

Surface Transportation Board
Washington, D.C. 20423-0001

Office of Economics

October 31, 2022

Wesley W. Wilson
Department of Economics
University of Oregon
Eugene, OR 97403-1285

Re: Waybill Request WB22-58

Dear Professor Wilson:

The Surface Transportation Board (STB or Board) has approved your request to extend your access to the STB Carload Waybill Samples for 1984-2017 originally obtained in WB18-29, WB20-43, and WB21-75. This data may only be used for the academic purposes outlined in your request and may not be used for any other purpose such as private, commercial consulting. ***This approval becomes effective when signed agreements from the individuals listed below are received by the STB:***

- a) *Wesley W. Wilson – University of Oregon*
- b) *Frank A. Wolak – Stanford University*
- c) *Keaton Miller – University of Oregon*

The expiration date for this agreement is October 31, 2023. Unless you seek and obtain a renewal from the STB, this agreement upon expiration obligates you to return or destroy all copies of the data (see item 6 of the agreement). Any request for renewal will need to provide a detailed explanation for why continued access to the data is necessary and demonstrate that you are continuing to actively use the data for the originally requested purpose. Renewals are meant to allow sufficient time to finalize research and prepare for publication. Should you wish to initiate new research projects or otherwise use the CCWS data for any purpose other than that stated in your original request, a new request under 49 C.F.R. § 1244.9(c) is required.

Several aspects of the CCWS limit the conclusions that may be drawn from analysis of the CCWS: 1) the CCWS is a sample, and 2) the CCWS is based on terminating shipments from relatively large carriers. Only those railroads with more than 4,500 annual terminating carloads are included in the sample. The limited sampling of small railroads may have a substantial effect on studies covering areas served predominately by non-sampled railroads. For additional information on the CCWS, see *Reference Guide* @ <https://www.stb.gov/reports-data/waybill/> on the Board's website.

The rules for release of waybill data are codified at 49 C.F.R. § 1244.9. The CCWS contains confidential shipper and railroad data. As a result, the CCWS is commercially sensitive and has the potential to cause competitive harm to shippers and railroads if disclosed. Therefore,

Waybill Agreement WB22-58

the following agreement must be signed, and a copy of the signature pages returned to the STB, before any waybill data can be used.

Your signature acknowledges your agreement to comply with the following:

1. You will use the CCWS data released to you solely for the purpose requested.
2. Absent permission from the STB, you shall make the information contained in the CCWS (including work product and analyses derived from the CCWS) available only to the individuals identified above. The STB may approve access for additional individuals within your entity working on the particular project or study requiring the waybill data. Each such additional individual must review and sign this agreement, and return a copy of the signature page to the STB.
3. You will not release any CCWS data (including work product and analyses derived from the CCWS) to anyone who has not signed this agreement and been approved for access by the STB until the STB has had the opportunity to review the materials proposed for disclosure to ensure confidentiality.
4. You acknowledge that, in addition to the restrictions described in paragraphs 1 and 2 above, you are bound by the STB's rules governing use and disclosure of CCWS data. These include the confidentiality provisions of 49 C.F.R. §§ 1244.9(f)(1)-(3), which require that "[a]ny shipper data obtained from the Waybill Sample shall not be publicly released unless the data are aggregated to include at least three shippers." In addition, you agree not to disclose CCWS data that permits identification of an individual railroad.
5. You will refer any requests for CCWS data in your possession (including work product and analyses derived from the CCWS) to the STB for processing and will inform the requesting party of such referral to the STB. If you are compelled by law or order of a governmental or judicial body to release CCWS data, you shall notify the Board in writing within three days of any determination that CCWS data must be released, and in no event later than five days before the CCWS data is scheduled to be released.
6. In order to retain access to the CCWS beyond the expiration date specified above, you must submit a written request for an annual extension of the agreement no later than thirty days prior to the expiration date and the renewal request must be approved by the Office of Economics. **If an annual agreement is not signed and approved, you must certify by no later than the expiration date that all CCWS data (including all work product and analyses derived from the CCWS) obtained under this agreement has been destroyed or returned to the STB.**

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7. Failure to request an extension (if necessary), or destroy or return CCWS data when required, may prevent any future release of CCWS data to you. Violations of this agreement may subject you to sanctions by the Board.

After all parties have signed and returned this agreement, the extension is granted.

