions.

Task 6: Design and launch study website.

Task 7: Conduct State DOT and other stakeholders visits and interviews.

Task 8: Determine the capacity of the infrastructure identified in tasks 3 and 4.

Task 9: Research freight transportation planning activities in the region, including ITS CVISN plans.

Task 10: Research best practices for corridor studies.

Task 11: Identify system level bottlenecks that inhibit the flow of freight on the transportation network, including administrative impediments.

Task 12: Document data characteristics.

Task 13: Analysis of freight demand data.

Task 14: Plan and execute second steering/advisory committee meeting.

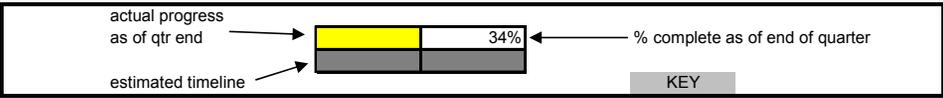
Task 15: Identify next steps for demand data, such as forecasting.

Task 16: Determine future bottlenecks.

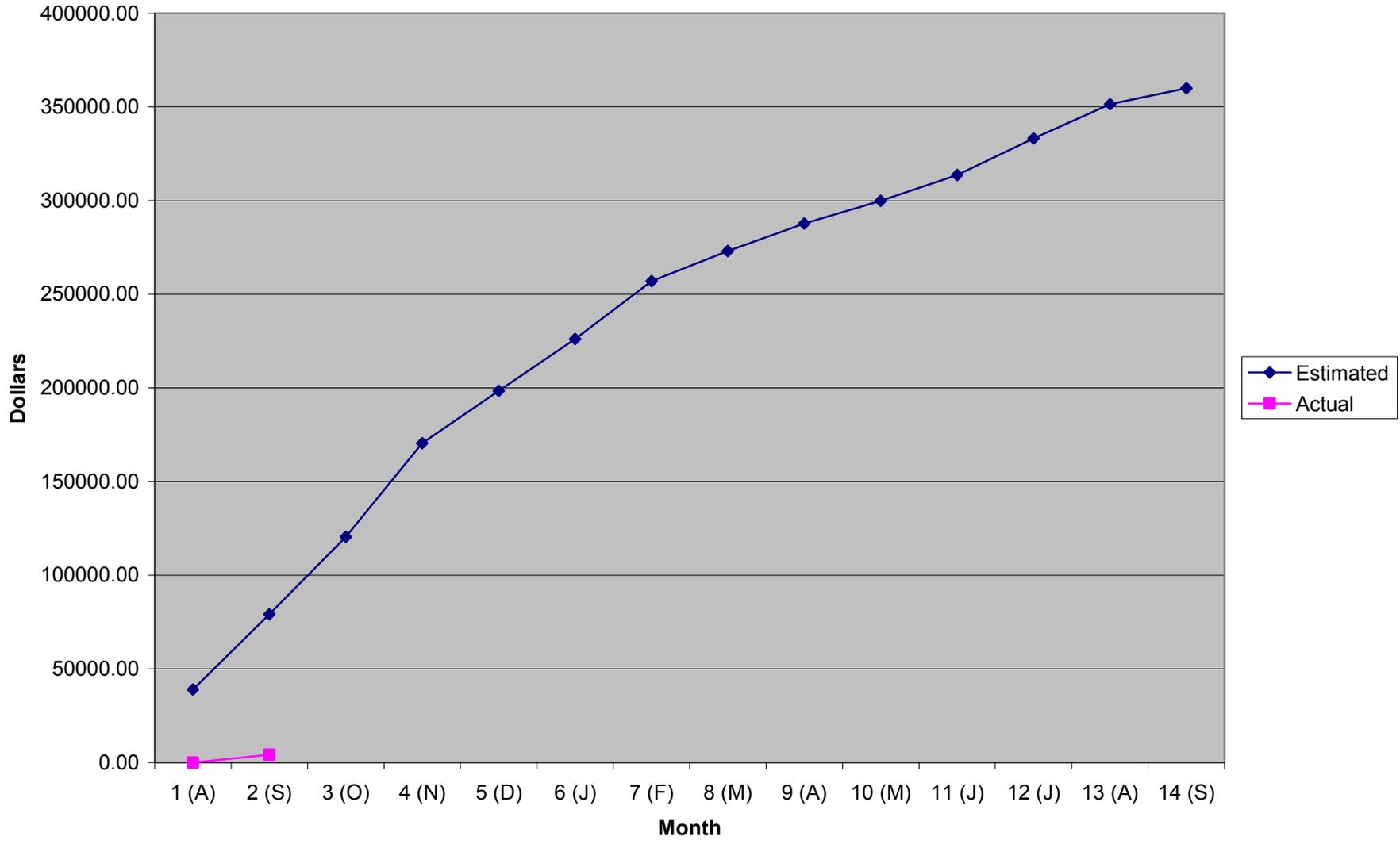
Task 17: Plan and execute concluding workshop for the study.

