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Chief of Case Administration
Office of Chief Counsel
Surface Transportation Board
395 E Street S.W.
Washington, D.C. 20423-0001

Re: Finance Docket No. 36873, *Union Pacific Corp., et al. – Control – Norfolk Southern Corp., et al.*

Dear Chief of Case Administration:

I write on behalf of Canadian Pacific Railway Company, d/b/a Canadian Pacific Kansas City and CPKC, and its U.S. rail carrier subsidiaries (collectively, "CPKC"),[1] regarding the Board's statement that, following Applicants' submission of the supplemental material called for by Decision No. 21, its "assessment of the supplemental filing may include an evaluation as to whether Applicants have presented a prima facie case." *See* Decision No. 21 at 19 (STB served May 28, 2026).

CPKC appreciates that the Board recognizes the importance of considering whether Applicants have presented a prima facie case as required by the Board's regulations and precedent. That threshold question is especially important in this proceeding for several reasons:

First, the Board's regulations adopted in 1980 make clear that the Application itself—as now amended and supplemented—must by itself, *without any further evidentiary development during the course of this proceeding*, provide the Board with a sufficient basis to conclude that the proposed transaction is in the public interest. *See* 49 CFR § 1180.4(c)(8); *R.R. Consolidation Procedures Expedited Processing*, 363 I.C.C. 767, 769-70 (1980) ("*Expedited Processing*"). As the ICC explained in 1980:

> "The case-in-chief concept of the recently adopted rail consolidation regulations permits us to have, upon the filing of an application, all of the applicants' supporting evidence. If the information contained in an

[1] CPKC's U.S. rail carrier subsidiaries include Soo Line Railroad Company; Central Maine & Quebec Railway US Inc.; Dakota, Minnesota & Eastern Railroad Corporation; Delaware & Hudson Railway Company, Inc.; The Kansas City Southern Railway Company; Gateway Eastern Railway Company; and The Texas Mexican Railway Company.

> application will not support findings on each of the statutory elements (and any additional elements required by court [and] our precedent) and will not support a conclusion that the proposal is consistent with the public interest, then summary denial is an appropriate disposition of the proceeding."

Id. at 770.

The Board's regulations spell out that the failure to put forward a prima facie case can be established in two ways: by what the Application leaves out—*i.e.*, when the facts disclosed in the Application, "even if construed in their most favorable light, *are insufficient* to support a finding that the proposal is consistent with the public interest"—and what it contains—*i.e.*, when facts in the Application "affirmatively demonstrate that the proposal is not in the public interest." 49 C.F.R. § 1180.4(c)(8) (emphasis added).

Applicants have now made their case, and whether there is sufficient basis for concluding that the proposed Transaction is in the public interest must rise or fall based on the showings Applicants have made, as well as those they *chose not to make*, and not on any evidence they might submit or revise later in this proceeding.[2]

Second, there are compelling public interest reasons to apply the prima facie case standard rigorously at the outset of *this proceeding in particular*. If this proceeding moves forward at all, it will by necessity consume the attention of the industry and the Board for at least the next year. The issues implicated in this proposed Transaction are without precedent in their breadth and complexity, and the fact-gathering process and opportunity for a full airing of issues cannot be shortchanged. Hundreds if not thousands of interested stakeholders will be entitled to participate by analyzing the details underlying Applicants' proposal, developing evidence on issues of concern to them, and presenting that evidence in comments, requests for conditions and potential responsive applications. The raw out-of-pocket costs of litigating this proceeding to conclusion likely total in the hundreds of millions of dollars. If any merger implicates the concern the agency expressed in 1980 that the industry should be spared the unnecessary costs and burdens of a full-blown proceeding where Applicants fail to meet their burden of proof, it is this one. *See Expedited Processing*, 363 I.C.C. at 769-70 (where applicants fail to make out a

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[2] To give just one illustration, Applicants have failed to put forward any specific concrete proposal for the resolution of the acknowledged problem of their otherwise unlawful acquisition of control of TRRA. As CPKC has argued, the question of TRRA control should be addressed holistically in the merits phase of this proceeding, if there is one. *See* CPKC Letter (CPKC-33) (filed July 17, 2026). Given their failure to put forward a specific proposal, Applicants should not be allowed on rebuttal to trot out new evidence and argument in favor of some solution that they end up deciding to advance as their "chosen" or "preferred" course.

prima facie case "the conduct of hearings to place protestants' evidence into the record would be unnecessary and wasteful").

On top of these raw litigation costs are the much weightier *opportunity costs* to the North American rail network. If NS and UP managers remain focused on their proposed Transaction (its litigation, planning for implementation, etc.) over the next 12-15 months or more (again, in CPKC's view, the bare minimum amount of time needed for a thorough vetting of the issues posed by this transaction), it will be at the expense of pursuing other initiatives and investments—including collaborations with other railroads that might hold promise for improving the Nation's rail network. Applicants say they are pursuing their proposed Transaction to achieve the kind of growth that they claim has been elusive in recent years, but their focus on merging is unmistakably taking attention away from the day-to-day work of achieving that goal. In particular, there can be little doubt that potential UP-CSX and NS-BNSF interline growth initiatives are at best on Applicants' back burners as a result of the pendency of this proceeding and will remain so if this proceeding continues. Other railroads too must devote enormous management attention, legal resources, and capital to this proceeding. Shippers face uncertainty regarding future service, routing, and commercial relationships. And the Board must commit substantial public resources to this proceeding at the expense of other dockets.

The pendency of a proceeding could also harm the competitiveness of NS. A company operating under the shadow of a pending acquisition often experiences increased employee attrition, difficulty recruiting and retaining key personnel, uncertainty among customers and suppliers, deferred capital investment, and management distraction as senior executives devote significant time to the transaction rather than day-to-day operations. There already are warning signs, including the abrupt departure of NS's Chief Operating Officer John Orr,[3] the departures of a number of his reports,[4] rumors of elevated attrition among NS managerial talent and line employees, and significant hiccups in NS's operational performance.[5] CPKC has no doubt that a viable NS will survive this proceeding no matter its duration, and there is certainly no need for NS to be "rescued" by UP (as was the case of Southern Pacific in the 1990s). But if Applicants have not put forward a prima facie case despite having been given three chances, CPKC is certain that the public's interest in a strong and efficient rail network would be better served by making clear *now* that NS will remain independent, rather than going through the motions of a

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3 Norfolk S. Corp., Current Report (Form 8-K) Item 5.02 (June 1, 2026), *available at* https://www.sec.gov/Archives/edgar/data/702165/000119312526250020/d91653d8k.htm.

4 Steve Blinn & Dan Bostek, *A June 1 Resignation, a New COO, and the Harder Question Norfolk Southern Will Have to Answer (Updated), Railway Age* (June 8, 2026), *available at* https://www.railwayage.com/freight/class-i/a-june-1-resignation-a-new-coo-and-the-harder-question-norfolk-southern-will-have-to-answer.

5 Noah Smith, Norfolk Southern Doesn't Have the Crews to Keep Trains Moving, Union Says, Atlanta J.-Const. (June 10, 2026).

full-blown proceeding, so that NS can refocus on achieving the full potential of its own rail network.

For these reasons, CPKC urges the Board to give careful threshold consideration to whether the record put forward by the Applicants *already sufficiently demonstrates* that the Transaction as currently proposed (*i.e.*, with only the conditions they have thus far accepted) would serve the public interest. In other words, does the amended and supplemented Application present a prima facie case for approval?

In considering that question, the Board should give effect to the "heavier burden" imposed on Applicants by the 2001 rules. *Major Rail Consolidation Procedures*, 5 S.T.B. 539, 546 (2001). That elevated burden takes into account the unprecedented and permanent risks to the American rail network and U.S. economy posed by any Class I merger of this magnitude. If the Board were ultimately to approve this transaction, there will be no turning back if the harms end up outweighing the benefits. Applicants recognize that and seek to turn it to their advantage. They repeatedly invoke the limits of the Board's conditioning authority, making clear their view that once the oversight period is over all of the future consequences of their merger are beyond the Board's authority to try to repair. Applicants' Second Response to Decision 21 (UP-80/NS-78) (filed July 27, 2026) ("*Second Supplement*") at 150-55. And remarkably Applicants also make clear how uncertain the future benefits of their merger are, and how little the Board can do to hold them to the benefits they have claimed in the Application. In a sharp deviation from their public discourse, which emphasizes claims of millions of trucks they will divert from the Nation's highways and the billions that shippers will save as a result, before the Board they have now eschewed any obligation ever to achieve any of those diversions. Their position now is that the Board will not be entitled to hold Applicants to even a single one of their apparently entirely speculative diversion claims: "Applicants' diversions might be lower," they acknowledge, but there would be no recourse because diversions would not be a fair measure of public benefits so long as Applicants had managed to shrink their costs and convert interline services to UP-only single-line services. *Second Supplement* at 113. In light of these statements, the Board already has the information needed to recognize what Applicants are asking the Board and public to expect. A permanent transformation of the rail network on the basis of promises that cannot be enforced, and without the regulatory tools either to restore the competitive structure that benefits rail customers today or to rein in the conduct of post-merger UP.

