

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

Office of Economics

July 1, 2026

Xiaodong (Sheldon) Du
Agricultural & Applied Economics
University of Wisconsin–Madison
427 Lorch Street
Madison, Wisconsin 53711

Re: Waybill Request WB26-13

Dear Mr. Du:

The Surface Transportation Board (STB or Board) has received your request under 49 C.F.R. § 1244.9(c) of March 27, 2026, for permission to access the confidential Carload Waybill Sample (CCWS) with unmasked revenues. Your request explained that the requested data would be used for the purpose of a research project titled “Infrastructure, Market Power, and U.S. Agricultural Competitiveness: Evidence from Rail and Barge Transportation.” You requested access to certain categories of variables in the unmasked CCWS for the years 1996-2025 for shipments of corn, soybeans, and wheat. Your request stated that it was intended to capture all variables necessary to construct shipment-level prices, quantities, routing distances, and origin-destination markets. Your request explained that these particular data were essential to your research because they will enable you adequately to measure rail pricing and market power, define markets and intermodal competition, identify specific grain corridors, and analyze export supply chains.

Notice of your request was published in the *Federal Register* on April 6, 2026, and an objection from American Association of Railroads (AAR) was received on April 20, 2026. According to AAR, there is no legitimate need for the data because “the CCWS does not reveal the routing of any traffic” and thus does not serve your research’s stated purpose. AAR further implies that the Board should not release CCWS data to researchers studying “[t]he pricing behavior of railroads for specific routes and corridors for specific commodities.” And AAR asserts that your research is “driven by financial interests” because the authors will seek grant funding from the U.S. Department of Agriculture (USDA), which has statutory authority to appear before the Board.

Based on the complete and sufficiently detailed explanations and justifications contained in your request, I will grant access to the requested data (except the data for the year 2025, which are not yet available and may be requested later). AAR’s objections are unpersuasive. Even if the CCWS does not reveal specific routings of any traffic, the requested data still serve your stated purpose of “construct[ing] shipment-level prices, quantities, routing distances, and origin-destination markets.” In addition, the fact that your academic research studies railroad

Waybill Agreement WB26-13

pricing behavior is not a barrier to release as the Board has not typically rejected academic data requests based on the fact that it would study pricing. The Board has, under appropriate circumstances, granted access to the CCWS for academic professionals who are working on a research project where the proposed project is adequately defined, and the request makes clear why the data requested are necessary and how the data will be used in the analysis, as yours does. The stringent confidentiality requirements contained in the below data-release agreement will adequately protect the confidential information from unauthorized release. Finally, I see no apparent relevance in the fact that you may seek grant funding from USDA. USDA, which (as a government agency) is entitled to seek waybill access under a separate regulatory provision, is not a party to your request, and you are the only individual for whom you are requesting access.

You will therefore be granted access to the specified categories of variables in the unmasked Confidential Carload Waybill Sample for the years 1996-2024 for shipments of corn, soybeans, and wheat, as stated in your request. These data may only be used for the purpose detailed in your request and may not be used for any other purpose such as private, commercial consulting. ***This approval becomes effective when signed agreement from the individual listed below is received by the STB:***

- a) Xiaodong Du – University of Wisconsin
- b) Huiwon Yong – University of Wisconsin

The expiration date for this agreement is July 31, 2027. 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).

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 <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, 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.

Waybill Agreement WB26-13

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 a copy of the signature page must be returned to the STB, before access may be granted.
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 reviewed the materials proposed for disclosure to ensure confidentiality. All research and exhibits generated from CCWS data must be submitted for review prior to public release.
4. You acknowledge that, in addition to the restrictions described in paragraphs 2-3 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.**
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.

Waybill Agreement WB26-13

After you have signed and returned this agreement, please contact waybill@stb.gov to make the necessary arrangements to have a copy of the data sent to you. The STB will provide the data by email through file transfer protocol. Prior payment of processing and mailing cost of **\$144** (\$72 per signature) is required. Payment can be made through the Board's electronic payment system, Pay.gov. Your payment through Pay.gov will generate a unique Pay.gov transaction number, which you will need to provide with your signed agreement. Pay.gov accepts payment through bank accounts, credit cards, debit cards with a MasterCard or Visa logo, and digital wallet. Payment can also be made directly to the Board via check or money order.

Sincerely,

**MARTIN
SCHLENKER**

Digitally signed by
MARTIN SCHLENKER
Date: 2026.07.01
10:23:42 -04'00'

Martin Schlenker
Acting Director
Office of Economics

Waybill Agreement WB26-13

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: Xiaodong Du

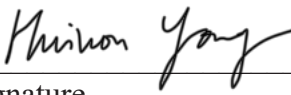


Signature

Waybill Agreement WB26-13

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: Huiwon Yong



Signature



Xiaodong (Sheldon) Du
Agricultural & Applied Economics
University of Wisconsin–Madison
Phone: (608) 262-0699
Email: xdu23@wisc.edu

March 27, 2026

Director
Office of Economics
Surface Transportation Board

Dear Director,

I respectfully request access to the Confidential Carload Waybill Sample pursuant to 49 C.F.R. § 1244.9(c) as an “Other User” for academic research purposes. This request is submitted by Xiaodong Du, Professor, Department of Agricultural and Applied Economics, University of Wisconsin–Madison, a faculty member at a nonprofit educational institution engaged in economic research.

