

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

Office of Economics

March 14, 2022

Dr. Dennis W. Carlton
The University of Chicago
Booth School of Business
5807 S. Woodlawn Avenue
Chicago, Illinois 60637

Re: Waybill Request WB21-89

Dear Dr. Carlton:

The Surface Transportation Board (STB or Board) has approved your request to access the 1984-2020 confidential Carload Waybill Sample (CCWS), as described in my February 24, 2022, decision. 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) *Dr. Dennis W. Carlton – The University of Chicago*
- b) *Dr. Steven Peterson – Compass Lexecon*
- c) *Dr. Daniel O'Brien – Compass Lexecon*
- d) *Georgi Giozov – Compass Lexecon*

The expiration date for this agreement is March 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.

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 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.**

Waybill Agreement WB21-89

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 Mr. Dusenberry (202) 245-0319 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 **\$232 (\$58 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.

Sincerely,

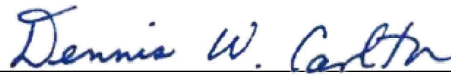
William Brennan

William Brennan, PhD
Chief Economist & Director,
Office of Economics

Waybill Agreement WB21-89

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: Dennis W. Carlton

A handwritten signature in blue ink that reads "Dennis W. Carlton". The signature is written in a cursive style and is positioned above a horizontal line.

Signature

Waybill Agreement WB21-89

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By: Steven Peterson

A handwritten signature in cursive script that reads "Steven R. Peterson". The signature is written in dark ink and is positioned above a horizontal line.

Signature

Waybill Agreement WB21-89

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By: Daniel O'Brien

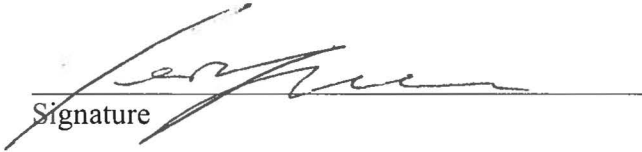


Signature

Waybill Agreement WB21-89

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By: Georgi Giozov


Signature

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

Office of Economics

February 24, 2022

Dr. Dennis W. Carlton
The University of Chicago
Booth School of Business
5807 S. Woodlawn Avenue
Chicago, Illinois 60637

Re: Waybill Request WB21-89

Dear Dr. Carlton:

The Surface Transportation Board (STB) has received your request under 49 C.F.R. § 1244.9(c) of December 8, 2021 for permission to access the unmasked 1984-2020 confidential Carload Waybill Sample (CCWS). Your request explained that the CCWS data would be used solely for academic research purposes. (Req. at 3.) According to your letter, you and your team hope to investigate “the impact of vertical mergers in the railroad industry with careful attention to the circumstances under which vertical foreclosure might arise.” (*Id.* at 1.) Your letter explains that the particular data requested are required to test whether the predictions of the theory of vertical foreclosure are borne out in the railroad industry and, more generally, would permit “detailed analysis of economic theories of vertical foreclosure and the circumstances in which such effects may or may not be of concern.” (*Id.* at 2.) You represent that the data in the CCWS cannot be obtained anywhere else and that the unmasked revenue data from the CCWS is needed to conduct your analysis. You state that your intention is to publish the results of your research in a scholarly journal and represent that your proposed research “is not being supported by or performed on behalf of any sponsor or client.” (*Id.* at 1.)

Notice of your request was published in the Federal Register on December 15, 2021 (86 Fed. Reg. 71,314). Two objections to your request were received: The Law Office of David L. Meyer, on behalf of Canadian Pacific Railway Limited and its rail carrier subsidiaries (CP), filed an objection on December 29, 2021, and Slover & Loftus LLP, on behalf of The Western Coal Traffic League (WCTL), filed an objection on December 30, 2021.