Before concluding that this proceeding should move forward, therefore, CPKC urges the Board to consider, on the record made by the Applicants themselves, at least three sets of issues, each of which is central to the question whether the Transaction can be found to serve the public interest.[6] The Board should ask:

- ***Do the Asserted Benefits of the Transaction Require a Merger?*** The core public benefits case made by Applicants is that their merger will enable the post-merger UP network to attract huge numbers of trucks from the highways to rail, primarily rail intermodal service. Facts disclosed in the Application, however, show that a merger is not necessary to achieve these claimed benefits.

- ***Have Applicants Proposed Any Qualifying Competitive Enhancements?*** The Board's 2001 merger rules establish, and Applicants effectively concede, that their merger will lead to some degree of reduction in competition. Yet Applicants have not proposed anything that would offset even one iota of long-run adverse competitive harm.

- ***Are Either of the Two Potential Resulting Market Structures—a Super-Dominant UP or a Downstream Merger to Duopoly—in the Public Interest?*** If the proposed merger is allowed to proceed, whichever version of the future comes to pass will conflict with the public interest, either by yielding a super-dominant UP without meaningful competitive check, or an industry landscape comprised of only two surviving mega systems Continent-wide. The public interest would be better served by preserving the competitive market structure that exists today than either of these potential end-states.

We address each of these questions in turn below.

I. The Application Affirmatively Demonstrates Applicants' Core Claimed Benefits Can Be Achieved Without a Merger

A central question under the Board's regulations is "whether the benefits claimed by applicants could be realized by means other than the proposed consolidation. The Board believes that other private-sector initiatives, such as joint marketing agreements and interline

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6 CPKC understands that now is not the time to litigate the many contested issues raised by the Application, and so it is limiting its comments herein to a handful of issues as to which the failure to make a prima facie case is apparent. CPKC believes there are numerous fatal flaws in Applicants' merger proposal that warrant its outright disapproval. If the proceeding moves forward, CPKC anticipates filing comments and evidence cataloguing, among other points, the many ways in which the proposed Transaction would harm the public interest and would not achieve the benefits Applicants claim, and that much of what Applicants claim to be pursuing via their merger could be accomplished through interline collaborations that would not threaten the fabric of the U.S. rail network.

partnerships, can produce many of the efficiencies of a merger while risking less potential harm to the public." 49 C.F.R. § 1180.1(c).

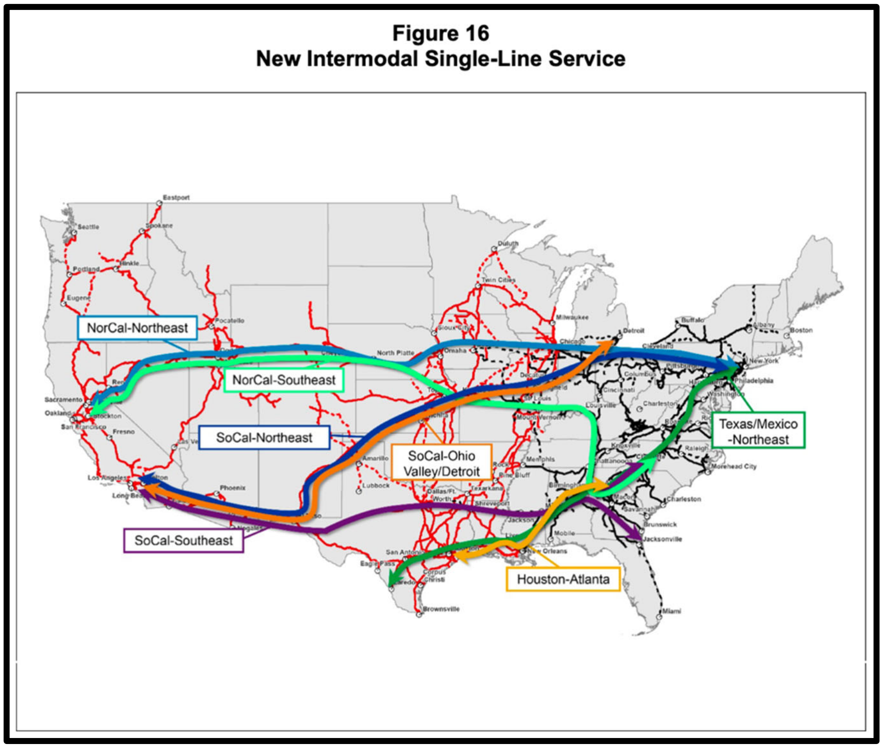
The thesis of Applicants' merger boils down to Applicants' claim that substituting single-line rail service for interline service will allow Applicants to attract massive volumes of truck traffic from the Nation's highways. Rev. App. 1-12 ("This merger is fundamentally about growth."). Applicants' growth story is premised on their assertion that the proposed Transaction will eliminate interchanges "where freight today must change hands, where delays and costs accumulate, and where railroads lose freight to trucking because of those interchange delays and costs." *Id.* at 1-13.

If this proceeding were to move forward, CPKC will have much more to say about how realistic each of Applicants' claimed merger benefits are as a matter of fact. But it is already clear on the face of the Application that this core premise is false. Interchanges need not be a source of delays, and a merger is accordingly not needed (or likely) to enable truck-competitive interline rail services.

Start with the new long-haul intermodal lanes that Applicants say are at the core of their benefits case. Applicants' marketing executives provide a colorful map of those new services, reproduced as Figure 1 below:[7]

[7] Rev. App. 1-310 (Rocker/Elkins V.S., Figure 16).

FIGURE 1



Applicants claim that these long-haul services will be successful only because of service improvements made possible by eliminating interchanges.[8] But evidence in the Application itself shows that interchanges are not an obstacle that requires a merger to overcome.

One of the "new" lanes—shown in purple in Applicants' figure—connects Southern California with the Southeast (Atlanta, Jacksonville, and Charlotte). In fact, this lane exists today as a three-carrier/two interchange route via the Meridian Speedway. UP provides service between Los Angeles and Shreveport, LA, where it interchanges with CPKC (for operational purposes) and with NS haulage (for revenue purposes). CPKC operates between Shreveport and Meridian, MS, where it interchanges (for operational purposes) with NS. Based on Applicants' rhetoric, one would expect these two interchanges to get in the way of UP and NS offering their customers truck-competitive service. The facts, however, contradict Applicants' rhetoric. UP-NS train speeds in this corridor are *faster than anything UP or NS offer on their own single-line networks*. The Application itself establishes this fact.

Applicants' Service Assurance Plan, sponsored by witness John Turner, established pre-merger performance benchmarks for representative UP and NS lanes, including UP-NS interline

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8 Rev. App. 1-309 (Rocker/Elkins V.S. ¶ 78).

lanes. Those benchmarks were based on UP and NS service performance data included among Applicants' workpapers.[9] Based on those data, it is easy to calculate average train speeds over the same 2022-2025 period Applicants use to establish their service performance benchmarks.

Applicants calculated intermodal performance benchmarks for six UP-NS interline intermodal lanes, nine NS single-line lanes, and seven UP single-line lanes.[10] The interline lanes Applicants analyzed are shown in Figure 2 below.[11]

FIGURE 2

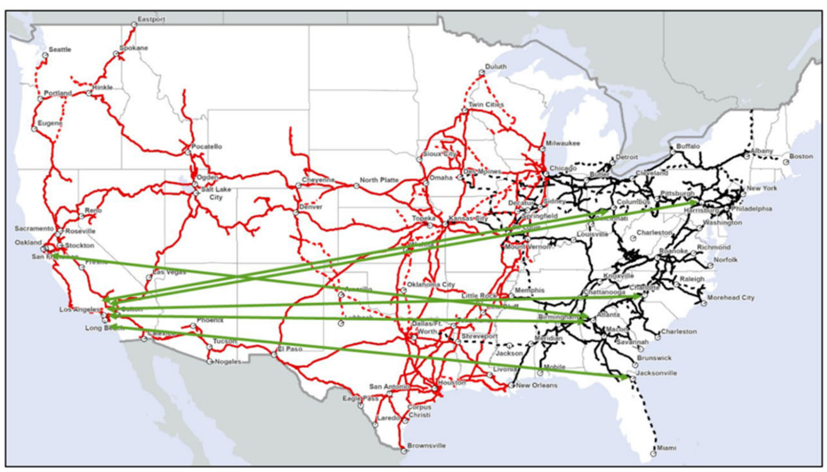

Figure 20: UP-NS Pre-Transaction Intermodal Traffic Flows

Four of the six pre-merger interline lanes involve two-interchange moves via the Meridian Speedway: Los Angeles-Jacksonville, Los Angeles-Atlanta, Los Angeles-Charlotte, and Northern California (NoCal)-Atlanta.[12] As Figure 3 below shows, these services are today (pre-merger *and despite two interchanges*) among the fastest of all UP and NS intermodal lanes.