Sincerely,

William Brennan

William Brennan, PhD
Chief Economist & Director
Office of Economics

Waybill Agreement WB22-58

I have read and understand the conditions for release of the CCWS data. I agree to comply fully with these conditions and the provisions of this confidentiality agreement. No later than thirty days before the agreement expires, I will request an extension of this agreement, if necessary. If no extension is requested, I will return or destroy all CCWS data and certify that I have done so. I have the authority to sign this agreement.

By: Wesley W. Wilson

A handwritten signature in cursive script that reads "Wesley Wilson".

Signature

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I have read and understand the conditions for release of the CCWS data. I agree to comply fully with these conditions and the provisions of this confidentiality agreement. No later than thirty days before the agreement expires, I will request an extension of this agreement, if necessary. If no extension is requested, I will return or destroy all CCWS data and certify that I have done so. I have the authority to sign this agreement.

By: Frank A. Wolak

A handwritten signature in cursive script, reading "Frank A. Wolak", written over a horizontal line.

Signature

Waybill Agreement WB22-58

I have read and understand the conditions for release of the CCWS data. I agree to comply fully with these conditions and the provisions of this confidentiality agreement. No later than thirty days before the agreement expires, I will request an extension of this agreement, if necessary. If no extension is requested, I will return or destroy all CCWS data and certify that I have done so. I have the authority to sign this agreement.

By: Keaton Miller



Signature

October 13, 2022

William Brennan, Director
Office of Economics, Environmental Analysis, and Administration
Surface Transportation Board
395 E Street SW
Washington, DC 20423
Subject: Waybill Sample Data Request

Dear Mr. Brennan:

Please consider this a request to extend our access to the Unmasked Carload Waybill Statistics from 1983 to 2017 that was originally obtained in WB18-29 and then last year in WB21-75. This request will allow continuation of academic research on the railroad industry by Professor Wesley W. Wilson of the University of Oregon and Frank A. Wolak of Stanford University (Principle Investigators) which was initiated under previous access agreements. We have papers that are at various stages of the academic review process and need access to complete the academic reviews.

The Unmasked Carload Waybill Statistics are the best data available, and the collection of these data from other sources is not only burdensome, it is likely impossible. Below we provide the purpose for which access is needed, a description of specific waybill data or fields that are actually required (including pertinent geographic areas), and a detailed justification as to why the specific waybill data are needed. I note that we are requesting the entirety of the unmasked waybill. Most of the fields are required for the research and the few that are not are superfluous do not mandate special programming either by the STB or by the principle investigators who have done extensive work with the same data previously. We also fully understand and will comply with the confidentiality standards (the three shipper rule, the three-FSAC rule) and subject any research output using these data to the Director of the Office of Economics for confidentiality compliance review.

Access to the data is needed to continue a line of research is to examine the determination of rates, costs, and service across railroads, time, and geography. As is well recognized in the economics literature, a massive number and wide variety of outputs are produced by railroads as delineated by commodity movements and origin-destination pairs and types of railroad configurations employed i.e., single car, multicar, and unit trains. Analysis of costs is complicated by the sheer dimensionality of the set of outputs, the fact that most costs are common or joint costs, the presence of both economies of density and possibly economies of scale as well as cost complementarities across different outputs. Analysis of rates is complicated by each of these factors as well as the fact that there are at least three different pricing regimes (tariff rates, contract rates, and exempt rates) and differential levels of competitive alternatives available to shippers. Generally, the set of rates must compensate not only for the costs of the shipments, but also the costs of providing and maintaining the network to ensure that railroads are revenue adequate

Over the last several years, the authors have developed a set of programs that integrate the R-1 data to the Waybill data and have augmented the data with data reflecting the options available to shippers and the spatial locations of shippers along with intramodal and intermodal options available to shippers as well as link-specific information on the railroad networks. These data are the most complete, to our knowledge, available to conduct meaningful academic research on the railroad industry. To this end, we have identified projects which are outlined below with a list of fields in the waybill necessary to complete the work. These are: 1) An examination of the determinants rail rates; 2) The determinants of railroad and shipment costs; and 3) An examination of spatial relationships.