1. Purpose of the Research

The requested Waybill data will be used for a research project titled *“Infrastructure, Market Power, and U.S. Agricultural Competitiveness: Evidence from Rail and Barge Transportation.”*

This project examines how rail carriers’ pricing behavior and market power interact with inland waterway infrastructure to shape the cost and efficiency of transporting U.S. grain exports. The analysis focuses on major grain commodities—corn, soybeans, and wheat—and studies how disruptions in inland waterway transportation, particularly low-water events on the Mississippi River system, affect rail pricing, shipment patterns, and agricultural producer welfare.

The research combines structural modeling with reduced-form empirical analysis to quantify intermodal competition between rail and barge transportation. In particular, the project estimates a structural model of route choice and pricing behavior across export corridors, such as rail shipments to the Pacific Northwest and barge shipments to the Gulf, and evaluates how hydrologic shocks and infrastructure constraints affect transportation costs and export competitiveness.

This work will support preparation of a proposal to the USDA Agriculture and Food Research Initiative (AFRI), Economics, Markets, and Trade program area, and will be continued if funding is awarded.

2. Specific Data Requested

We request access to the Confidential Carload Waybill Sample for the years **1996–2025 (inclusive)** for shipments of corn, soybeans, and wheat.

The requested data include the following categories of variables:

- *Shipment characteristics*: full 7-digit STCC commodity codes; shipment tons and carloads; equipment type (e.g., covered hopper); shipment type (single car, multiple car,



unit train); and interline movement indicators.

- *Geographic information:* origin and destination locations at the most detailed available level (e.g., 7-digit station codes, county, and state identifiers); routing information, including interchange locations where available; and mileage or routing distance.
- *Pricing and carrier information:* shipment revenue and revenue per ton-mile; carrier identifiers and interline partners; and revenue allocation across carriers where available.
- *Temporal information:* shipment year and quarter, or month if available.
- *Sampling information:* sampling weights and strata identifiers.

The specific variable names and formats will be verified using the STB Waybill data dictionary. This request is intended to include all variables necessary to construct shipment-level prices, quantities, routing distances, and origin–destination markets.

3. Justification for Need

Access to the confidential Waybill data is essential for the proposed research for the following reasons.

- (i) *Measurement of rail prices and market power.* The project estimates a structural model of rail pricing under intermodal competition. Public-use Waybill data contain masked and coarsened revenue measures, which introduce measurement error in price per ton and obscure contract pricing behavior. Confidential data provide accurate shipment-level revenue and routing information necessary to estimate marginal costs, markups, and conduct parameters.
- (ii) *Definition of transportation markets and intermodal competition.* The analysis requires defining origin–destination markets and measuring competition between rail and barge transportation. Public-use data aggregate shipments to BEA economic areas and suppress routing detail, preventing precise identification of export corridors and waterway access. Confidential data allow accurate mapping of shipments to export gateways, such as the Pacific Northwest versus the Gulf, construction of origin-specific exposure to barge competition, and identification of modal substitution patterns.
- (iii) *Identification of grain-specific corridors.* The project focuses on grain commodities, including corn (STCC 0113200), soybeans (0114400), and wheat (0113500). Confidential data are required to identify these commodities at full STCC resolution and to construct corridor-level shipment flows linking inland production regions to export terminals and domestic markets.
- (iv) *Improved statistical precision.* Current estimates using public data are economically meaningful but imprecise due to measurement noise and aggregation. Confidential data reduce measurement error, improve identification of demand and supply parameters, and strengthen instrumental-variable estimation by better aligning shipment flows with exogenous shocks such as precipitation and river conditions.



- (v) *Analysis of export supply chains.* Export-oriented grain shipments are governed by coordinated logistics linking inland transport to port terminals. Confidential data enable identification of export-bound shipments, analysis of route-specific pricing behavior, and measurement of delivered costs to export gateways, which are critical for evaluating U.S. export competitiveness.

The requested data will be used solely for academic research and not for commercial, consulting, or litigation purposes.

4. Data Security and Confidentiality

The data will be stored and analyzed on secure, access-controlled servers maintained by the Department of Agricultural and Applied Economics (AAE) at the University of Wisconsin–Madison, in compliance with 49 C.F.R. § 1244.9(e). Access will be limited to authorized project personnel: Xiaodong Du, Department of Agricultural and Applied Economics, University of Wisconsin–Madison. No disaggregated or identifiable information will be disclosed. All published results will be reported only in aggregated form and will conform to STB disclosure standards. At the conclusion of the project, the data will be securely destroyed, and certification of destruction will be provided to the Board.

5. Duration of Access

We request authorization for an initial one-year access period, with the expectation of renewal as needed. The anticipated project period is July 2026–June 2027.

6. Contact Information

Principal Investigator: Xiaodong Du, Professor, Department of Agricultural and Applied Economics, University of Wisconsin–Madison
Address: 427 Lorch Street, Madison, WI 53711
Phone: (608) 262-0699
Email: xdu23@wisc.edu

Thank you for considering this request. Please let me know if any additional information would be helpful.

Sincerely,

Xiaodong Du
Professor
Agricultural & Applied Economics
University of Wisconsin–Madison