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9 *See* "Consolidated Corridor Lane Selection.xlsx," Tabs "UP OD Intermodal," "NS OD Intermodal," and "UPNS Intermodal." *See also* "Corridor Benchmarking Matrix.xlsx", Tab "Data."

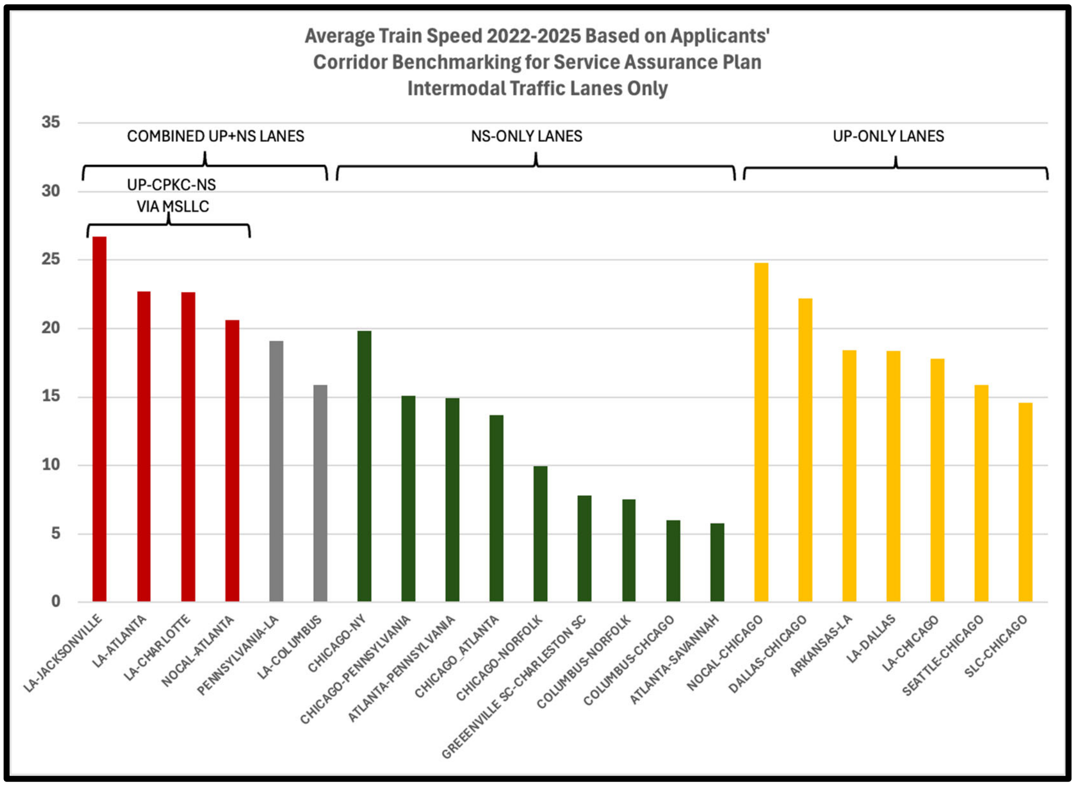
10 Rev. App. 2-1094, -1097, -1100 (Turner V.S. ¶¶ 534, 537, 541).

11 *See* Rev. App. 2-1101 (Turner V.S.).

12 For reasons they do not explain, Applicants' Amended Application envisions re-routing the existing NoCal-Atlanta service via Kansas City and Louisville following the merger instead of via the Meridian Speedway, as shown in Figure 1 above. *See* Rev. App. 2-723 to -724 (Turner V.S. ¶¶ 243-44); 2-835 (Gehringer and Orr V.S. Appendix B) (providing schedules for trains ZLTCT and ZCTLT, adding distance and work events to the current schedules).

The Los Angeles-Jacksonville service outpaces even UP's fastest services (NoCal-Chicago and Dallas-Chicago), and the other services via the Meridian Speedway are not far behind.[13]

FIGURE 3



This evidence establishes that, contrary to Applicants' assertions that "[t]ransfers between carriers can add 24 to 48 hours of dwell time,"[14] interchanges need not be an obstacle to railroads providing truck-competitive interline intermodal services.[15] Nowhere in the Application is this inconsistency explained.

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[13] Figure 3 is based on data in Applicant Workpaper "Corridor Benchmarking Matrix.xlsx," and for each intermodal lane portrays average miles per hour for the complete origin-destination transit as reported in that workpaper for the period July 2022 to December 2025.

[14] Rev. App. 1-294 (Rocker/Elkins V.S. ¶ 50).

[15] In the Appendix hereto, CPKC presents a series of diagrams based on UP and NS container event data to help the Board understand why the data in Mr. Turner's workpapers show that UP-CPKC-NS interline intermodal services achieve such high performance: there is essentially no dwell at either

And this is by no means the only evidence that a merger is not needed to support growth. As just one example, last September, UP and NS announced new joint intermodal service between UP points in the West and NS's terminal in Louisville, KY (in the heart of the watershed region). UP and NS bragged that the new service would "offer[] customers across industries—automotive, consumer goods, food and beverage, healthcare and manufacturing—*truck-competitive transit times* and expanded market reach."[16]

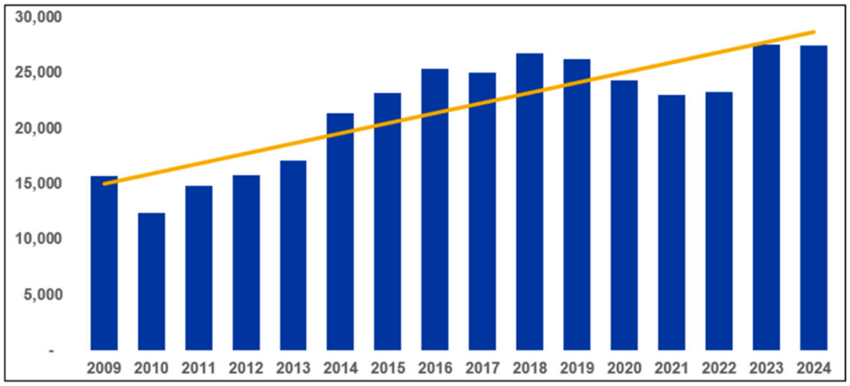
The availability of untried and unanalyzed alternatives for achieving interline rail traffic growth is not limited to long-haul intermodal services. The Application itself highlights the availability of other alternatives that Applicants claim have yielded meaningful interline growth even when one interline partner has a short haul. The Application features the UP-BNSF I-5 Agreement, an interline arrangement that Applicants tout as unlocking growth and attracting trucks from the highway. As Applicants' marketing executives tell the story:

> "What began as an experiment in cooperation became a long-term competitive advantage—for UP, for customers, and for the broader supply chain. The data tells the story: traffic expanded year after year, new customers entered the market, and rail captured freight that previously moved by truck. The lesson is clear—when railroads innovate to make it easier for customers to do business, the market responds decisively."

Shreveport or Meridian, where operational interchanges occur. Locomotives run through and crew changes are essentially step-on/step-off. Each diagram depicts the movement of domestic containers across the country on the UP and NS intermodal train services between California and the Southeast via the Meridian Speedway. The Verified Statement of Nicholas Powers of The Brattle Group accompanies these demonstratives solely to explain how they were derived from Applicants' own data and not to present any analysis or testimony about what conclusion the Board should draw from the data.

[16] *See* UP Press Release, *New Union Pacific and Norfolk Southern Intermodal Gateway Expands Market Access* (Sept. 15, 2025), *available at* https://www.up.com/news/growth/louisville-intermodal-service-it-250915 (emphasis added).

Figure 21[50]
The I-5 Agreement Growth Story



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See Rev. App. 1-352 to -353 (Rocker/Elkins V.S. ¶ 177 & Fig. 21); *see also id.* 1-379 (Novak V.S.).[17]

Somewhat ironically, the I-5 Agreement addresses what Applicants describe as a classic “watershed” problem: BNSF solely-served customers were located a relatively short distance from the Portland, OR gateway and UP’s legacy-SP line provided a relatively long haul from Portland to points in Southern California and Arizona. Yet this BNSF-SP interline service had been successful prior to the *UP/SP* merger, and as Applicants point out the I-5 Agreement allowed UP to grow traffic after that merger by allowing UP to quote rates in competition with BNSF’s new single line route to the same Southern California and Arizona points. *Id.* at 1-351 to -352 (Rocker/Elkins V.S. ¶¶ 175-77 & Fig. 21).