TASKS

	MONTH															TOTAL TASK
	August	Sept	October	Nov	Dec	Jan	Feb	March	April	May	June	July	August	Sept	October	
1	26%															26%
2	62%															62%
3	100%															100%
4	0%															0%
5	37%															37%
6	50%															50%
7	17%															17%
8	28%															28%
9	5%															5%
10	0%															0%
11	0%															0%
12	0%															0%
13	0%															0%
14	0%															0%
15	0%															0%
16	0%															0%
17	0%															0%
Final Report	4%															4%



### Costs Estimated vs. Actual



## **PROPOSED WORK FOR NEW QUARTER:**

### **Task 1**

- Review publications and other documents regarding previous regional freight studies to learn about their handling of administrative issues.
- Will complete the work of contacting participants in other corridors to understand their practices relative to performance measures.
- Analyze currently available data to determine if possible measures can be used without significant added data collection.
- In terms of capacity data, will acquire remaining variables currently not available for highway and railroad capacity computations from state and provincial agencies, and MPOs; then will assemble data into existing highway/railroad capacity database.
- Assemble all available capacity data for motor terminals, rail yards, intermodal transfer facilities, airports and ports within the corridor, followed by the linkage of these data to the cartographic elements in the GIS database.
- Identify all variables currently not available and prepare request to carriers, state and provincial agencies, and MPOs for acquiring capacity information for terminals, yards and intermodal transfer facilities.
- Similar process for demand/usage data, will make second round of contacts with the DOTs as well as MPOs and other agencies to fill data gaps.
- UIC will work with the U of Toledo to complete cataloguing of the data, then identify missing data.
- Finalize the idea for the end product.

### **Task 2**

- Continue documentation of the contents of the database on the project web page (Toledo site) as new data are added to the database.
- Continue work on the internet-based system to report and display capacities within the corridor using map, graphic and text formats.
- Continue to link new sources of data to the project web page.
- Put a secured FTP site into place at the University of Toledo GISAG Lab.
- Establish access and passwords for researchers in the project.
- Set up protocols for transfer of data.

### **Task 4**

- Define the necessary variables in capacity computations for motor terminals, rail yards, intermodal transfer facilities, airports and ports within the corridor, and include them in the data documentation on the Toledo Project Web Site.

### **Task 5**

- Finish analysis of data from Public Sector survey.
- States and provinces in the region and selected others will be contacted if further feedback is necessary.
- Private Sector survey will be sent, tabbed, and analyzed.
- Selected shippers and carriers will be interviewed.

### **Task 6**

- Finish work with design firm and work to make a first pass at filling in content.
- Launch the site at [www.uppermidwestfreight.org](http://www.uppermidwestfreight.org).
- Continue to fill in the voids on the site and expand other areas, such as the calendar and resources.