CP expresses a general overall concern that the requested data will not be used for academic research but will instead be used for consulting work associated with the pending proceeding involving the merger of CP and Kansas City Southern (KCS), Canadian Pac. Ry.—Control—Kan. City S., FD 36500. CP points out that Dr. Carlton was retained by Canadian National Railway (CN), and obtained access to a subset of CCWS data, in connection with CN’s proposed acquisition of KCS. CP further points out that consultants at the firm Compass Lexecon, with which Dr. Carlton is affiliated, represent other railroads in the CP/KCS proceeding and have been granted access to the CCWS there. CP objects that the proposed research is not simply a matter of academic interest because “the purpose of the requested data is to analyze issues that are directly at issue in a pending Board proceeding.” (CP Obj. at 2.) CP

characterizes the request as an “end-run” around “procedures” in the CP/KCS merger proceeding and speculates that “nothing will stop Compass Lexecon from releasing ‘preliminary findings’ or draft manuscripts in a form that may find their way into the Board’s proceeding without being subject to testing via the adversarial process.” (*Id.*)

WCTL similarly questions whether the request is actually for academic research purposes given the consulting work Dr. Carlton and Compass Lexecon perform for railroads in other contexts. WCTL argues that Dr. Carlton should be required to provide “further clarification regarding the separation of his academic and other professional activities.” (WCTL Obj. at 1.) WCTL also questions whether all individuals who will work on the research project have been identified.

Having considered your request, and the objections from CP and WCTL, I will grant access to the requested data subject to the confidentiality provisions contained in the standard access letter that all “other users” who gain access to the CCWS must sign. The subject matter of the proposed research is related to general consolidation issues within the Board’s jurisdiction and would appear to also be of interest to the public more generally. Dr. Carlton and the key researchers identified in his request are credentialed economists who could make a contribution to the study of the economic effects of vertical mergers.

Although the objections raised by CP and WCTL raise some issues worthy of consideration, I am not persuaded that they warrant denying the requested access. First, although both CP and WCTL question whether the request is for academic research, the request specifically states that the data requested will be used solely for the academic research purpose specified and that the research is not being supported by or performed on behalf of a sponsor or client. Neither CP nor WCTL has provided any evidence to indicate that these statements are false. Further, the representations regarding the intended use of the data will be reinforced by language in the Board’s access letter agreement, which Dr. Carlton and his colleagues will be required to sign before obtaining access to the CCWS, that provides the CCWS data “may only be used for the academic purpose detailed” in the request “and may not be used for any other purpose such as private, commercial consulting.” The fact that Dr. Carlton and his colleagues may have access to more than one subset of the CCWS at a time does not suggest that they will be unable to properly segregate each dataset and use it only for allowed purposes. The request indicates that Dr. Carlton and his colleagues have a clear understanding that the requested data may not be used in conjunction with their consulting work for the railroads, so no clarification, as requested by WCTL, is required.

Second, CP expresses concern that granting the request would erode CP’s ability to challenge evidence presented in the CP/KCS merger proceeding. As an initial matter, CP is incorrect that “nothing will stop” Dr. Carlton and his colleagues from disclosing CCWS data they obtain for academic research purposes. The standard language of the Board’s access letter prohibits disclosure of CCWS data to anyone who has not signed the access letter and also prohibits public release of research based on the CCWS “until the STB has had the opportunity

to review the materials proposed for disclosure to ensure confidentiality.” Such confidentiality reviews are routinely conducted by Office of Economics staff and would not, even if performed during the pendency of the proposed CP/KCS merger, function as a back-door mechanism for Dr. Carlton and his colleagues to provide evidence in the CP/KCS proceeding. Moreover, given the timeline for the CP/KCS proceeding, it appears unlikely that Dr. Carlton and his colleagues would be in a position to present pre-publication materials from their research to the STB before the record closes in that proceeding.

Third, prohibiting qualified academics and economists from concurrently conducting research and preparing evidence for the Board on related topics could unduly inhibit the Board’s ability both to gather evidence in proceedings and to benefit from more general academic inquiries. At any given time, the Board has many open proceedings that involve issues that span the scope of its regulatory responsibilities. Pausing research until a particular issue is not being considered in any open proceeding could impair the Board’s ability to hear evidence from individuals with particular expertise in relevant areas or prevent research on important issues from being conducted in the first place.