Perhaps eager to tout this agreement as a model for their short-term Committed Gateway Pricing program, Applicants fail to explain why it is not also a model for independent railroads like UP and NS to unlock traffic growth through truck conversion in other watershed geographies. Apparently, all it would take is motivation on the part of both parties to enter into such an arrangement, perhaps through reciprocal grants of rights into one another’s network across different mid-continent gateways. Lest the Board think this a fanciful idea, Applicants themselves have emphasized that this kind of arrangement—akin to their proposed CGP program—is not something that requires a merger to undertake:

> “CGP’s benefits could largely be achieved without a merger. Any railroad could unilaterally offer a large-scale haulage program similar to CGP, just like any railroad could unilaterally offer expanded access

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17 *See* Rev. App. 1-379 (Novak V.S.).

> to competitors, or unilaterally offer to eliminate interchange commitments and renegotiate rental terms with short lines."[18]

And Applicants have proven that they are motivated to enter into reciprocal grants of rights, as evidenced most recently by UP's exchange with CN of expanded operating rights for UP on CN's EJ&E Chicago bypass in exchange for UP's grant to CN of haulage/trackage rights for CN between Memphis, TN and the Mexican border crossing at Eagle Pass, TX.[19]

Although the Board invited Applicants to address alternatives to their proposed Transaction (*see* Decision No. 21 at 26 (question PB-8)), Applicants doubled down on the generic and hollow rhetoric of the Application, rather than explaining why any of these alternatives could not achieve the same kinds of benefits as their proposed merger. Applicants further assert that the Board should not judge the merger by any particular modicum of traffic diversions they might achieve through their merger-related "single-line services," but instead by their mere institution of "new train services and blocking plans." *Second Supplement* at 113. This statement only underscores how they have failed to come to grips with the fact that interline collaboration short of merger can and routinely does enable "new train services and blocking plans."

Applicants' bare and unsupported assertions that "the joint development and long-term operation of these lanes would not be commercially sustainable absent a merger," *id.* at 114-15, cannot stand up to the evidence elsewhere in their Application that interline options can and do compete effectively with trucks. That is especially so given what Applicants say elsewhere in their Second Supplement about "Applicants' pre-merger network[s]" having ample capacity today—without any merger-related investments—to "absorb," "*[o]n Day 1*," "96 percent of projected manifest growth traffic, 91 percent of projected intermodal growth traffic, and 92 percent of projected automotive growth traffic while maintaining fluid operations." *Id.* at 86 (emphasis added).[20] Applicants' effort to persuade the Board that they have presented a prima facie case similarly does not touch on the issue of alternatives to their merger. *See id.* at 182-86.

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[18] *Second Supplement* at 85.

[19] CN Press Release, *Union Pacific and CN Announce Agreement to Improve North American Rail Connectivity* (July 22, 2026), *available at* https://www.cn.ca/en/news/2026/07/union-pacific-and-cn-announce-agreement-to-improve-north-america/.

[20] CPKC reserves the right to dispute these assertions in later evidentiary submissions by demonstrating, for example, that implementation of the merger is likely to cause severe operational disruptions. But as Applicants point out, whether Applicants have presented a prima facie case must be judged by the case they have put forward. *See Second Supplement* at 185-86.

II. APPLICANTS HAVE NOT PRESENTED SUFFICIENT PROVISIONS FOR "ENHANCED COMPETITION"

Despite having been given three chances to do so, Applicants have chosen not to put forward any "competitive enhancement" of the kind contemplated by the Board's rules.

The Board's rules addressing "enhanced competition" contemplate that Applicants would propose concrete measures expanding rail-to-rail competitive opportunities for shippers.[21] As the Board noted in Decision No. 21 (at 19-20), when the 2001 Major Merger Rules were promulgated the Board emphasized that "enhancing competition" meant "enhancing intramodal (rail-to-rail) competition, for example, by the granting of trackage rights, the establishment of shared or joint access areas, the removal of 'paper' and 'steel' barriers, and other techniques that would enhance railroad-to-railroad competition." *Major Rail Consolidation Procedures*, 5 S.T.B. 539, 554 (2001). Similarly, then-Board Chair Linda Morgan, who presided over promulgation of the Rules, made this point clear in her testimony before the Senate Commerce Committee in 2001, explaining that her "view of these rules is that if anybody brings an application to us and they want it approved, they had better have some sort of *enhanced intramodal competition*." *See* S. Hrg. 107-1031, "*The Surface Transportation Board's New Merger Rules,*" Testimony of STB Chairman Linda Morgan (June 28, 2001) at 17 (emphasis added), *available at* https://www.congress.gov/107/chrg/CHRG-107shrg88970/CHRG-107shrg88970.pdf. Chair Morgan also underscored that the contemplated measures involved actual expansion of rail transportation alternatives available to shippers. When asked by Senator Rockefeller for examples of "enhanced competition," all of the examples Chair Morgan gave entailed adding to the number of Class I railroads serving customers: "Well, I have used an example in the Conrail merger of the shared asset areas. That represents the creation of competition, in other words, having two carriers serving those shared asset areas, and that was part of the proposal that came to us. Trackage rights is another form of enhanced competition, which I discussed with Senator Dorgan earlier." *Id.* at 20.

Apart from Applicants' general position that the Transaction itself will "enhance competition"—a proposition CPKC strongly disputes—the only specific measure Applicants suggest may qualify as a competitive enhancement is their "Committed Gateway Pricing" program. *See Second Supplement* at 184. Although Applicants attempt to rebrand CGP as creating "new haulage-like opportunities," it is nothing more than a rate-setting program. CGP governs only the *prices* (*i.e.*, revenue requirements) that post-merger UP will charge for a narrow subset of East-West manifest carload movements (excluding intermodal, automotive, and vast swaths of other traffic). It does not provide shippers with access to another rail carrier.

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[21] Needless to say, Applicants' meager efforts to "preserve" competitive options that exist today, such as by granting CN access to customers that now have direct access to NS's network or by committing to "keep gateways open," do not qualify as "enhancements."

To the contrary, Applicants acknowledge that customers solely served by UP or NS will continue to be captive to post-merger UP, even if their East-West rail traffic qualifies for CGP rates. Those customers will not have access to single-line service via BNSF or CSX and will continue to depend on post-merger UP to move their traffic between captive facilities and a mid-continent gateway. Applicants expressly concede that "CGP would not be single-line service" and emphasize that, "[t]o be clear, CGP was not intended to create competition with post-merger single-line traffic." *Id.* at 43. Indeed, Applicants themselves characterize CGP not as a form of new competitive access, but as a "regulatory price control." *Id.* at 40.[22]

Even if the Board accepted Applicants' alternative characterization of CGP as providing a form of new competitive access, it is explicitly only temporary. Applicants are unabashed about this, contending vociferously that the program should extend no longer than the oversight period and that extending it beyond that would have adverse "market-distorting effects." *See id.* at 41. In other words, Applicants *designed* their proposed "competitive enhancement" to provide no new rail-to-rail competition after the first five years following the Transaction. If there is even one iota of long-term competitive harm arising from the Transaction, the CGP proposal offers nothing to offset it.[23]

Applicants' position, of course, is that their Transaction will lead to zero competitive harm in the near or long run. But that is manifestly false, as the Application itself demonstrates.

First, Applicants' assertion that they "carefully considered potential competitive harms from the loss of geographic competition," and "found no potential for material harm" (*id.* at 38), cannot be squared with their summary dismissal of competitive concerns associated with several of the 3-to-2 shippers affected by the Transaction. In a number of instances, they contend that the Board should not be concerned about a reduction of competition at points served by both UP and NS because the shippers "use UP and NS to serve *distinct, non-overlapping geographic markets*." *Id.* at 56 (emphasis added); *see also id.* at 224, 228 (Bailey V.S. ¶¶ 9, 12 & n.20). This is the very definition of a reduction in geographic competition, whether or not it is captured by Dr. Bailey's screening analyses.

Dr. Bailey similarly brushes off the further reductions in geographic competition that would arise from downstream consolidation spurred by the Transaction, claiming she cannot

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22 Applicants also emphasize that CGP is at most a "narrow ancillary commitment[]." *Id.* at 27.

23 It is even worse than that. Applicants' economic witness Dr. Israel pointed out that CGP "can potentially create" an anticompetitive "incentive for the incumbent carrier to compete less aggressively and transact at rates higher than would otherwise occur absent the gateway rate mechanism." Rev. App. 2-256 to -57 (Israel V.S. ¶ 167). CPKC believes that CGP is anticompetitive for other reasons, but Applicants' acknowledgement of these incentives, coupled with their newly proposed expansion of CGP, only underscores that Applicants' own record does not support treating CGP as a competitive enhancement.

analyze potential downstream effects at all. *See id.* at 232 (Bailey V.S. ¶ 23). Applicants, for their part, suggest that any loss of geographic competition caused by their Transaction (or the further downstream consolidation it may very well trigger) should be their customers' problem to solve:

> "Where geographic competition matters, shippers can respond to reductions in geographic competition by taking actions to restore or increase geographic competition. They can expand existing facilities or build new facilities. They can find new suppliers for their inputs or new buyers for their outputs. Thus, even if the potential for material loss of geographic competition is identified in this proceeding, then, absent evidence to the contrary, the harm should be considered transitory, not permanent."

