

Surface Transportation Board
Washington, D.C. 20423-0001
Office of Economics

April 15, 2025

Mr. Gal Hochman
 Professor
 College of Agricultural, Consumer and Environmental Sciences
 Department of Agricultural and Consumer Economics
 University of Illinois Urbana-Champaign
 1301 W. Gregory Drive
 326 Mumford Hall M/C 710
 Urbana, IL 61801

Re: Waybill Request WB25-07

Dear Mr. Hochman:

The Surface Transportation Board (STB) has received your request under 49 C.F.R. § 1244.9(c) of February 11, 2025, for permission to access the confidential Carload Waybill Sample (CCWS), which I construe to include a request for unmasked revenues. Your request explained that the requested data would be used for the purpose of examining the geographic flow of fertilizer shipments, analyze cost structures and transportation efficiency, evaluate the seasonality and fluctuations in fertilizer supply, and assess policy implications. Specifically, you requested access to the CCWS for the years 1986 to 2023 for railroad traffic with select criteria; geographic scope, shipment characteristics, commodity classification, revenue and cost data, and time components. In addition, your request stated that these particular data were required to fulfill your research objectives and that the revenue data from the CCWS is needed to conduct your analysis and cannot be obtained anywhere else. Notice of your request was published in the *Federal Register* on March 19, 2025, and no objections were received.

Based on the complete and sufficiently detailed explanations and justifications contained in your request, you will be authorized to access the requested data. Specifically, you will have access to the 1986-2023 CCWS for the criteria identified in your request, and I understand your request for “freight revenue” data to be a request for unmasked revenue data. Although it is the Board’s practice to generally limit disclosure to masked revenue data, unmasked revenues are being released because your request explains with particularity how revenue data will be used and the need to conduct your academic research with actual revenue data. This data may only be used for the academic 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 agreements from the individuals listed below are received by the STB:***

- a) Gal Hochman, Professor - University of Illinois Urbana-Champaign
- b) Cheng Bi, PhD candidate - University of Illinois Urbana-Champaign

Waybill Agreement WB25-07

The expiration date for this agreement is April 30, 2026. In order to retain access to the CCWS beyond the expiration date of an agreement, you must submit a written request for annual extensions no later than thirty days prior to the specified expiration dates and, absent approval for a renewal, must certify that all CCWS data was destroyed or returned to the STB. 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 *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, 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 2 and 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

Waybill Agreement WB25-07

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.

After all parties 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 **\$138 (\$69 per confidentiality agreement)** 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,

KRISTEN
MONACO

Kristen Monaco, PhD
Director
Office of Economics

Digitally signed by
KRISTEN MONACO
Date: 2025.04.15
15:57:16 -04'00'

Waybill Agreement WB25-07

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: Gal Hochman

A handwritten signature in black ink, appearing to read "G Hochman", written over a horizontal line.

Signature

Waybill Agreement WB25-07

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: Cheng Bi

Cheng Bi

Signature

Gal Hochman
Professor
College of Agricultural, Consumer and Environmental Sciences
Department of Agricultural and Consumer Economics
University of Illinois Urbana-Champaign



February 11, 2025

To:
Director
Office of Economics, Surface Transportation Board
Washington, DC.

Subject: Request for Access to Confidential Carload Waybill Sample for U.S. Fertilizer Supply Chain Research

Dear Director,

I am writing to formally request access to the Confidential Carload Waybill Sample to support my academic research on the U.S. fertilizer supply chain.

(i) Purpose of Request: Research on U.S. Fertilizer Transportation and Supply Chain Efficiency

The U.S. fertilizer industry is vital for agricultural productivity, and rail transport is crucial in its distribution. This study analyzes rail-based fertilizer transportation patterns, costs, and logistical challenges to enhance our understanding of supply chain dynamics and inform policy and industry decision-making. Specifically, this research will:

1. **Examine the geographic flow of fertilizer shipments** from production facilities, such as domestic manufacturing plants and import hubs, to major agricultural regions. Identifying geographical flows will involve identifying key distribution centers and shipping routes.
2. **Analyze cost structures and transportation efficiency** by assessing freight rates, distances, and potential congestion points affecting fertilizer availability and pricing.
3. **Evaluate the seasonality and fluctuations in fertilizer supply**, which impact farmers' access to inputs during planting seasons.
4. **Assess policy implications** regarding rail service reliability, infrastructure investments, and carrier competition to support regulatory and industry decisions.

This research aligns with the Surface Transportation Board's role in monitoring and improving freight transportation efficiency and will directly impact agricultural production, food security, and rural economies.

(ii) Specific Data and Fields Requested

To conduct this analysis, I request access to the **Confidential Carload Waybill Sample for the years 1986 to 2023**, with a focus on the following data fields:

- **Geographic Scope:** Nationwide.
- **Shipment characteristics:** We require **data with origin and termination nodes**. To this end, station-level data would be optimal, while county-level data would also be acceptable. Business Economic Area (BEA)-level data is also suitable. We also seek interchange points to help us identify the shipping route. Additionally, the type of move (import, export, neither import nor export) should be recorded.
- **Commodity classification:** We are seeking all commodity codes that encompass nitrogen, potash, or phosphate, which should include at least the following five-digit Standard Transportation Commodity Codes (STCC5):
 - 28125 - Potassium Compounds
 - 28181 - Miscellaneous Acyclic Organic Chemical
 - 28193 - Sulphuric Acid
 - 28198 - Anhydrous Ammonia
 - 28712 - Superphosphate Solution or Nitrogen Fertilizer Solution
 - 28713 - Ammoniating Fertilizer Solution or Nitrogen Fertilizer Solution
- **Revenue and cost data:** Freight revenue, transit charges, and miscellaneous charges. The number of carloads, billed weight in tons, actual weight in tons, and distance traveled.
- **Time components:** Shipping month and year to analyze seasonal variation.

(iii) Justification for Requested Data

The **public-use Waybill Sample** is subject to strong sensitive information protection rules. As a result, we encountered a significant issue: numerous missing observations. For instance, when analyzing the transportation of Anhydrous Ammonia, 69% of the origin BEA (Business Entity Address) codes are classified as '0', indicating an unknown origin. Besides the origin, most interchange state information is missing. Additionally, we were unable to obtain comprehensive rail-transportation information for origin locations such as Louisiana or Ohio, which house the major domestic fertilizer manufacturers.

The **station-level granularity** is important for a rigorous economic and policy analysis of the fertilizer supply chain. The **confidential dataset is essential** for the following reasons:

- **Detailed Origin-Destination Analysis:** Aggregated public data does not allow for precise mapping of supply chains, which is critical for understanding regional disparities, congestion points, and potential transportation inefficiencies.
- **Economic and Policy Relevance:** Access to pricing, carload volumes, and distance metrics will provide insights into freight costs and market competitiveness, helping inform stakeholders and policymakers.

(iv) Personnel

Gal Hochman
Professor
College of Agricultural, Consumer and Environmental Sciences
Department of Agricultural and Consumer Economics
University of Illinois Urbana-Champaign



UNIVERSITY OF
ILLINOIS
URBANA - CHAMPAIGN

The requested access to the data is limited to the following two researchers:

1. Gal Hochman, Professor, University of Illinois Urbana-Champaign
2. Cheng Bi, PhD candidate, University of Illinois Urbana-Champaign

Thank you for considering the request.

Sincerely,

Gal Hochman