PLANNED RESEARCH

Rates and Revenue Adequacy: There are a number of different studies of the determinants of railroad rates. Some of these use aggregate rate levels, while other use some version of rates taken from the waybill data. Generally, controls such as distance, shipment size, the number of interchanges etc. are introduced as cost variables, while controls such as distance to waterways and measures of railroad concentration are introduced to control for differing competitive factors. We estimate more flexible models by introducing richer measures of costs and competitive factors for a shipment, while accounting for the pricing regime (tariff, contract, and exempt). We use these models to examine alternative strategies for identifying rates that are significantly different from rates charged for observably similar shipments and for alternative strategies for railroads, shippers and regulators to identify solutions for these misaligned rates. The analysis cannot be done without access to the unmasked waybill and is key to understanding the determinants of shipment rates and the ability of the rate regimes to allow railroads to be revenue adequate. This is on-going work, and we hope to wrap up this year.

Railroad Costs: Estimation of railroad costs has a long history. Different analyses and models have been conducted to uncover both scale and density measures, productivity measures, as well as to estimate movement specific costs. Each of these tasks face serious methodological challenges because of the number and variety of products a railroad provides. Most of the difficulties are directly the result of the fact that the number of outputs produced by a railroad is far too large to be feasible to estimate a multi-product cost function given the data available without extreme assumptions. This is a long-recognized problem, and most research has used aggregate measures e.g., total ton-miles or some aggregation within specific, but limited, product classifications e.g., agricultural goods, or production type e.g., bulk, classifications. The problem of dimensionality necessitates such aggregation. We seek to reduce the dimensionality issue by following recent advances in modeling demands products with an enormous number of substitutes. In such cases, economists have mapped the product space into an attribute space to reduce the number of dimensions that plague econometric analysis. In the case of railroads, there are a relatively small set of attributes available in the waybill that allow estimation of costs through attributes rather than separate outputs e.g., origin destination-commodity. The attributes are readily available in the waybill and the cost information available in the R-1 reports. This analysis cannot be completed without access to the waybill. There are two completed papers with a former student, Brett Garcia, and each has cleared STB confidentiality review. The research was delayed owing to Brett relocating to Europe and starting a new position. We hope to complete revisions and submit this year.

Spatial Relationships: The third theme of this research program relates to the interdependence of rail to other markets. In the research, there are several papers in progress. These papers integrate spatial relationships to estimate the demand for rail and barge transportation, analyze the effects of spatially motivated measures of competition into models of pricing, examine the effects of internal (barge, truck and rail) and external (ocean) costs into import and export flows. Earlier versions of this work were completed and passed STB confidentiality review. However, for the academic work, we plan to make significant changes and will resubmit to STB for confidentiality once complete.

WAYBILL DATA AND VARIABLES

We request data from 1983-2017.

RESEARCHERS

We request permission for three other researchers. These include: Wesley W. Wilson and Frank A. Wolak(principal investigators), Brett Garcia, and Keaton Miller.

The principal investigators are Wesley Wilson and Frank Wolak. They are Professor Emeritus and Professor in their respective departments, and we have attached the vitas of each to this request. Keaton Miller is an Assistant Professor at the University of Oregon, while Brett Garcia is a former graduate student, who now works for Booking.Com in the Netherlands. Each are current collaborators, who have been granted access previously and the research that resulted has passed the STB confidentiality review.

The principal investigators have worked with the waybill for years and will adhere to the confidentiality standards of the waybill. The waybill will be used solely for academic research purposes.

If you have any questions, comments or concerns, please contact us. The contact information is given below.




Sincerely,

Wesley W. Wilson
Department of Economics
University of Oregon
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Frank A. Wolak
Department of Economics
Stanford University
Stanford, CA 94305-6072
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fax: (650) 724-1717

From: Wesley Wilson <wwilson@uoregon.edu>
Sent: Monday, October 31, 2022 11:37 AM
To: Dusenberry, Alexander <Alexander.Dusenberry@stb.gov>
Cc: Frank A Wolak <wolak@stanford.edu>; Keaton Miller <keatonm@uoregon.edu>; Brett Garcia <brett.gabriel.garcia@gmail.com>
Subject: RE: Waybill Access Extension

Dear Mr. Dusenberry:

Thank you very much for facilitating the paperwork and the confidentiality agreement to me. I have attached the approval letter along with signature pages from Frank Wolak, myself and Keaton Miller. I am short one signature from Brett Garcia. He lives in the Netherlands, has a new job, and, I think travels frequently. I am hopeful that you can accept the agreement, and, if an when Brett sends me the approval page, I will forward. In the meantime, we will not give him access (I asked him to remove last year).

I hope this all meets with approval, and I, again, I appreciate your aid in preparing the paperwork. If there is anything else, please let me know.

Sincerely,
Wesley W. Wilson
541 933 3338