Id. at 39.

The Board does not need to spend a year gathering further evidence to see that a world in which every rail-dependent business has *at most two independent options* for shipping anywhere in North America (or on which it could locate any new facility) would be a world of greatly diminished competitive transportation options. Applicants offer no competitive enhancement at all to overcome that reduction in competition over the long run.

Second, Applicants completely disregard the salient feature of their Transaction from a competitive standpoint: it will eliminate today's structure of market-based competition in which UP and NS are incentivized to work with all potential interline partners across all efficient gateways. The Board understood the potential for harm when it overruled the one-lump presumption in *CP/KCS*. *See CP/KCS*, Finance Docket No. 36500 (STB Decision No. 35 served Mar. 15, 2023) at 44-48. Here, where UP and NS both participate in highly dense East-West interline flows across every major Mid-Continent Gateway, and shippers increasingly negotiate Rule 11 rates to shield their negotiations in the East or West from other interline participants (as Applicants acknowledge, *see* Rev. App. 2-197 to -98 (Israel V.S. ¶ 32) ("Rule 11 rates are the most common interline arrangement and their use has increased.")), the risk of harm is heightened.

To illustrate how this harm will manifest: shippers today trying to negotiate a better deal with NS in the East can take advantage of competition between NS and CSX knowing that UP will have an incentive to work with whichever interline connection offers them a better deal. After the merger, UP will have a financial incentive to manipulate the outcome in favor of keeping the traffic entirely on its own network. UP's incentives to work with BNSF, CSX, and CPKC will evaporate in the huge number of cases where UP will be able to extend its haul to maximize its returns.

Applicants wave away this loss by pointing to their voluntary commitment to keep gateways open on commercially reasonable terms. But this commitment will not replicate the competition that existed pre-merger. At best it will substitute a *regulatory merger condition*—one UP will attempt to resist having enforced against it—for today's competitive market structure. And it is plain that Applicants do not view "commercially reasonable rates" as a meaningful constraint on their post-merger pricing of their bottleneck segments. This is shown clearly in their eagerness to end the allegedly "below-market" rates they have offered as part of their CGP program as soon as possible (*Second Supplement* at 40), and despite the fact that those rates will be set at the 70th percentile of comparable rates.

These are just a few examples of the long-term reductions in the competitiveness of today's rail network that will be sacrificed if the proposed Transaction is implemented. Yet they are already apparent on the face of the Application, and Applicants do not purport to offset them with any long-term enhancement to intramodal competition. For that reason alone, the Board should consider rejecting the Application outright.[24]

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[24] On top of these obvious (if not yet quantified) competitive harms is the Application's complete failure to assess at all the competitive impacts of the Application on two major groups of rail traffic affected by the Transaction: intermodal and automotive traffic. Dr. Bailey truncates her competitive analysis short of even considering whether intermodal and automotive traffic might face a less competitive rail environment by claiming that the ICC's 1990s-era exemption decisions have already concluded that such traffic faces effective competition. *See, e.g.*, Rev. App. 2-70 & n.127 (Bailey V.S. ¶ 140 & n.127). This position is facially invalid. The Board's precedents make clear that an extant commodity class exemption does not rule out potential competitive harm from railroad mergers. In *Santa Fe/Southern Pacific*, for example, the ICC rejected a merger proposal that would have subjected substantial exempt traffic to "serious loss of competitive options," including "TOFC, COFC, perishables, and boxcar traffic, which the Commission has exempted from regulation." The ICC noted that "exemption of a category of traffic from regulation cannot be construed to connote [agency] indifference to the preservation of intramodal rail competition" and explained that there was "a substantial body of evidence . . . demonstrating that [shippers] need rail transportation for particular movements of this traffic, and that it is not economically feasible to use trucks or other modes of transportation for these movements." *Santa Fe Southern Pacific Corp. – Control – Southern Pacific Transportation Co.*, 2 I.C.C.2d 709, 812 (1986).

As recently as 2022 (in the *CP/KCS* proceeding), two of the current Applicants' witnesses made clear why that is the case. Messrs. Rocker and Turner submitted testimony there contending that:

> "truck is *not a viable option for finished automobiles* moving from Mexico to the United States. Water transport is an option for some automobiles manufactured near ports and moving to the East Coast. But for finished automobiles moving from Mexican locations to U.S. points that are not on the coast, rail is the only option. As another example, truck can be an attractive option for shippers and receivers of relatively small quantities of

III. THE LIKELY DOWNSTREAM CONSEQUENCES OF THE TRANSACTION ARE NOT IN THE PUBLIC INTEREST

There are only two plausible future states of the downstream rail world: (a) stasis, which would yield an unbalanced competitive landscape sharply dominated by UP,[25] with each of the other Class I carriers reduced to a much smaller regional carrier, or (b) a full transition to a North American Class I duopoly. Another year of evidence-gathering is not needed for the Board to conclude that neither of these outcomes would be in the public interest.

The Board's default regulatory tools are not designed to continuously monitor and rein in the conduct of two massive transcontinental rail networks. And as Applicants make clear in their recent submission, their emphatic position will be that the Board lacks authority to use merger-related tools (*e.g.*, springing conditions) to meaningfully regulate UP (or its duopolist counterpart) once the merger oversight period concludes. *Second Supplement* at 150-55. If the merger is approved, UP will have gotten its way and the long-run health of the rail network will be at the mercy of UP or UP and one other railroad. The Board and industry stakeholders need not be put through the ordeal of a year or more of further proceedings just to confirm what is already obvious today—that the future industry structures resulting from Applicants' proposed Transaction are not in the public interest. *Cf. Western Coal Traffic League* v. *STB*, 216 F.3d 1168 (D.C. Cir. 2000).

* * *

CPKC appreciates the Board's consideration of these comments.

> auto parts—typically parts moving to a third-party supplier in Mexico. However, for large volume shipments moving directly from parts manufacturers or consolidation centers in the Upper Midwest and East to automobile manufacturers in Mexico, the *economics of boxcar and intermodal service are vastly superior to truck service*."

CP/KCS, Finance Docket No. 36500, UP Comments (UP-10), Rocker/Turner V.S. (filed Feb. 28, 2022) at 17 (emphases added).

[25] When CSX proposed to acquire Conrail in 1997, Board Chairman Linda Morgan made clear that the resulting unbalanced competitive environment would not be in the public interest, which ultimately led CSX to participate with NS in a pro-competitive split of Conrail's dominant position in the Northeast. *See* The Virginian-Pilot, *Little-Known Board Has a Lot of Clout: When Agency's Chairman Spoke, Norfolk Southern, [CSX] and Conrail Listened* (Jan. 26, 1997), *available at* https://scholar.lib.vt.edu/VA-news/VA-Pilot/issues/1997/vp970126/01250543.htm.

Respectfully submitted,

David L. Meyer
Attorney for CPKC

cc: Administrative Law Judge Soulikias
All Parties of Record

CERTIFICATE OF SERVICE

I hereby certify that, on this 6th day of August 2026, I caused a copy of the foregoing letter to be served by email or by first-class mail, postage prepaid, on all parties of record in this proceeding, the Secretary of Transportation, the Attorney General of the United States, and Administrative Law Judge Jenifer Soulikias.

/s/ *Andrea L. R. Pillai*
Andrea L. R. Pillai

APPENDIX

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY – CONTROL – NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

VERIFIED STATEMENT OF NICHOLAS E. POWERS, PH.D

1. I am a Principal in the Washington, DC office of The Brattle Group, an economic consulting firm. I hold a Ph.D. in Business Economics from the University of Michigan and have more than 15 years of experience applying economics, econometrics, and data analysis to competition and regulatory matters in transportation and other industries. My rail-related work has included analysis of confidential railroad datasets, railroad service and operational issues, and competitive issues, including in proceedings before the Surface Transportation Board. My resume is attached as Exhibit A.

2. The purpose of this Verified Statement is to describe a series of figures I have prepared using car event data produced by Applicants. The figures summarize transit times and dwell for long-haul intermodal traffic exchanged between Union Pacific Railroad Company ("UP") and Norfolk Southern Railway Company ("NS") on routes between California and the Southeastern United States.

I. OVERVIEW OF THE FIGURES

3. The figures in the Appendix being submitted with this statement draw upon highly confidential 2023 car-event data produced by UP and NS in discovery to portray transit times and dwell for domestic intermodal traffic moving in six long-haul UP-NS intermodal lanes between California and the U.S. Southeast. Specifically, I prepared separate figures for eastbound and westbound movements in the following origin-destination pairs:

a. Between Lathrop, CA (UP's intermodal facility near Stockton, California) and Charlotte, North Carolina (Figures 1 and 2)

b. Between Lathrop, California and Atlanta, Georgia (Figures 3 and 4);

c. Between Lathrop, California and Jacksonville, Florida (Figures 5 and 6);

d. Between Los Angeles, California and Charlotte, North Carolina (Figures 7 and 8);

e. Between Los Angeles, California and Atlanta, Georgia (Figures 9 and 10); and

f. Between Los Angeles, California and Jacksonville, Florida (Figures 11 and 12).

