



DEPARTMENT OF
**Civil and
Environmental Engineering**
UNIVERSITY OF WISCONSIN-MADISON

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Mr. William J. Brennan
Director, Office of Economics
Surface Transportation Board
395 E Street, NW
Washington, DC 20423-0001

RE: Request for Waybill Data from the Surface Transportation Board

Dear Mr. Brennan,

I am requesting the 2017 Carload Waybill Samples of railroad traffic originating, terminating, or passing through the Mid America Association of State Transportation Officials (MAASTO) region consisting of the following ten states: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Ohio and Wisconsin on behalf of the Mid America Freight Coalition (MAFC, <http://midamericafreight.org>). MAFC is housed within University of Wisconsin-Madison and is the freight research and collaboration support group for the MAASTO states.

The Mid America Freight Coalition is a FHWA recognized coalition that cooperates in the planning, operation, preservation, and improvement of transportation infrastructure in the Midwest region consisting of the ten MAASTO states as listed earlier.

MAFC intends to use the database towards the MAFC project: "Analysis of Surface Transportation Board Waybill Data for Freight Planning and Operations" sponsored by the ten MAASTO states. The project is aimed at providing an analysis of the Waybill data and evaluating how the data can be beneficial for numerous state planning and operations decision-making requirements. The work will further involve comparing data available in the Waybill Sample against alternative databases and identifying where the Waybill may be supplemented by alternate sources depending on the analytical needs of the work. Since the project intends to analyze all aspects of the Waybill Sample as it would be available to State DOTs, we are requesting access to all aspects of the data as it pertains to the ten states. The study will include research and analysis of goods movements, routing patterns within the region, value of freight, evaluation of rail infrastructure investments, and statewide freight modeling frameworks.

Please see writeup of the scope of work associated with the project attached to this request.

All researchers involved in the study will sign the Use Agreement. Please be assured that the requested data will be kept safe and will only be seen and used by people who need the information at MAFC.

If you have any questions concerning this request, please contact Sue Ahn (ahn37@wisc.edu) or Ernest Perry (ebperry@wisc.edu).

Thank you for your consideration of this request.

Sincerely,

A handwritten signature in black ink, appearing to read "EB Perry". The signature is stylized with a large "E", a cursive "B", and a more formal "Perry" followed by a long horizontal stroke.

Ernie Perry, Ph.D.
Administrator, Researcher
Mid-America Freight Coalition
College of Civil and Environmental Engineering
University of Wisconsin – Madison
Madison, WI. 53706
ebperry@wisc.edu
608-890-2310

MAFC Analysis of Surface Transportation Board Waybill Data for Freight Planning and Operations WORK PLAN

Contact: Dr. Sue Ahn, UW-Madison, at sue.ahn@wisc.edu, or Dr. Ernie Perry, at ebperry@wisc.edu.

Statement of Work

There is an extensive range of available data for multimodal freight planning and operations decision-making. All freight modes have representative data to gauge the level of freight activity, value, demand, and inferred infrastructure needs. Still, the freight data is often inadequate for timely or precise analysis on modal freight movements. Issues related to the freight data include sample size, aggregation of information and precision, timeliness, ownership and access, and the alignment and scope of data for the needed analysis.

The Federal Highway Administration (FHWA) and Bureau of Transportation Statistics (BTS) have developed the comprehensive, multimodal Freight Analysis Framework (FAF) to address freight data needs. The Surface Transportation Board (STB), the American Association of Railroads (AAR), American Trucking Institute (ATI), the Commerce Department, and many other entities have also developed freight databases to support industry and policy analysis. However, none of the databases are able to offer comprehensive and timely data required for detailed analysis of freight movements and infrastructure needs. Policy makers and state Departments of Transportation (DOTs) are often supplementing this data with customized local surveys of freight users to better identify trends, needs, opportunities, and constraints to efficiency and industry growth.

Objectives

The purpose of this project is to provide an analysis of STB rail waybill data and examine the adequacy of the data for state planning and operations decision-making. The project also addresses the potential implications of potentially undercounting the volume of agricultural commodities. After a review and analysis of the construction, scope, quality, and use-ability of the waybill data, alternative databases will be examined for efficacy, and data collection methods will be identified that support the analysis of freight rail movements. These alternatives can supplement or replace the waybill data depending on the analytical needs of the analysis. Given the limited data availability, recommendations for data types and procurement will be assessed and provided.

Scope of Work (Tasks)

- 1) Data acquisition: Acquire freight waybill data.
- 2) Review of waybill data, previous analysis and usage: Conduct literature review of previous analyses of waybill data and other rail freight data. Identify and interview DOT and consultant personnel who have used the waybill data (topics of discussion identified through literature and discussions with MAFC technical representatives). Identify common uses of the data in state freight planning.
- 3) Analysis of waybill data: Analyze database in terms of sample size and coverage, commodities addressed, timeliness, ease of use, availability, and adequacy for a range of planning and operation's needs. Include summary of metadata repository.
- 4) Identify strong points of the data set and possible analysis approaches of use to state DOTs. Identify areas where the database is inadequate for analysis of freight movements, value of freight, and infrastructure needs.
- 5) Comparative analysis of alternative data sets: Identify potential alternative data sets for analysis of freight rail movements. Evaluate previous work at state DOTs and in the literature for alternative data

sets to waybill data in terms of geographical and commodity coverage, usefulness of data for analysis, accuracy, timeliness, validity and sample size. Create report and presentation documenting the research process and findings.

6) Review the usefulness of waybill data: Provide suggestions to supplement the data for increased analytical capabilities. Discuss issues related to privately generated versus public freight data; discuss sample size and concerns of practitioners; and identify partnerships that would potentially enable additional cooperative efforts to generate more comprehensive freight rail data and analysis approaches.

Deliverables

This project will result in a final document that reviews waybill data and other freight data sources, assesses the data's quality, coverage and efficacy. Uses of the data are also examined and recommendations are made to increase the overall utility of waybill data, other data sets, data collection techniques, as well as current and potential data analysis methods. Input from state and industry practitioners is used to develop the research focus for the data sets and determine current and potential uses and analysis techniques. More detailed tasks are listed in the task and time chart below.