

Before the U.S. Surface Transportation Board

STB Docket No. EP 385 (Sub-No. 8)

Waybill Sample Reporting

Comments of the
U.S. Department of Agriculture

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Authority and Interest

The Agricultural Adjustment Act of 1938 and the Agricultural Marketing Act of 1946 entrust the Secretary of Agriculture with representing the interests of agricultural producers and shippers in improving transportation services and facilities. As one of many ways to accomplish this mission, the U.S. Department of Agriculture (USDA) initiates and participates in Surface Transportation Board (STB or Board) proceedings involving rates, charges, tariffs, practices, and services.

Introduction

The Carload Waybill Sample (CWS) is an extremely important dataset within the rail industry, and USDA applauds the Board's efforts to improve it. Even though the sample size is limited, there is no parallel to the CWS in terms of its breadth of application, scope, and coverage. It is the most detailed and comprehensive data the federal government currently has on rail freight movements, making it instrumental in identifying trends and issues in the industry. In addition, as acknowledged in the Notice of Proposed Rulemaking (NPRM), waybill data are also a key component in rate and service cases before the Board, such as in the Three Benchmark (3B) methodology. These data are needed to inform a variety of rail-related decisions and research. Furthermore, for any conclusions or determinations derived from it to be sound, the underlying data must be an accurate representation of rail traffic. Therefore, USDA appreciates the Board issuing this NPRM to make waybill data more useful to all without creating an undue burden on railroads.

The following discusses USDA's recommendations to the Board. In general, USDA believes the Board should collect the population waybill data or at least further increase the sample size from the proposal and take this opportunity to add additional data to the CWS.

Discussion and Recommendations

The Board rightly recognizes a bigger sample size enables a higher degree of precision in estimates and opens the door to new questions and analyses that are not possible with a smaller sample size. However, while the proposal is a step in the right direction, USDA encourages the Board to significantly increase data collection beyond what has been proposed.

The Full Population is the First-Best Option

USDA postulates that if the Interstate Commerce Commission had the technology at its disposal that the Board does now, it would not have needed to undertake the statistical design process that led to the creation of today's CWS. USDA believes this proceeding is an opportunity to take a step back from the mechanics, look at what purpose CWS was created to serve, look at what issues are relevant now, and ask if continuing to tweak guidelines set in motion within the technological limitations and regulatory concerns of the 1950's is still the best answer for today.

Based on the NPRM, it is unclear why the Board does not simply collect the whole population of carload waybill data. According to the Board, "all reporting carriers submit waybill data in computerized form today." Moreover, carriers must already have access to the population data in order to generate a sample from it. Therefore, submitting the entire population would not likely be a significant additional burden. To the contrary, it may even reduce the burden on railroads, as they would no longer have to stratify the population. The Board's "computerized and automated" CWS processing and the modern fact of inexpensive data storage mean collecting the population

data should not be an additional burden on the Board either, especially in comparison to the costs that were faced decades ago when the waybill sampling procedures were established.

Furthermore, collecting the full population data is not unheard of in transportation. For instance, the U.S. Army Corps of Engineers (USACE)—which oversees the Nation’s waterways—collects similar CWS-like data on *all* waterborne movements. Per 33 CFR § 207.800, “Collection of Navigation Statistics,” the transportation providers (e.g., the vessel owners or lessees) must provide monthly reports on “All movements of domestic waterborne commercial vessels.” This simplifies matters for the data providers by avoiding the complex determination of which records to pull out and which ones to exclude. Moreover, just like with USACE data, the Board going to a full population would not enlarge the burden requirement (only the size of the submission) because the reporting frequency would not be changed. Just as over 50 barge companies submit monthly data on their movements to USACE, railroads would continue to provide data at established intervals—either monthly or quarterly.

A Stratified Sample is a Second-Best Option

If the population data cannot be collected, USDA believes the Board should both significantly increase the sample size more than proposed and stratify by the categories that are most important for coverage. For example, distance, railroad, and commodity are clearly important variables to the Board. Adding a regional or spatial variable to the stratification design would enable better geographic analysis with the CWS.

According to the analysis in the NPRM, only 20 percent of the Board’s selected traffic categories would have 25 or greater observations after the proposed sample increase. While that would cover 93 percent of revenue, it is unclear why the Board accepts a level of coverage that does not include all categories. In fact, one advantage of stratification is to ensure coverage across all categories that are deemed important. In other words, it is unclear why the Board continues to stratify by number of carloads per waybill alone, given the stated importance of coverage across other categories. If commodity, mileage range, and railroad are important categories to have coverage of in a rate case, why not also explicitly stratify the sample by some of those categories as well?¹

However, from USDA’s perspective, a bigger issue is the value of the CWS should go well beyond rate cases and the particular stratification analyzed. Stratification is a great option to ensure coverage in a limited sample geared towards targeted questions. However, there are many questions for which the CWS is the only source of answers. For these reasons, USDA believes the Board’s primary focus should be to significantly increase the overall sample size as a proportion of the population; adjusting the sample size within particular strata should only be a secondary consideration.