4. Each figure is limited to domestic containers moving on the most common train sequence reported in the car event data, as reported in each of the figures. For example, for movements between Los Angeles and Atlanta, the most common sequence is UP train [redacted]

5. In each figure the vertical axis indicates the cumulative elapsed time from the departure of containers at the origin terminal to their arrival at the destination terminal. The horizontal axis reflects the route of the movement in approximate scale, from left to right. The dark blue line reports the mean cumulative transit time for the containers included in the figure as they traverse the route from left to right, while the light green and orange lines report the 25th and 75th percentiles, respectively. Where such information is available, the figures also report dwell at the origin following receipt from the customer and at the destination prior to delivery to

the customer.[1] I also identify intermediate points en route where median dwell exceeds 25 minutes, with the median dwell at those locations reported in the call-out boxes.[2] Dwell at a location is reflected in a vertical segment of the elapsed time lines (reflecting containers being stationary for some period of time). Dwell at the origin is reported in green-bordered call-out boxes, dwell at destination is indicated in red-bordered call-out boxes, dwell at operational interchanges is indicated by yellow-shaded call-out boxes, and dwell at other locations is indicated in gray-shaded call-out boxes.

6. To illustrate, Figure 1 presents transit times for movements between Lathrop, California and Charlotte, North Carolina. The relatively gradual increases in the lines correspond to movement between the points identified in the figure, while the steeper vertical segments of those lines correspond to time dwelling at individual points. For this movement, the longest intermediate dwell occurs at [redacted], reflecting time these containers spend connecting from one train to another (from [redacted] There are two operational interchanges along this route, one between UP and CPKC at Shreveport, Louisiana and one between CPKC and NS at Meridian, Mississippi, which involve [redacted]

[1] The UP data identify when a shipment is received from or delivered to a customer; comparable information was not available in the NS data. Accordingly, origin- or destination-terminal dwell is not reported when the relevant terminal is on the NS network.

[2] Dwell at other locations (such as crew change points where median dwell is less than 25 minutes) is encompassed in the slope of the lines reporting elapsed transit time. For readability, I combined or omitted yards in close geographic proximity.

II. METHODOLOGY

7. This section describes the methodology I used to prepare the attached figures from Applicants' 2023 car event data.[3]

A. Data Preparation

8. Applicants produced car event data describing the movements of railcars and intermodal containers on the UP and NS networks during 2023. For each movement, the data report the arrival and departure times at successive locations, together with identifiers for the railcar or container, waybill, train symbol, equipment type, and other operational information.[4] These data allow me to trace the movement of containers across the UP and NS networks and calculate transit times for interline movements.

9. Before preparing the figures, I performed several preprocessing and standardization steps, including:

a. harmonizing timestamps across the UP and NS datasets into a common format and time zone;[5] and

b. standardizing the treatment of intermodal containers and railcars across the two datasets.

10. Further detail on my data processing steps is provided in my workpapers.

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[3] *See* UP Production 0002 and NS Production 0005.

[4] The UP event data include event types beyond arrivals and departures, including "interchange received" and "interchange delivered," together with the SCAC code of the delivering or receiving carrier. I use these fields to identify UP–NS interchange movements and link the UP and NS datasets.

[5] In standardizing the timestamps, I followed the documentation provided by Applicants, UP_0003639.

11. The data presented in the Appendix figures are limited to domestic intermodal containers. I identified intermodal containers using the AAR equipment type code.[6] Consistent with the methodology used by Applicants' witness David T. Hunt, I excluded containers shorter than 53 feet based on the second numeric character of the AAR equipment type code.[7]

B. Identification of Interline Movements

12. The UP event data identify when containers are interchanged with other railroads and report the SCAC code of the connecting carrier. Using these fields, I identified containers interchanged between UP and NS during 2023. I then linked the corresponding UP and NS event records to trace each container's movement across the two railroads.

13. I linked the UP and NS records using the container initial and number together with the timing and location of the interchange. Because the same container may be interchanged between UP and NS multiple times during a year, I required that the corresponding UP and NS records occur within five days of one another. I also required that the corresponding events occur in reasonable geographic proximity, first attempting to match events occurring in the same city and, if no match was identified, then within the same state. Using these criteria, I successfully linked approximately 97 percent of the UP–NS interchange records identified in the UP event data. Further details on this procedure are presented in the accompanying workpapers.

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[6] The NS data included records with the equipment type code [redacted] which does not appear to be a valid AAR equipment type code. *See* "Umler Data Specification Manual," effective June 11, 2026, Appendix I, UmlerDataSpecs.pdf; *see also* Eric A. Neubauer, "Guide to Car Type Codes," 2007, AAR_CarType_Codes.pdf, pp. 33-34, provided in the backup materials accompanying the Verified Statement of David T. Hunt, *Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company*, STB Docket No. FD 36873, April 29, 2026 ("Verified Statement of David T. Hunt, April 29, 2026"). For those records, I used the corresponding equipment type code from the UP data when a match was available and otherwise excluded the container from the analysis.

[7] Verified Statement of David T. Hunt, April 29, 2026, p. 133.

C. Preparation of the Figures

14. I calculated transit time between successive events as the elapsed time from one recorded event to the next. For example, if a container departed Los Angeles at 9:00 a.m. EST and arrived at Yuma at 9:00 p.m. EST, the transit time for that segment would be 12 hours. If the container then departed Yuma at 11:00 p.m. EST, the two hours between arrival and departure would be recorded as dwell at Yuma. Cumulative transit time at each point in the journey reflects the total elapsed time since the container's initial departure.

15. I calculated interchange time as the elapsed time between the last event reported by the delivering railroad and the subsequent departure reported by the receiving railroad. For example, if UP reported that a container arrived at an interchange location at 7:00 a.m. EST and NS reported that the container departed that location at 12:00 p.m. EST, I would calculate five hours of interchange dwell.[8]

16. To prepare each figure, I first limited the data to domestic intermodal containers whose first and last observed events corresponded to the origin and destination identified in the figure. For example, for movements from Lathrop, California to Charlotte, North Carolina, I included containers whose first observed UP event was in Lathrop and whose last observed NS event was in Charlotte.

17. I then grouped the included containers according to the sequence of train symbols associated with their movements. Limiting each figure to a single train sequence avoids

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[8] Where the UP data separately report arrival, interchange delivery or receipt, and departure events, I use the earlier arrival as the beginning of the interchange interval and the later departure as its end. This approach captures the full period during which the container was at the interchange location and is consistent with the NS data, which report arrival and departure events but not separate interchange delivery or receipt events.

To avoid potential measurement error arising from inconsistencies in the treatment of daylight saving time, I exclude movements that span the time at which daylight saving time begins or ends.

combining containers that followed different routes or train plans. The figures present the train sequences selected based on the number of containers following each sequence within the relevant lane and direction.

18. For the containers included in each figure, I calculated the mean cumulative transit time and the 25th and 75th percentiles at each location shown. I plotted those values against the approximate cumulative distance from origin to destination. As described above, the figures separately identify terminals at which median dwell exceeded 25 minutes, while time associated with other intermediate locations remains incorporated in the cumulative transit-time lines. I also provide annotations that list the average dwell at each stop, as well as the associated change in train length as measured by the net change in containers carried by the designated train at each stop.[9]

[9] The change in container counts shown in the call-out boxes is intended only as an approximate indicator of the amount of work performed at each depicted stop, and include both domestic and international containers. Because the figures omit stops where average dwell is less than 25 minutes, these changes should not be summed or interpreted as a measure of train length.

VERIFICATION

I, Nicholas E. Powers, declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on this 6th day of August, 2026.

Nicholas E Powers

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EXHIBIT A

Nicholas Powers

PRINCIPAL

Washington, DC | +1.202.419.3369 | Nicholas.Powers@brattle.com

Dr. Powers specializes in conducting econometric and economic analysis and applying concepts from industrial organization and regulatory economics in competition, regulatory, and other litigation matters, with a focus on the transportation sector.

Dr. Powers has experience involving confidential railroad data, rail service and operational issues, and other transportation matters. His transportation work has included analysis of railroad mergers, trackage rights, rail car hire, rail-service disruptions, railroad valuation, and related matters.

Dr. Powers also frequently provides economic analysis of cartel behavior, damages, merger effects, and exclusionary practices. His antitrust work has included matters involving transportation, air cargo, trucking, online rental-listing platforms, and other industries.

In regulatory proceedings, Dr. Powers has extensive experience conducting analysis for and submitting expert reports that often involve regulatory costing or rate-making issues. This includes extensive analysis of regression-based costing models and other economic issues in the postal industry and econometric analysis of innovative pricing programs in the electric industry. He also has varied experience in the electricity industry, including damages assessments and analyses of price effects, market power, and anticompetitive behavior in several litigation proceedings arising from the California electricity crisis of 2000–2001, as well as analyses of the cost and feasibility of renewables-only energy portfolios.