### **Task 7**

- On Oct 21, 2003, meet with Gloria Skinner, Washington State DOT, and Michael Cummings, Washington State DOT.
- Further interviews with stakeholders in multi-jurisdictional freight efforts will be planned.
- To research freight efforts in the region, plans for interviews of state contacts will be made. Three states to be interviewed, several MPOs to be interviewed.
- In the administrative issues area of the study, we plan to interview stakeholders in the rail industry regarding rail regulations and inconsistencies in rail standards.

### **Task 8**

- Continue development of computation procedures for highway and railroad capacity.
- Begin testing of computations using existing data sets (if available).
- Begin development of capacity computation procedures for motor terminals, rail yards, intermodal transfer facilities, airports and ports.

### **Task 9**

- Testing will continue on the current program to increase speed.
- Final decision on program to be made by end of October.
- All items in current collection will be entered in November. Work to be done by Assistant Director Travis Gordon and Project Assistant Lane Pille.
- Pille will begin planning the web search for relevant resources. Plan to begin web search near end of quarter.
- In conjunction with web search, Lane Pille will also look into resources outside of the internet. These could include libraries, private databases, or reference specialists.
- Obtain ITS CVISN plans from state websites and other sources.

### **Task 10**

- Alternatives will be researched and identified, along with elements of research.
- Of the alternatives identified, 4 or 5 will be selected.
- Research elements will also be selected for study focus.
- Help from the research team and Steering Committee will be needed in the selection process.
- Research will begin on detailed information for the selected planning efforts.

### **Task 11**

- Begin work on the internet-based system to integrate capacities and flows within the corridor.
- Begin incorporating capacity computations into the reporting system, using map, graphic and text formats.
- Conduct a teleconference with Suzann Rhodes to refine plan for developing the administrative issues matrix.
- Use GIS tools to illustrate and evaluate impacts of inconsistencies in freight regulations across the region.

### **Task 12**

- At UIC, begin to document data catalogue, data collection and cleaning process, and quality of data.

### **Task 13**

- Clean demand data if needed, assess quality of data.

### **Task 14**

- Work on location selection within Milwaukee, including meeting place and lodging.
- Make contacts for reception speaker.

### **Final Report**

- In the performance measures reporting area:
  - Pull all of the information gathered together into a coherent summary of current practice and further opportunities.
  - Construct a conceptual framework within which agency decision makers can consider the idea of measures and select directions for their agency.
  - With the data and the measures that are or might be used, list those that could be implemented easily.
  - Have outline and draft of this report done.

### **IMPLEMENTATION (if any):**

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**PROBLEMS & RECOMMENDED SOLUTIONS (if applicable):**

Describe any problems encountered or anticipated that might affect the completion of the project within the time, scope, and fiscal constraints set forth in the contract, along with recommended solutions to those problems. NOTING DIFFICULTIES IN THIS SECTION DOES **NOT** CONSTITUTE A REQUEST TO MODIFY THE PROJECT. Requests for additional time, money, or scope revisions must be submitted in a separate letter to the Office of R&D Administrator.

Problem: Data acquisition (not all data is readily available from one point at a state agency)  
Recommendation: Continue pursuing data within agencies from individuals other than the direct contacts in the project; pursue data acquisition from MPOs within the region as an alternative.

Problem: Data format (not all data is in electronic format)  
Recommendation: Prioritize direct key entry for only those variables that are absolutely essential to computations; experiment with OCR software for other data for expedited entry.

**EQUIPMENT PURCHASED (if any):**

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**CONTACTS & MEETINGS:**

Describe any meetings or contacts with ODOT technical liaisons and other pertinent individuals relative to this project.

9/11/03: John Varda, Transportation Council, Wisconsin Manufacturers and Commerce:  
Discussed rail industry history and regulations.

9/19/03: All members of the research team met in Chicago for one day to refine study plans, report progress, and develop strategies for collaborating among the study research groups.