Finally, to the extent that WCTL questions whether all of the researchers have been identified, Dr. Carlton’s letter adequately identifies the key researchers who will participate in the project. The Board’s standard access letter provides a process for seeking approval to add additional individuals who need access at a later time.

Pursuant to 49 C.F. R. § 1244.9 (d)(4)(iii), any appeal of this determination must be filed with the STB’s Chairman with 10 days of the date of this letter. The filing of an appeal will automatically stay the effect of this decision. If no appeal is filed, an access letter will be provided to you for signature on or after March 11, 2022. Once fees due have been paid and the letter has been signed by the required individuals, the requested data will be made available to you.

Sincerely,

William Brennan

William Brennan, PhD
Chief Economist & Director,
Office of Economics

cc: David L. Meyer (counsel for Canadian Pacific)
Robert D. Rosenberg (counsel for Western Coal Traffic League)



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December 8, 2021

Dennis W. Carlton
David McDaniel Keller
Professor of Economics

William Brennan
Office of Economics
Surface Transportation Board
395 E Street SW
Washington, DC 20423

Re: Request for Unmasked Carload Waybill Sample

Dear Dr. Brennan,

An outstanding question in railroad economics is whether vertical mergers lead to vertical foreclosure and increased rates to shippers. I plan to conduct a research study using the CWS that addresses the impact of vertical mergers in the railroad industry with careful attention to the circumstances under which vertical foreclosure might arise. This research is relevant to the appropriate regulation of railroad mergers by the Surface Transportation Board ("STB") as well as the current review of the *Vertical Merger Guidelines* by the U.S. Department of Justice.¹ On behalf of my research team and myself, I request access to the unmasked carload waybill sample ("CWS") covering the years 1984 to present to undertake this work.

The research project described below is not being supported by or performed on behalf of any sponsor or client. Our intention is to publish the results in a scholarly journal.

Key Researchers' Qualifications

I am the David McDaniel Keller Professor of Economics at the University of Chicago Booth School of Business. I am also a Senior Managing Director of Compass Lexecon. I received my M.S. in Operations Research and Ph.D. in Economics from the Massachusetts Institute of Technology. I am author of *Modern Industrial Organization*, a leading economics textbook. I am the co-editor of the *Journal of Law and Economic* and was the 2014 Distinguished Fellow of the Industrial Organization Society. I have published over 130 articles in journals and books on a wide variety of topics. In addition to my academic experience, I served as Deputy Assistant Attorney General for Economic Analysis in the Antitrust Division of the U.S. Department of Justice where I supervised approximately 50 Ph.D. Economists and helped formulate antitrust policy. A copy of my academic curriculum vitae is attached. My curriculum vitae including testimony is available at compasslexecon.com.

Steven Peterson is an Executive Vice President at Compass Lexecon. Dr. Peterson earned his Ph.D. in Economics at Harvard University, where he specialized in economic theory and industrial organization. His practice focuses on competition matters and mergers. He has

¹ See, e.g., <https://www.ftc.gov/news-events/press-releases/2021/09/federal-trade-commission-withdraws-vertical-merger-guidelines>.

worked extensively in the transportation industry including railroads, airlines, and trucking. A copy of Dr. Peterson's and the other key researchers' CVs are attached.

Daniel O'Brien is a Senior Consultant at Compass Lexecon. He received his Ph.D. in Economics from Northwestern University. Dr. O'Brien has taught Economics at Northwestern University, University of Michigan, Georgetown Law School, and U.C. Berkeley. He is widely published in the *American Economic Review*, *Journal of Economic Theory*, *Rand Journal of Economics*, among other leading journals. Prior to joining Compass Lexecon, Dr. O'Brien was the Deputy Director of the Federal Trade Commission's Bureau of Economics and Chief of the Economic Regulatory Section at the Department of Justice's Antitrust Division.

Georgi Giozov is a Senior Vice President at Compass Lexecon. Mr. Giozov received his master's degree in Applied Economics from Johns Hopkins University. He is an expert in complex empirical analyses and specializes in applied econometrics and demand modeling.

In addition, the key researchers will be assisted by staff at Compass Lexecon. We will seek clearance for research staff to work with the CWS once access is granted.