AREAS OF EXPERTISE

- Antitrust & Competition
- Collaborations & Cartels
- Electricity Litigation & Regulatory Disputes
- Regulatory Economics, Finance & Rates

- Transportation

EDUCATION

- **University of Michigan, Ross School of Business**
  PhD in Business Economics
- **Cornell University**
  BS in Applied Economics and Management

PROFESSIONAL EXPERIENCE

- **The Brattle Group (2010–Present)**
  Principal (2021–Present)
  Senior Associate (2013–2020)
  Associate (2010–2013)

TESTIMONY

- **Petition of FirstEnergy Pennsylvania Electric Company for Approval of Its Default Service Program for the Period June 1, 2027 to May 31, 2031** | Pennsylvania Public Utility Commission | Docket No. P-2026-3060298 | Direct and Rebuttal Testimony of Nicholas E. Powers, Ph.D. (February and May 2026).
- **Expert Report of Dr. James Reitzes and Dr. Nicholas Powers** | District Court of Amsterdam | European trucks cartel litigation | Analyzing the competitive effects of gross list price coordination and estimating overcharges using regression analysis (April 30, 2026).
- **Four expert reports submitted to the District Court of Amsterdam** | Case No. C/13/486440: C/13/561169 Equilib | Co-authored with James D. Reitzes on behalf of claimants in litigation concerning alleged price-fixing by international cargo airlines. The reports addressed volume of commerce, overcharge methodology, and overcharge estimates. (2019, 2020, 2022, and 2025)
- **Before the Surface Transportation Board** | Docket No. EP 334 (Sub-No. 8A) | Verified Statement of Nicholas E. Powers on behalf of the Railway Supply Institute's Equipment Leasing Committee (March 2024).

- ***Dover Chemical Corporation v. City of Dover, Ohio, et al.*** | Court of Common Pleas, Tuscarawas County, Ohio | Case No. 2021 CV 020097 | Expert Testimony of Nicholas E. Powers, Ph.D. (June 2023).
- **Before the Pennsylvania Public Utility Commission** | Docket Nos. R-2021-3030012, R-2021-3030013, R-2021-3030014, R-2021-3030021. | Direct and Rebuttal Testimony of James D. Reitzes and Nicholas E. Powers (December 2021 – March 2022)
- ***Turo Inc. v. City of Los Angeles*** | The United States District Court, Central District of California Western Division | *Case 2:18-cv06055-CAS-GJS, Document 1* (January 2022)

SELECTED CONSULTING EXPERIENCE

RAIL AND OTHER TRANSPORTATION

- On behalf of the Railway Supply Institute's Equipment Leasing Committee, filed a Verified Statement in a proceeding before the Surface Transportation Board concerning whether the current system for determining car hire rates fosters an economically appropriate long-term supply of boxcars.
- Supported expert report quantifying damages in rail freight fuel surcharge antitrust litigation.
- Co-authored a report analyzing the extent and scale of nationwide rail-service disruptions, in support of testimony before a state public utility commission.
- Advised the Cincinnati Southern Railway Board of Trustees regarding the railroad's fair market valuation in support of its negotiations with Norfolk Southern.
- Analysis of confidential waybill sample data to identify potential competitive concerns from the proposed CN-KCS railroad merger.
- Managed analysis for life cycle assessment of greenhouse gas emissions associated with a proposed railroad.
- Managed the analysis in support of multiple verified statements filed in a railroad trackage rights proceeding before the Surface Transportation Board, leveraging the Brattle Rail Network Model and confidential rail data sources.
- In the context of a proposed public-private partnership toll road project, performed due diligence on traffic and revenue forecasts.
- For Frontier Airlines, supported expert testimony in a breach of contract matter involving lease cancellations. The damages calculated by our team were awarded in full.

- For a European airline, quantified lost profits resulting from the grounding of the Boeing 737-MAX. Our analysis included detailed examination of fleet plans, flight operations, and cost structure, and helped procure a favorable settlement for the airline.
- For the City of Los Angeles, submitted expert testimony analyzing the economic arguments for airport rental car regulations, and assessing potential economic harms from uneven application of those regulations.
- For a class of Australian owners of Volkswagen vehicles, analyzed the impact of the diesel emissions issue on resale prices for VW vehicles affected by non-compliant emissions "defeat devices."
- In a lawsuit brought by the City of Ontario, CA against Los Angeles World Airports, evaluated the reliability of plaintiff's claim for damages in excess of $3 billion for alleged mismanagement of the Ontario airport.
- Manage the development and maintenance of the Brattle Rail Network Model, a geocoded database of all rail lines in the United States. Information contained in the database identifies for each rail segment in the database which railroad or railroads own the facility, and which railroads, if any, possess trackage rights allowing them to operate over that facility.

ANTITRUST

- Supported economic analysis and expert testimony on behalf of the Federal Trade Commission and plaintiff states concerning alleged agreements between online rental-listing competitors, including market definition, competitive effects, pricing, listings, and customer migration.
- Supported economic analysis and expert testimony on behalf of defendant in alleged price-fixing case involving undersea transmission cables.
- Retained as expert in alleged boycott matter involving trucking industry. Matter settled.
- Assessed and advised counsel on potential competitive concerns in mergers and transactions in a variety of industries, including music data, hospital beds, venue management, and specialized B2B software.
- Supported defendant in a matter involving alleged collusion in the chemical industry.
- Analyzed the anti-competitive impacts resulting from a proposed merger in the television broadcast industry.

- Oversaw preparation of expert report and quantification of damages, on behalf of plaintiffs, stemming from exclusionary conduct in the cotton industry.
- In the European trucks cartel matter before the District Court of Amsterdam, co-authored expert report analyzing theory of harm and estimating cartel overcharges using regression analysis.
- In European air cargo price-fixing matter, co-authored expert reports on volume of commerce and overcharge methodology issues. Presented results of volume of commerce analysis and opinion on overcharge methodology to Court of Amsterdam.
- Advise counsel representing a large multinational industrial firm by estimating overcharges stemming from a series of price-fixing conspiracies covering several input commodities.
- On behalf of purchasers of air cargo (plaintiffs) in a class action civil suit, conducted econometric and other statistical analyses in order to estimate economic damages from alleged price-fixing. Supported the expert testimony of Nobel laureate Daniel McFadden.
- Supported testifying expert, on behalf of plaintiffs, in a competition matter related to vertical restraints in the carpet industry.
- Identified flaws in the econometric analysis of opposing experts in the context of settlement negotiations arising from price-fixing allegations in the plastics manufacturing industry.
- Performed econometric estimates of the price effects resulting from competitor entry and exit in geographic product markets to support expert testimony that assessed anti-competitive effects from a proposed joint venture in the airline industry.
- In a large civil case concerning alleged collusion in the corrugated packaging industry, executed the econometric analysis forming the basis of a report critiquing plaintiff's damages estimates. Supported the expert testimony of Nobel laureate Daniel McFadden.
- Conducted econometric analysis in evaluation of expert testimony that sought to quantify network effects in the payment card industry.

REGULATORY AND ENERGY

- For FirstEnergy's Pennsylvania utilities, sponsored witness testimony before the Pennsylvania Public Utility Commission, analyzing the cost and risk associated with the Companies' proposed default service supply plans. Analysis included estimates of the implied price premium for covering volumetric and pricing risk that was associated with past procurements of full-requirements power supplies, showing that this premium was relatively modest in size.

- For multiple transmission developers, on multiple occasions, served as independent manager of open solicitation processes. Responsibilities include filing a short report with the Federal Energy Regulatory Commission.
- On behalf of a large industrial client, conduct a far-reaching search and manage an RFP to identify low-cost, high-renewables electric supply options among several competing utilities and jurisdictions.
- For the City of Dover, Ohio, submitted expert testimony providing electric industry background and economic context as it pertains to a legal dispute between the City's municipal electric utility and Dover Chemical Corporation, the City's largest electric customer.
- On behalf of a fuel distributor, analyzed and prepared arguments in the course of a State Attorney General investigation into alleged price-gouging following the invasion of Ukraine. Our analysis showed that any increase in the prices charged by the fuel distributor were driven by cost increases, rather than the opportunistic behavior alleged in the investigation.
- For Baltimore Gas & Electric, designed and oversaw the cost-benefit analysis of several programs underlying proposed Performance Incentive Mechanisms. Programs analyzed included reduction of oil-based circuit breaker equipment and a change to the best practices on gas main abandonment jobs to reduce emissions.
- For multiple regulated utilities in Pennsylvania, on multiple occasions, designed and managed the procurement of solar power and solar photovoltaic alternative energy credits (SPAECs).
- On behalf of a coalition of mailer associations, submitted expert declaration critiquing aspects of changes to the system for regulating Postal Service rates for market dominant products as proposed by the Postal Regulatory Commission in Docket No. RM2017-3.
- For an expert report submitted as part of a revenue requirements proceeding, benchmarked BC Hydro's non-fuel operations and maintenance costs against those of US investor-owned utilities.
- Coauthored a report analyzing the economics and reliability of alternative energy portfolios (approaching 100% renewable power) for the City of Memphis.
- Submitted an expert report analyzing the rate of return of a land-based telecommunications network in Alaska for a proceeding before the Federal Communications Commission.
- In conjunction with a Maryland Public Service Commission-mandated time-of-use ("TOU") pricing pilot, analyzed the impacts of TOU prices on peak load and conservation in three

Maryland electric utilities. Designed and implemented a matching-based regression methodology.