Significantly increasing the overall sample size will provide increased coverage across a wide variety of strata, almost regardless of the actual stratification strategy chosen, assuming one is needed at all. The Board demonstrated this fact in its current proposal where the explicit

¹ As a side note on stratification, the *Procedure for Sampling Waybill Records by Computer* document states, “waybills in the file to be used as a frame for this study may be in any order.” Under systematic sampling, order is an important consideration to account for patterns in the frame that may correspond to the skip interval. It seems it would be better to either specify an order, use a random ordering, or even use a simple random sample rather than “any order,” in order to avoid potential sampling bias.

stratification is over train size, but the commodity-railroad-distance strata also saw increased coverage. However, as documented, this still leaves a large portion of categories essentially unseen. USDA estimates the current proposal would increase the CWS from a 3 percent sample to only a 9 percent sample and encourages the Board to go much further.

Recommend Adding Service Metrics, Demurrage and Accessorial Charges

USDA encourages the Board to take advantage of this opportunity and add service data and demurrage and accessorial charges to the CWS. Shipment-level service data, such as those recommended in the 2015 Transportation Research Board (TRB) study for example, would be an extremely valuable addition to the CWS, it being the only source of railroad shipment-level data.² In addition, in various recent proceedings, the Board has recognized the need for additional data reporting on service metrics and demurrage and accessorial charges, yet these data are currently collected piecemeal.³ A comprehensive and standardized collection of these railroad metrics by shipment, as could be accomplished in the CWS, would be far more valuable for more in-depth analysis. Furthermore, this is an opportunity to look ahead and anticipate what additional data would be valuable to have in the CWS for purposes of better understanding the railroad industry and supporting the needs of shippers.

With any of the proposed sampling changes there will be some transitional burden on railroads and STB in terms of coding and quality control. If railroads and STB are already modifying their CWS processes as a result of this proceeding, adding additional variables to this modification would be less costly now than at a separate time.

Summary

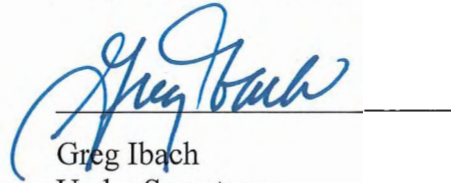
USDA supports the Board's proposal and appreciates the Board's intention to improve the CWS. It is an irreplaceable dataset, containing a wide range of valuable information. The Board is moving in the right direction in proposing to increase the sample size, but USDA encourages the Board to go even further. The Board should consider removing the stratification process altogether and collect the population data. In lieu of the population data, the Board should still collect a significantly larger sample and modify the stratification to reflect additional important variables. Finally, the Board should use this opportunity to add new variables to the waybill in order to collect additional information that could provide insight into a wider range of the complex issues facing railroads and shippers.

² Among its recommendations, TRB wrote, "STB should appraise the data needed to fulfill its role in supervising the supply of common carrier service. For example, consideration should be given to collecting information that permits the tracking of the time elapsed from a shipper request for service to rail car placement, removal, and arrival at the destination, perhaps in conjunction with information on the scheduled delivery time. The appropriate platform for such data collection may be the CWS, because shipment-level tracking of service is essential for understanding trends in service levels and patterns across time, regions, and traffic segments. STB should explore options for collecting shipment-level data, including additions to and enhancements of the CWS itself. STB should examine all data elements in the standard railroad freight waybill that could be useful for monitoring service performance and consider adding such elements to the CWS. STB should also examine opportunities for collecting new data, which would either be added to the waybill reporting or subsequently linked to CWS records." (Emphasis added. Source: Transportation Research Board, *Modernizing Freight Rail Regulation*, Special Report 318, p. 217.)

³ See for instance, Ex Parte No. 724 (Sub-No. 4), United States Rail Service Issues—Performance Data Reporting; Ex Parte No. 742, Public Listening Session on CSX Transportation Inc.'s Rail Service Issues; Ex Parte 754, Oversight Hearing on Demurrage and Accessorial Charges; and the Board's December 2018 letters to the Class I railroads on demurrage and accessorial charges.

The value of additional observations and additional variables is enormous. In the context of programmatic data management and minimal storage costs, with the population data already collected by the rail industry for its own purposes, it does not appear this would be burdensome.

Respectfully submitted,



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