Research Question

The economic view of the potential for vertical mergers to increase rail rates has evolved over the last 40 years. The standard neoclassical view is that a railroad with a monopoly segment that interlines with one of two competing railroads to complete a movement would ensure the total rate is equal to the monopoly rate. This outcome eliminates the risk that a vertical merger of the monopoly railroad with one of the competitive downstream railroads would lead to rate increases because the rate is already at the monopoly level. Advances in the modeling of the contracting between vertically related firms with asymmetric information have challenged this view. Game-theoretic models of contracting between a monopolist and downstream competitive firms indicate that, in some circumstances, the monopolist may not be able to commit to charging the monopoly rate when negotiating simultaneously with competing downstream railroads – that is, competition on part of the route can lead to a below-monopoly rate on the entire movement.² A vertical merger of the monopolist railroad with one of the competitive downstream railroads may eliminate the monopolist's commitment problem through the foreclosure of the unmerged railroad on the competitive segment, thereby increasing rail rates to shippers.

The resolution of the question of whether there are anticompetitive effects from vertical mergers in the railroad industry is ultimately an empirical question. As described below, my team and I intend to use the CWS to test whether a monopolist's simultaneous negotiations with competitive downstream railroads reduces its ability to exercise market power and create circumstances in which vertical mergers lead to foreclosure and increased rates in the railroad industry. The required information on rates, origin, destination, whether a shipment is interline, and so forth that are needed to analyze the impact of vertical railroad mergers is found only in the unmasked CWS. Moreover, real-world evidence from an industry in which mergers frequently have a vertical element will permit detailed analysis of economic theories of vertical foreclosure and the circumstances in which such effects may or may not be of concern.

² See, e.g., Hart, Oliver and Jean Tirole. "Vertical integration and market foreclosure." *Brookings papers on economic activity. Microeconomics* 1990 (1990): 205-286.

Research Plan

The detail included in the unmasked CWS permits multiple approaches to evaluating the effects of vertical mergers. The primary questions are whether a railroad with a monopoly segment faces a commitment problem that limits its ability to exercise its market power when negotiating with two downstream railroads to complete an interline movement and whether vertical merger resolves the commitment problem, raising shippers' rates. The CWS provides intertemporal information on how rates changed following mergers that extended railroads' networks. The observed changes in rates on routes experiencing vertical integration allow a direct measurement of whether vertical mergers led to foreclosure and increased rates.

The bargaining externalities that may restrain a monopoly railroad from charging the monopoly rate when negotiating simultaneously with downstream competitive railroads are highly dependent on the characteristics of the railroads' negotiations. For example, the standard vertical foreclosure model predicts no effects of a vertical merger when a monopolist directly faces customers and contracts with upstream competing railroads. Anticompetitive effects may result, however, when the monopolist contracts with downstream railroads that face customers and potentially generate commitment problems for the monopolist. Thus, the models in which vertical mergers threaten foreclosure and increased prices have specific predictions with respect to the direction of the move that can be tested using the CWS.

To sum up, the CWS will enable us to test whether the predictions of the theory of vertical foreclosure are borne out in the railroad industry, which will provide valuable insight into the circumstances where vertical foreclosure may or may not threaten competition in the railroad and other industries.

Results and Confidentiality

We will comply with the confidentiality provisions described in 49 CFR § 1244.9. My research team at Compass Lexecon has extensive experience with confidential data, including confidential railroad data, and possesses the necessary tools to securely store and process the CWS data. Steven Petersen will head my research team and the data will be stored and analyzed at Compass Lexecon. The planned research will measure pooled effects across railroads. Therefore, we do not anticipate reporting prices or price changes for any railroad or any small group of freight stations or railroads. We will provide all research to the Office of Economics for compliance review prior to any release or publication of results.

CWS Request

We request the complete unmasked CWS from 1984 to present to allow us to undertake the analysis of vertical mergers in the railroad industry. The CWS will be used solely for academic research. The names of the researchers who will need access to the CWS are below.

Best regards,



Dennis Carlton