- On behalf of Growth Energy, coauthored a report analyzing the role that higher ethanol blends of gasoline (E85) could play in meeting the proposed 2017 renewable volume obligations (RVOs) under the Renewable Fuel Standards (RFS) program. The report was filed with Growth Energy's comments in the Environmental Protection Agency's rulemaking docket regarding proposed renewable fuel standards.
- For a Southeastern generation and transmission electric cooperative, oversaw preparation of expert damages report and advised counsel on same in the context of an arbitration proceeding stemming from an alleged breach of contract.
- Advised a large nonprofit energy buying consortium in a procurement of retail electric service for their members, assessing offers over a variety of products, services, and geographic areas, and assisting in negotiations with several large retail electric suppliers.
- For the Department of Energy and Pacific Northwest National Laboratory, coauthored a report on the valuation of electric power systems and technologies as part of the Quadrennial Energy Review process.
- On behalf of United Parcel Service, managed analysis and provided expert services in several regulatory dockets before the Postal Regulatory Commission. Conducted econometric analyses and assisted in the preparation of reports and filings in a number of Dockets before the Postal Regulatory Commission, including Dockets No. ACR2014, RM2015-7, RM2016-2, RM2017-1, RM2020-9, RM2022-2, and RM2022-3. Co-authored expert report critiquing a proposed change to costing principles in the Purchased Highway Transportation cost segment, in Docket No. RM2016-12.
- For the Department of Energy and Pacific Northwest National Laboratory, coauthored a baseline report on electric transmission, distribution, and storage infrastructure in the United States as part of the inaugural Quadrennial Energy Review process.
- For a valuation matter concerning a back-office IT services provider to retail energy suppliers, supervised the analysis for and supported industry witness in a report assessing the status and prospects of the retail energy service business in restructured states.
- Supervised the analysis for four cases in support of testimony in federal court cases relating to alleged New Source Review (NSR) violations at coal-fired power plants.
- For an express package delivery carrier, managed the construction of an integrated Excel-based cost and demand financial forecasting model of the United States Postal Service

(USPS), based on public USPS data and filings in previous Postal Regulatory Commission dockets.

- For a mid-Atlantic utility, estimated economic benefits to ratepayers from natural gas service, as portion of eventual PUC filing justifying investments related to storm resilience of distribution system.
- For a utility in the Southeastern United States, conducted a review of NERC region load forecasts. This consisted of econometric analysis to weather-normalize actual loads and evaluate the portion of the forecast error that could be attributed to variations in weather.
- Researched alternative rate plans and presented results to senior management of a mid-sized electric utility as part of a regulatory strategy consulting engagement.
- For the California parties, conducted several key pieces of analysis evaluating effects of tariff violations in the summer of 2000 on CAISO market prices and drafted portions of expert testimony, in a litigation matter before the FERC arising from the California electricity crisis.
- For the California parties, conducted econometric analyses detecting the exercise of market power and price discrimination in the 2001 "CERS" period of the California electricity crisis. This analysis formed the basis of key parts of the testimony of two expert witnesses.

SELECTED REGULATORY FILINGS

- "PC44 Time of Use Pilots: End-of-Pilot Evaluation," with Sanem Sergici, Ahmad Faruqui, Sai Shetty, and Ziyi Tang, prepared for Maryland Joint Utilities and Filed with the Maryland Public Utility Commission (October 4, 2021)
- "PC44 Time of Use Pilots: Year 1 Evaluation," with Sanem Sergici, Ahmad Faruqui, Sai Shetty, and Jingcheng Jiang, prepared for Maryland Joint Utilities and filed with the Maryland Public Utility Commission (September 15, 2020)
- "Expert Declaration of Kevin Neels and Nicholas Powers," before the Postal Regulatory Commission and related to the Statutory Review of the System for Regulating Rates and Classes for Market Dominant Products, in Docket No. RM2017-3 (February 2020)
- "Evaluation, Measurement and Verification Plan for the PC44 Time-of-Use Rate Pilots," with Sanem Sergici and Ahmad Faruqui, prepared for Maryland Public Service Commission PC44 Rate Design Work Group (June 2018)

- "Rate of Return Analysis of GCI's TERRA Network," with William P. Zarakas and Agustin J. Ros, prepared for GCI Communication Corp. (March 2018)
- "Report of Dr. Kevin Neels and Dr. Nicholas Powers to Accompany UPS Comments in Docket No. RM2016-12," before the Postal Regulatory Commission, related to costing principles in the highway transportation segment; reply report also submitted (October 2016)
- "Peeking Over the Blendwall: An Analysis of the Proposed 2017 Renewable Volume Obligations," with Marc Chupka, J. Michael Hagerty, and Sarah Germain, prepared for Growth Energy; filed with comments in Docket EPA-HQ-OAR-2016-0004 (July 2016)

ACADEMIC PUBLICATIONS

- "Competitive Effects of Exchanges or Sales of Airport Landing Slots," with James D. Reitzes, Brendan McVeigh, and Samuel Moy, *Review of Industrial Organization* (August 2014)
- "Measuring the Impact of the Toxics Release Inventory: Evidence from Manufacturing Plant Births," US Census Bureau Center for Economic Studies Working Paper Series (March 2013)
- "Does Disclosure Reduce Pollution? Evidence from India's Green Rating Project," with Allen Blackman, Thomas P. Lyon, and Urvashi Narain, *Environmental and Resource Economics* (March 2011)
- "Do State Renewable Portfolio Standards Promote In-state Renewable Generation?" with Haitao Yin, *Energy Policy* (February 2010)

OTHER REPORTS AND ARTICLES

- "Will Merger Improve the Financial Performance of CP and KCS?" with Kevin Neels and Ivy Young. *Journal of Transportation Law, Logistics and Policy* (December 2022)
- "Differing Proof Requirements for Global Class Actions: Using Economic Analysis to Guide Future Policymakers," with John Roberti and Kelse Moen. *Antitrust Magazine* (August 2021)
- "Power to Memphis: Options for a Reliable, Affordable, and Greener Future," with Jürgen Weiss, Judy Chang, and Kai Van Horn, prepared for Friends of the Earth (January 2019)
- "Valuation of Electric Power System Services and Technologies," with Ira H. Shavel, Michael Hagerty, Yingxia Yang, and Roger Lueken, prepared for the US Department of Energy, Office of Electricity Delivery and Energy Reliability (August 2016)

- “Electricity Baseline Report for the US Power System,” with Ira Shavel, J. Michael Hagerty, and Yingxia Yang, prepared for Pacific Northwest National Laboratory and the US Department of Energy (April 2015)
- “Developing a Market Vision for MISO – Supporting a Reliable and Efficient Electricity System in the Midcontinent,” with Samuel A. Newell and Kathleen Spees, prepared for the Midcontinent Independent System Operator, Inc. (MISO) (January 2014)

SELECTED PRESENTATIONS

- “The Incremental Cost Test When Technology Choice is Endogenous” at the Center for Research in Regulated Industries Eastern Conference (2018)
- “Analyzing the Competitive Effects of Exchanges or Sales of Airport Landing Slots” at the International Industrial Organization Conference (2012)
- “The Toxics Release Inventory and Manufacturing Plant Births” at Penn State University (2010), University of Maryland (2010), US Census Center for Economic Studies (2009)
- “Does Disclosure Reduce Pollution? Evidence from India's Green Rating Project”, at Association for Public Policy Analysis and Management Fall Conference (2009), Allied Social Sciences Association Annual Meetings (2008), Southern Economics Association Annual Meetings (2007)

SELECTED HONORS & AWARDS

2022	*Concurrences* Antitrust Writing Awards: Best Article in the Business, Private Enforcement Category, for the article “Differing Proof Requirements for Global Class Actions: Using Economic Analysis to Guide Future Policymakers,” with John Roberti and Kelse Moen. *Antitrust* Magazine (August 2021)
2005–2009	Fred and Barbara Erb Fellowship, University of Michigan
2007	Thomas W. Leabo Memorial Award, University of Michigan

PROFESSIONAL ASSOCIATIONS & MEMBERSHIPS

American Economic Association

American Bar Association – Antitrust Section

APPENDIX

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